

HYPER INVERTER PACKAGED AIR-CONDITIONERS

(Split system, air to air heat pump type)

CEILING CASSETTE-4 WAY TYPE

Single type Twin type FDT40ZMXVF FDT71VNXPVF 50ZMXVF 100VNXPVF 60ZMXVF 100VSXPVF 71VNXVF1 125VNXPVF 100VNXVF1 125VSXPVF 100VSXVF1 140VNXPVF1 125VNXVF 140VSXPVF1 125VSXVF Triple type 140VNXVF FDT140VNXTVF 140VSXVF 140VSXTVF

CEILING SUSPENDED TYPE

Twin type Single type FDEN40ZMXVF FDEN71VNXPVF 50ZMXVF 100VNXPVF 60ZMXVF 100VSXPVF 71VNXVF1 125VNXPVF 100VNXVF1 125VSXPVF 100VSXVF1 140VNXPVF1 125VNXVF 140VSXPVF1 125VSXVF **Triple type** 140VNXVF FDEN140VNXTVF 140VSXVF 140VSXTVF

DUCT CONNECTED-HIGH STATIC PRESSURE TYPE

Single type FDU71VNXVF1 100VNXVF1 100VSXVF1 125VNXVF 125VSXVF 140VNXVF

WALL MOUNTED TYPE

Twin type SRK100VNXPZMX 100VSXPZMX 125VNXPZMX 125VSXPZMX Triple type SRK140VNXTZMX 140VSXTZMX

CEILING CASSETTE-4 WAY COMPACT TYPE

Single type Triple type

FDTC40ZMXVF FDTC140VNXTVF

50ZMXVF 140VSXTVF

60ZMXVF

Twin type

FDTC71VNXPVF

100VNXPVF

100VSXPVF

125VNXPVF

125VSXPVF

DUCT CONNECTED-LOW/MIDDLE STATIC PRESSURE TYPE

Single type Twin type FDUM40ZMXVF FDUM71VNXPVF 50ZMXVF 100VNXPVF 60ZMXVF 100VSXPVF 71VNXVF1 125VNXPVF 100VNXVF1 125VSXPVF 100VSXVF1 140VNXPVF1 125VNXVF 140VSXPVF1 125VSXVF **Triple type** 140VNXVF FDUM140VNXTVF 140VSXVF 140VSXTVF

FLOOR STANDING TYPE

Single type Twin type
FDF71VNXVD1 FDF140VNXPVD1
100VNXVD1 140VSXPVD1
125VNXVD
125VSXVD
140VNXVD
140VSXVD

V Multi System

(OUTDOOR UNIT) (INDOOR UNIT) FDC71VNX FDT40VF FDEN40VF 100VNX 50VF 50VF 100VSX 60VF 60VF **125VNX** 71VF1 71VF1 125VSX **140VNX** 140VSX



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How to read the model name

Example: FDT 40 Z MXVF
Series code
Inverter type
Product capacity
Model name

FDT : Ceiling cassette-4way type

FDTC : Ceiling cassette-4way compact type

FDEN : Ceiling suspended type

FDUM: Duct connected-Middle static pressure type

SRC : Outdoor unit

Example: FDT 100 VNX P VF

Series code

Single type

P: Twin type

T: Triple type

Applicable power source...See the specification

Product capacity

Model name

FDT : Ceiling cassette-4way type

FDTC : Ceiling cassette-4way compact type

FDEN : Ceiling suspended type

FDU : Duct connected-High static pressure type FDUM : Duct connected-Middle static pressure type

FDF : Floor standing type FDC : Outdoor unit

1.1 SPECIFICATIONS

(1) Ceiling cassette-4way type (FDT) (a) Single type

			Model	FDT40	ZMXVF			
Item			wodei	Indoor unit FDT40VF	Outdoor unit SRC40ZMX-S			
Power sour	rce				50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW)~ 4.7(Max.)]			
	Nominal heating capacity		kW					
	Power	Cooling			4.5 [0.6(Min.)~ 5.4(Max.)] 0.93			
	consumption	Heating	kW		06			
	Max power consumption	1			60			
	Running	Cooling			/ 4.6			
	current	Heating	Α	-	/ 5.3			
	Inrush current, max current		^`		12			
Operation		Cooling		·	/ 92			
data	Power factor Heating		%		/ 91			
	EER	Cooling			30			
	COP Heating		1		25			
	001	Cooling		ч.				
	Sound power level	Heating		55	63			
		Cooling	dB(A)					
	Sound pressure level	Heating	UD(A)	P-Hi:39 Hi:33 Me:31 Lo:30	50			
			}		Cooling , 45 / Hosting , 45			
Silent mode sound pres		re ievei		Unit 246 × 840 × 840	Cooling: 45 / Heating: 45			
Exterior dimensions (Height x Width x Depth)		Depth)	mm		640×800(+71)×290			
				Panel 35 × 950 × 950	21 14/1/1			
Exterior app				Plaster White	Stucco White			
(Munsell color)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight		,	kg	UNIT 22 PANEL 5.5	45			
Compressor type & Q'ty				-	RMT5113MCE2 (Twin rotary type)×1			
	or motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)			l	_	0.45 MA68			
efrigerant (Type, amount, pre-charge length)		length)	kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)			
leat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
efrigerant control			Capillary tubes + Elec	tronic expansion valve				
an type & Q'ty				Turbo fan ×1	Propeller fan ×1			
an motor ((Starting method)		W	50 < Direct line start >	34 < Direct line start >			
Air flow Cooling		Cooling	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	36			
All HOW		Heating	111 /111111	P-HI. 20 HI. 16 WIE. 16 LO. 14	33			
Available ex	xternal static pressure		Pa	0	_			
Outside air	intake			Possible	_			
Air filter, Qu	uality / Quantity			Pocket plastic net ×1(Washable)	_			
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ater		W	_	_			
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E				
Operation	Room temperature control				by electronics			
control	Operation display			-				
				Overload protect	ion for fan motor.			
					on thermostat.			
Safety equi	pments			Internal thermos	tat for fan motor.			
				Abnormal discharge to	emperature protection.			
	Definered at 1 1 10	D \		Liquid line: I.U. φ 6.35 (1/4") Pipe	φ 6.35(1/4")x0.8 O.U. φ 6.35 (1/4")			
	Refrigerant piping size (O.	.U.)	mm	Gas line: φ 12.7 (1/2") φ				
	Connecting method			Flare piping	Flare piping			
nstallation	Attached length of piping		m	_	_			
data	Insulation for piping			Necessarv (both L	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m		.30m			
	Vertical height diff. between O.		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 5pcs			
Orain numn	o, max lift height		mm	Built-in Drain pump, 700	—			
	nded breaker size		A	-				
	ked rotor ampere)		A	5	.3			
	cting wires Size x Core nu	ımher	_ ^		e) / Termainal block (Screw fixing type)			
P number	oung wires Size x Core fil	IIIDEI		IPX0	IPX4			
	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet			
Option part				Mounting Kit, Drain 1105e	Diain elbow, Diain note grommet			
Sprion part	13			-				

Note (1) The data are measured at the following conditions.

The pipe	length is	7.5m.
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	-	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT50	ZMXVF
Item				Indoor unit FDT50VF	Outdoor unit SRC50ZMX-S
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	5.0 [1.1(Min.)~ 5.6(Max.)]
	Nominal heating capacity	(range)	kW	5.4 [0.6(Min.) ~ 6.3(Max.)]
	Power	Cooling		1.	29
	consumption	Heating	kW	1.	29
	Max power consumption			2.	90
	Running	Cooling		6.0	/ 6.2
	current Heating Inrush current, max current		Α [6.0	/ 6.2
			l [5 ,	15
Operation	Danier factor	Cooling	%	93	/ 95
data	Power factor Heating		/ %	93	/ 95
	EER	Cooling		3.	88
	COP	Heating	ĺ	4.	19
		Cooling			
	Sound power level	Heating		55	63
		Cooling	dB(A)		54
	Sound pressure level	Heating		P-Hi: 39 Hi: 33 Me: 31 Lo: 30	50
	Silent mode sound pressu		l t	_	Cooling: 45 / Heating: 45
				Unit 246 × 840 × 840	
Exterior dimensions (Height x Width x Depth) Exterior appearance		Depth)	mm	Panel 35 × 950 × 950	640×800(+71)×290
Exterior and	 hearance	-		Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	101)		kg	UNIT 22 PANEL 5.5	45
	r type & O'ty		ING I	— — — — — — — — — — — — — — — — — — —	RMT5113MCE2 (Twin rotary type)×1
Compressor type & Q'ty Compressor motor (Starting method)			kW		Direct line start
			e l		0.45 MA68
Refrigerant oil (Amount, type) Refrigerant (Type, amount, pre-charge length)		kg	P410A 1 5kg in outdoor unit (incl. t	the amount for the piping of : 15m)	
	Retrigerant (Type, amount, pre-cnarge length) Heat exchanger		Ny I	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
				tronic expansion valve	
	Refrigerant control			Turbo fan ×1	Propeller fan ×1
Fan type & Q'ty		W	50 < Direct line start >	34 < Direct line start >	
Fan motor (Starting method)		Cooling	VV	50 < Direct line start >	40
Air flow		Heating	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	33
Available ov	ternal static pressure	Trieating	Pa	0	_
Outside air i	·		ıα	Possible	_
	intake iality / Quantity			Pocket plastic net ×1(Washable)	_
	oration absorber				
Electric hea			W	Rubber sleeve(for fan motor) Rubber sleeve(for compresso	
Electric flea	Remote control		VV	(antion) wired: DC EV1A DC E5	, RCH-E3 wireless : RCN-T-36W-E
Operation		J			
control	Room temperature contro	л		memostari	by electronics
	Operation display			Overland protect	ion for for motor
					ion for fan motor. on thermostat.
Safety equip	pments			•	tat for fan motor.
					emperature protection.
					ϕ 6.35(1/4")x0.8 O.U. ϕ 6.35 (1/4")
	Refrigerant piping size (O).D.)	mm		φ 6.35(1/4")x0.8
	Connecting method				
Inotalistic	Attached length of piping		m	Flare piping	Flare piping
Installation	0 11 0		m	Nonconer /beth l	iguid & Gas linos)
data	Insulation for piping	\ longtl-			Liquid & Gas lines)
	Refrigerant line (one way)		m	Max.20m (Outdoor unit is higher)	.30m
	Vertical height diff. between O	.u. and I.U.	m		Max.20m (Outdoor unit is lower)
Dura lira	Drain hose			Hose connectable VP25(O.D.32)	Holes size φ20 x 5pcs
	, max lift height		mm	Built-in Drain pump , 700	_
	ded breaker size		A		_
	ked rotor ampere)		Α		0.2
Interconnec	ting wires Size x Core n	umber			e) / Termainal block (Screw fixing type)
IP number				IPX0	IPX4
Standard ac				Mounting kit, Drain hose	Drain elbow, Drain hole grommet
Option parts	3		1	-	_

1	., aaia a		ine pipe ionganie rienii			
	Item	Indoor air t	emperature	Outdoor air	Standards	
	Operation	DB	WB	DB	WB	Standards
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.(6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT60	ZMXVF	
Item				Indoor unit FDT60VF	Outdoor unit SRC60ZMX-S	
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	5.6 [1.1(Min.))~ 6.3(Max.)]	
	Nominal heating capacity	(range)	kW	6.7 [0.6(Min.))~ 7.1(Max.)]	
	Power	Cooling		1.	52	
	consumption Heating		kW	1.	70	
	Max power consumption			2.	90	
	Running	Cooling		6.9	/ 7.2	
	current Heating Inrush current, max current Power factor Cooling		Α [7.9	/ 8.3	
0			[5 ,	15	
Operation			%	96	/ 96	
data	Power factor	Heating	%	94 .	/ 93	
	EER Cooling			3.	68	
	COP	Heating	1 1	3.	94	
		Cooling				
	Sound power level	Heating		60	64	
	_	Cooling	dB(A)			
	Sound pressure level	Heating	(7	P-Hi: 46 Hi: 33 Me: 31 Lo: 30	54	
	Silent mode sound pressu		1 1	_	Cooling: 45 / Heating: 45	
				Unit 246 × 840 × 840	•	
Exterior dimensions (Height x Width x Depth) Exterior appearance		Depth)	mm	Panel 35 × 950 × 950	640×800(+71)×290	
Exterior apr	nearance			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	noi)		ka	UNIT 24 PANEL 5.5	45	
	r type & Q'ty		kg	UNIT 24 PAINEL 5.5	RMT5113MCE2 (Twin rotary type)×1	
			1-14/			
	r motor (Starting method)		kW		Direct line start	
Refrigerant oil (Amount, type)		_ l	— D440A 4 51	0.45 MA68		
	Refrigerant (Type, amount, pre-charge length)		kg	ů ·	the amount for the piping of : 15m)	
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing tronic expansion valve		
	Refrigerant control			' '		
Fan type & Q'ty		147	Turbo fan ×1	Propeller fan ×1		
Fan motor (Starting method)		10 "	W	50 < Direct line start > 34 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi:28 Hi:18 Me:16 Lo:14	41.5	
		Heating			39	
	ternal static pressure		Pa	0	-	
Outside air				Possible		
	ality / Quantity			Pocket plastic net ×1(Washable)		
	ration absorber			Rubber sleeve(for fan motor) Rubber sleeve(for compressor		
Electric hea			W	-	_	
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E		
control	Room temperature contro	ol		Thermostat b	by electronics	
	Operation display			-	_	
					ion for fan motor.	
Safety equip	oments			•	on thermostat.	
outory oquit	Silionio				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (C	D)	mm	Liquid line: I.U. φ 6.35 (1/4") Pipe		
	0 11 0 1	.5. ,			b 12.7(1/2")x0.8 φ 12.7 (1/2")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	-	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way)	length	m		.30m	
	Vertical height diff. between O	.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 5pcs	
Drain pump	, max lift height		mm	Built-in Drain pump , 700	-	
	ded breaker size		Α		_	
	ked rotor ampere)		Α	8	.5	
Interconnec		umber			e) / Termainal block (Screw fixing type)	
IP number				IPX0	IPX4	
Standard ad	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option parts				-	- · · · · · · · · · · · · · · · · · · ·	

,	., aaia a		riio pipo iorigariio rioriii				
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation	DB	WB	DB	WB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT71\	VNXVF1		
Item			Model	Indoor unit FDT71VF1	Outdoor unit FDC71VNX		
Power source	ce			1 Phase 220-240V	7 50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)~ 8.0(Max.)]		
	Nominal heating capacity	(range)	kW	8.0 [3.6(Min.)~ 9.0(Max.)]		
	Power	Cooling		2.04			
	consumption	Heating	kW	1.	94		
	Max power consumption		i i	3.	26		
	Running	Cooling		9.1 / 9.5			
	current	Heating	A	8.7	/ 9.0		
	Inrush current, max currer		1 1		17		
Operation	,	Cooling			98		
data	Power factor	Heating	%		98		
	EER	Cooling			48		
	COP	Heating	1 1		12		
	00.	Cooling					
	Sound power level	Heating	1	64	66		
		Cooling	dB(A)		51		
	Sound pressure level	Heating	UD(A)	P-Hi: 46 Hi: 35 Me: 33 Lo: 31	48		
	Cilent median and a median				40		
	Silent mode sound pressu	ire ievei			_		
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840	750×880(+88)×340		
		. ,		Panel 35 × 950 × 950	` ′		
Exterior app				Plaster White	Stucco White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	UNIT 24 PANEL 5.5	60		
	r type & Q'ty			_	RMT5118MDE2×1		
	r motor (Starting method)		kW	<u> </u>	Direct line start		
Refrigerant	oil (Amount, type)		l	_	0.675 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 2.95kg in outdoor unit (incl.	the amount for the piping of : 30m)		
Heat exchar	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant	control			Electronic ex	pansion valve		
Fan type & 0	Q'ty			Turbo fan ×1	Propeller fan ×1		
Fan motor (Starting method)		W	50 < Direct line start >	86 < Direct line start >		
A: (I		Cooling	3, .	D.I. 00 II. 01 M 40 I 47	60		
Air flow		Heating	m³/min	P-Hi:28 Hi:21 Me:19 Lo:17	50		
Available ex	ternal static pressure		Pa	0	_		
Outside air i	<u> </u>			Possible	_		
	ality / Quantity			Pocket plastic net ×1(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	_	20 (Crank case heater)		
	Remote control			(option) wired : RC-EX1A . RC-E5	, RCH-E3 wireless : RCN-T-36W-E		
Operation	Room temperature contro	ol .			by electronics		
control	Operation display	•		· · ·	-		
	operation display			Overload protect	ion for fan motor.		
					on thermostat.		
Safety equip	oments			•	tat for fan motor.		
					emperature protection.		
					φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")		
	Refrigerant piping size (O	.D.)	mm		φ 3.52(5/8 ")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	–			
data	Insulation for piping		- '''	Nacassan (both I	i — ——————————————————————————————————		
Gata	Refrigerant line (one way)	longth	m		.50m		
			m	Max.30m (Outdoor unit is higher)			
	Vertical height diff. between O	.u. and i.u.	m	Hose connectable VP25(O.D.32)	Max.15m (Outdoor unit is lower)		
Drain hose				,	Holes size φ20 x 3pcs		
	, max lift height		mm	Built-in Drain pump , 700	_		
	ded breaker size		A		_		
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core no	umber			le) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ac				Mounting kit, Drain hose	_		
Option parts				-	_		

'	.,						
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation DB		WB	DB	WB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT100	VNXVF1			
Item				Indoor unit FDT100VF1	Outdoor unit FDC100VNX			
Power source					50Hz / 220V 60Hz			
	Nominal cooling capacity		kW)~ 11.2(Max.)]			
	Nominal heating capacity (range)		kW)~ 12.5(Max.)]			
	Power	Cooling		2.50				
	consumption	Heating	kW	2.	58			
	Max power consumption			4.	13			
	Running Cooling			11.1	/ 11.6			
	current	Heating	A	11.4	/ 12.0			
Operation	Inrush current, max curre	nt		5 ,	24			
data	Power factor	Cooling	%	9	98			
data	1 Ower factor	Heating	/0	9	98			
	EER	Cooling		4.	00			
	COP	Heating		4.	34			
	Sound power level	Cooling		65	70			
	Sourid power level	Heating		03	70			
	Cound programs lovel	Cooling	dB(A)	P-Hi:51 Hi:40 Me:37 Lo:35	48			
	Sound pressure level	Heating		F-HI. 31 HI. 40 Me. 37 LO. 33	50			
	Silent mode sound press	ure level	İ	_	_			
Evtorior di-	annaiona (Hairaht v Mirith	Donth)	m	Unit 298 × 840 × 840	1300×970×370			
Exterior airi	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370			
Exterior app	pearance			Plaster White	Stucco White			
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	UNIT 27 PANEL 5.5	105			
Compresso	r type & Q'ty	·		_	RMT5134MDE2×1			
	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		Q.	_	0.9 M-MA68			
	(Type, amount, pre-charg	e lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchai		3 /		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &				Turbo fan ×1	Propeller fan ×2			
	Starting method)		W	140 < Direct line start >	86×2 < Direct line start >			
Air flow	,	Cooling Heating	m³/min	P-Hi: 37 Hi: 27 Me: 24 Lo: 20	100			
Available ex	ternal static pressure	110001119	Pa	0	_			
Outside air	<u> </u>			Possible	_			
	ality / Quantity			Pocket plastic net ×1(Washable)	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	—	20(Crank case heater)			
	Remote control			(option) wired : RC-FX1A RC-F5	, RCH-E3 wireless : RCN-T-36W-E			
Operation	Room temperature control	ol			by electronics			
control	Operation display			-	_			
				Overload protect	ion for fan motor.			
0-4-4				·	on thermostat.			
Safety equip	oments			•	tat for fan motor.			
				Abnormal discharge to	emperature protection.			
	Defilement 11 1 11	2.0.1		Liquid line: I.U. φ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (C	J.U.)	mm	Gas line: φ 15.88 (5/8") φ	15.88 (5/8")x1.0			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	<u> </u>				
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way) length	m		100m			
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs			
Drain nose Drain pump, max lift height		mm	Built-in Drain pump , 700					
	ded breaker size		Α					
	ked rotor ampere)		A	5	.0			
_		number			le) / Termainal block (Screw fixing type)			
Interconnecting wires Size x Core number IP number				IPX0	IP24			
Standard ac	ccessories			Mounting kit, Drain hose	Edging			
Option parts				<i>y</i>				
- Puon part								

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	-	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT100	VSXVF1		
Item				Indoor unit FDT100VF1	Outdoor unit FDC100VSX		
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.)~ 11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]			
	Power Cooling			2.	50		
	consumption	Heating	kW	2.	58		
	Max power consumption			5.	16		
	Running	Cooling		3.7 / 3.9			
	current	Heating	Α [3.8	/ 4.0		
	Inrush current, max currer	nt	1 [5 ,	15		
Operation	Davis of atau	Cooling	%	98	/ 97		
data	Power factor	Heating	%	9	8		
	EER	Cooling		4.	00		
	COP	Heating	1 1	4.	34		
		Cooling		0.5			
	Sound power level	Heating	1	65	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	1 ` ′	P-Hi:51 Hi:40 Me:37 Lo:35	50		
	Silent mode sound pressu		1 1	_	_		
				Unit 298 × 840 × 840	1000 5		
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370		
Exterior app	pearance			Plaster White	Stucco White		
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		kg	UNIT 27 PANEL 5.5	105		
	r type & Q'ty		I Ng	——————————————————————————————————————	RMT5134MDE3×1		
	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		e e		0.9 M-MA68		
	(Type, amount, pre-charge	o longth)	kg	P410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat exchai		e lengin)	, kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				<u> </u>	pansion valve		
Fan type &				Turbo fan ×1	Propeller fan ×2		
	Starting method)		W	140 < Direct line start >	86×2 < Direct line start >		
T all motor (Starting metriod)	Cooling	VV	140 < Direct line start >	00x2 < Direct line start >		
Air flow		Heating	m³/min	P-Hi:37 Hi:27 Me:24 Lo:20	100		
Available ex	ternal static pressure	ricating	Pa	0	_		
Outside air	<u> </u>		- ι α	Possible	_		
	ality / Quantity			Pocket plastic net ×1(Washable)	<u> </u>		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			w	Hubber sleeve(for fair filotor)	20(Crank case heater)		
Liectric riea	Remote control		V V	(antion) wired : RC-EX1A RC-E5	, RCH-E3 wireless : RCN-T-36W-E		
Operation	Room temperature contro				by electronics		
control	Operation display	<u> </u>		memostat t	by electronics		
	Operation display			Overlead protect	ion for fan motor.		
				·	on thermostat.		
Safety equip	oments			·	tat for fan motor.		
					emperature protection.		
		,		Liquid line: I.U. ϕ 9.52 (3/8") Pipe			
	Refrigerant piping size (O	.D.)	mm		φ 15.88(5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	ι ιαι σ μιμιτιχ	i iai e pipiliy		
data	Insulation for piping		111	Macassar /bath l	 Liquid & Gas lines)		
uaia	Refrigerant line (one way)	longth	_ m	3 (
			m	Max.30m (Outdoor unit is higher)	100m Max 15m (Outdoor unit is lower)		
Vertical height diff. between O.U. and I.U.		m	Hose connectable VP25(O.D.32)	Max.15m (Outdoor unit is lower)			
Drain hose Drain pump, max lift height		mm	Built-in Drain pump , 700	Holes size φ20 x 3pcs			
	<u>, </u>		mm ^	buiit-iri Drain pump , 700			
	ded breaker size		A	-	_		
_	ked rotor ampere)	unah a :-	Α		.0		
Interconnec	ting wires Size x Core no	umper			le) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Edging		
Option parts				-	_		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1	
Heating	20°C	-	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

			Model	FDT12	5VNXVF			
Item				Indoor unit FDT125VF	Outdoor unit FDC125VNX			
Power sour	· · · · · · · · · · · · · · · · · · ·				50Hz / 220V 60Hz			
	Nominal cooling capacity		kW)~ 14.0(Max.)]			
	Nominal heating capacity (range)		kW)~ 17.0(Max.)]			
	Power	Cooling		3.28				
	consumption Heating		kW		43			
	Max power consumption			5.	49			
	Running	Cooling		14.6	/ 15.2			
	current	Heating	A	15.2	/ 15.9			
Operation	Inrush current, max curre	nt		5 ,	26			
data	Power factor	Cooling	%	9	8			
data	- Ower factor	Heating	/0	9	8			
	EER	Cooling		3.	81			
	COP	Heating		4.	08			
	Sound power level	Cooling		68	70			
	Sourid power level	Heating		06	70			
	Sound pressure level	Cooling	dB(A)	P-Hi:51 Hi:42 Me:40 Lo:37	48			
	Sourid pressure level	Heating		F-HI.31 HI.42 Me.40 LO.37	50			
	Silent mode sound press	ure level	İ		-			
Evtorios di-	annaiana (Haimht y Misth	Donth)	m	Unit 298 × 840 × 840	1200,070,.270			
Exterior airr	nensions (Height x Width x	Deptn)	mm	Panel 35 × 950 × 950	1300×970×370			
Exterior app	pearance			Plaster White	Stucco White			
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	UNIT 27 PANEL 5.5	105			
Compresso	r type & Q'ty	·		_	RMT5134MDE2×1			
	r motor (Starting method)		kW	_	Direct line start			
Refrigerant	oil (Amount, type)		Q.	_	0.9 M-MA68			
	(Type, amount, pre-charg	e lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat excha		3 /		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant				<u> </u>	pansion valve			
Fan type &				Turbo fan ×1	Propeller fan ×2			
	Starting method)		W	140 < Direct line start >	86×2 < Direct line start >			
Air flow	,	Cooling Heating	m³/min	P-Hi: 37 Hi: 30 Me: 27 Lo: 23	100			
Available ex	ternal static pressure	110001119	Pa	0	_			
Outside air	·			Possible	_			
	ality / Quantity			Pocket plastic net ×1(Washable)	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	—	20(Crank case heater)			
	Remote control			(option) wired : RC-FX1A RC-F5	, RCH-E3 wireless : RCN-T-36W-E			
Operation	Room temperature control	ol			by electronics			
control	Operation display			-	_			
				·	ion for fan motor. on thermostat.			
Safety equip	oments			Internal thermos	tat for fan motor. emperature protection.			
	Refrigerant piping size (C	D.D.)	mm	Liquid line: I.U. φ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8") 15.88 (5/8")x1.0 φ 15.88 (5/8")			
	Connecting method				Flare piping			
Installation	Attached length of piping		m	Flare piping —	Flare piping —			
Installation data	Insulation for piping	l	m		 _iquid & Gas lines)			
uaia		() longth	_ m					
	Refrigerant line (one way Vertical height diff. between C		m		100m Max 15m (Outdoor unit is lower)			
	Drain hose	7.U. and 1.U.	m	Max.30m (Outdoor unit is higher) Hose connectable VP25(O.D.32)	Max.15m (Outdoor unit is lower) Holes size φ20 x 3pcs			
	, max lift height		mm	Built-in Drain pump , 700	_			
Recommen	ded breaker size		А	-	_			
L.R.A. (Locl	ked rotor ampere)		Α	5	.0			
Interconnec	ting wires Size x Core n	number		ϕ 1.6mm×3 cores (Including earth cab	le) / Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad	cessories			Mounting kit, Drain hose	Edging			
Option part	S			-	_			

'	.,						
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation DB		WB	DB	WB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT12	5VSXVF
Item				Indoor unit FDT125VF	Outdoor unit FDC125VSX
Power source					/ 50Hz / 380V 60Hz
	Nominal cooling capacity		kW)~ 14.0(Max.)]
	Nominal heating capacity (range)		kW	E ()~ 18.0(Max.)]
	Power	Cooling			28
	consumption	Heating	kW	3.	43
	Max power consumption			6.	86
	Running Cooling			4.8	/ 5.1
	current	Heating	A	5.1	/ 5.3
Onevetion	Inrush current, max curre	ent		5 ,	15
Operation data	Power factor	Cooling	%	99	/ 98
uaia	Power lactor	Heating	90	97	/ 98
	EER	Cooling		3.	81
	COP	Heating	ĺ [4.	08
		Cooling			
	Sound power level	Heating		68	70
		Cooling	dB(A)		48
	Sound pressure level	Heating	()	P-Hi:51 Hi:42 Me:40 Lo:37	50
	Silent mode sound press				_
				Unit 298 × 840 × 840	
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370
Evtorios					Stuppe White
Exterior app				Plaster White	Stucco White
(Munsell co	ior)		1.	(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	1 0 011		kg	UNIT 27 PANEL 5.5	105
	r type & Q'ty		1,,,,		RMT5134MDE3×1
_	r motor (Starting method)		kW		Direct line start
	oil (Amount, type)		l		0.9 MA68
	(Type, amount, pre-charg	je length)	kg	• ,	the amount for the piping of : 30m)
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type & 0				Turbo fan ×1	Propeller fan ×2
Fan motor (Starting method)		W	140 < Direct line start >	86×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 37 Hi: 30 Me: 27 Lo: 23	100
Available ex	ternal static pressure		Pa	0	_
Outside air i	<u>'</u>			Possible	_
	ality / Quantity			Pocket plastic net ×1(Washable)	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ter		W		20(Crank case heater)
	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E
Operation	Room temperature contro	ol			oy electronics
control	Operation display			-	_
	1			Overload protect	tion for fan motor.
				•	on thermostat.
Safety equip	oments			•	stat for fan motor.
					emperature protection.
	B ()	2.5.			φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")
	Refrigerant piping size (C	J.D.)	mm		φ 15.88(5/8")x1.0 φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	1	m	——————————————————————————————————————	——————————————————————————————————————
data	Insulation for piping		'''		Liquid & Gas lines)
	Refrigerant line (one way	/) length	m		100m
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
		J.U. and I.U.	111	Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs
Drain hose		mm	, ,	Πυίθο δίζει φ ζυ x δρύδ	
Drain pump, max lift height		mm	Built-in Drain pump , 700		
	ded breaker size		A		
	(ed rotor ampere)		Α		i.0
Interconnec	ting wires Size x Core n	number			le) / Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ac				Mounting kit, Drain hose	Edging
Option parts	2		1		_

١,	,		3				
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation DB		WB	DB	WB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating 20°C		_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

			Model	FDT140	OVNXVF			
Item				Indoor unit FDT140VF	Outdoor unit FDC140VNX			
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]			
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.)~ 18.0(Max.)]				
	Power Cooling			4.19				
	consumption	Heating	kW	4.	20			
	Max power consumption			5.	88			
	Running Cooling			18.6 / 19.4				
	current	Heating	Α [18.6	/ 19.5			
	Inrush current, max currer	nt	1 [5 ,	26			
Operation	Danier factor	Cooling	%	g	98			
data	Power factor	Heating	%	9	98			
	EER	Cooling		3.	34			
	COP	Heating	i i		81			
		Cooling						
	Sound power level	Heating		68	72			
		Cooling	dB(A)		49			
	Sound pressure level	Heating	(7	P-Hi:51 Hi:43 Me:41 Lo:38	52			
	Silent mode sound pressu		1 1	_	_			
				Unit 298 × 840 × 840				
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370			
Exterior app				Plaster White	Stucco White			
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight	noi)		ka	UNIT 27 PANEL 5.5	105			
	r type & Q'ty		kg	UNIT 27 FAMEL 5.5	RMT5134MDE2×1			
			1.34/		Direct line start			
	r motor (Starting method) oil (Amount, type)		kW					
		1 11)	Q.	— D4404 4.5L	0.9 M-MA68			
	(Type, amount, pre-charge	ength)	kg	9 1	the amount for the piping of : 30m)			
Heat exchai				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant					pansion valve			
Fan type &				Turbo fan ×1	Propeller fan ×2			
Fan motor (Starting method)	T =	W	140 < Direct line start >	86×2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi:37 Hi:30 Me:27 Lo:23	100			
Available ex	ternal static pressure		Pa	0	_			
Outside air	intake			Possible	_			
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)	_			
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ter		W	_	20(Crank case heater)			
Onevetion	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E			
Operation control	Room temperature control	ol		Thermostat b	by electronics			
CONTROL	Operation display			-				
				Overload protect	tion for fan motor.			
Safety equip	omonte			Frost protection	on thermostat.			
Salety equip	Jilletits			Internal thermos	tat for fan motor.			
					emperature protection.			
	Pofrigorant piping size (C	.D.)			φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (O	ו.ט.)	mm	Gas line: ϕ 15.88 (5/8") ϕ	15.88 (5/8")x1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	_	_			
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)			
	Refrigerant line (one way)	length	m		100m			
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose				Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs			
Drain pump	, max lift height		mm	Built-in Drain pump , 700				
	ded breaker size		Α	L L. A	-			
	ked rotor ampere)		Α	5	.0			
Interconnec		umber			le) / Termainal block (Screw fixing type)			
IP number	J 1 J X 2 310 11			IPX0	IP24			
Standard ad	cessories			Mounting kit, Drain hose	Edging			
Option parts		-			_			
Орион рапѕ								

'	.,						
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation DB		WB	DB	WB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDT14	OVSXVF	
Item			Model	Indoor unit FDT140VF Outdoor unit FDC140VSX		
Power source				3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]	
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.)~ 20.0(Max.)]	
	Power Cooling			4.	19	
	consumption	Heating	kW	4.	20	
	Max power consumption		[7.	35	
	Running Cooling			6.2	/ 6.5	
	current	Heating	Α	6.2	/ 6.5	
	Inrush current, max currer	nt	[[5 ,	15	
Operation	Danier factor	Cooling	%	g	98	
data	Power factor	Heating	%	9	98	
	EER	Cooling		3.	34	
	COP	Heating		3.	81	
		Cooling				
	Sound power level	Heating		68	72	
		Cooling	dB(A)		49	
	Sound pressure level	Heating	1 ' '	P-Hi:51 Hi:43 Me:41 Lo:38	52	
	Silent mode sound pressu		1	_	_	
				Unit 298 × 840 × 840	1000	
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370	
Exterior app	 pearance			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	101)		kg	UNIT 27 PANEL 5.5	105	
	r type & Q'ty		- Kg	ONT 27 TANLE 5.5	RMT5134MDE3×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)				0.9 M-MA68	
	(Type, amount, pre-charge		l l	D410A 4 Eks in outdoor unit (incl. i	, , , , , , , , , , , , , , , , , , ,	
	()1 / / / /	ength)	kg	ů (the amount for the piping of : 30m)	
Heat exchai			 	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve	
Fan type &			144	Turbo fan ×1	Propeller fan ×2	
Fan motor (Starting method)	Ta	W	140 < Direct line start >	86×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 37 Hi: 30 Me: 27 Lo: 23	100	
Available ex	ternal static pressure		Pa	0	_	
Outside air	intake			Possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)	_	
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	_	20(Crank case heater)	
Onevetion	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation control	Room temperature control	ol		Thermostat b	by electronics	
OOHIIOI	Operation display			-	_	
				Overload protect	ion for fan motor.	
Safety equip	omonte			Frost protection	on thermostat.	
Salety equip	Jilletits			Internal thermos	tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	.D.)			φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")	
		ו.ט.)	mm		15.88(5/8")x1.0 φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation Attached length of piping			m	-	_	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way)	length	m		100m	
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs	
Drain pump	, max lift height		mm	Built-in Drain pump , 700		
	ded breaker size		Α	-	.	
	ked rotor ampere)		Α	5	.0	
Interconnec		umber			le) / Termainal block (Screw fixing type)	
IP number	J 15.25 % 5510 11			IPX0	IP24	
Standard ad	cessories			Mounting kit, Drain hose	Edging	
		-				
Option parts						

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1	
Heating	20°C	-	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

(b) Twin type

			Model	FDT71\	/NXPVF
Item			Wiodei	Indoor unit FDT40VF (2 units) Outdoor unit FDC71VNX	
Power sour	rce			` ,	50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)	
	Nominal heating capacity (range)		kW)~ 9.0(Max.)]
	Power	Cooling			85
	consumption	Heating	kW		99
	Max power consumption	Triodaing			18
	Running	Cooling			/ 8.6
	current	Heating	Α		/ 9.3
	Inrush current, max curre		^		17
Operation	illiusii current, max curre	Cooling		·	8
data	Power factor		%		
	FED	Heating			8
	EER	Cooling			84
	СОР	Heating		4.	02
	Sound power level	Cooling		55	66
	Codita power level	Heating			
	Sound pressure level	Cooling	dB(A)	P-Hi: 39 Hi: 33 Me: 31 Lo: 30	51
	Souria pressure level	Heating		1-111.00 TII.00 We.01 L0.00	48
	Silent mode sound pressu	ure level		_	-
Extorior	manajana (Hajaht v Mialila	Donth)	na	Unit 246 × 840 × 840	750,2800(1.00)040
Exterior din	mensions (Height x Width x	Debru)	mm	Panel 35 × 950 × 950	750×880(+88)×340
Exterior ap	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	UNIT 22 PANEL 5.5	60
	or type & Q'ty		1.9	-	RMT5118MDE2×1
			kW	_	Direct line start
	Compressor motor (Starting method) Refrigerant oil (Amount, type)		l	<u>_</u>	0.675 (M-MA68)
	, ,, ,, ,	o longth)	_		the amount for the piping of : 30m)
Refrigerant (Type, amount, pre-charge length) Heat exchanger		e lengin)	kg	<u> </u>	1 1 0 /
				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Turbo fan ×1	Propeller fan ×1
Fan motor	(Starting method)	T	W	50 < Direct line start >	86 < Direct line start >
Air flow		Cooling	m³/min	P-Hi:20 Hi:18 Me:16 Lo:14	60
		Heating			50
	xternal static pressure		Pa	0	_
Outside air	intake			Possible	_
Air filter, Qu	uality / Quantity			Pocket plastic net ×1(Washable)	-
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ater		W	_	20(Crank case heater)
0	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E
Operation	Room temperature contro	ol .		Thermostat b	by electronics
control	Operation display			-	<u>-</u>
				Overload protect	ion for fan motor.
				Frost protection thermostat.	
Safety equi	ipments				tat for fan motor.
				Abnormal discharge to	emperature protection.
	B (1			Liquid line: I.U. φ 6.35 (1/4") ② φ 9.52(3/8")»	
	Refrigerant piping size (C).D.)	mm	Gas line: I/U \(\dagger 12.7 \) (1/2") (2) \(\dagger 12.7 \) (1/2")x(0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation			m	— — — — — — — — — — — — — — — — — — —	
data	Insulation for piping			Nacassan/(both I	Liquid & Gas lines)
Guiu	Refrigerant line (one way	\ lenath	m	, ,	.50m
	Vertical height diff. between C	<u> </u>		Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	.o. and i.u.	m	Hose connectable VP25(O.D.32)	, ,
Duala :-:::			1007	,	Holes size ϕ 20 x 3pcs
	o, max lift height		mm	Built-in Drain pump , 700	<u> </u>
Recommended breaker size		A			
	ked rotor ampere)		Α		.0
Interconnec	cting wires Size x Core n	umber		1 0	le) / Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard a				Mounting kit, Drain hose	_
Option part				<u> </u>	
Note (1) The date are magazized at the following conditions. The pine length is 7 Fm.					

Note (1) The data are measured at the following conditions.

The pipe length is 7.5m	The p	oipe	length	is	7.5m
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch, ②: Pipe of Branch ~ I.U.

			Model	FDT100	VNXPVF	
Item			Wiodei	Indoor unit FDT50VF (2 units) Outdoor unit FDC100VNX		
Power sour	ce			, ,	7 50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW) ~ 11.2(Max.)]	
	Nominal heating capacity		kW)~ 12.5(Max.)]	
	Power	Cooling			56	
	consumption	Heating	kW	2.	66	
	Max power consumption		1 1	4.	26	
	Running	Cooling			/ 11.9	
	current	Heating	A		/ 12.3	
	Inrush current, max curre		1	5 ,		
Operation		Cooling			98	
data	Power factor	Heating	%		98	
	EER	Cooling			91	
	COP	Heating	} }		21	
	001	Cooling		٦.	21	
	Sound power level			55	70	
		Heating	4D(V)		40	
	Sound pressure level	Cooling	dB(A)	P-Hi:39 Hi:33 Me:31 Lo:30	48	
	·	Heating			50	
	Silent mode sound press	ure level			_	
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840	1300×970×370	
				Panel 35 × 950 × 950		
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 22 PANEL 5.5	105	
Compresso	r type & Q'ty			_	RMT5134MDE2×1	
Compresso	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		Q.	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				<u> </u>	pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
	Starting method)		W	50 < Direct line start >	86×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	100	
Available ex	ternal static pressure	riodaling	Pa	0	_	
Outside air	<u> </u>		١. ۵	Possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	<u> </u>	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	Nubber sieeve(for fair filotor)	20(Crank case heater)	
Liectric riea	Remote control		VV	(aption) wired : DC EV1A DC E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation		-1			To the state of th	
control	Room temperature control Operation display)I		mermostati	by electronics	
	Operation display			O		
				·	tion for fan motor.	
Safety equip	oments			•	on thermostat. tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (C	D.D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")	
	0	•			D.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method		-	Flare piping	Flare piping	
Installation Attached length of piping data Insulation for piping		m				
				Liquid & Gas lines)		
	Refrigerant line (one way		m		100m	
	Vertical height diff. between C	D.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
<u> </u>	Drain hose	_		Hose connectable VP25(O.D.32)	Holes size φ20 x 3pcs	
Drain pump, max lift height			mm	Built-in Drain pump , 700	_	
Recommended breaker size		Α				
	ked rotor ampere)		Α		.0	
Interconnec	ting wires Size x Core n	umber		· · · · · · · · · · · · · · · · · · ·	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option parts			1	-	_	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch, ②: Pipe of Branch ~ I.U.

Mo				FDT100	VSXPVF	
Item				Indoor unit FDT50VF (2 units) Outdoor unit FDC100VSX		
Power sour	ce			• • • • • • • • • • • • • • • • • • • •	⁷ 50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]	
	Power Cooling			2.	56	
	consumption	Heating	kW	2.	66	
	Max power consumption			5.	32	
	Running Cooling			3.8	/ 4.0	
	current	Heating	Α [3.9	/ 4.1	
Operation	Inrush current, max curre	nt		5 ,	15	
Operation data	Power factor	Cooling	%	9	97	
data	Fower lactor	Heating	70	98	/ 99	
	EER	Cooling		3.	91	
	COP	Heating		4.	21	
	Sound power level	Cooling		55	70	
	Souria power level	Heating		55	70	
	Sound pressure level	Cooling	dB(A)	P-Hi: 39 Hi: 33 Me: 31 Lo: 30	48	
	Souria pressure level	Heating		F-III. 39 III. 33 IVIE. 31 LO. 30	50	
	Silent mode sound pressi	ure level	<u> </u>		_	
Extorior dia	nensions (Height x Width x	Donth)	mm	Unit 246 × 840 × 840	1300×970×370	
Exterior diff	iensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300x970x370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 22 PANEL 5.5	105	
Compresso	r type & Q'ty		Ĭ	_	RMT5134MDE3×1	
	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		Q.	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				<u> </u>	pansion valve	
Fan type &	Q'tv			Turbo fan ×1	Propeller fan ×2	
	Starting method)		W	50 < Direct line start >	86×2 < Direct line start >	
Air flow	,	Cooling Heating	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	100	
Available ex	ternal static pressure	1	Pa	0	_	
Outside air	<u> </u>			Possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	_	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	– 20(Crank case heater		
	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation	Room temperature contro	ol			by electronics	
control	Operation display			-	-	
Safety equip	oments			Frost protecti Internal thermos Abnormal discharge to	ion for fan motor. on thermostat. tat for fan motor. emperature protection.	
	Refrigerant piping size (C).D.)	mm	Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")x0	(0.8 ① φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	<u> </u>		
data	Insulation for piping	\ 1 · · ·			Liquid & Gas lines)	
	Refrigerant line (one way		m		100m	
	Vertical height diff. between C Drain hose	J.U. and I.U.	m	Max.30m (Outdoor unit is higher) Hose connectable VP25(O.D.32)	Max.15m (Outdoor unit is lower) Holes size φ20 x 3pcs	
Drain pump, max lift height		mm	Built-in Drain pump , 700	_		
Recommended breaker size		Α				
			Α		.0	
Interconnec	ting wires Size x Core n	umber		, , ,	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option parts				<u> </u>	_	

1	., aata a		ine pipe iongui io i ionii			
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
	Operation	DB	WB	DB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch, ②: Pipe of Branch ~ I.U.

			Model	FDT125	VNXPVF	
Item			Wiodei	Indoor unit FDT60VF (2 units)	Outdoor unit FDC125VNX	
Power source				1 Phase 220-240V	50Hz / 220V 60Hz	
Nominal cooling capacity (range)		kW)~ 14.0(Max.)]		
	Nominal heating capacity (range)		kW	14.0 [4.0(Min.))~ 17.0(Max.)]	
	Power Cooling consumption Heating			3.06		
			kW	3.	22	
	Max power consumption				15	
	Running Cooling				/ 14.2	
	current	Heating	Α [/ 14.9	
Operation	Inrush current, max curre			-	26	
data	Power factor	Cooling	%		8	
autu		Heating	/*		8	
	EER	Cooling			08	
	COP	Heating		4.	35	
	Sound power level	Cooling		60	70	
		Heating			12	
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 33 Me: 31 Lo: 30	48	
	<u> </u>	Heating			50	
	Silent mode sound press	ure level		-	_	
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840	1300×970×370	
		. ,		Panel 35 × 950 × 950		
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	1 0 011		kg	UNIT 24 PANEL 5.5	105	
	r type & Q'ty		110/	_	RMT5134MDE2×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		Q.	— D440A 4 51-m/Dus - shows - d 1 - d - d -	0.9 M-MA68	
	(Type, amount, pre-charg	je iengtn)	kg	5, 5,	e piping length of 30m)Outdoor unit	
Heat exchain Refrigerant				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing pansion valve	
Fan type &						
	Starting method)		W	Turbo fan ×1 50 < Direct line start >	Propeller fan ×2 86×2 < Direct line start >	
,	Starting metriou)	Cooling		50 < Direct line start >	60x2 < Direct line start >	
Air flow		Heating	m³/min	P-Hi:20 Hi:18 Me:16 Lo:14	100	
Available ex	ternal static pressure	ricating	Pa	0	_	
Outside air	<u> </u>		- ι α	Possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	_	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W		20(Crank case heater)	
	Remote control			(option) wired: RC-EX1A.RC-E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation	Room temperature contr	ol			by electronics	
control	Operation display			-	<u>-</u>	
				Overload protect	ion for fan motor.	
Safety equi	omonte			Frost protection	on thermostat.	
Salety equi	pinents				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (() D)	mm		(0.8 ① φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")	
		J.D. j	111111	Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")x0	0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	1	m	_	_	
data	Insulation for piping				iquid & Gas lines)	
	Refrigerant line (one way		m		100m	
	Vertical height diff. between (D.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(O.D.32)	Holes size φ20 x 3pcs		
	, max lift height		mm	Built-in Drain pump , 700	_	
Recommended breaker size		Α		_		
L.R.A. (Locked rotor ampere)			Α		.0	
Interconnec	ting wires Size x Core r	number		1 3	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option part	S I) The data are measured :			- ditions The pine length is	<u> </u>	
Noto (1		(hm				

1	., aata a		ine pipe iongui io i ionii			
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
	Operation	DB	WB	DB	Standards	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch, ②: Pipe of Branch ~ I.U.

			Model	FDT125	VSXPVF	
Item			Wiodei	Indoor unit FDT60VF (2 units) Outdoor unit FDC125VSX		
Power source				3 Phase 380-415V	50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 14.0(Max.)]	
	Nominal heating capacity		kW)~ 18.0(Max.)]	
	Power	Cooling		3.06		
	consumption Heating		kW	3.	22	
	Max power consumption		1 1	6.	44	
	Running Cooling			4.5	4.7	
	current	Heating	A	4.7	/ 5.0	
	Inrush current, max curre		1 1		15	
Operation		Cooling			/ 99	
data	Power factor	Heating	%		/ 98	
	EER	Cooling			08	
	COP	Heating	i i		35	
		Cooling				
	Sound power level	Heating		60	70	
		Cooling	dB(A)		48	
	Sound pressure level	Heating		P-Hi: 46 Hi: 33 Me: 31 Lo: 30	50	
	Silent mode sound press			_		
	Onent mode sound pressure level			Unit 246 × 840 × 840	_	
Exterior dim	ensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840 Panel 35 × 950 × 950	1300×970×370	
F					01 14/1:1	
Exterior app				Plaster White	Stucco White	
(Munsell co	lor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 24 PANEL 5.5	105	
	r type & Q'ty				RMT5134MDE3×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		l	<u> </u>	0.9 M-MA68	
	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve	
Fan type & 0				Turbo fan ×1	Propeller fan ×2	
Fan motor (Starting method)		W	50 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:28 Hi:18 Me:16 Lo:14	100	
Available ex	ternal static pressure		Pa	0	_	
Outside air i				Possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)	_	
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	<u> </u>	20(Crank case heater)	
On a #5 ±! = :-	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation	Room temperature contro	ol		Thermostat b	by electronics	
control	Operation display					
Safety equip	oments			Frost protecti Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.	
	Refrigerant piping size (0	D.D.)	mm	Liquid line: I.U. φ 6.35 (1/4") ② φ 9.52(3/8") ×		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	 	m	— — — — — — — — — — — — — — — — — — —	— — — — — — — — — — — — — — — — — — —	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way) length	m		100m	
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 × 3pcs	
		mm	Built-in Drain pump , 700	— — — — — — — — — — — — — — — — — — —		
Drain pump, max lift height		-	A	Bank in Brain painp, 100		
Recommended breaker size L.R.A. (Locked rotor ampere)		A		.0		
Interconnec		umber	_ ^		ble) / Termainal block (Screw fixing type)	
	ung wires Size x Core i	IUITIDEI		φ τ.οπιπ × 3 cores (including earth car	IP24	
IP number Standard ac	nonceorine			Mounting kit, Drain hose		
				Woulding Kit, Draill 11056	Edging	
Option parts				ditions The nine length is		

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~Branch, ②: Pipe of Branch~I.U.

			Model	FDT140\	/NXPVF1	
Item			Woder	Indoor unit FDT71VF1 (2 units) Outdoor unit FDC140VNX		
Power sour	rce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.))~ 16.0(Max.)]	
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.))~ 18.0(Max.)]	
	Power	Cooling		3.88		
	consumption	Heating	kW	3.	70	
	Max power consumption			5.	43	
	Running Cooling			17.2	/ 18.0	
	current	Heating	Α	16.4	/ 17.2	
Operation	Inrush current, max curre	nt			26	
data	Power factor	Cooling	%		8	
data		Heating	/ 0		8	
	EER	Cooling			61	
	COP	Heating		4.	32	
	Sound power level	Cooling Heating		64	72	
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 35 Me: 33 Lo: 31	49	
	Souria pressure level	Heating		F-III.40 III.33 Me.33 L0.31	52	
	Silent mode sound press	ure level		_	_	
Exterior din	nensions (Height x Width x	Denth)	mm	Unit 246 × 840 × 840	1300×970×370	
Exterior diri	Tierisions (Fieight & Width &	Бериі)		Panel 35 × 950 × 950	1000×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 24 PANEL 5.5	105	
Compresso	or type & Q'ty			_	RMT5134MDE2×1	
	or motor (Starting method)		kW	-	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
Fan motor	(Starting method)	1	W	50 < Direct line start >	86 × 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:28 Hi:21 Me:19 Lo:17	100	
Available ex	xternal static pressure		Pa	0	_	
Outside air				Possible	_	
	uality / Quantity			Pocket plastic net ×1(Washable)	_	
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	1		W		20(Crank case heater)	
Operation	Remote control				, RCH-E3 wireless : RCN-T-36W-E	
control	Room temperature contro	ol		I hermostat b	by electronics	
	Operation display				_	
					ion for fan motor. on thermostat.	
Safety equi	ipments				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (C	D.D.)	mm	Liquid line: I.U. φ 9.52 (3/8") ② φ 9.52(3/8") ×	0.8 ① ϕ 9.52(3/8") × 0.8 O.U. ϕ 9.52 (3/8") 1.0 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation			m	- i iai e pipiriy	- iaie pipilig	
data	Insulation for piping		- '''	Necessary (both I	 _iquid & Gas lines)	
	Refrigerant line (one way) length	m		100m	
	Vertical height diff. between C	<u>, </u>	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 × 3pcs	
Drain nose Drain pump, max lift height		mm	Built-in Drain pump , 700	— — — — — — — — — — — — — — — — — — —		
	nded breaker size		Α		<u> </u>	
	ked rotor ampere)		A	5	.0	
Interconnec	- ' '	umber	<u> </u>		ble) / Termainal block (Screw fixing type)	
IP number	<u> </u>			IPX0	IP24	
Standard a	ccessories			Mounting kit, Drain hose	Edging	
Option part	ts			-	_	
Note (Note (1) The data are measured at the following conditions. The pipe length is 7.5m					

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~Branch, ②: Pipe of Branch~I.U.

			Model	FDT140	VSXPVF1	
Item			Wiodei	Indoor unit FDT71VF1 (2 units)	Outdoor unit FDC140VSX	
Power sour	ce			, ,	7 50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]	
	Nominal heating capacity		kW)~ 20.0(Max.)]	
	Power	Cooling			88	
	consumption Heating		kW	3.	70	
	Max power consumption		1 1	6.	79	
	Running	Cooling		5.7	/ 6.0	
	current	Heating	A	5.4	/ 5.7	
	Inrush current, max curre		1 1	5 ,	15	
Operation		Cooling	0.4		98	
data	Power factor	Heating	%	g	99	
	EER	Cooling		3.	61	
	COP	Heating	i i	4.	32	
	0 1 1	Cooling		0.4	70	
	Sound power level	Heating		64	72	
		Cooling	dB(A)	D.II. 40.1II. 05.14. 00.1. 04	49	
	Sound pressure level	Heating	` ′	P-Hi: 46 Hi: 35 Me: 33 Lo: 31	52	
	Silent mode sound press			_	_	
				Unit 246 × 840 × 840	1000 6	
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 950 × 950	1300×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 24 PANEL 5.5	105	
	r type & Q'ty		ı ııg	-	RMT5134MDE3×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		e l	_	0.9 M-MA68	
	(Type, amount, pre-charg	e lenath)	kg	R410A 4 5kg/Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat exchar		c icrigiti)	Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant					pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
	Starting method)		W	50 < Direct line start >	86 × 2 < Direct line start >	
Air flow	otaring montou,	Cooling Heating	m³/min	P-Hi: 28 Hi: 21 Me: 19 Lo: 17	100	
Available ov	ternal static pressure	rieating	Pa	0		
Outside air			Га	Possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			w	nubbel sleeve(lot lattitiotol)	20(Crank case heater)	
Liectric riea	Remote control		V V	(option) wired : BC_EX1A BC_E5	, RCH-E3 wireless : RCN-T-36W-E	
Operation	Room temperature control	nl .			by electronics	
control	Operation display	JI		memostari	_	
	Operation display			Overload protect	ion for fan motor.	
Cofoty oggi				Frost protecti	on thermostat.	
Safety equip	oments			Internal thermos	tat for fan motor.	
				Abnormal discharge to	emperature protection.	
	Refrigerant piping size (C).D.)	mm	Liquid line: I.U. ϕ 9.52 (3/8") ② ϕ 9.52(3/8") × Gas line: I/U ϕ 15.88 (5/8") ② ϕ 15.88(5/8") ×	0.8 ① ϕ 9.52(3/8") × 0.8 O.U. ϕ 9.52 (3/8") 1.0 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	_	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way) length	m		100m	
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP25(O.D.32)	Holes size φ20 × 3pcs		
Drain pump	, max lift height		mm	Built-in Drain pump , 700	_	
	ded breaker size		Α		-	
	ked rotor ampere)		Α	5	.0	
Interconnec		number			ole) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	Edging	
Option parts				-		
	Note (1) The date are measured at the following conditions. The pipe length is 7.5m.					

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~Branch, ②: Pipe of Branch~I.U.

(b) Triple type

	(b) Triple type		Model	EDT140	VNXTVF		
Item			Model	Indoor unit FDT50VF (3 units)	Outdoor unit FDC140VNX		
Power sour	rce				750Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]		
	Nominal heating capacity		kW)~ 18.0(Max.)]		
	Power	Cooling		3.88			
	consumption	Heating	kW	3.	76		
	Max power consumption]	5.	43		
	Running Cooling			17.2	/ 18.0		
	current	Heating	Α	16.7	/ 17.4		
0	Inrush current, max curre	nt]	5 ,	26		
Operation data	Power factor	Cooling	%	g	98		
uaia	Fower factor	Heating	70	9	98		
	EER	Cooling		3.	61		
	COP	Heating		4.	26		
	Sound power level	Cooling		55	72		
	Souria power level	Heating		33	12		
	Sound pressure level	Cooling	dB(A)	P-Hi: 39 Hi: 33 Me: 31 Lo: 30	49		
	Souria pressure level	Heating		F-HI.39 HI.33 We.31 LO.30	52		
	Silent mode sound pressure level			-	_		
Exterior dia	nensions (Height x Width x	Denth)	mm	Unit 246 × 840 × 840	1300×970×370		
Exterior din	nensions (Height x Width x	Бер іп)	111111	Panel 35 × 950 × 950	1300x970x370		
Exterior ap	pearance			Plaster White	Stucco White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	UNIT 22 PANEL 5.5	105		
Compresso	or type & Q'ty			_	RMT5134MDE2×1		
Compresso	or motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		Q	_	0.9 M-MA68		
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit		
Heat excha	anger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				Electronic ex	pansion valve		
Fan type &	Q'ty			Turbo fan ×1	Propeller fan ×2		
Fan motor	(Starting method)		W	50 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:18 Me:16 Lo:14	100		
Available ex	xternal static pressure		Pa	0	_		
Outside air	intake			Possible	_		
Air filter, Qu	uality / Quantity			Pocket plastic net ×1(Washable)	_		
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ater		W	_	20(Crank case heater)		
Onevetion	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-T-36W-E		
Operation control	Room temperature contro	ol		Thermostat b	by electronics		
COTILIO	Operation display			-	_		
					ion for fan motor.		
Safety equi	ipments				on thermostat.		
ou.o., oqu.					tat for fan motor.		
	T	-			emperature protection.		
	Refrigerant piping size (C	D.D.)	mm		0.8 ① ϕ 9.52(3/8") × 0.8 O.U. ϕ 9.52 (3/8") 0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	0 11 0		m	_	_		
data	Insulation for piping				Liquid & Gas lines)		
	Refrigerant line (one way	<u>, </u>	m		100m		
	Vertical height diff. between C	O.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25(O.D.32)	Holes size ϕ 20 × 3pcs			
	Drain pump, max lift height		mm	Built-in Drain pump , 700	_		
	nded breaker size		Α				
	ked rotor ampere)		Α		.0		
Interconnec	cting wires Size x Core r	number		, , , ,	ple) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard a				Mounting kit, Drain hose	Edging		
Option part				-	_		
Note /	Note (1) The data are measured at the following conditions. The pipe length is 7.5m.						

Note (1) The data are measured at the following conditions.

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~Branch, ②: Pipe of Branch~I.U.

			Model	FDT140	VSXTVF		
Item				Indoor unit FDT50VF (3 units) Outdoor unit FDC140VSX			
Power sour					50Hz / 380V 60Hz		
	Nominal cooling capacity		kW)~ 16.0(Max.)]		
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.)~ 20.0(Max.)]		
	Power	Cooling		3.88			
	consumption Heating		kW		76		
	Max power consumption				79		
	Running	Cooling			/ 6.0		
	current	Heating	Α		/ 5.8		
Operation	Inrush current, max currer				15		
data	Power factor	Cooling	%		8		
		Heating	,,,		/ 98		
	EER	Cooling			61		
	COP	Heating		4.	26		
	Sound power level	Cooling		55	72		
	·	Heating	.p.(a)		40		
	Sound pressure level	Cooling	dB(A)	P-Hi:39 Hi:33 Me:31 Lo:30	49		
	·	Heating		·	52 —		
	Silent mode sound pressu	ire ievel		— — — — — — — — — — — — — — — — — — —			
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840	1300×970×370		
				Panel 35 × 950 × 950	2		
Exterior app				Plaster White	Stucco White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	1 0 0 1		kg	UNIT 22 PANEL 5.5	105		
	r type & Q'ty		1-10/		RMT5134MDE3×1		
	r motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		Q.		0.9 M-MA68		
	(Type, amount, pre-charge	e iength)	kg		e piping length of 30m)Outdoor unit		
Heat exchar Refrigerant		-		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing pansion valve		
Fan type &				Turbo fan ×1	Propeller fan ×2		
	Starting method)		w	50 < Direct line start >	86 × 2 < Direct line start >		
Air flow	otarting method)	Cooling Heating	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	100		
Available ev	ternal static pressure	пеаші	Pa	0	_		
Outside air	· · · · · · · · · · · · · · · · · · ·		ıα	Possible	_		
	ality / Quantity			Pocket plastic net ×1(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			w	—	20(Crank case heater)		
	Remote control			(option) wired: RC-EX1A.RC-E5	, RCH-E3 wireless : RCN-T-36W-E		
Operation	Room temperature contro	I			by electronics		
control	Operation display			-	_		
Safety equip	oments			Frost protection Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.		
	Refrigerant piping size (O	.D.)	mm	Liquid line: I.U. φ 6.35 (1/4") ② φ 9.52(3/8") ×	0.8 ① ϕ 9.52(3/8") × 0.8 O.U. ϕ 9.52 (3/8") 0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m				
data	Insulation for piping			Necessary (both I	iquid & Gas lines)		
	Refrigerant line (one way)		m	Max.	100m		
	Vertical height diff. between O.	U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose connectable VP25(O.D.32)	Holes size φ20 x 3pcs			
	Drain pump, max lift height			Built-in Drain pump , 700	_		
	ded breaker size		Α		_		
,	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core nu	umber		, , ,	ple) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ac				Mounting kit, Drain hose	Edging		
Option parts				<u>-</u>	_		
Note (Note (1) The data are measured at the following conditions The pipe length is 7.5m						

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~Branch, ②: Pipe of Branch~I.U.

(2) Ceiling cassette-4way compact (FDTC) (a) Single type

			Model _	FDTC40				
Item				Indoor unit FDTC40VF Outdoor unit SRC40ZMX				
Power source					50Hz / 220V 60Hz			
	Nominal cooling capaci		kW	4.0 [1.1(Min.)				
	Nominal heating capaci	, , ,	kW	4.5 [0.6(Min.) ~ 5.4(Max.)]				
	Power Cooling consumption Heating		l L		04			
			kW	1.				
	Max power consumptio			2.				
	Running	Cooling		4.9				
	current	Heating	Α _	5.2				
Operation	Inrush current, max curr			5 , 12				
data	Power factor	Cooling	% <u>_</u>	92 /				
2010		Heating	,,,	92 /				
	EER	Cooling		3.				
	COP	Heating		4.	09			
	Sound power level	Cooling Heating		60	63			
	6	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	50			
	Sound pressure level	Heating		P-Hi: 47 Hi: 42 Me: 36 Lo: 32	50			
	Silent mode sound pressure level			_	Cooling: 45 / Heating: 45			
Total and a second				Unit 248 × 570 × 570				
xterior aim	ensions (Height x Width	x Deptn)	mm	Panel 35 × 700 × 700	640×800(+71)×290			
Exterior app	pearance			Plaster White	Stucco White			
Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	UNIT 15 PANEL 3.5	45			
	r type & Q'ty			_	RMT5113MCE2 (Twin rotary type)×1			
	r motor (Starting method)	kW	_	Direct line start			
	oil (Amount, type)	,	Q.	_	0.45 MA68			
	(Type, amount, pre-char	ae lenath)	kg	R410A 1.5kg in outdoor unit (incl. t				
leat exchar		g- ·-··g-··,	9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant				Capillary tubes + Elec				
an type & 0				Turbo fan ×1	Propeller fan ×1			
	Starting method)		W	33 < Direct line start >	34 < Direct line start >			
	otar arrig rirotario aj	Cooling		P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7	36			
Air flow		Heating	m³/min —	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	33			
vailable ex	ternal static pressure	Tricating	Pa	0				
Outside air i	<u>'</u>		1 4	Not possible				
	ality / Quantity			Pocket plastic net ×1(Washable)				
	ration absorber	,		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
lectric hea			w	0				
.iccuic nea	Remote control		V V	(option) wired: RC-EX1A, RC-E5, F	RCH-F3 wireless : RCN-TC-24W-FD			
Operation	Room temperature cont	rol		Thermostat b				
control	Operation display			memostat t	-			
Safety equip				Overload protect Frost protection	on thermostat.			
				Internal thermos				
	Refrigerant piping size (O.D.)	mm	Abnormal discharge to Liquid line: I/U φ 6.35 (1/4") Pipe φ	9 6.35(1/4") × 0.8 O/U φ 6.35 (1/4")			
					12.7(1/2") × 0.8			
	Connecting method			Flare piping	Flare piping			
nstallation	Attached length of pipin	g	m	-	_			
ata	Insulation for piping			Necessary (both L	, , , , , , , , , , , , , , , , , , , ,			
	Refrigerant line (one wa	<u>,, </u>	m	Max				
	Vertical height diff. between	O.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP20(O.D.26)	Holes size φ20 x 5pcs			
	, max lift height		mm	Built-in Drain pump , 600				
	ded breaker size		А		_			
D 4 /1 1	red rotor ampere)		А	5.				
				45 2 4 (1 1 1 1 1 1	1 \ / T			
	ting wires Size x Core	number		ϕ 1.5mm ² × 4 cores (Including earth cal	ole) / Termainal block (Screw fixing type)			
nterconnec P number		number		ϕ 1.5mm $^{-}$ x 4 cores (Including earth car IPX0	IPX4			
nterconnec		number		, , ,	, , , ,			

Note (1) The data are measured at the following conditions.

The pipe length is 7.5m.

,	.,					- -
ſ	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
	Operation	DB	WB	DB	WB	Standards
	Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

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			Model	FDTC50	DZMXVF				
Item				Indoor unit FDTC50VF	Outdoor unit SRC50ZMX-S				
Power source					50Hz / 220V 60Hz				
	Nominal cooling capacity		kW)~ 5.6(Max.)]				
	Nominal heating capacity		kW)~ 6.3(Max.)]				
	Power	Cooling			56				
	consumption	Heating	kW		45				
	Max power consumption				90				
	Running	Cooling			/ 7.5				
	current	Heating	Α [/ 7.0				
Operation	Inrush current, max currer	nt		·	15				
data	Power factor	Cooling	%	94	/ 95				
l		Heating	/"		94 / 94				
	EER	Cooling			21				
	COP	Heating		3.	72				
	Sound power level	Cooling		60	63				
	Souria power level	Heating		00	00				
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	54				
	Sourid pressure level	Heating		P-Hi: 47 Hi: 42 Me: 36 Lo: 32	50				
	Silent mode sound pressu	re level	L	_	Cooling: 45 / Heating: 45				
Extorior di-	nonsions (Hoight y Midth y I	Donth\	mm	Unit 248 × 570 × 570	640×800(+71)×290				
Litterior alm	nensions (Height x Width x I	Debiii)	mm	Panel 35 × 700 × 700	040×000(+11)×230				
Exterior app	pearance			Plaster White	Stucco White				
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight	,		kg	UNIT 15 PANEL 3.5	45				
Compresso	r type & Q'ty			_	RMT5113MCE2 (Twin rotary type)×1				
	r motor (Starting method)	,	kW	_	Direct line start				
<u> </u>	oil (Amount, type)		Q	_	0.45 MA68				
Refrigerant	(Type, amount, pre-charge	length)	kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)				
Heat exchar				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant					tronic expansion valve				
Fan type & 0	Q'ty			Turbo fan ×1	Propeller fan ×1				
Fan motor (Starting method)		W	33 < Direct line start >	34 < Direct line start >				
A: (I		Cooling	3, .	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7	40				
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	33				
Available ex	ternal static pressure		Pa	0	_				
Outside air i				Not possible	_				
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)	_				
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)				
Electric hea			W	0	_				
	Remote control			(option) wired: RC-EX1A, RC-E5,	RCH-E3 wireless : RCN-TC-24W-ER				
Operation	Room temperature contro	İ			by electronics				
control	Operation display	,		-	<u>.</u>				
				Overload protect	ion for fan motor.				
Cofot	am anta				on thermostat.				
Safety equip	oments			Internal thermos	tat for fan motor.				
				Abnormal discharge to	emperature protection.				
	Pofrigorant pining size ()	D)	mm		δ 6.35(1/4") × 0.8 O/U φ 6.35 (1/4")				
	Refrigerant piping size (O	.U.)	mm	Gas line: φ 12.7 (1/2") φ	$12.7(1/2") \times 0.8$ ϕ 12.7 (1/2")				
	Connecting method			Flare piping	Flare piping				
Installation	Attached length of piping		m						
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)				
	Refrigerant line (one way)	length	m		.30m				
	Vertical height diff. between O.	U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)				
Drain hose			Hose connectable VP20(O.D.26)	Holes size ϕ 20 × 5pcs					
Drain pump	Drain pump, max lift height		mm	Built-in Drain pump	_				
	ded breaker size		Α		_				
	ked rotor ampere)		Α	6	.2				
Interconnec		umber	<u> </u>		ole) / Termainal block (Screw fixing type)				
IP number	<u> </u>			IPX0	IPX4				
Standard ac	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet				
Option parts		-			, TC-OAD-E				
Note (1) The data are measured at the following									

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7℃	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

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			Model	FDTC60	DZMXVF	
Item			Indoor unit FDTC60VF	Outdoor unit SRC60ZMX-S		
Power sour	ce			1 Phase 220-240V	7 50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	5.6 [1.1(Min.)~ 6.3(Max.)]	
	Nominal heating capacity		kW)~ 6.7(Max.)]	
	Power	Cooling			99	
	consumption	Heating	kW		07	
	Max power consumption			2.	90	
	Running	Cooling			/ 9.5	
	current	Heating	A		10.1	
	Inrush current, max curre				15	
Operation	,	Cooling			/ 95	
data	Power factor	Heating	% -		/ 93	
	EER	Cooling			81	
	COP	Heating			24	
		Cooling				
	Sound power level	Heating		60	64	
		Cooling	dB(A)	P-Hi: 47 Hi: 46 Me: 39 Lo: 30		
	Sound pressure level	Heating		P-Hi: 47 Hi: 46 Me: 39 Lo: 32	54	
	Silent mode sound press		 	— —	Cooling: 45 / Heating: 45	
			 	Unit 248 × 570 × 570		
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 700 × 700	640×800(+71)×290	
Exterior app	nogranoo			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
	nor)		lea.	, ,	(4.217.5/1.1) Hear equivalent	
Net weight	w to one of Oltre		kg	UNIT 15 PANEL 3.5	RMT5113MCE2 (Twin rotary type)×1	
	r type & Q'ty r motor (Starting method)	-	kW		` 27. /	
	oil (Amount, type)				Direct line start 0.45 MA68	
	, , , , , , , , , , , , , , , , , , , ,	1 11	l			
	(Type, amount, pre-charg	e iengtn)	kg		the amount for the piping of : 15m)	
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant		-		. ,	tronic expansion valve	
Fan type &			14/	Turbo fan ×1	Propeller fan ×1	
Fan motor (Starting method)	10 "	W	33 < Direct line start >	34 < Direct line start >	
Air flow		Cooling	m³/min –	P-Hi: 13.5 Hi: 13.5 Me: 10 Lo: 7	41.5	
		Heating		P-Hi: 13.5 Hi: 13.5 Me: 10 Lo: 8	39	
	ternal static pressure	-	Pa	0	_	
Outside air				Not possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	_	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	0		
Operation	Remote control				RCH-E3 wireless : RCN-TC-24W-ER	
control	Room temperature contro	ol		I hermostat t	by electronics	
	Operation display			-	-	
					tion for fan motor.	
Safety equip	oments				on thermostat.	
,					tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (C	D.D.)	mm	Liquid line: I/U φ 5.35 (1/4") Pipe φ	φ 6.35(1/4") × 0.8 O/U φ 6.35 (1/4")	
			-	Gas line: ϕ 12.7 (1/2") ϕ		
Landa III III	Connecting method		100	Flare piping	Flare piping	
Installation	Attached length of piping		m			
data	Insulation for piping	\\ langet-	-		Liquid & Gas lines)	
	Refrigerant line (one way		m		.30m	
	Vertical height diff. between C	J.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
D :	Drain hose		\vdash	Hose connectable VP20(O.D.26)	Holes size ϕ 20 × 5pcs	
		mm	Built-in Drain pump	_		
	ded breaker size		A	-	_	
	(ed rotor ampere)		Α		.5	
Interconnec	ting wires Size x Core r	number		, ,	ble) / Termainal block (Screw fixing type)	
IP number				IPX0	IPX4	
Standard ad				Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option part					, TC-OAD-E	
Note (1) The data are measured	at the follow	vina cond	itions. The pipe length is 7.5m.		

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1909191-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

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(b) Twin type

	(b) I will type		Model	EDTC74	VNXPVF
Item			Model	Indoor unit FDTC40VF (2 units)	Outdoor unit FDC71VNX
Power sour	rce				50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)	
	Nominal heating capacity (range)		kW	8.0 [3.6(Min.	
	Power	Cooling		2.	04
	consumption	Heating	kW	2.	21
	Max power consumption	· -		3.	54
	Running	Cooling		9.1 /	/ 9.5
	current	Heating	A	9.9 /	10.3
0	Inrush current, max curre	nt] [5 ,	17
Operation data	Power factor	Cooling	%	97 .	/ 98
uaia	Fower lactor	Heating	70	97 .	/ 98
	EER	Cooling		3.	48
	COP	Heating		3.	62
	Sound power level	Cooling		60	66
	Souria power level	Heating		00	00
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	51
	·	Heating		P-Hi: 47 Hi: 42 Me: 36 Lo: 32	48
	Silent mode sound press	ure level		_	_
Exterior din	nensions (Height x Width x	Denth)	mm	Unit 248 × 570 × 570	750×880(+88)×340
LATERIOI UIII		Бериі	11/11/1	Panel 35 × 700 × 700	730,000(+00),040
Exterior app	pearance			Plaster White	Stucco White
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	UNIT 15 PANEL 3.5	60
Compresso	or type & Q'ty			_	RMT5118MDE2×1
Compresso	or motor (Starting method)		kW	_	Direct line start
Refrigerant	oil (Amount, type)		l	_	0.675 (M-MA68)
Refrigerant	(Type, amount, pre-charg	e length)	kg	R410A 2.95kg in outdoor unit (incl.	the amount for the piping of : 30m)
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Turbo fan ×1	Propeller fan ×1
Fan motor ((Starting method)	,	W	33 < Direct line start >	86 < Direct line start >
Air flow		Cooling	m³/min	P-Hi:13.5 Hi:11.5 Me:9 Lo:7	60
		Heating		P-Hi:13.5 Hi:11.5 Me:9 Lo:8	50
	xternal static pressure		Pa	0	_
Outside air				Not possible	_
	uality / Quantity			Pocket plastic net ×1(Washable)	_
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	0	20(Crank case heater)
Operation	Remote control				RCH-E3 wireless : RCN-TC-24W-ER
control	Room temperature contro	OI		I hermostat t	by electronics
	Operation display				_
					ion for fan motor. on thermostat.
Safety equi	pments				tat for fan motor.
					emperature protection.
		-		Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8") ×	
	Refrigerant piping size (C).D.)	mm		0.8 $(1/\phi) = 0.52(5/6) \times 0.6 = 0.00 \oplus 0.52(5/6)$ 0.8 $(1/\phi) = 0.52(5/6) \times 1.0 = 0.00 \oplus 0.52(5/6)$
	Connecting method			Flare piping	Flare piping
Inetallation			m	ι ιαι ε μιμιτιχ	i iaie pipiliy
data	Installation Attached length of piping		111	Necessary (both I	iguid & Gas lines)
data Insulation for piping Refrigerant line (one way) length		m	, ,	.50m	
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	, unu i.U.	- '''	Hose connectable VP20(O.D.26)	Holes size $\phi 20 \times 3$ pcs
Drain pump, max lift height		mm	Built-in Drain pump	Holes size ψ zu x spcs —	
		A		<u>-</u> -	
Recommended breaker size L.R.A. (Locked rotor ampere)			A		.0
Interconnec		umber	^		ble) / Termainal block (Screw fixing type)
IP number	ouring willog OIZE A OOIET	IGT I ID GI		φ r.omin × 3 cores (including earth call	IP24
Standard a	ccessories			Mounting kit, Drain hose	——————————————————————————————————————
Option part				<u> </u>	, TC-OAD-E
	Note (1) The data are measured at the follow				

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch~I/U

			Model	FDTC100	OVNXPVF	
Item			ouci	Indoor unit FDTC50VF (2 units)	Outdoor unit FDC100VNX	
Power sour					50Hz / 220V 60Hz	
	Nominal cooling capacity		kW)~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.))~ 12.5(Max.)]	
	Power	Cooling			18	
	consumption	Heating	kW		20	
	Max power consumption				12	
	Running	ning Cooling		14.1 .	/ 14.7	
	current	Heating	A		/ 14.9	
Operation	Inrush current, max currer			·	24	
data	Power factor	Cooling	%		8	
data		Heating	,,,		18	
	EER	Cooling			14	
	COP	Heating		3.	50	
	Sound power level	Cooling		60	70	
	·	Heating	15(4)	D.I.I. 47 III. 40 M. 00 I. 00	40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	48	
	·	Heating		P-Hi: 47 Hi: 42 Me: 36 Lo: 32	50	
	Silent mode sound pressu	re ievel		— — — — — — — — — — — — — — — — — — —	-	
Exterior dim	nensions (Height x Width x I	Depth)	mm	Unit 248 × 570 × 570 Panel 35 × 700 × 700	1300×970×370	
					2	
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	1 0 0 1		kg	UNIT 15 PANEL 3.5	105	
	r type & Q'ty		1-10/	_	RMT5134MDE2×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		l	— D440A 4 51(D	0.9 M-MA68	
	(Type, amount, pre-charge	e length)	kg	Louver fin & inner grooved tubing	e piping length of 30m)Outdoor unit M shape fin & inner grooved tubing	
Heat exchar Refrigerant				<u> </u>	pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
	Starting method)		W	33 < Direct line start >	86 × 2 < Direct line start >	
Tall Hotor (Starting metriou)	Cooling		P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7	80 x 2 < Direct line start >	
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	100	
Available ex	ternal static pressure	ricating	Pa	0	_	
Outside air	· · · · · · · · · · · · · · · · · · ·		- ι α	Not possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	_	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	0	20(Crank case heater)	
	Remote control			(option) wired: RC-EX1A.RC-E5.I	RCH-E3 wireless : RCN-TC-24W-ER	
Operation	Room temperature contro				by electronics	
control	Operation display			-	<u>-</u>	
				Overload protect	ion for fan motor.	
Cofoty consis	a ma a mta				on thermostat.	
Safety equip	oments			Internal thermos	tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	D)	mm		0.8 ① ϕ 9.52(3/8") × 0.8 O/U ϕ 9.52 (3/8")	
	• • .		111111	, , , , ,	0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation Attached length of piping			m	_	_	
data	Insulation for piping			, ,	iquid & Gas lines)	
	Refrigerant line (one way)		m		100m	
	Vertical height diff. between O.	U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP20(O.D.26)	Holes size ϕ 20 × 3pcs		
Drain pump, max lift height		mm	Built-in Drain pump	_		
Recommended breaker size		Α		_		
	ked rotor ampere)		Α		.0	
Interconnec	ting wires Size x Core nu	ımber		, , , ,	ple) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ac				Mounting kit, Drain hose	Edging	
Option parts					, TC-OAD-E	
Moto (The data are measured a 	t the follow	wina con			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7℃	6°C	1805151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch~I/U

			Model	FDTC100	OVSXPVF	
Item			11.500	Indoor unit FDTC50VF (2 units)	Outdoor unit FDC100VSX	
Power sour					50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.))~ 16.0(Max.)]	
	Power	Power Cooling consumption Heating			18	
					20	
	Max power consumption				40	
	Running	Cooling			/ 4.9	
	current	Heating	Α		/ 5.0	
Operation	Inrush current, max currer			· · · · · · · · · · · · · · · · · · ·	15	
data	Power factor	Cooling	%		/ 98	
		Heating	, ,		/ 98	
	EER	Cooling			14	
	COP	Heating		3.	50	
	Sound power level	Cooling		60	70	
		Heating	ID(A)	D.I., 47.11, 40.14, 00.1, 00	40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	48	
	Cilent made sound pressu	Heating		P-Hi: 47 Hi: 42 Me: 36 Lo: 32	50 —	
	Silent mode sound pressu	i e ievel			-	
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 248 × 570 × 570 Panel 35 × 700 × 700	1300×970×370	
F. danian and		-			Chira - NA/Init -	
Exterior app				Plaster White	Stucco White	
(Munsell co	DIOI)	-	lee-	(6.8Y8.9/0.2) near equivalent UNIT 15 PANEL 3.5	(4.2Y7.5/1.1) near equivalent 105	
	r type & Q'ty	-	kg	UNIT 15 PAINEL 3.5	RMT5134MDE3×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		l l	_	0.9 M-MA68	
	(Type, amount, pre-charge	\ longth\	kg	P410A 4 5kg/Pro charged up to the	e piping length of 30m)Outdoor unit	
Heat exchar	<u> </u>	iengin)	, ky	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				<u> </u>	pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
	Starting method)		W	33 < Direct line start >	86 × 2 < Direct line start >	
,	<u> </u>	Cooling		P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7		
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	100	
Available ex	ternal static pressure	1	Pa	0	_	
Outside air	· · · · · · · · · · · · · · · · · · ·			Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)	_	
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	_	20(Crank case heater)	
Onevetien	Remote control			(option) wired: RC-EX1A, RC-E5, I	RCH-E3 wireless : RCN-TC-24W-ER	
Operation control	Room temperature contro	l		Thermostat b	by electronics	
CONTROL	Operation display			-	_	
					ion for fan motor.	
Safety equip	oments			•	on thermostat.	
					tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	.D.)	mm		0.8 ① ϕ 9.52(3/8") × 0.8 O/U ϕ 9.52 (3/8")	
				, , , , ,	0.8 ① φ 15.88(5/8") × 1.0 O/U φ 15.88 (5/8")	
In atal! - +! -	Connecting method		p=	Flare piping	Flare piping	
Installation Attached length of piping		m	Noossan /hath l	 _iquid & Gas lines)		
data	Insulation for piping Refrigerant line (one way)	length	m	, ,	100m	
	Vertical height diff. between O.		m m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	o. and 1.0.	111	Hose connectable VP20(O.D.26)	Holes size $\phi 20 \times 3$ pcs	
Drain pump, max lift height		mm	Built-in Drain pump	— Holes size φ 20 x 3pcs		
Prain pump, max iiπ neight Recommended breaker size		A		<u>-</u> -		
	ked rotor ampere)		A		.0	
Interconnec		ımber			ole) / Termainal block (Screw fixing type)	
IP number	100 0120 X 0016 110			IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	Edging	
Option parts				9 - 1	, TC-OAD-E	
Note (1) The data are measured at the following of				· · · · · · · · · · · · · · · · · · ·		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1909191-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch ~ I/U

			Model	FDTC12	5VNXPVF	
Item			11.500	Indoor unit FDTC60VF (2 units)	Outdoor unit FDC125VNX	
Power sour					50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 14.0(Max.)]	
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.)~ 17.0(Max.)]	
	Power	Cooling		4.10		
	consumption	Heating	kW		10	
	Max power consumption				56	
	Running	Cooling		18.2	/ 19.0	
	current	Heating	A		/ 19.0	
Operation	Inrush current, max currer				24	
data	Power factor	Cooling	%		8	
data		Heating	,,,		18	
	EER	Cooling			05	
	COP	Heating		3.	41	
	Sound power level	Cooling		60	70	
	·	Heating	.p.(a)	D.I., 47.1., 40.14.00.1.00	40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 46 Me: 39 Lo: 30	48	
		Heating		P-Hi: 47 Hi: 46 Me: 39 Lo: 32	50 —	
	Silent mode sound pressu	re ievel		— — — — — — — — — — — — — — — — — — —		
Exterior dim	nensions (Height x Width x I	Depth)	mm	Unit 248 × 570 × 570 Panel 35 × 700 × 700	1300×970×370	
					2	
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	UNIT 15 PANEL 3.5	105	
	r type & Q'ty		1-10/		RMT5134MDE2×1	
	r motor (Starting method) oil (Amount, type)		kW		Direct line start	
			Q.		0.9 M-MA68	
	(Type, amount, pre-charge	e iength)	kg	Louver fin & inner grooved tubing	e piping length of 30m)Outdoor unit M shape fin & inner grooved tubing	
Heat exchar Refrigerant		-		<u> </u>	pansion valve	
Fan type &				Turbo fan ×1	Propeller fan ×2	
	Starting method)		w	33 < Direct line start >	86 × 2 < Direct line start >	
Tairmotor (Starting metriod)	Cooling		P-Hi: 13.5 Hi: 11.5 Me: 10 Lo: 7	00 × 2 × Direct line start >	
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 10 Lo: 8	100	
Available ex	ternal static pressure	ricating	Pa	0	_	
Outside air	· · · · · · · · · · · · · · · · · · ·		ıα	Not possible	_	
	ality / Quantity			Pocket plastic net ×1(Washable)	_	
	ration absorber	-		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W		20(Crank case heater)	
	Remote control			(option) wired: RC-EX1A . RC-E5 .	RCH-E3 wireless : RCN-TC-24W-ER	
Operation	Room temperature contro	l			by electronics	
control	Operation display			-	<u>-</u>	
				Overload protect	ion for fan motor.	
Cofoty couris	a ma a mta				on thermostat.	
Safety equip	oments			Internal thermos	tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	D)	mm		0.8 ① ϕ 9.52(3/8") × 0.8 O/U ϕ 9.52 (3/8")	
	• • .	.D. j	11/11/11	, , , , , ,	0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation Attached length of piping		m	<u> </u>	_		
data	Insulation for piping			* `	iquid & Gas lines)	
	Refrigerant line (one way)		m		100m	
	Vertical height diff. between O.	U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose connectable VP20(O.D.26)	Holes size ϕ 20 × 3pcs		
Drain pump, max lift height		mm	Built-in Drain pump	_		
Recommended breaker size		Α		_		
	ked rotor ampere)		Α		.0	
Interconnec	ting wires Size x Core nu	umber		, , ,	ole) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option parts		-			, TC-OAD-E	
Moto (The data are measured a 	t the follow	wing con			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1909191-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch~I/U

			Model	FDTC12	5VSXPVF		
Item			11.500	Indoor unit FDTC60VF (2 units) Outdoor unit FDC125VSX			
Power sour					50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW)~ 14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.)~ 18.0(Max.)]		
	Power	Cooling			10		
	consumption Heating		kW		10		
	Max power consumption				20		
	Running	Cooling			/ 6.4		
	current	Heating	Α		/ 6.4		
Operation	Inrush current, max currer				15		
data	Power factor	Cooling	%		/ 97		
autu		Heating	,,,		/ 97		
	EER	Cooling			05		
	COP	Heating		3.	41		
	Sound power level	Cooling		60	70		
	·	Heating		D.I., 47.1., 40.14.00.1.00	40		
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 46 Me: 39 Lo: 30	48		
	·	Heating		P-Hi: 47 Hi: 46 Me: 39 Lo: 32	50 —		
	Silent mode sound pressu	re ievel		— — — — — — — — — — — — — — — — — — —			
Exterior dim	ensions (Height x Width x	Depth)	mm	Unit 248 × 570 × 570 Panel 35 × 700 × 700	1300×970×370		
					2		
Exterior app				Plaster White	Stucco White		
(Munsell co	olor)		l.e.	(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	UNIT 15 PANEL 3.5	105		
	r type & Q'ty		14/4/		RMT5134MDE3×1		
	r motor (Starting method) oil (Amount, type)		kW		Direct line start 0.9 M-MA68		
	(Type, amount, pre-charge	longth)	lea	P410A 4 Ekg/Pro pharged up to the	e piping length of 30m)Outdoor unit		
Heat exchai	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	e lengtri)	kg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				<u> </u>	pansion valve		
Fan type &				Turbo fan ×1	Propeller fan ×2		
	Starting method)		W	33 < Direct line start >	86 × 2 < Direct line start >		
,	otarting method)	Cooling		P-Hi: 13.5 Hi: 13.5 Me: 10 Lo: 7	00 × 2 × Direct line start >		
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 13.5 Me: 10 Lo: 8	100		
Available ex	ternal static pressure	11.00019	Pa	0	_		
Outside air	· · · · · · · · · · · · · · · · · · ·			Not possible	_		
	ality / Quantity			Pocket plastic net ×1(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	_	20(Crank case heater)		
	Remote control			(option) wired: RC-EX1A, RC-E5,	RCH-E3 wireless : RCN-TC-24W-ER		
Operation	Room temperature contro	I		Thermostat b	by electronics		
control	Operation display			-			
	<u> </u>				ion for fan motor.		
Safety equip	oments			•	on thermostat.		
- a.o., oqui					tat for fan motor.		
					emperature protection.		
	Refrigerant piping size (O	.D.)	mm		0.8 ① ϕ 9.52(3/8") × 0.8 O/U ϕ 9.52 (3/8")		
				, , , , , ,	0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	— NI // U. I	is vid 9 Cas lines		
data Insulation for piping		<u></u>	* `	Liquid & Gas lines)			
	Refrigerant line (one way) Vertical height diff. between O.		m		100m Max 15m (Outdoor unit is lower)		
		o. and i.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose		mm	Hose connectable VP20(O.D.26)	Holes size φ20 × 3pcs			
Drain pump, max lift height Recommended breaker size		mm ^	Built-in Drain pump	<u> </u>			
	ded breaker size ked rotor ampere)		A				
Interconnec		ımher	- ^		.u ble) / Termainal block (Screw fixing type)		
IP number	ung wires Size X Core no	ai i i Dei		φ 1.6mm × 3 cores (including earth car IPX0	IP24		
Standard ac	coesorios			Mounting kit, Drain hose	IP24 Edging		
Option parts				<u> </u>			
Note (1) The data are measured at the following				TC-OAS-E , TC-OAD-E			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7℃	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch ~ I/U

(c) Triple type

			Model	FDTC140	VNXTVF			
Item			Model	FDTC140VNXTVF Indoor unit FDTC50VF (3 units) Outdoor unit FDC140VNX				
Power source					50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)	(~ 16.0(Max.)]			
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.) ~ 18.0(Max.)]				
	Power	Cooling	kW		34			
Operation data	consumption	Heating		4.:	34			
	Max power consumption			6.08				
	Running Cooling current Heating			19.3 / 20.1				
			Α	19.3 / 20.1				
	Inrush current, max current			5 ,				
	Cooling				8			
	Power factor Heating		%	9				
	EER	Cooling		3.23				
	COP Heating			3.	69			
	0 1 1	Cooling						
	Sound power level	Heating		60	72			
		Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	49			
	Sound pressure level	Heating	` ` '	P-Hi: 47 Hi: 42 Me: 36 Lo: 32	52			
	Silent mode sound pressu			_				
				Unit 248 × 570 × 570	1000 5			
Exterior dim	nensions (Height x Width x	Depth)	mm	Panel 35 × 700 × 700	1300×970×370			
Exterior app	pearance			Plaster White	Stucco White			
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight	,		kg	UNIT 15 PANEL 3.5	105			
	r type & Q'ty		ı.g	—	RMT5134MDE2×1			
	r motor (Starting method)	-	kW	_	Direct line start			
<u> </u>	oil (Amount, type)		Q.	_	0.9 M-MA68			
	(Type, amount, pre-charge	e lenath)	kg	B410A 4 5kg/Pre-charged up to the	e piping length of 30m)Outdoor unit			
Heat excha	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	c longth)	I Ng	Louver fin & inner grooved tubing M shape fin & inner grooved tubing				
Refrigerant					pansion valve			
Fan type &				Turbo fan ×1	Propeller fan ×2			
	Starting method)		W	33 < Direct line start >	86 × 2 < Direct line start >			
,	<u> </u>	Cooling		P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7				
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	100			
Available ex	ternal static pressure	ricating	Pa	0				
Outside air	· · · · · · · · · · · · · · · · · · ·		- ι α	Not possible				
	ality / Quantity			Pocket plastic net ×1(Washable)				
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	- 20(Crank case heater)				
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-TC-24W-ER				
Operation	Room temperature control	ol		Thermostat by electronics				
control	Operation display			memostat t	-			
	oporation display			Overload protect	ion for fan motor.			
			Frost protection					
Safety equip	oments			Internal thermos				
				Abnormal discharge te				
				Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8") × 0.8 ① ϕ 9.52(3/8") × 0.8 O/U ϕ 9.52 (3/8")				
	Refrigerant piping size (C).D.)	mm	Gas line: I/U ϕ 12.7 (1/2") \bigcirc ϕ 12.7(1/2") \times 0	0.8 ① ϕ 15.88(5/8") × 1.0 O/U ϕ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
data	Attached length of piping		m	- I rais piping				
	Insulation for piping			Necessary (both Liquid & Gas lines)				
	Refrigerant line (one way) lenath	m	Max.100m				
	Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose connectable VP20(O.D.26)	Holes size ϕ 20 × 3pcs			
Drain pump, max lift height		mm	Built-in Drain pump —					
Recommended breaker size		A						
L.R.A. (Locked rotor ampere)		A						
,	- '	umber	- `					
IP number				φ 1.6mm × 3 cores (Including earth cable) / Termainal block (Screw fixing type IPX0 IP24				
Standard ad	ccessories			Mounting kit, Drain hose	Edging			
Option parts				<u> </u>	, TC-OAD-E			
		at the follow	wing con					
Note (1) The data are measured at the following conditions. The pipe length is 7.5m.								

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch~I/U

Item			Model	FDTC140	DVSXTVF		
			Model	Indoor unit FDTC50VF (3 units) Outdoor unit FDC140VSX			
Power source				3 Phase 380-415V 50Hz / 380V 60Hz			
Nominal cooling capacity (range)		kW	14.0 [5.0(Min.))~ 16.0(Max.)]			
	Nominal heating capacity	ominal heating capacity (range)		16.0 [4.0(Min.)~ 20.0(Max.)]			
	Power	Cooling		4.34			
	consumption Heating		kW	4.:	34		
	Max power consumption			7.60			
	Running	Cooling		6.4 / 6.7			
	current Heating		Α [6.4 / 6.7			
0	Inrush current, max current			5 , 15			
Operation data	Power factor Cooling		%	9	8		
	EER Cooling		%	98			
				3.23			
	COP Heating			3.69			
	Cound newer level	Cooling		60	72		
	Sound power level	Heating		60	12		
	0	Cooling	dB(A)	P-Hi: 47 Hi: 42 Me: 36 Lo: 30	49		
	Sound pressure level	Heating	1 1	P-Hi: 47 Hi: 42 Me: 36 Lo: 32	52		
	Silent mode sound pressu	ire level	1 1	_	_		
Francis III				Unit 248 × 570 × 570	1000 070 070		
Exterior din	nensions (Height x Width x	Depth)	mm	Panel 35 × 700 × 700	1300×970×370		
Exterior ap	pearance			Plaster White	Stucco White		
(Munsell co	•			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	UNIT 15 PANEL 3.5	105		
	or type & Q'ty				RMT5134MDE3×1		
	or motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		Q.	_	0.9 M-MA68		
	(Type, amount, pre-charge	e lenath)	kg	R410A 4.5kg(Pre-charged up to the piping length of 30m)Outdoor unit			
Heat excha			g	Louver fin & inner grooved tubing M shape fin & inner grooved tubing			
Refrigerant				Electronic expansion valve			
Fan type &				Turbo fan ×1	Propeller fan ×2		
	(Starting method)		W	33 < Direct line start >	86 x 2 < Direct line start >		
	(Cooling		P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 7			
Air flow		Heating	m³/min	P-Hi: 13.5 Hi: 11.5 Me: 9 Lo: 8	100		
Available ex	xternal static pressure	1	Pa	0	_		
Outside air	<u> </u>			Not possible	_		
	uality / Quantity			Pocket plastic net ×1(Washable)	_		
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric heater		w	0 20(Crank case heater)				
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-TC-24W-ER			
Operation	Room temperature contro	Ī		Thermostat by electronics			
control	Operation display			— — — — — — — — — — — — — — — — — — —			
[Οροιατίοι αιορίας				Overload protect	ion for fan motor.		
				Frost protection			
Safety equi	ipments			Internal thermos			
				Abnormal discharge to			
	D. (1	D)		Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")x0.8			
	Refrigerant piping size (O	.U.)	mm		0.8 ① φ 15.88(5/8")x1.0 φ O/U φ 15.88 (5/8")		
	Connecting method			Flare piping Flare piping			
Installation	Attached length of piping		m				
data	Insulation for piping			Necessary (both Liquid & Gas lines)			
data	Refrigerant line (one way)	length	m	Max.100m			
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)			
	Drain hose			Hose Connectable with VP20(O.D.26) Holes size ϕ 20 x 3pcs			
Drain pump, max lift height		mm	Built-in Drain pump —				
Recommended breaker size		A					
	ked rotor ampere)		A	5	.0		
Interconnec		ımber			le) / Termainal block (Screw fixing type)		
IP number	Carried Olzo A Gole III			Ψ 1.0ΠΠΙΧΟ COTES (Including earth cabl	IP24		
Standard a	ccessories			Mounting kit, Drain hose	Edging		
Option parts				TC-OAS-E , TC-OAD-E			

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB	Staridards	
Cooling	27°C	19℃	35°C	24°C	ICOE151 T1	
Heating	20°C	_	7°C	6°C	- ISO5151-T1	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are three indoor units are combined and run together.
- (8) Branching pipe set "DIS-TA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

(3) Ceiling suspended type (FDEN) (a) Single type

			Model	FDEN40	DZMXVF	
Item				Indoor unit FDEN40VF	Outdoor unit SRC40ZMX-S	
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 4.7(Max.)]	
	Nominal heating capacity (range)		kW	4.5 [0.6(Min.))~ 5.4(Max.)]	
	Power	Cooling		1.	02	
	consumption	Heating	kW	1.	10	
	Max power consumption			2.	60	
	Running	Cooling		4.8	/ 5.0	
	current	Heating	Α [5.2	/ 5.5	
Operation	Inrush current, max currer	nt		5 ,	12	
data	Power factor	Cooling	%	92 / 93		
uata		Heating	70		/ 91	
	EER	Cooling			92	
	COP	Heating		4.	09	
	Sound power level	Cooling Heating		60	63	
	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	50	
	Silent mode sound pressu	ire level		-	Cooling: 45 / Heating: 45	
Exterior dia	nonciona (Haight y Width y	Donth)	mm	210 × 1 070 × 600	640~900(+71)~200	
Exterior din	nensions (Height x Width x	Depin)	mm	210 × 1,070 × 690	640×800(+71)×290	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	28	45	
Compresso	or type & Q'ty			-	RMT5113MCE2 (Twin rotary type)×1	
Compresso	or motor (Starting method)		kW	-	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.45 MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)	
Heat excha	inger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Capillary tubes + Elec	tronic expansion valve	
Fan type &	Q'ty			Centrifugal fan ×2	Propeller fan ×1	
Fan motor ((Starting method)		W	25 < Direct line start >	34 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	36 33	
Available ex	xternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ater		W	0	_	
0	Remote control			(option) wired: RC-EX1A, RC-E	5, RCH-E3 wireless : RCN-E1R	
Operation control	Room temperature contro			Thermostat b	by electronics	
COLLLO	Operation display			RUN: Green, TIMER: Y	ellow, CHECK: Yellow	
Safety equi	pments			Frost protection	tat for fan motor. on thermostat. tat for fan motor.	
	Refrigerent pining size (O	D)	100.000	Abnormal discharge te Liquid line: I/U φ 6.35 (1/4") Pipe	emperature protection. φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4")	
	Refrigerant piping size (O	ו.ט.)	mm	Gas line: φ 12.7 (1/2") φ	φ 12.7(1/2")x0.8 φ 12.7 (1/2")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m		<u> </u>	
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one way)		m		.30m	
	Vertical height diff. between O	.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)	
Deale	Drain hose		100:	Hose Connectable with VP20(O.D.26)	Holes size φ20 x 5pcs	
	o, max lift height		mm		_	
	nded breaker size		A			
	ked rotor ampere)	unala a ::	Α		.3	
Interconnec	cting wires Size x Core no	umber		`	e) / Termainal block (Screw fixing type)	
IP number				IPX0	IPX4	
Standard a				Mounting kit, Drain hose	Drain elbow, Drain hole grommet	
Option part	(1) The data are measured a		<u> </u>	ditions. The pine length is	<u> </u>	

Note (1) The data are measured at the following conditions.

The pipe length is 7.5m.

	()					
Item Indoor air temperature			emperature	Outdoor air	temperature	Standards
	Operation	DB	WB	DB	WB	Standards
	Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973

		,	Model	FDEN50	DZMXVF
Item				Indoor unit FDEN50VF	Outdoor unit SRC50ZMX-S
Power source					50Hz / 220V 60Hz
	Nominal cooling capacity		kW) ~ 5.6(Max.)]
	Nominal heating capacity	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	kW 5.4 [0.6(Min.) ~ 6.3(Max		, , , , ,
	Power Cooling		<u> </u>		53
	consumption	Heating	kW _		46
	Max power consumption				90
	Running	Cooling	<u> </u>		/ 7.4
	current	Heating	Α _	6.7	/ 7.0
Operation	Inrush current, max curren	it		5 ,	15
data	Power factor	Cooling	% -	94	/ 94
l	1 Ower lactor	Heating	70	95	/ 95
	EER	Cooling	<u> </u>		27
	COP	Heating		3.	70
	Sound power level	Cooling		60	63
	Courta power level	Heating			00
	Sound pressure level	Cooling	dB(A)	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	54
		Heating	L	1-111.40 111.00 NIE.00 LO.07	50
	Silent mode sound pressu	re level		_	Cooling: 45 / Heating: 45
Exterior dim	ensions (Height x Width x I	Depth)	mm	210 × 1,070 × 690	640×800(+71)×290
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	•		kg	28	45
	r type & Q'ty			_	RMT5113MCE2 (Twin rotary type)×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		Q.	_	0.45 MA68
	(Type, amount, pre-charge	lenath)	kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)
Heat exchanger			1.9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					tronic expansion valve
Fan type & 0				Centrifugal fan ×2	Propeller fan ×1
	Starting method)		W	25 < Direct line start >	34 < Direct line start >
Air flow	,	Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	40 33
Available ev	ternal static pressure	ricating	Pa	0	_
Outside air i			ıα	Not possible	<u> </u>
	ality / Quantity			Pocket plastic net ×2(Washable)	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hear			w	0	— — —
	Remote control		''	<u> </u>	E5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature control		+		by electronics
control	Operation display				/ellow, CHECK: Yellow
	1 - 1- 3. a a piaj			·	tat for fan motor.
					on thermostat.
Safety equip	oments			•	tat for fan motor.
					emperature protection.
	Refrigerant piping size (O.	.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") Pipe	φ 6.35(1/4")x0.8 O/U φ 6.35 (1/4") φ 12.7(1/2")x0.8 φ 12.7 (1/2")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	- iaie pipilig	
data	Insulation for piping		111	Noossan /hath l	 Liquid & Gas lines)
Gala	Refrigerant line (one way)	lanath	m	, ,	.30m
	Vertical height diff. between O.		m m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
	Drain hose	o. and i.U.	111	Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 5pcs
Drain pump	, max lift height		mm	_	_
Recommended breaker size			Α	-	_
L.R.A. (Lock	ked rotor ampere)		Α	6	.2
Interconnec		ımber		1.5mm ² ×4 cores (Including earth cable	e) / Termainal block (Screw fixing type)
IP number				IPX0	IPX4
Standard ac	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet
Option parts	S			-	
	1) The data are measured a			litions The pipe length is	

The	pipe	length	is	7.5m.

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1805151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973/F

			Model	FDEN60	DZMXVF
Item				Indoor unit FDEN60VF	Outdoor unit SRC60ZMX-S
Power source	ce				50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW kW) ~ 6.3(Max.)]
	Nominal heating capacity	Nominal heating capacity (range) Power Cooling		6.7 [0.6(Min.))∼ 7.1(Max.)]
	Power			1.	78
	consumption	Heating	kW	1.	87
	Max power consumption			2.	90
	Running	Cooling		8.1 /	/ 8.5
	current	Heating	Α	8.7	/ 9.1
Operation	Inrush current, max currer	nt		5 ,	15
data	Power factor	Cooling	%	96,	/ 95
uaia	Power lactor	Heating	70	93 ,	/ 93
	EER	Cooling		3.	15
	COP	Heating		3.	58
	6	Cooling		60	0.4
	Sound power level	Heating		60	64
		Cooling	dB(A)	D.I.I. 40 III. 44 M. 00 I. 00	5.4
	Sound pressure level	Heating	` ´	P-Hi: 48 Hi: 41 Me: 39 Lo: 38	54
	Silent mode sound pressu		İ	_	Cooling: 45 / Heating: 45
				0.10 1.000	-
Exterior dim	ensions (Height x Width x	Depth)	mm	210 × 1,320 × 690	640×800(+71)×290
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	37	45
	r type & Q'ty		g	-	RMT5113MCE2 (Twin rotary type)×1
_	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		e l	_	0.45 MA68
	(Type, amount, pre-charge	lenath)	kg	R410A 1 5kg in outdoor unit (incl. t	the amount for the piping of : 15m)
Heat exchanger		, longtil	ı.ı.g	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant control				tronic expansion valve	
Fan type & 0				Centrifugal fan ×4	Propeller fan ×1
	Starting method)		W	20 ×2 < Direct line start >	34 < Direct line start >
Air flow	<u> </u>	Cooling	m³/min	P-Hi: 20 Hi: 16 Me: 14 Lo: 12	41.5
		Heating			39
	ternal static pressure		Pa	0	-
Outside air i				Not possible	-
	ality / Quantity			Pocket plastic net ×2(Washable)	-
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric heat	ter		W	0	_
Operation	Remote control				5 , RCH-E3 wireless : RCN-E1R
control	Room temperature contro				by electronics
	Operation display			RUN: Green, TIMER: \	
					tat for fan motor.
Safety equip	oments				on thermostat.
,	•			Internal thermos	
	T				emperature protection.
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U φ 6.35 (1/4") Pipe	
		,			b 12.7(1/2")x0.8 φ 12.7 (1/2")
ļ	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	-	<u> </u>
data	Insulation for piping				Liquid & Gas lines)
	Refrigerant line (one way)		m		.30m
	Vertical height diff. between O.	.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
Dura lin	Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 5pcs
Drain pump, max lift height			mm	_	_
	ded breaker size		Α		<u>-</u> -
	(ed rotor ampere)		Α		.5
Interconnec	ting wires Size x Core no	umber		, ,	e) / Termainal block (Screw fixing type)
IP number				IPX0	IPX4
Standard ac				Mounting kit, Drain hose	Drain elbow, Drain hole grommet
Option parts	Option parts — — — — — — — — — — — — — — — — — — —				

The	pipe	length	is	7.5m.

` '		O			11 0
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973<u></u>♠

			Model	FDEN71	VNXVF1	
Item				Indoor unit FDEN71VF1	Outdoor unit FDC71VNX	
Power sour		_			50Hz / 220V 60Hz	
	Nominal cooling capacity	<u> </u>	kW)∼ 8.0(Max.)]	
Nominal heating capacity (range		, , , , , , , , , , , , , , , , , , , 	kW	8.0 [3.6(Min.)~ 9.0(Max.)]		
	Power	Cooling			11	
	consumption	Heating	kW		11	
	Max power consumption				38	
	Running	Cooling		9.4	/ 9.8	
	current	Heating	Α [/ 9.8	
Operation	Inrush current, max currer	nt		5 ,	17	
data	Power factor	Cooling	%	9	8	
l		Heating	/0		8	
	EER	Cooling			36	
	COP	Heating		3.	79	
	Sound power level	Cooling		62	66	
	Souria power lever	Heating] [02		
	Sound pressure level	Cooling	dB(A)	P-Hi:50 Hi:41 Me:39 Lo:38	51	
	·	Heating	[1-111.00 111.41 ME.03 LO.00	48	
	Silent mode sound pressu	ire level		_	_	
Exterior dim	nensions (Height x Width x	Denth)	mm	210 × 1,320 × 690	750×880(+88)×340	
		Бериі)	111111	,	` '	
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	37	60	
Compresso	r type & Q'ty			_	RMT5118MDE2×1	
Compresso	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.675 (M-MA68)	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 2.95kg in outdoor unit (incl.	the amount for the piping of : 30m)	
Heat excha	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×1	
Fan motor (Starting method)		W	20 ×2 < Direct line start >	86 < Direct line start>	
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:14 Lo:12	60 50	
Available ex	ternal static pressure	1	Pa	0	_	
Outside air	<u> </u>		. u	Not possible		
	ality / Quantity			Pocket plastic net ×2(Washable)	_	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)	
Electric hea			W	0	20(Crank case heater)	
	Remote control			o a	5 , RCH-E3 wireless : RCN-E1R	
Operation	Room temperature contro	i			by electronics	
control	Operation display	-			/ellow, CHECK: Yellow	
	1-1-1-1-1-1-1			· · · · · · · · · · · · · · · · · · ·	tat for fan motor.	
					on thermostat.	
Safety equi	pments				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
		•		. , , ,	15.88(5/8")x1.0 φ 15.88 (5/8")	
 +-	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m			
data	Insulation for piping	Jan and			Liquid & Gas lines)	
	Refrigerant line (one way)		m		.50m	
	Vertical height diff. between O	.u. and I.U.	m	Max.30m (Outdoor unit is higher) Hose Connectable with VP20(O.D.26)	Max.15m (Outdoor unit is lower) Holes size φ20 x 3pcs	
Drain pump	, max lift height		mm	_	——————————————————————————————————————	
	ded breaker size		Α		_	
	ked rotor ampere)		A		.0	
Interconnec		umber			le) / Termainal block (Screw fixing type)	
IP number	g			IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	——————————————————————————————————————	
Option part						
Sparin part	<u> </u>					

	-			
The	pipe	lenath	İS	7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973<u></u>₽

			Model	FDEN10	0VNXVF1	
Item				Indoor unit FDEN100VF1	Outdoor unit FDC100VNX	
Power source					50Hz / 220V 60Hz	
	Nominal cooling capacity ((range)	kW)~ 11.2(Max.)]	
	Nominal heating capacity (range) Power Cooling		kW	11.2 [4.0(Min.) ~ 12.5(Max.)]		
			ļļ	2.80		
	consumption	Heating	kW		88	
	Max power consumption				61	
	Running	Cooling			/ 13.0	
	current	Heating	A		/ 13.4	
Operation	Inrush current, max curren				24	
data	Power factor	Cooling	%	9	8	
data	1 Ower lactor	Heating	70	9	18	
	EER	Cooling		3.	57	
	COP	Heating		3.	89	
	Sound power level	Cooling		64	70	
	Souria power level	Heating		04	70	
	Cound properties level	Cooling	dB(A)	D. Hi. 46 Hi. 44 May 41 Lay 20	48	
	Sound pressure level	Heating		P-Hi: 46 Hi: 44 Me: 41 Lo: 39	50	
	Silent mode sound pressu	re level	[_	_	
Exterior dire	anniana (Haiabt y Width y F)anth)	na na	250 1 600 600	1200070270	
Exterior aim	ensions (Height x Width x [Jeptn)	mm	250 × 1,620 × 690	1300×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	49	105	
	r type & Q'ty			_	RMT5134MDE2×1	
	r motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q.	_	0.9 M-MA68	
	(Type, amount, pre-charge	lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control				<u> </u>	pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×2	
	Starting method)		W	30 ×2 < Direct line start >	86 ×2 < Direct line start >	
Air flow	,	Cooling Heating	m³/min	P-Hi: 28 Hi: 26 Me: 23 Lo: 21	100	
Available ev	ternal static pressure	ricating	Pa	0	<u>_</u>	
Outside air			Ια	Not possible	<u> </u>	
	ality / Quantity			Pocket plastic net ×2(Washable)	<u> </u>	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	nubber sieeve(ioriairmotor)	20(Crank case heater)	
Liectific flea	Remote control		VV		E5 , RCH-E3 wireless : RCN-E1R	
Operation	Room temperature control				by electronics	
control					/ellow, CHECK: Yellow	
	Operation display				tat for fan motor.	
					on thermostat.	
Safety equip	oments			·	tat for fan motor.	
					emperature protection.	
					φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	Refrigerant piping size (O.	.D.)	mm		φ 9.52 (3/6) x0.6	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	— —		
data	Insulation for piping		- '''	Necessary (both I	 _iquid & Gas lines)	
Gala	Refrigerant line (one way)	longth	m	, · · · · · · · · · · · · · · · · · · ·	100m	
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	o. and i.U.	m	Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs	
		mm	- I lose Connectable With VP20(O.D.26)	πυίες δίζε φ ζυ x δρύς		
Drain pump, max lift height Recommended breaker size		mm ^	-	-		
			A	-		
	ked rotor ampere) ting wires Size x Core nu	ımbo:	Α			
Interconnect IP number	ung wires poize x Core nu	mber		φ 1.6mm×3 cores (including earth cab	le) / Termainal block (Screw fixing type) IP24	
Standard ac	consorios			Mounting kit, Drain hose		
			 		Edging	
Option parts —						

The	pipe	length	is	7.5m.

. ,		•			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973A

			Model	FDEN10	DVSXVF1
Item				Indoor unit FDEN100VF1	Outdoor unit FDC100VSX
Power sour	rce				50Hz / 380V 60Hz
	Nominal cooling capacity	 	kW		~ 11.2(Max.)]
	Nominal heating capacity	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	kW	11.2 [4.0(Min.)	· · · · · ·
	Power	Cooling			80
	consumption	Heating	kW	2.	88
	Max power consumption				76
	Running	Cooling		4.1 /	/ 4.3
	current	Heating	A		/ 4.5
Operation	Inrush current, max currer	nt		5 ,	15
data	Power factor	Cooling	%	9	9
data	Fower lactor	Heating	70	99 /	/ 97
	EER	Cooling		3.	57
	COP	Heating		3.	89
	Cound newer level	Cooling		64	70
	Sound power level	Heating]	04	70
ı		Cooling	dB(A)	D.I. 40 II. 44 M. 44 I. 00	48
	Sound pressure level	Heating	'	P-Hi: 46 Hi: 44 Me: 41 Lo: 39	50
	Silent mode sound pressu	re level	1 1	_	_
		D 11.)		050 4 000 000	1000 070 070
Exterior ain	nensions (Height x Width x	Deptn)	mm	250 × 1,620 × 690	1300×970×370
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	49	105
	or type & Q'ty				RMT5134MDE3×1
	or motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		l	_	0.9 M-MA68
	(Type, amount, pre-charge	e lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	he amount for the piping of : 30m)
Heat excha		, .o., g., .,	ıg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×4	Propeller fan ×2
	(Starting method)		W	30 ×2 < Direct line start >	86 ×2 < Direct line start >
Air flow	(Cooling Heating	m³/min	P-Hi:28 Hi:26 Me:23 Lo:21	100
Available ex	xternal static pressure	ricating	Pa	0	
Outside air			ıα	Not possible	_
	uality / Quantity	-		Pocket plastic net ×2(Washable)	<u>_</u> _
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	n (1000001 3100000(101 101 1110101)	20(Crank case heater)
LICOTIO TICC	Remote control		**	(option) wired : BC-EY1A BC-E	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature contro				
control	Operation display	1		Thermostat by electronics RUN: Green. TIMER: Yellow. CHECK: Yellow	
	Operation display				tat for fan motor.
					on thermostat.
Safety equi	ipments			Internal thermos	
				Abnormal discharge to	
				Liquid line: I/U ϕ 9.52 (3/8") Pipe	
	Refrigerant piping size (O	.D.)	mm		15.88(5/8")x1.0 φ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation			m	— — — — — — — — — — — — — — — — — — —	
data	Insulation for piping		- '''	Necessary (both L	iquid & Gas lines)
Gulu	Refrigerant line (one way)	length	m		100m
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	.o. and 1.0.	111	Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs
Drain pump, max lift height		mm	Will VF20(O.D.20)	- Ιοίεο δίζε ψευ λ όμος	
	nded breaker size		A	_ -	
	ked rotor ampere)				.0
		ımber	Α		e) / Termainal block (Screw fixing type)
Interconnec	cting wires Size x Core no	unner			7 0 71 7
IP number Standard a				IPX0	IP24
				Mounting kit, Drain hose	Edging
Option part	ıs				_

The pipe le	ngth is 7.5m.
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. ,					
Item	Indoor air temperature Outdoor air temperature				Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

PFA003Z973

			Model	FDEN12	5VNXVF		
Item				Indoor unit FDEN125VF	Outdoor unit FDC125VNX		
Power sour	1				50Hz / 220V 60Hz		
	Nominal cooling capacity		kW	12.5 [5.0(Min.)			
	Nominal heating capacity	` 	kW	- 1 - 1 / - 1 / - 1			
	Power	Cooling			86		
	consumption	Heating	kW	3.	77		
	Max power consumption			6.	18		
	Running	Cooling		17.1 /	/ 17.9		
	current	Heating	A		/ 17.5		
Operation	Inrush current, max currer	nt		5 ,	26		
data	Power factor	Cooling	%	9	8		
data	Fower lactor	Heating	70	9	8		
	EER	Cooling		3.:	24		
	COP	Heating		3.	71		
	Cound nower level	Cooling		67	70		
	Sound power level	Heating]	07	70		
ı		Cooling	dB(A)	D.I. 50 II. 40 M. 44 I. 40	48		
	Sound pressure level	Heating	'	P-Hi:50 Hi:46 Me:44 Lo:43	50		
	Silent mode sound pressu	re level	1 1	_	_		
- · · · ·		D 11.)		050 4 000 000	1000 070 070		
Exterior ain	nensions (Height x Width x	Deptn)	mm	250 × 1,620 × 690	1300×970×370		
Exterior app	pearance	,		Plaster White	Stucco White		
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	49	105		
	or type & Q'ty		g		RMT5134MDE2×1		
	or motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		e l	_	0.9 M-MA68		
	(Type, amount, pre-charge	lenath)	kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat excha		, lorigin,	ı Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control				pansion valve			
Fan type &				Centrifugal fan ×4	Propeller fan ×2		
	(Starting method)		w	40 ×2 < Direct line start >	86 ×2 < Direct line start >		
Air flow	(Cooling Heating	m³/min	P-Hi:32 Hi:29 Me:26 Lo:23	100		
Δvailable ex	kternal static pressure	ricating	Pa	0			
Outside air			ια	Not possible			
	uality / Quantity			Pocket plastic net ×2(Washable)			
	pration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			w		20(Crank case heater)		
Liectific flea	Remote control		VV	(antion) wired : BC EV1A BC E	5 , RCH-E3 wireless : RCN-E1R		
Operation	Room temperature contro				by electronics		
control	Operation display	1			/ellow. CHECK: Yellow		
	Toperation display				tat for fan motor.		
					on thermostat.		
Safety equi	pments				tat for fan motor.		
				Abnormal discharge to			
				Liquid line: I/U ϕ 9.52 (3/8") Pipe			
	Refrigerant piping size (O	.D.)	mm		ϕ 9.52(3/8)x0.8		
	Connecting method			, , , ,			
Installation	Attached length of piping		m	Flare piping	Flare piping		
data	0 11 0		m	Noncom : /b - +b			
udid	Insulation for piping	longth	p==				
	Refrigerant line (one way)		m		100m May 15m (Outdoor unit in lower)		
	Vertical height diff. between O.	o. and i.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose Drain pump, max lift height		m	Hose Connectable with VP20(O.D.26)	Holes size φ20 x 3pcs			
	<u> </u>		mm		_		
	ded breaker size		A				
	ked rotor ampere)		Α		.0		
Interconnec	cting wires Size x Core nu	umper			e) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Edging		
Option part	S			-	_		

The pipe length is 7.5m	The	pipe	length	is	7.5m
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973A

			Model	FDEN12	25VSXVF	
Item				Indoor unit FDEN125VF	Outdoor unit FDC125VSX	
Power sour				3 Phase 380-415V	50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.)~ 14.0(Max.)]		
	Nominal heating capacity		kW	14.0 [4.0(Min.) ~ 18.0(Max.)]	
	Power	Cooling] [3.	86	
	consumption	Heating	kW		77	
	Max power consumption			7.	72	
	Running	Cooling		5.7	/ 6.0	
	current	Heating	A	5.6	/ 5.8	
O	Inrush current, max curren	it		5 ,	15	
Operation	Danier factori	Cooling	0/	g	8	
data	Power factor	Heating	%	97	/ 99	
	EER	Cooling		3.	24	
	COP	Heating	1 [3.	71	
		Cooling				
	Sound power level	Heating		67	70	
		Cooling	dB(A)		48	
	Sound pressure level	Heating	(7	P-Hi: 50 Hi: 46 Me: 44 Lo: 43	50	
	Silent mode sound pressu		1 1	_	_	
	Cheff mode sound pressu	10 10 001				
Exterior din	nensions (Height x Width x I	Depth)	mm	250 × 1,620 × 690	1300×970×370	
Exterior app	nearance			Plaster White	Stucco White	
(Munsell co	•			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	49	105	
	or type & Q'ty		Ng		RMT5134MDE3×1	
	or motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		Q.		0.9 M-MA68	
	(Type, amount, pre-charge	longth)		P410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
		lengin)	kg	Louver fin & inner grooved tubing	110 /	
Heat exchanger Refrigerant control					M shape fin & inner grooved tubing	
					pansion valve	
Fan type &			147	Centrifugal fan ×4	Propeller fan ×2	
ran motor ((Starting method)	0	W	40 ×2 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 29 Me: 26 Lo: 23	100	
	xternal static pressure		Pa	0	_	
Outside air				Not possible	_	
Air filter, Qι	uality / Quantity			Pocket plastic net ×2(Washable) —		
Shock & vit	bration absorber			Rubber sleeve(for fan motor) Rubber sleeve(for compres		
Electric hea	ater		W	0 20(Crank case heater)		
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-E1R		
control	Room temperature contro			Thermostat b	by electronics	
55111101	Operation display			RUN: Green, TIMER: \	/ellow, CHECK: Yellow	
				Internal thermos	tat for fan motor.	
Safety equi	inments			Frost protection	on thermostat.	
carety equi	pinonto				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O	D)	mm	Liquid line: I/U ϕ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
	0 11 0 (.D. j	111111	Gas line: ϕ 15.88 (5/8") ϕ	15.88(5/8")x1.0	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	_	
data	Insulation for piping			Necessary (both I	_iquid & Gas lines)	
	Refrigerant line (one way)	length	m	Max.	100m	
	Vertical height diff. between O.	U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs		
Drain pump	o, max lift height		mm	-	_	
	nded breaker size		Α	-		
L.R.A. (Loc	ked rotor ampere)		Α	5	.0	
Interconnec		ımber		ϕ 1.6mm×3 cores (Including earth cab	le) / Termainal block (Screw fixing type)	
IP number	· · · · · · · · · · · · · · · · · · ·			IPX0	IP24	
Standard a	ccessories			Mounting kit, Drain hose	Edging	
Option part					_	
, p						

The pipe le	ngth is 7.5m.
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

PFA003Z973<u></u>♠

			Model	FDEN14	0VNXVF	
Item				Indoor unit FDEN140VF	Outdoor unit FDC140VNX	
Power sour	rce				50Hz / 220V 60Hz	
	Nominal cooling capacity	 	kW	14.0 [5.0(Min.)		
	Nominal heating capacity	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	kW			
	Power	Cooling			98	
	consumption	Heating	kW	4.	69	
	Max power consumption				97	
	Running	Cooling		22.1	/ 23.1	
	current	Heating	A	20.8	/ 21.8	
Operation	Inrush current, max currer	nt		5 ,	26	
data	Power factor	Cooling	%		8	
data	1 Ower factor	Heating	/0		8	
	EER	Cooling			81	
	COP	Heating		3.	41	
	Sound power level	Cooling		67	72	
		Heating	4D(V)		40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 50 Hi: 46 Me: 44 Lo: 43	49	
	·	Heating			52	
	Silent mode sound pressu	ire ievel			_	
Exterior din	nensions (Height x Width x	Depth)	mm	250 × 1,620 × 690	1300×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	49	105	
Compresso	or type & Q'ty			_	RMT5134MDE2×1	
Compresso	or motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat excha	inger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2	
Fan motor	(Starting method)		W	40 ×2 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi: 32 Hi: 29 Me: 26 Lo: 23	100	
Available ex	xternal static pressure	1	Pa	0	_	
Outside air	<u> </u>			Not possible		
	uality / Quantity			Pocket plastic net ×2(Washable)	_	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	0	20(Crank case heater)	
Liootiio iiot	Remote control			(option) wired : RC-EX1A RC-E	5 , RCH-E3 wireless : RCN-E1R	
Operation	Room temperature contro	Ī			by electronics	
control	Operation display	•			/ellow. CHECK: Yellow	
	operation display				tat for fan motor.	
					on thermostat.	
Safety equi	pments				tat for fan motor.	
				Abnormal discharge to		
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") Pipe	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
				, , , ,	15.88(5/8")x1.0 φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	<u> </u>		
data	Insulation for piping			, ,	Liquid & Gas lines)	
	Refrigerant line (one way)		m		100m	
	Vertical height diff. between O	.u. and I.U.	m	Max.30m (Outdoor unit is higher) Hose Connectable with VP20(O.D.26)	Max.15m (Outdoor unit is lower) Holes size φ20 x 3pcs	
Drain pump, max lift height		mm	—	— — — — — — — — — — — — — — — — — — —		
	nded breaker size		A			
	ked rotor ampere)		A		.0	
Interconnec		ımher	_ ^		le) / Termainal block (Screw fixing type)	
IP number	oung wires Dize x Cole III	JIIIDEI		φ r.onimx3 cores (including earth cab		
Standard a	ccessories			Mounting kit, Drain hose	Edging	
					Luging	
Option part	10					

The pipe le	ngth is 7.5m.
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. ,					
Item	Item Indoor air temperature Outdoor air temperature			Standards	
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

PFA003Z973A

			Model	FDEN14	OVSXVF
Item				Indoor unit FDEN140VF	Outdoor unit FDC140VSX
Power sour	1				50Hz / 380V 60Hz
	Nominal cooling capacity		kW	14.0 [5.0(Min.)	
Nominal heating capacity (range)		kW	16.0 [4.0(Min.)		
	Power	Cooling			98
consumption He		Heating	kW	4.	69
	Max power consumption				72
	Running	Cooling		7.3	/ 7.7
	current	Heating	A		/ 7.3
Operation	Inrush current, max currer	nt		5 ,	15
data	Power factor	Cooling	%	9	8
data	Fower lactor	Heating	70	9	8
	EER	Cooling		2.	81
	COP	Heating		3.	41
	Cound nower level	Cooling		67	72
	Sound power level	Heating]	07	12
ı		Cooling	dB(A)	D.I. 50 II. 40 M. 44 I. 40	49
	Sound pressure level	Heating	'	P-Hi:50 Hi:46 Me:44 Lo:43	52
	Silent mode sound pressu	re level	1 1	_	_
				050 4 000 000	1000 070 070
Exterior ain	nensions (Height x Width x	Deptn)	mm	250 × 1,620 × 690	1300×970×370
Exterior app	pearance	,		Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	49	105
	or type & Q'ty		g		RMT5134MDE3×1
	or motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		e l	_	0.9 M-MA68
	(Type, amount, pre-charge	lenath)	kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)
Heat exchanger		, lorigin,	I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant control				pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×2
	(Starting method)		w	40 ×2 < Direct line start >	86 ×2 < Direct line start >
Air flow	(Cooling Heating	m³/min	P-Hi:32 Hi:29 Me:26 Lo:23	100
Δvailable ex	kternal static pressure	ricating	Pa	0	
Outside air			ια	Not possible	
	uality / Quantity	-		Pocket plastic net ×2(Washable)	
	pration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			w		20(Crank case heater)
Liectific flea	Remote control		VV	(antion) wired : BC EV1A BC E	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature contro				by electronics
control	Operation display	1			/ellow, CHECK: Yellow
	Toperation display			· · · · · · · · · · · · · · · · · · ·	tat for fan motor.
					on thermostat.
Safety equi	pments				tat for fan motor.
				Abnormal discharge to	
				Liquid line: I/U ϕ 9.52 (3/8") Pipe	
	Refrigerant piping size (O	.D.)	mm		ϕ 9.52(3/8)x0.8 O/O ϕ 9.52 (3/8) 15.88(5/8")x1.0 ϕ 15.88 (5/8")
	Connecting method			, , , ,	
Installation	Attached length of piping		m	Flare piping	Flare piping
data	0 11 0		m	Noncom : /b - +b	
udid	Insulation for piping	longth	p==		
	Refrigerant line (one way)		m		100m May 15m (Outdoor unit in lower)
	Vertical height diff. between O.	o. and i.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Droin	Drain hose	.,	m	Hose Connectable with VP20(O.D.26)	Holes size φ20 x 3pcs
Drain pump, max lift height Recommended breaker size		mm		_	
			A		
	ked rotor ampere)		Α		.0
Interconnec	cting wires Size x Core nu	umper			e) / Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad				Mounting kit, Drain hose	Edging
Option part	Option parts — —				

The pipe length is 7.5m	The	pipe	length	is	7.5m
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

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(b) Twin type

			Model	FDEN71	VNXPVF
Item				Indoor unit FDEN40VF (2 units)	Outdoor unit FDC71VNX
Power sour	rce			1 Phase 220-240V	50Hz / 220V 60Hz
Nominal cooling capacity (range)		kW	7.1 [3.2(Min.)	~ 8.0(Max.)]	
Nominal heating capacity (range)			kW	8.0 [3.6(Min.)	→ 9.0(Max.)]
	Power	Cooling		2.	08
	consumption	Heating	kW	2	40
	Max power consumption			3.	84
	Running	Cooling		9.2	/ 9.6
	current	Heating	A	10.7	/ 11.2
Onevetien	Inrush current, max currer	nt		5 ,	17
Operation data	Power factor	Cooling	%	9	8
data	Fower lactor	Heating	70	9	8
	EER	Cooling]]	3.	
	COP	Heating		3.	33
	Sound power level	Cooling Heating		60	66
		Cooling	dB(A)		51
	Sound pressure level	Heating	(,)	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	48
	Silent mode sound pressu		1 1	_	-
	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	750×880(+88)×340
Exterior ap	•			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	28	60
	or type & Q'ty			_	RMT5118MDE2×1
	or motor (Starting method)		kW		Direct line start
	oil (Amount, type)		l	_	0.675 (M-MA68)
	(Type, amount, pre-charge	e length)	kg	R410A 2.95kg in outdoor unit (incl.	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×1
Fan motor	(Starting method)		W	25 < Direct line start >	86 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	60 50
Available ex	xternal static pressure		Pa	0	-
Outside air	intake			Not possible	_
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	_
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ater		W	0	20(Crank case heater)
Operation	Remote control			(option) wired: RC-EX1A, RC-E	5 , RCH-E3 wireless : RCN-E1R
Operation control	Room temperature contro			Thermostat b	by electronics
CONTROL	Operation display			RUN: Green, TIMER: Y	'ellow, CHECK: Yellow
				Internal thermos	tat for fan motor.
Safety equi	inments			Frost protection	
outory oqui	priorie			Internal thermos	
	Defiles and alleles along to	D.)		Abnormal discharge to Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x	
	Refrigerant piping size (O	.ט.)	mm		0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m		_
data	Insulation for piping			Necessary (both L	iquid & Gas lines)
	Refrigerant line (one way)		m		.50m
	Vertical height diff. between O	.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height		mm	_		
Recommer	nded breaker size		Α		-
L.R.A. (Loc	ked rotor ampere)		А		.0
	cting wires Size x Core no	umber			e) / Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard a	ccessories			Mounting kit, Drain hose	
Option part	ts			-	

	-			
The	pipe	lenath	İS	7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

			Model	FDEN100	OVNXPVF	
Item			Model	Indoor unit FDEN50VF (2 units)	Outdoor unit FDC100VNX	
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 11.2(Max.)]	
Nominal heating capacity (range)		kW	11.2 [4.0(Min.))~ 12.5(Max.)]		
Power Cooling consumption Heating			3.	02		
		kW	3.	49		
	Max power consumption			5.	58	
	Running	Cooling		13.4	/ 14.0	
	current	Heating	Α	15.4	/ 16.2	
Operation	Inrush current, max curren	ıt		5 ,	24	
data	Power factor	Cooling	%	9	8	
data	1 Ower lactor	Heating	/0	9	8	
	EER	Cooling		3.	31	
	COP	Heating		3.	21	
	Sound power level	Cooling		60	70	
	Souria power lever	Heating		00	10	
	Sound propoure lovel	Cooling	dB(A)	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	48	
	Sound pressure level	Heating		17111.40 111.35 NIE.30 LU.37	50	
	Silent mode sound pressu	re level		_	_	
Exterior dim	nensions (Height x Width x I	Denth)	mm	210 × 1,070 × 690	1300×970×370	
LXterior diri	(i leight x viidth x i	Deptilij	1111111	210 × 1,070 × 090	1300×970×370	
Exterior app				Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	28	105	
Compresso	r type & Q'ty			_	RMT5134MDE2×1	
Compresso	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		Q	_	0.9 M-MA68	
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4,5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &				Centrifugal fan ×2	Propeller fan ×2	
Fan motor (Starting method)		W	25 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	100	
Available ex	ternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	0 20(Crank case heater)		
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-E1R		
Operation	Room temperature contro			Thermostat by electronics		
control	Operation display			RUN: Green, TIMER: Y	'ellow, CHECK: Yellow	
				Internal thermos	tat for fan motor.	
Safety equi	nments				on thermostat.	
carety equi	pinonto				tat for fan motor.	
	ı				emperature protection.	
	Refrigerant piping size (O.	.D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	- -	_	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way)	length	m	Max.	100m	
	Vertical height diff. between O.	U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose				Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height			mm	-	_	
Recommended breaker size		Α		_		
L.R.A. (Locked rotor ampere)			Α	5	.0	
Interconnec	ting wires Size x Core nu	ımber		ϕ 1.6mm×3 cores (Including earth cab	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	Edging	
Option part	s				_	

The	pipe	length	is	7.5m.

` '		O	11 0		
Item	Item Indoor air temperature Outdoor air temperature			Standards	
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

			Model	FDEN10	OVSXPVF
Item				Indoor unit FDEN50VF (2 units)	Outdoor unit FDC100VSX
Power source	ce			3 Phase 380-415V	50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.)~ 11.2(Max.)]
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]
	Power	Cooling		3.	02
	consumption	Heating	kW	3.	49
	Max power consumption		[[6.	98
	Running	Cooling		4.4	/ 4.7
	current	Heating	Α	5.1	/ 5.4
	Inrush current, max curren	t	[5 ,	15
Operation	B ()	Cooling	0/	99	/ 98
data	Power factor	Heating	%	98	/ 99
	EER	Cooling		3.	31
	COP	Heating	1 1	3.	21
		Cooling			
	Sound power level	Heating	1	60	70
		Cooling	dB(A)		48
	Sound pressure level	Heating	` ` /	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	50
	Silent mode sound pressu		1 1	_	_
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,070 × 690	1300×970×370
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	, ,	,	kg	28	105
	r type & Q'ty		9		RMT5134MDE3×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		Q.		0.9 M-MA68
	(Type, amount, pre-charge	lenath)	kg	B410A 4 5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit
Heat exchanger		iongin	ı ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant				<u> </u>	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×2
	Starting method)		W	25 < Direct line start >	86 ×2 < Direct line start >
,	otarting motiloa)	Cooling			
Air flow		Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	100
Available ex	ternal static pressure		Pa	0	_
Outside air	intake			Not possible	_
Air filter, Qu	ality / Quantity			Pocket plastic net ×2(Washable)	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ter		W	0	20(Crank case heater)
	Remote control			(option) wired: RC-EX1A, RC-E	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature control				by electronics
control	Operation display				/ellow, CHECK: Yellow
				·	tat for fan motor.
Cofoty cont	amanta				on thermostat.
Safety equip	oments			·	tat for fan motor.
					emperature protection.
	Defricement piping aller / O	D /		Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	Refrigerant piping size (O.	.U.)	mm	Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")x(0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	_
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)
	Refrigerant line (one way)	length	m		100m
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Drain hose			Hose Connectable with VP20(O.D.26)	Holes size φ20 x 3pcs	
Drain pump, max lift height			mm	_	-
Recommended breaker size			Α	-	_
L.R.A. (Locked rotor ampere)			Α	5	.0
Interconnec		ımber			le) / Termainal block (Screw fixing type)
IP number	J 2 2210110			IPX0	IP24
Standard ac	ccessories			Mounting kit, Drain hose	Edging
Option parts					
phion parts —					

The	nine	length	is	7.5m

			_			
Item Indoor air te			emperature	Outdoor air	temperature	Standards
Ope	eration	DB	WB	DB	WB	Staridards
	Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1805151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

			Model	FDEN12	5VNXPVF	
Item			model	Indoor unit FDEN60VF (2 units)	Outdoor unit FDC125VNX	
Power sour	ce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.)~ 14.0(Max.)]	
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.)~ 17.0(Max.)]	
	Power Cooling			4.06		
	consumption	Heating	kW	3.	70	
	Max power consumption] [6.	50	
	Running Cooling			18.0	/ 18.8	
	current Heating		Α	16.4 / 17.2		
0 "	Inrush current, max curren	t	[[5 ,	26	
Operation	B ()	Cooling	0/	98		
data	Power factor	Heating	%	9	8	
	EER	Cooling		3.	08	
	COP	Heating		3.	78	
		Cooling				
	Sound power level	Heating	1	60	70	
		Cooling	dB(A)		48	
	Sound pressure level	Heating	' '	P-Hi:48 Hi:41 Me:39 Lo:38	50	
	Silent mode sound pressu		1 1	_	_	
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	1300×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		kg	37	105	
	r type & Q'ty		ING		RMT5134MDE2×1	
	r motor (Starting method)		kW		Direct line start	
	oil (Amount, type)		2		0.9 M-MA68	
	(Type, amount, pre-charge	longth)	kg	P410A 4 5kg/Pro charged up to the	e piping length of 30m)Outdoor unit	
Heat excha		lengin)	ry .	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				<u> </u>	pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×2	
	Starting method)		W	20 ×2 < Direct line start >	86 ×2 < Direct line start >	
ran motor (Starting method)	Cooling		20 x2 < Direct line start >	80 X2 < Direct line start >	
Air flow		Heating	m³/min	P-Hi:20 Hi:16 Me:14 Lo:12	100	
	ternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
	ality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	0 20(Crank case heater)		
Operation	Remote control				5, RCH-E3 wireless : RCN-E1R	
control	Room temperature control				by electronics	
00111101	Operation display			RUN: Green, TIMER: \	/ellow, CHECK: Yellow	
				Internal thermos	tat for fan motor.	
Safety equip	oments			•	on thermostat.	
carety equi	omonto				tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O.	D)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")	(0.8 ① ϕ 9.52(3/8")x0.8 O/U ϕ 9.52 (3/8")	
	0 11 0 1	,			0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	_	
data	Insulation for piping		I	Necessary (both I	_iquid & Gas lines)	
	Refrigerant line (one way)		m	Max.	100m	
	Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs		
Drain pump, max lift height			mm	_	_	
Recommended breaker size			Α			
L.R.A. (Locked rotor ampere)			Α	5	.0	
Interconnec	ting wires Size x Core nu	ımber		φ 1.6mm×3 cores (Including earth cab	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad	ccessories			Mounting kit, Drain hose	Edging	
Option part	S			-	_	
Οριίστι μαι ισ						

The	pipe	length	is	7.5m.

			_			
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Op	eration	DB	WB	DB	WB	Standards
	Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
	Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

			Model	FDFN12	5VSXPVF	
Item			MOUEI	Indoor unit FDEN60VF (2 units)	Outdoor unit FDC125VSX	
Power sour	ce				50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.)	→ 14.0(Max.)]	
	Nominal heating capacity (range)		kW	14.0 [4.0(Min.)	→ 18.0(Max.)]	
	Power	Cooling		4.	06	
	consumption	Heating	kW	3.	70	
	Max power consumption			8.	12	
	Running	Cooling		6.0	76.3	
	current	Heating	Α	5.4	/ 5.7	
	Inrush current, max currer	nt		5 ,	15	
Operation data	Power factor	Cooling	%	9	8	
uata	Fower factor	Heating	70	9	9	
	EER	Cooling		3.08		
	COP	Heating		3.	78	
	Sound power level	Cooling		60	70	
	Sourid power level	Heating		60	70	
	Sound pressure level	Cooling	dB(A)	P-Hi: 48 Hi: 41 Me: 39 Lo: 38	48	
	Sourid pressure level	Heating		F-N1.46 N1.41 We.39 L0.36	50	
	Silent mode sound pressu	ire level		_	_	
Exterior dia	nensions (Height x Width x	Denth)	mm	210 × 1,320 × 690	1300×970×370	
LATERIOI UIII	ieriaiona (i ieigni x wiath x i	Debiii)	11/1111	210 x 1,320 x 030		
Exterior app	oearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	37	105	
	or type & Q'ty			_	RMT5134MDE3×1	
Compresso	or motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4,5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha	nger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &	Q'ty			Centrifugal fan ×4	Propeller fan ×2	
Fan motor ((Starting method)		W	20 ×2 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:14 Lo:12	100	
Available ex	kternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	nter		W	0 20(Crank case heater)		
Operation	Remote control			(option) wired: RC-EX1A, RC-E	5 , RCH-E3 wireless : RCN-E1R	
Operation control	Room temperature contro	1		Thermostat b	by electronics	
CONTROL	Operation display			RUN: Green, TIMER: Yellow, CHECK: Yellow		
				Internal thermos	tat for fan motor.	
Safety equi	nments			•	on thermostat.	
Caroty oqui	pinonto			Internal thermos		
					emperature protection.	
	Refrigerant piping size (O	D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x		
		,			0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	-	
data	Insulation for piping			Necessary (both L	· /	
	Refrigerant line (one way)		m	Max.		
	Vertical height diff. between O.	.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs		
Drain pump, max lift height			mm		_	
Recommended breaker size			Α		-	
	ked rotor ampere)		Α		.0	
Interconnec	cting wires Size x Core no	umber			e) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option part				-		
Note (Note (1) The data are measured at the following conditions The pipe length is 7.5m					

The	pipe	length	is	7.5m.

			_			
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
1	Operation	DB	WB	DB	WB	Staridards
ſ	Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Γ	Heating	20°C	_	7°C	6°C	1805151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U~Branch, ②: Pipe of Branch~I/U

			Model	FDEN140	VNXPVF1
Item			Model	Indoor unit FDEN71VF1 (2 units)	Outdoor unit FDC140VNX
Power sour	ce				50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW)~ 16.0(Max.)]
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.))~ 18.0(Max.)]
	Power Cooling			4.	96
	consumption	Heating	kW	4.	58
	Max power consumption	,		6.	94
	Running	Cooling		22.0	/ 23.0
	current	Heating	A	20.3	/ 21.2
Operation	Inrush current, max curren	1			26
data	Power factor	Cooling	%		8
data		Heating	/ 0		8
	EER	Cooling			82
	COP	Heating		3.	49
	Sound power level	Cooling		62	72
	Courta power lover	Heating		Ü-	
	Sound pressure level	Cooling	dB(A)	P-Hi:50 Hi:41 Me:39 Lo:38	49
	·	Heating		1 111.00 111.41 W.C.00 E0.00	52
	Silent mode sound pressu	re level		_	_
Exterior dim	nensions (Height x Width x I	Depth)	mm	210 × 1,320 × 690	1300×970×370
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	37	105
Compresso	r type & Q'ty		J	<u> </u>	RMT5134MDE2×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		Q.	_	0.9 M-MA68
	(Type, amount, pre-charge	lenath)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit
Heat excha		. J /		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant				9	pansion valve
Fan type &				Centrifugal fan ×4	Propeller fan ×2
	Starting method)		W	20 ×2 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:14 Lo:12	100
Available ex	ternal static pressure	ricating	Pa	0	_
Outside air			u	Not possible	_
	ality / Quantity			Pocket plastic net ×2(Washable)	_
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			w	0 20(Crank case heater)	
	Remote control			Ü	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature contro	l			by electronics
control	Operation display				/ellow. CHECK: Yellow
	, - p 3. a a				tat for fan motor.
					on thermostat.
Safety equip	oments				tat for fan motor.
					emperature protection.
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") ② ϕ 9.52(3/8")x	
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	–	——————————————————————————————————————
data	Insulation for piping				Liquid & Gas lines)
	Refrigerant line (one way)	lenath	m		100m
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose			Hose Connectable with VP20(O.D.26)	Holes size $\phi 20 \times 3pcs$
Drain pump, max lift height			mm	_	-
Recommended breaker size			Α	-	_
L.R.A. (Lock	ked rotor ampere)		Α	5	.0
Interconnec		ımber		φ 1.6mm×3 cores (Including earth cab	le) / Termainal block (Screw fixing type)
IP number				IPX0	IP24
Standard ad	ccessories			Mounting kit, Drain hose	Edging
Option parts	S			-	-

The	pipe	length	is	7.5m.

. ,		•			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

			Model	FDEN140	VSXPVF1	
Item			MOUEI	Indoor unit FDEN71VF1 (2 units)	Outdoor unit FDC140VSX	
Power sour	ce				50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.))~ 16.0(Max.)]	
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.))~ 20.0(Max.)]	
	Power	Cooling		4.	96	
	consumption	Heating	kW	4.	58	
	Max power consumption		1 1	8.	68	
	Running	Cooling		7.2	/ 7.7	
	current	Heating	A	6.7	/ 7.1	
l	Inrush current, max currer	nt	i i	5 ,	15	
Operation	5 ()	Cooling	0.4	99 /	/ 98	
data	Power factor	Heating	%	9	8	
	EER	Cooling		2.	82	
	COP	Heating	1 [3.	49	
	0 1 1	Cooling		00	70	
	Sound power level	Heating	1	62	72	
		Cooling	dB(A)		49	
	Sound pressure level	Heating	`	P-Hi:50 Hi:41 Me:39 Lo:38	52	
	Silent mode sound pressu		1 1	_	_	
F				040 4 000 000	4000 070 070	
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1,320 × 690	1300×970×370	
Exterior app	pearance			Plaster White	Stucco White	
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	37	105	
Compresso	or type & Q'ty		Ť	_	RMT5134MDE3×1	
Compresso	or motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q	_	0.9 M-MA68	
	(Type, amount, pre-charge	e length)	kg	R410A 4,5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit	
Heat excha	nger		Ŭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				<u> </u>	pansion valve	
Fan type &				Centrifugal fan ×4	Propeller fan ×2	
Fan motor ((Starting method)		W	20 ×2 < Direct line start >	86 ×2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:16 Me:14 Lo:12	100	
Available ex	kternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)	_	
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	iter		W	0 20(Crank case heater)		
0	Remote control			(option) wired: RC-EX1A, RC-E	5 , RCH-E3 wireless : RCN-E1R	
Operation	Room temperature contro				by electronics	
control	Operation display			RUN: Green, TIMER: Y	/ellow, CHECK: Yellow	
				Internal thermos	tat for fan motor.	
Safety equi	nments			·	on thermostat.	
Salety equi	pinents			Internal thermos		
					emperature protection.	
	Refrigerant piping size (O	D)	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8")x		
		ر .ن.	11/11/1	Gas line: I/U φ 15.88 (5/8") ② φ 15.88(5/8")>	(1.0 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	_	
data	Insulation for piping			Necessary (both L		
	Refrigerant line (one way)		m		100m	
	Vertical height diff. between O.	.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height			mm	_	_	
Recommended breaker size			Α		_	
	ked rotor ampere)		Α		.0	
Interconnec	cting wires Size x Core nu	umber			e) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option part				-		
Note (Note (1) The data are measured at the following conditions The pipe length is 7.5m					

The	pipe	length	is	7.5m.

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). ① : Pipe of O/U~Branch, ② : Pipe of Branch~I/U

(c) Triple type

			Model	FDEN140	OVNXTVF
Item				Indoor unit FDEN50VF (3 units)	Outdoor unit FDC140VNX
Power sour	rce			1 Phase 220-240V	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)	~ 16.0(Max.)]
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.))~ 18.0(Max.)]
	Power	Cooling			90
	consumption	Heating	kW	4.9	53
	Max power consumption	<u> </u>	1	6.1	
	Running	Cooling		21.7	
	current	Heating	Α	20.1 /	
	Inrush current, max currer			5 .	26
Operation		Cooling		9	
data	Power factor	Heating	%	9	
	EER	Cooling		2.1	
	COP	Heating		3.	
ı	00.	Cooling			
	Sound power level	Heating		60	72
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:46 Hi:39 Me:38 Lo:37	
	Silent mode sound pressu			_	_
Francis 11				010 1070 000	1000 070 070
	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1300×970×370
Exterior ap				Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight			kg	28	105
Compressor type & Q'ty			_	RMT5134MDE2×1	
Compressor motor (Starting method)			kW	_	Direct line start
Refrigerant oil (Amount, type)			l	_	0.9 M-MA68
Refrigerant (Type, amount, pre-charge length)			kg		e piping length of 30m)Outdoor unit
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant	control			Electronic ex	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×2
Fan motor	(Starting method)		W	25 < Direct line start >	86 ×2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	100
Available e	xternal static pressure		Pa	0	_
Outside air				Not possible	_
	uality / Quantity			Pocket plastic net ×2(Washable)	_
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	0	20(Crank case heater)
	Remote control			(option) wired : BC-EX1A . BC-E	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature contro	ı		Thermostat b	•
control	Operation display			RUN: Green, TIMER: Y	
	, ,			Internal thermosi	,
0 ()				Frost protection	
Safety equi	ipments			Internal thermosi	
				Abnormal discharge te	
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")x0	:0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")
	Connecting method			Flare piping	Flare piping
Installation			m		——————————————————————————————————————
data	Insulation for piping		- '''	Necessary (both L	iquid & Gas lines)
Juliu	Refrigerant line (one way)	length	m	Max.	,
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	.o. and 1.0.	111	Hose Connectable with VP20(O.D.26)	Holes size ϕ 20 x 3pcs
Drain pump, max lift height			mm	—	— — —
Recommended breaker size			A		
	ked rotor ampere)		A	5.	
Interconnec		ımher	- ^		e) / Termainal block (Screw fixing type)
IP number	ouring will complete A Colletti	ui i i i i i i		Ψ 1.0ππ/x3 cores (including earth cabi	IP24
Standard a	ccessories			Mounting kit, Drain hose	Edging
Option part				mounting itis, Drain 11000	
	(1) The data are measured a			ditions The pipe length is	7.5

The	pipe	lenath	is	7.5m.

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are three indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). 1 : Pipe of O/U ~ Branch, 2 : Pipe of Branch ~ I/U

			Model	FDEN140	DVSXTVF
Item			Model	Indoor unit FDEN50VF (3 units)	Outdoor unit FDC140VSX
Power sour	ce				50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.))~ 16.0(Max.)]
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.))~ 20.0(Max.)]
	Power	Cooling		4.	90
	consumption	Heating	kW	4.	53
	Max power consumption			8.	58
	Running	Cooling		7.3	7.6
	current	Heating	A	6.7	7.0
	Inrush current, max currer	nt		5 ,	15
Operation	D	Cooling	0/	97 /	/ 98
data	Power factor	Heating	%	97 /	/ 98
	EER	Cooling		2.	86
	COP	Heating		3.	53
	0 1 1	Cooling		00	70
	Sound power level	Heating		60	72
		Cooling	dB(A)	D.I.I. 40 III. 00 M. 00 I. 07	49
	Sound pressure level	Heating	` '	P-Hi: 46 Hi: 39 Me: 38 Lo: 37	52
	Silent mode sound pressu		İ	_	_
F				040 4 670 000	4000 670 670
Exterior din	nensions (Height x Width x	Depth)	mm	210 × 1,070 × 690	1300×970×370
Exterior app	pearance			Plaster White	Stucco White
(Munsell co				(6.8Y8.9/0.2) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	28	105
Compressor type & Q'ty				RMT5134MDE3×1	
Compressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (Amount, type)			l	_	0.9 M-MA68
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant control				<u> </u>	pansion valve
Fan type &				Centrifugal fan ×2	Propeller fan ×2
	(Starting method)		w	25 < Direct line start >	86 ×2 < Direct line start >
Air flow	<u> </u>	Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7	100
Available ex	kternal static pressure	1	Pa	0	
Outside air				Not possible	_
	uality / Quantity			Pocket plastic net ×2(Washable)	_
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	0	20(Crank case heater)
	Remote control			(option) wired: RC-EX1A.RC-E	5 , RCH-E3 wireless : RCN-E1R
Operation	Room temperature contro	i			by electronics
control	Operation display			RUN: Green, TIMER: Y	
				Internal thermos	tat for fan motor.
Cofoty coul	nmonto			Frost protection	on thermostat.
Safety equi	pments			Internal thermos	tat for fan motor.
					emperature protection.
	Refrigerant piping size (O	D)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x	
	neirigerani piping size (O	.U.)	mm		0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping		m	_	
data	Insulation for piping			Necessary (both L	Liquid & Gas lines)
	Refrigerant line (one way)	length	m	Max.	100m
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose			Hose Connectable with VP20(O.D.26)	Holes size φ20 x 3pcs
Drain pump, max lift height			mm		-
Recommended breaker size			Α	-	=
	ked rotor ampere)		Α		.0
Interconnec		umber			le) / Termainal block (Screw fixing type)
IP number	J			IPX0	IP24
Standard ad	ccessories			Mounting kit, Drain hose	Edging
Option part					0 0
	1) The data are measured a	t the feller	wing con	ditions The pipe length is	7.5m

The	nine	length	is	7.5m

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are three indoor units are combined and run together.
- (8) Branching pipe set "DIS-WA1"×1(option). 1 : Pipe of O/U ~ Branch, 2 : Pipe of Branch ~ I/U

(4) Duct connected-High static pressure type (FDU)

			Model	FDU71	VNXVF1
Item				Indoor unit FDU71VF1	Outdoor unit FDC71VNX
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capacity	/ (range)	kW) ~ 8.0(Max.)]
	Nominal heating capacit	y (range)	kW	8.0 [3.6(Min.)~ 9.0(Max.)]
	Power	Cooling			05
	consumption	Heating	kW	2.	01
	Max power consumption	ı	1 1	3.	28
	Running	Cooling		9.1	/ 9.5
	current	Heating	A	9.1	/ 9.5
	Inrush current, max curre	ent	ĺĺ	5 ,	17
Operation		Cooling	0.4	9	98
data	Power factor	Heating	%	g	96
	EER	Cooling		3.	46
	COP	Heating	i i	3.	98
	0 1 1	Cooling		0.5	00
	Sound power level	Heating		65	66
		Cooling	dB(A)		51
	Sound pressure level	Heating	1 `	P-Hi: 38 Hi: 33 Me: 29 Lo: 25	48
	Silent mode sound press		1 1	_	_
				000 05	750 000/ 557 575
Exterior dim	ensions (Height x Width)	Depth)	mm	280 × 950 × 635	750×880(+88)×340
Exterior app	pearance				Stucco White
(Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	- /		kg	34	60
	r type & Q'ty		1.9	——————————————————————————————————————	RMT5118MDE2×1
Compressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (Amount, type)		e l		0.675 M-MA68	
Refrigerant (Type, amount, pre-charge length)		kg	R410A 2 95kg in outdoor unit (incl	the amount for the piping of : 30m)	
Heat exchanger			I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
	Refrigerant control				pansion valve
	Fan type & Q'ty			Centrifugal fan ×2	Propeller fan ×1
	Starting method)		w	130 < Direct line start >	86 < Direct line start >
,	o.a. ang moalouj	Cooling			60
Air flow		Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	50
Available ev	ternal static pressure	Tricating	Pa	Standard: 35 Max: 200	0
Outside air i			. u	Possible	_
	ality / Quantity			Procure locally	
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			w		20 (Crank case heater)
LICOLITO IIGa	Remote control		* *	(ontion) wired : RC-EX1A RC-EF	5 , RCH-E3 wireless : RCN-KIT3-E
Operation	Room temperature contr	ol		· · · · · · · · · · · · · · · · · · ·	by electronics
control	Operation display	<u> </u>		memostat t	_
	Operation display			Overload protect	ion for fan motor.
				·	on thermostat.
Safety equip	oments				tat for fan motor.
					emperature protection.
					φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")
	Refrigerant piping size (O.D.)	mm	, , , ,	φ 15.88(5/8")x1.0 φ 15.88(5/8")
	Connecting method			Flare piping	Flare piping
Installation	Attached length of piping	1	m	—	
data	Insulation for piping				ı Liquid & Gas lines)
	Refrigerant line (one way	/) length	m		.50m
	Vertical height diff. between		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	J.J. WIN I.U.	- '''	Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs
Drain pump, max lift height			mm	Built-in Drain pump, 600	— 1 loies size ψ20 λ 3pcs
			A		<u> </u>
Recommended breaker size L.R.A. (Locked rotor ampere)			A		
Interconnec		numher	_ ^		ole) / Termainal block(Screw fixing type)
IP number	ung wires Size x Core	IUITIDEI		φ τ.επιπ ×3 cores(including earth cab	IP24
Standard ac	noesories			Mounting kit, Drain hose	11724
Option parts				_	<u> </u>
	S 1) The data are measured	at the follow	uina oon		The pine length is 7.5m.

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19℃	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	SOPA	1905191-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.(5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

Mo			Model	FDU100	VNXVF1	
Item				Indoor unit FDU100VF1 Outdoor unit FDC100VN		
Power sour					50Hz / 220V 60Hz	
Nominal cooling capacity (range)			kW)~ 11.2(Max.)]	
	Nominal heating capacit	y (range)	kW	11.2 [4.0(Min.))~ 12.5(Max.)]	
	Power	Cooling] [2.	68	
	consumption	Heating	kW	3.	02	
	Max power consumption	1		4.	83	
	Running	Cooling		12.0	/ 12.5	
	current	Heating	Α [13.5	/ 14.1	
	Inrush current, max curre	ent	[5 ,	25	
Operation	Danier factor	Cooling	0/	9	7	
data	Power factor	Heating	%	9	7	
	EER	Cooling		3.	73	
	COP	Heating	i i	3.	71	
		Cooling		0.5	70	
	Sound power level	Heating		65	70	
		Cooling	dB(A)		48	
	Sound pressure level	Heating	`	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	50	
	Silent mode sound press			_		
Exterior dim	nensions (Height x Width)	(Depth)	mm	280 × 1370 × 740	1300×970×370	
Exterior app	nearance				Stucco White	
(Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	54	105	
Compressor type & Q'ty			Ng	_	RMT5134MDE2×1	
Compressor motor (Starting method)		kW		Direct line start		
Refrigerant oil (Amount, type)		e e		0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)			kg	P410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
0 (31) 11 0 0 1			rg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Heat exchanger Refrigerant control					pansion valve	
Fan type &				Centrifugal fan ×3	Propeller fan ×2	
	Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >	
ran motor (Starting method)	Cooling	VV	100 + 130 < Direct line start >	80 X 2 < Direct line start >	
Air flow		Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	100	
Available ov	ternal static pressure	Trieating	Pa	Standard: 60 Max: 200	0	
Outside air			га	Possible		
	ality / Quantity			Procure locally		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	Nubber sieeve(for fair filotor)	20 (Crank case heater)	
Electric flea	Remote control		VV	(aption) wired : DC EV1A DC E		
Operation	Room temperature control	·ol		(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-KIT3-E		
control		OI		Thermostat by electronics		
	Operation display				ion for for motor	
				·	ion for fan motor.	
Safety equip	oments			•	on thermostat. tat for fan motor.	
					emperature protection.	
	Refrigerant piping size (O.D.)	mm	Liquid line: I.U. φ 9.52 (3/8") Pipe Gas line: φ 15.88 (5/8") φ		
	Connecting method				5 15.88(5/8")x1.0	
Inatal!-+!-	Connecting method		w	Flare piping	Flare piping	
Installation	Attached length of piping	J	m	- Nacasaan / hath l	invid 9 Cas lines	
data	Insulation for piping	ıl lanerile	w	Necessary (both I		
	Refrigerant line (one way		m		100m	
	Vertical height diff. between	U.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs	
	, max lift height		mm	Built-in Drain pump , 600	_	
	ded breaker size		Α			
	(ed rotor ampere)		Α		/5	
Interconnec	ting wires Size x Core	number		, , ,	le) / Termainal block(Screw fixing type)	
IP number				IPX0	IP24	
Standard ad				Mounting kit, Drain hose	Edging	
Option parts	S				_	

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

Model			Model	1 - 0 101 101 111 1				
Item				Indoor unit FDU100VF1 Outdoor unit FDC100VSX				
Power sour	rce				50Hz / 380V 60Hz			
	Nominal cooling capacit		kW)~ 11.2(Max.)]			
	Nominal heating capacit	y (range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]				
	Power	Cooling		2.	68			
	consumption	Heating	kW	3.	02			
	Max power consumption	1		6.	04			
	Running	Cooling		4.0	/ 4.2			
	current Heating		A	4.5	/ 4.7			
	Inrush current, max curre	ent		5 ,	16			
Operation data	Dower footor	Cooling	%	9	7			
uata	Power factor	Heating	%	97 .	/ 98			
	EER	Cooling		3.	73			
	COP	Heating] [3.	71			
	6	Cooling		C.F.	70			
	Sound power level	Heating		65	70			
		Cooling	dB(A)	B.I., 4411, 00 14 00 1 00	48			
	Sound pressure level	Heating	1 ` 1	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	50			
	Silent mode sound press		i i	_	_			
F				000 1070 710	4000 070 070			
Exterior din	nensions (Height x Width :	x Depth)	mm	280 × 1370 × 740	1300×970×370			
Exterior app	pearance	,			Stucco White			
(Munsell co				-	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
	or type & Q'ty		ıg		RMT5134MDE3×1			
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)		e e	_	0.9 M-MA68				
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger		I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control					pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×2			
	(Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >			
	(Otarting motilog)	Cooling						
Air flow		Heating	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	100			
Available ex	xternal static pressure	ricating	Pa	Standard: 60 Max: 200	0			
Outside air			1 4	Possible	_			
	uality / Quantity			Procure locally	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	-i		W	—	20 (Crank case heater)			
<u>Licotiio iice</u>	Remote control			(option) wired : BC-EX1A_BC-E5	5 , RCH-E3 wireless : RCN-KIT3-E			
Operation	Room temperature control	rol			by electronics			
control	Operation display			-	-			
	Гороганог ангриа			Overload protect	ion for fan motor.			
				·	on thermostat.			
Safety equi	pments			•	tat for fan motor.			
					emperature protection.			
					φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (O.D.)	mm		φ 15.88(5/8")x1.0 φ 15.88(5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	n	m	–				
data	Insulation for piping	3			 Liquid & Gas lines)			
		v) lenath	m		100m			
Refrigerant line (one way) length Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose	J.O. G. IG I.O.		Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs			
Drain numn	o, max lift height		mm	Built-in Drain pump, 600	— — — — — — — — — — — — — — — — — — —			
	nded breaker size		A					
	ked rotor ampere)	-	A					
Interconnec		numher	_ ^		le) / Termainal block(Screw fixing type)			
IP number	oung wilds Dize x Dole	1141111001		φ 1.0mm x3 cores(including earth cab	IP24			
Standard a	coesecries			Mounting kit, Drain hose	Edging			
Option part					Eaging			
Option part	10		ــــــــــــــــــــــــــــــــــــــ	-	_			

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	Staridards
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

Model			Model	FDU125VNXVF			
Item				Indoor unit FDU125VF Outdoor unit FDC125VNX			
Power sour					50Hz / 220V 60Hz		
	Nominal cooling capacity		kW)~ 14.0(Max.)]		
	Nominal heating capacit	y (range)	kW	14.0 [4.0(Min.))∼ 17.0(Max.)]		
	Power	Cooling] [3.	49		
	consumption	Heating	kW	3.	77		
	Max power consumption	1		6.	03		
	Running	Cooling		15.5	/ 16.2		
	current	Heating	A	16.8	/ 17.6		
	Inrush current, max curre	ent	[5 ,	29		
Operation	Danier factor	Cooling	0/	9	8		
data	Power factor	Heating	%	98 .	/ 97		
	EER	Cooling		3.	58		
	COP	Heating	[3.	71		
	0 1 1	Cooling		07	70		
	Sound power level	Heating		67	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	`	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	50		
	Silent mode sound press			_			
Exterior dim	nensions (Height x Width)	(Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco White		
(Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	105		
	r type & Q'ty		Ng	_	RMT5134MDE2×1		
	r motor (Starting method)		kW		Direct line start		
Refrigerant oil (Amount, type)			e e		0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)		kg	P410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
0 131 7 71 0 0 7		rg	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Heat exchanger Refrigerant control				pansion valve			
Fan type &				Centrifugal fan ×3	Propeller fan ×2		
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >		
ran motor (Starting method)	Cooling	VV	100 + 200 < Direct line start >	80 X 2 < Direct line start >		
Air flow		Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100		
Available ev	ternal static pressure	rieating	Pa	Standard: 60 Max: 200	0		
Outside air			ıα	Possible	_		
	ality / Quantity			Procure locally	<u> </u>		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	Nubber sieeve(for fair filotor)	20 (Crank case heater)		
Electric flea	Remote control		VV	(aption) wired: DC EV1A DC E	5 , RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature control	·ol			by electronics		
control		OI		mermostat t	by electronics		
	Operation display				ion for for motor		
				·	ion for fan motor.		
Safety equip	oments			•	on thermostat. tat for fan motor.		
					emperature protection.		
					ϕ 9.52(3/8")x0.8 O.U. ϕ 9.52 (3/8")		
	Refrigerant piping size (O.D.)	mm				
	Connecting method				5 15.88(5/8")x1.0		
Inatal!-+!-	Connecting method		w	Flare piping	Flare piping		
Installation	Attached length of piping	J	m	- Nacasaan / hath l	invid 9 Cas lines		
data	Insulation for piping	ıl lanerile	w		Liquid & Gas lines)		
Refrigerant line (one way) length		m		100m			
	Vertical height diff. between	U.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
D .	Drain hose			Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs		
	, max lift height		mm	Built-in Drain pump , 600	_		
	ded breaker size		Α				
	(ed rotor ampere)		Α		/5		
Interconnec	ting wires Size x Core	number		, , ,	le) / Termainal block(Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Edging		
Option parts	S						

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

Model			Model	FDU12	FDU125VSXVF			
Item				Indoor unit FDU125VF Outdoor unit FDC125VSX				
Power sour	ce				50Hz / 380V 60Hz			
	Nominal cooling capacit	y (range)	kW)~ 14.0(Max.)]			
	Nominal heating capacit	y (range)	kW	14.0 [4.0(Min.))~ 18.0(Max.)]			
	Power	Cooling		3.	49			
	consumption	Heating	kW	3.	77			
	Max power consumption	1		7.	54			
	Running	Cooling		5.2	/ 5.5			
current Heating		Heating	A	5.6	/ 5.9			
	Inrush current, max curre	ent		5 ,	18			
Operation data	Dawer factor	Cooling	%	97 .	/ 96			
uata	Power factor	Heating	%	9	7			
	EER	Cooling		3.	58			
	COP	Heating] [3.	71			
	0	Cooling		67	70			
	Sound power level	Heating		67	70			
		Cooling	dB(A)	B.I., 45.I., 40.14 04.1 00	48			
	Sound pressure level	Heating	1 ` 1	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	50			
	Silent mode sound press			_	_			
F				000 1070 710	4000 070 070			
Exterior din	nensions (Height x Width :	k Depth)	mm	280 × 1370 × 740	1300×970×370			
Exterior app	pearance				Stucco White			
(Munsell co				_	(4.2Y7.5/1.1) near equivalent			
Net weight	, , , , , , , , , , , , , , , , , , ,		kg	54	105			
	r type & Q'ty		ng	_	RMT5134MDE3×1			
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)		e l	_	0.9 M-MA68				
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger		I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				pansion valve				
Fan type &				Centrifugal fan ×3	Propeller fan ×2			
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >			
T dil motor (otarting method)	Cooling		100 1 200 \ Bileot line start >	OO X E \ Direct into start >			
Air flow		Heating	m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100			
Available ex	rternal static pressure	ricating	Pa	Standard: 60 Max: 200	0			
Outside air			- ι α	Possible	_			
	iality / Quantity			Procure locally	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	·		W	—	20 (Crank case heater)			
Licotiio rica	Remote control		- **	(option) wired : RC-EX1A RC-E5	5 , RCH-E3 wireless : RCN-KIT3-E			
Operation	Room temperature contr	rol .			by electronics			
control	Operation display	01		mormostat t				
	operation diopidy	,		Overload protect	ion for fan motor.			
				·	on thermostat.			
Safety equi	pments			•	tat for fan motor.			
					emperature protection.			
				<u>~</u>	φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (O.D.)	mm		φ 3.32(3/8)x0.8			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	7	m	-				
data	Insulation for piping	9	- '''		 _iquid & Gas lines)			
Julia		v) length	m		100m			
Refrigerant line (one way) length Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
	Drain hose	o.o. and i.o.	111	Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs			
Drain pures			mm	,	, ,			
Drain pump, max lift height mm Recommended breaker size A			Built-in Drain pump , 600	_				
			A					
	ked rotor ampere) cting wires Size x Core	number	А		<u> </u>			
Interconnec	ung wires Size x Core	number		, , ,	le) / Termainal block(Screw fixing type)			
IP number				IPX0				
Standard ad				Mounting kit, Drain hose	Edging			
Option part	S			-	_			

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	оога	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

			Model	FDU14	OVNXVF			
Item				Indoor unit FDU140VF	Outdoor unit FDC140VNX			
Power source	ce			1 Phase 220-240V	7 50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]			
	Nominal heating capacity		kW	16.0 [4.0(Min.)~ 18.0(Max.)]			
	Power	Cooling		4.28				
	consumption	Heating	kW	4.	42			
	Max power consumption			6.	19			
	Running	Cooling		19.2 / 20.1				
	current	Heating	Α	19.8	/ 20.7			
	Inrush current, max curre			5 ,	30			
Operation		Cooling			97			
data	Power factor	Heating	%		7			
	EER	Cooling			3.27			
	COP	Heating			62			
		Cooling						
	Sound power level	Heating		70	72			
		Cooling	dB(A)		49			
	Sound pressure level	Heating	ab, y	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	52			
	Silent mode sound press				_			
	Olient mode sound press	ule level			_			
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370			
Exterior app	earance				Stucco White			
(Munsell co	lor)			-	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
Compresso	r type & Q'ty			_	RMT5134MDE2×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				<u> </u>	pansion valve			
Fan type & 0				Centrifugal fan ×3	Propeller fan ×2			
	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100			
Available ex	ternal static pressure	1	Pa	Standard: 60 Max: 200	0			
Outside air i			-	Possible	_			
	ality / Quantity			Procure locally	_			
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea			W	_	20 (Crank case heater)			
	Remote control			(option) wired: RC-EX1A . RC-E5	5 , RCH-E3 wireless : RCN-KIT3-E			
Operation	Room temperature contro	ol		· · · · · · · · · · · · · · · · · · ·	by electronics			
control	Operation display							
Safety equip	oments			Frost protection Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.			
	Refrigerant piping size (0	D.D.)	mm		φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	I	m	— e	——————————————————————————————————————			
data Insulation for piping			Necessary (both I	Liquid & Gas lines)				
	Refrigerant line (one way) lenath	m		100m			
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose Connectable VP25(I.D.25, O.D.32)	Holes size ϕ 20 x 3pcs			
Drain numn	, max lift height		mm	Built-in Drain pump, 600				
	ded breaker size		A					
	sed rotor ampere)		A					
Interconnec		number	^		/5 ble) / Termainal block(Screw fixing type)			
IP number	ung wires Size x Core i	IUITIDEI		φ r.omm ×3 cores(including earth cab	IP24			
Standard ac	nonnarion			Mounting kit, Drain hose				
					Edging			
Option parts	1) The data are massured				The pine length is 7 Fm			

Item	Indoor air t	emperature	Outdoor air temperature DB WB		External static pressure	Standards
Operation	DB	WB			of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

			Model	FDU140VSXVF			
Item				Indoor unit FDU140VF	Outdoor unit FDC140VSX		
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]		
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.)~ 20.0(Max.)]			
	Power	Cooling		4.28			
	consumption	Heating	kW		42		
	Max power consumption	,			74		
	Running	Cooling			/ 6.7		
	current	Heating	Α [/ 6.9		
Operation	Inrush current, max curre			5 ,	19		
data	Power factor	Cooling	%)7		
		Heating	/ ")7		
	EER	Cooling			27		
	COP	Heating		3.	62		
	Sound power level	Cooling		70	72		
		Heating	-ID(A)		40		
	Sound pressure level	Cooling	dB(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	49		
		Heating			52		
	Silent mode sound press	ure level		_	_		
Exterior din	nensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco White		
(Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	105		
	or type & Q'ty			_	RMT5134MDE3×1		
Compresso	or motor (Starting method)		kW	_	Direct line start		
Refrigerant oil (Amount, type)			l	_	0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)		e length)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				Electronic ex	pansion valve		
Fan type &	Q'ty			Centrifugal fan ×3	Propeller fan ×2		
Fan motor ((Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100		
Available ex	kternal static pressure	<u> </u>	Pa	Standard: 60 Max: 200	0		
Outside air				Possible	_		
Air filter, Qu	uality / Quantity			Procure locally	_		
Shock & vib	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	nter		W	-	20 (Crank case heater)		
	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contro	ol .		Thermostat b	by electronics		
control	Operation display			-	-		
				Overload protect	ion for fan motor.		
Sofoty ogui	nmonto			Frost protection	on thermostat.		
Safety equi	pinents				tat for fan motor.		
					emperature protection.		
	Refrigerant piping size (C	ו חו	mm		φ 9.52(3/8")x0.8 O.U. φ 9.52 (3/8")		
	Libring Grant Piping Size (C	,.J. _j		Gas line: ϕ 15.88 (5/8") ϕ	5 15.88(5/8")x1.0 φ 15.88(5/8")		
	Connecting method			Flare piping	Flare piping		
Installation Attached length of piping		m		_			
data	писанения				iquid & Gas lines)		
Refrigerant line (one way) length		m		100m			
	Vertical height diff. between C	D.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose	,		Hose Connectable VP25(I.D.25, O.D.32)	Holes size φ20 x 3pcs		
	, max lift height		mm	Built-in Drain pump , 600	_		
	ded breaker size		Α		_		
	ked rotor ampere)		Α		/5		
Interconnect IP number	cting wires Size x Core n	umber		ϕ 1.6mm ×3 cores(Including earth cab IPX0	ole)/ Termainal block(Screw fixing type) IP24		
Standard a	ocception	,		Mounting kit, Drain hose	IP24 Edging		
Option part				<u> </u>			
Option part	٥.				=		

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB WB		of indoor unit		
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	OUFA	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) The factory E.S.P. setting is set within the range of 80 150 Pa.lf SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 200 Pa.(For RC-EX1A and RC-E5 only)

(5) Duct connected-Low / Middle static pressure tpye (FDUM)

(a) Single type

			Model	FDUM4	0ZMXVF			
Item				Indoor unit FDUM40VF	Outdoor unit SRC40ZMX-S			
Power sour					50Hz / 220V 60Hz			
	Nominal cooling capacit		kW)~ 4.7(Max.)]			
	Nominal heating capacit		kW	4.5 [0.6(Min.)~ 5.4(Max.)]				
	Power	Cooling]]		952			
	consumption	Heating	kW		07			
	Max power consumption	n			60			
	Running	Cooling			/ 4.6			
	current	Heating	Α		/ 5.1			
Operation	Inrush current, max curr	ent		<i>.</i>	12			
data	Power factor	Cooling	%)4			
l		Heating	/*		5			
ı	EER	Cooling			20			
	COP			4.	21			
	Sound power level	Cooling		60	63			
ı	Courta power lover	Heating						
	Sound pressure level	Cooling	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	50			
	<u> </u>	Heating		1 111:07 111:02 Wic.20 E0:20				
	Silent mode sound pres	sure level		-	Cooling: 45 / Heating: 45			
Exterior din	nensions (Height x Width	v Denth)	mm	280 × 750 × 635	640×800(+71)×290			
Exterior dir				200 × 700 × 000	040000(171)x200			
Exterior ap	pearance				Stucco White			
(Munsell co	olor)				(4.2Y7.5/1.1) near equivalent			
Net weight			kg	29	45			
Compressor type & Q'ty			_	RMT5113MCE2 (Twin rotary type)×1				
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)			l	-	0.45 MA68			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)				
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				Capillary tubes + Elec	tronic expansion valve			
Fan type &	Q'ty			Centrifugal fan ×1	Propeller fan ×1			
Fan motor	(Starting method)		W	100 < Direct line start >	34 < Direct line start >			
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	36			
Air now		Heating	1111 / 11111111	P-HI: 13 HI: 10 Me: 9 L0:6	33			
Available e	xternal static pressure		Pa	Standard: 35 Max: 100	_			
Outside air	intake			Possible	_			
Air filter, Qu	uality / Quantity			Procure locally	_			
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ater		W	_	_			
O	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E			
Operation control	Room temperature cont	rol		Thermostat b	by electronics			
COLLLOI	Operation display			-	_			
				Overload protect	ion for fan motor.			
Cofoty ogui	inmonto			Frost protection	on thermostat.			
Safety equi	ipments			Internal thermos	tat for fan motor.			
				Abnormal discharge to	emperature protection.			
	Refrigerant piping size (001	mm	Liquid line: I.U. φ 6.35 (1/4") Pipe	φ 6.35(1/4")x0.8 O.U. φ 6.35 (1/4")			
	nemgerant piping size (O.D.)	mm	Gas line: φ 12.7 (1/2") φ	δ 12.7 (1/2")x0.8 φ 12.7 (1/2")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of pipin	g	m	<u> </u>	_			
data	Insulation for piping			Necessary (both I	iquid & Gas lines)			
	Refrigerant line (one wa	y) length	m	Max	.30m			
	Vertical height diff. between	O.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)			
	Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 5pcs			
	o, max lift height		mm	Built-in Drain pump , 600				
Recommer	nded breaker size		Α	-	_			
	ked rotor ampere)		Α	5	.3			
Interconnec		number			e) / Termainal block (Screw fixing type)			
IP number	<u> </u>			IPX0	IPX4			
Standard a	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet			
Option part					FL1EF			
	(1) The data are measured	t at the follow	wing con		The nine length is 7 5m			

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB WB		of indoor unit	Staridards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	SSFa	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM50	DZMXVF
Item				Indoor unit FDUM50VF	Outdoor unit SRC50ZMX-S
Power source	ce				50Hz / 220V 60Hz
	Nominal cooling capacity	(range)	kW	5.0 [1.1(Min.)	
	Nominal heating capacity		kW	5.4 [0.6(Min.)	
	Power	Cooling		1.:	
	consumption	Heating	kW	1.	
	Max power consumption				90
		Cooling			7 6.6
	current	Heating	Α _		⁷ 6.9
Operation	Inrush current, max curre			·	15
data	Power factor	Cooling	% -		5
		Heating			6
	EER	Cooling		3.	
	COP	Heating		3.	72
	Sound power level	Cooling		60	63
	Souria power lever	Heating		00	05
	0	Cooling	dB(A)	D. I.I 0.7 I.I 0.0 May . 0.0 I a . 0.0	54
	Sound pressure level	Heating		P-Hi: 37 Hi: 32 Me: 29 Lo: 26	50
	Silent mode sound press			_	Cooling: 45 / Heating: 45
Exterior dim	nensions (Height x Width x	Depth)	mm	280 × 750 × 635	640×800(+71)×290
Exterior app	pearance				Stucco White
(Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	29	45
	r type & Q'ty		ı.g	_	RMT5113MCE2 (Twin rotary type)×1
Compressor motor (Starting method)			kW	_	Direct line start
Refrigerant oil (Amount, type)			Q Q		0.45 MA68
<u> </u>					
Refrigerant (Type, amount, pre-charge length)		kg	R410A 1.5kg in outdoor unit (incl. t		
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant					tronic expansion valve
Fan type & 0				Centrifugal fan ×1	Propeller fan ×1
Fan motor (Starting method)		W	100 < Direct line start >	34 < Direct line start >
Air flow		Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	40
7 til 110 vv		Heating	111 / 111111	1 111.10 111.10 Mic. 3 Lo. 0	33
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_
Outside air i	intake			Possible	_
Air filter, Qu	ality / Quantity			Procure locally	_
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea	ter		W		
	Remote control			(option) wired: RC-EX1A.RC-E5	, RCH-E3 wireless : RCN-KIT3-E
Operation	Room temperature contro	ol			by electronics
control	Operation display	<u> </u>		-	-
	operation diopiay			Overlead protect	ion for fan motor.
					on thermostat.
Safety equip	oments			Internal thermos	
				Abnormal discharge to	
	Refrigerant piping size (0	D.D.)	mm -	Liquid line: I.U. ϕ 6.35 (1/4") Pipe	
				Gas line: φ 12.7 (1/2") φ	
l	Connecting method			Flare piping	Flare piping
Installation data Attached length of piping Insulation for piping		m	_	-	
			Necessary (both L		
	Refrigerant line (one way		m		.30m
	Vertical height diff. between 0	D.U. and I.U.	m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)
Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 5pcs	
Drain pump, max lift height			mm	Built-in Drain pump, 600	<u>-</u>
Recommended breaker size		Α		_	
L.R.A. (Lock	ked rotor ampere)		Α	6	.2
Interconnec		number		1.5mm ² x 4 cores (Including earth cabl	e) / Termainal block (Screw fixing type)
IP number	<u> </u>			IPX0	IPX4
Standard ac	ccessories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet
Option parts				UM-F	
	1) The data are massired				The pine length is 7.5m

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM60ZMXVF			
Item				Indoor unit FDUM60VF	Outdoor unit SRC60ZMX-S		
Power sour					50Hz / 220V 60Hz		
	Nominal cooling capacity	y (range)	kW	5.6 [1.1(Min.))~ 6.3(Max.)]		
	Nominal heating capacit	y (range)	kW	6.7 [0.6(Min.)~ 7.1(Max.)]			
	Power	Cooling		1.	54		
	consumption	Heating	kW	1.	75		
	Max power consumption	1		2.	90		
	Running Cooling current Heating			6.8	/ 7.1		
			Α	7.8	/ 8.2		
0	Inrush current, max curre	ent] [5 ,	15		
Operation	D ft	Cooling	0/	98 /	/ 99		
data	Power factor	Heating	%	98 .	/ 97		
	EER	Cooling		3.	64		
	COP	Heating] [3.	83		
	6	Cooling		60	C4		
	Sound power level	Heating	1	60	64		
		Cooling	dB(A)	D.I.I. 00 III. 01 M. 00 I. 05			
	Sound pressure level	Heating	1 `	P-Hi: 36 Hi: 31 Me: 28 Lo: 25	54		
	Silent mode sound press		1 1	_	Cooling: 45 / Heating: 45		
				000 055 555			
Exterior din	nensions (Height x Width)	k Depth)	mm	280 × 950 × 635	640×800(+71)×290		
Exterior app					Stucco White		
(Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	34	45		
	or type & Q'ty	-	ıg	_	RMT5113MCE2 (Twin rotary type)×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)			Q.	_	0.45 MA68		
Refrigerant (Type, amount, pre-charge length)		ne lenath)	kg	R410A 1.5kg in outdoor unit (incl. t	the amount for the piping of : 15m)		
Heat exchanger		1.9	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
	Refrigerant control				tronic expansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×1		
	(Starting method)		W	130 < Direct line start >	34 < Direct line start >		
T dirimotor ((otal ting motilod)	Cooling		100 \ Biroot iiio otart >	41.5		
Air flow		Heating	m³/min	P-Hi: 20 Hi: 15 Me: 13 Lo: 10	39		
Available ex	kternal static pressure	riodang	Pa	Standard: 35 Max: 100	_		
Outside air			1 4	Possible	_		
	uality / Quantity			Procure locally	_		
	oration absorber	,		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	—			
Licotilo lico	Remote control			(option) wired : BC-EX1A BC-E5	5 , RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contr	rol			by electronics		
control	Operation display			-	_		
	operation diopidy			Overload protect	ion for fan motor.		
				·	on thermostat.		
Safety equi	pments			•	tat for fan motor.		
					emperature protection.		
					φ 6.35(1/4")x0.8 O.U. φ 6.35 (1/4")		
	Refrigerant piping size (O.D.)	mm	Gas line: φ 12.7 (1/2") φ			
	Connecting method			Flare piping	Flare piping		
Installation			m	–			
data Insulation for piping				Liquid & Gas lines)			
	Refrigerant line (one way	v) lenath	m	, ,	.30m		
Vertical height diff. between O.U. and I.U.		m	Max.20m (Outdoor unit is higher)	Max.20m (Outdoor unit is lower)			
	Drain hose	2.0		Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 5pcs		
Drain numn			mm	Built-in Drain pump, 600			
Drain pump, max lift height Recommended breaker size		A					
	ked rotor ampere)		A				
Interconnec		number	77		e) / Termainal block (Screw fixing type)		
IP number	July WII CO OIZE X OOIE	1101111001		IPX0	IPX4		
Standard a	coesories			Mounting kit, Drain hose	Drain elbow, Drain hole grommet		
Option part					L2EF		
Option part	.3			UIVI-F	LCLI		

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM71	IVNXVF1	
Item				Indoor unit FDUM71VF1	Outdoor unit FDC71VNX	
Power source	ce			1 Phase 220-240V	7 50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)~ 8.0(Max.)]	
	Nominal heating capacity	(range)	kW)~ 9.0(Max.)]	
	Power	Cooling		2.	03	
	consumption	Heating	kW	1.	99	
	Max power consumption		Г	3.25		
	Running	Cooling		9.0	/ 9.4	
	current Heating Inrush current, max current Cooling		Α	9.0	/ 9.4	
				5 ,	17	
			0/	9	98	
data	Power factor	Heating	% -	g	96	
	EER	Cooling		3	.5	
	COP	Heating		4.	02	
	6	Cooling		05	66	
	Sound power level	Heating		65	66	
		Cooling	dB(A)	D.I., 00.II, 00.M. 00.I. 05	51	
	Sound pressure level	Heating		P-Hi: 38 Hi: 33 Me: 29 Lo: 25	48	
	Silent mode sound press	ure level		_	_	
		5		000 050 005	750 000/ 00\ 0.40	
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 950 × 635	750×880(+88)×340	
Exterior app	pearance				Stucco White	
(Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	34	60	
	Compressor type & Q'ty			_	RMT5118MDE2×1	
Compressor motor (Starting method)		kW	_	Direct line start		
Refrigerant oil (Amount, type)		Q.	_	0.675 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		e length)	kg	R410A 2.95kg in outdoor unit (incl.	the amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant control					pansion valve	
Fan type &				Centrifugal fan ×2	Propeller fan ×1	
	Starting method)		W	130 < Direct line start >	86 < Direct line start >	
,	, ,	Cooling	3, .	B.I. 04 II. 40 M. 45 I. 40	60	
Air flow		Heating	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	50	
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_	
Outside air				Possible	_	
Air filter, Qu	ality / Quantity			Procure locally	_	
Shock & vib	ration absorber	·		Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ter		W	<u> </u>	20 (Crank case heater)	
	Remote control			(option) wired: RC-EX1A, RC-E5	5 , RCH-E3 wireless : RCN-KIT3-É	
Operation	Room temperature contr	ol l			by electronics	
control	Operation display			-	_	
	. , , ,			Overload protect	ion for fan motor.	
					on thermostat.	
Safety equip	oments			Internal thermos	tat for fan motor.	
					emperature protection.	
	Defeles worth states at 10) D)	1001		φ 9.52 (3/8")x0.8 O.U. φ 9.52 (3/8")	
	Refrigerant piping size (0	J.U.)	mm	Gas line: ϕ 15.88 (5/8") ϕ		
	Connecting method			Flare piping	Flare piping	
Installation data Insulation for piping		m				
			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way) length	m	2 (.50m	
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 3pcs		
Drain pump, max lift height		mm	Built-in Drain pump , 600	_		
	ded breaker size	-	Α		_	
	ked rotor ampere)		Α	5	.0	
Interconnec		number			ole) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard ad	cessories			Mounting kit, Drain hose	_	
Option parts					FL2EF	
	1) The data are magazired				The pine length is 7 Fm	

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM10	0VNXVF1		
Item				Indoor unit FDUM100VF1	Outdoor unit FDC100VNX		
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.))~ 11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.))~ 12.5(Max.)]		
	Power	Cooling		2.68			
	consumption	Heating	kW	3.	02		
	Max power consumption			4.	83		
	Running Cooling current Heating			12.0	/ 12.5		
			A	13.5 /	/ 14.1		
	Inrush current, max curre	nt		5 ,	24		
Operation	I I I I I I I I I I I I I I I I I I I		0/	9	7		
data	Power factor	Heating	% -	9	7		
	EER	Cooling		3.	73		
	COP	Heating		3.	71		
		Cooling		0.5			
	Sound power level	Heating		65	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	` ′	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	50		
	Silent mode sound press			_	_		
Exterior dim	ensions (Height x Width x	Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app	pearance				Stucco White		
(Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	54	105		
	Compressor type & Q'ty			_	RMT5134MDE2×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)		Q.	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger		<u> </u>		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control					pansion valve		
Fan type & 0				Centrifugal fan ×3	Propeller fan ×2		
	Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:36 Hi:28 Me:25 Lo:19	100		
Available ex	ternal static pressure	1	Pa	Standard: 60 Max: 100	_		
Outside air i				Possible	_		
	ality / Quantity			Procure locally	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W		20 (Crank case heater)		
	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contro	ol l			by electronics		
control	Operation display			-	<u>-</u>		
Safety equip	oments			Frost protection Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.		
	Refrigerant piping size (0	D.D.)	mm	Liquid line: I.U. φ 9.52 (3/8") Pipe Gas line: φ 15.88 (5/8") φ	φ 9.52 (3/8")x0.8 O.U. φ 9.52 (3/8")		
	Connecting method			Flare piping	Flare piping		
Installation	-		m	— 	— —		
data Insulation for piping Refrigerant line (one way) length			Necessary (both L	Liquid & Gas lines)			
		m		100m			
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 3pcs			
Drain nose Drain pump, max lift height		mm	Built-in Drain pump , 600	<u> </u>			
	ded breaker size		A				
	ked rotor ampere)		A		.0		
Interconnec		umber			ole) / Termainal block (Screw fixing type)		
IP number	ung wilds Dize x Oole I	IGITIDUI		φ r.onim x 3 cores (including earth cab	IP24		
Standard ac	coesories			Mounting kit, Drain hose	Edging		
Option parts			 		FL3EF		
	1) The data are massured		<u> </u>		The pipe length is 7.5m.		

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM10	FDUM100VSXVF1		
Item				Indoor unit FDUM100VF1	Outdoor unit FDC100VSX		
Power sour	ce				50Hz / 380V 60Hz		
	Nominal cooling capacity		kW)∼ 11.2(Max.)]		
	Nominal heating capacit	y (range)	kW	11.2 [4.0(Min.))∼ 16.0(Max.)]		
	Power	Cooling		2.	68		
	consumption	Heating	kW	3.	02		
	Max power consumption Running Cooling			6.	04		
				4.0	/ 4.2		
	current	Heating	A	4.5	/ 4.7		
0	Inrush current, max curre	ent] [5 ,	15		
Operation data	Device footor	Cooling	%	9	7		
uaia	Power factor	Heating	90	97 .	/ 98		
	EER	Cooling		3.	73		
	COP	Heating] [3.	71		
	6	Cooling		C.F.	70		
	Sound power level	Heating	1	65	70		
		Cooling	dB(A)	B.I., 4411, 00 14 00 1 00	48		
	Sound pressure level	Heating	1 ` 1	P-Hi: 44 Hi: 38 Me: 36 Lo: 30	50		
	Silent mode sound press		i i	_	_		
				000 10== =:=	1000 5		
Exterior din	nensions (Height x Width)	(Depth)	mm	280 × 1370 × 740	1300×970×370		
Exterior app					Stucco White		
(Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	54	105		
	r type & Q'ty		ıg	_	RMT5134MDE3×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)		e e	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)		ge length)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat exchanger		ı Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve		
Fan type &				Centrifugal fan ×3	Propeller fan ×2		
	Starting method)		W	100 + 130 < Direct line start >	86 x 2 < Direct line start >		
	otal ting motiloa)	Cooling					
Air flow		Heating	m³/min	P-Hi: 36 Hi: 28 Me: 25 Lo: 19	100		
Available ex	rternal static pressure	rioding	Pa	Standard: 60 Max: 100	_		
Outside air				Possible	_		
	iality / Quantity			Procure locally	_		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	·		W	—	20 (Crank case heater)		
<u> </u>	Remote control		- * *	(option) wired : BC-EX1A_BC-E5	5 , RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contr	·ol			by electronics		
control	Operation display	<u>. </u>		-	-		
	operation display			Overload protect	ion for fan motor.		
				·	on thermostat.		
Safety equi	pments			•	tat for fan motor.		
					emperature protection.		
				<u>~</u>	φ 9.52 (3/8")x0.8 O.U. φ 9.52 (3/8")		
	Refrigerant piping size (O.D.)	mm		15.88 (5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	n	m	–			
data Insulation for piping				Liquid & Gas lines)			
	Refrigerant line (one way	v) lenath	m		100m		
Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose	and n.U.		Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 3pcs		
Drain numn			mm	Built-in Drain pump, 600	— — —		
Drain pump, max lift height Recommended breaker size		A		<u>-</u> -			
	ked rotor ampere)		A		.0		
Interconnec		number	^		ole) / Termainal block (Screw fixing type)		
IP number	ALLING WILLOS TOILE VOOLE	10111001		φ 1.0mm x 3 cores (including earth cab	IP24		
Standard a	coesories			Mounting kit, Drain hose	Edging		
Option part					FL3EF		
Option part	S			UIVI-F	LULI		

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Model	FDUM12	25VNXVF
Item				Indoor unit FDUM125VF	Outdoor unit FDC125VNX
Power source	ce			1 Phase 220-240V	50Hz / 220V 60Hz
	Nominal cooling capacity	/ (range)	kW)~ 14.0(Max.)]
	Nominal heating capacity		kW)~ 17.0(Max.)]
	Power	Cooling			49
	consumption	Heating	kW		77
	Max power consumption		```' -		03
	Running	Cooling			/ 16.2
	current	Heating	A		/ 17.6
			^ -		
Operation	Inrush current, max current			5 ,	
data	Power factor	Cooling	% -		8
	===	Heating			/ 97
	EER	Cooling	_		58
	COP	Heating		3.	71
	Sound power level	Cooling		67	70
	Courta power level	Heating		01	10
	Cound preserve level	Cooling	dB(A)	D. Hi . 45 Hi . 40 Ma . 24 La . 20	48
	Sound pressure level	Heating		P-Hi: 45 Hi: 40 Me: 34 Lo: 29	50
	Silent mode sound press			_	_
	·			000 1077 717	1000
Exterior dim	ensions (Height x Width >	(Depth)	mm	280 × 1370 × 740	1300×970×370
Exterior app	earance	1			Stucco White
(Munsell co				_	(4.2Y7.5/1.1) near equivalent
Net weight	,		kc	54	105
	thing ? Oltr		kg		
Compressor type & Q'ty		1.14/		RMT5134MDE2×1	
Compressor motor (Starting method)		kW	_	Direct line start	
Refrigerant oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant (Type, amount, pre-charge length)		kg	,	he amount for the piping of : 30m)	
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant of				Electronic ex	pansion valve
Fan type & C	Q'ty			Centrifugal fan ×3	Propeller fan ×2
Fan motor (S	Starting method)		W	100 + 200 < Direct line start >	86 x 2 < Direct line start >
Air flow		Cooling Heating	m³/min	P-Hi: 39 Hi: 32 Me: 26 Lo: 20	100
Available ex	ternal static pressure		Pa	Standard: 60 Max: 100	_
Outside air i				Possible	
	ality / Quantity			Procure locally	ı
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric heat			W	_	20 (Crank case heater)
001.10 11041	Remote control			(ontion) wired RC-EX1A RC-ES	5, RCH-E3 wireless : RCN-KIT3-E
Operation	Room temperature contr	·nl			by electronics
control	Operation display	01		memostat t	
Safety equip				Frost protection Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.
	Refrigerant piping size (O.D.)	mm	Liquid line: I.U. ϕ 9.52 (3/8") Pipe 6 Gas line: ϕ 15.88 (5/8") ϕ	
, l	Connecting method			Flare piping	Flare piping
Installation Attached length of piping data Insulation for piping Refrigerant line (one way) length		m	— — — — — — — — — — — — — — — — — — —	——————————————————————————————————————	
			Necessary (both L	iquid & Gas lines)	
		m		100m	
ŀ				Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
Vertical height diff. between O.U. and I.U.		m	Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 3pcs	
Drain hose		1001	,	nules size ϕ zu x spcs	
Drain pump, max lift height		mm	Built-in Drain pump , 600	-	
		Recommended breaker size		-	
Recommend	ded breaker size		A		_
Recommend L.R.A. (Lock	ded breaker size ed rotor ampere)		A		.0
Recommend L.R.A. (Lock Interconnect	ded breaker size ed rotor ampere)	number		ϕ 1.6mm x 3 cores (including earth cab	le) / Termainal block (Screw fixing type)
Recommend L.R.A. (Lock Interconnect IP number	ded breaker size sed rotor ampere) ting wires	number		ϕ 1.6mm x 3 cores (including earth cab IPX0	ole) / Termainal block (Screw fixing type) IP24
Recommend L.R.A. (Lock Interconnect	ded breaker size ded rotor ampere) ting wires Size x Core increases	number		ϕ 1.6mm x 3 cores (including earth cab IPX0 Mounting kit, Drain hose	le) / Termainal block (Screw fixing type)

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model				FDUM125VSXVF				
Item				Indoor unit FDUM125VF Outdoor unit FDC125VSX				
Power sour	ce				50Hz / 380V 60Hz			
	Nominal cooling capacity		kW)~ 14.0(Max.)]			
	Nominal heating capacity (range)		kW	14.0 [4.0(Min.))∼ 18.0(Max.)]			
	Power	Cooling		3.	49			
	consumption	Heating	kW	3.	77			
	Max power consumption			7.	54			
	Running Cooling			5.2	/ 5.5			
	current Heating		Α [5.6 / 5.9				
0	Inrush current, max current] [5 ,	15			
Operation data	Cooling Cooling		%	97 .	/ 96			
uaia	Power factor Heating EER Cooling		90	97				
				3.58				
	COP Heating] [3.	71			
	C	Cooling		67	70			
	Sound power level	Heating	1	67	70			
		Cooling	dB(A)	B.I., 45.I., 40.14 04.1 00	48			
	Sound pressure level	Heating	`	P-Hi: 45 Hi: 40 Me: 34 Lo: 29	50			
	Silent mode sound press		1 1	_	_			
				000 10	1000 5			
Exterior din	nensions (Height x Width)	(Depth)	mm	280 × 1370 × 740	1300×970×370			
Exterior and	pearance				Stucco White			
	Exterior appearance (Munsell color)			_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
Compressor type & Q'ty			g	_	RMT5134MDE3×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			e e	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger		ı Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control					pansion valve			
Fan type & Q'ty				Centrifugal fan ×3	Propeller fan ×2			
	Fan motor (Starting method)			100 + 200 < Direct line start >	86 x 2 < Direct line start >			
	(Otal ting motifica)	Cooling	W					
Air flow Heating		m³/min	P-Hi:39 Hi:32 Me:26 Lo:20	100				
Available ex	Available external static pressure			Standard: 60 Max: 100	_			
Outside air intake				Possible	_			
Air filter, Quality / Quantity			Procure locally	_				
Shock & vibration absorber				Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric heater			W	<u>-</u>	20 (Crank case heater)			
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-KIT3-E				
Operation	Room temperature contr	ol			by electronics			
control	Operation display			-	_			
	1-1			Overload protect	ion for fan motor.			
				Frost protection thermostat.				
Safety equi	pments			Internal thermostat for fan motor.				
				Abnormal discharge to	emperature protection.			
	D (1) 1 1 1 1	0.0.			φ 9.52 (3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (U.D.)	mm		15.88 (5/8")x1.0			
	Connecting method			Flare piping	Flare piping			
Installation data	Attached length of piping		m	——————————————————————————————————————	_			
	Insulation for piping			Necessary (both Liquid & Gas lines)				
		Refrigerant line (one way) length		Max.100m				
	Vertical height diff. between		m m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose Connectable with VP25(O.D.32)	Holes size φ20 x 3pcs			
Drain pump, max lift height		mm	Built-in Drain pump , 600	<u>τ</u> το τυπου —				
			Α	——————————————————————————————————————				
	ked rotor ampere)	-	A		.0			
Interconnecting wires Size x Core number			- ' '		ole) / Termainal block (Screw fixing type)			
IP number				P24				
Standard accessories				Mounting kit, Drain hose Edging				
Option parts				UM-FL3EF				

Item	Indoor air temperature		Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model				FDUM140VNXVF				
Item				Indoor unit FDUM140VF Outdoor unit FDUM140VF				
Power sour					50Hz / 220V 60Hz			
	Nominal cooling capacity		kW) ~ 16.0(Max.)]			
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.)	n.)~ 18.0(Max.)]			
	Power	Cooling	kW	4.	28			
	consumption	Heating		4.	42			
	Max power consumption			6.	19			
	Running Cooling			19.2	/ 20.1			
	current	Heating	A	19.8 / 20.7				
	Inrush current, max current			5 ,	26			
Operation	D ft	Cooling	0/	9	7			
data	Power factor Heating EER Cooling		%	9	7			
				3.27				
	COP	Heating] [3.	62			
	6	Cooling		70	70			
	Sound power level	Heating		70	72			
		Cooling	dB(A)	B.I., 47.I., 40.14, 05.1, 00	49			
	Sound pressure level	Heating	1 ` 1	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	52			
	Silent mode sound press		i i	_	_			
				000 10== =:=	1000 5			
Exterior din	nensions (Height x Width)	(Depth)	mm	280 × 1370 × 740	1300×970×370			
Exterior app	pearance				Stucco White			
(Munsell co				_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
Compressor type & Q'ty			ng	_	RMT5134MDE2×1			
Compressor motor (Starting method)			kW	_	Direct line start			
Refrigerant oil (Amount, type)			e l	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger		I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control					pansion valve			
Fan type & Q'ty				Centrifugal fan ×3	Propeller fan ×2			
Fan motor (Starting method)			W	100 + 200 < Direct line start >	86 x 2 < Direct line start >			
T all motor (otarting method)	Cooling		100 + 200 < Bilect line start >	00 X 2 \ Direct line start >			
Air flow Heating		m³/min	P-Hi: 48 Hi: 35 Me: 28 Lo: 22	100				
Available ev	yternal static pressure	Trieating	Pa	Standard: 60 Max: 100	_			
Available external static pressure Outside air intake			ια	Possible				
				Procure locally	<u> </u>			
Air filter, Quality / Quantity Shock & vibration absorber				Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric heater			W	Hubber sieeve(for fair motor)	20 (Crank case heater)			
Liectric ries	Remote control		V V	(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-KIT3-E				
Operation	Room temperature control	·ol		Thermostat by electronics				
control	Operation display	OI		Thermostat t	by electronics			
	Operation display			Overland protect	ion for fan motor.			
				·				
Safety equi	pments			Frost protection thermostat. Internal thermostat for fan motor.				
					emperature protection.			
					φ 9.52 (3/8")x0.8 O.U. φ 9.52 (3/8")			
	Refrigerant piping size (O.D.)	mm		15.88 (5/8")x1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Inetallation	Attached length of piping	7	m	· · -	i iaie pipiliy			
Installation data	Insulation for piping	0 11 0		— — — — — Necessary (both Liquid & Gas lines)				
	Refrigerant line (one way	v) length	m		100m			
	Vertical height diff. between	Oll and III	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
		U.U. and I.U.	m	Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 x 3pcs			
Drain hose			mm	,	nules size φzu x spcs			
Drain pump, max lift height Recommended breaker size		mm	Built-in Drain pump , 600					
			A					
	ked rotor ampere)	n	Α		.0			
Interconnecting wires Size x Core number					ole) / Termainal block (Screw fixing type)			
IP number Standard accessories				IPX0 IP24				
				Mounting kit, Drain hose	Edging			
Option parts				UM-FL3EF				

Item	Indoor air temperature		Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Staridards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	OUFA	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz. (7) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
- (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

			Madal	FDUM14	INVSXVF			
Item Power source			Model	FDUM140VSXVF Indoor unit FDUM140VF Outdoor unit FDC140VSX				
				3 Phase 380-415V 50Hz / 380V 60Hz				
1 Owor oour	Nominal cooling capacity	(range)	kW)~ 16.0(Max.)]			
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.) ~ 20.0(Max.)]				
	Power	Cooling	1000	4.28				
	consumption	Heating	kW		42			
	Max power consumption		'`''		74			
	Running Cooling							
	current	Heating	A	6.4 / 6.7 6.6 / 6.9				
	Inrush current, max current		^					
Operation				5 , 15				
data	Power factor Cooling Heating		%		7			
			\perp		7			
	EER Cooling				27			
	COP	Heating		3.62				
	Sound power level	Cooling		70	72			
	Courta power lever	Heating] [70	12			
	Sound propoure lovel	Cooling	dB(A)	P-Hi: 47 Hi: 40 Me: 35 Lo: 30	49			
	Sound pressure level	Heating]	P-HI: 47 HI: 40 IVIE: 35 LO: 30	52			
	Silent mode sound pressure level				_			
Francis P				000 1070 740	1000 070 070			
∟xterior dim	nensions (Height x Width x	peptn)	mm	280 × 1370 × 740	1300×970×370			
Exterior app	pearance				Stucco White			
(Munsell color)				_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	54	105			
Compressor type & Q'ty			Ng		RMT5134MDE3×1			
Compressor motor (Starting method)			kW		Direct line start			
` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `					0.9 M-MA68			
Refrigerant oil (Amount, type)			Q lan					
Refrigerant (Type, amount, pre-charge length)			kg	,	the amount for the piping of : 30m)			
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve			
Fan type & Q'ty				Centrifugal fan ×3	Propeller fan ×2			
Fan motor (Starting method)			W	100 + 200 < Direct line start >	86 × 2 < Direct line start >			
Air flow Cooling Heating		m³/min	P-Hi:48 Hi:35 Me:28 Lo:22	100				
Available external static pressure			Pa	Standard: 60 Max: 100	_			
Outside air intake				Possible	_			
Air filter, Quality / Quantity			Procure locally	_				
Shock & vibration absorber				Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric heater			W	_	20 (Crank case heater)			
Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-KIT3-E					
Operation	Room temperature control	ol .		Thermostat by electronics				
control	Operation display			memostati	-			
Safety equipments				Overload protection for fan motor. Frost protection thermostat. Internal thermostat for fan motor. Abnormal discharge temperature protection.				
	Refrigerant piping size (C).D.)	mm	Liquid line: I/U φ 9.52 (3/8") Pipe				
	Connecting method							
Inetall-#-	Connecting method		-	Flare piping Flare piping				
Installation	Attached length of piping		m	Naganagu - /ltl- I	iguid ⁹ Coo lines)			
data	Insulation for piping	lonati-			Liquid & Gas lines)			
	Refrigerant line (one way)		m	Max.100m				
	Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
	Drain hose			Hose Connectable with VP25(O.D.32) Holes size $\phi 20 \times 3pcs$				
Drain pump, max lift height		mm	Built-in Drain pump , 600 —					
Recommended breaker size		Α	<u> </u>					
	ked rotor ampere)		Α		.0			
Interconnecting wires Size x Core number IP number			φ 1.6mm×3 cores (Including earth cable) / Termainal block (Screw fixing ty IPX0 IP24					
Standard accessories				Mounting kit, Drain hose Edging				
Option part					FL3EF			
2 p. 100 c				<u> </u>				

Item	Indoor air temperature		Outdoor air	temperature	External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19℃	35°C	24°C	60Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	oura	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Static pressure of optional air filter "UM-FL3EF" is 5Pa initially.
 (8) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

(b) Twin type

			Model	FDUM71	VNXPVF		
Item				Indoor unit FDUM40VF (2 units)	Outdoor unit FDC71VNX		
Power source	·				50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)			
	Nominal heating capacity		kW	8.0 [3.6(Min.)~ 9.0(Max.)]			
	Power	Cooling			01		
	consumption	Heating	kW	1.9	91		
	Max power consumption			3	22		
	Running	Cooling		9.0	/ 9.4		
	current	Heating	Α [8.5	/ 9.0		
Onevetion	Inrush current, max currer	nt		5 ,	17		
Operation data	Power factor	Cooling	%	9	7		
Heating		Heating	70	97 /	/ 96		
	EER	Cooling		3.	53		
	COP	Heating		4.	19		
	Sound power level	Cooling		60	66		
	Souria power level	Heating		00	00		
	0	Cooling	dB(A)	D 11: 27 11: 20 Ma : 20 1 a : 26	51		
	Sound pressure level	Heating		P-Hi: 37 Hi: 32 Me: 29 Lo: 26	48		
	Silent mode sound pressu	ire level		-	_		
Evtorios dis	annoinna (Haight y Midtle	Donth\	m	000 v 750 · · 605	750,,000(,00),,040		
exterior aim	nensions (Height x Width x	peptn)	mm	280 × 750 × 635	750×880(+88)×340		
Exterior app	pearance				Stucco White		
Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight	7		kg	29	60		
Compressor type & Q'ty			g		RMT5118MDE2×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			e e	_	0.675 (M-MA68)		
Refrigerant (Type, amount, pre-charge length)		e length)	kg	R410A 2.95kg in outdoor unit (incl.			
Heat exchanger		I Ng	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control				pansion valve			
an type & 0				Centrifugal fan ×1	Propeller fan ×1		
	Starting method)		w	100 < Direct line start >	86 < Direct line start>		
an motor (Starting metrica)	Cooling		100 \ Direct line start >	60		
Air flow		Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	50		
Vailable ex	ternal static pressure	ricating	Pa	Standard: 35 Max: 100	_		
Outside air i			- ι α	Possible			
	ality / Quantity			Procure locally			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)		
Electric hea			W	Nubber sieeve(for fair filotor)	20 (Crank case heater)		
lectric riea	Remote control		VV	(aption) wired : PC EV1A PC E5	, RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contro	i			by electronics		
control	<u> </u>	"		Thermostat L	by electronics		
	Operation display				- 		
					ion for fan motor. on thermostat.		
Safety equip	pments			Internal thermos			
					emperature protection.		
	1						
	Refrigerant piping size (O	.D.)	mm	Liquid line: I.U. ϕ 6.35 (1/4") ② ϕ 9.52(3/8")× Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")×0	1.8 1.4.15.88(5/8")×1.0 0/1.4.15.88 (5/8"\		
	Connecting method		\vdash		Flare piping		
nstallation	Attached length of piping		m	Flare piping	i late pipitig		
nstallation lata	Insulation for piping		m	Necessary (both L	iquid & Gas lines)		
ula	Refrigerant line (one way)	longth	- m		.50m		
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
		.u. and 1.U.	m		, ,		
) wala =	Drain hose			Hose Connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs		
	, max lift height		mm	Built-in Drain pump , 600			
	ded breaker size		A				
•	ked rotor ampere)		Α		.0		
aterconnec	ting wires Size x Core n	umber		, , ,	ole) / Termainal block (Screw fixing type)		
Interconnecting wires Size x Core number							
P number				IPX0	IP24		
P number Standard ac Option parts				Mounting kit, Drain hose	— IP24 — — — — — — — — — — — — — — — — — — —		

Note (1) The data are measured at the following conditions.

Item	Indoor air te	emperature	re Outdoor air temp		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model			Model	FDUM100VNXPVF				
Item			Model	Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VNX				
Power source	ce				50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW)∼ 11.2(Max.)]			
	Nominal heating capacity	/ (range)	kW	11.2 [4.0(Min.)~ 12.5(Max.)]				
	Power	Cooling			66			
	consumption	Heating	kW		02			
	Max power consumption				83			
	Running	Cooling		11.9	/ 12.4			
	current	Heating	A	13.5	/ 14.1			
Operation	Operation data			5 ,	24			
data			%		/ 98			
data	1 ower factor	Heating	/0	9	7			
	EER	Cooling		3.	76			
	COP	Heating		3.	71			
	Sound power level	Cooling		60	70			
	Sound power level	Heating		00	70			
		Cooling	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	48			
	Sound pressure level	Heating		F-HI. 37 HI. 32 We. 29 LO. 20	50			
	Silent mode sound press	ure level		_	_			
Cutorion dina	anniana (Haight v Midth v	Donth)		200 750 625	1200070270			
Exterior diri	nensions (Height x Width x	Depth)	mm	280 × 750 × 635	1300×970×370			
Exterior app	pearance				Stucco White			
(Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	29	105			
	Compressor type & Q'ty		Ŭ	_	RMT5134MDE2×1			
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)		Q	_	0.9 M-MA68				
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger		1.5	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				ŭ ŭ	pansion valve			
Fan type &				Centrifugal fan ×1	Propeller fan ×2			
	Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >			
		Cooling	m³/min					
Air flow		Heating	m ⁻ /min	P-Hi:13 Hi:10 Me:9 Lo:8	100			
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	-			
Outside air	intake			Possible	_			
Air filter, Qu	ality / Quantity			Procure locally	ı			
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ter		W	_	20 (Crank case heater)			
Operation	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E			
Operation control	Room temperature control	ol		Thermostat b	by electronics			
CONTROL	Operation display			-	_			
				Overload protect	ion for fan motor.			
Safety equip	omente			Frost protection	on thermostat.			
Calety equip	oments				tat for fan motor.			
					emperature protection.			
	Refrigerant piping size ((D.D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
					0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	1	m	_	<u> </u>			
data	Insulation for piping				Liquid & Gas lines)			
Refrigerant line (one way) length Vertical height diff. between O.U. and I.U.		m		100m				
		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)				
Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 × 3pcs				
	, max lift height		mm	Built-in Drain pump , 600	-			
	ded breaker size		Α		_			
	ked rotor ampere)		Α		.0			
Interconnec	ting wires Size x Core r	number		, , , ,	e) / Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad	-			Mounting kit, Drain hose	Edging			
Option parts	S			UM-F	-L1EF			

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch. ②: Pipe of Branch ~ I/U
 (9) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Mod							
Item			····ouoi	Indoor unit FDUM50VF (2 units)	Outdoor unit FDC100VSX		
Power sour				3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.)~ 11.2(Max.)]		
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]		
	Power	Cooling			66		
	consumption	Heating	kW		02		
	Max power consumption				04		
	Running	Cooling		4.0	/ 4.2		
	current	Heating	A	4.5	/ 4.7		
Operation	Operation Inrush current, max current			5 ,	15		
data	Power factor	Cooling	%		6		
Juana		Heating	/0		/ 98		
	EER	Cooling			76		
	COP	Heating		3.	71		
	Sound power level	Cooling		60	70		
	Courta power level	Heating			70		
	Sound pressure level	Cooling	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	48		
	Souria pressure level	Heating		1-111.07 111.02 We.29 L0.20	50		
	Silent mode sound press	ure level		<u>–</u>	_		
Exterior dim	nensions (Height x Width x	Denth)	mm	280 × 750 × 635	1300×970×370		
LATORIOI UIII		Debiii)	111111	200 × 130 × 000			
Exterior app	pearance				Stucco White		
(Munsell co	olor)				(4.2Y7.5/1.1) near equivalent		
Net weight			kg	29	105		
Compresso	Compressor type & Q'ty			_	RMT5134MDE3×1		
Compressor motor (Starting method)			kW	_	Direct line start		
Refrigerant oil (Amount, type)			l	_	0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control				Electronic ex	pansion valve		
Fan type &	Q'ty			Centrifugal fan ×1	Propeller fan ×2		
Fan motor (Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100		
Available ex	ternal static pressure		Pa	Standard: 35 Max: 100	_		
Outside air	intake			Possible	_		
Air filter, Qu	ality / Quantity			Procure locally	_		
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	<u>-</u>	20 (Crank case heater)		
O	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E		
Operation control	Room temperature contro	ol		Thermostat b	by electronics		
CONTROL	Operation display			-	=		
				Overload protect	ion for fan motor.		
Safety equip	oments				on thermostat.		
Carety equi	Smerits				tat for fan motor.		
					emperature protection.		
	Refrigerant piping size (C).D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m		_		
data	Insulation for piping			, · · · · · · · · · · · · · · · · · · ·	_iquid & Gas lines)		
	Refrigerant line (one way		m		100m		
	Vertical height diff. between C).U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose			Hose Connectable with VP25(O.D.32)	Holes size ϕ 20 × 3pcs		
	, max lift height		mm	Built-in Drain pump , 600	_		
	ded breaker size		Α	-	_		
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core n	umber		, , ,	le) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Drain hose	Edging		
Option part	Option parts			UM-F	FL1EF		

Item	Indoor air te	emperature	ure Outdoor air tempe		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	SSFa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch. ②: Pipe of Branch ~ I/U
 (9) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model			Model	FDUM125VNXPVF				
Item			Model	Indoor unit FDUM60VF (2 units) Outdoor unit FDC125VNX				
Power sour	ce				50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW		~ 14.0(Max.)]			
	Nominal heating capacity	y (range)	kW	14.0 [4.0(Min.)~ 17.0(Max.)]				
	Power	Cooling			26			
	consumption	Heating	kW		66			
	Max power consumption	1			86			
	Running	Cooling		14.6	/ 15.3			
	current	Heating	A	16.4	/ 17.1			
Operation Inrush current, max current		ent		5 ,	26			
Operation data	. I ICOOIING		%		7			
data	I ower lactor	Heating	/0	9	17			
	EER	Cooling]	3.	83			
	COP	Heating		3.	83			
	Sound power level	Cooling		60	70			
	Souria power lever	Heating			70			
	Sound pressure level	Cooling	dB(A)	P-Hi:36 Hi:31 Me:28 Lo:25	48			
	Souria pressure level	Heating		1-111.00 111.01 We.20 L0.20	50			
	Silent mode sound press	sure level		<u> </u>	_			
Exterior din	nensions (Height x Width x	(Denth)	mm	280 × 950 × 635	1300×970×370			
LATERIOI UIII		- Debuij	11/11/1	200 × 300 × 000	1000/310/010			
Exterior app					Stucco White			
(Munsell co	olor)				(4.2Y7.5/1.1) near equivalent			
Net weight			kg	34	105			
Compressor type & Q'ty			_	RMT5134MDE2×1				
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)		Q	-	0.9 M-MA68				
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				Electronic ex	pansion valve			
Fan type &	Q'ty			Centrifugal fan ×2	Propeller fan ×2			
Fan motor ((Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi:20 Hi:15 Me:13 Lo:10	100			
Available ex	xternal static pressure	, 5	Pa	Standard: 35 Max: 100	_			
Outside air				Possible	_			
Air filter, Qu	uality / Quantity			Procure locally	_			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)			
Electric hea	ater	1	W		20 (Crank case heater)			
	Remote control			(option) wired: RC-EX1A, RC-E5	, RCH-E3 wireless : RCN-KIT3-E			
Operation	Room temperature contr	ol		Thermostat b	by electronics			
control	Operation display			-	_			
				Overload protect	ion for fan motor.			
Safety equi	nmente			Frost protection	on thermostat.			
Salety equi	prilents			Internal thermos	tat for fan motor.			
				Abnormal discharge to	emperature protection.			
	Refrigerant piping size (O.D.)	mm		(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	3	m		<u> </u>			
data	Insulation for piping			Necessary (both I	iquid & Gas lines)			
	Refrigerant line (one way		m		100m			
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose Connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs				
	, max lift height		mm	Built-in Drain pump , 600	_			
Recommen	ided breaker size		А	-	_			
	ked rotor ampere)		Α		.0			
Interconnec	cting wires Size x Core	number		ϕ 1.6mm× 3 cores (Including earth cab	le) / Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard a				Mounting kit, Drain hose	Edging			
Option part	S			UM-F	L2EF			

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	SSFa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
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- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model			Model	FDUM125VSXPVF			
Item			Model	Indoor unit FDUM60VF (2 units) Outdoor unit FDC125VSX			
Power sour	ce				750Hz / 380V 60Hz		
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.)~ 14.0(Max.)]		
	Nominal heating capacity	/ (range)	kW	14.0 [4.0(Min.)~ 18.0(Max.)]		
	Power	Cooling			26		
	consumption	Heating	kW		66		
	Max power consumption				32		
	Running	Cooling		4.9	/ 5.2		
	current	Heating	A	5.4	/ 5.7		
Operation	Operation data			5 ,	15		
data			%	96	/ 95		
data	I ower lactor	Heating	/0	9	98		
	EER	Cooling		3.	83		
	COP	Heating		3.	83		
	Sound power level	Cooling		60	70		
	Journa power level	Heating		00	70		
	Sound propoure lovel	Cooling	dB(A)	P-Hi:36 Hi:31 Me:28 Lo:25	48		
	Sound pressure level	Heating		F-HI.30 HI.31 We.26 L0.23	50		
	Silent mode sound press	ure level		_	_		
Exterior dia	aanaiana (Haight y Midth y	Donth)	mm	290 v 050 v 625	1200,070,270		
Lixterior din	nensions (Height x Width x	Depth)	mm	280 × 950 × 635	1300×970×370		
Exterior app	pearance				Stucco White		
(Munsell co	olor)			-	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	34	105		
Compresso	Compressor type & Q'ty			_	RMT5134MDE3×1		
Compressor motor (Starting method)		kW	_	Direct line start			
Refrigerant oil (Amount, type)		Q	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger		J	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control				· · · · · · · · · · · · · · · · · · ·	pansion valve		
Fan type &				Centrifugal fan ×2	Propeller fan ×2		
	(Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >		
Air flow	, ,	Cooling Heating	m³/min	P-Hi:20 Hi:15 Me:13 Lo:10	100		
Available ex	starnal atatia pressure	пеаші	Pa	Standard: 35 Max: 100	_		
Outside air	xternal static pressure		га	Possible	_		
	uality / Quantity			Procure locally	_		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	Hubber sleeve(for fair filotor)	20 (Crank case heater)		
Liectific fied	Remote control		VV	(option) wired : BC-EX1A BC-E5	5 , RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature control	ol			by electronics		
control	Operation display	OI		memostari	by electronics		
	Operation display			Overlead protect	ion for fan motor.		
				•	on thermostat.		
Safety equi	pments			•	tat for fan motor.		
					emperature protection.		
	Refrigerant piping size (D.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	1	m	- I iai o piping			
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way	/) length	m		100m		
Vertical height diff. between O.U. and I.U.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose Connectable with VP25(O.D.32)	Holes size $\phi 20 \times 3$ pcs			
Drain numn	o, max lift height		mm	Built-in Drain pump, 600	— — — — — — — — — — — — — — — — — — —		
	ided breaker size		A		<u>-</u> -		
	ked rotor ampere)		A		.0		
Interconnec		number	^		le) / Termainal block (Screw fixing type)		
IP number	July WII CO DIZE X COIE I	IGITIDGI		Ψ 1.0ΠΠΙΧ3 cores (Including earth cab	IP24		
Standard a	ccessories			Mounting kit, Drain hose	Edging		
Option part					FL2EF		
Sparsii part				OIVI-I			

Item	Indoor air te	emperature	re Outdoor air temper		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch. ②: Pipe of Branch ~ I/U
 (9) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model				FDUM140	FDUM140VNXPVF1			
Item			Model	Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VNX			
Power sour	ce				50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)) ~ 16.0(Max.)]			
	Nominal heating capacity	/ (range)	kW	16.0 [4.0(Min.))∼ 18.0(Max.)]			
	Power	Cooling			36			
	consumption	Heating	kW		35			
	Max power consumption				10			
	Running	Cooling		19.5	/ 20.4			
	current	Heating	Α		/ 20.4			
Operation	Operation data			5 ,	26			
data			%	9	7			
data	- Ower lactor	Heating	70	9	7			
	EER	Cooling		3.	21			
	COP	Heating		3.	68			
	Sound power level	Cooling		65	72			
	Souria power level	Heating		05	12			
	Sound propoure lovel	Cooling	dB(A)	P-Hi:38 Hi:33 Me:29 Lo:25	49			
	Sound pressure level	Heating		F-HI.36 HI.33 We.29 L0.23	52			
	Silent mode sound press	ure level		_	_			
Extorior dia	noneione (Hoight y Midth	Donth)	mm	280 ~ 050 ~ 625	1300,070,270			
Lixterior din	nensions (Height x Width x	Depth)	mm	280 × 950 × 635	1300×970×370			
Exterior app	pearance				Stucco White			
(Munsell co	olor)			-	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	34	105			
Compresso	Compressor type & Q'ty			_	RMT5134MDE2×1			
Compressor motor (Starting method)		kW	_	Direct line start				
Refrigerant oil (Amount, type)		Q	_	0.9 M-MA68				
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger		Ŭ	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control				ŭ ŭ	pansion valve			
Fan type &				Centrifugal fan ×2	Propeller fan ×2			
	(Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >			
Air flow	,	Cooling Heating	m³/min	P-Hi:24 Hi:19 Me:15 Lo:10	100			
Available ov	kternal static pressure	rieating	Pa	Standard: 35 Max: 100				
Outside air	<u> </u>		ια	Possible	<u> </u>			
	uality / Quantity			Procure locally	<u> </u>			
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)			
Electric hea			W	- Tubbel Sleeve(for fair filotor)	20 (Crank case heater)			
LICOTIO NCC	Remote control		**	(option) wired : RC-EX1A RC-E5	5 , RCH-E3 wireless : RCN-KIT3-E			
Operation	Room temperature contr	ol			by electronics			
control	Operation display	01		memostat t	_			
	Toperation display			Overload protect	ion for fan motor.			
				·	on thermostat.			
Safety equi	pments				tat for fan motor.			
					emperature protection.			
	Refrigerant piping size (D.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") ② ϕ 9.52(3/8")	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") (1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping	1	m	- Lare piping	– idio piping			
data	Insulation for piping			Necessary (both I	iquid & Gas lines)			
	Refrigerant line (one way	/) length	m		100m			
	Vertical height diff. between (m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose Connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs				
		mm	Built-in Drain pump, 600	— — — — — — — — — — — — — — — — — — —				
	ded breaker size		A					
	ked rotor ampere)		A		.0			
Interconnec		number	- '		le) / Termainal block (Screw fixing type)			
IP number	gg			IPX0	IP24			
Standard a	ccessories			Mounting kit, Drain hose	Edging			
Option part					FL2EF			
- Paron part	ī			OW I				

Item	Indoor air te	emperature	re Outdoor air temper		External static pressure	Standards
Operation	DB	WB	DB WB		of indoor unit	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	33Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model				FDUM140VSXPVF1		
Item			Woden	Indoor unit FDUM71VF1 (2 units)	Outdoor unit FDC140VSX	
Power sour	ce				50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)) ~ 16.0(Max.)]	
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.))∼ 20.0(Max.)]	
	Power	Cooling]]		36	
	consumption	Heating	kW		35	
	Max power consumption			7.63		
	Running	Cooling] [6.5	/ 6.8	
	current	Heating	Α	6.5	/ 6.8	
Operation	Inrush current, max curre	ent		5 ,	_ 15	
data	Power factor	Cooling	%	9	7	
data	- Ower lactor	Heating	/0	9	7	
	EER	Cooling] [3.	21	
	COP	Heating		3.	68	
	Sound power level	Cooling		65	72	
	Souria power level	Heating]	05	12	
	Sound propoure lovel	Cooling	dB(A)	P-Hi:38 Hi:33 Me:29 Lo:25	49	
	Sound pressure level	Heating		F-HI.36 HI.33 We.29 L0.23	52	
	Silent mode sound press	ure level] [_	_	
Exterior dia	anniana (Llaight y Midth y	Donth)		200 050 625	1200070270	
Lixterior din	nensions (Height x Width x	Depth)	mm	280 × 950 × 635	1300×970×370	
Exterior app	pearance				Stucco White	
(Munsell co				_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	34	105	
	or type & Q'ty		Ĭ	_	RMT5134MDE3×1	
	or motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q	_	0.9 M-MA68	
	(Type, amount, pre-charg	ie lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat excha	<u> </u>	, <u> </u>	5	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				ŭ ŭ	pansion valve	
Fan type &				Centrifugal fan ×2	Propeller fan ×2	
	(Starting method)		W	130 < Direct line start >	86 x 2 < Direct line start >	
Air flow	(Cooling	m³/min	P-Hi: 24 Hi: 19 Me: 15 Lo: 10	100	
		Heating				
	kternal static pressure		Pa	Standard: 35 Max: 100		
Outside air				Possible	_	
	uality / Quantity			Procure locally		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)	
Electric hea	1		W		20 (Crank case heater)	
Operation	Remote control				6 , RCH-E3 wireless : RCN-KIT3-E	
control	Room temperature contro	ol		Thermostat b	by electronics	
	Operation display			-	_	
				·	ion for fan motor.	
Safety equi	pments				on thermostat.	
' '					tat for fan motor.	
	Refrigerant piping size ((D.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") ② ϕ 9.52(3/8")×	emperature protection. (0.8 ① ϕ 9.52(3/8")x0.8 O/U ϕ 9.52 (3/8") (1.0 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88 (5/8")	
	Connecting					
Inatali-#-	Connecting method Attached length of piping		m	Flare piping	Flare piping	
Installation data	0 11 0	9	m	Noocoon /bath	iguid & Gas linos)	
uala	Insulation for piping Refrigerant line (one way	() longth	m	Necessary (both I	liquid & Gas lines) 100m	
	Vertical height diff. between 0	// IEIIGIII	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	J.U. and I.U.	m	Hose Connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs	
		mm	Built-in Drain pump , 600	Holes size φ 20 x 3pcs		
			mm ^		<u> </u>	
	ked rotor ampere)		A		_ .0	
		number	A		le) / Termainal block (Screw fixing type)	
Interconnec	ung wires Size x Core r	iumber		, ,	, , , , ,	
IP number Standard a				IPX0	IP24	
				Mounting kit, Drain hose	Edging	
Option parts				UM-FL2EF		

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	33Fa	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL2EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

(c) Triple type

Model			Model	FDUM140VNXTVF			
Item				Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VNX		
Power sour	ce				50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW)~ 16.0(Max.)]		
	Nominal heating capacity		kW)~ 18.0(Max.)]		
	Power	Cooling			21		
	consumption	Heating	kW		69		
	Max power consumption				57		
	Running	Cooling			/ 19.8		
	current	Heating	Α		/ 22.0		
Operation	Inrush current, max curre				26		
data	Power factor	Cooling	%		97		
data		Heating	,,,		97		
	EER	Cooling			33		
	COP	Heating		3.	41		
	Sound power level	Cooling Heating		60	72		
	Sound pressure level	Cooling Heating	dB(A)	P-Hi:37 Hi:32 Me:29 Lo:26	49 52		
	Silent mode sound press			_	_		
Exterior dim	nensions (Height x Width x	Depth)	mm	280 × 750 × 635	1300×970×370		
Exterior app	nearance				Stucco White		
(Munsell co				_	(4.2Y7.5/1.1) near equivalent		
Net weight	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		kg	29	105		
	r type & Q'ty		Ng	_	RMT5134MDE2×1		
	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		Q	_	0.9 M-MA68		
	(Type, amount, pre-charg	e lenath)	kg	R410A 4.5kg(Pre-charged up to the	e piping length of 30m)Outdoor unit		
Heat excha	<u> </u>	<u>o .og,</u>		Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant				· · ·	pansion valve		
Fan type &				Centrifugal fan ×1	Propeller fan ×2		
	Starting method)		W	100 < Direct line start >	86 < Direct line start>		
Air flow	<u> </u>	Cooling Heating	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100		
Available ex	ternal static pressure	riodanig	Pa	Standard : 35 Max : 100	_		
Outside air				Possible	_		
	ality / Quantity			Procure locally	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)		
Electric hea			W	=	20 (Crank case heater)		
	Remote control			(option) wired: RC-EX1A.RC-E5	5 , RCH-E3 wireless : RCN-KIT3-E		
Operation	Room temperature contro	ol l			by electronics		
control	Operation display			-	<u>-</u>		
Safety equi	oments			Frost protection Internal thermos	cion for fan motor. on thermostat. tat for fan motor. emperature protection.		
	Refrigerant piping size (0	D.D.)	mm	Liquid line: I.U. φ 6.35 (1/4") ② φ 9.52(3/8")>	(0.8 ① φ 9.52(3/8")×0.8 O.U. φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")×1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m				
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way) length	m	Max	.50m		
	Vertical height diff. between C	D.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose Connectable VP25(O.D.32)	Holes size ϕ 20 x 3pcs			
Drain pump, max lift height		mm	Built-in Drain pump, 600	_			
	ded breaker size		Α	-	_		
	red rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core r	number		ϕ 1.6mm× 3 cores (Including earth cab	le) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit, Drain hose	Edging		
Option part					FL1EF		
Note (1) The data are measured at the following conditions The pine length is 7.5m.							

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air temperature		External static pressure	Standards
Operation	DB	WB	DB	WB	of indoor unit	Standards
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1
Heating	20°C	_	7°C	6°C	35Fa	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

Model				FDUM140VSXTVF		
Item			Model	Indoor unit FDUM50VF (3 units)	Outdoor unit FDC140VSX	
Power sour	ce				50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)	~ 16.0(Max.)]	
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.))~ 20.0(Max.)]	
	Power	Cooling			21	
	consumption	Heating	kW	4.69		
	Max power consumption			8.21		
	Running	Cooling		6.3	/ 6.6	
	current	Heating	A	7.0	/ 7.4	
Operation	Inrush current, max curre	ent		5 ,	15	
data	Power factor	Cooling	%	96	/ 97	
data	I ower lactor	Heating	/0	97 .	/ 96	
	EER	Cooling		3.	33	
	COP	Heating		3.	41	
	Sound power level	Cooling		60	72	
	Souria power level	Heating		00	12	
	Sound propoure lovel	Cooling	dB(A)	P-Hi: 37 Hi: 32 Me: 29 Lo: 26	49	
	Sound pressure level	Heating		F-HI. 37 HI. 32 We. 29 LO. 20	52	
	Silent mode sound press	ure level		_	_	
Exterior dia	agnaigns (Haight y Width y	Donth)		200 750 625	1200070270	
Lixterior din	nensions (Height x Width x	Depth)	mm	280 × 750 × 635	1300×970×370	
Exterior app	pearance				Stucco White	
(Munsell co	olor)			_	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	29	105	
	or type & Q'ty		Ŭ	_	RMT5134MDE3×1	
	or motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		Q	_	0.9 M-MA68	
	(Type, amount, pre-charc	ie lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat excha	<u> </u>	, <u> </u>	1.5	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant				ŭ ŭ	pansion valve	
Fan type &				Centrifugal fan ×1	Propeller fan ×2	
	(Starting method)		W	100 < Direct line start >	86 x 2 < Direct line start >	
Air flow	(C-1311 111 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cooling	m³/min	P-Hi:13 Hi:10 Me:9 Lo:8	100	
		Heating	·			
	xternal static pressure		Pa	Standard: 35 Max: 100	_	
Outside air				Possible	_	
	uality / Quantity			Procure locally		
	oration absorber		101	Rubber sleeve(for fan motor)	Rubber sleeve (for compressor)	
Electric hea	1		W		20 (Crank case heater)	
Operation	Remote control	<u> </u>			5 , RCH-E3 wireless : RCN-KIT3-E	
control	Room temperature contr	OI		I nermostat t	by electronics	
	Operation display					
				•	ion for fan motor.	
Safety equi	pments			•	on thermostat.	
					tat for fan motor. emperature protection.	
	Refrigerant piping size ((D.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")»	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")	
					0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping	1	m			
data	Insulation for piping	A 1			Liquid & Gas lines)	
	Refrigerant line (one way		m		100m	
	Vertical height diff. between (J.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
Drain hose			Hose Connectable VP25(O.D.32)	Holes size φ20 x 3pcs		
			mm	Built-in Drain pump , 600	_	
			A			
	ked rotor ampere)		Α		.0	
Interconnec	cting wires Size x Core r	iumber		, ,	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard a				Mounting kit, Drain hose	Edging FL1EF	
Option part	.5		لــــــا	UM-F	LIEF	

Item	Indoor air te	emperature	Outdoor air temperature		External static pressure	Standards	
Operation	DB	WB	DB	WB	of indoor unit	Standards	
Cooling	27°C	19°C	35°C	24°C	35Pa	ISO5151-T1	
Heating	20°C	_	7°C	6°C	33Fa	1303131-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O.U. ~ Branch. ②: Pipe of Branch ~ I.U.
 (9) Static pressure of optional air filter "UM-FL1EF" is 5Pa initially.¹
 (10) The external static pressure setting can be changed to 10-100Pa. (For RC-EX1A and RC-E5 only)

(6) Floor standing type(FDF) (a) Single type

			Model	FDF71\	/NXVD1		
Item			Wiodei	Indoor unit FDF71VD1 Outdoor unit FDC71VNX			
Power sour				1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	7.1 [3.2(Min.)~ 8.0(Max.)]		
	Nominal heating capacity	(range)	kW	8.0 [3.6(Min.)~ 9.0(Max.)]		
	Power	Cooling		2.	21		
	consumption Heating		kW	2.	21		
	Max power consumption		ĺ	3.	54		
	Running Cooling			9.8 /	10.3		
	current	Heating	Α		10.4		
	Inrush current, max currer		''		17		
Operation		Cooling			98		
data	Power factor	Heating	%		97		
	EER	Cooling			21		
	COP	Heating			62		
	COF	Cooling		3.			
	Sound power level			61	66		
	-	Heating	ID(A)				
	Sound pressure level	Cooling	dB(A)	P-Hi: 42 Hi: 39 Me: 35 Lo: 33	51		
	·	Heating			48		
	Silent mode sound pressu	re level			_		
Exterior dim	nensions (Height x Width x	Depth)	mm	$1,850 \times 600 \times 320$	750×880(+88)×340		
Exterior app	pearance			Ceramic White	Stucco White		
(Munsell co				(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	49	60		
	r type & Q'ty		9		RMT5118MDE2×1		
	r motor (Starting method)		kW	_	Direct line start		
	oil (Amount, type)		e l		0.675 (M-MA68)		
	(Type, amount, pre-charge	longth)	kg	P410A 2 05kg in outdoor unit (incl	the amount for the piping of : 30m)		
		iengin)	- Ny	Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Heat excha					pansion valve		
Refrigerant							
Fan type &			10/	Centrifugal fan ×1	Propeller fan ×1		
Fan motor (Starting method)	0 "	W	157 < Direct line start >	86 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14	60 50		
Available ex	ternal static pressure		Pa	0	_		
Outside air	intake			Not possible	_		
Air filter, Qu	ality / Quantity			Plastic net ×1(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	_	20 (Crank case heater)		
	Remote control			BC-F5 (Installed) / wirele	ess : RCN-KIT3-E (option)		
Operation	Room temperature contro	l			by electronics		
control	Operation display	•		-	_		
Safety equi				Frost protection Internal thermos	ion for fan motor. on thermostat. tat for fan motor. emperature protection.		
	Refrigerant piping size (O	.D.)	mm		φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 15.88(5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_	_		
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)		
	Refrigerant line (one way)	length	m		.50m		
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose Connectable with VP20	Holes size ϕ 20 x 3pcs			
Drain pump, max lift height		mm	<u> </u>	_			
Recommen	ded breaker size		Α	-	_		
L.R.A. (Lock	ked rotor ampere)		Α	5	.0		
Interconnec	ting wires Size x Core nu	umber		ϕ 1.6mm× 3 cores (Including earth cab	ole) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad	ccessories			Mounting kit	_		
Option part	S				=		
Sprior parts							

Note (1) The data are measured at the following conditions.

The pipe	length	is	7.5m.
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_	(1) The data are	inoaoaroa at t	The pipe length to 7.0m.				
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
	Operation	DB	WB	DB	DB WB Standards		
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
	Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat (a) Solid level indicates the value in an affection chamber. During operation these value are schigher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Model			Model	FDF100VNXVD1			
Item			Wiodei	Indoor unit FDF100VD1	Outdoor unit FDC100VNX		
Power sour	rce				50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.)	~ 11.2(Max.)]		
	Nominal heating capacity	y (range)	kW	11.2 [4.0(Min.)	~ 12.5(Max.)]		
	Power	Cooling		2.	83		
	consumption	Heating	kW	3.	04		
	Max power consumption	1		4.86			
	Running	Cooling		12.6 / 13.1			
	current	Heating	Α [13.5	/ 14.1		
0	Inrush current, max curre	ent] [5 ,	24		
Operation	Davis of atau	Cooling	0/		8		
data	Power factor	Heating	%	9	8		
	EER	Cooling	İ	3.	53		
	COP	Heating	1 1	3.	68		
		Cooling		0.5	70		
	Sound power level	Heating	1	65	70		
		Cooling	dB(A)		48		
	Sound pressure level	Heating	(7	P-Hi:54 Hi:50 Me:48 Lo:44	50		
	Silent mode sound press		1 1	_			
Exterior din	nensions (Height x Width >	(Depth)	mm	1,850 × 600 × 320	1300×970×370		
Exterior app	pearance			Ceramic White	Stucco White		
(Munsell co				(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	52	105		
	or type & Q'ty		Ng	— —	RMT5134MDE2×1		
	or motor (Starting method)		kW		Direct line start		
	oil (Amount, type)		l	_	0.9 M-MA68		
	(Type, amount, pre-charge	va lanath)	1	R410A 4.5kg in outdoor unit (incl. t			
	3 71	ge lerigili)	kg				
Heat excha				Louver fin & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant					pansion valve		
Fan type &			147	Centrifugal fan ×1	Propeller fan ×2		
Fan motor	(Starting method)	10 1:	W	157 < Direct line start >	86 x 2 < Direct line start >		
Air flow		Cooling	m³/min	P-Hi: 29 Hi: 26 Me: 23 Lo: 19	100		
Available o	external atatic procesure	Heating	Pa	0			
	xternal static pressure		Ра	-			
Outside air				Not possible			
	uality / Quantity			Plastic net ×1(Washable)			
	oration absorber		147	Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	1		W	- PO 55 // 1 // 1 / 1	20 (Crank case heater)		
Operation	Remote control				ss : RCN-KIT3-E (option)		
control	Room temperature contr	OI		I hermostat b	by electronics		
	Operation display			-	-		
					ion for fan motor.		
Safety equi	ipments				on thermostat.		
, , , , ,				Internal thermos			
	1				emperature protection.		
	Refrigerant piping size (O.D.)	mm	Liquid line: I/U ϕ 9.52 (3/8") Pipe			
	0 11 0 (Gas line: φ 15.88 (5/8") φ			
l	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	9	m	-	_		
data	Insulation for piping			Necessary (both I			
	Refrigerant line (one way		m		100m		
	Vertical height diff. between	O.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose Connectable with VP20	Holes size ϕ 20 x 3pcs			
Drain pump, max lift height		mm	_	_			
	nded breaker size		Α		_		
	ked rotor ampere)		Α		.0		
Interconnec	cting wires Size x Core	number		, , , ,	le) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard a				Mounting kit	Edging		
Option part	ts			-	_		

Item Indoor air te		emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat (a) Solid level indicates the value in an alectroic chamber. During operation these value are so higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDF100VSXVD1		
Item			Wiodei	Indoor unit FDF100VD1	Outdoor unit FDC100VSX	
Power soul	rce			3 Phase 380-415V	50Hz / 380V 60Hz	
	Nominal cooling capacit	y (range)	kW	10.0 [4.0(Min.)		
	Nominal heating capacit	ty (range)	kW	11.2 [4.0(Min.)	~ 16.0(Max.)]	
	Power	Power Cooling		2.8	83	
	consumption Heating		kW	3.0	04	
	Max power consumption	n		6.0	08	
	Running	Cooling		4.2 /	4.4	
	current	Heating	Α [4.5 /	4.7	
Operation	Inrush current, max curr	ent		5 ,	15	
data	Power factor	Cooling	%	97	98	
uaia	Power lactor	Heating	70	9	8	
	EER	Cooling		3.5	53	
	COP	Heating		3.6	68	
	Sound power level	Cooling		65	70	
	Souria power level	Heating] [65	70	
	Cound programs lovel	Cooling	dB(A)	P-Hi:54 Hi:50 Me:48 Lo:44	48	
	Sound pressure level	Heating		P-HI. 54 HI. 50 Me. 46 LO. 44	50	
	Silent mode sound pres	sure level] [_	_	
Cutorion din	manaiana (Haight y Width	v Danth)		1 950 600 200	1200070270	
LXIEHOF dir	nensions (Height x Width	v nehtti)	mm	1,850 × 600 × 320	1300×970×370	
Exterior ap	pearance			Ceramic White	Stucco White	
(Munsell c	olor)			(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	52	105	
Compresso	or type & Q'ty			_	RMT5134MDE3×1	
Compresso	or motor (Starting method))	kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-char	ge length)	kg	R410A 4.5kg in outdoor unit (incl. t	he amount for the piping of : 30m)	
Heat excha	anger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic exp	pansion valve	
Fan type &	Q'ty			Centrifugal fan ×1	Propeller fan ×2	
Fan motor	(Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:29 Hi:26 Me:23 Lo:19	100	
Available	xternal static pressure	rieating	Pa	0		
Outside air			га	Not possible	<u>_</u>	
	uality / Quantity			Plastic net ×1(Washable)		
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	Rubbel sleeve(lot lait filotol)	20 (Crank case heater)	
LIECTIIC HE	Remote control		VV	RC-E5 (Installed) / wirele		
Operation	Room temperature cont	rol		Thermostat b		
control	Operation display	101		memostati	- electronics	
	Operation display			Overload protecti	ion for fan motor	
				Frost protection		
Safety equi	ipments			Internal thermost		
				Abnormal discharge te		
	B. (O.D.)		Liquid line: I/U φ 9.52 (3/8") Pipe α		
	Refrigerant piping size (O.D.)	mm	Gas line: ϕ 15.88 (5/8") ϕ		
	Connecting method	1		Flare piping	Flare piping	
Installation	Attached length of pipin		m	— 6did	— — — — — — — — — — — — — — — — — — —	
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one wa	y) length	m	Max.		
	Vertical height diff. between		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose Connectable with VP20	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height		mm	_	_		
	nded breaker size		Α	_	_	
	ked rotor ampere)		Α	5.	.0	
Interconne		number		φ 1.6mm× 3 cores (Including earth cab	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard a	ccessories			Mounting kit	Edging	
Option part				-	-	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat (a) Solid level indicates the value in an alectroic chamber. During operation these value are so higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

				FDF125	VNXVD	
Item			Model	Indoor unit FDF125VD	Outdoor unit FDC125VNX	
Power soul	rce			1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacit	y (range)	kW	12.5 [5.0(Min.)		
	Nominal heating capacit	ty (range)	kW	14.0 [4.0(Min.)	~ 17.0(Max.)]	
	Power	Cooling		3.8	89	
	consumption	Heating	kW	3.8	88	
	Max power consumption	n		6.2	22	
	Running	Cooling		17.3 /	18.0	
	current	Heating	Α [17.2	18.0	
Operation	Inrush current, max curr	ent		5 ,	26	
data	Power factor	Cooling	%	9	8	
uaia	Power lactor	Heating	70	9	8	
	EER	Cooling		3.2	21	
	COP	Heating		3.6	61	
	Sound power level	Cooling		73	70	
	Souria power level	Heating] [75	70	
	Cound programs lovel	Cooling	dB(A)	P-Hi:54 Hi:50 Me:48 Lo:44	48	
	Sound pressure level	Heating		F-HI. 54 HI. 50 Me. 46 LO. 44	50	
	Silent mode sound pres	sure level		_	_	
Exterior dir	nonciona (Haight y Width	v Donth)	mm	1,850 × 600 × 320	1300×970×370	
Exterior dir	nensions (Height x Width	x Depth)	mm	1,650 × 600 × 320	1300×970×370	
Exterior ap	pearance			Ceramic White	Stucco White	
(Munsell c	olor)			(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	52	105	
Compresso	or type & Q'ty			-	RMT5134MDE2×1	
Compresso	or motor (Starting method))	kW	-	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-char	ge length)	kg	R410A 4.5kg in outdoor unit (incl. t	he amount for the piping of : 30m)	
Heat excha	Heat exchanger			Louver fin & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	Refrigerant control			Electronic exp	oansion valve	
Fan type &	Fan type & Q'ty			Centrifugal fan ×1	Propeller fan ×2	
Fan motor	Fan motor (Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling	m³/min	P-Hi:29 Hi:26 Me:23 Lo:19	100	
Available	starnal atatic pressure	Heating	Pa	0	_	
Outside air	xternal static pressure		га	Not possible		
	uality / Quantity			Plastic net ×1(Washable)		
	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	Rubbel Sleeve(lot lait filotol)	20 (Crank case heater)	
LIECTIIC HE	Remote control		**	RC-E5 (Installed) / wireless : RCN-KIT3-E (option)		
Operation	Room temperature cont	rol		Thermostat by electronics		
control	Operation display	101		mormostat s	-	
	Operation display			Overload protecti	ion for fan motor	
				Frost protection		
Safety equi	ipments			Internal thermost		
				Abnormal discharge te		
	B. (O.D.)		Liquid line: I/U φ 9.52 (3/8") Pipe α		
	Refrigerant piping size (O.D.)	mm	Gas line: ϕ 15.88 (5/8") ϕ		
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of pipin	g	m	_		
data	Insulation for piping			Necessary (both L	iquid & Gas lines)	
	Refrigerant line (one wa	y) length	m	Max.		
	Vertical height diff. between		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose Connectable with VP20	Holes size φ20 x 3pcs	
Drain pump	o, max lift height		mm	_	_	
	nded breaker size		Α	-		
	ked rotor ampere)	,	Α	5.	.0	
Interconne		number		φ 1.6mm× 3 cores (Including earth cab	le) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard a	ccessories			Mounting kit	Edging	
Option part	ts				-	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat (a) Solid level indicates the value in an alectroic chamber. During operation these value are so higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDF125	SVSXVD		
Item			wiodel	Indoor unit FDF125VD Outdoor unit FDC125VSX			
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz			
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.))~ 14.0(Max.)]		
	Nominal heating capacity		kW	14.0 [4.0(Min.)∼ 18.0(Max.)]		
	Power	Cooling		3.	89		
	consumption	Heating	kW	3.88			
	Max power consumption			7.	78		
	Running	Cooling		5.7	/ 6.0		
	current	Heating	A	5.7	/ 6.0		
Operation	Inrush current, max currer	nt		5 ,	15		
data	Power factor	Cooling	%	9	9		
Gata	1 Ower lactor	Heating	/0	9	8		
	EER	Cooling			21		
	COP	Heating		3.	61		
	Sound power level	Cooling		73	70		
	Codita power level	Heating		70			
	Sound pressure level	Cooling	dB(A)	P-Hi:54 Hi:50 Me:48 Lo:44	48		
	•	Heating		. 111.01 111.00 MIO. 40 LO. 44	50		
	Silent mode sound pressu	ıre level		_	-		
Exterior dimensions (Height x Width x Depth)		mm	1,850 × 600 × 320	1300×970×370			
Exterior app	pearance			Ceramic White	Stucco White		
(Munsell co				(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	52	105		
Compresso	r type & Q'ty			_	RMT5134MDE3×1		
Compresso	r motor (Starting method)		kW	-	Direct line start		
	Refrigerant oil (Amount, type)		l	-	0.9 M-MA68		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat exchanger			Louver fine & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control			Electronic ex	pansion valve			
Fan type & Q'ty			Centrifugal fan ×1	Propeller fan ×2			
Fan motor (Fan motor (Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >		
Air flow	Air flow Cooling Heating		m³/min	P-Hi:29 Hi:26 Me:23 Lo:19	100		
Available ex	ternal static pressure		Pa	0	_		
Outside air	intake			Not possible	_		
Air filter, Qu	ality / Quantity			Plastic net ×1(Washable)	_		
	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea	ter		W	_	20 (Crank case heater)		
Operation	Remote control			RC-E5 (Installed) / wireless : RCN-KIT3-E (option)			
Operation control	Room temperature contro	ol		Thermostat by electronics			
30111101	Operation display						
					ion for fan motor.		
Safety equir	oments			•	on thermostat.		
	· · · · · · · · · · · · · · · · · · ·				tat for fan motor.		
					emperature protection.		
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U φ 9.52 (3/8") Pipe			
		,		. , , ,	15.88(5/8")x1.0		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m				
data	Insulation for piping	. I a sa sail		, ,	Liquid & Gas lines)		
	Refrigerant line (one way)		m		100m		
	Vertical height diff. between O	.u. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Dualia	Drain hose		100	Hose Connectable with VP20	Holes size φ20 x 3pcs		
	, max lift height		mm	_	_		
	ded breaker size		A				
	ked rotor ampere)	unah a ::	Α		.0		
Interconnec	ting wires Size x Core no	umber		, , ,	ole) / Termainal block (Screw fixing type)		
IP number Standard ad				IPX0	IP24		
Option parts				Mounting kit	Edging		
Option parts	5		ı	-	_		

Option parts | | | |
Note (1) The data are measured at the following conditions.

()		- -			
Iter	m Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

			Model	FDF140	OVNXVD		
Item				Indoor unit FDF140VD	Outdoor unit FDC140VNX		
Power sour	1				50Hz / 220V 60Hz		
	Nominal cooling capacity		kW)∼ 16.0(Max.)]		
	Nominal heating capacity	```	kW)~ 18.0(Max.)]		
	Power	Cooling		4.65			
	consumption	Heating	kW	4.	69		
	Max power consumption			6.	57		
	Running	Cooling		20.6	/ 21.6		
	current	Heating	A	20.8 / 21.8			
Operation	Inrush current, max curre	nt		5 ,	26		
data	Power factor	Cooling	%	9	98		
l	1 ower factor	Heating	70	9	98		
	EER	Cooling			01		
	COP	Heating		3.	41		
	Sound power level	Cooling]	73	72		
	Sourid power level	Heating		73	12		
	Sound pressure level	Cooling	dB(A)	P-Hi: 54 Hi: 50 Me: 48 Lo: 44	49		
	Sourid pressure level	Heating		F-HI. 34 HI. 30 Me. 46 LO. 44	52		
	Silent mode sound pressi	ure level	<u> </u>	-	_		
Extorior dia	oneione (Hoight y Midth y	Donth)	mm	1,850 × 600 × 320	1300×970×370		
Exterior airi	nensions (Height x Width x	Depth)	mm	1,650 × 600 × 320	1300×970×370		
Exterior appearance			Ceramic White	Stucco White			
(Munsell color)			(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	52	105		
Compresso	r type & Q'ty	·		_	RMT5134MDE2×1		
	r motor (Starting method)		kW	_	Direct line start		
Refrigerant	oil (Amount, type)		Q.	_	0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)			
Heat exchanger			Louver fine & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control			<u> </u>	pansion valve			
Fan type & Q'ty			Centrifugal fan ×1	Propeller fan ×2			
	Fan motor (Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >		
Air flow	,	Cooling Heating	m³/min	P-Hi:29 Hi:26 Me:23 Lo:19	100		
Available ex	ternal static pressure	riodaling	Pa	0	_		
Outside air	<u> </u>		١.۵	Not possible	_		
	ality / Quantity			Plastic net ×1(Washable)	_		
	pration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	— 20 (Crank case heater)			
	Remote control		- "	RC-E5 (Installed) / wireless : RCN-KIT3-E (option)			
Operation	Room temperature control	nl .		RC-E5 (Installed) / wireless : RCN-KI13-E (option) Thermostat by electronics			
control	Operation display	-		-	_		
				Overload protect	tion for fan motor.		
				·	on thermostat.		
Safety equip	oments			•	tat for fan motor.		
					emperature protection.		
					φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")		
	Refrigerant piping size (C	D.D.)	mm -		15.88(5/8")x1.0 φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping	 	m	– iaie piping	— Trace piping		
data	Insulation for piping				Liquid & Gas lines)		
Janu	Refrigerant line (one way) length	m		100m		
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
	Drain hose	unu 1.U.	-111	Hose Connectable with VP20	Holes size ϕ 20 x 3pcs		
Drain pump	, max lift height	-	mm	—	— — — — — — — — — — — — — — — — — — —		
	ded breaker size		A	- -	<u>-</u> -		
	ked rotor ampere)		A	5	.0		
Interconnec		umber	_ ^		ble) / Termainal block (Screw fixing type)		
IP number	ung wires Size x Core ii	IUITIDEI		φ r.emm × 3 cores (including earth car.	IP24		
Standard ac	coesories			Mounting kit	Edging		
					Eaging		
Option parts				-	_		

()					
Item	Indoor air t	emperature	Standards		
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDF140	DVSXVD			
Item				Indoor unit FDF140VD	Outdoor unit FDC140VSX			
Power source	ce			3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.) ~ 16.0(Max.)]				
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.)~ 20.0(Max.)]			
	Power	Cooling		4.65				
	consumption	Heating	kW	4.69				
	Max power consumption			8.	21			
	Running	Cooling		6.8	7.2			
	current	Heating	Α	6.9	/7.3			
	Inrush current, max curre	nt		5 ,	15			
Operation	D ()	Cooling	0/	99	/ 98			
data	Power factor	Heating	%	g	18			
	EER	Cooling		3.	01			
	COP	Heating			41			
		Cooling						
	Sound power level	Heating		73	72			
		Cooling	dB(A)		49			
	Sound pressure level	Heating		P-Hi: 54 Hi: 50 Me: 48 Lo: 44	52			
	Silent mode sound press							
	Joheni mode sound press	ure level		-	-			
Exterior dimensions (Height x Width x Depth)		Depth)	mm	$1,850 \times 600 \times 320$	1300×970×370			
Exterior app	pearance			Ceramic White	Stucco White			
(Munsell color)			(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent				
Net weight	,		kg	52	105			
	r type & Q'ty		- Ng	<u>-</u>	RMT5134MDE3×1			
	r motor (Starting method)		kW		Direct line start			
	oil (Amount, type)		Q .	_	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)		kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)				
Heat exchanger		I Ng	Louver fine & inner grooved tubing	M shape fin & inner grooved tubing				
Refrigerant control			<u> </u>	pansion valve				
				Centrifugal fan ×1	Propeller fan ×2			
Fan type & Q'ty Fan motor (Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >				
ran motor (Starting method)	Caaling	VV	157 < Direct line start >	00 X 2 < Direct line start >			
Air flow		Cooling Heating	m³/min	P-Hi: 29 Hi: 26 Me: 23 Lo: 19	100			
Available ex	ternal static pressure		Pa	0	_			
Outside air	intake			Not possible	_			
Air filter, Qu	ality / Quantity			Plastic net ×1(Washable)	_			
Shock & vib	ration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)			
Electric hea	ter		W	– 20 (Crank case heater)				
0 ::	Remote control			RC-E5 (Installed) / wirele	ess : RCN-KIT3-E (option)			
Operation	Room temperature contro	ol			by electronics			
control	Operation display			-	- -			
	1 1 2 2 3 11 17			Overload protect	ion for fan motor.			
0 ()					on thermostat.			
Safety equip	oments				tat for fan motor.			
					emperature protection.			
				-	φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
	Refrigerant piping size (C	J.D.)	mm -		15.88(5/8")x1.0 φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	—	—			
data	Insulation for piping				 Liquid & Gas lines)			
aaiu	Refrigerant line (one way) length	m		100m			
	Vertical height diff. between 0		m	Max.30m (Outdoor unit is higher)				
	Drain hose	7.0. and 1.0.	m	Hose Connectable with VP20	Max.15m (Outdoor unit is lower) Holes size			
Drain num			mm	HOSE CONNECTABLE WITH VP20	πυίες δίζε φ zu x δρύς			
	, max lift height		mm		_			
	ded breaker size		A					
	(ed rotor ampere)		Α		.0			
Interconnec	ting wires Size x Core r	number		, ,	ole) / Termainal block (Screw fixing type)			
IP number				IPX0	IP24			
Standard ad				Mounting kit	Edging			
Option parts				-				

(.)			me pipe iongunie memi			
	Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operati	on	DB WB		DB	WB	Standards
Coo	ling	27°C	19°C	35°C	24°C	ISO5151-T1
Heat	ting	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

- (4) Select the breaker size according to the own national standard.
 (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

(b) Twin type

			Model	FDF140\	/NXPVD1	
Item			wodei	Indoor unit FDF71VD1 (2 units)	Outdoor unit FDC140VNX	
Power sour	rce			,	50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW)~ 16.0(Max.)]	
	Nominal heating capacity		kW)~ 18.0(Max.)]	
	Power	Cooling			83	
	consumption	Heating	kW		97	
	Max power consumption	110001119			96	
	Running	Cooling			/ 22.4	
	current	Heating	Α		/ 23.1	
	Inrush current, max curren		_ ^		26	
Operation	illiusii current, max curren	Cooling		,	98	
data	Power factor		%			
	FED	Heating			98	
	EER	Cooling			.9	
	COP	Heating		3.	22	
	Sound power level	Cooling		61	72	
		Heating	ID(A)		40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 42 Hi: 39 Me: 35 Lo: 33	49	
	·	Heating			52	
	Silent mode sound pressu	re level		_	_	
Exterior dimensions (Height x Width x Depth)		Depth)	mm	1,850 × 600 × 320	1300×970×370	
Exterior ap	pearance			Ceramic White	Stucco White	
(Munsell co				(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	49	105	
	or type & Q'ty		i ng	_	RMT5134MDE2×1	
	or motor (Starting method)		kW	_	Direct line start	
	oil (Amount, type)		l		0.9 M-MA68	
	(Type, amount, pre-charge	longth)		D410A 4 Ekg/Dra abaygad up to th	e piping length of 30m)Outdoor unit	
	Heat exchanger		kg	9, 9	, , , , , , , , , , , , , , , , , , , ,	
			Louver fine & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control					pansion valve	
	Fan type & Q'ty		141	Centrifugal fan ×1	Propeller fan ×2	
Fan motor	Fan motor (Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:18 Hi:16 Me:14 Lo:12	100	
Available e	xternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	uality / Quantity	,		Plastic net ×1(Washable)	_	
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ater		W	_	20 (Crank case heater)	
	Remote control			RC-E5 (Installed) / wireless : RCN-KIT3-E (option)		
Operation	Room temperature contro			Thermostat by electronics		
control	Operation display			—		
Safety equi				Frost protection	ion for fan motor. on thermostat.	
carety equi	,p				tat for fan motor. emperature protection.	
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8")» Gas line: I/U φ 15.88 (5/8") ② φ 15.88(5/8")»	x0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") x1.0 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	_	_	
data	Insulation for piping			Necessary (both I	Liquid & Gas lines)	
	Refrigerant line (one way)	length	m	Max.	100m	
	Vertical height diff. between O.		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
D :	Drain hose			Hose Connectable with VP20	Holes size φ20 x 3pcs	
	o, max lift height		mm	_	_	
	nded breaker size		Α	-	-	
	ked rotor ampere)		Α		.0	
Interconnec	cting wires Size x Core nu	ımber		· · · · · · · · · · · · · · · · · · ·	ple) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
Standard a	· · · · · · · · · · · · · · · · · · ·			Mounting kit	Edging	
Option part				-	_	
	1) The data are measured a			ditions The pine length is		

Note (1) The data are measured at the following conditions.

The pipe length is 7.5m	The	pipe	lenath	is	7.5m
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Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U \sim Branch, ②: Pipe of Branch \sim I/U

			Model	FDF140V	/SXPVD1	
Item			Model	Indoor unit FDF71VD1 (2 units)	Outdoor unit FDC140VSX	
Power sour	rce				50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)		
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.)		
	Power Cooling				83	
	consumption	Heating	kW		97	
	Max power consumption				70	
	Running	Cooling			/ 7.5	
	current	Heating	Α		/ 7.7	
Operation	Inrush current, max currer	1			15	
data	Power factor	Cooling	%		8	
		Heating			8	
	EER	Cooling		2.9 3.22		
	COP	Heating		3.1	22	
	Sound power level	Cooling		61	72	
		Heating		*	40	
	Sound pressure level	Cooling	dB(A)	P-Hi: 42 Hi: 39 Me: 35 Lo: 33	49	
		Heating			52	
	Silent mode sound pressu	ire level			_	
Exterior din	nensions (Height x Width x	Depth)	mm	1,850 × 600 × 320	1300×970×370	
Exterior ap	pearance			Ceramic White	Stucco White	
(Munsell co	olor)			(N8.0) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	49	105	
Compresso	or type & Q'ty			_	RMT5134MDE3×1	
Compresso	or motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	_	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg		e piping length of 30m)Outdoor unit	
Heat excha	anger			Louver fine & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &	Q'ty			Centrifugal fan ×1	Propeller fan ×2	
Fan motor	(Starting method)		W	157 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	P-Hi:18 Hi:16 Me:14 Lo:12	100	
Available ex	xternal static pressure		Pa	0	_	
Outside air	intake			Not possible	_	
Air filter, Qu	uality / Quantity			Plastic net ×1(Washable)	-	
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ater		W	 20 (Crank case heater) 		
Operation	Remote control			RC-E5 (Installed) / wireless : RCN-KIT3-E (option)		
control	Room temperature contro	1		Thermostat b	by electronics	
	Operation display			-		
				•	ion for fan motor.	
Safety equi	ipments			Frost protection		
				Internal thermos		
					emperature protection.	
	Refrigerant piping size (O	.D.)	mm	Liquid line: I/U φ 9.52 (3/8") ② φ 9.52(3/8")x		
		•		Gas line: I/U ϕ 15.88 (5/8") ② ϕ 15.88(5/8")		
 	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m	- Nagagany / hath l	iquid 9 Coo lines)	
data	Insulation for piping	lanat-		Necessary (both L		
	Refrigerant line (one way)		m		100m	
	Vertical height diff. between O	.u. and i.u.	m	Max.30m (Outdoor unit is higher) Hose Connectable with VP20	Max.15m (Outdoor unit is lower) Holes size ϕ 20 x 3pcs	
Drain nose Drain pump, max lift height		mm	HOSE CONNECTABLE WITH VP20	πυίες δίζε φ ζυ x δρύς		
Recommended breaker size			mm ^		_	
			A	-	.0	
L.R.A. (Locked rotor ampere) Interconnecting wires Size x Core number			Α		.u ble) / Termainal block (Screw fixing type)	
IP number	oung wires Size x Core fil	ai i i Del		φ r.emm × 3 cores (including earth cab	IP24	
Standard a	ccessories			Mounting kit	Edging	
Option part	· · · · · · · · · · · · · · · · · · ·				Euging -	
Option part	ption parts –					

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
- (6) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (7) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (8) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U \sim Branch, ②: Pipe of Branch \sim I/U

(7) Wall mounted type (SRK)

(a) Twin type

Moc								
Item			Woden	Indoor unit SRK50ZMX-S (2 units)	Outdoor unit FDC100VNX			
Power source				1 Phase 220-240V	50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.))~ 11.2(Max.)]			
	Nominal heating capacity	``	kW	11.2 [4.0(Min.))~ 12.5(Max.)]			
	Power	sumption Heating		2.66				
	consumption				60			
	Max power consumption				26			
	Running	Cooling			/ 12.3			
	current	Heating	A	11.5				
Operation	Inrush current, max curre	1		5 ,				
data	Power factor	Cooling	%	98				
data		Heating	/ 0		8			
	EER	Cooling			76			
	COP	Heating			31			
	Sound power level	Cooling		60	70			
	Courte potro: love.	Heating		64	-			
	Sound pressure level	Cooling	dB(A)	Hi: 47 Me: 40 Lo: 27 ULo: 25	48			
ı	<u> </u>	Heating		Hi: 48 Me: 40 Lo: 33 ULo: 26	50			
	Silent mode sound press	ure level		_	-			
Exterior din	nensions (Height x Width x	Depth)	mm	309 × 890 × 220	1300×970×370			
F		- ' '		F:	01			
Exterior app				Fine snow	Stucco White			
(Munsell co	JIUI J		le=	(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent			
Net weight			kg	15	105			
	or type & Q'ty		1-14/	_	RMT5134MDE2×1			
Compressor motor (Starting method)			kW	_	Direct line start			
	oil (Amount, type)	- 1	Q.	— D410A 4 51 in a state an unit (in al. 4	0.9 M-MA68			
Refrigerant (Type, amount, pre-charge length)			kg	• '	the amount for the piping of : 30m)			
Heat exchanger				Louver fins & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve			
Fan type & Q'ty			14/	Tangential fan x 1	Propeller fan ×2			
Fan motor (Starting method)		W	27 < Direct line start >	86 x 2 < Direct line start >				
Air flow		Cooling	m³/min	Hi : 13.5 Me : 11 Lo : 8 ULo: 7.0	100			
Available ex	stornal atatic pressure	Heating	Pa	Hi : 17 Me : 14.5 Lo : 10.5 ULo: 8.0	_			
Outside air	kternal static pressure		Pa	-				
				Not possible				
	uality / Quantity oration absorber			Polypropylene net (washable) x 2				
Electric hea			W	Rubber sleeve(for fan motor)	Rubber sleeve(for Compressor) 20 (Crank case heater)			
Electric flea	Remote control		VV	(option) wired: RC-EX1A, RC-E5, RCH-E3 Interface kit: SC-BIKN-				
Operation	Room temperature control	al .						
control	· · · · · · · · · · · · · · · · · · ·	JI		Thermostat by electronics				
	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, 3D AUTO: Green, ECONO: Blue				
				Internal thermos	tat for fan motor.			
Safety equi	pments				on thermostat.			
				Abnormal discharge to	emperature protection.			
				Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")»	(0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8")			
	Refrigerant piping size ().D.)	mm	Gas line: I/I I d 12 7 (1/2") ② d 12 7(1/2")v(0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")			
	Connecting method			Flare piping	Flare piping			
Installation	Attached length of piping		m	–	— — — — — — — — — — — — — — — — — — —			
data	Insulation for piping	·		Necessary (both L	iquid & Gas lines)			
	Refrigerant line (one way) length	m		100m			
	Vertical height diff. between (m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)			
Drain hose			Hose Connectable with VP16	Holes size ϕ 20 x 3pcs				
Drain pump, max lift height		mm	—	—				
Recommended breaker size		A						
L.R.A. (Locked rotor ampere)		A		.0				
,		umher	_ ^		ole) / Termainal block (Screw fixing type)			
Interconnecting wires Size x Core number IP number				φ r.onim × 3 cores (including earth cal.	IP24			
Standard a	ncessories			Mounting kit, Clean filter	Edging			
Option part				Modifiling N.C. Olean filter	Laging			
		at the follow	wing con	ditions. The pipe length is	7.5m			
Note (1) The data are measured at the following conditions. The pipe length is 7.5m.								

Note (1) The data are measured at the following conditions.

	<u> </u>
е	Standards
	Standards

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

⁽²⁾ This air-conditioner is manufactured and tested in conformity with the ISO.

⁽³⁾ Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

⁽⁴⁾ Select the breaker size according to the own national standard.

⁽⁵⁾ The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

⁽⁶⁾ Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.

⁽⁷⁾ Branching pipe set "DIS-WA1"×1(option). ①Pipe of O/U \sim Branch,②: Pipe of Branch \sim I/U

				SRK100V	/SXPZMX	
Item			Model	Indoor unit SRK50ZMX-S (2 units)	Outdoor unit FDC100VSX	
Power sour	ce			3 Phase 380-415V	50Hz / 380V 60Hz	
Nominal cooling capacity (range)			kW	10.0 [4.0(Min.)~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]	
	Power Cooling			2.	66	
	consumption	Heating	kW	2.	60	
	Max power consumption			5.	32	
	Running	Cooling		3.9	/ 4.1	
	current	Heating	Α [3.8	/ 4.0	
Operation	Inrush current, max curre	nt			15	
data	Power factor	Cooling	%	98 / 99		
data		Heating	/*		9	
	EER	Cooling			76	
	COP	Heating			31	
	Sound power level	Cooling		60	70	
		Heating		64	-	
	Sound pressure level	Cooling	dB(A)	Hi: 47 Me: 40 Lo: 27 ULo: 25	48	
	·	Heating		Hi: 48 Me: 40 Lo: 33 ULo: 26	50	
	Silent mode sound pressi	ure level		-	_	
Exterior din	nensions (Height x Width x	Depth)	mm	309 × 890 × 220	1300×970×370	
Exterior app	pearance			Fine snow	Stucco White	
(Munsell co	olor)			(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	15	105	
Compresso	r type & Q'ty			_	RMT5134MDE3×1	
Compresso	r motor (Starting method)		kW	_	Direct line start	
Refrigerant	oil (Amount, type)		l	-	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat exchanger				Louver fins & inner grooved tubing	M shape fin & inner grooved tubing	
Refrigerant	control			Electronic ex	pansion valve	
Fan type &				Tangential fan x 1	Propeller fan ×2	
Fan motor (Starting method)	_	W	27 < Direct line start >	86 x 2 < Direct line start >	
Air flow		Cooling Heating	m³/min	Hi : 13.5 Me : 11 Lo : 8 ULo : 7.0 Hi : 17 Me : 14.5 Lo : 10.5 ULo : 8.0	100	
Available ex	cternal static pressure	1	Pa	0	_	
Outside air	·			Not possible	_	
	iality / Quantity			Polypropylene net (washable) x 2	_	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea			W	– 20 (Crank case heater		
	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 Interface kit: SC-BIKN-E		
Operation	Room temperature contro	ol .		Thermostat by electronics		
control	Operation display				: Green, 3D AUTO: Green, ECONO: Blue	
Safety equi	pments			Internal thermostat for fan motor. Frost protection thermostat. Abnormal discharge temperature protection.		
	Refrigerant piping size (C).D.)	mm		0.8 ① φ 9.52(3/8")x0.8 O/U φ 9.52 (3/8") 0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping	Flare piping	
Installation	Attached length of piping		m			
data	Insulation for piping			Necessary (both I	 _iquid & Gas lines)	
	Refrigerant line (one way) length	m		100m	
	Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose	απα π.υ.		Hose Connectable with VP16	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height		mm	_	—		
Recommended breaker size		Α		<u> </u>		
	ked rotor ampere)		A		.0	
Interconnec		umber			ole) / Termainal block (Screw fixing type)	
IP number	J 12 0.20 X 0010 11			IPX0	IP24	
Standard a	ccessories			Mounting kit, Clean filter	Edging	
Option part				<u> </u>	_	
	· · · · · · · · · · · · · · · · · · ·					

The	pipe	length	is	7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) Select the breaker size according to the own national standard.
- (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
- (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together. (7) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U \sim Branch, ②: Pipe of Branch \sim I/U

N				SRK125VNXPZMX			
Item			Model	Indoor unit SRK60ZMX-S (2 units)	Outdoor unit FDC125VNX		
Power source				1 Phase 220-240V 50Hz / 220V 60Hz			
Nominal cooling capacity (range)		kW	12.5 [5.0(Min.))~ 14.0(Max.)]			
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.))~ 17.0(Max.)]		
	Power Cooling			3.	60		
	consumption	Heating	kW	3.	48		
	Max power consumption			5.	76		
	Running	Cooling		16.0	/ 16.7		
	current	Heating	A	15.4	/ 16.1		
Operation	Inrush current, max curre	nt		5 ,	26		
Operation data	Power factor	Cooling	%	9	8		
uata	Fower factor	Heating	70	9	8		
	EER	Cooling		3.	47		
	COP	Heating		4.	02		
	Sound power level	Cooling		64	70		
	Souria power level	Heating		04	70		
	Sound pressure level	Cooling	dB(A)	Hi: 51 Me: 41 Lo: 29: ULo: 25	48		
		Heating		Hi: 48 Me: 41 Lo: 34: ULo: 27	50		
	Silent mode sound pressi	ure level		_	_		
Exterior dim	nensions (Height x Width x	Depth)	mm	309 × 890 × 220	1300×970×370		
Exterior app	nearance			Fine snow	Stucco White		
(Munsell co				(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight	,		kg	15	105		
	r type & Q'ty	-	I Ng	——————————————————————————————————————	RMT5134MDE2×1		
	r motor (Starting method)		kW	_	Direct line start		
<u> </u>	oil (Amount, type)		Q .	_	0.9 M-MA68		
	(Type, amount, pre-charg	e lenath)	kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)		
Heat exchanger		i iig	Louver fins & inner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant control					pansion valve		
Fan type &				Tangential fan x 1	Propeller fan ×2		
	Starting method)		W	27 < Direct line start >	86 x 2 < Direct line start >		
Air flow	J	Cooling	m³/min	Hi: 14.5 Me: 12.5 Lo: 8.5 ULo: 7.0	100		
Available av	ternal static pressure	Heating	Pa	Hi: 17.5 Me: 15 Lo: 11 ULo: 8.5	_		
Outside air	· · · · · · · · · · · · · · · · · · ·		га	Not possible	_		
	iality / Quantity			Polypropylene net (washable) x 2	_		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	hubber sieeve(for fair fflotor)			
Electric flea	Remote control	-	VV				
Operation	Room temperature control	- I		Thermostat by electronics			
control	Operation display	JI		RUN: Green, TIMER: Yellow, HI POWER: Green, 3D AUTO: Green, ECONO: E			
	Operation display			HON. Green, HWEN. Tellow, HIT OWEN	. dreen, 3D AOTO. dreen, LOONO. Blue		
					tat for fan motor.		
Safety equi	pments			·	on thermostat.		
				Abnormal discharge te	emperature protection.		
	Refrigerant piping size (C	D.D.)	mm	Liquid line: I/U φ 6.35 (1/4") ② φ 9.52(3/8")χ	(0.8 ① ϕ 9.52(3/8")x0.8 O/U ϕ 9.52 (3/8")		
					0.8 φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")		
	Connecting method		<u> </u>	Flare piping	Flare piping		
Installation	Attached length of piping		m	— NI // // //	is vid 9 Cas lines		
data	Insulation for piping	\ langet-	n-		Liquid & Gas lines)		
	Refrigerant line (one way		m		100m May 15m (Outdoor unit is lower)		
	Vertical height diff. between C	7.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose		100:	Hose Connectable with VP16	Holes size ϕ 20 x 3pcs			
Drain pump, max lift height Recommended breaker size		mm	_	_			
			A				
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core n	umber		, ,	ole) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Clean filter	Edging		
Option part	S			-	_		

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WA1"×1(option). ①Pipe of O/U ~ Branch,②: Pipe of Branch ~ I/U

M				SRK125V	SXPZMX		
Item			Model	Indoor unit SRK60ZMX-S (2 units)	Outdoor unit FDC125VSX		
Power source				3 Phase 380-415V 50Hz / 380V 60Hz			
Nominal cooling capacity (range)			kW	12.5 [5.0(Min.))~ 14.0(Max.)]		
	Nominal heating capacity		kW	14.0 [4.0(Min.))~ 18.0(Max.)]		
	Power Cooling			3.	60		
	consumption	Heating	kW	3.	48		
	Max power consumption		[7.	20		
	Running	Cooling		5.3	/ 5.6		
	current	Heating	Α	5.1 ,	/ 5.4		
Operation	Inrush current, max curre	nt		5 ,	15		
Operation data	Power factor	Cooling	%	9	8		
uaia	Power lactor	Heating	90	9	8		
	EER	Cooling		3.	47		
	COP	Heating		4.	02		
	Sound power level	Cooling		64	70		
	Sourid power level	Heating		04	70		
	Cound preserve level	Cooling	dB(A)	Hi: 51 Me: 41 Lo: 29 ULo: 25	48		
	Sound pressure level	Heating		Hi: 48 Me: 41 Lo: 34 ULo: 27	50		
	Silent mode sound press	ure level] [_	_		
Exterior dim	nensions (Height x Width x	Depth)	mm	309 × 890 × 220	1300×970×370		
		. ,					
Exterior app				Fine snow	Stucco White		
(Munsell co	olor)		l	(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent		
Net weight			kg	15	105		
	r type & Q'ty		1.147	_	RMT5134MDE3×1		
Compressor motor (Starting method)			kW		Direct line start		
	oil (Amount, type)	1 11 \	l l	— — — — — — — — — — — — — — — — — — —	0.9 M-MA68		
Refrigerant (Type, amount, pre-charge length)		kg		the amount for the piping of : 30m)			
Heat exchanger Refrigerant control				Louver fins & inner grooved tubing	M shape fin & inner grooved tubing		
		_			pansion valve		
Fan type &			W	Tangential fan × 1 27 < Direct line start >	Propeller fan ×2		
ran motor (Starting method)	01	VV		86 × 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	Hi : 14.5 Me : 12.5 Lo : 8.5 ULo : 7.0 Hi : 17.5 Me : 15 Lo : 11 ULo : 8.5	100		
Available ox	ternal static pressure	пеаші	Pa	0	_		
Outside air			га	Not possible			
	iality / Quantity			Polypropylene net (washable) × 2	<u> </u>		
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)		
Electric hea			W	Hubber Sieeve(for fair filotor)	20 (Crank case heater)		
Liectric riea	Remote control		**	(option) wired: RC-EX1A, RC-E5, RCH-E3 Interface kit: SC-BIKN-E			
Operation	Room temperature control	nl		Thermostat by electronics			
control	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, 3D AUTO: Green, ECONO: B			
	Operation display			non. dreen, filmen. fellow, fil Fowen. dreen, 35 Ao fo. dreen, Econo. E			
					tat for fan motor.		
Safety equi	pments			•	on thermostat.		
				Abnormal discharge to	emperature protection.		
	Refrigerant piping size (C) D)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")×	0.8 ① φ 9.52(3/8")×0.8 O/U φ 9.52 (3/8")		
		,			.8 ① φ 15.88(5/8")×1.0 O/U φ 15.88 (5/8")		
	Connecting method			Flare piping	Flare piping		
Installation	Attached length of piping		m	_	<u> </u>		
data	Insulation for piping			Necessary (both I			
	Refrigerant line (one way		m		100m		
	Vertical height diff. between C).U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)		
Drain hose			Hose Connectable with VP16	Holes size ϕ 20 x 3pcs			
Drain pump, max lift height		mm	-	_			
Recommended breaker size		A					
	ked rotor ampere)		Α		.0		
Interconnec	ting wires Size x Core n	umper		, ,	ole) / Termainal block (Screw fixing type)		
IP number				IPX0	IP24		
Standard ad				Mounting kit, Clean filter	Edging		
Option part	S			-	_		

		_			
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WA1"×1(option). ①Pipe of O/U ~ Branch,②: Pipe of Branch ~ I/U

(b) Triple type

			Model	Model SRK140VNXTZMX		
Item			Model	Indoor unit SRK50ZMX-S (3 units)	Outdoor unit FDC140VNX	
Power source				1 Phase 220-240V	50Hz / 220V 60Hz	
	Nominal cooling capacity (range)		kW	14.0 [5.0(Min.))~ 16.0(Max.)]	
	Nominal heating capacit		kW	16.0 [4.0(Min.))~ 18.0(Max.)]	
	Power	Cooling		3.	98	
	consumption	Heating	kW	3.	68	
	Max power consumption	า		5.	57	
	Running	Cooling		17.7	/ 18.5	
	current	Heating	Α [16.3	/ 17.1	
Onevetien	Inrush current, max current			5 , 26		
Operation data	Power factor Cooling Heating EER Cooling		%	98.	/ 98	
uata			70	98		
]	3.	52	
	COP	Heating		4.	35	
	Sound power level	Cooling		60	72	
	Souria power level	Heating		64	12	
	Sound pressure level	Cooling	dB(A)	Hi: 47 Me: 40 Lo: 27 ULo: 25	49	
ı	Souria pressure level	Heating		Hi: 48 Me: 40 Lo: 33 ULo: 26	52	
	Silent mode sound pres	sure level		_	_	
Evterior dir	mensions (Height x Width	v Denth)	mm	309 × 890 × 220	1300×970×370	
LAIGHUI UII	TICHSIOHS (FICIGITE & WICEH)	v pehili)	mm	303 x 030 x 220	1900x310x310	
Exterior ap	pearance			Fine snow	Stucco White	
(Munsell c	olor)			(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent	
Net weight			kg	15	105	
	or type & Q'ty			_	RMT5134MDE2×1	
Compresso	or motor (Starting method))	kW	_	Direct line start	
Refrigerant oil (Amount, type)			l	_	0.9 M-MA68	
Refrigerant (Type, amount, pre-charge length)			kg	R410A 4.5kg in outdoor unit (incl. t	the amount for the piping of : 30m)	
Heat exchanger			Louver fins & inner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant control			Electronic ex	pansion valve		
Fan type & Q'ty			Tangential fan x 1	Propeller fan ×2		
Fan motor	(Starting method)		W	27 < Direct line start >	86 x 2 < Direct line start >	
Air flow Cooling		m³/min	Hi: 13.5 Me: 11 Lo: 8 ULo: 7.0	100		
All HOW		Heating	111 /1111111	Hi: 17 Me: 14.5 Lo: 10.5 ULo: 8.0	100	
Available e	xternal static pressure		Pa	0	_	
Outside air				Not possible	_	
Air filter, Q	uality / Quantity			Polypropylene net (washable) x 2	_	
Shock & vil	bration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)	
Electric hea	ater		W	_	20 (Crank case heater)	
Operation	Remote control				RCH-E3 Interface kit : SC-BIKN-E	
control	Room temperature cont	rol			by electronics	
00111101	Operation display			RUN: Green, TIMER: Yellow, HI POWER	: Green, 3D AUTO: Green, ECONO: Blue	
				Internal thermos	tat for fan motor.	
Safety equ	ipments				on thermostat.	
				•	emperature protection.	
	_				<u> </u>	
	Refrigerant piping size (O.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x	(0.8 (1) ϕ 9.52(3/8")x0.8 O/U ϕ 9.52 (3/8")	
					0.8 ① φ 15.88(5/8")x1.0 O/U φ 15.88 (5/8")	
	Connecting method			Flare piping Flare piping		
Installation		g	m	- -		
data	Insulation for piping			Necessary (both I		
	Refrigerant line (one wa	y) length	m		100m	
	Vertical height diff. between	O.U. and I.U.	m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)	
	Drain hose			Hose Connectable with VP16	Holes size ϕ 20 x 3pcs	
Drain pump, max lift height		mm	_	-		
Recommended breaker size		Α				
L.R.A. (Locked rotor ampere)			Α		.0	
Interconnecting wires Size x Core number				, , , ,	ole) / Termainal block (Screw fixing type)	
IP number				IPX0	IP24	
	accessories			Mounting kit, Clean filter	Edging	
Option par				-		
Note (1) The data are measured at the following conditions The pine length is 7.5m				7.5m		

Note (1) The data are measured at the following conditions.

Item Indoor air te		emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.
 (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WA1"×1(option). ①: Pipe of O/U ~ Branch, ②: Pipe of Branch ~ I/U

Mod			Model	SRK140VSXTZMX	
Item			Wiodei	Indoor unit SRK50ZMX-S (3 units) Outdoor unit FDC140VSX	
Power sour				3 Phase 380-415V	50Hz / 380V 60Hz
Nominal cooling capacity (range)		kW	14.0 [5.0(Min.))~ 16.0(Max.)]	
	Nominal heating capacity (range)		kW	16.0 [4.0(Min.))~ 20.0(Max.)]
	Power	Cooling		3.	98
	consumption	Heating	kW	3.	68
	Max power consumption			6.	97
	Running	Cooling		5.9	/ 6.2
	current	Heating	Α [5.4	/ 5.7
Operation	Inrush current, max current			5 ,	_ 15
data	Power factor Cooling		%	97 .	/ 98
data	1 ower factor	Heating	/0	9	8
	EER	Cooling] [3.	52
	COP	Heating		4.	35
	Sound power level	Cooling		60	72
	Souria power level	Heating		64	12
	Sound pressure level	Cooling	dB(A)	Hi: 47 Me: 40 Lo: 27 ULo: 25	49
	Sourid pressure level	Heating		Hi: 48 Me: 40 Lo: 33 ULo: 26	52
	Silent mode sound pressi	ure level		_	1
Exterior din	nensions (Height x Width x	Depth)	mm	309 × 890 × 220	1300×970×370
Exterior app	nearance			Fine snow	Stucco White
(Munsell co				(8.0Y 9.3/0.1) near equivalent	(4.2Y7.5/1.1) near equivalent
Net weight	,		kg	15	105
	r type & Q'ty	-	I Ng	——————————————————————————————————————	RMT5134MDE3×1
	r motor (Starting method)		kW	_	Direct line start
	oil (Amount, type)		e l	_	0.9 M-MA68
	(Type, amount, pre-charg	e lenath)	kg	R410A 4 5kg in outdoor unit (incl. t	the amount for the piping of : 30m)
Heat excha		o longtil)	ı.g	Louver fins & inner grooved tubing	M shape fin & inner grooved tubing
Refrigerant control			<u> </u>	pansion valve	
Fan type &		*		Tangential fan x 1	Propeller fan ×2
	Starting method)		W	27 < Direct line start >	86 x 2 < Direct line start >
Air flow	J	Cooling	m³/min	Hi: 13.5 Me: 11 Lo: 8 ULo: 7.0	100
Available av	ternal static pressure	Heating	Pa	Hi : 17 Me : 14.5 Lo : 10.5 ULo : 8.0	_
Outside air	· · · · · · · · · · · · · · · · · · ·		га	Not possible	
	iality / Quantity			Polypropylene net (washable) x 2	
	oration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for compressor)
Electric hea			W	hubber sieeve(for fair fflotor)	20 (Crank case heater)
Electric flea	Remote control	-	VV	(option) wired: RC-EX1A, RC-E5, RCH-E3 Interface kit: SC-BIKN-E	
Operation	Room temperature control	- I			
control	Operation display	JI		Thermostat by electronics RUN: Green, TIMER: Yellow, HI POWER: Green, 3D AUTO: Green, ECONO: Blu	
	Operation display			NON. Green, HIVIEN. Tellow, HI FOWEN	. Green, 3D AOTO. Green, LCONO. Bide
				Internal thermos	tat for fan motor.
Safety equi	pments				on thermostat.
				Abnormal discharge to	emperature protection.
	Refrigerant piping size (C	D.D.)	mm	Liquid line: I/U ϕ 6.35 (1/4") ② ϕ 9.52(3/8")x0.8 ① ϕ 9.52(3/8")x0.8 O/U ϕ 9.52 (Gas line: I/U ϕ 12.7 (1/2") ② ϕ 12.7(1/2")x0.8 ① ϕ 15.88(5/8")x1.0 O/U ϕ 15.88	
		· ·			
Inotaliation	Connecting method		p=	Flare piping	Flare piping
Installation data	Attached length of piping		m		iquid ⁹ Coo lines)
uala	Insulation for piping	longth	m	Necessary (both I	liquid & Gas lines) 100m
	Refrigerant line (one way Vertical height diff. between C		m	Max.30m (Outdoor unit is higher)	Max.15m (Outdoor unit is lower)
	Drain hose	7.0. and 1.0.	m	` ,	,
		mm	Hose Connectable with VP16	Holes size φ20 x 3pcs	
Drain pump, max lift height		mm ^	_		
Recommended breaker size		A			
L.R.A. (Locked rotor ampere)			А		.0 ole) / Termainal block (Screw fixing type)
Interconnecting wires Size x Core number				, ,	, , , , ,
	IP number Standard accessories			IPX0 Mounting kit Cloop filter	IP24
				Mounting kit, Clean filter	Edging –
Option parts					

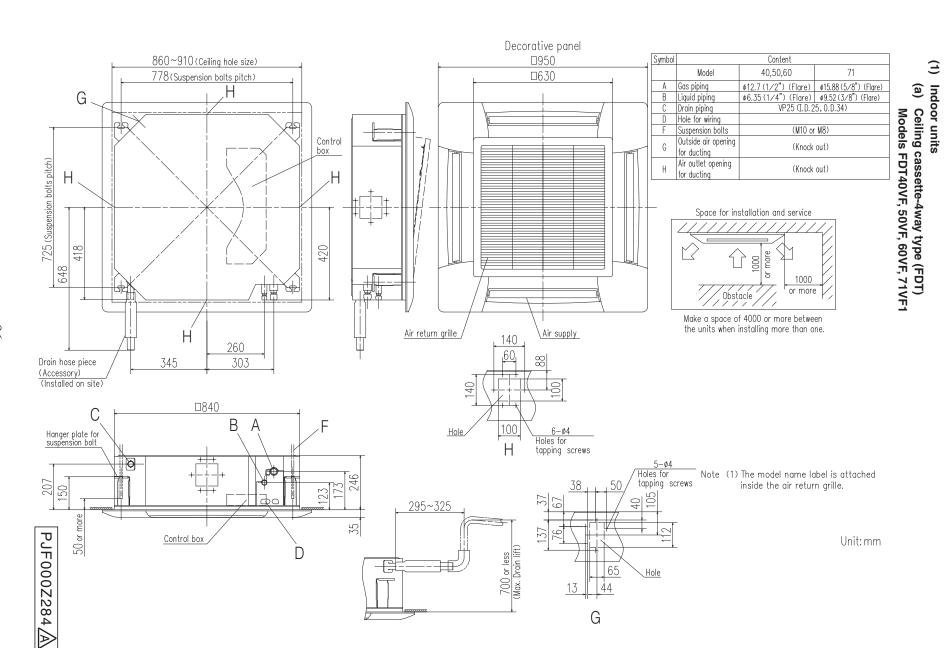
Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) Select the breaker size according to the own national standard.
 (5) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.
 (6) Indoor unit specifications for one unit. Capacity and operation data are two indoor units are combined and run together.
 (7) Branching pipe set "DIS-WA1"×1(option). ①Pipe of O/U ~ Branch,②: Pipe of Branch ~ I/U

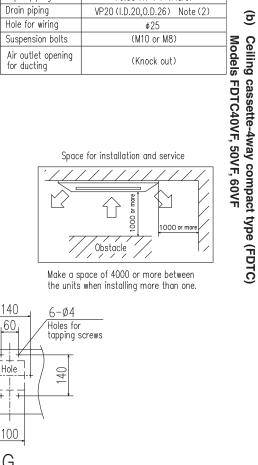
'13 • PAC-T-197

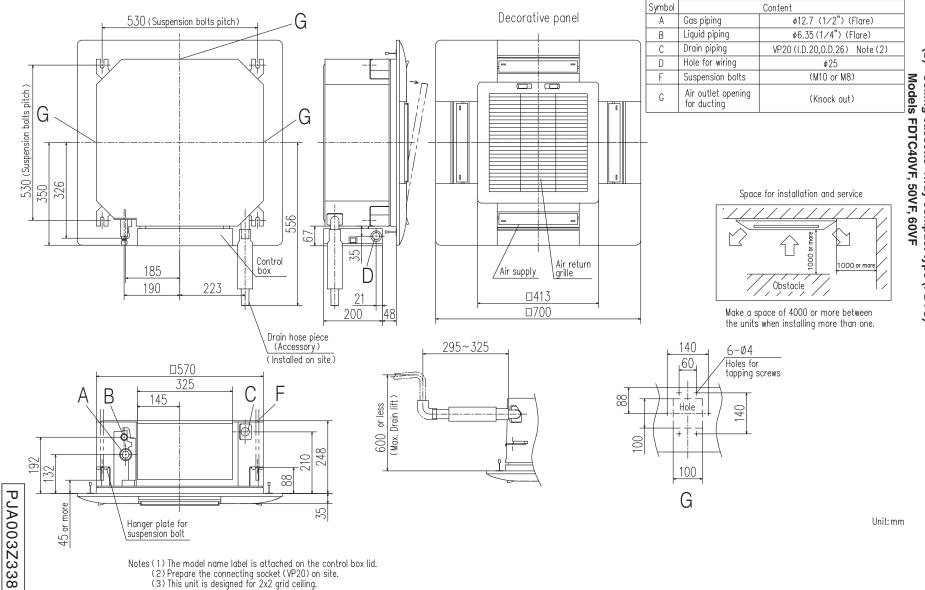
EXTERIOR

DIMENSIONS



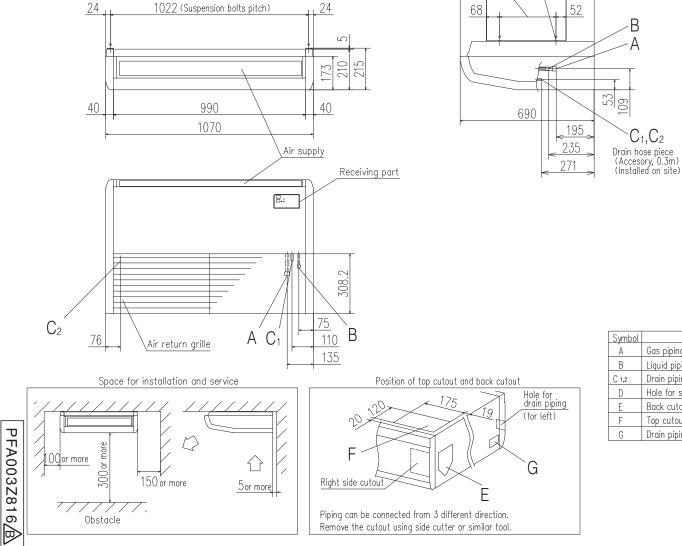
Decorative panel





Notes (1) The model name label is attached on the control box lid.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling, provide an inspection port on the control box side.





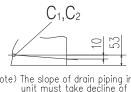
290(Suspension bolts pitch)

410

145

 C_1, C_2

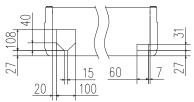
Note (1) The model name label is attached on the fan casing inside the air return grille.



Note) The slope of drain piping inside the unit must take decline of 10mm.

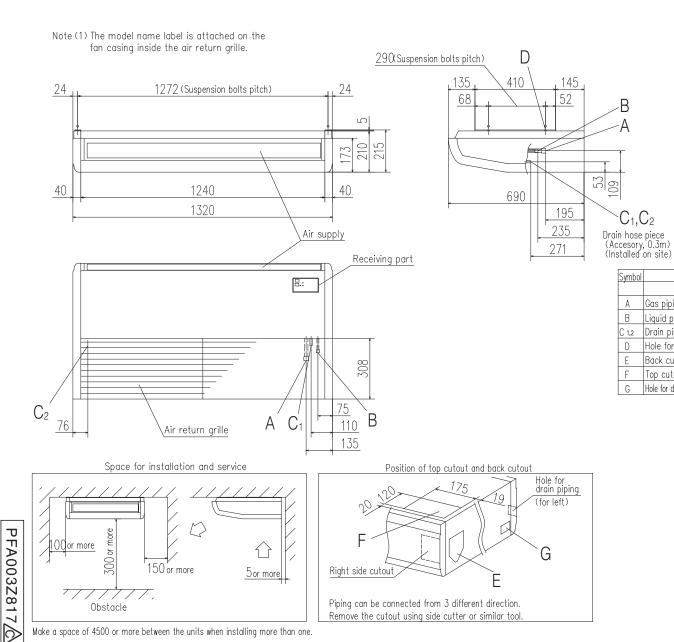
<u>O</u>

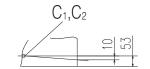
Ceiling suspended type (FDEN) Models FDEN40VF, 50VF



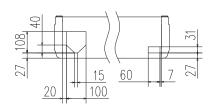
Symbol	Content	
A	Gas piping	φ12.7 (1/2") (Flare)
В	Liquid piping	φ6.35 (1/4") (Flare)
C 1,2	Drain piping	VP20 (I.D.20, 0.D.26)
D	Hole for suspension bolts	(M10 or M8)
E	Back cutout	PE cover
F	Top cutout	Plate cover
G	Drain piping (for left back)	(Knock out)

Unit: mm





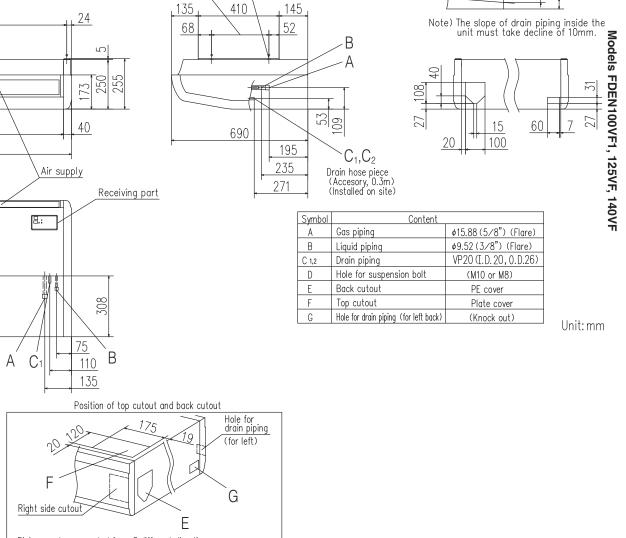
Note) The slope of drain piping inside the unit must take decline of 10mm.



Symbol		Content		
	Model	60	71	
Α	Gas piping	φ12.7 (1/2") (Flare)	ø15.88 (5/8") (Flare)	
В	Liquid piping	ø6.35 (1∕4") (Flare)	φ9.52 (3/8") (Flare)	
C 1,2	Drain piping	VP20 (I.D.2	0, 0.D.26)	
D	Hole for suspension bolts	(M10 c	or M8)	
E	Back cutout	PE co	ver	
F	Top cutout	Plate	cover	
G	Hole for drain piping (for left back)	(Knoc	k out)	

Unit: mm

Models FDEN60VF, 71VF1



290(Suspension bolts pitch)

410

690

, 145

53

52

135 1572 (Suspension bolts pitch) 68 1540 40 40 1620 C_2 76 Air return grille Space for installation and service 100or more 300 or 1 150 or more 5 or more Piping can be connected from 3 different direction. Obstacle Remove the cutout using side cutter or similar tool. Make a space of 5000 or more between the units when installing more than one.

Note (1) The model name label is attached on the fan casing inside the air return grille.

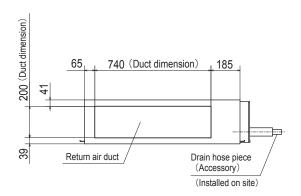
Unit: mm

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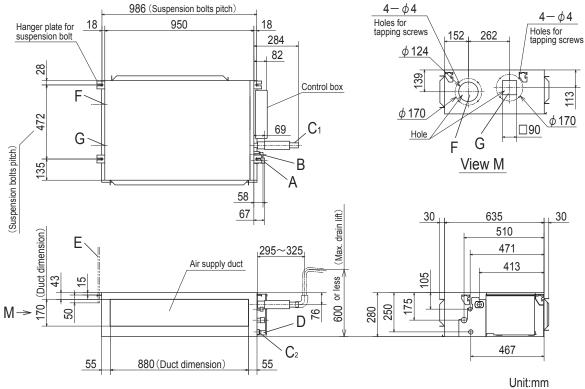
 C_1, C_2

PFA003Z818

(d) Duct connected-High static pressure type (FDU) Model FDU71VF1

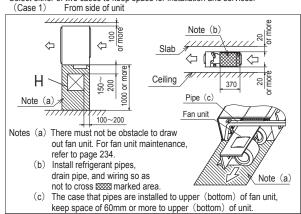


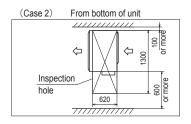
Symbol		Content
Α	Gas piping	ϕ 15.88 (5/8") (Flare)
В	Liquid piping	ϕ 9.52 (3/8") (Flare)
C1	Drain piping	VP25 (I.D.25,O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (I.D.20,O.D.26)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
Н	Inspection hole	(450X450)



Space for installation and service

Select either of two cases to keep space for installation and services.

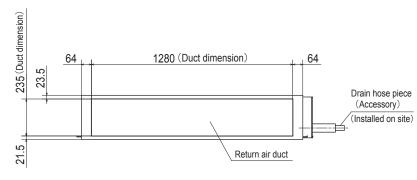




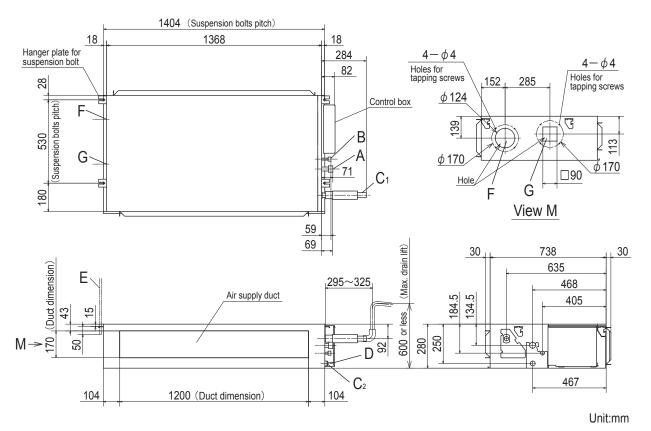
Notes (1) The model name label is attached on the lid of the control box.

PJG000Z047<u>A</u>

Models FDU100VF1, 125VF, 140VF



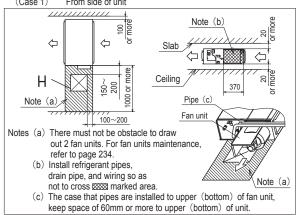
Symbol		Content
Α	Gas piping	ϕ 15.88 (5/8") (Flare)
В	Liquid piping	ϕ 9.52 (3/8") (Flare)
C1	Drain piping	VP25 (I.D.25,O.D.32)
C2 Drain piping (Gravity drainage)		VP20 (I.D.20,O.D.26)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G Air outlet opening for ducting		(Knock out)
H Inspection hole		(450X450)

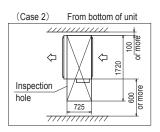


Space for installation and service

Select either of two cases to keep space for installation and services.

(Case 1) From side of unit

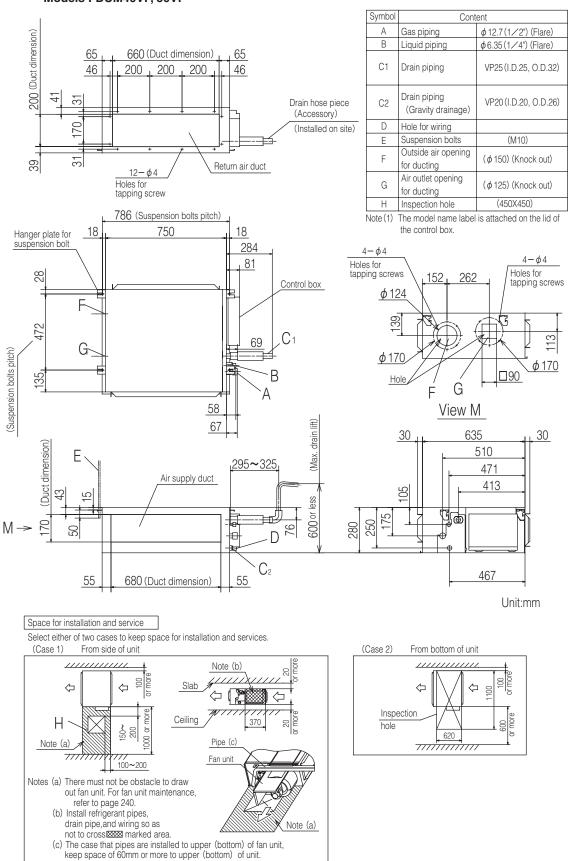




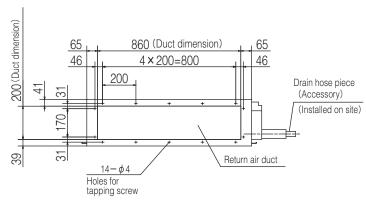
Notes (1) The model name label is attached on the lid of the control box.

PJG000Z048<u>A</u>

(e) Duct connected-Low / Middle static pressure type (FDUM) Models FDUM40VF, 50VF

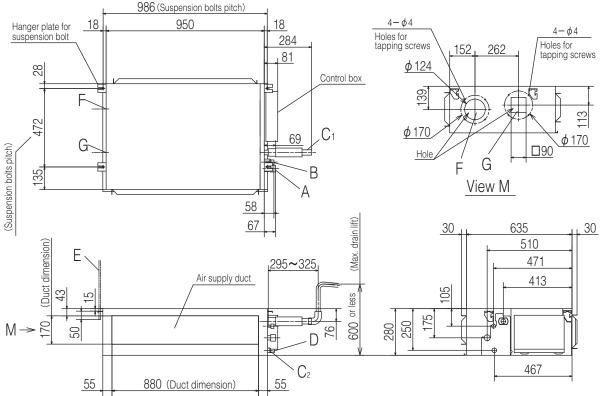


Model FDUM60VF



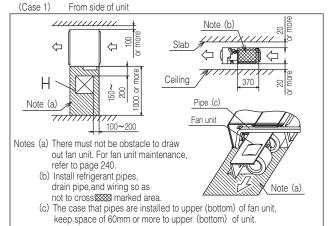
Symbol		Content
Α	Gas piping	φ 12.7 (1/2") (Flare)
В	Liquid piping	φ6.35(1/4") (Flare)
C1	Drain piping	VP25 (I.D.25, O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (I.D.20, O.D.26)
D	Hole for wiring	
Е	Suspension bolts	(M10)
F	Outside air opening for ducting	(φ 150) (Knock out)
G	Air outlet opening for ducting	(φ125) (Knock out)
Н	Inspection hole	(450X450)

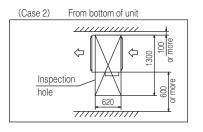
Note (1) The model name label is attached on the lid of the control box.

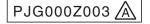


Space for installation and service

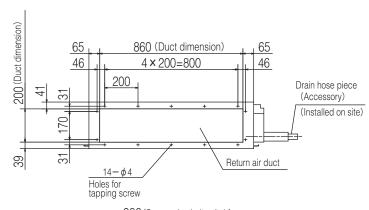
Select either of two cases to keep space for installation and services.





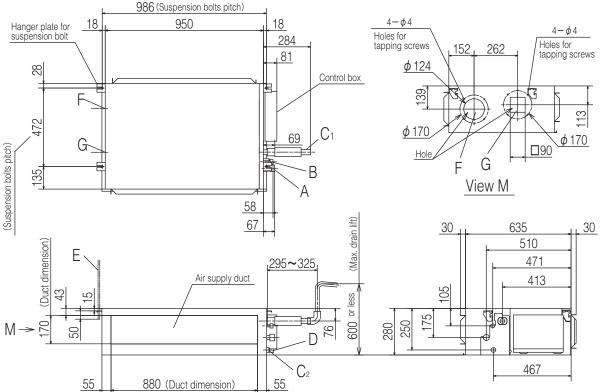


Model FDUM71VF1



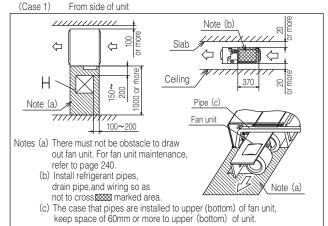
Symbol		Content
А	Gas piping	φ 15.88 (5/8") (Flare)
В	Liquid piping	φ9.52(3/8") (Flare)
C1	Drain piping	VP25 (I.D.25, O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (I.D.20, O.D.26)
D	Hole for wiring	
Е	Suspension bolts	(M10)
F	Outside air opening for ducting	(φ 150) (Knock out)
G	Air outlet opening for ducting	(φ 125) (Knock out)
Н	Inspection hole	(450X450)

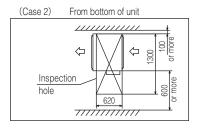
Note (1) The model name label is attached on the lid of the control box.

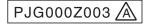


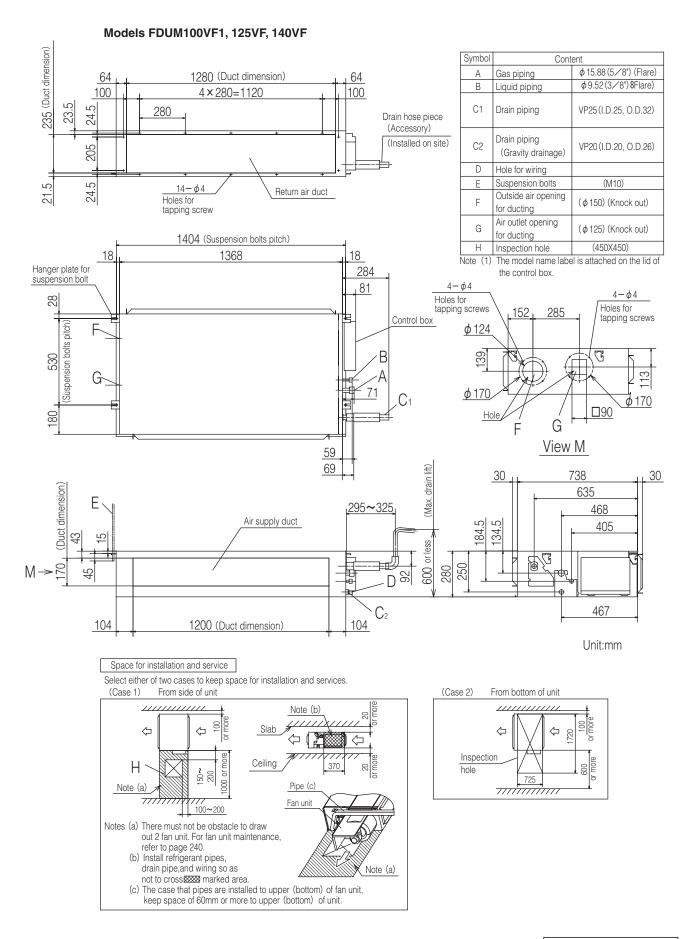
Space for installation and service

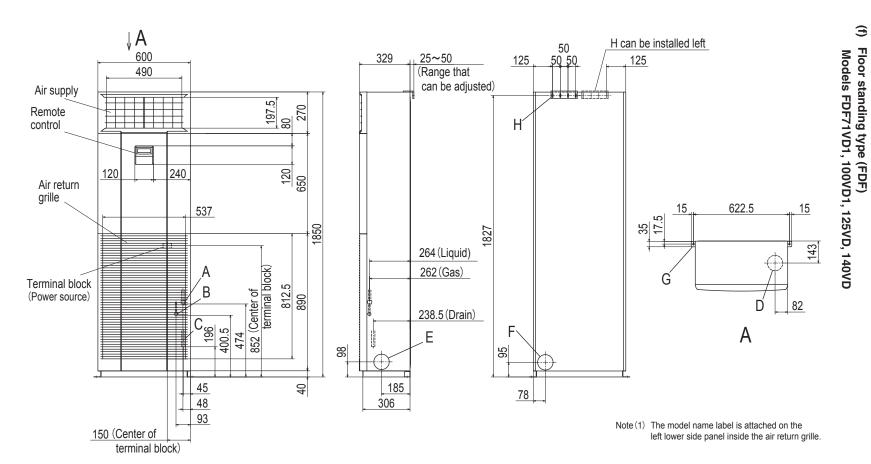
Select either of two cases to keep space for installation and services.



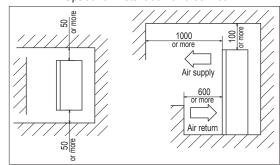








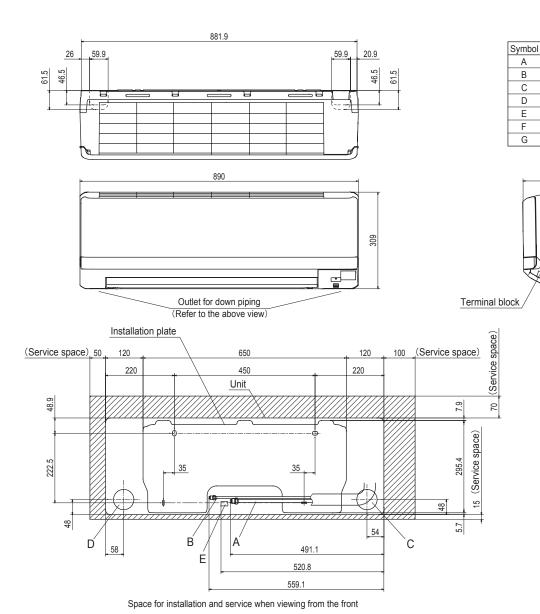
Space for installation and service



Symbol	Content		
Α	Gas piping	φ 15.88 (5/8") (Flare)	
В	Liquid piping	φ 9.52 (3/8") (Flare)	
С	Drain piping	VP20 (I.D.20,O.D.26)	
D	Hole on wall for bottom piping	ϕ 100 (Resin cap having)	
Е	Hole on wall for side piping / Fresh air intake (Both left and right)	φ 100 (Knock out)	
F	Hole on wall for rear piping	φ 100 (Knock out)	
G	Metal fittings to fix to floor face	M8 (2 places)	
Н	Fall prevention metal fittings	4-7 × 25 (Slot)	

Unit:mm

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Notes (1) The model name label is attached

Content

Gas piping

Drain hose

220

46.5

61.5

Outlet for wiring

Liquid piping

Hole on wall for right rear piping

Hole on wall for left rear piping

Outlet for piping (on both side)

φ 12.7 (1/2") (Flare)

 ϕ 6.35 (1/4") (Flare)

 $(\phi 65)$

 $(\phi 65)$

VP16

on the underside of the panel.
(2) It takes the interface kit (SC-BIKN-E) to connect the wired remote control.

Unit:mm

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Outdoor units Models SRC40ZMX-S, 50ZMX-S, 60ZMX-S

(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.

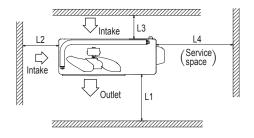
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.

(1) It must not be surrounded by walls on the four sides.

(4) Leave 1m or more space above the unit.

Notes

- (5) A wall in front of the blower outlet must not exceed the units height.
- (6) The model name label is attached on the right side of the unit.

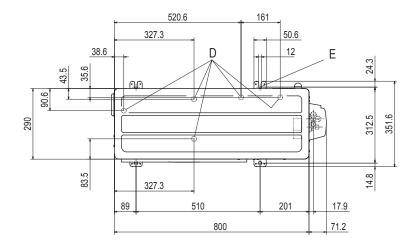


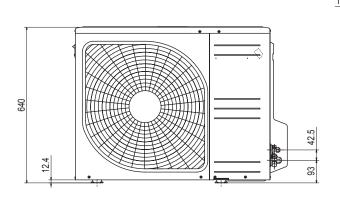
Minimum installation space

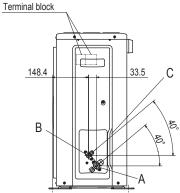
Examples of installation Dimensions	I	I	Ш	IV
L1	Open	280	280	180
L2	100	75	Open	Open
L3	100	80	80	80
L4	250	Open	250	Open

Unit:mm

Symbol Content Α Service valve connection (gas side) ϕ 12.7 (1/2") (Flare) В Service valve connection (liquid side) ϕ 6.35 (1/4") (Flare) С Pipe/cable draw-out hole Drain discharge hole D ϕ 20 × 5places Anchor bolt hole M10 × 4places







110

P(
CAOO
12
603

223

47.5

61

61

150

340

750

24

310

D

580

880

Symbol	Content	
А	Service valve connection (gas side)	φ 15.88 (5/8") (Flare)
В	Service valve connection (liquid side)	φ9.52 (3/8") (Flare)
С	Pipe/cable draw-out hole	
D	Drain discharge hole	φ20 × 3places
Е	Anchor bolt hole	M10 × 4places

98 418

9

48.5

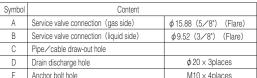
103.5

27

32

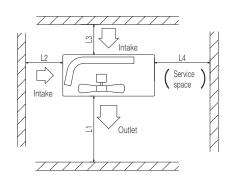
88

150



Notes

- (1) It must not be surrounded by walls on the four sides.
- (2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more the 15mm.
- (3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
- (4) Leave 1m or more space above the unit.
- (5) A wall in front of the blower outlet must not exceed the units height.
 (6) The model name label is attached on the lower right corner of the front panel.



Minimum installation space

Examples of installation Dimensions	I	II	III
L1	Open	Open	500
L2	300	250	Open
L3	100	150	100
L4	250	250	250

Unit:mm

	And Andrew	
8	.	C
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

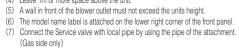
165.5

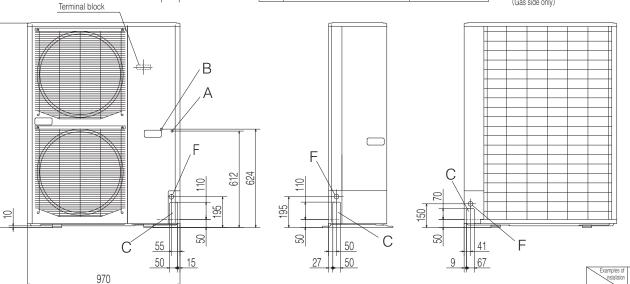
Terminal block

PCA001Z569/c



- (1) It must not be surrounded by walls on the four sides.
- (2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
- (3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
- (4) Leave 1m or more space above the unit.





46

580

38

325

200

60

D

190

76

60 262

300

8 8

410 370

20

46

0	L2 Intake L4
C	Service Space Outlet

Minimum installation space

installation Dimensions	I	II	III
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	5	5	5

Unit:mm

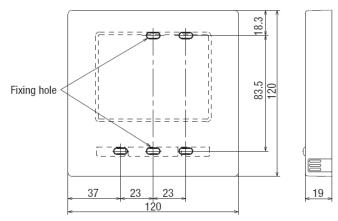
Models FDC100VNX, 125VNX, 140VNX

100VSX, 125VSX, 140VSX

(3) Remote control (Option parts)

(a) Wired remote control Model RC-EX1A

Dimensions (Viewed from front)



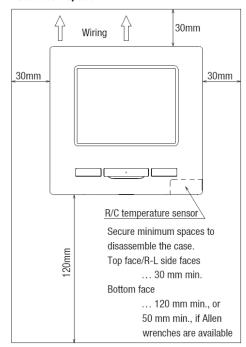
Exterior appearance	Pearl White
(Munsell color)	(N8.5) near equivalent

Cautions for selecting installation place

- (1) Installation surface must be flat and sufficiently strong. R/C case must not be deformed.
- (2) Where the R/C can detect room temperatures accurately This is a must when detecting room temperatures with the temperature sensor of R/C.
 - \cdot Install the R/C where it can detect the average temperature in the room.
 - · Install the R/C sufficiently separated from a heat source.
 - · Install the R/C where it will not be influenced by the turbulence of air when the door is opened or closed.

Select a place where the R/C is not exposed to direct sunlight or blown by winds from the air conditioner or temperatures on the wall surface will not deviate largely from indoor air temperatures.

Installation space

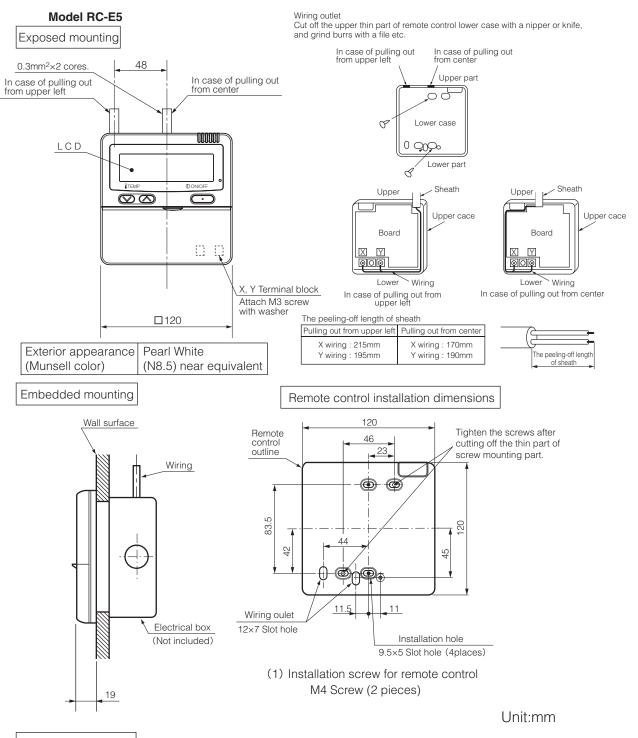


R/C cable: 0.3mm² × 2-core

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm². Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

< 200 m	0.5 mm ² x 2-core
< 300 m	0.75 mm ² x 2-core
< 400 m	1.25 mm ² x 2-core
< 600 m	2.0 mm ² x 2-core

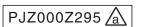
Adapted to **RoHS** directive



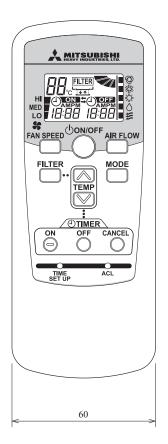
Wiring specifications

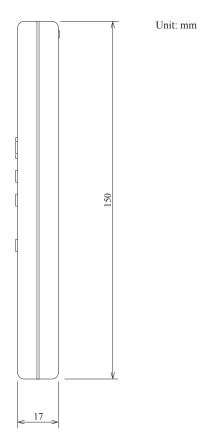
(1) If the prolongation is over 100m, change to the size below. But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

Length	Wiring thickness
100 to 200m	0.5mm ² ×2 cores
Under 300m	0.75mm ² ×2 cores
Under 400m	1.25mm ² ×2 cores
Under 600m	2.0mm ² ×2 cores



(b) Wireless remote control (RCN-E1R)





ELECTRICAL WIRING

(1) Indoor units

(a)

Ceiling cassette-4way type (FDT)
Models FDT40VF, 50VF, 60VF, 71VF1, 100VF1, 125VF, 140VF

Indication lamp (Green-Normal operation) Indication lamp (Red-Inspection) Remote control communication Plural units Master/Slave setting Model capacity setting Operation check, Drain motor test run Terminal block (Power source) Terminal block (Signal line) (□mark) Thermistor (Remote control) Thermistor (Return air) ThI-R1,2,3 Thermistor (Heat exchanger)

Color	Mark

CNB~Z

DM

FMI

IED · 2

LED • 3

LM1~4

SW2

SW5

SW6

SW7-1

SW7-3

TB1

TB2

Thc

Connector

Fuse

Drain motor

Fan motor Float switch Reactor

Louver motor Panel switch

Powerful mode Valid / Invalid

(□mark)

address

(Remote operation input:)

COTOL MALKS					
Mark	Color	Mark	Color		
BK	Black	RD	Red		
BL	Blue	WH	White		
BR	Brown	YE	Yellow		
OR	Orange	YE/GN	Yellow/Green		

			volt-free	contact	input.
	Remote con	X X WH 1	CNB WH	BL '	RD to ThI-R1
Connecting line between CNWR2 CNWR2 CNWO STATE OF THE PROPERTY	Power PCB	DM M WH 2	CNR LED · 2 LED ·	CNN 3 - YE 4 - 5 -	$\frac{YE}{YE}$ Thi -R2
Power source line 112 Signal line 3 F2 (3.15A) Earth TB1 B1 B1 CNW3	circuit	CNW1 6 WH 7 WH 7 WH 9 WH 9 WH 11 WH 11 12 WH 11 12	5WZ	CNH 1	BK thi A
(2	1 4 5 6 7 2 a 8 8 5 \$ CN	M LM1 1 BK 1 BK 2 BK 3 BK 3 BK 4 BK 4 BK	SW5 SW6 SW7	CNI L	RD FS RD Prepare on site
	FM1 (M)	5 BK 1 BK 2 BK 6 BK 7 BK 7 BK 8 BK 5 BK 10 BK	LONII FOLIA	+12 1	(Operation) (XR2) (Heating) (XR3) (Compressor ON)
		M 1 R0 11 BK 12 BK 14 BK	WH	2	XR5 (Remote operation input: volt—free contact)
		M, 3 RD 4 RD 5 RD 18 BK 19 BK 20 BK	CNV2	5 6	BK

Notes 1. ----indicates wiring on site.

- 2. See the wiring diagram of outside unit about the line between inside unit and outside unit.
- 3. Use twin core cord (0.3mm²) at remote control line.
- 4. Do not put remote control line alongside power source line.
- 5. Section 1 (*1) is provided on the models 100 140 only.

CNB~Z	Connector
DM	Drain motor
F200~203	Fuse
FM :	Fan motor
FS	Float switch
LED•2	Indication lamp (Green-Normal operation)

LED·3	Indication lamp (Red-Inspection)
LM1~4	Louver motor
SW2	Remote control communication address
SW5	Plural units Master / Slave setting
SW6	Model capacity setting
SW7-1	Operation check,Drain motor test run

TB1	Terminal block(Power source) (☐ mark)
TB2	Terminal block(Signal line) (☐mark)
Thc	Thermistor(Remote control)
Thı-A	Thermistor (Return air)
Th ₁ -R1,2,3	Thermistor(Heat exchanger)
X4	Relay for DM
■ mark	Closed-end connector

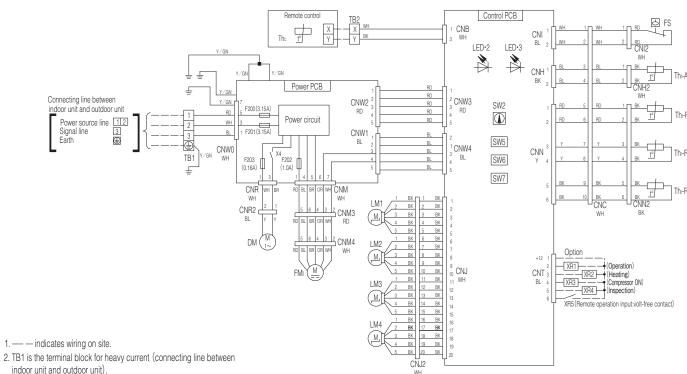
Mark	Color
BK	Black
BL	Blue
BR	Brown
OR	Orange
RD	Red
WH	White
Υ	Yellow
Y/GN	Yellow/Green

b

Ceiling cassette-4 way compact type (FDTC)

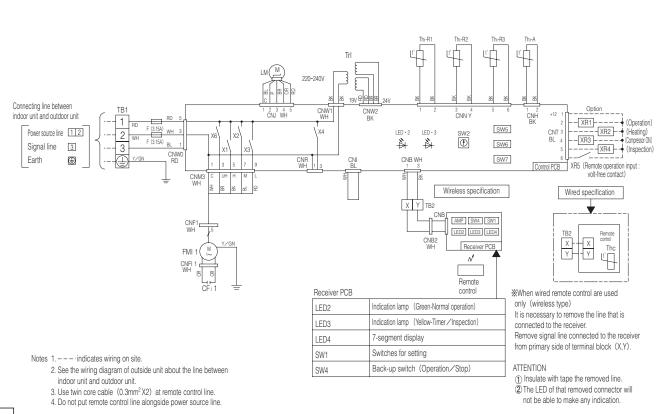
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Models FDTC40VF, 50VF, 60VF



Notes 1. — — indicates wiring on site.

- indoor unit and outdoor unit), and TB2 is the terminal block for weak current (remote control).
- 3. See the wiring diagram of outside unit about the line between inside unit and outside unit.
- 4. Use twin core cable (0.3mm²X2) at remote control line.
- 5. Do not put remote control line alongside power source line.



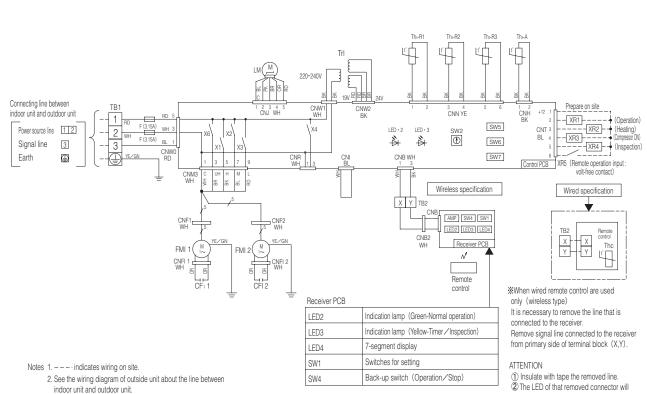
CFI 1	Capacitor for FMI		
CNB~Z	Connector		
F	Fuse		
FMI 1	Fan motor (with thermostat)		
LED • 2	Indication lamp (Green-Normal operation)		
LED · 3	Indication lamp (Red-Inspection)		
LM	Louver motor		
SW2	Remote control communication address		
SW5	Plural units Master/Slave setting		
SW6	Model capacity setting		
SW7-1	Operation check, Drain motor test run		
TB1	Terminal block (Power source) (□mark)		
TB2	Terminal block (Signal line) (□mark)		
Thc	Thermistor (Remote control)		
ThI -A	Thermistor (Return air)		
ThI -R1,2,3 Thermistor (Heat exchanger)			
Trl	Transformer		
X1~3,6	Relay for FM		
X4	Relay for DM		

COIDI IVIAI NO				
Mark	Color	Mark	Color	
BK	Black	RD	Red	
BL	Blue	WH	White	
BR	Brown	Υ	Yellow	
OR	Orange	Y/GN	Yellow / Green	
Р	Pink			

<u>ල</u>

Ceiling suspended type (FDEN)
Models FDEN40VF, 50VF

Use twin core cable (0.3mm² X2) at remote control line.
 Do not put remote control line alongside power source line.



CFI 1,2	Capacitor for FMI
CNB~Z	Connector
F	Fuse
FMI 1,2	Fan motor (with thermistor)
LED · 2	Indication lamp (Green-Normal operation)
LED · 3	Indication lamp (Red-Inspection)
LM	Louver motor
SW2	Remote control communication address
SW5	Plural units Master/Slave setting
SW6	Model capacity setting
SW7-1	Operation check, Drain motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Thermistor (Remote control)
ThI -A	Thermistor (Return air)
Thl -R1,2,3	Thermistor (Heat exchanger)
Trl	Transformer
X1~3,6	Relay for FM
X4	Relay for DM
■mark	Closed-end connector

Models FDEN60VF, 71VF1, 100VF1, 125VF, 140VF

'13 • PAC-T-197

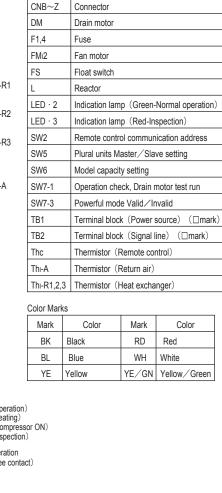
Color Marks

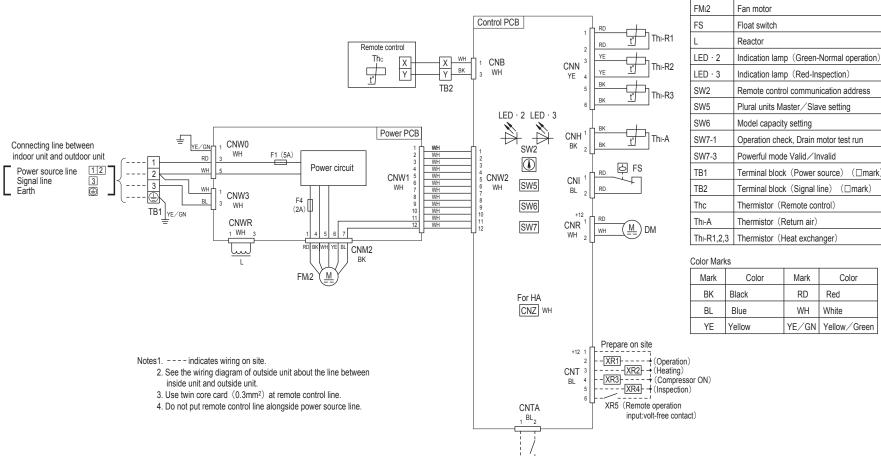
not be able to make any indication.

OOIOI WAING					
Color	Mark	Color			
Black	RD	Red			
Blue	WH	White			
Brown	YE	Yellow			
Orange	YE/GN	Yellow / Green			
Pink					
	Color Black Blue Brown Orange	Color Mark Black RD Blue WH Brown YE Orange YE/GN			

PJG000Z049

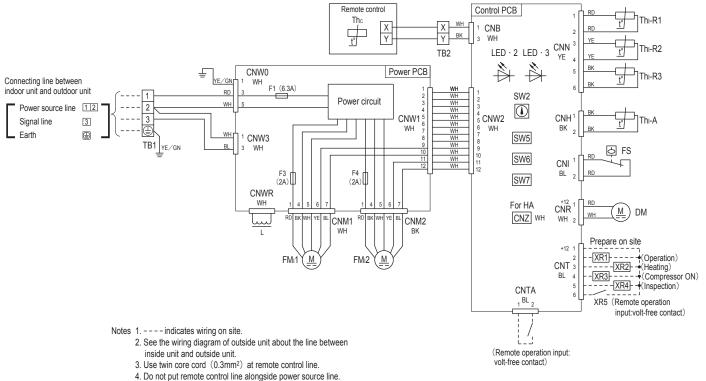
<u>a</u> Duct connected -High static pressure type (FDU) Model FDU71VF1





(Remote operation input: volt-free contact)





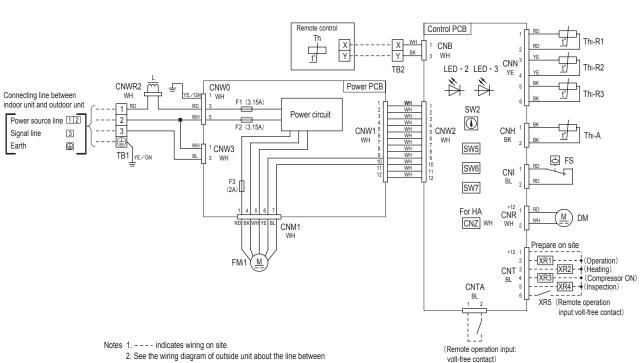
Connector	
Drain motor	
Fuse	
Fan motor (with thermostat)	
Float switch	
Reactor	
Indication lamp (Green-Normal operation)	
Indication lamp (Red-Inspection)	
Remote control communication address	
Plural units Master / Slave setting	
Model capacity setting	
Operation check, Drain motor test run	
Powerful mode Valid / Invalid	
Terminal block (Power source) (□mark)	
Terminal block (Signal line) (□mark)	
Thermistor (Remote control)	
Thermistor (Return air)	
Thermistor (Heat exchanger)	

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
YE	Yellow	YE/GN	Yellow/Green

PJG000Z005

Duct connected-Low / Middle static pressure type (FDUM) Models FDUM40VF, 50VF

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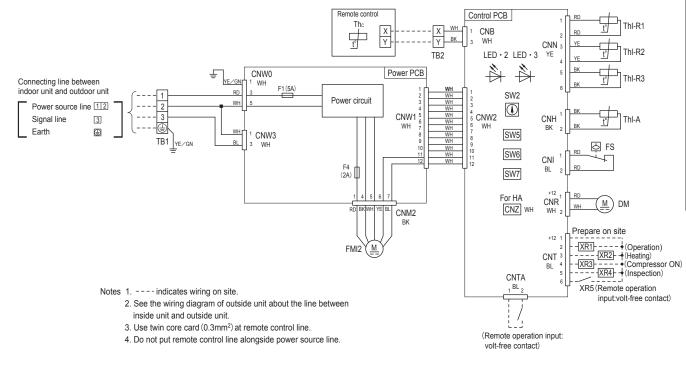


OND 7	Occupantos	
CNB~Z	Connector	
DM	Drain motor	
F1~3	Fuse	
FM ₁ 1	Fan motor (with thermostat)	
FS	Float switch	
L	Reactor	
LED • 2	Indication lamp (Green-Normal operation)	
LED · 3	Indication lamp (Red-Inspection)	
SW2	Remote control communication address	
SW5	Plural units Master / Slave setting	
SW6	Model capacity setting	
SW7-1	Operation check, Drain motor test run	
SW7-3	Powerful mode Valid / Invalid	
TB1	Terminal block (Power source) (□mark)	
TB2	Terminal block (Signal line) (□mark)	
Thc	Thermistor (Remote control)	
Thı-A	Thermistor (Return air)	
Thı-R1,2,3	Thermistor (Heat exchanger)	
■mark	Closed-end connector	

OUIDI IVIAITA	Co	lor	M	laı	k
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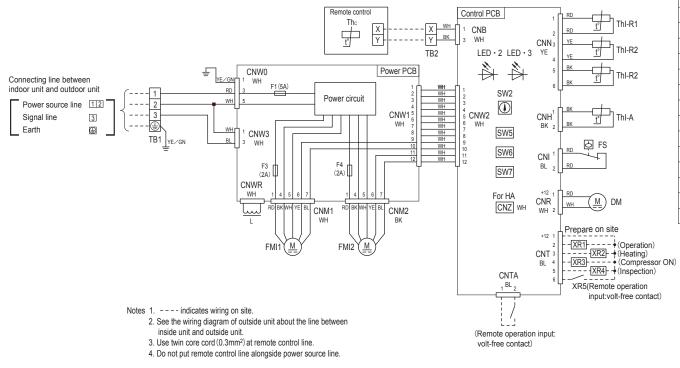
COIOI IVIA	179		
Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE/GN	Yellow/Green

- See the wiring diagram of outside unit about the line between inside unit and outside unit.



CNB~Z	Connector
DM	Drain motor
F1,4	Fuse
FMI2	Fan motor (with thermostat)
FS	Float switch
LED · 2	Indication lamp (Green-Normal operation)
LED · 3	Indication lamp (Red-Inspection)
SW2	Remote control communication address
SW5	Plural units Master / Slave setting
SW6	Model capacity setting
SW7-1	Operation check, Drain motor test run
SW7-3	Powerful mode Valid / Invalid
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Thermistor (Remote control)
ThI-A	Thermistor (Return air)
ThI-R1,2,3	Thermistor (Heat exchanger)
■mark	Closed-end connector

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE/GN	Yellow/Green



CNB~Z	Connector
DM	Drain motor
F1,3,4	Fuse
FMI1,2	Fan motor (with thermostat)
FS	Float switch
L	Reactor
LED · 2	Indication lamp (Green-Normal operation)
LED · 3	Indication lamp (Red-Inspection)
SW2	Remote control communication address
SW5	Plural units Master / Slave setting
SW6	Model capacity setting
SW7-1	Operation check, Drain motor test run
SW7-3	Powerful mode Valid / Invalid
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Thermistor (Remote control)
ThI-A	Thermistor (Return air)
Thl-R1,2,3	Thermistor (Heat exchanger)
■mark	Closed-end connector

Mark	Color	Mark	Color
BK	BK Black		Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE/GN	Yellow/Green

Mark	Color	Mark	Color	Mark	Color
BK	Black	GR	Gray	WH	White
BL	Blue	OR	Orange	YE	Yellow
BR	Brown	RD	Red	YE/GN	Yellow/Green

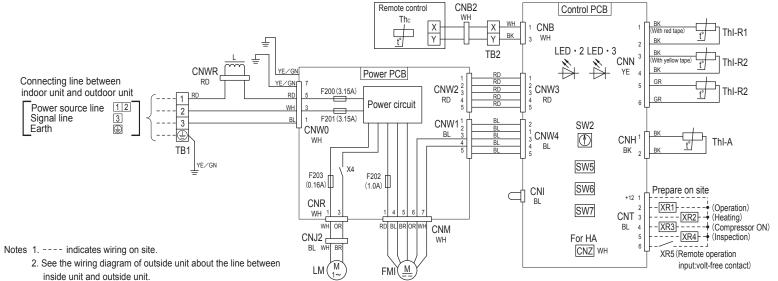
CNB~Z	Connector	
F200~203	Fuse	
FMI	Fan motor	
L	Reactor	
LED · 2	Indication lamp	
	(Green-Normal operation)	
LED · 3	Indication lamp (Red-Inspection)	
LM	Louver motor	
SW2	Remote control communication	
	address	

Plural units Master / Slave setting	
Model capacity setting	
Operation check, Drain motor test run	
Terminal block (Power source)	
(□ mark)	
Terminal block (Signal line) (☐mark)	
Thermistor (Remote control)	
Thermistor (Return air)	
Thermistor (Heat exchanger)	
Relay for DM	

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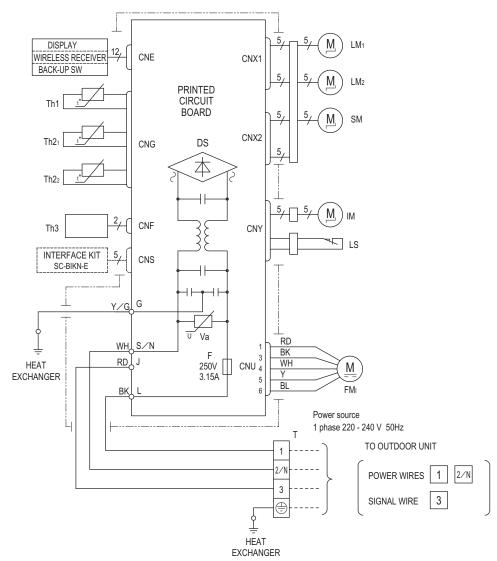
Floor standing type (FDF)
Models FDF71VD1, 100VD1, 125VD, 140VD

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3. Use twin core cord (0.3mm²X2) at remote control line.

4. Do not put remote control line alongside power source line.



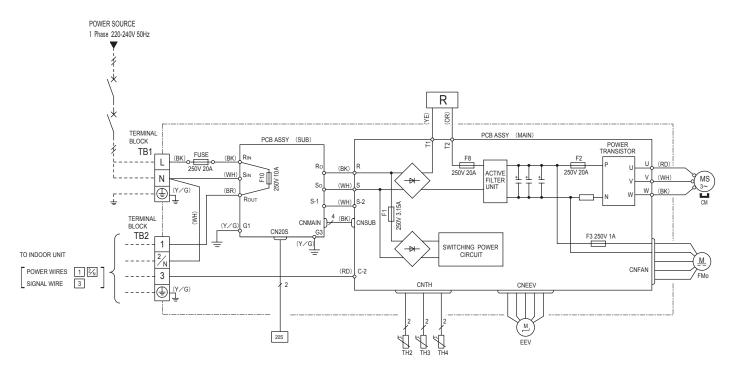
Item	Description
CNE-CNY	Connector
FΜι	Fan motor
SM	Flap motor
LM _{1,2}	Louver motor
IM	Inlet motor
Th1	Room temp. sensor
Th2 _{1,2}	Heat exch. sensor
Th3	Humidity sensor
LS	Limit switch
DS	Diode stack
F	Fuse
Т	Terminal block
Va	Varistor

(g) Wall mounted type (SRK)

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Models SRK50, 60ZMX-S

Color Marks		
Mark	Color	
BK	Black	
BL	Blue	
RD	Red	
WH	White	
Υ	Yellow	
Y/G	Yellow/Green	



Power cable, indoor-outdoor connecting wires

1 OWCI O	Tower dable, mader datable definitioning wifes				
Model	MAX running current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm2)
40					
50	15	2.0	18	1.5mm ² x 3	1.5
60					

- The specifications shown in the above table are for units without heaters. For units with heaters, refer
 to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of Circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Item	Description
CM	Compressor motor
CNEEV~CN20S	Connector
EEV	Electric expansion valve (coil)
FMo	Fan motor
R	Reactor
TB1,2	Terminal block
TH2	Heat exchanger sensor (outdoor unit)
TH3	Outdoor air temp.sensor
TH4	Discharge pipe temp.sensor
20S	Solenoid valve for 4 way valve

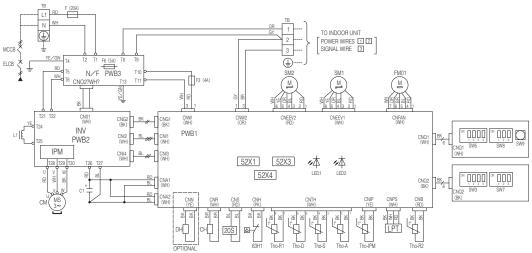
Mark	Color
BK	Black
BR	Brown
OR	Orange
RD	Red
WH	White
YE	Yellow
Y/G	Yellow/Green

2

Outdoor units Models SRC40ZMX-S, 50ZMX-S, 60ZMX-S

'13 • PAC-T-197

POWER SOURCE 1~220-240V 50Hz/1~220V 60Hz



Color
Black
Blue
Brown
Orange
Red
White
Yellow
Yellow/Green
Gray
Pink

Item

CM

FM01

DH

52X1

52X3

52X4

20S SM1

SM2

63H1

Tho-A

Tho-D

Tho-S

Tho-IPM

LPT

IPM

TB

F,F3

SW9

SW3,5

LED1

LED2

CnA~Z

Tho-R1,R2

Description

Compressor motor

Drain pan heater

Auxilliary relay (for CH)

Auxilliary relay (for 20S)

Auxilliary relay (for DH)

Solenoid valve for 4 way valve Expansion valve for cooling

Expansion valve for heating

High pressure switch

(Outdoor air temp.)

(Discharge pipe temp.)

(Heat exchanger temp.)

(Suction pipe temp.)

Thermistor (IPM)

Terminal block

Pump down switch

Local setting switch

Indication lamp (GREEN)

Indication lamp (RED) Reactor

Fuse

Connector

Low pressure sensor

Intelligent power module

Thermistor

Thermistor

Thermistor

hermistor

Fan motor Crankcase heater

Local setting switch SW3, SW5	(Set up at shipment OFF
-------------------------------	-------------------------

SW3-1	Defrost control change	The defrosting operation interval becomes shorter by turning ON this switch. This switch should be turned ON in the area where outside temperature becomes below the freezing point.
SW3-2	Snow guard fan control	When this switch is turned ON, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running when the unit is used in a very snowy country, set this switch to ON.
SW5-3,4	Trial operation	Method of trial operation 1. Trial operation can be performed by using SW/5-3. 2. Cooling trial operation will be performed when SW/5-4 is OFF, and heating trial operation when SW/5-4 is ON. 3. Be sure to turn OFF SW/5-3 after the trial operation is finished.

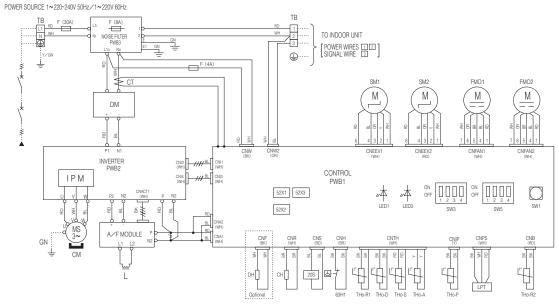
SW3-1	Defrost control change	The defrosting operation interval becomes shorter by turning ON this switch. This switch should be turned ON in the area where outside temperature becomes below the freezing point.	
SW3-2	Snow guard fan control	When this switch is turned ON, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature falls to 3 °C or lower and the compressor is not running when the unit is used in a very snowy country, set this switch to ON.	
SW5-3,4	Trial operation	Method of trial operation 1. Trial operation can be performed by using SWIS-3. 2. Cooling trial operation will be performed when SWS-4 is OFI-and heating trial operation when SWS-4 is OFI-and heating trial operation when SWS-4 is ON. 3. Be sure to turn OFF SWS-3 after the trial operation is finished.	

Power cable, indoor-outdoor connecting wires

Model	MAX over current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size
71	17	3.5	21	φ 1.6mm x 3	φ1.6mm

- The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of Circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.
- Refer to installation manual or technical manual about usage of local setting switch. Don't operate SW3-3,SW5-1,SW5-2,SW7,SW8

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Mark	Color
BK	Black
BL	Blue
BR	Brown
GN	Green
GR	Gray
Р	Pink
OR	Orange
RD	Red
WH	White
Υ	Yellow
Y/GN	Yellow/Green

Item	Description
CnA~Z	Connector
CH	Crankcase heater
DH	Drain pan heater
CM	Compressor motor
CT	Current sensor
DM	Diode module
F	Fuse
FM01	Fan motor
IPM	Intelligent power module
L	Reactor
LED1	Indication lamp (GREEN)
LED2	Indication lamp (RED)
LPT	Low pressure sensor
SM1	Expansion valve for cooling
SM2	Expansion valve for heating
SW1	Pump down switch
SW3,5	Local setting switch
TB	Terminal block
THo-A	Thermistor (Outdoor air temp.)
THo-D	Thermistor (Discharge pipe temp.)
THo-P	Thermistor (IPM)
THo-R1,2	Thermistor (Heat exchanger pipe temp.)
THo-S	Thermistor (Suction pipe temp.)
20S	Solenoid valve for 4 way valve
52X1	Auxilliary relay (for CH)
52X2	Auxilliary relay (for DH)
52X3	Auxilliary relay (for 20S)
63H1	High pressure switch

Power cable, indoor-outdoor connecting wires

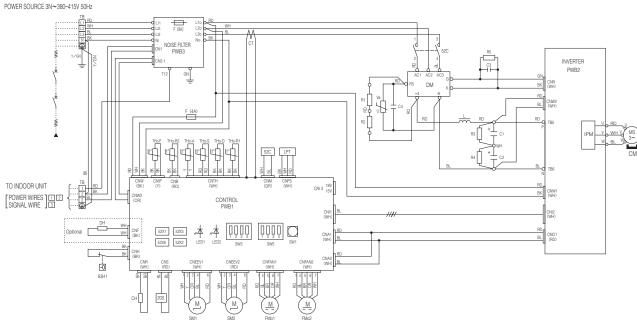
Model	MAX over current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm)
100	24		25		
125	26	5.5	23	φ 1.6mm x 3	φ1.6
140	20		23		

*At the connection with the duct type indoor unit.

With the composition with the dust type masor and					
Model	MAX over current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm)
100	25	5.5	24		
125	29	8	31	φ1.6mm x 3	φ1.6
140	30		30		

- The specifications shown in the above table are for units without heaters. For units with heaters, refer
 to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of Circuit breaker capacity which is calculated from MAX, over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Local setti	ng switch SW3 (Set up at shipme	63H1	High press	
SW3-1	Defrost control change	The defrosting operation interval bec by turning ON this switch. This switch turned ON in the area where outside becomes below the freezing point.	should be	
SW3-2	Snow guard fan control	When this switch is turned ON, the or fan will run for 30 seconds in every 11 when outdoor temperature falls to 3°C the compressor is not runnning when in a very snowy country, set this switc	minutes, or lower and the unit is used	
SW3-3,4	Trial operation	Method of trial operation (Trial operation can be performed b (Compressor will be in the operation (Cooling trial operation will be performed to the performed because the performance the perfo	when SW3-3 is rmed when SW3 V3-4 is ON.	ON.



Item	Description		
CH	Crankcase heater		
CM	Compressor motor		
CnA~Z	Connector		
CT	Current sensor		
DH	Drain pan heater		
DM	Diode module		
F	Fuse		
FMo1,2	Fan motor		
IPM	Intelligent power module		
L	Reactor		
LED1	Indication lamp (GREEN)		
LED2	Indication lamp (RED)		
LPT	Low pressure sensor		
SM1	Expansion valve for cooling		
SM2	Expansion valve for heating		
SW1	Pump down switch		
SW3,5	Local setting switch		
TB	Terminal block		
THo-A	Thermistor (Outdoor air temp.)		
THo-D	Thermistor (Discharger pipe temp.)		
THo-R1,2	Thermistor (Heat exchanger pipe temp.)		
THo-S	Thermistor (Suction pipe temp.)		
THo-P	Thermistor (IPM)		
20S	Solenoid valve for 4 way valve		
52C	Relay		
52X1	Auxilliary relay (for CH)		
52X2 Auxilliary relay (for DH)			
52X3	Auxilliary relay (for 20S)		
52X6	Auxilliary relay (for 52C)		
63H1	High pressure switch		

Models FDC100VSX, 125VSX, 140VSX

Power cable, indoor-outdoor connecting wires

Model	MAX over current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm)
100					
125	15	3.5	27	φ 1.6mm x 3	φ1.6
140					

*At the connection with the duct type indoor unit.

Model	MAX over current (A)	Power cable size (mm ²)	Power cable length (m)	indoor-outdoor wire size x number	Earth wire size (mm)
100	16		26		
125	18	3.5	23	φ 1.6mm x 3	φ1.6
140	19		21		

- The specifications shown in the above table are for units without heaters. For units with heaters, refer
 to the installation instructions or the construction instructions of the indoor unit.
- Switchgear of Circuit breaker capacity which is calculated from MAX, over current should be chosen
 along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Local setting switch SW3 (Set up at shipment OFF)

SW3-1	Defrost control change	The defrosting operation interval becomes shorter by turning ON this switch. This switch should be turned ON in the area where outside temperature becomes below the freezing point.
SW3-2	Snow guard fan control	When this switch is turned ON, the outdoor unit fan will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not runnning when the unit is used in a evry snowy country, set this switch to ON.
SW3-3,4	Trial operation	Method of trial operation (1) Trial operation can be performed by using SW3-3,4. (2) Compressor will be in the operation when SW3-3 is ON. (3) Cooling trial operation will be performed when SW3-4 is OFF, and heating trial operation when SW3-4 is ON. (4) Be sure to turn OFF SW3-3 after the trial operation is finished.

Mark	Color
BK	Black
BL	Blue
BR	Brown
OR	Orange
RD	Red
WH	White
Υ	Yellow
Y/GN	Yellow/Green
GR	Gray
Р	Pink

1.4 NOISE LEVEL

Notes (1) The data are based on the following conditions.

Ambient air temperature: Indoor unit 27°CWB. Outdoor unit 35°CDB.

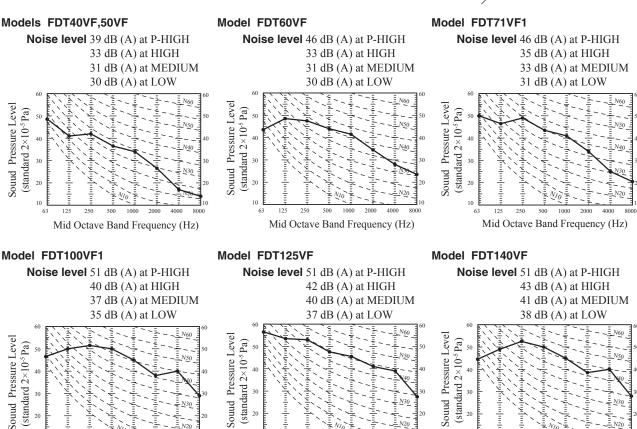
- (2) The data in the chart are measured in an anechoic room.
- (3) The noise levels measured in the field are usually higher than the data because of reflection.

(1) Indoor units

(a) Ceiling cassette-4way compact type (FDT)

Measured based on JIS B 8616
Mike position as right

1.5m
Mike (at center & below unit)

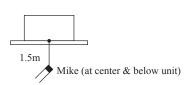


(b) Ceiling cassette-4way type (FDTC)

Mid Octave Band Frequency (Hz)

Measured based on JIS B 8616 Mike position as right

Mid Octave Band Frequency (Hz)



42 dB (A) at HIGH

Mid Octave Band Frequency (Hz)

Models FDTC40VF,50VF

Cooling noise level 47 dB (A) at P-HIGH 42 dB (A) at HIGH 36 dB (A) at MEDIUM

sound Pressure Level (standard 2×10×8) (and Pressure Level (and P

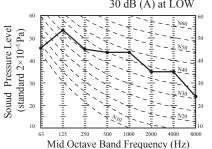
36 dB (A) at MEDIUM 32 dB (A) at LOW 32

Heating noise level 47 dB (A) at P-HIGH

Model FDTC60VF

Cooling noise level 47 dB (A) at P-HIGH 46 dB (A) at HIGH

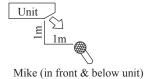
39 dB (A) at MEDIUM 30 dB (A) at LOW



Mid Octave Band Frequency (Hz)

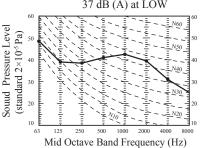
(c) Ceiling suspended type (FDEN)

Measured based on JIS B 8616 Mike position as right



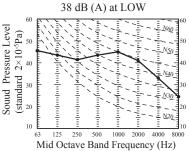
Models FDEN40VF,50VF

Noise level 46 dB (A) at P-HIGH 39 dB (A) at HIGH 38 dB (A) at MEDIUM 37 dB (A) at LOW



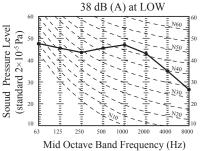
Model FDEN60VF

Noise level 48 dB (A) at P-HIGH 41 dB (A) at HIGH 39 dB (A) at MEDIUM



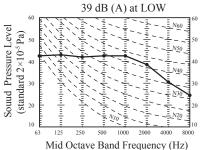
Model FDEN71VF1

Noise level 50 dB (A) at P-HIGH 41 dB (A) at HIGH 39 dB (A) at MEDIUM 38 dB (A) at LOW



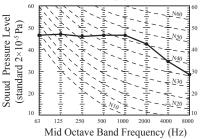
Model FDEN100VF1

Noise level 46 dB (A) at P-HIGH 44 dB (A) at HIGH 41 dB (A) at MEDIUM

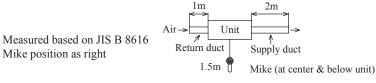


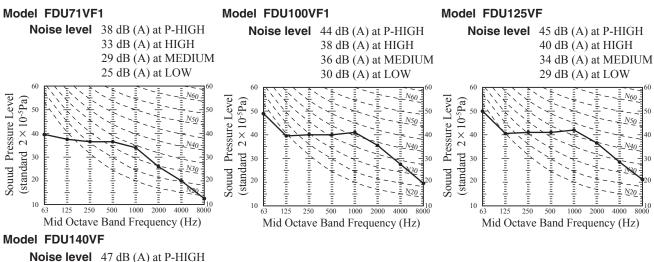
Models FDEN125VF,140VF

Noise level 50 dB (A) at P-HIGH 46 dB (A) at HIGH 44 dB (A) at MEDIUM 43 dB (A) at LOW

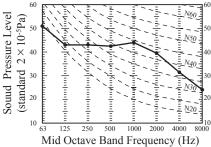


(d) Duct connected-High static pressure - type (FDU)

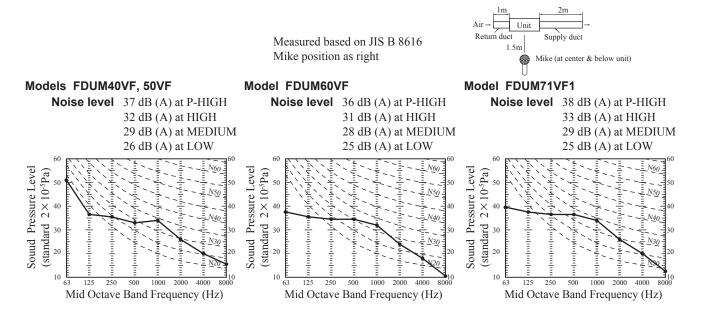




40 dB (A) at HIGH 35 dB (A) at MEDIUM 30 dB (A) at LOW



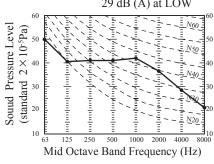
(e) Duct connected-Low / Middle static pressure type (FDUM)



Roand Dressure Level (standard 2 10-Pa) (standard 2 10-Pa) (standard 2 2

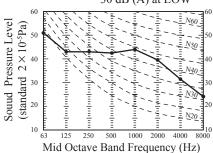
Model FDUM125VF

Noise level 45 dB (A) at P-HIGH 40 dB (A) at HIGH 34 dB (A) at MEDIUM 29 dB (A) at LOW



Model FDUM140VF

Noise level 47 dB (A) at P-HIGH 40 dB (A) at HIGH 35 dB (A) at MEDIUM 30 dB (A) at LOW



(f) Floor standing type (FDF)

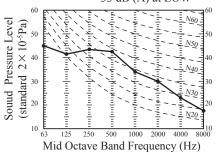


Noise level 42 dB (A) at P-HIGH 39 dB (A) at HIGH 35 dB (A) at MEDIUM 33 dB (A) at LOW

1000

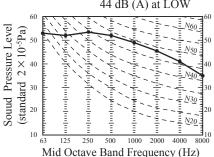
Mid Octave Band Frequency (Hz)

2000 4000

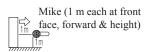


Models FDF100VD1, 125VD, 140VD

Noise level 54 dB (A) at P-HIGH 50 dB (A) at HIGH 48 dB (A) at MEDIUM 44 dB (A) at LOW



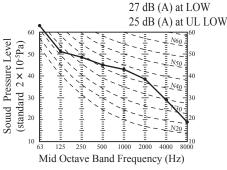
Measured based on JIS B 8616 Mike position



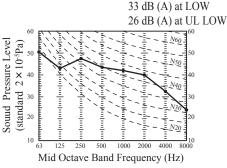
(g) Wall mounted type (SRK)

Model SRK50ZMX-S

Cooling noise level 47 dB (A) at HIGH
40 dB (A) at MEDIUM
27 dB (A) at LOW



Heating noise level 48 dB (A) at HIGH 40 dB (A) at MEDIUM 33 dB (A) at LOW

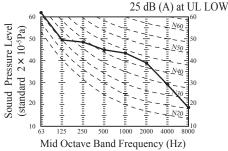


Measured based on JIS C 9612 Mike position



Model SRK60ZMX-S

Cooling noise level 51 dB (A) at HIGH
41 dB (A) at MEDIUM
29 dB (A) at LOW



Heating noise leve 48 dB (A) at HIGH 41 dB (A) at MEDIUM

Mid Octave Band Frequency (Hz)

Sound Pressure Level

(2) Outdoor units

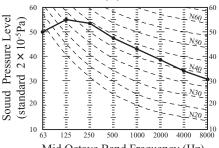
Measured based or JIS B 8616 or JIS C 9612

Mike position: at highest noise level in position as mentined below.

Distance from front side 1m

Model SRC40ZMX-S

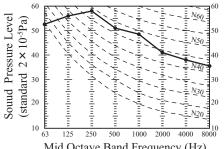




Mid Octave Band Frequency (Hz)

Model SRC50ZMX-S

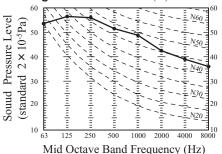
Cooling noise level 54 dB (A)



Mid Octave Band Frequency (Hz)

Model SRC60ZMX-S

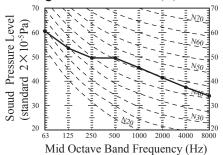
Cooling noise level 54 dB (A)

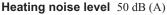


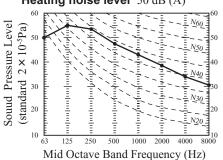
Mid Octave Band Frequency (Hz)

Model FDC71VNX

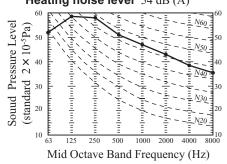
Cooling noise level 51 dB (A)



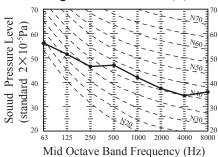




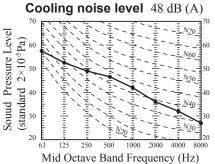
Heating noise level 54 dB (A)

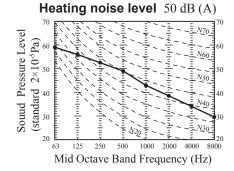


Heating noise level 48 dB (A)

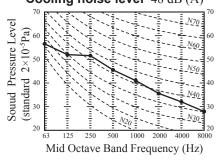


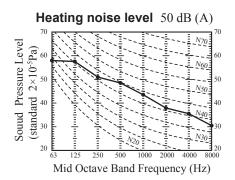
Model FDC100VNX,100VSX



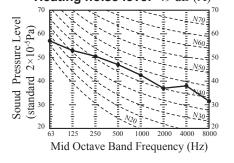


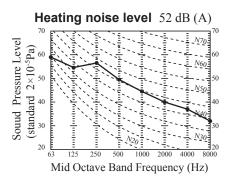
Models FDC125VNX,125VSX Cooling noise level 48 dB (A)





Models FDC140VNX,140VSX Heating noise level 49 dB (A)





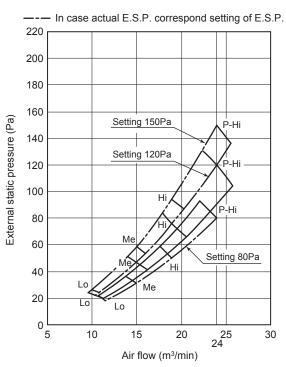
1.5 CHARACTERISTICS OF FAN

(1) Duct connected-High static pressure type (FDU)

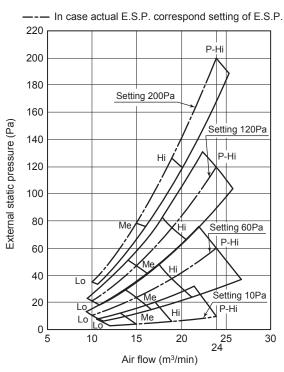
- · Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (SW8-4 OFF : 150Pa, SW8-4 ON : 200Pa), rated E.S.P., and minimum E.S.P. (SW8-4 OFF : 80Pa, SW8-4 ON : 10Pa)
- · Characteristic FAN (2) shows air flow vs E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P. by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- · You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

Model FDU71VF1

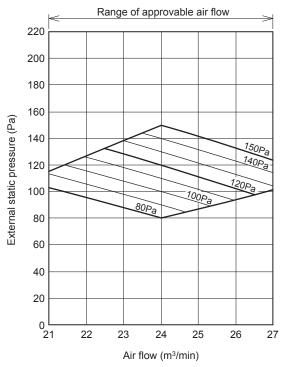
■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa) Characteristic FAN (1)

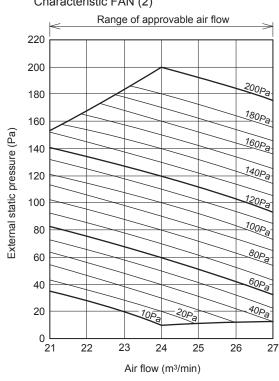


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa) Characteristic FAN (1)



Characteristic FAN (2)



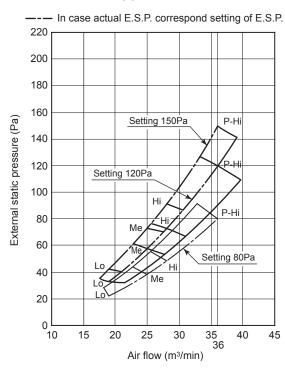


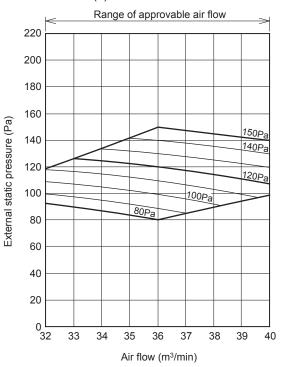
Model FDU100VF1

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)



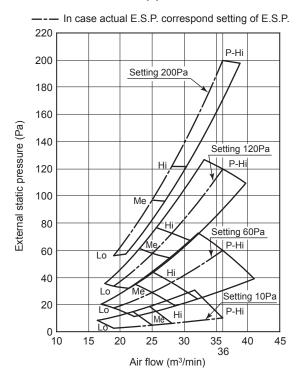
Characteristic FAN (2)

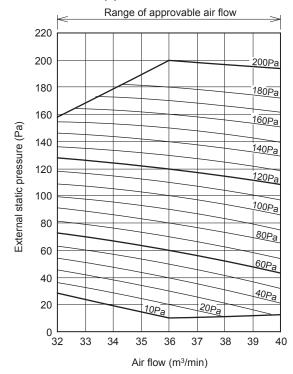




■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



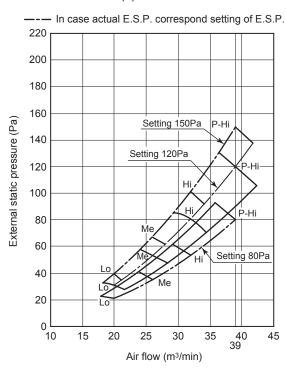


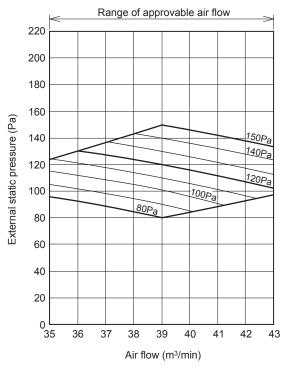
Model FDU125VF

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

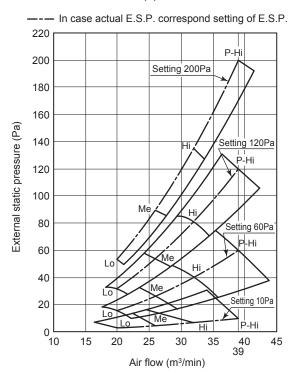
Characteristic FAN (2)

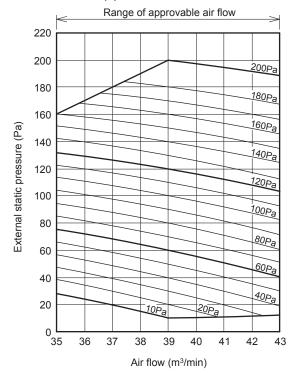




■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



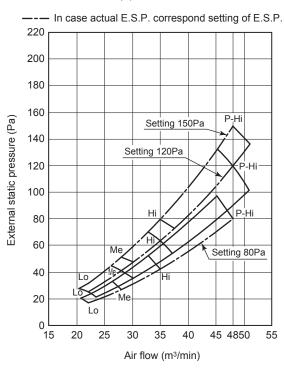


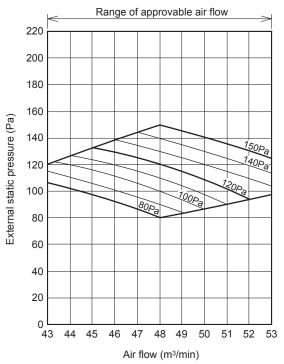
Model FDU140VF

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)



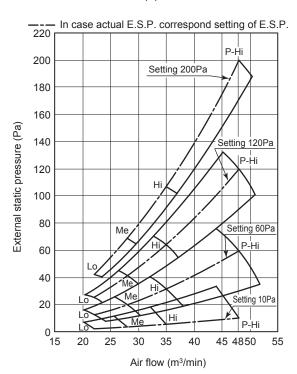
Characteristic FAN (2)

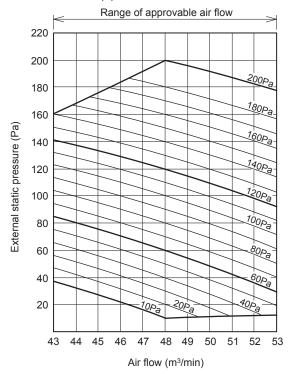




■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)

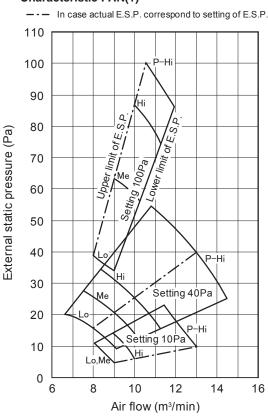




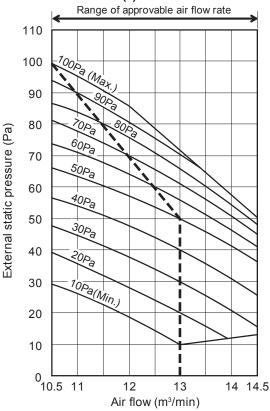
(2) Duct connected-Low / Middle static pressure type (FDUM)

- · Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa), rated E.S.P., and minimum E.S.P. (10Pa)
- · Characteristic FAN (2) shows air flow vs E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- · You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

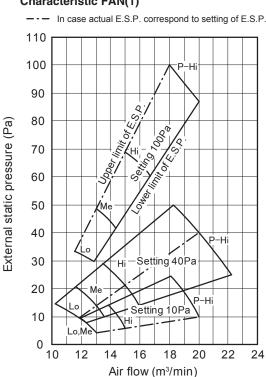
Models FDUM40VF, 50VF Characteristic FAN(1)

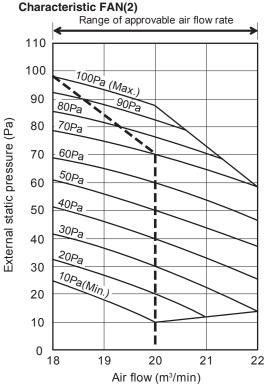


Characteristic FAN(2)

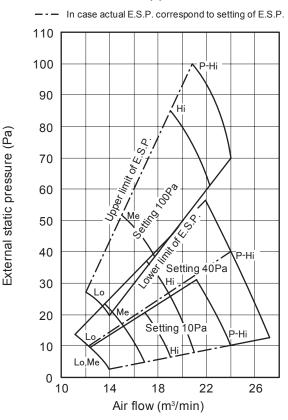


Model FDUM60VF Characteristic FAN(1)

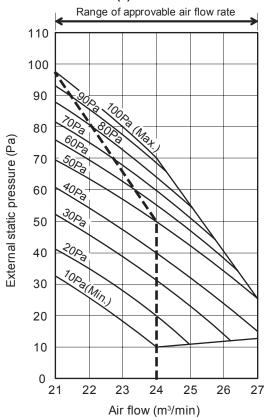




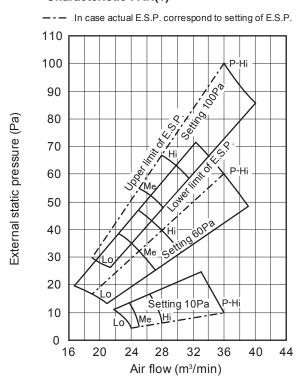
Model FDUM71VF1 Characteristic FAN(1)

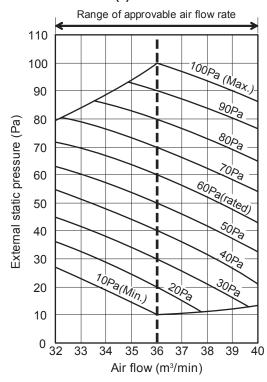


Characteristic FAN(2)

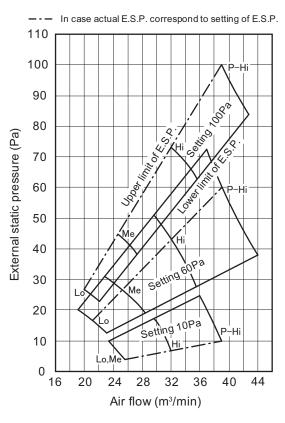


Model FDUM100VF1 Characteristic FAN(1)

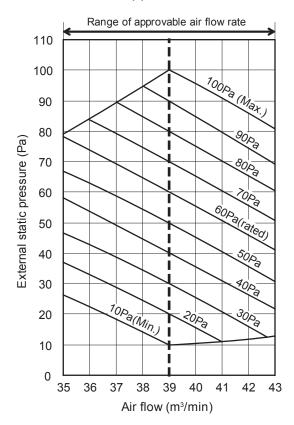




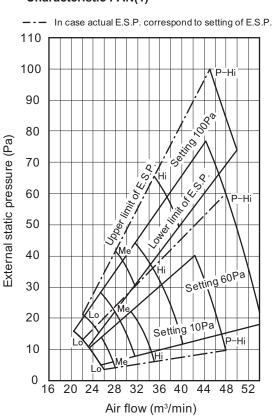
Model FDUM125VF Characteristic FAN(1)

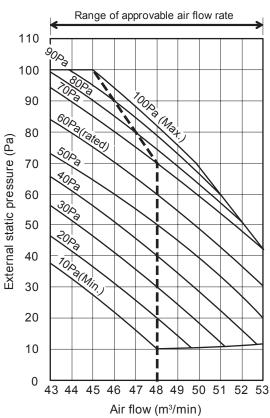


Characteristic FAN(2)



Model FDUM140VF Characteristic FAN(1)





1.6 TEMPERATURE AND VELOCITY DISTRIBUTION

Indoor temperature

Cooling 27°CDB / 19°CWB

Heating 20°CDB

Note: These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.

In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

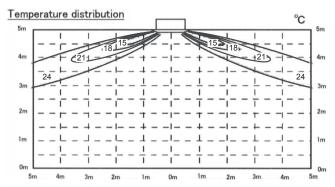
(1) Ceiling cassett-4way type (FDT)

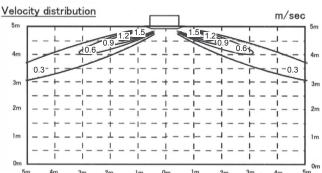
Models FDT40VF, 50VF

Cooling air flow: P-Hi

Louver position

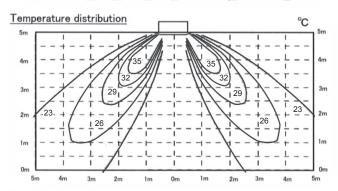


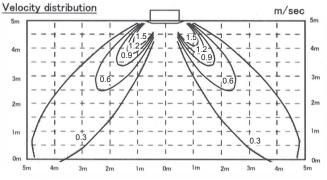




Heating air flow: P-Hi Louver position





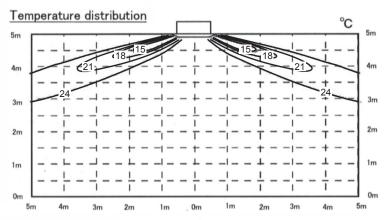


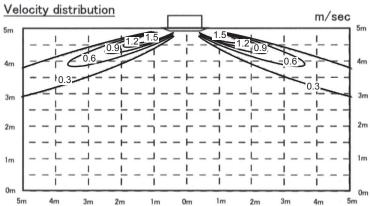
Models FDT60VF, 71VF1

Cooling air flow: P-Hi

Louver position

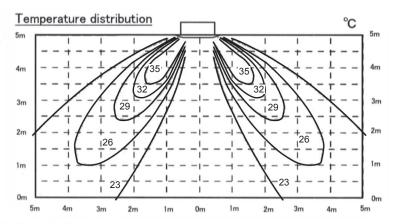


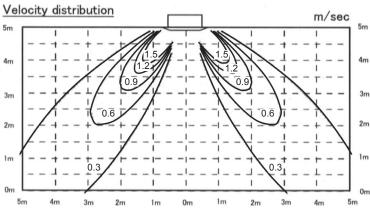




Heating air flow : P-Hi
Louver position



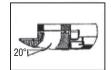


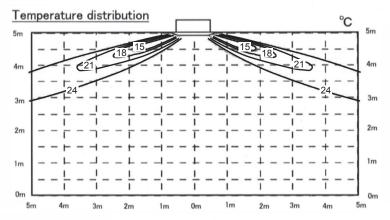


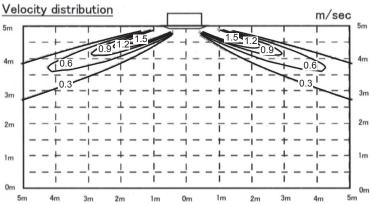
Models FDT100VF1, 125VF, 140VF

Cooling air flow : P-Hi

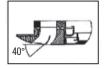
Louver position

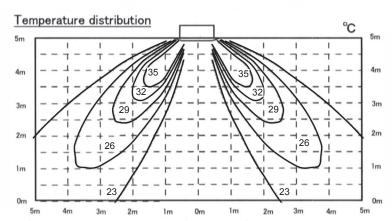


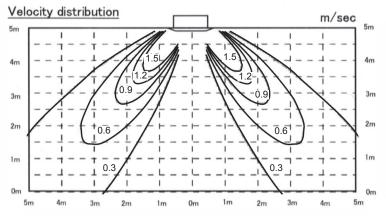




Heating air flow: P-Hi
Louver position





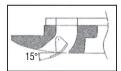


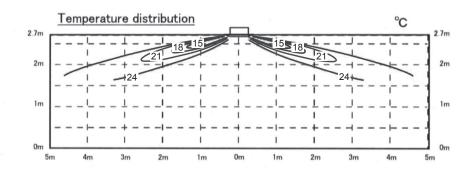
(2) Ceiling cassett-4way compact type (FDTC)

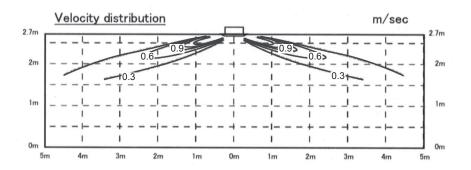
Models FDTC40VF, 50VF, 60VF

Cooling air flow: P-Hi

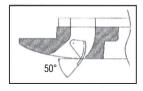
Louver position

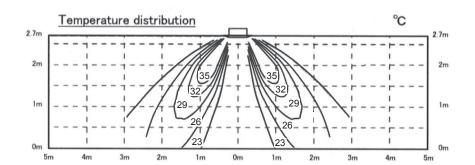


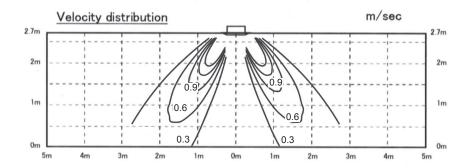




Heating air flow : P-Hi
Louver position







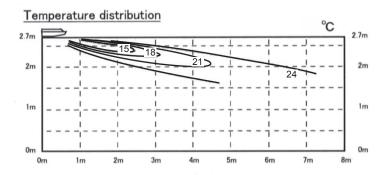
(3) Ceiling suspended type (FDEN)

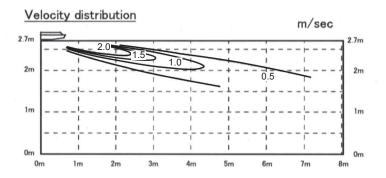
Models FDEN40VF, 50VF

Cooling air flow: P-Hi

Louver position



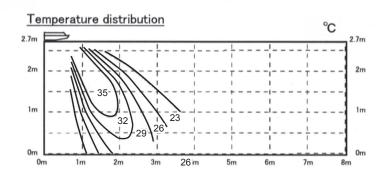


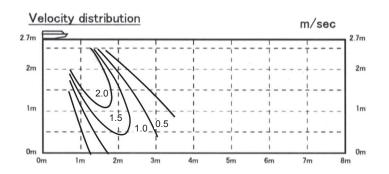


Heating air flow : P-Hi

Louver position



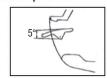


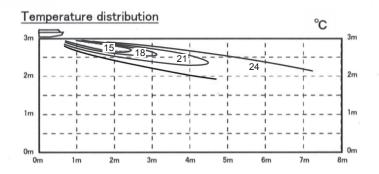


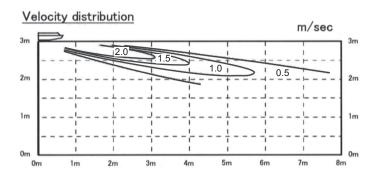
Models FDEN60VF, 71VF1

Cooling air flow: P-Hi

Louver position



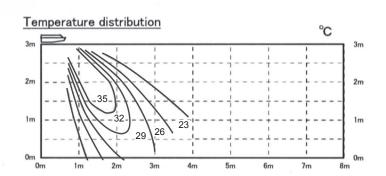


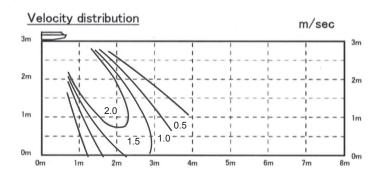


Heating air flow: P-Hi

Louver position



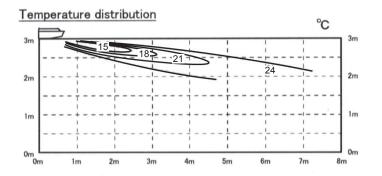


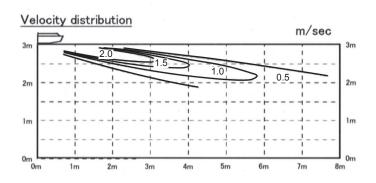


Model FDEN100VF1

Cooling air flow : P-Hi

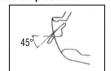


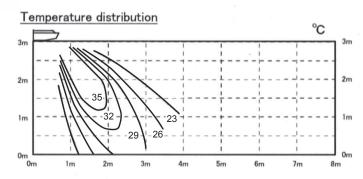




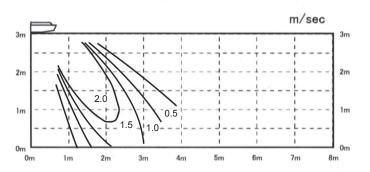
Heating air flow : P-Hi

Louver position





Velocity distribution

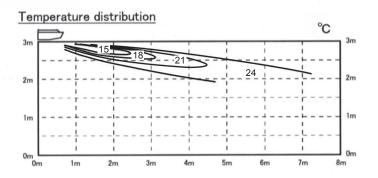


Models FDEN125VF, 140VF

Cooling air flow : P-Hi

Louver position



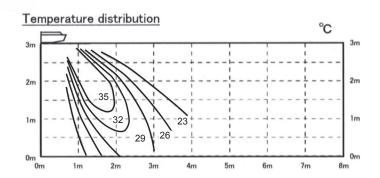


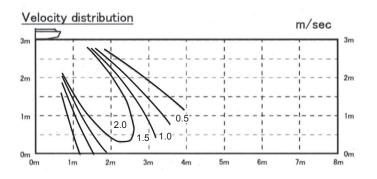
Velocity distribution m/sec 3m 2.0 2m 1.5 2m 1.0 1m 1.0 1m 1m 0m 1m 2m 3m 4m 5m 6m 7m 8m

Heating air flow: P-Hi

Louver position





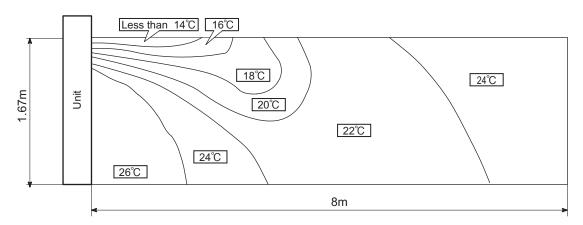


(4) Floor standing type (FDF)

Models FDF71VD1, 100VD1, 125VD, 140VD

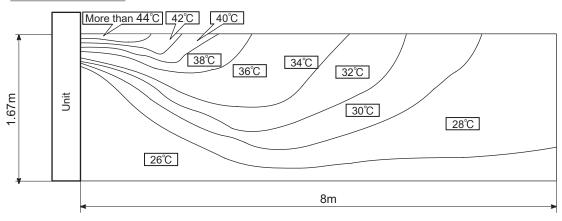
(a) Cooling air flow:Hi (Louver position:Horizontal)

Temperature distribution



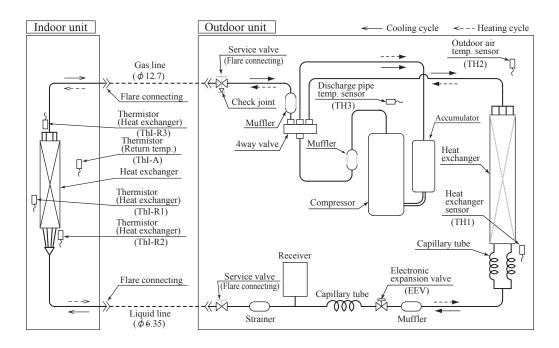
(b) Heating air flow:Hi (Louver position:Horizontal)

Temperature distribution

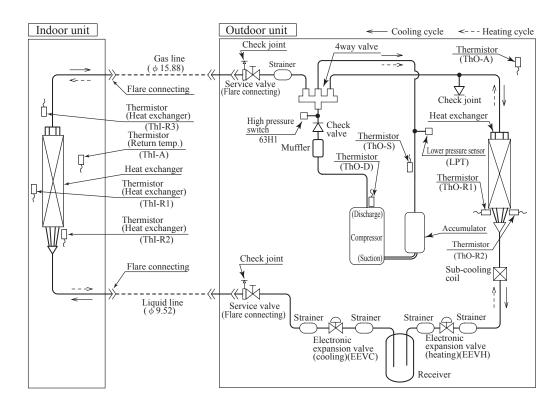


1.7 PIPING SYSTEM

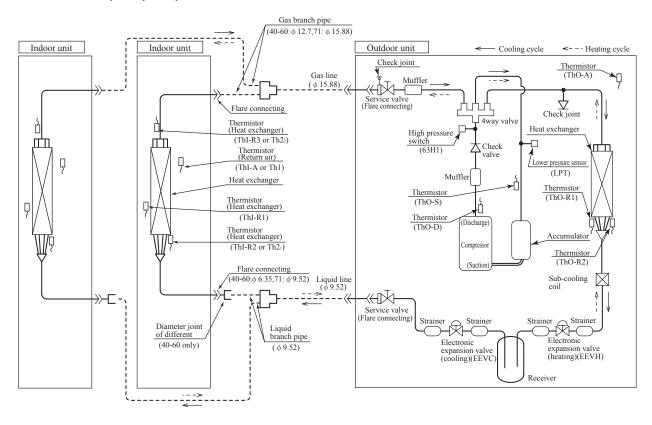
(1) Single type Models 40, 50, 60



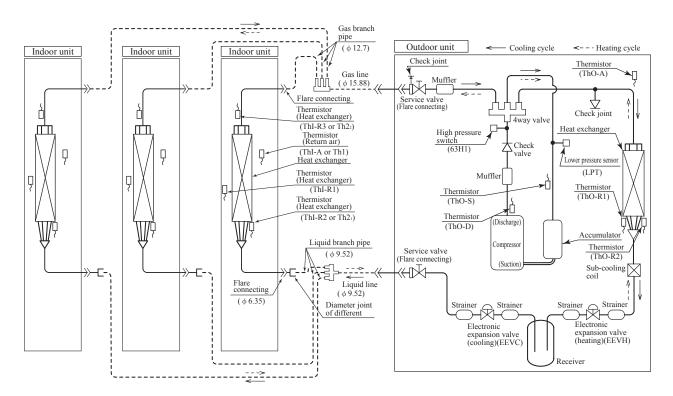
Models 71, 100, 125, 140



(2) Twin type Models 71, 100, 125, 140



(3) Triple type Model 140



Preset point of the protective devices

Parts name	Mark	Equipped unit	40, 50, 60 model	71, 100, 125, 140 model					
Thermistor (for protection overloading in heating)	ThI-R (TH1)	Indoor unit		ON 63° C ON 17° C OFF 56° C OFF 16° C					
Thermistor (for frost prevention)	Thl-R (TH2 ₁)		ON 1.0° C ON 2.5° C OFF 10° C OFF 8° C						
Thermistor (for protection high pressure in cooling.)	Tho-R (TH1)	Outdoor unit	ON 63℃ OFF 53℃	ON 65°C OFF 51°C					
Thermistor (for detecting discharge pipe temp.)	Tho-D (TH3)	Outdoor unit	ON 115℃ OFF 95℃	ON 115℃ OFF 85℃					
High pressure switch (for protection)	63H1	Outdoor unit	_	ON 4.15MPa OFF 3.15MPa					
Low pressure sensor (for protection)	LPT	Outdoor unit	_	ON 0.079MPa OFF 0.227MPa					

Notes(1) Values in () shown in the case of 40, 50, 60 models.

(2) Values in [] shown in the case of SRK.

1.8 RANGE OF USAGE & LIMITATIONS

		See the next page.					
Operating temperature rar	nge	When used below -5°C, install a snow hood. <71-140 only>					
Recommendable area to i	nstall	Considering to get sufficient heating capacity, the area where the averaged lowest ambient air temperature in day time during winter is above 0°C, and it has no accumulation of snow.					
Installation site		The limitations of installation space are shown in the page for outline drawing. Install the indoor unit at least 2.5m higher than the floor surface.					
Temperature and humidity indoor unit in the ceiling (N	conditions surrounding the lote 2)	Dew point temperature : 28 [23] °C or less, relative hummdity : 80% or less					
Limitations on unit and pip	ing installation	See page 158 and 159					
Compressor	Cycle Time	7 minutes or more (from OFF to OFF) or (from ON to ON)					
ON-OFF cycling	Stop Time	3 minutes or more					
	Voltage range	Rating ±10%					
Power source	Voltage drop at start-up	Min.85% of rating					
	Phase-to-phase imbalance	3% or less					

Note 1. Do not install the unit in places which:

- 1) Flammable gas may leak.
- 2) Carbon fiber, metal particles, powder, etc. are floating.
- 3) Cosmetic or special sprays are used frequently.
- 4) Exposed to oil splashes or steam (e.g. kitchen and machine plant).
- 5) Exposed to sea breeze (e.g. coastal area) or calcium chloride (e.g. snow melting agent).
- 6) Exposed to ammonia substance (e.g. organic fertilizer).
- 7) Matters affecting devices, such as sulfuric gas, chlorine gas, acid, alkali, etc. may generate or accumulate.
- 8) Chimney smoke is hanging.
- 9) Sucking the exhaust gas from heat exchanger.
- 10) Adjacent to equipment generating electromagnetic waves or high frequency waves.
- 11) There is light beams that affect the receiving device of indoor unit in case of the wireless specification.
- 12) Snow falls heavily.
- 13) At an elevation of 1000 meters or higher.
- 14) On mobile machine (e.g. vehicle, ship, etc.)
- 15) Splashed with water to indoor unit (e.g. laundry room).
- 16) Indoor units of twin and triple specifications separately in a room with partition.
- Note 2. If ambient temperature and humidity exceed the above conditions, add polyurethane foam insulation on the outer plate (10mm or thicker) of indoor unit.

Both gas and liquid pipes need to be cover with 20mm or thicker heat insulation materials at the place where humidity exceeds 70%.

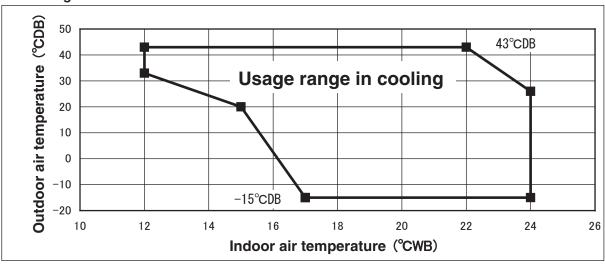
Note 3. When used below -5°C, install a snow hood on site.

Regarding outline of a snow hood, refer to our technical maunal.

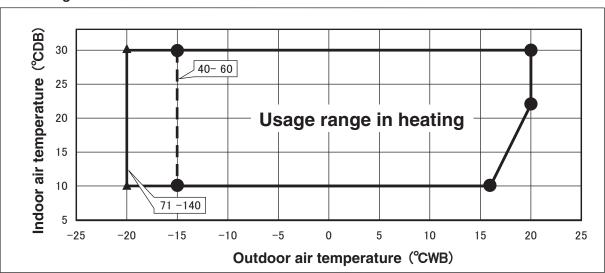
Note 4. Value in [] is for the FDEN only.

Operating temperature range

■ Cooling



■ Heating



Decline in cooling and heating capacity or operation stop may occur when the outdoor unit is installed in places where natural wind can increase or decrease its design airflow rate.

PJF000Z195

"CAUTION" Cooling operation under low outdoor air temperature conditions

PAC models can be operated in cooling mode at low outdoor air temperature condition within above temperature range. However in case of severely low temperature conditions if the following precaution is not observed, it may not be operated in spite of operable temperature range mentioned above and cooling capacity may not be established under certain conditions.

[Precaution]

In case of severely low temperature condition

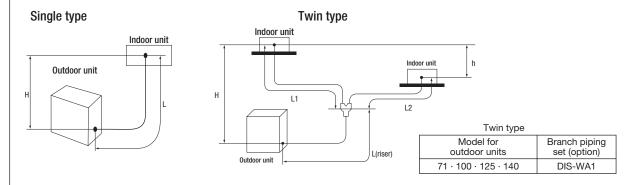
- 1) Install the outdoor unit at the place where strong wind cannot blow directly into the outdoor unit.
- 2) If there is no installation place where can prevent strong wind from directly blowing into the outdoor unit, mount the flex flow adapter (prepared as option part) or like such devices onto the outdoor unit in order to divert the strong wind.

[Reason]

Under the low outdoor air temperature conditions of -5° C or lower, the outdoor fan is controlled at lower or lowest speed by outdoor fan control, but if strong wind directly blow into the outdoor unit, the outdoor heat exchanger temperature will drop more.

This makes high and low pressures to drop as well. This low pressure drop makes the indoor heat exchanger temperature to drop and will activate anti-frost control at indoor heat exchanger at frequent intervals, that cooling operation may not be established for any given time.

Limitation on unit and piping installation - single, twin.						
			6	Marks appearing in the drawing		
Descriptions	Models for outd	oor unit	Dimensional limitations	Single type	Twin type	
	40 · 50 · 6	0	≦ 30m			
One-way pipe length	71		≤ 50m	L		
	100 · 125 · ·	140	≤ 100m		L + L1 + L2	
Main pipe length	71	≦ 20m		_		
iviain pipe length	≤ 100m					
One-way pipe length after first branching point	71		≦ 50m		L1, L2	
One-way pipe length after hist branching point	100 · 125 · ·	140	≤ 30m		LI, LZ	
Difference of pipe length after first branching point			≦ 10m		L1 - L2 L2 - L1	
Total pipe length after the second branching point			≦ 15m			
		40 · 50 · 60	≤ 20m			
	When outdoor unit is positioned higher	71	≤ 30m	Н	н	
Elevation difference between indoor and outdoor unit	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100 · 125 · 140	S SUIII			
Elevation difference between indoor and outdoor unit		40 · 50 · 60	≦ 20m			
	When outdoor unit is positioned lower	71	- ≤ 15m	Н	н	
		100 · 125 · 140	<u>≥ 13111</u>			
Elevation difference among indoor units		≤ 0.5m		h		



- (1) A riser pipe must be part of the main.
- A branching pipe set should be installed horizontally at point as close to an indoor unit as possible.

 (2) Reduce refrigerant amount by according to table below from the factory charge when refrigerant piping is shorter than 3m.

Model for outdoor units	Refrigerant to be reduced
71 · 100 · 125 · 140	1.0 kg

Limitation on unit and piping installation - triple.					
B			Marks appearing	in the drawing	
Descriptions	Models for outdoor unit	Dimensional limitations	Triple type A	Triple type B	
One-way pipe length	140	≦ 100m	L + L1 + L2 + L3	L + La + L1 + L2 + L3 %1	
Main pipe length	140	≦ 100m	L	L	
One-way pipe length first branching point to indoor units between	140	≤ 30m	L1, L2, L3	L1 ※1	
One-way pipe length between first branching point from and second branching point	140	≤ 5m		La	
One-way pipe length first branching point and indoor units	140	≤ 27m		La + L2, La + L3	
		< 3m	L1 - L2, L1 - L3, L2 - L3	(not possible)	
Piping length difference among piping to indoor units fre	om first branch	3m ≤ ≤ 10m	(not possible)	L1 - (La + L2), L1 - (La + L3) %1	
One-way pipe length difference from second branching	point to indoor units	≤ 10m		L2 - L3	
E 155	When the outdoor unit is positioned higher	≦ 30m			
Elevation difference between indoor and outdoor	When the outdoor unit is positioned lower	≤ 15m	Н	Н	
	•				

Triple type A Indoor unit Indoor unit Indoor unit L(riser)

Branch piping set (option)

Triple type A

DIS-TA1

outdoor units Branch piping

Triple type B Indoor unit Ind

≤ 0.5m

h1, h2, h3

h1, h2, h3

(1) A riser pipe must be part of the main.

Model for

140

Elevation difference among indoor units

A branching pipe set should be installed horizontally at point as close to an indoor unit as possible.

DIS-WA1

(2) Reduce refrigerant amount by 1.0kg from the factory charge when refrigerant piping is shorter than 3m.

Triple type B

First branch Second branch

DIS-WA1

1.9 SELECTION CHART

Correct the cooling and heating capacity in accordance with the operating conditions. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown in the capacity tables (1.9.1) × Correction factors shown in the table (1.9.2) (1.9.3) (1.9.4).

Caution: In case that the cooling operation during low outdoor air temperature below -5°C is expected, install the outdoor unit where it is not influenced by natural wind. Otherwise protection control by low pressure will be activated much more frequently and it will cause insufficient capacity or breakdown of the compressor in worst case.

1.9.1 Capacity tables

- (1) Ceiling cassette-4way type (FDT)
 - (a) Single type

Model FDT40ZMXVF Indoor unit FDT40VF Outdoor unit SRC40ZMX-S Cool Mode

Cool Me	ode															(kW
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tompi	12°(CWB	14°(CWB	16°0	CWB	18°(CWB	19°0	CWB	20°(CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					3.38	3.31	3.56	3.49	3.65	3.58	3.75	3.61	3.95	3.87	4.15	3.74
13					3.46	3.39	3.65	3.58	3.75	3.68	3.85	3.63	4.05	3.88	4.26	3.74
15					3.54	3.42	3.74	3.67	3.84	3.71	3.95	3.64	4.15	3.89	4.36	3.75
17					3.62	3.44	3.83	3.75	3.94	3.72	4.04	3.66	4.26	3.91	4.47	3.76
19					3.69	3.45	3.91	3.80	4.02	3.74	4.15	3.67	4.41	3.92	4.67	3.78
21					3.81	3.48	3.99	3.82	4.10	3.75	4.26	3.69	4.56	3.94	4.87	3.79
23					3.85	3.49	4.04	3.83	4.15	3.76	4.30	3.70	4.59	3.95	4.88	3.80
25			3.73	3.66	3.89	3.50	4.08	3.83	4.20	3.77	4.34	3.70	4.61	3.95	4.89	3.80
27			3.76	3.68	3.93	3.51	4.13	3.84	4.25	3.78	4.36	3.71	4.60	3.95		
29			3.70	3.63	3.86	3.49	4.06	3.83	4.18	3.77	4.30	3.70	4.54	3.94		
31			3.64	3.57	3.80	3.48	4.00	3.82	4.12	3.75	4.24	3.69	4.48	3.93		
33	3.23	3.17	3.44	3.37	3.74	3.46	3.94	3.81	4.06	3.74	4.18	3.68	4.42	3.93		
35	3.28	3.21	3.44	3.37	3.68	3.45	3.88	3.80	4.00	3.73	4.12	3.67	4.36	3.92		
37	3.23	3.17	3.38	3.31	3.62	3.44	3.82	3.74	3.94	3.72	4.06	3.66	4.30	3.91		
39	3.17	3.11	3.32	3.25	3.56	3.42	3.76	3.68	3.88	3.71	4.00	3.65	4.23	3.90		
41	3.12	3.06	3.27	3.20	3.50	3.41	3.70	3.63	3.82	3.70	3.93	3.64	4.17	3.90		
43	3.06	3.00	3.21	3.15	3.44	3.37	3.64	3.57	3.76	3.68	3.87	3.63	4.10	3.89		

Heat I	Heat Mode:HC (kW) Outdoor Indoor air temperature													
Out	door	In	door a	ir temp	eratur	re								
air te	emp.			°CDB										
°CDB	°CWB	16	18	20	22	24								
-19.8	-20													
-17.7	-18													
-15.7	-16													
-13.5	-14	2.67	2.63	2.59	2.55	2.50								
-11.5	-12	2.83	2.79	2.75	2.71	2.67								
-9.5	-10	3.00	2.96	2.92	2.88	2.84								
-7.5	-8	3.17	3.13	3.09	3.05	3.01								
-5.5	-6	3.23	3.20	3.16	3.12	3.09								
-3.0	-4	3.29	3.26	3.23	3.20	3.17								
-1.0	-2	3.36	3.33	3.30	3.28	3.25								
1.0	0	3.42	3.40	3.38	3.35	3.33								
2.0	1	3.45	3.43	3.41	3.39	3.37								
3.0	2	3.67	3.65	3.63	3.61	3.59								
5.0	4	4.11	4.09	4.07	4.04	4.01								
7.0	6	4.55	4.53	4.50	4.47	4.44								
9.0	8	4.78	4.75	4.72	4.69	4.66								
11.5	10	5.01	4.98	4.95	4.91	4.88								
13.5	12	5.30	5.26	5.21	5.14	5.10								
15.5	14	5.58	5.53	5.48	5.37	5.32								
16.5	16	5.73	5.67	5.61	5.48	5.44								

PJF000Z220A

Model FDT50ZMXVF Indoor unit FDT50VF Outdoor unit SRC50ZMX-S Cool Mode

	()															
Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°CDB 27°CDB			28°CDB		31°CDB		33°(CDB	
all terrip.	12°CWB 14°CWB		CWB	16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB		
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	4.02	4.45	4.36	4.56	4.35	4.69	4.31	4.94	4.59	5.19	4.48
13					4.32	4.06	4.56	4.44	4.68	4.39	4.81	4.34	5.07	4.62	5.32	4.51
15					4.42	4.09	4.68	4.47	4.80	4.42	4.93	4.37	5.19	4.65	5.45	4.53
17					4.53	4.13	4.79	4.51	4.92	4.46	5.06	4.41	5.32	4.68	5.58	4.56
19					4.62	4.16	4.89	4.54	5.02	4.49	5.19	4.44	5.51	4.73	5.84	4.62
21					4.76	4.21	4.99	4.57	5.13	4.52	5.32	4.48	5.70	4.78	6.09	4.67
23					4.81	4.22	5.04	4.58	5.19	4.54	5.37	4.49	5.73	4.78	6.10	4.67
25			4.66	4.43	4.86	4.24	5.10	4.60	5.25	4.55	5.42	4.51	5.76	4.79	6.11	4.68
27			4.70	4.45	4.91	4.26	5.16	4.62	5.31	4.57	5.46	4.52	5.75	4.79		
29			4.62	4.42	4.83	4.23	5.08	4.60	5.23	4.55	5.38	4.50	5.68	4.77		
31			4.54	4.38	4.75	4.20	5.00	4.57	5.15	4.52	5.30	4.47	5.60	4.75		
33	4.04	3.96	4.31	4.22	4.67	4.18	4.93	4.55	5.08	4.50	5.23	4.45	5.53	4.73		
35	4.11	3.99	4.30	4.21	4.59	4.15	4.85	4.53	5.00	4.48	5.15	4.43	5.45	4.71		
37	4.04	3.96	4.23	4.15	4.52	4.12	4.77	4.50	4.92	4.46	5.07	4.41	5.37	4.69		
39	3.97	3.89	4.16	4.08	4.45	4.10	4.70	4.48	4.85	4.44	4.99	4.39	5.29	4.67		
41	3.90	3.82	4.09	4.01	4.38	4.08	4.62	4.46	4.77	4.41	4.92	4.37	5.21	4.66		
43	3.83	3.75	4.01	3.93	4.30	4.05	4.55	4.43	4.69	4.39	4.84	4.35	5.13	4.64		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

(kW)	Heat I	Heat Mode:HC (k												
		door	ln	door a	ir temp	oeratur	e e							
DB	air te	emp.			°CDB									
VΒ	°CDB	°CWB	16	18	20	22	24							
SHC	-19.8	-20												
4.48	-17.7	-18												
4.51	-15.7	-16												
4.53	-13.5	-14	3.20	3.15	3.11	3.05	3.00							
4.56	-11.5	-12	3.40	3.35	3.31	3.26	3.20							
4.62	-9.5	-10	3.60	3.55	3.51	3.46	3.41							
4.67	-7.5	-8	3.80	3.75	3.71	3.66	3.61							
4.67	-5.5	-6	3.88	3.83	3.79	3.75	3.71							
4.68	-3.0	-4	3.95	3.92	3.88	3.84	3.80							
	-1.0	-2	4.03	4.00	3.97	3.93	3.90							
	1.0	0	4.10	4.08	4.05	4.03	4.00							
	2.0	1	4.14	4.12	4.10	4.07	4.05							
	3.0	2	4.41	4.38	4.36	4.33	4.30							
	5.0	4	4.94	4.91	4.88	4.85	4.82							
	7.0	6	5.46	5.43	5.40	5.37	5.33							
	9.0	8	5.74	5.70	5.67	5.63	5.59							
	11.5	10	6.02	5.98	5.94	5.89	5.85							
	13.5	12	6.36	6.31	6.25	6.17	6.12							
	15.5	14	6.70	6.64	6.57	6.44	6.39							
	16.5	16	6.87	6.80	6.73	6.58	6.52							

Model FDT60ZMXVF Indoor unit FDT60VF Outdoor unit SRC60ZMX-S Cool Mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°CDB 27°CDB		28°CDB		31°CDB		33°CDB			
an tomp.	12°0	CWB	14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.73	4.64	4.98	4.88	5.11	5.01	5.25	5.15	5.53	5.42	5.81	5.39
13					4.84	4.74	5.11	5.01	5.24	5.14	5.39	5.22	5.67	5.56	5.96	5.40
15					4.95	4.85	5.24	5.14	5.38	5.27	5.52	5.24	5.82	5.61	6.11	5.42
17					5.07	4.92	5.37	5.26	5.51	5.35	5.66	5.26	5.96	5.63	6.25	5.43
19					5.17	4.95	5.48	5.37	5.63	5.37	5.81	5.29	6.17	5.65	6.54	5.47
21					5.33	4.99	5.59	5.48	5.74	5.39	5.96	5.31	6.39	5.69	6.82	5.50
23					5.39	5.01	5.65	5.49	5.81	5.41	6.01	5.32	6.42	5.69	6.83	5.50
25			5.22	5.12	5.44	5.02	5.71	5.50	5.88	5.42	6.07	5.33	6.45	5.69	6.84	5.50
27			5.27	5.16	5.50	5.03	5.78	5.52	5.94	5.43	6.11	5.34	6.44	5.69		
29			5.18	5.08	5.41	5.01	5.69	5.50	5.86	5.42	6.02	5.33	6.36	5.68		
31			5.09	4.99	5.32	4.99	5.60	5.48	5.77	5.40	5.94	5.31	6.27	5.67		
33	4.53	4.44	4.82	4.72	5.23	4.96	5.52	5.41	5.69	5.38	5.85	5.30	6.19	5.66		
35	4.60	4.51	4.81	4.71	5.15	4.94	5.43	5.32	5.60	5.36	5.77	5.28	6.10	5.64		
37	4.52	4.43	4.73	4.64	5.06	4.92	5.35	5.24	5.51	5.35	5.68	5.27	6.01	5.63		
39	4.44	4.35	4.65	4.56	4.98	4.88	5.26	5.15	5.43	5.32	5.59	5.25	5.92	5.62		
41	4.37	4.28	4.58	4.49	4.90	4.80	5.18	5.08	5.34	5.23	5.51	5.24	5.83	5.61		
43	4.29	4.20	4.50	4.41	4.82	4.72	5.10	5.00	5.26	5.15	5.42	5.22	5.74	5.60		

(kW)	Heat I	Mode:	НС				(kW)
	Out	door	ln	door a	ir temp	eratur	e
DB	air te	emp.			°CDB		
NΒ	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20					
5.39	-17.7	-18					
5.40	-15.7	-16					
5.42	-13.5	-14	3.97	3.91	3.85	3.79	3.73
5.43	-11.5	-12	4.22	4.16	4.10	4.04	3.98
5.47	-9.5	-10	4.47	4.41	4.35	4.29	4.23
5.50	-7.5	-8	4.72	4.66	4.60	4.54	4.48
5.50	-5.5	-6	4.81	4.76	4.70	4.65	4.60
5.50	-3.0	-4	4.90	4.86	4.81	4.77	4.72
	-1.0	-2	5.00	4.96	4.92	4.88	4.84
	1.0	0	5.09	5.06	5.03	4.99	4.96
	2.0	1	5.14	5.11	5.08	5.05	5.02
	3.0	2	5.47	5.44	5.41	5.37	5.34
	5.0	4	6.12	6.09	6.05	6.01	5.98
	7.0	6	6.78	6.74	6.70	6.66	6.61
	9.0	8	7.12	7.08	7.03	6.98	6.94
	11.5	10	7.47	7.41	7.36	7.31	7.26
	13.5	12	7.89	7.82	7.76	7.65	7.59
	15.5	14	8.31	8.23	8.15	7.99	7.93
	16.5	16	8.53	8.44	8.35	8.16	8.09

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Model FDT71VNXVF1 Indoor unit FDT71VF1 Outdoor unit FDC71VNX Cool Mode

COOI IVII	Jue	e (kvv)														
0.44-4							Indo	or air t	emper	ature						\neg
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°CDB		31°CDB		33°	CDB
an temp.	12°CWB 14°CWB		CWB	16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB		
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.90	6.59	6.20	6.79	6.14	7.19	6.55	7.59	6.40
13					5.33	5.22	6.32	6.19	6.82	6.27	7.03	6.21	7.45	6.61	7.88	6.46
15					5.79	5.63	6.63	6.33	7.05	6.34	7.27	6.27	7.71	6.68	8.16	6.53
17					6.26	5.79	6.94	6.43	7.27	6.40	7.51	6.34	7.97	6.74	8.44	6.59
19					6.59	5.91	7.16	6.50	7.44	6.45	7.68	6.39	8.15	6.79	8.63	6.63
21					6.93	6.03	7.38	6.57	7.60	6.50	7.84	6.44	8.33	6.84	8.82	6.67
23					6.91	6.02	7.35	6.56	7.57	6.49	7.81	6.43	8.30	6.83	8.78	6.67
25			6.46	6.22	6.89	6.01	7.32	6.55	7.54	6.49	7.78	6.42	8.26	6.82	8.74	6.66
27			6.45	6.21	6.87	6.01	7.30	6.55	7.52	6.48	7.74	6.41	8.18	6.80		
29			6.34	6.17	6.75	5.96	7.19	6.51	7.41	6.45	7.64	6.38	8.09	6.77		
31			6.23	6.11	6.64	5.93	7.08	6.48	7.31	6.42	7.54	6.35	7.99	6.75		
33	5.77	5.62	6.05	5.93	6.53	5.89	6.97	6.44	7.20	6.38	7.44	6.32	7.90	6.73		
35	5.67	5.56	5.95	5.83	6.42	5.85	6.86	6.41	7.10	6.35	7.34	6.29	7.81	6.70		
37	5.58	5.47	5.85	5.73	6.31	5.81	6.72	6.36	6.95	6.31	7.18	6.25	7.64	6.66		
39	5.49	5.38	5.76	5.64	6.20	5.77	6.59	6.32	6.81	6.27	7.03	6.21	7.46	6.62		
41	5.39	5.28	5.67	5.56	6.09	5.73	6.45	6.28	6.66	6.22	6.87	6.16	7.29	6.57		
43	5.30	5.19	5.57	5.46	5.97	5.69	6.31	6.18	6.51	6.18	6.71	6.12	7.12	6.53		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.
 Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat Mode:HC (kW) Indoor air temperature Outdoor air temp. °CDB °CDB °CWB 20 24 16 18 22 3.95 3.91 3.88 3.86 -19.8 -20 3.93 -17.7 -18 4.18 4.16 4.14 4.11 4.09 -15.7 -16 4.42 4.39 4.37 4.34 4.32 -13.5 -14 4.68 4.65 4.63 4.60 4.57 -11.5 -12 4.94 4.91 4.88 4.85 4.82 -9.5 -10 5.20 5.17 5.14 5.11 5.08 -7.5 -8 5.46 5.43 5.40 5.36 5.33 -5.5 -6 5.59 5.55 5.52 5.48 5.44 -3.0 -4 5.71 5.68 5.64 5.60 5.56 -1.0 -2 5.84 5.80 5.76 5.72 5.67 1.0 0 5.97 5.92 5.88 5.83 5.79 2.0 6.03 5.98 5.94 5.89 5.85 1 3.0 2 6.45 6.40 6.35 6.30 6.25 7.18 5.0 4 7.29 7.23 7.12 7.06 7.0 7.93 7.87 6 8.13 8.06 8.00 9.0 8 8.42 8.36 8.29 8.23 8.16 11.5 10 8.72 8.65 8.59 8.52 8.46 9.00 8.92 13.5 12 9 20 9.13 9.06 9.69 9.61 9.47 9.39 15.5 14 9.53 16.5 16 9.93 9.85 9.77 9.71 9.62

<mark>Model</mark> Cool Mo		00VN	IXVF1	In	door u	nit F	DT100	VF1	Ou	tdoor	unit l	FDC10	X/VOC			(kW)		Heat I	Mode:	НС				(kW)
							Indo	or air t	emper	ature						Ť	ſ	Out	door	In	door a	ir tem	oeratu	re
Outdoor air temp.	18°0	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	١	air te	emp.			°CDB		
an temp.	12°C	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	ı	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	I	-19.8	-20	7.30	7.24	7.18	7.12	7.06
11					8.33	7.79	8.84	8.53	9.10	8.45	9.38	8.38	9.94	8.93	10.50	8.74	ı	-17.7	-18	7.74	7.68	7.62	7.55	7.49
13					8.63	7.90	9.17	8.64	9.43	8.55	9.73	8.48	10.32	9.03	10.92	8.84		-15.7	-16	8.18	8.12	8.05	7.99	7.92
15					8.93	8.01	9.49	8.74	9.77	8.66	10.09	8.59	10.71	9.13	11.34	8.94		-13.5	-14	8.54	8.47	8.40	8.33	8.27
17					9.23	8.12	9.82	8.85	10.11	8.77	10.44	8.69	11.10	9.24	11.75	9.04		-11.5	-12	8.89	8.82	8.75	8.68	8.61
19					9.44	8.20	10.04	8.93	10.34	8.84	10.68	8.77	11.35	9.31	12.01	9.10		-9.5	-10	9.25	9.17	9.10	9.03	8.95
21					9.64	8.27	10.26	9.00	10.57	8.92	10.91	8.84	11.59	9.37	12.28	9.17		-7.5	-8	9.60	9.53	9.45	9.38	9.30
23					9.64	8.27	10.28	9.01	10.59	8.92	10.94	8.85	11.63	9.38	12.32	9.18	ı	-5.5	-6	10.00	9.92	9.84	9.76	9.68
25			8.95	8.50	9.64	8.27	10.30	9.01	10.62	8.93	10.97	8.86	11.66	9.39	12.36	9.19	ı	-3.0	-4	10.39	10.31	10.23	10.14	10.06
27			8.91	8.48	9.64	8.27	10.33	9.02	10.64	8.94	10.96	8.85	11.59	9.37			ı	-1.0	-2	10.79	10.70	10.62	10.53	10.44
29			8.84	8.45	9.51	8.22	10.16	8.97	10.48	8.89	10.80	8.80	11.45	9.33			ı	1.0	0	11.18	11.09	11.01	10.91	10.82
31			8.76	8.42	9.37	8.17	10.00	8.91	10.32	8.84	10.65	8.76	11.30	9.29				2.0	1	11.38	11.29	11.20	11.10	11.01
33	8.21	7.78	8.58	8.35	9.23	8.12	9.83	8.85	10.16	8.78	10.49	8.71	11.15	9.25				3.0	2	11.38	11.29	11.20	11.10	11.01
35	7.77	7.59	8.31	8.14	9.09	8.07	9.66	8.80	10.00	8.73	10.34	8.66	11.01	9.21				5.0	4	11.38	11.29	11.20	11.11	11.01
37	7.68	7.53	8.18	8.02	8.92	8.01	9.49	8.74	9.81	8.67	10.13	8.60	10.77	9.15			ı	7.0	6	11.37	11.29	11.20	11.11	11.01
39	7.58	7.43	8.04	7.88	8.76	7.95	9.31	8.68	9.62	8.61	9.93	8.54	10.54	9.09			ı	9.0	8	11.85	11.76	11.67	11.58	11.48
41	7.49	7.34	7.91	7.75	8.59	7.89	9.14	8.63	9.43	8.55	9.73	8.48	10.31	9.02				11.5	10	12.32	12.23	12.15	12.05	11.95
43	7.40	7.25	7.78	7.62	8.42	7.83	8.96	8.57	9.24	8.49	9.52	8.42	10.08	8.96				13.5	12	12.97	12.88	12.78	12.68	12.72
																		15.5	14	13.62	13.52	13.41	13.32	13.49
																	ı	16.5	16	13.95	13.84	13.72	13.63	13.87

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Model Cool Mo		100VS	XVF1	In	door u	nit F	DT100	VF1	Ou	tdoor	unit F	DC10	00VSX			(kW)	ı	Heat I	M
Outdoor									emper									Out	
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB		air t	
	12°(CWB	14°	CWB	16°	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	ı	°CDB	°(
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	ı	-19.8	ŀ
11					8.33	7.79	8.84	8.53	9.10	8.45	9.38	8.38	9.94	8.93	10.50	8.74		-17.7	-
13					8.63	7.90	9.17	8.64	9.43	8.55	9.73	8.48	10.32	9.03	10.92	8.84		-15.7	-
15					8.93	8.01	9.49	8.74	9.77	8.66	10.09	8.59	10.71	9.13	11.34	8.94		-13.5	
17					9.23	8.12	9.82	8.85	10.11	8.77	10.44	8.69	11.10	9.24	11.75	9.04		-11.5	
19					9.44	8.20	10.04	8.93	10.34	8.84	10.68	8.77	11.35	9.31	12.01	9.10		-9.5	Γ-
21					9.64	8.27	10.26	9.00	10.57	8.92	10.91	8.84	11.59	9.37	12.28	9.17		-7.5	
23					9.64	8.27	10.28	9.01	10.59	8.92	10.94	8.85	11.63	9.38	12.32	9.18	I	-5.5	
25			8.95	8.50	9.64	8.27	10.30	9.01	10.62	8.93	10.97	8.86	11.66	9.39	12.36	9.19		-3.0	
27			8.91	8.48	9.64	8.27	10.33	9.02	10.64	8.94	10.96	8.85	11.59	9.37				-1.0	
29			8.84	8.45	9.51	8.22	10.16	8.97	10.48	8.89	10.80	8.80	11.45	9.33				1.0	
31			8.76	8.42	9.37	8.17	10.00	8.91	10.32	8.84	10.65	8.76	11.30	9.29				2.0	Γ
33	8.21	7.78	8.58	8.35	9.23	8.12	9.83	8.85	10.16	8.78	10.49	8.71	11.15	9.25				3.0	Г
35	7.77	7.59	8.31	8.14	9.09	8.07	9.66	8.80	10.00	8.73	10.34	8.66	11.01	9.21				5.0	
37	7.68	7.53	8.18	8.02	8.92	8.01	9.49	8.74	9.81	8.67	10.13	8.60	10.77	9.15				7.0	Г
39	7.58	7.43	8.04	7.88	8.76	7.95	9.31	8.68	9.62	8.61	9.93	8.54	10.54	9.09				9.0	
41	7.49	7.34	7.91	7.75	8.59	7.89	9.14	8.63	9.43	8.55	9.73	8.48	10.31	9.02				11.5	Γ
43	7.40	7.25	7.78	7.62	8.42	7.83	8.96	8.57	9.24	8.49	9.52	8.42	10.08	8.96				13.5	Γ

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir temp	oeratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.29	11.20	11.11	11.02	10.93
-17.7	-18	11.34	11.25	11.16	11.06	10.97
-15.7	-16	11.38	11.29	11.20	11.11	11.02
-13.5	-14	11.38	11.29	11.20	11.11	11.02
-11.5	-12	11.38	11.29	11.20	11.11	11.02
-9.5	-10	11.38	11.29	11.20	11.11	11.02
-7.5	-8	11.37	11.29	11.20	11.11	11.02
-5.5	-6	11.38	11.29	11.20	11.11	11.02
-3.0	-4	11.38	11.29	11.20	11.11	11.01
-1.0	-2	11.38	11.29	11.20	11.11	11.01
1.0	0	11.38	11.29	11.20	11.10	11.01
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

Cool Mo	ode															(kW)
Outdoor							Indo	or air t	empera	ature						
Outdoor air temp.	18°0	CDB	21°	CDB	23°0	CDB	26°	CDB	27°	CDB	28°0	CDB	31°	CDB	33°(CDB
an tomp.	12°(CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.96	11.05	9.72	11.37	9.65	11.72	9.59	12.42	10.16	13.12	9.99
13					10.79	9.12	11.46	9.88	11.79	9.81	12.16	9.74	12.91	10.32	13.65	10.15
15					11.16	9.28	11.87	10.04	12.22	9.97	12.61	9.90	13.39	10.47	14.17	10.30
17					11.54	9.44	12.27	10.19	12.64	10.12	13.05	10.06	13.87	10.63	14.69	10.46
19					11.80	9.55	12.55	10.30	12.93	10.23	13.34	10.17	14.18	10.74	15.02	10.56
21					12.05	9.65	12.83	10.41	13.21	10.34	13.64	10.28	14.49	10.84	15.34	10.66
23					12.05	9.65	12.85	10.42	13.24	10.35	13.67	10.29	14.54	10.86	15.40	10.68
25			11.19	9.83	12.05	9.65	12.88	10.43	13.27	10.36	13.71	10.30	14.58	10.87	15.45	10.69
27			11.14	9.81	12.05	9.65	12.91	10.44	13.30	10.37	13.70	10.30	14.49	10.84		
29			11.05	9.77	11.88	9.58	12.70	10.36	13.10	10.30	13.51	10.23	14.31	10.78		
31			10.95	9.72	11.71	9.51	12.49	10.28	12.90	10.22	13.31	10.16	14.13	10.72		
33	10.26	9.04	10.73	9.62	11.53	9.43	12.29	10.20	12.70	10.15	13.11	10.08	13.94	10.66		
35	9.71	8.77	10.39	9.47	11.36	9.36	12.08	10.12	12.50	10.07	12.92	10.01	13.76	10.60		
37	9.60	8.72	10.22	9.39	11.15	9.27	11.86	10.03	12.26	9.98	12.67	9.93	13.47	10.50		
39	9.48	8.66	10.05	9.31	10.94	9.18	11.64	9.95	12.03	9.89	12.41	9.83	13.18	10.41		
41	9.36	8.61	9.89	9.24	10.74	9.10	11.42	9.86	11.79	9.81	12.16	9.74	12.89	10.31		
43	9.25	8.55	9.72	9.17	10.53	9.01	11.21	9.78	11.55	9.72	11.90	9.65	12.60	10.22		

Outdoor unit FDC125VNX

Heat Mode:HC (kW) Indoor air temperature Outdoor air temp. °CDB °CDB °CWB 16 18 20 22 24 -19.8 9.05 8.97 8.90 8.83 -20 9.12 -17.7 -18 9.67 9.60 | 9.52 | 9.44 | 9.37 -15.7 -16 10.23 10.15 10.07 9.98 9.90 -13.5 10.67 10.59 10.50 10.42 10.33 -14 -11.5 -12 11.11 11.03 10.94 10.85 10.76 -9.5 -10 11.56 11.47 11.38 11.29 11.19 -7.5 -8 12.00 11.91 11.82 11.72 11.62 -5.5 12.49 12.40 12.30 12.20 12.10 -6 -3.0 12.99 12.89 12.79 12.68 12.57 -4 13.48 13.38 13.27 13.16 13.05 -1.0 1.0 0 |13.98|13.87|13.76|13.64|13.52 14.22 14.11 14.00 13.88 13.76 2.0 1 14.22 14.11 14.00 13.88 13.76 3.0 2 5.0 4 |14.22|14.11|14.00|13.88|13.76 14.11 14.00 13.88 13.77 7.0 6 14.22 9.0 14.81 14.70 14.59 14.47 14.35 8 15.41 15.29 15.18 15.06 14.94 11.5 10 13.5 12 16.22 16.09 15.97 15.85 15.90 17.03 16.90 16.76 16.65 16.86 15.5 14 16.5 16 17.44 17.30 17.16 17.04 17.34

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Model FDT125VSXVF Indoor unit FDT125VF Outdoor unit FDC125VSX Cool Mode

Indoor unit FDT125VF

COOI IVI	oue															(KVV)
0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	CDB	21°(CDB	23°0	CDB	26°	CDB	27°(CDB	28°	CDB	31°	CDB	33°(CDB
an temp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.96	11.05	9.72	11.37	9.65	11.72	9.59	12.42	10.16	13.12	9.99
13					10.79	9.12	11.46	9.88	11.79	9.81	12.16	9.74	12.91	10.32	13.65	10.15
15					11.16	9.28	11.87	10.04	12.22	9.97	12.61	9.90	13.39	10.47	14.17	10.30
17					11.54	9.44	12.27	10.19	12.64	10.12	13.05	10.06	13.87	10.63	14.69	10.46
19					11.80	9.55	12.55	10.30	12.93	10.23	13.34	10.17	14.18	10.74	15.02	10.56
21					12.05	9.65	12.83	10.41	13.21	10.34	13.64	10.28	14.49	10.84	15.34	10.66
23					12.05	9.65	12.85	10.42	13.24	10.35	13.67	10.29	14.54	10.86	15.40	10.68
25			11.19	9.83	12.05	9.65	12.88	10.43	13.27	10.36	13.71	10.30	14.58	10.87	15.45	10.69
27			11.14	9.81	12.05	9.65	12.91	10.44	13.30	10.37	13.70	10.30	14.49	10.84		
29			11.05	9.77	11.88	9.58	12.70	10.36	13.10	10.30	13.51	10.23	14.31	10.78		
31			10.95	9.72	11.71	9.51	12.49	10.28	12.90	10.22	13.31	10.16	14.13	10.72		
33	10.26	9.04	10.73	9.62	11.53	9.43	12.29	10.20	12.70	10.15	13.11	10.08	13.94	10.66		
35	9.71	8.77	10.39	9.47	11.36	9.36	12.08	10.12	12.50	10.07	12.92	10.01	13.76	10.60		
37	9.60	8.72	10.22	9.39	11.15	9.27	11.86	10.03	12.26	9.98	12.67	9.93	13.47	10.50		
39	9.48	8.66	10.05	9.31	10.94	9.18	11.64	9.95	12.03	9.89	12.41	9.83	13.18	10.41		
41	9.36	8.61	9.89	9.24	10.74	9.10	11.42	9.86	11.79	9.81	12.16	9.74	12.89	10.31		
43	9.25	8.55	9.72	9.17	10.53	9.01	11.21	9.78	11.55	9.72	11.90	9.65	12.60	10.22		

Model FDT125VNXVF

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

(kW) Heat Mode:HC Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 22 -19.8 -20 14.11 14.00 13.89 13.78 13.66 -17.7 -18 |14.17|14.06|13.94|13.83|13.72 -15.7 -16 14.23 14.11 14.00 13.89 13.77 14.23 14.11 14.00 13.89 13.77 -13.5 -14 -11.5 -12 |14.22|14.11|14.00|13.89|13.77 14.22 14.11 14.00 13.89 13.77 -10 -9.5 -7.5 14.22 14.11 14.00 13.89 13.77 -8 14.22 14.11 14.00 13.88 13.77 -5.5 -6 -3.0 -4 |14.22|14.11|14.00|13.88|13.77 14.22 14.11 14.00 13.88 13.76 -1.0 -2 0 14.22 14.11 14.00 13.88 13.76 1.0 2.0 14.22 14.11 14.00 13.88 13.76 |14.22|14.11|14.00|13.88|13.76 3.0 2 5.0 14.22 14.11 14.00 13.88 13.76 4 7.0 14.22 14.11 14.00 13.88 13.77 9.0 8 |14.81|14.70|14.59|14.47|14.35 15.41 15.29 15.18 15.06 14.94 115 10 16.22 16.09 15.97 15.85 15.90 13.5 12 15.5 17.03 16.90 16.76 16.65 16.86 14 17.44 17.30 17.16 17.04 17.34 16.5 16

Model Cool Mo	FDT1	I40VN	IXVF	Ind	loor un	it FC	DT140\	/F	Outdo	oor un	it FD	C140\	/NX			(kW)	H
							Indo	or air t	emper	ature						Ì	I
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB	
an temp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°(CWB	20°0	CWB	22°0	CWB	24°(CWB	٩
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
11					11.66	9.42	12.38	10.16	12.73	10.07	13.13	10.00	13.91	10.55	14.70	10.36	Ш
13					12.08	9.59	12.83	10.33	13.21	10.25	13.62	10.18	14.45	10.73	15.28	10.53	
15					12.50	9.77	13.29	10.51	13.68	10.43	14.12	10.36	14.99	10.91	15.87	10.71	L
17					12.92	9.95	13.75	10.69	14.16	10.61	14.62	10.54	15.54	11.09	16.45	10.89	L
19					13.21	10.08	14.06	10.82	14.48	10.74	14.95	10.67	15.88	11.21	16.82	11.00	
21					13.50	10.20	14.36	10.94	14.80	10.86	15.28	10.79	16.23	11.33	17.19	11.12	
23					13.50	10.20	14.40	10.96	14.83	10.87	15.31	10.80	16.28	11.34	17.25	11.13	
25			12.53	10.38	13.50	10.20	14.43	10.97	14.87	10.89	15.35	10.81	16.33	11.36	17.30	11.15	
27			12.48	10.36	13.50	10.20	14.46	10.98	14.90	10.90	15.34	10.81	16.23	11.33			
29			12.37	10.31	13.31	10.12	14.23	10.89	14.68	10.81	15.13	10.73	16.03	11.26			
31			12.26	10.26	13.11	10.03	13.99	10.79	14.45	10.73	14.91	10.65	15.82	11.19			
33	11.49	9.59	12.02	10.15	12.92	9.95	13.76	10.70	14.23	10.64	14.69	10.57	15.61	11.11			
35	10.88	9.29	11.63	9.97	12.72	9.87	13.53	10.61	14.00	10.55	14.47	10.49	15.41	11.05			
37	10.75	9.22	11.45	9.89	12.49	9.77	13.29	10.51	13.74	10.45	14.18	10.38	15.08	10.94			
39	10.62	9.16	11.26	9.80	12.26	9.67	13.04	10.41	13.47	10.35	13.90	10.28	14.76	10.83			
41	10.49	9.10	11.07	9.71	12.02	9.57	12.80	10.32	13.21	10.25	13.62	10.18	14.44	10.72			
43	10.35	9.03	10.89	9.63	11.79	9.47	12.55	10.22	12.94	10.15	13.33	10.07	14.11	10.61			
	•		•		•		•		•		•				•		' ľ

)	Heat I	Mode:	HC				(kW)
l		door	In	door a	ir tem	oeratui	re
	air te	emp.			°CDB		
	°CDB	°CWB	16	18	20	22	24
l	-19.8	-20	10.42	10.34	10.26	10.17	10.09
1	-17.7	-18	11.06	10.97	10.88	10.79	10.70
l	-15.7	-16	11.69	11.60	11.50	11.41	11.32
1	-13.5	-14	12.20	12.10	12.00	11.91	11.81
1	-11.5	-12	12.70	12.60	12.50	12.40	12.30
1	-9.5	-10	13.21	13.11	13.00	12.90	12.79
1	-7.5	-8	13.71	13.61	13.50	13.39	13.28
1	-5.5	-6	14.28	14.17	14.06	13.94	13.83
1	-3.0	-4	14.84	14.73	14.61	14.49	14.37
1	-1.0	-2	15.41	15.29	15.17	15.04	14.91
1	1.0	0	15.97	15.85	15.72	15.59	15.45
1	2.0	1	16.26	16.13	16.00	15.86	15.73
1	3.0	2	16.25	16.13	16.00	15.86	15.73
1	5.0	4	16.25	16.13	16.00	15.86	15.73
1	7.0	6	16.25	16.12	16.00	15.87	15.73
1	9.0	8	16.93	16.80	16.68	16.54	16.40
1	11.5	10	17.61	17.48	17.35	17.21	17.07
1	13.5	12	18.53	18.39	18.25	18.12	18.17
•	15.5	14	19.46	19.31	19.16	19.02	19.27
	16.5	16	19.93	19.77	19.61	19.48	19.82

PJF000Z220 A

Model	FDT140VSXVF	Indoor unit	FDT140VF	Outdoor unit	FDC140VSX
Cool M	ode				

																(1000)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°0	CDB
an tomp.		CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.42	12.38	10.16	12.73	10.07	13.13	10.00	13.91	10.55	14.70	10.36
13					12.08	9.59	12.83	10.33	13.21	10.25	13.62	10.18	14.45	10.73	15.28	10.53
15					12.50	9.77	13.29	10.51	13.68	10.43	14.12	10.36	14.99	10.91	15.87	10.71
17					12.92	9.95	13.75	10.69	14.16	10.61	14.62	10.54	15.54	11.09	16.45	10.89
19					13.21	10.08	14.06	10.82	14.48	10.74	14.95	10.67	15.88	11.21	16.82	11.00
21					13.50	10.20	14.36	10.94	14.80	10.86	15.28	10.79	16.23	11.33	17.19	11.12
23					13.50	10.20	14.40	10.96	14.83	10.87	15.31	10.80	16.28	11.34	17.25	11.13
25			12.53	10.38	13.50	10.20	14.43	10.97	14.87	10.89	15.35	10.81	16.33	11.36	17.30	11.15
27			12.48	10.36	13.50	10.20	14.46	10.98	14.90	10.90	15.34	10.81	16.23	11.33		
29			12.37	10.31	13.31	10.12	14.23	10.89	14.68	10.81	15.13	10.73	16.03	11.26		
31			12.26	10.26	13.11	10.03	13.99	10.79	14.45	10.73	14.91	10.65	15.82	11.19		
33	11.49	9.59	12.02	10.15	12.92	9.95	13.76	10.70	14.23	10.64	14.69	10.57	15.61	11.11		
35	10.88	9.29	11.63	9.97	12.72	9.87	13.53	10.61	14.00	10.55	14.47	10.49	15.41	11.05		
37	10.75	9.22	11.45	9.89	12.49	9.77	13.29	10.51	13.74	10.45	14.18	10.38	15.08	10.94		
39	10.62	9.16	11.26	9.80	12.26	9.67	13.04	10.41	13.47	10.35	13.90	10.28	14.76	10.83		
41	10.49	9.10	11.07	9.71	12.02	9.57	12.80	10.32	13.21	10.25	13.62	10.18	14.44	10.72		
43	10.35	9.03	10.89	9.63	11.79	9.47	12.55	10.22	12.94	10.15	13.33	10.07	14.11	10.61		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 20 16 -19.8 -20 16.13 16.00 15.87 15.74 15.61 -17.7 16.19 16.07 15.94 15.81 15.68 -18 -15.7 -16 16.26 16.13 16.00 15.87 15.74 -13.5 -14 16.26 16.13 16.00 15.87 15.74 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 16.25 16.13 16.00 15.87 15.74 -7.5 -8 16.25 16.12 16.00 15.87 15.74 -5.5 16.25 16.13 16.00 15.87 15.74 -3.0 -4 |16.25|16.13|16.00|15.87|15.73 16.25 16.13 16.00 15.86 15.73 -1.0 -2 1.0 0 16.25 16.13 16.00 15.86 15.73 2.0 1 16.26 16.13 16.00 15.86 15.73 16.25 16.13 16.00 15.86 15.73 3.0 2 16.25 16.13 16.00 15.86 15.73 4 5.0 7.0 16.25 16.12 16.00 15.87 15.73 9.0 8 16.93 16.80 16.68 16.54 16.40 17.61 17.48 17.35 17.21 17.07 10 115 12 18.53 18.39 18.25 18.12 18.17 13.5 15.5 14 19.46 19.31 19.16 19.02 19.27 19.93 19.77 19.61 19.48 19.82 16.5 16

(b) Twin type

Model FDT71VNXPVF Cool Mode Indoor unit FDT40VF (2 units) Outdoor unit FDC71VNX

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un temp.	12°(CWB	14°	CWB	16°	CWB	18°	CWB	19°(CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.90	6.59	6.46	6.79	6.65	7.19	7.05	7.59	7.42
13					5.33	5.22	6.32	6.19	6.82	6.68	7.03	6.89	7.45	7.30	7.88	7.44
15					5.79	5.67	6.63	6.50	7.05	6.91	7.27	7.12	7.71	7.56	8.16	7.46
17					6.26	6.13	6.94	6.80	7.27	7.12	7.51	7.23	7.97	7.75	8.44	7.48
19					6.59	6.46	7.16	7.02	7.44	7.29	7.68	7.25	8.15	7.77	8.63	7.50
21					6.93	6.79	7.38	7.23	7.60	7.40	7.84	7.28	8.33	7.79	8.82	7.51
23					6.91	6.77	7.35	7.20	7.57	7.40	7.81	7.27	8.30	7.79	8.78	7.51
25			6.46	6.33	6.89	6.75	7.32	7.17	7.54	7.39	7.78	7.27	8.26	7.79	8.74	7.51
27			6.45	6.32	6.87	6.73	7.30	7.15	7.52	7.37	7.74	7.26	8.18	7.78		
29			6.34	6.21	6.75	6.62	7.19	7.05	7.41	7.26	7.64	7.25	8.09	7.77		
31			6.23	6.11	6.64	6.51	7.08	6.94	7.31	7.16	7.54	7.23	7.99	7.76		
33	5.77	5.65	6.05	5.93	6.53	6.40	6.97	6.83	7.20	7.06	7.44	7.22	7.90	7.74		
35	5.67	5.56	5.95	5.83	6.42	6.29	6.86	6.72	7.10	6.96	7.34	7.19	7.81	7.65		
37	5.58	5.47	5.85	5.73	6.31	6.18	6.72	6.59	6.95	6.81	7.18	7.04	7.64	7.49		
39	5.49	5.38	5.76	5.64	6.20	6.08	6.59	6.46	6.81	6.67	7.03	6.89	7.46	7.31		
41	5.39	5.28	5.67	5.56	6.09	5.97	6.45	6.32	6.66	6.53	6.87	6.73	7.29	7.14		
43	5.30	5.19	5.57	5.46	5.97	5.85	6.31	6.18	6.51	6.38	6.71	6.58	7.12	6.98		

(kW)	Heat	Mode:	HC				(kW)
		door	In	door a	ir temp	oeratui	re
DB	air t	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	3.95	3.93	3.91	3.88	3.86
7.42	-17.7	-18	4.18	4.16	4.14	4.11	4.09
7.44	-15.7	-16	4.42	4.39	4.37	4.34	4.32
7.46	-13.5	-14	4.68	4.65	4.63	4.60	4.57
7.48	-11.5	-12	4.94	4.91	4.88	4.85	4.82
7.50	-9.5	-10	5.20	5.17	5.14	5.11	5.08
7.51	-7.5	-8	5.46	5.43	5.40	5.36	5.33
7.51	-5.5	-6	5.59	5.55	5.52	5.48	5.44
7.51	-3.0	-4	5.71	5.68	5.64	5.60	5.56
	-1.0	-2	5.84	5.80	5.76	5.72	5.67
	1.0	0	5.97	5.92	5.88	5.83	5.79
	2.0	1	6.03	5.98	5.94	5.89	5.85
	3.0	2	6.45	6.40	6.35	6.30	6.25
	5.0	4	7.29	7.23	7.18	7.12	7.06
	7.0	6	8.13	8.06	8.00	7.93	7.87
	9.0	8	8.42	8.36	8.29	8.23	8.16
	11.5	10	8.72	8.65	8.59	8.52	8.46
	13.5	12	9.20	9.13	9.06	9.00	8.92
	15.5	14	9.69	9.61	9.53	9.47	9.39
	16.5	16	9.93	9.85	9.77	9.71	9.62

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(k\//)

Model FDT100VNXPVF Indoor unit FDT50VF (2 units) Outdoor unit FDC100VNX Cool Mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un temp.	12°(CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	8.01	8.84	8.66	9.10	8.70	9.38	8.61	9.94	9.20	10.50	8.98
13					8.63	8.11	9.17	8.89	9.43	8.80	9.73	8.71	10.32	9.29	10.92	9.07
15					8.93	8.21	9.49	8.99	9.77	8.89	10.09	8.81	10.71	9.38	11.34	9.16
17					9.23	8.31	9.82	9.09	10.11	8.99	10.44	8.90	11.10	9.48	11.75	9.25
19					9.44	8.39	10.04	9.16	10.34	9.06	10.68	8.97	11.35	9.54	12.01	9.31
21					9.64	8.46	10.26	9.23	10.57	9.13	10.91	9.03	11.59	9.60	12.28	9.37
23					9.64	8.46	10.28	9.23	10.59	9.13	10.94	9.04	11.63	9.61	12.32	9.37
25			8.95	8.72	9.64	8.46	10.30	9.24	10.62	9.14	10.97	9.05	11.66	9.62	12.36	9.38
27			8.91	8.70	9.64	8.46	10.33	9.25	10.64	9.15	10.96	9.05	11.59	9.60		
29			8.84	8.66	9.51	8.41	10.16	9.19	10.48	9.10	10.80	9.00	11.45	9.56		
31			8.76	8.58	9.37	8.36	10.00	9.14	10.32	9.05	10.65	8.96	11.30	9.53		
33	8.21	7.97	8.58	8.41	9.23	8.31	9.83	9.09	10.16	9.01	10.49	8.92	11.15	9.49		
35	7.77	7.61	8.31	8.14	9.09	8.27	9.66	9.04	10.00	8.96	10.34	8.87	11.01	9.45		
37	7.68	7.53	8.18	8.02	8.92	8.21	9.49	8.99	9.81	8.91	10.13	8.82	10.77	9.40		
39	7.58	7.43	8.04	7.88	8.76	8.15	9.31	8.93	9.62	8.85	9.93	8.76	10.54	9.34		
41	7.49	7.34	7.91	7.75	8.59	8.10	9.14	8.88	9.43	8.80	9.73	8.71	10.31	9.28		
43	7.40	7.25	7.78	7.62	8.42	8.04	8.96	8.78	9.24	8.74	9.52	8.65	10.08	9.23		

Note(1) These data show average statuses.

e(1) These data show average statuses.

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(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)	 Heat I	Mode:	HC				(kW)
	Out	door	In	door a	ir temp	oeratur	e e
DB	air te	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	7.30	7.24	7.18	7.12	7.06
8.98	-17.7	-18	7.74	7.68	7.62	7.55	7.49
9.07	-15.7	-16	8.18	8.12	8.05	7.99	7.92
9.16	-13.5	-14	8.54	8.47	8.40	8.33	8.27
9.25	-11.5	-12	8.89	8.82	8.75	8.68	8.61
9.31	-9.5	-10	9.25	9.17	9.10	9.03	8.95
9.37	-7.5	-8	9.60	9.53	9.45	9.38	9.30
9.37	-5.5	-6	10.00	9.92	9.84	9.76	9.68
9.38	-3.0	-4	10.39	10.31	10.23	10.14	10.06
	-1.0	-2	10.79	10.70	10.62	10.53	10.44
	1.0	0	11.18	11.09	11.01	10.91	10.82
	2.0	1	11.38	11.29	11.20	11.10	11.01
	3.0	2	11.38	11.29	11.20	11.10	11.01
	5.0	4	11.38	11.29	11.20	11.11	11.01
	7.0	6	11.37	11.29	11.20	11.11	11.01
	9.0	8	11.85	11.76	11.67	11.58	11.48
	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

Model Cool Mo		00VS	XPVF	- In	idoor u	ınit F	DT50\	/F (2 ι	units)	Οι	ıtdoor	unit	FDC10	00VSX		(kW)	ŀ	Heat N	Mode:	НС				(kW)
							Indo	or air t	emper	ature							ſ	Outo	door	In	door a	ir tem	oeratur	
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	ı	air te	emp.			°CDB		
un temp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	٩	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ŀ	-19.8	-20	11.29	11.20	11.11	11.02	10.93
11					8.33	8.01	8.84	8.66	9.10	8.70	9.38	8.61	9.94	9.20	10.50	8.98	Ŀ	-17.7	-18	11.34	11.25	11.16	11.06	10.97
13					8.63	8.11	9.17	8.89	9.43	8.80	9.73	8.71	10.32	9.29	10.92	9.07	ŀ	-15.7	-16	11.38	11.29	11.20	11.11	11.02
15					8.93	8.21	9.49	8.99	9.77	8.89	10.09	8.81	10.71	9.38	11.34	9.16	ŀ	-13.5	-14	11.38	11.29	11.20	11.11	11.02
17					9.23	8.31	9.82	9.09	10.11	8.99	10.44	8.90	11.10	9.48	11.75	9.25	ŀ	-11.5				_	11.11	-
19					9.44	8.39	10.04	9.16	10.34	9.06	10.68	8.97	11.35	9.54	12.01	9.31	L	-9.5	_		_		11.11	-
21					9.64	8.46	10.26	9.23	10.57	9.13	10.91	9.03	11.59	9.60	12.28	9.37	L	-7.5	_		_		11.11	
23					9.64	8.46	10.28	9.23	10.59	9.13	10.94	9.04	11.63	9.61	12.32	9.37	L	-5.5			_		11.11	
25			8.95	8.72	9.64	8.46	10.30	9.24	10.62	9.14	10.97	9.05	11.66	9.62	12.36	9.38	L	-3.0	-4	11.38	11.29	11.20	11.11	11.01
27			8.91	8.70	9.64				10.64		10.96		11.59				L	-1.0			_		11.11	-
29			8.84	8.66	9.51	8.41	10.16	9.19	10.48	9.10	10.80	9.00	11.45	9.56			L	1.0					11.10	
31			8.76	8.58	9.37	8.36	10.00	9.14	10.32	9.05	10.65		11.30				L	2.0					11.10	
33	8.21	7.97	8.58	8.41	9.23	8.31	9.83	9.09	10.16	9.01	10.49		11.15				L	3.0	_				11.10	
35	7.77	7.61	8.31	8.14	9.09	8.27	9.66		10.00		10.34		11.01	_			L	5.0				-	11.11	-
37	7.68	7.53	8.18	8.02	8.92	8.21	9.49	8.99	9.81	8.91	10.13	8.82	10.77	9.40			L	7.0	6	11.37	11.29	11.20	11.11	11.01
39	7.58	7.43	8.04	7.88	8.76	8.15	9.31	8.93	9.62	8.85	9.93	8.76	10.54	9.34			L	9.0	8	11.85	11.76	11.67	11.58	11.48
41	7.49	7.34	7.91	7.75	8.59	8.10	9.14	8.88	9.43	8.80	9.73	8.71	10.31	9.28			L	11.5	10	12.32	12.23	12.15	12.05	11.95
43	7.40	7.25	7.78	7.62	8.42	8.04	8.96	8.78	9.24	8.74	9.52	8.65	10.08	9.23				13.5					12.68	
																		15.5				_	13.32	
																	L	16.5	16	13.95	13.84	13.72	13.63	13.87

PJF000Z220 A

Model		25VN	IXPVF	- In	idoor ι	ınit F	DT60	VF (2 ι	units)	Οι	utdoor	unit	FDC12	25VNX		
Cool M	ode															(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
u 10111p1	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°(CWB	20°0	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.92	11.05	10.83	11.37	10.76	11.72	10.59	12.42	11.32	13.12	10.93
13					10.79	10.01	11.46	11.02	11.79	10.84	12.16	10.67	12.91	11.39	13.65	10.99
15					11.16	10.11	11.87	11.11	12.22	10.93	12.61	10.75	13.39	11.46	14.17	11.05
17					11.54	10.21	12.27	11.19	12.64	11.01	13.05	10.84	13.87	11.53	14.69	11.11
19					11.80	10.27	12.55	11.26	12.93	11.07	13.34	10.89	14.18	11.58	15.02	11.15
21					12.05	10.34	12.83	11.32	13.21	11.13	13.64	10.95	14.49	11.63	15.34	11.19
23					12.05	10.34	12.85	11.32	13.24	11.14	13.67	10.95	14.54	11.64	15.40	11.20
25			11.19	10.82	12.05	10.34	12.88	11.33	13.27	11.14	13.71	10.96	14.58	11.64	15.45	11.20
27			11.14	10.80	12.05	10.34	12.91	11.34	13.30	11.15	13.70	10.96	14.49	11.63		
29			11.05	10.78	11.88	10.29	12.70	11.29	13.10	11.11	13.51	10.92	14.31	11.60		
31			10.95	10.73	11.71	10.25	12.49	11.24	12.90	11.07	13.31	10.88	14.13	11.57		
33	10.26	9.88	10.73	10.52	11.53	10.20	12.29	11.20	12.70	11.03	13.11	10.85	13.94	11.54		
35	9.71	9.52	10.39	10.18	11.36	10.16	12.08	11.15	12.50	10.99	12.92	10.81	13.76	11.52		
37	9.60	9.41	10.22	10.02	11.15	10.10	11.86	11.10	12.26	10.94	12.67	10.77	13.47	11.47		
39	9.48	9.29	10.05	9.85	10.94	10.05	11.64	11.06	12.03	10.89	12.41	10.72	13.18	11.43		
41	9.36	9.17	9.89	9.69	10.74	10.00	11.42	11.01	11.79	10.84	12.16	10.67	12.89	11.39		
43	9.25	9.07	9.72	9.53	10.53	9.95	11.21	10.96	11.55	10.80	11.90	10.63	12.60	11.35		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 20 24 16 -19.8 -20 9.12 9.05 8.97 8.90 8.83 -17.7 -18 9.67 | 9.60 | 9.52 | 9.44 | 9.37 -15.7 -16 10.23 10.15 10.07 9.98 9.90 -13.5 -14 10.67 10.59 10.50 10.42 10.33 -11.5 -12 11.11 11.03 10.94 10.85 10.76 11.56 11.47 11.38 11.29 11.19 -9.5 -10 -7.5 -8 12.00 11.91 11.82 11.72 11.62 -5.5 12.49 12.40 12.30 12.20 12.10 -3.0 -4 |12.99|12.89|12.79|12.68|12.57 13.48 13.38 13.27 13.16 13.05 -1.0 -2 1.0 0 13.98 13.87 13.76 13.64 13.52 2.0 14.22 14.11 14.00 13.88 13.76 3.0 14.22 14.11 14.00 13.88 13.76 2 14.22 14.11 14.00 13.88 13.76 5.0 4 7.0 14.22 14.11 14.00 13.88 13.77 9.0 8 14.81 14.70 14.59 14.47 14.35 15.41 15.29 15.18 15.06 14.94 11.5 10 16.22 16.09 15.97 15.85 15.90 13.5 12 15.5 17.03 16.90 16.76 16.65 16.86 16 | 17.44 | 17.30 | 17.16 | 17.04 | 17.34 16.5

Model		25VS	XPVF	In	door u	nit F	DT60	/F (2 ι	ınits)	Οι	ıtdoor	unit l	FDC12	25VSX									
Cool Mo	ode															(kW)	Hea	Mode:	HC				(kW)
Outdoor							Indo	or air t	emper	ature								tdoor	In	door a	ir temp	eratur	e e
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	air	temp.			°CDB		
un tompi	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°(CWB	20°0	CWB	22°(CWB	24°(CWB	°CD	3 °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.	3 -20	14.11	14.00	13.89	13.78	13.66
11					10.41	9.92	11.05	10.83	11.37	10.76	11.72	10.59	12.42	11.32	13.12	10.93	-17.	7 -18	14.17	14.06	13.94	13.83	13.72
13					10.79	10.01	11.46	11.02	11.79	10.84	12.16	10.67	12.91	11.39	13.65	10.99	-15.	7 -16	14.23	14.11	14.00	13.89	13.77
15					11.16	10.11	11.87	11.11	12.22	10.93	12.61	10.75	13.39	11.46	14.17	11.05	-13.	5 -14	14.23	14.11	14.00	13.89	13.77
17					11.54	10.21	12.27	11.19	12.64	11.01	13.05	10.84	13.87	11.53	14.69	11.11	-11.	-12	14.22	14.11	14.00	13.89	13.77
19					11.80	10.27	12.55	11.26	12.93	11.07	13.34	10.89	14.18	11.58	15.02	11.15	-9.5	-10	14.22	14.11	14.00	13.89	13.77
21					12.05	10.34	12.83	11.32	13.21	11.13	13.64	10.95	14.49	11.63	15.34	11.19	-7.5	-8	14.22	14.11	14.00	13.89	13.77
23					12.05	10.34	12.85	11.32	13.24	11.14	13.67	10.95	14.54	11.64	15.40	11.20	-5.5	-6	14.22	14.11	14.00	13.88	13.77
25			11.19	10.82	12.05	10.34	12.88	11.33	13.27	11.14	13.71	10.96	14.58	11.64	15.45	11.20	-3.0	-4	14.22	14.11	14.00	13.88	13.77
27			11.14	10.80	12.05	10.34	12.91	11.34	13.30	11.15	13.70	10.96	14.49	11.63			-1.0	-2	14.22	14.11	14.00	13.88	13.76
29			11.05	10.78	11.88	10.29	12.70	11.29	13.10	11.11	13.51	10.92	14.31	11.60			1.0	0	14.22	14.11	14.00	13.88	13.76
31			10.95	10.73	11.71	10.25	12.49	11.24	12.90	11.07	13.31	10.88	14.13	11.57			2.0	1	14.22	14.11	14.00	13.88	13.76
33	10.26	9.88	10.73	10.52	11.53	10.20	12.29	11.20	12.70	11.03	13.11	10.85	13.94	11.54			3.0	2	14.22	14.11	14.00	13.88	13.76
35	9.71	9.52	10.39	10.18	11.36	10.16	12.08	11.15	12.50	10.99	12.92	10.81	13.76	11.52			5.0	4	14.22	14.11	14.00	13.88	13.76
37	9.60	9.41	10.22	10.02	11.15	10.10	11.86	11.10	12.26	10.94	12.67	10.77	13.47	11.47			7.0	6	14.22	14.11	14.00	13.88	13.77
39	9.48	9.29	10.05	9.85	10.94	10.05	11.64	11.06	12.03	10.89	12.41	10.72	13.18	11.43			9.0	8	14.81	14.70	14.59	14.47	14.35
41	9.36	9.17	9.89	9.69	10.74	10.00	11.42	11.01	11.79	10.84	12.16	10.67	12.89	11.39			11.5	10	15.41	15.29	15.18	15.06	14.94
43	9.25	9.07	9.72	9.53	10.53	9.95	11.21	10.96	11.55	10.80	11.90	10.63	12.60	11.35			13.5	12	16.22	16.09	15.97	15.85	15.90
																	15.5	14	17.03	16.90	16.76	16.65	16.86
																	16.5	16	17.44	17.30	17.16	17.04	17.34

PJF000Z220A

Model Cool M		140VN	IXPVI	= 1	Indoor	unit	FDT7	1VF1	(2 units	s)	Outdo	or unit	FDO	C140V	NX	(kW)	Heat	Mode	:HC
							Indo	or air t	emper	ature						(1.00)	Ou	tdoor	T
Outdoor	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB		temp.	
air temp.	12°	CWB	14°(CWB	16°	CWB	18°	CWB	19°	CWB	20°	CWB	22°(CWB	24°(CWB	°CDE	3°CWE	3 16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	10.4
11					11.66	11.29	12.38	12.13	12.73	12.27	13.13	12.16	13.91	12.98	14.70	12.70	-17.7	' -18	11.0
13					12.08	11.43	12.83	12.53	13.21	12.41	13.62	12.29	14.45	13.11	15.28	12.82	-15.7	' -16	11.0
15					12.50	11.58	13.29	12.68	13.68	12.55	14.12	12.43	14.99	13.25	15.87	12.95	-13.5	-14	12.
17					12.92	11.72	13.75	12.82	14.16	12.69	14.62	12.57	15.54	13.39	16.45	13.08	-11.5	-12	12.
19					13.21	11.83	14.06	12.92	14.48	12.79	14.95	12.67	15.88	13.47	16.82	13.16	-9.5	-10	13.
21					13.50	11.93	14.36	13.01	14.80	12.89	15.28	12.76	16.23	13.56	17.19	13.25	-7.5	-8	13.
23					13.50	11.93	14.40	13.03	14.83	12.89	15.31	12.77	16.28	13.57	17.25	13.26	-5.5	-6	14.
25			12.53	12.28	13.50	11.93	14.43	13.04	14.87	12.91	15.35	12.78	16.33	13.59	17.30	13.27	-3.0	-4	14.8
27			12.48	12.23	13.50	11.93	14.46	13.05	14.90	12.92	15.34	12.78	16.23	13.56			-1.0	-2	15.4
29			12.37	12.12	13.31	11.86	14.23	12.97	14.68	12.85	15.13	12.72	16.03	13.51			1.0	0	15.9
31			12.26	12.01	13.11	11.79	13.99	12.90	14.45	12.78	14.91	12.65	15.82	13.46			2.0	1	16.
33	11.49	11.22	12.02	11.78	12.92	11.72	13.76	12.82	14.23	12.71	14.69	12.59	15.61	13.40			3.0	2	16.
35	10.88	10.66	11.63	11.40	12.72	11.65	13.53	12.75	14.00	12.65	14.47	12.53	15.41	13.35			5.0	4	16.
37	10.75	10.54	11.45	11.22	12.49	11.58	13.29	12.68	13.74	12.57	14.18	12.45	15.08	13.27			7.0	6	16.
39	10.62	10.41	11.26	11.03	12.26	11.50	13.04	12.60	13.47	12.49	13.90	12.37	14.76	13.19			9.0	8	16.9
41	10.49	10.28	11.07	10.85	12.02	11.41	12.80	12.52	13.21	12.41	13.62	12.29	14.44	13.11			11.5	10	17.
43	10.35	10.14	10.89	10.67	11.79	11.33	12.55	12.30	12.94	12.33	13.33	12.21	14.11	13.03			13.5	12	18.
																	15.5	1/	10

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

(kW) Indoor air temperature °CDB 16 18 20 .42 10.34 10.26 10.17 10.09 .06 10.97 10.88 10.79 10.70 .69 11.60 11.50 11.41 11.32 .20 12.10 12.00 11.91 11.81 .70 12.60 12.50 12.40 12.30 .21 13.11 13.00 12.90 12.79 3.71 | 13.61 | 13.50 | 13.39 | 13.28 1.28 14.17 14.06 13.94 13.83 1.84 14.73 14.61 14.49 14.37 6.41 15.29 15.17 15.04 14.91 5.97 | 15.85 | 15.72 | 15.59 | 15.45 5.26 | 16.13 | 16.00 | 15.86 | 15.73 3.25 16.13 16.00 15.86 15.73 3.25 16.13 16.00 15.86 15.73 3.25 16.12 16.00 15.87 15.73 6.93 16.80 16.68 16.54 16.40 7.61 17.48 17.35 17.21 17.07 .53 18.39 18.25 18.12 18.17
 15.5
 14
 19.46
 19.31
 19.16
 19.02
 19.27

 16.5
 16
 19.93
 19.77
 19.61
 19.48
 19.82

			Landa a sa Callana a sa a sa La		
Cool M	ode				
Model	FDT140VSXPVF1	Indoor unit	FDT71VF1 (2 units)	Outdoor unit	FDC140VSX

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°	CWB	20°0	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	11.29	12.38	12.13	12.73	12.27	13.13	12.16	13.91	12.98	14.70	12.70
13					12.08	11.43	12.83	12.53	13.21	12.41	13.62	12.29	14.45	13.11	15.28	12.82
15					12.50	11.58	13.29	12.68	13.68	12.55	14.12	12.43	14.99	13.25	15.87	12.95
17					12.92	11.72	13.75	12.82	14.16	12.69	14.62	12.57	15.54	13.39	16.45	13.08
19					13.21	11.83	14.06	12.92	14.48	12.79	14.95	12.67	15.88	13.47	16.82	13.16
21					13.50	11.93	14.36	13.01	14.80	12.89	15.28	12.76	16.23	13.56	17.19	13.25
23					13.50	11.93	14.40	13.03	14.83	12.89	15.31	12.77	16.28	13.57	17.25	13.26
25			12.53	12.28	13.50	11.93	14.43	13.04	14.87	12.91	15.35	12.78	16.33	13.59	17.30	13.27
27			12.48	12.23	13.50	11.93	14.46	13.05	14.90	12.92	15.34	12.78	16.23	13.56		
29			12.37	12.12	13.31	11.86	14.23	12.97	14.68	12.85	15.13	12.72	16.03	13.51		
31			12.26	12.01	13.11	11.79	13.99	12.90	14.45	12.78	14.91	12.65	15.82	13.46		
33	11.49	11.22	12.02	11.78	12.92	11.72	13.76	12.82	14.23	12.71	14.69	12.59	15.61	13.40		
35	10.88	10.66	11.63	11.40	12.72	11.65	13.53	12.75	14.00	12.65	14.47	12.53	15.41	13.35		
37	10.75	10.54	11.45	11.22	12.49	11.58	13.29	12.68	13.74	12.57	14.18	12.45	15.08	13.27		
39	10.62	10.41	11.26	11.03	12.26	11.50	13.04	12.60	13.47	12.49	13.90	12.37	14.76	13.19		
41	10.49	10.28	11.07	10.85	12.02	11.41	12.80	12.52	13.21	12.41	13.62	12.29	14.44	13.11		
43	10.35	10.14	10.89	10.67	11.79	11.33	12.55	12.30	12.94	12.33	13.33	12.21	14.11	13.03		

Heat I	Mode:	НС				(kW
Out	door	ln	door a	ir tem	oeratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	16.13	16.00	15.87	15.74	15.61
-17.7	-18	16.19	16.07	15.94	15.81	15.68
-15.7	-16	16.26	16.13	16.00	15.87	15.74
-13.5	-14	16.26	16.13	16.00	15.87	15.74
-11.5	-12	16.25	16.13	16.00	15.87	15.74
-9.5	-10	16.25	16.13	16.00	15.87	15.74
-7.5	-8	16.25	16.12	16.00	15.87	15.74
-5.5	-6	16.25	16.13	16.00	15.87	15.74
-3.0	-4	16.25	16.13	16.00	15.87	15.73
-1.0	-2	16.25	16.13	16.00	15.86	15.73
1.0	0	16.25	16.13	16.00	15.86	15.73
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

PJF000Z220A

(c) Triple type

Model FDT140VNXTVF Indoor unit FDT50VF (3 units) Outdoor unit FDC140VNX Cool Mode

COOI IVI	oue															(KVV)
0.446.64							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°0	CWB	14°	CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	11.43	12.38	12.13	12.73	12.48	13.13	12.67	13.91	13.56	14.70	13.26
13					12.08	11.84	12.83	12.57	13.21	12.93	13.62	12.80	14.45	13.69	15.28	13.38
15					12.50	12.02	13.29	13.02	13.68	13.06	14.12	12.93	14.99	13.81	15.87	13.50
17					12.92	12.16	13.75	13.33	14.16	13.20	14.62	13.07	15.54	13.95	16.45	13.62
19					13.21	12.25	14.06	13.43	14.48	13.29	14.95	13.16	15.88	14.03	16.82	13.70
21					13.50	12.35	14.36	13.52	14.80	13.38	15.28	13.25	16.23	14.11	17.19	13.78
23					13.50	12.35	14.40	13.53	14.83	13.39	15.31	13.26	16.28	14.12	17.25	13.79
25			12.53	12.28	13.50	12.35	14.43	13.54	14.87	13.40	15.35	13.27	16.33	14.14	17.30	13.80
27			12.48	12.23	13.50	12.35	14.46	13.55	14.90	13.41	15.34	13.27	16.23	14.11		
29			12.37	12.12	13.31	12.29	14.23	13.48	14.68	13.35	15.13	13.21	16.03	14.06		
31			12.26	12.01	13.11	12.22	13.99	13.41	14.45	13.28	14.91	13.15	15.82	14.01		
33	11.49	11.26	12.02	11.78	12.92	12.16	13.76	13.34	14.23	13.22	14.69	13.09	15.61	13.96		
35	10.88	10.66	11.63	11.40	12.72	12.09	13.53	13.26	14.00	13.15	14.47	13.03	15.41	13.91		
37	10.75	10.54	11.45	11.22	12.49	12.01	13.29	13.02	13.74	13.08	14.18	12.95	15.08	13.84		
39	10.62	10.41	11.26	11.03	12.26	11.94	13.04	12.78	13.47	13.00	13.90	12.87	14.76	13.76		
41	10.49	10.28	11.07	10.85	12.02	11.78	12.80	12.54	13.21	12.93	13.62	12.80	14.44	13.68		
43	10.35	10.14	10.89	10.67	11.79	11.55	12.55	12.30	12.94	12.68	13.33	12.72	14.11	13.61		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.
 Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

(kW) Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 22 24 -19.8 -20 10.42 10.34 10.26 10.17 10.09 -17.7 -18 11.06 10.97 10.88 10.79 10.70 -15.7 -16 | 11.69 | 11.60 | 11.50 | 11.41 | 11.32 -13.5 -14 12.20 12.10 12.00 11.91 11.81 -11.5 -12 |12.70|12.60|12.50|12.40|12.30 13.21 13.11 13.00 12.90 12.79 -9.5 -10 -7.5 -8 13.71 13.61 13.50 13.39 13.28 -5.5 14.28 14.17 14.06 13.94 13.83 -3.0 -4 14.84 14.73 14.61 14.49 14.37 -1.0 -2 15.41 15.29 15.17 15.04 14.91 1.0 0 15.97 15.85 15.72 15.59 15.45 2.0 16.26 16.13 16.00 15.86 15.73 3.0 16.25 16.13 16.00 15.86 15.73 2 5.0 4 16.25 16.13 16.00 15.86 15.73 7.0 16.25 16.12 16.00 15.87 15.73 6 9.0 8 |16.93|16.80|16.68|16.54|16.40 17.61 17.48 17.35 17.21 17.07 11.5 10 13.5 12 18.53 18.39 18.25 18.12 18.17 15.5 14 19.46 19.31 19.16 19.02 19.27 16.5 16 **|**19.93|19.77|19.61|19.48|19.82

Model		40VS	XTVF	- In	door u	nit F	DT50	/F (3 ι	units)	Οι	ıtdoorı	unit l	FDC14	IOVSX										
Cool M	ode															(kW)	H	leat N	Node:	HC				(kW)
Outdoor							Indo	or air t	emper	ature							ı	Outo	door	In			peratur	·e
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	L	air te				°CDB		
	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°	CWB	20°0	CWB	22°	CWB	24°	CWB	°	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ŀ	-19.8	-20	16.13	16.00	15.87	15.74	15.61
11					11.66	11.43	12.38	12.13	12.73	12.48	13.13	12.67	13.91	13.56	14.70	13.26	Ŀ	-17.7					15.81	
13					12.08	11.84	12.83	12.57	13.21	12.93	13.62	12.80	14.45	13.69	15.28	13.38	Ŀ	-15.7	-16	16.26	16.13	16.00	15.87	15.74
15					12.50	12.02	13.29	13.02	13.68	13.06	14.12	12.93	14.99	13.81	15.87	13.50	Ŀ	-13.5	-14	16.26	16.13	16.00	15.87	15.74
17					12.92	12.16	13.75	13.33	14.16	13.20	14.62	13.07	15.54	13.95	16.45	13.62	Ŀ	-11.5	-12	16.25	16.13	16.00	15.87	15.74
19					13.21	12.25	14.06	13.43	14.48	13.29	14.95	13.16	15.88	14.03	16.82	13.70	L	-9.5	-10	16.25	16.13	16.00	15.87	15.74
21					13.50	12.35	14.36	13.52	14.80	13.38	15.28	13.25	16.23	14.11	17.19	13.78	L	-7.5	-8	16.25	16.12	16.00	15.87	15.74
23					13.50	12.35	14.40	13.53	14.83	13.39	15.31	13.26	16.28	14.12	17.25	13.79	L	-5.5	-6	16.25	16.13	16.00	15.87	15.74
25			12.53	12.28	13.50	12.35	14.43	13.54	14.87	13.40	15.35	13.27	16.33	14.14	17.30	13.80	L	-3.0	-4	16.25	16.13	16.00	15.87	15.73
27			12.48	12.23	13.50	12.35	14.46	13.55	14.90	13.41	15.34	13.27	16.23	14.11			L	-1.0	-2	16.25	16.13	16.00	15.86	15.73
29			12.37	12.12	13.31	12.29	14.23	13.48	14.68	13.35	15.13	13.21	16.03	14.06			L	1.0	0	16.25	16.13	16.00	15.86	15.73
31			12.26	12.01	13.11	12.22	13.99	13.41	14.45	13.28	14.91	13.15	15.82	14.01			L	2.0	1	16.26	16.13	16.00	15.86	15.73
33	11.49	11.26	12.02	11.78	12.92	12.16	13.76	13.34	14.23	13.22	14.69	13.09	15.61	13.96			L	3.0	2	16.25	16.13	16.00	15.86	15.73
35	10.88	10.66	11.63	11.40	12.72	12.09	13.53	13.26	14.00	13.15	14.47	13.03	15.41	13.91			L	5.0	4	16.25	16.13	16.00	15.86	15.73
37	10.75	10.54	11.45	11.22	12.49	12.01	13.29	13.02	13.74	13.08	14.18	12.95	15.08	13.84			L	7.0	6	16.25	16.12	16.00	15.87	15.73
39	10.62	10.41	11.26	11.03	12.26	11.94	13.04	12.78	13.47	13.00	13.90	12.87	14.76	13.76				9.0	8	16.93	16.80	16.68	16.54	16.40
41	10.49	10.28	11.07	10.85	12.02	11.78	12.80	12.54	13.21	12.93	13.62	12.80	14.44	13.68				11.5	10	17.61	17.48	17.35	17.21	17.07
43	10.35	10.14	10.89	10.67	11.79	11.55	12.55	12.30	12.94	12.68	13.33	12.72	14.11	13.61				13.5	12	18.53	18.39	18.25	18.12	18.17
Note(1) Th	nese data	show av	erage st	atuses.													Г	15.5	14	19.46	19.31	19.16	19.02	19.27
											ducted co	ontinuou	ısly.					16.5	16	19.93	19.77	19.61	19.48	19.82
(2) Ca Ca Le (3) Sy T S	apacities orrespon- evel diffe mbols a C : Tota	are base ding refr erence of re as foll al coolin nsible he	d on the igerant part Zero. lows. g capacitat capac	ity (kW)	ng condit ngth :7.5	tions.	ency of a	compre	ssor is fi	xed.											P	JF00	0 Z 22	.0 <u>A</u>
-		ang cup	ueny (n	,																				

(2) Ceiling cassette-4way compact type (FDTC)

(a) Single type

Model FDTC40ZMXVF Indoor unit FDTC40VF Outdoor unit SRC40ZMX-S Cool Mode

																,
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°	CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					3.38	2.87	3.56	3.10	3.65	3.08	3.75	3.05	3.95	3.22	4.15	3.17
13					3.46	2.91	3.65	3.14	3.75	3.11	3.85	3.09	4.05	3.26	4.26	3.20
15					3.54	2.94	3.74	3.17	3.84	3.15	3.95	3.13	4.15	3.29	4.36	3.23
17					3.62	2.98	3.83	3.21	3.94	3.19	4.04	3.16	4.26	3.33	4.47	3.27
19					3.69	3.01	3.91	3.24	4.02	3.22	4.15	3.20	4.41	3.38	4.67	3.33
21					3.81	3.06	3.99	3.27	4.10	3.25	4.26	3.24	4.56	3.43	4.87	3.39
23					3.85	3.08	4.04	3.29	4.15	3.27	4.30	3.25	4.59	3.44	4.88	3.40
25			3.73	3.20	3.89	3.09	4.08	3.31	4.20	3.29	4.34	3.27	4.61	3.45	4.89	3.40
27			3.76	3.21	3.93	3.11	4.13	3.33	4.25	3.31	4.36	3.28	4.60	3.44		
29			3.70	3.19	3.86	3.08	4.06	3.30	4.18	3.28	4.30	3.25	4.54	3.42		
31			3.64	3.16	3.80	3.05	4.00	3.28	4.12	3.26	4.24	3.23	4.48	3.40		
33	3.23	2.85	3.44	3.06	3.74	3.03	3.94	3.25	4.06	3.23	4.18	3.21	4.42	3.38		
35	3.28	2.88	3.44	3.06	3.68	3.00	3.88	3.23	4.00	3.21	4.12	3.19	4.36	3.36		
37	3.23	2.85	3.38	3.04	3.62	2.98	3.82	3.20	3.94	3.19	4.06	3.17	4.30	3.34		
39	3.17	2.82	3.32	3.01	3.56	2.95	3.76	3.18	3.88	3.16	4.00	3.14	4.23	3.32		
41	3.12	2.80	3.27	2.99	3.50	2.93	3.70	3.16	3.82	3.14	3.93	3.12	4.17	3.30		
43	3.06	2.77	3.21	2.96	3.44	2.90	3.64	3.13	3.76	3.12	3.87	3.10	4.10	3.27		

(kW)	Heat I	Heat Mode:HC (
	Out	door	ln	door a	ir temp	peratur	e e								
DB	air te	emp.			°CDB										
NΒ	°CDB	°CWB	16	18	20	22	24								
SHC	-19.8	-20													
3.17	-17.7	-18													
3.20	-15.7	-16													
3.23	-13.5	-14	2.67	2.63	2.59	2.55	2.50								
3.27	-11.5	-12	2.83	2.79	2.75	2.71	2.67								
3.33	-9.5	-10	3.00	2.96	2.92	2.88	2.84								
3.39	-7.5	-8	3.17	3.13	3.09	3.05	3.01								
3.40	-5.5	-6	3.23	3.20	3.16	3.12	3.09								
3.40	-3.0	-4	3.29	3.26	3.23	3.20	3.17								
	-1.0	-2	3.36	3.33	3.30	3.28	3.25								
	1.0	0	3.42	3.40	3.38	3.35	3.33								
	2.0	1	3.45	3.43	3.41	3.39	3.37								
	3.0	2	3.67	3.65	3.63	3.61	3.59								
	5.0	4	4.11	4.09	4.07	4.04	4.01								
	7.0	6	4.55	4.53	4.50	4.47	4.44								
	9.0	8	4.78	4.75	4.72	4.69	4.66								
	11.5	10	5.01	4.98	4.95	4.91	4.88								
	13.5	12	5.30	5.26	5.21	5.14	5.10								
	15.5	14	5.58	5.53	5.48	5.37	5.32								
	16.5	16	5.73	5.67	5.61	5.48	5.44								

PJA003Z382

Model FDTC50ZMXVF Indoor unit FDTC50VF Outdoor unit SRC50ZMX-S Cool Mode

Heat Mode:HC

(kW)

(kW)

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	3.31	4.45	3.54	4.56	3.51	4.69	3.48	4.94	3.66	5.19	3.59
13					4.32	3.35	4.56	3.59	4.68	3.56	4.81	3.53	5.07	3.70	5.32	3.63
15					4.42	3.40	4.68	3.64	4.80	3.61	4.93	3.58	5.19	3.75	5.45	3.67
17					4.53	3.45	4.79	3.68	4.92	3.65	5.06	3.63	5.32	3.79	5.58	3.72
19					4.62	3.49	4.89	3.73	5.02	3.70	5.19	3.68	5.51	3.86	5.84	3.80
21					4.76	3.55	4.99	3.77	5.13	3.74	5.32	3.73	5.70	3.93	6.09	3.89
23					4.81	3.58	5.04	3.79	5.19	3.77	5.37	3.75	5.73	3.94	6.10	3.89
25			4.66	3.72	4.86	3.60	5.10	3.81	5.25	3.79	5.42	3.77	5.76	3.95	6.11	3.89
27			4.70	3.74	4.91	3.62	5.16	3.84	5.31	3.81	5.46	3.79	5.75	3.95		
29			4.62	3.70	4.83	3.59	5.08	3.81	5.23	3.78	5.38	3.75	5.68	3.92		
31			4.54	3.66	4.75	3.55	5.00	3.77	5.15	3.75	5.30	3.72	5.60	3.89		
33	4.04	3.32	4.31	3.55	4.67	3.51	4.93	3.74	5.08	3.72	5.23	3.69	5.53	3.87		
35	4.11	3.36	4.30	3.54	4.59	3.48	4.85	3.71	5.00	3.69	5.15	3.66	5.45	3.84		
37	4.04	3.32	4.23	3.51	4.52	3.44	4.77	3.67	4.92	3.65	5.07	3.63	5.37	3.81		
39	3.97	3.29	4.16	3.48	4.45	3.41	4.70	3.64	4.85	3.63	4.99	3.60	5.29	3.78		
41	3.90	3.25	4.09	3.44	4.38	3.38	4.62	3.61	4.77	3.59	4.92	3.57	5.21	3.75		
43	3.83	3.22	4.01	3.40	4.30	3.34	4.55	3.58	4.69	3.56	4.84	3.54	5.13	3.72		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows. TC: Total cooling capacity (kW) SHC : Sensible heat capacity (kW) HC : Heating capacity (kW)

Outdoor Indoor air temperature air temp. CDB °CDB °CWB 16 18 20 22 24 -19.8 -20 -17.7 -18 -15.7 -16 -13.5 -14 3.20 3.15 3.11 3.05 3.00 -11.5 -12 3.40 3.35 3.31 3.26 3.20 -9.5 3.60 3.51 -10 3.55 3.46 3.41 -7.5 -8 3.80 3.75 3.71 3.66 3.61 -5.5 -6 3.88 3.83 3.79 3.75 3.71 3.80 -3.0 -4 3.95 3.92 3.88 3.84 3.93 3.90 -1.0 -2 4.03 4.00 3.97 1.0 0 4.10 4.08 4.05 4.03 | 4.00 2.0 1 4.14 4.12 | 4.10 4.07 | 4.05 3.0 2 4 30 4 41 4 38 4 36 4.33 5.0 4.94 4 4.91 4.88 4.85 4.82 7.0 6 5.46 5.43 5.40 5.37 5.33 5.70 5.59 9.0 8 5.74 5.67 5.63 11.5 6.02 5.98 5.89 5.85 10 5.94 13.5 12 6.36 6.31 6.25 6.17 6.12 15.5 14 6.70 6.64 6.57 6.44 6.39 16.5 16 6.87 6.80 6.73 6.58 6.52

PJA003Z382_A

Model Cool M		C60ZN	/IXVF	Inc	door ui	nit Fl	OTC60)VF	Outo	door ur	nit SI	RC60Z	MX-S			(kW) F	leat N	Ло
Outdoor							Indo	or air t	emper	ature							lΓ	Outo	ook
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	l L	air te	mp
un tompi	12°(CWB	14°(CWB	16°	CWB	18°	CWB	19°	CWB	20°	CWB	22°	CWB	24°	CWB	٥	CDB	,C/
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	l L	-19.8	-2
11					4.73	3.50	4.98	3.73	5.11	3.69	5.25	3.64	5.53	3.81	5.81	3.70	l E	-17.7	-1
13					4.84	3.54	5.11	3.78	5.24	3.73	5.39	3.69	5.67	3.85	5.96	3.74	l E	-15.7	-1
15					4.95	3.59	5.24	3.83	5.38	3.78	5.52	3.73	5.82	3.90	6.11	3.78	l E	-19.8	-2
17					5.07	3.64	5.37	3.88	5.51	3.83	5.66	3.78	5.96	3.94	6.25	3.82	l E	-17.7	-1
19					5.17	3.68	5.48	3.92	5.63	3.88	5.81	3.84	6.17	4.01	6.54	3.91	l E	-15.7	-1
21					5.33	3.75	5.59	3.96	5.74	3.92	5.96	3.89	6.39	4.08	6.82	3.99	l L	-13.5	-1
23					5.39	3.77	5.65	3.99	5.81	3.94	6.01	3.91	6.42	4.09	6.83	3.99	l L	-11.5	-1
25			5.22	3.96	5.44	3.80	5.71	4.01	5.88	3.97	6.07	3.93	6.45	4.10	6.84	3.99	١Ŀ	-9.5	-1
27			5.27	3.98	5.50	3.82	5.78	4.04	5.94	3.99	6.11	3.94	6.44	4.10			١Ŀ	-7.5	-8
29			5.18	3.94	5.41	3.78	5.69	4.00	5.86	3.96	6.02	3.91	6.36	4.07			١Ŀ	-5.5	-(
31			5.09	3.90	5.32	3.74	5.60	3.97	5.77	3.93	5.94	3.88	6.27	4.04			١Ŀ	-3.0	-4
33	4.53	3.55	4.82	3.77	5.23	3.71	5.52	3.94	5.69	3.90	5.85	3.85	6.19	4.01			ΙĿ	-1.0	-2
35	4.60	3.59	4.81	3.77	5.15	3.67	5.43	3.90	5.60	3.86	5.77	3.82	6.10	3.99			ΙL	1.0	(
37	4.52	3.55	4.73	3.73	5.06	3.63	5.35	3.87	5.51	3.83	5.68	3.79	6.01	3.96			ΙL	2.0	•
39	4.44	3.51	4.65	3.70	4.98	3.60	5.26	3.84	5.43	3.80	5.59	3.76	5.92	3.93			ΙL	3.0	2
41	4.37	3.47	4.58	3.67	4.90	3.57	5.18	3.81	5.34	3.77	5.51	3.73	5.83	3.90			ΙL	5.0	4
43	4.29	3.44	4.50	3.63	4.82	3.53	5.10	3.78	5.26	3.74	5.42	3.70	5.74	3.87			ΙE	7.0	6
																		9.0	8
																	Ŀ	11.5	1
																		-	

ode:HC (kW) Indoor air temperature or CDB ıp. :WB 16 24 18 22 20 18 16 20 3.26 3.20 3.14 3.07 3.00 18 3.49 3.43 3.37 3.30 3.24 3.66 16 3.72 3.48 3.61 3.54 14 3.97 3.91 3.85 3.79 3.73 12 4.22 4.16 4.10 4.04 3.98 -10 4.47 4.41 4.35 4.29 4.23 4.66 4.60 4.54 4.48 -8 4.72 -6 4.81 4.76 4.70 4.65 4.60 -4 4.90 | 4.86 | 4.81 4.77 | 4.72 -2 5.00 4.96 4.92 4.88 | 4.84 0 5.09 5.06 5.03 4.99 4.96 5.11 5.05 5.02 5.14 5.08 2 5.47 5.44 5.41 5.37 5.34 4 6.12 6.09 6.05 6.01 5.98 6 6.78 6.74 6.70 6.66 6.61 8 7.12 7.08 7.03 6.98 6.94 10 7 47 7.41 7.36 7.31 7.26 7.82 12 7 89 7 76 7 65 7 59 13.5 15.5 14 8.31 8.23 8.15 7.99 7.93 16.5 16 8.53 8.44 8.35 8.16 8.09

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(b) Twin type

Model FDTC71VNXPVF Indoor unit FDTC40VF (2 units) Outdoor unit FDC71VNX Cool Mode

																(KVV)
Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.78	6.59	5.89	6.79	5.85	7.19	6.22	7.59	6.12
13					5.33	5.16	6.32	5.89	6.82	5.97	7.03	5.94	7.45	6.30	7.88	6.21
15					5.79	5.34	6.63	6.01	7.05	6.06	7.27	6.02	7.71	6.39	8.16	6.29
17					6.26	5.54	6.94	6.13	7.27	6.14	7.51	6.11	7.97	6.47	8.44	6.38
19					6.59	5.68	7.16	6.22	7.44	6.20	7.68	6.17	8.15	6.53	8.63	6.44
21					6.93	5.82	7.38	6.30	7.60	6.26	7.84	6.23	8.33	6.59	8.82	6.50
23					6.91	5.81	7.35	6.29	7.57	6.25	7.81	6.22	8.30	6.58	8.78	6.48
25			6.46	5.94	6.89	5.80	7.32	6.28	7.54	6.24	7.78	6.21	8.26	6.57	8.74	6.47
27			6.45	5.93	6.87	5.79	7.30	6.27	7.52	6.23	7.74	6.19	8.18	6.54		
29			6.34	5.88	6.75	5.74	7.19	6.23	7.41	6.19	7.64	6.16	8.09	6.51		
31			6.23	5.83	6.64	5.70	7.08	6.18	7.31	6.15	7.54	6.12	7.99	6.48		
33	5.77	5.37	6.05	5.75	6.53	5.65	6.97	6.14	7.20	6.11	7.44	6.08	7.90	6.45		
35	5.67	5.32	5.95	5.71	6.42	5.61	6.86	6.10	7.10	6.08	7.34	6.05	7.81	6.42		
37	5.58	5.28	5.85	5.66	6.31	5.56	6.72	6.04	6.95	6.02	7.18	5.99	7.64	6.36		
39	5.49	5.24	5.76	5.62	6.20	5.51	6.59	5.99	6.81	5.97	7.03	5.94	7.46	6.30		
41	5.39	5.19	5.67	5.56	6.09	5.47	6.45	5.94	6.66	5.91	6.87	5.88	7.29	6.25		
43	5.30	5.15	5.57	5.46	5.97	5.42	6.31	5.89	6.51	5.86	6.71	5.82	7.12	6.19		

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed

(2) Capacities are based on the following conditions

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

(kW) Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. CDB CDB CWB 16 18 20 22 24 -19.8 -20 3.95 3.93 3.91 3.88 3.86 -17.7 4.18 4.16 4.14 4.11 4.09 -18 4.42 4.39 4.37 4.34 4.32 -15.7 -16 4.68 4.63 4.60 4.57 -13.5 -14 4.65 -11.5 -12 4.94 4.91 4.88 4.85 4.82 5.08 -9.5 -10 5.20 5.17 5.14 5.11 -8 5.46 5.43 5.40 5.36 5.33 -7.5 -5.5 -6 5.59 5.55 5.52 5.48 5.44 -3.0 -4 5.71 5.68 5.64 5.60 5.56 -2 5.80 5.72 5.67 -1.0 5.84 5.76 1.0 0 5.97 5.92 5.88 5.83 5.79 2.0 6.03 5.98 5.94 5.89 5.85 3.0 2 6.45 6.40 | 6.35 6.30 6.25 7.23 7.18 7.12 7.06 5.0 4 7.29 7.0 6 8.13 8.06 8.00 7.93 7.87 9.0 8 8.42 8.36 8.29 8.23 8.16 8.52 8.46 115 10 8 72 8 65 8 59 9.00 8.92 13.5 12 9.20 9.13 9.06 15.5 14 9.69 9.61 9.53 9.47 9.39 9.93 9.85 9.77 9.71 9.62 16.5 16

PJA003Z382 <u>A</u>

Model		C100V	/NXP	/F	Indoor	' unit	FDTC	50VF	(2 unit	s)	Outdo	or un	it FD	C100\	/NX								
Cool Mo	ode															(kW)	He	at Mode	:HC				(kW)
Outdoor							Indo	or air t	emper	ature								Outdoor	In	door a	ir temp	oeratur	re
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	í	ir temp.			°CDB		
an temp.	12°0	CWB	14°	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB	°C	OB °CWE	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	9.8 -20	7.30	7.24	7.18	7.12	7.06
11					8.33	6.57	8.84	7.06	9.10	7.01	9.38	6.97	9.94	7.33	10.50	7.22	-1	7.7 -18	7.74	7.68	7.62	7.55	7.49
13					8.63	6.70	9.17	7.19	9.43	7.14	9.73	7.10	10.32	7.47	10.92	7.35	-1	5.7 -16	8.18	8.12	8.05	7.99	7.92
15					8.93	6.84	9.49	7.33	9.77	7.28	10.09	7.24	10.71	7.61	11.34	7.49	-1	3.5 -14	8.54	8.47	8.40	8.33	8.27
17					9.23	6.97	9.82	7.47	10.11	7.42	10.44	7.38	11.10	7.75	11.75	7.63	-1	1.5 -12	8.89	8.82	8.75	8.68	8.61
19					9.44	7.07	10.04	7.56	10.34	7.51	10.68	7.48	11.35	7.84	12.01	7.71	-6	.5 -10	9.25	9.17	9.10	9.03	8.95
21					9.64	7.16	10.26	7.66	10.57	7.61	10.91	7.57	11.59	7.93	12.28	7.81	-7	.5 -8	9.60	9.53	9.45	9.38	9.30
23					9.64	7.16	10.28	7.66	10.59	7.62	10.94	7.58	11.63	7.95	12.32	7.82	-{	.5 -6	10.00	9.92	9.84	9.76	9.68
25			8.95	7.26	9.64	7.16	10.30	7.67	10.62	7.63	10.97	7.59	11.66	7.96	12.36	7.83	-3	.0 -4	10.39	10.31	10.23	10.14	10.06
27			8.91	7.24	9.64	7.16	10.33	7.69	10.64	7.64	10.96	7.59	11.59	7.93				.0 -2	10.79	10.70	10.62	10.53	10.44
29			8.84	7.20	9.51	7.10	10.16	7.61	10.48	7.57	10.80	7.52	11.45	7.88			_1	.0 0	11.18	11.09	11.01	10.91	10.82
31			8.76	7.16	9.37	7.04	10.00	7.54	10.32	7.51	10.65	7.46	11.30	7.82			_2	.0 1	11.38	11.29	11.20	11.10	11.01
33	8.21	6.72	8.58	7.08	9.23	6.97	9.83	7.47	10.16	7.44	10.49	7.40	11.15	7.77			3	.0 2	11.38	11.29	11.20	11.10	11.01
35	7.77	6.49	8.31	6.95	9.09	6.91	9.66	7.40	10.00	7.37	10.34	7.34	11.01	7.72			5	.0 4	11.38	11.29	11.20	11.11	11.01
37	7.68	6.44	8.18	6.88	8.92	6.83	9.49	7.33	9.81	7.30	10.13	7.26	10.77	7.63			7	.0 6	11.37	11.29	11.20	11.11	11.01
39	7.58	6.39	8.04	6.82	8.76	6.76	9.31	7.25	9.62	7.22	9.93	7.18	10.54	7.55			9	.0 8	11.85	11.76	11.67	11.58	11.48
41	7.49	6.35	7.91	6.75	8.59	6.68	9.14	7.18	9.43	7.14	9.73	7.10	10.31	7.47			1	.5 10	12.32	12.23	12.15	12.05	11.95
43	7.40	6.30	7.78	6.69	8.42	6.61	8.96	7.11	9.24	7.07	9.52	7.02	10.08	7.38			1:	.5 12	12.97	12.88	12.78	12.68	12.72
																	1:	.5 14	13.62	13.52	13.41	13.32	13.49
																	10	.5 16	13.95	13.84	13.72	13.63	13.87

	PJ	AO	03Z	382	A
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Model	FDT	C100\	/SXP\	/F	Indoor	r unit	FDTC	50VF	(2 unit	s)	Outdo	or uni	t FD	C100V	/SX								
Cool M	ode															(kW)	Heat I	Mode:	HC				(kW)
Outdoor							Indo	or air t	emper	ature							Out	door	In	idoor a	ir tem	peratur	re
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	air te	emp.			°CDB		
an tomp	12°0	CWB	14°	CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	11.29	11.20	11.11	11.02	10.93
11					8.33	6.57	8.84	7.06	9.10	7.01	9.38	6.97	9.94	7.33	10.50	7.22	-17.7	-18	11.34	11.25	11.16	11.06	10.97
13					8.63	6.70	9.17	7.19	9.43	7.14	9.73	7.10	10.32	7.47	10.92	7.35	-15.7	-16	11.38	11.29	11.20	11.11	11.02
15					8.93	6.84	9.49	7.33	9.77	7.28	10.09	7.24	10.71	7.61	11.34	7.49	-13.5	-14	11.38	11.29	11.20	11.11	11.02
17					9.23	6.97	9.82	7.47	10.11	7.42	10.44	7.38	11.10	7.75	11.75	7.63	-11.5	-12	11.38	11.29	11.20	11.11	11.02
19					9.44	7.07	10.04	7.56	10.34	7.51	10.68	7.48	11.35	7.84	12.01	7.71	-9.5	-10	11.38	11.29	11.20	11.11	11.02
21					9.64	7.16	10.26	7.66	10.57	7.61	10.91	7.57	11.59	7.93	12.28	7.81	-7.5	-8	11.37	11.29	11.20	11.11	11.02
23					9.64	7.16	10.28	7.66	10.59	7.62	10.94	7.58	11.63	7.95	12.32	7.82	-5.5	-6	11.38	11.29	11.20	11.11	11.02
25			8.95	7.26	9.64	7.16	10.30	7.67	10.62	7.63	10.97	7.59	11.66	7.96	12.36	7.83	-3.0	-4	11.38	11.29	11.20	11.11	11.01
27			8.91	7.24	9.64	7.16	10.33	7.69	10.64	7.64	10.96	7.59	11.59	7.93			-1.0	-2	11.38	11.29	11.20	11.11	11.01
29			8.84	7.20	9.51	7.10	10.16	7.61	10.48	7.57	10.80	7.52	11.45	7.88			1.0	0	11.38	11.29	11.20	11.10	11.01
31			8.76	7.16	9.37	7.04	10.00	7.54	10.32	7.51	10.65	7.46	11.30	7.82			2.0	1	11.38	11.29	11.20	11.10	11.01
33	8.21	6.72	8.58	7.08	9.23	6.97	9.83	7.47	10.16	7.44	10.49	7.40	11.15	7.77			3.0	2	11.38	11.29	11.20	11.10	11.01
35	7.77	6.49	8.31	6.95	9.09	6.91	9.66	7.40	10.00	7.37	10.34	7.34	11.01	7.72			5.0	4	11.38	11.29	11.20	11.11	11.01
37	7.68	6.44	8.18	6.88	8.92	6.83	9.49	7.33	9.81	7.30	10.13	7.26	10.77	7.63			7.0	6	11.37	11.29	11.20	11.11	11.01
39	7.58	6.39	8.04	6.82	8.76	6.76	9.31	7.25	9.62	7.22	9.93	7.18	10.54	7.55			9.0	8	11.85	11.76	11.67	11.58	11.48
41	7.49	6.35	7.91	6.75	8.59	6.68	9.14	7.18	9.43	7.14	9.73	7.10	10.31	7.47			11.5	10	12.32	12.23	12.15	12.05	11.95
43	7.40	6.30	7.78	6.69	8.42	6.61	8.96	7.11	9.24	7.07	9.52	7.02	10.08	7.38			13.5	12	12.97	12.88	12.78	12.68	12.72
Note(1) Tl	nese data	show av	erage st	atuses.													15.5	14	13.62	13.52	13.41	13.32	13.49
D	epending	on the s	system c	ontrol, th							ducted co	ntinuou	sly.				16.5	16	13.95	13.84	13.72	13.63	13.87
	nese data apacities						ency of a	compre	ssor is fi	xed.										一	1400		
					ngth :7.5															LP.	<u>JA00</u>	3Z38	2/A

te(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Model		C125\	/NXP\	/F	Indoor	unit	FDTC	60VF	(2 unit	s)	Outdo	or un	it FD	C125\	/NX								
Cool Mo	ode															(kW)	Hea	t Mode	:HC				(kW)
Outdoor							Indo	or air t	empera	ature							0	utdoor	In	door a	ir temp	eratur	e e
air temp.	18°	CDB	21°	CDB	23°(CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	ai	temp.			°CDB		
an temp.	12°(CWB	14°(CWB	16°0	CWB	18°(CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB	°C[B°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19	8 -20	9.12	9.05	8.97	8.90	8.83
11					10.41	7.39	11.05	7.88	11.37	7.79	11.72	7.71	12.42	8.04	13.12	7.83	-17	7 -18	9.67	9.60	9.52	9.44	9.37
13					10.79	7.55	11.46	8.04	11.79	7.95	12.16	7.87	12.91	8.20	13.65	7.98	-15	7 -16	10.23	10.15	10.07	9.98	9.90
15					11.16	7.71	11.87	8.20	12.22	8.11	12.61	8.03	13.39	8.36	14.17	8.14	-13	5 -14	10.67	10.59	10.50	10.42	10.33
17					11.54	7.88	12.27	8.37	12.64	8.28	13.05	8.19	13.87	8.52	14.69	8.29	-11	5 -12	11.11	11.03	10.94	10.85	10.76
19					11.80	8.00	12.55	8.48	12.93	8.39	13.34	8.30	14.18	8.63	15.02	8.40	-9.	5 -10	11.56	11.47	11.38	11.29	11.19
21					12.05	8.11	12.83	8.60	13.21	8.50	13.64	8.42	14.49	8.74	15.34	8.50	-7.	5 -8	12.00	11.91	11.82	11.72	11.62
23					12.05	8.11	12.85	8.61	13.24	8.51	13.67	8.43	14.54	8.76	15.40	8.52	-5.	5 -6	12.49	12.40	12.30	12.20	12.10
25			11.19	8.28	12.05	8.11	12.88	8.62	13.27	8.53	13.71	8.44	14.58	8.77	15.45	8.53	-3.	-4	12.99	12.89	12.79	12.68	12.57
27			11.14	8.25	12.05	8.11	12.91	8.63	13.30	8.54	13.70	8.44	14.49	8.74			-1.) -2	13.48	13.38	13.27	13.16	13.05
29			11.05	8.21	11.88	8.03	12.70	8.54	13.10	8.46	13.51	8.37	14.31	8.67			1.	0	13.98	13.87	13.76	13.64	13.52
31			10.95	8.16	11.71	7.96	12.49	8.46	12.90	8.38	13.31	8.29	14.13	8.61			2.	1	14.22	14.11	14.00	13.88	13.76
33	10.26	7.71	10.73	8.06	11.53	7.88	12.29	8.37	12.70	8.30	13.11	8.22	13.94	8.55			3.) 2	14.22	14.11	14.00	13.88	13.76
35	9.71	7.43	10.39	7.89	11.36	7.80	12.08	8.29	12.50	8.22	12.92	8.15	13.76	8.49			5.) 4	14.22	14.11	14.00	13.88	13.76
37	9.60	7.37	10.22	7.82	11.15	7.71	11.86	8.20	12.26	8.13	12.67	8.05	13.47	8.39			7.	6	14.22	14.11	14.00	13.88	13.77
39	9.48	7.31	10.05	7.74	10.94	7.62	11.64	8.11	12.03	8.04	12.41	7.96	13.18	8.29			9.	8 (14.81	14.70	14.59	14.47	14.35
41	9.36	7.25	9.89	7.66	10.74	7.53	11.42	8.02	11.79	7.95	12.16	7.87	12.89	8.19			11.	5 10	15.41	15.29	15.18	15.06	14.94
43	9.25	7.20	9.72	7.58	10.53	7.44	11.21	7.94	11.55	7.86	11.90	7.77	12.60	8.10			13.	5 12	16.22	16.09	15.97	15.85	15.90
																	15.	5 14	17.03	16.90	16.76	16.65	16.86
																	16.	5 16	17.44	17.30	17.16	17.04	17.34

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Model	FDT	C125\	/SXP\	/F	Indoor	unit	FDTC	60VF	(2 unit	s)	Outdo	or uni	t FD	C125V	/SX								
Cool M	ode															(kW)	Heat I	Mode:	HC				(kW)
Outdoor							Indo	or air t	emper	ature							Out	door	In	idoor a	ir temp	oeratur	re
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	air te	emp.			°CDB	}	
un tompi	12°0	CWB	14°(CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(CWB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	14.11	14.00	13.89	13.78	13.66
11					10.41	7.39	11.05	7.88	11.37	7.79	11.72	7.71	12.42	8.04	13.12	7.83	-17.7	-18	14.17	14.06	13.94	13.83	13.72
13					10.79	7.55	11.46	8.04	11.79	7.95	12.16	7.87	12.91	8.20	13.65	7.98	-15.7	-16	14.23	14.11	14.00	13.89	13.77
15					11.16	7.71	11.87	8.20	12.22	8.11	12.61	8.03	13.39	8.36	14.17	8.14	-13.5	-14	14.23	14.11	14.00	13.89	13.77
17					11.54	7.88	12.27	8.37	12.64	8.28	13.05	8.19	13.87	8.52	14.69	8.29	-11.5	-12	14.22	14.11	14.00	13.89	13.77
19					11.80	8.00	12.55	8.48	12.93	8.39	13.34	8.30	14.18	8.63	15.02	8.40	-9.5	-10	14.22	14.11	14.00	13.89	13.77
21					12.05	8.11	12.83	8.60	13.21	8.50	13.64	8.42	14.49	8.74	15.34	8.50	-7.5	-8	14.22	14.11	14.00	13.89	13.77
23					12.05	8.11	12.85	8.61	13.24	8.51	13.67	8.43	14.54	8.76	15.40	8.52	-5.5	-6	14.22	14.11	14.00	13.88	13.77
25			11.19	8.28	12.05	8.11	12.88	8.62	13.27	8.53	13.71	8.44	14.58	8.77	15.45	8.53	-3.0	-4	14.22	14.11	14.00	13.88	13.77
27			11.14	8.25	12.05	8.11	12.91	8.63	13.30	8.54	13.70	8.44	14.49	8.74			-1.0	-2	14.22	14.11	14.00	13.88	13.76
29			11.05	8.21	11.88	8.03	12.70	8.54	13.10	8.46	13.51	8.37	14.31	8.67			1.0	0	14.22	14.11	14.00	13.88	13.76
31			10.95	8.16	11.71	7.96	12.49	8.46	12.90	8.38	13.31	8.29	14.13	8.61			2.0	1	14.22	14.11	14.00	13.88	13.76
33		7.71	10.73	8.06	11.53	7.88	12.29	8.37	12.70	8.30	13.11	8.22	13.94	8.55			3.0	2	14.22	14.11	14.00	13.88	13.76
35	9.71	7.43	10.39	7.89	11.36	7.80	12.08	8.29	12.50	8.22	12.92	8.15	13.76	8.49			5.0	4	14.22	14.11	14.00	13.88	13.76
37	9.60	7.37	10.22	7.82	11.15	7.71	11.86	8.20	12.26	8.13	12.67	8.05	13.47	8.39			7.0	6	14.22	14.11	14.00	13.88	13.77
39	9.48	7.31	10.05	7.74	10.94	7.62	11.64	8.11	12.03	8.04	12.41	7.96	13.18	8.29			9.0	8	14.81	14.70	14.59	14.47	14.35
41	9.36	7.25	9.89	7.66	10.74	7.53	11.42	8.02	11.79	7.95	12.16	7.87	12.89	8.19			11.5	10	15.41	15.29	15.18	15.06	14.94
43	9.25	7.20	9.72	7.58	10.53	7.44	11.21	7.94	11.55	7.86	11.90	7.77	12.60	8.10			13.5	12	16.22	16.09	15.97	15.85	15.90
Note(1) Th	nese data	show av	erage sta	atuses.													15.5	14	17.03	16.90	16.76	16.65	16.86
De	epending	on the s	system co	ontrol, th							ducted co	ntinuou	sly.				16.5	16	17.44	17.30	17.16	17.04	17.34
			e case w				ency of a	compre	ssor is fi	xed.										一	1400		$\overline{\mathbb{A}}$
			igerant n		_															L _P	JAU0	3 Z 38	2 <u>/A</u>

te(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(c) Triple type

Model FDTC140VNXTVF Cool Mode Indoor unit FDTC50VF (3 units) Outdoor unit FDC140VNX

Outdoor		, in the second					Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.49	12.38	10.23	12.73	10.16	13.13	10.10	13.91	10.65	14.70	10.49
13					12.08	9.67	12.83	10.41	13.21	10.34	13.62	10.28	14.45	10.84	15.28	10.67
15					12.50	9.86	13.29	10.60	13.68	10.53	14.12	10.47	14.99	11.03	15.87	10.86
17					12.92	10.04	13.75	10.79	14.16	10.72	14.62	10.67	15.54	11.22	16.45	11.05
19					13.21	10.17	14.06	10.92	14.48	10.85	14.95	10.79	15.88	11.35	16.82	11.17
21					13.50	10.30	14.36	11.04	14.80	10.98	15.28	10.92	16.23	11.47	17.19	11.30
23					13.50	10.30	14.40	11.06	14.83	10.99	15.31	10.93	16.28	11.49	17.25	11.32
25			12.53	10.45	13.50	10.30	14.43	11.07	14.87	11.01	15.35	10.95	16.33	11.51	17.30	11.33
27			12.48	10.43	13.50	10.30	14.46	11.09	14.90	11.02	15.34	10.95	16.23	11.47		
29			12.37	10.37	13.31	10.22	14.23	10.99	14.68	10.93	15.13	10.86	16.03	11.40		
31			12.26	10.32	13.11	10.13	13.99	10.89	14.45	10.84	14.91	10.78	15.82	11.32		
33	11.49	9.65	12.02	10.21	12.92	10.04	13.76	10.79	14.23	10.75	14.69	10.69	15.61	11.25		
35	10.88	9.34	11.63	10.02	12.72	9.95	13.53	10.70	14.00	10.66	14.47	10.61	15.41	11.18		
37	10.75	9.27	11.45	9.94	12.49	9.85	13.29	10.60	13.74	10.55	14.18	10.50	15.08	11.06		
39	10.62	9.21	11.26	9.85	12.26	9.75	13.04	10.49	13.47	10.45	13.90	10.39	14.76	10.95		
41	10.49	9.14	11.07	9.76	12.02	9.64	12.80	10.40	13.21	10.34	13.62	10.28	14.44	10.84		
43	10.35	9.07	10.89	9.67	11.79	9.54	12.55	10.29	12.94	10.24	13.33	10.17	14.11	10.72		

(kW)	Heat I	Mode:	HC				(kW)
	Out	door	ln	door a	ir tem	peratu	e e
DB	air te	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	10.42	10.34	10.26	10.17	10.09
10.49	-17.7	-18	11.06	10.97	10.88	10.79	10.70
10.67	-15.7	-16	11.69	11.60	11.50	11.41	11.32
10.86	-13.5	-14	12.20	12.10	12.00	11.91	11.81
11.05	-11.5	-12	12.70	12.60	12.50	12.40	12.30
11.17	-9.5	-10	13.21	13.11	13.00	12.90	12.79
11.30	-7.5	-8	13.71	13.61	13.50	13.39	13.28
11.32	-5.5	-6	14.28	14.17	14.06	13.94	13.83
11.33	-3.0	-4	14.84	14.73	14.61	14.49	14.37
	-1.0	-2	15.41	15.29	15.17	15.04	14.91
	1.0	0	15.97	15.85	15.72	15.59	15.45
	2.0	1	16.26	16.13	16.00	15.86	15.73
	3.0	2	16.25	16.13	16.00	15.86	15.73
	5.0	4	16.25	16.13	16.00	15.86	15.73
	7.0	6	16.25	16.12	16.00	15.87	15.73
	9.0	8	16.93	16.80	16.68	16.54	16.40
	11.5	10	17.61	17.48	17.35	17.21	17.07
	13.5	12	18.53	18.39	18.25	18.12	18.17
	15.5	14	19.46	19.31	19.16	19.02	19.27
	16.5	16	19.93	19.77	19.61	19.48	19.82

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Model FDTC140VSXTVF Indoor unit FDTC50VF (3 units) Outdoor unit FDC140VSX Cool Mode

Cool M	ode								(-,						(kW)
Outdoor							Indo	or air t	emper	ature						\Box
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.49	12.38	10.23	12.73	10.16	13.13	10.10	13.91	10.65	14.70	10.49
13					12.08	9.67	12.83	10.41	13.21	10.34	13.62	10.28	14.45	10.84	15.28	10.67
15					12.50	9.86	13.29	10.60	13.68	10.53	14.12	10.47	14.99	11.03	15.87	10.86
17					12.92	10.04	13.75	10.79	14.16	10.72	14.62	10.67	15.54	11.22	16.45	11.05
19					13.21	10.17	14.06	10.92	14.48	10.85	14.95	10.79	15.88	11.35	16.82	11.17
21					13.50	10.30	14.36	11.04	14.80	10.98	15.28	10.92	16.23	11.47	17.19	11.30
23					13.50	10.30	14.40	11.06	14.83	10.99	15.31	10.93	16.28	11.49	17.25	11.32
25			12.53	10.45	13.50	10.30	14.43	11.07	14.87	11.01	15.35	10.95	16.33	11.51	17.30	11.33
27			12.48	10.43	13.50	10.30	14.46	11.09	14.90	11.02	15.34	10.95	16.23	11.47		
29			12.37	10.37	13.31	10.22	14.23	10.99	14.68	10.93	15.13	10.86	16.03	11.40		
31			12.26	10.32	13.11	10.13	13.99	10.89	14.45	10.84	14.91	10.78	15.82	11.32		
33	11.49	9.65	12.02	10.21	12.92	10.04	13.76	10.79	14.23	10.75	14.69	10.69	15.61	11.25		
35	10.88	9.34	11.63	10.02	12.72	9.95	13.53	10.70	14.00	10.66	14.47	10.61	15.41	11.18		
37	10.75	9.27	11.45	9.94	12.49	9.85	13.29	10.60	13.74	10.55	14.18	10.50	15.08	11.06		
39	10.62	9.21	11.26	9.85	12.26	9.75	13.04	10.49	13.47	10.45	13.90	10.39	14.76	10.95		
41	10.49	9.14	11.07	9.76	12.02	9.64	12.80	10.40	13.21	10.34	13.62	10.28	14.44	10.84		
43	10.35	9.07	10.89	9.67	11.79	9.54	12.55	10.29	12.94	10.24	13.33	10.17	14.11	10.72		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW)
	door	In	door a	ir tem	oeratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	16.13	16.00	15.87	15.74	15.61
-17.7	-18	16.19	16.07	15.94	15.81	15.68
-15.7	-16	16.26	16.13	16.00	15.87	15.74
-13.5	-14	16.26	16.13	16.00	15.87	15.74
-11.5	-12	16.25	16.13	16.00	15.87	15.74
-9.5	-10	16.25	16.13	16.00	15.87	15.74
-7.5	-8	16.25	16.12	16.00	15.87	15.74
-5.5	-6	16.25	16.13	16.00	15.87	15.74
-3.0	-4	16.25	16.13	16.00	15.87	15.73
-1.0	-2	16.25	16.13	16.00	15.86	15.73
1.0	0	16.25	16.13	16.00	15.86	15.73
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

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(3) Ceiling suspended type (FDEN)

(a) Single type

Model FDEN40ZMXVF Indoor unit FDEN40VF Outdoor unit SRC40ZMX-S Cool Mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°(CWB	14°	CWB	16°	CWB	18°	CWB	19°(CWB	20°(CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					3.38	2.80	3.56	3.01	3.65	2.99	3.75	2.96	3.95	3.12	4.15	3.06
13					3.46	2.83	3.65	3.05	3.75	3.02	3.85	3.00	4.05	3.16	4.26	3.10
15					3.54	2.87	3.74	3.08	3.84	3.06	3.95	3.03	4.15	3.19	4.36	3.13
17					3.62	2.90	3.83	3.12	3.94	3.10	4.04	3.07	4.26	3.23	4.47	3.16
19					3.69	2.93	3.91	3.15	4.02	3.13	4.15	3.11	4.41	3.28	4.67	3.23
21					3.81	2.98	3.99	3.18	4.10	3.16	4.26	3.15	4.56	3.33	4.87	3.29
23					3.85	3.00	4.04	3.20	4.15	3.18	4.30	3.16	4.59	3.34	4.88	3.29
25			3.73	3.12	3.89	3.02	4.08	3.22	4.20	3.20	4.34	3.18	4.61	3.35	4.89	3.29
27			3.76	3.14	3.93	3.04	4.13	3.24	4.25	3.22	4.36	3.19	4.60	3.34		
29			3.70	3.11	3.86	3.01	4.06	3.21	4.18	3.19	4.30	3.16	4.54	3.32		
31			3.64	3.08	3.80	2.98	4.00	3.19	4.12	3.17	4.24	3.14	4.48	3.30		
33	3.23	2.79	3.44	2.99	3.74	2.95	3.94	3.16	4.06	3.14	4.18	3.12	4.42	3.28		
35	3.28	2.81	3.44	2.99	3.68	2.93	3.88	3.14	4.00	3.12	4.12	3.10	4.36	3.26		
37	3.23	2.79	3.38	2.96	3.62	2.90	3.82	3.11	3.94	3.10	4.06	3.08	4.30	3.24		
39	3.17	2.76	3.32	2.93	3.56	2.87	3.76	3.09	3.88	3.07	4.00	3.05	4.23	3.22		
41	3.12	2.73	3.27	2.91	3.50	2.85	3.70	3.07	3.82	3.05	3.93	3.03	4.17	3.20		
43	3.06	2.70	3.21	2.88	3.44	2.82	3.64	3.04	3.76	3.03	3.87	3.01	4.10	3.17		

(kW)	Heat I	Mode:	HC				(kW)
	Out	door	ln	door a	ir tem	oeratu	e e
DB	air te	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20					
3.06	-17.7	-18					
3.10	-15.7	-16					
3.13	-13.5	-14	2.67	2.63	2.59	2.55	2.50
3.16	-11.5	-12	2.83	2.79	2.75	2.71	2.67
3.23	-9.5	-10	3.00	2.96	2.92	2.88	2.84
3.29	-7.5	-8	3.17	3.13	3.09	3.05	3.01
3.29	-5.5	-6	3.23	3.20	3.16	3.12	3.09
3.29	-3.0	-4	3.29	3.26	3.23	3.20	3.17
	-1.0	-2	3.36	3.33	3.30	3.28	3.25
	1.0	0	3.42	3.40	3.38	3.35	3.33
	2.0	1	3.45	3.43	3.41	3.39	3.37
	3.0	2	3.67	3.65	3.63	3.61	3.59
	5.0	4	4.11	4.09	4.07	4.04	4.01
	7.0	6	4.55	4.53	4.50	4.47	4.44
	9.0	8	4.78	4.75	4.72	4.69	4.66
	11.5	10	5.01	4.98	4.95	4.91	4.88
	13.5	12	5.30	5.26	5.21	5.14	5.10
	15.5	14	5.58	5.53	5.48	5.37	5.32
	16.5	16	5.73	5.67	5.61	5.48	5.44

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Model FDEN50ZMXVF Indoor unit FDEN50VF Outdoor unit SRC50ZMX-S Cool Mode

							Indo	or air t	emper	ature						
Outdoor	18°	CDB	21°	CDB	23°	CDB		CDB	_	CDB	28°	CDB	31°	CDB	33°	CDB
air temp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°(CWB	20°(CWB	22°(CWB	24°	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	3.18	4.45	3.39	4.56	3.36	4.69	3.34	4.94	3.49	5.19	3.42
13					4.32	3.23	4.56	3.44	4.68	3.41	4.81	3.38	5.07	3.54	5.32	3.46
15					4.42	3.28	4.68	3.49	4.80	3.46	4.93	3.43	5.19	3.58	5.45	3.51
17					4.53	3.33	4.79	3.54	4.92	3.51	5.06	3.48	5.32	3.63	5.58	3.55
19					4.62	3.37	4.89	3.58	5.02	3.55	5.19	3.54	5.51	3.70	5.84	3.64
21					4.76	3.44	4.99	3.63	5.13	3.60	5.32	3.59	5.70	3.77	6.09	3.73
23					4.81	3.46	5.04	3.65	5.19	3.62	5.37	3.61	5.73	3.78	6.10	3.73
25			4.66	3.60	4.86	3.48	5.10	3.67	5.25	3.65	5.42	3.63	5.76	3.79	6.11	3.73
27			4.70	3.62	4.91	3.51	5.16	3.70	5.31	3.68	5.46	3.65	5.75	3.79		
29			4.62	3.58	4.83	3.47	5.08	3.67	5.23	3.64	5.38	3.61	5.68	3.76		
31			4.54	3.54	4.75	3.43	5.00	3.63	5.15	3.61	5.30	3.58	5.60	3.73		
33	4.04	3.22	4.31	3.42	4.67	3.39	4.93	3.60	5.08	3.58	5.23	3.55	5.53	3.71		
35	4.11	3.26	4.30	3.42	4.59	3.36	4.85	3.56	5.00	3.54	5.15	3.52	5.45	3.68		
37	4.04	3.22	4.23	3.38	4.52	3.32	4.77	3.53	4.92	3.51	5.07	3.49	5.37	3.65		
39	3.97	3.18	4.16	3.35	4.45	3.29	4.70	3.50	4.85	3.48	4.99	3.46	5.29	3.62		
41	3.90	3.14	4.09	3.31	4.38	3.26	4.62	3.47	4.77	3.45	4.92	3.43	5.21	3.59		
43	3.83	3.11	4.01	3.28	4.30	3.22	4.55	3.44	4.69	3.42	4.84	3.40	5.13	3.56		

Note(1)	These data	show average	statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation fraguency of a compressor is fixed.

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions.

(2) Capacities are based on the following conditions Corresponding refrigerant piping length: 7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW) (kW) Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. CDB °CDB °CWB 18 20 22 24 -19.8 -20 -17.7 -18 -15.7 -16 -13.5 -14 3.20 3.15 3.11 3.05 3.00 3.40 -11.5 -12 3.35 3.31 3.26 3.20 -9.5 3.60 3.55 3.51 3.46 3.41 -10 -7.5 -8 3.80 3.75 3.71 3.66 3.61 -5.5 -6 3.88 3.83 3.79 3.75 3.71 -3.0 3.95 3.92 3.88 3.84 3.80 -4 -1.0 -2 4.03 4.00 3.97 3.93 3.90 1.0 0 4.10 4.08 4.05 4.03 4.00 2.0 1 4.14 4.12 4.10 4.07 4.05 3.0 4.41 4.38 4.36 4.33 4.30 2 5.0 4 4.94 4.91 4.88 4.85 4.82 7.0 6 5.46 5.43 5.40 5.37 5.33 9.0 8 5.74 5.70 5.67 5.63 5.59 11.5 10 6.02 5.98 5.94 5.89 5.85 6.36 6.31 6.17 6.12 13.5 12 6.25 15.5 14 6.70 6.64 | 6.57 | 6.44 | 6.39 16 6.87 6.80 6.73 6.58 6.52 16.5

COOI IVIO	Cool Mode (kW) Heat Mode:HC (kW) Outdoor 18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB air temp. CDB															(kW)	Heat	Mode:	НС				(kW)
0.11							Indo	or air te	emper	ature							Ou	tdoor	In	door a	ir temp	eratur	e
	18°(CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	air	temp.			°CDB		
all tellip.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB	°CDE	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20					
11					4.73	3.96	4.98	4.29	5.11	4.24	5.25	4.19	5.53	4.43	5.81	4.31	-17.7	-18					
13					4.84	4.00	5.11	4.33	5.24	4.28	5.39	4.23	5.67	4.46	5.96	4.34	-15.7	-16					
15					4.95	4.04	5.24	4.37	5.38	4.32	5.52	4.27	5.82	4.50	6.11	4.38	-13.5	-14	3.97	3.91	3.85	3.79	3.73
17	5.07 4.09 5.37 4.42 5.51 4.36 5.66 4.31 5.96 4														6.25	4.41	-11.5	-12	4.22	4.16	4.10	4.04	3.98
19					5.17	4.12	5.48	4.45	5.63	4.40	5.81	4.35	6.17	4.60	6.54	4.48	-9.5	-10	4.47	4.41	4.35	4.29	4.23
21	5.33 4.18 5.59 4.49 5.74 4.44 5.96 4.40 6.39 4.6														6.82	4.55	-7.5	-8	4.72	4.66	4.60	4.54	4.48
23					5.39	4.21	5.65	4.51	5.81	4.46	6.01	4.41	6.42	4.66	6.83	4.55	-5.5	-6	4.81	4.76	4.70	4.65	4.60
25			5.22	4.42	5.44	4.22	5.71	4.53	5.88	4.48	6.07	4.43	6.45	4.67	6.84	4.55	-3.0	-4	4.90	4.86	4.81	4.77	4.72
27			5.27	4.44	5.50	4.25	5.78	4.56	5.94	4.50	6.11	4.44	6.44	4.67			-1.0	-2	5.00	4.96	4.92	4.88	4.84
29			5.18	4.40	5.41	4.21	5.69	4.53	5.86	4.47	6.02	4.42	6.36	4.65			1.0	0	5.09	5.06	5.03	4.99	4.96
31			5.09	4.36	5.32	4.18	5.60	4.49	5.77	4.45	5.94	4.39	6.27	4.62			2.0	1	5.14	5.11	5.08	5.05	5.02
	4.53	3.96	4.82	4.25	5.23	4.15	5.52	4.47	5.69	4.42	5.85	4.37	6.19	4.60			3.0	2	5.47	5.44	5.41	5.37	5.34
35	4.60	3.99	4.81	4.25	5.15	4.12	5.43	4.44	5.60	4.39	5.77	4.34	6.10	4.58			5.0	4	6.12	6.09	6.05	6.01	5.98
37	4.52	3.95	4.73	4.22	5.06	4.08	5.35	4.41	5.51	4.36	5.68	4.31	6.01	4.55			7.0	6	6.78	6.74	6.70	6.66	6.61
	4.44	3.92	4.65	4.18	4.98	4.05	5.26	4.38	5.43	4.34	5.59	4.29	5.92	4.53			9.0	8	7.12	7.08	7.03	6.98	6.94
-	4.37	3.89	4.58	4.16	4.90	4.02	5.18	4.35	5.34	4.31	5.51	4.26	5.83	4.50			11.5	10	7.47	7.41	7.36	7.31	7.26
43	4.29	3.85	4.50	4.12	4.82	4.00	5.10	4.33	5.26	4.28	5.42	4.24	5.74	4.48			13.5	12	7.89	7.82	7.76	7.65	7.59
																	15.5	14	8.31	8.23	8.15	7.99	7.93
																	16.5	16	8.53	8.44	8.35	8.16	8.09

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	FDE	171VN	IXVF1	1 Ir	ndoor u	unit F	DEN7	1VF1	0	utdoor	unit	FDC7	1VNX											
Cool Mo	ode															(kW)		Heat	Mode:	HC				(kW)
Outdoor							Indo	or air t	emper	ature							۱	Out	door	In	door a	ir temp	oeratur	e e
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	ı	air te	emp.			°CDB		
	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°	CWB	22°(CWB	24°	CWB	ı	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	ı	-19.8	-20	3.95	3.93	3.91	3.88	3.86
11					4.87	4.43	6.02	5.13	6.59	5.23	6.79	5.18	7.19	5.47	7.59	5.35	ı	-17.7	-18	4.18	4.16	4.14	4.11	4.09
13					5.33	4.61	6.32	5.24	6.82	5.31	7.03	5.26	7.45	5.55	7.88	5.43	١	-15.7	-16	4.42	4.39	4.37	4.34	4.32
15					5.79	4.79	6.63	5.36	7.05	5.39	7.27	5.34	7.71	5.63	8.16	5.51	١	-13.5	-14	4.68	4.65	4.63	4.60	4.57
17					6.26	4.98	6.94	5.47	7.27	5.47	7.51	5.43	7.97	5.71	8.44	5.59	١	-11.5	-12	4.94	4.91	4.88	4.85	4.82
19					6.59	5.11	7.16	5.56	7.44	5.53	7.68	5.49	8.15	5.77	8.63	5.64	١	-9.5	-10	5.20	5.17	5.14	5.11	5.08
21					6.93	5.25	7.38	5.64	7.60	5.59	7.84	5.54	8.33	5.82	8.82	5.70	١	-7.5	-8	5.46	5.43	5.40	5.36	5.33
23					6.91	5.24	7.35	5.63	7.57	5.58	7.81	5.53	8.30	5.81	8.78	5.69	ı	-5.5	-6	5.59	5.55	5.52	5.48	5.44
25			6.46	5.37	6.89	5.23	7.32	5.62	7.54	5.57	7.78	5.52	8.26	5.80	8.74	5.68	ı	-3.0	-4	5.71	5.68	5.64	5.60	5.56
27			6.45	5.37	6.87	5.23	7.30	5.61	7.52	5.56	7.74	5.51	8.18	5.78			ı	-1.0	-2	5.84	5.80	5.76	5.72	5.67
29			6.34	5.32	6.75	5.18	7.19	5.57	7.41	5.52	7.64	5.47	8.09	5.75			۱	1.0	0	5.97	5.92	5.88	5.83	5.79
31			6.23	5.27	6.64	5.13	7.08	5.53	7.31	5.48	7.54	5.44	7.99	5.72				2.0	1	6.03	5.98	5.94	5.89	5.85
33	5.77	4.89	6.05	5.19	6.53	5.09	6.97	5.48	7.20	5.44	7.44	5.40	7.90	5.69			۱	3.0	2	6.45	6.40	6.35	6.30	6.25
35	5.67	4.84	5.95	5.15	6.42	5.04	6.86	5.44	7.10	5.41	7.34	5.37	7.81	5.66			۱	5.0	4	7.29	7.23	7.18	7.12	7.06
37	5.58	4.80	5.85	5.10	6.31	5.00	6.72	5.39	6.95	5.35	7.18	5.31	7.64	5.60			۱	7.0	6	8.13	8.06	8.00	7.93	7.87
39	5.49	4.75	5.76	5.06	6.20	4.95	6.59	5.34	6.81	5.30	7.03	5.26	7.46	5.55			١	9.0	8	8.42	8.36	8.29	8.23	8.16
41	5.39	4.71	5.67	5.03	6.09	4.91	6.45	5.29	6.66	5.25	6.87	5.21	7.29	5.50			١	11.5	10	8.72	8.65	8.59	8.52	8.46
43	5.30	4.67	5.57	4.98	5.97	4.86	6.31	5.24	6.51	5.20	6.71	5.15	7.12	5.44				13.5	12	9.20	9.13	9.06	9.00	8.92
Note(1) Th	ese data	show av	erage st	atuses.													1	15.5	14	9.69	9.61	9.53	9.47	9.39
De	pending	on the s	ystem co	ontrol, th	ere may						ducted co	ontinuou	sly.				Ì	16.5	16	9.93	9.85	9.77	9.71	9.62

ie(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Model		N100\	/NXVI	F1	Indoor	unit	FDEN	1100V	F1	Outdo	oor uni	t FD	C100\	/NX		
Cool Mo	ode															(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.95	8.84	7.51	9.10	7.46	9.38	7.41	9.94	7.83	10.50	7.69
13					8.63	7.07	9.17	7.64	9.43	7.58	9.73	7.53	10.32	7.95	10.92	7.82
15		8.93 7.20 9.49 7.76 9.77 7.71 10.09 7.66 10.71 8.08 9.23 7.32 9.82 7.89 10.11 7.83 10.44 7.79 11.10 8.21														
17		9.23 7.32 9.82 7.89 10.11 7.83 10.44 7.79 11.10 8.21														
19		9.23 7.32 9.82 7.89 10.11 7.83 10.44 7.79 11.10 8.21 9.44 7.41 10.04 7.98 10.34 7.92 10.68 7.87 11.35 8.29														8.15
21					9.64	7.50	10.26	8.07	10.57	8.01	10.91	7.96	11.59	8.38	12.28	8.23
23					9.64	7.50	10.28	8.08	10.59	8.02	10.94	7.97	11.63	8.39	12.32	8.24
25			8.95	7.64	9.64	7.50	10.30	8.08	10.62	8.03	10.97	7.98	11.66	8.40	12.36	8.25
27			8.91	7.62	9.64	7.50	10.33	8.10	10.64	8.04	10.96	7.98	11.59	8.38		
29			8.84	7.59	9.51	7.44	10.16	8.03	10.48	7.98	10.80	7.92	11.45	8.33		
31			8.76	7.55	9.37	7.38	10.00	7.96	10.32	7.91	10.65	7.86	11.30	8.28		
33	8.21	7.04	8.58	7.47	9.23	7.32	9.83	7.90	10.16	7.85	10.49	7.80	11.15	8.23		
35	7.77	6.82	8.31	7.34	9.09	7.27	9.66	7.83	10.00	7.79	10.34	7.75	11.01	8.18		
37	7.68	6.78	8.18	7.28	8.92	7.19	9.49	7.76	9.81	7.72	10.13	7.67	10.77	8.10		
39	7.58	6.73	8.04	7.22	8.76	7.13	9.31	7.69	9.62	7.65	9.93	7.60	10.54	8.02		
41	7.49	6.69	7.91	7.16	8.59	7.05	9.14	7.63	9.43	7.58	9.73	7.53	10.31	7.95		
43	7.40	6.65	7.78	7.10	8.42	6.98	8.96	7.56	9.24	7.51	9.52	7.45	10.08	7.87		

)	Heat I	Mode:	HC				(kW)
1	Out	door	ln	door a	ir temp	oeratui	re
l	air te	emp.			°CDB		
l	°CDB	°CWB	16	18	20	22	24
1	-19.8	-20	7.30	7.24	7.18	7.12	7.06
l	-17.7	-18	7.74	7.68	7.62	7.55	7.49
1	-15.7	-16	8.18	8.12	8.05	7.99	7.92
1	-13.5	-14	8.54	8.47	8.40	8.33	8.27
1	-11.5	-12	8.89	8.82	8.75	8.68	8.61
1	-9.5	-10	9.25	9.17	9.10	9.03	8.95
1	-7.5	-8	9.60	9.53	9.45	9.38	9.30
1	-5.5	-6	10.00	9.92	9.84	9.76	9.68
1	-3.0	-4	10.39	10.31	10.23	10.14	10.06
1	-1.0	-2	10.79	10.70	10.62	10.53	10.44
1	1.0	0	11.18	11.09	11.01	10.91	10.82
1	2.0	1	11.38	11.29	11.20	11.10	11.01
1	3.0	2	11.38	11.29	11.20	11.10	11.01
1	5.0	4	11.38	11.29	11.20	11.11	11.01
1	7.0	6	11.37	11.29	11.20	11.11	11.01
1	9.0	8	11.85	11.76	11.67	11.58	11.48
1	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

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Model	FDEN100VSXVF1	Indoor unit	FDEN100VF1	Outdoor unit	FDC100VSX
Cool M	ode				

																(1000)
Outdoor							Indo	or air t	emper	ature						\Box
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.95	8.84	7.51	9.10	7.46	9.38	7.41	9.94	7.83	10.50	7.69
13					8.63	7.07	9.17	7.64	9.43	7.58	9.73	7.53	10.32	7.95	10.92	7.82
15					8.93	7.20	9.49	7.76	9.77	7.71	10.09	7.66	10.71	8.08	11.34	7.94
17					9.23	7.32	9.82	7.89	10.11	7.83	10.44	7.79	11.10	8.21	11.75	8.07
19					9.44	7.41	10.04	7.98	10.34	7.92	10.68	7.87	11.35	8.29	12.01	8.15
21					9.64	7.50	10.26	8.07	10.57	8.01	10.91	7.96	11.59	8.38	12.28	8.23
23					9.64	7.50	10.28	8.08	10.59	8.02	10.94	7.97	11.63	8.39	12.32	8.24
25			8.95	7.64	9.64	7.50	10.30	8.08	10.62	8.03	10.97	7.98	11.66	8.40	12.36	8.25
27			8.91	7.62	9.64	7.50	10.33	8.10	10.64	8.04	10.96	7.98	11.59	8.38		
29			8.84	7.59	9.51	7.44	10.16	8.03	10.48	7.98	10.80	7.92	11.45	8.33		
31			8.76	7.55	9.37	7.38	10.00	7.96	10.32	7.91	10.65	7.86	11.30	8.28		
33	8.21	7.04	8.58	7.47	9.23	7.32	9.83	7.90	10.16	7.85	10.49	7.80	11.15	8.23		
35	7.77	6.82	8.31	7.34	9.09	7.27	9.66	7.83	10.00	7.79	10.34	7.75	11.01	8.18		
37	7.68	6.78	8.18	7.28	8.92	7.19	9.49	7.76	9.81	7.72	10.13	7.67	10.77	8.10		
39	7.58	6.73	8.04	7.22	8.76	7.13	9.31	7.69	9.62	7.65	9.93	7.60	10.54	8.02		
41	7.49	6.69	7.91	7.16	8.59	7.05	9.14	7.63	9.43	7.58	9.73	7.53	10.31	7.95		
43	7.40	6.65	7.78	7.10	8.42	6.98	8.96	7.56	9.24	7.51	9.52	7.45	10.08	7.87		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 18 20 16 -19.8 -20 11.29 11.20 11.11 11.02 10.93 -17.7 -18 | 11.34 | 11.25 | 11.16 | 11.06 | 10.97 11.38 11.29 11.20 11.11 11.02 -15.7 -16 -13.5 -14 11.38 11.29 11.20 11.11 11.02 11.38 | 11.29 | 11.20 | 11.11 | 11.02 -11.5 -12 11.38 11.29 11.20 11.11 11.02 -9.5 -10 -7.5 -8 11.37 11.29 11.20 11.11 11.02 11.38 11.29 11.20 11.11 11.02 -3.0 -4 11.38 11.29 11.20 11.11 11.01 11.38 11.29 11.20 11.11 11.01 -1.0 -2 1.0 0 11.38 11.29 11.20 11.10 11.01 2.0 11.38 11.29 11.20 11.10 11.01 3.0 11.38 11.29 11.20 11.10 11.01 11.38 11.29 11.20 11.11 11.01 5.0 7.0 11.37 11.29 11.20 11.11 11.01 9.0 8 11.85 11.76 11.67 11.58 11.48 12.32 12.23 12.15 12.05 11.95 11.5 10 12 12.97 12.88 12.78 12.68 12.72 13.5 15.5 14 13.62 13.52 13.41 13.32 13.49 16 | 13.95 | 13.84 | 13.72 | 13.63 | 13.87 16.5

Model Cool M		N125\	/NXVI	F II	ndoor (unit l	FDEN1	25VF	0	utdoo	unit	FDC1	25VN	X		(kW)	ŀ	Heat I	Mode:	:HC
0.14							Indo	or air t	emper	ature							1 [Outo	door	lr
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	П	air te	∍mp.	
an temp.	12°	CWB	14°(CWB	16°	CWB	18°0	CWB	19°	CWB	20°0	CWB	22°(CWB	24°(CWB	П	°CDB	°CWB	16
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	П	-19.8	-20	9.12
11					10.41	7.76	11.05	8.33	11.37	8.23	11.72	8.13	12.42	8.53	13.12	8.28	П	-17.7	-18	9.67
13					10.79	7.91	11.46	8.48	11.79	8.37	12.16	8.27	12.91	8.67	13.65	8.41	П	-15.7	-16	10.23
15					11.16	8.05	11.87	8.63	12.22	8.52	12.61	8.42	13.39	8.81	14.17	8.55	П	-13.5	-14	10.67
17					11.54	8.20	12.27	8.77	12.64	8.66	13.05	8.56	13.87	8.95	14.69	8.68	П	-11.5	-12	11.11
19					11.80	8.31	12.55	8.87	12.93	8.76	13.34	8.66	14.18	9.04	15.02	8.77	П	-9.5	-10	11.56
21					12.05	8.41	12.83	8.98	13.21	8.86	13.64	8.76	14.49	9.13	15.34	8.86	П	-7.5	-8	12.00
23					12.05	8.41	12.85	8.98	13.24	8.87	13.67	8.77	14.54	9.15	15.40	8.87	П	-5.5	-6	12.49
25			11.19	8.64	12.05	8.41	12.88	8.99	13.27	8.88	13.71	8.78	14.58	9.16	15.45	8.89	П	-3.0	-4	12.99
27			11.14	8.62	12.05	8.41	12.91	9.01	13.30	8.90	13.70	8.78	14.49	9.13			П	-1.0	-2	13.48
29			11.05	8.58	11.88	8.34	12.70	8.93	13.10	8.82	13.51	8.71	14.31	9.08			П	1.0	0	13.98
31			10.95	8.53	11.71	8.27	12.49	8.85	12.90	8.75	13.31	8.65	14.13	9.03			П	2.0	1	14.22
33	10.26	8.01	10.73	8.44	11.53	8.20	12.29	8.78	12.70	8.68	13.11	8.58	13.94	8.97			П	3.0	2	14.22
35	9.71	7.76	10.39	8.29	11.36	8.13	12.08	8.70	12.50	8.61	12.92	8.52	13.76	8.92			П	5.0	4	14.22
37	9.60	7.71	10.22	8.22	11.15	8.05	11.86	8.62	12.26	8.53	12.67	8.44	13.47	8.83			П	7.0	6	14.22
39	9.48	7.65	10.05	8.15	10.94	7.97	11.64	8.54	12.03	8.45	12.41	8.35	13.18	8.75			П	9.0	8	14.81
41	9.36	7.60	9.89	8.08	10.74	7.89	11.42	8.46	11.79	8.37	12.16	8.27	12.89	8.66				11.5	10	15.41
43	9.25	7.55	9.72	8.01	10.53	7.81	11.21	8.39	11.55	8.29	11.90	8.19	12.60	8.58			П	13.5	12	16.22
					-												<u> </u>	15.5	14	17.03
																	ı	16 E	16	17 11

Г	Out	door	Indoor air temperature										
	air te	emp.		°CDB									
°(CDB	°CWB	16	18	20	22	24						
-	19.8	-20	9.12	9.05	8.97	8.90	8.83						
-	17.7	-18	9.67	9.60	9.52	9.44	9.37						
-	15.7	-16	10.23	10.15	10.07	9.98	9.90						
-	13.5	-14	10.67	10.59	10.50	10.42	10.33						
-	11.5	-12	11.11	11.03	10.94	10.85	10.76						
Ŀ	9.5	-10	11.56	11.47	11.38	11.29	11.19						
Ŀ	-7.5	-8	12.00	11.91	11.82	11.72	11.62						
Ŀ	-5.5	-6	12.49	12.40	12.30	12.20	12.10						
Ŀ	3.0	-4	12.99	12.89	12.79	12.68	12.57						
Ŀ	-1.0	-2	13.48	13.38	13.27	13.16	13.05						
	1.0	0	13.98	13.87	13.76	13.64	13.52						
	2.0	1	14.22	14.11	14.00	13.88	13.76						
Г	3.0	2	14.22	14.11	14.00	13.88	13.76						
Г	5.0	4	14.22	14.11	14.00	13.88	13.76						
Г	7.0	6	14.22	14.11	14.00	13.88	13.77						
	9.0	8	14.81	14.70	14.59	14.47	14.35						
1	11.5	10	15.41	15.29	15.18	15.06	14.94						
1	13.5	12	16.22	16.09	15.97	15.85	15.90						
1	15.5	14	17.03	16.90	16.76	16.65	16.86						
1	16.5	16	17.44	17.30	17.16	17.04	17.34						

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Model	Model FDEN125VSXVF Indoor unit FDEN125VF Outdoor unit FDC125VSX Cool Mode (kW)															
							Indo	or air t	emper	ature						(KVV)
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB		CDB	27°CDB		28°CDB		31°CDB		33°CDB	
all terrip.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°(CWB	20°0	CWB	22°(CWB	24°CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	7.76	11.05	8.33	11.37	8.23	11.72	8.13	12.42	8.53	13.12	8.28
13					10.79	7.91	11.46	8.48	11.79	8.37	12.16	8.27	12.91	8.67	13.65	8.41
15					11.16	8.05	11.87	8.63	12.22	8.52	12.61	8.42	13.39	8.81	14.17	8.55
17					11.54	8.20	12.27	8.77	12.64	8.66	13.05	8.56	13.87	8.95	14.69	8.68
19					11.80	8.31	12.55	8.87	12.93	8.76	13.34	8.66	14.18	9.04	15.02	8.77
21					12.05	8.41	12.83	8.98	13.21	8.86	13.64	8.76	14.49	9.13	15.34	8.86
23					12.05	8.41	12.85	8.98	13.24	8.87	13.67	8.77	14.54	9.15	15.40	8.87
25			11.19	8.64	12.05	8.41	12.88	8.99	13.27	8.88	13.71	8.78	14.58	9.16	15.45	8.89
27			11.14	8.62	12.05	8.41	12.91	9.01	13.30	8.90	13.70	8.78	14.49	9.13		
29			11.05	8.58	11.88	8.34	12.70	8.93	13.10	8.82	13.51	8.71	14.31	9.08		
31			10.95	8.53	11.71	8.27	12.49	8.85	12.90	8.75	13.31	8.65	14.13	9.03		
33	10.26	8.01	10.73	8.44	11.53	8.20	12.29	8.78	12.70	8.68	13.11	8.58	13.94	8.97		
35	9.71	7.76	10.39	8.29	11.36	8.13	12.08	8.70	12.50	8.61	12.92	8.52	13.76	8.92		
37	9.60	7.71	10.22		11.15		11.86	8.62	12.26	8.53	12.67	8.44	13.47	8.83		
39	9.48	7.65	10.05	8.15	10.94	7.97	11.64	8.54	12.03	8.45	12.41	8.35	13.18	8.75		
41	9.36	7.60	9.89	8.08	10.74	7.89	11.42	8.46	11.79	8.37	12.16	8.27	12.89	8.66		
43	9.25	7.55	9.72	8.01	10.53	7.81	11.21	8.39	11.55	8.29	11.90	8.19	12.60	8.58		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

Level difference of Zero.
(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 22 24 -19.8 -20 14.11 14.00 13.89 13.78 13.66 -17.7 -18 | 14.17 | 14.06 | 13.94 | 13.83 | 13.72 -16 14.23 14.11 14.00 13.89 13.77 -15.7 -13.5 -14 14.23 14.11 14.00 13.89 13.77 -11.5 -12 |14.22|14.11|14.00|13.89|13.77 -9.5 -10 14.22 14.11 14.00 13.89 13.77 -7.5 -8 14.22 14.11 14.00 13.89 13.77 -5.5 14.22 14.11 14.00 13.88 13.77 -3.0 -4 14.22 14.11 14.00 13.88 13.77 -1.0 -2 14.22 14.11 14.00 13.88 13.76 14.22 14.11 14.00 13.88 13.76 1.0 0 2.0 14.22 14.11 14.00 13.88 13.76 3.0 14.22 14.11 14.00 13.88 13.76 2 14.22 14.11 14.00 13.88 13.76 5.0 4 14.22 14.11 14.00 13.88 13.77 7.0 6 9.0 8 |14.81|14.70|14.59|14.47|14.35 11.5 10 |15.41 |15.29 |15.18 |15.06 |14.94 13.5 12 16.22 16.09 15.97 15.85 15.90 14 17.03 16.90 16.76 16.65 16.86 15.5 16.5 16 |17.44|17.30|17.16|17.04|17.34

Model	FDE	\140\	/NXVI	= Ir	ndoor ι	ınit F	FDEN1	40VF	0	utdoor	unit	FDC1	40VN	Χ									
Cool Mo	ode															(kW)	He	at Mode	:HC				(kW)
Outdoor		Indoor air temperature												Outdoor	In	door a	ir temp	eratur	re				
air temp.	18°0	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	а	r temp.			°CDB		
un tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	°C	DB °CWE	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	.8 -20	10.42	10.34	10.26	10.17	10.09
11					11.66	8.42	12.38	9.00	12.73	8.90	13.13	8.80	13.91	9.20	14.70	8.95	-1	'.7 -18	11.06	10.97	10.88	10.79	10.70
13					12.08	8.60	12.83	9.17	13.21	9.07	13.62	8.97	14.45	9.37	15.28	9.11	-1:	5.7 -16	11.69	11.60	11.50	11.41	11.32
15					12.50	8.77	13.29	9.35	13.68	9.24	14.12	9.15	14.99	9.54	15.87	9.28	-13	.5 -14	12.20	12.10	12.00	11.91	11.81
17					12.92	8.95	13.75	9.53	14.16	9.42	14.62	9.33	15.54	9.72	16.45	9.45	-1	.5 -12	12.70	12.60	12.50	12.40	12.30
19					13.21	9.08	14.06	9.65	14.48	9.55	14.95	9.45	15.88	9.83	16.82	9.56	_	.5 -10	13.21	13.11	13.00	12.90	12.79
21					13.50	9.20	14.36	9.77	14.80	9.67	15.28	9.57	16.23	9.95	17.19	9.67	-7	.5 -8	13.71	13.61	13.50	13.39	13.28
23					13.50	9.20	14.40	9.79	14.83	9.68	15.31	9.58	16.28	9.96	17.25	9.69	-5	.5 -6	14.28	14.17	14.06	13.94	13.83
25			12.53	9.41	13.50	9.20	14.43	9.80	14.87	9.70	15.35	9.59	16.33	9.98	17.30	9.70	-3	.0 -4	14.84	14.73	14.61	14.49	14.37
27			12.48	9.38	13.50	9.20	14.46	9.82	14.90	9.71	15.34	9.59	16.23	9.95			-1	.0 -2	15.41	15.29	15.17	15.04	14.91
29			12.37	9.33	13.31	9.12	14.23	9.72	14.68	9.62	15.13	9.51	16.03	9.88			1	0 0	15.97	15.85	15.72	15.59	15.45
31			12.26	9.28	13.11	9.03	13.99	9.63	14.45	9.53	14.91	9.43	15.82	9.81			2	0 1	16.26	16.13	16.00	15.86	15.73
33	11.49	8.75	12.02	9.17	12.92	8.95	13.76	9.53	14.23	9.45	14.69	9.35	15.61	9.74			3	0 2	16.25	16.13	16.00	15.86	15.73
35	10.88	8.45	11.63	8.99	12.72	8.87	13.53	9.44	14.00	9.36	14.47	9.27	15.41	9.68			5	0 4	16.25	16.13	16.00	15.86	15.73
37	10.75	8.38	11.45	8.91	12.49	8.77	13.29	9.35	13.74	9.27	14.18	9.17	15.08	9.57			7	0 6	16.25	16.12	16.00	15.87	15.73
39	10.62	8.32	11.26	8.82	12.26	8.67	13.04	9.25	13.47	9.17	13.90	9.07	14.76	9.47			9	8 0	16.93	16.80	16.68	16.54	16.40
41	10.49	8.26	11.07	8.74	12.02	8.57	12.80	9.16	13.21	9.07	13.62	8.97	14.44	9.37			11	.5 10	17.61	17.48	17.35	17.21	17.07
43	10.35	8.19	10.89	8.66	11.79	8.48	12.55	9.07	12.94	8.97	13.33	8.87	14.11	9.26			13	.5 12	18.53	18.39	18.25	18.12	18.17
		, and the second	•					, and the second	, and the second	, and the second	•	, and the second	, and the second	, and the second	•		15	.5 14	19.46	19.31	19.16	19.02	19.27
																	16	.5 16	19.93	19.77	19.61	19.48	19.82

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Model	01841.															
Cool Mo	ode															(kW)
Outdoor			Indoor air temperature													
air temp.	18°	CDB	21°	CDB	DB 23°CDE		26°	CDB	27°	CDB	28°	CDB	31°CDB		33°CDB	
un temp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	8.42	12.38	9.00	12.73	8.90	13.13	8.80	13.91	9.20	14.70	8.95
13					12.08	8.60	12.83	9.17	13.21	9.07	13.62	8.97	14.45	9.37	15.28	9.11
15					12.50	8.77	13.29	9.35	13.68	9.24	14.12	9.15	14.99	9.54	15.87	9.28
17					12.92	8.95	13.75	9.53	14.16	9.42	14.62	9.33	15.54	9.72	16.45	9.45
19					13.21	9.08	14.06	9.65	14.48	9.55	14.95	9.45	15.88	9.83	16.82	9.56
21					13.50	9.20	14.36	9.77	14.80	9.67	15.28	9.57	16.23	9.95	17.19	9.67
23					13.50	9.20	14.40	9.79	14.83	9.68	15.31	9.58	16.28	9.96	17.25	9.69
25			12.53	9.41	13.50	9.20	14.43	9.80	14.87	9.70	15.35	9.59	16.33	9.98	17.30	9.70
27			12.48	9.38	13.50	9.20	14.46	9.82	14.90	9.71	15.34	9.59	16.23	9.95		
29			12.37	9.33	13.31	9.12	14.23	9.72	14.68	9.62	15.13	9.51	16.03	9.88		
31			12.26	9.28	13.11	9.03	13.99	9.63	14.45	9.53	14.91	9.43	15.82	9.81		
33	11.49	8.75	12.02	9.17	12.92	8.95	13.76	9.53	14.23	9.45	14.69	9.35	15.61	9.74		
35	10.88	8.45	11.63	8.99	12.72	8.87	13.53	9.44	14.00	9.36	14.47	9.27	15.41	9.68		
37	10.75	8.38	11.45	8.91	12.49	8.77	13.29	9.35	13.74	9.27	14.18	9.17	15.08	9.57		
39	10.62	8.32	11.26	8.82	12.26	8.67	13.04	9.25	13.47	9.17	13.90	9.07	14.76	9.47		
41	10.49	8.26	11.07	8.74	12.02	8.57	12.80	9.16	13.21	9.07	13.62	8.97	14.44	9.37		
43	10.35	8.19	10.89	8.66	11.79	8.48	12.55	9.07	12.94	8.97	13.33	8.87	14.11	9.26		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Heat Mode:HC (kW)													
Out	door	Indoor air temperature											
air te	emp.	°CDB											
°CDB	°CWB	16	18	20	22	24							
-19.8	-20	16.13	16.00	15.87	15.74	15.61							
-17.7	-18	16.19	16.07	15.94	15.81	15.68							
-15.7	-16	16.26	16.13	16.00	15.87	15.74							
-13.5	-14	16.26	16.13	16.00	15.87	15.74							
-11.5	-12	16.25	16.13	16.00	15.87	15.74							
-9.5	-10	16.25	16.13	16.00	15.87	15.74							
-7.5	-8	16.25	16.12	16.00	15.87	15.74							
-5.5	-6	16.25	16.13	16.00	15.87	15.74							
-3.0	-4	16.25	16.13	16.00	15.87	15.73							
-1.0	-2	16.25	16.13	16.00	15.86	15.73							
1.0	0	16.25	16.13	16.00	15.86	15.73							
2.0	1	16.26	16.13	16.00	15.86	15.73							
3.0	2	16.25	16.13	16.00	15.86	15.73							
5.0	4	16.25	16.13	16.00	15.86	15.73							
7.0	6	16.25	16.12	16.00	15.87	15.73							
9.0	8	16.93	16.80	16.68	16.54	16.40							
11.5	10	17.61	17.48	17.35	17.21	17.07							
13.5	12	18.53	18.39	18.25	18.12	18.17							
15.5	14	19.46	19.31	19.16	19.02	19.27							
16.5	16	19.93	19.77	19.61	19.48	19.82							

(b) Twin type

Model FDEN71VNXPVF Indoor unit FDEN40VF (2 units) Outdoor unit FDC71VNX Cool Mode

Outdoor	L								emper							
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°	CWB	14°(CWB	16°	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.60	6.59	5.71	6.79	5.67	7.19	6.01	7.59	5.92
13					5.33	5.00	6.32	5.71	6.82	5.79	7.03	5.76	7.45	6.10	7.88	6.00
15					5.79	5.19	6.63	5.83	7.05	5.88	7.27	5.84	7.71	6.18	8.16	6.09
17					6.26	5.39	6.94	5.95	7.27	5.96	7.51	5.93	7.97	6.27	8.44	6.17
19					6.59	5.52	7.16	6.04	7.44	6.02	7.68	5.99	8.15	6.33	8.63	6.23
21					6.93	5.67	7.38	6.12	7.60	6.08	7.84	6.05	8.33	6.39	8.82	6.29
23					6.91	5.66	7.35	6.11	7.57	6.07	7.81	6.04	8.30	6.38	8.78	6.28
25			6.46	5.78	6.89	5.65	7.32	6.10	7.54	6.06	7.78	6.03	8.26	6.37	8.74	6.26
27			6.45	5.78	6.87	5.64	7.30	6.09	7.52	6.05	7.74	6.01	8.18	6.34		
29			6.34	5.73	6.75	5.59	7.19	6.05	7.41	6.01	7.64	5.97	8.09	6.31		
31			6.23	5.68	6.64	5.54	7.08	6.01	7.31	5.97	7.54	5.94	7.99	6.28		
33	5.77	5.24	6.05	5.60	6.53	5.50	6.97	5.96	7.20	5.93	7.44	5.90	7.90	6.25		
35	5.67	5.19	5.95	5.55	6.42	5.45	6.86	5.92	7.10	5.90	7.34	5.87	7.81	6.22		
37	5.58	5.15	5.85	5.51	6.31	5.41	6.72	5.87	6.95	5.84	7.18	5.81	7.64	6.16		
39	5.49	5.10	5.76	5.47	6.20	5.36	6.59	5.82	6.81	5.79	7.03	5.76	7.46	6.10		
41	5.39	5.05	5.67	5.43	6.09	5.31	6.45	5.76	6.66	5.73	6.87	5.70	7.29	6.05		
43	5.30	5.01	5.57	5.38	5.97	5.27	6.31	5.71	6.51	5.68	6.71	5.64	7.12	5.99		

Heat I	Mode:	HC				(kW)
Out	door	ln	door a	ir temp	oeratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	3.95	3.93	3.91	3.88	3.86
-17.7	-18	4.18	4.16	4.14	4.11	4.09
-15.7	-16	4.42	4.39	4.37	4.34	4.32
-13.5	-14	4.68	4.65	4.63	4.60	4.57
-11.5	-12	4.94	4.91	4.88	4.85	4.82
-9.5	-10	5.20	5.17	5.14	5.11	5.08
-7.5	-8	5.46	5.43	5.40	5.36	5.33
-5.5	-6	5.59	5.55	5.52	5.48	5.44
-3.0	-4	5.71	5.68	5.64	5.60	5.56
-1.0	-2	5.84	5.80	5.76	5.72	5.67
1.0	0	5.97	5.92	5.88	5.83	5.79
2.0	1	6.03	5.98	5.94	5.89	5.85
3.0	2	6.45	6.40	6.35	6.30	6.25
5.0	4	7.29	7.23	7.18	7.12	7.06
7.0	6	8.13	8.06	8.00	7.93	7.87
9.0	8	8.42	8.36	8.29	8.23	8.16
11.5	10	8.72	8.65	8.59	8.52	8.46
13.5	12	9.20	9.13	9.06	9.00	8.92
15.5	14	9.69	9.61	9.53	9.47	9.39
16.5	16	9.93	9.85	9.77	9.71	9.62

(kW)

(kW)

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Model FDEN100VNXPVF Indoor unit FDEN50VF (2 units) Outdoor unit FDC100VNX Cool Mode

																(1000)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19V	WB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.32	8.84	6.76	9.10	6.72	9.38	6.67	9.94	7.00	10.50	6.88
13					8.63	6.46	9.17	6.90	9.43	6.85	9.73	6.81	10.32	7.14	10.92	7.02
15					8.93	6.59	9.49	7.04	9.77	6.99	10.09	6.95	10.71	7.28	11.34	7.16
17					9.23	6.73	9.82	7.18	10.11	7.13	10.44	7.10	11.10	7.43	11.75	7.30
19					9.44	6.83	10.04	7.28	10.34	7.23	10.68	7.19	11.35	7.52	12.01	7.39
21					9.64	6.93	10.26	7.38	10.57	7.33	10.91	7.29	11.59	7.61	12.28	7.49
23					9.64	6.93	10.28	7.38	10.59	7.34	10.94	7.30	11.63	7.63	12.32	7.50
25			8.95	7.01	9.64	6.93	10.30	7.39	10.62	7.35	10.97	7.31	11.66	7.64	12.36	7.51
27			8.91	6.99	9.64	6.93	10.33	7.41	10.64	7.36	10.96	7.31	11.59	7.61		
29			8.84	6.96	9.51	6.87	10.16	7.33	10.48	7.29	10.80	7.24	11.45	7.56		
31			8.76	6.92	9.37	6.80	10.00	7.26	10.32	7.22	10.65	7.18	11.30	7.50		
33	8.21	6.50	8.58	6.83	9.23	6.73	9.83	7.19	10.16	7.15	10.49	7.12	11.15	7.44		
35	7.77	6.27	8.31	6.69	9.09	6.67	9.66	7.11	10.00	7.09	10.34	7.06	11.01	7.39		
37	7.68	6.23	8.18	6.63	8.92	6.59	9.49	7.04	9.81	7.01	10.13	6.97	10.77	7.30		
39	7.58	6.17	8.04	6.56	8.76	6.52	9.31	6.96	9.62	6.93	9.93	6.89	10.54	7.22		
41	7.49	6.13	7.91	6.50	8.59	6.44	9.14	6.89	9.43	6.85	9.73	6.81	10.31	7.13		$\neg \neg$
43	7.40	6.08	7.78	6.43	8.42	6.36	8.96	6.81	9.24	6.77	9.52	6.73	10.08	7.05		$\neg \neg$

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length: 7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB CDB CWB 16 20 22 24 18 -19.8 -20 7.30 7.24 7.18 7.12 7.06 -17.7 -18 7.74 | 7.68 | 7.62 | 7.55 | 7.49 -15.7 -16 8.18 8.12 8.05 7.99 7.92 13.5 -14 8.54 8.47 8.40 8.33 8.27 -11.5 -12 8.89 8.82 8.75 | 8.68 | 8.61 -9.5 -10 9.25 9.17 9.10 | 9.03 | 8.95 -7.5 9.60 9.53 9.45 9.38 9.30 -8 10.00 9.92 9.84 9.76 9.68 -5.5 -3.0 -4 10.39 10.31 10.23 10.14 10.06 -1.0 -2 10.79 10.70 10.62 10.53 10.44 1.0 0 11.18 11.09 11.01 10.91 10.82 2.0 1 11.38 11.29 11.20 11.10 11.01 3.0 11.38 | 11.29 | 11.20 | 11.10 | 11.01 11.38 11.29 11.20 11.11 11.01 5.0 11.37 11.29 11.20 11.11 11.01 7.0 9.0 11.85 11.76 11.67 11.58 11.48 11.5 10 12.32 12.23 12.15 12.05 11.95 12 12.97 | 12.88 | 12.78 | 12.68 | 12.72 13.5 15.5 14 13.62 13.52 13.41 13.32 13.49 16.5 16 13.95 13.84 13.72 13.63 13.87

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Model		\100\	/SXP\	/F	Indoor	unit	FDEN	150VF	(2 unit	ts)	Outdo	or un	it FD	C100\	/SX									
Cool Mo	ode															(kW)	He	at N	/lode:	HC				(kW)
Outdoor							Indoo	or air t	emper	ature								Outd	loor	In	door a	ir temp	eratur	e
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	6	air te	mp.		•	CDB		
un temp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	°C	:DB	CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	9.8	-20	11.29	11.20	11.11	11.02	10.93
11					8.33	6.32	8.84	6.76	9.10	6.72	9.38	6.67	9.94	7.00	10.50	6.88	-1	7.7	-18	11.34	11.25	11.16	11.06	10.97
13					8.63	6.46	9.17	6.90	9.43	6.85	9.73	6.81	10.32	7.14	10.92	7.02	-1	5.7	-16	11.38	11.29	11.20	11.11	11.02
15					8.93	6.59	9.49	7.04	9.77	6.99	10.09	6.95	10.71	7.28	11.34	7.16	-1	3.5	-14	11.38	11.29	11.20	11.11	11.02
17					9.23	6.73	9.82	7.18	10.11	7.13	10.44	7.10	11.10	7.43	11.75	7.30	-1	1.5	-12	11.38	11.29	11.20	11.11	11.02
19					9.44	6.83	10.04	7.28	10.34	7.23	10.68	7.19	11.35	7.52	12.01	7.39	-9	9.5	-10	11.38	11.29	11.20	11.11	11.02
21					9.64	6.93	10.26	7.38	10.57	7.33	10.91	7.29	11.59	7.61	12.28	7.49	-7	7.5	-8	11.37	11.29	11.20	11.11	11.02
23					9.64	6.93	10.28	7.38	10.59	7.34	10.94	7.30	11.63	7.63	12.32	7.50	-{	5.5	-6	11.38	11.29	11.20	11.11	11.02
25			8.95	7.01	9.64	6.93	10.30	7.39	10.62	7.35	10.97	7.31	11.66	7.64	12.36	7.51	-3	3.0	-4	11.38	11.29	11.20	11.11	11.01
27			8.91	6.99	9.64	6.93	10.33	7.41	10.64	7.36	10.96	7.31	11.59	7.61			<u>-</u>	1.0	-2	11.38	11.29	11.20	11.11	11.01
29			8.84	6.96	9.51	6.87	10.16	7.33	10.48	7.29	10.80	7.24	11.45	7.56				.0	0	11.38	11.29	11.20	11.10	11.01
31			8.76	6.92	9.37	6.80	10.00	7.26	10.32	7.22	10.65	7.18	11.30	7.50			2	2.0	1	11.38	11.29	11.20	11.10	11.01
33	8.21	6.50	8.58	6.83	9.23	6.73	9.83	7.19	10.16	7.15	10.49	7.12	11.15	7.44			3	3.0	2	11.38	11.29	11.20	11.10	11.01
35	7.77	6.27	8.31	6.69	9.09	6.67	9.66	7.11	10.00	7.09	10.34	7.06	11.01	7.39			5	5.0	4	11.38	11.29	11.20	11.11	11.01
37	7.68	6.23	8.18	6.63	8.92	6.59	9.49	7.04	9.81	7.01	10.13	6.97	10.77	7.30			7	'.0	6	11.37	11.29	11.20	11.11	11.01
39	7.58	6.17	8.04	6.56	8.76	6.52	9.31	6.96	9.62	6.93	9.93	6.89	10.54	7.22			ç	0.0	8	11.85	11.76	11.67	11.58	11.48
41	7.49	6.13	7.91	6.50	8.59	6.44	9.14	6.89	9.43	6.85	9.73	6.81	10.31	7.13			1	1.5	10	12.32	12.23	12.15	12.05	11.95
43	7.40	6.08	7.78	6.43	8.42	6.36	8.96	6.81	9.24	6.77	9.52	6.73	10.08	7.05			13	3.5	12	12.97	12.88	12.78	12.68	12.72
																	1:	5.5	14	13.62	13.52	13.41	13.32	13.49
																	10	3.5	16	13.95	13.84	13.72	13.63	13.87

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Model Cool M		N125\	/NXP	/F	Indoo	r unit	FDEN	N60VF	(2 uni	ts)	Outd	oor un	it FD	C125\	VNX	(kW)
0							Indo	or air t	emper	ature						(
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB		CDB		CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.27	11.05	8.94	11.37	8.84	11.72	8.74	12.42	9.21	13.12	8.97
13					10.79	8.41	11.46	9.08	11.79	8.97	12.16	8.87	12.91	9.35	13.65	9.09
15					11.16	8.55	11.87	9.22	12.22	9.11	12.61	9.01	13.39	9.48	14.17	9.22
17					11.54	8.70	12.27	9.36	12.64	9.25	13.05	9.15	13.87	9.61	14.69	9.35
19					11.80	8.80	12.55	9.45	12.93	9.35	13.34	9.24	14.18	9.70	15.02	9.43
21					12.05	8.90	12.83	9.55	13.21	9.44	13.64	9.34	14.49	9.79	15.34	9.51
23					12.05	8.90	12.85	9.56	13.24	9.45	13.67	9.34	14.54	9.80	15.40	9.53
25			11.19	9.14	12.05	8.90	12.88	9.57	13.27	9.46	13.71	9.36	14.58	9.82	15.45	9.54
27			11.14	9.12	12.05	8.90	12.91	9.58	13.30	9.47	13.70	9.35	14.49	9.79		
29			11.05	9.09	11.88	8.83	12.70	9.51	13.10	9.40	13.51	9.29	14.31	9.74		
31			10.95	9.04	11.71	8.76	12.49	9.43	12.90	9.34	13.31	9.23	14.13	9.69		
33	10.26	8.45	10.73	8.95	11.53	8.69	12.29	9.36	12.70	9.27	13.11	9.17	13.94	9.63		
35	9.71	8.20	10.39	8.81	11.36	8.63	12.08	9.29	12.50	9.20	12.92	9.11	13.76	9.58		
37	9.60	8.15	10.22	8.74	11.15	8.55	11.86	9.21	12.26	9.12	12.67	9.03	13.47	9.50		
39	9.48	8.10	10.05	8.67	10.94	8.47	11.64	9.14	12.03	9.05	12.41	8.95	13.18	9.42		
41	9.36	8.04	9.89	8.61	10.74	8.40	11.42	9.06	11.79	8.97	12.16	8.87	12.89	9.34		
43	9.25	8.00	9.72	8.54	10.53	8.32	11.21	8.99	11.55	8.89	11.90	8.79	12.60	9.26		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir tem	oeratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	9.12	9.05	8.97	8.90	8.83
-17.7	-18	9.67	9.60	9.52	9.44	9.37
-15.7	-16	10.23	10.15	10.07	9.98	9.90
-13.5	-14	10.67	10.59	10.50	10.42	10.33
-11.5	-12	11.11	11.03	10.94	10.85	10.76
-9.5	-10	11.56	11.47	11.38	11.29	11.19
-7.5	-8	12.00	11.91	11.82	11.72	11.62
-5.5	-6	12.49	12.40	12.30	12.20	12.10
-3.0	-4	12.99	12.89	12.79	12.68	12.57
-1.0	-2	13.48	13.38	13.27	13.16	13.05
1.0	0	13.98	13.87	13.76	13.64	13.52
2.0	1	14.22	14.11	14.00	13.88	13.76
3.0	2	14.22	14.11	14.00	13.88	13.76
5.0	4	14.22	14.11	14.00	13.88	13.76
7.0	6	14.22	14.11	14.00	13.88	13.77
9.0	8	14.81	14.70	14.59	14.47	14.35
11.5	10	15.41	15.29	15.18	15.06	14.94
13.5	12	16.22	16.09	15.97	15.85	15.90
15.5	14	17.03	16.90	16.76	16.65	16.86
16.5	16	17.44	17.30	17.16	17.04	17.34

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	FDE	N125\	/SXP\	/F	Indooi	r unit	FDEN	160VF	(2 uni	ts)	Outd	oor un	it FD	C125\	/SX								
Cool N	lode															(kW)	Heat	Mode	:HC				(kW
Outdoo	, L						Indo	or air t	emper	ature							Out	door	In	door a	ir tem	peratur	re
air temp	1 18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	air t	emp.			°CDB		
u 10111		CWB	14°(CWB	16°0	CWB	18°	CWB	19°	CWB	20°	CWB	22°	CWB	24°	CWB	°CDE	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	14.11	14.00	13.89	13.78	13.66
11					10.41	8.27	11.05	8.94	11.37	8.84	11.72	8.74	12.42	9.21	13.12	8.97	-17.7	-18	14.17	14.06	13.94	13.83	13.72
13					10.79	8.41	11.46	9.08	11.79	8.97	12.16	8.87	12.91	9.35	13.65	9.09	-15.7	-16	14.23	14.11	14.00	13.89	13.77
15					11.16	8.55	11.87	9.22	12.22	9.11	12.61	9.01	13.39	9.48	14.17	9.22	-13.5	-14	14.23	14.11	14.00	13.89	13.77
17					11.54	8.70	12.27	9.36	12.64	9.25	13.05	9.15	13.87	9.61	14.69	9.35	-11.5	-12	14.22	14.11	14.00	13.89	13.77
19					11.80	8.80	12.55	9.45	12.93	9.35	13.34	9.24	14.18	9.70	15.02	9.43	-9.5	-10	14.22	14.11	14.00	13.89	13.77
21					12.05	8.90	12.83	9.55	13.21	9.44	13.64	9.34	14.49	9.79	15.34	9.51	-7.5	-8	14.22	14.11	14.00	13.89	13.77
23					12.05	8.90	12.85	9.56	13.24	9.45	13.67	9.34	14.54	9.80	15.40	9.53	-5.5	-6	14.22	14.11	14.00	13.88	13.77
25			11.19	9.14	12.05	8.90	12.88	9.57	13.27	9.46	13.71	9.36	14.58	9.82	15.45	9.54	-3.0	-4	14.22	14.11	14.00	13.88	13.77
27			11.14	9.12	12.05	8.90	12.91	9.58	13.30	9.47	13.70	9.35	14.49	9.79			-1.0	-2	14.22	14.11	14.00	13.88	13.76
29			11.05	9.09	11.88	8.83	12.70	9.51	13.10	9.40	13.51	9.29	14.31	9.74			1.0	0	14.22	14.11	14.00	13.88	13.76
31			10.95	9.04	11.71	8.76	12.49	9.43	12.90	9.34	13.31	9.23	14.13	9.69			2.0	1	14.22	14.11	14.00	13.88	13.76
33	10.26	8.45	10.73	8.95	11.53	8.69	12.29	9.36	12.70	9.27	13.11	9.17	13.94	9.63			3.0	2	14.22	14.11	14.00	13.88	13.76
35	9.71	_	10.39				_	_	_		12.92	9.11	13.76	9.58			5.0	4	14.22	14.11	14.00	13.88	13.76
37	9.60		10.22	_	_				_		_		13.47				7.0	6	14.22	14.11	14.00	13.88	13.77
39	9.48		10.05		10.94						_		13.18	9.42			9.0	8	14.81	14.70	14.59	14.47	14.35
41	9.36		9.89		10.74						_						11.5	10	15.41		-		_
43	9.25		9.72		10.53												13.5	12	16.22				
	1.20	2.00		2.01		2.02		2.00		1 2.00		2		1.20			15.5		17.03				
																	16.5		17.44				

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Model		N140\	/NXP	VF1	Indoo	r unit	FDEN	N71VF	1 (2 ur	nits)	Out	door u	nit F	DC140	XNV		
Cool M	Dutdoor Second Mode Seco																
Outdoor							Indo	or air t	emper	ature							ı
	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB	
un tompi	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
11					11.66	9.60	12.38	10.39	12.73	10.30	13.13	10.21	13.91	10.79	14.70	10.57	
13					12.08	9.77	12.83	10.55	13.21	10.46	13.62	10.38	14.45	10.95	15.28	10.73	П
15					12.50	9.94	13.29	10.73	13.68	10.63	14.12	10.55	14.99	11.12	15.87	10.89	П
17					12.92	10.11	13.75	10.90	14.16	10.80	14.62	10.72	15.54	11.29	16.45	11.05	П
19					13.21	10.23	14.06	11.02	14.48	10.92	14.95	10.83	15.88	11.40	16.82	11.16	П
21					13.50	10.35	14.36	11.13	14.80	11.04	15.28	10.95	16.23	11.51	17.19	11.27	П
23					13.50	10.35	14.40	11.15	14.83	11.05	15.31	10.96	16.28	11.53	17.25	11.28	П
25			12.53	10.57	13.50	10.35	14.43	11.16	14.87	11.06	15.35	10.97	16.33	11.54	17.30	11.30	П
27			12.48	10.55	13.50	10.35	14.46	11.17	14.90	11.07	15.34	10.97	16.23	11.51			П
29			12.37	10.50	13.31	10.27	14.23	11.08	14.68	10.99	15.13	10.89	16.03	11.45			П
31			12.26	10.45	13.11	10.19	13.99	10.99	14.45	10.91	14.91	10.82	15.82	11.38			П
33	11.49	9.75	12.02	10.35	12.92	10.11	13.76	10.90	14.23	10.83	14.69	10.74	15.61	11.31			П
35	10.88	9.46	11.63	10.18	12.72	10.03	13.53	10.82	14.00	10.75	14.47	10.67	15.41	11.25			
37	10.75	9.40	11.45	10.10	12.49	9.94	13.29	10.73	13.74	10.65	14.18	10.57	15.08	11.15			
39	10.62	9.34	11.26	10.02	12.26	9.84	13.04	10.63	13.47	10.56	13.90	10.47	14.76	11.05			
41	10.49	9.28	11.07	9.93	12.02	9.75	12.80	10.54	13.21	10.46	13.62	10.38	14.44	10.95			
43	10.35	9.21	10.89	9.86	11.79	9.66	12.55	10.45	12.94	10.37	13.33	10.28	14.11	10.85			

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW
	door	In	door a	ir tem	oeratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

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Model FDEN140VSXPVF1 Indoor unit FDEN71VF1 (2 units) Outdoor unit FDC140VSX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.60	12.38	10.39	12.73	10.30	13.13	10.21	13.91	10.79	14.70	10.57
13					12.08	9.77	12.83	10.55	13.21	10.46	13.62	10.38	14.45	10.95	15.28	10.73
15					12.50	9.94	13.29	10.73	13.68	10.63	14.12	10.55	14.99	11.12	15.87	10.89
17					12.92	10.11	13.75	10.90	14.16	10.80	14.62	10.72	15.54	11.29	16.45	11.05
19					13.21	10.23	14.06	11.02	14.48	10.92	14.95	10.83	15.88	11.40	16.82	11.16
21					13.50	10.35	14.36	11.13	14.80	11.04	15.28	10.95	16.23	11.51	17.19	11.27
23					13.50	10.35	14.40	11.15	14.83	11.05	15.31	10.96	16.28	11.53	17.25	11.28
25			12.53	10.57	13.50	10.35	14.43	11.16	14.87	11.06	15.35	10.97	16.33	11.54	17.30	11.30
27			12.48	10.55	13.50	10.35	14.46	11.17	14.90	11.07	15.34	10.97	16.23	11.51		
29			12.37	10.50	13.31	10.27	14.23	11.08	14.68	10.99	15.13	10.89	16.03	11.45		
31			12.26	10.45	13.11	10.19	13.99	10.99	14.45	10.91	14.91	10.82	15.82	11.38		
33	11.49	9.75	12.02	10.35	12.92	10.11	13.76	10.90	14.23	10.83	14.69	10.74	15.61	11.31		
35	10.88	9.46	11.63	10.18	12.72	10.03	13.53	10.82	14.00	10.75	14.47	10.67	15.41	11.25		
37	10.75	9.40	11.45	10.10	12.49	9.94	13.29	10.73	13.74	10.65	14.18	10.57	15.08	11.15		
39	10.62	9.34	11.26	10.02	12.26	9.84	13.04	10.63	13.47	10.56	13.90	10.47	14.76	11.05		
41	10.49	9.28	11.07	9.93	12.02	9.75	12.80	10.54	13.21	10.46	13.62	10.38	14.44	10.95		
43	10.35	9.21	10.89	9.86	11.79	9.66	12.55	10.45	12.94	10.37	13.33	10.28	14.11	10.85		

I	Heat I	Mode:	НС				(kW)
ſ	Out	door	ln	door a	ir tem	oeratu	re
ı	air te	emp.			°CDB		
I	°CDB	°CWB	16	18	20	22	24
I	-19.8	-20	16.13	16.00	15.87	15.74	15.61
ı	-17.7	-18	16.19	16.07	15.94	15.81	15.68
I	-15.7	-16	16.26	16.13	16.00	15.87	15.74
I	-13.5	-14	16.26	16.13	16.00	15.87	15.74
I	-11.5	-12	16.25	16.13	16.00	15.87	15.74
I	-9.5	-10	16.25	16.13	16.00	15.87	15.74
Ī	-7.5	-8	16.25	16.12	16.00	15.87	15.74
Ī	-5.5	-6	16.25	16.13	16.00	15.87	15.74
I	-3.0	-4	16.25	16.13	16.00	15.87	15.73
I	-1.0	-2	16.25	16.13	16.00	15.86	15.73
Ī	1.0	0	16.25	16.13	16.00	15.86	15.73
Ī	2.0	1	16.26	16.13	16.00	15.86	15.73
Ī	3.0	2	16.25	16.13	16.00	15.86	15.73
Ī	5.0	4	16.25	16.13	16.00	15.86	15.73
Ī	7.0	6	16.25	16.12	16.00	15.87	15.73
ı	9.0	8	16.93	16.80	16.68	16.54	16.40
ı	11.5	10	17.61	17.48	17.35	17.21	17.07
ı	13.5	12	18.53	18.39	18.25	18.12	18.17
ı	15.5	14	19.46	19.31	19.16	19.02	19.27
ı	16.5	16	19.93	19.77	19.61	19.48	19.82

(kW)

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(c) Triple type

Model FDEN140VNXTVF Indoor unit FDEN50VF (3 units) Outdoor unit FDC140VNX Cool Mode

COOI IVI	oue															(kW)
0.44-44							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°0	CWB	14°(CWB	16°0	CWB	18°	CWB	19°	CWB	20°	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.10	12.38	9.77	12.73	9.70	13.13	9.65	13.91	10.14	14.70	9.98
13					12.08	9.29	12.83	9.96	13.21	9.90	13.62	9.84	14.45	10.33	15.28	10.16
15					12.50	9.48	13.29	10.15	13.68	10.09	14.12	10.03	14.99	10.53	15.87	10.36
17					12.92	9.67	13.75	10.35	14.16	10.28	14.62	10.23	15.54	10.73	16.45	10.55
19					13.21	9.81	14.06	10.48	14.48	10.41	14.95	10.36	15.88	10.85	16.82	10.68
21					13.50	9.94	14.36	10.61	14.80	10.55	15.28	10.49	16.23	10.98	17.19	10.80
23					13.50	9.94	14.40	10.63	14.83	10.56	15.31	10.50	16.28	11.00	17.25	10.82
25			12.53	10.07	13.50	9.94	14.43	10.64	14.87	10.58	15.35	10.52	16.33	11.02	17.30	10.84
27			12.48	10.05	13.50	9.94	14.46	10.65	14.90	10.59	15.34	10.51	16.23	10.98		
29			12.37	9.99	13.31	9.85	14.23	10.56	14.68	10.50	15.13	10.43	16.03	10.91		
31			12.26	9.94	13.11	9.76	13.99	10.45	14.45	10.40	14.91	10.34	15.82	10.83		
33	11.49	9.32	12.02	9.82	12.92	9.67	13.76	10.35	14.23	10.31	14.69	10.25	15.61	10.75		
35	10.88	9.01	11.63	9.63	12.72	9.58	13.53	10.26	14.00	10.22	14.47	10.17	15.41	10.68		
37	10.75	8.94	11.45	9.54	12.49	9.48	13.29	10.15	13.74	10.11	14.18	10.05	15.08	10.56		
39	10.62	8.87	11.26	9.45	12.26	9.37	13.04	10.05	13.47	10.00	13.90	9.94	14.76	10.45		
41	10.49	8.81	11.07	9.36	12.02	9.26	12.80	9.95	13.21	9.90	13.62	9.84	14.44	10.33		
43	10.35	8.74	10.89	9.28	11.79	9.16	12.55	9.84	12.94	9.79	13.33	9.72	14.11	10.21		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions Corresponding refrigerant piping length :7.5m

Level difference of Zero.
(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 -19.8 -20 10.42 10.34 10.26 10.17 10.09 11.06 10.97 10.88 10.79 10.70 -17.7 -18 -15.7 -16 11.69 11.60 11.50 11.41 11.32 -13.5 -14 12.20 12.10 12.00 11.91 11.81 -11.5 -12 12.70 12.60 12.50 12.40 12.30 13.21 13.11 13.00 12.90 12.79 -9.5 -10 -7.5 13.71 13.61 13.50 13.39 13.28 -5.5 14.28 14.17 14.06 13.94 13.83 -3.0 |14.84|14.73|14.61|14.49|14.37 15.41 15.29 15.17 15.04 14.91 -1.0 -2 1.0 0 15.97 15.85 15.72 15.59 15.45 2.0 |16.26|16.13|16.00|15.86|15.73 |16.25|16.13|16.00|15.86|15.73 3.0 16.25 16.13 16.00 15.86 15.73 5.0 7.0 16.25 16.12 16.00 15.87 15.73 9.0 8 16.93 16.80 16.68 16.54 16.40 17.61 17.48 17.35 17.21 17.07 11.5 10 18.53 18.39 18.25 18.12 18.17 13.5 12 15.5 14 19.46 19.31 19.16 19.02 19.27 19.93 19.77 19.61 19.48 19.82 16.5 16

PFA003Z923 A

Model		N140\	/SXT\	/F	Indoor	unit	FDEN	I50VF	(3 unit	ts)	Outdo	oor uni	t FD	C140\	/SX								
Cool M	ode															(kW)	Heat	Mode	:HC				(kW)
Outdoor									emper									door	In			oeratur	'e
air temp.	_	CDB		CDB		CDB		CDB		CDB	_	CDB	_	CDB		CDB		emp.			°CDB		\blacksquare
		CWB		CWB		CWB	_	CWB		CWB	_	CWB		CWB		CWB		°CWB	_	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	_				15.74	
11					11.66		12.38			_	13.13		13.91			9.98	-17.7	-18				15.81	
13					12.08		_		_	_	13.62		14.45				-15.7		_			15.87	-
15					_		_		_	_	_		14.99				-13.5	_	_			15.87	-
17					12.92				_	_			15.54				-11.5		_			15.87	
19					13.21					_			15.88				-9.5	-10	_			15.87	
21					13.50					_			16.23				-7.5	-8	_			15.87	
23					13.50	9.94	14.40	10.63	14.83	10.56	15.31	10.50	16.28	11.00	17.25	10.82	-5.5	-6				15.87	_
25			12.53	10.07	13.50	9.94	14.43	10.64	14.87	10.58	15.35	10.52	16.33	11.02	17.30	10.84	-3.0	-4				15.87	_
27			12.48	10.05	13.50								16.23				-1.0	-2				15.86	
29			12.37										16.03				1.0	0				15.86	
31			12.26	9.94	13.11						_		15.82				2.0	1				15.86	
33	11.49	9.32	12.02	9.82	12.92	9.67	13.76	10.35	14.23	10.31	14.69	10.25	15.61	10.75			3.0	2				15.86	
35	10.88	9.01	11.63	9.63	12.72	9.58	13.53	10.26	14.00	10.22	14.47	10.17	15.41	10.68			5.0	4	_			15.86	
37	10.75	8.94	11.45	9.54	12.49	9.48	13.29	10.15	13.74	10.11	14.18	10.05	15.08	10.56			7.0	6	_			15.87	_
39	10.62	8.87	11.26	9.45	12.26	9.37	13.04	10.05	13.47	10.00	13.90	9.94	14.76	10.45			9.0	8	16.93	16.80	16.68	16.54	16.40
41	10.49		11.07		12.02				_				14.44	10.33			11.5	10	_			17.21	_
43	10.35	8.74	10.89	9.28	11.79	9.16	12.55	9.84	12.94	9.79	13.33	9.72	14.11	10.21			13.5	12	18.53	18.39	18.25	18.12	18.17
Note(1) Th	nese data	show av	erage st	atuses.													15.5	14	19.46	19.31	19.16	19.02	19.27
	epending nese data										ducted co	ontinuou	sly.				16.5	16	19.93	19.77	19.61	19.48	19.82
	apacities						ancy of a	compre	SS01 IS 11	xeu.										Б	- ^ ^ ^	3 Z 92	2 🔊
	orrespon			piping le	ngth :7.5	m															AUU	<u>3292</u>	<u>J/A</u>
	evel diffe																						
	C : Tota																						
	HC : Ser IC : Hea)																		
		Ç1																					

(4) Duct connected-High static pressure type (FDU)

Model FDU71VNXVF1 Indoor unit FDU71VF1 Outdoor unit FDC71VNX Cool Mode

COOI IVI	Juc															(KVV)
0.440.0							Indo	or air t	emper	ature						
Outdoor air temp.	18°C	DB	21°0	DB	23°0	CDB	26°	CDB	27°0	CDB	28°0	DB	31°0	CDB	33°C	CDB
an temp.	12°C	CWB	14°C	CWB	16°C	CWB	18°0	CWB	19°C	CWB	20°C	CWB	22°C	WB	24℃	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.60	6.59	5.67	6.79	5.62	7.19	5.96	7.59	5.82
13					5.33	5.01	6.32	5.70	6.82	5.74	7.03	5.69	7.45	6.03	7.88	5.89
15					5.79	5.17	6.63	5.80	7.05	5.82	7.27	5.76	7.71	6.10	8.16	5.96
17					6.26	5.35	6.94	5.91	7.27	5.89	7.51	5.84	7.97	6.17	8.44	6.03
19					6.59	5.47	7.16	5.98	7.44	5.95	7.68	5.89	8.15	6.22	8.63	6.08
21					6.93	5.60	7.38	6.06	7.60	6.00	7.84	5.94	8.33	6.27	8.82	6.13
23					6.91	5.59	7.35	6.05	7.57	5.99	7.81	5.93	8.30	6.26	8.78	6.11
25			6.46	5.76	6.89	5.58	7.32	6.04	7.54	5.98	7.78	5.92	8.26	6.25	8.74	6.10
27			6.45	5.75	6.87	5.57	7.30	6.03	7.52	5.97	7.74	5.91	8.18	6.23		
29			6.34	5.71	6.75	5.53	7.19	5.99	7.41	5.94	7.64	5.88	8.09	6.21		
31			6.23	5.66	6.64	5.49	7.08	5.96	7.31	5.90	7.54	5.85	7.99	6.18		
33	5.77	5.22	6.05	5.59	6.53	5.45	6.97	5.92	7.20	5.87	7.44	5.81	7.90	6.15		
35	5.67	5.18	5.95	5.55	6.42	5.40	6.86	5.88	7.10	5.83	7.34	5.78	7.81	6.13		
37	5.58	5.14	5.85	5.51	6.31	5.36	6.72	5.83	6.95	5.79	7.18	5.73	7.64	6.08		
39	5.49	5.10	5.76	5.47	6.20	5.32	6.59	5.79	6.81	5.74	7.03	5.69	7.46	6.03		
41	5.39	5.05	5.67	5.44	6.09	5.28	6.45	5.74	6.66	5.69	6.87	5.64	7.29	5.99		
43	5.30	5.02	5.57	5.40	5.97	5.24	6.31	5.70	6.51	5.65	6.71	5.59	7.12	5.94		

Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir tem	oeratu	re
air te	emp.			℃DB		
℃DB	℃WB	16	18	20	22	24
-19.8	-20	3.95	3.93	3.91	3.88	3.86
-17.7	-18	4.18	4.16	4.14	4.11	4.09
-15.7	-16	4.42	4.39	4.37	4.34	4.32
-13.5	-14	4.68	4.65	4.63	4.60	4.57
-11.5	-12	4.94	4.91	4.88	4.85	4.82
-9.5	-10	5.20	5.17	5.14	5.11	5.08
-7.5	-8	5.46	5.43	5.40	5.36	5.33
-5.5	-6	5.59	5.55	5.52	5.48	5.44
-3.0	-4	5.71	5.68	5.64	5.60	5.56
-1.0	-2	5.84	5.80	5.76	5.72	5.67
1.0	0	5.97	5.92	5.88	5.83	5.79
2.0	1	6.03	5.98	5.94	5.89	5.85
3.0	2	6.45	6.40	6.35	6.30	6.25
5.0	4	7.29	7.23	7.18	7.12	7.06
7.0	6	8.13	8.06	8.00	7.93	7.87
9.0	8	8.42	8.36	8.29	8.23	8.16
11.5	10	8.72	8.65	8.59	8.52	8.46
13.5	12	9.20	9.13	9.06	9.00	8.92
15.5	14	9.69	9.61	9.53	9.47	9.39
16.5	16	9.93	9.85	9.77	9.71	9.62

PJG000Z045A

Model FDU100VNXVF1 Indoor unit FDU100VF1 Outdoor unit FDC100VNX Cool Mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	CDB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28℃	DB	31°0	CDB	33°0	CDB
dii terrip.	12°C	CWB	14℃	CWB	16°C	CWB	18°C	CWB	19℃	WB	20℃	WB	22°C	CWB	24℃	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

(kW)	 Heat I	Mode:	НС				(kW)
	Out	door	In	door a	ir tem	peratu	ė,
DB	air te	emp.			℃DB		
NΒ	℃DB	°CWB	16	18	20	22	24
SHC	-19.8	-20	7.30	7.24	7.18	7.12	7.06
7.48	-17.7	-18	7.74	7.68	7.62	7.55	7.49
7.54	-15.7	-16	8.18	8.12	8.05	7.99	7.92
7.60	-13.5	-14	8.54	8.47	8.40	8.33	8.27
7.67	-11.5	-12	8.89	8.82	8.75	8.68	8.61
7.71	-9.5	-10	9.25	9.17	9.10	9.03	8.95
7.75	-7.5	-8	9.60	9.53	9.45	9.38	9.30
7.76	-5.5	-6	10.00	9.92	9.84	9.76	9.68
7.76	-3.0	-4	10.39	10.31	10.23	10.14	10.06
	-1.0	-2	10.79	10.70	10.62	10.53	10.44
	1.0	0	11.18	11.09	11.01	10.91	10.82
	2.0	1	11.38	11.29	11.20	11.10	11.01
	3.0	2	11.38	11.29	11.20	11.10	11.01
	5.0	4	11.38	11.29	11.20	11.11	11.01
	7.0	6	11.37	11.29	11.20	11.11	11.01
	9.0	8	11.85	11.76	11.67	11.58	11.48
\neg	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

PJG000Z045A

Model FDU100VSXVF1 Indoor unit FDU100VF1 Outdoor unit FDC100VSX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18℃	DB	21°C	DB	23℃	DB	26℃	DB	27°C	DB	28℃	DB	31°C	DB	33℃	DB
aii tomp.	12℃	:WB	14°C	:WB	16°C	WB	18℃	WB	19℃	WB	20°C	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

(kW)		Heat I	Mode:	НС				(kW)
		Out	door	In	door a	ir tem	peratu	re
DΒ		air te	emp.			°CDB		
VΒ		℃DB	°CWB	16	18	20	22	24
SHC		-19.8	-20	11.29	11.20	11.11	11.02	10.93
7.48		-17.7	-18	11.34	11.25	11.16	11.06	10.97
7.54		-15.7	-16	11.38	11.29	11.20	11.11	11.02
7.60		-13.5	-14	11.38	11.29	11.20	11.11	11.02
7.67		-11.5	-12	11.38	11.29	11.20	11.11	11.02
7.71		-9.5	-10	11.38	11.29	11.20	11.11	11.02
7.75		-7.5	-8	11.37	11.29	11.20	11.11	11.02
7.76		-5.5	-6	11.38	11.29	11.20	11.11	11.02
7.76		-3.0	-4	11.38	11.29	11.20	11.11	11.01
		-1.0	-2	11.38	11.29	11.20	11.11	11.01
		1.0	0	11.38	11.29	11.20	11.10	11.01
		2.0	1	11.38	11.29	11.20	11.10	11.01
		3.0	2	11.38	11.29	11.20	11.10	11.01
		5.0	4	11.38	11.29	11.20	11.11	11.01
		7.0	6	11.37	11.29	11.20	11.11	11.01
		9.0	8	11.85	11.76	11.67	11.58	11.48
		11.5	10	12.32	12.23	12.15	12.05	11.95
		13.5	12	12.97	12.88	12.78	12.68	12.72
15.5 14				13.62	13.52	13.41	13.32	13.49
		16.5	16	13.95	13.84	13.72	13.63	13.87

PJG000Z045 A

Model FDU125VNXVF Indoor unit FDU125VF Outdoor unit FDC125VNX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18℃	DB	21℃	DB	23℃	DB	26℃	DB	27°C	DB	28℃	DB	31℃	DB	33℃	DB
dii tomp.	12℃	WB	14°C	WB	16℃	WB	18℃	WB	19℃	WB	20℃	WB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir tem	peratu	e
air te	emp.			°CDB		
℃DB	°CWB	16	18	20	22	24
-19.8	-20	9.12	9.05	8.97	8.90	8.83
-17.7	-18	9.67	9.60	9.52	9.44	9.37
-15.7	-16	10.23	10.15	10.07	9.98	9.90
-13.5	-14	10.67	10.59	10.50	10.42	10.33
-11.5	-12	11.11	11.03	10.94	10.85	10.76
-9.5	-10	11.56	11.47	11.38	11.29	11.19
-7.5	-8	12.00	11.91	11.82	11.72	11.62
-5.5	-6	12.49	12.40	12.30	12.20	12.10
-3.0	-4	12.99	12.89	12.79	12.68	12.57
-1.0	-2	13.48	13.38	13.27	13.16	13.05
1.0	0	13.98	13.87	13.76	13.64	13.52
2.0	1	14.22	14.11	14.00	13.88	13.76
3.0	2	14.22	14.11	14.00	13.88	13.76
5.0	4	14.22	14.11	14.00	13.88	13.76
7.0	6	14.22	14.11	14.00	13.88	13.77
9.0	8	14.81	14.70	14.59	14.47	14.35
11.5	10	15.41	15.29	15.18	15.06	14.94
13.5	12	16.22	16.09	15.97	15.85	15.90
15.5	14	17.03	16.90	16.76	16.65	16.86
16.5	16	17.44	17.30	17.16	17.04	17.34

(kW)

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Cool M	ode															(kW)
Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	CDB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33°0	DB
dii terrip.	12°C	WB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	WB	20°C	CWB	22°C	CWB	24℃	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

Outdoor unit FDC125VSX

Hea	at I	Mode:	HC				(kW)
О	uto	door	In	door a	ir tem	peratu	re
ai	r te	emp.			℃DB		
°CE	DΒ	°CWB	16	18	20	22	24
-19	.8	-20	14.11	14.00	13.89	13.78	13.66
-17	.7	-18	14.17	14.06	13.94	13.83	13.72
-15	.7	-16	14.23	14.11	14.00	13.89	13.77
-13	.5	-14	14.23	14.11	14.00	13.89	13.77
-11	.5	-12	14.22	14.11	14.00	13.89	13.77
-9.	5	-10	14.22	14.11	14.00	13.89	13.77
-7.	5	-8	14.22	14.11	14.00	13.89	13.77
-5.	5	-6	14.22	14.11	14.00	13.88	13.77
-3.	0	-4	14.22	14.11	14.00	13.88	13.77
-1.	0	-2	14.22	14.11	14.00	13.88	13.76
1.	0	0	14.22	14.11	14.00	13.88	13.76
2.	0	1	14.22	14.11	14.00	13.88	13.76
3.	0	2	14.22	14.11	14.00	13.88	13.76
5.	0	4	14.22	14.11	14.00	13.88	13.76
7.	0	6	14.22	14.11	14.00	13.88	13.77
9.	0	8	14.81	14.70	14.59	14.47	14.35
11	.5	10	15.41	15.29	15.18	15.06	14.94
13	.5	12	16.22	16.09	15.97	15.85	15.90
15	.5	14	17.03	16.90	16.76	16.65	16.86
16	.5	16	17.44	17.30	17.16	17.04	17.34

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Model	FDU140VNXVF	Indoor unit	FDU140VF	Outdoor unit	FDC140VNX
Cool Mo	ode				

Indoor unit FDU125VF

0.444							Indo	or air t	emper	ature						
Outdoor air temp.	18°0	CDB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33°0	CDB
dii temp.	12℃	CWB	14°C	CWB	16℃	CWB	18°C	CWB	19°C	CWB	20℃	:WB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94		
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78		
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

Note(1) These data show average statuses.

Model FDU125VSXVF

te(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir tem	oeratu	re
air te	emp.			°CDB		
℃DB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

(kW)

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Cool Mo	ode															(kW)	Ь
0.440.00							Indo	or air t	emper	ature							lΓ
Outdoor air temp.	18°0	CDB	21°0	CDB	23°C	CDB	26℃	CDB	27°0	CDB	28°C	CDB	31°0	CDB	33℃	DB	П
un temp.	12°C	CWB	14°C	CWB	16℃	WB	18℃	WB	19°C	WB	20℃	WB	22℃	WB	24°C	:WB	
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	H
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06	П
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18	П
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31	Ιŀ
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43	[.
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52	lΓ
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60	П
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61	П
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62	lΓ
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94			lΓ
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89			П
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83			П
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78			П
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73			ır
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65			
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57			
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49			
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41			

Outdoor unit FDC140VSX

Note(1) These data show average statuses

Model FDU140VSXVF

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed. (Cooling only) (2) Capacities are based on the following conditions.

Indoor unit FDU140VF

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Heat Mode:HC (kW) Outdoor Indoor air temperature air temp ℃DB °CDB °CWB 16 18 20 -19.8 -20 16.13 16.00 15.87 15.74 15.61 -17.7 -18 16.19 16.07 15.94 15.81 15.68 -15.7 -16 16.26 16.13 16.00 15.87 15.74 16.26 16.13 16.00 15.87 15.74 -13.5 -14 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 16.25 16.13 16.00 15.87 15.74 16.25 16.12 16.00 15.87 15.74 -7.5 -8 16.25 16.13 16.00 15.87 15.74 -5.5 -6 16.25 16.13 16.00 15.87 15.73 -3.0 -4 -1.0 16.25 16.13 16.00 15.86 15.73 16.25 16.13 16.00 15.86 15.73 1.0 0 2.0 16.26 16.13 16.00 15.86 15.73 1 3.0 16.25 16.13 16.00 15.86 15.73 2 5.0 16.25 16.13 16.00 15.86 15.73 16.25 16.12 16.00 15.87 15.73 7.0 9.0 8 16.93 16.80 16.68 16.54 16.40 11.5 17.61 17.48 17.35 17.21 17.07 10 13.5 12 18.53 18.39 18.25 18.12 18.17 15.5 19.46 19.31 19.16 19.02 19.27 14 16.5 16 19.93 19.77 19.61 19.48 19.82

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(5) Duct connected-Low / Middle static pressure type (FDUM)

(a) Single type

Model FDUM40ZMXVF Indoor unit FDUM40VF Outdoor unit SRC40ZMX-S Cooling Mode

Cooming	IVIOU	-														(KVV
0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18°C	CDB	21℃	CDB	23°C	DB	26°0	DB	27°0	DB	28°0	CDB	31°0	CDB	33°0	CDB
an temp.	12℃	WB	14℃	WB	16℃	WB	18℃	WB	19℃	WB	20℃	WB	22°C	WB	24℃	WB
℃DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					3.38	3.08	3.56	3.34	3.65	3.31	3.75	3.29	3.95	3.49	4.15	3.44
13					3.46	3.11	3.65	3.37	3.75	3.35	3.85	3.33	4.05	3.52	4.26	3.47
15					3.54	3.14	3.74	3.41	3.84	3.38	3.95	3.36	4.15	3.56	4.36	3.50
17					3.62	3.18	3.83	3.44	3.94	3.42	4.04	3.39	4.26	3.59	4.47	3.53
19					3.69	3.21	3.91	3.47	4.02	3.45	4.15	3.43	4.41	3.64	4.67	3.59
21					3.81	3.26	3.99	3.51	4.10	3.48	4.26	3.47	4.56	3.69	4.87	3.66
23					3.85	3.27	4.04	3.53	4.15	3.50	4.30	3.49	4.59	3.71	4.88	3.66
25			3.73	3.40	3.89	3.29	4.08	3.54	4.20	3.52	4.34	3.50	4.61	3.71	4.89	3.66
27			3.76	3.42	3.93	3.31	4.13	3.56	4.25	3.54	4.36	3.51	4.60	3.71		
29			3.70	3.39	3.86	3.28	4.06	3.53	4.18	3.51	4.30	3.49	4.54	3.69		
31			3.64	3.36	3.80	3.25	4.00	3.51	4.12	3.49	4.24	3.47	4.48	3.67		
33	3.23	3.03	3.44	3.27	3.74	3.23	3.94	3.49	4.06	3.47	4.18	3.45	4.42	3.65		
35	3.28	3.05	3.44	3.27	3.68	3.20	3.88	3.46	4.00	3.44	4.12	3.42	4.36	3.63		
37	3.23	3.03	3.38	3.24	3.62	3.18	3.82	3.44	3.94	3.42	4.06	3.40	4.30	3.61		
39	3.17	3.00	3.32	3.22	3.56	3.15	3.76	3.42	3.88	3.40	4.00	3.38	4.23	3.58		
41	3.12	2.98	3.27	3.19	3.50	3.13	3.70	3.39	3.82	3.38	3.93	3.36	4.17	3.56		
43	3.06	2.95	3.21	3.15	3.44	3.10	3.64	3.37	3.76	3.35	3.87	3.33	4.10	3.54		

(kW)	Heat	ing Mo	de : H	IC			(kW)
	Οι	tdoor	In	door a	ir tem	peratu	re .
DВ	air	temp.			°CDB		
٧B	°CDE	°CWB	16	18	20	22	24
SHC	-19.8	3 -20					
3.44	-17.7	7 -18					
3.47	-15.7	7 -16					
3.50	-13.	5 -14	2.67	2.63	2.59	2.55	2.50
3.53	-11.	-12	2.83	2.79	2.75	2.71	2.67
3.59	-9.5	-10	3.00	2.96	2.92	2.88	2.84
3.66	-7.5	-8	3.17	3.13	3.09	3.05	3.01
3.66	-5.5	-6	3.23	3.20	3.16	3.12	3.09
3.66	-3.0	-4	3.29	3.26	3.23	3.20	3.17
	-1.0	-2	3.36	3.33	3.30	3.28	3.25
	1.0	0	3.42	3.40	3.38	3.35	3.33
	2.0	1	3.45	3.43	3.41	3.39	3.37
	3.0	2	3.67	3.65	3.63	3.61	3.59
	5.0	4	4.11	4.09	4.07	4.04	4.01
	7.0	6	4.55	4.53	4.50	4.47	4.44
	9.0	8	4.78	4.75	4.72	4.69	4.66
	11.5	10	5.01	4.98	4.95	4.91	4.88
	13.5	12	5.30	5.26	5.21	5.14	5.10
	15.5	14	5.58	5.53	5.48	5.37	5.32
	16.5	16	5.73	5.67	5.61	5.48	5.44

PJG000Z012A

Model FDUM50ZMXVF Indoor unit FDUM50VF Outdoor unit SRC50ZMX-S Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tomp	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°(CWB	20°0	CWB	22°0	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.22	3.43	4.45	3.69	4.56	3.66	4.69	3.63	4.94	3.82	5.19	3.76
13					4.32	3.48	4.56	3.73	4.68	3.71	4.81	3.68	5.07	3.87	5.32	3.80
15					4.42	3.52	4.68	3.78	4.80	3.75	4.93	3.72	5.19	3.91	5.45	3.84
17					4.53	3.57	4.79	3.83	4.92	3.80	5.06	3.77	5.32	3.96	5.58	3.88
19					4.62	3.61	4.89	3.87	5.02	3.84	5.19	3.82	5.51	4.02	5.84	3.97
21					4.76	3.67	4.99	3.91	5.13	3.88	5.32	3.87	5.70	4.09	6.09	4.05
23					4.81	3.70	5.04	3.93	5.19	3.91	5.37	3.89	5.73	4.10	6.10	4.05
25			4.66	3.84	4.86	3.72	5.10	3.96	5.25	3.93	5.42	3.91	5.76	4.11	6.11	4.05
27			4.70	3.86	4.91	3.74	5.16	3.98	5.31	3.96	5.46	3.93	5.75	4.11		
29			4.62	3.82	4.83	3.71	5.08	3.95	5.23	3.92	5.38	3.90	5.68	4.09		
31			4.54	3.79	4.75	3.67	5.00	3.92	5.15	3.89	5.30	3.87	5.60	4.06		
33	4.04	3.43	4.31	3.68	4.67	3.63	4.93	3.89	5.08	3.86	5.23	3.84	5.53	4.03		
35	4.11	3.47	4.30	3.67	4.59	3.60	4.85	3.85	5.00	3.83	5.15	3.81	5.45	4.00		
37	4.04	3.43	4.23	3.64	4.52	3.57	4.77	3.82	4.92	3.80	5.07	3.78	5.37	3.97		
39	3.97	3.40	4.16	3.60	4.45	3.54	4.70	3.79	4.85	3.77	4.99	3.75	5.29	3.95		
41	3.90	3.36	4.09	3.57	4.38	3.50	4.62	3.76	4.77	3.74	4.92	3.72	5.21	3.92		
43	3.83	3.33	4.01	3.53	4.30	3.47	4.55	3.73	4.69	3.71	4.84	3.69	5.13	3.89		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

(kW)	H	leat I	Mode:	HC				(kW)
	П	Out	door	In	door a	ir temp	eratur	e.
DB	П	air te	emp.			°CDB		
WB	٥	CDB	°CWB	16	18	20	22	24
SHC		-19.8	-20					
3.76		-17.7	-18					
3.80		-15.7	-16					
3.84		-13.5	-14	3.20	3.15	3.11	3.05	3.00
3.88		-11.5	-12	3.40	3.35	3.31	3.26	3.20
3.97		-9.5	-10	3.60	3.55	3.51	3.46	3.41
4.05		-7.5	-8	3.80	3.75	3.71	3.66	3.61
4.05		-5.5	-6	3.88	3.83	3.79	3.75	3.71
4.05		-3.0	-4	3.95	3.92	3.88	3.84	3.80
		-1.0	-2	4.03	4.00	3.97	3.93	3.90
		1.0	0	4.10	4.08	4.05	4.03	4.00
		2.0	1	4.14	4.12	4.10	4.07	4.05
		3.0	2	4.41	4.38	4.36	4.33	4.30
		5.0	4	4.94	4.91	4.88	4.85	4.82
		7.0	6	5.46	5.43	5.40	5.37	5.33
		9.0	8	5.74	5.70	5.67	5.63	5.59
		11.5	10	6.02	5.98	5.94	5.89	5.85
		13.5	12	6.36	6.31	6.25	6.17	6.12
	'	15.5	14	6.70	6.64	6.57	6.44	6.39
	t	16.5	16	6.87	6.80	6.73	6.58	6.52
	_							

Model FDUM60ZMXVF Indoor unit FDUM60VF Outdoor unit SRC60ZMX-S Cool Mode

Indoor air temperature Outdoor 18°CDB 21°CDB 23°CDB 28°CDB 31°CDB 33°CDB 26°CDB 27°CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 11 4.73 4.33 4.98 4.71 5.11 4.67 5.25 4.62 5.53 4.91 5.81 4.80 4.84 4.37 4.76 4.71 5.39 4.66 5.67 4.95 5.96 4.84 13 5.11 5.24 15 4.95 4.41 5.24 4.80 5.38 4.75 5.52 4.70 5.82 4.99 6.11 4.88 17 5.07 4.45 5.37 4.84 5.51 4.80 5.66 4.75 5.96 5.03 6.25 4.91 19 5.17 4.49 5.48 4.88 5.63 4.83 5.81 4.79 6.17 5.09 6.54 4.99 4.55 5.59 4.92 5.74 4.87 4.84 5.15 5.06 21 5.33 5.96 6.39 6.82 5.39 4.58 5.65 4.94 5.81 4.89 6.01 4.86 6.42 5.16 6.83 5.06 23 5.22 4.78 5.44 4.59 4.96 5.88 4.92 6.07 4.88 6.45 5.17 5.06 5.71 6.84 27 5.27 4.80 5.50 4.62 5.78 4.99 5.94 4.94 6.11 4.89 6.44 5.17 29 5.18 4.77 5.41 4.58 5.69 4.95 5.86 4.91 6.02 4.86 6.36 5.14 31 5.09 4.73 5.32 4.55 5.60 4.92 5.77 4.88 5.94 4.83 6.27 5.12 33 4.53 4.27 4.82 4.62 5.23 4.51 5.52 4.90 5.69 4.85 5.85 4.81 6.19 5.09 35 4.60 4.30 4.81 4.61 5.15 4.48 5.43 4.86 5.60 4.82 5.77 4.78 6.10 5.07 4.52 4.27 4.73 4.58 5.06 4.45 5.35 4.84 4.80 4.75 37 5.51 5.68 6.01 5.04 4.23 4.55 4.65 39 4.44 4.98 4.42 5.26 4.81 5.43 4.77 5.59 4.73 5.92 5.02 41 4.37 4.20 4.58 4.49 4.90 4.39 5.18 4.78 5.34 4.74 5.51 4.70 5.83 4.99

	Heat I	Mode:	HC				(kW)
	Out	door	ln	door a	ir tem	oeratui	'e
	air te	emp.			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20					
	-17.7	-18					
	-15.7	-16					
	-13.5	-14	3.97	3.91	3.85	3.79	3.73
	-11.5	-12	4.22	4.16	4.10	4.04	3.98
	-9.5	-10	4.47	4.41	4.35	4.29	4.23
	-7.5	-8	4.72	4.66	4.60	4.54	4.48
	-5.5	-6	4.81	4.76	4.70	4.65	4.60
	-3.0	-4	4.90	4.86	4.81	4.77	4.72
	-1.0	-2	5.00	4.96	4.92	4.88	4.84
	1.0	0	5.09	5.06	5.03	4.99	4.96
	2.0	1	5.14	5.11	5.08	5.05	5.02
	3.0	2	5.47	5.44	5.41	5.37	5.34
	5.0	4	6.12	6.09	6.05	6.01	5.98
	7.0	6	6.78	6.74	6.70	6.66	6.61
	9.0	8	7.12	7.08	7.03	6.98	6.94
	11.5	10	7.47	7.41	7.36	7.31	7.26
	13.5	12	7.89	7.82	7.76	7.65	7.59
1	15.5	14	8.31	8.23	8.15	7.99	7.93
	16.5	16	8.53	8.44	8.35	8.16	8.09

(kW)

(kW)

5.74 4 97

4.67

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Model FDUM71VNXVF1 Indoor unit FDUM71VF1 Outdoor unit FDC71VNX Cool Mode

4 36

5.10

4.75 5.26 4 71 5.42

4.82

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all temp.	12°	CWB	14°(CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.77	6.02	5.60	6.59	5.67	6.79	5.62	7.19	5.96	7.59	5.82
13					5.33	5.01	6.32	5.70	6.82	5.74	7.03	5.69	7.45	6.03	7.88	5.89
15					5.79	5.17	6.63	5.80	7.05	5.82	7.27	5.76	7.71	6.10	8.16	5.96
17					6.26	5.35	6.94	5.91	7.27	5.89	7.51	5.84	7.97	6.17	8.44	6.03
19					6.59	5.47	7.16	5.98	7.44	5.95	7.68	5.89	8.15	6.22	8.63	6.08
21					6.93	5.60	7.38	6.06	7.60	6.00	7.84	5.94	8.33	6.27	8.82	6.13
23					6.91	5.59	7.35	6.05	7.57	5.99	7.81	5.93	8.30	6.26	8.78	6.11
25			6.46	5.76	6.89	5.58	7.32	6.04	7.54	5.98	7.78	5.92	8.26	6.25	8.74	6.10
27			6.45	5.75	6.87	5.57	7.30	6.03	7.52	5.97	7.74	5.91	8.18	6.23		
29			6.34	5.71	6.75	5.53	7.19	5.99	7.41	5.94	7.64	5.88	8.09	6.21		
31			6.23	5.66	6.64	5.49	7.08	5.96	7.31	5.90	7.54	5.85	7.99	6.18		
33	5.77	5.22	6.05	5.59	6.53	5.45	6.97	5.92	7.20	5.87	7.44	5.81	7.90	6.15		
35	5.67	5.18	5.95	5.55	6.42	5.40	6.86	5.88	7.10	5.83	7.34	5.78	7.81	6.13		
37	5.58	5.14	5.85	5.51	6.31	5.36	6.72	5.83	6.95	5.79	7.18	5.73	7.64	6.08		
39	5.49	5.10	5.76	5.47	6.20	5.32	6.59	5.79	6.81	5.74	7.03	5.69	7.46	6.03		
41	5.39	5.05	5.67	5.44	6.09	5.28	6.45	5.74	6.66	5.69	6.87	5.64	7.29	5.99		
43	5.30	5.02	5.57	5.40	5.97	5.24	6.31	5.70	6.51	5.65	6.71	5.59	7.12	5.94		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions

4.50

4 41

4.17

4 29

43

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows. TC : Total cooling capacity (kW) SHC : Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC (kW) Indoor air temperature Outdoor air temp. °CDB CDB CWE 16 18 20 22 24 3.95 3.93 3.91 3.88 3.86 -19.8 -20 4.18 4.16 4.14 4.11 4.09 -17.7 -18 -15.7 -16 4.42 4.39 4.37 4.34 4.32 4.68 4.65 4.63 4.57 -13.5 -14 4.60 -11.5 4.94 4.91 4.88 4.85 4.82 -12 -9.5 -10 5.20 5.17 5.14 5.11 5.08 -7.5 -8 5.46 5.43 5.40 5.36 5.33 -5.5 -6 5.59 5.55 5.52 5.48 5.44 -3.0 -4 5.68 5.64 5.60 5.56 5.71 -1.0 5.84 5.80 5.76 5.72 5.67 1.0 0 5.97 5.92 5.88 5.83 5.79 6.03 5.98 5.94 5.89 5.85 2.0 6.45 6.40 6.35 3.0 2 6.30 6.25 5.0 4 7 29 7.23 7.18 7.12 7.06 7.0 6 8 13 8.06 8.00 7 93 7 87 8.42 8.36 8.29 8.23 8.16 9.0 8 8.72 8.65 8.59 8.52 8.46 11.5 10 13.5 12 9 20 9.13 9.06 9.00 8 92 15.5 9.69 9.61 9.53 9.47 9.39 14 16.5 16 9.93 9.85 9.77 9.71 9.62

Model FDUM100VNXVF1 Indoor unit FDUM100VF1 Outdoor unit FDC100VNX Cool Mode

							Indo	or air t	emper	ature						(1111)
Outdoor	100	CDB	240	CDB	220	CDB					200	CDB	240	CDD	220	CDD
air temp.					_		_	CDB		CDB				CDB		CDB
·	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

(kW)	Heat I	Mode:	НС				(kW)
	Out	door	ln	door a	ir temp	peratu	·e
DB	air te	emp.			°CDB		
WB	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	7.30	7.24	7.18	7.12	7.06
7.48	-17.7	-18	7.74	7.68	7.62	7.55	7.49
7.54	-15.7	-16	8.18	8.12	8.05	7.99	7.92
7.60	-13.5	-14	8.54	8.47	8.40	8.33	8.27
7.67	-11.5	-12	8.89	8.82	8.75	8.68	8.61
7.71	-9.5	-10	9.25	9.17	9.10	9.03	8.95
7.75	-7.5	-8	9.60	9.53	9.45	9.38	9.30
7.76	-5.5	-6	10.00	9.92	9.84	9.76	9.68
7.76	-3.0	-4	10.39	10.31	10.23	10.14	10.06
	-1.0	-2	10.79	10.70	10.62	10.53	10.44
	1.0	0	11.18	11.09	11.01	10.91	10.82
	2.0	1	11.38	11.29	11.20	11.10	11.01
	3.0	2	11.38	11.29	11.20	11.10	11.01
	5.0	4	11.38	11.29	11.20	11.11	11.01
	7.0	6	11.37	11.29	11.20	11.11	11.01
	9.0	8	11.85	11.76	11.67	11.58	11.48
	11.5	10	12.32	12.23	12.15	12.05	11.95
	13.5	12	12.97	12.88	12.78	12.68	12.72
	15.5	14	13.62	13.52	13.41	13.32	13.49
	16.5	16	13.95	13.84	13.72	13.63	13.87

PJG000Z012A

Model FDUM100VSXVF1 Indoor unit FDUM100VF1 Outdoor unit FDC100VSX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°(CDB
an tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.94	8.84	7.57	9.10	7.45	9.38	7.33	9.94	7.76	10.50	7.48
13					8.63	7.03	9.17	7.65	9.43	7.52	9.73	7.40	10.32	7.83	10.92	7.54
15					8.93	7.11	9.49	7.73	9.77	7.60	10.09	7.48	10.71	7.90	11.34	7.60
17					9.23	7.20	9.82	7.82	10.11	7.69	10.44	7.56	11.10	7.97	11.75	7.67
19					9.44	7.27	10.04	7.87	10.34	7.74	10.68	7.61	11.35	8.02	12.01	7.71
21					9.64	7.33	10.26	7.93	10.57	7.80	10.91	7.66	11.59	8.07	12.28	7.75
23					9.64	7.33	10.28	7.94	10.59	7.80	10.94	7.67	11.63	8.08	12.32	7.76
25			8.95	7.65	9.64	7.33	10.30	7.94	10.62	7.81	10.97	7.68	11.66	8.08	12.36	7.76
27			8.91	7.63	9.64	7.33	10.33	7.95	10.64	7.82	10.96	7.68	11.59	8.07		
29			8.84	7.61	9.51	7.29	10.16	7.91	10.48	7.78	10.80	7.64	11.45	8.04		
31			8.76	7.58	9.37	7.25	10.00	7.86	10.32	7.74	10.65	7.60	11.30	8.01		
33	8.21	7.04	8.58	7.52	9.23	7.20	9.83	7.82	10.16	7.70	10.49	7.57	11.15	7.98		
35	7.77	6.87	8.31	7.43	9.09	7.16	9.66	7.77	10.00	7.66	10.34	7.53	11.01	7.96		
37	7.68	6.84	8.18	7.39	8.92	7.11	9.49	7.73	9.81	7.61	10.13	7.49	10.77	7.91		
39	7.58	6.80	8.04	7.34	8.76	7.06	9.31	7.68	9.62	7.57	9.93	7.44	10.54	7.87		
41	7.49	6.77	7.91	7.30	8.59	7.02	9.14	7.64	9.43	7.52	9.73	7.40	10.31	7.83		
43	7.40	6.74	7.78	7.26	8.42	6.97	8.96	7.60	9.24	7.48	9.52	7.36	10.08	7.79		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat I	Mode:	HC				(kW
Out	door	ln	door a	ir tem	peratui	·e
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.29	11.20	11.11	11.02	10.93
-17.7	-18	11.34	11.25	11.16	11.06	10.97
-15.7	-16	11.38	11.29	11.20	11.11	11.02
-13.5	-14	11.38	11.29	11.20	11.11	11.02
-11.5	-12	11.38	11.29	11.20	11.11	11.02
-9.5	-10	11.38	11.29	11.20	11.11	11.02
-7.5	-8	11.37	11.29	11.20	11.11	11.02
-5.5	-6	11.38	11.29	11.20	11.11	11.02
-3.0	-4	11.38	11.29	11.20	11.11	11.01
-1.0	-2	11.38	11.29	11.20	11.11	11.01
1.0	0	11.38	11.29	11.20	11.10	11.01
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

Model FDUM125VNXVF Indoor unit FDUM125VF Outdoor unit FDC125VNX

Cool M	ode															(kW)
0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tellip.	12°0	CWB	14°	CWB	16°	CWB	18°	CWB	19°	CWB	20°	CWB	22°	CWB	24°	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01	İ	
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

(kW)	Heat I	Mode:	НС				(kW)
	Out	door	ln	door a	ir tem	peratur	·e
DB	air te	emp.			°CDB		
WВ	°CDB	°CWB	16	18	20	22	24
SHC	-19.8	-20	9.12	9.05	8.97	8.90	8.83
0.51	-17.7	-18	9.67	9.60	9.52	9.44	9.37
0.67	-15.7	-16	10.23	10.15	10.07	9.98	9.90
0.83	-13.5	-14	10.67	10.59	10.50	10.42	10.33
0.99	-11.5	-12	11.11	11.03	10.94	10.85	10.76
1.10	-9.5	-10	11.56	11.47	11.38	11.29	11.19
1.20	-7.5	-8	12.00	11.91	11.82	11.72	11.62
1.22	-5.5	-6	12.49	12.40	12.30	12.20	12.10
1.23	-3.0	-4	12.99	12.89	12.79	12.68	12.57
	-1.0	-2	13.48	13.38	13.27	13.16	13.05
	1.0	0	13.98	13.87	13.76	13.64	13.52
	2.0	1	14.22	14.11	14.00	13.88	13.76
	3.0	2	14.22	14.11	14.00	13.88	13.76
	5.0	4	14.22	14.11	14.00	13.88	13.76
	7.0	6	14.22	14.11	14.00	13.88	13.77
	9.0	8	14.81	14.70	14.59	14.47	14.35
	11.5	10	15.41	15.29	15.18	15.06	14.94
	13.5	12	16.22	16.09	15.97	15.85	15.90
	15.5	14	17.03	16.90	16.76	16.65	16.86
	16.5	16	17.44	17.30	17.16	17.04	17.34

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Model FDUM125VSXVF Indoor unit FDUM125VF Outdoor unit FDC125VSX

Cool Me	ode															(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	1 12°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all torrip.	12°(CWB	14°	CWB	16°	CWB	18°0	CWB	19°(CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.34	11.05	10.16	11.37	10.10	11.72	10.04	12.42	10.66	13.12	10.51
13					10.79	9.50	11.46	10.32	11.79	10.25	12.16	10.20	12.91	10.83	13.65	10.67
15					11.16	9.66	11.87	10.48	12.22	10.42	12.61	10.36	13.39	10.99	14.17	10.83
17					11.54	9.82	12.27	10.64	12.64	10.58	13.05	10.52	13.87	11.15	14.69	10.99
19					11.80	9.93	12.55	10.75	12.93	10.69	13.34	10.63	14.18	11.25	15.02	11.10
21					12.05	10.04	12.83	10.86	13.21	10.79	13.64	10.74	14.49	11.36	15.34	11.20
23					12.05	10.04	12.85	10.87	13.24	10.81	13.67	10.75	14.54	11.38	15.40	11.22
25			11.19	10.21	12.05	10.04	12.88	10.88	13.27	10.82	13.71	10.77	14.58	11.39	15.45	11.23
27			11.14	10.19	12.05	10.04	12.91	10.89	13.30	10.83	13.70	10.76	14.49	11.36		
29			11.05	10.15	11.88	9.97	12.70	10.81	13.10	10.75	13.51	10.69	14.31	11.30		
31			10.95	10.10	11.71	9.89	12.49	10.72	12.90	10.67	13.31	10.62	14.13	11.24		
33	10.26	9.37	10.73	10.00	11.53	9.82	12.29	10.64	12.70	10.60	13.11	10.54	13.94	11.17		
35	9.71	9.10	10.39	9.84	11.36	9.74	12.08	10.56	12.50	10.52	12.92	10.47	13.76	11.11		
37	9.60	9.05	10.22	9.77	11.15	9.65	11.86	10.47	12.26	10.43	12.67	10.38	13.47	11.01		
39	9.48	8.99	10.05	9.69	10.94	9.57	11.64	10.39	12.03	10.34	12.41	10.29	13.18	10.92		
41	9.36	8.93	9.89	9.62	10.74	9.48	11.42	10.30	11.79	10.25	12.16	10.20	12.89	10.82		
43	9.25	8.88	9.72	9.53	10.53	9.39	11.21	10.22	11.55	10.16	11.90	10.10	12.60	10.72		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

Heat Mode:HC Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 20 -19.8 -20 14.11 14.00 13.89 13.78 13.66 -17.7 -18 | 14.17 | 14.06 | 13.93 | 13.83 | 13.72 -15.7 -16 14.23 14.11 14.00 13.89 13.77 14.23 14.11 14.00 13.89 13.77 -13.5 -14 14.22 14.11 14.00 13.89 13.77 -11.5 -12 -9.5 -10 14.22 14.11 14.00 13.89 13.77 -7.5 |14.22|14.11|14.00|13.89|13.77 -5.5 -6 |14.22|14.11|14.00|13.88|13.77 |14.22|14.11|14.00|13.88|13.77 -3.0 -4 -1.0 -2 14.22 14.11 14.00 13.88 13.76 1.0 0 14.22 14.11 14.00 13.88 13.76 |14.22|14.11|14.00|13.88|13.76 2.0 1 14.22 14.11 14.00 13.88 13.76 3.0 2 14.22 14.11 14.00 13.88 13.76 5.0 7.0 6 14.22 14.11 14.00 13.88 13.77 9.0 8 14.81 14.70 14.59 14.47 14.35 11.5 15.41 15.29 15.18 15.06 14.94 10 13.5 12 16.22 16.09 15.97 15.85 15.90 15.5 14 **|**17.03|16.90|16.76|16.65|16.86 17.44 17.30 17.16 17.04 17.34 16.5 16

Cool M	ode															(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
all tomp.	12°0	CWB	14°(CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94		
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78		
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

Outdoor unit FDC140VNX

Indoor unit FDUM140VF

Heat I	Heat Mode:HC (kW) Outdoor Indoor air temperature											
Out	door	In	door a	ir temp	peratu	re .						
air te	emp.			°CDB								
°CDB	°CWB	16	18	20	22	24						
-19.8	-20	10.42	10.34	10.26	10.17	10.09						
-17.7	-18	11.06	10.97	10.88	10.79	10.70						
-15.7	-16	11.69	11.60	11.50	11.41	11.32						
-13.5	-14	12.20	12.10	12.00	11.91	11.81						
-11.5	-12	12.70	12.60	12.50	12.40	12.30						
-9.5	-10	13.21	13.11	13.00	12.90	12.79						
-7.5	-8	13.71	13.61	13.50	13.39	13.28						
-5.5	-6	14.28	14.17	14.06	13.94	13.83						
-3.0	-4	14.84	14.73	14.61	14.49	14.37						
-1.0	-2	15.41	15.29	15.17	15.04	14.91						
1.0	0	15.97	15.85	15.72	15.59	15.45						
2.0	1	16.26	16.13	16.00	15.86	15.73						
3.0	2	16.25	16.13	16.00	15.86	15.73						
5.0	4	16.25	16.13	16.00	15.86	15.73						
7.0	6	16.25	16.12	16.00	15.87	15.73						
9.0	8	16.93	16.80	16.68	16.54	16.40						
11.5	10	17.61	17.48	17.35	17.21	17.07						
13.5	12	18.53	18.39	18.25	18.12	18.17						
15.5	14	19.46	19.31	19.16	19.02	19.27						
16.5	16	19.93	19.77	19.61	19.48	19.82						

Model FDUM140VSXVF Indoor unit FDUM140VF Outdoor unit FDC140VSX Cool Mode

OUDI IVI	ouc															(KVV)
Outdoor							Indo	or air t	emper	ature						\Box
Outdoor air temp.	1 10°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii terrip.	12°0	CWB	14°	CWB	16°	CWB	18°	CWB	19°	CWB	20°	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.07	12.38	10.97	12.73	10.84	13.13	10.71	13.91	11.36	14.70	11.06
13					12.08	10.21	12.83	11.10	13.21	10.97	13.62	10.85	14.45	11.49	15.28	11.18
15					12.50	10.35	13.29	11.25	13.68	11.11	14.12	10.98	14.99	11.63	15.87	11.31
17					12.92	10.50	13.75	11.39	14.16	11.26	14.62	11.12	15.54	11.76	16.45	11.43
19					13.21	10.60	14.06	11.49	14.48	11.35	14.95	11.22	15.88	11.85	16.82	11.52
21					13.50	10.71	14.36	11.59	14.80	11.45	15.28	11.31	16.23	11.94	17.19	11.60
23					13.50	10.71	14.40	11.60	14.83	11.46	15.31	11.32	16.28	11.95	17.25	11.61
25			12.53	11.05	13.50	10.71	14.43	11.61	14.87	11.47	15.35	11.33	16.33	11.96	17.30	11.62
27			12.48	11.03	13.50	10.71	14.46	11.62	14.90	11.48	15.34	11.33	16.23	11.94		
29			12.37	10.98	13.31	10.64	14.23	11.54	14.68	11.41	15.13	11.27	16.03	11.89		
31			12.26	10.94	13.11	10.57	13.99	11.47	14.45	11.34	14.91	11.21	15.82	11.83		
33	11.49	10.15	12.02	10.85	12.92	10.50	13.76	11.39	14.23	11.28	14.69	11.14	15.61	11.78		
35	10.88	9.90	11.63	10.70	12.72	10.43	13.53	11.32	14.00	11.21	14.47	11.08	15.41	11.73		
37	10.75	9.84	11.45	10.63	12.49	10.35	13.29	11.25	13.74	11.13	14.18	11.00	15.08	11.65		
39	10.62	9.79	11.26	10.56	12.26	10.27	13.04	11.17	13.47	11.05	13.90	10.92	14.76	11.57		
41	10.49	9.73	11.07	10.49	12.02	10.19	12.80	11.10	13.21	10.97	13.62	10.85	14.44	11.49		
43	10.35	9.68	10.89	10.42	11.79	10.11	12.55	11.02	12.94	10.90	13.33	10.77	14.11	11.41		

Model FDUM140VNXVF

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

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					0201	ZA
Heat I	Mode:	HC				(kW)
Out	door	In	door a	ir tem	peratu	ð
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	16.13	16.00	15.87	15.74	15.61
-17.7	-18	16.19	16.07	15.94	15.81	15.68
-15.7	-16	16.26	16.13	16.00	15.87	15.74
-13.5	-14	16.26	16.13	16.00	15.87	15.74
-11.5	-12	16.25	16.13	16.00	15.87	15.74
-9.5	-10	16.25	16.13	16.00	15.87	15.74
-7.5	-8	16.25	16.12	16.00	15.87	15.74
-5.5	-6	16.25	16.13	16.00	15.87	15.74
-3.0	-4	16.25	16.13	16.00	15.87	15.73
-1.0	-2	16.25	16.13	16.00	15.86	15.73
1.0	0	16.25	16.13	16.00	15.86	15.73
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

(kW

(b) Twin type

Model FDUM71VNXPVF Indoor unit FDUM40VF (2 units) Outdoor unit FDC71VNX Cool Mode

Cool Me	lode (kW) Indoor air temperature															
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
u 10111p1	12°	CWB	14°	CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	3.72	6.02	4.36	6.59	4.50	6.79	4.47	7.19	4.65	7.59	4.57
13					5.33	3.94	6.32	4.49	6.82	4.60	7.03	4.57	7.45	4.75	7.88	4.67
15					5.79	4.15	6.63	4.63	7.05	4.70	7.27	4.68	7.71	4.86	8.16	4.78
17					6.26	4.38	6.94	4.78	7.27	4.80	7.51	4.78	7.97	4.96	8.44	4.88
19					6.59	4.55	7.16	4.88	7.44	4.88	7.68	4.86	8.15	5.04	8.63	4.95
21					6.93	4.72	7.38	4.99	7.60	4.96	7.84	4.93	8.33	5.11	8.82	5.03
23					6.91	4.71	7.35	4.97	7.57	4.94	7.81	4.92	8.30	5.10	8.78	5.01
25			6.46	4.77	6.89	4.70	7.32	4.96	7.54	4.93	7.78	4.90	8.26	5.08	8.74	5.00
27			6.45	4.77	6.87	4.69	7.30	4.95	7.52	4.92	7.74	4.88	8.18	5.05		
29			6.34	4.71	6.75	4.63	7.19	4.90	7.41	4.87	7.64	4.84	8.09	5.01		
31			6.23	4.65	6.64	4.57	7.08	4.84	7.31	4.82	7.54	4.79	7.99	4.97		
33	5.77	4.36	6.05	4.55	6.53	4.52	6.97	4.79	7.20	4.77	7.44	4.75	7.90	4.94		
35	5.67	4.30	5.95	4.50	6.42	4.46	6.86	4.74	7.10	4.73	7.34	4.71	7.81	4.90		
37	5.58	4.25	5.85	4.45	6.31	4.41	6.72	4.67	6.95	4.66	7.18	4.64	7.64	4.83		
39	5.49	4.20	5.76	4.40	6.20	4.35	6.59	4.61	6.81	4.60	7.03	4.57	7.46	4.76		
41	5.39	4.15	5.67	4.35	6.09	4.30	6.45	4.55	6.66	4.53	6.87	4.50	7.29	4.69		
43	5.30	4.10	5.57	4.30	5.97	4.24	6.31	4.49	6.51	4.46	6.71	4.44	7.12	4.62		

Heat I	Mode:	НС				(kW
Out	door	In	door a	ir temp	peratui	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	3.95	3.93	3.91	3.88	3.86
-17.7	-18	4.18	4.16	4.14	4.11	4.09
-15.7	-16	4.42	4.39	4.37	4.34	4.32
-13.5	-14	4.68	4.65	4.63	4.60	4.57
-11.5	-12	4.94	4.91	4.88	4.85	4.82
-9.5	-10	5.20	5.17	5.14	5.11	5.08
-7.5	-8	5.46	5.43	5.40	5.36	5.33
-5.5	-6	5.59	5.55	5.52	5.48	5.44
-3.0	-4	5.71	5.68	5.64	5.60	5.56
-1.0	-2	5.84	5.80	5.76	5.72	5.67
1.0	0	5.97	5.92	5.88	5.83	5.79
2.0	1	6.03	5.98	5.94	5.89	5.85
3.0	2	6.45	6.40	6.35	6.30	6.25
5.0	4	7.29	7.23	7.18	7.12	7.06
7.0	6	8.13	8.06	8.00	7.93	7.87
9.0	8	8.42	8.36	8.29	8.23	8.16
11.5	10	8.72	8.65	8.59	8.52	8.46
13.5	12	9.20	9.13	9.06	9.00	8.92
15.5	14	9.69	9.61	9.53	9.47	9.39
16.5	16	9.93	9.85	9.77	9.71	9.62

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Model FDUM100VNXPVF Indoor unit FDUM50VF (2 units) Outdoor unit FDC100VNX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°0	CWB	14°	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.82	8.84	7.36	9.10	7.31	9.38	7.27	9.94	7.67	10.50	7.55
13					8.63	6.95	9.17	7.49	9.43	7.44	9.73	7.40	10.32	7.80	10.92	7.69
15					8.93	7.08	9.49	7.62	9.77	7.57	10.09	7.54	10.71	7.94	11.34	7.82
17					9.23	7.22	9.82	7.76	10.11	7.71	10.44	7.67	11.10	8.08	11.75	7.95
19					9.44	7.31	10.04	7.85	10.34	7.80	10.68	7.76	11.35	8.17	12.01	8.04
21					9.64	7.40	10.26	7.94	10.57	7.89	10.91	7.85	11.59	8.25	12.28	8.13
23					9.64	7.40	10.28	7.95	10.59	7.90	10.94	7.86	11.63	8.27	12.32	8.14
25			8.95	7.51	9.64	7.40	10.30	7.96	10.62	7.91	10.97	7.88	11.66	8.28	12.36	8.16
27			8.91	7.49	9.64	7.40	10.33	7.97	10.64	7.92	10.96	7.87	11.59	8.25		
29			8.84	7.46	9.51	7.34	10.16	7.90	10.48	7.86	10.80	7.81	11.45	8.20		
31			8.76	7.42	9.37	7.28	10.00	7.83	10.32	7.79	10.65	7.75	11.30	8.15		
33	8.21	6.93	8.58	7.33	9.23	7.22	9.83	7.76	10.16	7.73	10.49	7.69	11.15	8.09		
35	7.77	6.71	8.31	7.20	9.09	7.16	9.66	7.69	10.00	7.66	10.34	7.63	11.01	8.05		
37	7.68	6.66	8.18	7.14	8.92	7.08	9.49	7.62	9.81	7.59	10.13	7.55	10.77	7.96		
39	7.58	6.61	8.04	7.08	8.76	7.01	9.31	7.55	9.62	7.51	9.93	7.47	10.54	7.88		
41	7.49	6.57	7.91	7.02	8.59	6.93	9.14	7.48	9.43	7.44	9.73	7.40	10.31	7.80		
43	7.40	6.52	7.78	6.96	8.42	6.86	8.96	7.40	9.24	7.36	9.52	7.32	10.08	7.72		

Note(1) These data show average statuses.

e(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity(KW)

SHC: Sensible heat capacity(KW)

HC: Heating capacity(KW)

(kW)	i ————————————————————————————————————												
		Out	door	In	door a	ir temp	peratur	·e					
DB		air te	emp.			°CDB							
WB		°CDB	°CWB	16	18	20	22	24					
SHC		-19.8	-20	7.30	7.24	7.18	7.12	7.06					
7.55		-17.7	-18	7.74	7.68	7.62	7.55	7.49					
7.69		-15.7	-16	8.18	8.12	8.05	7.99	7.92					
7.82		-13.5	-14	8.54	8.47	8.40	8.33	8.27					
7.95		-11.5	-12	8.89	8.82	8.75	8.68	8.61					
8.04		-9.5	-10	9.25	9.17	9.10	9.03	8.95					
8.13		-7.5	-8	9.60	9.53	9.45	9.38	9.30					
8.14		-5.5	-6	10.00	9.92	9.84	9.76	9.68					
8.16		-3.0	-4	10.39	10.31	10.23	10.14	10.06					
		-1.0	-2	10.79	10.70	10.62	10.53	10.44					
		1.0	0	11.18	11.09	11.01	10.91	10.82					
		2.0	1	11.38	11.29	11.20	11.10	11.01					
		3.0	2	11.38	11.29	11.20	11.10	11.01					
		5.0	4	11.38	11.29	11.20	11.11	11.01					
		7.0	6	11.37	11.29	11.20	11.11	11.01					
		9.0	8	11.85	11.76	11.67	11.58	11.48					
		11.5	10	12.32	12.23	12.15	12.05	11.95					
		13.5	12	12.97	12.88	12.78	12.68	12.72					
	'	15.5	14	13.62	13.52	13.41	13.32	13.49					
		16.5	16	13.95	13.84	13.72	13.63	13.87					

Cool Mo	ode								-							(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.82	8.84	7.36	9.10	7.31	9.38	7.27	9.94	7.67	10.50	7.55
13					8.63	6.95	9.17	7.49	9.43	7.44	9.73	7.40	10.32	7.80	10.92	7.69
15					8.93	7.08	9.49	7.62	9.77	7.57	10.09	7.54	10.71	7.94	11.34	7.82
17					9.23	7.22	9.82	7.76	10.11	7.71	10.44	7.67	11.10	8.08	11.75	7.95
19					9.44	7.31	10.04	7.85	10.34	7.80	10.68	7.76	11.35	8.17	12.01	8.04
21					9.64	7.40	10.26	7.94	10.57	7.89	10.91	7.85	11.59	8.25	12.28	8.13
23					9.64	7.40	10.28	7.95	10.59	7.90	10.94	7.86	11.63	8.27	12.32	8.14
25			8.95	7.51	9.64	7.40	10.30	7.96	10.62	7.91	10.97	7.88	11.66	8.28	12.36	8.16
27			8.91	7.49	9.64	7.40	10.33	7.97	10.64	7.92	10.96	7.87	11.59	8.25		
29			8.84	7.46	9.51	7.34	10.16	7.90	10.48	7.86	10.80	7.81	11.45	8.20		
31			8.76	7.42	9.37	7.28	10.00	7.83	10.32	7.79	10.65	7.75	11.30	8.15		
33	8.21	6.93	8.58	7.33	9.23	7.22	9.83	7.76	10.16	7.73	10.49	7.69	11.15	8.09		
35	7.77	6.71	8.31	7.20	9.09	7.16	9.66	7.69	10.00	7.66	10.34	7.63	11.01	8.05		
37	7.68	6.66	8.18	7.14	8.92	7.08	9.49	7.62	9.81	7.59	10.13	7.55	10.77	7.96		
39	7.58	6.61	8.04	7.08	8.76	7.01	9.31	7.55	9.62	7.51	9.93	7.47	10.54	7.88		
41	7.49	6.57	7.91	7.02	8.59	6.93	9.14	7.48	9.43	7.44	9.73	7.40	10.31	7.80		
43	7.40	6.52	7.78	6.96	8.42	6.86	8.96	7.40	9.24	7.36	9.52	7.32	10.08	7.72		

Indoor unit FDUM50VF (2 units)

Outdoor unit FDC100VSX

Heat I	Mode:	HC				(kW)
	door	In	door a		oeratu	re
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.29	11.20	11.11	11.02	10.93
-17.7	-18	11.34	11.25	11.16	11.06	10.97
-15.7	-16	11.38	11.29	11.20	11.11	11.02
-13.5	-14	11.38	11.29	11.20	11.11	11.02
-11.5	-12	11.38	11.29	11.20	11.11	11.02
-9.5	-10	11.38	11.29	11.20	11.11	11.02
-7.5	-8	11.37	11.29	11.20	11.11	11.02
-5.5	-6	11.38	11.29	11.20	11.11	11.02
-3.0	-4	11.38	11.29	11.20	11.11	11.01
-1.0	-2	11.38	11.29	11.20	11.11	11.01
1.0	0	11.38	11.29	11.20	11.10	11.01
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

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8.97 | 8.90 | 8.83

9.52 | 9.44 | 9.37

Indoor air temperature

°CDB

20

10.23 10.15 10.07 9.98 9.90

10.67 10.59 10.50 10.42 10.33

11.11 | 11.03 | 10.94 | 10.85 | 10.76 11.56 11.47 11.38 11.29 11.19

12.00 11.91 11.82 11.72 11.62

12.49 12.40 12.30 12.20 12.10

12.99 12.89 12.79 12.68 12.57 13.48 13.38 13.27 13.16 13.05

13.98 13.87 13.76 13.64 13.52

(kW)

24

Model FDUM125VNXPVF Indoor unit FDUM60VF (2 units) Outdoor unit FDC125VNX Cool Mode

Out de au							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°0	CWB	14°(CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.01	11.05	9.80	11.37	9.71	11.72	9.62	12.42	10.20	13.12	9.98
13					10.79	9.16	11.46	9.94	11.79	9.84	12.16	9.76	12.91	10.34	13.65	10.12
15					11.16	9.30	11.87	10.08	12.22	9.99	12.61	9.90	13.39	10.48	14.17	10.25
17					11.54	9.44	12.27	10.22	12.64	10.13	13.05	10.04	13.87	10.62	14.69	10.39
19					11.80	9.55	12.55	10.32	12.93	10.23	13.34	10.14	14.18	10.71	15.02	10.48
21					12.05	9.64	12.83	10.42	13.21	10.32	13.64	10.24	14.49	10.80	15.34	10.56
23					12.05	9.64	12.85	10.43	13.24	10.34	13.67	10.25	14.54	10.82	15.40	10.58
25			11.19	9.88	12.05	9.64	12.88	10.44	13.27	10.35	13.71	10.26	14.58	10.83	15.45	10.59
27			11.14	9.86	12.05	9.64	12.91	10.45	13.30	10.36	13.70	10.25	14.49	10.80		
29			11.05	9.82	11.88	9.58	12.70	10.38	13.10	10.29	13.51	10.19	14.31	10.75		
31			10.95	9.78	11.71	9.51	12.49	10.30	12.90	10.22	13.31	10.13	14.13	10.69		
33	10.26	9.08	10.73	9.69	11.53	9.44	12.29	10.23	12.70	10.15	13.11	10.06	13.94	10.64		
35	9.71	8.83	10.39	9.55	11.36	9.37	12.08	10.16	12.50	10.08	12.92	10.00	13.76	10.59		
37	9.60	8.78	10.22	9.47	11.15	9.29	11.86	10.08	12.26	10.00	12.67	9.92	13.47	10.50		
39	9.48	8.73	10.05	9.40	10.94	9.21	11.64	10.00	12.03	9.92	12.41	9.84	13.18	10.42		
41	9.36	8.68	9.89	9.34	10.74	9.14	11.42	9.92	11.79	9.84	12.16	9.76	12.89	10.33		
43	9.25	8.63	9.72	9.27	10.53	9.06	11.21	9.85	11.55	9.76	11.90	9.68	12.60	10.25		

-13.5 -14 -11.5 -12 -9.5 -10 -7.5 -8 -5.5 -6 -3.0 -4 -1.0 -2 1.0 0

2.0

3.0

5.0

7.0 9.0

11.5 10

13.5 12

15.5 14

16.5 16

Heat Mode:HC

Outdoor air temp.

°CDB °CWB

-19.8 -20

-17.7 -18

-15.7 -16 16 18

9.12 9.05

9.67 9.60

14.22 14.11 14.00 13.88 13.76 14.22 14.11 14.00 13.88 13.76 14.22 14.11 14.00 13.88 13.76 14.22 14.11 14.00 13.88 13.77 |14.81|14.70|14.59|14.47|14.35 15.41 15.29 15.18 15.06 14.94 16.22 16.09 15.97 15.85 15.90 17.03 16.90 16.76 16.65 16.86 17.44 17.30 17.16 17.04 17.34

Model FDUM100VSXPVF

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Model FDUM125VSXPVF Indoor unit FDUM60VF (2 units) Outdoor unit FDC125VSX Cool Mode

Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an temp.	12°	C WB	14°(CWB	16°0	CWB	18°	CWB	19°0	CWB	20°	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	9.01	11.05	9.80	11.37	9.71	11.72	9.62	12.42	10.20	13.12	9.98
13					10.79	9.16	11.46	9.94	11.79	9.84	12.16	9.76	12.91	10.34	13.65	10.12
15					11.16	9.30	11.87	10.08	12.22	9.99	12.61	9.90	13.39	10.48	14.17	10.25
17					11.54	9.44	12.27	10.22	12.64	10.13	13.05	10.04	13.87	10.62	14.69	10.39
19					11.80	9.55	12.55	10.32	12.93	10.23	13.34	10.14	14.18	10.71	15.02	10.48
21					12.05	9.64	12.83	10.42	13.21	10.32	13.64	10.24	14.49	10.80	15.34	10.56
23					12.05	9.64	12.85	10.43	13.24	10.34	13.67	10.25	14.54	10.82	15.40	10.58
25			11.19	9.88	12.05	9.64	12.88	10.44	13.27	10.35	13.71	10.26	14.58	10.83	15.45	10.59
27			11.14	9.86	12.05	9.64	12.91	10.45	13.30	10.36	13.70	10.25	14.49	10.80		
29			11.05	9.82	11.88	9.58	12.70	10.38	13.10	10.29	13.51	10.19	14.31	10.75		
31			10.95	9.78	11.71	9.51	12.49	10.30	12.90	10.22	13.31	10.13	14.13	10.69		
33	10.26	9.08	10.73	9.69	11.53	9.44	12.29	10.23	12.70	10.15	13.11	10.06	13.94	10.64		
35	9.71	8.83	10.39	9.55	11.36	9.37	12.08	10.16	12.50	10.08	12.92	10.00	13.76	10.59		
37	9.60	8.78	10.22	9.47	11.15	9.29	11.86	10.08	12.26	10.00	12.67	9.92	13.47	10.50		
39	9.48	8.73	10.05	9.40	10.94	9.21	11.64	10.00	12.03	9.92	12.41	9.84	13.18	10.42		
41	9.36	8.68	9.89	9.34	10.74	9.14	11.42	9.92	11.79	9.84	12.16	9.76	12.89	10.33		
43	9.25	8.63	9.72	9.27	10.53	9.06	11.21	9.85	11.55	9.76	11.90	9.68	12.60	10.25		

Heat I	Mode:	HC				(kW)
	door	In	door a	ir temp	peratui	·e
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	14.11	14.00	13.89	13.78	13.66
-17.7	-18	14.17	14.06	13.94	13.83	13.72
-15.7	-16	14.23	14.11	14.00	13.89	13.77
-13.5	-14	14.23	14.11	14.00	13.89	13.77
-11.5	-12	14.22	14.11	14.00	13.89	13.77
-9.5	-10	14.22	14.11	14.00	13.89	13.77
-7.5	-8	14.22	14.11	14.00	13.89	13.77
-5.5	-6	14.22	14.11	14.00	13.88	13.77
-3.0	-4	14.22	14.11	14.00	13.88	13.77
-1.0	-2	14.22	14.11	14.00	13.88	13.76
1.0	0	14.22	14.11	14.00	13.88	13.76
2.0	1	14.22	14.11	14.00	13.88	13.76
3.0	2	14.22	14.11	14.00	13.88	13.76
5.0	4	14.22	14.11	14.00	13.88	13.76
7.0	6	14.22	14.11	14.00	13.88	13.77
9.0	8	14.81	14.70	14.59	14.47	14.35
11.5	10	15.41	15.29	15.18	15.06	14.94
13.5	12	16.22	16.09	15.97	15.85	15.90
15.5	14	17.03	16.90	16.76	16.65	16.86
16.5	16	17.44	17.30	17.16	17.04	17.34

(kW)

PJG000Z012A

Model FDUM140VNXPVF1 Indoor unit FDUM71VF1 (2 units) Outdoor unit FDC140VNX Cool Mode

Cool M	ode								`							(kW)
Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
uii tompi	12°	CWB	14°(CWB	16°0	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.38	12.38	11.31	12.73	11.20	13.13	11.10	13.91	11.79	14.70	11.53
13					12.08	10.53	12.83	11.46	13.21	11.35	13.62	11.24	14.45	11.94	15.28	11.67
15					12.50	10.68	13.29	11.62	13.68	11.50	14.12	11.40	14.99	12.08	15.87	11.81
17					12.92	10.84	13.75	11.77	14.16	11.66	14.62	11.55	15.54	12.23	16.45	11.95
19					13.21	10.95	14.06	11.88	14.48	11.76	14.95	11.65	15.88	12.33	16.82	12.04
21					13.50	11.06	14.36	11.98	14.80	11.86	15.28	11.75	16.23	12.43	17.19	12.14
23					13.50	11.06	14.40	11.99	14.83	11.87	15.31	11.76	16.28	12.44	17.25	12.15
25			12.53	11.36	13.50	11.06	14.43	12.00	14.87	11.89	15.35	11.77	16.33	12.45	17.30	12.16
27			12.48	11.34	13.50	11.06	14.46	12.01	14.90	11.90	15.34	11.77	16.23	12.43		
29			12.37	11.29	13.31	10.99	14.23	11.94	14.68	11.83	15.13	11.71	16.03	12.37		
31			12.26	11.25	13.11	10.91	13.99	11.85	14.45	11.75	14.91	11.64	15.82	12.31		
33	11.49	10.42	12.02	11.15	12.92	10.84	13.76	11.78	14.23	11.68	14.69	11.57	15.61	12.25		
35	10.88	10.15	11.63	10.99	12.72	10.77	13.53	11.70	14.00	11.60	14.47	11.50	15.41	12.20		
37	10.75	10.10	11.45	10.92	12.49	10.68	13.29	11.62	13.74	11.52	14.18	11.41	15.08	12.11		
39	10.62	10.04	11.26	10.84	12.26	10.60	13.04	11.53	13.47	11.44	13.90	11.33	14.76	12.02		
41	10.49	9.98	11.07	10.77	12.02	10.51	12.80	11.45	13.21	11.35	13.62	11.24	14.44	11.93		
43	10.35	9.92	10.89	10.67	11.79	10.42	12.55	11.37	12.94	11.27	13.33	11.16	14.11	11.84		

Note(1) These data show average statuses.

e(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW)

SHC: Sensible heat capacity (kW)

HC: Heating capacity (kW)

Heat	Mode:	HC				(kW)
Ou	tdoor	In	door a	ir tem	oeratui	·e
air t	temp.			°CDB		
°CDE	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

Model FDUM140VSXPVF1 Indoor unit FDUM71VF1 (2 units) Outdoor unit FDC140VSX Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
an tomp.	12°0	CWB	14°	CWB	16°	CWB	18°	CWB	19°0	CWB	20°0	CWB	22°	CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	10.38	12.38	11.31	12.73	11.20	13.13	11.10	13.91	11.79	14.70	11.53
13					12.08	10.53	12.83	11.46	13.21	11.35	13.62	11.24	14.45	11.94	15.28	11.67
15					12.50	10.68	13.29	11.62	13.68	11.50	14.12	11.40	14.99	12.08	15.87	11.81
17					12.92	10.84	13.75	11.77	14.16	11.66	14.62	11.55	15.54	12.23	16.45	11.95
19					13.21	10.95	14.06	11.88	14.48	11.76	14.95	11.65	15.88	12.33	16.82	12.04
21					13.50	11.06	14.36	11.98	14.80	11.86	15.28	11.75	16.23	12.43	17.19	12.14
23					13.50	11.06	14.40	11.99	14.83	11.87	15.31	11.76	16.28	12.44	17.25	12.15
25			12.53	11.36	13.50	11.06	14.43	12.00	14.87	11.89	15.35	11.77	16.33	12.45	17.30	12.16
27			12.48	11.34	13.50	11.06	14.46	12.01	14.90	11.90	15.34	11.77	16.23	12.43		
29			12.37	11.29	13.31	10.99	14.23	11.94	14.68	11.83	15.13	11.71	16.03	12.37		
31			12.26	11.25	13.11	10.91	13.99	11.85	14.45	11.75	14.91	11.64	15.82	12.31		
33	11.49	10.42	12.02	11.15	12.92	10.84	13.76	11.78	14.23	11.68	14.69	11.57	15.61	12.25		
35	10.88	10.15	11.63	10.99	12.72	10.77	13.53	11.70	14.00	11.60	14.47	11.50	15.41	12.20		
37	10.75	10.10	11.45	10.92	12.49	10.68	13.29	11.62	13.74	11.52	14.18	11.41	15.08	12.11		
39	10.62	10.04	11.26	10.84	12.26	10.60	13.04	11.53	13.47	11.44	13.90	11.33	14.76	12.02		
41	10.49	9.98	11.07	10.77	12.02	10.51	12.80	11.45	13.21	11.35	13.62	11.24	14.44	11.93		
43	10.35	9.92	10.89	10.67	11.79	10.42	12.55	11.37	12.94	11.27	13.33	11.16	14.11	11.84		

(kW) <u>H</u>	eat l	Mode:	HC				(kV
			door	In	door a	ir temp	peratu	re
DB		air te	emp.			°CDB		
NΒ	۰	CDB	°CWB	16	18	20	22	24
SHC	-	19.8	-20	16.13	16.00	15.87	15.74	15.61
1.53	-	17.7	-18	16.19	16.07	15.94	15.81	15.68
1.67	-	15.7	-16	16.26	16.13	16.00	15.87	15.74
1.81	-	13.5	-14	16.26	16.13	16.00	15.87	15.74
1.95	-	11.5	-12	16.25	16.13	16.00	15.87	15.74
2.04	-	9.5	-10	16.25	16.13	16.00	15.87	15.74
2.14	-	-7.5	-8	16.25	16.12	16.00	15.87	15.74
2.15	Ι.	-5.5	-6	16.25	16.13	16.00	15.87	15.74
2.16		3.0	-4	16.25	16.13	16.00	15.87	15.73
		-1.0	-2	16.25	16.13	16.00	15.86	15.73
		1.0	0	16.25	16.13	16.00	15.86	15.73
		2.0	1	16.26	16.13	16.00	15.86	15.73
		3.0	2	16.25	16.13	16.00	15.86	15.73
		5.0	4	16.25	16.13	16.00	15.86	15.73
		7.0	6	16.25	16.12	16.00	15.87	15.73
		9.0	8	16.93	16.80	16.68	16.54	16.40
	1	11.5	10	17.61	17.48	17.35	17.21	17.07
	1	13.5	12	18.53	18.39	18.25	18.12	18.17
	1	15.5	14	19.46	19.31	19.16	19.02	19.27
	1	16.5	16	19.93	19.77	19.61	19.48	19.82

PJG000Z012A

(c) Triple type

Model FDUM140VNXTVF Indoor unit FDUM50VF (3 units) Outdoor unit FDC140VNX Cool Mode

000																(1/1/1
Outdoor							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
un temp.	12°(CWB	14°	CWB	16°	CWB	18°	CWB	19°	CWB	20°	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.87	12.38	10.68	12.73	10.61	13.13	10.55	13.91	11.16	14.70	11.00
13					12.08	10.05	12.83	10.86	13.21	10.79	13.62	10.73	14.45	11.35	15.28	11.18
15					12.50	10.23	13.29	11.05	13.68	10.98	14.12	10.92	14.99	11.53	15.87	11.36
17					12.92	10.42	13.75	11.23	14.16	11.16	14.62	11.11	15.54	11.72	16.45	11.55
19					13.21	10.54	14.06	11.36	14.48	11.29	14.95	11.23	15.88	11.84	16.82	11.67
21					13.50	10.67	14.36	11.48	14.80	11.42	15.28	11.36	16.23	11.97	17.19	11.79
23					13.50	10.67	14.40	11.50	14.83	11.43	15.31	11.37	16.28	11.98	17.25	11.81
25			12.53	10.84	13.50	10.67	14.43	11.51	14.87	11.45	15.35	11.39	16.33	12.00	17.30	11.83
27			12.48	10.81	13.50	10.67	14.46	11.52	14.90	11.46	15.34	11.38	16.23	11.97		
29			12.37	10.76	13.31	10.59	14.23	11.43	14.68	11.37	15.13	11.30	16.03	11.90		
31			12.26	10.71	13.11	10.50	13.99	11.33	14.45	11.28	14.91	11.22	15.82	11.82		
33	11.49	9.98	12.02	10.60	12.92	10.42	13.76	11.24	14.23	11.19	14.69	11.13	15.61	11.75		
35	10.88	9.67	11.63	10.41	12.72	10.33	13.53	11.14	14.00	11.10	14.47	11.05	15.41	11.68		
37	10.75	9.61	11.45	10.33	12.49	10.23	13.29	11.05	13.74	11.00	14.18	10.94	15.08	11.56		
39	10.62	9.55	11.26	10.24	12.26	10.13	13.04	10.94	13.47	10.89	13.90	10.84	14.76	11.45		
41	10.49	9.48	11.07	10.16	12.02	10.03	12.80	10.85	13.21	10.79	13.62	10.73	14.44	11.34		
43	10.35	9.41	10.89	10.07	11.79	9.93	12.55	10.75	12.94	10.69	13.33	10.63	14.11	11.23		

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

(kW) Heat Mode:HC Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 | 22 24 -19.8 -20 10.42 10.34 10.26 10.17 10.09 -17.7 -18 11.06 10.97 10.88 10.79 10.70 11.69 11.60 11.50 11.41 11.32 -15.7 -16 12.20 12.10 12.00 11.91 11.81 -13.5 -14 12.70 12.60 12.50 12.40 12.30 -11.5 -12 13.21 13.11 13.00 12.90 12.79 -9.5 -10 13.71 13.61 13.50 13.39 13.28 -7.5 -8 14.28 14.17 14.06 13.94 13.83 -5.5 -6 14.84 14.73 14.61 14.49 14.37 -4 -3.0 -1.0 15.41 15.29 15.17 15.04 14.91 15.97 15.85 15.72 15.59 15.45 1.0 2.0 16.26 16.13 16.00 15.86 15.73 1 3.0 16.25 16.13 16.00 15.86 15.73 5.0 16.25 16.13 16.00 15.86 15.73 16.25 16.12 16.00 15.87 15.73 7.0 6 9.0 8 16.93 16.80 16.68 16.54 16.40 11.5 10 17.61 17.48 17.35 17.21 17.07 13.5 12 18.53 18.39 18.25 18.12 18.17 19.46 19.31 19.16 19.02 19.27 15.5 14 16 19.93 19.77 19.61 19.48 19.82 16.5

Model FDUM140VSXTVF Indoor unit FDUM50VF (3 units) Outdoor unit FDC140VSX

COOI IVI	oae															(kW)
0.44							Indo	or air t	emper	ature						
Outdoor air temp.	18°	CDB	21°	CDB	23°	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB
dii tomp.	12°(CWB	14°(CWB	16°	CWB	18°	CWB	19°0	CWB	20°	CWB	22°(CWB	24°(CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.87	12.38	10.68	12.73	10.61	13.13	10.55	13.91	11.16	14.70	11.00
13					12.08	10.05	12.83	10.86	13.21	10.79	13.62	10.73	14.45	11.35	15.28	11.18
15					12.50	10.23	13.29	11.05	13.68	10.98	14.12	10.92	14.99	11.53	15.87	11.36
17					12.92	10.42	13.75	11.23	14.16	11.16	14.62	11.11	15.54	11.72	16.45	11.55
19					13.21	10.54	14.06	11.36	14.48	11.29	14.95	11.23	15.88	11.84	16.82	11.67
21					13.50	10.67	14.36	11.48	14.80	11.42	15.28	11.36	16.23	11.97	17.19	11.79
23					13.50	10.67	14.40	11.50	14.83	11.43	15.31	11.37	16.28	11.98	17.25	11.81
25			12.53	10.84	13.50	10.67	14.43	11.51	14.87	11.45	15.35	11.39	16.33	12.00	17.30	11.83
27			12.48	10.81	13.50	10.67	14.46	11.52	14.90	11.46	15.34	11.38	16.23	11.97		
29			12.37	10.76	13.31	10.59	14.23	11.43	14.68	11.37	15.13	11.30	16.03	11.90		
31			12.26	10.71	13.11	10.50	13.99	11.33	14.45	11.28	14.91	11.22	15.82	11.82		
33	11.49	9.98	12.02	10.60	12.92	10.42	13.76	11.24	14.23	11.19	14.69	11.13	15.61	11.75		
35	10.88	9.67	11.63	10.41	12.72	10.33	13.53	11.14	14.00	11.10	14.47	11.05	15.41	11.68		
37	10.75	9.61	11.45	10.33	12.49	10.23	13.29	11.05	13.74	11.00	14.18	10.94	15.08	11.56		
39	10.62	9.55	11.26	10.24	12.26	10.13	13.04	10.94	13.47	10.89	13.90	10.84	14.76	11.45		
41	10.49	9.48	11.07	10.16	12.02	10.03	12.80	10.85	13.21	10.79	13.62	10.73	14.44	11.34		
43	10.35	9.41	10.89	10.07	11.79	9.93	12.55	10.75	12.94	10.69	13.33	10.63	14.11	11.23		

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed. (2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

(kW) Heat Mode:HC Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 20 16 18 -19.8 -20 16.13 16.00 15.87 15.74 15.61 -17.7 -18 16.19 16.07 15.94 15.81 15.68 16.26 16.13 16.00 15.87 15.74 -15.7 -16 16.26 16.13 16.00 15.87 15.74 -13.5 -14 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 16.25 16.13 16.00 15.87 15.74 -7.5 -8 16.25 | 16.12 | 16.00 | 15.87 | 15.74 16.25 16.13 16.00 15.87 15.74 -5.5 -6 16.25 16.13 16.00 15.87 15.73 -3.0 -4 -1.0 |16.25|16.13|16.00|15.86|15.73 16.25 16.13 16.00 15.86 15.73 1.0 0 16.26 16.13 16.00 15.86 15.73 2.0 1 3.0 16.25 16.13 16.00 15.86 15.73 2 5.0 |16.25|16.13|16.00|15.86|15.73 16.25 16.12 16.00 15.87 15.73 7.0 9.0 8 16.93 16.80 16.68 16.54 16.40 17.61 17.48 17.35 17.21 17.07 11.5 10 18.53 18.39 18.25 18.12 18.17 13.5 12

PJG000Z012 A

19.46 19.31 19.16 19.02 19.27

19.93 19.77 19.61 19.48 19.82

15.5 14

16.5

16

(6) Floor standing type (FDF)

(a) Single phase use

Model FDF71VNXVD1 Indoor unit FDF71VD1 Outdoor unit FDC71VNX Cool Mode

0.44-4							Indoo	r air t	empe	rature						
Outdoor	18°0	DB	21°0	DDB	23°0	CDB	26°0	DB	27°0	DB	28°0	CDB	31°0	CDB	33°0	CDB
air temp.	12°C	CWB	14°C	CWB	16°C	CWB	18°C	WB	19°C	CWB	20°C	CWB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					4.87	4.24	6.02	4.89	6.59	4.96	6.79	4.90	7.19	5.15	7.59	5.00
13					5.33	4.40	6.32	4.99	6.82	5.03	7.03	4.97	7.45	5.22	7.88	5.07
15					5.79	4.57	6.63	5.09	7.05	5.11	7.27	5.04	7.71	5.29	8.16	5.14
17					6.26	4.74	6.94	5.20	7.27	5.18	7.51	5.12	7.97	5.36	8.44	5.21
19					6.59	4.86	7.16	5.28	7.44	5.23	7.68	5.17	8.15	5.42	8.63	5.26
21					6.93	5.00	7.38	5.36	7.60	5.29	7.84	5.22	8.33	5.47	8.82	5.30
23					6.91	4.99	7.35	5.34	7.57	5.28	7.81	5.21	8.30	5.46	8.78	5.29
25			6.46	5.15	6.89	4.98	7.32	5.33	7.54	5.27	7.78	5.20	8.26	5.45	8.74	5.28
27			6.45	5.15	6.87	4.97	7.30	5.33	7.52	5.26	7.74	5.19	8.18	5.42		
29			6.34	5.10	6.75	4.93	7.19	5.29	7.41	5.22	7.64	5.16	8.09	5.40		
31			6.23	5.05	6.64	4.88	7.08	5.25	7.31	5.19	7.54	5.13	7.99	5.37		
33	5.77	4.70	6.05	4.98	6.53	4.84	6.97	5.21	7.20	5.15	7.44	5.10	7.90	5.34		
35	5.67	4.65	5.95	4.94	6.42	4.80	6.86	5.17	7.10	5.12	7.34	5.06	7.81	5.32		
37	5.58	4.61	5.85	4.90	6.31	4.76	6.72	5.12	6.95	5.07	7.18	5.02	7.64	5.27		
39	5.49	4.57	5.76	4.86	6.20	4.72	6.59	5.08	6.81	5.03	7.03	4.97	7.46	5.22		
41	5.39	4.53	5.67	4.82	6.09	4.68	6.45	5.03	6.66	4.98	6.87	4.92	7.29	5.18		
43	5.30	4.49	5.57	4.78	5.97	4.63	6.31	4.99	6.51	4.93	6.71	4.87	7.12	5.13		

ŀ	Heat Mo	de:HC					(kW)
	Out	door	Ind	door a	ir tem	peratu	ıre
	air t	emp.			°CDB		
	°CDB	°CWB	16	18	20	22	24
	-19.8	-20	3.95	3.93	3.91	3.88	3.86
	-17.7	-18	4.18	4.16	4.14	4.11	4.09
	-15.7	-16	4.42	4.39	4.37	4.34	4.32
	-13.5	-14	4.68	4.65	4.63	4.60	4.57
	-11.5	-12	4.94	4.91	4.88	4.85	4.82
	-9.5	-10	5.20	5.17	5.14	5.11	5.08
	-7.5	-7.5 -8		5.43	5.40	5.36	5.33
	-5.5			5.55	5.52	5.48	5.44
	-3.0	-4	5.71	5.68	5.64	5.60	5.56
	-1.0	-2	5.84	5.80	5.76	5.72	5.67
	1.0	0	5.97	5.92	5.88	5.83	5.79
	2.0	1	6.03	5.98	5.94	5.89	5.85
	3.0	2	6.45	6.40	6.35	6.30	6.25
	5.0	4	7.29	7.23	7.18	7.12	7.06
	7.0	6	8.13	8.06	8.00	7.93	7.87
	9.0			8.36	8.29	8.23	8.16
	11.5 10		8.72	8.65	8.59	8.52	8.46
	13.5	12	9.20	9.13	9.06	9.00	8.92
	15.5 14		9.69	9.61	9.53	9.47	9.39
	16.5	16	9.93	9.85	9.77	9.71	9.62

(kW)

PGA000Z770

(kW)

Model FDF100VNXVD1 Indoor unit FDF100VD1 Outdoor unit FDC100VNX Cool Mode (kW) Heat Mode:HC

Outdoor							Indoo	or air t	empei	rature						
air temp.	18°C	CDB	21°(CDB	23°CDB		26°0	CDB	27°C	CDB	28°0	CDB	31°0	CDB	33°C	CDB
ан теттр.	12°C	CWB	14°C	CWB	16°CWB		18°C	CWB	19°C	CWB	20°C	CWB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	7.11	8.84	7.70	9.10	7.65	9.38	7.60	9.94	8.05	10.50	7.92
13					8.63	7.24	9.17	7.83	9.43	7.77	9.73	7.73	10.32	8.17	10.92	8.04
15					8.93	7.36	9.49	7.96	9.77	7.90	10.09	7.86	10.71	8.30	11.34	8.17
17					9.23	7.49	9.82	8.09	10.11	8.03	10.44	7.98	11.10	8.43	11.75	8.29
19					9.44	7.58	10.04	8.17	10.34	8.12	10.68	8.07	11.35	8.52	12.01	8.37
21					9.64	7.67	10.26	8.26	10.57	8.21	10.91	8.16	11.59	8.60	12.28	8.46
23					9.64	7.67	10.28	8.27	10.59	8.21	10.94	8.17	11.63	8.61	12.32	8.47
25			8.95	7.80	9.64	7.67	10.30	8.28	10.62	8.23	10.97	8.18	11.66	8.62	12.36	8.48
27			8.91	7.78	9.64	7.67	10.33	8.29	10.64	8.23	10.96	8.17	11.59	8.60		
29			8.84	7.75	9.51	7.61	10.16	8.22	10.48	8.17	10.80	8.12	11.45	8.55		
31			8.76	7.71	9.37	7.55	10.00	8.16	10.32	8.11	10.65	8.06	11.30	8.50		
33	8.21	7.18	8.58	7.63	9.23	7.49	9.83	8.09	10.16	8.05	10.49	8.00	11.15	8.45		
35	7.77	6.97	8.31	7.51	9.09	7.43	9.66	8.02	10.00	7.99	10.34	7.95	11.01	8.40		
37	7.68	6.92	8.18	7.45	8.92	7.36	9.49	7.96	9.81	7.92	10.13	7.87	10.77	8.32		
39	7.58	6.87	8.04	7.39	8.76	7.29	9.31	7.89	9.62	7.85	9.93	7.80	10.54	8.25		
41	7.49	6.83	7.91	7.33	8.59	7.22	9.14	7.82	9.43	7.77	9.73	7.73	10.31	8.17		
43	7.40	6.79	7.78	7.27	8.42	7.15	8.96	7.75	9.24	7.70	9.52	7.65	10.08	8.09		

Note(1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.
Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows

HC :Heating capacity (kW)

TC :Total cooling capacity (kW) SHC :Sensible heat capacity (kW)

	ouc.ii	~				(1000
Outd	oor	Ind	door a	ir tem	peratu	ıre
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	7.30	7.24	7.18	7.12	7.06
-17.7	-18	7.74	7.68	7.62	7.55	7.49
-15.7	-16	8.18	8.12	8.05	7.99	7.92
-13.5	-14	8.54	8.47	8.40	8.33	8.27
-11.5	-12	8.89	8.82	8.75	8.68	8.61
-9.5	-10	9.25	9.17	9.10	9.03	8.95
-7.5	-8	9.60	9.53	9.45	9.38	9.30
-5.5	-6	10.00	9.92	9.84	9.76	9.68
-3.0	-4	10.39	10.31	10.23	10.14	10.06
-1.0	-2	10.79	10.70	10.62	10.53	10.44
1.0	0	11.18	11.09	11.01	10.91	10.82
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16.5 16		13.84	13.72	13.63	13.87

Model FDF100VSXVD1Indoor unitFDF100VD1Outdoor unitFDC100VSXCool Mode(kW) Heat Mode:HC(kW)

Outdoor							Indoo	r air t	empei	rature						
Outdoor	18°0	DB	21°0	DB	23°0	DDB	26°0	DB	27°0	DB	28°C	DB	31°C	DB	33°C	DB
air temp.	12°C	CWB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	WB	22°C	WB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	7.11	8.84	7.70	9.10	7.65	9.38	7.60	9.94	8.05	10.50	7.92
13					8.63	7.24	9.17	7.83	9.43	7.77	9.73	7.73	10.32	8.17	10.92	8.04
15					8.93	7.36	9.49	7.96	9.77	7.90	10.09	7.86	10.71	8.30	11.34	8.17
17					9.23	7.49	9.82	8.09	10.11	8.03	10.44	7.98	11.10	8.43	11.75	8.29
19					9.44	7.58	10.04	8.17	10.34	8.12	10.68	8.07	11.35	8.52	12.01	8.37
21					9.64	7.67	10.26	8.26	10.57	8.21	10.91	8.16	11.59	8.60	12.28	8.46
23					9.64	7.67	10.28	8.27	10.59	8.21	10.94	8.17	11.63	8.61	12.32	8.47
25			8.95	7.80	9.64	7.67	10.30	8.28	10.62	8.23	10.97	8.18	11.66	8.62	12.36	8.48
27			8.91	7.78	9.64	7.67	10.33	8.29	10.64	8.23	10.96	8.17	11.59	8.60		
29			8.84	7.75	9.51	7.61	10.16	8.22	10.48	8.17	10.80	8.12	11.45	8.55		
31			8.76	7.71	9.37	7.55	10.00	8.16	10.32	8.11	10.65	8.06	11.30	8.50		
33	8.21	7.18	8.58	7.63	9.23	7.49	9.83	8.09	10.16	8.05	10.49	8.00	11.15	8.45		
35	7.77	6.97	8.31	7.51	9.09	7.43	9.66	8.02	10.00	7.99	10.34	7.95	11.01	8.40		
37	7.68	6.92	8.18	7.45	8.92	7.36	9.49	7.96	9.81	7.92	10.13	7.87	10.77	8.32		
39	7.58	6.87	8.04	7.39	8.76	7.29	9.31	7.89	9.62	7.85	9.93	7.80	10.54	8.25		
41	7.49	6.83	7.91	7.33	8.59	7.22	9.14	7.82	9.43	7.77	9.73	7.73	10.31	8.17		
43	7.40	6.79	7.78	7.27	8.42	7.15	8.96	7.75	9.24	7.70	9.52	7.65	10.08	8.09		

						` '
Outd	oor	Ind	door a	ir tem	peratu	ıre
air te	mp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.29	11.20	11.11	11.02	10.93
-17.7	-18	11.34	11.25	11.16	11.06	10.97
-15.7	-16	11.38	11.29	11.20	11.11	11.02
-13.5	-14	11.38	11.29	11.20	11.11	11.02
-11.5	-12	11.38	11.29	11.20	11.11	11.02
-9.5	-10	11.38	11.29	11.20	11.11	11.02
-7.5	-8	11.37	11.29	11.20	11.11	11.02
-5.5	-6	11.38	11.29	11.20	11.11	11.02
-3.0	-4	11.38	11.29	11.20	11.11	11.01
-1.0	-2	11.38	11.29	11.20	11.11	11.01
1.0	0	11.38	11.29	11.20	11.10	11.01
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

PGA000Z770

 Model
 FDF125VNXVD
 Indoor unit
 FDF125VD
 Outdoor unit
 FDC125VNX

 Cool Mode
 (kW) Heat Mode:HC
 (kW)

Outdoor							Indoo	r air t	emper	ature						
1	18°C	DB	21°C	CDB	23°C	23°CDB		DB	27°C	CDB	28°C	DB	31°0	CDB	33°C	CDB
air temp.	12°C	WB	14°C	WB	16°C	CWB	18°C	WB	19°C	WB	20°C	WB	22°C	CWB	24°C	:WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.00	11.05	8.58	11.37	8.52	11.72	8.46	12.42	8.88	13.12	8.72
13					10.79	8.17	11.46	8.75	11.79	8.68	12.16	8.63	12.91	9.06	13.65	8.89
15					11.16	8.34	11.87	8.92	12.22	8.86	12.61	8.80	13.39	9.23	14.17	9.06
17					11.54	8.51	12.27	9.09	12.64	9.03	13.05	8.97	13.87	9.40	14.69	9.23
19					11.80	8.63	12.55	9.21	12.93	9.14	13.34	9.09	14.18	9.51	15.02	9.34
21					12.05	8.74	12.83	9.33	13.21	9.26	13.64	9.20	14.49	9.62	15.34	9.45
23					12.05	8.74	12.85	9.34	13.24	9.27	13.67	9.22	14.54	9.64	15.40	9.47
25			11.19	8.87	12.05	8.74	12.88	9.35	13.27	9.28	13.71	9.23	14.58	9.66	15.45	9.49
27			11.14	8.85	12.05	8.74	12.91	9.36	13.30	9.30	13.70	9.23	14.49	9.62		
29			11.05	8.80	11.88	8.66	12.70	9.27	13.10	9.21	13.51	9.15	14.31	9.56		
31			10.95	8.75	11.71	8.59	12.49	9.18	12.90	9.13	13.31	9.07	14.13	9.49		
33	10.26	8.22	10.73	8.64	11.53	8.50	12.29	9.10	12.70	9.05	13.11	8.99	13.94	9.42		
35	9.71	7.93	10.39	8.48	11.36	8.43	12.08	9.01	12.50	8.97	12.92	8.92	13.76	9.36		
37	9.60	7.88	10.22	8.40	11.15	8.33	11.86	8.92	12.26	8.87	12.67	8.82	13.47	9.25		
39	9.48	7.82	10.05	8.32	10.94	8.24	11.64	8.82	12.03	8.78	12.41	8.72	13.18	9.15		
41	9.36	7.75	9.89	8.24	10.74	8.15	11.42	8.73	11.79	8.68	12.16	8.63	12.89	9.05		
43	9.25	7.70	9.72	8.16	10.53	8.05	11.21	8.65	11.55	8.59	11.90	8.53	12.60	8.95		

Note(1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows

TC :Total cooling capacity (kW) SHC :Sensible heat capacity (kW) HC :Heating capacity (kW)

Outdoor Indoor air temperature air temp. °CDB °CDB CWB 16 20 22 24 9.12 | 9.05 | 8.97 | 8.90 | 8.83 -19.8 -20 -17.7 -18 9.67 9.60 9.52 9.44 9.37 -15.7 -16 10.23 10.15 | 10.07 | 9.98 | 9.90 -13.5 10.67 10.59 10.50 10.42 10.33 -14 -11.5 -12 11.11 | 11.03 | 10.94 | 10.85 | 10.76 11.56 11.47 11.38 11.29 11.19 -10 -9.5 -7.5 -8 12.00 11.91 11.82 11.72 11.62 -5.5 -6 12.49 | 12.40 | 12.30 | 12.20 | 12.10 12.99 12.89 12.79 12.68 12.57 -3.0 -4 -1.0 -2 13.48 | 13.38 | 13.27 | 13.16 | 13.05 13.98 13.87 | 13.76 | 13.64 13.52 1.0 0 2.0 14.22 14.11 14.00 13.88 13.76 3.0 2 14.22 | 14.11 | 14.00 | 13.88 | 13.76 5.0 4 14.22 | 14.11 | 14.00 | 13.88 | 13.76 7.0 6 14.22 | 14.11 | 14.00 | 13.88 | 13.77 14.81 14.70 14.59 14.47 9.0 8 14.35 11.5 10 15.41 | 15.29 | 15.18 | 15.06 | 14.94 13.5 16.22 16.09 15.97 15.85 15.90 12 15.5 17.03 | 16.90 | 16.76 | 16.65 | 16.86 16.5 16 17.44 17.30 17.16 17.04 17.34

 Model
 FDF125VSXVD
 Indoor unit
 FDF125VD
 Outdoor unit
 FDC125VSX

 Cool Mode
 (kW)
 Heat Mode:HC
 (kW)

	Indoor air temperature															
Outdoor							Indoo	r air t	empe	rature						
1	18°C	DB	21°C	CDB	23°C	DB	26°0	DB	27°0	CDB	28°C	DB	31°C	CDB	33°C	CDB
air temp.	12°C	WB	14°C	CWB	16°C	CWB	18°C	WB	19°C	CWB	20°C	WB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					10.41	8.00	11.05	8.58	11.37	8.52	11.72	8.46	12.42	8.88	13.12	8.72
13					10.79	8.17	11.46	8.75	11.79	8.68	12.16	8.63	12.91	9.06	13.65	8.89
15					11.16	8.34	11.87	8.92	12.22	8.86	12.61	8.80	13.39	9.23	14.17	9.06
17					11.54	8.51	12.27	9.09	12.64	9.03	13.05	8.97	13.87	9.40	14.69	9.23
19					11.80	8.63	12.55	9.21	12.93	9.14	13.34	9.09	14.18	9.51	15.02	9.34
21					12.05	8.74	12.83	9.33	13.21	9.26	13.64	9.20	14.49	9.62	15.34	9.45
23					12.05	8.74	12.85	9.34	13.24	9.27	13.67	9.22	14.54	9.64	15.40	9.47
25			11.19	8.87	12.05	8.74	12.88	9.35	13.27	9.28	13.71	9.23	14.58	9.66	15.45	9.49
27			11.14	8.85	12.05	8.74	12.91	9.36	13.30	9.30	13.70	9.23	14.49	9.62		
29			11.05	8.80	11.88	8.66	12.70	9.27	13.10	9.21	13.51	9.15	14.31	9.56		
31			10.95	8.75	11.71	8.59	12.49	9.18	12.90	9.13	13.31	9.07	14.13	9.49		
33	10.26	8.22	10.73	8.64	11.53	8.50	12.29	9.10	12.70	9.05	13.11	8.99	13.94	9.42		
35	9.71	7.93	10.39	8.48	11.36	8.43	12.08	9.01	12.50	8.97	12.92	8.92	13.76	9.36		
37	9.60	7.88	10.22	8.40	11.15	8.33	11.86	8.92	12.26	8.87	12.67	8.82	13.47	9.25		
39	9.48	7.82	10.05	8.32	10.94	8.24	11.64	8.82	12.03	8.78	12.41	8.72	13.18	9.15		
41	9.36	7.75	9.89	8.24	10.74	8.15	11.42	8.73	11.79	8.68	12.16	8.63	12.89	9.05		
43	9.25	7.70	9.72	8.16	10.53	8.05	11.21	8.65	11.55	8.59	11.90	8.53	12.60	8.95		

- I lout ivi	000					(144)
Outd	oor	Ind	door a	ir tem	peratu	ıre
air te	mp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	14.11	14.00	13.89	13.78	13.66
-17.7	-18	14.17	14.06	13.94	13.83	13.72
-15.7	-16	14.23	14.11	14.00	13.89	13.77
-13.5	-14	14.23	14.11	14.00	13.89	13.77
-11.5	-12	14.22	14.11	14.00	13.89	13.77
-9.5	-10	14.22	14.11	14.00	13.89	13.77
-7.5	-8	14.22	14.11	14.00	13.89	13.77
-5.5	-6	14.22	14.11	14.00	13.88	13.77
-3.0	-4	14.22	14.11	14.00	13.88	13.77
-1.0	-2	14.22	14.11	14.00	13.88	13.76
1.0	0	14.22	14.11	14.00	13.88	13.76
2.0	1	14.22	14.11	14.00	13.88	13.76
3.0	2	14.22	14.11	14.00	13.88	13.76
5.0	4	14.22	14.11	14.00	13.88	13.76
7.0	6	14.22	14.11	14.00	13.88	13.77
9.0	8	14.81	14.70	14.59	14.47	14.35
11.5	10	15.41	15.29	15.18	15.06	14.94
13.5	12	16.22	16.09	15.97	15.85	15.90
15.5	14	17.03	16.90	16.76	16.65	16.86
16.5			17.30	17.16	17.04	17.34

PGA000Z770

 Model
 FDF140VNXVD
 Indoor unit
 FDF140VD
 Outdoor unit
 FDC140VNX

 Cool Mode
 (kW)
 Heat Mode:HC
 (kW)

																_
Outdoor							Indoc	r air t	empei	rature						
I	18°C	DB	21°0	CDB	23°0	CDB	26°C	DB	27°C	CDB	28°C	CDB	31°C	CDB	33°C	DB
air temp.	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	CWB	20°C	WB	22°C	CWB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	8.56	12.38	9.13	12.73	9.06	13.13	9.00	13.91	9.41	14.70	9.24
13					12.08	8.76	12.83	9.33	13.21	9.26	13.62	9.20	14.45	9.61	15.28	9.43
15					12.50	8.95	13.29	9.53	13.68	9.46	14.12	9.40	14.99	9.81	15.87	9.63
17					12.92	9.15	13.75	9.73	14.16	9.66	14.62	9.60	15.54	10.02	16.45	9.83
19					13.21	9.29	14.06	9.87	14.48	9.80	14.95	9.74	15.88	10.15	16.82	9.96
21					13.50	9.43	14.36	10.00	14.80	9.93	15.28	9.87	16.23	10.28	17.19	10.09
23					13.50	9.43	14.40	10.02	14.83	9.95	15.31	9.89	16.28	10.30	17.25	10.11
25			12.53	9.54	13.50	9.43	14.43	10.03	14.87	9.96	15.35	9.90	16.33	10.32	17.30	10.13
27			12.48	9.52	13.50	9.43	14.46	10.05	14.90	9.98	15.34	9.90	16.23	10.28		
29			12.37	9.46	13.31	9.34	14.23	9.94	14.68	9.88	15.13	9.81	16.03	10.20		
31			12.26	9.41	13.11	9.24	13.99	9.84	14.45	9.78	14.91	9.72	15.82	10.12		
33	11.49	8.87	12.02	9.28	12.92	9.15	13.76	9.73	14.23	9.69	14.69	9.63	15.61	10.04		
35	10.88	8.54	11.63	9.09	12.72	9.05	13.53	9.63	14.00	9.59	14.47	9.54	15.41	9.97		
37	10.75	8.47	11.45	9.00	12.49	8.95	13.29	9.53	13.74	9.48	14.18	9.42	15.08	9.84		
39	10.62	8.41	11.26	8.90	12.26	8.84	13.04	9.42	13.47	9.37	13.90	9.31	14.76	9.72		
41	10.49	8.34	11.07	8.81	12.02	8.73	12.80	9.31	13.21	9.26	13.62	9.20	14.44	9.61		
43	10.35	8.26	10.89	8.72	11.79	8.62	12.55	9.21	12.94	9.15	13.33	9.08	14.11	9.49		

Note(1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m

Level difference of Zero.

(3) Symbols are as follows

TC :Total cooling capacity (kW) SHC :Sensible heat capacity (kW)

HC :Heating capacity (kW)

Outdoor Indoor air temperatur										
Outd	oor	Ind	door a	ir tem	peratu	ire				
air te	mp.			°CDB						
°CDB	°CWB	16	18	20	22	24				
-19.8	-20	10.42	10.34	10.26	10.17	10.09				
-17.7	-18	11.06	10.97	10.88	10.79	10.70				
-15.7	-16	11.69	11.60	11.50	11.41	11.32				
-13.5	-14	12.20	12.10	12.00	11.91	11.81				
-11.5	-12	12.70	12.60	12.50	12.40	12.30				
-9.5	-10	13.21	13.11	13.00	12.90	12.79				
-7.5	-8	13.71	13.61	13.50	13.39	13.28				
-5.5	-6	14.28	14.17	14.06	13.94	13.83				
-3.0	-4	14.84	14.73	14.61	14.49	14.37				
-1.0	-2	15.41	15.29	15.17	15.04	14.91				
1.0	0	15.97	15.85	15.72	15.59	15.45				
2.0	1	16.26	16.13	16.00	15.86	15.73				
3.0	2	16.25	16.13	16.00	15.86	15.73				
5.0	4	16.25	16.13	16.00	15.86	15.73				
7.0	6	16.25	16.12	16.00	15.87	15.73				
9.0	8	16.93	16.80	16.68	16.54	16.40				
11.5	10	17.61	17.48	17.35	17.21	17.07				
13.5	12	18.53	18.39	18.25	18.12	18.17				
15.5	14	19.46	19.31	19.16	19.02	19.27				
16.5	16	19.93	19.77	19.61	19.48	19.82				

ModelFDF140VSXVDIndoor unitFDF140VDOutdoor unitFDC140VSXCool Mode(kW)Heat Mode:HC(kW)

	. Indoor air temperature															
Outdoor							Indoc	r air t	empei	rature						
1	18°C	DB	21°0	CDB	23°C	DB	26°0	DB	27°0	CDB	28°C	DB	31°C	CDB	33°C	CDB
air temp.	12°C	WB	14°C	CWB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	8.56	12.38	9.13	12.73	9.06	13.13	9.00	13.91	9.41	14.70	9.24
13					12.08	8.76	12.83	9.33	13.21	9.26	13.62	9.20	14.45	9.61	15.28	9.43
15					12.50	8.95	13.29	9.53	13.68	9.46	14.12	9.40	14.99	9.81	15.87	9.63
17					12.92	9.15	13.75	9.73	14.16	9.66	14.62	9.60	15.54	10.02	16.45	9.83
19					13.21	9.29	14.06	9.87	14.48	9.80	14.95	9.74	15.88	10.15	16.82	9.96
21					13.50	9.43	14.36	10.00	14.80	9.93	15.28	9.87	16.23	10.28	17.19	10.09
23					13.50	9.43	14.40	10.02	14.83	9.95	15.31	9.89	16.28	10.30	17.25	10.11
25			12.53	9.54	13.50	9.43	14.43	10.03	14.87	9.96	15.35	9.90	16.33	10.32	17.30	10.13
27			12.48	9.52	13.50	9.43	14.46	10.05	14.90	9.98	15.34	9.90	16.23	10.28		
29			12.37	9.46	13.31	9.34	14.23	9.94	14.68	9.88	15.13	9.81	16.03	10.20		
31			12.26	9.41	13.11	9.24	13.99	9.84	14.45	9.78	14.91	9.72	15.82	10.12		
33	11.49	8.87	12.02	9.28	12.92	9.15	13.76	9.73	14.23	9.69	14.69	9.63	15.61	10.04		
35	10.88	8.54	11.63	9.09	12.72	9.05	13.53	9.63	14.00	9.59	14.47	9.54	15.41	9.97		
37	10.75	8.47	11.45	9.00	12.49	8.95	13.29	9.53	13.74	9.48	14.18	9.42	15.08	9.84		
39	10.62	8.41	11.26	8.90	12.26	8.84	13.04	9.42	13.47	9.37	13.90	9.31	14.76	9.72		
41	10.49	8.34	11.07	8.81	12.02	8.73	12.80	9.31	13.21	9.26	13.62	9.20	14.44	9.61		
43	10.35	8.26	10.89	8.72	11.79	8.62	12.55	9.21	12.94	9.15	13.33	9.08	14.11	9.49		

						` '
Outd	oor	Ind	door a	ir tem	peratu	ire
air te	mp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	16.13	16.00	15.87	15.74	15.61
-17.7	-18	16.19	16.07	15.94	15.81	15.68
-15.7	-16	16.26	16.13	16.00	15.87	15.74
-13.5	-14	16.26	16.13	16.00	15.87	15.74
-11.5	-12	16.25	16.13	16.00	15.87	15.74
-9.5	-10	16.25	16.13	16.00	15.87	15.74
-7.5	-8	16.25	16.12	16.00	15.87	15.74
-5.5	-6	16.25	16.13	16.00	15.87	15.74
-3.0	-4	16.25	16.13	16.00	15.87	15.73
-1.0	-2	16.25	16.13	16.00	15.86	15.73
1.0	0	16.25	16.13	16.00	15.86	15.73
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5			19.77	19.61	19.48	19.82

PGA000Z770

(b) Twin type

Model FDF140VNXPVD1Indoor unitFDF71VD1 (2 units)Outdoor unitFDC140VNXCool Mode(kW)

Outdoor							Indoc	r air t	empei	rature						
	18°C	DB	21°C	CDB	23°C	CDB	26°0	DB	27°C	CDB	28°C	CDB	31°0	DB	33°0	CDB
air temp.	12°C	WB	14°C	CWB	16°C	WB	18°C	WB	19°C	CWB	20°C	WB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.16	12.38	9.89	12.73	9.77	13.13	9.66	13.91	10.17	14.70	9.89
13					12.08	9.31	12.83	10.04	13.21	9.92	13.62	9.80	14.45	10.32	15.28	10.03
15					12.50	9.47	13.29	10.20	13.68	10.07	14.12	9.96	14.99	10.46	15.87	10.17
17					12.92	9.63	13.75	10.36	14.16	10.23	14.62	10.11	15.54	10.62	16.45	10.31
19					13.21	9.74	14.06	10.46	14.48	10.34	14.95	10.21	15.88	10.71	16.82	10.40
21					13.50	9.85	14.36	10.57	14.80	10.44	15.28	10.32	16.23	10.81	17.19	10.49
23					13.50	9.85	14.40	10.58	14.83	10.45	15.31	10.33	16.28	10.82	17.25	10.51
25			12.53	10.14	13.50	9.85	14.43	10.59	14.87	10.47	15.35	10.34	16.33	10.84	17.30	10.52
27			12.48	10.12	13.50	9.85	14.46	10.60	14.90	10.48	15.34	10.34	16.23	10.81		
29			12.37	10.07	13.31	9.78	14.23	10.52	14.68	10.40	15.13	10.27	16.03	10.75		
31			12.26	10.02	13.11	9.70	13.99	10.44	14.45	10.33	14.91	10.20	15.82	10.69		
33	11.49	9.37	12.02	9.92	12.92	9.63	13.76	10.36	14.23	10.25	14.69	10.13	15.61	10.64		
35	10.88	9.10	11.63	9.76	12.72	9.55	13.53	10.28	14.00	10.18	14.47	10.06	15.41	10.58		
37	10.75	9.04	11.45	9.69	12.49	9.47	13.29	10.20	13.74	10.09	14.18	9.97	15.08	10.49		
39	10.62	8.98	11.26	9.61	12.26	9.38	13.04	10.11	13.47	10.01	13.90	9.89	14.76	10.40		
41	10.49	8.92	11.07	9.54	12.02	9.29	12.80	10.03	13.21	9.92	13.62	9.80	14.44	10.31		
43	10.35	8.86	10.89	9.46	11.79	9.21	12.55	9.95	12.94	9.84	13.33	9.72	14.11	10.23		

Note(1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions. Corresponding refrigerant piping length :7.5m

Level difference of Zero.
(3) Symbols are as follows

TC :Total cooling capacity (kW)

SHC :Sensible heat capacity (kW)

HC :Heating capacity (kW)

Heat Mode:HC

(kW)

						· /
Outd	oor	Ind	door a	ir tem	peratu	ıre
air te	mp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

Model FDF140VSXPVD1Indoor unitFDF71VD1 (2 units)Outdoor unitFDC140VSXCool Mode(kW) Heat Mode:HC

Outdoor	or Indoor air temperature															
Outdoor	18°0	CDB	21°C	CDB	23°C	CDB	26°0	CDB	27°C	CDB	28°C	CDB	31°0	CDB	33°C	DB
air temp.	12°C	CWB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	WB	22°C	CWB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.16	12.38	9.89	12.73	9.77	13.13	9.66	13.91	10.17	14.70	9.89
13					12.08	9.31	12.83	10.04	13.21	9.92	13.62	9.80	14.45	10.32	15.28	10.03
15					12.50	9.47	13.29	10.20	13.68	10.07	14.12	9.96	14.99	10.46	15.87	10.17
17					12.92	9.63	13.75	10.36	14.16	10.23	14.62	10.11	15.54	10.62	16.45	10.31
19					13.21	9.74	14.06	10.46	14.48	10.34	14.95	10.21	15.88	10.71	16.82	10.40
21					13.50	9.85	14.36	10.57	14.80	10.44	15.28	10.32	16.23	10.81	17.19	10.49
23					13.50	9.85	14.40	10.58	14.83	10.45	15.31	10.33	16.28	10.82	17.25	10.51
25			12.53	10.14	13.50	9.85	14.43	10.59	14.87	10.47	15.35	10.34	16.33	10.84	17.30	10.52
27			12.48	10.12	13.50	9.85	14.46	10.60	14.90	10.48	15.34	10.34	16.23	10.81		
29			12.37	10.07	13.31	9.78	14.23	10.52	14.68	10.40	15.13	10.27	16.03	10.75		
31			12.26	10.02	13.11	9.70	13.99	10.44	14.45	10.33	14.91	10.20	15.82	10.69		
33	11.49	9.37	12.02	9.92	12.92	9.63	13.76	10.36	14.23	10.25	14.69	10.13	15.61	10.64		
35	10.88	9.10	11.63	9.76	12.72	9.55	13.53	10.28	14.00	10.18	14.47	10.06	15.41	10.58		
37	10.75	9.04	11.45	9.69	12.49	9.47	13.29	10.20	13.74	10.09	14.18	9.97	15.08	10.49		
39	10.62	8.98	11.26	9.61	12.26	9.38	13.04	10.11	13.47	10.01	13.90	9.89	14.76	10.40		
41	10.49	8.92	11.07	9.54	12.02	9.29	12.80	10.03	13.21	9.92	13.62	9.80	14.44	10.31		
43	10.35	8.86	10.89	9.46	11.79	9.21	12.55	9.95	12.94	9.84	13.33	9.72	14.11	10.23		

Note(1) These data show average status.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.(Cooling only)

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows

TC :Total cooling capacity (kW) SHC :Sensible heat capacity (kW) HC :Heating capacity (kW)

(kW) Outdoor Indoor air temperature air temp. °CDB °CDB °CWB 16 18 20 22 24 -19.8 16.13 16.00 15.87 15.74 15.61 -20 -17.7 -18 16.19 16.07 15.94 15.81 15.68 16.26 | 16.13 | 16.00 | 15.87 | 15.74 -15.7 -16 -13.5 -14 16.26 16.13 16.00 15.87 15.74 -11.5 -12 16.25 | 16.13 | 16.00 | 15.87 | 15.74 16.25 16.13 16.00 15.87 15.74 -9.5 -10 -7.5 -8 16.25 | 16.12 | 16.00 | 15.87 | 15.74 16.25 16.13 16.00 15.87 15.74 -5.5 -6 -3.0 -4 16.25 16.13 16.00 15.87 15.73 16.00 15.86 15.73 -1.0 -2 16.25 16.13 1.0 16.25 16.13 16.00 15.86 15.73 0 2.0 1 16.26 | 16.13 | 16.00 | 15.86 | 15.73 3.0 2 16.25 16.13 16.00 15.86 15.73 5.0 4 16.25 16.13 16.00 15.86 15.73 16.25 16.12 16.00 15.87 15.73 7.0 6 9.0 8 16.93 16.80 16.68 16.54 16.40 11.5 10 | 17.61 | 17.48 | 17.35 | 17.21 | 17.07 12 18.53 18.39 18.25 18.12 18.17 13.5 15.5 14 19.46 | 19.31 | 19.16 | 19.02 | 19.27 16.5 16 19.93 19.77 19.61 19.48 19.82

(7) Wall mounted type (SRK)

(a) Twin type

Model SRK100VNXPZMX Indoor unit SRK50ZMX-S (2 units) Outdoor unit FDC100VNX

Cool Mode (kW) Heat Mode:HC

Outdoor							Indo	or air t	emper	ature						
air temp.	18°(CDB	21°(CDB	23°(CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	DDB	33°0	DB
un tomp.	12°0	CWB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	CWB	22°C	WB	24°C	WB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					8.33	6.87	8.84	7.42	9.10	7.37	9.38	7.32	9.94	7.73	10.50	7.60
13					8.63	7.00	9.17	7.55	9.43	7.49	9.73	7.45	10.32	7.86	10.92	7.73
15					8.93	7.13	9.49	7.68	9.77	7.62	10.09	7.58	10.71	7.99	11.34	7.86
17					9.23	7.26	9.82	7.81	10.11	7.76	10.44	7.71	11.10	8.13	11.75	7.99
19					9.44	7.35	10.04	7.90	10.34	7.85	10.68	7.80	11.35	8.21	12.01	8.07
21					9.64	7.44	10.26	7.99	10.57	7.94	10.91	7.89	11.59	8.30	12.28	8.16
23					9.64	7.44	10.28	8.00	10.59	7.94	10.94	7.90	11.63	8.31	12.32	8.17
25			8.95	7.56	9.64	7.44	10.30	8.01	10.62	7.96	10.97	7.91	11.66	8.32	12.36	8.18
27			8.91	7.54	9.64	7.44	10.33	8.02	10.64	7.96	10.96	7.91	11.59	8.30		
29			8.84	7.51	9.51	7.38	10.16	7.95	10.48	7.90	10.80	7.85	11.45	8.25		
31			8.76	7.47	9.37	7.32	10.00	7.88	10.32	7.84	10.65	7.79	11.30	8.19		
33	8.21	6.97	8.58	7.39	9.23	7.26	9.83	7.81	10.16	7.78	10.49	7.73	11.15	8.14		
35	7.77	6.76	8.31	7.26	9.09	7.20	9.66	7.75	10.00	7.71	10.34	7.67	11.01	8.09		
37	7.68	6.71	8.18	7.20	8.92	7.12	9.49	7.68	9.81	7.64	10.13	7.60	10.77	8.01		
39	7.58	6.66	8.04	7.14	8.76	7.06	9.31	7.61	9.62	7.57	9.93	7.52	10.54	7.93		
41	7.49	6.62	7.91	7.08	8.59	6.98	9.14	7.54	9.43	7.49	9.73	7.45	10.31	7.86		
43	7.40	6.57	7.78	7.02	8.42	6.91	8.96	7.47	9.24	7.42	9.52	7.37	10.08	7.78		

Outdo air ter			door a	ir temp	peratu	re
	· -					-
°CDB	CWB			°CDB		
		16	18	20	22	24
-19.8	-20	7.30	7.24	7.18	7.12	7.06
-17.7	-18	7.74	7.68	7.62	7.55	7.49
-15.7	-16	8.18	8.12	8.05	7.99	7.92
-13.5	-14	8.54	8.47	8.40	8.33	8.27
-11.5	-12	8.89	8.82	8.75	8.68	8.61
-9.5	-10	9.25	9.17	9.10	9.03	8.95
-7.5	-8	9.60	9.53	9.45	9.38	9.30
-5.5	-6	10.00	9.92	9.84	9.76	9.68
-3.0	-4	10.39	10.31	10.23	10.14	10.06
-1.0	-2	10.79	10.70	10.62	10.53	10.44
1.0	0	11.18	11.09	11.01	10.91	10.82
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

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(kW)

Model SRK100VSXPZMX Indoor unit SRK50ZMX-S (2 units) Outdoor unit FDC100VSX Cool Mode

Indoor air temperature Outdoo 18°CDB 21°CDB 23°CDB 28°CDB 31°CDB 33°CDB 26°CDB 27°CDB air temp 12°CWB 14°CWB 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 24°CWB °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 7.37 7.32 7.73 11 8.33 6.87 8.84 7.42 9.10 9.38 9.94 10.50 7.60 8.63 7.00 9.17 7.55 9.43 7.49 7.45 10.32 7.86 10.92 7.73 13 9.73 15 8.93 7.13 9.49 7.68 9.77 7.62 10.09 7.58 10.71 7.99 11.34 7.86 17 9.23 7.26 9.82 7.81 10.11 7.76 10.44 7.71 11.10 8.13 11.75 7.99 12.01 19 9.44 7.35 10.04 7.90 10.34 7.85 10.68 7.80 11.35 8.21 8.07 21 9.64 7.44 10.26 7.99 10.57 7.94 10.91 7.89 11.59 8.30 12.28 8.16 23 9.64 7.44 10.28 8.00 10.59 7.94 10.94 7.90 11.63 8.31 12.32 8.17 25 8.95 7.56 9.64 7.44 10.30 8.01 10.62 7.96 10.97 7.91 11.66 8.32 12.36 8.18 9.64 27 7.54 7.44 10.33 8.02 10.64 7.96 10.96 7.91 11.59 8.91 8.30 9.51 10.48 11.45 29 8.84 7.51 7.38 10.16 7.95 7.90 10.80 7.85 8.25 31 8.76 7.47 9.37 7.32 10.00 7.88 10.32 7.84 10.65 7.79 11.30 8.19 33 8.21 6.97 8.58 7.39 9.23 7.26 9.83 7.81 10.16 7.78 10.49 7.73 11.15 8.14 9.09 7.20 9.66 10.00 10.34 7.67 11.01 8.09 35 7.77 6.76 8.31 7.26 7.75 7.71 7.20 8.92 7.12 9.49 7.68 9.81 10.13 7.60 10.77 8.01 37 7.68 6.71 8.18 7.64 39 7.58 6.66 8.04 7.14 8.76 7.06 9.31 7.61 9.62 7.57 9.93 7.52 10.54 7.93 7.49 7.91 7.08 7.54 7.49 7.45 7.86 41 6.62 8.59 6.98 9.14 9.43 9.73 10.31 9.24 7.40 6.57 7.78 7.02 8.42 6.91 8.96 7.47 7.42 9.52 7.37 10.08 7.78

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously.

These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero.

(3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC: Heating capacity (kW)

		١ ,				
Out		ln	door a	ir temp	eratur	e
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	11.29	11.20	11.11	11.02	10.93
-17.7	-18	11.34	11.25	11.16	11.06	10.97
-15.7	-16	11.38	11.29	11.20	11.11	11.02
-13.5	-14	11.38	11.29	11.20	11.11	11.02
-11.5	-12	11.38	11.29	11.20	11.11	11.02
-9.5	-10	11.38	11.29	11.20	11.11	11.02
-7.5	-8	11.37	11.29	11.20	11.11	11.02
-5.5	-6	11.38	11.29	11.20	11.11	11.02
-3.0	-4	11.38	11.29	11.20	11.11	11.01
-1.0	-2	11.38	11.29	11.20	11.11	11.01
1.0	0	11.38	11.29	11.20	11.10	11.01
2.0	1	11.38	11.29	11.20	11.10	11.01
3.0	2	11.38	11.29	11.20	11.10	11.01
5.0	4	11.38	11.29	11.20	11.11	11.01
7.0	6	11.37	11.29	11.20	11.11	11.01
9.0	8	11.85	11.76	11.67	11.58	11.48
11.5	10	12.32	12.23	12.15	12.05	11.95
13.5	12	12.97	12.88	12.78	12.68	12.72
15.5	14	13.62	13.52	13.41	13.32	13.49
16.5	16	13.95	13.84	13.72	13.63	13.87

(kW) Heat Mode:HC

PCA001Z629

Model Cool M	SRK125VNXPZMX Indoor unit SRK60ZMX-S (2 units) Outdoor unit FDC12 ode									25VN)	((kW)	ŀ	Heat I	Mode:	HC				(kW)					
0							Indo	or air t	emper	ature						Ť	ſ	Out	door	In	door a	ir temp	eratur	re
Outdoor air temp.	18°(DDB	21°(CDB	23°0	DB	26°0	CDB	27°(CDB	28°0	DDB	31°0	CDB	33°0	CDB	١	air te				°CDB		\neg
all tellip.	12°C	WB	14°0	CWB	16°C	WB	18°C	CWB	19°C	CWB	20°C	WB	22°C	CWB	24°C	CWB	Ī	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ī	-19.8	-20	9.12	9.05	8.97	8.90	8.83
11					10.41	7.80	11.05	8.36	11.37	8.28	11.72	8.21	12.42	8.61	13.12	8.42		-17.7	-18	9.67	9.60	9.52	9.44	9.37
13					10.79	7.97	11.46	8.52	11.79	8.44	12.16	8.37	12.91	8.77	13.65	8.58		-15.7	-16	10.23	10.15	10.07	9.98	9.90
15					11.16	8.13	11.87	8.69	12.22	8.61	12.61	8.54	13.39	8.93	14.17	8.74		-13.5	-14	10.67	10.59	10.50	10.42	10.33
17					11.54	8.30	12.27	8.85	12.64	8.77	13.05	8.70	13.87	9.10	14.69	8.90		-11.5	-12	11.11	11.03	10.94	10.85	10.76
19					11.80	8.41	12.55	8.96	12.93	8.89	13.34	8.81	14.18	9.21	15.02	9.00		-9.5	-10	11.56	11.47	11.38	11.29	11.19
21					12.05	8.52	12.83	9.08	13.21	9.00	13.64	8.93	14.49	9.31	15.34	9.11		-7.5	-8	12.00	11.91	11.82	11.72	11.62
23					12.05	8.52	12.85	9.09	13.24	9.01	13.67	8.94	14.54	9.33	15.40	9.13		-5.5	-6	12.49	12.40	12.30	12.20	12.10
25			11.19	8.68	12.05	8.52	12.88	9.10	13.27	9.02	13.71	8.95	14.58	9.35	15.45	9.14		-3.0	-4	12.99	12.89	12.79	12.68	12.57
27			11.14	8.65	12.05	8.52	12.91	9.11	13.30	9.03	13.70	8.95	14.49	9.31				-1.0	-2	13.48	13.38	13.27	13.16	13.05
29			11.05	8.61	11.88	8.45	12.70	9.03	13.10	8.95	13.51	8.88	14.31	9.25			L	1.0	0	13.98	13.87	13.76	13.64	13.52
31			10.95	8.56	11.71	8.37	12.49	8.94	12.90	8.87	13.31	8.80	14.13	9.19			L	2.0	1	14.22	14.11	14.00	13.88	13.76
33	10.26	8.05	10.73	8.46	11.53	8.29	12.29	8.86	12.70	8.80	13.11	8.73	13.94	9.12				3.0	2	14.22	14.11	14.00	13.88	13.76
35	9.71	7.77	10.39	8.30	11.36	8.22	12.08	8.77	12.50	8.72	12.92	8.65	13.76	9.06				5.0	4	14.22	14.11	14.00	13.88	13.76
37	9.60	7.72	10.22	8.22	11.15	8.12	11.86	8.68	12.26	8.62	12.67	8.56	13.47	8.96				7.0	6	14.22	14.11	14.00	13.88	13.77
39	9.48	7.66	10.05	8.14	10.94	8.03	11.64	8.59	12.03	8.53	12.41	8.46	13.18	8.86				9.0	8	14.81	14.70	14.59	14.47	14.35
41	9.36	7.60	9.89	8.07	10.74	7.95	11.42	8.51	11.79	8.44	12.16	8.37	12.89	8.77				11.5	10	15.41	15.29	15.18	15.06	14.94
43	9.25	7.54	9.72	7.99	10.53	7.86	11.21	8.42	11.55	8.35	11.90	8.28	12.60	8.67				13.5	12	16.22	16.09	15.97	15.85	15.90
																		15.5	14	17.03	16.90	16.76	16.65	16.86
																		16.5	16	17.44	17.30	17.16	17.04	17.34

PCA001Z629

Model		125VS	SXPZI	ИX	Indoo	r unit	SRK	60ZMX	<-S (2	units)	Oı	utdoor	unit	FDC1	25VSX		
Cool Mo	ode															(kW)	H
Outdoor							Indo	or air t	emper	ature							١
air temp.	18°(CDB	21°(CDB	23°(CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°(CDB	33°0	DB	١
un tomp.	12°C	CWB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	WB	22°C	CWB	24°C	:WB	Г
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
11					10.41	7.80	11.05	8.36	11.37	8.28	11.72	8.21	12.42	8.61	13.12	8.42	
13					10.79	7.97	11.46	8.52	11.79	8.44	12.16	8.37	12.91	8.77	13.65	8.58	Ŀ
15					11.16	8.13	11.87	8.69	12.22	8.61	12.61	8.54	13.39	8.93	14.17	8.74	Ŀ
17					11.54	8.30	12.27	8.85	12.64	8.77	13.05	8.70	13.87	9.10	14.69	8.90	
19					11.80	8.41	12.55	8.96	12.93	8.89	13.34	8.81	14.18	9.21	15.02	9.00	Г
21					12.05	8.52	12.83	9.08	13.21	9.00	13.64	8.93	14.49	9.31	15.34	9.11	
23					12.05	8.52	12.85	9.09	13.24	9.01	13.67	8.94	14.54	9.33	15.40	9.13	Г
25			11.19	8.68	12.05	8.52	12.88	9.10	13.27	9.02	13.71	8.95	14.58	9.35	15.45	9.14	Г
27			11.14	8.65	12.05	8.52	12.91	9.11	13.30	9.03	13.70	8.95	14.49	9.31			Г
29			11.05	8.61	11.88	8.45	12.70	9.03	13.10	8.95	13.51	8.88	14.31	9.25			Г
31			10.95	8.56	11.71	8.37	12.49	8.94	12.90	8.87	13.31	8.80	14.13	9.19			
33	10.26	8.05	10.73	8.46	11.53	8.29	12.29	8.86	12.70	8.80	13.11	8.73	13.94	9.12			Г
35	9.71	7.77	10.39	8.30	11.36	8.22	12.08	8.77	12.50	8.72	12.92	8.65	13.76	9.06			Г
37	9.60	7.72	10.22	8.22	11.15	8.12	11.86	8.68	12.26	8.62	12.67	8.56	13.47	8.96			
39	9.48	7.66	10.05	8.14	10.94	8.03	11.64	8.59	12.03	8.53	12.41	8.46	13.18	8.86			Γ
41	9.36	7.60	9.89	8.07	10.74	7.95	11.42	8.51	11.79	8.44	12.16	8.37	12.89	8.77			Г
43	9.25	7.54	9.72	7.99	10.53	7.86	11.21	8.42	11.55	8.35	11.90	8.28	12.60	8.67			

Note(1) These data show average statuses.

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length :7.5m Level difference of Zero.

(3) Symbols are as follows.
TC: Total cooling capacity (kW)
SHC: Sensible heat capacity (kW)
HC: Heating capacity (kW)

Heat I	Mode:	НС				(kW)
Out	door	In	door a	ir temp	eratur	e
air te	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	14.11	14.00	13.89	13.78	13.66
-17.7	-18	14.17	14.06	13.94	13.83	13.72
-15.7	-16	14.23	14.11	14.00	13.89	13.77
-13.5	-14	14.23	14.11	14.00	13.89	13.77
-11.5	-12	14.22	14.11	14.00	13.89	13.77
-9.5	-10	14.22	14.11	14.00	13.89	13.77
-7.5	-8	14.22	14.11	14.00	13.89	13.77
-5.5	-6	14.22	14.11	14.00	13.88	13.77
-3.0	-4	14.22	14.11	14.00	13.88	13.77
-1.0	-2	14.22	14.11	14.00	13.88	13.76
1.0	0	14.22	14.11	14.00	13.88	13.76
2.0	1	14.22	14.11	14.00	13.88	13.76
3.0	2	14.22	14.11	14.00	13.88	13.76
5.0	4	14.22	14.11	14.00	13.88	13.76
7.0	6	14.22	14.11	14.00	13.88	13.77
9.0	8	14.81	14.70	14.59	14.47	14.35
11.5	10	15.41	15.29	15.18	15.06	14.94
13.5	12	16.22	16.09	15.97	15.85	15.90
15.5	14	17.03	16.90	16.76	16.65	16.86
16.5	16	17.44	17.30	17.16	17.04	17.34

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(b) Triple type

Model SRK140VNXTZMX Indoor unit SRK50ZMX-S (3 units) Outdoor unit FDC140VNX (kW) Heat Mode:HC (1/1/1) Cool Mode

Outdoor							Indo	or air t	emper	ature						
air temp.	18°0	CDB	21°(CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33°0	CDB
all tomp.	12°C	CWB	14°C	CWB	16°C	CWB	18°C	CWB	19°C	CWB	20°C	CWB	22°C	CWB	24°C	CWB
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11					11.66	9.96	12.38	10.79	12.73	10.71	13.13	10.64	13.91	11.27	14.70	11.09
13					12.08	10.13	12.83	10.96	13.21	10.89	13.62	10.82	14.45	11.45	15.28	11.26
15					12.50	10.31	13.29	11.14	13.68	11.07	14.12	11.00	14.99	11.63	15.87	11.44
17					12.92	10.49	13.75	11.32	14.16	11.25	14.62	11.18	15.54	11.81	16.45	11.62
19					13.21	10.61	14.06	11.45	14.48	11.37	14.95	11.30	15.88	11.93	16.82	11.73
21					13.50	10.74	14.36	11.57	14.80	11.49	15.28	11.43	16.23	12.04	17.19	11.85
23					13.50	10.74	14.40	11.58	14.83	11.50	15.31	11.44	16.28	12.06	17.25	11.87
25			12.53	10.92	13.50	10.74	14.43	11.59	14.87	11.52	15.35	11.45	16.33	12.08	17.30	11.88
27			12.48	10.90	13.50	10.74	14.46	11.61	14.90	11.53	15.34	11.45	16.23	12.04		
29			12.37	10.85	13.31	10.66	14.23	11.51	14.68	11.45	15.13	11.37	16.03	11.98		
31			12.26	10.80	13.11	10.57	13.99	11.42	14.45	11.36	14.91	11.29	15.82	11.91		
33	11.49	10.05	12.02	10.69	12.92	10.49	13.76	11.33	14.23	11.27	14.69	11.21	15.61	11.83		
35	10.88	9.75	11.63	10.51	12.72	10.40	13.53	11.24	14.00	11.19	14.47	11.13	15.41	11.77		
37	10.75	9.69	11.45	10.43	12.49	10.31	13.29	11.14	13.74	11.09	14.18	11.02	15.08	11.66		
39	10.62	9.63	11.26	10.34	12.26	10.21	13.04	11.04	13.47	10.99	13.90	10.92	14.76	11.55		
41	10.49	9.57	11.07	10.26	12.02	10.11	12.80	10.95	13.21	10.89	13.62	10.82	14.44	11.44		
43	10.35	9.50	10.89	10.18	11.79	10.01	12.55	10.85	12.94	10.79	13.33	10.72	14.11	11.33		

неат і	vioae:	нС				(KVV)
	door	In	door a		oeratui	e
_	emp.			°CDB		
°CDB	°CWB	16	18	20	22	24
-19.8	-20	10.42	10.34	10.26	10.17	10.09
-17.7	-18	11.06	10.97	10.88	10.79	10.70
-15.7	-16	11.69	11.60	11.50	11.41	11.32
-13.5	-14	12.20	12.10	12.00	11.91	11.81
-11.5	-12	12.70	12.60	12.50	12.40	12.30
-9.5	-10	13.21	13.11	13.00	12.90	12.79
-7.5	-8	13.71	13.61	13.50	13.39	13.28
-5.5	-6	14.28	14.17	14.06	13.94	13.83
-3.0	-4	14.84	14.73	14.61	14.49	14.37
-1.0	-2	15.41	15.29	15.17	15.04	14.91
1.0	0	15.97	15.85	15.72	15.59	15.45
2.0	1	16.26	16.13	16.00	15.86	15.73
3.0	2	16.25	16.13	16.00	15.86	15.73
5.0	4	16.25	16.13	16.00	15.86	15.73
7.0	6	16.25	16.12	16.00	15.87	15.73
9.0	8	16.93	16.80	16.68	16.54	16.40
11.5	10	17.61	17.48	17.35	17.21	17.07
13.5	12	18.53	18.39	18.25	18.12	18.17
15.5	14	19.46	19.31	19.16	19.02	19.27
16.5	16	19.93	19.77	19.61	19.48	19.82

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Model SRK140VSXTZMX Indoor unit SRK50ZMX-S (3 units) Outdoor unit FDC140VSX Cool Mode

Indoor air temperature Outdoo 18°CDB 21°CDB 23°CDB 26°CDB 27°CDB 28°CDB 31°CDB 33°CDB air temp 16°CWB 18°CWB 19°CWB 20°CWB 22°CWB 12°CWB 14°CWB 24°CWB °CDB TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC TC SHC 11.66 9.96 12.38 10.79 12.73 10.71 13.13 10.64 13.91 11.27 14.70 11.09 13 12.08 10.13 12.83 10.96 13.21 10.89 13.62 10.82 14.45 11.45 15.28 11.26 14.99 11.63 11.44 15 12.50 10.31 13.29 11.14 13.68 11.07 14.12 11.00 15.87 17 12.92 10.49 13.75 11.32 14.16 11.25 14.62 11.18 15.54 11.81 16.45 11.62 19 13.21 10.61 14.06 11.45 14.48 11.37 14.95 11.30 15.88 11.93 16.82 11.73 15.28 21 13.50 10.74 14.36 11.57 14.80 11.49 11.43 16.23 12.04 17.19 11.85 23 13.50 10.74 14.40 11.58 14.83 11.50 15.31 11.44 16.28 12.06 17.25 11.87 10.74 14.43 11.59 11.52 11.45 16.33 12.08 17.30 25 12.53 10.92 13.50 14.87 15.35 11.88 27 12.48 10.90 13.50 10.74 14.46 11.61 14.90 11.53 15.34 11.45 16.23 12.04 29 10.66 14.23 14.68 11.45 16.03 11.98 12.37 10.85 13.31 11.51 15.13 11.37 31 12.26 10.80 13.11 10.57 13.99 11.42 14.45 11.36 14.91 11.29 15.82 11.91 33 11.49 10.05 12.02 10.69 12.92 10.49 13.76 11.33 14.23 11.27 14.69 11.21 15.61 11.83 11.19 35 10.88 9.75 11.63 10.51 12.72 10 40 13.53 11.24 14.00 14 47 11.13 15.41 11.77 37 10.75 9.69 11.45 10.43 12.49 10.31 13.29 11.14 13.74 11.09 14.18 11.02 15.08 11.66 39 10.62 9.63 11.26 10.34 12.26 10.21 13.04 11.04 13.47 10.99 13.90 10.92 14.76 11.55 41 10.49 9.57 11.07 10.26 12.02 10.11 12.80 10.95 13.21 10.89 13.62 10.82 14.44 11.44 10.18 11.79 10.01 12.55 14.11 11.33 43 10.35 9.50 10.89 10.85 12.94 10.79 13.33 10.72

Note(1) These data show average statuses

Depending on the system control, there may be ranges where the operation is not conducted continuously. These data show the case where the operation frequency of a compressor is fixed.

(2) Capacities are based on the following conditions.

Corresponding refrigerant piping length: 7.5m

Level difference of Zero. (3) Symbols are as follows.

TC: Total cooling capacity (kW) SHC: Sensible heat capacity (kW) HC : Heating capacity (kW)

(kW) Heat Mode:HC (kW) Indoor air temperature Outdoor air temp °CDB °CDB °CWB 20 24 16 18 22 19.8 -20 16.13 16.00 15.87 15.74 15.61 17.7 -18 16.19 16.07 15.94 15.81 15.68 -15.7-16 16.26 16.13 16.00 15.87 15.74 -14 16.13 16.00 15.74 -13.516.26 15.87 -11.5 -12 16.25 16.13 16.00 15.87 15.74 -9.5 -10 16.25 16.13 16.00 15.87 15.74 -7.5 -8 16.25 16.12 16.00 15.87 15.74 16.25 15.87 -5.5 -6 16.13 16.00 15.74 -3.0 -4 16.25 16.13 16.00 15.87 15.73 -1.0 -2 16.25 16.13 16.00 15.86 15.73 1.0 0 16.25 16.13 16.00 15.86 15.73 2.0 1 16.26 16.13 16.00 15.86 15.73 3.0 2 16.25 16.13 16.00 15.86 15.73 16.25 15.73 5.0 4 16.13 16.00 15.86 7.0 6 16.25 16.12 16.00 15.87 15.73 9.0 8 16.93 16.80 16.68 16.54 16.40 11.5 10 17.61 17.48 17.35 17.21 17.07 13.5 12 18.53 18.39 18.25 18.12 18.17 15.5 19.46 19.31 19.16 19.02 19.27 14 19.93 19.77 19.61 19.48 19.82 16.5 16

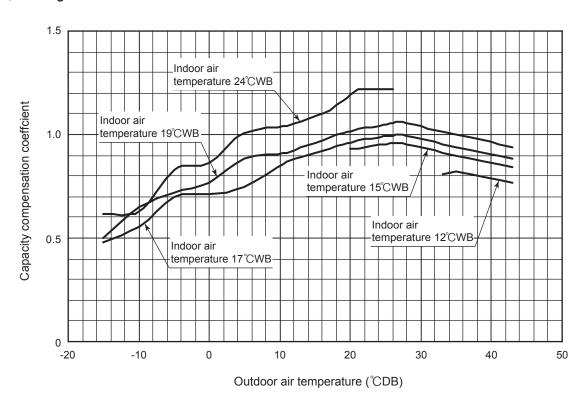
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[References data]

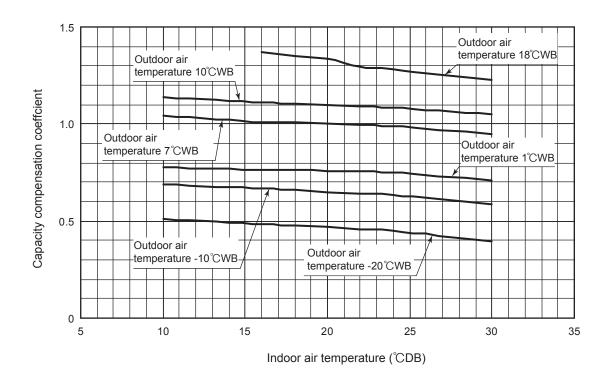
Capacity variation against outdoor and indoor temperature at rated capacity condition.

(I) Models SRC40, 50, 60ZMX-S

1 Cooling

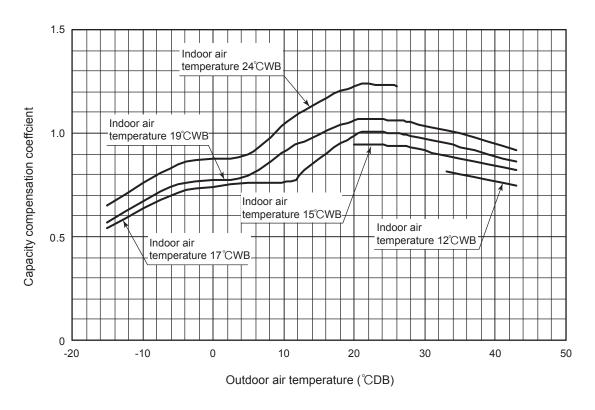


2 Heating

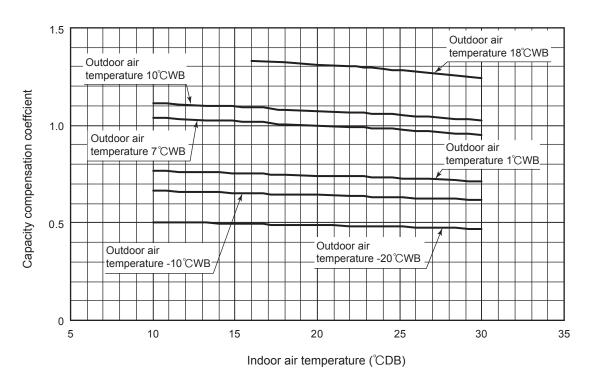


$({\rm I\hspace{-.1em}I}) \ \text{Model FDC71VNX}$

1 Cooling

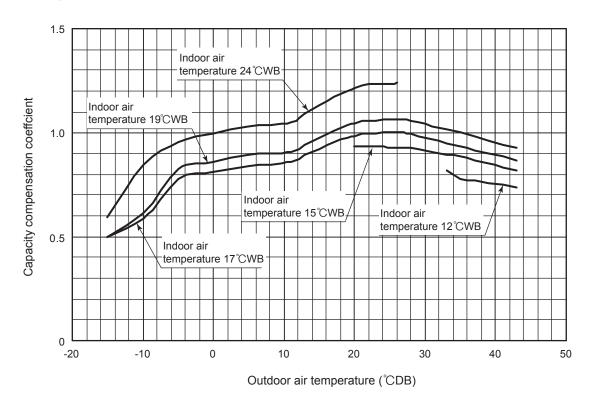


2 Heating

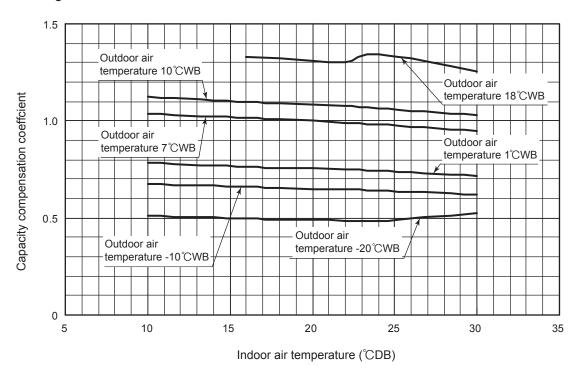


(III) Models FDC100, 125, 140VNX, 100, 125, 140VSX

${\color{red}\textbf{1}} \; \textbf{Cooling}$



2 Heating



1.9.2 Correction of cooling and heating capacity in relation to air flow rate control (fan speed)

Fan speed	P-Hi or Hi ⁽¹⁾	Me	Lo
Coefficient	1.00	0.97	0.95

Note (1) SRK series only.

1.9.3 Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way equivalent piping length between the indoor and outdoor units.

(1) Models 40-60

Piping length (m)	7	10	15	20	25	30
Cooling	1	0.99	0.975	0.965	0.95	0.935
Heating	1	1	1	1	1	1

(2) Models 71-140

Equivale	nt piping length (1)(n	n)	7.5	10	15	20	25	30	35	40	45	50	55
Heating		1	1	1	1	1	0.998	0.998	0.993	0.993	0.988	0.988	
	71 model		1	0.996	0.989	0.982	0.975	0.968	0.961	0.954	0.947	0.940	0.933
	100 model	φ 15.88	1	0.991	0.978	0.964	0.951	0.937	0.924	0.910	0.897	0.883	0.870
	125 model	Ψ13.88	1	0.986	0.968	0.950	0.932	0.914	0.896	0.878	0.860	0.842	0.824
Cooling	140 model		1	0.985	0.966	0.946	0.927	0.907	0.888	0.868	0.849	0.829	0.810
Cooming	71 model		1.008	1.006	1.003	1	0.997	0.994	0.991	0.988	0.985	0.982	0.979
	100 model	φ 19.05	1.016	1.013	1.007	1.002	0.996	0.991	0.985	0.980	0.974	0.969	0.963
	125 model	Ψ 19.03	1.022	1.018	1.009	1.001	0.992	0.984	0.975	0.967	0.958	0.950	0.941
Ī	140 model		1.026	1.021	1.011	1.002	0.992	0.983	0.973	0.964	0.954	0.945	0.935

Equivale	nt piping length ⁽¹⁾ (n	n)	60	65	70	75	80	85	90	95	100	105
Heating			0.983	0.983	0.978	0.978	0.973	0.973	0.968	0.968	0.963	0.963
	71 model		_	_	_	_	_	_	_	_	_	_
	100 model	φ 15.88	0.856	0.843	0.829	0.816	0.803	0.789	0.776	0.762	0.749	0.736
	125 model	Ψ13.88	0.806	0.788	0.770	0.752	0.734	0.716	0.698	0.680	0.662	0.644
Cooling	140 model		0.790	0.771	0.751	0.732	0.712	0.693	0.673	0.654	0.634	0.615
oconing	71 model		_	_	_	_	_	_	_	_	_	_
	100 model	φ 19.05	0.959	0.955	0.951	0.948	0.944	0.940	0.936	0.932	0.929	0.926
	125 model	ψ 19.03	0.935	0.929	0.924	0.919	0.912	0.908	0.902	0.897	0.892	0.887
	140 model		0.928	0.920	0.913	0.907	0.900	0.894	0.888	0.882	0.876	0.870

Note (1) Calculate the equivalent length using the following formula.

However, install the piping so that the piping length is within +5 m of the limit length (actual length) for the respective types.

• Equivalent length =Actual length + (Equivalent bend length x number of bends in the piping.) Equivalent length per bend. (Model 71-140 only)

Gas pipe diameter (mm)	φ12.7	φ 15.88	φ 19.05
Equivalent bend length	0.20	0.25	0.30

1.9.4 Height difference between the indoor unit and outdoor unit

When the outdoor unit is located below indoor units in cooling mode, or when the outdoor unit is located above indoor units in heating mode, the correction coefficient mentioned in the below table should be subtracted from the value in the above table.

Height difference between the indoor unit and outdoor unit in the vertical height difference	5m	10m	15m	20m	25m	30m
Adjustment coefficient	0.99	0.98	0.97	0.96	0.95	0.94

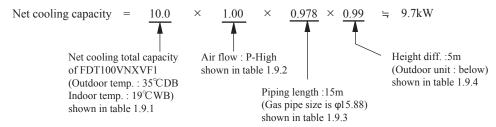
Piping length limitations

Model	40, 50, 60	71	100, 125, 140
Max. one way piping length	30m	50m	100m
Max. vertical height difference	Outdoor unit is higher 20m Outdoor unit is lower 20m		t is higher 30m it is lower 15m

Note (1) Values in the table indicate the one way piping length between the indoor and outdoor units.

How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model FDT100VNXVF1 with the air flow "P-High", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulb temperature at 19.0° C and outdoor dry-bulb temperature 35° C is



1.10 APPLICATION DATA

1.10.1 Installation of indoor unit

(1) Ceiling cassette-4way type (FDT)

This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to page 250. For remote control installation, refer to page 262. For wireless kit installation, refer to page 557. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 276. This unit always be used with the panel.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels [AWARNING] and [ACAUTION] <u>AWARNING</u>: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:

over the user's manual to the new user when the owner is changed.

Never do it under any circumstances. After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand

⚠ WARNING

Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit



Install the system correctly according to these installation manuals. Improper installation may cause explosion, injury, water leakage, electric shock, and fire

● Check the density refered by the foumula (accordance with ISO5149).



If the density exceeds the limit density, please consult the dealer and installate the ventilation system

Use the genuine accessories and the specified parts for installation. If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the

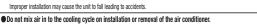


Ventilate the working area well in case the refrigerant leaks during installation. If the refrigerant contacts the fire, toxic gas is produced

●Install the unit in a location that can hold heavy weight. Improper installation may cause the unit to fall leading to acciden



• Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes Improper installation may cause the unit to fall leading to acciden





Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient capacity and improper work can cause electric shock and fire.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injur





order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire

● Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services Improper fitting may cause abnormal heat and fire



• Check for refrigerant gas leakage after installation is completed. If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.

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Use the specified pipe, flare nut, and tools for R410A.

Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle



Tighten the flare nut according to the specified method by with torque wrench.

If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period



• Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak. ■Connect the nines for refrigeration circuit securely in installation work before compressor is operated.



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If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.

• Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

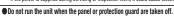
Only use prescribed option parts. The installation must be carried out by the qualified installer.

If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire

● Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire

Consult the dealer or a specialist about removal of the air conditioner. Improper installation may cause water leakage, electric shock or fir

 Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan



Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

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Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could se unit failure and electric shock due to a short circ

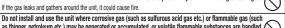
Farth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current. Using the incorrect one could cause the system failure and fire

 Do not use any materials other than a fuse of correct capacity where a fuse should be used Connecting the circuit by wire or copper wire could cause unit failure and fire

 Do not install the indoor unit near the location where there is possibility of flammable gas leakages If the gas leaks and gathers around the unit, it could cause fire.



as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled. It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire. Secure a space for installation, inspection and maintenance specified in the manual.



Insufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry. Indoor unit is not waterproof. It could cause electric shock and fire.

 Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items.

 Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics. Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunicatio

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equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause iamming, Do not install the remote control at the direct sunlight.

Do not install the indoor unit at the place listed below Places where cosmetics or special sprays are

Places where flammable gas could leak. Places where carbon fiber, metal powder or any powder is floated. Place where the substances which affect the air conditioner are generated such as suffide gas, chloride gas, acid, alkali or ammonic atmospheres. Places exposed to oil mist or steam directly.

It could cause breakdown or deformation of the remote contro

On vehicles and ships

frequently used.
Highly salted area such as beach.
Heavy snow area
Places where the system is affected by

smoke from a chimney Altitude over 1000m

Places where machinery which generates high harmonics is used. Do not install the indoor unit in the locations listed below (Re sure to install the indoor unit) out not instant the induor unit in the evaluations inset unew does are in instant the induor unit.

Locations with any obstacles which can prevent inlet and outlet air of the unit.

Locations where vibration can be amplified due to insufficient strength of structure.

Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)

initiate specification unity.

Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)

Locations where drainage cannot run off safely.

It can affect performance or function and etc...

 Do not put any valuables which will break down by getting wet under the air conditioner ion could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damag

 Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use. It could cause the unit falling down and injury.

Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.

If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.

 Install the drain pipe to drain the water surely according to the installation manual Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings

 Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) user's health and safety.

 Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping wor If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can 0 occur, which can cause serious accidents

• For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps and not to make air-bleeding. Check if the drainage is correctly done during commissioning and ensure the space for inspection and mai

 Ensure the insulation on the pipes for refrigeration circuit so as not to condense water Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables. Do not install the outdoor unit where is likely to be a nest for insects and small animals

Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.

 Pav extra attention, carrying the unit by hand. Carry the unit with 2 people if it is heavier than 20kg, Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.

Make sure to dispose of the packaging material.

tals like nail and woods are used in the packag Do not operate the system without the air filter.

It may cause the breakdown of the system due to clogging of the heat exchanger. Do not touch any button with wet hands.

Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would bec e very hot or cold according to the operating condition, and it could cause a burn or

 Do not clean up the air conditioner with water. It could cause electric shock.

Do not turn off the power source immediately after stopping the operation.

Do not control the operation with the circuit breaker

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

1Before installation

- Install correctly according to the installation manual.
- Confirm the following points:

OUnit type/Power supply specification OPipes/Wires/Small parts OAccessory items

Accessory item

For un	it hanging	For refrigerant pipe			For drain pipe			
Flat washer (M10)	Level gauge	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
0		6	6		0	0	a	()
8	1	1	1	4	1	1	1	1
For unit hanging	For unit hanging and adjustment	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

2 Selection of installation location for the indoor unit

- ① Select the suitable areas to install the unit under approval of the user
 - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on
 - · Areas where there is enough space to install and service.
 - · Areas where it can be drained properly. Areas where drain pipe descending slope can be
 - · Areas where there is no obstruction of airflow on both air return grille and air supply port.
 - · Areas where fire alarm will not be accidentally activated by the air conditioner.
 - Areas where the supply air does not short-circuit.
 Areas where it is not influenced by draft air.

 - · Areas not exposed to direct sunlight.
 - Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned

If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.

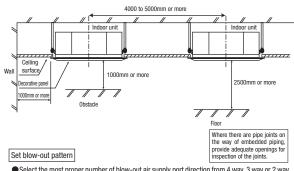
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- · Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- · Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.

(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)

- 2)Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.
- (3)If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.
- 4When plural indoor units are installed nearby, keep them away for more than 4 to 5m.

Space for installation and service

- When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short circuit of airflow
- Install the indoor unit at a height of more than 2.5m above the floor.



- Select the most proper number of blow-out air supply port direction from 4 way, 3 way or 2 way according to the shape of the room and installation position. (1 way is not available.)
- If it is necessary to change the number of air supply port, prepare the covering materials.
- Instruct the user not to use low fan speed when 2way or 3way air supply is used.
- Do not use 2way air supply port under high temperature and humidity environment. (Otherwise it could cause condensation and leakage of water.)
- It is possible to set the airflow direction port by port independently. Refer to the user's manual

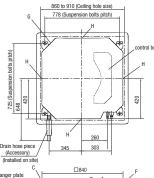
3 Preparation before installation

- If suspension bolt becomes longer, do reinforcement of earthquake resistant

When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

- OIn case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt. Prepare four (4) sets of suspension bolt, nut and spring washer (M10 or M8) on site.

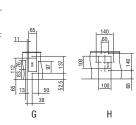
Ceiling opening, Suspension bolts pitch, Pipe position



		(mm)
Series	Туре	а
Single Split (PAC) series	40 to 71 type	246
	100 to 140 type	298
VRF (KX)	28 to 71 type	246
series	90 to 160 type	298

Drain hose piece (Accessory) (Installed on site)	
Hanger plate for suspention bolt	-
Air filter Air return grille	-

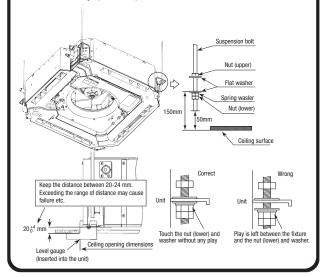




(4) Installation of indoor unit

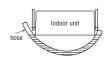
Work procedure

- Prepare a ceiling hole with the size of from 860mm × 860mm to 910mm × 910mm referring to the template attached in the package.
- Arrange the suspension bolt at the right position (725mm×778mm).
- Make sure to use four suspension bolts and fix them so as to be able to hold 500N load.
- Ensure that the lower end of the suspension bolt should be 50mm above the ceiling plane. Temporarily put the four lower nuts 150mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit
- Adjust the indoor unit position after hanging it by inserting the level gauge attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Confirm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer



(4) Installation of indoor unit (continued)

- Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
- 7. Tighten four upper nuts and fix the unit after height and levelness adjustment.



Caution

- Do not adjust the height by adjusting upper nuts. It will cause unexpected stress on the indoor unit and it will lead to deformation of the unit, failure of attaching a panel, and generating noise from the fan.
- Make sure to install the indoor unit horizontally and set the gap between the unit underside and the ceiling plane properly. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Even after decorative panel attached, still the unit height can be adjusted finely. Refer to the installation manual for decorative panel for details.
- Make sure there is no gap between decoration panel and ceiling surface, and between decoration panel and the indoor unit. The gap may cause air leakage, dew condensation and water leakage
- In case decorative panel is not installed at the same time, or ceiling material is installed after the unit installed, put the cardboard template for installation attached on the package (packing material of cardboard box) on the bottom of the unit in order to avoid dust coming into the indoor

5Refrigerant pipe

Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product or a nut compatible with JIS B 8607, Class 2 Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the
- outdoor unit, catalogue or technical data.
- To line as of reuse: Flare the end of pipe replaced partially for R410A.

 2) In case of reuse: Flare the end of pipe replaced partially for R410A.





Pipe dia.	Min. pipe	Protruding dimer	sion for flare, mm	Flare O.D.	Flare nut
d d	wall thickness	Rigid (CI	utch type)	D	tightening torque
mm	mm	For R410A Conventional tool		mm	N-m
6.35	0.8			8.9 ~ 9.1	14 ~ 18
9.52	0.8				$12.8 \sim 13.2$
12.7	8.0	0 ~ 0.5	0.7 ~ 1.3	16.2 ~ 16.6	49 ~ 61
15.88	1			$19.3 \sim 19.7$	68 ~ 72
19.05	1.2			23.6 ~ 24.0	100 ~ 120

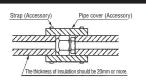
- •Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation.
 - In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than R410A.
- Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting,
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- Use special tools for R410A refrigerant.

Work procedure

- 1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
- * Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then
 - (Gas may come out at this time, but it is not abnormal.)
- Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- 2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. *Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending Do not twist a pipe or collapse to 2/3D or smaller.
 - *Do a flare connection as follows:
 - Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the coppe pipe, and then remove them.
 - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table below. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.
- 3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
 - Make sure to insulate both gas pipes and liquid pipes completely
 - XIncomplete insulation may cause dew condensation or water dropping.
- Refrigerant is charged in the outdoor unit.
 - As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

(5) Refrigerant pipe (continued)

Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion. Refrigerating machine oil may be applied to the internal surface of flare only.



6Drain pipe

Caution

- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

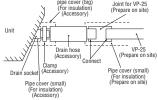
Work procedure

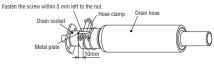
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.

Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut

The step part Drain hose

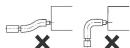
Do not apply adhesives on this end



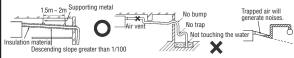


- 2. Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP-25 pipe (prepare on site). **As for drain pipe, apply VP-25 made of rigid PVC which is on the market.
- Make sure that the adhesive will not get into the supplied drain hose.
- It may cause the flexible part broken after the adhesive is dried up and gets rigid.

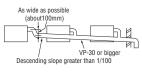
 The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



- 3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
- Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe
- Do nt set up air vent.



 When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for

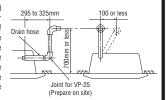


- 4. Insulate the drain pipe.
- Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - *After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless

6 Drain pipe (continued)

Drain up

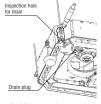
 The position for drain pipe outlet can be raised up to 700mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



Drain test

- After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan. Check if the motor sound of drain pump is normal or not.
- Do drain test even if installation of heating season.
 For new building cases, make sure to complete the test before hanging the ceiling.
- 1 Fill water of approx 1,000 cc in the drain pan of the main unit. Take care not to wet electrical equipment such as the drain pump, etc Inject water through the blow outlet using a feed water pump, or the like, or through the refrigerant pipe joint.
 - When injecting water through the blow outlet
- ●When removing the lid to inject water through the refrigerant joint (1) Remove screws at 2 places. (2) While pressing the lid in the direction ①, pull and remove the lid in the direction ②.

(Remove the lid by releasing the catches from the hooks in the figure.)







- 2. Make sure that water is drained out properly and there is no water leakage from any joints of the drain pipe at the test.
- Confirm that the water is properly drained out while the drain motor is operating. At the drain socket (transparent), it is possible to check if the water is drained out properly.
- Unplug the drain plug on the indoor unit to remove remaining water on the drain pan after the test, and re-plug it. And insulate the drain pipe properly finally.

Drain pump operation

- OIn case electrical wiring work finished
- Drain pump can be operated by remote control (wired).

 For the operation method, refer to Operation for drain pump in the installation manual for wiring work.

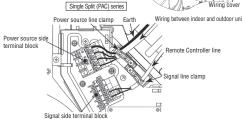
 Oln case electrical wiring work not finished

Drain numn will run continuously when the din switch "SW7-1" on the indoor unit PCB is turned ON, the Connect The CNB is disconnected, and then the power supply (230VAC on the terminal block ① and ②) is turned ON. Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

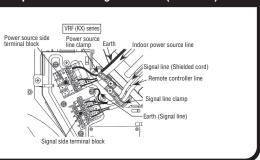
7)Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an
 electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
 - Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work
- Remove a lid of the control box (3 screws) and the wiring cover (2 screws).
- Hold each wiring inside the unit and fasten them to terminal block securely.
- Fix the wiring with clamps.
- 4. Install the removed parts back to original place.





Wiring-out position and wiring connection (continued)



®Panel installation

- Attach the panel on the indoor unit after electrical wiring work.
- Refer to attached manual for panel installation for details

9Check list after installation

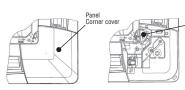
Check the following items after all installation work completed.

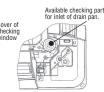
Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

(10) How to check the dirt of drain pan (Maintenance)

The method of checking the dirt of drain pan

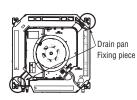
- It is possible to check the dirt for inlet of drain pan without detaching the panel. (Inspection is not possible when the high efficient filter and option spacer is installed.)
- Open the air return grille and remove the panel corner cover on drain pan side.
- Remove the cover of inspection window. (1screw)
- Check the drain pan from the inspection window.
- If the drain pan is very dirty, remove the drain pan and clean it.
- After checking of the dirty of drain pan, restore the cover of the inspection window securely. Improper restoration of the cover may cause dew condensation and water





Attention for removing drain pan

• The fixing components have been attached the with drain pan. Pay attention to these components during installation and removing. Take off the hanging hook after removing four screws. During the installation of drain pan, fix the drain pan firmly by using four screws after hanging it up with the fixing hook.





Remove the screws Rotate the hook

PANEL INSTALLATION MANUAL

PJF012D003C ∕€\

Read this manual together with the indoor unit's installation manual

★ WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.

 Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power supply is turned off when electric wiring work.

 Otherwise, electric shock, malfunction and improper running may occur



Before installation

- Follow installation manual carefully, and install the panel properly.
 Check the following items.

O Acc	essories			
Access	ories			
Bolt	6)-	4 pieces	For panel installation	3
Strap		4 pieces	For avoiding the corner panel from falling	
Screw	\$	4 pieces	For fixing the corner panel	
Note: Ac	cessories are laid in the	position	removing the corner panel.	
				Accessories holding position

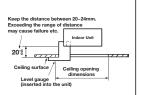
② Checking the indoor unit installation position

- · Read this manual together with the air conditioner installation manual carefully.
- Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit
- Check if the gap between the ceiling plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing)
- Adjust the installation elevation if necessary.

If there is a height difference beyond the design limit between the installation level of the indoor unit and the ceiling plane, the panel may be subject to excessive stress during installation, it may cause distortion and damage.

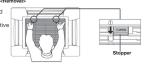
The installation level of the indoor unit can be adjusted finely from the opening provided on the corner, even after panel is attached.
(Refer to

Attaching the panel for details.)



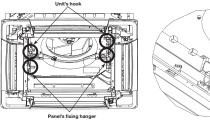
③ Removing the air return grille

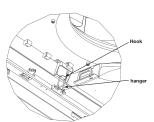
Hold the stoppers on the air return grille (2 places) toward OPEN direction, open the air return grille.
 Remove the hooks of the air return grille from the decorativ panel while it is in the open position.



6 Attaching the panel

- Lift up the hanger (2 places) on the panel for temporary support.
 Hang the panel on the hook on the indoor unit.



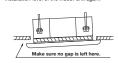


2. Fix the panel on the indoor unit

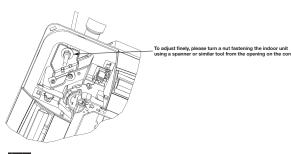
· Fasten the panel on the indoor unit with the four bolts supplied with the panel

Improperly tightened hanging bolts can cause the problems listed below, so make sure that you have tightened them securely. Air leakage Air leakage along the ceiling

If there is a gap remaining between the ceiling and the decorative panel even after the hanging bolts are tightened, adjust the installation level of the indoor unit again.



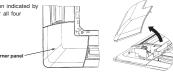
It is possible to adjust the installation height of the indoor unit with the panel attached as long as there is no influence on the drain pipe inclination and/or the indoor unit levelness.



re there is no stress given on the panel when adjusting the height of the indoor void unexpected distortion. It may cause the distortion of panel or failing to

Removing a corner panel

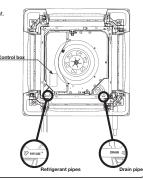
Pull the corner panel toward the direction indicated by the arrow and remove it. (Same way for all four corner panels)



⑤ Orientation of the panel installation

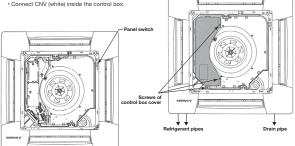
- Take note that there is an orientation to install the panel,
 Attach the panel with the orientation shown on the right.
 Align the "PIPE SIDE" mark (on the panel) with the
 refrigerant pipes on the indoor unit.
 Align the "DRAIN" mark (on the panel) with the drain
 pipe on the indoor unit.

In case the orientation of the panel is not correct, it will lead to air leakage and also it is not possible to connect the louver motor wiring.



① Electrical wiring

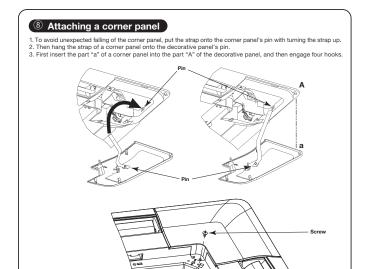
- 1. After removing three screws of control box, detach the cover of control box (the hatched part).
- 2. Connect the connector for louver motor (white 20P). · Hold the wiring by using the clamps of the indoor unit.
- · Hold the connector inside the control box
- 3. Connect the connector for panel switch.
- · Hold the wiring by using the clamps of the indoor unit. Connect CNV (white) inside the control box





CAUTION

more. To start the air conditioner, close the air return grill.



9 How to set the airflow direction

It is possible to change the movable range of the louver on the air outlet from the wired remote control. Once the top and bottom position is set, the louver will swing within the range between the top and the bottom when swing operation is chosen. It is also possible to apply different setting to each louver.

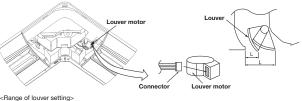
For the setting method of the louver's operating range, refer to the instruction manual of the wired remote control.

4. Fix with screw

- If it is necessary to fix the louver position manually, follow the procedure mentioned below.

 1. Shut off the main power switch.

 2. Unplug the connector of the louver motor which you want to fix the position. Make sure to insulate unplugged connectors electrically with a viny! tape.
- 3. Adjust the louver position slowly by hand so as to be within the applicable range mentioned below table.



Vertical airflow direction Dimension L (mm) Horizontal 0° Downwards 45° 43 26

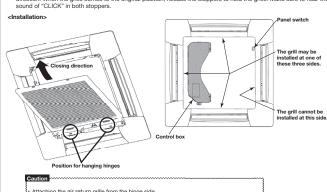
- Any automatic control or operation from the remote control will be disabled on the louver whose po-sition is fixed in the above way.
- Do not set a louver beyond the specified range. Failure to observe this instruction may result in dripping, dew condensation, the fouling of the ceiling and the malfunctioning of the unit.

Mattaching the air return grille

To attach the air return grille, follow the procedure described in <a>Beamoving the air return grille in the reverse order. 1. Hang the hooks of the air return grille in the hole of the panel. (The hooks of the grille can be hanged in three side

of the panel as following.)

2. After the grille is hanged, close the grille while the stoppers on the grille (2 places) are kept pressed to "OPEN" direction. When the grille comes to the original position, release the stoppers to hold the grille. Make sure to hear the sound of "CLICK" in both stoppers.



Attaching the air return grille from the hinge side.

Be careful in air return grille attaching, unstable attaching may cause grille falling.

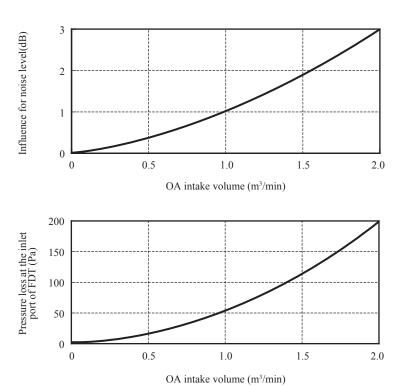
Repair or replace the distorted, broken stopper at once, or the grille falling may occur.

OUTDOOR AIR (OA) INTAKE FOR FDT

If it is required to intake OA through FDT unit, make sure to check following points carefully in order to conform to the requirement of customer.

If the OA intake volume through FDT unit is not satisfied with the required ventilation air volume, consider to install an independent ventilation system.

- 1) Be sure to calculate cooling/heating load considering the ventilation heat load and to decide the air-conditioning system.
- 2) Be sure the OA intake volume to FDT unit should not exceed 20% of the Supply Air (SA) volume of FDT unit and it should be less than 2m³/min.
- Be sure to decide the OA intake volume considering the mixed air temperature will be within the usage temperature range of FDT unit.
 - Especially in following case, please consider to intake OA after processing OA or reducing the OA intake volume.
- 4) Be sure to equip a suitable filter for OA intaken in order to protect the dust. (Because OA does not pass through the filter equipped on FDT unit)
- 5) Be sure to insulate OA duct.
 (If not, it may have dew condensation.)
- 6) Be sure to interlock the booster fan for OA with the fan of FDT unit by using CNT connector. (If not, the dust trapped on the filter of FDT unit may be blown out to the room by the OA being intaken during the fan of FDT unit stopping)
- 7) Be sure to select a suitable booster fan for OA considering the pressure loss in the OA duct and the pressure loss at the inlet port of FDT with following diagram.
 - (Please take into consideration the noise level as well)



<Selection of booster fan>

Booster fan should have a static pressure calculated with following formula

Static pressure of booster fan

= the pressure loss at the inlet port of FDT (from above diagram)

+ Pressure loss in the OA duct (In case of ϕ 100 duct, 5Pa/m is required)

Select the booster fan from the fan characteristic diagram

(2) Ceiling cassette-4way compact type (FDTC)

PJA012D786

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This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to the electrical wiring work installation manual (page 250). For remote control installation, refer to page 262. For wireless kit installation, refer to page 559. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to

This unit must always be used with the panel.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work
- The precautionary items mentioned below are distinguished into two levels. [△WARNING] and [△CAUTION] <u>AWARNING</u>: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown as follows: Never do it under any circumstances.
- ●After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

♠ WARNING

• Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.

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Install the system correctly according to these installation manuals.

Improper installation may cause explosion, injury, water leakage, electric shock, and fire

• When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).

If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of gen can occur, which can cause serious accidents

• Use the genuine accessories and the specified parts for installation.

0 If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.

Ventilate the working area well in case the refrigerant leaks during installation. If the refrigerant contacts the fire, toxic gas is produced

Install the unit in a location that can hold heavy weight.

Improper installation may cause the unit to fall leading to accidents

• Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. Improper installation may cause the unit to fall leading to accidents

Do not mix air in to the cooling cycle on installation or removal of the air conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and iniuries

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient capacity and improper work can cause electric shock and fire

• Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal

Loose connections or hold could result in abnormal heat generation or fire.

• Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.

Improper fitting may cause abnormal heat and fire

to abnormal high pressure in the system.

Check for refrigerant gas leakage after installation is completed.

Use the specified pipe, flare nut, and tools for R410A.

Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle

Tighten the flare nut according to the specified method by with torque wrench.

If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period • Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.

nous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak

• Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. or is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due

• Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit

and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle • Only use prescribed option parts. The installation must be carried out by the qualified installer.

install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire

Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire

Consult the dealer or a specialist about removal of the air conditioner.

Improper installation may cause water leakage, electric shock or fire.

Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

• Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

⚠ CAUTION Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could

Farth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Using the incorrect one could cause the system failure and fire

 Do not use any materials other than a fuse of correct capacity where a fuse should be used Connecting the circuit by wire or copper wire could cause unit failure and fire

 Do not install the indoor unit near the location where there is possibility of flammable gas leakages If the gas leaks and gathers around the unit, it could cause fire.

Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (sur as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled. It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire

 Secure a space for installation, inspection and maintenance specified in the manual. Insufficient space can result in accident such as personal injury due to falling from the installation place

Do not use the indoor unit at the place where water splashes such as laundry. Indoor unit is not waterproof. It could cause electric shock and fire.

Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items.

Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.

1 Before installation

- Install correctly according to the installation manual.
- Confirm the following points:
 - O Unit type/Power supply specification O Pipes/Wires/Small parts O Accessory items

Accessory itme

	For unit hanging		For refrigerant pipe			For draom pipe			
	washer 110)	Level gauge (Insulation)	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
(0	0)		6	5	<u></u>	0	0		()
	8	4	1	1	4	1	1	1	1
For unit	hanging	in hoisting in the	For heat insulation of gas pipe		For pipe cover fixing	For heat insulation of drain socket		For drain pipe connecting	For drain hose mounting

2 Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user

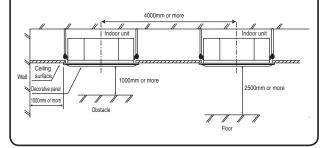
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken. Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80% This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned above
- If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)

 Areas where any items which will be damaged by getting wet are not placed such as food, table
- wares, server, or medical equipment under the unit.

 Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
- (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)
- @ Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.
- ③ If there are 2 units of wireless type, keep them away for more than 5m to avoid malfunction due to cross communication.
- (4) When plural indoor units are installed nearby, keep them away for more than 4m.

Space for installation and service

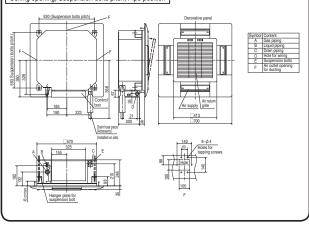
- When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short circuit
- Install the indoor unit at a height of more than 2.5m above the floor.



③ Preparation before installation

- If suspension bolt becomes longer, do reinforcement of earthquake resistant.
- O For grid ceiling
- When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt
- O In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt. Prepare four (4) sets of suspension bolt, nut and spring washer (M10 or M8) on site.

Ceiling opening, Suspension bolts pitch, Pipe position



4 Installation of indoor unit

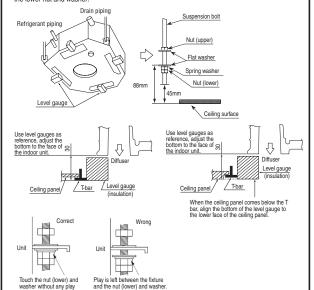
Work procedure

- This units is designed for 2 x 2 grid ceiling.
- If necessary, please detach the T bar temporarily before you install it.

 If it is installed on a ceiling other than 2 x 2 grid ceiling, provide an inspection port on the control box
- Arrange the suspension bolt at the right position (530mm×530mm).
- Make sure to use four suspension bolts and fix them so as to be able to hold 500N load. 4. Ensure that the lower end of the suspension bolt should be 45mm above the ceiling plane.
- Temporarily put the four lower nuts 88mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.

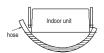


Adjust the indoor unit position after hanging it by inserting the level gauge attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Confirm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer



(4) Installation of indoor unit (continued)

- 6. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
- Tighten four upper nuts and fix the unit after height and levelness



Caution

- Do not adjust the height by adjusting upper nuts. It will cause unexpected stress on the indoor unit
 and it will lead to deformation of the unit, failure of attaching a panel, and generating noise from the
- Make sure to install the indoor unit horizontally and set the gap between the unit underside and
 the ceiling plane properly. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Even after decorative panel attached, still the unit height can be adjusted finely. Refer to the installation manual for decorative panel for details.

 Make sure there is no gap between decoration panel and ceiling surface, and between decoration
- panel and the indoor unit. The gap may cause air leakage, dew condensation and water leakage. In case decorative panel is not installed at the same time, or ceiling material is installed after the
- unit installed, but the cardboard template for installation attached on the package (packing materia of cardboard box) on the bottom of the unit in order to avoid dust coming into the indoor unit.

⑤ Refrigerant pipe

Caution

- Use the new refrigerant pipe.
 When re-using the existing pipe system for R22 or R407C, pay attention to the following items.
 Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts.
- Do not use thin-walled pipes.
 Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation.
 - In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than R410A.

 Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.

 Use special tools for R410A refrigerant.

- 1. Remove the flare nut and blind flanges on the pipe of the indoor unit
- ** Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
- (Gas may come out at this time, but it is not abnormal.)
 Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. We Bend the pipe with as big radius as possible and do not bend the pipe repeatedly. In addition, do not twist and crush the pipes.
 Do a flare connection as follows:

 - Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them
- When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table below. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.

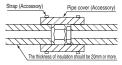
 Cover the flare connection part of the indoor unit with attached insulation material after a gas
- leakage inspection, and tighten both ends with attached straps.

 Make sure to insulate both gas pipes and liquid pipes completely
- * Incomplete insulation may cause dew condensation or water dropping

Refrigerant is charged in the outdoor unit.

As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Tightening torque N·m
14 to 18
34 to 42
49 to 61
68 to 82
100 to 120



6 Drain pipe

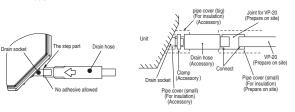
Caution

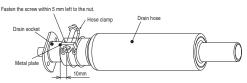
- Install the drain pipe according to the installation manual in order to drain properly.
 Imperfection in draining may cause flood indoors and wetting the household goods etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

6 Drain pipe (continued)

Work procedure

- Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain
 - Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.
 - Do not apply adhesives on this end.

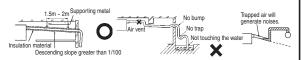




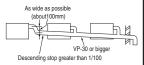
- 2. Prepare a joint for connecting VP-20 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP-20 pipe (prepare on site).
- As for drain pipe, apply VP-20 made of rigid PVC which is on the market
- Make sure that the adhesive will not get into the supplied drain hose
- It may cause the flexible part broken after the adhesive is dried up and gets rigid.
- Do not bend or make an excess offset on the drain hose as shown in the picture. Bend or excess offset will cause drain leakage.



- 3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway
 - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
 - Do not set up air vent



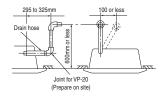
When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for main drain pipe.



- Insulate the drain pipe.
 - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - After drainage test implementation, cover the drain socket part with pipe cover (small size),
 then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

 The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



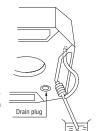
6 Drain pipe (continued)

Drain test

- After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan. Check if the motor sound of drain pump is normal or not.

 Do drain test even if installation of heating season.
- For new building cases, make sure to complete the test before hanging the ceiling.
- Pour water of about 1000cc into the drain pan in the indoor unit by pump so as not to get the electrical component wet.

 2. Make sure that water is drained out properly and there is no water
- leakage from any joints of the drain pipe at the test.
 Confirm that the water is properly drained out while the drain motor is operating. At the drain socket (transparent), it is possible to check if the water is drained out properly.
- Unplug the drain plug on the indoor unit to remove remaining water on the drain pan after the test, and re-plug it. And insulate the drain pipe properly finally.



Drain pump operation

O In case electrical wiring work finished

Drain pump can be operated by remote control (wired).

For the operation method, refer to Operation for drain pump in the installation manual for wiring

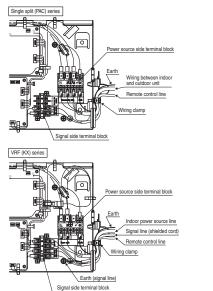
O In case electrical wiring work not finished

Drain pump will run continuously when the dip switch "SW7-1" on the indoor unit PCB is turned ON, the Connector CNB is disconnected, and then the power supply (220-240VAC on the terminal block $[\:\widehat{\ }\]$ and $[\:\widehat{\ }\]$ or $[\:\widehat{\ }\]$ or $[\:\widehat{\ }\]$ is turned ON.

Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country. Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- Remove a lid of the control box (1 screws).
 Hold each wiring inside the unit and fasten them to terminal block securely.
- 3. Fix the wiring with clamp.
- 4. Install a lid of the control box back to original place



® Panel installation

- After wiring work finished, install the panel on the indoor unit.
 Refer to attached panel installation manual for details. (see next page)

Accessory items

1	Hook	70	1 piece	For fixing temporarily
2	Chain	receptor	2 pieces	
3	Bolt	() Imman	4 pieces	For installing the panel
4	Screw	(m)	1 piece For attaching a hook	
5	Screw	Gum	2 pieces For attaching a chain	

- Attach the panel on the indoor unit after electrical wiring work.
- Refer to attached manual for panel installation for details. (See next page)

9 Check list after installation

Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

PANEL INSTALLATION MANUAL

PJA012D783 🛕

⚠ WARNING

Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
 Loose connection or hold will cause abnormal heat generation or fire.

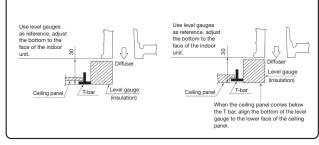


Make sure the power supply is turned off when electric wiring work.
 Otherwise, electric shock, malfunction and improper running may occur.



① Checking the indoor unit installation position

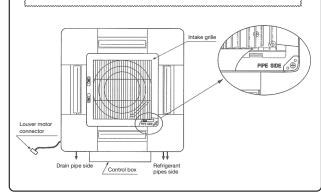
- Read this manual together with the air conditioner installation manual carefully.
- Check if the gap between the ceiling plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing)
- Adjust the installation elevation if necessary.
 Remove the level gauge before you attach the panel.



② Orientation of the panel and return air grille installation

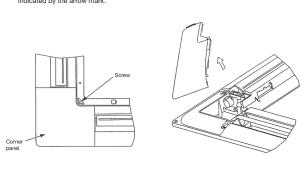
- 1. Take note that there is an orientation to install the panel.
- Attach the panel with the orientation shown on the below.
 Align the "PIPE SIDE" mark (on the panel) with the refrigerant pipes on the indoor unit.
- 2. The intake grille can also be attached in a rotated position by 90 degrees.

In case the orientation of the panel is not correct, it will lead to air leakage and also it is not possible to connect the louver motor wiring.



③ Removing a corner panel

• Unscrew the screw from the corner area, pull the corner panel toward the direction



4 Attaching a corner panel • First insert the part "a" of a corner panel into the part "A" of the cover panel, engage two hooks and tighten the screw.

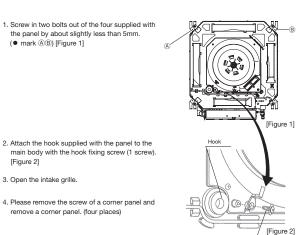
⑤ Panel installation

• Install the panel on the unit after completing the electrical wiring.

Accessories

1	Hook	70	1 piece	For fixing temporarily
2	Chain	responser	2 pieces	
3	Screw	(Dimmin	4 pieces	For hoisting the panel
4	Screw	Quin.	1 piece	For attaching a hook
5	Screw	Elm	2 pieces	For attaching a chain

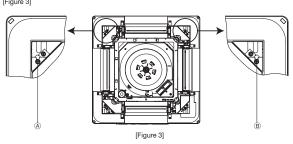
1. Screw in two bolts out of the four supplied with the panel by about slightly less than 5mm. (mark AB) [Figure 1]



[Figure 2] 3. Open the intake grille.

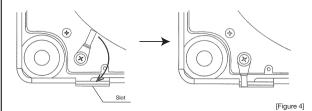
4. Please remove the screw of a corner panel and remove a corner panel. (four places)

 A panel is hooked on two bolts (● mark (A)(B)). [Figure 3]

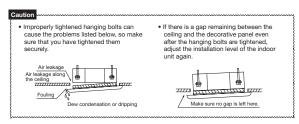


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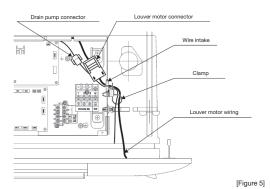
6. Please rotate a hook, put in the slot on the panel, and carry out fixing the panel temporarily. [Figure 4]



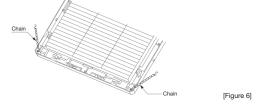
7. Tighten the two bolts used for fixing the panel temporarily and the other two.



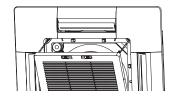
- 8. Please open the lid of a control box.
- 9. Like drain pump wiring, please band together by the clamp and put in louver motor wiring into a control box. [Figure 5]
- 10. Please connect a louver motor connector. [Figure 5]



11. Attach two chains to the intake grille with two screws. [Figure 6]



- 12. Replace the corner panels. Please also close a chain with a screw together then. [Figure 7]
- 13. Close the intake grill.



[Figure 7]

Make sure there is no stress given on the panel when adjusting the height of the indoor unit to avoid unexpected distortion. It may cause the distortion of panel or failing to close the air return grille.

① How to set the airflow direction

It is possible to change the movable range of the louver on the air outlet from the wired remote control. Once the top and bottom position is set, the louver will swing within the range between the top and the bottom when swing operation is chosen. It is also possible to apply different setting location used to be set with wireless remote control or simple remote control (RCH-H3).

1 stop the air conditioner and press 0 SET button and LOUVER button simultaneously for three seconds or more.

The following is displayed if the number of the indoor units connected to the remote control is one. Go to step 4.

NOTICE

"DATA LOADING "

≂n∛ ≛ The following is displayed if the number of the indoor units connected to the remote control are more than one $\,$

"&\$ SELECT I/U"

2 Press ▲ or ▼ button. (selection of indoor unit)
Select the indoor unit of which the louver is set.

[EXAMPLE]

3 Press SET button, (determination of indoor unit) ted indoor unit is fixed.

[EXAMPLE]

"]/I[0] | - (displayed for two seconds) "DATA LOADING "

0

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a

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PFA012D621B

(3) Ceiling suspended type (FDEN)

This manual is for the installation of an indoor unit

For electrical wiring work (Indoor), refer to page 250. For remote control installation, refer to page 262. For wireless kit installation, refer to page 561. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the page 276.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, [AWARNING] and [ACAUTION] WARNING: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown as follows:
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.

Install the system correctly according to these installation manuals.

Improper installation may cause explosion, injury, water leakage, electric shock, and fire

•When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).

If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accidents.

Ouse the genuine accessories and the specified parts for installation.

If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit

Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produce

●Install the unit in a location that can hold heavy weight

●Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.

n may cause the unit to fall leading to acciden Do not mix air in to the cooling cycle on installation or removal of the air conditioner

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and inju

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fire

Ouse specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in

order not to apply unexpected stress on the terminal. ons or hold could result in abnormal heat generation or fire

●Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services

roper fitting may cause abnormal heat and fire. Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.

Ouse the specified pipe, flare nut, and tools for R410A.

sting parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle Tighten the flare nut according to the specified method by with torque wrench.

If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period

• Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.

 $\blacksquare \textbf{Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. }$ sor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system

Stop the compressor before removing the pipe after shutting the service valve on pump down work If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

Only use prescribed option parts. The installation must be carried out by the qualified installer.

If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire

Do not repair by yourself. And consult with the dealer about repair. r repair may cause water leakage, electric shock or fire.

Consult the dealer or a specialist about removal of the air conditioner.

per installation may cause water leakage, electric shock or fir ●Turn off the power source during servicing or inspection work

If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

●Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and in

⚠ CAUTION

Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth cou cause unit failure, electric shock and fire due to a short circuit

Earth leakage breaker must be installed.

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Using the incorrect one could cause the system failure and fire

 Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire.

 Do not install the indoor unit near the location where there is possibility of flammable gas leakages If the gas leaks and gathers around the unit, it could cause fire.

Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (su as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handle

It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire Secure a space for installation, inspection and maintenance specified in the manual.

Insufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry.

Indoor unit is not waterproof. It could cause electric shock and fire.

 Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art,

It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonic

Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunicatic equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause iam

 Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control.

Do not install the indoor unit at the place listed below.

Places where flammable gas could leak.

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Places where carbon fiber, metal powder or any powder is floated. Place where the substances which affect the air conditioner are generated

such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Places exposed to oil mist or steam directly. Places exposed to our most of common of the

Places where cosmetics or special sprays frequently used.

Highly salted area such as beach Heavy snow area

Places where the system is affected by smoke from a chimney.

- Altitude over 1000m Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit.)

secording to the installation manual for each model because each indoor unit has each limitation)
Locations with any obstacles which can prevent inlet and outlet air of the unit
Locations with any obstacles which can prevent inlet and outlet air of the unit
Locations where without one an emplified due to installient strength of structure
Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the

infrared specification unit) Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)

Locations where drainage cannot run off safely.
 It can affect performance or function and etc..

Do not put any valuables which will break down by getting wet under the air conditioner.

n could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it dama Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use. It could cause the unit falling down and injury.

 Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit. If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.

Install the drain pipe to drain the water surely according to the installation manual.

Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit

Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen user's health and safety. Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work

If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of ox occur, which can cause serious accidents.

For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, Check if the drainage is correctly done during commissioning and ensure the space for inspection and mainti

 Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables

 Do not install the outdoor unit where is likely to be a nest for insects and small animals Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the us

Pay extra attention, carrying the unit by hand.

Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the ur by hand. Use protective gloves in order to avoid injury by the aluminum fin. Make sure to dispose of the packaging material.

Leaving the materials may cause injury as metals like nail and woods are used in the package Do not operate the system without the air filter.

It may cause the breakdown of the system due to clogging of the heat exchanger

 Do not touch any button with wet hands. It could cause electric shock

• Do not touch the refrigerant piping with bare hands when in operation.

The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn

 Do not clean up the air conditioner with wate It could cause electric shock.

 Do not turn off the power source immediately after stopping the operation Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or br

Do not control the operation with the circuit breaker.
It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

①Before installation

- •Install correctly according to the installation manual.
- •Confirm the following points:

OUnit type/Power supply specification OPipes/Wires/Small parts OAccessory items

Accessory item

Hat wasner (M10) Paper pattern Pipe cover (arge) Pipe cover (small) Strap (with clamp) Hose clamp Hixing bracket Screw Heay insulation Scre	For ur	it hanging	hanging	For refrigerant pipe						For air return grille	
	Flat washer (M10)	Paper pattern	aper pattern Pipe cover (arge) Pipe cover (small)	Strap	Drain hose (with clamp)	Hose clamp	Fixing bracket	Screw	Heay insulation	Screw
	0					@DIIII)	()				
8 1 1 1 4 1 1 2 1 4	8	1	1 1	1	4	1	1	1	2	1	4
For unit hanging and adjustment of gas pipe of liquid pipe over of liquid pipe over of liquid pipe over over over over over over over ove	For unit hanging			ation For heat insulation of liquid pipe							For fixing air return grille



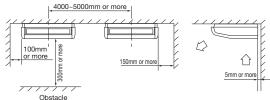
②Selection of installation location for the indoor unit

- 1 Select the suitable areas to install the unit under approval of the user.
 - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
 - Areas where there is enough space to install and service.
 - · Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
 - Areas where there is no obstruction of airflow on both air return grille and air supply port.
 - · Areas where fire alarm will not be accidentally activated by the air conditioner.
 - · Areas where the supply air does not short-circuit.
 - · Areas where it is not influenced by draft air.
 - · Areas not exposed to direct sunlight.
 - Areas where dew point is lower than around 23°C and relative humidity is lower than 80% This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned above.
 - Areas where TV and radio stavs away more than 1m. (It could cause jamming and noise.)
 - · Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
 - Areas where there is no influence by the heat which cookware generates.
 - · Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
 - · Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.

(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)

- ② Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.
- $\ensuremath{\mathfrak{I}}$ If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.
- When plural indoor units are installed nearby, keep them away for more than 4 to 5m.

Space for installation and service



③Preparation before installation

- •If suspension bolt becomes longer, do reinforcement of earthquake resistant. O For arid ceiling
 - When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
- O In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
- Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

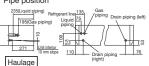
③Preparation before installation (continued)

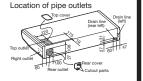
Pitch of suspension bolts and pipe position

Pitch of suspension bolts fl h

Wall						
(mm)						
Series	type	Α	В			
Single Split (PAC)	40 to 50type	1070	1022			
	60 to 71 type	1320	1272			
	100 to 140type	1620	1572			
	36 to 56type	1070	1022			
VRF (KX) series	71type	1320	1272			
	112 to 140type	1620	1572			

Pipe position





%The outlet through which the pipings are taken out is available in three directions.
%Pipes can be taken out in 3 directions (rear, right or

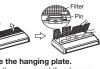
- Cut out holes using nippers, etc.
 Cut out holes to take out pipes along the cutoff line
- Cut out the top face cover aligning to the piping
- position. When taking pipe out to right-hand side, cut out a
- hole along the groove at the inside of side panel. After installing pipes and wires, seal clearances around pipes and wires with putty, etc. to shut off dust.

Make sure to install the covers at rear and top in order t protect the inside of unit from intrusion of dust of protect wires from damages by sharp edges. Wher taking them out to the right-hand side, remove burrs of sharp edges from the cutout.



put it with the intake grille facing upward. Preparation before instalation

Remove the air return grille. Slide stoppers (4 places) of the catches then pull out the pins (4 or 6 places).



•Move the box as close to the installation area as possible packed.

•If it must be unpacked, wrap the unit with a nylon sling, and be careful not to damage the unit.

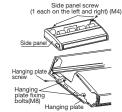
olf you need to lay the unit on a floor after unpacking, always

3. Remove the hanging plate. Remove the screw, and then loosen the fixing bolts.

Hanging plate

2. Remove the side panel.

Remove the screw and detach the side panel by sliding it toward the direction indicated by the arrow mark.



Remote control

Installation of remote control

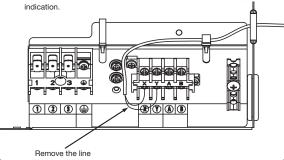
Up to two receiver or wired remote control can be installed in one indoor unit

- When both wired and wireless remote control are used It is necessary to set wired or wireless remote control as slave. (For the method of changing the setting, refer to the installtion manual attached to remote control or wireless kit.)
- When wired remote control are used only (wireless type) It is necessary to remove the line that is connected to the receiver. Remove signal line connected to the receiver from primary side of terminal block (X, Y).

ATTENTION

①Insulate with tape the removed line.

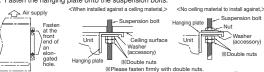
2The LED of that removed connector will not be able to make any indication.



5Installation of indoor unit

Work procedure

- Select the suspension bolt locations and the pipe hole location (1) Use enclosed paper pattern as a reference, and drill the holes for the suspension bolts and pipe. *Decide the locations based on direct measurements
 - (2) Once the locations are properly placed, the paper pattern can be removed.
- 2. Install the suspension bolts in place.
- 3. Fix with 4 suspension bolts, which can endure load of 500N.
- 4. Check the measurements given at the right figure for the length of the suspension bolt:
- 5. Fasten the hanging plate onto the suspension bolts.



Hanging plate

(For left-side drain connection, give the

- 6. Install the unit to the hanging plate
- (1) Slide the unit in from front side to get it hanged on the hanging plate with the bolts.
 (2) Fasten the four fixing bolts (M8: 2
- each on the left and right sides) firmly. (3) Fasten the two screws (M4: 1 each on
- the left and right sides). **⚠WARNINIG**: Hang a side panel on from the

panel side to the rear side and then fasten it securely onto the indoor unit with screws. *To ensure smooth drain flow, install the unit with

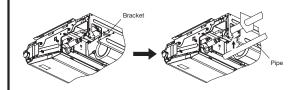
a descending slope toward the drain outlet

⚠ CAUTION: Do not give the reversed slope, which may cause water leaks

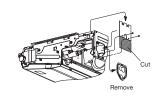
6 Refrigerant pipe (continued)

The pipe can be connected from three different directions. (back, reight, top)

 When the pipe is routed through the back.
 If the bracket is removed, piping work will become easy. *After piping, reinstall the removed bracket.



When the pipe is routed through the back Cut the removed top cover, and install to the rear panel instead of rear cover.



6Refrigerant pipe

Caution

- When re-using the existing pipe system for R22 or R407C, pay attention to the following items.

 Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts · Do not use thin-walled pipes.
- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation.
 In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes
- Do not use any refrigerant other than R410A. Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting
- into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.

 Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc. Use special tools for R410A refrigerant.

Work procedure

- Remove the flare nut and blind flanges on the pipe of the indoor unit.
- **Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them (Gas may come out at this time, but it is not abnormal.)
- Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.) 2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
- When taking out the pipe to rear or top, install it together with the electric wire[®], passing them through the attached cover.
- Seal clearances with putty, etc. to shut off dust.
- *Bend the pipe with as big radius as possible and do not bend the pipe repe In addition, do not twist and crush the pipes.

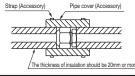
*Do a flare connection as follows:

- ●Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected
- stress to the copper pipe, and then remove them.

 •When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table below. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.
- Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
 - Make sure to insulate both gas pipes and liquid pipes completely.
- %Incomplete insulation may cause dew condensation or water dropping 4. Refrigerant is charged in the outdoor unit.

As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Tightening torque N·m Pipe diameter ø 6.35 ø 9.52 34 to 42 49 to 61 ø 12.7 ø 15.88 68 to 82 100 to 12



⑦Drain pipe

The drain pipes may face out towards the back to the left, or to the right side.

Hanging plate

- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful andinflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell. Connect the pipe securely to avoid water leakage from the joint.

- Insulate the pipe properly to avoid condensation drop.

 Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

- 1. Insert drain hose completely to the base, and tighten the drain hose clamp securely. (adhesive must not be used.) * When plumbing on the left side, move the rubber plug and the cylindrical insulating materials by the pipe connecting hole on
- the left side of the unit to the right side.

 Beware of a possible outflow of water that me occur upon removal of a drain plug.
- 2. Fix the drain hose at the lowest point with a hose clamp supplied as an accessory. as illustrated in the right drawing by laying it without leaving a slack.
 - Take head of electrical cables so that they may not run beneath the drain hose

A drain hose must be clamped down with a hose clamp

There is a possibility that drain water overflows.

3. Connect VP-20(prepare on site) to drain hose. (adhesive must not be used.)

- W Use commercially available rigid PVC general pipe VP-20 for drain pipe. Do not to make the up-down bending and trap in the mid-way while assuming that the drain pipes is downhill. (more than 1/100)

Never set up air vent.
Insulate the drain pipe.

- Insulate the drain hose clamp with the heat insulation supplied as accessories.
- When the unit is installed in a humid place, consider precautions against dew condensation such as heat insulation for the drain pipe.

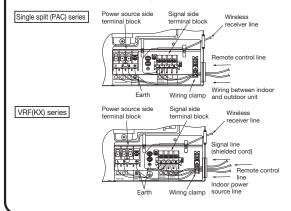
Drain test

- After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan.
- Do drain test even if installation of heating season

®Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a powe provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the
- Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the
- cord securely in order not to apply unexpected stress on the terminal.

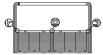
 Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
 For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- Remove a lid of the electrical box (2 screws).
- . Hold each wiring inside the unit and connect to a terminal block surely. Fix the wiring by clamps.
- 4. Install the removed parts back to original place.



Attaching the air return grille

- The air return grille must be attached when electrical cabling work is completed.
- 1. Fix the chains tied to the air return 2. Close the air return grille. grille onto the indoor unit with screws supplied as accessories (4 pieces).
 - This completes the unit installtion work.





®Check list after installation

Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

11 How to set the airflow direction

It is possible to change the movable range of the louver on the air outlet from the wired remote control. Once the top and bottom position is set, the louver will swing within the range between the top and the bottom when swing operation is chosen. It is also possible to apply different setting to each louver. Note:This function is not able to be set with wireless remote control or simple remote control

- Stop the air conditioner and press SET button and LOUVER button simultaneously for three seconds or
- The following is displayed if the number of the indoor units connected to the remote control is one. Go to step 4.
- "≒¬No. 1 ≜"

 The following is displayed if the number of the indoor units connected to the remote control are more than one. - 60 SELECT I./U -



2. Press ▲or ▼ button.(selection of indoor unit) ● Select the indoor unit of which the louver is set.

3. Press SET button.(determination of indoor unit) •Selected indoor unit is fixed.

[EXAMPLE]
"I/U001" (displayed for two

"≶⊃i‰1 #."

4. Press₄ory button.(selection of louver No.)

◆Select the louver No. to be set according to the right figure.

- 5. Press O SET button.(Determination of louver No.)
- The louver No. to be set is confirmed and the display shows the upper limit of the movable range.

 [EXAMPLE] If No.1 louver is selected,

 "No.1 UFFE? 0" — current upper limit position

- 6. Press ▲ or ▼ button.(selection of upper limit position)

 Select the upper limit of louver movable range.

 "position 1" is the most horizontal, and "position 6" is the most downward.

 "position --" is to return to the factory setting.

 If you need to change the setting to the default

systems, use "position --".

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- 7. Press SET button. (Fixing of the upper limit position)
 The upper limit position is fixed and the setting position is displayed for two seconds. Then proceed to lower limit position selection display.

[EXAMPLE]
No.1 LIPPER2 (displayed for two seconds)

- Press ▲or ▼button.(Selection of lower limit position)
 Select the lower limit position of louver.
 "position 1" is the most horizontal, and "position 6 "is the most downwards.
 "position ---" is to return to the factory setting. If you need to change the setting to the default setting, use "position --".

No.1 LONGRS \$
No.1 LONGRS \$ (the most downwards)
No.1 LONGRS \$ (return to the default setting)

- 9. Press SET button.(Fixing of the lower limit position)
- Upper limit position and lower limit position are fixed, and the set positions are displayed for two seconds, then setting is completed.

 After the setting is completed, the louver which was set moves from the original position to the lower limit position, and goes back to the original position again. (This operation is not performed if the indoor unit and/or indoor unit fan is in operation.)

[Example] No.1 U2 L6



≾⊒%1 á

10.Press ⊕oNOFF button.

•Louver adjusting mode ends and returns to the original display.

If the upper limit position number and the lower limit position number are set to the same position, the louver is fixed at that position auto swing does not funtion.

If you press RESET button during settings, the display will return to previous display. If you press ONOFF button during settings, the mode will be ended and return to original display, and the settings that have not been completed will become invalid.

When plural remote controls are connected, louver setting operation cannot

(4) Duct connected-High static pressure type (FDU)

(a) Indoor unit

PJG012D004

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This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to page 254. For remote control installation, refer to page 262. For wireless kit installation, refer to page 565. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 276.

SAFETY PRECAUTIONS Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself. The precautionary items mentioned below are distinguished into two levels, AWARNING and ACAUTION. AWARNING: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means. The meanings of "Marks" used here are as shown on the right:

cording to the instruction. After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

•Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.

Install the system correctly according to these installation manuals.

tallation may cause explosion, injury, water leakage, electric shock, and fire

●Check the density refered by the foumula (accordance with ISO5149). If the density exceeds the limit density, please consult the dealer and installate the ventilation system

•Use the genuine accessories and the specified parts for installation.

If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.

Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produced

Install the unit in a location that can hold heavy weight.

tion may cause the unit to fall leading to accid

• Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes

Improper installation may cause the unit to fall leading to accidents

Do not mix air in to the cooling cycle on installation or removal of the air conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fire

•Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.

Loose connections or hold could result in abnormal heat generation or fire

●Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services

Improper fitting may ca ise abnormal heat and fire. Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced

●Use the specified pipe, flare nut, and tools for R410A.

Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycl Tighten the flare nut according to the specified method by with torque wrench. If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period

Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leal

• Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. sor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system

• Stop the compressor before removing the pipe after shutting the service valve on pump down work. 0 If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit

and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle • Only use prescribed option parts. The installation must be carried out by the qualified installer.

Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire

Consult the dealer or a specialist about removal of the air conditioner.

Improper installation may cause water leakage, electric shock or fire Turn off the power source during servicing or inspection work.

If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running

⚠ CAUTION

Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could use unit failure and electric shock or fire due to a short circuit.

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it could cause electric shocks or fire.

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all Ising the incorrect one could cause the system failure and fire

Do not use any materials other than a fuse of correct capacity where a fuse should be used.

Connecting the circuit by wire or copper wire could cause unit failure and fire Do not install the indoor unit near the location where there is possibility of flammable gas leakage:

If the gas leaks and gathers around the unit, it could cause fire.

 Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire

Secure a space for installation, inspection and maintenance specified in the manual

Insufficient space can result in accident such as personal injury due to falling from the installation place

Do not use the indoor unit at the place where water splashes such as laundry. Indoor unit is not waterproof. It could cause electric shock and fire.

 Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items.

 Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics. Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might

influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming. Do not install the remote control at the direct sunlight.

It could cause breakdown or deformation of the remote control.

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Do not install the indoor unit at the place listed below

Places where flammable gas could leak

Places where carbon fiber, metal powder or any powder is floated.
Place where the substances which affect the air conditioner are generated
such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
Places exposed to oil mist or steam directly.

On vehicles and ships Places where machinery which generates high harmonics is used. Places where cosmetics or special sprays are frequently used. Highly salted area such as beach.

Heavy snow area
Places where the system is affected by smoke from a chimney.
Altitude over 1000m

 Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)

Locations with any obstacles which can prevent inlet and outlet air of the unit Locations where vibration can be amplified due to insufficient strength of structure

Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)

Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)

Locations where drainage cannot run off safely

It can affect performance or function and etc.

Do not put any valuables which will break down by getting wet under the air conditioner.

drop when the relative humidity is higher than 80% or drain pipe is clogged, and it da

 Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use It could cause the unit falling down and injury.

Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit. If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water.

o avoid damaging, keep the indoor unit packed or cover the indoor unit Install the drain pipe to drain the water surely according to the installation manual. Improper connection of the drain pipe may cause dropping water into room and damaging user's belon

 Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.

 Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can

occur, which can cause serious accidents. For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps,

and not to make air-bleeding. Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenan

 Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other value Do not install the outdoor unit where is likely to be a nest for insects and small animals.

Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to eep the surroundings clean

 Pay extra attention, carrying the unit by hand. Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.

 Make sure to dispose of the packaging material. Leaving the materials may cause injury as metals like nail and woods are used in the package. Do not operate the system without the air filter.

It may cause the breakdown of the system due to clogging of the heat exchanger Do not touch any button with wet hands

 Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or fro

Do not clean up the air conditioner with water.

It could cause electric shock.

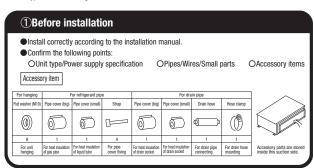
Do not turn off the power source immediately after stopping the operation.

Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown

Do not control the operation with the circuit breaker

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

OThis model is middle static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.



2 Selection of installation location for the indoor unit

- (1) Select the suitable areas to install the unit under approval of the user
 - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use
 a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
 - Areas where there is enough space to install and service.
 - Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
 - · Areas where there is no obstruction of airflow on both air return grille and air supply port.
 - Areas where fire alarm will not be accidentally activated by the air conditioner.
 - · Areas where the supply air does not short-circuit.
 - · Areas where it is not influenced by draft air.
 - · Areas not exposed to direct sunlight.
 - Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
 - · Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
 - Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
 - Areas where there is no influence by the heat which cookware generates.
 - ${\boldsymbol{\cdot}}$ Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
 - Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.

(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air conditioner might not work properly.)

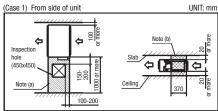
② Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

Space for installation and service

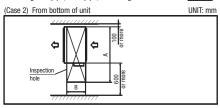
• Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.



Notes (a) There must not be obstacle to draw out fan motor. ((marked area) (b) Install refrigerant pipe, drain pipe, and wiring so as not to cross (marked area)



(Size of inspection hole) UNIT: r				
Single type	-	71	100-140	
Multi type	45, 56	71, 90	112-160	
A	1100	1300	1720	
В	62	725		

③Preparation before installation

lacktriangled If suspension bolt becomes longer, do reinforcement of earthquake resistant.

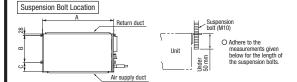
OFor grid ceiling

When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

OIn case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

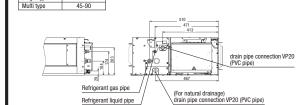


			UNIT: mm
Single type	_	71	100-140
Multi type	45, 56	71, 90	112-160
Α	786	986	1404
В	472	472	530
С	135	135	180

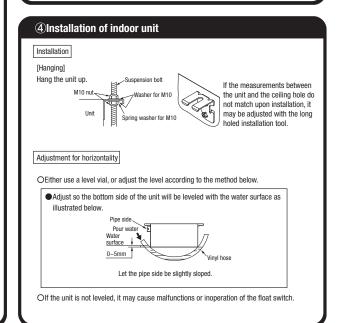
Pipe locations UNIT: mm

100-140

Single type



Multi type	112-160
	drain pipe connection VP20 (PVC pipe) Refrigerant gas pipe Refrigerant liquid pipe Refrigerant liquid pipe Refrigerant liquid pipe Refrigerant liquid pipe Refrigerant liquid pipe Refrigerant liquid pipe Refrigerant liquid pipe



5Duct Work

- ①A corrugated board (for preventing sputtering) is attached to the main body of the air conditioner (on the outlet port). Do not remove it until connecting the duct.
- •An air filter can be provided on the main body of the air conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

2 Blowout duct

- Use rectangular duct to connect with unit.
- Duct size for each unit is as shown below.

			UNIT: IIIII
Single type	-	71	100-140
Multi type	45, 56	71, 90	112-140
A	682	882	1202
В	172	172	172
В	• •	A .	.

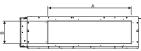
- Duct should be at their minimum length.
- •We recommend to use sound and heat insulated duct to prevent it from condensation.

Connect duct to unit before ceiling attachment

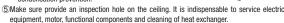
③Inlet port

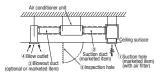
- When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.
- •Inlet port size for each unit is as shown below.

			UNIT: mm
Single type	-	71	100-140
Multi Type	45, 56	71, 90	112-160
A	582	742	1282
В	202	202	237
	14	A	-
	1		1
176	• • •	*	· · · ·



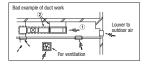
- Make sure to insulate the duct to prevent dewing on it.
- (4) Install the specific blowout duct in a location where the air will circulate to the entire room.
 - Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.
- Insulate the area where the duct is secured by a band for dew condensation prevention.





Bad example of duct work

- ①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.
 - a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)
- b)It may run out the allowable limit of unit operation (Example: When outdoor air temperature is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload, etc..
- c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.
- ②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



⑤Duct Work (continued)

Connecting the air intake/vent ducts

1) Fresh Air Intake

[for air intake duct only]

OUse the side fresh air intake hole, or supply through a part of the suction duct.

[for simultaneous air intake/vent]
OIntake air through the suction duct.
(the side cannot be used)

(always use together with the air intake)

Olnsulate the duct to protect it from dew condensation.

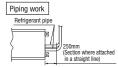
6Refrigerant pipe

OUse the side air vent hole.

Caution

2)Air Vent

- Use the new refrigerant pipe.
- When re-using the existing pipe system for R22 or R407C, pay attention to the following items.
- · Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts.
- · Do not use thin-walled pipes.
- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than R410A.
- Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- •Use special tools for R410A refrigerant.



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

Work procedure

- Remove the flare nut and blind flanges on the pipe of the indoor unit.
 - ** Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
- Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. **Bend the pipe with as big radius as possible and do not bend the pipe repeatedly. In addition, do not twist and crush the pipes.
- Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
- When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table below. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.
- Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
 - Make sure to insulate both gas pipes and liquid pipes completely.
 ※Incomplete insulation may cause dew condensation or water dropping
- As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Pipe diameter	Tightening torque N·m
φ 6.35	14 to 18
φ 9.52	34 to 42
φ 12.7	49 to 61
o 15.88	68 to 82

Strap (Accessory)

Pipe cover (Accessory)

The thickness of insulation should be 20mm or more

7Drain pipe

Caution

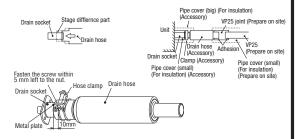
- Install the drain pipe according to the installation manual in order to drain properly.
 Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end
 of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

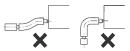
Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part
of drain socket.

Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.

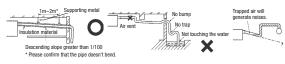
- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.



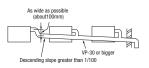
- Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the
 end made of rigid PVC), and adhere and connect VP-25 pipe (prepare on site).
 XAs for drain pipe, apply VP-25 made of rigid PVC which is on the market.
 - Make sure that the adhesive will not get into the supplied drain hose.
 It may cause the flexible part broken after the adhesive is dried up and gets rigid.
 - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
 - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
 - Do not set up air vent.



•When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for main drain pipe.



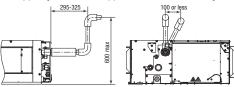
- 4. Insulate the drain pipe
- Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.

After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

7 Drain pipe (continued)

Drain up

• The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



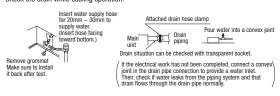
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

- 1. Conduct a drain test after completion of the electrical work.
- 2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
- 3. In case of a new building, conduct the test before it is furnished with the ceiling.
- 4. Be sure to conduct this test even when the unit is installed in the heating season.

Procedures

- 1. Supply about 1000 cc of water to the unit through the air outlet by using a feed water pump.
- 2. Check the drain while cooling operation.



Outline of bottom drain piping work

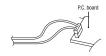
If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.

Connecting port of bottom drain pipes (Outside diameter 20mm)
Rubber stopper (to be removed)
Insulating material

Uncoupling the drain motor connector

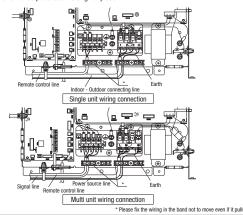
 Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.



®Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country
 - Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
- 1. Remove a lid of the control box (2 screws)
- 2. Hold each wiring inside the unit and fasten them to terminal block securely.
- 3. Fix the wiring with clamps.
- 4. Install the removed parts back to original place.



9 External static pressure setting

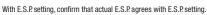
You can set External Static Pressure (E.S.P.) by method of MANUAL SETTING on remote control. Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-U You can set required E.S.P.by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

- How to set E.S.P. by wired remote control
- Push "◆" marked button(E.S.P. button).
- ② Select indoor unit No. by using \$\Display\$ button
- $\ensuremath{\,^{\circ}}$ Select setting No. by using $\ensuremath{\clubsuit}$ button and set E.S.P. by U button.

See detailed procedure in technical manual.

Notice

You can NOT set E.S.P. by wireless remote control.



When E.S.P. setting is higher than actual E.S.P., the airflow rate becomes excessively higher. This will cause water leakage if water splashes.

When E.S.P. setting is lower than actual E.S.P., the airflow rate becomes excessively lower and the

cooling or heating may become ineffective. In order to reduce the risk above the factory E.S.P. setting is set within the range of 80 - 150 Pa

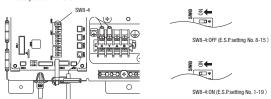
E.S.P. butto

(E.S.P. setting No. 8 - 15). Be sure to use within the range of 80 - 150 Pa in actual operations. If actual E.S.P. is lower than 80 Pa, it may cause water leakage.

 Setting No.
 8
 9
 10
 11
 12
 13
 14
 15

 E.S.P (Pa)
 80
 90
 100
 110
 120
 130
 140
 150

※ If 1 − 7 is selected for the setting No. on the remote control, the setting No. shows No. 8. If 16 – 20 is selected for the setting No. on the remote control, the setting No. shows No. 15. Factory default is No. 8.



If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 – 200 Pa (E.S.P. setting No. 1 - 19). This should not be used when actual E.S.P. cannot be confirmed, because the risk above becomes higher.

3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 E.S.P. (Pa) 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 200

💥 If 20 is selected for the setting No. on the remote control, the setting No. shows No. 19.

(1) Check list after installation

• Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

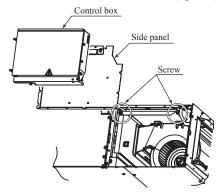
(b) Replacement procedure of the fan unit

Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.

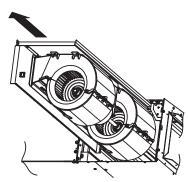
(2) For the maintenance space, refer to page 230.

(i) Model FDU71VF1

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

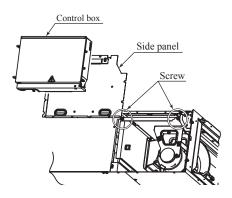


2) Take out the fan unit in the arrow direction.

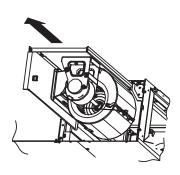


(ii) Models FDU100VF1, 125VF, 140VF

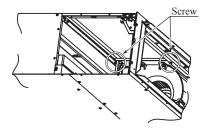
1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



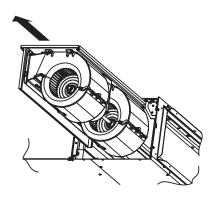
Take out the fan unit located at the near side in the arrow direction.



3) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



4) Take out the fan unit in the arrow direction.



(5) Duct connected-Low / Middle static pressure type (FDUM)

(a) Indoor unit

PJG012D008B

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This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to page 250. For remote control installation, refer to page 262. For wireless kit installation, refer to page 565. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 276.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, <u>AWARNING</u> and <u>ACAUTION</u> AWARNING: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances
- Both mentions the important items to protect your health and safety so strictly follow them by any means. ●The meanings of "Marks" used here are as shown on the right:
- Never do it under any circumstances.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn



Check the density refered by the foumula (accordance with ISO5149). If the density exceeds the limit density, please consult the dealer and installate the ventilation system

Use the genuine accessories and the specified parts for installation.

If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit

Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produced.

Install the unit in a location that can hold heavy weight. Improper installation may cause the unit to fall leading to accider

•Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.

tion may cause the unit to fall leading to accide

Do not mix air in to the cooling cycle on installation or removal of the air conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and inju Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fire.

• Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in

order not to apply unexpected stress on the terminal.

Loose connections or hold could result in abnormal heat generation or fire. ● Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services

Improper fitting may cause abnormal heat and fire.

Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced \bullet Use the specified pipe, flare nut, and tools for R410A.

Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle

Tighten the flare nut according to the specified method by with torque wrench If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period

● Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas car

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak

Connect the pipes for refrigeration circuit securely in installation work before compressor is operated. If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due

abnormal high pressure in the system. Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit

and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle

•Only use prescribed option parts. The installation must be carried out by the qualified installer.

If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire Do not repair by yourself. And consult with the dealer about repair

per repair may cause water leakage, electric shock or fire Consult the dealer or a specialist about removal of the air conditioner

nproper installation may cause water leakage, electric shock or fire

Turn off the power source during servicing or inspection work.

If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fam

Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper runn

⚠ CAUTION

Perform earth wiring surely.

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Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it could cause electric shocks or fire.

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

sing the incorrect one could cause the system failure and fire

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire Do not install the indoor unit near the location where there is possibility of flammable gas leakages If the gas leaks and gathers around the unit, it could cause fire. Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire. Secure a space for installation, inspection and maintenance specified in the manual. 0 fficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry. Indoor unit is not waterproof. It could cause electric shock and fire. Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a maifunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming. Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control. Do not install the indoor unit at the place listed below. Places where cosmetics or special sprays Places where flammable gas could leak. Places where carbon fiber, metal powder or any powder is floated. frequently used. Highly salted area such as beach. Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Heavy snow area SUIT as surince gas, circulure gas, cou, andain us animonia consequences. Places exposed to oil mist or steam directly. On vehicles and ships Places where machinery which generates high harmonics is used. Places where the system is affected by smoke from a chimney. Altitude over 1000m Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation) Locations with any obstacles which can prevent inlet and outlet air of the unit (\setminus) Locations where vibration can be amplified due to insufficient strength of structure Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit) initiales specimentor unity. Ocations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m) Locations where drainage cannot run off safety. can affect performance or function and etc.. Do not put any valuables which will break down by getting wet under the air conditioner \bigcirc n could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belon Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use It could cause the unit falling down and injury. Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit 0 If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit. Install the drain pipe to drain the water surely according to the installation manual Improper connection of the drain pipe may cause dropping water into room and damaging user's belonging Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to ser's health and safety. Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygo occur, which can cause serious accidents. For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding. A Check if the drainage is correctly done during commissioning and ensure the space for inspection and m Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. 0 ulation could cause condensation and it would wet ceiling, floor, and any other va Do not install the outdoor unit where is likely to be a nest for insects and small animals Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to Pay extra attention, carrying the unit by hand. Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin. Make sure to dispose of the packaging material. Ø Leaving the materials may cause injury as metals like nail and woods are used in the package Do not operate the system without the air filter. It may cause the breakdown of the system due to clogging of the heat exchanger Do not touch any button with wet hands. Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbit Do not clean up the air conditioner with water. It could cause electric shock Do not turn off the power source immediately after stopping the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdow Do not control the operation with the circuit breaker.

OThis model is middle static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

● Before installation ● Install correctly according to the installation manual. ● Confirm the following points: Ounit type/Power supply specification OPipes/Wires/Small parts

For hanging
For refrigerant pipe
Fall washer (M10)
Fige cover (pinal)
For cover (pinal)
For cover (pinal)
Figure (Pinal Fred Figure (Pinal Fig

Hose damp 1 For dain hote mounting indicate in success date.

OAccessory items

2 Selection of installation location for the indoor unit

- 1 Select the suitable areas to install the unit under approval of the user.
 - Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
 - · Areas where there is enough space to install and service.
 - Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
 - · Areas where there is no obstruction of airflow on both air return grille and air supply port.
 - Areas where fire alarm will not be accidentally activated by the air conditioner.
 - · Areas where the supply air does not short-circuit.
 - · Areas where it is not influenced by draft air.
 - · Areas not exposed to direct sunlight.

Accessory item

- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- · Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- ${\boldsymbol{\cdot}}$ Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect
 the operation.
 (A beam from lighting device sometimes affects the infrared receiver for the wireless remote

control and the air conditioner might not work properly.)

② Check if the place where the air conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the

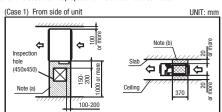
Space for installation and service

Make installation altitude over 2.5m.

(Indoor Unit)

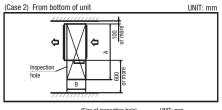
Select either of two cases to keep space for installation and services.

strength is not enough, it could cause injury due to unit falling.



Notes (a) There must not be obstacle to draw out fan motor. () marked area)

(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross marked area.



(Size of inspe	UNIT: mm		
Single type	40-50	60-71	100-140
Multi type	22-56	71-90	112-160
A	1100	1300	1720
В	62	20	725

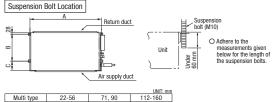
3 Preparation before installation

If suspension bolt becomes longer, do reinforcement of earthquake resistant.
 OFor grid ceiling

When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

- Oln case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
- When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

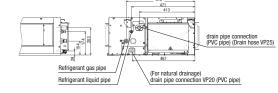
Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.



			UNIT: mm
Multi type	22-56	71, 90	112-160
Single type	40-50	60, 71	100-140
A	786	986	1404
В	472	472	530
С	135	135	180

Pipe locations UNIT: mm





Multi type 112-160
Single type 100-140

635

468

465

Grain pipe connection (PVC pipe) (Drain hose VP25)

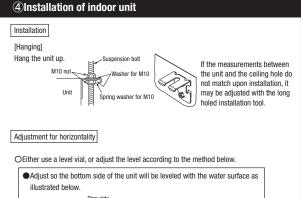
Refrigerant Iguid pipe

Refrigerant liquid pipe

Refrigerant liquid pipe

Refrigerant liquid pipe

Refrigerant liquid pipe



O-5mm

Let the pipe side be slightly sloped.

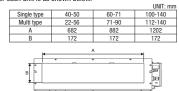
Olf the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

⑤Duct Work

- ①A corrugated board (for preventing sputtering) is attached to the main body of the air conditioned (on the outlet port). Do not remove it until connecting the duct.
 - ●An air filter can be provided on the main body of the air conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

2 Blowout duct

 Use rectangular duct to connect with unit Duct size for each unit is as shown below.



- Duct should be at their minimum length.
- We recommend to use sound and heat insulated duct to prevent it from condensation.
- Connect duct to unit before ceiling attachment.

3 Inlet port

- When shipped the inlet port lies on the back.
- When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.
- •When placing the inlet port to carry out suction from the bottom side, use the following procedure to replace the suction duct joint and the bottom plate







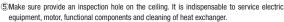
and duct joint.

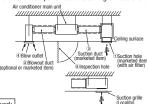
Secure with a band, etc

duct



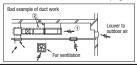
- Fit the duct join with a screw; fit the bottom plate
- Make sure to insulate the duct to prevent dewing on it. 4)Install the specific blowout duct in a location where the air will
- circulate to the entire room.
- Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.
- Insulate the area where the duct is secured by a band for dew condensation prevention.





Bad example of duct work

- (1) If a duct is not provided at the suction side but it is substituted with the space over the ceiling. humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.
 - a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)
 - b)It may run out the allowable limit of unit operation (Example: When outdoor air temperature is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload, etc.
 - c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.
- 2)If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



5 Duct Work (continued)

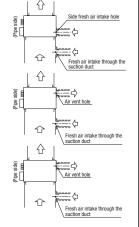
Connecting the air intake/vent ducts

(1)Fresh Air Intake

[for air intake duct only]

OUse the side fresh air intake hole, or supply through a part of the suction duct.

[for simultaneous air intake/vent] OIntake air through the suction duct. (the side cannot be used)



OUse the side air vent hole.

(always use together with the air intake)

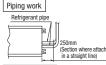
Olnsulate the duct to protect it from dew condensation.

6Refrigerant pipe

Caution

2)Air Vent

- Use the new refrigerant pipe.
- When re-using the existing pipe system for R22 or R407C, pay attention to the following items.
- Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts.
- Do not use thin-walled pipes.
- Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than R410A.
- Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- ●Use special tools for R410A refrigerant.



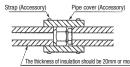
When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

Work procedure

- 1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
- X Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
- Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
- 2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit. *Bend the pipe with as big radius as possible and do not bend the pipe repeatedly. In addition, do not twist and crush the pipes.
 - %Do a flare connection as follows:
 - Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
 - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table below. Make sure to hold the pipe on the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.
- 3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
 - Make sure to insulate both gas pipes and liquid pipes completely
 - *Incomplete insulation may cause dew condensation or water dropping
- 4. Refrigerant is charged in the outdoor unit.

As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit

Pipe diameter	Tightening torque N⋅m
φ 6.35	14 to 18
φ 9.52	34 to 42
φ 12.7	49 to 61
φ 15.88	68 to 82



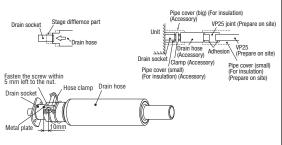
7 Drain pipe

Caution

- Install the drain pipe according to the installation manual in order to drain properly.
 Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end
 of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

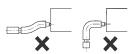
Work procedure

- Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part
 of drain socket.
 - Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.
 - Do not apply adhesives on this end.
 - Do not use acetone-based adhesives to connect to the drain socket.

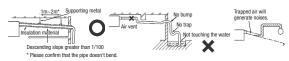


- Prepare a joint for connecting VP-25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP-25 pipe (prepare on site).

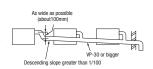
 **As for drain pipe, apply VP-25 made of rigid PVC which is on the market.
 - Make sure that the adhesive will not get into the supplied drain hose.
 It may cause the flexible part broken after the adhesive is dried up and gets rigid.
 - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



- 3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
 - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
 - Do not set up air vent.



• When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP-30 or bigger size for main drain pipe.

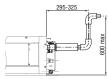


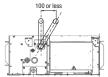
- 4. Insulate the drain pipe.
 - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
 - After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

7 Drain pipe (continued)

Drain up

• The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.





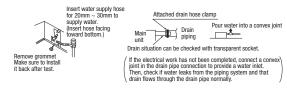
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

- 1. Conduct a drain test after completion of the electrical work.
- During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
- 3. In case of a new building, conduct the test before it is furnished with the ceiling.
- 4. Be sure to conduct this test even when the unit is installed in the heating season.

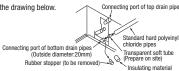
Procedures

- 1. Supply about 1000 cc of water to the unit through the air outlet by using a feed water pump.
- 2. Check the drain while cooling operation.



Outline of bottom drain piping work

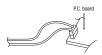
 If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

 Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

Note: If the unit is run with the connector coupled, of drain water will be discharged from the upper drain pipe joint, causing a water leak.

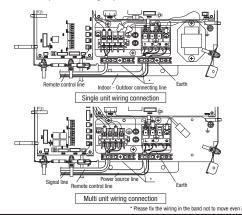


®Wiring-out position and wiring connection

 Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.

Be sure to use an exclusive circuit.

- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work
- 1. Remove a lid of the control box (2 screws).
- 2. Hold each wiring inside the unit and fasten them to terminal block securely.
- 3. Fix the wiring with clamps.
- 4 Install the removed parts back to original place



You can set External Static Pressure (E.S.P.) by either method of MANUAL SETTING or AUTO-MATIC SETTING by remote control.

Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi)

1. MANUAL SETTING

You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

Select No.1-10 (10Pa-100Pa) from following table according to calculation result. Refer to technical manual for details of air flow characteristic.

Setting No.	1	2	3	4	5	6	7	8	9	10
External Static Pressure (Pa)	10	20	30	40	50	60	70	80	90	100

- * When you set No.11-19 by remote control, unit will control fan-speed with setting of No.10 Factory default is at No.5.
- How to set E.S.P by wired remote control
- ① Push "◆" marked button(E.S.P button).
- ② Select indoor unit No. by using \$\Display\$ button.
- ③ Select setting No. by using ♦ button and set E.S.P. by button. See detailed procedure in technical manual.



You can NOT set E.S.P. by wireless remote control.



Be sure to set E.S.P. according to actual duct connected.

Wrong settings causes excessive air flow volume or water drop blown out.

2. AUTOMATIC SETTING

Indoor unit will recognize E.S.P. by itself automatically and select appropriate fan speed No.1-10.

- How to start automatic setting
 - ①, ②Same setting as MANUAL SETTING.
 - $\ensuremath{\mathfrak{G}}$ Select [AUT] by using $\ensuremath{\clubsuit}$ button and press $\ensuremath{\ensuremath{\mathbb{O}}}$ button .
 - ② After setting E.S.P. at "AUT", operate unit in FAN mode with certain fan speed (Lo-Uhi).

Indoor unit fan will run automatically and recognize E.S.P. by itself.

The operation for automatic E.S.P. recognition will last about 6 minutes, and it will be stopped after recognition is completed.

Caution

- Be sure to execute AUTOMATIC SETTING by remote control AFTER, ducting work is completed. When duct specification is changed after AUTOMATIC SETTING, be sure to execute AUTOMATIC SETTING again after power resetting and turning on again.
- Be sure to execute AUTOMATIC SETTING before trial cooling operation.
- (See ELECTRICAL WIRING WORK INSTRUCTION about trial cooling operation)
- Before AUTOMATIC SETTING, be sure to check that return air filter in duct is installed and damper is opened.

Wrong procedure causes excessive air flow or water drop blown out.

- During operation for automatic recognition (the Auto Operation), fan rotates with certain speeds regardless of set fan speed by remote control.
- When duct is set with low static pressure (around 10-50Pa), even if indoor unit operate with higher air flow volume than rated one, but it is not abnormal.
- When you changed operation mode or stop operation with ON/OFF button during Auto Operation, the Auto operation will be canceled.
- In such case, be sure to execute AUTOMATIC SETTING again according to above procedure.

10 Check list after installation

Check the following items after all installation work completed.

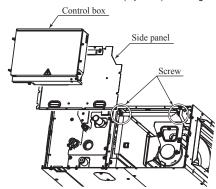
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

(b) Replacement procedure of the fan unit

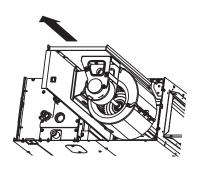
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace. (2) For the maintenance space, refer to page 236.

(i) Models FDUM40VF, 50VF

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

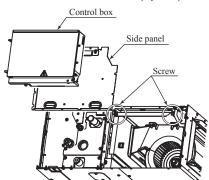


2) Take out the fan unit in the arrow direction.

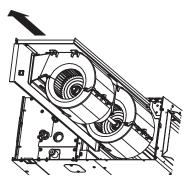


(ii) Models FDUM60VF, 71VF1

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

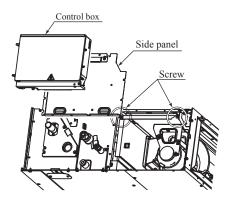


2) Take out the fan unit in the arrow direction.

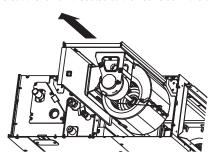


(iii) Models FDUM100VF1, 125VF, 140VF

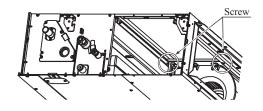
1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



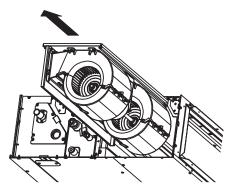
2) Take out the fan unit located at the near side in the arrow direction.



3) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



4) Take out the fan unit in the arrow direction.



PGA012D404

(6) Floor standing type (FDF)

This manual is for the installation of an indoor unit.

For electrical wiring work (Indoor), refer to the electrical wiring work installation manual (page 258). For remote control installation, refer to page 262. For wireless kit installation, refer to page 565. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to Page 276.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work. in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, [AWARNING] and [ACAUTION]. <u>AWARNING</u>: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right: Never do it under any circumstances. • Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

↑ WARNING

Installation should be performed by the specialist.

If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn

Install the system correctly according to these installation manuals.

Improper installation may cause explosion, injury, water leakage, electric shock, and fire

Check the density refered by the foumula (accordance with ISO5149)

If the density exceeds the limit density, please consult the dealer and installate the ventilation system

• Use the genuine accessories and the specified parts for installation.

0 If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the uni

• Ventilate the working area well in case the refrigerant leaks during installation.

If the refrigerant contacts the fire, toxic gas is produced

●Install the unit in a location that can hold heavy weight

Improper installation may cause the unit to fall leading to accident

• Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. ion may cause the unit to fall leading to accidents

Do not mix air in to the cooling cycle on installation or removal of the air conditioner.

If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injurie

●Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fire. •Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in

order not to apply unexpected stress on the terminal

Loose connections or hold could result in abnormal heat generation or fire.

● Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.

Improper fitting may cause abnormal heat and fire.

Check for refrigerant gas leakage after installation is completed.

If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced

Ouse the specified pipe, flare nut, and tools for R410A.

sing existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle Tighten the flare nut according to the specified method by with torque wrench.

If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period. ●Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can

Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak

● Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.

If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system

Stop the compressor before removing the pipe after shutting the service valve on pump down work. If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit

and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

Only use prescribed option parts. The installation must be carried out by the qualified installer. If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire

● Do not repair by yourself. And consult with the dealer about repair. mproper repair may cause water leakage, electric shock or fire

 \bullet Consult the dealer or a specialist about removal of the air conditioner.

Improper installation may cause water leakage, electric shock or fire

Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan

• Do not run the unit when the panel or protection guard are taken off.

Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running.

⚠ CAUTION

Perform earth wiring surely.

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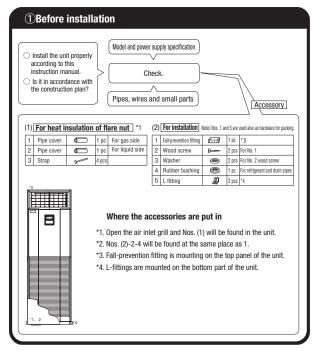
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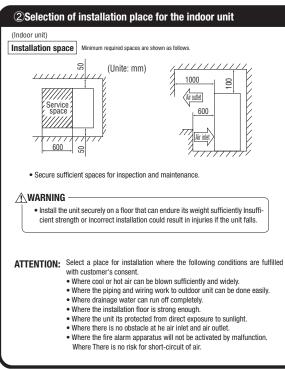
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Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Imperfect earth woi (grounding) could cause an electric shock or fire if some trouble or earth leakage occurs.

Earth leakage breaker must be installed.

Ø Unless the earth leakage circuit breaker is provided, if could cause a fire or electric shock Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all 0 poles under over current. Using the incorrect one could cause the system failure and fire. Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connecting the circuit by wire or copper wire could cause unit failure and fire Do not install the indoor unit near the location where there is possibility of flammable gas leakage If the gas leaks and gathers around the unit, it could cause fire. Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire Secure a space for installation, inspection and maintenance specified in the manual. 0 Insufficient space can result in accident such as personal injury due to falling from the installation place Do not use the indoor unit at the place where water splashes such as laundry Indoor unit is not waterproof. It could cause electric shock and fire. Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art. It could cause the damage of the items. Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming. Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control Do not install the indoor unit at the place listed below. Places where flammable has could leak Places where cosmetics or special sprays are Places where carbon fiber, metal powder or any powder is floated. Places where carbon fiber, metal powder or any powder is floated. Place where the substances which affect the air conditioner are generated such as su frequently used. Highly salted area such as beach. Heavy snow area Places where the system is affected by Places exposed to oil mist or steam directly smoke from a chimney On vehicles and shins Places where machinery which generates high harmonics is used. Altitude over 1000m Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation) Locations with any obstacles which can prevent inlet and outlet air of the unit Locations where vibration can be amplified due to insufficient strength of structure \bigcirc Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit) Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m) Locations where drainage cannot run off safely. can affect performance or function and etc.. Do not put any valuables which will break down by getting wet under the air conditioner. n could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's beli Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use It could cause the unit falling down and injury. Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit 0 If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit. Install the drain pipe to drain the water surely according to the installation manual. Œ Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) user's health and safety. Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can Œ occur, which can cause serious accidents. For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps and not to make air-bleeding. Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance Ensure the insulation on the pipes for refrigeration circuit so as not to condense water. a Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other value Do not install the outdoor unit where is likely to be a nest for insects and small animals. Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user keep the surroundings clean. Pay extra attention, carrying the unit by hand. 0 Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin. Make sure to dispose of the packaging material. Leaving the materials may cause injury as metals like nail and woods are used in the package Do not operate the system without the air filter. It may cause the breakdown of the system due to clogging of the heat exchanger Do not touch any button with wet hands. It could cause electric shock. Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or fi Do not clean up the air conditioner with water. It could cause electric shock. Do not turn off the power source immediately after stopping the operation Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown Do not control the operation with the circuit breaker. It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

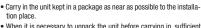


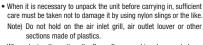


3Carrying-in and installation of the unit

Carrying-in

ATTENTION:

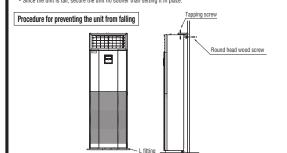


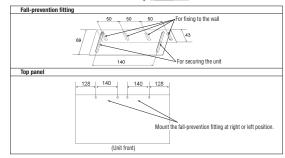


 When placing the unit on the floor after unpacking, be sure to have its front face at the top.

(3) Carrying-in and installation of the unit (Continued)

• Be sure to fix the unit with L-fittings and the fall-prevention fitting.

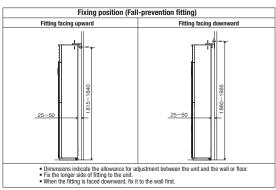




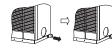
(1) Fixing the unit with the fall-prevention fitting



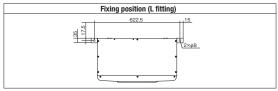
- ①Loosen screws (2 pcs) and remove the fallprevention fitting.
- ②Select a position to fix the fall-prevention fitting as illustrated and fix it to the top of unit and the wall.
 - · The fixing positon of the fall-prevention fitting is as illastrated below



(2) Fixing the unit with the L-fittings



- ①Remove the L-fittings mounted on the unit with
- 2)Turn over the L-fitting and fix it to the unit and either the floor or the wall as illustrated.
 - · Fixing position of the L-fittings are as illustrated



ATTENTION:

Install the unit on the level.
Inclination must be less than 1°in fore-aft and right-left directions.

4 Refrigerant piping

Caution

Use the new refrigerant pipe.

When re-using the existing pipe system for R22 or R407C, pay attention to the following items.

- Change the flare nuts with the attached ones (JIS category 2), and reprocess the flare parts.
- · Do not use thin-walled pipes.
- ●Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H3300) for refrigeration pipe installation.

In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.

Do not use any refrigerant other than R410A.

Using other refrigerant except R410A (R22 etc.) may degrade inside refrigeration oil. And if air getting into refrigerant circuit, it may cause anomaously high pres and may result in burst, etc.

- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- •Use special tools for R410 refrigerant.

Work procedure

- 1. Remove the flare nuts and flare caps from the pipes of the indoor unit.
 - ** Make sure to loosen the flare nut by holding the flared male fitting with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.

(Gas may come out a little at this time, but it is no anomaly.)

Pay attention that the flare nut may pop out.

(Because it is sometimes pressurized in the indoor unit)

Make a flare on liquid pipe and gas pipe, and connect the refrigrant pipes to the indoor unit.

**Bend the pipe with as big radius as possible and do not bend the pipe repeatedly. In addition, do not twist and crush the pipes.

*Do a flare connection as follows:

- Make sure to loosen the flare nut by holding the flared male fitting with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
- When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it with a spanner within the specified torque mentioned in the table below.

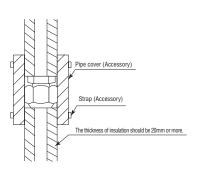
Make sure to hold the flared male fitting on the indoor unit side with another spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.

- Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
 - Make sure to insulate both gas pipes and liquid pipes completely.

*Incomplete insulation may cause dew condensation and dew dropping.

4. Refrigerant is pre-charged in the outdoor unit.

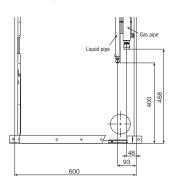
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.



Pipe diameter	Tightening torque N·m
φ 6.35	14 to 18
φ 9.52	34 to 42
φ 12.7	49 to 61
ф 15.88	68 to 82
φ 19.05	100 to 120

4 Refrigerant piping (Continued)

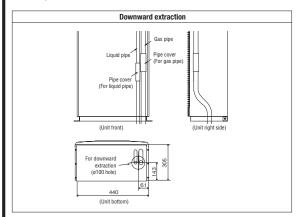
Pipe and wire extracting position

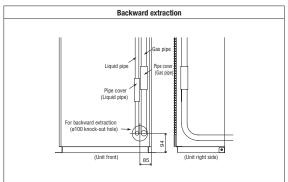


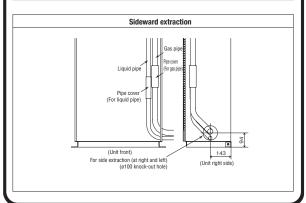
ATTENTION:

 Do not cut off the flange at the hole on the base plate for the downward extraction.

ДŒ







⑤Drain pipe

∱WARNING

• Do not insert the drain pipe directly in the drain ditch where toxic gases such as sulffuric gas are produced. Toxic gas may flow into the room

ACAUTION

• Install the drain pipe properly according to the installation manu And insulate it to prevent from dew condensation.

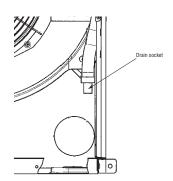
Improper installation of drain pipe may cause damage of furniture drainage water

leaked or dew condensation.

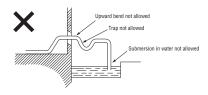
Procedure

- 1. Connect the drain socket to the drain pipe (PV-20) provided at site and fix the joint with
- adhesive tape, or the like.

 2. When the pipe provided at site runs through a room, insulate the pipe with a commercial insulator (Polyethylene foam: Specific gravity 0.03, thickness 15 mm or more) to prevent dewing.







ATTENTION:

- Insulate the drain pipe to prevent dewing. (Especially in room and unit)
- Incline the drain pipe downward to the outlet (1/50 1/100). Upward bend or trap is not allowed on the way.
- Use a commercial hard polyvinyl chloride pipe, PV-20, for the drain pipe. <Use of adhesive agent is prohibited.>

6Wire extracting position and wire connecton

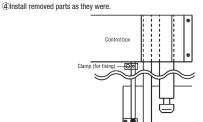
Control box position and power cable connection

- Electric work must be made by qualified electricians according to the "Engineering standards concerning electric equipment", "Extension wiring regulations" and the electric wiring work manual. Be sure to use dedicated electric circuits.
- Make sure to use specified wires for wiring, and connect them securely. Clamp the wires to protect the terminal connection from external force.
- Make sure to protect the unit with the D-type grounding work.
 For details of wiring work, refer to the attached electric wiring work manual.

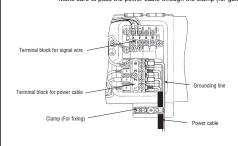


Procedure

- 1 Remove the control box cover (fixed with a screw).
- 2Introduce wires in the unit and connect securely on the terminals.
- ③Fix each wire with a clamp (for fixing).



• Make sure to pass the power cable through the clamp (for guide).



7Check list after installation

Check the following items after all installation work completed.

Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for gas leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

- This installation manual illustrates the method of installing an indoor
- For electrical wiring work, please see instructions set out on the hackside
- For outdoor unit installation and refrigerant piping, please refer to page 276.

· A wired remote control unit is supplied separately as an optional part. . When install the unit, be sure to check whether the selection of installation place, power supply specifications, usage limitation (piping length, height differences between indoor and outdoor units, power supply voltage and etc.) and installation spaces.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels MARNING and ACAUTION
- **★WARNING**: Wrong installation would cause serious consequences such as injuries or death
- A CAUTION : Wrong installation might cause serious consequences depending on circumstances.

Both mentions the important items to protect your health and safety so strictly

 Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.

- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a
- · For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, groves, etc., and then perform the
- . Please pay attention not to fall down the tools, etc. when installing the unit at
- If unusual noise can be heard during operation, consult the dealer.
- . The meanings of "Marks" used here are shown as follows:



refrigerant leakage after a long period.



Always do it according to the

♠ WARNING

- Installation must be carried out by the qualified installer.
 - f you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system malfunction. Do not carry out the installation and maintenance work except the by qualified installer.
 - Install the system in full accordance with the installation manual. Incorrect installation may cause bursts, personal injury, water leaks, electric the dedicated circuit. shocks and fire.
 - Be sure to use only for household and residence
 - If this appliance is installed in inferior environment such as machine shop. and etc. it can cause malfunction.
 - Use the original accessories and the specified components for installation
 - If parts other than those prescribed by us are used. It may cause water leaks, electric shocks, fire and personal injury

 - Install the unit in a location with good support Unsuitable installation locations can cause the unit to fall and cause
 - material damage and personal injury Ventilate the working area well in the event of refrigerant leakage during installation
 - If the refrigerant comes into contact with naked flames, poisonous gas is produced
 - When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).
 - If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accident
 - After completed installation, check that no refrigerant leaks from the system.
 - If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced.
 - Use the prescribed pipes, flare nuts and tools for R410A.
 - Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.

- "national wiring regulation", and the system must be connected to
 - Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire

• Tighten the flare nut by torque wrench with specified method.

The electrical installation must be carried out by the qualified.

If the flare nut were tightened with excess torque, this may cause burst and

electrician in accordance with "the norm for electrical work" and

- Be sure to shut off the power before starting electrical work Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment
- Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work
- Unconformable cables can cause electric leak, anomalous heat production
- This appliance must be connected to main power supply by means. of a circuit breaker or switch (fuse:16A) with a contact separation of
- at least 3mm. When plugging this appliance, a plug conforming to the norm IFC60884-1 must be used
- Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks.
- Loose connections or cable mountings can cause anomalous heat
- Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly.
- Incorrect installation may result in overheating and fire. Be sure to switch off the power supply in the event of installation inspection or servicing.
- If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.
- · Be sure to wear protective goggles and gloves while at work. Earth leakage breaker must be installed.
- If the earth leakage breaker is not installed, it can cause electric shocks.
- . Do not processing, splice the power cord, or share a socket with
- This may cause fire or electric shock due to defecting contact, defecting
- . Do not bundling, winding or processing for the power cord. Or, do
- This may cause fire or heating.

not deforming the power plug due to tread it.

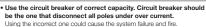
↑ WARNING

- Do not vent R410A into the atmosphere : R410A is a fluorinated greenhouse gas, covered by the Kyoto Protocol with Groval Warming Potential (GWP)=1975.
 - Do not run the unit with removed panels or protections.
 - Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks

. Do not perform any change of protective device itself or its setup

The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component

- · Carry out the electrical work for ground lead with care.
- Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting.



- Install isolator or disconnect switch on the power supply wiring in accordance with the local codes and regulations.
- The isolator should be locked in OFF state in accordance with EN60204-1. Be sure to install indoor unit properly according to the installation manual in order to run off the drainage smoothly.
- Improper installation of indoor unit can cause dropping water into the room and damaging personal property.
- Install the drainage pipe to run off drainage securely according to the installation manual.

Incorrect installation of the drainage pipe can cause dropping water into the room and damaging personal property.

- Be sure to install the drainage pipe with descending slope of 1/100 or more, and not to make traps and air-bleedings.
- Check if the drainage runs off securely during commissioning and ensure the space for inspection and maintenance.
- Secure a space for installation, inspection and maintenance specified in the manual.
- Insufficient space can result in accident such as personal injury due to
- . Do not install the unit in the locations listed below.
- · Locations where carbon fiber, metal powder or any powder is floating. . Locations where any substances that can affect the unit such as sulphide
- gas, chloride gas, acid and alkaline can occur. · Vehicles and ships
- . Locations where cosmetic or special sprays are often used.
- . Locations with direct exposure of oil mist and steam such as kitchen and machine plant.
- Locations where any machines which generate high frequency harmonics are used.
- . Locations with salty atmospheres such as coastlines
- I ocations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual).
- · Locations where the unit is exposed to chimney smoke.
- . Locations at high altitude (more than 1000m high).
- . Locations with ammonic atmospheres
- · Locations where heat radiation from other heat source can affect the unit.
- · Locations without good air circulation.
- Locations with any obstacles which can prevent inlet and outlet air of the unit. under the indoor unit.
- · Locations where short circuit of air can occur (in case of multiple units
- Locations where strong air blows against the air outlet of outdoor unit. . Locations where something located above the unit could fall.
- It can cause remarkable decrease in performance, corrosion and damage of components, malfunction and fire.
- Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for
- each model because each indoor unit has each limitation). • Locations with any obstacles which can prevent inlet and outlet air of the
- Locations where vibration can be amplified due to insufficient strength of
- Locations where the infrared receiver is exposed to the direct sunlight or
- the strong light beam (in case of the infrared specification unit). Locations where an equipment affected by high harmonics is placed (TV) eat or radio receiver is placed within 1ml
- Locations where drainage cannot run off safely
- It can affect performance or function and etc.
- Do not install the unit near the location where leakage of combustible gases can occur.

- falling from the installation place
- · For installation work, be careful not to get injured with the heat exchanger, piping flare portion or screws etc.
- Be sure to insulate the refrigerant pipes so as not to condense the ambient air moisture on them.
- Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables
- When perform the air conditioner operation (cooling or drying operation) in which ventilator is installed in the room. In this case, using the air conditioner in parallel with the ventilator, there is the possibility that drain water may backflow in accordance with the room lapse into the negative pressure status. Therefore, set up the opening port such as incorporate the air into the room that may appropriate to ventilation (For example; Open the door a little). In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to register of the wind for the high rise apartment etc.
- Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.
- If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause

If leaked gases accumulate around the unit, it can cause fire.

- Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate or collect, or where volatile combustible
- substances are handled. Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire
- Do not use the indoor unit at the place where water splashes may occur such as in laundries.
- Since the indoor unit is not waterproof, it can cause electric shocks and fire Do not install nor use the system close to the equipment that
- generates electromagnetic fields or high frequency harmonics. Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or
- cause jamming. . Do not place any variables which will be damaged by getting wet
- When the relative humidity is higher than 80% or drainage pipe is clogged, condensation or drainage water can drop and it can cause the damage of
- Do not install the remote control at the direct sunlight.
- It can cause malfunction or deformation of the remote control.
- Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants of
- It can cause the damage of the items
- the location where fuses are to be used.
- Connecting the circuit with copper wire or other metal thread can cause unit failure and fire.
- Do not touch any buttons with wet hands.
- It can cause electric shocks
- . Do not touch any refrigerant pipes with your hands when the system is in operation

During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or



 Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulphide gas can occur.

installed and removed.

Poisonous gases will flow into the room through drainage pine and seriously affect the user's health and safety. This can also cause the corresion of the indoor unit and a resultant unit failure or refrigerant leak Ensure that no air enters in the refrigerant circuit when the unit is

If air enters in the refrigerant circuit, the pressure in the refrigerant circuit

becomes too high, which can cause burst and personal injury.

other power plugs.

BEFORE INSTALLATION

O Before installation check that the power supply matches the air conditioner.

S	tandard accessories (Installation kit) Accessories for indoor unit	Q'ty
1	Installation board (Attached to the rear of the indoor unit)	1
2	Wireless remote control	1
3	Remote control holder	1
4	Tapping screws (for installation board ø4 X 25mm)	4
⑤	Wood screws (for remote control switch holder ø3.5 X 16mm)	2
6	Battery [R03 (AAA, Micro) 1.5V]	2
7	Air-cleaning filters	2
8	Filter holders (Attached to the front panel of indoor unit)	2
9	Insulation (#486 50 x 100 t3)	1
	·-	

	Option parts		
a	Sealing plate	1	
в	Sleeve	1	
0	Inclination plate	1	
(d)	Putty	1	
e	Drain hose (extension hose)	1	
f	Piping cover (for insulation of connection piping)	1	

	(
	Necessary tools for the installation work
	Necessary tools for the installation work
1	Plus headed driver
2	Knife
3	Saw
4	Tape measure
5	Hammer
6	Spanner wrench
7	Torque wrench $\begin{pmatrix} 14.0 \sim 61.0 \text{N} \cdot \text{m} \\ (1.4 \sim 6.1 \text{kgf} \cdot \text{m}) \end{pmatrix}$
8	Hole core drill (65mm in diameter)
9	Wrench key (Hexagon) [4m/m]
10	Flaring tool set Designed specifically for R410A
11	Gas leak detector (Designed specifically for R410A)
12	Gauge for projection adjustment (Used when flare is made by using) conventional flare tool
13	Pipe bender

SELECTION OF INSTALLATION LOCATION

(Install at location that meets the following conditions, after getting approval from the customer)

Indoor unit

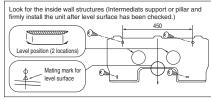
- Where there is no obstructions to the air flow and where the cooled and heated air can be evenly distributed.
- A solid place where the unit or the wall will not vibrate.
- A place where there will be enough space for servicing. (Where space mentioned below can be secured) Where wiring and the piping work will be easy to conduct.
- The place where receiving part is not exposed to the direct rays of the sun or the strong rays of the street lighting. A place where it can be easily drained.
- A place separated at least 1m away from the television or the radio. (To prevent interference to images and sounds.)
 Places where this unit is not affected by the high frequency equipment or electric equipment.
- Avoid installing this unit in place where there is much oil mist. Places where there is no electric equipment or household under the installing unit.

Wireless remote control

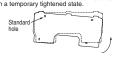
- A place where the air conditioner can be received the signal surely during operating the wireless remote control.
- Places where there is no affected by the TV and radio etc.
- Do not place where exposed to direct sunlight or near heat devices such as a stove.

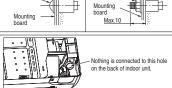
INSTALLATION OF INDOOR UNIT

Installation of installation board



- O Adjustment of the installation board in the horizontal direction is to be conducted with four screws in a temporary tightened state.
- O Adjust so the board will be level by turning the board with the standard hole as





Fixing on concrete wall

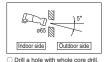
(M6)

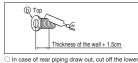
Use of nut anchor

(M6×12)

Drilling of holes and fixture of sleeve (Option parts)

When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use pipe hole sleeve sold separately.









⚠ CAUTION

dewing.

Use of bolt anchor

Completely seal the hole on the wall with putty. Otherwise.

furniture, or other, may be

wetted by leaked water or

Indoor side

Outdoor side

3 Remote control holder

⑤ Wood screws

Relation between setting plate and indoor unit

Indoor unit Installation board

450

Space for service

54 Piping for Gas 491.1

Drain hose (ø16) 520,8 Piping for Liquid 559.1

INSTALLATION SPACE (INDOOR UNIT) (FRONT VIEW)

② Wireless remote contr

Installing the support of piping

In case of piping in the right rear direction



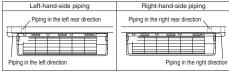


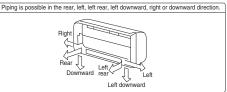


Tape only the portion that goes through the Always tape the wiring with the piping.

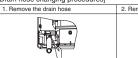
Sufficient care must be taken not to damage the panel when connecting pipes.

· Matters of special notice when piping from left or central/rear of the unit [Top view]





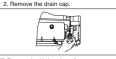
[Drain hose changing procedures]



O Remove the screw and drain hose, making it rotate.

Piping hole (ø65)

Piping for Liquid (20 to 60 type): ø6.35 Piping for Gas (20 to 35 type): ø9.52 (50 to 60 type): ø12.7



Piping hole (ø65)

(Unit:mm)

.0 cm minimum from the ceiling

(sold separately)

1) Installation board

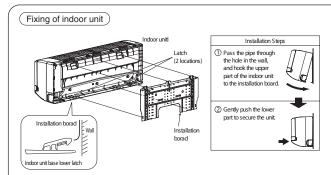
3. Insert the drain cap

O Remove it with hand or pliers. 4. Connect the drain hose



○ Insert the drain cap which was removed ○ Insert the drain hose securely, making at procedure "2" securely using a hexagonal wrench etc. Note: Be careful that If it is not inserted securely, water leakage may occur.

rotate. And install the screw. Note: Be careful that If it is not inserted securely, water leakage may



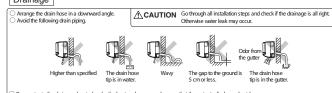
- · How to remove the indoor unit from the installation board
- ① Push up at the marked portion of the indoor unit base lower latch, and slightly pull it toward you. (both right and left hand sides) (The indoor unit base lower latch can be removed from
- 2 Push up the indoor unit upward. So the indoor unit will be removed from the installation board.



Since this air conditioner has been designed to collect dew drops on the rear surface to the drain pan, do not attach the power cord above the gutter.



Drainage



Pour water to the drain pan located under the heat exchanger, and ensure that the water is discharged outdoor. When the extended drain hose is indoor, securely insulate it with a heat insulator available in the market.

CONNECTION OF REFRIGERANT PIPINGS

Preparation) Keep the openings of the pipes covered with tapes etc. to prevent dust, sand, etc. from entering them.



Measurement E

• Flaring work

block

Install the removed flared nuts to the pipes to be connected,

Clutch type flare tool for

0.0 - 0.5

0.0 - 0.5

0.0 - 0.5

Use a flare tool designed for R410A or a conventional flare tool.

then flared the pipes.

Please note that measurement B (protrusion from the flaring block) will vary depending on the

If a conventional flare tool is used, please use a copper pipe gauge or a similar instrument to check protrusion so that you can keep measurement B to a correct value.

Measurement B (mm)

Clutch type

1.0 - 1.5

1.0 - 1.5

1.0 - 1.5

Dimension A Liquid side ø6.35 : 9.1 (mm) Gas side ø9.52 : 13.2 (mm) ø12.7 : 16.6 (mm)

Wing nut type

1.5 - 2.0

1.5 - 2.0

2.0 - 2.5

Conventional (R22) flare tool

△ CAUTION Do not apply refrigerating machine oil to the flared surface.

(Do not turn)

Liquid side

Connection

Indoor

- Connect the pipes on both liquid and gas sides. Tighten the nuts to the following torque.
- Liquid side (ø6.35) : 14.0 18.0 N·m (1.4 1.8 kgf·m) Gas side (ø9.52): 34.0 - 42.0 N·m (3.4 - 4.2 kgf·m) (Ø12.7): 49.0 - 61.0 N·m (4.9 - 6.1 kgf·m)

⚠ CAUTION

Do not apply excess torque to the flared nuts. Otherwise, the flared nuts may check depending.

Insulation of the connection portion

Cover the coupling with insulator and then cover it with tapes.

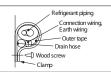


Use an attached insulation pad for heat insulation.

Position it so that the slit area faces upward

· Cover the indoor unit's flare-connected joints, after they are checked for a gas leak, with an indoor unit heat insulating material and then wrap them with a tape with an attached insulation pad placed over the heat insulating material's slit area.

Finishing work and fixing



Cover the exterior portion with outer tape and shape the piping so it will match the contours of the route that the piping to take. Also fix the wiring and pipings to the wall with

Open/close and detachment/attachment of the air inlet panel

Copper pipe diameter

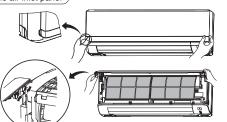
ø6.35

ø9.52

ø12.7

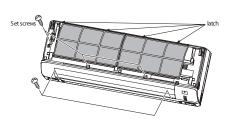
type of a flare tool in use.

- O To open, pull the panel at both ends of lower part and release latches, then pull up the panel until you feel resistance.
- (The panel stops at approx. 60 open position) O To close, hold the panel at both ends of lower part to lower downward and push it slightly until the latch works.
- O To remove, pull up the panel to the position shown in right illustration and pull it toward you.
- O To install, insert the panel arm into the slot on the front panel from the position shown in right illustration, hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.

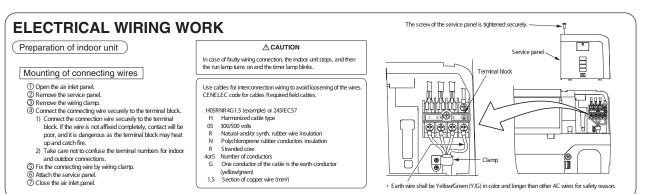


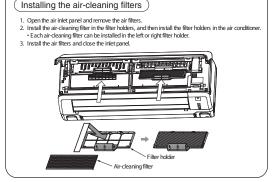
How to remove and fit the front panel

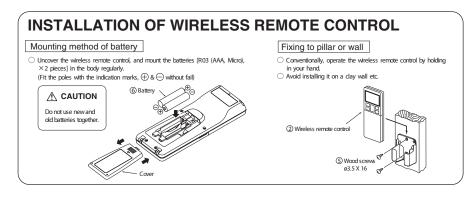
- 1 Remove the air inlet panel.
- 2 Remove the 5 set screws.
- 3 Remove the 4 latches in the upper section.
- Move the lower part of the panel forward and push upwards to remove.
- Fitting
- (1) Do remove the air filter.
- (2) Cover the body with the front nanel
- 3 Fit the 4 latches in the upper section.
- 4 Tighten the 5 set screws
- ⑤ Fit the air filter.
- 6 Fit the air inlet panel.

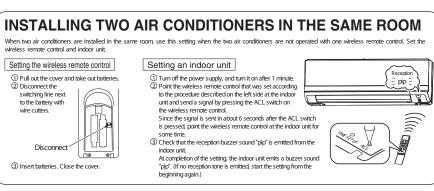


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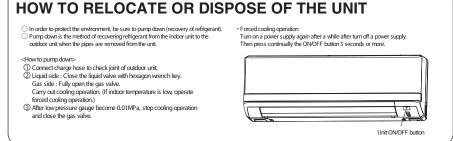








CONCERNING TERMINAL CONNECTION FOR AN INTERFACE



① Remove the front panel and lid of control. ② Remove the control. ③ Remove the control. ③ The remove the control. ⑤ There is a terminal (respectively marked with CNS) for the indoor control board. In connecting an interface, connect to the respective terminal securely with the connection harness supplied with an optional "Interface connection kit SC-BIKN-E" and fasten the connection harness onto the indoor control box with the clamp supplied with the kit. For more details, please refer to the user's manual of your "Interface connection kit SC-BIKN-E".	
	_
d before turning on the power. Conduct a test run again and ensure that the unit operates properly. no take care of the unit following the user's manual.	

INSTALLATION TEST CHECK P	OINTS Check the following points again after completion of the At the same time, explain to the customer how to use the	installation, and before turning on the power. Conduct a test run again and ensure that the unit operates properly. e unit and how to take care of the unit following the user's manual.	
After installation		Test run	
The power supply voltage is correct as the rating.	Operation valve is fully open.	Air conditioning operation is normal. The remote control is normal.	
No gas leaks from the joints of the operation valve.	The pipe joints for indoor and outdoor pipes have been insulated	I. No abnormal noise. Operation of the unit has been explained to the customer. (Three-minutes restart preventive timer)	
Power cables and crossover wires are securely fixed to the terminal board.		Water drains smoothly. When the air conditioner is restarted or when changing the operation, the unit will not start operating for	
The screw of the service panel is tightened securely.		Protective functions are not working, approximately 3 minutes. This is to protect the unit and it is not a malfunction.	
			_

(8) Effective range of cool/hot wind (Reference)

(a) FDT series

Guideline for ceiling height

Fan Speed Setting	Model			
	FDT40VF,150VF,160VF	FDT71VF1	FDT100VF1	FDT125VF,140VF
Hi	2.7m	3.0m	3.2m	3.6m
PHi	3.5m	3.8m	4.3m	4.5m

Notes (1) If the ceiling height is over 3m, please consider to add circulators.

This table shows reference values in case of four outlet.

If you shut some outlets, they are different.

Fan speed setting can be changed by using a wired remote control.

(b) FDEN series

Model	Effective range
FDEN40VF, 50VF	7.5m
FDEN60VF, 71VF1	8.0m
FDEN100VF1, 125VF, 140VF	9.0m

[Conditions] 1. Height of unit: 2.4 - 3.0 (m) above floor level

2. Fan speed: Hi

3. Location: Free space without obstacles

4. The effective range means the horizontal distance for the wind to reach the floor.

5. Wind speed at the effective range: 0.5 m/s

(c) FDF series

Model	Effective range
FDF71VD1	5m
FDF100VD1, 125VD, 140VD	8m

[Conditions] 1. Fan speed: Hi

2. Location: Free space without obstacles

3. The effective range means the horizontal distance for the wind to reach the floor.

4. Wind speed at the effective range: 0.5 m/s

1.10.2 Electric wiring work installation

(1) FDT, FDTC, FDEN, FDUM, series

PSB012D999

Electrical wiring work must be performed by an electrician qualified by a local power provider according to the electrical installation technical standards and interior wiring regulations applicable to the installation site.

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.

[AWARNING]: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means.

- The meanings of "Marks" used here are as shown on the right: Never do it under any circumstances.
- Accord with following items. Otherwise, there will be the risks of electric shock and fire caused by overheating or short circuit.

↑ WARNING

●Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

Power source with insufficient capacity and improper work can cause electric shock and fir

- Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire.
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property. Improper fitting may cause abnormal heat and fire.
- •Use the genuine option parts. And installation should be performed by a

specialist.

If you install the unit by yourself, it could cause water leakage, electric shock and fire

- Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire.
- Consult the dealer or a specialist about removal of the air conditioner. Improper installation may cause water leakage, electric shock or fire
- Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- Shut off the power before electrical wiring work. It could cause electric shock, unit failure and improper running.

△CAUTION

Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.

- Earth leakage breaker must be installed.
- If the earth leakage breaker is not installed, it can cause electric shocks
- Make sure to install earth leakage breaker on power source line. (countermeasure thing to high harmonics.) Absence of breaker could cause electric shock
- Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.
 Using the incorrect one could cause the system failure and fire
- Do not use any materials other than a fuse of correct capacity where a fuse
- Connecting the circuit by wire or copper wire could cause unit failure and fire. Use power source line of correct capacity.
- Using incorrect capacity one could cause electric leak, abnormal heat generation and fire. Do not mingle solid cord and stranded cord on power source and signal side
- In addition, do not mingle difference capacity solid or stranded cord.
- Inappropriate cord setting could cause loosing screw on terminal block, bad electrical contact, smoke and fire.
- Do not turn off the power source immediately after stopping the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or
- Do not control the operation with the circuit breaker.

 It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

Control mode switching The control content of indoor units can be switched in following way. (is the default setting) Switch No Control Content SW2 Indoor unit address (0-Fh) SW5-1 Master/Slave Switching (plural /Slave unit Setting) SW5-2 Model capacity setting SW6-1~4 ON Operation check, Drain motor test run SW7-1 0FF Normal operation

①Electrical Wiring Connection

- Electrical wiring work must be performed by an electlician an qualified by a local power provider. These wiring specifications are determined on the assumption that the following instructions are observed:
- (1) Do not use cords other than copper ones.

 Do not use any supply line lighter than one specified in parentheses for each type below.

 -braided cord (code designation 60024 EIC 51), if allowed in the relevant part 2;

 -ordinary bough rubber sheathed cord (code designation 600245 IEC 53);

 -lat twin timsel cord (code designation 60027 IEC 41);

 -ordinary polyvinyl chloride sheathed cord (code designation 60027 IEC 53);

 2) Connect the power supply to the outdoor unit.

 3) Pay extra attention so as not to confuse signal line and power source line connection, because an error in their connection can be burn all the boards at once.
- Screw the line to terminal block without any looseness, certainly.
- Do not turn on the switch of power source, before all of line work is done.
- Provide a dedicated branching circuit and never share a branching circuit with other equipment. If shared, disconnection at the circuit breaker may occur, which can cause secondary damage.
- Use three-core cable as wiring between indoor and outdoor unit. As for detail, refer to "INSTALLATION MANUAL" of outdoor Unit.
- Set earth of D-type.

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 Do not add cord in the middle of line (of indoor power source, remote control and signal) route on outside of unit. If connecting point is flooded, it could cause problem as for electric or communication.

(In the case that it is necessary to set connecting point on the signal line way, perform thorough waterproof measurement.)

- Run the lines (power source, remote control and "between indoor and outdoor unit") upper ceiling through iron pipe or other tube protection to avoid the damage by mouse and so on.
- Keep "remote control line" and "power source line" away from each other on constructing
- Do not connect the power source line [220V/240V/380V/415V] to signal side terminal block. Otherwise, it could cause failure.
- Connection of the line ("Between indoor and outdoor unit", Earth and Remote control)

- Connection of the line ("Between indoor and outdoor unit", Earth and Hemote control)

 Of Renowe lid of control box before connect the above lines, and connect the lines to terminal block according to number pointed on label of terminal block.
 In addition, pay enough attention to confirm the number to lines, because there is electrical polarity except earth line.
 Furthermore, connect earth line to earth position of terminal block of power source.

 Of Install earth leakage breaker on power source line. In addition, select the type of breaker for inverter circuit as earth leakage breaker.

 Of If the function of selected earth leakage breaker is only for earth-fault protection, hand switch (switch listed and type "B" fuse) or circuit breaker is required in series with the earth leakage breaker.

 Of Install isolator of scionnect switch on the power supply wining in accordance with the local codes and regulations.

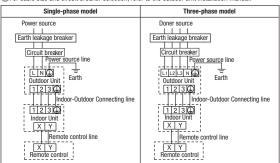
 The isolator should be set in the box with key to prevent touching by another person when servicing.

Cable connection for single unit installation

①As for connecting method of power source, select from following connecting patterns. In principle, do not directly connect power souce line to inside unit.

country with referring to technical documents, and follow its instruction.

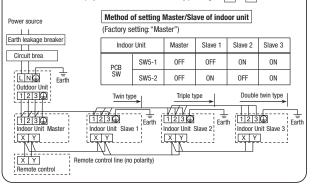
2) For cable size and circuit breaker selection, refer to the outdoor unit installation manual



Cable connection for a V multi configuration installation

- ①Connect the same pairs number of terminal block "①, ②, and ③"and " X and Y" between master and slave indoor units.
- ②Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW2 on indoor unit's PCB (Printed circuit board).

 ③Set slave indoor unit as "slave 1" through "slave 3" by address switch SW5-1, 5-2 on PCB.
- When the AIR CON NO. button on the remote control unit is pressed after turning on the power, an indoor unit's address number will be displayed. Do not fail to confirm that the connected indoor unit's numbers are displayed on the remote control unit by pressing the 🔳 or 🔻 button.



②Remote Control, Wiring and functions

- DO NOT install it on the following places.
- 1)Places exposed to direct sunlight
- ②Places near heat devices
- (3)High humidity places
- 4 Hot surface or cold surface enough to generate condensation
- ⑤Places exposed to oil mist or steam directly.
- 6 Uneven surface

Installation and wiring of remote control

1) Install remote control referring to the attached installation manual.

②Wiring of remote control should use 0.3mm² ×2 core wires or cables.

The insulation thickness is 1mm or more. (on-site configuration)

3 Maximum prolongation of remote control wiring is 600 m.

If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

 100 - 200m
 $0.5 \text{mm}^2 \times 2 \text{ cores}$

 Under 300m
 $0.75 \text{mm}^2 \times 2 \text{ cores}$

 Under 400m
 $1.25 \text{mm}^2 \times 2 \text{ cores}$

 Under 600m
 $2.0 \text{mm}^2 \times 2 \text{ cores}$

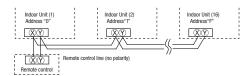
- Avoid using multi-core cables to prevent malfunction.
- ⑤Keep remote control line away from earth (frame or any metal of building).
- ⑥Make sure to connect remote control line to the remote control and terminal block of indoor unit. (No polarity)

Control plural indoor units by a single remote control.

①A remote control can control plural indoor units (Up to 16).

In above setting, all plural indoor units will operate under same mode and temperature setting. ②Connect all indoor units with 2 core remote control line.

③Set unique remote control communication address from "0" to "F" to each inside unit by the rotary switch SW2 on the indoor unit's PCB.



Master/ slave setting when more than one remote control unit are used

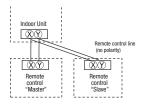
A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)

The air conditioner operation follows the last operation of the remote control regardless of the master/slave setting of it.

Acceptable combination is "two (2) wired remote controls", "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".

Set one to "Master" and the other to "Slave".

Note:The setting "Remote control unit sensor enabled" is only selectable with the master remote control unit in the position where you want to check room temperature.



③ Operation and confirmation from remote control

Operation from RC-EX1A

Operation from RC-E5

Check the number of units connected in the remote control system.
 It checks sub units of twin, triple or W-twin connection.

"Menu"⇒"Next"⇒"Service & Maintenance"⇒
"Input password"⇒"IU address"

Press AIR CON NO button to display the IU address. Press the ▼ or A button and check addresses of connected indoor units one by one.

2 Check if each unit is connected properly in the remote control system. It cannot check main and sub units of twin, triple or W-twin connection.

When the operation is stopped, "Menu" ⇒
"Next" ⇒ "Service & Maintenance" ⇒
"Input password" ⇒ "IU address" ⇒ "check run mode"

If AIR CON NO. button is pressed when the operation is stopped, the indoor unit address is displayed. If you select one of addresses for connected indoor units by pressing the 🔻 or 🔊 button and press the 📧 (MODE) button, the unit starts to blow a

3 Setting main/slave remote controls

"Menu"⇒"Next"⇒"R/C function settings"⇒
"Input password"⇒"Main/Sub of R/C"

Set SW1 to "Slave" for the slave remote control

4 Checking operation data

"Menu"⇒"Next"⇒"Service & Maintenance"⇒
"Input password"⇒"Operation data"

Press the <u>CHECKI</u>button. ⇒ "OPRINIA v" is displayed. ⇒ Press the <u>GMECKI</u>button. ⇒ "IBRI INMINE" is displayed. ⇒ Press the <u>GMECKI</u>BUTTON — Select one of addresses for connected indoor units by pressing the <u>A</u> or <u>V</u> button. ⇒ "INMI INMINE" is displayed. ⇒ Select data by pressing the <u>A</u> or <u>V</u> button. ⇒ "NINI INMINE" is displayed.

5 Checking inspection display

"Menu"⇒"Next"⇒"Service & Maintenance"⇒
"Input password"⇒"Inspection display"

Press the $\overline{\text{CHECK}}$ button. \Rightarrow $\overline{\blacktriangledown}$ button. \Rightarrow ERR DATA. \Rightarrow Press the \bigcirc (SET) button. \Rightarrow "DATA LOADING" is displayed. \Rightarrow Data.

6 Cooling test run from remote control

"Menu" ⇒ "Next" ⇒ "Installation settings" ⇒
"Input password" ⇒ "Test run" ⇒
"Cooling test run" ⇒ "Start"

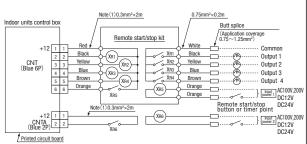
(T) Start the system by pressing the [©_ONOSE] button.
②Select * n. (200)* with the (□) (MODE) button.
③Shess the [TEST] button for 3 seconds or longer.
The screen display will switch £TST \$M \ \bar{\pi}\$
@ (When the (□) \$SET) button is pressed while * \bar{\pi}\$ ISTS \$M \ \bar{\pi}\$
is indicated, a cooling lest run will start.
The screen display will switch \bar{\pi}\TST \$M \\bar{\pi}\$

7 Trial operation of drain pump from remote control

"Menu"⇒"Next"⇒"Installation settings"⇒
"Input password"⇒"Test run"⇒
"Drain pump test run"⇒"Run"

(") Press the TEST button for three seconds or longer.
The display will change " \$ TEST IRN ▼"
(2 Press the Test to the displayed.
(3 When the (18) SET) button is pressed, a drain pump operation will start. Display: " 6 (3) TO STIP "

④ Function of CNT connector of indoor printed circuit board



Note (1): Do not use the length over 2 meter

● CNT connector (local) vendor model Connector : Made by molex 5264-06 Terminals : Made by molex 5263 T

Function

Output 1	Air conditioner operation output (When the air conditioner ON: XR1 = ON)		
Output 2	Heating output		
Output 3	Thermostat ON output (When the thermostat ON: XR3 = ON)		
Output 4	Air conditioner check ON (When checking air conditioner: XR4 = ON)		
	At shipping	XR5 OFF ⇒ ON: Air conditioner operates.	
Input		X _{R5} ON ⇒ OFF: Air conditioner stops.	
	*Functions and controls may vary depending on the switching at site.		
	At shipping	X _{R6} OFF ⇒ ON: Air conditioner operates.	
Input 2 (FDT etc.)		X _{R6} ON ⇒ OFF: Air conditioner stops.	
(1 D 1 010.)	*Function	ns and controls may vary depending on the switching at site.	

* Refer to I/U settings.

CNTA connector is installed on FDT, etc. Refer to the spec. drawings

CNTA connector (local) vendor model Connector : Made by JST XAP02V-1-E Terminals : Made by JST SXA-01T-P0.6

⑥ Operation and setting from remote control

- A: Refer to the instruction manual for RC-EX series.
 B: Refer to the installation manual for RC-EX series.
 C: Loading a utility software vie Internet

 O: Nearly same function setting and operations are possible.

	Setting & display item	Description	series	RC
Rei	mote Control network			┸
	Control plural indoor units by a single remote control	A remote control can control plural indoor units up to 16 (in one group of remote control network). An address is set to each indoor unit.	0	
	Master/slave setting of remote controls	A maximum of two remote controls (include option wireless) can be connected to one indoor unit. Set one to "Master" and the other to "Slave".	В	
TO	P screen, Switch manipulation		Α	T
1	Menu	"Control", "Settings", or "Details" can be selected. (319.)	Α	T
2	Operation mode	"Cooling", "Heating", "Fan", "Dry" or "Auto" can be set.	Α	T
3	Set temp.	"Set temperature" can be set by 0.5°C interval.	Α	T
4	Air flow direction	"Air flow direction". [Individual flap control setting] can be set.	Α	T
5	Fan speed	"Fan speed" can be set.	Α	T
- 1	Timer setting	"Timer operation" can be set.	Α	Ť
	ON/OFF	"On/Off operation of the system" can be done.	Α	T
	High power SW	"High power operation" or "Normal operation" can be selected.	Α	Ť
	Energy-saving SW	"Energy-saving operation" or "Normal operation" can be selected.	Α	t
_	ergy-saving settin	Energy daring operation of normal operation can be obtained.	A	$^{+}$
1	Auto OFF timer [Administrator password]	For preventing the timer from keeping ON, set hours to stop operation automatically with this timer. -The selectable range of setting time is from 30 to 240 minutes (10minutes interval) -When setting is "Valid", this timer will activate whenever the ON timer is set.	А	F
	Peak-cut timer [Administrator password]	Power consumption can be reduced by restricting the maximum capacity. Set the [Start time], the [End time] and the capacity limit % (Peak-cut %). 4-operation patterns per day can be set at maximum. The setting time can be changed by 5-minutes interval. The selectable range of capacity limit % (Peak-cut %) is from 0% to 40-80% (20% interval). Holiday setting is available.	А	
	Automatic temp. set back [Administrator password]	After the elapse of the set time period, the current set temp. will be set back to the [Set back temp.] -The setting can be done in cooling and heating mode respectively. -The selectable range of the set time is from 20 min. to 120 min. (10 min. interval). -Set the [Set back temp.] by 1°C interval.	А	
Ind	dividual flap control setting		Α	1
	Individual flap control setting	The moving range (the positions of upper limit and lower limit) of the flap for individual air outlet port can be set.	Α	
Ver	ntilation			Т
	External ventilation (In combination with ventilator)	On/Off operation of the external ventilator can be done. -The settings of [Interlock] with AC (air-conditioner), [Single operation] of ventilator or operation [invalid] of ventilation can be done through [Ventilation settings] in the [Remote control] menu.	А	
Filte	er sign reset		Α	Т
1 [Filter sign reset	The filter sign can be reset.	В	T
2	Setting next cleaning date	The next cleaning date can be set.	Α	T
_	al settings	J		t
	Clock setting	The current date and time can be set or revised.	Α	t
- 1	Date and time display	[Display] or [Hide] the date and/or time can be set, and the [12H] or [24H] display can be set.	A	t
- 1	Summer time	When select [Valid], the +1hour adjustment of current time can be set.When select [Invalid], the [Summer time] adjustment can be reset.	A	t
- 1	Contrast	The contrast of LCD can be adjusted higher or lower.	A	$^{+}$
- 1	Backlight	Switching on/off a light can be set and the period of the lighting time can be set within the range of 5sec-90sec (5sec interval).	A	$^{+}$
	Controller sound	It can set with or without [Controller sound (beep sound)] at touching panel.	A	$^{+}$
_	er settings	it can be wan of wanted [both black both by both by] at touring parior.	A	+
	Set On timer by hour	The period of time to start operation after stopping can be set.		+
١.	out on timer by nour	•The period of set time can be set within the range of 1hour-12hours (1hr interval).	A	
		-The operation mode, set temp and fan speed at starting operation can be set.	'`	
2	Set Off timer by hour	The period of time to stop operation after starting can be set. -The period of set time can be set within the range of 1hour-12hours (1hr interval).	А	l
3	Set On timer by clock	The clock time to start operation can be set. -The set clock time can be set by 5 minutes interval. -[Once (one time only]] or [Everyday] operation can be switched. -The operation mode, set temp and fan speed at starting operation can be set.	А	
4	Set Off timer by clock	The clock time to stop operation can be set. -The set clock time can be set by 5 minutes interval. -[Once (one time only)] or [Everyday] operation can be switched.	А	
_	Confirmation of timer settings	Status of timer settings can be seen.	Α	Ĺ
Vee	ekly timer]	L
	Weekly timer [Administrator password]	On timer and Off timer on weekly basis can be set. -8-operation patterns per day can be set at a maximum. -The setting clock time can be set by 5 minutes interval. -Holiday setting is available.	А	
╝		•The operation mode, set temp and fan speed at starting operation can be set.		L
r	ome leave mode	When leaving home for a long period like a vacation leave, the unit can be operated to maintain the room temperature not to be hotter in summer or not to be colder in winter.		Ī

	Setting & display item	Description	RC-EX	
		·	series	1
-	dministrator settings Enable/Disable setting	[Administrator password]	Α	\vdash
ין י	Enable/Disable setting	Enable/Disable setting of operation can be set. [On/Off] [Change set temp.] [Change operation mode] [Change air flow direction] [Individual flap control setting][Fan speed] [High power operation] [Energy-saving operation] [Timer settings] [Weekly timer setting]	Α	
		*Request for administrator password can be set. [Individual flap control setting][Weekly timer][Energy-saving setting][Home leave mode][Administrator settings]	A	'
2 5	Silent mode timer	The period of time to operate the outdoor unit by prioritizing the quietness can be set.		\vdash
		•The [Start time] and the [End time] for operating outdoor unit in silent mode can be set. •The period of the operation time can be set once a day by 5 minutes interval.	Α	4
3	Setting temp. range	The upper/lower limit of indoor temp. setting range can be set.	_	
L		•The limitation of indoor temp. setting range can be set for each operation mode in cooling and heating.	Α	
-	Temp. increment setting	The temp increment setting can be changed by 0.5°C or 1.0°C.	Α	
5 I	RC display setting	Register [Room name] [Name of I/U]		L
		Display [indoor temp.] or not. Display [inspection code] or not.	Α	
		Display [inspection code] of not. Display [Heating stand-by] [Defrost operation] [Auto cooling/heating] or not		H
6 1	Change administrator password	The administrator password can be changed. (Default setting is "0000")	Α	+
ן "	onange auministrator passworu	The administrator password can be creat.	В	1
.Ins	staller settings	[Service password]	В	t
-	Installation date	The [Installation date] can be registered.	В	+
. I.	motanation date	when registering the [installation date], the [Next service date] is displayed automatically. (For changing the [Next service date], please refer the item of [Service & Maintenance].)		
2	Service contact	The [Service contact] can be registered and can be displayed on the RC.	_	T
		•The [Contact company] can be registered within 10 characters. •The [Contact phone] can be registered within 13 digits.	В	
3	Test run	On/Off operation of the test run can be done.		Τ
	Cooling test run	The [Cooling test run] can be done at 5°C of set temp. for 30 minutes.	_	
	Drain pump test run	Only the drain pump can be operated.	В	(
		The [Test run] operation can be done with fixed compressor Hz set by installer.		
- 1-		In case of combination with only the ducted indoor unit which has a function of static pressure adjustment, the static pressure is adjustable.	В	Ĺ
- 1-	Change auto-address	The set address of each indoor unit decided by auto-address setting method can be changed to any other address. (For multiple KX units only)	В	
3	Address setting of Main IU	Main indoor unit address can be set.	_	
		 Only the Main indoor unit can change operation mode and the Sub indoor units dominated by the Main indoor unit shall follow. The Main indoor unit can domain 10 indoor units at a maximum. 	В	'
DC	function cottings	*The wain indoor unit can domain to indoor units at a maximum. [Service password]	В	╁
	C function settings Main/Sub RC setting	The setting of [Main/Sub RC] can be changed.	В	
	RC sensor		В	
ٔ اِ		The offset value of [RC sensor] sensing temp. can be set respectively in heating and cooling.	В	+
3	9 RC sensor adjustment	The offset value of [RC sensor] sensing temp. can be set respectively in heating and cooling. -The setting range of offset value is ±3°C both in cooling and heating.	В	_
	12 Operation mode	The [Valid/Invalid] setting of [Auto][Cooling][Heating] and [Dry] can be done respectively.	В	
- 1-	13 Fan speed	The setting of [Fan speed] can be done from following patterns: 1-speed, 2-speeds (Hi-Me), 2-speeds (Hi-Lo), 3-speeds, 4-speeds.	В	
۱.	14 External input	The applicable range (Individual) or [All units] of CnT input to the multiple indoor units connected in one control system.		T
3	T External riput	-[Individual] : Only the unit received CnT input signal[All units] : All the units connected to one control system received CnT input signal.	В	(
7	15 Ventilation setting	The setting of [Invalid] operation of ventilator, [Interlock] with AC or [Independent] of ventilator can be selected.		T
		When setting [Interlock], the operation of external ventilator is interlocked with the operation of AC •When setting [Independent], only the operation of external ventilator is available.	В	(
8	16 Flap control	The [Flap control] method can be switched to[Stop at fixed position] or [Stop at any position] Stop at fixed position]: Stop the flap at a certain position		
		among the designated 4 positions. • [Stop at any position]: Stop the flap at any arbitrary position just after the stopping command from RC was sent.	В	(
9	17 Auto-restart	The operation control method after recovery of power blackout happened during operation can be set.	В	
-	18 Auto temp. setting	[Valid] or [Invalid] of [Auto temp. setting] can be selected.	В	
_	19 Auto fan speed setting	[Valid] or [Invalid] of [Auto fan speed setting] can be selected.	В	_
-	U settings	[Service password]	В	_
-	High ceiling	The fan tap of indoor fan can be changed. •[Standard] [High ceiling 1] [High ceiling 2] can be selected.	В	(
-	Filter sign	The setting of filter sign display timer can be done from following patterns.	В	
-	External input 1	The content of control by external input can be changed. The selectable contents of control are [0n/Off] [Permission/Prohibition] [Cooling/heating] [Emergency stop]	В	
4	External input 1 signal	The type of external input signal ([Level input]/[Pulse input]) can be changed.	В	
	External input 2	•The selectable contents of control are [On/Off] [Permission/Prohibition] [Cooling/heating] [Emergency stop]	В	L
· -	External input 2 signal	The type of external input signal ([Level input])/[Pulse input]) can be changed.	В	\perp
- 1-		The judgment temp. of heating thermo-off can be adjusted within the range from 0 to $+3^{\circ}$ C (1°C interval)	В	4
	Return air sensor adjust.	The sensing temp. of return air temp. sensor built in the indoor unit can be adjusted within the range of $\pm 2^{\circ}$ C.	В	4
. н	Fan control in heating thermo OFF	The fan control method at heating thermo-off can be changed. The selectable fan control methods are [Low] [Set fan speed] [Intermittent] [Stop].	В	
	Anti-frost temp.	The judgment temp. of anti-frost control for the indoor unit in cooling can be changed to [Temp. High] or [Temp. Low].	В	
- 1-	Anti-frost control	When the anti-frost control of indoor unit in cooling is activated, the fan speed can be changed.	В	
- 1-	Drain pump operation	In any operation mode in addition to cooling and dry mode, the setting of drain pump operation can be done.	В	(
		The time period of residual fan operation after stopping or thermo-off in cooling mode can be set.	В	
- 1-		The time period of residual fan operation after stopping or thermo-off in heating mode can be set.	В	(
- 1-		The fan operation rule following the residual fan operation after stopping or thermo-off in heating mode can be set.	В	(
- 1-	Fan circulator operation	In case that the fan is operated as the circulator, the fan control rule can be set.	В	L
-		When only the OA processing units are operated, control pressure value can be changed.	В	(
	Auto operation mode	The [Auto rule selection] for switching the operation mode automatically can be selected from 3 patterns.	В	\perp
-	Thermo. rule setting	When selecting [Outdoor air temp. control], the judgment temp can be offset by outdoor temp	В	1
_	Auto fan speed control	Under the [Auto fan speed control] mode, the switching range of fan speed can be selected from following 2 patterns [Auto 1] [Auto 2]. •[Auto 1] : Hi ⇔Me⇔Lo•[Auto 2] : P-hi⇔Hi⇔Me⇔Lo•	В	1
	rvice & Maintenance	[Service password]	В	
1	IU address No.	Max. 16 indoor units can be connected to one remote control, and all address No. of the connected indoor units can be displayed.	В	
, إ	Next corries data	*The indoor unit conforming to the address No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan. The Mey's control datal can be registered after No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan.	ΛD	+
-	Next service date	The [Next service date] can be registered. The [Next service date] and [Service contact] is displayed on the [Periodical check] message screen. Total 20 stores of [Operation data] for indeer unit and outdoor unit and by displayed.	AB B	+
-	Operation data	Total 39 items of [Operation data] for indoor unit and outdoor unit can be displayed.	_	-
	Error history	[Date and time of error occurred] [I/U address] [Error code] for Max. 16 latest cases of error history can be displayed.	В	
-	Display anomaly data	The operation data just before the latest error stop can be displayed.	В	+
-	Reset periodical check	The timer for the periodical check can be reset.	В	(
-	Saving I/U settings	The I/U settings memorized in the indoor PCB connected to the remote control can be saved in the memory of the remote control.	В	\vdash
_	Special settings	[Erase I/U address] [CPU reset] [Initializing] [Touch panel calibration]	В	- 4
-	spection		Α	Ľ
- 1	Confirmation of Inspection	The address No, of anomalous indoor/outdoor unit and error code are displayed.		1
-	connection			1

PSB012D994

(2) FDU series

Electrical wiring work must be performed by an electrician qualified by a local power provider according to the electrical installation technical standards and interior wiring regulations applicable to the installation site.

Security instructions

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, <a> ⚠WARNING and ACAUTION .

[AWARNING]: Wrong installation would cause serious consequences such as injuries or death. <u>ACAUTION</u>: Wrong installation might cause serious consequences depending on circumstances. Both mentions the important items to protect your health and safety so strictly follow them by any means

- The meanings of "Marks" used here are as shown on the right:
 - Never do it under any circumstances. Always do it according to the instruction.
- Accord with following items. Otherwise, there will be the risks of electric shock and fire caused by overheating or short circuit.

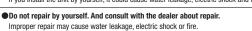
∆WARNING

Be sure to have the electrical wiring work done by qualified electrical installer.

Power source with insufficient capacity and improper work can cause electric shock and fire.

- Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire.
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property. Improper fitting may cause abnormal heat and fire
- Ouse the genuine optional parts. And installation should be performed by a specialist.

If you install the unit by yourself, it could cause water leakage, electric shock and fire.



- Consult the dealer or a specialist about removal of the air conditioner. Improper installation may cause water leakage, electric shock or fire.
- ●Turn off the power source during servicing or inspection work If the power is supplied during servicing or inspection work, it could cause electric
- Shut off the power before electrical wiring work.

shock and injury by the operating fan.

It could cause electric shock, unit failure and improper running.

∆CAUTION

- Perform earth wiring surely.
- Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.
- If the earth leakage breaker is not installed, it could cause electric shocks or fire.
- Make sure to install earth leakage breaker on power source line.

(countermeasure thing to high harmonics.) Absence of breaker could cause electric shock

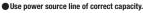
Earth leakage breaker must be installed.

 Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Using the incorrect one could cause the system failure and fire.

Do not use any materials other than a fuse of correct capacity where a fuse should be used.

Connecting the circuit by wire or copper wire could cause unit failure and fire



Using incorrect capacity one could cause electric leak, abnormal heat generation and fire.

Do not mingle solid cord and stranded cord on power source and signal side terminal block.

In addition, do not mingle difference capacity solid or stranded cord. Inappropriate cord setting could cause loosing screw on terminal block, bad electrical

Do not turn off the power source immediately after stopping the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or

Do not control the operation with the circuit breaker. It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

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1) Electrical Wiring Connection

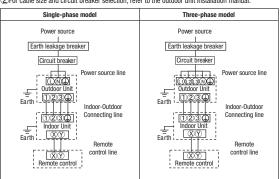
- Use three-core cable as wiring between indoor and outdoor unit. As for detail, refer to "INSTAL-LATION MANUAL" of outdoor Unit.
- Set earth of D-type.
- Keep "remote control line" and "power source line" away from each other on constructing of unit outside.
- Run the lines (power source, remote control and "between indoor and outdoor unit") upper
- ceiling through iron pipe or other tube protection to avoid the damage by mouse and so on.

 Do not add cord in the middle of line route (of power source, remote control and "between indoor and outdoor unit") on outside of unit. If connecting point is flooded, it could cause problem as for electric or communication. (In the case that it is necessary to set connecting point on the way, perform thorough waterproof measurement.)
- Do not connect the power source line [220V/240V/380V/415V] to signal side terminal block. Otherwise, it could cause failure.
- Screw the line to terminal block without any looseness, certainly.
- Do not turn on the switch of power source, before all of line work is done.
- Connection of the line ("Between indoor and outdoor unit", Earth and Remote control)
- (1) Remove lid of control box before connect the above lines, and connect the lines to terminal block according to number pointed on label of terminal block.
 - In addition, pay enough attention to confirm the number to lines, because there is electrical polarity except earth line. Furthermore, connect earth line to earth position of terminal block of power source.
- 2Install earth leakage breaker on power source line. In addition, select the type of breaker for inverter circuit as earth leakage breaker.
- 3 If the function of selected earth leakage breaker is only for earth-fault protection, hand switch (switch itself and type "B" fuse) or circuit breaker is required in series with the earth leakage breaker.
- (4) Install isolator or disconnect switch on the power supply wiring in accordance with the local codes and regulations

The isolator should be set in the box with key to prevent touching by another person when servicina.

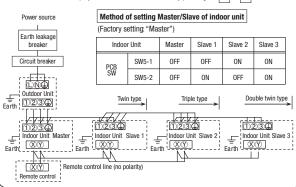
Cable connection for single unit installation

- ①As for connecting method of power source, select from following connecting patterns. In principle, do not directly connect power souce line to inside unit.
- *As for exceptional connecting method of power souce, discuss with the power provider of the country with referring to technical documents, and follow its instruction.
- 2) For cable size and circuit breaker selection, refer to the outdoor unit installation manual.



Cable connection for a V multi configuration installation

- ①Connect the same pairs number of terminal block "①, ②, and ③"and " Ø and ⑨" between master and slave indoor units.
- 2Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW2 on indoor unit's PCB (Printed circuit board).
- ③Set slave indoor unit as "slave 1" through "slave 3" by address switch SW5-1, 5-2 on PCB.
- 4When the AIR CON NO. button on the remote control unit is pressed after turning on the power, an indoor unit's address number will be displayed. Do not fail to confirm that the connected indoor unit's numbers are displayed on the remote control unit by pressing the lacktriangle or lacktriangle button.



2 Remote Control, Wiring and functions

- DO NOT install it on the following places
- ①Places exposed to direct sunlight
- 2)Places near heat devices
- 3High humidity places
- 4 Hot surface or cold surface enough to generate condensation
- 5 Places exposed to oil mist or steam directly.
- 6 Uneven surface

Installation and wiring of remote control

- ①Install remote control referring to the attached installation manual.
- ②Wiring of remote control should use 0.3mm² ×2 core wires or cables.

The insulation thickness is 1mm or more. (on-site configuration)

3 Maximum prolongation of remote control wiring is 600 m.

If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

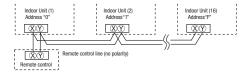
100 - 200m	0.5mm ² × 2 cores
Under 300m	0.75mm ² × 2 cores
Under 400m	1.25mm ² × 2 cores
Under 600m	2.0mm ² × 2 cores

- Avoid using multi-core cables to prevent malfunction.
- ⑤Keep remote control line away from earth (frame or any metal of building).
- ⑥Make sure to connect remote control line to the remote control and terminal block of indoor unit. (No polarity)

Control plural indoor units by a single remote control

- (1)A remote control can control plural indoor units (Up to 16).
- In above setting, all plural indoor units will operate under same mode and temperature setting ②Connect all indoor units with 2 core remote control line.
- ③Set unique remote control communication address from "0" to "F" to each inside unit by the rotary switch SW2 on the indoor unit's PCB.

After a unit is energized, it is possible to display an indoor unit address by pressing AR CON NO. button on the remote control unit. Press the or button to make sure that all indoor units connected are displayed in order.



Confirming method of indoor units

When indoor unit address number is displayed on remote control, pushing the \bigcirc (MODE) button to make the indoor unit with that number blow air (Display example:" I/U001 \Longrightarrow ") Push the \bigcirc (MODE) button again to stop the operation.

However, this operation is invalid on the air-conditioning running.

Master/ slave setting when more than one remote control unit are used

A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)

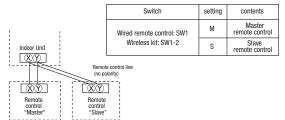
The air conditioner operation follows the last operation of the remote control regardless of the master/slave setting of it.

Acceptable combination is "two (2) wired remote controls", "one (1) wired remote control and

Acceptable combination is "two (2) wired remote controls", "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".

Set SW1 (wired remote control) or SW1-2 (wireless kit) to "Slave" for the slave remote control unit. It was factory set to "Master" for shipment.

Note:The setting "Remote control unit sensor enabled" is only selectable with the master remote control unit in the position where you want to check room temperature.



3Trial operation

The method of trial cooling operation

Operate the remote control unit as follows.

- Starting a cooling test run.
- 1) Start the system by pressing the MON/OFF button.
- ②Select " \$ (Cool)" with the (MODE) button.
- ③Press the TEST button for 3 seconds or longer.

The screen display will switch to: " \$ TEST RUN ▼ "

The screen display will switch to " # TEST RUN ".

2. Ending a cooling test run.

Pressing the OON/OFF button, the (TEMP) button or (MODE) button will end a cooling test run. (Cooling test run will end after 30 minutes pass.)

" TEST RUN " shown on the screen will go off.

Checking operation data

Operation data can be checked with remote control unit operation.

- 1. Press the CHECK button.
- The display change " OPER DATA ▼
- 2. Press the (SET) button while
- " OPER DATA ▼ " is displayed.
- When only one indoor unit is connected to remote control, "DATA LOADING" is displayed (blinking indication during data loading).

Next, operation data of the indoor unit will be displayed. Skip to step 7.

 When plural indoor units is connected, the smallest address number of indoor unit among all connected indoor unit is displayed.

[Example]

- Determine the indoor unit number with the OSET) button.

(The indoor unit number changes from blinking indication to continuous indication) "I/U000" (The address of selected indoor unit is blinking for 2 seconds.)

UI	46	(Operation Mode)
02	SET TEMP	(Set Temperature)
03	RETURN AIRc	(Return Air Temperature)
04	■SENSOR°C	(Remote Control ThermistorTemperature)
05	THI-R1c	(Indoor Unit Heat Exchanger Thermistor / U Bend)
06	THI-R2c	(Indoor Unit Heat Exchanger Thermistor /Capillary)
07	THI-R3c	(Indoor Unit Heat Exchanger Thermistor /Gas Header)
08	I/U FANSPEED	(Indoor Unit Fan Speed)
09	DEMANDHz	(Frequency Requirements)
10	ANSWERHz	(Response Frequency)
11	I/U EEVP	(Pulse of Indoor Unit Expansion Value)
12	TOTAL I/U RUN	_H (Total Running Hours of The Indoor Unit)
21	OUTDOORc	(Outdoor Air Temperature)
22	THO-R1°c	(Outdoor Unit Heat Exchanger Thermistor
23	THO-R2	(Outdoor Unit Heat Exchanger Thermistor
24	COMPHz	(Compressor Frequency)
25	HPMPa	(High Pressure)
26	LPMPa	(Low Pressure)
27	Tdc	(Discharge Pipe Temperature)
28	COMP BOTTOMc	(Comp Bottom Temperature)
29	CTAMP	(Current)
30	TARGET SHc	(Target Super Heat)
31	SHb	(Super Heat)
32	TDSHt	(Discharge Pipe Super Heat)
33	PROTECTION No	(Protection State No. of The Compressor)
34	O/U FANSPEED	(Outdoor Unit Fan Speed)
35	63H1	(63H1 On/Off)
36	DEFROST	(Defrost Control On/Off)
37	TOTAL COMP RUN_	H (Total Running Hours of The Compressor)
38	0/U EEV1P	(Pulse of The Outdoor Unit Expansion Valve EEVC)
39	0/U EEV2P	(Pulse of The Outdoor Unit Expansion Valve EEVH)
:XDener	nding on outdoor unit	model, there are data not shown.

Depending on outdoor unit model, there are data not show

" DATA LOADING " (A blinking indication appears while data loaded.)

Next, the operation data of the indoor unit is indicated.

 Upon operation of the button, the current operation data is displayed in order from data number 01.

The items displayed are in the above table.

*Depending on models, the items that do not have corresponding data are not displayed.

- 8. To display the data of a different indoor unit, press the AIR CON NO. button, which allows you to go back to the indoor unit selection screen.
- 9. Pressing the OON/OFF button will stop displaying data.

Pressing the (RESET) button during remote control unit operation will undo your last operation and allow you to go back to the previous screen.

Off two (2) remote controls are connected to one (1) inside unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.)

Trail operation of drain pump

Drain pump operation from remote control unit is possible. Operate a remote control unit by following the steps described below.

1. To start a forced drain pump operation.

 $\textcircled{1} \textbf{Press the } \textbf{\underline{TEST}} \textbf{button for three seconds or longer}.$

The display will change " ‡ TEST RUN ▼ "

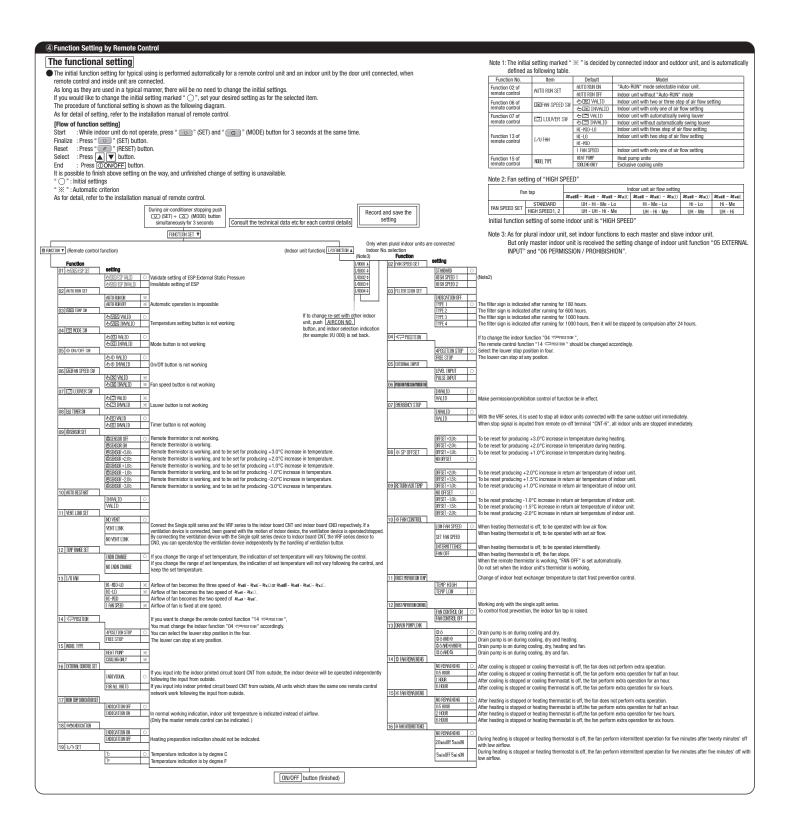
③When the ◯ (SET) button is pressed, a drain pump operation will start.

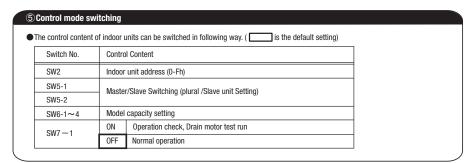
Display: "♣️☑ T0 ST0P"

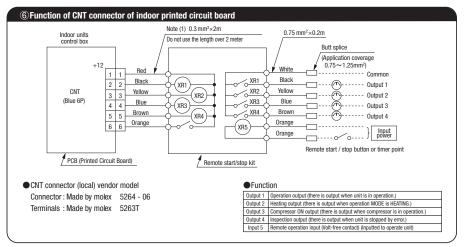
2. To cancel a drain pump operation.

①If either ② (SET) or ③ON/OFF button is pressed, a forced drain pump operation will stop. The air conditioning system will become OFF.

(2) remote controls are connected to one (1) inside unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.)







7Troubleshooting

The operation data is saved when the situation of abnormal operation happen, and the data can be confirmed by remote control. [Operating procedure]

- 1. Press the CHECK button.
- The display change " NPFR DATA
- 2. Once, press the w button, and the display change
- " ERROR DATA
- started.
- 4. When only one indoor unit is connected to remote control, following is displayed.
- $\ensuremath{\ensuremath{\textcircled{1}}}\ensuremath{\ensuremath{\ensuremath{\textcircled{1}}}}\ensuremath{\ensuremath{\ensuremath{\textcircled{2}}}}\ensuremath{\ensurem$
- → Error code and " DATA LOADING" is displayed.
- [Example]: [E8] (ERROR CODE)
- "DATA LOADING" is displayed (blinking indication during data loading). Next, the abnormal operation data of the indoor unit will be displayed. Skip to step 8.
- $\begin{tabular}{ll} \hline \textbf{2} \hline \textbf{The case that there is not history of abnormal operation}. \\ \hline \end{tabular}$
- → "NO ERROR" is displayed for 3 seconds and this mode is closed. 5. When plural indoor units is connected, following is displayed.
- ①The case that there is history of abnormal operation.
- -- Error code and the smallest address number of indoor unit among all connected indoor unit is displayed. [Example]: [E8] (ERROR CODE)
- " I/U000 ≜ " blinking
- ②The case that there is not history of abnormal operation.
- → Only address number is displayed.
- 6. Select the indoor unit number you would like to have data displayed with the 🛕 🔻 button
- 7. Determine the indoor unit number with the O (SET) button.

[Example]: [E8] (ERROR CODE)

 $\underline{\blacktriangle}$ " (The address of selected indoor unit is blinking for 2 seconds.) " I/U000

[E8] "DATA LOADING" (A blinking indication appears while data loaded.)

Next, the abnormal operation data is indicated.

If the indoor unit doing normal operation is selected, NO ERROR "is displayed for 3 seconds and address of indoor unit is displayed.

8. By the 🛕 🔻 button, the abnormal operation data is displayed.

Displayed data item is based on <a> Trial operation. <a> Trial operation. <a> Depending on models, the items that do not have corresponding data are not displayed.

9. To display the data of a different indoor unit, press the AIR CON No. button, which allows you to go back to the indoor unit slection screen. 10.Pressing the ON/OFF button will stop displaying data

Pressing the (RESET) button during remote control unit operation will undo your last operation and allow you to go back to the previous screen.

Olf two (2) remote controls are connected to one (1) indoor unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.)

Error Code of indoor unit

Display on remote	LED on indoor circuit board		Content	
control	red (checking) green (normal)			
	Off	Continuous blinking	Normal	
Off	Off	Off	Fault on power, indoor power off or lack phase	
E1	Off	Continuous blinking	Fault on the transmission between indoor circuit board and remote control	
	Not sure	Not sure	Indoor computer abnormal	
E5	Blinking twice	Continuous blinking	Fault on outdoor-indoor transmission	
E6	Blinking once	Continuous blinking	Indoor heat exchange sensor interrupted or short-circuit	
E7	Blinking once	Continuous blinking	Indoor air inhaling sensor broken or short-circuit	
E8	Blinking once	Continuous blinking	The temperature of heat exchange abnormal	
	Blinking once	Continuous blinking	Float SW actions (only with FS)	
E9	Blinking twice	Continuous blinking	Drain pump over current	
E10	Off	Continuous blinking	Excess number of remote control connections	
E14	Blinking for three times	Continuous blinking	The communication fault for master/slave indoor units	
F16	Blinking once	Continuous blinking	Fan motor (1) abnormal	
EIO	Blinking twice	Continuous blinking	Fan motor (2) abnormal	
E19	Blinking once	Continuous blinking	Configuration fault on running checking model	
F20	Blinking once	Continuous blinking	Fan motor (1) abnormal rotation	
220	Blinking twice	Continuous blinking	Fan motor (2) abnormal rotation	
E28	Off	Continuous blinking	Remote control sensor interrupted	
0 ver E30	Off	Continuous blinking	Outdoor unit checking (outdoor circuit board LED checking)	

PGA012D405

(3) FDF series

Electrical wiring work must be performed by an electrician qualified by a local power provider according to the electrical installation technical standards and interior wiring regulations applicable to the installation site.

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, [AWARNING] and ACAUTION .

<u>AWARNING</u>: Wrong installation would cause serious consequences such as injuries or death. Both mentions the important items to protect your health and safety so strictly follow them by any means.

- The meanings of "Marks" used here are as shown on the right:

 Never do it under any circumstances. Always do it according to the instruction.
- Accord with following items. Otherwise, there will be the risks of electric shock and fire caused by overheating or short circuit.

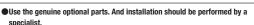
∆WARNING

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.

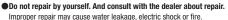
Power source with insufficient capacity and improper work can cause electric shock and fire.

- Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire.
- Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.

Improper fitting may cause abnormal heat and fire.



If you install the unit by yourself, it could cause water leakage, electric shock and fire.



Consult the dealer or a specialist about removal of the air conditioner.

Improper installation may cause water leakage, electric shock or fire.

 Turn off the power source during servicing or inspection work. If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.

Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running.

^CAUTION

Perform earth wiring surely.

Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.

Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks.

Make sure to install earth leakage breaker on power source line (countermeasure thing to high harmonics.)

Absence of breaker could cause electric shock

• Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

Using the incorrect one could cause the system failure and fire.

Do not use any materials other than a fuse of correct capacity where a fuse should be used.

Connecting the circuit by wire or copper wire could cause unit failure and fire

Use nower source line of correct canacity. Using incorrect capacity one could cause electric leak, abnormal heat generation and fire.

Do not mingle solid cord and stranded cord on power source and signal side terminal block.

In addition, do not mingle difference capacity solid or stranded cord. Inappropriate cord setting could cause loosing screw on terminal block, bad electrical contact smoke and fire

Do not turn off the power source immediately after stopping the operation. Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or

• Do not control the operation with the circuit breaker.

It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury

(1) Electrical Wiring Connection

- Use three-core cable as wiring between indoor and outdoor unit. As for detail, refer to "INSTALLATION MANUAL" of

- outdoor Unit.

 Set earth of D-type.

 Keep "remote control line" and "power source line" away from each other on constructing of unit outside.

 Run the lines (power source, remote control and "between indoor and outdoor unit") upper ceiling through iron
- Prior tre lines (power source, termote chroit and to between indoor and outdoor tim!) upper ceiling introduction to avoid the damage by mouse and so on.

 Do not add cord in the middle of line route (of power source, remote control and "between indoor and outdoor unit") on outside of unit. If connecting point is flooded, it could cause problem as for electric or communication. (In the case that it is necessary to set connecting point on the way, perform thorough waterproof measurement.)

 Do not connect the power source line [220V/240V/380V/415V] to signal side terminal block. Otherwise, it could cause failure.

- cause railure.

 Screw the line to terminal block without any looseness, certainly.

 Do not turn on the switch of power source, before all of line work is done.

 Connection of the line ("Between indoor and outdoor unit", Earth and Remote control)

 Remove lid of control box before connect the above lines, and connect the lines to terminal block according to number pointed on label of terminal block. In addition, pay enough attention to confirm the number to lines, because there is electrical polarity except earth

in acution, pay enough attention to colimit the intime to earth position of terminal block of power source.

[2] Install earth leakage breaker on power source line. In addition, select the type of breaker for inverter circuit as earth leakage breaker.

[3] if the function of selected earth leakage breaker is only for earth-fault protection, hand switch (switch itself and type "B" lisso) or circuit breaker is required in series with the earth leakage breaker.

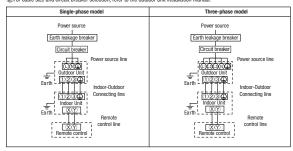
[4] Install the local switch near the unit.

Cable connection for single unit installation

①As for connecting method of power source, select from following connecting patterns. In principle, do not directly connect power souce line to inside unit.

As for exceptional connecting method of power souce, discuss with the power provider of the country with referring to technical documents, and follow its instruction

2) For cable size and circuit breaker selection, refer to the outdoor unit installation manual



Cable connection for a V multi configuration installation

- ①Connect the same pairs number of terminal block "①, ②, and ③"and "②and ①" between master and slave indoor units.
- ②Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW2 on indoor unit's PCB (Printed circuit board).
- (3) Set slave indoor unit as "slave 1" through "slave 3" by address switch SW5-1, 5-2 on PCB.
- When the AIR CON NO. button on the remote control unit is pressed after turning on the power, an indoor unit's address number will be displayed. Do not fail to confirm that the connected indoor unit's numbers are displayed on the remote control unit by pressing the 🛕 or 🔻 button

ON

Method of setting Master/Slave of indoor unit



 \bigcirc

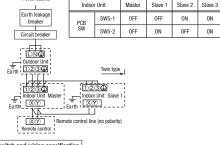
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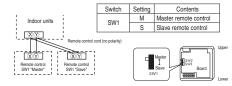


Switch and wiring specification

Refer to the installation manual attached to the outdoor unit.

②Wiring for the remote control

For each indoor unit, one more remote control can be connected in addition to the one which is built in the main unit.



Set SW1 to "Slave" for the slave remote control. It was factory set to "Master" for shipment. Note: The setting "Remote control thermistor enabled" is only selectable with the master remote control.

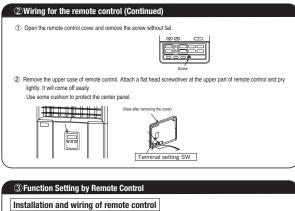
ntrol in the position where you want

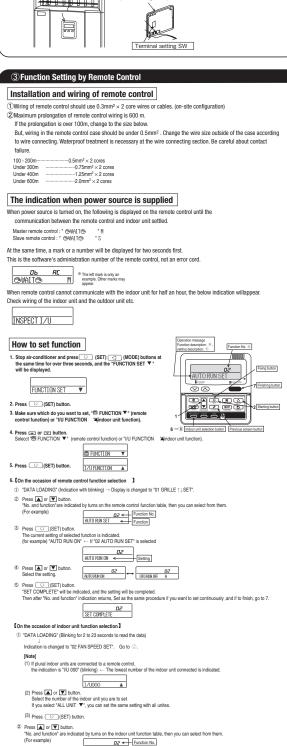
The sening internal contemporature.

To check room temperature.

It conditioner operation follows the last operation of the remote control regardless of the master/ slave setting of it.

Remove the cover and change the setting of switch as follows.



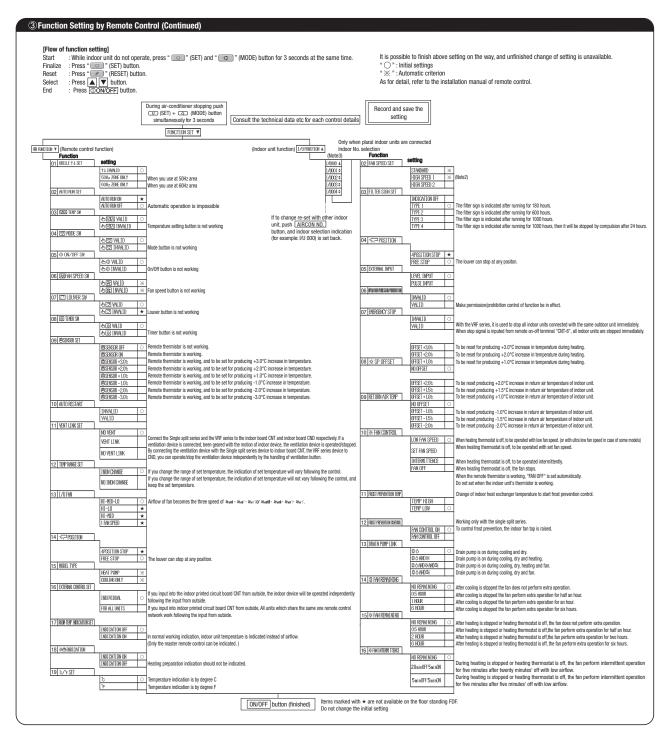


Function No.

FAN SPEED SET ← Function

STANDARD Setting ④ Press ▲ or ▼ button © Press \(\bigcup \) SET jution. SET COMPLETE will be indicated, and the setting will be completed. Then native "No. and function" indication returns, set as the same procedure if you want to set continuously , and if to finish, go to 7. SET COMPLETE When plural indoor units are connected to a remote control, press the ARCON NO. button, which allows you to go back to the indounit selection screen. (example "I/U 000") 7. Press ON/OFF button. It is possible to finish by pressing ONOFF button on the way, but unfinished change of setting is unavailable. During setting, if you press () (RESET) button, you return to the previous screen. Setting is memorized in the controller and it is saved independently of power failure. [How to check the current setting] When you select from "No. and funcion" and press set button by the previous operation, the "Setting" displayed first is the cur setting. (But. if you select "ALL UNIT ▼". the setting of the lowest number indoor unit is displayed.) The functional setting ●The initial function setting for typical using is performed automatically by the indoor unit connected, when remote control and indoor unit are connected. As long as they are used in a typical manner, there will be no need to change the initial settings. If you would like to change the initial setting marked " ○", set your desired setting as for the selected item. The procedure of functional setting is shown as the following diagram. The range of temperature setting When shipped, the range of set temperature differs depending on the operation mode as below. Heating: 16~300C (55~860F) Except heating (cooling, fan, dry, automatic) : 18~30ûC (62~86ûF) Oupper limit and lower limit of set temperature can be changed with remote control. Upper limit setting: valid during heating operation. Possible to set in the range of 20 to 300C (68 to 860F). Lower limit setting: valid except heating (automatic, cooling, fan, dry) Possible to set in the range of 18 to 260C (62 to en you set upper and lower limit by this function, control as below. 1. When @TEMP RANGE SET, remote control function of function setting mode is "INDN CHANGE" (factory setting), [If upper limit value is set] During heating, you cannot set the value exceeding the upper limit. [If lower limit value is set] During operation mode except heating, you cannot set the value below the lower limit. 2. When @ TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE" [If upper limit value is set] During healting, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit. But, the indication is the same as the temperature set. [If lower limit value is set] During except heating, even if the value lower than the lower limit is set, lower limit value will be sent to the indoor unit. But, the indication is the same as the temperature set. ow to set upper and lower limit value Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three Security. The indication changes to "FUNCTION SET ▼". Press ∰ button once, and change to the "TEMP RANGE ▲ " indication. Press ⊆" (SET) button, and enter the temperature range setting mode. Select "UPPER LIMIT ▼" o" "LOWER LIMIT ▲ " by using ▲ "♥ button. Select UPPER LIMIT ▼ " LUWER LIMIT ▲ by using ▲ ▼ button. Press ◯ (SET) button to fix. When "UPPER LIMIT ▼ " is selected (valid during heating) () Indication: " * b ∨ N SET UP" -- "UPPER 200C ∨ " ② Select the upper limit value with temperature setting button □ □. Indication example: "UPPER 260C ∨ \ " (blinking) ③ Press ◯ (SET) button to fix. Indication example: "UPPER 260C" (Displayed for two seconds) After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼". 7. When "LOWER LIMIT A "is selected (valid during cooling, dry, fan, automatic) ① Indication: " ② Select the lower limit value with temperature setting button [♡]. Indication example: "LOWER 240C∨ ∧" (SET) button to fix. Indication for example: "LOWER 24ûC" (Displayed for two seconds) Seriess □ (OSE) Journal on its indication for example: LOWER 24UC* (Displayed for two seconds) After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT \(\blue{\pi}\)*. 8. Press (ONOFF) button to finish. It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is unavailable. TEMP RANGE During setting, if you press (RESET) button, you return to the previous screen. Note 1: Fan setting of "HIGH SPEED" Fan tap Initial function setting of some indoor unit is "HIGH SPEED" Note 2: As for plural indoor unit, set indoor functions to each master and slave indoor unit. But only master indoor unit is received the setting change of indoor unit function "05 EXTERNAL INPUT" and "06 PERMISSION / PROHIBISHION".

③Function Setting by Remote Control (Continued)



The method of trial cooling operation Operate the remote control unit as follows. 1. Starting a cooling test run. ①Start the system by pressing the ②NODEF button. ②Select "♣ (Cool)" with the ② (MODE) button. ③Press the TEST button for 3 seconds or longer. The screen display will switch tost TEST RUN ▼ " ** ** TEST RUN ▼ " ** ** TEST RUN ▼ " ** ** TEST RUN ▼ " ** ** TEST RUN ▼ " ** ** TEST RUN ▼ " ** ** TEST RUN ▼ shown on the screen will go off.

4 Trial operation (Continued)

Checking operation data

Operation data can be checked with remote control unit operation.

- 1. Press the CHECK button.
- The display change "OPER DATA ▼ "
- 2. Press the \bigcirc (SET) button while OPER DATA \blacktriangledown " is displayed.
- When only one indoor unit is connected to remote control, "DATALDADING" is displayed (blinking indication during data loading).

Next, operation data of the indoor unit will be displayed. Skip to step 7.

4. When plural indoor units is connected, the smallest address number of indoor unit among all connected indoor unit is displayed. [Example]:

Select the indoor unit number you would like to have data displayed with the
 button.

6. Determine the indoor unit number with the OSET) button.

Number		Data Item	
01	\$	(Ope ration Mode)	
02	SET TEMPc	(Set Temperature)	
03	RETURN AIR6	(Return Air Temperature)	
04	■SENSORc	(Remote Control ThermistorTemperature)	
05	THI-R1c	(Indoor Unit Heat Exchanger Thermistor / U Bend)	
06	THI-R2c	(Indoor Unit Heat Exchanger Thermistor /Capillary)	
07	THI-R3c	(Indoor Unit Heat Exchanger Thermistor /Gas Header)	
08	I/U FANSPEED	(Indoor Unit Fan Speed)	
09	DEMANDHz	(Frequency Requirements)	
10	ANSWER Hz	(Response Frequency)	
11	I/U EEVP	(Pulse of Indoor Unit Expansion Value)	
12	TOTAL I/U RUN	H (Total Running Hours of The Indoor Unit)	
21	OUTDOORc	(Outdoor Air Temperature)	
22	THO-R1tc	(Outdoor Unit Heat Exchanger Thermistor	
23	THO-R2c	(Outdoor Unit Heat Exchanger Thermistor)	
24	COMPHz	(Compressor Frequency)	
25	HPMPa	(High Pressure)	
26	LPMPa	(Low Pressure)	
27	Tdb	(Discharge Pipe Temperature)	
28	COMP BOTTOMc	(Comp Bottom Temperature)	
29	CTAMP	(Current)	
30	TARGET SH	(Target Super Heat)	
31	SHc	(Super Heat)	
32	TDSHc	(Discharge Pipe Super Heat)	
33	PROTECTION No	(Protection State No. of The Compressor)	
34	O/U FANSPEED	(Outdoor Unit Fan Speed)	
35	63H1	(63H1 On/Off)	
36	DEFROST	(Defrost Control On/Off)	
37	TOTAL COMP RUN_	H (Total Running Hours of The Compressor)	
38	0/U EEV 1P	(Pulse of The Outdoor Unit Expansion Valve EEVC)	
39	D/HFFV2 P	(Pulse of The Outdoor Unit Expansion Valve EEVH)	

*Depending on outdoor unit model, there are data not shown

(The indoor unit number changes from blinking indication to continuous indication)

I/U000 " (The address of selected indoor unit is blinking for 2 seconds.)

 $^{\circ}$ DATA LDADING $\,^{\circ}$ (A blinking indication appears while data loaded.)

Next, the operation data of the indoor unit is indicated.

7. Upon operation of the button, the current operation data is displayed in order from data number 01.

The items displayed are in the above table.

*Depending on models, the items that do not have corresponding data are not displayed.

- 8. To display the data of a different indoor unit, press the AIR CON NO. button, which allows you to go back to the indoor unit selection screen.
- 9. Pressing the ON/OFF button will stop displaying data.

Pressing the ((RESET) button during remote control unit operation will undo your last operation and allow you to go back to the previous screen.

If two (2) remote control are connected to one (1) inside unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.)

⑤Control mode switching

● The control content of indoor units can be switched in following way.

(is the default setting)

	Switch No.	Control Content			
	SW2	Indoor	Indoor unit address (0-Fh)		
	SW5-1	Master	Master/Slave Switching (plural /Slave unit Setting)		
	SW5-2	waster/olave Switching (plurar/olave drift Setting)			
	SW6-1~4	Model capacity setting			
ſ	SW7 —1	ON	Operation check, Drain motor test run		
L	OW/ I	0FF	Normal operation		

©Function of CNT connector of indoor printed circuit board Note (1) 0.3 mm²-3.2m Do not use the length over 2 meter | O.75 mm²-0.2m | Butt spice | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | Proposition coverage | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m | O.75 mm²-0.2m |

7Troubleshooting

The operation data is saved when the situation of abnormal operation happen, and the data can be confirmed by remote control.

Error Code of indoor unit

Display on remote	LED on indoor circuit board red (checking) green (normal)		Content
control			Content
	Off	Continuous blinking	Normal
Off	Off	Off	Fault on power, indoor power off or lack phase
E1	Off	Continuous blinking	Fault on the transmission between indoor circuit board and remote control
	Not sure	Not sure	Indoor computer abnormal
E5	Blinking twice	Continuous blinking	Fault on outdoor-indoor transmission
E6	Blinking once	Continuous blinking	Indoor heat exchange sensor interrupted or short-circuit
E7	Blinking once	Continuous blinking	Indoor air inhaling sensor broken or short-circuit
E8	Blinking once	Continuous blinking	The temperature of heat exchange abnormal
E9	Blinking once	Continuous blinking	Float SW actions (only with FS)
E10	Off	Continuous blinking	Excess number of remote control connections
E14	Blinking for three times	Continuous blinking	The communication fault for master/slave indoor units
E16	Blinking once	Continuous blinking	Fan motor abnormal
E19	Blinking once	Continuous blinking	Configuration fault on running checking model
E28	Off	Continuous blinking	Remote control sensor interrupted
Over E30	Off	Continuous blinking	Outdoor unit checking (outdoor circuit board LED checking)

[Operating procedure]

1. Press the CHECK button.

The display change " OPER DATA ▼ "

2. Once, press the button, and the display change ERROR DATA ▲ ".

- 3. Press the $\hfill \bigcirc$ (SET) button and abnormal operation data mode is started.
- 4. When only one indoor unit is connected to remote control, following is displayed.
- 1) The case that there is history of abnormal operation.

→ Error code and " DATA LOADING" is displayed.

[Example]: [E8] (ERROR CODE)

"DATA LOADING" is displayed (blinking indication during data loading).

Next, the abnormal operation data of the indoor unit will be displayed. Skip to step 8.

②The case that there is not history of abnormal operation.

- → " NO ERROR " is displayed for 3 seconds and this mode is closed.
- 5. When plural indoor units is connected, following is displayed.

①The case that there is history of abnormal operation.

→ Error code and the smallest address number of indoor unit among all connected indoor unit is displayed.

[Example]: [E8] (ERROR CODE)

2)The case that there is not history of abnormal operation.

→ Only address number is displayed.

Select the indoor unit number you would like to have data displayed with the button.

7. Determine the indoor unit number with the (SET) button.

[Example]: [E8] (ERROR CODE)

[E8] " $\mbox{DATA LOADING}$ " (A blinking indication appears while data loaded.)

Next, the abnormal operation data is indicated.

If the indoor unit doing normal operation is selected, " NO ERROR " is displayed for 3 seconds and address of indoor unit is displayed.

8. By the 🛕 🔻 button, the abnormal operation data is displayed.

Displayed data item is based on 3 Trial operation

*Depending on models, the items that do not have corresponding data are not displayed.

9. To display the data of a different indoor unit, press the AIR CON No.] button, which allows you to go back to the indoor unit slection screen.

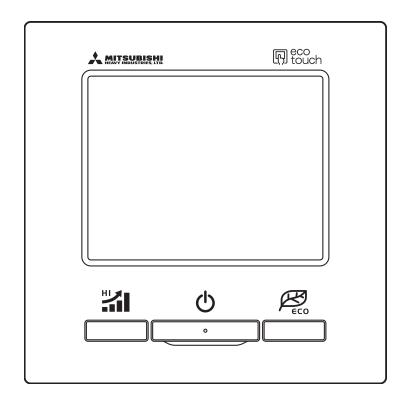
10.Pressing the OON/OFF button will stop displaying data.

Pressing the (RESET) button during remote control unit operation will undo your last operation and allow you to go back to the previous screen.

Off two (2) remote control are connected to one (1) indoor unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.) 1.10.3 Installation of wired remote control (option)
(1) Model RC-EX1A



eco touch REMOTE CONTROL RC-EX1A INSTALLATION MANUAL



1. Safety precautions

This installation manual describes the installation methods and precautions related to the remote control. Use this manual together with the user's manuals for the indoor unit, outdoor unit and other optional equipment. Please read this manual carefully before starting the installation work to install the unit properly.

Safety precautions

Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.

∴WARNING	Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc
⚠CAUTION	Failure to follow these instructions properly may cause injury or property damage.

It could have serious consequences depending on the circumstances.

The following pictograms are used in the text.



• Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, the "Installation Manual" should be given to a new owner.

MARNING

Ask a professional contractor to carry out installation work according to the installation manual. Improper installation work may result in electric shocks, fire or break-down.



Shut OFF the main power supply before starting electrical work.

Otherwise, it could result in electric shocks, break-down or malfunction.



Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.

If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.



Do not install the unit where water vapor is generated excessively or condensation occurs.

It could cause electric shocks, fire or break-down.



Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.



Improper connections or fixing could cause heat generation, fire, etc.



Seal the inlet hole for remote control cable with putty.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.



The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

A CAUTION

Do not install the remote control at following places.

It could cause break-down or deformation of remote control.

- (1) Where it is exposed to direct sunlight
- (2) Near the equipment to generate heat
- (3) Where the surface is not flat



Do not leave the remote control with its upper case removed.

When the upper case is removed, put it in a packing box or packing bag to protect internal PCBs or other parts from dust, moisture, etc.



2. Accessories & prepare on site

Accessories R/C r

R/C main unit, wood screw (ø3.5 x 16) 2 pcs User's Manual. Installation Manual

Parts procured at site

Item name	Q'ty	Remark
Switch box For 1 piece or 2 pieces (JIS C8340 or equivalent)	1	These are not required when installing
Thin wall steel pipe for electric appliance (JIS C8305 or equivalent)	As required	directly on a wall.
Lock nut, bushing (JIS C8330 or equivalent)	As required	
Lacing (JIS C8425 or equivalent)	As required	Necessary to run R/C cable on the wall.
Putty	Suitably	For sealing gaps
Molly anchor	As required	
R/C cable (0.3 mm² x 2 pcs)	As required	See right table when longer than 100 m

When the cable length is longer than 100 m, the max size for wires used in the R/C case is $0.5~\text{mm}^2$. Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

< 200 m	0.5 mm² x 2-core
< 300 m	0.75 mm ² x 2-core
< 400 m	1.25 mm ² x 2-core
< 600 m	2.0 mm ² x 2-core

3. Remote control installation procedure

Determine where to install the remote control

Installation "Using a switch box"

"Installed directly on a wall"

Wiring direction "Backward"

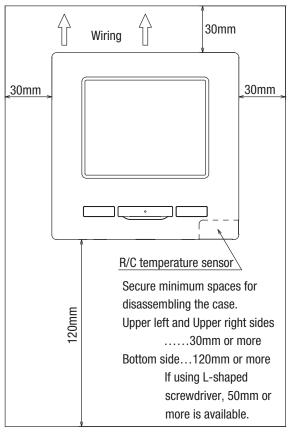
"Upper center", "Upper left"

Cautions for selecting installation place

- (1) Installation surface must be flat and sufficiently strong. R/C case must not be deformed.
- (2) Where the R/C can detect room temperatures accurately. This is a must when detecting room temperatures with the temperature sensor of R/C.
 - · Install the R/C where it can detect the average temperature in the room.
 - · Install the R/C separated from a heat source sufficiently.
 - · Install the R/C where it will not be influenced by the turbulence of air when the door is opened or closed.

Select a place where the R/C is not exposed to direct sunlight or blown by winds from the air conditioner or temperatures on the wall surface will not deviate largely from actual room temperature.

Installation space



Request

Be sure not to install R/C at a place where temperatures around the installation surface of R/C may differ largely from actual room temperature.



Difference between detected temperature and actual room temperature could cause troubles.

The correction for detected temperature by the R/C cannot offset such temperature difference because it corrects the detected temperatures itself.

Request

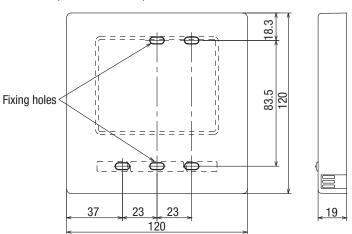
Do not install the R/C at a place where it is exposed to direct sunlight or where surrounding air temperature exceeds 40°C or drops below 0°C.



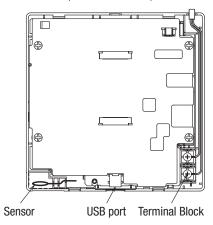
It could cause discoloration, deformation, malfunction or breakdown.

Installation procedure

Dimensions (Viewed from front)



PCB side (Viewed from rear)



① To remove the upper case from the bottom cases of R/C . Insert the tip of flat head screwdriver or the like in

· Insert the tip of flat head screwdriver or the like in the recess at the lower part of R/C and twist it lightly to remove.

Take care to protect the removed upper case from moisture or dust.



② Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit.

R/C wires (X, Y) have no polarity.

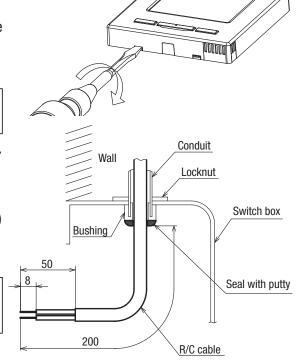
In case of embedding wiring (When the wiring is retrieved "Backward")

③ Embed the switch box and the R/C wires beforehand.

Seal the inlet hole for the R/C wiring with putty.

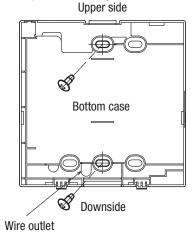
 If dust or insect enters, it could cause electric shocks, fire or breakdown.



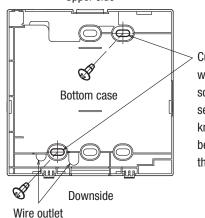


When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.
Upper side

Switch box for 1 pc



Switch box for 2 pcs



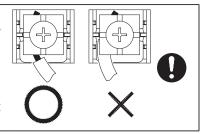
Cut out the thin wall part at the screw mounting section with a knife or the like before tightening the screw.

- (5) When fixing the bottom case diagonally at 2 places, cut out the thin wall section on the case.
- ⑥ Fix wires such that the wires will run around the terminal screws on the top case of R/C.

Cautions for wire connection

Use wires of no larger than 0.5 mm² for wiring running through the remote control case, Take care not to pinch the sheath.

Tighten by hand (0.7 N·m or less) the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.

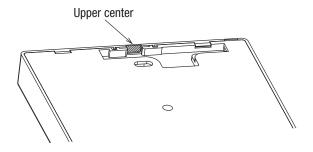


Wiring hole on bottom case

① Install the upper case with care not to pinch wires of R/C.

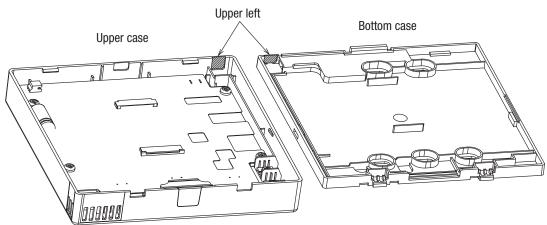
In case of exposing wiring (When the wiring is taken out from the "upper center" or "upper left" of R/C)

3 Cut out the thin wall sections on the cases for the size of wire.



When taking the wiring out from the upper center, open a hole before separating the upper and bottom cases. This will reduce risk of damaging the PCB and facilitate subsequent work.

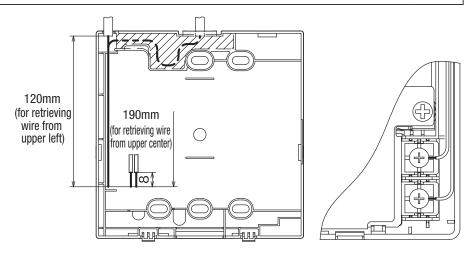
When taking the wiring out from the upper left, take care not to damage the PCB and not to leave any chips of cut thin wall inside.



If the hole is cut too large, moisture, dust or insects may enter. Seal gaps with putty or the like.



- ④ Fix the bottom R/C case on a flat surface with wood screws.
- ⑤ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)
- ⑥ Fix wires such that the wires will run around the terminal screw of the top case of R/C.
- Install the top case with care not to pinch wires of R/C.

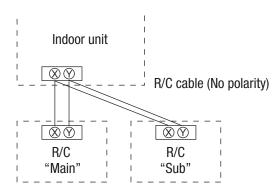


Main/Sub setting when more than one remote control are used

Main-Sub setting for use of two or more R/C

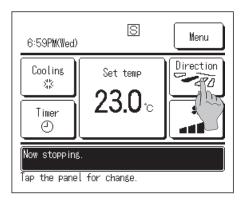
Up to two units of R/C can be used at the maximum for 1 indoor unit or 1 group. One is main R/C and the other is sub R/C.

Operating range is different depending on the main or sub R/C.



Set the "Main" and "Sub" as described at Section 7 of installtion manual attached to the remote control.

R/C function	Main	Sub
Run/Stop, setting temperature, fan speed and flap direction operations	0	0
High power and energy-saving operations	0	0
Energy-saving setting	0	_
R/C sensor	0	_
Test run menu operation	0	_
Room temperature range setting	0	_
Indoor unit settings	0	_
Individual flap control	0	_
Operation data display	0	_
Error history display	0	0



Note: Connection to personal computer

It can be set from a personal computer via the USB port (mini-B). Connect after removing the cover for USB port of upper case.

Replace the cover after use.

If dust, insect, etc. enters, it could cause electric shocks or breakdown.



Special software is necessary for the connection. For details, view the web site or refer to the engineering data.

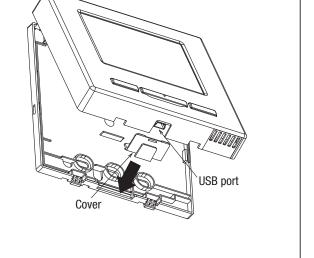
Do not connect to a personal computer without using the special software.

Do not connect the personal computer to the USB simultaneously with other USB devices.



It could cause malfunction or breakdown of R/C or personal computer.

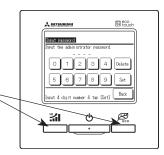




Note: Initializing of password

Administrator password (for daily setting items) and service password (for installation, test run and maintenance) are used.

- The administrator password at factory default is "0000". This setting can be changed (Refer to User's Manual). When the administrator password is forgotten, it can be initialized, if the [Highpower] and the [Energy-saving] buttons are pushed simultaneously for 5 seconds on the administrator password input screen.
- Service password is "9999", which cannot be changed.
 When the administrator password is input, the service password is also accepted.



(2) Model RC-E5

Read together with indoor unit's installation manual.

∴WARNING

Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.

Loose connection or hold will cause abnormal heat generation or fire.

Make sure the power supply is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.



ACAUTION

- ■DO NOT install the remote control at the following places in order to avoid malfunction.
 - (1) Places exposed to direct sunlight
- (4) Hot surface or cold surface enough to generate condensation
- (2) Places near heat devices
- (5) Places exposed to oil mist or steam directly





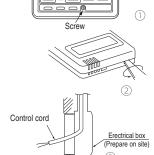
DO NOT leave the remote control without the upper case.
In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.



Accessories	Remote control, wood screw (ø3.5×16) 2 pieces	
Prepare on site	Remote control cord (2 cores) the insulation thickness in 1mm or more.	
[In case of embedding cord] Erectrical box, M4 screw (2 pieces)		
	[In case of exposing cord] Cord clamp (if needed)	

Installation procedure

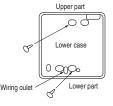
- Open the cover of remote control, and remove the screw under the buttons without fail.
- Remove the upper case of remote control. Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.

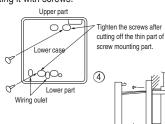


[In case of embedding cord]

3 Embed the erectrical box and remote control cord beforehand.

Prepare two M4 screws (recommended length is 12-16mm) on site, and install the lower case to erectrical box. Choose either of the following two positions in fixing it with screws.

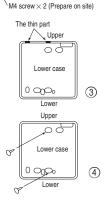




- S Connect the remote control cord to the terminal block. Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)
- Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

[In case of exposing cord]

- You can pull out the remote control cord from left upper part or center upper part. Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.
- ④ Install the lower case to the flat wall with attached two wooden screws.

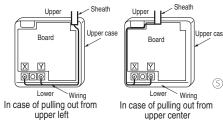


(4)

S Connect the remote control cord to the terminal block.

Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)

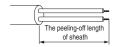
Wiring route is as shown in the right diagram depending on the pulling out direction.



The wiring inside the remote control case should be within 0.3mm² (recommended) to 0.5mm². The sheath should be peeled off inside the remote control case.

The peeling-off length of each wire is as below.

Pulling out from upper left		Pulling out from upper center		
	X wiring : 215mm	X wiring: 170mm		
	Y wiring: 195mm	Y wiring: 190mm		



- Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
- In case of exposing cord, fix the cord on the wall with cord clamp so as not to slack.

Installation and wiring of remote control

- Wiring of remote control should use 0.3mm² × 2 core wires or cables. (on-site configuration)
- $\ensuremath{\bigcirc}$ Maximum prolongation of remote control wiring is 600 m.

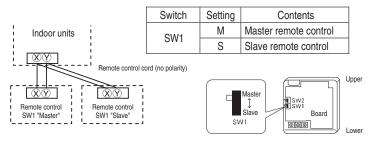
If the prolongation is over 100m, change to the size below.

But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

100 - 200m	······0.5mm ² × 2 cores
Under 300m	······0.75mm ² × 2 cores
Under 400m	······1.25mm ² × 2 cores
Under 600m	······2.0mm ² × 2 cores

Master/ slave setting when more than one remote controls are used

A maximum of two remote controls can be connected to one indoor unit (or one group of indoor units.)



Set SW1 to "Slave" for the slave remote control. It was factory set to "Master" for shipment.

Note: The setting "Remote control thermistor enabled" is only selectable with the master remote control in the position where you want to check room temperature.

The air conditioner operation follows the last operation of the remote control regardless of the master/ slave setting of it.

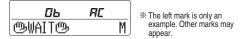
The indication when power source is supplied

When power source is turned on, the following is displayed on the remote control until the communication between the remote control and indoor unit settled.

Master remote control : "@WAIT@ M"
Slave remote control : "@WAIT@ S"

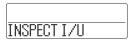
At the same time, a mark or a number will be displayed for two seconds first.

This is the software's administration number of the remote control, not an error cord.



When remote control cannot communicate with the indoor unit for half an hour, the below indication will appear.

Check wiring of the indoor unit and the outdoor unit etc.



The range of temperature setting

When shipped, the range of set temperature differs depending on the operation mode as below.

Heating: 16~30°C (55~86°F)

Except heating (cooling, fan, dry, automatic): 18~30°C (62~86°F)

●Upper limit and lower limit of set temperature can be changed with remote control.

Upper limit setting: valid during heating operation. Possible to set in the range of 20 to 30°C (68 to 86°F). Lower limit setting: valid except heating (automatic, cooling, fan, dry) Possible to set in the range of 18 to 26°C (62 to 70°C).

When you set upper and lower limit by this function, control as below.

 When ②TEMP RANGE SET, remote control function of function setting mode is "INDN CHANGE" (factory setting), [If upper limit value is set]

During heating, you cannot set the value exceeding the upper limit.

[If lower limit value is set]

During operation mode except heating, you cannot set the value below the lower limit.

When ②TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE" [If upper limit value is set]

During heating, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

[If lower limit value is set]

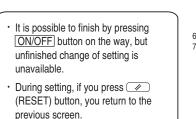
During except heating, even if the value lower than the lower limit is set, lower limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

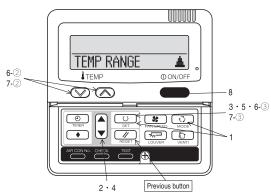
How to set upper and lower limit value

1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three seconds.

The indication changes to "FUNCTION SET ▼".

- 2. Press ▼ button once, and change to the "TEMP RANGE ▲ " indication.
- 3. Press (SET) button, and enter the temperature range setting mode.
- 4. Select "UPPER LIMIT ▼" or "LOWER LIMIT ▲" by using ▲ ▼ button.
- 5. Press (SET) button to fix.
- 6. When "UPPER LIMIT ▼" is selected (valid during heating)
 - ① Indication: " \bigcirc \lor \land SET UP" \rightarrow "UPPER 30°C \lor "
 - ② Select the upper limit value with temperature setting button ☑ △. Indication example: "UPPER 26°C ∨ △" (blinking)
 - ③ Press (SET) button to fix. Indication example: "UPPER 26°C" (Displayed for two seconds) After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼".
- 7. When "LOWER LIMIT **\(\Lambda \)**" is selected (valid during cooling, dry, fan, automatic)
 - ① Indication: " $\textcircled{b} \lor \land \mathsf{SET} \ \mathsf{UP}" \to \mathsf{"LOWER} \ \mathsf{18}^\circ\mathsf{C} \ \land \mathsf{"}$
 - ② Select the lower limit value with temperature setting button $\boxed{\ }$ $\boxed{\ }$. Indication example: "LOWER 24°C $\lor \land$ " (blinking)
 - ③ Press (SET) button to fix. Indication for example: "LOWER 24°C" (Displayed for two seconds) After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT ▼".
- 8. Press ON/OFF button to finish.





The functional setting

The initial function setting for typical using is performed automatically by the indoor unit connected, when remote control and indoor unit are connected.

As long as they are used in a typical manner, there will be no need to change the initial settings.

If you would like to change the initial setting marked " O ", set your desired setting as for the selected item. The procedure of functional setting is shown as the following diagram.

ſΕ	low	of	func	tion	setting]

Start : Stop air-conditioner and press "\(\)" (SET) and
"\(\)" (MODE) buttons at the same time for over three seconds.

Finalize : Press "\(\)" (SET) button.

Reset : Press "\(\)" (RESET) button.

Select : Press \(\) \(\)" (Putton)

I have the same time for over three seconds. Record and keep the setting

It is possible to finish above setting on the way, and unfinished change of setting is unavailable.

": Initial settings

Stop air-conditioner and press

Consult the technical data etc. for each control details

○ (SET) + ○ (MODE) buttons at the same time for over three seconds

FUNCTION SET ▼

To next page ☐ FUNCTION ▼ (Remote control function) **Function** setting 01 6MAESP SET ○ Validate setting of ESP:External Static Pressure ESP VALID SP INVALID Invalidate setting of ESP 02 AUTO RUN SE Automatical operation is impossible 03 | MA TEMP SW ⊹D⊠ VALID S⊠⊠ INVALII Temperature setting button is not working 04 🖾 MODE SW (SEE INVALI Mode button is not working 05 O ON/OFF SW On/Off button is not working 06 [⊠] FAN SPEED SW 용절 INVALID Fan speed button is not working 07 🖾 LOUVER SW ⊕⊠ VALID ⊕⊠ INVALID Louver button is not working 08 O TIMER SW ७७ VALID ७७ INVALID Timer button is not working 09 ■ SENSOR SE ESENSOR OF Remote thermistor is not working. Remote thermistor is working.

Remote thermistor is working, and to be set for producing +3.0°C increase in temperature.

Remote thermistor is working, and to be set for producing +2.0°C increase in temperature.

Remote thermistor is working, and to be set for producing +1.0°C increase in temperature. Remote thermistor is working, and to be set for producing -1.0°C increase in temperature. Remote thermistor is working, and to be set for producing -2.0 °C increase in temperature. Remote thermistor is working, and to be set for producing -3.0 °C increase in temperature. 10 AUTO RESTART 11 | VENT LINK SET NO VENT In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit. VENT LINK operation of intool virus.

In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), you can operate /stop the ventilation device independently by

(VENT) button. NO VENT LINK 12 TEMP RANGE SET If you change the range of set temperature, the indication of set temperature INDN CHANGE will vary following the control.

If you change the range of set temperature, the indication of set temperature will not vary following the control, and keep the set temperature. NO INDN CHANGE 13 I/U FAN Airflow of fan becomes of &adl- &adl- &adlor the four speed of &adll- &adl- &adl- &adl HI-MID-LO Airflow of fan becomes of & all - & all l If you change the remote control function "14 🎭 POSITION", you must change the indoor function "04 🗫 POSITION" accordingly. 14 ⇒¬POSITION You can select the louver stop position in the four. The louver can stop at any position. 4POSITION STOR 15 MODEL TYPE COOLENG ONLY 16 EXTERNAL CONTROL SET If you input signal into CNT of the indoor printed circuit board from external, the indoor unit will be operated independently according to the input from external. If you input into CNT of the indoor printed circuit board from external, all units which connect to the same remote control are operated according to the input from external. INDIVIDUAL FOR ALL UNITS 17 ROOM TEMP INDICATION SET INDICATION OFF In normal working indication, indoor unit temperature is indicated instead of airflow (Only the master remote control can be indicated.) 18 * INDICATION Heating preparation indication should not be indicated. 19 %/°E SET Temperature indication is by degree C Temperature indication is by degree F To next page

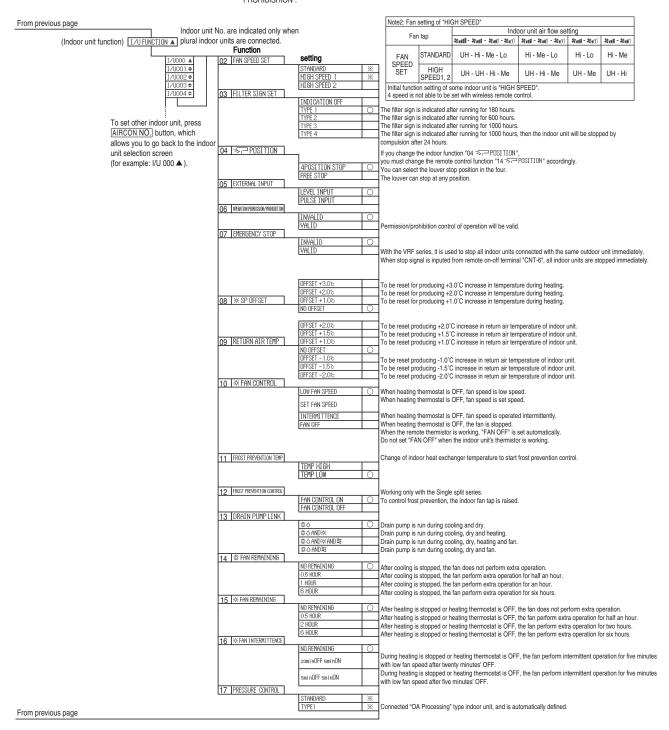
> ON/OFF button (finished)

Note 1: The initial setting marked "X" is decided by connected indoor and outdoor unit, and is automatically defined as following table.

Function No.	Item	Default Model		
Remote control	AUTO RUN SET	AUTO RUN ON	"Auto-RUN" mode selectable indoor unit.	
function02		AUTO RUN OFF	Indoor unit without "Auto-RUN" mode	
Remote control	SEIFAN SPEED SW ■ THE SET OF THE SET O	6國 VALID	Indoor unit with two or three step of air flow setting	
function06		⊕⊠ INVALID	Indoor unit with only one of air flow setting	
Remote control	EZ LOUVER SW	&⊡ VALID	Indoor unit with automatically swing louver	
function07		6교 INVALID	Indoor unit without automatically swing louver	
Remote control		HI-MID-LO	Indoor unit with three step of air flow setting	
function13		HI-LO	Indoor unit with two step of air flow setting	
		HI-MID		
		1 FAN SPEED	Indoor unit with only one of air flow setting	
Remote control	ntrol MODEL TYPE	HEAT PUMP	Heat pump unit	
function15		COOLING ONLY	Exclusive cooling unit	

Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.

But only master indoor unit is received the setting change of indoor unit function "05 EXTERNAL INPUT" and "06 PERMISSION / PROHIBISHION".



How to set function

Stop air-conditioner and press ○ (SET) (MODE) buttons at the same time for over three seconds, and the "FUNCTION SET ▼" will be displayed.



- 2. Press (SET) button.
- 3. Make sure which do you want to set, "■ FUNCTION ▼" (remote control function) or "I/U FUNCTION▲ " (indoor unit function).
- Press ▲ or ▼ button.

Selecct "☐ FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).



5. Press (SET) button.

6. [On the occasion of remote control function selection]

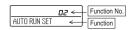
① "DATA LOADING" (Indication with blinking)

Display is changed to "01 & ESF SET".

② Press ▲ or ▼ button.

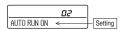
"No. and function are indicated by turns on the remote control function table, then you can select from them.

(For example)



③ Press O (SET) button.

The current setting of selected function is indicated. (for example) "AUTO RUN ON" ← If "02 AUTO RUN SET" is selected



Press or button. Select the setting.



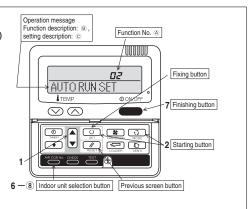
⑤ Press ○ (SET)

"SET COMPLETE" will be indicated, and the setting will be completed.

Then after "No. and function" indication returns, Set as the same procedure if you want to set continuously ,and if to finish, go to 7.



7. Press ON/OFF button. Setting is finished.



[On the occasion of indoor unit function selection]

① "DATA LOADING" (Blinking for 2 to 23 seconds to read the data)

Indication is changed to "02 FAN SPEED SET".

[Note]

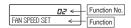
 If plural indoor units are connected to a remote control, the indication is "I/U 000" (blinking) ← The lowest number of the indoor unit connected is indicated.



- (2) Press ▲ or ▼ button. Select the number of the indoor unit you are to set If you select "ALL UNIT ▼", you can set the same setting with all unites.
- (3) Press (SET) button.
- Press or button.

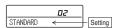
"No. and function" are indicated by turns on the indoor unit function table, then you can select from them.

(For example)



③ Press O (SET) button.

The current setting of selected function is indicated. (For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.



- ④ Press ▲ or ▼ button. Select the setting.
- ⑤ Press ① (SET) button. "SET COMPLETE" will be indicated, and the setting will be completed.

Then after "No. and function" indication returns, set as the same procedure if you want to set continuously , and if to finish, go to 7.



When plural indoor units are connected to a remote control, press the AIRCON NO. button, which allows you to go back to the indoor unit selection screen. (example "I/U 000 A")

- It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is unavailable.
- During setting, if you press (RESET) button, you return to the previous screen.
- $\boldsymbol{\cdot}$ Setting is memorized in the control and it is saved independently of power failure.

[How to check the current setting]

When you select from "No. and funcion" and press set button by the previous operation, the "Setting" displayed first is the current setting.

(But, if you select "ALL UNIT ▼ ", the setting of the lowest number indoor unit is displayed.)

1.10.4 Installation of outdoor unit

(1) Models SRC40-60ZMX-S

RWC012A038

Model 40-50-60 R410A REFRIGERANT USED

- This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 212.
- When install the unit, be sure to check whether the selection of installation place, power supply specifications, usage limitation (piping length, height differences between indoor and outdoor units, power supply voltage and etc.) and installation spaces.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and strictly follow it during the installation work in order

 Keep the installation manual together with owner's manual at a place where any user can read at any time. to protect vourself.
- The precautionary items mentioned below are distinguished into two levels, A WARNING and A CAUTION. **WARNING**: Wrong installation would cause serious consequences such as injuries or death. ACAUTION: Wrong installation might cause serious consequences depending on circumstances.
- Both mentions the important items to protect your health and safety so strictly follow them by any means.
- Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.
- Moreover if necessary, ask to hand them to a new user.
- For installing qualified personnel, take precautions in respect to themselves by using suitable protective clothing, groves, etc., and then perform the installation works.
- Please pay attention not to fall down the tools, etc. when installing the unit at the high position.
- If unusual noise can be heard during operation, consult the dealer.
- The meanings of "Marks" used here are shown as follows:



Never do it under any circumstances.



Always do it according to the instruction.

WARNING



Installation must be carried out by the qualified installer.

If you install the system by yourself, it may cause serious trouble such as water leaks. electric shocks, fire and personal injury, as a result of a system malfunction. Do not carry out the installation and maintenance work except the by qualified installer.

- Install the system in full accordance with the installation manual. Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire.
- Be sure to use only for household and residence. If this appliance is installed in inferior environment such as machine shop and etc.. it can cause malfunction
- When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).

If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accident.

Use the original accessories and the specified components for

If parts other than those prescribed by us are used, It may cause water leaks, electric shocks, fire and personal injury.

Install the unit in a location with good support.

Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.

 Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.

Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.



• Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.

If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury.

 Do not processing, splice the power cord, or share a socket with other power plugs. This may cause fire or electric shock due to defecting contact, defecting insulation and over-current etc.

- Ventilate the working area well in the event of refrigerant leakage during installation.
- If the refrigerant comes into contact with naked flames, poisonous gas is produced. Use the prescribed pipes, flare nuts and tools for R410A.
- Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.
- Tighten the flare nut by torque wrench with specified method. If the flare nut were tightened with excess torque, this may cause burst and refrigerant leakage after a long period.
- Do not open the operation valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation. If the compressor is operated in state of opening operation valves before completed connection of refrigerant piping work, air can be sucked into refrigerant circuit, which can cause bust or personal injury due to anomalously high pressure
- The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit. Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire.
- Be sure to shut off the power before starting electrical work. Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.
- · Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work.
- Unconformable cables can cause electric leak, anomalous heat production or fire.
- This appliance must be connected to main power supply by means of a
- Do not bundling, winding or processing for the power cord. Or, do not deforming the power plug due to tread it.
- This may cause fire or heating. . Do not run the unit with removed panels or protections.

Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks.

- circuit breaker or switch (fuse:16A) with a contact separation of at least
- · Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly. Incorrect installation may result in overheating and fire.
- Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks.
- Loose connections or cable mountings can cause anomalous heat production or fire.
- . Be sure to fix up the service panels.
- Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water. Be sure to switch off the power supply in the event of installation.
- inspection or servicing.
- If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.
- Stop the compressor before removing the pipe after shutting the operation valve on pump down work.

If the pipe is removed when the compressor is in operation with the operation valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.

• Only use prescribed option parts. The installation must be carried out by the qualified installer.

If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire,

- Be sure to wear protective goggles and gloves while at work.
- · Earth leakage breaker must be installed.

If the earth leakage breaker is not installed, it can cause electric shocks.

. Do not perform any change of protective device itself or its setup condition.

The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component can cause fire or

↑ CAUTION



• Carry out the electrical work for ground lead with care.

Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting.



- Use the circuit breaker for all pole correct capacity. Circuit breaker should be the one that disconnect all poles under over current.

 Using the incorrect circuit breaker, it can cause the unit malfunction and fire.
- Install isolator or disconnect switch on the power supply wiring in accordance with the local codes and regulations.
- The isolator should be locked in OFF state in accordance with EN60204-1.
- After maintenance, all wiring, wiring ties and the like, should be returned to their original state and wiring route, and the necessary clearance from all metal parts should be secured.
- Secure a space for installation, inspection and maintenance specified in the manual.

Insufficient space can result in accident such as personal injury due to falling from the installation place.

. Take care when carrying the unit by hand.

If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins.

Dispose of any packing materials correctly.

Any remaining packing materials can cause personal injury as it contains nails and wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up.

Be sure to insulate the refrigerant pipes so as not to condense the ambient air moisture on them.

Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables.

• When perform the air conditioner operation (cooling or drying operation) in which ventilator is installed in the room. In this case, using the air conditioner in parallel with the ventilator, there is the possibility that drain water may backflow in accordance with the room lapse into the negative pressure status. Therefore, set up the opening port such as incorporate the air into the room that may appropriate to ventilation (For example; Open the door a little). In addition, just as above, so set up the opening port if the room lapse into negative pressure status due to register of the wind for the high rise apartment etc.



. Do not install the unit in the locations listed below.

- Locations where carbon fiber, metal powder or any powder is floating.
- Locations where any substances that can affect the unit such as sulphide gas, chloride gas, acid and alkaline can occur.
- Vehicles and shins
- Locations where cosmetic or special sprays are often used.
- Locations with direct exposure of oil mist and steam such as kitchen and machine plant
- Locations where any machines which generate high frequency harmonics are used.
- Locations with salty atmospheres such as coastlines.
- Locations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual).
- Locations where the unit is exposed to chimney smoke.
- Locations at high altitude (more than 1000m high).
- Locations with ammonic atmospheres.
- Locations where heat radiation from other heat source can affect the unit.
- . Locations without good air circulation.
- Locations with any obstacles which can prevent inlet and outlet air of the unit.
- Locations where short circuit of air can occur (in case of multiple units installation)
- Locations where strong air blows against the air outlet of outdoor unit.
- Locations where something located above the unit could fall.

It can cause remarkable decrease in performance, corrosion and damage of components, malfunction and fire.

- . Do not install the outdoor unit in the locations listed below.
- Locations where discharged hot air or operating sound of the outdoor unit can bother neighborhood.
- Locations where outlet air of the outdoor unit blows directly to an animal or plants. The outlet air can affect adversely to the plant etc.
- Locations where vibration can be amplified and transmitted due to insufficient strength of structure.
- Locations where vibration and operation sound generated by the outdoor unit can affect seriously (on the wall or at the place near bed room).
- Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 5m).
- Locations where drainage cannot run off safely.
- It can affect surrounding environment and cause a claim.
- Do not install the unit near the location where leakage of combustible gases can occur.
- If leaked gases accumulate around the unit, it can cause fire.
- Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate or collect, or where volatile combustible substances are handled.

Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire.

• Do not install nor use the system close to the equipment that generates electromagnetic fields or high frequency harmonics.

Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.

 Do not install the outdoor unit in a location where insects and small animals can inhabit.

Insects and small animals can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean.

 Do not use the base flame for outdoor unit which is corroded or damaged due to long periods of operation.

Using an old and damage base flame can cause the unit falling down and cause personal injury.

 Do not use any materials other than a fuse with the correct rating in the location where fuses are to be used.

Connecting the circuit with copper wire or other metal thread can cause unit failure and fire.

- Do not touch any buttons with wet hands.
- It can cause electric shocks.
- Do not touch any refrigerant pipes with your hands when the system is in operation.

During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or frost injury.

- Do not touch the suction or aluminum fin on the outdoor unit.
 This may cause injury.
- Do not put anything on the outdoor unit and operating unit.
- This may cause damage the objects or injury due to falling to the object.
- Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants or art.
- . Do not clean up the unit with water.

Check before installation work

- Model name and power source
- Refrigerant piping length
- · Piping, wiring and miscellaneous small parts
- Indoor unit installation manual

ı	Accessories for outdoor unit	Q'ty
1	Grommet (Heat pump type only) Drain elbow (Heat pump type only)	4
2	Drain elbow (Heat pump type only)	1

	Option parts	Q'ty
(a)	Sealing plate	1
6	Sleeve	1
	Inclination plate	1
0	Putty	1
(e)	Drain hose (extension hose)	1
A	Piping cover	1
Ш	(for insulation of connection piping)	'

Nacaccary tools for the installation work		9	Wrench key (Hexagon) [4m/m]
		10	Vacuum pump
1	Plus headed driver		Vacuum pump adapter (Anti-reverse flow type)
2	Knife	''	(Designed specifically for R410A)
3	Saw	12	Gauge manifold (Designed specifically for R410A)
4	Tape measure	13	Charge hose (Designed specifically for R410A)
5	Hammer	14	Flaring tool set (Designed specifically for R410A)
6	Spanner wrench	15	Gas leak detector (Designed specifically for R410A)
7	Torque wrench [14.0~62.0N·m (1.4~6.2kgf·m)]	16	Gauge for projection adjustment
8	Hole core drill (65mm in diameter)	1'0	(Used when flare is made by using conventional flare tool)

Notabilia as a unit designed for R410A

- Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant. A cylinder containing R410A has a pink indication mark on the top.
- A unit designed for R410A has adopted a different size indoor unit operation valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake. The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure.

 Accordingly, you are required to arrange dedicated R410A tools listed in the table on the left before installing or servicing this unit.
- Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
- In charging refrigerant, always take it out from a cylinder in the liquid phase.
- All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)

When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall.

1) Delivery

- Deliver the unit as close as possible to the installation site before removing it from
- . When you have to unpack the unit for a compelling reason before you haul it to the installation point, hoist the unit with nylon slings or ropes and protection pads so that you may not damage the unit.



2) Portage

• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the corner column section.



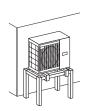
3) Selecting the installation location

Be sure to select a suitable installation place in consideration of following conditions.

- · A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance
- · A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit.
- A place where the unit is not exposed to oil splashes.
- · A place where it can be free from danger of flammable gas leakage.
- A place where drain water can be disposed without any trouble.
- . A place where the unit will not be affected by heat radiation from other heat source
- . A place where snow will not accumulate.
- · A place where the unit can be kept away 5m or more from TV set and/or radio receiver in order to avoid any radio or TV interference
- · A place where good air circulation can be secured, and enough service space can be secured for maintenance and service of the unit safely.
- · A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other equipment.
- · A place where chemical substances like sulfuric gas, chloric gas, acid and alkali (including ammonia), which can harm the unit, will not be generated and not remain.
- If a operation is conducted when the outdoor air temperature is -5 lower, the outdoor unit should be installed at a place where it is not influenced by natural wind.
- A place where strong wind will not blow against the outlet air blow of the unit.

4) Caution about selection of installation location

- (1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.
 - 1 Install the unit on the base so that the bottom is higher than snow cover surface.
- 2 Install the unit under or provide the roof on site.

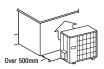




Since drain water generated by defrost control may freeze, following measures are required.

• Do not execute drain piping work by using a drain elbow and drain grommets (accessories). [Refer to Drain piping work.]

- (2) If the unit can be affected by strong wind, following measures are required. Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure.
 - 1 Place the unit outlet side is turned to the wall.



2 Install so the direction of the air from the blowing outlet will be perpendicular to the direction of the wind.

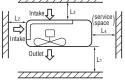


5) Installation space

- . Walls surrounding the unit in the four sides are not acceptable.
- . There must be a 1-meter or larger space in the above.
- . When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space. In order to facilitate servicing of controllers, please provide a sufficient space between units so that their top plates can be removed easily.
- Where a danger of short-circuiting exists, install guide louvers.
- · When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not
- · Where piling snow can bury the outdoor unit, provide proper snow quards.

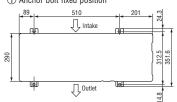
				(mm)
	Model 40, 50, 60			
Size Example installation	I	II	Ш	IV
L1	Open	280	280	180
L2	100	75	Open	Open
L3	100	80	80	80
L4	250	Open	250	Open

The height of a wall is 1200mm or less.

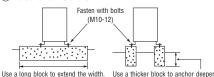


6) Installation

1 Anchor bolt fixed position



(2) Notabilia for installation



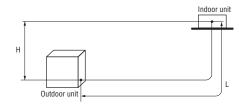
- In installing the unit, fix the unit's legs with bolts specified on the above.
- The protrusion of an anchor bolt on the front side must be kept within 15mm.
- Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
- Refer to the above illustrations for information regarding concrete foundations.
- Install the unit in a level area. (With a gradient of 5mm or less.) Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation.

2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
- . Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

Restrictions		Dimensional restrictions	Marks appearing in the drawing on the right
Main pipe length		30m or less	L
Elevation difference between	When the outdoor unit is positioned higher,	20m or less	н
indoor and outdoor units	When the outdoor unit is positioned lower,	20m or less	Н



ACAUTION

• The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below. Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size. For more information, please see "5. UTILIZATION OF EXISTING PIPING."

2) Determination of pipe size

Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

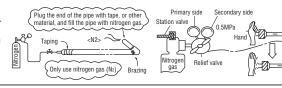
	Model 40, 50, 60	
	Gas pipe	Liquid pipe
Outdoor unit connected	ø12.7 Flare	ø6.35 Flare
Refrigerant piping (branch pipe L)	ø12.7	ø6.35
Indoor unit connected	ø12.7	ø6.35

When pipe is brazing.

About brazing

Brazing must be performed under a nitrogen gas flow.

Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from capillary tube or expansion valve clogging.



3) Refrigerant pipe wall thickness and material

• Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

NOTE Select pipes having a wall thickness larger than the specified minimum pipe thickness.

Pipe diameter [mm]	ø6.35	ø12.7
Minimum pipe wall thickness [mm]	0.8	0.8
Pipe material*	O-type pipe	O-type pipe

^{*}Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30

4) On-site piping work

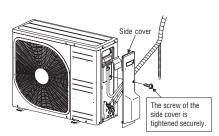
♠ IMPORTANT

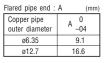
Take care so that installed pipes may not touch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

How to remove the side cover

Please remove the screw of a side cover and

- Carry out the on site piping work with the operation valve fully closed.
- Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
- Bend a pipe to a radius as large as practical (R100~R150). Do not bend a pipe repeatedly to correct its form.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge.
- The pipe should be anchored every 1.5m or less to isolate the vibration.
- Tighten a flare joint securely with a double spanner.







opper hipe broti	usion for naring . D	(11111)		
Copper pipe	In the case of a rigid (clutch) type			
outer diameter	With an R410A tool	With a conventional tool		
ø6.35	0~0.5	1.0~1.5		
ø12.7	0~0.5	1.0~1.5		

Gas side

Check joint Indoor unit



Use a torque wrench. If a torque wrench is

not available, fasten the flare nut manually first and then tighten it further, using the left table as a quide. Do not hold the valve cap area with a spanner.

Outdoor unit

↑ CAUTION

Do not apply force beyond proper fastening torque in tightening the flare nut.

Fix both liquid and gas operation valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

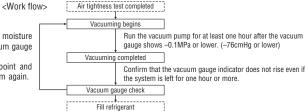
Operation valve size (mm)	Tightening torque (N·m)	Tightening angle (°)	Recommended length of a tool handle (mm)
ø6.35 (1/4")	14~18	45~60	150
ø12.7 (1/2")	49~61	30~45	250

5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the operation valve's check joint equipped on the outdoor unit side. While conducting a test, keep the operation valve shut all the time.
- a) Raise the pressure to 0.5MPa, and then stop. Leave it for five minutes to see if the pressure drops.
- b) Then raise the pressure to 1.5MPa, and stop. Leave it for five more minutes to see if the pressure drops.
- c) Then raise the pressure to the specified level (4.15MPa), and record the ambient temperature and the pressure.
- d) If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient temperature fall 1°C, the pressure also fall approximately 0.01MPa. The pressure, if changed, should be compensated for.
- e) If a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air tightness test again.
- ② In conducting an air tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.

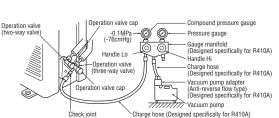
6) Evacuation

Vacuuming begins When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rise. Check the system for a leaky point and then draw air to create a vacuum again.



Pay attention to the following points in addition to the above for the R410A and compatible machines.

- To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).
- Use a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.



Securely tighten the operation valve can and the check joint blind but after adjustment

socially agriculture operation varies dup and the direct joint simulated adjustments					
Operation valve size	Operation valve cap	Check joint blind nut			
(mm)	tightening torque (N·m)	tightening torque (N·m)			
ø6.35 (1/4")	20~30	10~12			
ø12.7 (1/2")	25~35	10~12			

7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

	Additional charge volume (kg) per meter of refrigerant piping (liquid pipe ø6.35)	Refrigerant volume charged for shipment at the factory (kg)	Installation's pipe length (m) covered without additional refrigerant charge
Model 40, 50, 60	0.02	1.50	15

- This unit contains factory charged refrigerant covering 15m of refrigerant piping and additional refrigerant charge on
 the installation site is not required for an installation with up to 15m refrigerant piping.
 When refrigerant piping exceeds 15m, additionally charge an amount calculated from the pipe length and the above
 table for the portion in excess of 15m.
- If an existing pipe system is used, a required refrigerant charge volume will very depending on the liquid pipe size.
 For further information, please see "5. UTILIZATION OF EXISTING PIPING."

Formula to calculate the volume of additional refrigerant required

Additional charge volume (kg) = { Main length (m) - Factory charged volume 15 (m) } x 0.02 (kg/m)

- * When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally.
- For an installation measuring 15m or shorter in pipe length, please charge the refrigerant volume charged for shipment at the factory, when you recharge refrigerant after servicing etc.

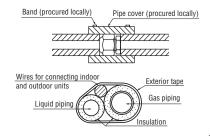
(2) Charging refrigerant

- Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.
- Charge refrigerant always from the liquid side service port with the operation valve shut. When you find it
 difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and
 charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In
 doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase
 all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid
 phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that
 refrigerant will casify upon entering the unit.
- In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume
- When refrigerant is charged with the unit being run, complete a charge operation within 30minutes.
 Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the service panel.

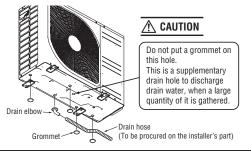
8) Heating and condensation prevention

- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
- · Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration.
- All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
- Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
- Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
- Both gas and liquid pipes need to be dressed with 20mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.



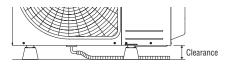
3. DRAIN PIPING WORK

- Execute drain piping by using a drain elbow and drain grommets supplied separately as accessories, where water drained from the outdoor unit is a problem.
- Water may drip where there is a larger amount of drain water.
 Seal around the drain elbow and drain grommets with putty or adequate caulking material.
- Condensed water may flow out from vicinity of operation valve or connected pipes.
- Where you are likely to have several days of sub-zero temperatures in a row, do not use a drain elbow and drain grommets. (There is a risk of drain water freezing inside and blocking the drain.)



 When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.

Then, please secure space for the drain elbow and the drain hose.



- Do not use any supply cord lighter than one specified in parentheses for each type below.
- braided cord (code designation 60245 IEC 51)
- ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
- flat twin tinsel cord (code designation 60227 IEC 41)

Use polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use.

- Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire. If improperly grounded, an electric shock or malfunction may result.
- A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
- The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an accident such as an electric shock
- . Do not turn on the power until the electrical work is completed.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overheat accident)
- For power supply cables, use conduits.

- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laving them together can result in the malfunctioning or a failure of the unit due to electric noises.
- · Fasten cables so that may not touch the piping, etc.
- When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
- Never use a shield cable.
- SRC-ZMXA-S complies with the DRED (Demand Response Enabling) Devices) standard AS/NZS4755.3.1 and supports demand response modes 1, 2, and 3 (DRM1, 2, and 3). Since the air conditioner limits the electric power or energy by receiving the DRED input signal, the sense of cooling operation or heating operation may deteriorate over time. The outdoor unit of this air conditioner is equipped with a terminal block for DRED input and supports ELV (Extra-Low Voltage) complying with AS/N7S60335 1

♠ CAUTION

In case of faulty wiring connection, the indoor unit stops, and then the run lamp turns on and the timer lamp blinks.

Use cables for interconnection wiring to avoid loosening of the wires. CENELEC code for cables Required field cables.

H05RNR4G1.5 (Example) or 245IEC57

- Harmonized cable type
- 05 300/500 volts
 - Natural-and/or synth. rubber wire insulation
- N Polychloroprene rubber conductors insulation
- R Stranded core
- Number of conductors 4or5
- One conductor of the cable is the earth conductor (vellow/green)
- 1.5 Section of copper wire (mm²)

Power cable, indoor - outdoor connecting wire circuit diagram

Model SRC-ZMX-S Model SRC-ZMXA-S · Earth wire shall be Yellow/Green (Y/G) in color and longer than other AC wires for safety reason. - Power cable (÷) (4) **(**+) Indoor - Outdoor connecting wire DRFD cable

CAUTION

Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation.

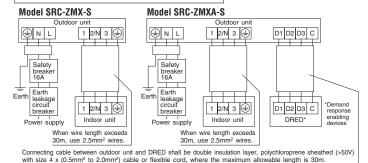
(Demand response)

enabling devices)

		Switchgear or Circuit Breaker		Power source	Interconnecting and
Phase	Earth leakage breaker	Switch breaker	Over current protector rated capacity	(minimum)	grounding wires (minimum)
Single-phase	15A, 30mA, 0.1sec or less	30A	16A	2.0mm ²	1.5mm ² X 4

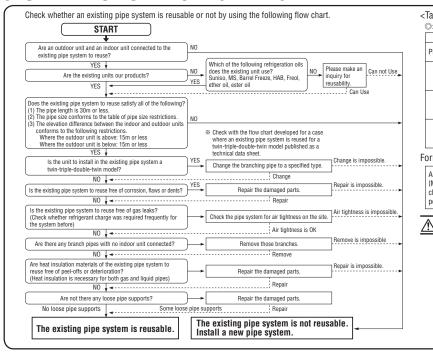
- . The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear or Circuit breaker capacity which is calculated from MAX, over current should be chosen along the regulations in each country.
- The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

Power cable, indoor-outdoor connecting wires



- · Always perform grounding system installation work with the power cord unplugged
- . Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
- In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
- . Grounding terminals are provided in the control box.

5. UTILIZATION OF EXISTING PIPING



<Table of pipe size restrictions>

○: Standard pipe size ○: Usable △: Restricted to shorter pipe length limits

Addit	Additional charge volume per meter of pipe		U.UbKg/M
Pipe size	Liquid pipe	ø6.35	ø9.52
r ipe size	Gas pipe	ø12.7	ø12.7
	Usability	0	Δ
40	Maximum one-way pipe length	30	10
	Length covered without additional charge	15	5
	Usability	0	Δ
50	Maximum one-way pipe length	30	10
	Length covered without additional charge	15	15
	Usability	0	Δ
60	Maximum one-way pipe length	30	10
	Length covered without additional charge	15	5

- Please consult with our distributor in the area, if you need to recover refrigerant and charge it again.
- Any combinations of pipe sizes not listed in the table are not usable.

Formula to calculate additional charge volume

Additional charge volume (kg) = (Main pipe length (m) - Length covered without additional charge shown in the table (m)) X Additional charge volume per meter of pipe shown in the table (kg/m)

If you obtain a negative figure as a result of calculation, no additional refrigerant needs to be charged.

Example) When an 60 is installed in a 10m long existing pipe system (liquid ø9.52, gas ø12.7), the quantity of refrigerant to charge additionally should be (10m-5m) x 0.06kg/m = 0.3 kg.

♠ WARNING

<Where the existing unit can be run for a cooling operation.>

Carry out the following steps with the excising unit (in the order of (1), (2), (3) and (4))

- (1) Run the unit for 30 minutes for a cooling operation.
- (2) Stop the indoor fan and run the unit for 3 minutes for a cooling operation (returning liquid)
- (3) Close the liquid side operation valve of the outdoor unit and pump down (refrigerant recovery)
- (4) Blow with nitrogen gas.

 If discolored refrigeration oil or any foreign matters is discharged by the blow, wash the pipe system or install a new pipe system.
- For the flare nut, do not use the old one, but use the one supplied with the outdoor unit.
 Process a flare to the dimensions specified for R410A.
- <Where the existing unit cannot be run for a cooling operation.>
- Wash the pipe system or install a new pipe system.
- If you choose to wash the pipe system, please contact our distributor in the area.

INSTALLATION TEST CHECK	After installation	·
POINTS	Power cables and connecting wires are securely fixed to the terminal block.	The pipe joints for indoor and outdoor pipes have been insulated.
Check the following points again after completion of the installation, and before turning on the power. Conduct a test run	The power supply voltage is correct as the rating. The drain hose is fixed securely.	The reverse flow check cap is attached. The cover of the pipe cover (A) faces downward to prevent rain from entering.
again and ensure that the unit operates properly. Explain to the customer how to use the unit and how to take care of the unit following the instruction manual.	Operation valve is fully open. No gas leaks from the joints of the operation valve.	Gaps are properly sealed between the pipe covers (A) (B) and the wall surface / pipes. The screw of the side cover is tightened securely.

71V Designed for R410A refrigerant

Inverter driven single split PAC

This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 212.

When install the unit, be sure to check whether the selection of installation place, power supply specifications, usage limitation (piping length, height differences between indoor and outdoor units, power supply voltage and etc.) and installation spaces

SAFETY PRECAUTIONS

- •We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to avoid malfunction due to
- The precautions described below are divided into WARNING and CAUTION. The matters with possibilities leading to serious consequences such as death or serious personal injury due to erroneous handling are listed in the WARNING and the matters with possibilities leading to personal injury or damage of the unit due to erroneous handling including probability leading to serious consequences in some cases are listed in A CAUTION. These are very important precautions for safety. Be sure to observe all of them without fail.
- The meaning of "Marks" used here are as shown below.

Never do it under any circumstance.



Always do it according to the instruction

- •Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.
- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user

Check before installation work

- Model name and power source
- Refrigerant piping length
- Piping, wiring and miscellaneous small parts
- Indoor unit installation manual

WARNING



Installation must be carried out by the qualified installer.

If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system

- Install the system in full accordance with the instruction manual.
- Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire.
- Use the original accessories and the specified components for installation.
- If parts other than those prescribed by us are used, it may cause fall of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance, control failure and personal injury.
- When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with IS05149

Consult the expert about prevention measures. If the density of refrigerant exceeds the limit in the event of leakage, lack of oxygen can occur, which can cause serious accidents.

- Ventilate the working area well in the event of refrigerant leakage during installation. If the refrigerant comes into contact with naked flames, poisonous gas is produced.
- After completed installation, check that no refrigerant leaks from the system.
- If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced.
- Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid jolting out of alignment, be sure to hang up the unit at 4-point support.

An improper manner of portage such as 3-point support can cause death or serious personal injury due to falling of the unit

- Install the unit in a location with good support
- Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.
- Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds.
- Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.
- The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit.
- Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire
- Be sure to shut off the power before starting electrical work. Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.
- Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work.
- Unconformable cables can cause electric leak, anomalous heat production or fire.
- Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks.
- Loose connections or cable mountings can cause anomalous heat production or fire.
- Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly. Incorrect installation may result in overheating and fire.



- Do not perform brazing work in the airtight room It can cause lack of oxygen.
- Use the prescribed pipes, flare nuts and tools for R410A.
- Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.
- Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to tighten the flare nut too much.

Loose flare connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which may result in lack of oxygen.

- Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation
- If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked into refrigerant circuit, which can cause burst or personal injury due to anomalously high pressure in the refrigerant
- Only use prescribed optional parts. The installation must be carried out by the qualified installer.
- If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire
- Do not perform any change of protective device itself or its setup condition The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component can cause fire or burst.
- Be sure to switch off the power supply in the event of installation, inspection or servicing.
- If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.
- Consult the dealer or an expert regarding removal of the unit. Incorrect installation can cause water leaks, electric shocks or fire.
- Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation.
- If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked, which can cause burst or personal injury due to anomalously high pressure in the refrigerant circuit
- Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.
- If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury.
- Do not run the unit with removed panels or protections
- Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shocks
- Be sure to fix up the service panels.
- Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water.
- Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair. If you repair or modify the unit, it can cause water leaks, electric shocks or fire



CAUTION



Carry out the electrical work for ground lead with care

Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting. Never connect the grounding wire to a gas pipe because if gas leaks, it could cause explosion or ignition.



 Use the circuit breaker for all pole with correct capacity Using the incorrect circuit breaker, it can cause the unit malfunction and fire

• Install isolator or disconnect switch on the power supply wiring in accordance with the local codes and regulations. The isolator should be locked in accordanced with EN60204-1.

Take care when carrying the unit by hand.

If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins.

Dispose of any packing materials correctly.

Any remaining packing materials can cause personal injury as it contains nails and wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up.

Pay attention not to damage the drain pan by weld spatter when welding work is done near the indoor unit.

If weld spatter entered into the indoor unit during welding work, it can cause pin-hole in drain pan and result in water leakage. To prevent such damage, keep the indoor unit in its packing or cover it Be sure to insulate the refrigerant pipes so as not to condense the ambient air moisture on them

Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables

 Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work. If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.

Perform installation work properly according to this installation manual.

Improper installation can cause abnormal vibrations or increased noise generation.

Earth leakage breaker must be installed

If the earth leakage breaker is not installed, it can cause fire or electric shocks.

Do not use any materials other than a fuse with the correct rating in the location where fuses are to be used.

Connecting the circuit with copper wire or other metal thread can cause unit failure and fire. Do not install the unit near the location where leakage of combustible gases can occur.

If leaked gases accumulate around the unit, it can cause fire

Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate or collect, or where volatile combustible substances are handled.

Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire Secure a space for installation, inspection and maintenance specified in the manual.

Insufficient space can result in accident such as personal injury due to falling from the installation place

When the outdoor unit is installed on a roof or a high place, provide permanent ladders and handrails along the access route and fences and handrails around the outdoor unit. If safety facilities are not provided, it can cause personal injury due to falling from the installation place.

Do not install nor use the system close to the equipment that generates electromagnetic fields or high frequency harmonics Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.

Do not install the outdoor unit in a location where insects and small animals can inhabit.

Insects and small animals can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean

Do not use the base flame for outdoor unit which is corroded or damaged due to long periods of operation. Using an old and damage base flame can cause the unit falling down and cause personal injury.

Do not install the unit in the locations listed below.

· Locations where carbon fiber, metal powder or any powder is floating.

· Locations where any substances that can affect the unit such as sulphide gas, chloride gas, acid and alkaline can occur.

Vehicles and ships

· Locations where cosmetic or special sprays are often used.

Locations with direct exposure of oil mist and steam such as kitchen and machine plant.

 Locations where any machines which generate high frequency harmonics are used. Locations with salty atmospheres such as coastlines

Locations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual)

· Locations where the unit is exposed to chimney smoke

Locations at high altitude (more than 1000m high)

 Locations with ammonic atmospheres · Locations where heat radiation from other heat source can affect the unit

Locations without good air circulation.

Locations with any obstacles which can prevent inlet and outlet air of the unit

Locations where short circuit of air can occur (in case of multiple units installation)

Locations where strong air blows against the air outlet of outdoor unit

It can cause remarkable decrease in performance, corrosion and damage of components, malfunction and fire.

Do not install the outdoor unit in the locations listed below.

Locations where discharged hot air or operating sound of the outdoor unit can bother neighborhood.

- Locations where outlet air of the outdoor unit blows directly to an animal or plants. The outlet air can affect adversely to the plant etc. Locations where vibration can be amplified and transmitted due to insufficient strength of structure.

· Locations where vibration and operation sound generated by the outdoor unit can affect seriously. (on the wall or at the place near bed room)

Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)

Locations where drainage cannot run off safely

It can affect surrounding environment and cause a claim

Do not use the unit for special purposes such as storing foods, cooling precision instruments and preservation of animals, plants or art. It can cause the damage of the items.

Do not touch any buttons with wet hands

It can cause electric shocks

Do not touch any refrigerant pipes with your hands when the system is in operation.

During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or frost injury.

Do not clean up the unit with water It can cause electric shocks

Do not operate the outdoor unit with any article placed on it.

You may incur property damage or personal injure from a fall of the article. Do not step onto the outdoor unit.

You may incur injury from a drop or fall.

Notabilia as a unit designed for R410A

- Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant. A cylinder containing R410A has a pink indication mark on the top.
- A unit designed for R410A has adopted a different size indoor unit operation valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake. The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure. Accordingly, you are required to arrange dedicated R410A tools listed in the table on the right before installing or servicing this unit.
- Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
- In charging refrigerant, always take it out from a cylinder in the liquid phase.
- All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system

	Dedicated R410A tools
a)	Gauge manifold
b)	Charge hose
c)	Electronic scale for refrigerant charging
d)	Torque wrench
e)	Flare tool
f)	Protrusion control copper pipe gauge
g)	Vacuum pump adapter
h)	Gas leak detector

1. HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position. If not properly balanced, the unit can be thrown off-balance and fall.

1) Delivery

- Deliver the unit as close as possible to the installation site before removing it from the packaging
- When some compelling reason necessitates the unpacking of the unit before it is carried in, use nylon slings or protective wood pieces so as not to damage the unit by ropes lifting it.



2) Portage

• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his



3) Selection of installation location for the outdoor unit

Be sure to select a suitable installation place in consideration of following conditions.

- O A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance of the unit.
- O A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit
- A place where the unit is not exposed to oil splashes.
- O A place where it can be free from danger of flammable gas leakage
- O A place where drain water can be disposed without any trouble.
- O A place where the unit will not be affected by heat radiation from other heat source.
- O A place where snow will not accumulate.
- O A place where the unit can be kept away 5m or more from TV set and/or radio receiver in order to avoid any radio or TV interference.
- A place where good air circulation can be secured, and enough service space can be secured for maintenance and service of the unit safety.
- A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other equipment.
- O A place where chemical substances like sulfuric gas, chloric gas, acid and alkali (including ammonia), which can harm the unit, will not be generated and not remain.
- O A place where strong wind will not blow against the outlet air blow of the unit

4) Caution about selection of installation location

- (1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.
- 1. Install the unit on the base so that the bottom is higher than snow cover surface



2. Provide a snow hood to the outdoor

Regarding outline of a snow hood. refer to our technical manual



3. Install the unit under eaves or provide the roof on site.



Since drain water generated by defrost control may freeze, following measures are required

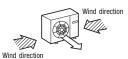
- Don't execute drain piping work by using a drain elbow and drain grommets (optional parts). [Refer to Drain piping work.] Recommend setting Defrost Control (SW3-1) and Snow Guard Fan Control (SW3-2). [Refer to Setting SW3-1, SW3-2.]
- (2) If the unit can be affected by strong wind, following measures are required.

Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure.

1.Install the outlet air blow side of the unit to face a wall of building, or provide a fence or a windbreak screen



2.Install the outlet air blow side of the unit in a position perpendicular to the direction of wind.



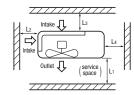
3.The unit should be installed on the stable and level foundation. If the foundation is not level. tie down the unit with wires.



5) Installation space

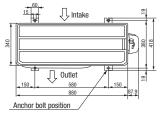
- Walls surrounding the unit in the four sides are not acceptable.
- There must be a 1-meter or larger space in the above.
- When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space. In order to facilitate servicing of controllers, please provide a sufficient space between units so that their top plates can be removed easily.
- Where a danger of short-circuiting exists, install guide louvers.
- When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur.
- Where piling snow can bury the outdoor unit, provide proper snow guards.

			(111111)
		71V	
Example installation	I	II	Ш
L1	Open	Open	500
L2	300	250	Open
L3	100	150	100
L4	250	250	250

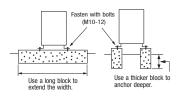


6) Installation

Anchor bolt fixed position



(2) Notabilia for installation



- In installing the unit, fix the unit's legs with bolts specified on the above.
- The protrusion of an anchor bolt on the front side must be kept within 15 mm.
- Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
- Refer to the above illustrations for information regarding concrete foundations.
- Install the unit in a level area. (With a gradient of 5 mm or less.)
- Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation.

7) To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

● When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that strong wind will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical manual.

2. REFRIGERANT PIPING WORK

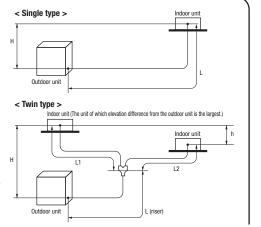
1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
- Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

Restrictions		Dimensional	Marks appearing in the drawing on the right	
		restrictions	Single type	Twin type
One-way pipe length of refrigerant piping	- Model 71V	50m or less	L	L1+L1+L2
Main pipe length	Widdel 71V		L	L
One-way pipe length after the first branching point		20m or less	_	L1, L2
Difference of pipe length after the first branching point		10m or less	_	L1-L2
Elevation difference between	When the outdoor unit is positioned higher,	30m or less	Н	Н
indoor and outdoor units	When the outdoor unit is positioned lower,	15m or less	Н	Н
Elevation difference between indoor units		0.5m or less	_	h



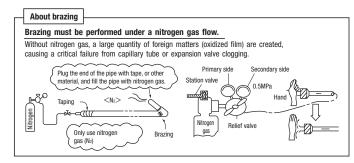
• The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below. Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size. For more information, please see " 6. UTILIZATION OF EXISTING PIPING.



2) Determination of pipe size

Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

		Mode	el 71V
		Gas pipe	Liquid pipe
Outdoor ur	it connected	φ15.88 Flare	φ9.52 Flare
Refrigerant pipi	ng (branch pipeL)	φ15.88	φ9.52
In the case of a single time	Indoor unit connected	φ15.88	φ9.52
In the case of a single type	Capacity of indoor unit	Model 71V	
	Branching pipe set	DIS-WA1	
In the case of a build have	Refrigerant piping (branch pipe L1,L2)	φ12.7	φ9.52
In the case of a twin type	Indoor unit connected	φ12.7	φ6.35
	Capacity of indoor unit	Model 40V×2	



⚠ CAUTION

- •When the 40V model is connected as an indoor unit, always use a φ9.52 liquid pipe for the branch (branching pipe indoor unit) and a different diameter joint supplied with the branching pipe set for connection with the indoor unit (φ6.35 on the liquid pipe side).
- If a ϕ 6,35 pipe is used for connection with a branching pipe, a refrigerant distribution disorder may occur, causing one of the indoor units to fall short of the rated capacity.
- •A riser pipe must be a part of the main. A branching pipe set should be installed horizontally at a point as close to an indoor unit as possible. A branching part must be dressed with a heat-insulation material supplied as an accessory.
- •For the details of installation work required at and near a branching area, see the installation manual supplied with your branching pipe set.

3) Refrigerant pipe wall thickness and material

• Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pipe size.

Pipe diameter [mm]	6.35	9.52	12.7	15.88
Minimum pipe wall thickness [mm]	0.8	0.8	0.8	1.0
Pipe material*	0-type pipe	0-type pipe	0-type pipe	0-type pipe

NOTE Select pipes having a wall thickness larger than the specified minimum pipe thickness.

*Phosphorus deoxidized seamless copper pipe C1220T, JIS H3300

-0.4

9.1

13.2

16.6

19.7

Flared pipe end: A (mm)

Copper pipe outer

diameter

 $\phi 6.35$

 $\phi 9.52$

 ϕ 12.7

 ϕ 15.88

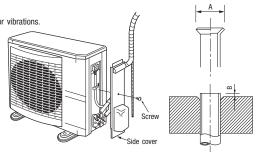
4) On-site piping work

! IMPORTANT

• Take care so that installed pipes may not touch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

How to remove the side cover | Please remove the screw of a side cover and remove to the front.

- Carry out the on site piping work with the operation valve fully closed.
- Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may not enter the piping.
- Bend a pipe to a radius as large as practical.(R100~R150) Do not bend a pipe repeatedly to correct its form.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge.
- The pipe should be anchored every 1.5m or less to isolate the vibration.
- Tighten a flare joint securely with a double spanner.



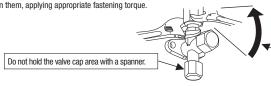
Copper pipe protrusion for flaring: B (mm)						
	Copper pipe outer diameter	In the case of a rigid (clutch) type				
		With an R410A tool	With a conventional tool			
	ϕ 6.35	0~0.5	0.7~1.3			
	ϕ 9.52					
	φ12.7					
	ϕ 15.88					

CAUTION

Do not apply force beyond proper fastening torque in tightening the flare nut.

Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

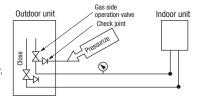
	Operation valve size (mm)	Tightening torque (N-m)	Tightening angle (°)	Recommended length of a tool handle (mm)		
Γ	φ6.35 (1/4")	14~18	45~60	150		
	φ9.52 (3/8")	34~42	30~45	200		
	φ12.7 (1/2")	49~61	30~45	250		
	φ15.88(5/8")	68~82	15~20	300		



Use a torque wrench, If a torque wrench is not available, fasten the flare nut manually first and then tighten it further, using the left table as a guide.

5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the operation valve's check joint equipped on the outdoor unit side. While conducting a test, keep the operation valve shut all the time.
- a) Raise the pressure to 0.5 MPa, and then stop. Leave it for five minutes to see if the pressure drops.
- b) Then raise the pressure to 1.5 MPa, and stop, Leave it for five more minutes to see if the pressure drops,
- c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure.
- d) If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient Temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.
- e) If a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air-tightness test again.
- ② In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.



6) Evacuation

<Work flow>

When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rise.

Check the system for a leaky point and then draw air to create a vacuum again.

Run the vacuum pump for at least one hour after the vacuum gauge shows -101kPa or lower. (-755mmHg or lower)

Confirm that the vacuum gauge indicator does not rise even if the system is left for one hour or more.

Pay attention to the following points in addition to the above for the R410A and compatible machines.

Airtighteness test completed

Vacuuming begins

Vacuuming completed

Vacuum gauge check

Fill refrigerant

- OTo prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).
- OUse a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

	Standard refrigerant charge volume (kg)	Pipe length for standard refrigerant charge volume (m)	Additional charge volume (kg) per meter of refrigerant piping (liquid pipe φ6.35)	Refrigerant volume charged for shipment at the factory (kg)	Installation's pipe length (m) covered without additional refrigerant charge
Model 71V	2.35	20	0.06	2.95	30

- This unit contains factory charged refrigerant covering 30m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 30m refrigerant piping. When refrigerant piping exceeds 30m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 30m.
- When refrigerant piping is shorter than 3m, reduce refrigerant by 1kg from the factory charged volume and adjust to 1.95kg.
- If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. For further information, please see "6. UTILIZATION OF EXISTING PIPING."

Formula to calculate the volume of additional refrigerant required

Additional charge volume (kg) = { Main pipe length (m) - Length covered without additional charge 30 (m) } x 0.06 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m)

*When an additional charge volume calculation result is negative, it is not necessary to charge refrigerant additionally.

- For an installation measuring 3m or longer, but not more than 20m, in pipe length, please charge the standard refrigerant charge volume, when you recharge refrigerant after servicing etc.
- When refrigerant piping is shorter than 3m, recharge 1.95kg of refrigerant.

Ex.) For a 10m installation, charge 2.35 kg of refrigerant.

For a 25m installation, charge "2.35 + (25-20) x 0.06 = 2.65 kg."

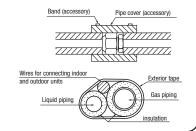
(2) Charging refrigerant

- Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.
- Charge refrigerant always from the liquid side service port with the operation valve shut. When you find it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid-phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.
- In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.
- When refrigerant is charged with the unit being run, complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel.

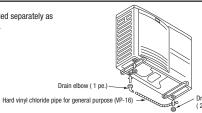
8) Heating and condensation prevention

- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
 - Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
- (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration.
 - All gas pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
 - Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
 - Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
 - Although it is verified in a test that this air conditioning unit shows satisfactory performance under JIS condensation test conditions, both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.



3. DRAIN PIPING WORK

Execute drain piping by using a drain elbow and drain grommets supplied separately as
optional parts, where water drained from the outdoor unit is a problem.



- There are 3 drain holes provided on the bottom plate of an outdoor unit to discharge condensed water.
- When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.
- Connect a drain elbow as shown in the illustration and close the other two drain holes with grommets.

4. ELECTRICAL WIRING WORK For details of electrical cabling, refer to the indoor unit installation manual.

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country.

Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical installations in the country,

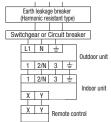
- •Do not use any supply cord lighter than one specified in parentheses for each type below.
- braided cord (code designation 60245 IEC 51),
- ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
- flat twin tinsel cord (code designation 60227 IEC 41);
- Do not use anything lighter than polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use.
- Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
- If impropery grounded, an electric shock or malfunction may result.
- A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
- •The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an acccident such as an electric shock or a fire.
- Do not turn on the power until the electrical work is completeted.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overheat accident)
- For power supply cables, use conduits.
- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises.
- Fasten cables so that may not touch the piping, etc.
- •When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit. if water penetrates into the box.)
- •Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable.

Power cable, indoor-outdoor connecting wires

Always perform grounding system installation work with the power cord unplugged.



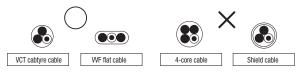
Always use an earth leakage circuit breaker designed for inverter circuits to prevent a faulty operation.



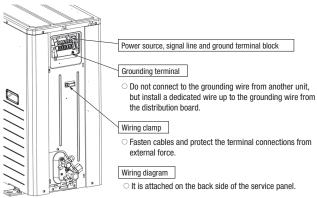
Model	Power source	Power cable thickness (mm²)	MAX. over current (A)	Cable length (m)	Grounding wire thickness	Indoor-outdoor wire thickness X number
71V	Single phase 3 wire 220-240V 50Hz	3.5	17	21	φ1.6mm	φ1.6mm x 3

- T1V Single phase 3 wire 220-240V 3.5 17 21 \$\phi_{1.6mm}\$ \$\phi_{1.6mm}\$ x 3 \$

 The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction instructions of the indoor unit.
- Switchgear or Circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country.
- •The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, follow the internal cabling regulations. Adapt it to the regulation in effect in each country.



- Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
- In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
- Grounding terminals are provided in the control box.



- Before conduct a test run, do not fail to make sure that the operation valves are closed.
- Turn on power 6 hours prior to a test run to energize the crank case heater.
- In case of the first operation after turning on power, even if the unit does not move for 30 minutes, it is not a breakdown.
- Always give a 3-minute or longer interval before you start the unit again whenever it is stopped.
- Removing the service panel will expose high-voltage live parts and high-temperature parts, which are guite dangerous. Take utmost care not to incur an electric shock or burns. Do not leave the unit with the service panel open.

♠ CAUTION

- When you operate switches for on-site setting, be careful not to touch a live part.
- You cannot check discharge pressure from the liquid operation valve charge port.
- The 4-way valve (20S) is energized during a heating operation.
- When power supply is cut off to reset the unit, give 3 or more minutes before you turn on power again after power is cut off.

If this procedure is not observed in turning on power again, "E-5" (Communication error) may occur.

About insulation resistance

 An insulation resistance value may drop to several M ohms immediately after installation or when the unit is left for a long time without power, because refrigerant is gathered in the compressor. When the earth-leakage breaker is actuated due to low insulation resistance, please check the following:

Cooling during a test run

Heating during a test run

Normal or After the test operation

(1) Check whether a normal insulation resistance value is restored about 6 hours after power is turned. Turning on power will energize the compressor and heat it to evaporate refrigerant gathered in it.

SW-5-3 SW-5-4

ON

0FF

OFF

ON

(2) Check whether the earth-leakage breaker is a harmonic resistant type.

This unit is equipped with an inverter and therefore, the use of a harmonic resistant type earth-leakage breaker is necessary to prevent a false actuation

1) Test run method

Please remove a side cover.

- (1) A test run can be initiated from an outdoor unit by using SW5-3 and SW5-4 for on-site setting.
- (2) Switching SW5-3 to ON will start the compressor
- (3) The unit will start a cooling operation, when SW5-4 is OFF, or a heating operation, when SW5-4 is ON.
- (4) Do not fail to switch SW5-3 to OFF when a test run is completed.
- * In case of the first operation after turning on the power supply, when the unit runs in the cooling mode at outside temperature 5°C or lower, it automatically changes into the cooling mode after it runs in the heating mode for 10 minutes.

2) Checking the state of the unit in operation

Please remove a service panel.

Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking

	Check joint of the pipe	Charge port of the gas operation valve
Cooling operation	Discharge pressure (High pressure)	Suction pressure (Low pressure)
Heating operation	Suction pressure (Low pressure)	Discharge pressure (High pressure)

3) Setting SW3-1, SW3-2.

Please remove a service panel.

- (1) Defrost control switching (SW3-1)
 - ·When this switch is turned ON, the unit will run in the defrost mode more frequently.
 - -Set this switch to ON, when installed in a region where outdoor temperature falls below zero during the season the unit is run for a heating operation.
- (2) Snow guard fan control (SW3-2)
 - *When this switch is turned on, the outdoor unit fan will run for 30 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running.
- ·When the unit is used in a very snowy country, set this switch to ON.

4) Failure diagnosis in a test run

Error indicated on the	Printed circuit board LED	(The cycles of 5 seconds)	Failure event	Action
remote control unit	Red LED	Green LED	raliule event	ACTION
E34	Blinking once	Blinking continuously	Open phase	Check power cables for loose contact or disconnection
E40	Blinking once	Blinking continuously	63H1 actuation or operation with operation valves shut (occurs mainly during a heating operation)	Check whether the operation valves are open. If an error has been canceled when 3 minutes have elapsed since
E49	Blinking once	Blinking continuously	Low pressure error or operation with operation valves shut (occurs mainly during a cooling operation)	a compressor stop, you can restart the unit by effecting Check Reset from the remote control unit.

• If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

5) The state of the electronic expansion valve.

The following table illustrates the steady states of the electronic expansion valve

	When power is turned on	When the unit com	es to a normal stop	When the unit comes	to an abnormal stop
	when power is turned on	During a cooling operation	During a heating operation	During a cooling operation	During a heating operation
Valve for a cooling operation	Complete shut position	Complete shut position	Full open position	Full open position	Full open position
Valve for a heating operation	Full open position	Full open position	Complete shut position	Full open position	Full open position

6) Heed the following on the first operation after turning on the circuit breaker.

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can continue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure

A failure to observe these instructions can result in a compressor breakdown.

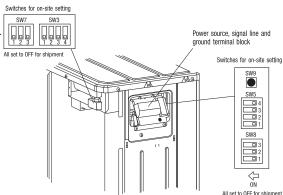
Items to checkbefore a test run

 When you leave the outdoor unit with power supplied to it. be sure to close the panel.

Item No.used in the installation manual	Item	Check item	Check
		If brazed, was it brazed under a nitrogen gas flow?	
	Refrigerant	Were air-tightness test and vacuum extraction surely performed?	
2	plumbing	Are heat insulation materials installed on both liquid and gas pipes?	
		Are operation valves surely opened for both liquid and gas systems?	
		Have you recorded the additional refrigerant charge volume and refrigerant pipe length on the panel's label?	
	Electric wiring	Is the unit free of cabling errors such as uncompleted connection, an absent or reversed phase?	
		Are properly rated electrical equipments used for circuit breakers and cables?	
		Doesn't cabling cross-connect between units, where more than one unit are installed?	
		Aren't indoor-outdoor signal wires connected to remote control wires?	
4		Do indoor-outdoor connecting cables connect between the same terminal numbers?	
		Are either VCT cabtyre cables or WF flat cables used for indoor-outdoor connecting cables?	
		Does grounding satisfy the D type grounding (type III grounding) requirements?	
		Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire?	
		Are cables free of loose screws at their connection points?	
		Are cables held down with cable clamps so that no external force works onto terminal connections?	
	lands on south	Is indoor unit installation work completed?	
_	Indoor unit	Where a face cover should be attached onto an indoor unit, is the face cover attached to the indoor unit?	

Test run procedure • Always carry out a test run and check the following in order as listed.

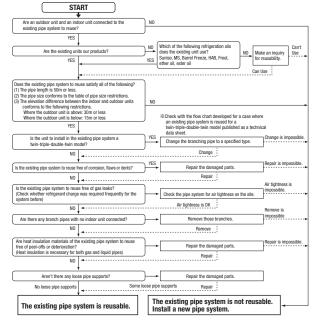
Turn	The contents of operation	Check
1	Open the gas side operation valve fully.	
2	Open the liquid side operation valve fully.	
3	Close the panel.	
4	Where a remote control unit is used for unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control unit.	
(5)	SW5-3 / SW5-4 OFF: the unit will start a cooling operation.	
(3)	SW5-3 / SW5-4 ON: the unit will start a heating operation.	
6	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
7	Place your hand before the indoor unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.	
8	Make sure that a red LED is not blinking.	
9	When you complete the test run, please turn on SW5-3 for 1 second and be sure to end a test run.	
(10)	Where options are used, check their operation according to the respective instruction manuals.	



※1 Do not operate SW3-3, SW5-1, SW5-2, SW8. *2 Refer to TECHNICAL MANUAL about SW9. (Pump down SW) 13 • PAC-T-197

6. UTILIZATION OF EXISTING PIPING.

Check whether an existing pipe system is reusable or not by using the following flow chart.



↑ WARNING

<Where the existing unit can be run for a cooling operation.>

Carry out the following steps with the excising unit (in the order of (1), (2), (3) and (4))

- (1) Run the unit for 30 minutes for a cooling operation.
- (2) Stop the indoor fan and run the unit for 3 minutes for a cooling operation (returning liquid)
- (3) Close the liquid side operation valve of the outdoor unit and pump down (refrigerant recovery)
- (4) Blow with nitrogen gas.

 If discolored refrigeration oil or any foreign matters is discharged by the blow, wash the pipe system or install a new pipe system.
 - For the flare nut, do not use the old one, but use the one supplied with the outdoor unit. Process a flare to the dimensions specified for R410A.
 - **Turn on-site setting switch SW8-1** to the ON position. (Where the gas pipe size is ϕ 19.05)

<Table of pipe size restrictions>

②:Standard pipe size ○:Usable △:Restricted to shorter pipe length limits Cool ↓: Cooling capacity drop

Additio	nal charge volume per meter of pipe	0.06	ikg/m	0.08kg/m
Dina sina	Liquid pipe	φ9.52	φ9.52	φ12.7
Pipe size	Gas pipe	φ12.7	φ15.88	φ15.88
	Usability	Cool ↓	0	\triangle
71V	Maximum one-way pipe length	35	50	25
	Length covered without additional charge	30	30	15

- The pipe length should be at least 3m. If the pipe length is shorter than 3m, the quantity of refrigerant needs to be reduced. Please consult with our distributor in the area, if you need to recover refrigerant and charge it again.
- Any combinations of pipe sizes not listed in the table are not usable.

<Pipe system after the branching pipe>

○:Standard pipe size ○:Usable

Additional	charging amount of ref	efrigerant per 1 m 0.06kg/m		
Dino oizo	Liquio	Liquid pipe		1.52
Pipe size	Gas	pipe	φ12.7 φ15.8	
Model	Combination type	Combination of capacity		
FDC71	Twin	40+40	0	0

 Any combinations of pipe sizes not listed in the tableare not usable.

<The model types of existing units of which branching pipes are reusable.>

The branching pipes used with models other than those listed above are not reusable.

Use our genuine branching pipes for R410A.

Formula to calculate additional charge volume

Additional charge volume (kg) = {Main pipe length (m) — Length covered without additional charge shown in the table (m)) ×
Additional charge volume per meter of pipe shown in the table (kg/m) +
Total length of branch pipes (m) × Additional charge volume per meter of pipe shown in the table (kg/m)

* If you obtain a negative figure as a result of calculation, no additional refrigerant needs to be charged.

Example) When an 71V (single installation) is installed in a 30m long existing pipe system (liquid ϕ 12.7, gas ϕ 15.88), the quantity of refrigerant to charge additionally should be (30m-15m) x 0.08kg/m = 1.2 kg.

Example) When an 71V (twin installation) is installed in a 30m long existing pipe system

(main pipe length 20m, liquid ϕ 12.7, gas ϕ 15.88; pipe length after branching pipe 5m x 2, liquid ϕ 9.52, gas ϕ 12.7), the quantity of refrigerant to charge additionally should be (20m-15m) x 0.08kg/m + 5m x 2 x 0.06kg/m = 1.0 kg.

<Where the existing unit cannot be run for a cooling operation.>

Wash the pipe system or install a new pipe system.

• If you choose to wash the pipe system, contact our distributor in the area.

Inverter driven single split PAC

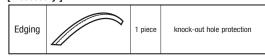
100VNX~140VNX.100VSX~140VSX Designed for R410A refrigerant

This installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 212.

When install the unit, be sure to check whether the selection of installation place, power supply specifications, usage limitation (piping length, height differences between indoor and outdoor units, power supply voltage and etc.) and installation spaces

Check before installation work

[Accessory]



- Model name and power source
- Refrigerant piping length
- Piping, wiring and miscellaneous small parts
- Indoor unit installation manual

SAFETY PRECAUTIONS

- We recommend you to read this "SAFETY PRECAUTIONS" carefully before the installation work in order to gain full advantage of the functions of the unit and to avoid malfunction due to mishandling.
- The precautions described below are divided into ⚠ WARNING and ⚠ CAUTION. The matters with possibilities leading to serious consequences such as death or serious personal injury due to erroneous handling are listed in the AWARNING and the matters with possibilities leading to personal injury or damage of the unit due to erroneous handling including probability leading to serious consequences in some cases are listed in A CAUTION . These are very important precautions for safety. Be sure to observe all of them without fail.
- The meaning of "Marks" used here are as shown below.



Never do it under any circumstance. Always do it according to the instruction



- For 3 phase power source outdoor unit,EN61000-3-2 is not applicable if consent by the utility company or nortification to the utility company is given before usage. • 3 phase power source unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a house-hold appliance it could cause electromagnetic interference.
- 5 and 6 HP units of single phase power source are equipment complying with IEC 61000-3-12.
- Be sure to confirm no anomaly on the equipment by commissioning after completed installation and explain the operating methods as well as the maintenance methods of this equipment to the user according to the owner's manual.
- Keep the installation manual together with owner's manual at a place where any user can read at any time. Moreover if necessary, ask to hand them to a new user

WARNING



Installation must be carried out by the qualified installer.

If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system

- Install the system in full accordance with the instruction manual.
- Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire.
- Use the original accessories and the specified components for installation. If parts other than those prescribed by us are used, it may cause fall of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance, control failure and personal injury.
- When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with ISO5149.

Consult the expert about prevention measures. If the density of refrigerant exceeds the limit in the event of leakage, lack of oxygen can occur, which can cause serious accidents

- Ventilate the working area well in the event of refrigerant leakage during installation.
- If the refrigerant comes into contact with naked flames, poisonous gas is p
- After completed installation, check that no refrigerant leaks from the system.

Loose connections or cable mountings can cause anomalous heat production or fire.

If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced

- Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid joiting out of alignment, be sure to hang up the unit at 4-point support. An improper manner of portage such as 3-point support can cause death or serious personal injury due to falling of the unit
- Install the unit in a location with good support.

Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.

- Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds. Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.
- The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit.
- Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire,
- Re sure to shut off the nower before starting electrical work.
- Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment.
- Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work. Unconformable cables can cause electric leak, anomalous heat production or fire.
- Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent
- Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly. Incorrect installation may result in overheating and fire.



- Do not perform brazing work in the airtight room It can cause lack of oxygen.
- Use the prescribed pipes, flare nuts and tools for R410A.
- Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit.
- Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to tighten the flare nut too much

Loose flare connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which may result in lack of oxygen

• Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation.

If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked into refrigerant circuit, which can cause burst or personal injury due to anomalously high pressure in the refrigerant

- Only use prescribed optional parts. The installation must be carried out by the qualified installer.
- If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- Do not perform any change of protective device itself or its setup condition The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non specified component can cause fire or burst
- Be sure to switch off the power supply in the event of installation, inspection or servicing.
- If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.
- Consult the dealer or an expert regarding removal of the unit Incorrect installation can cause water leaks, electric shocks or fire
- Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation.

If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked, which can cause burst or personal injury due to anomalously high pressure in the refrigerant circuit

- Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.
- If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and
- Do not run the unit with removed panels or protections

Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric

- Be sure to fix up the service panels.
- Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water.
- Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair. If you repair or modify the unit, it can cause water leaks, electric shocks or fire.



WARNING



Installation must be carried out by the qualified installer.

If you install the system by yourself, it may cause serious trouble such as water leaks, electric shocks, fire and personal injury, as a result of a system malfunction

- Install the system in full accordance with the instruction manual.
- Incorrect installation may cause bursts, personal injury, water leaks, electric shocks and fire. Use the original accessories and the specified components for installation.

If parts other than those prescribed by us are used, it may cause fall of the unit, water leaks, electric shocks, fire, refrigerant leak, substandard performance control failure and personal injury

■ When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage accordance with ISO5149

Consult the expert about prevention measures. If the density of refrigerant exceeds the limit in the event of leakage, lack of oxygen can occur, which can cause serious accidents.

- Ventilate the working area well in the event of refrigerant leakage during installation.
- If the refrigerant comes into contact with naked flames, poisonous gas is produced.
- After completed installation, check that no refrigerant leaks from the system. If refrigerant leaks into the room and comes into contact with an oven or other hot surface, poisonous gas is produced.
- Hang up the unit at the specified points with ropes which can support the weight in lifting for portage. And to avoid jolting out of alignment, be sure to hang up the unit at 4-point support.

An improper manner of portage such as 3-point support can cause death or serious personal injury due to falling of the unit

- Install the unit in a location with good support.
- Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.
- Ensure the unit is stable when installed, so that it can withstand earthquakes and strong winds. Unsuitable installation locations can cause the unit to fall and cause material damage and personal injury.
- The electrical installation must be carried out by the qualified electrician in accordance with "the norm for electrical work" and "national wiring regulation", and the system must be connected to the dedicated circuit. Power supply with insufficient capacity and incorrect function done by improper work can cause electric shocks and fire,
- Be sure to shut off the power before starting electrical work.
- Failure to shut off the power can cause electric shocks, unit failure or incorrect function of equipment
- Be sure to use the cables conformed to safety standard and cable ampacity for power distribution work. Unconformable cables can cause electric leak, anomalous heat production or fire.
- Use the prescribed cables for electrical connection, tighten the cables securely in terminal block and relieve the cables correctly to prevent overloading the terminal blocks.

Loose connections or cable mountings can cause anomalous heat production or fire.

Arrange the wiring in the control box so that it cannot be pushed up further into the box. Install the service panel correctly. Incorrect installation may result in overheating and fire



Do not perform brazing work in the airtight room

specified component can cause fire or burst

- It can cause lack of oxygen
- Use the prescribed pipes, flare nuts and tools for R410A.

Using existing parts (for R22 or R407C) can cause the unit failure and serious accidents due to burst of the refrigerant circuit. ■ Tighten the flare nut by using double spanners and torque wrench according to prescribed method. Be sure not to

Loose flare connection or damage on the flare part by tightening with excess torque can cause burst or refrigerant leaks which may result in lack of oxygen.

 Do not open the service valves for liquid line and gas line until completed refrigerant piping work, air tightness test and evacuation

If the compressor is operated in state of opening service valves before completed connection of refrigerant piping work, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked into refrigerant circuit, which can cause burst or personal injury due to anomalously high pressure in the refrigerant

- Only use prescribed optional parts. The installation must be carried out by the qualified installer.
- If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- Do not perform any change of protective device itself or its setup condition The forced operation by short-circuiting protective device of pressure switch and temperature controller or the use of non
- Be sure to switch off the power supply in the event of installation, inspection or servicing.
- If the power supply is not shut off, there is a risk of electric shocks, unit failure or personal injury due to the unexpected start of fan.
- Consult the dealer or an expert regarding removal of the unit.

Incorrect installation can cause water leaks, electric shocks or fire

• Stop the compressor before closing valve and disconnecting refrigerant pipes in case of pump down operation. If disconnecting refrigerant pipes in state of opening service valves before compressor stopping, you may incur frost bite or injury from an abrupt refrigerant outflow and air can be sucked, which can cause burst or personal injury due to anomalously high pressure in the refrigerant circuit



Ensure that no air enters in the refrigerant circuit when the unit is installed and removed.

If air enters in the refrigerant circuit, the pressure in the refrigerant circuit becomes too high, which can cause burst and personal injury.

Do not run the unit with removed panels or protections

Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric

- Be sure to fix up the service panels.
- Incorrect fixing can cause electric shocks or fire due to intrusion of dust or water.
- Do not perform any repairs or modifications by yourself. Consult the dealer if the unit requires repair. If you repair or modify the unit, it can cause water leaks, electric shocks or fire.



Carry out the electrical work for ground lead with care

Do not connect the ground lead to the gas line, water line, lightning conductor or telephone line's ground lead. Incorrect grounding can cause unit faults such as electric shocks due to short-circuiting. Never connect the grounding wire to a gas pipe because if gas leaks it could cause explosion or ignition.



Use the circuit breaker for all pole with correct capacity. Using the incorrect circuit breaker, it can cause the unit malfunction and fire

- Install isolator or disconnect switch on the power supply wiring in accordance with the local codes and regulations.
- The isolator should be locked in accordanced with EN60204-1
- Take care when carrying the unit by hand.

If the unit weights more than 20kg, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the unit by hand. Use gloves to minimize the risk of cuts by the aluminum fins.

Dispose of any packing materials correctly.

Any remaining packing materials can cause personal injury as it contains nails and wood. And to avoid danger of suffocation, be sure to keep the plastic wrapper away from children and to dispose after tear it up.

Pay attention not to damage the drain pan by weld spatter when welding work is done near the indoor unit.

If weld spatter entered into the indoor unit during welding work, it can cause pin-hole in drain pan and result in water leakage. To prevent such damage, keep the indoor unit in its packing or cover it.

Be sure to insulate the refrigerant pipes so as not to condense the ambient air moisture on them.

Insufficient insulation can cause condensation, which can lead to moisture damage on the ceiling, floor, furniture and any other valuables.

Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.

If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.

 Perform installation work properly according to this installation manual. Improper installation can cause abnormal vibrations or increased noise generation



Earth leakage breaker must be installed

- If the earth leakage breaker is not installed, it can cause fire or electric shocks.
- Do not use any materials other than a fuse with the correct rating in the location where fuses are to be used. Connecting the circuit with copper wire or other metal thread can cause unit failure and fire.
- Do not install the unit near the location where leakage of combustible gases can occur.
- If leaked pases accumulate around the unit, it can cause fire
- Do not install the unit where corrosive gas (such as sulfurous acid gas etc.) or combustible gas (such as thinner and petroleum gases) can accumulate or collect or where volatile combustible substances are handled
- Corrosive gas can cause corrosion of heat exchanger, breakage of plastic parts and etc. And combustible gas can cause fire.
- Secure a space for installation, inspection and maintenance specified in the manual. Insufficient space can result in accident such as personal injury due to falling from the installation place.
- When the outdoor unit is installed on a roof or a high place, provide permanent ladders and handrails along the access route and fences and handrails around the outdoor unit. If safety facilities are not provided, it can cause personal injury due to falling from the installation place.
- Do not install nor use the system close to the equipment that generates electromagnetic fields or high frequency harmonics Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.
- Do not install the outdoor unit in a location where insects and small animals can inhabit. Insects and small animals can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean.



CAUTION

• Do not use the base flame for outdoor unit which is corroded or damaged due to long periods of operation.

Using an old and damage base flame can cause the unit falling down and cause personal injury.

Do not install the unit in the locations listed below

- Locations where carbon fiber, metal powder or any powder is floating Locations where any substances that can affect the unit such as sulphide gas, chloride gas, acid and alkaline can occur.
- Vehicles and ships
- Locations where cosmetic or special sprays are often used.
- Locations with direct exposure of oil mist and steam such as kitchen and machine plant.
- · Locations where any machines which generate high frequency harmonics are used Locations with salty atmospheres such as coastlines.
- Locations with heavy snow (If installed, be sure to provide base flame and snow hood mentioned in the manual)
- · Locations where the unit is exposed to chimney smoke
- Locations at high altitude (more than 1000m high)
- · Locations with ammonic atmospheres Locations where heat radiation from other heat source can affect the unit
- Locations without good air circulation
- Locations with any obstacles which can prevent inlet and outlet air of the unit
- Locations where short circuit of air can occur (in case of multiple units installation)
 Locations where strong air blows against the air outlet of outdoor unit
- It can cause remarkable decrease in performance, corrosion and damage of components, malfunction and fire.

Do not install the outdoor unit in the locations listed below.

- Locations where discharged hot air or operating sound of the outdoor unit can bother neighborhood.
 Locations where outlet air of the outdoor unit blows directly to an animal or plants. The outlet air can affect adversely to the plant etc.
- · Locations where vibration can be amplified and transmitted due to insufficient strength of structure. Locations where vibration and operation sound generated by the outdoor unit can affect seriously, (on the wall or at the place near bed room).
- Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
- · Locations where drainage cannot run off safely
- It can affect surrounding environment and cause a claim
- Do not use the unit for special numbers such as storing foods cooling precision instruments and preservation of animals, plants or art.
- Do not touch any buttons with wet hands
- Do not touch any refrigerant pipes with your hands when the system is in operation.
- During operation the refrigerant pipes become extremely hot or extremely cold depending the operating condition, and it can cause burn injury or frost injury.
- Do not clean up the unit with water
- It can cause electric shocks
- Do not operate the outdoor unit with any article placed on it.
- You may incur property damage or personal injure from a fall of the article.
- Do not step onto the outdoor unit.
- You may incur injury from a drop or fall.

Notabilia as a unit designed for R410A

- Do not use any refrigerant other than R410A. R410A will rise to pressure about 1.6 times higher than that of a conventional refrigerant. A cylinder containing R410A has a pink indication mark on the top.
- A unit designed for R410A has adopted a different size indoor unit operation valve charge port and a different size check joint provided in the unit to prevent the charging of a wrong refrigerant by mistake. The processed dimension of the flared part of a refrigerant pipe and a flare nut's parallel side measurement have also been altered to raise strength against pressure. Accordingly, you are required to arrange dedicated R410A tools listed in the table on the right before installing or servicing this unit.
- Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
- In charging refrigerant, always take it out from a cylinder in the liquid phase.
- All indoor units must be models designed exclusively for R410A. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)

		Dedicated R410A tools	
	a)	Gauge manifold	
	b)	Charge hose	
	c)	Electronic scale for refrigerant charging	
	d)	Torque wrench	
Г	e)	Flare tool	
	f)	Protrusion control copper pipe gauge	
	g)	Vacuum pump adapter	
	h)	Gas leak detector	

1. HAULAGE AND INSTALLATION (Take particular care in carrying in or moving the unit, and always perform such an operation with two or more persons.)

When a unit is hoisted with slings for haulage, take into consideration the offset of its gravity center position.

If not properly balanced, the unit can be thrown off-balance and fall.

1) Delivery

- Deliver the unit as close as possible to the installation site before removing it from the packaging.
- When some compelling reason necessitates the unpacking of the unit before it is carried in, use nylon slings or protective wood pieces so as not to damage the unit by ropes lifting it.



2) Portage

• The right hand side of the unit as viewed from the front (diffuser side) is heavier. A person carrying the right hand side must take heed of this fact. A person carrying the left hand side must hold with his right hand the handle provided on the front panel of the unit and with his left hand the corner column section.



3) Selection of installation location for the outdoor unit

Be sure to select a suitable installation place in consideration of following conditions.

- O A place where it is horizontal, stable and can endure the unit weight and will not allow vibration transmittance of the unit.
- O A place where it can be free from possibility of bothering neighbors due to noise or exhaust air from the unit
- O A place where the unit is not exposed to oil splashes.
- O A place where it can be free from danger of flammable gas leakage.
- O A place where drain water can be disposed without any trouble.
- O A place where the unit will not be affected by heat radiation from other heat source.
- O A place where snow will not accumulate.
- O A place where the unit can be kept away 5m or more from TV set and/or radio receiver in order to avoid any radio or TV interference.
- O A place where good air circulation can be secured, and enough service space can be secured for maintenance and service of the unit safety.
- O A place where the unit will not be affected by electromagnetic waves and/or high-harmonic waves generated by other equipment.
- O A place where chemical substances like sulfuric gas, chloric gas, acid and alkali (including ammonia), which can harm the unit, will not be generated and not remain.
- O A place where strong wind will not blow against the outlet air blow of the unit.

4) Caution about selection of installation location

- (1) If the unit is installed in the area where the snow will accumulate, following measures are required. The bottom plate of unit and intake, outlet may be blocked by snow.
- that the bottom is higher than snow cover surface.



2.Provide a snow hood to the outdoor unit on site Regarding outline of a snow hood, refer to our technical



3.Install the unit under eaves or providen the roof on site



Since drain water generated by defrost control may freeze, following measures are required.

- Don't execute drain piping work by using a drain elbow and drain grommets (optional parts). [Refer to Drain piping work.]
- Recommend setting Defrost Control (SW3-1) and Snow Guard Fan Control (SW3-2), [Refer to Setting SW3-1, SW3-2,]

(2) If the unit can be affected by strong wind, following measures are required.

Strong wind can cause damage of fan (fan motor), or can cause performance degradation, or can trigger anomalous stop of the unit due to rising of high pressure.

1.Install the outlet air blow side of the unit to face a wall of building, or provide a fence or a windbreak screen.



the unit in a position perpendicular to the direction of wind.



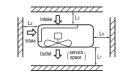
2.Install the outlet air blow side of 3.The unit should be installed on the stable and level foundation. If the foundation is not level tie down the unit with wires.



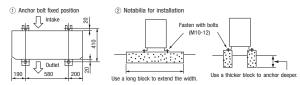
5) Installation space

- Walls surrounding the unit in the four sides are not acceptable.
- There must be a 1-meter or larger space in the above.
- Where a danger of short-circuiting exists, install guide louvers.
- When more than one unit are installed, provide sufficient intake space consciously so that short-circuiting may not occur.
- Where piling snow can bury the outdoor unit, provide proper snow guards.
- A barrier wall placed in front of the exhaust diffuser must not be higher than the unit.

			(mm)
Size Example installation	I	II	Ш
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	5	5	5



6) Installation



- In installing the unit, fix the unit's legs with bolts specified on the left.
- The protrusion of an anchor bolt on the front side must be kept within 15 mm.
- Securely install the unit so that it does not fall over during earthquakes or strong winds, etc.
- Refer to the left illustrations for information regarding concrete foundations.
- Install the unit in a level area. (With a gradient of 5 mm or less.)
- Improper installation can result in a compressor failure, broken piping within the unit and abnormal noise generation.

7) To run the unit for a cooling operation, when the outdoor temperature is -5°C or lower.

• When the outdoor air temperature is -5°C or lower, provide a snow hood to the outdoor unit on site. So that strong wind will not blow against the outdoor heat exchanger directly. Regarding outline of a snow hood, refer to our technical manual.

2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

- Check the following points in light of the indoor unit specifications and the installation site.
 Observe the following restrictions on unit installation and use. Improper installation can result in a compressor failure or performance degradation.

						Marks appearting in the drawing	
Descriptions		One-way pipe length difference	from the first branching po	oint to the indoor u	nit	< 3m	≥ 3m
Descriptions	Mode	el for outdoor units	Dimensional limitations	Single type	Twin type	Triple type A	Triple type B
	100VN,125VN,	100VS,125VS	≤ 50m			-	-
One-way pipe length of	140VN,140VS		≥ oum	, I		L+L1+L2+L3	L+La+L1+L2+L3
refrigerant piping	100VNX,125VN	IX,100VSX,125VSX	≤ 100m] '	L+L1+L2	_	-
	140VNX,140VS	SX	= 100III			L+L1+L2+L3	L+La+L1+L2+L3
	100VN,125VN,	100VS,125VS	≤ 50m			-	-
	140VN,140VS		≥ oum			L	L
Main pipe length	100VNX,125VN	IX,100VSX,125VSX	≤ 100m	_	L	_	-
	140VNX,140VS	SX	≥ 100M			L	L
One-way pipe length between the first branching point from to the second branching point			≦ 5m	_	_	-	La
One-way pipe length after the first branching point	100VN,125VN,1		≤ 30m	_	L1, L2	_	_
branching point	100VNX,125VNX,100VSX,125VSX		= 30III	_	L1, L2	L1, L2, L3	L1 (1)
One-way pipe length after the first branching point and second branching point	140VN,140VS,	140VNX,140VSX	≦ 27m	-	-	_	La+L2, La+L3(1)
One-way pipe length difference	Twin type		≤ 10m			_	
from the first branching point to the indoor unit	Triple type	140VN,140VS,	≦ 3m	. –	L1-L2	L1-L2 , L2-L3 , L3-L1	_
the indoor unit	Triple type	140VNX,140VSX	≦ 10m			_	L-(La+L2), L1-(La+L3) (1)
One-way pipe length difference from the second branching point to the indoor unit	140VN,140VS, 140VNX,140VS		≦ 10m	_	_	-	L2-L3
Elevation difference between	When the outd	oor unit is positioned higher,	≤ 30m	Н	н	н	н
indoor and outdoor units	When the outd	oor unit is positioned lower,	≦ 15m	n	п		"
Elevation difference between indoor units			≤ 0.5m	_	h	h1, h2, h3	h1, h2, h3

⚠ CAUTION

- The use restrictions appearing in the table above are applicable to the standard pipe size combinations shown in the table below. Where an existing pipe system is utilized, different one-way pipe length restrictions should apply depending on its pipe size. For more information, see "6. UTILIZATION OF EXISTING PIPING."
- With the triple pipe connection, the way of use is different when the difference of one-way pipe length after the first branching point is 3m to 10m. For details, refer to the above table and right figure.

Note (1) Install the indoor units so that L + L1 becomes the longest one-way pipe.

Keep the pipe length difference between L1 and (La + L2) or (La + L3) within 10m.

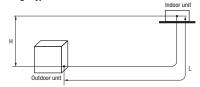
2) Determination of pipe size

• Determine refrigerant pipe size pursuant to the following guidelines based on the indoor unit specifications.

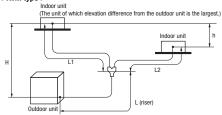
	·	Model	100V	Model	125V	Mode	el 140V
		Gas pipe	Liquid pipe	Gas pipe	Liquid pipe	Gas pipe	Liquid pipe
		φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52
Outde	oor unit connected	Flare	Flare	Flare	Flare	Flare	Flare
Refrigerar	nt piping (branch pipeL)	φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52
	Indoor unit connected	φ15.88	φ9.52	φ15.88	φ9.52	φ15.88	φ9.52
In the case of a single type	Capacity of indoor unit	Mode	I 100V	Mode	I 125V	Mode	I 140V
	Branching pipe set	DIS-	WA1	DIS	-WA1	DIS-	WA1
	Refrigerant piping (branch pipe L1,L2)	φ12.7	φ9.52	φ12.7	φ9.52	φ15.88	φ9.52
In the case of a twin type	Indoor unit connected	φ12.7	φ6.35	φ12.7	φ6.35	φ15.88	φ9.52
	Capacity of indoor unit	Model 50V×2		Model 6	0V×2	Model 71V×2	
	Branching pipe set					DIS-	TA1
	Refrigerant piping (branch pipe L1,L2,L3)					φ12.7	φ9.52
In the case of a triple type A	Indoor unit connected	1 -		_		φ12.7	φ6.35
	Capacity of indoor unit	1				Model 50Vx3	
	Branching pipe set					DIS-	WA1
	Refrigerant piping (branch pipe La)					φ15.88	φ9.52
In the case of a triple type B	Refrigerant piping (branch pipe L1)					φ12.7	φ9.52
	Indoor unit connected		_	-		DIS-	WA1
	Refrigerant piping (branch pipe L2,L3)]				φ12.7	φ9.52
	Indoor unit connected					φ12.7	φ6.35
	Capacity of indoor unit					Model 50V×3	

- CAUTION When the 50V or 60V model is connected as an indoor unit, always use a φ9.52 liquid pipe for the branch (branching pipe indoor unit) and a different diameter joint supplied with the branching pipe set for connection with the indoor unit (ϕ 6.35 on the liquid pipe side).
 - If a ϕ 6.35 pipe is used for connection with a branching pipe, a refrigerant distribution disorder may occur, causing one of the indoor units to fall short of the rated capacity.
 - A riser pipe must be a part of the main. A branching pipe set should be installed horizontally at a point as close to an indoor unit as possible. A branching part must be dressed with a heat-insulation material supplied as an accessory.
 - For the details of installation work required at and near a branching area, see the installation manual supplied with your branching pipe set.

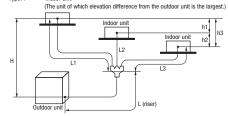
< Single type >



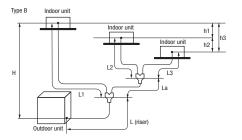
< Twin type >



< Triple type >



< Triple type >

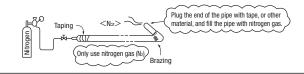


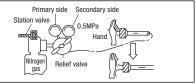
3 • PAC-T-197

About brazing

Brazing must be performed under a nitrogen gas flow.

Without nitrogen gas, a large quantity of foreign matters (oxidized film) are created, causing a critical failure from capillary tube or expansion valve clogging.





3) Refrigerant pipe wall thickness and material

- Select refrigerant pipes of the table shown on the right wall thickness and material as specified for each pine size
- This unit uses R410A. Always use 1/2H pipes having a 1.0mm or thicker wall for φ19.05 or larger pipes, because 0-type pipes do not meet the pressure resistance requirement

Pipe diameter [mm]	6.35	9.52	12.7	15.88	22.22	25.4	28.58
Minimum pipe wall thickness [mm]	0.8	0.8	0.8	1.0	1.0	1.0	1.0
Pipe material*	0-type pipe	0-type pipe	0-type pipe	0-type pipe	1/2H-type pipe	1/2H-type pipe	1/2H-type pipe

Flared pipe end: A (mm)

−0 4

9 1

13.2

16.6

19.7

Copper

pipe outer

diameter

φ6.35

 $\phi 9.52$

φ12.7

φ15.88

NOTE

 Select pipes having a wall thickness larger than the specified minimum pipe thickness.

4) On-site piping work

• Take care so that installed pipes may not touch components within a unit. If touching with an internal component, it will generate abnormal sounds and/or vibrations.

How to remove the service panel

First remove the five screws (x mark) of the service panel and push it down into the direction of the arrow mark and then remove it by pulling it toward you.

- The pipe can be laid in any of the following directions: side right, front, rear and downward.
- Remove a knock-out plate provided on the pipe penetration to open a minimum necessary area and attach an edging material supplied as an accessory by cutting it to an appropriate length before laying a pipe.
- Carry out the on site piping work with the operation valve fully closed.
- Give sufficient protection to a pipe end (compressed and blazed, or with an adhesive tape) so that water or foreign matters may
- Bend a pipe to a radius as large as practical.(R100~R150) Do not bend a pipe repeatedly to correct its form.
- Flare connection is used between the unit and refrigerant pipe. Flare a pipe after engaging a flare nut onto it. Flare dimensions for R410A are different from those for conventional R407C. Although we recommend the use of flaring tools designed specifically for R410A, conventional flaring tools can also be used by adjusting the measurement of protrusion B with a protrusion control gauge.
- The pipe should be anchored every 1.5m or less to isolate the vibration.
- Tighten a flare joint securely with a double spanner.



Do not apply force beyond proper fastening torque in tightening the flare nut.

Fix both liquid and gas service valves at the valve main bodies as illustrated on the right, and then fasten them, applying appropriate fastening torque.

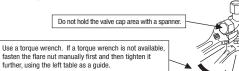
Operation valve size (mm)	Tightening torque (N-m)	Tightening angle (°)	Recommended length of a tool handle (mm)	
φ6.35 (1/4")	14~18	45~60	150	
φ9.52 (3/8")	34~42	30~45	200	
φ12.7 (1/2")	49~61	30~45	250	
φ15.88 (5/8")	68~82	15~20	300	

*Phosphorus deoxidized seamless conner nine, C1220T, JIS H3300

Copper In the case of a rigid (clutch) type With an R410A tool | With a conventional tool diameter $\phi 6.35$ d9.52 0.7~1.3 0~0.5 φ12.7 φ15.88

For side right connection

For front connection



Copper pipe protrusion for flaring: B (mm)

5) Air tightness test

- ① Although outdoor and indoor units themselves have been tested for air tightness at the factory, check the connecting pipes after the installation work for air tightness from the operation valve's check joint equipped on the outdoor unit side. While conducting a test, keep the operation valve shut all the time.
- a) Raise the pressure to 0.5 MPa, and then stop. Leave it for five minutes to see if the pressure drops.
- b) Then raise the pressure to 1.5 MPa, and stop, Leave it for five more minutes to see if the pressure drops,
- c) Then raise the pressure to the specified level (4.15 MPa), and record the ambient temperature and the pressure.
- d) If no pressure drop is observed with an installation pressurized to the specified level and left for about one day, it is acceptable. When the ambient Temperature fall 1°C, the pressure also fall approximately 0.01 MPa. The pressure, if changed, should be compensated for.
- e) If a pressure drop is observed in checking e) and a) d), a leak exists somewhere. Find a leak by applying bubble test liquid to welded parts and flare joints and repair it. After repair, conduct an air-tightness test again.
- 2 In conducting an air-tightness test, use nitrogen gas and pressurize the system with nitrogen gas from the gas side. Do not use a medium other than nitrogen gas under any circumstances.

Outdoor unit operation valve. Indoor unit Check joint

Gas side

6) Evacuation

<Work flow> When the system has remaining moisture inside or a leaky point, the vacuum gauge indicator will rise.

Check the system for a leaky point and then draw air to create a vacuum again.

Run the vacuum pump for at least one hour after the vacuum gauge -101kPa or lower. (-755mmHg or lower)

Confirm that the vacuum gauge indicator does not rise even if the left for one hour or more

	Vacuuming begins	r
ige shows		t
	Vacuuming completed	(
system is		
	Vacuum gauge check	(
	Fill refrigerant	
	, imronigorant	

Airtighteness test completed

Pay attention to the following points in addition to the above for the R410A and compatible machines.

- To prevent a different oil from entering, assign dedicated tools, etc. to each refrigerant type. Under no circumstances must a gauge manifold and a charge hose in particular be shared with other refrigerant types (R22, R407C, etc.).
- Ouse a counterflow prevention adapter to prevent vacuum pump oil from entering the refrigerant system.

7) Additional refrigerant charge

(1) Calculate a required refrigerant charge volume from the following table.

 single type 	onigie type>										
Item Capacity	Standard refrigerant charge volume (kg)		Additional charge volume (kg) per meter of refrigerant piping (liquid pipe)		Installation's pipe length (m) covered without additional refrigerant charge						
100VN~140VN 100VS~140VS	2.0		9.99	3.8	99						
100VNX~140VNX 100VSX~140VSX	27	U	0.06	4.5	30						

Turin triple W turin tune

< iwin, tripie	in, triple, w-twin type>										
Item	Standard refrigerant charge volume (kg)	Pipe length for standard refrigerant charge volume (m)	(ildata bibo)		Refrigerant volume charged for shipment at the factory (kg)	Installation's pipe length (m) covered without additional refrigerant charge					
Capacity		charge volume (m)	Main pipe Branch pip		at the factory (kg)						
100VN~140VN 100VS~140VS	2.0		0.06		3.8						
100VNX~140VNX 100VSX~140VSX	27	U			4.5	30					

- A standard refrigerant charge volume means a refrigerant charge volume for an installation with 0m long refrigerant piping.
- This unit contains factory charged refrigerant covering 30m of refrigerant piping and additional refrigerant charge on the installation site is not required for an installation with up to 30m refrigerant piping. When refrigerant piping exceeds 30m, additionally charge an amount calculated from the pipe length and the above table for the portion in excess of 30m.
- When refrigerant piping is shorter than 3m, reduce refrigerant by 1kg from the factory charged volume and adjust to 2.8kg.
- If an existing pipe system is used, a required refrigerant charge volume will vary depending on the liquid pipe size. For further information, see "6. UTILIZATION OF EXISTING PIPING."

Formula to calculate the volume of additional refrigerant required

Additional charge volume (kg) = { Main pipe length (m) - Length covered without additional charge 30 (m) } x 0.06 (kg/m) + Total length of branch pipes (m) x 0.06 (kg/m)

*When an additional charge volume calculation result is negative,

it is not necessary to charge refrigerant additionally.

To charge refrigerant again, recover refrigerant from the system first and then charge the volume calculated from the above table (Standard refrigerant charge volume + branch pipes charge volume)

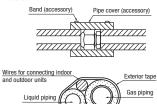
(2) Charging refrigerant

- Since R410A refrigerant must be charged in the liquid phase, you should charge it, keeping the container cylinder upside down or using a refrigerant cylinder equipped with a siphon tube.
- Charge refrigerant always from the liquid side service port with the operation valve shut. When you find it difficult to charge a required amount, fully open the outdoor unit valves on both liquid and gas sides and charge refrigerant from the gas (suction) side service port, while running the unit in the cooling mode. In doing so, care must be taken so that refrigerant may be discharged from the cylinder in the liquid phase all the time. When the cylinder valve is throttled down or a dedicated conversion tool to change liquid-phase refrigerant into mist is used to protect the compressor, however, adjust charge conditions so that refrigerant will gasify upon entering the unit.
- In charging refrigerant, always charge a calculated volume by using a scale to measure the charge volume.
- When refrigerant is charged with the unit being run, complete a charge operation within 30 minutes. Running the unit with an insufficient quantity of refrigerant for a long time can cause a compressor failure.

NOTE Put down the refrigerant volume calculated from the pipe length onto the caution label attached on the back side of the service panel.

8) Heating and condensation prevention

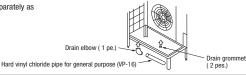
- (1) Dress refrigerant pipes (both gas and liquid pipes) for heat insulation and prevention of dew condensation.
- (2) Use a heat insulating material that can withstand 120°C or a higher temperature. Poor heat insulating capacity can cause heat insulation problems or cable deterioration
 - Improper heat insulation/anti-dew dressing can result in a water leak or dripping causing damage to household effects, etc.
 - All das pipes must be securely heat insulated in order to prevent damage from dripping water that comes from the condensation formed on them during a cooling operation or personal injury from burns because their surface can reach quite a high temperature due to discharged gas flowing inside during a heating operation.
 - Wrap indoor units' flare joints with heat insulating parts (pipe cover) for heat insulation (both gas and liquid pipes).
 - Give heat insulation to both gas and liquid side pipes. Bundle a heat insulating material and a pipe tightly together so that no gaps may be left between them and wrap them together with a connecting cable by a dressing tape.
 - Although it is verified in a test that this air conditioning unit shows satisfactory performance under JIS condensation test conditions, both gas and liquid pipes need to be dressed with 20 mm or thicker heat insulation materials above the ceiling where relative humidity exceeds 70%.



insulation

3. DRAIN PIPING WORK

• Execute drain piping by using a drain elbow and drain grommets supplied separately as optional parts, where water drained from the outdoor unit is a problem.



- There are 3 drain holes provided on the bottom plate of an outdoor unit to discharge condensed water
- O When condensed water needs to be led to a drain, etc., install the unit on a flat base (supplied separately as an optional part) or concrete blocks.
- O Connect a drain elbow as shown in the illustration and close the other two drain holes with arommets

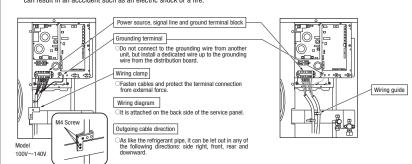
4. ELECTRICAL WIRING WORK For details of electrical cabling, refer to the indoor unit installation manual.

Electrical installation work must be performed by an electrical installation service provider qualified by a power provider of the country. Electrical installation work must be executed according to the technical standards and other regulations applicable to electrical

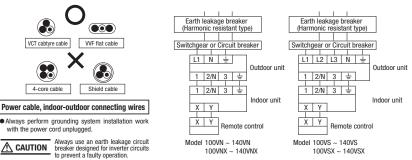
- Do not use any supply cord lighter than one specified in parentheses for each type below.
- braided cord (code designation 60245 IEC 51).
- ordinary tough rubber sheathed cord (code designation 60245 IEC 53)
- flat twin tinsel cord (code designation 60227 IEC 41):

Do not use anything lighter than polychloroprene sheathed flexible cord (code designation 60245 IEC57) for supply cords of parts of appliances for outdoor use.

- Ground the unit. Do not connect the grounding wire to a gas pipe, water pipe, lightning rod or telephone grounding wire.
- If impropery grounded, an electric shock or malfunction may result.
- A grounding wire must be connected before connecting the power cable. Provide a grounding wire longer than the power cable.
- The installation of an impulse withstanding type earth leakage breaker is necessary. A failure to install an earth leakage breaker can result in an acceident such as an electric shock or a fire.



- . Do not turn on the power until the electrical work is completeted.
- •Do not use a condensive capacitor for power factor improvement under any circumstances. (It dose not improve power factor, while it can cause an abnormal overheat accident)
- · For power supply cables, use conduits.
- Do not lay electronic control cables (remote control and signaling wires) and other cables together outside the unit. Laying them together can result in the malfunctioning or a failure of the unit due to electric noises.
- · Fasten cables so that may not touch the piping, etc.
- •When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection and then attach the cover securely. (Improper cover attachment can result in malfunctioning or a failure of the unit, if water penetrates into the box.)
- Always use a three-core cable for an indoor-outdoor connecting cable. Never use a shield cable.
- Connect a pair bearing a common terminal number with an indoor-outdoor connecting wire.
- In cabling, fasten cables securely with cable clamps so that no external force may work on terminal connections.
- Grounding terminals are provided in the control box.



Power cable, indoor-outdoor connecting wires

 Always perform grounding system installation work with the power cord unplugged.



Model	Power source	Power cable thickness(mm²)	MAX. over current (A)	Cable length (m)	Grounding wire thickness	Indoor-outdoor wire thickness \times number
100VN~140VN	Single phase 3 wire					
100VNX	220-240V 50Hz	5.5	24	25		
125VNX,140VNX	220V 60Hz		26	23 φ1.6mm		φ1.6mm x 3
100VS~140VS	3 phase 4 wire	3.5	15	27		
100VSX~140VSX	380V 50Hz	3.5	15	21		

The specifications shown in the above table are for units without heaters. For units with heaters, refer to the installation instructions or the construction

Switchnear or Circuit breaker canacity which is calculated from MAX over current should be chosen along the regulations in each country • The cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, follow the internal cabling regulations. Adapt it to the regulation in effect in each country.

*At the connection with the duct type indoor unit

Model	Power source	Power cable thickness(mm²)	MAX. over current (A)	Cable length (m)	Grounding wire thickness	Indoor-outdoor wire thickness \times number
100VN,100VNX			25	24		
125VN	Single phase 3 wire	5.5	27	22		
140VN	220-240V 50Hz		28	32		
125VNX	220V 60Hz	8	29	31	φ1.6mm	φ1.6mm x 3
140VNX			30	30	Ψ1.0	,
100VS,100VSX	3 phase 4 wire	re	16	26		
125VS,125VSX	380-415V 50Hz	3.5	18	23		
140VS,140VSX	380V 60Hz		19	21		

5. TEST RUN

- Before conduct a test run, do not fail to make sure that the operation valves are closed.
- WARNING Turn on power 6 hours prior to a test run to energize the crank case heater.
 - In case of the first operation after turning on power, even if the unit does not move for 30 minutes, it is not a breakdown.
 - Always give a 3-minute or longer interval before you start the unit again whenever it is stopped.
 - Removing the service panel will expose high-voltage live parts and high-temperature parts, which are quite dangerous. Take utmost care not to incur an electric shock or burns. Do not leave the unit with the service panel open.

♠ CAUTION

- When you operate switches (SW3, SW5) for on-site setting, be careful not to touch a live part.
- You cannot check discharge pressure from the liquid operation valve charge port.
- The 4-way valve (20S) is energized during a heating operation.
- When power supply is cut off to reset the unit, give 3 or more minutes before you turn on power again after power is cut off. If this procedure is not observed in turning on power again, "Communication error between outdoor and indoor unit"

1) Test run method

- (1) A test run can be initiated from an outdoor unit by using SW3-3 and SW3-4 for on-site

0FF Cooling during a test run ON ON Heating during a test run (2) Switching SW3-3 to ON will start the compressor. (3) The unit will start a cooling operation, when SW3-4 is OFF, or a heating operation, when SW3-4 is ON. 0FF Normal or After the test operation (4) Do not fail to switch SW3-3 to OFF when a test run is completed.

2) Checking the state of the unit in operation

Use check joints provided on the piping before and after the four-way valve installed inside the outdoor unit for checking discharge pressure and suction pressure.

As indicated in the table shown on the right, pressure detected at each point will vary

depending on whether a cooling or heating operation has been selected.

	Check joint of the pipe	Charge port of the gas operation valve
Cooling operation	Discharge pressure (High pressure)	Suction pressure (Low pressure)
Heating operation	Suction pressure (Low pressure)	Discharge pressure (High pressure)

SW-3-3 SW-3-4

3) Setting SW3-1, SW3-2, on-site

- (1) Defrost control switching (SW3-1)
 - •When this switch is turned ON, the unit will run in the defrost mode more frequently.
- -Set this switch to ON, when installed in a region where outdoor temperature falls below zero during the season the unit is run for a heating operation.
- (2) Snow guard fan control (SW3-2)
 - •When this switch is turned on, the outdoor unit fan will run for 10 seconds in every 10 minutes, when outdoor temperature falls to 3°C or lower and the compressor is not running.
 - ·When the unit is used in a very snowy country, set this switch to ON.

4) Failure diagnosis in a test run

Error indicated on the			Failure event	Action	
remote control unit	Red LED	Green LED	Fallule event	ACTION	
E34		Blinking continuously		Check power cables for loose contact or disconnection	
E40	Blinking once	Blinking continuously	63H1 actuation or operation with operation valves shut (occurs mainly during a heating operation)	Check whether the operation valves are open. If an error has been canceled when 3 minutes have elapsed.	
E49	Blinking once	Blinking continuously	Low pressure error or operation with operation valves shut (occurs mainly during a cooling operation)	since a compressor stop, you can restart the unit by effecting Check Reset from the remote control unit.	

• If an error code other than those listed above is indicated, refer to the wiring diagram of the outdoor unit and the indoor unit.

5) The state of the electronic expansion valve.

The following table illustrates the steady states of the electronic expansion valve

The following table muc	struttoo trio ottoudy ott	Apanoion vaivo.			
140	14/1	When the unit con	nes to a normal stop	When the unit come	s to an abnormal stop
	When power is turned on	During a cooling operation	During a heating operation	During a cooling operation	During a heating operation
Valve for a cooling operation	Complete shut position	Complete shut position	Full open position	Full open position	Full open position
Valve for a heating operation	Full open position	Full open position	Complete shut position	Full open position	Full open position

6) Heed the following on the first operation after turning on the circuit breaker.

This outdoor unit may start in the standby mode (waiting for a compressor startup), which can continue up to 30 minutes, to prevent the oil level in the compressor from lowering on the first operation after turning on the circuit breaker. If that is the case, do not suspect a unit failure.

A failure to observe these instructions can result in a compressor breakdown.

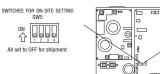
Items to checkbefore a test run

 When you leave the outdoor unit with power supplied to it. be sure to close the panel.

Item No.used in the installation manual	Item	Check item	Check				
		If brazed, was it brazed under a nitrogen gas flow?					
	Refrigerant	Were air-tightness test and vacuum extraction surely performed?					
2	plumbing	Are heat insulation materials installed on both liquid and gas pipes?					
	p	Are operation valves surely opened for both liquid and gas systems?					
		Have you recorded the additional refrigerant charge volume and refrigerant pipe length on the panel's label?					
		Is the unit free of cabling errors such as uncompleted connection, an absent or reversed phase?					
	Electric wiring	Are properly rated electrical equipments used for circuit breakers and cables?					
		Doesn't cabling cross-connect between units, where more than one unit are installed?					
		Aren't indoor-outdoor signal wires connected to remote control wires?					
4		Do indoor-outdoor connecting cables connect between the same terminal numbers?					
		Are either VCT cabtyre cables or WF flat cables used for indoor-outdoor connecting cables?					
		Does grounding satisfy the D type grounding (type III grounding) requirements?					
		Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire?					
		Are cables free of loose screws at their connection points?					
		Are cables held down with cable clamps so that no external force works onto terminal connections?					
_	Indian	Is indoor unit installation work completed?					
_	Indoor unit	Where a face cover should be attached onto an indoor unit, is the face cover attached to the indoor unit?					

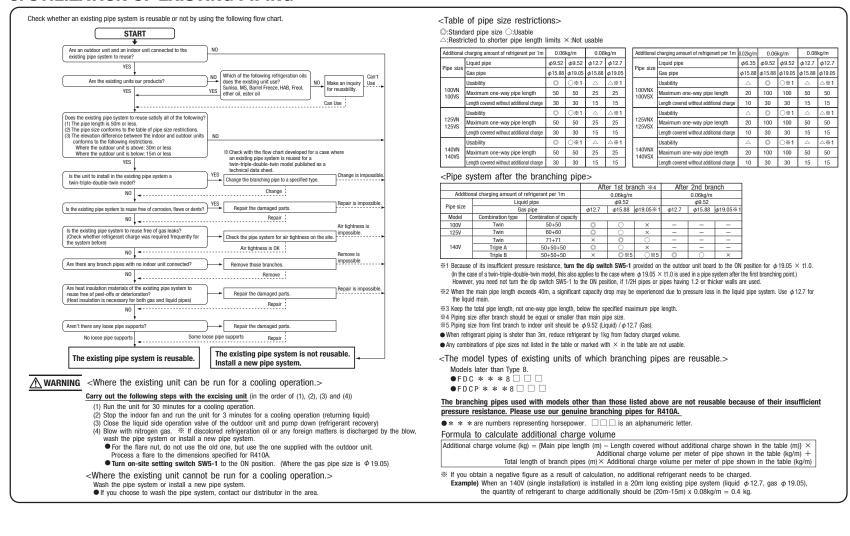
Test run procedure Always carry out a test run and check the following in order as listed.

Turn	The contents of operation	Check
1	Open the gas side operation valve fully.	
2	Open the liquid side operation valve fully.	
3	Close the panel.	
4	Where a remote control unit is used for unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control unit.	
(5)	SW3-3 ON / SW3-4 OFF: the unit will start a cooling operation.	
(3)	SW3-3 ON / SW3-4 ON: the unit will start a heating operation.	
6	When the unit starts operation, press the wind direction button provided on the remote control unit to check its operation.	
7	Place your hand before the indoor unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.	
8	Make sure that a red LED is not blinking.	
9	When you complete the test run, do not forget to turn SW3-3 to the OFF position.	
10	Where options are used, check their operation according to the respective instruction manuals.	





6. UTILIZATION OF EXISTING PIPING



1.10.5 Instructions for branching pipe set (DIS-WA1, WB1, TA1, TB1)

For R410A PSB012D865 ∕A

WARNING / CAUTION

- This set is for R410A refrigerant.
- Select a branching pipe set correctly rated for the combined total capacity of connected indoor units and install it according to this manual. An improperly installed branching pipe set can cause degraded performance or an abnormal unit stop.
- Provide good heat insulation to the pipes by following instructions contained in this manual.
- Improper heat insulation can result in degraded performance or a water leak accident from condensation.
- Please make sure that only parts supplied as accessories or the manufacturer's approved parts are used in installing the unit, because a leak of refrigerant can result in a lack-of-oxygen accident, if it reaches a concentration beyond the tolerable limit.

This manual explains how to use a branching pipe set that is indispensable in connecting pipes for a twin/triple/double-twin configuration installation (system). For the details of piping work, unit installation work and electrical installation work, please refer to the installation manuals and installation guides supplied with your outdoor and indoor units.

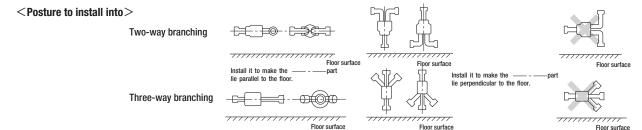
1. Branching pipe set specifications

- (1) Please make sure that you have chosen the right branching pipe set and the specifications of the parts contained in it by checking with the table below.
- (2) Connect pipes as illustrated in the table below. The pipe from an outdoor unit must be brazed to the pipe connection port "①" and the pipes from indoor units to "②," "③" and "④."

Branching pipe set type	Supported outdoor/inc	loor unit combinations	Part lists				
brancining pipe set type	Outdoor unit model	Indoor unit model	Branching pipe set for a liquid pipe	Branching pipe set for a gas pipe	Different diameter pipe joint	Heat insulation material	
	3HP	1.5HP+1.5HP	ID9.52	ID15.88	Joint A		
	4HP	2HP+2HP			ID9.52		
DIS-WA1	4111	1.5HP+2.5HP		<u> </u>	Flare joint (for indoor unit side connection)	(JA	
(Two-way branching set)	5HP	2.5HP+2.5HP		 	(tot indoor drift side conficction)		
, , , , , , ,		2HP+3HP	ID9.52 3 ID9.52	ID15.88 ID15.88	Joint B 2 pieces	***	
	6HP	3HP+3HP 2HP+4HP	1 piece	1 piece ID15.88	OD15.88 D12.7	One each for liquid and gas	
		20F ∓40F					
		4HP+4HP	ID9.52	ID15.88			
	8HP		0 0	1 2			
DIS-WB1		3HP+5HP			Joint C 1 piece 0D12.7	Still I	
(Two-way branching set)			ID12.7 3	_ 1 3	150.02		
	10HP	5HP+5HP	ID9.52	ID25.4 ID15.88		One each for liquid and gas	
			1 piece	1 piece		One each for fiquid and gas	
DIS-TA1 (Three-way branching set)	6НР	2HP+2HP+2HP	109.52 1 piece	ID12.7	Joint A ID9.52	One each for liquid and gas	
DIS-TB1 (Three-way branching set)	8HP	3HP+3HP+3HP	109.52 109.52 1 piece	1 piece	D19.52	One each for liquid and gas	

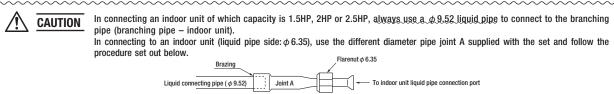
(3) To connect pipes for a Double Twin installation (involving 4 indoor units), please see 2-7. "Double Twin configuration." (4) A branching pipe set must always be installed into the posture as illustrated in the drawing below.

ID stands for inner diameter and OD, outer diameter.



2. Pipe connecting procedure

Braze the different diameter pipe joint found in the set matching the connected outdoor and indoor unit capacities according to the instructions set out below.



2-1 DIS-WA1

	ombinations Indoor unit model	Liquid branching pipe	Gas branching pipe		
ЗНР	1.5HP+1.5HP		Joint B		
	2HP+2HP	Flare joint (φ6.35) Joint A	Joint B 3 ID12.7		
4НР	1.5HP+2.5HP	Connecting pipe (\$\phi 9.52) \\ 109.52 \\ \tag{CAUTION} \\ Reference \\ \tag{Caution} A \\ Flare joint A	ID12.7 Joint B ID12.7 Joint B ID12.7 ID15.883 ID15.8		
	2.5HP+2.5HP	(φ 6.35)	ID12.7 ID15.8 I		
5НР	2HP+3HP	Flare joint $(\phi 6.35)$ Joint A Connecting pipe $(\phi 9.52)$ $(\phi 9.$	Joint B 2 1015.88 1015.88		
	знр+знр	ID9.52 ID9.52 ID9.52	ID15.88 ID15.88 ID15.88		
6HP	2HP+4HP	Flare joint $(\phi 6.35)$ Connecting pipe $(\phi 9.52)$	Joint B		

2-2 DIS-WB1

	combinations	Liquid branching pipe	Gas branching pipe
Outdoor unit model	Indoor unit model	7	3,1,1
8HP	3HP+5HP	ID9.52	ID15.88
	4HP+4HP	Joint C ID9.52	ID15.88
10HP	5HP+5HP	ID9.52 ID12.73————————————————————————————————————	ID15.88 ID25.4]

2-3 DIS-TA1 Applicable to the difference in length of pipes after the branch being less than 3 m * Connection is not allowed when the difference in length of pipes is larger than 3 m.

Supported of Outdoor unit model	ombinations Indoor unit model	Liquid branching pipe	Gas branching pipe
6НР	2HP+2HP+2HP	Connecting pipe Joint A (ϕ 9.52) ID9.52 Flare joint (ϕ 6.35) Joint A CAUTION Reference	1D12.7 ① ② ③ ④ ID15.88 3

2-4 DIS-TB1 Applicable to the difference in length of pipes after the branch being less than 3 m *Connection is not allowed when the difference in length of pipes is larger than 3 m.

Supported of	ombinations	Liquid branching pipe	Gas branching pipe		
Outdoor unit model	Indoor unit model	Liquid branching pipe	das branching pipe		
8НР	3HP+3HP+3HP	1D9.52 1————————————————————————————————————	1D15.88 1D25.4 3		

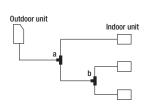
▷ OLD Model list

model name	
FDTA251R	
FDENA251R	
FDKNA251R	
FDURA251R	
FDUMA252R	

Note When connect the indoor unit of an old model that is shown in the model list use the joint supplied with the branch piping set like *A

2-5. Triple type for same model/same capacity or different model/same capacity

When the difference in length of pipes after the branch is longer than 3 m and shorter than 10 m

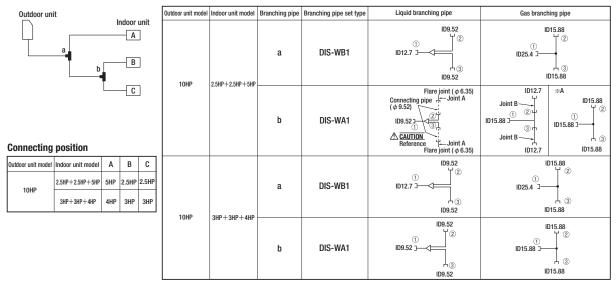


Outdoor unit model	Indoor unit model	Branching pipe	Branching pipe set type	Liquid branching pipe	Gas branching pipe	
бНР		a		Flare joint $(\phi 6.35)$ — Joint A Connecting pipe $(\phi 9.52)$ $(\phi $	Joint B (2) ID15.88 (3) ID15.88	
	2HP+2HP+2HP	b	DIS-WA1	Flare joint $(\phi 6.35)$ Connecting pipe $(\phi 9.52)$ $ \phi D D $ $ \phi D D $ $ \phi D D $ $ \phi D D $ $ \phi D D $ Flare joint $ \phi D $ $ \phi D D $ Flare joint $ \phi D $	Joint B O J J J J J J J J J J J J J J J J J J	
8HP ;		a	DIS-WB1	ID9.52 ID9.52	ID15.88 ID25.4 J (3) ID15.88	
	3HP+3HP+3HP	b	DIS-WA1	ID9.52 ID9.52] (2) ID9.52 (3) ID9.52	ID15.88 ID15.88 ID15.88	

2-6. Triple type for same model/different capacity or different model/different capacity

Applicable to the difference in length of pipes after the branch being less than 3 m

* Connection is not allowed when the difference in length of pipes is larger than 3 m.



Note When connect the indoor unit of an old model that is shown in the model list, use the joint supplied with the branch piping set like * A.

2-7. Double Twin type

Pipes should be connected as follows for a Double Twin installation (4 connected indoor units. The capacity of an outdoor unit available for this configuration is either 8HP or 10HP only):

is either 8HP or 10	HP only):		1		· ·		
Outdoor unit capacity	Indoor unit capacity	Branching pipe	Branching pipe set type	Outdoor unit model	Liquid branching pipe	Gas brand	ching pipe
8HP 10HP	2HP×4 units 2.5HP×4 units		DIS-WB1	8HP	ID9.52 Joint C ID9.52	ID15.88	
Outdoor unit b Indoor unit				10НР	ID9.52 ID12.7 ID9.52	ID25.4 J (3)	
			DIO 1114	8НР	Flare joint (ϕ 6.35) Connecting pipe Joint A (ϕ 9.52)	Joint B Joint B	<u>Ф</u>
		b	DIS-WA1	10HP	D9.52 →		Joint B J Joint B J JOINT B J JOINT B J JOINT B J J J J J J J J J J J J J J J J J J

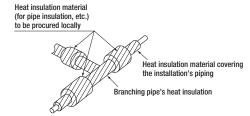
Note When connect the indoor unit of an old model that is shown in the model list, use the joint supplied with the branch piping set like * A.

3. Heat insulation work

(1) Condensation can also occur on liquid pipes with this model. Please provide good heat insulation to both liquid and gas pipes.

(2) For the heat insulation of a branching pipe, always use the heat insulation material supplied with the set and provide heat insulation according to the instructions set out below.

It has an adhesive layer on the entire inner face.
 Remove a separator and wrap it around the branching pipe.



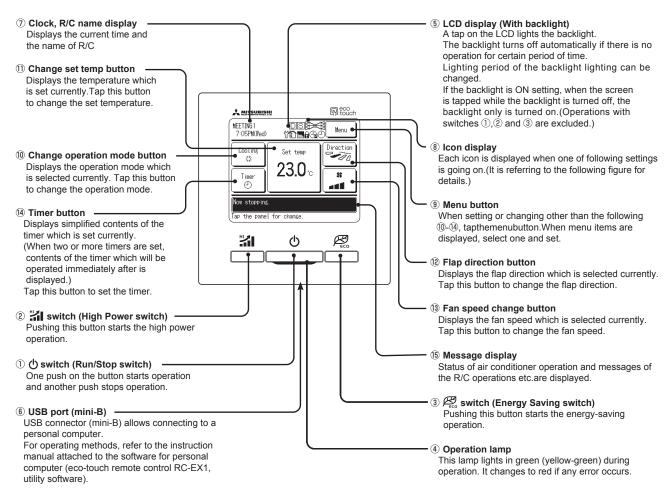
2. Apply a heat insulation material (to be procured locally) to the joint between the branching pipe's heat insulation and the heat insulation material covering the installation's piping as described above and wrap a tape over the gap shown as a hatched (///) area to complete dressing of the piping.

1.11 OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER

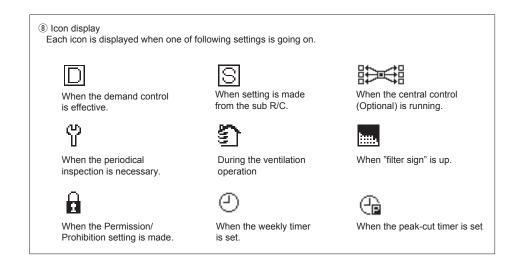
1.11.1 Remote control

(1) Wired remote control Model RC-EX1A

All icons are shown for the sake of explanation.



Touch panel system, which is operated by tapping the LCD screen with a finger, is employed for any operations other than the \bigcirc Run/Stop, \bigcirc High power and \bigcirc Energy-saving switches.



Model RC-E5

TEST button

This button is used during test operation.

The figure below shows the remote control with the cover opened. Note that all the items that may be displayed in the liquid crystal display area are shown in the figure for the sake of explanation Characters displayed with dots in the liquid crystal display area are abbreviated.

The figure below shows the remote control with the cover opened. Ventilaion display Weekly timer display Displayed during ventilation operation Displays the settings of the weekly timer. Central control display Operation setting display area Displayed when the air conditioning system is Displays setting temperature, airflow controlled by centralized remote control. volume, operation mode and oparation message. Timer operation display Displays the timer operation setting. Operation/check indicator light During oparation: Lit in green CENTER: SUN (MON) (TUE) (MED) (THU) (FR) (SAT) In case of error: Flashing in red Temperature setting buttons Operation/stop button These buttons are used to set the 7.5°C 🏶 📶 This button is used to operate and stop temperature of the room. the air conditioning system. **↓**TEMP ① ON/OFF Press the button once to operate the system and press it once again to stop Timer button -This button is used to set the system. the timer mode. MODE button This button is used to change the operation mode. Timer setting buttons -**FAN SPEED button** These buttons are used to set // 5 4 This button is used to set the airflow the timer mode and the time. LOL volume. **VENT** button ESP button This button is used to operate external This button is used to select the auto static ventilator. pressure adjustment mode. LOUVER button This button is used to operate/stop the Cover swing louver. AIR CON No. button Display the indoor unit number connected to this SET button remote control. •This button is used to fix the setting. •This button is used to set the silent mode. CHECK button This button is used at servicing. **RESET button** Press this button while making settings to go back to the

previous operation.

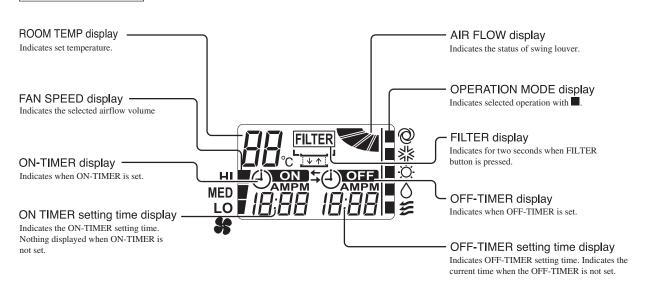
•This button is also used to reset the "FILTER CLEANING" display.

(Press it after cleaning the air filter)

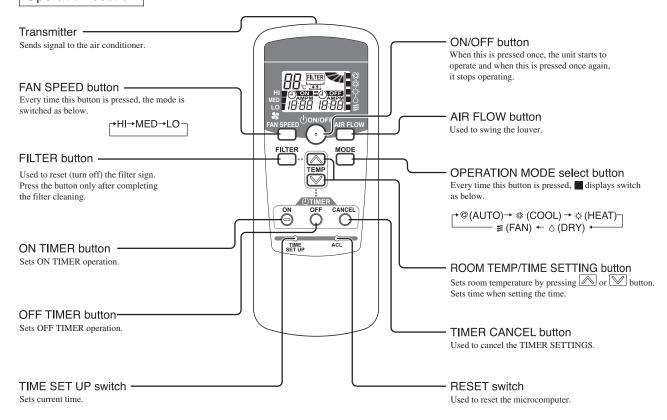
^{*} All displays are described in the liguid crystal display for explanation.

(2) Wireless remote control

Indication section



Operation section

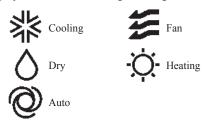


 $[\]ensuremath{^{*}}$ All displays are described in the liquid crystal display for explanation

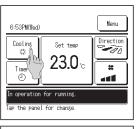
1.11.2 Operation control function by the wired remote control Model RC-EX1A

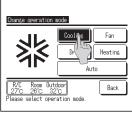
(1) Switching sequence of the operation mode switches of remote control

- (a) Tap the change operation mode button on the TOP screen.
- (b) When the change operation mode screen is displayed, tap the button of desired mode.
- (c) When the operation mode is selected, the display returns to the TOP screen. Icons displayed have the following meanings.



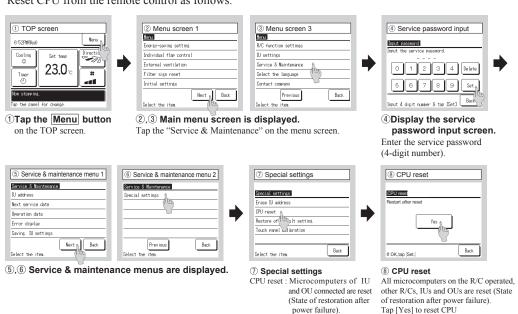
- Notes(1) Operation modes which cannot be selected depending on combinations of IU and OU are not displayed.
 - (2) When the Auto is selected, the cooling and heating switching operation is performed automatically according to indoor and outdoor temperatures.





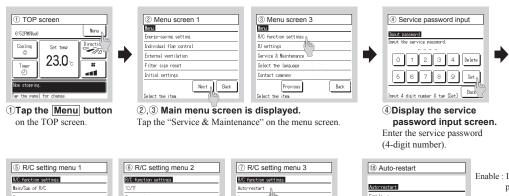
(2) CPU reset

Reset CPU from the remote control as follows.



(3) Power failure compensation function (Electric power supply failure)

Enable the Auto-restart function from the remote control as follows.



Auto fan speed

(5),(6),(7) Display the R/C setting menu screens.

Next e Back

Operation mode

External input

Flap control

Enable:

Disable:

Enable: It returns to the state be fore the supply power failure as soon as the power is restored (After the end of the primary control at the power on).

Disable: It stops after the restoration of power supply, regardless the state of operation before the power failure.

Auto-restart

Set the state of operation to be started when the power supply is restored after a power failure.

Back

Back

- Since it memorizes always the condition of remote control, it starts operation according to the contents of memory no sooner than normal state is recovered after the power failure. Although the auto swing stop position and the timer mode are cancelled, the weekly timer setting is restored with the holiday setting for all weekdays.
 - After recovering from the power failure, it readjusts the clock and resets the holiday setting for each weekday so that the setting of weekly timer becomes effective.
- Content memorized with the power failure compensation are as follows.
 - Note (1) Items (f), (g) and (h) are memorized regardless whether the power failure compensation is effective or not while the setting of silent mode is cancelled regardless whether the power failure compensation is effective or not.
 - (a) At power failure Operating/stopped

 If it had been operating under the off timer mode, sleep timer mode, the state of stop is memorized. (Although the timer mode is cancelled at the recovery from power failure, the setting of weekly timer is changed to the holiday setting for all weekdays.)
 - (b) Operation mode
 - (c) Airflow volume mode
 - (d) Room temperature setting
 - (e) Louver auto swing/stop
 - However, the stop position (4-position) is cancelled so that it returns to Position (1).
 - (f) "Remote control function items" which have been set with the remote control function setting ("Indoor function items" are saved in the memory of indoor unit.)
 - (g) Upper limit value and lower limit value which have been set with the temperature setting control
 - (h) Sleep timer and weekly timer settings (Other timer settings are not memorized.)

Model RC-E5

(1) Switching sequence of the operation mode switches of remote control



(2) CPU reset

This functions when "CHECK" and "ESP" buttons on the remote control are pressed simultaneously. Operation is same as that of the power supply reset.

(3) Power failure compensation function (Electric power supply failure)

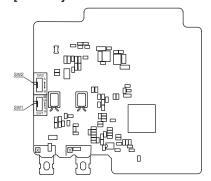
- This becomes effective if "Power failure compensation effective" is selected with the setting of remote control function.
- Since it memorizes always the condition of remote control, it starts operation according to the contents of memory no sooner than normal state is recovered after the power failure. Although the auto swing stop position and the timer mode are cancelled, the weekly timer setting is restored with the holiday setting for all weekdays.

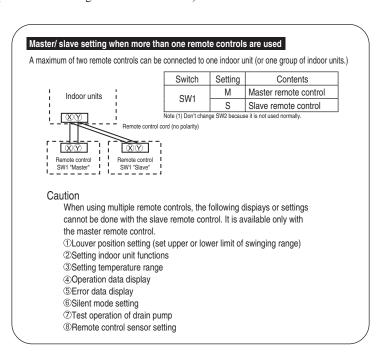
After recovering from the power failure, it readjusts the clock and resets the holiday setting for each weekday so that the setting of weekly timer becomes effective.

- Content memorized with the power failure compensation are as follows.
 - Note (1) Items (f), (g) and (h) are memorized regardless whether the power failure compensation is effective or not while the setting of silent mode is cancelled regardless whether the power failure compensation is effective or not.
 - (a) At power failure Operating/stopped

 If it had been operating under the off timer mode, sleep timer mode, the state of stop is memorized. (Although the timer mode is cancelled at the recovery from power failure, the setting of weekly timer is changed to the holiday setting for all weekdays.)
 - (b) Operation mode
 - (c) Airflow volume mode
 - (d) Room temperature setting
 - (e) Louver auto swing/stop
 - However, the stop position (4-position) is cancelled so that it returns to Position (1).
 - (f) "Remote control function items" which have been set with the remote control function setting ("Indoor function items" are saved in the memory of indoor unit.)
 - (g) Upper limit value and lower limit value which have been set with the temperature setting control
 - (h) Sleep timer and weekly timer settings (Other timer settings are not memorized.)

[Parts layout on remote control PCB]



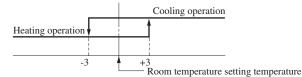


1.11.3 Operation control function by the indoor control

(I) FDT, FDTC, FDEN, FDU, FDUM, FDF series

(1) Auto operation

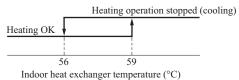
(a) If "Auto" mode is selected by the remote control, the heating and the cooling are automatically switched according to the difference between outdoor air temperature and setting temperature and the difference between setting temperature and return air temperature. (When the switching of cooling mode ↔ heating mode takes place within 3 minutes, the compressor does not operate for 3 minutes by the control of 3-minute timer.) This will facilitate the cooling/heating switching operation in intermediate seasons and the adaptation to unmanned operation at stores, etc (ATM corner of bank).



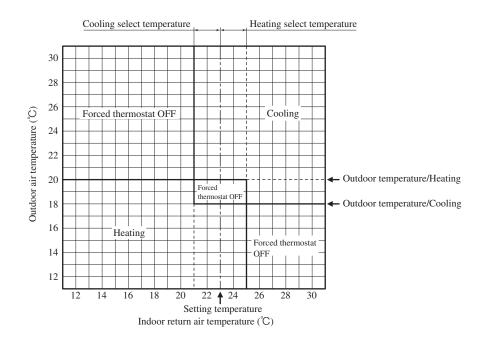
Room temperature (detected with Thi-A) [deg]

Notes (1) Temperature range of switching cooling/heating mode can be changed by RC-EX1A from $\pm 1.0 \sim \pm 4.0$

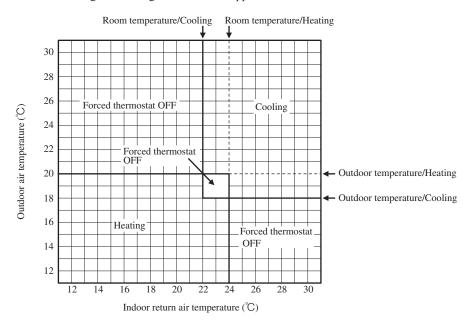
- (2) Room temperature control during auto cooling/auto heating is performed according to the room temperature setting temperature. (DIFF: ± 1 deg)
- (3) If the indoor heat exchanger temperature rises to 59°C or higher during heating operation, it is switched automatically to cooling operation. In addition, for 1 hour after this switching, the heating operation is not performed, regardless of the temperature shown at right.



- (b) The following automatic controls are performed other than (a) above.
 - (i) Cooling or heating operation mode is judged according to the conditions of the "Judgment based on Setting temperature + Cooling select temperature and Indoor return air temperature" and the "Judgment based on Outdoor temperature".
 - 1) In "Setting temperature Cooling select temperature < Indoor return air temperature" and "Outdoor temperature/Cooling < Outdoor return air temperature" \Rightarrow Operation mode: Cooling
 - 2) "Setting temperature + Heating select temperature > Indoor return air temperature" and "Outdoor temperature/Heating > Outdoor air temperature" ⇒ Operation mode: Heating
 - 3) The outdoor air temperature of the above judgment conditions is sampled at every 10 minutes.
 - 4) In the range where the above cooling and heating zones are overlapped ⇒ Forced thermostat OFF



- (ii) Regardless of the setting temperature, the cooling or heating operation mode is judged according to the "Judgment based on Room temperature/Cooling or Heating and Outdoor temperature/Cooling or Heating".
- 1) In case of "Room temperature/Cooling < Indoor return air temperature" and "Outdoor temperature/Cooling < Outdoor air temperature" \Rightarrow Operation mode: Cooling
- 2) In case of "Room temperature/Heating > Indoor return air temperature" and "Outdoor temperature /Heating > Outdoor air temperature" \Rightarrow Operation mode: Heating
- 3) The outdoor air temperature of the above judgment conditions is sampled at every 10 minutes.
- 4) In the range where the above cooling and heating zones are overlapped ⇒ Forced thermostat OFF



(2) Operations of functional items during cooling/heating

Operation	Cooling			Heating			
Functional item	Thermostat ON	Thermostat OFF	Fan	Thermostat ON	Thermostat OFF	Hot start (Defrost)	Dehumidifying
Compressor	0	×	×	0	×	0	O/×
4-way valve	×	×	×	0	0	○(×)	×
Outdoor unit fan	0	×	×	0	×	○(×)	O/×
Indoor unit fan	0	0	0	O/×	O/×	O/×	O/×
Drain pump ⁽³⁾	0	× ⁽²⁾	× ⁽²⁾		O/× ⁽²⁾		Thermostat ON: O Thermostat OFF: X ⁽²⁾

Note (1) \bigcirc : Operation \times : Stop \bigcirc/\times : Turned ON/OFF by the control other than the room temperature control.

- (2) ON during the drain motor delay control.
- (3) Drain pump ON setting may be selected with the indoor unit function setting of the wired remote control.

(3) Dehumidifying operation

Return air temperature thermistor [ThI-A (by the remote control when the remote control thermistor is enabled)] controls the indoor temperature environment simultaneously.

- (a) Operation is started in the cooling mode. When the difference between the return air temperature and the setting temperature is 2°C or less, the indoor unit fan tap is brought down by one tap. That tap is retained for 3 minutes after changing the indoor unit fan tap.
- (b) If the return air temperature exceeds the setting temperature by 3°C during dehumidifying operation, the indoor unit fan tap is raised. That tap is retained for 3 minutes after changing the indoor unit fan tap.
- (c) If the thermostat OFF is established during the above control, the indoor unit fan tap at the thermostat ON is retained so far as the thermostat is turned OFF.

(4) Timer operation

(a) RC-EX1A

(i) Sleep timer

Set the time from the start to stop of operation. The time can be selected in the range from 30 to 240 minutes (in the unit of 10-minute).

Note (1) Enable the "Sleep timer" setting from the remote control. If the setting is enabled, the timer operates at every time.

(ii) Set OFF timer by hour

Set the time to stop the unit after operation, in the range from 1 to 12 hours (in the unit of hour).

(iii) Set ON timer by hour

Set the time to start the unit after the stop of operation, in the range from 1 to 12 hours (in the unit of hour). It is allowed also to set simultaneously the indoor temperature, operation mode, air flow rate and warm-up enabled/disabled.

(iv) Set ON timer by clock

Set the time to start operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time. It is allowed also to set simultaneously the indoor temperature, operation mode, air flow rate and warm-up enabled/disabled.

Note (1) It is necessary to set the clock to use this timer.

(v) Set OFF timer by clock

Set the time to stop operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time.

Note (1) It is necessary to set the clock to use this timer.

(vi) Weekly timer

Set the ON or OFF timer for a week. Up to 8 patterns can be set for a day. The day-off setting is provided for holidays and non-business days.

Note (1) It is necessary to set the clock to use the weekly timer.

(vii) Combination of patterns which can be set for the timer operations

	Sleep time	Set OFF timer by hour	Set ON timer by hour	Set OFF timer by clock	Set ON timer by clock	Weekly timer
Sleep time		×	×	0	0	0
Set OFF timer by hour	×		×	×	×	×
Set ON timer by hour	×	×		×	×	×
Set OFF timer by clock	0	×	×		0	×
Set ON timer by clock	0	×	×	0		×
Weekly timer	0	×	×	×	×	

Note (1) O: Allowed X: Not

(b) RC-E5

(i) Sleep timer

Set the duration of time from the present to the time to turn off the air-conditioner.

It can be selected from 10 steps in the range from "OFF 1 hour later" to "OFF 10 hours later". After the sleep timer setting, the remaining time is displayed with progress of time in the unit of hour.

(ii) OFF timer

Time to turn OFF the air-conditioner can be set in the unit of 10 minutes.

(iii) ON timer

Time to turn ON the air-conditioner can be set. Indoor temperature can be set simultaneously.

(iv) Weekly timer

Timer operation (ON timer, OFF timer) can be set up to 4 times a day for each weekday.

(v) Timer operations which can be set in combination

Item Item	Timer	OFF timer	ON timer	Weekly timer
Timer		×	0	×
OFF timer	×		0	×
ON timer	0	0		×
Weekly timer	×	×	×	

Note (1) ○: Allowed ×: Not

⁽²⁾ Since the ON timer, sleep timer and OFF timer are set in parallel, when the times to turn ON and OFF the airconditioner are duplicated, the setting of the OFF timer has priority.

(5) Remote control display during the operation stop

When the operation is stopped (the power supply is turned ON), it displays preferentially the "Room temperature", "Center/Remote", "Filter sign", "Inspection" and "Timer operation".

(6) Hot start (Cold draft prevention at heating)

(a) Operating conditions

When either one of following conditions is met, the hot start control is performed.

- (i) From stop to heating operation
- (ii) From cooling to heating operation
- (iii) Form heating thermostat OFF to ON
- (iv) After completing the defrost control (only on units with thermostat ON)

(b) Contents of operation

- (i) Indoor fan motor control at hot start
 - Within 7 minutes after starting heating operation, the fan mode is determined depending on the condition of thermostat (fan control with heating thermostat OFF).
 - a) Thermostat OFF
 - i) Operates according to the fan control setting at heating thermostat OFF.
 - ii) Even if it changes from thermostat OFF to ON, the fan continues to operate with the fan control at thermostat OFF till the heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 35°C or higher.
 - iii) When the heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 35°C or higher, the fan operates with the set airflow volume.
 - b) Thermostat ON
 - i) When the heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 25°C or lower, the fan is turned OFF and does not operate.
 - ii) When the heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 25°C or higher, the fan operates with the fan control at heating thermostat OFF.
 - iii) When the heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 35°C or higher, the fan operates with the set airflow volume.
 - c) If the fan control at heating thermostat OFF is set at the "Set airflow volume" (from the remote control), the fan operates with the set airflow volume regardless of the thermostat ON/OFF.
 - 2) Once the fan motor is changed from OFF to ON during the thermostat ON, the indoor fan motor is not turned OFF even if the heat exchanger thermistor detects lower than 25°C.
 - Note (1) When the defrost control signal is received, it complies with the fan control during defrosting.
 - 3) Once the hot start is completed, it will not restart even if the temperature on the heat exchanger thermistor drops.
- (ii) During the hot start, the louver is kept at the horizontal position.
- (iii) When the fan motor is turned OFF for 7 minutes continuously after defrosting, the fan motor is turned ON regardless of the temperatures detected with the indoor heat exchanger thermistors (ThI-R1, R2).

(c) Ending condition

- (i) If one of following conditions is met during the hot start control, this control is terminated, and the fan is operated with the set airflow volume.
 - 1) Heat exchanger thermistor (ThI-R1 or R2, whichever higher) detects 35°C or higher.
 - 2) It has elapsed 7 minutes after starting the hot start control.

(7) Hot keep

Hot keep control is performed at the start of the defrost control.

- (a) Control
 - (i) When the indoor heat exchanger temperature (detected with ThI-R1 or R2) drops to 35°C or lower, the speed of indoor fan is changed to the lower tap at each setting.
 - (ii) During the hot keep, the louver is kept at the horizontal position.
- (b) Ending condition

When the indoor fan is at the lower tap at each setting, it returns to the set airflow volume as the indoor heat exchanger temperature rises to 45°C or higher.

(8) Auto swing control (FDT, FDTC, FDEN, FDF only)

(a) RC-EX1A

- (i) Louver control
 - 1) To operate the swing louver when the air conditioner is operating, press the "Direction" button on the TOP screen of remote control. The wind direction select screen will be displayed.
 - 2) To swing the louver, touch the "Auto swing" button. The lover will move up and down. To fix the swing louver at a position, touch one of [1] [4] buttons. The swing lover will stop at the selected position.
 - 3) Louver operation at the power on with a unit having the louver 4-position control function

 The louver swings one time automatically (without operating the remote control) at the power on.
 - This allows the microcomputer recognizing and inputting the louver motor (LM) position.
- (ii) Automatic louver level setting during heating

At the hot start and the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (in order to prevent blowing of cool wind). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver free stop control

If you touch the "Menu" \rightarrow "Next" \rightarrow "R/C settings" buttons one after another on the TOP screen of remote control, the "Flap control" screen is displayed. If the free stop is selected on this screen, the louver motor stops upon receipt of the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position before the stop.

(b) RC-E5

- (i) Louver control
 - 1) Press the "LOUVER" button to operate the swing louver when the air conditioner is operating. "SWING -" is displayed for 3 seconds and then the swing louver moves up and down continuously.
 - 2) To fix the swing louver at a position, press one time the "LOUVER" button while the swing louver is moving so that four stop positions are displayed one after another per second.
 - When a desired stop position is displayed, press the "LOUVER" button again. The display stops, changes to show the "STOP 1 —" for 5 seconds and then the swing louver stops.
 - 3) Louver operation at the power on with a unit having the louver 4-position control function
 - The louver swings one time automatically (without operating the remote control) at the power on.
 - This allows inputting the louver motor (LM) position, which is necessary for the microcomputer to recognize the louver position.
 - Note (1) If you press the "LOUVER" button, the swing motion is displayed on the louver position LCD for 10 second. The display changes to the "SWING -" display 3 seconds later.
- (ii) Automatic louver level setting during heating

At the hot start with the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (In order to prevent the cold start). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver-free stop control

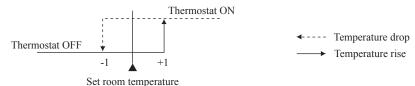
When the louver-free stop has been selected with the indoor function of wired remote control " \Rightarrow_{n} POSITION", the louver motor stops when it receives the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position where it was before the stop.

Note (1) When the indoor function of wired remote control ">¬¬ POSITION" has been switched, switch also the remote control function "¬¬¬ POSITION" in the same way.

(9) Thermostat operation

(a) Cooling

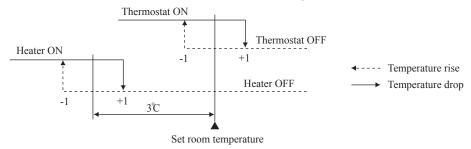
- (i) Thermostat is operated with the room temperature control.
- (ii) Thermostat is turned ON or OFF relative to the set room temperature as shown below.



(iii) Thermostat is turned ON when the room temperature is in the range of -1 < Set temperature < +1 at the start of cooling operation (including from heating to cooling).

(b) Heating

- (i) Thermostat is operated with the room temperature control.
- (ii) Thermostat is turned ON or OFF relative to the set room temperature as shown below.



(iii) Thermostat is turned ON when the room temperature is in the range of -1 < Set point < +1 at the start of cooling operation (including from cooling to heating).

(c) Fan control during heating thermostat OFF

- (i) Following fan controls during the heating thermostat OFF can be selected with the indoor function setting of the wired remote control.
 - ① Low fan speed (Factory default), ② Set fan speed, ③ Intermittence, ④ Fan OFF
- (ii) When the "Low fan speed (Factory default)" is selected, the following taps are used for the indoor fans.
 - · For AC motor: Lo tap
 - · For DC motor: ULo tap
- (iii) When the "Set fan speed" is selected, it is operated with the set fan speed also in the thermostat OFF condition.
- (iv) If the "Intermittence" is selected, following controls are performed:
 - 1) If the thermostat is turned OFF during the heating operation, the indoor unit moves to the hot control and turns OFF the indoor fan if the heat exchanger thermistors (both ThI-R1 and R2) detect 25°C or lower.
 - 2) Indoor fan OFF is fixed for 5 minutes. After the 5 minutes, the indoor fan is operated at Lo or ULo for 2 minutes. In the meantime the louver is controlled at level.
 - 3) After operating at Lo or ULo for 2 minutes, the indoor fan moves to the state of 1) above.
 - 4) If the thermostat is turned ON, it moves to the hot start control.
 - 5) When the heating thermostat is turned OFF, the remote control displays the temperature detected at the fan stop and revises the temperature later when the indoor fan changes from Lo or ULo to stop.
 - The remote control uses the operation data display function to display temperatures and updates values of temperature even when the indoor fan is turned OFF.
 - 6) When the defrosting starts while the heating thermostat is turned OFF or the thermostat is turned OFF during defrosting, the indoor fan is turned OFF. (Hot keep or hot start control takes priority.) However, the suction temperature is updated at every 7-minute.
 - 7) When the heating thermostat is turned ON or the operation is changed to another mode (including stop), this control is stopped immediately, and the operating condition is restored.
- (v) When the "Fan OFF" is selected, the fan on the indoor unit of which the thermostat has been turned OFF, is turned OFF. The same occurs also when the remote control sensor is effective.

(d) Fan control during cooling thermostat OFF

- (i) Following fan controls during the cooling thermostat OFF can be selected with the indoor function setting of the wired remote control.
 - 1) Low fan speed, 2) Set fan speed (Factory default), 3) Intermittence, 4) Fan OFF
- (ii) When the "Low fan speed" is selected, the following taps are used for the indoor fans.
 - For AC motor: Lo tapFor DC motor: ULo tap
- (iii) When the "Set fan speed" is selected, it is operated with the set fan speed also in the thermostat OFF condition.
- (iv) If the "Intermittence" is selected, following controls are performed:
 - 1) If the thermostat is turned OFF during the cooling operation, the indoor unit fan motor stope.
 - 2) Indoor fan OFF is fixed for 5 minutes. After the 5 minutes, the indoor fan is operated at Lo or ULo for 2 minutes. In the meantime the louver is controlled at level.
 - 3) After operating at Lo or ULo for 2 minutes, the indoor fan moves to the state of 1) above.
 - 4) If the thermostat is turned ON, the fan starts operation at set fan speed.
 - 5) When the cooling thermostat is turned OFF, the remote control displays the temperature detected at the fan stop and revises the temperature later when the indoor fan changes from Lo or ULo to stop.
 - By using operation data display function at wireless remote control, the tempenature as displayad and the value is updated including the fan stops.
 - 6) When the cooling thermostat is turned ON or the operation is changed to another mode (including stop), this control is stopped immediately, and the operating condition is restored.
- (v) When the "Fan OFF" is selected, the fan on the indoor unit of which the thermostat has been turned OFF, is turned OFF. The same occurs also when the remote control sensor is effective.

(10) Filter sign

As the operation time (Total ON time of ON/OFF switch) accumulates to 180 hours (1), "FILTER CLEANING" is displayed on the remote control. (This is displayed when the unit is in trouble and under the centralized control, regardless of ON/OFF)

Note (1) Time setting for the filter sign can be made as shown below using the indoor function of wired remote control "FILTER SIGN SET". (It is set at TYPE 1 at the shipping from factory.)

Filter sign setting	Function		
TYPE 1	Setting time: 180 hrs (Factory default)		
TYPE 2	Setting time: 600 hrs		
TYPE 3	Setting time: 1,000 hrs		
TYPE 4	Setting time: 1,000 hrs (Unit stop) (2)		

⁽²⁾ After the setting time has elapsed, the "FILTER CLEANING" is displayed and, after operating for 24 hours further (counted also during the stop), the unit stops.

(11) Compressor inching prevention control

(a) 3-minute timer

When the compressor has been stopped by the thermostat, remote control operation switch or anomalous condition, its restart will be inhibited for 3 minutes. However, the 3-minute timer is invalidated at the power on the electric power source for the unit.

- (b) 3-minute forced operation timer
 - (i) Compressor will not stop for 3 minutes after the compressor ON. However, it stops immediately when the unit is stopped by means of the ON/OFF switch or by when the thermister turned OFF the change of operation mode.
 - (ii) If the thermostat is turned OFF during the forced operation control of heating compressor, the louver position (with the auto swing) is returned to the level position.
 - Note (1) The compressor stops when it has entered the protective control.

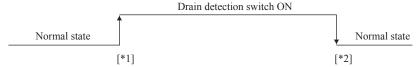
(12) Drain pump control

- (a) This control is operated when the inverter frequency is other than 0 Hz during the cooling operation and automatic cooling and dehumidifying operations.
- (b) Drain pump ON condition continues for 5 minutes even when it enters the OFF range according to (i) above after turning the drain pump ON, and then stops. The 5-minute delay continues also in the event of anomalous stop.
- (c) The drain pump is operated with the 5-minute delay operation when the compressor is changed from ON to OFF.
- (d) Even in conditions other than the above (such as heating, fan, stop, cooling thermostat OFF), the drain pump control is performed by the drain detection.
- (e) Following settings can be made using the indoor function setting of the wired remote control.
 - (i) 🗱 (Standard (in cooling & dry)): Drain pump is run during cooling and dry.
 - (ii) 器合制0黨 [Operate in standard & heating]: Drain pump is run during cooling, dry and heating.
 - (iii) 攀合副原副[Operate in heating & fan]: Drain pump is run during cooling, dry, heating and fan.
 - (iv) 禁冷器[Operate in standard & fan]: Drain pump is run during cooling, dry and fan.

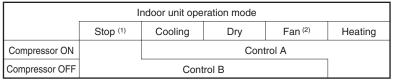
 Note (1) Values in [] are for the RC-EX1A model.

(13) Drain motor (DM) control

(a) Drain detection switch is turned ON or OFF with the float switch (FS) and the timer.



- [*1] Drain detection switch is turned "ON" when the float switch "Open" is detected for 3 seconds continuously in the drain detectable space.
- [*2] Drain detection switch is turned "OFF" when the float switch "Close" is detected for 10 seconds continuously.
- (i) It detects always from 30 seconds after turning the power ON.
 - 1) There is no detection of anomalous draining for 10 seconds after turning the drain pump OFF.
 - 2) Turning the drain detection switch "ON" causes to turn ON the drain pump forcibly.
 - 3) Turning the drain detection switch "OFF" releases the forced drain pump ON condition.
- (b) Indoor unit performs the control A or B depending on each operating condition.



Note (1) Including the stop from the cooling, dehumidifying, fan and heating, and the anomalous stop (2) Including the "Fan" operation according to the mismatch of operation modes

(i) Control A

- 1) If the float switch detects any anomalous draining condition, the unit stops with the anomalous stop (displays E9) and the drain pump starts. After detecting the anomalous condition, the drain motor continues to be ON.
- 2) It keeps operating while the float switch is detecting the anomalous condition.

(ii) Control B

If the float switch detects any anomalous drain condition, the drain motor is turned ON for 5 minutes, and at 10 seconds after the drain motor OFF it checks the float switch. If it is normal, the unit is stopped under the normal mode or, if there is any anomalous condition, E9 is displayed and the drain motor is turned ON. (The ON condition is maintained during the drain detection.)

(14) Operation check/drain pump test run operation mode

- (a) If the power is turned on by the dip switch (SW7-1) on the indoor PCB when electric power source is supplied, it enters the mode of operation check/drain pump test run. It is ineffective (prohibited) to change the switch after turning power on.
- (b) When the communication with the remote control has been established within 60 seconds after turning power on by the dip switch (SW7-1) ON, it enters the operation check mode. Unless the remote control communication is established, it enters the drain pump test run mode.
 - Note (1) To select the drain pump test run mode, disconnect the remote control connector (CNB) on the indoor PCB to shut down the remote control communication.

(c) Operation check mode

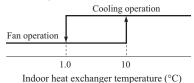
There is no communication with the outdoor unit but it allows performing operation in respective modes by operating the remote control.

(d) Drain pump test run mode

As the drain pump test run is established, the drain pump only operates and during the operation protective functions by the microcomputer of indoor unit become ineffective.

(15) Cooling, dehumidifying frost protection

(a) To prevent frosting during cooling mode or dehumidifying mode operation, the of compressor speed is reduced if the indoor heat exchanger temperature (detected with ThI-R) drops to 1.0 °C or lower at 4 minutes after the start of compressor operation. If the indoor unit heat exchanger temperature is 1.0 °C or lower after 1 minutes, the compressor speed is reduced further. If it becomes 2.5 °C or higher, the control terminates. When the indoor heat exchanger temperature has become as show below after reducing the compressor speed, it is switched to the fan operation. For the selection of indoor fan speed, refer to item 2).



(b) Selection of indoor fan speed

If it enters the frost prevention control during cooling operation (excluding dehumidifying), the indoor unit fan speed is switched

- (i) In the case of FDT, FDU, FDUM only.
 - 1) When the indoor return air detection temperature (detected with ThI-A) is 23°C or higher and the indoor heat exchanger temperature (detected with ThI-R) detects the compressor frequency drop start temperature A°C+1°C, of indoor unit fan speed is increased by 20rpm.
 - 2) If the phenomenon of 1) above is detected again after the acceleration of indoor unit fan, indoor unit fan speed is increased further by 20rpm.

Note (1) Indoor unit fan speed can be increased by up to 2 taps.

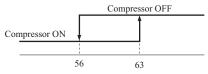
• Compressor frequency drop start temperature

Symbol Item	A
Temperature - Low (Factory default)	1.0
Temperature - High	2.5

Note (1) Frost prevention temperature setting can be selected with the indoor unit function setting of the wired remote control.

(16) Heating overload protection

(a) If the indoor heat exchanger temperature (detected with ThI-R) at 63°C or higher is detected for 2 seconds continuously, the compressor stops. When the compressor is restarted after a 3-minute delay, if a temperature at 63°C or higher is detected for 2 seconds continuously within 60 minutes after initial detection and if this is detected 5 times consecutively, the compressor stops with the anomalous stop (E8). Anomalous stop occurs also when the indoor heat exchanger temperature at 63°C or higher is detected for 6 minutes continuously.



Indoor heat exchanger temperature (°C)

(b) Indoor unit fan speed selection

If, after second detection of heating overload protection up to fourth, the indoor fan is set at Me and Lo taps when the compressor is turned ON, the indoor fan speed is increased by 1 tap.

(17) Anomalous fan motor

- (a) After starting the fan motor, if the fan motor speed is 200min⁻¹ or less is detected for 30 seconds continuously and 4 times within 60 minutes, then fan motor stops with the anomalous stop (E16).
- (b) If the fan motor fails to reach at -50(FDU: -500) min⁻¹ less than the required speed, it stops with the anomalous stop (E20).

(18) Plural unit control - Control of 16 units group by one remote control

(a) Function

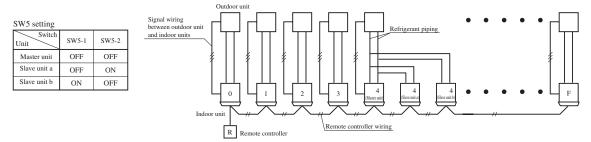
One remote control switch can control a group of multiple number of unit (Max. 16 indoor units). "Operation mode" which is set by the remote control switch can operate or stop all units in the group one after another in the order of unit No.⁽¹⁾. Thermostat and protective function of each unit function independently.

Note (1) Unit No. is set by SW2 on the indoor unit control PCB. Unit No. setting by SW2 is necessary for the indoor unit only. In cases of the twin and triple specification, it is necessary set for the master and the slave units. This can be selected by SW5. (All are set for the master unit at the shipping from factory.)

SW2: For setting of 0 - 9, A - F

SW5: For setting of master and slave units

(See table shown at right.)



(2) Unit No. may be set at random unless duplicated, it should be better to set orderly like 0, 1, 2..., F to avoid mistake.

(b) Display to the remote control

- (i) Center or each remote control basis, heating preparation: the youngest unit No. among the operating units in the remote mode (or the center mode unless the remote mode is available) is displayed.
- (ii) Inspection display, filter sign: Any of unit that starts initially is displayed.
- (iii) Confirmation of connected units
 - 1) In case of RC-EX1A remote control

If you touch the buttons in the order of "Menu" \rightarrow "Next" \rightarrow "Service & Maintenance" \rightarrow "IU address" on the TOP screen of remote control, the indoor units which are connected are displayed.

2) In case of RC-E5 remote control

Pressing "AIR CON No." button on the remote control displays the indoor unit address. If "▲" "▼" button is pressed at the next, it is displayed orderly starting from the unit of youngest No.

(iv) In case of anomaly

- 1) If any anomaly occurs on a unit in a group (a protective function operates), that unit stops with the anomalous stop but any other normal units continue to run as they are.
- 2) Signal wiring procedure

Signal wiring between indoor and outdoor units should be made on each unit same as the normal wiring. For the group control, lay connect with sires wiring between rooms using terminal blocks (X, Y) of remote control. Connect the remote control communication wire separately from the power supply wire or wires of other electric devices (AC220V or higher).

(19) High ceiling control

When sufficient air flow rate cannot be obtained from the indoor unit which is installed at a room with high ceiling, the air flow rate can be increased by changing the fan tap. To change the fan tap, use the indoor unit function "FAN SPEED SET" on the wired remote control.

Fan tap		Indoor unit airflow setting				
		8mil - 8mi - 8mi - 8mi	%aff - %aff - %aff	%::11 - %:: 00	8m1 - 8m1	
T FAN SPEED SET	STANDARD	PHi - Hi - Me - Lo	Hi - Me - Lo	Hi - Lo	Hi - Me	
	HIGH SPEED1, 2	PHi - PHi - Hi - Me	PHi - Hi - Me	PHi - Me	PHi - Hi	

Notes (1) Factory default is STANDARD.

- (2) At the hot-start and heating thermostat OFF, or other, the indoor unit fan is operated at the low speed tap of each setting.
- (3) This function is not able to be set with wireless remote controls or simple remote control (RCH-E3)

(20) Abnormal temperature thermistor (return air/indoor heat exchanger) wire/short-circuit detection

(a) Broken wire detection

When the return air temperature thermistor detects -50°C or lower or the heat exchanger temperature thermistor detect -50°C or lower for 5 seconds continuously, the compressor stops. After a 3-minute delay, the compressor restarts but, if it is detected again within 60 minutes after the initial detection for 6 minutes continuously, stops again (the return air temperature thermistor: E7, the heat exchanger temperature thermistor: E6).

(b) Short-circuit detection

If the heat exchanger temperature thermistor detects 70°C or higher for 5 seconds continuously at 2 minutes and 20 seconds after the compressor ON during cooling operation, the compressor stops (E6).

(21) External input/output control (CnT or CnTA)

Be sure to connect the wired remote control to the indoor unit. Without wired remote control remote operation by CnT is not possible to perform.

 $\begin{array}{c} \cdot \text{CnT} \\ \text{$

■ Priority order for combinations of CnT and CnTA input.

		CnTA					
		① Operation stop level	② Operation stop pulse	③ Operation permission/prohibition	4 Operation permission/prohibition pulse	⑤ Cooling/heating selection level	6 Cooling/heating selection pulse
	① Operation stop level	CnT ①	CnT ①	CnT ① +CnTA ②	CnT ①	CnT ① /CnTA ⑤	CnT ① /CnTA ⑥
	② Operation stop pulse	CnT ②	CnT ②	CnT ② +CnTA ③	CnT ②	CnT ② /CnTA ⑤	CnT ② /CnTA ⑥
CnT	③ Operation permission/prohibition level	CnT ③ >CnTA ①	CnT ③ >CnTA ②	CnT ③ +CnTA ③	CnT ③	CnT ③ /CnTA ⑤	CnT ③ /CnTA ⑥
Cni	Operation permission/prohibition pulse	CnT 4	CnT 4	CnT 4 +CnTA 3 **	CnT 4	CnT 4 /CnTA 5	CnT 4 /CnTA 6
	(5) Cooling/heating selection level	CnT ⑤ /CnTA ①	CnT 5 /CnTA 2	CnT 5 /CnTA 3 **	CnT 5 /CnTA 4	CnT ⑤	CnT ⑤
	Cooling/heating selection pulse	CnT 6 /CnTA 1	CnT 6 /CnTA 2	CnT 6 /CnTA 3	CnT 6 /CnTA 4	CnT 6	CnT 6

Note (1) Following operation commands are accepted when the operation prohibition is set with CnTA as indicated with *.

Individual operation command from remote control, test run command from outdoor unit and operation command from optional device, CNT input.

Reference: Explanation on the codes and the combinations of codes in the table above

- 1. In case of CnT "Number", the CnT "Number" is adopted and CnTA is invalidated.
- 2. In case of CnTA "Number", the CnTA "Number" is adopted and CnT is invalidated.
- 3. In case of CnT "Number"/CnTA "Number", the CnT "Number" and the CnTA "Number" become independent functions each other.
- 4. In case of CnT "Number" + CnTA "Number", the CnT "Number" and the CnTA "Number" become competing functions each other.
- 5. In case of CnT "Number" > CnTA "Number", the function of CnT "Number" supersedes that of CnTA "Number".
- 6. In case of CnT "Number" < CnTA "Number", the function of CnTA "Number" supersedes that of CnT "Number". (The "Number" above means ① ⑥ in the table.)

(a) Output for external control (remote display)

Following output connectors (CnT) are provided on the indoor control PCB for monitoring operation status.

- ① **Operation output:** Outputs DC12V signal for driving relay during operation
- **2 Heating output:** Outputs DC12V signal for driving relay during heating operation
- 3 Thermostat ON output: Outputs DC12V signal for driving relay when compressor is operating.
- (4) **Error output:** Outputs DC12V signal for driving relay when anomalous condition occurs.

(b) Remote operation input

Remote operation input connector (CnT-6 or CnTA) is provided on the indoor control PCB.

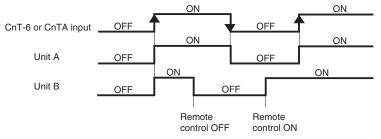
However remote operation by CnT-6 or CnTA is not effective, when "Center mode" is selected by center controller.

In case of plural unit (twin, triple, double twin), remote operation input to CnT-6 or CnTA on the slave indoor unit is invalid.

Only the "LEVEL INPUT" is acceptable for external input, however when the indoor function setting of "Level input (Factory default)" or "Pulse input" is selected by the function for "External input" of the wired remote control, operation status will be changed as follows.

(i) In case of "Level input" setting (Factory default)

Input signal to CnT-6 or CnTA is OFF→ON unit ON Input signal to CnT-6 or CnTA is ON→OFF unit OFF Operation is not inverted.

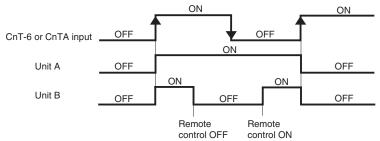


Note: The latest operation has priority

It is available to operate/stop by remote control or center control

(ii) In case of "Pulse input" setting (Local setting)

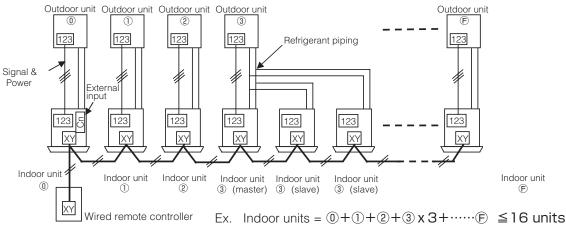
It is effective only when the input signal to CnT-6 or CnTA is changed OFF→ON, and at that time unit operation [ON/OFF] is inverted.



(c) Remote operation

(i) In case of multiple units (Max. 16 indoor units group) are connected to one wired remote control

When the indoor function setting of wired remote control for "External control set" is changed from "Individual (Factory default)" to "For all units", all units connected in one wired remote control system can be controlled by external operation input.



	Individual operation	on (Factory default)	All units operation (Local setting)		
	ON	OFF	ON	OFF	
CnT-6 or CnTA	CnT-6 or CnTA CnTA Cnt can be operated	Only the unit directly connected to the remote control can be stopped opeartion.	All units in one remote control system can be operated.	All units in one remote control system can be stopped operation.	
	Unit ① only	Unit ① only	Units ① – ⑤	Units ① – ⑤	

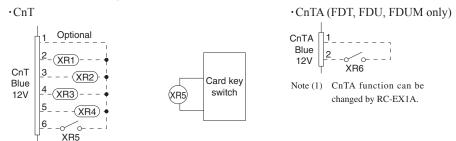
When more than one indoor unit (Max. 16 indoor units) are connected in one wired remote control system:

- (1) With the factory default, external input to CnT-6 or CnTA is effective for only the unit ①.
- (2) When setting "For all unit" (Local setting), all units in one remote control system can be controlled by external input to CnT-6 or CnTA on the indoor unit ①.
- (3) External input to CnT-6 or CnTA on the other indoor unit than the unit ① is not effective.

(22) Operation permission/prohibition

(In case of adopting card key switches or commercially available timers)

When the indoor function setting of wired remote control for "Operation permission/prohibition" is changed from "Invalid (Factory default)" to "Valid", following control becomes effective.



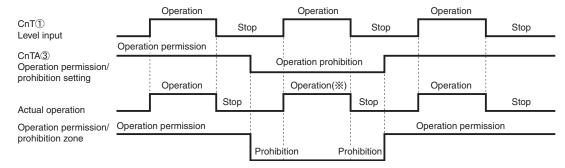
	Normal operation (Factory default)		Operation permission/prohibition mode "Valid" (Local setting)	
CaT (an	ON	OFF	ON	OFF
CnT-6 or CnTA	Operation	Stop	Operation permission*1	Operation prohibition (Unit stops)

*1 Only the "LEVEL INPUT" is acceptable for external input, however when the indoor function setting of "Level input (Factory default)" or "Pulse input" is selected by the function for "External input" of the wired remote control, operation status will be changed as follows.

In case of "Level input" setting	In case of "Pulse input" setting
Unit operation from the wired remote control becomes available*(1)	Unit starts operation *(2)

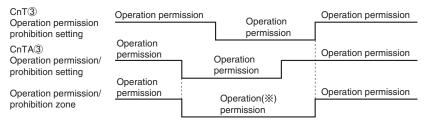
- *(1) In case that "Operation permission/prohibition mode" setting is "Valid" and "External input" setting is "Level input (Factory default)";
 - ① When card key switch is ON (CnT-6 or CnTA ON: Operation permission), start/stop operation of the unit from the wired remote control becomes available.
 - When card key switch is OFF (CnT-6 or CnTA OFF: Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.
- *(2) In case that "Operation permission/prohibition mode" setting is "Valid" and "External input" setting is "Pulse input (Local setting)";
 - ① When card key switch is ON (Operation permission), the unit starts operation in conjunction with ON signal. and also start/stop operation of the unit from the wired remote control becomes available.
 - 2 When card key switch is OFF (Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.
- (3) This function is invalid only at "Center mode" setting done by central control.

(a) In case of CnT ① Operation stop level > CnTA ③ Operation permission/prohibition level



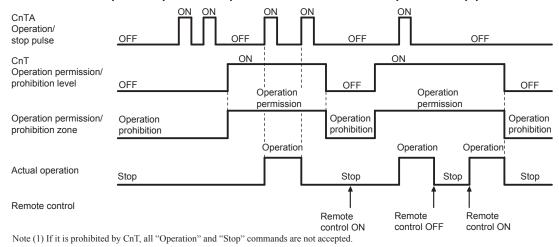
(*X) CnT level input supersedes CnTA operation prohibition.

(b) In case of CnT 3 Operation permission/prohibition level + CnTA 3 Operation permission/prohibition level

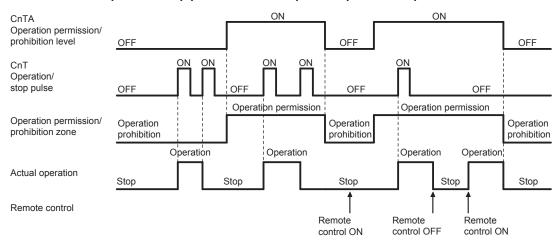


(*) Operation prohibition zone is determined by the OR judgment between CnT Operation prohibition zone and CnTA Operation prohibition zone.

(c) In case of CnT 3 Operation permission/prohibition level > CnTA 2 Operation/stop pulse



(d) In case of CnT ② Operation/stop pulse + CnTA ③ Operation permission/prohibition level



(23) Selection of cooling/heating external input function

- (a) When "External input 1 setting: Cooling/heating" is set for the indoor unit function from remote control, the cooling or heating is selected with CnT-6 or CnTA.
- (b) When the External input 1 method selection: Level input is set for the indoor unit function:
 - CnT-6 or CnTA: OPEN → Cooling operation mode
 - · CnT-6 or CnTA: CLOSE → Heating operation mode
- (c) When the External input 1 method selection: Pulse input is set for the indoor unit function:

 If the external input is changed OPEN → CLOSE, operation modes are inverted (Cooling → Heating or Heating → Cooling).

- (d) If the cooling/heating selection signal is given by the external input, the operation mode is transmitted to the remote control.
 - Selection of cooling/heating external input function

External input selection	External input method		Operation
	⑤ Level	External terminal input (CnT or CnTA)	OFF ON OFF ON Cooling zone, Heating zone, Cooling zone, Heating zone, Cooling zone, Heating zone,
		Cooling/heating	Cooling Heating Cooling
External input selection Cooling/heating selection		Cooling/heating (Competitive)	Cooling Heating Heating Auto, cooling, dry mode command † 1 Heating, auto, heating mode command from remote control Auto, cooling, dry mode command † 1 Heating, auto, heating mode command from remote control
	6 Pulse	External terminal input (CnT or CnTA)	OFF ON OFF Heating zone The setting "Cooling/basing selection", the cooling/basing is selected by the current operation mode. During heating: Set at the heating zone (cooling prohibition zone). During cooling, day, and and fan mode: Set at cooling zone theating prohibition zone).
		Cooling/heating	Auto Cooling Cooling
		Cooling/heating (Competitive)	Auto Cooling Cooling 1 Set "Cooling 1 Auto, cooling, dry mode command 1 Auto, heating mode command by remote control command by remote control

Notes (1) Regarding the priority order for combinations of CnT and CnTA, refer to Page 319.

(24) Fan control at heating startup

(a) Start conditions

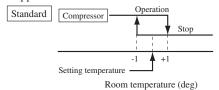
At the start of heating operation, if the difference of setting temperature and return air temperature is 5°C or higher after the end of hot start control, this control is performed.

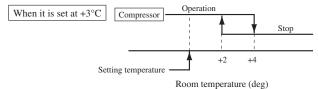
- (b) Contents of control
 - (i) Sampling is made at each minute and, when the indoor unit heat exchanger temperature (detected with ThI-R) is 37°C or higher, present number of revolutions of indoor unit fan speed is increased by 10min⁻¹.
 - (ii) If the indoor unit heat exchanger temperature drops below 37°C at next sampling, present number of revolutions of indoor unit fan speed is reduced by 10min⁻¹.
- (c) End conditions

Indoor fan speed is reduced to the setting airflow volume when the compressor OFF is established and at 30 minutes after the start of heating operation.

(25) Room temperature detection temperature compensation during heating

With the standard specification, the compressor is turned ON/OFF with the thermostat setting temperature. When the thermostat is likely to turn OFF earlier because the unit is installed at the ceiling where warm air tends to accumulate, the setting can be changed with the wired remote control indoor unit function "* \$P OFFSET". The compressor and the heater are turned ON/OFF at one of the setting temperature +3, +2 or +1°C in order to improve the feeling of heating. The setting temperature, however, has the upper limit of 30°C.





(26) Return air temperature compensation

This is the function to compensate the deviation between the detection temperature by the return air temperature thermistor and the measured temperature after installing the unit.

- (a) It is adjustable in the unit of 0.5°C with the wired remote control indoor unit function "RETURN AIR TEMP".
 - +1.0°C, +1.5°C, +2.0°C
- -1.0°C, -1.5°C, -2.0°C
- (b) Compensated temperature is transmitted to the remote control and the compressor to control them.

Note (1) The detection temperature compensation is effective on the indoor unit thermistor only.

(27) High power operation (RC-EX1A only)

It operates at with the set temp. fixed at 16°C for cooling, 30°C for heating and maximum indoor fan speed for 15 minutes maximum.

(28) Energy-saving operation (RC-EX1A only)

It operates with the setting temperature fixed at 28°C for cooling, 22°C for heating or 25°C for auto. (Maximum capacity is restricted at 80%.)

(29) Warm-up control (RC-EX1A only)

Operation will be started 5 to 60 minutes before use according to the forecast made by the microcomputer which calculates when the operation should be started in order to warm up the indoor temperature near the setting temperature at the setting time of operation start.

(30) Home leave mode (RC-EX1A only)

When the unit is not used for a long period of time, the room temperature is maintained at a moderate leval, avoiding extremely hot or cool temperature.

- (a) Cooling or heating is operated according to the outdoor temperature (factory setting 35°C for cooling, 0°C for heating) and the set temp. (factory setting 33°C for cooling, 10°C for heating)
- (b) Set temp and indoor fan speed can be set by RC-EX1A.

(31) Auto temp. setting (RC-EX1A only)

Setting temperature is adjusted automatically at the adequate temperature the center set temp. is 24°C by correcting the outdoor air temperature.

(32) Fan circulator operation (RC-EX1A only)

When the fan is used for circulation, the unit is operated as follows depending on the setting with the remote control.

- (a) If the invalid is selected with the remote control, the fan is operated continuously during the fan operation. (mormal fan mode)
- (b) If the valid is selected with the remote control, the fan is operated or stopped when on the difference of the remote control temperature sensor and the indoor unit return air temperature sensor becomes bigger than 3°C.

(33) The operation judgment is executed every 5 minutes (RC-EX1A only)

Setting temperature Ts is changed according to outdoor temperature

This control is valid with cooling and heating mode. (NOT auto mode)

- (a) Operate 5 minutes forcedly.
- (b) Setting temperature is adjusted every 10 minutes.
 - (i) Cooling mode.
 - Ts = outdoor temperature offset value
 - (ii) Heating mode.
 - Ts = outdoor temperature offset value
- (c) If the return air temperature lower than 18°C or return air temperature becomes lower than 25°C, unit goes thermo OFF.

(34) Auto fan speed control (RC-EX1A only)

In order to reach the room temperature to the set temperature as quickly as possible, the airflow rate is increased when the set temperature of thermostat differs largely from the return air temperature. According to temperature difference be tureen set temperature and return air temperature, indoor fan tap are controlled automalically.

- Auto 1: Changes the indoor unit fan tap within the range of $Hi \leftrightarrow Me \leftrightarrow Lo$.
- Auto 2: Changes the indoor unit fan tap within the range of PHi \leftrightarrow Hi \leftrightarrow Me \leftrightarrow Lo.

(35) IU overload alarm (RC-EX1A only)

If the following condition is satisfied at 30 minutes after starting operation, RC-EX1A shows maintenance code "M07" and the signal is transmitted to the external output (CnT-5).

- (a) Receipt of the signal by the external output is indicated by lighting an LED or other prepared on site.
 - · Cooling, Dry, Auto(Cooling): Indoor air temperature = Set room temperature by remote control + Alarm temperature difference
 - Heating, Auto(Heating) : Indoor air temperature = Set room temperature by remote control Alarm temperature difference Alarm temperature difference is selectable between 5 to 10°C.
- (b) If the following condition is satisfied or unit is stopped, the signal is disappeared.
 - · Cooling, Dry, Auto(Cooling): Indoor air temperature = Set room temperature + Alarm temperature difference -2°C
 - Heating, Auto(Heating) : Indoor air temperature = Set room temperature Alarm temperature difference +2°C

(II) SRK series

(1) Unit ON/OFF button

If the remote control is malfunctioning, this button may be used to turn the unit on and off.

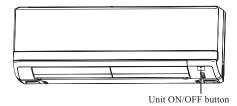
(a) Operation

Push the button once to place the unit in the automatic mode. Push it once more to turn the unit off.

(b) Details of operation

The unit will go into the automatic mode in which it automatically determines, from room temperature (as detected by sensor), whether to go into the cooling, thermal dry or heating modes.

Function Operation mode	Roon temperature setting	Fan speed	Swing contral	Timer switch
Cooling	About 24°C			
Thermal dry	About 25°C	Auto	Auto	Continuous
Heating	About 26°C			



(2) Auto restart function

(a) Auto restart function records the operational status of the air-conditioner immediately prior to be switched off by a power cut, and then automatically resumes operations after the power has been restored.

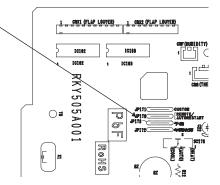
Jumper wire (J170)

(b) The following settings will be cancelled:

· Timer settings

Notes (1) Auto restart function is set at on when the air-conditioner is shipped from the factory. Consult with your dealer if this function needs to be switched off.

- (2) When power failure occurs, the timer setting is cancelled. Once power is resumed, reset the timer.
- (3) If the jumper wire (J170) "AUTO RESTART" is cut, auto restart is disabled. (See the diagram at right)



(3) Auto swing control

(a) RC-EX1A

- (i) Louver control
 - 1) To operate the swing louver when the air conditioner is operating, press the "Direction" button on the TOP screen of remote control. The wind direction select screen will be displayed.
 - To swing the louver, touch the "Auto swing" button. The lover will move up and down. To fix the swing louver at a position, touch one of [1] [4] buttons. The swing lover will stop at the selected position.
 - 3) Louver operation at the power on with a unit having the louver 4-position control function

 The louver swings one time automatically (without operating the remote control) at the power on.

 This allows the microcomputer recognizing and inputting the louver motor (LM) position.
- (ii) Automatic louver level setting during heating

At the hot start and the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (in order to prevent blowing of cool wind). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver free stop control

If you touch the "Menu" \rightarrow "Next" \rightarrow "R/C settings" buttons one after another on the TOP screen of remote control, the "Flap control" screen is displayed. If the free stop is selected on this screen, the louver motor stops upon receipt of the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position before the stop.

(b) RC-E5

- (i) Louver control
 - Press the "LOUVER" button to operate the swing louver when the air conditioner is operating.
 - "SWING --" is displayed for 3 seconds and then the swing louver moves up and down continuously.
 - 2) To fix the swing louver at a position, press one time the "LOUVER" button while the swing louver is moving so that four stop positions are displayed one after another per second.
 - When a desired stop position is displayed, press the "LOUVER" button again. The display stops, changes to show the "STOP 1—" for 5 seconds and then the swing louver stops.
 - 3) Louver operation at the power on with a unit having the louver 4-position control function
 - The louver swings one time automatically (without operating the remote control) at the power on.
 - This allows inputting the louver motor (LM) position, which is necessary for the microcomputer to recognize the louver position.
 - Note (1) If you press the "LOUVER" button, the swing motion is displayed on the louver position LCD for 10 second. The display changes to the "SWING -" display 3 seconds later.
- (ii) Automatic louver level setting during heating

At the hot start with the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (In order to prevent the cold start). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver-free stop control

When the louver-free stop has been selected with the indoor function of wired remote control " \Rightarrow_{n} POSITION", the louver motor stops when it receives the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position where it was before the stop.

Note (1) When the indoor function of wired remote control ">¬¬ POSITION" has been switched, switch also the remote control function "¬¬¬ POSITION" in the same way.

(4) Timer operation

(a) RC-EX1A

(i) Sleep times

Set the time from the start to stop of operation. The time can be selected in the range from 30 to 240 minutes (in the unit of 10-minute).

Note (1) Enable the "Sleep timer" setting from the remote control. If the setting is enabled, the timer operates at every time.

(ii) Set OFF timer by hour

Set the time to stop the unit after operation, in the range from 1 to 12 hours (in the unit of hour).

(iii) Set ON timer by hour

Set the time to start the unit after the stop of operation, in the range from 1 to 12 hours (in the unit of hour). It is allowed also to set simultaneously the indoor temperature, operation mode, air flow rate and warm-up enabled/disabled.

(iv) Set ON timer by clock

Set the time to start operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time. It is allowed also to set simultaneously the indoor temperature, operation mode, air flow rate and warm-up enabled/disabled.

Note (1) It is necessary to set the clock to use this timer.

(v) Set OFF timer by clock

Set the time to stop operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time.

Note (1) It is necessary to set the clock to use this timer.

(vi) Weekly timer

Set the ON or OFF timer for a week. Up to 8 patterns can be set for a day. The day-off setting is provided for holidays and non-business days.

Note (1) It is necessary to set the clock to use the weekly timer.

(vii) Combination of patterns which can be set for the timer operations

	Sleep time	Set OFF timer by hour	Set ON timer by hour	Set OFF timer by clock	Set ON timer by clock	Weekly timer
Sleep time		×	×	0	0	0
Set OFF timer by hour	×		×	×	×	×
Set ON timer by hour	×	×		×	×	×
Set OFF timer by clock	0	×	×		0	×
Set ON timer by clock	0	×	×	0		×
Weekly timer	0	×	×	×	×	

Note (1) O: Allowed ×: Not

(b) RC-E5

(i) Sleep timer

Set the duration of time from the present to the time to turn off the air-conditioner.

It can be selected from 10 steps in the range from "OFF 1 hour later" to "OFF 10 hours later". After the sleep timer setting, the remaining time is displayed with progress of time in the unit of hour.

(ii) OFF timer

Time to turn OFF the air-conditioner can be set in the unit of 10 minutes.

(iii) ON timer

Time to turn ON the air-conditioner can be set. Indoor temperature can be set simultaneously.

(iv) Weekly timer

Timer operation (ON timer, OFF timer) can be set up to 4 times a day for each weekday.

(v) Timer operations which can be set in combination

Item Item	Timer	OFF timer	ON timer	Weekly timer
Timer		×	0	×
OFF timer	×		0	×
ON timer	0	0		×
Weekly timer	×	×	×	

Note (1) \bigcirc : Allowed \times : Not

(5) Remote control display during the operation stop

When the operation is stopped (the power supply is turned ON), it displays preferentially the "Room temperature", "Center/Remote", "Filter sign", "Inspection" and "Timer operation".

(6) Outline of heating or cooling operation

(a) Operation of major functional components in heating mode

	Heating				
	Thermostat ON	Thermostat OFF	Failure		
Compressor	ON	OFF	OFF		
Indoor fan motor	ON	ON(HOT KEEP)	OFF		
Outdoor fan motor	ON	OFF	OFF		
4-way valve	ON	ON	OFF (3 minutes ON)		

(b) Operation of major functional components in Cooling mode

	Cooling			
	Thermostat ON	Thermostat OFF	Failure	
Compressor	ON	OFF	OFF	
Indoor fan motor	ON	ON	OFF	
Outdoor fan motor	ON	OFF	OFF (few minutes ON)	
4-way valve	OFF	OFF	OFF	

⁽²⁾ Since the ON timer, sleep timer and OFF timer are set in parallel, when the times to turn ON and OFF the airconditioner are duplicated, the setting of the OFF timer has priority.

(7) Indoor fan motor protection

When the air conditioner is operating and the indoor fan motor is turned ON, if the indoor fan motor has operated at 300 min⁻¹ or under for more than 30 seconds, the unit enters first in the stop mode and then stops the entire system.

(8) Serial signal transmission error protection

- (a) **Purpose:** Prevents malfunction resulting from error on the indoor \leftrightarrow outdoor signals.
- (b) **Detail of operation:** If the compressor is operating and a serial signal cannot be received from the indoor control with outdoor control having serial signals continues for 7 minute and 35 seconds, the compressor is stopped. After the compressor has been stopped, it will be restarted after the compressor start delay if a serial signal can be received again from the indoor control.

(9) Plural unit control – Control of 16 units group by one remote control

(a) Function

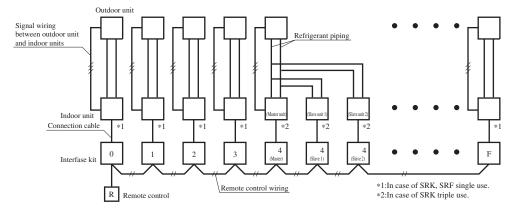
One remote control switch can control a group of multiple number of unit (Max. 16 indoor units). "Operation mode" which is set by the remote control switch can operate or stop all units in the group one after another in the order of unit No.⁽¹⁾. Thermostat and protective function of each unit function independently.

Note (1) Unit No. is set by SW1 on the interface PCB. Unit No. setting by SW1 is necessary for the interface only. In cases of the twin and triple specification, it is necessary set for the master and the slave units. This can be selected by SW3. (All are set for the master unit at the shipping from factory.)

SW1: For setting of 0 – 9, A – F SW3: For setting of master and slave units (See table shown at right.)

SW3 setting (For interface PCB)

Switch	SW3-1	SW3-2
Master	OFF	OFF
Stave1	OFF	ON
Stave2	ON	OFF



(2) Unit No. may be set at random unless duplicated, it should be better to set orderly like 0, 1, 2..., F to avoid mistake.

(b) Display to the remote control

- (i) Center or each remote control basis, heating preparation: the youngest unit No. among the operating units in the remote mode (or the center mode unless the remote mode is available) is displayed.
- (ii) Inspection display, filter sign: Any of unit that starts initially is displayed.
- (iii) Confirmation of connected units
 - In case of RC-EX1A remote control
 If you touch the buttons in the order of "Menu" → "Next" → "Service & Maintenance" → "IU address" on the
 TOP screen of remote control, the indoor units which are connected are displayed.
 - 2) In case of RC-E5 remote control Pressing "AIR CON No." button on the remote control displays the indoor unit address. If "▲" "▼" button is pressed at the next, it is displayed orderly starting from the unit of youngest No.

(c) In case of anomaly

a) If any anomaly occurs on a unit in a group (a protective function operates), that unit stops with the anomalous stop but any other normal units continue to run as they are.

b) Signal wiring procedure

Signal wiring between indoor and outdoor units should be made on each unit same as the normal wiring. For the group control, lay connect with sires wiring between rooms using terminal blocks (X, Y) of interface kit. Connect the remote control communication wire separately from the power supply wire or wires of other electric devices (AC220V or higher).

(10) Filter sign

As the operation time (Total ON time of ON/OFF switch) accumulates to 180 hours (1), "Filter cleaning" is displayed on the remote control. (This is displayed when the unit is in trouble and under the centralized control, regardless of ON/OFF)

Note (1)Time setting for the filter sign can be made as shown below using the indoor function of wired remote control "FILTER SIGN SET". (It is set at 1 at the shipping from factory.)

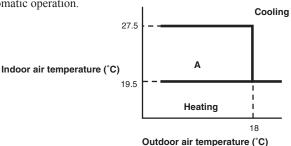
Filter sign setting	Function	
Setting 1	Setting time: 180 hrs (Factory default)	
Setting 2	Setting time: 600 hrs	
Setting 3	Setting time: 1,000 hrs	
Setting 4	Setting time: 1,000 hrs (Unit stop) (2)	

(2) After the setting time has elapsed, the "FILTER CLEANING" is displayed and, after operating for 24 hours further (counted also during the stop), the unit stops.

(11) Outline of automatic operation

(a) Determination of operation mode

The unit checks the indoor air temperature and the outdoor air temperature, determines the operation mode, and then begins in the automatic operation.



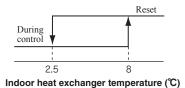
- **(b)** The unit checks the temperature every hour after the start of operation and, if the result of check is not same as the previous operation mode, changes the operation mode.
 - (i) If the setting temperature is changed with the remote control, the operation mode is judged immediately.
 - (ii) When both the indoor and the outdoor air temperatures are in the range "A", cooling or heating is switched depending on the difference between the setting temperature and the indoor air temperature.
 - (iii) When the operation mode has been judged following the change of setting temperature with the remote control, the hourly judgment of operation mode is cancelled.
- **(c)** When the unit is started again within one hour after the stop of automatic operation or when the automatic operation is selected during heating or cooling operation, the unit is operated in the previous operation mode.

(12) Frost prevention control

- (a) Operating conditions
 - (i) More than 8 minutes after starting the compressor.
 - (ii) Indoor heat exchanger temperature (detected with Th2) is lower than 2.5 °C.

(b) Contents of frosting operation

	During this control	Reset	
Compressor ON/OFF command	Forced stop	Operation command	
Indoor fan motor	Depending on the airflow setting with the remo		



(c) Resetting condition: Indoor heat exchanger temperature (Th2) is higher than 8 °C.

(13) Dew prevention control I [Cooling]: Prevents dewing on the indoor unit.

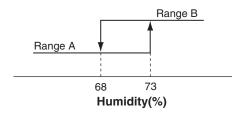
- (a) Operating conditions: When the following conditions have been met for more than 30 minutes after starting operation
 - (i) Compressor's command speed is 28 rps or higher.
 - (ii) Detected value of humidity is 68% or higher.

(b) Contents of operation

(i) Air capacity control

Item	Model	. SRK50, 60
10	Upper limit of compressor's command speed	RangeA: 50rps, RangeB: 30rps
LO	Indoor fan	5th speed
AUTOUMED	Upper limit of compressor's command speed	RangeA: 50rps, RangeB: 30rps
AUTO,HI,MED	Indoor fan	Adaptable to compressor's command speed (5th to 9th speed)

Note (1) Ranges A and B are as shown below.



- (ii) When this control has continued for more than 30 minutes continuously, the following wind direction control is performed.
 - 1) When the vertical wind direction is set at other than the vertical swing, the flaps change to the horizontal position.

(c) Resetting condition: When any of followings is metdirec

- (i) Compressor's command speed is less than 28 rps.
- (ii) Detected value of humidity is less than 63%.

(14) Outline of dry(dehumidifying) operation

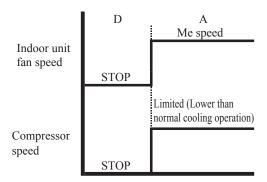
(a) Purpose of DRY mode

The purpose is "Dehumidification", and not to control the humidity to the target condition. Indoor/outdoor unit control the operation condition to reduce the humidity, and also prevent over cooling.

(b) Outline of control

(i) Indoor unit fan speed and compressor are controlled by the area which is selected by the temp. difference.

Indoor unit fan speed



Difference between set temp. and return temp.

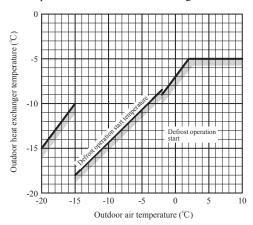
(ii) The indoor unit check the current area by every 5 minutes, and operate by the next checking.

1.11.4 Operation control function by the outdoor control

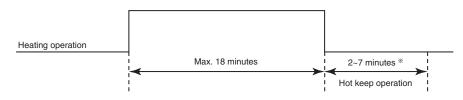
(I) Models SRC40-60

(1) Defrosting operation

- (a) Starting conditions (Defrosting operation can be started only when all of the following conditions are met.)
 - 1) After start of heating operation
 - When it elapsed 35 minutes. (Accumulated compressor operation time)
 - 2) After end of defrosting operation
 - When it elapsed 35 minutes. (Accumulated compressor operation time)
 - 3) Outdoor heat exchanger sensor (TH1) temperature
 - When the temperature has been below -5°C for 3 minutes continuously.
 - 4) The difference between the outdoor air sensor temperature and the outdoor heat exchanger sensor temperature
 - The outdoor air temperature $\geq -2^{\circ}\text{C}$: 7°C or higher
 - -15°C \leq The outdoor air temperature < -2°C : $4/15 \times$ The outdoor air temperature + 7°C or higher
 - The outdoor air temperature $< -15^{\circ}\text{C} : -5^{\circ}\text{C}$ or higher



- (b) Ending conditions (Operation returns to the heating cycle when either one of the following is met.)
 - 1) Outdoor heat exchanger sensor (TH1) temperature: 10°C or higher
 - 2) Continued operation time of defrosting → For more than 18 minutes.
 - Defrost operation

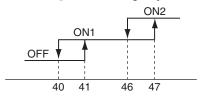


 $\mbox{\ensuremath{\%}}\mbox{\ensuremath{Depends}}$ on an operation condition, the time can be longer than 7 minutes.

(2) Cooling overload protective control

(a) Operating conditions: When the outdoor air temperature (TH2) has become continuously for 30 seconds at 41°C or more with the compressor running, the lower limit speed of compressor is brought up.

Outdoor air temperature	41°C or more	47°C or more
Lower limit speed	30 rps	40 rps



(b) Detail of operation

Outdoor air temperature (°C)

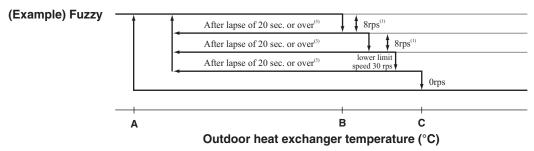
The lower limit of compressor command speed is set to 30 or 40 rps and even if the calculated result becomes lower than that after fuzzy calculation, the speed is kept to 30 or 40 rps. However, when the thermo becomes OFF, the speed is reduced to 0 rps.

- **(c) Reset conditions:** When either of the following condition is satisfied.
 - 1) The outdoor air temperature is lower than 40°C.
 - 2) The compressor command speed is 0 rps.

(3) Cooling high pressure control

- (a) **Purpose:** Prevents anomalous high pressure operation during cooling.
- **(b) Detector:** Outdoor heat exchanger sensor (TH1)
- (c) Detail of operation:

Outdoor air temperature(TH2)	Α	В	С
TH2 ≧ 32°C	53	58	63
TH2 < 32°C	51	53	56



Notes (1) When the outdoor heat exchanger temperature is in the range of A~C°C, the speed is reduced by 8 rps at each 20 seconds.

- (2) When the temperature is 63°C or higher, the compressor is stopped.
 - (3) When the outdoor heat exchanger temperature is in the range of A~C°C, if the compressor command speed is been maintained and the operation has continued for more than 20 seconds at the same speed, it returns to the normal cooling operation.

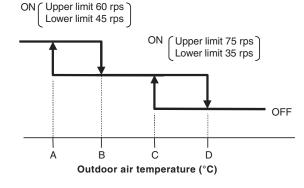
(4) Cooling low outdoor temperature protective control

(a) Operating conditions: When the outdoor air temperature (TH2) is C°C or lower continues for 20 seconds while the compressor command speed is other than 0 rps.

(b) Detail of operation:

- 1) The lower limit of the compressor command speed is set to 45 (35) rps and even if the speed becomes lower than 45 (35) rps, the speed is kept to 45 (35) rps. However, when the thermo becomes OFF, the speed is reduced to 0 rps.
- 2) The upper limit of the compressor command speed is set to 60 (75) rps and even if the calculated result becomes higher than that after fuzzy calculation, the speed is kept to 60 (75) rps.

Note (1) Values in () are for outdoor air temperature is C°C



• Values of A, B, C, D

	Outdoor air temp. (°C)			
	Α	В	С	D
First time	9	11	22	25
Since the seconds times	16	19	25	28

- (c) Reset conditions: When either of the following condition is satisfied.
 - 1) The outdoor air temperature (TH2) is D °C or higher.
 - 2) The compressor command speed is 0 rps.

(5) Heating high pressure control

- (a) Start condition: When the indoor heart exchanger temperature (ThI-R) has risen to a specified temperature while the compressor is turned on.
- (b) Compressor command speed is controlled according to the zones of indoor heat exchanger temperature as shown by the following table.

	ThI-R <p1< th=""><th>P1≦Thl-R<p2< th=""><th>P2≦Thl-R<p3< th=""><th>P3≦ThI-R</th></p3<></th></p2<></th></p1<>	P1≦Thl-R <p2< th=""><th>P2≦Thl-R<p3< th=""><th>P3≦ThI-R</th></p3<></th></p2<>	P2≦Thl-R <p3< th=""><th>P3≦ThI-R</th></p3<>	P3≦ThI-R
Protection control speed (NP)	Normal	Retention	NP-4rps	NP-8rps
Sampling time (s)	Normal	10	10	10

			Unit:°C
NP ThI-R	P1	P2	P3
NP<50	45	52	54.5
50≦NP<115	45	52	57
115≦NP<120	45-43	52-50	57-55
120≦NP	43	50	55

(6) Heating overload protective control

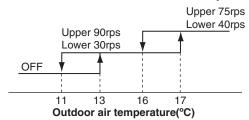
(a) Operating conditions: When the outdoor air temperature (TH2) is 13°C or higher continues for 30 seconds while the compressor command speed is other than 0 rps.

(b) Detail of operation

- (i) Taking the upper limit of compressor command speed range at 90(75)rps, if the output speed obtained with the fuzzy calculation exceeds the upper limit, the upper limit value is maintained.
- (ii) The lower limit of compressor command speed is set to 30(40)rps and even if the calculated result becomes lower than that after fuzzy calulation, the speed is kept to 30(40)rps. However, when the thermo becomes OFF, the speed is reduced to 0 prs
- (iii) Inching prevention control is activated and inching prevention control is carried out with the minimum speed set at 30(40)rps.

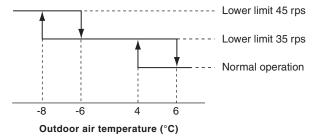
Note (1) Values in () are for outdoor air temperature at 17°C.

(c) Reset conditions: The outdoor air temperature (TH2) is lower than 11°C



(7) Heating low outdoor temperature protective control

- (a) Operating conditions: When the outdoor air temperature (TH2) is 4°C or lower continues for 30 seconds while the compressor command speed is other than 0 rps.
- (b) Detail of operation: The lower limit compressor command speed is change as shown in the figure below.



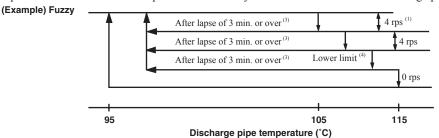
- (c) Reset conditions: When either of the following condition is satisfied.
 - 1) The outdoor air temperature (TH2) is higher than 6°C.
 - 2) The compressor command speed is 0 rps.

(8) Compressor overheat protection

(a) **Purpose:** It is designed to prevent deterioration of oil, burnout of motor coil and other trouble resulting from the compressor overheat.

(b) Detail of operation

1) Speeds are controlled with temperature detected by the sensor mounted on the discharge pipe.



Notes (1) When the discharge pipe temperature is in the range of 105~115°C, the speed is reduced by 4 rps.

- (2) When the discharge pipe temperature is raised and continues operation for 20 seconds without changing, then the speed is reduced again by 4 rps.
- (3) If the discharge pipe temperature is in the range of 95~105 even when the compressor command speed is maintained for 3 minutes when the temperature is in the range of 95~105°C, the speed is raised by 1 rps and kept at that speed for 3 minutes. This process is repeated until the command speed is reached.
- (4) Lower limit speed

Model	Cooling	Heating
Lower Limit Speed	25 rps	32 rps

2) If the temperature of 115°C is detected by the sensor on the discharge pipe, then the compressor will stop immediately. When the discharge pipe temperature drops and the time delay of 3 minutes is over, the unit starts again within 1 hour but there is no start at the third time.

(9) Current safe

- (a) **Purpose:** Current is controlled not to exceed the upper limit of the setting operation current.
- (b) Detail of operation: Input current to the converter is monitored with the current sensor fixed on the printed circuit board of the outdoor unit and, if the operation current value reaches the limiting current value, the compressor command speed is reduced.

If the mechanism is actuated when the compressor command speed is less than 30 rps, the compressor is stopped immediately. Operation starts again after a delay time of 3 minutes.

(10) Current cut

- (a) Purpose: Inverter is protected from overcurrent.
- **(b) Detail of operation:** Output current from the inverter is monitored with a shunt resistor and, if the current exceeds the setting value, the compressor is stopped immediately. Operation starts again after a delay time of 3 minutes.

(11) Outdoor unit failure

This is a function for determining when there is trouble with the outdoor unit during air conditioning.

The compressor is stopped if any one of the following in item 1), 2) is satisfied. Once the unit is stopped by this function, it is not restarted.

- (a) When the input current is measured at 1 A or less for 3 continuous minutes or more.
- (b) If the outdoor unit sends a 0 rps signal to the indoor unit 3 times or more within 20 minutes of the power being turned on.

(12) Serial signal transmission error protection

- (a) **Purpose:** Prevents malfunction resulting from error on the indoor \leftrightarrow outdoor signals.
- **(b) Detail of operation:** If the compressor is operating and a serial signal cannot be received from the indoor control with outdoor control having serial signals continues for 7 minute and 35 seconds, the compressor is stopped.

After the compressor has been stopped, it will be restarted after the compressor start delay if a serial signal can be received again from the indoor control.

(13) Rotor lock

If the motor for the compressor does not turn after it has been started, it is determined that a compressor lock has occurred and the compressor is stopped.

(14) Outdoor fan motor protection

If the outdoor fan motor has operated at 75 min⁻¹ or under for more than 30 seconds, the compressor and fan motor are stopped.

(15) Outdoor fan control at low outdoor temperature

(a) Cooling

- 1) Operating conditions: When the outdoor air temperature (TH2) is 22°C or lower continues for 30 seconds while the compressor command speed is other than 0 rps.
- **2) Detail of operation:** After the outdoor fan operates at A speed for 60 seconds; the corresponding outdoor heat exchanger temperature shall implement the following controls.

• Value of A

	Outdoor fan
Outdoor temperature > 10°C	2nd speed
Outdoor temperature ≦ 10°C	1st speed

a) Outdoor heat exchanger temperature ≤ 21°C

After the outdoor fan speed drops (down) to 1 speed for 60 seconds; if the outdoor heat exchanger temperature is lower than 21°C, gradually reduce the outdoor fan speed by 1 speed. (Lower limit 1st speed)

b) $21^{\circ}\text{C} < \text{Outdoor heat exchanger temperature} \leq 38^{\circ}\text{C}$

After the outdoor fan speed maintains at A speed for 20 seconds; if the outdoor heat exchanger temperature is 21°C~38°C, maintain outdoor fan speed.

c) Outdoor heat exchanger tempeature > 38°C

After the outdoor fan speed rises (up) to 1 speed for 60 seconds; if the outdoor heat exchanger temperature is higher than 38°C, gradually increase outdoor fan speed by 1 speed. (Upper limit 3rd speed)

- 3) Reset conditions: When either of the following conditions is satisfied
 - a) The outdoor air temperature (TH2) is 25°C or higher.
 - b) The compressor command speed is 0 rps.

(b) Heating

- **1) Operating conditions:** When the outdoor air temperature (TH2) is 4°C or lower continues for 30 seconds while the compressor command speed is other than 0 rps.
- 2) Detail of operation: The outdoor fan is stepped up by 2 speed step at each 20 seconds. (Upper limit 8th speed)
- 3) Reset conditions: When either of the following conditions is satisfied
 - a) The outdoor air temperature (TH2) is 6°C or higher.
 - b) The compressor command speed is 0 rps.

(16) Refrigeration cycle system protection

(a) Starting conditions

- 1) When 5 minutes (Heating: 9 minutes) have elapsed after the compressor ON or the completion of the defrost control
- 2) Other than the defrost control
- 3) When, after meeting the conditions of 1) and 2) above, the compressor speed, indoor air temperature (ThI-A) and indoor heat exchanger temperature (ThI-R) have met the conditions in the following table for 5 minutes:

Operation mode	Compressor speed (N)	Indoor air temperature (ThI-A)	Indoor air temperature (ThI-A)/ Indoor heat exchanger temperature (ThI-R)
Cooling	40≦N	10≦ThI-A≦40	ThI-A-4 <thi-r< td=""></thi-r<>
Heating(1)	40≦N	0≦ThI-A≦40	ThI-R <thi-a+4< td=""></thi-a+4<>

Notes (1) Except that the fan speed is HI in heating operation and silent mode control.

(b) Contents of control

- 1) When the conditions of 1) above are met, the compressor stops.
- 2) Error stop occurs when the compressor has stopped 3 times within 60 minutes.

(c) Resetting condition

When the compressor has been turned OFF

(II) Models FDC71-140

(1) Determination of compressor speed (frequency)

Required frequency

(a) Cooling/dehumidifying operation

Unit: rps

	Model	71	100	125	140
Max. required frequency	Usual operation	88	75	95(92)	95(92)
	Silent mode, outdoor temperature $\leq 15^{\circ}$ C	80	50	60	70
Min. required frequency		20	20	20	20

Note (1) Value in () are for the 3 phase models.

(b) Heating operation

Unit: rps

	Model	71	100	125	140
Max. required frequency	Usual operation	112	100	120	120
	Silent mode	90	60	70	70
Min. required free	Min. required frequency		20	20	20

- (c) If the indoor unit fan speed becomes "Me" or "Lo", Max required frequency goes down accordingly depending on indoor unit model.
- (d) Max. required frequency under high outdoor air temperature in cooling mode

 Maximum required frequency is selected according to the outdoor air temperature (Tho-A).

Unit: rps

Model			100	125	140
Max. required	Outdoor air temperature is 40°C or higher	76	75	75	75
frequency	Outdoor air temperature is 46°C or higher	62	70	70	70

(e) Max. required frequency under outdoor air temperature in heating mode

Maximum required frequency is selected according to the outdoor air temperature (Tho-A).

Unit: rps

Model		71	100	125	140
Max. required frequency	Outdoor air temperature is 18°C or higher	76	75	80	85

- (f) Selection of max. required frequency by heat exchanger temperature
 - (i) Maximum required frequency is selected according to the outdoor unit heat exchanger temperature (Tho-R) during cooling/dehumidifying or according to the indoor unit heat exchanger temperature (ThI-R) during heating mode.
 - (ii) When there are 3 indoor unit heat exchanger temperatures (ThI-R), whichever the highest applies,

Unit: rps

Model		71	100	125	140	
Max. required	Cooling/ dehumidifying	Outdoor unit heat exchanger temperature is 56(61)°C or higher	60	75	95(92)	95 (92)
frequency	Heating	Indoor unit heat exchanger temperature is 56(61)°C or higher	60	100	100	100

Note (1) Value in () are for the 71 model.

- (2) Value in [] are for the 3 phase models.
- (g) When any of the controls from (a) to (f) above may duplicate, whichever the smallest value among duplicated controls is taken as the maximum required frequency.
- (h) During heating, it is operated with the maximum required frequency until the indoor unit heat exchanger temperature becomes 40°C or higher.

(2) Compressor start control

- (a) Compressor starts upon receipt of the thermostat ON signal from the indoor unit.
- (b) However, at initial start after turning the power supply breaker, it may enter the standby state for maximum 30 minutes (" PREPARATION" is displayed on the remote control) in order to prevent the oil loss in the compressor.

If the cooling/dehumidifying/heating operation is selected from the remote control when the outdoor unit is in the standby state, "@ PREPARATION" is displayed for 3 seconds on the remote control.

(3) Compressor soft start control

(a) Compressor protection start I

[Control condition] Normally, the compressor operation frequency is raised in this start pattern.

- [Control contents] (i) Starts with the compressor's target frequency at **A** rps. However, when the ambient air temperature (Tho-A) is 35°C or higher during cooling/ dehumidifying or the indoor return air temperature (ThI-A) is 25°C or higher during heating, it starts at C rps.
 - (ii) At 30 seconds after the start of compressor, its target frequency changes to **B** rps and the compressor is operated for 2 - 4 minutes with its operation frequency fixed at **B** rps.

Model	Operation mode	A rps	B rps	C rps
71	Cooling/Dehumidifying	42	42	40
/1	Heating	62	62	40
100	Cooling/Dehumidifying	45	45	25
100	Heating	45	45	25
125 140	Cooling/Dehumidifying	45	45	25
125, 140	Heating	45	45	25

(b) Compressor protection start III

[Control condition] Number of compressor starts is only 1 counted after the power supply breaker ON.

[Control contents] Operates by selecting one of following start patterns according to the operation mode and the outdoor air temperature (Tho-A).

Low frequency operation control during cooling/dehumidifying

[Control condition] Upon establishing the conditions of compressor protection start III, the low frequency operation control is performed during cooling/dehumidifying.

[Control contents]

- a) Starts with the compressor's target frequency at A rps. When the outdoor air temperature (Tho-A) is 35°C or higher, it starts at **C** rps.
- b) At 30 seconds after the compressor start, the compressor's target frequency is changed to **B** rps and the compressor's operation frequency is fixed for 10 minutes.

Model	Operation mode	A rps	B rps	C rps
71	Cooling/Dehumidifying	42	42	40
100	Cooling/Dehumidifying	45	45	25
125, 140	Cooling/Dehumidifying	45	45	25

(ii) Low frequency operation control during heating

[Control condition] When the conditions of compressor protection start III are established and one of following conditions

- a) is satisfied, the low number of revolutions operation control is performed during heating.
- a) At 30 minutes or more after turning the power supply breaker on

[Control contents]

- a) Starts the compressor with its target frequency at **A** rps. However, when the indoor unit return air temperature (ThI-A) is 25°C or higher, it start at **C** rps.
- b) At 30 seconds after the start of compressor, the compressor's target frequency is changed to **B** rps and the compressor's operation frequency is fixed for 10 minutes.

Model	Operation mode	A rps	B rps	C rps
71	Heating	42	42	40
100	Heating	45	45	25
125, 140	Heating	45	45	25

(4) Outdoor unit fan control

(a) Outdoor unit fan tap and fan motor speed

Unit: min-1

Model	Mode	Fan motor tap						
		① speed	② speed	3 speed	④ speed	⑤ speed	6 speed	⑦ speed
71	Cooling/Dehumidifying	200	400	600	710	810	850	950
	Heating	200	400	600	710	810	850	950
		① speed	② speed	3 speed	④ speed	⑤ speed	6 speed	⑦ speed
100	Cooling/Dehumidifying	200	370	560	640	745	870	910
	Heating	200	370	560	650	830	870	910
		① speed	② speed	3 speed	speed	⑤ speed	6 speed	⑦ speed
125, 140	Cooling/Dehumidifying	200	370	560	640	745	870	910
	Heating	200	370	560	650	830	870	910

(b) Fan tap control during Cooling/Defumidifying operation

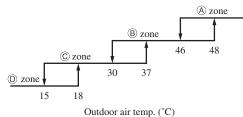
Fan taps are selected depending on the outdoor unit heat exchanger temperature (Tho-R1, R2) and the outdoor air temperature (Tho-A). Note (1) It is detected by Tho-R1 or R2, whichever the higher.

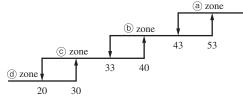
• Silent mode only

		(A) zone	® zone	© zone	© zone
	a zone	Tap 5(6)	Tap 5(6)	Tap 5(6)	Tap 4
	(b) zone	Tap 5(6)	Tap 5(6)	Tap 4(6)	Tap 3
	© zone	Tap 4	Tap 4	Tap 3	Tap 2
Г	d zone	Tap 3	Tap 3	Tap 2	Tap 1

	(A) zone	® zone	© zone	① zone			
a zone	Tap 5	Tap 5	Tap 5	Tap 4			
b zone	Tap 5	Tap 5	Tap 3	Tap 3			
© zone	Tap 4	Tap 3	Tap 3	Tap 2			
d zone	Tap 3	Tap 3	Tap 2	Tap 1			

Note (1) Value in () are for the model 71.





(c) Fan tap control during heating operation

Outdoor unit heat exchanger temp. (°C)

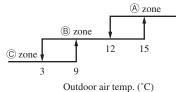
rail tap control during heating operation

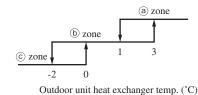
Fan taps are selected depending on the outdoor unit heat exchanger temperature (Tho-R1, R2) and the outdoor air temperature (Tho-A). Note (1) It is detected by Tho-R1 or R2, whichever the lower. • Silent mode only

	(A) zone	® zone	© zone
a zone	Tap 3	Tap 3	Tap 4
(b) zone	Tap 3	Tap 4(5)	Tap 5
© zone	Tap 4	Tap 5	Tap 6

	(A) zone	® zone	© zone
@ zone	Tap 3	Tap 3	Tap 3
(b) zone	Tap 3	Tap 3	Tap 5
© zone	Tap 4	Tap 5	Tap 6

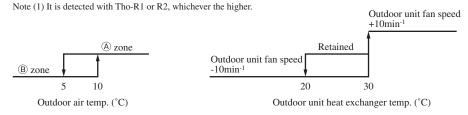
Note (1) Value in () is for the model 71.





(d) Outdoor unit fan control at cooling low outdoor air

(i) When all the following conditions are established after the start of compressor, the following control is implemented. If the outdoor air temperature (Tho-A) is in the zone (B) in the cooling/dehumidifying mode, it has elapsed 20 seconds from the start of outdoor unit fan and the outdoor unit fan is at the tap 1 speed, the outdoor unit fan speed is controlled according to the outdoor unit heat exchanger temperature (Tho-R1, R2).



- (ii) The outdoor unit heat exchanger temperature is detected always and, when the number of revolutions of the outdoor fan speed has been increased or decreased, there is no change of fan speed for 20 seconds.
- (iii) Rage of the outdoor unit fan speed under this control is as follows.
 - 1) Lower limit: 130min⁻¹
 - 2) Upper limit: 500min⁻¹
- (iv) As any of the following conditions is established, this control terminates.
 - 1) When the outdoor air temperature is in the zone (A) and the outdoor unit heat exchanger temperature at 30°C or higher is established for 40 seconds or more continuously.
 - 2) When the outdoor fan speed is 500min⁻¹ and the outdoor unit heat exchanger temperature at 30°C or higher is established for 40 seconds or more continuously.
 - 3) When the outdoor unit heat changer temperature at 45°C or higher is established for 40 seconds or more.

(e) Outdoor unit fan control by the power transistor radiator fin temperature

When all the following conditions are established later than 3 minutes after the start of compressor, the following control is implemented.

- (i) Cooling/dehumidifying
 - 1) Outdoor air temperature Tho-A \geq 33°C
 - 2) Compressor's actual frequency $\geq \mathbf{A}$ rps
 - 3) Power transistor radiator fin temperature $\geq \mathbf{C}$ °C
- (ii) Heating
 - 1) Outdoor air temperature Tho-A \geq 16°C
 - 2) Compressor's actual frequency \geq **B** rps
 - 3) Power transistor radiator fin temperature $\geq \mathbf{C}$ °C
- (iii) Control contents
 - 1) Raises the outdoor unit fan tap by 1 tap.
 - 2) When the sampling is for 60 minutes and the value of power transistor radiator fin temperature (Tho-P) is as follows
 - When the power transistor radiator fin temperature (Tho-P) \geq **C** °C, the outdoor unit fan tap is raised by 1 speed further.
 - b) When \mathbf{C} °C > power transistor radiator fin temperature (Tho-P) $\geq \mathbf{D}$ °C, present outdoor unit fan tap is maintained.
 - c) When the power transistor radiator fin temperature (Tho-P) \geq **D** °C, the outdoor unit fan tap is dropped by 1 speed.

(iv) Ending conditions

When the operation under the condition of item 2), 3 above and with the outdoor unit fan tap, which is determined by the item (b) is detected 2 times consecutively.

· Compressor's frequency and power transistor radiator fin temperature

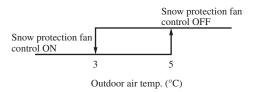
Item Model	Α	В	С	D
71	60	70	80	75
100	65	65	72	68
125, 140	65	65	72	68

(f) Caution at the outdoor unit fan start control (3 phase model only)

When the outdoor unit fan is running at 400min⁻¹ before operating the compressor, it may operate with the compressor only, without starting up the outdoor fan This is normal.

(g) Snow protection fan control

If the dip switch (SW3-2) on the outdoor unit control PCB is turned ON, the outdoor unit fan is operated for 30 seconds at 4 tap speed once in every 10 minutes depending on the outdoor air temperature (detected with Tho-A) in the stop mode or anomalous stop mode.

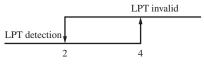


(5) Defrosting

(a) Defrosting start conditions

If all of the following defrosting conditions A or conditions B are met, the defrosting operation starts.

- Defrosting conditions A
 - 1) Cumulative compressor operation time after the end of defrosting has elapsed 37 [45] minutes, and the cumulative compressor operation time after the start of heating operation (remote control ON) has elapsed 30 minutes.
 - After 5 minutes from the compressor ON
 - After 5 minutes from the start of outdoor unit fan
 - 4) After satisfying all above conditions, if temperatures of the outdoor unit heat exchanger temperature thermistor (Tho-R1, R2) and the outdoor air temperature thermistor (Tho-A) become lower than the defrosting start temperature as shown Model 71 by the right figure for 15 seconds continuously, or the suction gas saturation temperature (SST) and the outdoor air temperature (Tho-A), which $\frac{1}{20}$ are obtained from the value detected by the low pressure sensor (LPT) stay for 3 minutes within the range below the defrosting operation start temperature as shown by the right figure. However, it excludes for 10 minutes after the start of compressor and the outdoor air temperature is as shown by the lower figure.



Outdoor air temp. (°C) Note (1) Figures in [] is for model 71.

(ii) Defrosting conditions B

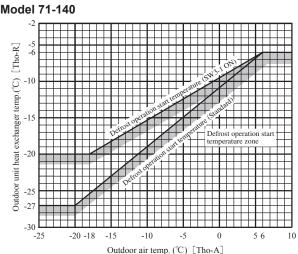
- 1) When previous defrosting end condition is the time out of defrosting operation and it is in the heating operation after the cumulative defrosting has become 30 minutes.

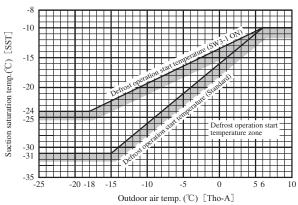
(b) Defrosting end conditions

When any of the following conditions is satisfied, the defrosting end operation starts.

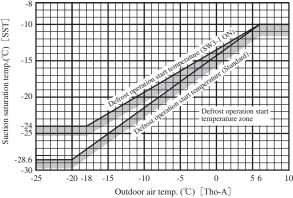
compressor operation time after the end of After 5 minutes from the start of compressor After 5 minutes from the start of outdoor unit fan

- (i) When it has elapsed 8 minutes and 20 seconds after the start of defrosting. (After 10 minutes and 20 seconds for
- (ii) When the outdoor unit heat exchanger temperatures (Tho-R1, R2), whichever the lower, becomes 12°C (model 71: 16°C) or higher for 10 seconds continuously.





Model 100-140



(c) Switching of defrosting control with SW3-1

- If SW3-1 on the outdoor unit control PCB is turned to ON, it becomes easier to enter the defrosting operation. Use this when installing a unit at snowing regions.
- (ii) Control contents
 - 1) It allows entering the defrosting operation under the defrosting condition A when the cumulative heating operation time becomes 30 minutes. It is 37 [45] minutes at SW3-1 OFF (Factory default).
 - 2) It allows entering the defrosting operation under the defrosting condition B when the cumulative heating operation time becomes 25 minutes. It is 30 minutes at SW3-1 OFF (Factory default).
 - 3) It allows the defrosting operation with the outdoor unit heat exchanger temperature (Tho-R) and suction pressure saturation temperature (SST) being higher than normal.

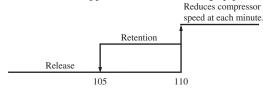
 Note (1) Figures in [] is for model 71.

(6) Protective control/anomalous stop control by compressor's number of revolutions

(a) Compressor discharge pipe temperature protection

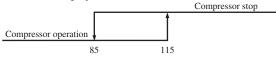
(i) Protective control

As the discharge pipe temperature (detected with Tho-D) exceeds the setting value, the compressor speed (frequency) is controlled to suppress the rise of discharge pipe temperature.



Discharge pipe temperature (°C)

- (ii) Anomalous stop control
 - 1) If the discharge pipe temperature (detected with Tho-D) exceeds the setting value, the compressor stops.
 - 2) When it is detected 2 times within 60 minutes or after continuous 60 minutes, including the stop of compressor, E36 is displayed on the remote control and it enters the anomalous stop mode.



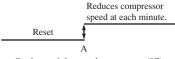
Discharge pipe temperature (°C)

(iii) Reset of anomalous stop mode

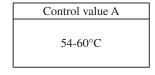
As it drops to the reset value of 85°C or lower for 45 minutes continuously, it becomes possible to restart from the remote control.

(b) Cooling high pressure protection

- (i) Protective control
 - 1) When the outdoor air temperature (Tho-A) is 40°C or higher and the outdoor unit heat exchanger temperature (Tho-R) exceeds the setting value, the compressor speed (frequency) is controlled to suppress the rise of high pressure.
 - 2) Control value A is updated to an optimum value automatically according to the operating conditions.



Outdoor unit heat exchanger temp. (°C)



- (ii) Anomalous stop control
 - 1) As the outdoor unit heat exchanger temperature (Tho-R) exceeds the setting value, the compressor stops.
 - 2) If it is detected 5 times within 60 minutes or 65°C or higher continues for 60 minutes, including the stop of compressor, E35 is displayed on the remote control and it enters the anomalous stop mode.



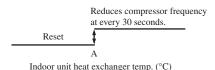
Outdoor unit heat exchanger temp. (°C)

(iii) Reset of anomalous stop mode

As it reaches the reset value of 51°C or lower, it becomes possible to restart from the remote control.

(c) Heating high pressure protection

- (i) Protective control
 - 1) As the indoor unit heat exchanger temperature (ThI-R) exceeds the setting value, the compressor speed (frequency) is controlled to suppress the rise of high pressure.
 - 2) Control value A is updated to an optimum value automatically according to the operating conditions.

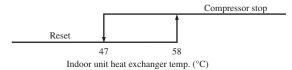


	Existing piping adaptation switch: SW5-1 (SW8-1: model 80)			
Model	OFF (Shipping)	ON		
	Control value A (°C)			
71	52-58	16.50		
100-140	48-54	46-52		

Note (1) Adaptation to existing piping is at ON.

- (ii) Anomalous stop control
 - Operation control function by the indoor unit controller See the heating overload protection, page 317.
- (iii) Adaptation to existing piping, stop control

If the existing piping adaptation switch, SW5-1 (model 71: SW8-1), is turned ON, the compressor stops to protect existing piping when the indoor unit heat exchanger temperature (ThI-R) exceeds the setting value.



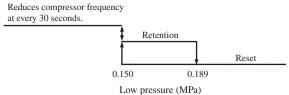
(d) Anomaly detection control by the high pressure switch (63H1)

- (i) If the pressure rises and operates the high pressure switch (opens at 4.15MPa/closes at 3.15MPa), the compressor stops.
- (ii) Under any of the following conditions, E40 is displayed and it enters the anomalous stop mode.
 - 1) When it occurs 5 times within 60 minutes that pressure rises and the compressor is stopped by 63H1.
 - 2) When 63H1 has been in the open state for 60 minutes continuously, including the stop of compressor.

(e) Low pressure control

(i) Protective control

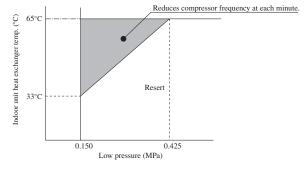
If the value detected by the low pressure sensor (LPT) exceeds the setting value, the compressor speed (frequency) is controlled to restrain the drop of pressure.



- (ii) Anomalous stop control
 - 1) When a value detected by the low pressure sensor (LPT) satisfies any of the following conditions, the compressor stops to run for its protection.
 - a) When the low pressure drops to 0.079MPa or under for 15 seconds continuously.
 - b) At 10 minutes after the start of compressor, the suction overheat becomes 30°C and the low pressure becomes 0.15MPa or under for 60 seconds continuously.
 - 2) E49 is displayed under any of the following conditions and it enters the anomalous stop mode.
 - a) When the low pressure drops 3 times within 60 minutes and the compressor stops under any of the above conditions.
 - b) When a value detected with the low pressure sensor becomes 0.079MPa or under for 5 minutes, including the stop of compressor.
 - 3) However, when the control condition 1). a) is established during the compressor protection start III, E49 is displayed at initial stop and it enters the anomalous stop mode.

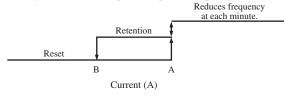
(f) Compressor pressure ratio protection control (Model 100 - 140 only)

- (i) During heating operation, if the indoor unit heat exchanger temperature (ThI-R) and low pressure sensor (LPT) exceed the setting values at 10 minutes after the start of compressor, the compressor speed (frequency) is controlled to protect the compressor.
- (ii) This control is not performed during the outdoor fan ON and for 10 minutes from the start of outdoor unit fan.
- (iii) This control is not performed during defrosting operation and at 10 minutes after the reset of defrosting operation.
- (iv) When there are 3 indoor unit heat exchanger temperatures (ThI-R), the highest temperature is detected.



(g) Over-current protection current safe controls I, II

Detecting the outdoor unit inverter input (primary) current and the output (secondary) current, if the current values exceed setting values, the compressor speed (frequency) is controlled to protect the inverter.



(Fig. C) The control value "A" and the reset value vary depending on the compressor speed.

(A	24	
ve (22	
Control or reset valve (A)	20	Control valve A
eset	18	
or r	16	Reset valve B
trol	14	
Con	12	50 60 70 80 90 100 110 120 130
		Compressor speed (frequency) (rps)

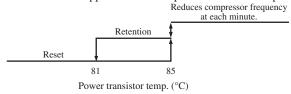
Model		Coo	ling	Heating		
		Control value A	Reset value B	Control value A	Reset value B	
	71	15.0	14.0	16.0	15.0	
Primary current	100	11.0 (23.0)	10.0 (22.0)	11.0 (23.0)	10.0 (22.0)	
side	125, 140	11.0 (23.0)	10.0 (22.0)	11.0 (25.0)	10.0 (24.0)	
~ .	71	13.0	12.0	13.0	12.0	
Secandary current	100	11.5 (Fig.C)	10.5 (Fig.C)	11.5 (Fig.C)	10.5 (Fig.C)	
side	125, 140	11.5 (Fig.C)	10.5 (Fig.C)	11.5 (Fig.C)	10.5 (Fig.C)	

Note (1) Value in () are for the single phase models.

(h) Power transistor temperature protection

(i) Protective control

If the power transistor temperature (detected with TIP) exceeds the setting value, the compressor speed (frequency) is controlled to suppress the rise of power transistor temperature.



(i) Anomalous power transistor current

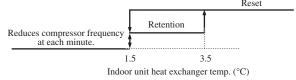
- (i) Prevents over-current on the inverter. If the current value in the power transistor exceeds the setting value, the compressor stops.
- (ii) If the current value in the power transistor exceeds the specified value and the compressor stops 4 times within 30 minutes, E42 is displayed on the remote controller and it enters the anomalous stop mode.

(j) Anomalous inverter PCB

If the power transistor detects any anomaly for 15 minutes, including the stop of compressor, E51 is displayed on the remote controller and it enters the anomalous stop mode.

(k) Anti-frost control by the compressor frequency control

- (i) If the indoor unit heat exchanger temperature (detected with ThI-R) exceeds the setting value at 4 minutes after the start of compressor, the compressor speed (frequency) is controlled to initiate the anti-frost control of indoor unit heat exchanger.
- (ii) When there are 3 indoor unit heat exchanger temperatures (ThI-R), the lowest temperature is detected.



(iii) Regarding the anti-frost control by the operation stop, refer to the operation control function by the indoor unit controller and the cooling, dehumidifying frost prevention of page 318.

(I) Dewing prevention control

[Control condition] During cooling and dehumidifying operation, if all the following conditions are established, the compressor speed (frequency) is reduced to prevent dewing and water splash.

- (i) Cooling electronic expansion valve aperture (EEVC) is 500 pulses.
- (ii) Suction overheat is 10°C or higher.
- (iii) Compressor speed (frequency) is **A** rps or higher.

[Control contents]

- (i) When the suction overheat is 10°C or higher, the compressor speed (frequency) is reduced at each 1 minute.
- (ii) Compressor speed (frequency) does not rise till the cooling expansion valve becomes 460 pulses.

(iii) This control takes **A** rps as its lower limit so that compressor speed is not controlled when it is less than **A** rps.

Model	A rps
71	42
100-140	60

(m) Refrigerant quantity shortage protection

Under the compressor protection start III control during cooling and dehumidifying operations, the following control is performed by detecting the indoor unit heat exchanger temperature (ThI-R) and the indoor unit return air temperature (ThI-A).

[Control condition] When the state that the indoor unit heat exchanger temperature (ThI-R) does not become lower than the indoor unit return air temperature (ThI-A) by 4°C or more continues for 1 minute.

[Control contents] It judges that the flowing of refrigerant in to the indoor unit is insufficient so that the compressor is stopped and E57 is displayed on the remote control.

(n) Broken wire detection on temperature thermistor and low pressure sensor

(i) Outdoor unit heat exchanger thermistor, outdoor air thermistor and low pressure sensor

If the following is detected for 5 second continuously within 2 minutes to 2 minutes and 20 seconds after the compressor ON, the compressor stops. After a delay of 3 minutes, it restarts but, if the same is detected repeatedly 3 times within 40 minutes, the compressor stops with the anomalous stop.

Note (1) During defrosting and for 3 minutes after the end of defrosting, it is not detected.

- Outdoor unit heat exchanger thermistor: -50°C or lower
- Outdoor air temperature thermistor: -45°C or lower
- Low pressure sensor: 0V or under or 4.0V or over
- (ii) Discharge pipe temperature thermistor, suction pipe temperature thermistor

If the following is detected for 5 second continuously within 10 minutes to 10 minutes and 20 seconds after the compressor ON, the compressor stops. After a delay of 3 minutes, it restarts but, if the same is detected repeatedly 3 times within 40 minutes, the compressor stops with the anomalous stop.

Note (1) During defrosting and for 3 minutes after the end of defrosting, it is not detected.

- Discharge pipe temperature thermistor: -10°C or lower
- Suction pipe temperature thermistor: -50°C or lower

(o) Fan motor error

- (i) If the fan speed of 100min⁻¹ or under is detected for 30 second continuously under the outdoor unit fan control (with the operation command of fan tap at ① speed or higher), the compressor stops.
- (ii) When the fan motor speed drops to 100min⁻¹ or under 5 times within 60 minutes and the compressor stops, it enters the anomalous stop mode with E48 displayed on the remote control.

(p) Anomalous stop by the compressor start stop

- (i) When it fails to shift to the compressor DC motor's rotor position defection operation at 5 seconds after establishing the compressor start condition, the compressor stops temporarily and restarts 3 minutes later.
- (ii) If it fails to shift to the position detection operation again at second time, it judges the anomalous compressor start and stops the compressor by the anomalous stop (E59).

(7) Silent mode

- (a) As "Silent mode start" signal is received from the remote control, it operates by dropping the outdoor unit fan tap and the compressor speed (frequency).
- (b) For details, refer to items (1) and (4) above.

(8) Test run

(a) It is possible to operate from the outdoor unit using the dip switch on the outdoor unit control PCB.

SW3-3 (SW5-3)	ON	SW3-4 (SW5-4)	OFF	Cooling test run
			ON	Heating test run
	OFF	N	formal and end of test run	

Make sure to turn SW3-3 (SW5-3) to OFF after the end of operation.

Note (1) Value in () are for the model 71.

(b) Test run control

- (i) Operation is performed at the maximum compressor speed (frequency), which is determined for each model.
- (ii) Each protective control and error detection control are effective.
- (iii) If SW3-4 (SW5-4) is switched during test run, the compressor is stoped for once by the stop control and the cooling/heating operation is switched.

Note (1) Value in () is for the model 71.

(iv) Setting and display of remote control during test run

Mode Item	Contents of remote controller setting/display
Cooling test run	Setting temperature of cooling is 5°C.
Heating test run	Setting temperature of heating (preparation) is 30°C.

(9) Pump-down control

Turning ON the pump-down switch SW1 (SW9) for 2 seconds during the operation stop or anomalous stop (excluding the thermostat OFF), the pump-down operation is performed. (This is invalid when the indoor unit is operating. This is effective even when the indoor unit is stopped by the anomalous stop or the power supply is turned OFF.)

Note (1) Value in () is for the model 71.

(a) Control contents

- (i) Close the service valve at the liquid side. (It is left open at the gas side.)
- (ii) Compressor is started with the target speed (frequency) at 71:62, 100. 125 · 140:45 rps in the cooling mode.
- (iii) Red and green lamps (LED) flash continuously on the outdoor unit control PCB.
- (iv) Each of protection and error detection controls, excluding the low pressure control, anti-frost control and dewing prevention control, is effective.
- (v) Outdoor unit fan is controlled as usual.
- (vi) Electronic expansion valve is fully opened.

(b) Control ending conditions

Stop control is initiated depending on any of the following conditions.

- (i) Low pressure of 0.087MPa or lower is detected for 5 seconds continuously.
 - 1) Red LED: Light, Green LED: Flashing, Remote control: Displays stop.
 - 2) It is possible to restart when the low pressure is 0.087MPa or higher.
 - 3) Electronic expansion valve (cooling/heating) is kept fully open.
- (ii) Stop by the error detection control
 - 1) Red LED: Keeps flashing, Green LED: Flashing
 - 2) Restart is prohibited. To return to normal operation, reset the power supply.
 - 3) Electronic expansion valve (cooling/heating) is left fully open.
- (iii) When the cumulative operation time of compressor under the pump-down control becomes 5 minutes.
 - 1) Red LED: stays OFF, Green LED: Flashing, Remote control: Stop
 - 2) It is possible to pump-down again.
 - 3) Electronic expansion valve (cooling/heating) is left fully open.

Note (1) After the stop of compressor, close the service valve at the gas side.

Caution: Since pressing the pump-down switch cancels communications with the indoor unit, the indoor unit and the remote control display "Transmission error – E5". This is normal.

(10) Base heater ON/OFF output control (option)

(i) Base heater ON conditions

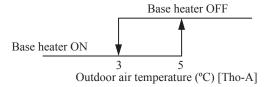
When all of following conditions are met, the base heater is turned ON.

- · Outdoor air temperature (detected with Tho-A) is 3°C or lower.
- · In the heating mode
- · When the compressor is turned ON

(ii) Base heater OFF conditions

When either one of following conditions is met, the base heater is turned OFF.

- · Outdoor air temperature (detected with Tho-A) is 5°C or higher.
- · When the compressor stop has been detected for 30 minutes continuously
- · In the cooling or dehumidifying mode



1.12 MAINTENANCE DATA

1.12.1 Diagnosing of microcomputer circuit

(1) Selfdiagnosis function

(a) Check Indicator Table

Whether a failure exists or not on the indoor unit and outdoor unit can be know by the contents of remote control error code, indoor/outdoor unit green LED (power pilot lamp and microcomputer normality pilot lamp) or red LED (check pilot lamp).

(1) SRK series only

At the indoor unit side, errors are displayed with the combination of RUN light and TIMER light on the display panel.

(i) Indoor unit

1) FDT, FDTC, FDEN, FDU, FDUM, FDF series

Rem	note control	Indoor co	ntrol PCB	Outdoor c	ontrol PCB	Location of			Reference					
Error co	de Red LED	Red LED	Green LED (1)	Red LED	Green LED (1)	trouble	Description of trouble	Repair method	page					
		Stays OFF	Keeps flashing	Stays OFF	Keeps flashing	_	Normal operation	_	_					
M. I. E.	tion Store OFF	Stays OFF	Stays OFF	2-time flash	Stays OFF	Indoor unit power supply	Power OFF, broken wire/blown fuse, broken transformer wire	Repair	394					
No-indica	tion Stays OFF	*	Keeps		Keeps	Remote control wires	Poor connection, breakage of remote control wire * For wire breaking at power ON, the LED is OFF.	Repair						
		3-time flash	flashing	Stays OFF	flashing	Remote control	Defective remote control PCB	Replacement of remote control	395					
	VAIT or PECT I/U	Stays OFF	Keeps flashing	2-time flash	Keeps flashing	Indoor-outdoor units connection wire	Poor connection, breakage of indoor-outdoor units connection wire	Repair	396 — 403					
						Remote control	Improper setting of master and slave by remote control							
_			* Keeps		Keeps	Remote control wires (Noise)	Poor connection of remote control signal wire (White) *For wire breaking at power ON, the LED is OFF Intrusion of noise in remote control wire	Repair						
Ε	<i>i</i>	Stays OFF	flashing	Stays OFF	flashing	Remote control indoor control PCB	*• Defective remote control or indoor control PCB (defective communication circuit)?	Replacement of remote control or PCB	405					
		2-time flash	Keeps flashing	2-time flash	Keeps flashing	Indoor-outdoor units connection wire	Poor connection of wire between indoor-outdoor units during operation (disconnection, loose connection) Anomalous communication between indoor-outdoor units by noise, etc.	Repair						
		2-time	Vaans		Keeps	(Noise)	CPU-runaway on outdoor control PCB	Power reset or Repair						
E	5	flash	Keeps flashing	Stays OFF	flashing	Outdoor control PCB	*• Occurrence of defective outdoor control PCB on the way of power supply (defective communication circuit)?	Replacement of PCB	406					
		2-time flash	Keeps flashing	Stays OFF	Stays OFF	Outdoor control PCB	Defective outdoor control PCB on the way of power supply	Replacement						
		Hasii	Hashing			Fuse	Blown fuse							
						Indoor heat exchanger tempera-	Defective indoor heat exchanger temperature thermistor (defective element, broken wire, short-circuit)	Replacement, repair of temperature						
E	5	1-time flash	Keeps flashing		Stays OFF	Stays OFF	Stays OFF	Stays OFF	Stays OFF	Keeps flashing	ture thermistor	Poor contact of temperature thermistor connector	thermistor	407
	-	114511	nasining		Hashing	Indoor control PCB	*• Defective indoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB						
						Indoor return air	Defective indoor return air temperature thermistor (defective element, broken wire, the definition)	Replacement, repair						
匚.	7	1-time	Keeps	Stays OFF	Keeps	temperature therm- istor	short-circuit) • Poor contact of temperature thermistor connector	of temperature thermistor	408					
J	<u>'</u>	flash	flashing	J	flashing	Indoor control PCB	*• Defective indoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB						
	Keeps flashing					Installation or oper- ating condition	Heating over-load (Anomalously high indoor heat exchanger temperature)	Repair						
E	_ `	1-time flash	Keeps flashing	Stays OFF	Keeps flashing	Indoor heat exchanger tempera- ture thermistor	Defective indoor heat exchanger temperature thermistor (short-circuit)	Replacement of temperature therm- istor	409					
						Indoor control PCB	*• Defective indoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB						
						Drain trouble	Defective drain pump (DM), broken drain pump wire, disconnected connector	Replacement, repair of DM						
	-	1-time	Keeps	Otron OPP	Keeps	Float switch	Anomalous float switch operation (malfunction)	Repair	410					
E	ว์	flash	flashing	Stays OFF	flashing	Indoor control PCB	*• Defective indoor control PCB (Defective float switch input circuit) *• Defective indoor control PCB (Defective DM drive output circuit)?	Replacement of PCB	410					
						Option	Defective optional parts (At optional anomalous input setting)	Repair						
E^{-1}		Stays OFF	Keeps flashing	Stays OFF	Keeps flashing	Number of con- nected indoor units	When multi-unit control by remote control is performed, the number of units is over	Repair	411					
E^{T}	4	Keeps flashing	Keeps flashing	Stays OFF	Keeps flashing	Address setting error	Address setting error of indoor units	Repair	412					
E I	Ч	3-time flash	Keeps flashing	Stays OFF	Keeps flashing	Indoor unit No. set- ting	•No master is assigned to slaves.	Repair	413					
						Remote control wires	Anomalous remote control wire connection, broken wire between master and slave units							
F !	5	1(2)-time	Keeps	Stays OFF	Keeps	Fan motor	Defective fan motor	Replacement, repair	414					
_ '		flash	flashing	,	flashing	Indoor power PCB	Defective indoor power PCB	Replacement						
E 1.	<u>8</u>	1-time flash	Keeps flashing	Stays OFF	Keeps flashing	Address setting error	•Address setting error of master and slave indoor units	Repair	415					
F 1	9	1-time flash	Keeps flashing	Stays OFF	Keeps flashing	Indoor control PCB	Improper operation mode setting	Repair	416					

Remote	control	Indoor co	ntrol PCB	Outdoor co	ontrol PCB	Location of			Reference
Error code	Red LED	Red LED	Green LED (1)	Red LED	Green LED (1)	trouble	Description of trouble		page
$C \supset D$		1(2)-time	Keeps	Stays OFF	Keeps	Fan motor	Indoor fan motor rotation speed anomaly	Replacement, repair	417
CCN		flash	flashing	Stays Off	flashing	Indoor power PCB	Defective indoor power PCB	Replacement	417
E21	Keeps flashing	1-time flash	Keeps flashing	Stays OFF	Keeps flashing	Panel switch detection	Defective panel switch operation (FDT only)	Repair	418
E28		Stays OFF	Keeps flashing	Stays OFF		Remote control tem- perature thermistor	Broken wire of remote control temperature thermistor	Repair	419

Note (1) Normal indicator lamp (Indoor, outdoor units: Green) extinguishes (or lights continuously) only when CPU is anomalous. It keeps flashing in any trouble other than anomalous CPU.

2) SRK series

Remote c	ontrol	Indoor ur	it display	Outdoor c	ontrol PCB	Location of	Description of trouble	Banair mathad	Reference	
Error code	Red LED	RUN light	TIMER light	Red LED	Green LED	trouble	Description of trouble	Repair method	page	
		ON	Stays OFF	Stays OFF	Keeps flashing	_	•Normal operation	_	_	
		_	_	2-time flash	Stays OFF	Indoor unit power supply	*Power OFF, broken wire/blown fuse, broken transformer wire	Repair	456	
				Stays OFF	Keeps	Remote control wires	*Poor connection, breakage of remote control wire * For wire breaking at power ON, the LED is OFF.	Repair	457	
No-indication	Stavs OFF			Stays OFF	flashing	Remote control	Defective remote control PCB	Replacement of remote control	437	
ivo-indication	Stays Of 1	Stays OFF	Keeps flashing	Stays OFF	Keeps flashing	Limit switch, air inlet panel	Limit switch operate Defective limit switch (Poor contact of limit switch connector) Set is defective air inlet panel	Replacement, repair	458	
						Indoor control PCB	*Defective indoor control PCB (Defective limit switch input circuit)?	Replacement of PCB		
⊕WAI INSPE¢		_	_	2-time flash	Keeps flashing	Indoor-outdoor units connection wire	Poor connection, breakage of indoor-outdoor units connection wire	Repair	459-463	
	I					Remote control	Improper setting of master and slave by remote control			
F !					Keeps	Remote control wires (Noise)	 Poor connection of remote control signal wire (White) For wire breaking at power ON, the LED is OFF Intrusion of noise in remote control wire 	Repair	100	
L 1		_	_	Stays OFF	flashing	Remote control indoor control PCB	*• Defective remote control or indoor control PCB (defective communication circ uit)?	Replacement of remote control or PCB	465	
		ON	6-time flash	2 -time flash	Keeps flashing	Indoor-outdoor units connection wire	Poor connection of wire between indoor-outdoor units during operation (disconnection, loose connection) Anomalous communication between indoor-outdoor units by noise, etc.	Repair		
F5		011	6-time	G. OFF	Keeps	(Noise)	•CPU-runaway on outdoor control PCB	Power reset or Repair		
		ON	flash	Stays OFF	flashing	Outdoor control PCB	*•Occurrence of defective outdoor control PCB on the way of power supply (defective communication circuit)?	Replacement of PCB	466	
		ON	6-time flash	Stays OFF	Stays OFF	Outdoor control PCB	*Defective outdoor control PCB on the way of power supply	Replacement		
	Vaama		114511			Fuse	•Blown fuse	P 1		
	Keeps flashing	1-time flash	ON	Stays OFF	Keeps	Indoor heat exchanger tempera ture sensor 1	*Defective indoor heat exchanger temperature sensor 1 (defective element, broken wire, short-circuit) *Poor contact of temperature sensor 1 connector	Replacement, repair of temperature sensor 1		
		1 time nasii	OIT	Stays Of I	flashing	Indoor control PCB	Defective indoor control PCB (Defective temperature sensor 1 input circuit)?	Replacement of PCB		
E 5		3-time	ON	Stays OFF	Keeps	Indoor heat exchanger tempera ture sensor 2	Defective indoor heat exchanger temperature sensor 2 (defective element, broken wire, short-circuit) Poor contact of temperature sensor 2 connector	Replacement, repair of temperature sensor 2	467	
		flash			flashing	Indoor control PCB	Defective indoor control PCB (Defective temperature sensor 2 input circuit)?	Replacement of PCB		
M 1 P 2		2-time			Keeps	Indoor room temperature sensor	Defective indoor room temperature sensor (defective element, broken wire, short-circuit) Poor contact of temperature sensor connector	Replacement, repair of temperature sensor	460	
No-indication		flash	ON	Stays OFF	flashing	Indoor control PCB	*• Defective indoor control PCB (Defective temperatuer sensor input circuit)?	Replacement of PCB	468	
ΕΙΩ		_	_	Stays OFF	Keeps flashing	Number of con- nected indoor units	When multi-unit control by remote control is performed, the number of units is over	Repair	469	
E 14		_	_	Stays OFF	Keeps	Indoor unit No. set- ting	•No master is assigned to slaves.	Repair	470	
					flashing	Remote control wires	•Anomalous remote control wire connection, broken wire between master and slav e units	r		
F !5		6-time	ON	Stavs OFF	Keeps	Keeps Fan motor •Defective fan motor		Replacement, repair	471	
_ 'U		flash		,	flashing	Indoor control PCB	Defective indoor control PCB	Replacement		
E28		_	_	Stays OFF	Keeps flashing	Remote control temperature therm- istor	Broken wire of remote control temperature thermistor	Repair	472	

Note (1) *mark in the Description of trouble means that, in ordinary diagnosis, it cannot identify the cause definitely, and, if the trouble is repaired by replacing the part, it is judged consequently that the replaced part was defective.

^{(2) *} mark in the Description of trouble means that, in ordinary diagnosis, it cannot identify the cause definitely, and, if the trouble is repaired by replacing the part, it is judged consequently that the replaced part was defective.

(ii) Outdoor unit

1) SRC40-60

Remote o	control	Indoor co	ntrol PCB	Outdoor control PCB				Reference
Error code	Red LED	Red LED	Green LED	Red LED	Location of trouble	Description of trouble	Repair method	page
					Installation, operation status	Higher outdoor heat exchanger temperature	Repair	
E 35		Stays OFF	Keeps flashing	2-time flash	Outdoor heat exchanger temperature sensor	Defective outdoor heat exchanger temperature sensor	Replacement, repair of temperature sensor	420
					Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature sensor input circuit)?	Replacement of PCB	
					Installation, operation status	Higher discharge temperature	Repair	
E 36		Stays OFF	Keeps flashing	5-time flash	Discharge pipe temperature sensor	Defective discharge pipe temperature sensor	Replacement, repair of temperature sensor	422
					Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature sensor input circuit)?	Replacement of PCB	
E37		Stays OFF	Keeps	8-time flash	Outdoor heat exchanger temperature sensor	Defective outdoor heat exchanger temperature sensor, broken wire or poor connector connection	Replacement, repair of temperature sensor	423
			паѕппд		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature sensor input circuit)?	Replacement of PCB	
E 38		Stays OFF	Keeps	8-time flash	Outdoor air temperature sensor	Defective outdoor air temperature sensor, broken wire or poor connector connection	Replacement, repair of temperature sensor	424
			flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature sensor input circuit)?	Replacement of PCB	
E 39	Keeps flashing	Stays OFF	Keeps	8-time flash	Discharge pipe temperature sensor	Defective discharge pipe temperature sensor, broken wire or poor connector connection	Replacement, repair of temperature sensor	425
			flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature sensor input circuit)?	Replacement of PCB	
E48		Stays OFF	Keeps flashing	4-time flash	Installation, operation status	Service valve (gas side) closing operation	Replacement	426
E42		Stays OFF	Keeps	1-time flash	Outdoor control PCB, compressor	Current cut (Anomalous compressor over-current)	Replacement of PCB	429•430
					Installation, operation status	Service valve closing operation	Repair	
EYT		Stays OFF	Keeps flashing	2-time flash	Outdoor control PCB	Defective active filter	Repair PCB replacement	432
E48		Stays OFF	Keeps	ON	Fan motor	Defective fan motor	Replacement	434
			flashing		Outdoor control PCB	Defective outdoor control PCB	·	
E5 /		Stays OFF	Keeps flashing	1-time flash	Power transistor error (outdoor control PCB)	Power transistor error	Replacement of PCB	438
cen		g. opp	Keeps		Operation status	Shortage in refrigerant quantity	Repair	
E57		Stays OFF	flashing	2-time flash	Installation status	Service valve closing operation	Service valve opening check	442
E 58		Stays OFF	Keeps flashing	3-time flash	Overload operation Overcharge Compressor locking	Current safe stop	Replacement	444
E59		Stays OFF	Keeps flashing	2-time flash	Compressor, outdoor control PCB	Anomalous compressor startup	Replacement	445
E 50		Stays OFF	Keeps flashing	7-time flash	Compressor	Anomalous compressor rotor lock	Replacement	448

Note (1) * mark in the Description of trouble means that, in ordinary diagnosis, it cannot identify the cause definitely, and, if the trouble is repaired by replacing the part, it is judged consequently that the replaced part was defective.

2) FDC71-140

a) FDT, FDTC, FDEN, FDU, FDUM, FDF series

Remote o	control	Indoor co	ntrol PCB	Outdoor co	ontrol PCB	Outdoor inventer PCB				
Error code	Red LED	Red LED	Green LED (1)	Red LED	Green LED (1)	Yellow LED	Location of trouble	Description of trouble	Repair method	Reference page
							Installation or operating condition	Higher outdoor heat exchanger temperature	Repair	
E35		Stays OFF	Keeps flashing	1-time flash	Keeps flashing		Outdoor heat exchanger temperature thermistor	Defective outdoor heat exchanger temperature thermistor	Replacement of temperature thermistor	421
							Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	
							Installation or operating condition	Higher discharge temperature	Repair	
E35		Stays OFF	Keeps flashing	1-time flash	Keeps flashing		Discharge pipe temperature thermistor	Defective discharge pipe temperature thermistor	Replacement, repair of temperature thermistor	422
							Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	
E37		Stays OFF	Keeps	1-time	Keeps	Keeps	Outdoor heat exchanger temperature thermistor	Defective outdoor heat exchanger temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	423
יכסי		Stays OFF	flashing	flash	flashing	flashing	Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	423
E 38		Ct OFF	Keeps	1-time	Keeps		Outdoor air temperature thermistor	Defective Outdoor air temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	424
C 20		Stays OFF	flashing	flash	flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	424
E39		Stays OFF	Keeps	1-time	Keeps		Discharge pipe temperature thermistor	Defective discharge pipe temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	425
		Stays OFF	flashing	flash	flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	423
E40		Stays OFF	Keeps flashing	1-time flash	Keeps flashing		Installation or operating condition	• Rising high pressure (Operation of 63H1) • Service valve closing operation	Repair	427
1							Outdoor control PCB	*• Defective outdoor control PCB (Defective 63H input circuit)?	Replacement of PCB	
E41		Stays OFF	Keeps flashing	1-time flash	Keeps flashing	6-time flash	Inverter PCB or radiator fin	Power transistor overheat	Replacement of PCB or Repair	428
E42		Stays OFF	Keeps	1-time	Keeps	1-time flash	Outdoor control PCB compressor	Current cut (Anomalous compressor over-current)	Replacement of PCB	429•430
		,	flashing	flash	flashing		Installation or operating condition	Service valve closing operation	Repair	
E45		Stays OFF	Keeps flashing	1-time flash	Keeps flashing	Keeps flashing	Outdoor control PCB	Anomalous outdoor control PCB communication	Replacement of PCB	431
			Keeps	1-time	Keeps		Inverter PCB Inverter PCB	Anomalous inverter PCB communication Defective outdoor inverter PCB (Model FDC 71 only)		
EYT		Stays OFF	flashing	flash	flashing	7-time flash	activefilter	Defective active filter of control.	Replacement	433
E48		Stays OFF	Keeps flashing	1-time flash	Keeps flashing		Outdoor fan motor	Anomalous outdoor fan motor Defeatige outdoor control DCD (Defeatige material part signature)	Replacement, repair	435
						Voore	Outdoor control PCB Installation or operating	*• Defective outdoor control PCB (Defective motor input circuit)? • Low pressure error • Service valve closing operation	Replacement of PCB Repair	
E49		Stays OFF	Keeps	1-time	Keeps	Keeps flashing	condition Low pressure sensor	Anomalous low pressure, broken wire of low pressure sensor or poor	Replacement, repair of sensor	436•437
· · · ·			flashing	flash	flashing		Outdoor control PCB	connector connection *• Defective outdoor control PCB (Defective sensor input circuit)?	Replacement of control PCB	
E5 1		Stays OFF	Keeps flashing	1-time flash	Keeps flashing	6-time flash	Inverter PCB	Anomalous inverter PCB	Replacement of PCB	439
E53		Storio OFF	Keeps	1-time	Keeps		Suction pipe temperature thermistor	Defective suction pipe temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	440
C 3 3		Stays OFF	flashing	flash	flashing		Outdoor control PCB	*• Defective outdoor PCB (Defective thermistor input circuit)?	Replacement of control PCB	440
E54		Stays OFF	Keeps	1-time	Keeps	Keeps	Low pressure sensor	Defective low pressure sensor	Replacement of sensor	441
		Julys Of T	flashing	flash	flashing	flashing	Outdoor control PCB	Defective outdoor control PCB (Defective sensor input circuit)?	Replacement of control PCB	771
E57		Stays OFF	Keeps flashing	1-time flash	Keeps flashing		Operation status	Shortage in refrigerant quantity Service valve electing operation	Repair Service valve opening	443
E 59		Stays OFF	Keeps	5 time	Keeps	Stays OFF	Installation status Compressor inverter	Service valve closing operation A nomelous compressor startup	check Replacement	446•447
Note (1) *		,	flashing	flash	flashing		PCB	Anomalous compressor startup Anomalous compressor startup	•	

Note (1) * mark in the Description of trouble means that, in ordinary diagnosis, it cannot identify the cause definitely, and, if the trouble is repaired by replacing the part, it is judged consequently that the replaced part was defective.

b) SRK series

Remote o	control	Indoor un	it display	Outdoor co	ontrol PCB	Outdoor inventer PCB				Reference
Error code	Red LED	RUN light	TIMER light	Red LED	Green LED	Yellow LED	Location of trouble	Description of trouble	Repair method	page
							Installation or operating condition	Higher outdoor heat exchanger temperature	Repair	
E35		ON	Keeps flashing	1-time flash	Keeps flashing		Outdoor heat exchanger temperature thermistor	Defective outdoor heat exchanger temperature thermistor	Replacement of temperature thermistor	473
							Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	
							Installation or operating condition	Higher discharge temperature	Repair	
E36		ON	5-time flash	1-time flash	Keeps flashing		temperature thermistor	Defective discharge pipe temperature thermistor	Replacement, repair of temperature thermistor	474
					0		Outdoor control PCB	*• Discharge pipe Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	
C 77		Keeps	2-time	16 21	Keeps	Keeps flashing	Outdoor heat exchanger temperature thermistor	Defective outdoor heat exchanger temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	475
E37		flashing	flash	1-time flash	flashing	nasning	Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	475
		Keeps			Keeps	•	Outdoor air temperature thermistor	Defective Outdoor air temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	
E 38		flashing	1-time flash	1-time flash	flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	476
r 70		Keeps	4-time		Keeps		Discharge pipe temperature thermistor	Defective discharge pipe temperature thermistor, broken wire or poor connection	Replacement, repair of temperature thermistor	
E 39		flashing	flash	1-time flash	flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective temperature thermistor input circuit)?	Replacement of PCB	477
E40				1-time flash	Keeps		Installation or operating condition	Rising high pressure (Operation of 63H1)	Repair	478
				1 time num	flashing		Outdoor control PCB	*• Defective outdoor control PCB (Defective 63H input circuit)?	Replacement of PCB	470
E41	Keeps	_	_	1-time flash	Keeps flashing	6-time flash	Inverter PCB or radiator fin	Power transistor overheat	Replacement of PCB or Repair	479
E42	flashing	OM	1 4 9 - 1	1 4 9 - 1	Keeps		Outdoor control PCB compressor	Current cut (Anomalous compressor over-current)	Replacement of PCB	480 • 481
באב		ON	1-time flash	1-time flash	flashing	1-time flash	Installation or operating condition	Service valve closing operation	Repair	400*401
E45		_	_	1-time flash	Keeps		Outdoor control PCB	Anomalous outdoor control PCB communication	Replacement of PCB	482
_ '_					flashing		Inverter PCB	Anomalous inverter PCB communication	replacement of 1 CD	
E48		ON	7-time	1-time flash	Keeps		Outdoor fan motor	Anomalous outdoor fan motor	Replacement, repair	483
L ''			flash		flashing	Keeps flashing	Outdoor control PCB	*• Defective outdoor control PCB (Defective motor input circuit)?	Replacement of PCB	
						0	Installation or operating condition	Low pressure error Service valve closing operation	Repair	
E49		_	_	1-time flash	Keeps flashing		Low pressure sensor	 Anomalous low pressure, broken wire of low pressure sensor or poor connector connection 	Replacement, repair of sensor	484 • 485
							Outdoor control PCB	*• Defective outdoor control PCB (Defective sensor input circuit)?	Replacement of control PCB	
E5 1		ON	4-time flash	1-time flash	Keeps flashing	6-time flash	Inverter PCB	Anomalous inverter PCB	Replacement of PCB	486
E53		Keeps	5-time	1 time flect	Keeps		Suction pipe temperature thermistor	Defective suction pipe temperature thermistor, broken wire or poor connector connection	Replacement, repair of temperature thermistor	107
622		flashing	flash	1-time flash	flashing		Outdoor control PCB	*• Defective outdoor PCB (Defective thermistor input circuit)?	Replacement of control PCB	487
CCN			_	1-time flash	Keeps	Keeps	Low pressure sensor	Defective low pressure sensor	Replacement of sensor	488
E54				1-unic mash	flashing	flashing	Outdoor control PCB	Defective outdoor control PCB (Defective sensor input circuit)?	Replacement of control PCB	-100
E57		7-time flash	ON	1-time flash	Keeps flashing		Operation status Installation status	Shortage in refrigerant quantity Service valve closing operation	Repair Service valve opening	489
E57 E59		_	_	5-time flash	Keeps flashing	Stays OFF	Compressor, inverter PCB	•Anomalous compressor startup	check Replacement	490•491
			1							

Note (1) * mark in the Description of trouble means that, in ordinary diagnosis, it cannot identify the cause definitely, and, if the trouble is repaired by replacing the part, it is judged consequently that the replaced part was defective.

(iii) Optional controller in-use

1) FDT, FDTC, FDEN, FDU, FDUM, FDF series

		Indoor unit	control PCB	Outdoor unit control PCB			
Error code	Red LED	Red LED	Green LED	Red LED	Green LED	Description of trouble	
E75	Keeps flashing	Stays OFF	Keeps flashing	Stays OFF	Keeps flashing	Communication error (Defective communication circuit on the main unit of SC-SL2N-E or SC-SL3N-E) ete.	Replacement

2) SRK series

		Indoor unit display panel		Outdoor uni	t control PCB	Description of trouble	Repair method
Error code	Red LED	RUN light	TIMER light	Red LED	Green LED	Description of trouble	nepair illetilou
E 75	Keeps flashing	-	_	Stays OFF	Keeps flashing	Communication error (Defective communication circuit on the main unit of SC-SL2N-E or SC-SL3N-E) ete.	Replacement

(iv) Display sequence of error codes or inspection indicator lamps

■ Occurrence of one kind of error

Displays are shown respectively according to errors.

■ Occurrence of plural kinds of error

Section	Category of display
Error code on remote control	• Displays the error of higher priority (When plural errors are persisting)
Red LED on indoor control PCB	E 1×E5>····×E 10×E32>·····E60
Red LED on outdoor control PCB	• Displays the present errors. (When a new error has occurred after the former error was reset.)

■ Error detecting timing

Section	Error description	Error code	Error detecting timing
Section	Drain trouble (Float switch		Whenever float switch is activated after 30 second had past since
	activated)	E9	power ON.
	Communication error at initial operation	"''WAIT''	No communication between indoor and outdoor units is established at initial operation.
	Remote control communication circuit error	ΕI	Communication between indoor unit and remote control is interrupted for mote than 2 minutes continuously after initial communication was established.
Indoor	Communication error during operation	E5	Communication between indoor and outdoor units is interrupted for mote than 2 minutes continuously after initial communication was established.
	Excessive number of connected indoor units by controlling with one remote control	E 10	Whenever excessively connected indoor units is detected after power ON.
	Return air temperature thermistor anomaly	Εŋ	-50(-45)°C or lower is detected for 5(15) seconds continuously within 60 minutes after initial detection of this anomalous temperature.
	Indoor heat exchanger temperature thermistor anomaly	E6	-50(-28)°C or lower is detected for 5(15) seconds continuously within 60 minutes after initial detection of this anomalous temperature. Or 70°C or higher is detected for 5 seconds continuously. (SRK series removes)
	Outdoor air temperature thermistor anomaly	E 38	-45(-55)°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. Or -45(-55)°C or lower is detected for 5 seconds continuously within 20 seconds after compressor ON.
Outdoor	Outdoor heat exchanger temperature thermistor anomaly	E37	-50(-55)°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature. Or -50(-55)°C or lower is detected for 5 seconds continuously within 20 seconds after compressor ON.
	Discharge pipe temperature thermistor anomaly	E39	-10(-25)°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature.
	Suction pipe temperature thermistor anomaly	E53	-50°C or lower is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous temperature.
	Low pressure sensor anomaly	E54	0V or lower or 4.0V or higher is detected for 5 seconds continuously 3 times within 40 minutes after initial detection of this anomalous pressure.

Notes (1) Value in () are for the models SRC40-60.

(2) Value in [] are for the SRK series.

■ Error log and reset

Error indicator	Memorized error log	Reset	
Remote control display	Higher priority error is memorized.	 Stop the unit by pressing the ON/OFF switch of remote controller. If the unit has recovered from anomaly, it 	
Red LED on indoor control PCB	Not memorized.		
Red LED on outdoor control PCB	Memorizes a mode of higher priority.	can be operated.	

■ Resetting the error log

- Resetting the memorized error log in the remote control

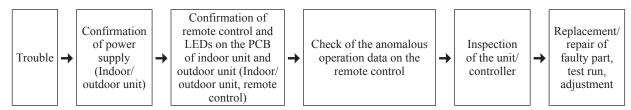
 Holding down "CHECK" button, press "TIMER" button to reset the error log memorized in the remote control.
- Resetting the memorized error log in the indoor unit

The remote controller transmits error log erase command to the indoor unit when "VENTI" button is pressed while holding down "CHECK" button.

Receiving the command, the indoor unit erase the log and answer the status of no error.

(2) Troubleshooting procedure

When any trouble has occurred, inspect as follows. Details of respective inspection method will be described on later pages.



(3) Troubleshooting at the indoor unit

(a) FDT, FDTC, FDEN, FDU, FDUM, FDF series

With the troubleshooting, find out any defective part by checking the voltage (AC, DC), resistance, etc. at respective connectors at around the indoor PCB, according to the inspection display or operation status of unit (the compressor does not run, fan does not run, the 4-way valve does not switch, etc.), and replace or repair in the unit of following part.

(i) Replacement part related to indoor PCB's

Control PCB, power supply PCB, temperature thermistor (return air, indoor heat exchanger), remote control switch, transformer and fuse

Note (1) With regard to parts of high voltage circuits and refrigeration cycle, judge it according to ordinary inspection methods.

(ii) Instruction of how to replace indoor control PCB

SAFETY PRECAUTIONS Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself. The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION. Both mentions the important items to protect your health and safety so strictly follow them by any means. After completing the replacement, do commissioning to confirm there are no anomaly. WARNING Replacement should be performed by the specialist. If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire. Replace the PCB correctly according to these instructions. Improper replacement may cause electric shock or fire. Shut off the power before electrical wiring work. Replacement during the applying the current would cause the electric shock, unit failure or improper running. It would cause the damage of connected equipment such as fan motor,etc. Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire. Check the connection of wiring to PCB correctly before turning on the power, after replacement. Defectiveness of replacement may cause electric shock or fire CAUTION In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction. Insert connecter securely, and hook stopper. It may cause fire or improper running. Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

PSB012D990B

1) Model FDT, FDU, FDUM series

a) Control PCB

Replace and set up the PCB according to this instruction.

 $\ensuremath{\textcircled{1}}$ Set to an appropriate address and function using switch on PCB.

Select the same setting with the removed PCB

the same setting with the removed r GB.					
item	switch	Content of control			
Address	SW2	Plural indoor units control by 1 remote control			ote control
Master /Slave setting		Master	Slave1	Slave2	Slave3
	SW5-1	_	_	0	0
	SW5-2	_	0	_	0
Test run	SW7-1	_	Normal		
		0	Operation check/drain motor test run		

O:ON -:OFF

② Set to an appropriate capacity using the model selector switch(SW6).

Select the same capacity with the PCB removed from the unit.

SW6	-1	-2	-3	-4
40V	0	0	_	_
50V	0	_	0	_
60V	0	0	0	_
71V	0	_	_	0

SW6	-1	-2	-3	-4
100V	0	0	١	0
125V	_	-	0	0
140V	0	-	0	0



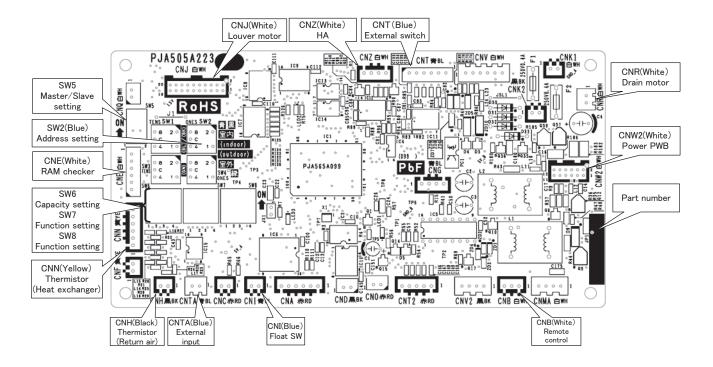
Example setting fro 50V

3 Replace the PCB

- 1. Exchange PCB after detaching all connectors connected with the PCB.
- 2. Fix the PCB so as not to pitch the wiring.
- 3. Connect connectors to the PCB. Match the wiring connector to the connector color on the PCB and connect it.

4 Control PCB

Parts mounting are different by the kind of PCB.



b) Power PCB

This PCB is a general PCB. Replace the PCB according to this instruction.

① Replace the PCB

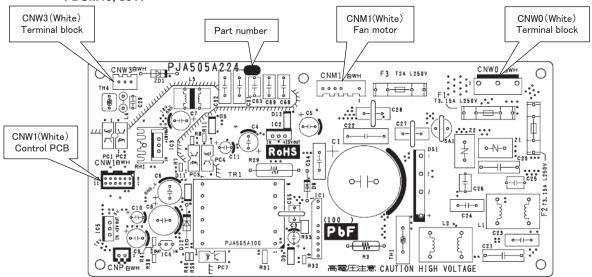
- 1. Unscrew terminal of the wiring(yellow/green) connected to Terminal block (CNWO) from the box.
- 2. Replace the PCB only after all the wirings connected to the connector are removed.
- 3. Fix the board such that it will not pinch any of the wires.
- 4. Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
- 5. Screw back the terminal of wiring, that was removed in 1.

2 Power PCB

Parts mounting are different by the kind of PCB.

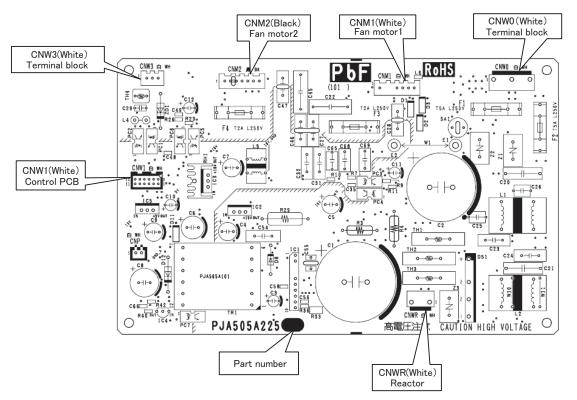
Model FDT40-140VF FDUM40, 50VF

PSB012D992



• Models FDUM60~140VF

PSB012D993



 Model FDU series PSC012D021

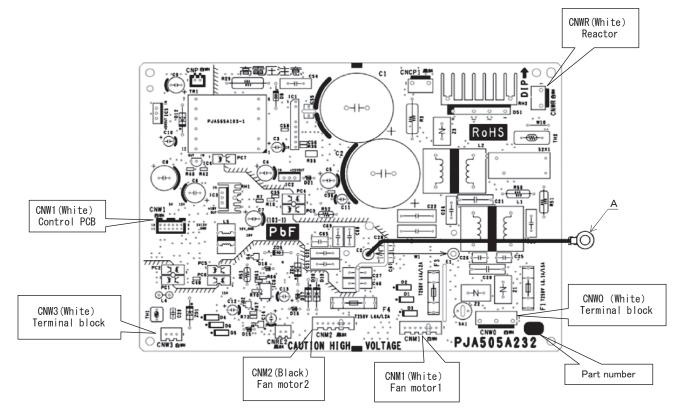
This PCB is a general PCB. Replace the PCB according to this instruction.

1) Replace the PCB

- a) Unscrew terminal(Arrow A) of the "E2" wiring(yellow/green) that is connected to PCB.
- b) Replace the PCB only after all the wirings connected to the connector are removed.
- c) Fix the board such that it will not pinch any of the wires.
 d) Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
 e) Screw back the terminal(Arrow A) of the "E2" wiring, that was removed in 1.

2) Power PCB

Parts mounting are different by the kind of PCB.



PSB012D976C

2) Model FDTC series

a) Control PCB

Replace and set up the PCB according to this instruction.

① Set to an appropriate address and function using switch on PCB.

Select the same setting with the removed PCB.

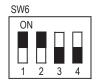
the same setting with the removed r GB.					
item	switch	Content of control			
Address	SW2	Plural indoor units control by 1 remote control			
Master / Slave setting		Master	Slave1	Slave2	Slave3
	SW5-1	_	_	0	0
	SW5-2	_	0	_	0
Test run	SW7-1	_	Normal		
		0	Operation check/drain motor test run		

O:ON -:OFF

② Set to an appropriate capacity using the model selector switch(SW6).

Select the same capacity with the PCB removed from the unit.

SW6	-1	-2	-3	-4
40VF	0	0	_	_
50VF	0	_	0	_
60VF	0	0	0	_



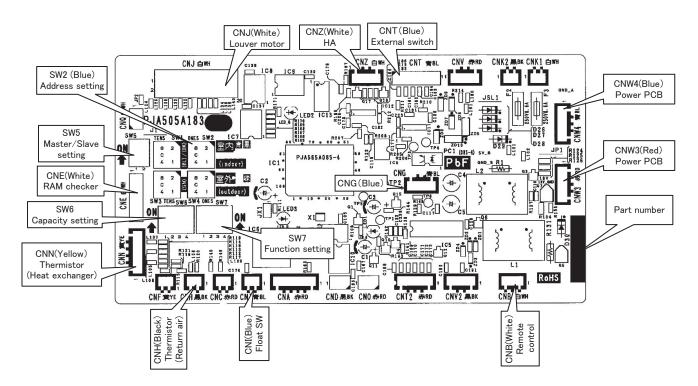
Example setting fro 40VF

3 Replace the PCB

- 1. Fix the PCB so as not to pitch the cords.
- 2. Connect connectors to the PCB. Connect a cable connector with the PCB connector of the same color.
- 3.Do not pass CPU surrounding about wirings.

Control PCB

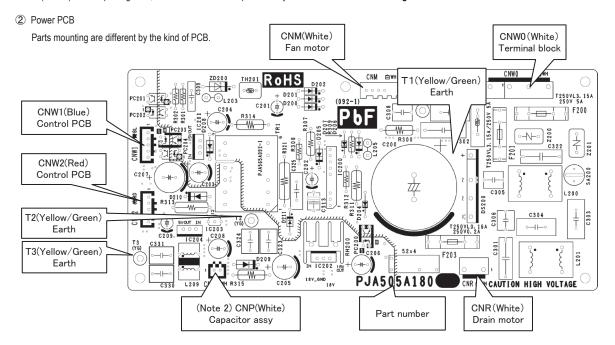
Parts mounting are different by the kind of PCB.

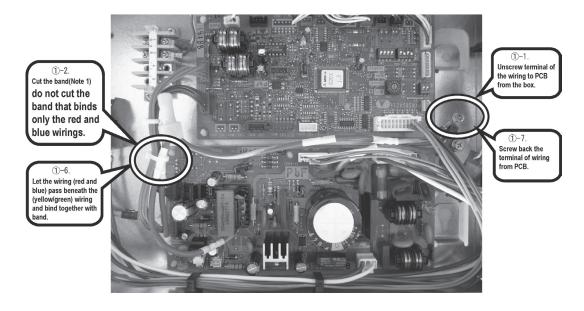


b) Power PCB PSB012D953A

This PCB is a general PCB. Replace the PCB according to this instruction.

- ① Replace the PCB (refer to right dwg.)
 - 1. Unscrew terminal of the wiring(yellow/green) soldered to PCB from the box.
 - 2. Cut the band that binds the wiring (red and blue) from connector CNW1 and CNW2, and the wiring (yellow/green) from PCB (T2/T3). (Note 1) (However, do not cut the band that binds only the red and blue wirings.)
 - 3. Replace the PCB only after all the wirings connected to the connector are removed.
 - 4. Fix the board such that it will not pinch any of the wires.
 - 5. Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB. (Note 2)
 - 6. Let the wiring (red and blue) pass beneath the (yellow/green) wiring and bind together with band.
 - 7. Screw back the terminal of wiring (yellow/green) from PCB(T1, $\,$ T2/T3), that was removed in 1.
 - In that case, do not place the crimping part of the wiring under the PCB.
 - (Note 1): It might not be applicable on some models.
 - (Note 2): After replacing PCB, connection between capacitor assy and connector CNP is no longer needed.





3) Model FDEN series

Replace and set up the PCB according to this instruction.

PSB012D974C

- ① Set to an appropriate address and function using switch on PCB.
- 1. There is a unit having plural applicable PCB depending on a model.
- 2. Set the function setting corresponding the spare PCB and the applicable model.
- 3. Do "Setting according to the model *1" refer to " $\fill \fill$ control" after turning on the power source when using wired remote control
- 2 Set to an appropriate capacity using the model selector switch(SW6). Select the same capacity with the PCB removed from the unit.

				-					
SW6	-1	-2	-3	-4	SW6	-1	-2	-3	-4
40V	0	0	_	-	100V	0	0	-	0
50V	0	-	0	-	125V	-	_	0	0
60V	0	0	0	-	140V	0	_	0	0
71V	0	_	_	0					

item	switch	Content of control					
Address	SW2	Plural indoor units control by 1 remote control					
Master /Slave setting		Master	Slave1	Slave2	Slave3		
	SW5-1	_	_	0	0		
	SW5-2	_	0	-	0		
Test run	SW7-1	_	Normal				
169(IUII	3007-1	0	Operation check/drain motor test run				
O:0N -:0FF							

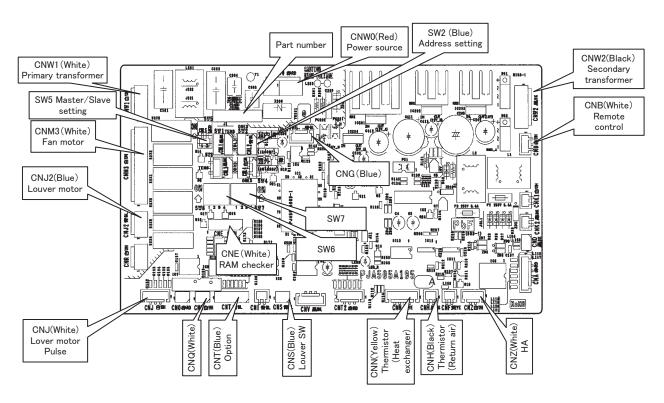


3 Replace the PCB

- 1. Fix the PCB so as not to pitch the cords.
- 2. Connect connectors to the PCB. Connect a cable connector with the PCB connector of the same color.
- 3.Do not pass CPU surrounding about wirings.

4 Control PCB

Parts mounting are different by the kind of PCB.



4) Model FDF series PSB012D976C

a) Control PCB

Replace and set up the PCB according to this instruction.

① Set to an appropriate address and function using switch on PCB. Select the same setting with the removed PCB.

item	switch	Content of control				
Address	SW2	Plural indoor units control by 1 remote control				
Master/Slave setting		Master	Slave1	Slave2	Slave3	
	SW5-1	_	_	0	0	
	SW5-2	_	0	_	0	
Tootrun	SW7-1	_	Normal			
Testrun	SVV/-1	0	Operation check/drain motor test rul			

② Set to an appropriate capacity using the model selector switch(SW6). Select the same capacity with the PCB removed from the unit.

SW6	-1	-2	-3	-4
71V	0	_	_	0
100V	0	0		0
125V	_	_	0	0
140V	0	_	0	0

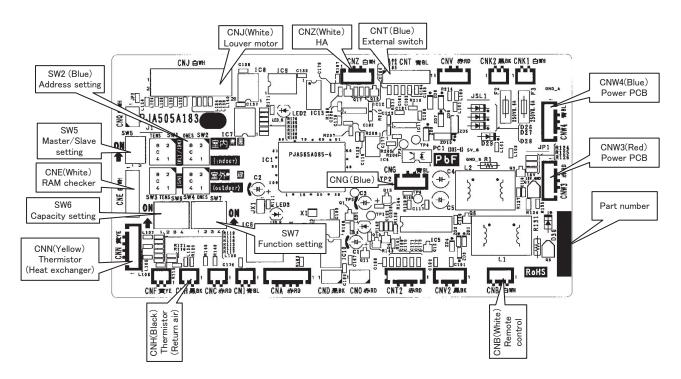


3 Replace the PCB

- 1. Fix the PCB so as not to pitch the cords.
- 2. Connect connectors to the PCB. Connect a cable connector with the PCB connector of the same color.
- 3.Do not pass CPU surrounding about wirings.

4 Control PCB

Parts mounting are different by the kind of PCB.

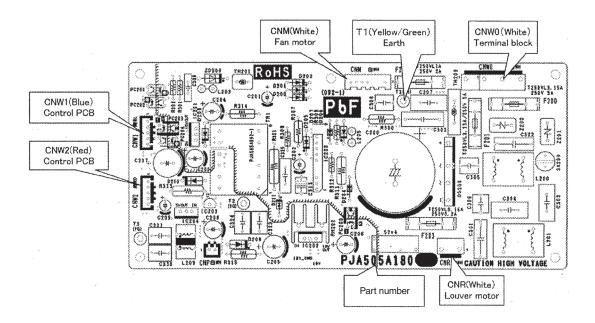


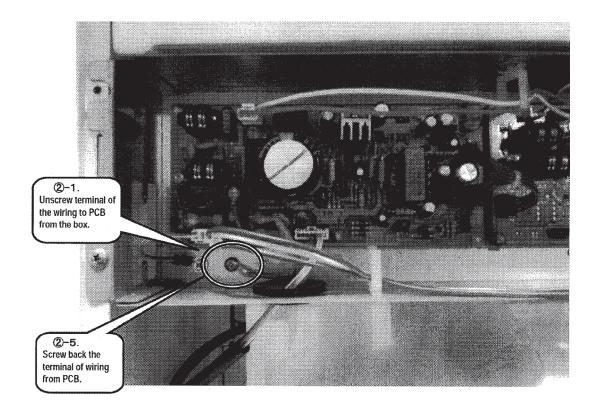
b) Power PCB PSB012D953C

This PCB is a general PCB. Replace the PCB according to this instruction

Replace the PCB

- ${\it 1. Unscrew terminal of the wiring (yellow/green) soldered to PCB from the box.}\\$
- 2. Replace the PCB only after all the wirings connected to the connector are removed.
- 3. Fix the board such that it will not pinch any of the wires.
- 4. Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
- Screw back the terminal of wiring of wiring(yellow/green) from PCB(T1) that was removed in 1.In that case, do not place the crimping part of the wiring under the PCB.





●DIP switch setting list

Switches	Description			efault setting	Remarks
SW2	Address No. setting at plural indoor u	nits control by 1 R/C	0		0-F
SW5-1 SW5-2	Master/Slave setting Master*/Slave				See table 2
SW6-1 SW6-2 SW6-3 SW6-4	Model selection			nodel	See table 1
SW7-1	Test run, Drain motor	Normal*/Test run	OFF	Normal	
SW7-2	Reserved		OFF		keep OFF
SW7-3	Powerful mode	Valid*/Invalid	ON	Valid	
SW7-4	Reserved		OFF		keep OFF
SW8-1	Reserved				keep OFF
SW8-2	Reserved				keep OFF
SW8-3	Reserved				keep OFF
SW8-4	Reserved				keep OFF
JSL1	Superlink terminal spare	Normal*/switch to spare	With		

^{*} Default setting

Table 1: Indoor unit model selection with SW6-1-SW6-4

						0: O	FF 1:ON
	40V	50V	60V	71V	100V	125V	140V
SW6-1	1	1	1	1	1	0	1
SW6-2	1	0	1	0	1	0	0
SW6-3	0	1	1	0	0	1	1
SW6-4	0	0	0	1	1	1	1

Table 2: Indoor unit Master/Slave setting with SW5-1,SW5-2

	0: OFF	1:ON
	SW5-1	SW5-2
Master	0	0
Slave1	0	1
Slave2	1	0
Slave3	1	1

(b) SRK series

(i) Cautions

Important

- 1) If you are disassembling and checking an air conditioner, be sure to turn off the power before beginning.

 When working on indoor units, let the unit sit for about 1 minute after turning off the power before you begin work.
- 2) When taking out printed circuit boards, be sure to do so without exerting force on the circuit boards or package components.
- 3) When disconnecting and connecting connectors, take hold of the connector housing and do not pull on the lead wires.

When all the following conditions are met, we say that the air conditioner will not run at all.

(ii) Items to check before troubleshooting

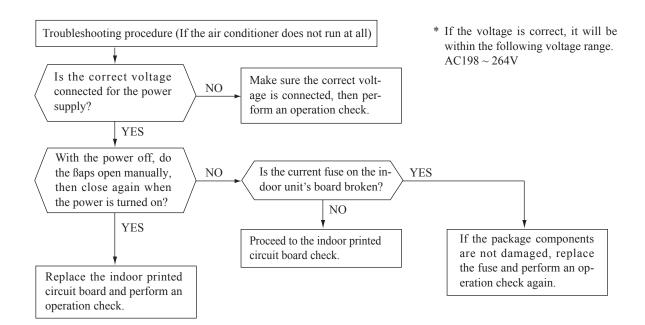
- 1) Is the air conditioner running? Is it displaying any self-diagnosis information?
- 2) Is a power supply with the correct voltage connected?
- 3) Are the control lines connecting the indoor and outdoor units wired correctly and connected securely?
- 4) Is the outdoor unit's service valve open?

(iii) Troubleshooting procedure (If the air conditioner does not run at all)

If the air conditioner does not run at all, diagnose the trouble using the following troubleshooting procedure.

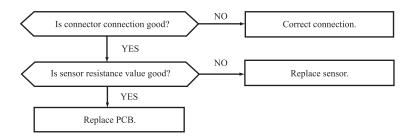
1) The RUN light does not light up.

- 2) The flaps do not open.
- 3) The indoor unit fan motors do not run.
- 4) The self-diagnosis display does not function.

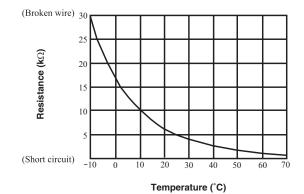


(iv) Inspection procedures corresponding to detail of trouble

Sensor error Broken sensor wire, connector poor connection

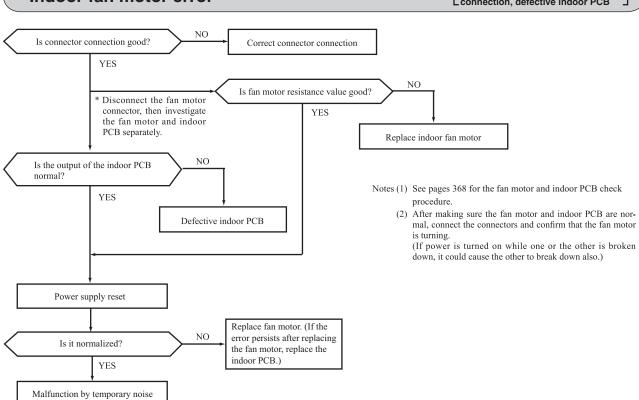


 Sensor temperature characteristics (Room temp., indoor heat exchanger temp.)



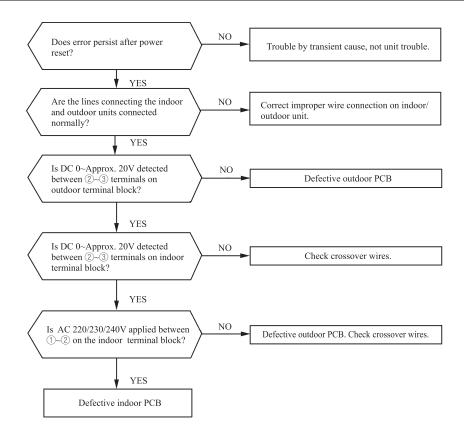
Indoor fan motor error

Defective fan motor, connector poor connection, defective indoor PCB



Error of signal transmission

Wiring error including power cable, defective indoor/ outdoor PCB



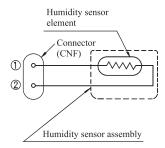
(v) Phenomenon observed after shortcircuit, wire breakage on sensor

Sensor	Operation	Phenomenon			
Sensor	mode	Shortcircuit	Disconnected wire		
Room temperature Cooling		Release of continuous compressor operation command.	Continuous compressor operation command is not released.		
sensor	Heating	Continuous compressor operation command is not released.	Release of continuous compressor operation command.		
Heat exchanger sensor	Cooling	Freezing cycle system protection trips and stops the compressor.	Continuous compressor operation command is not released. (Anti-frosting)		
0011001	Heating	High pressure control mode (Compressor stop command)	Hot keep (Indoor fan stop)		
Hamilalia a a a a a a a	Cooling	Refer to the table below.	Refer to the table below.		
Humidity sensor	Heating	Normal system operation is possible.			

■ Humidity sensor operation

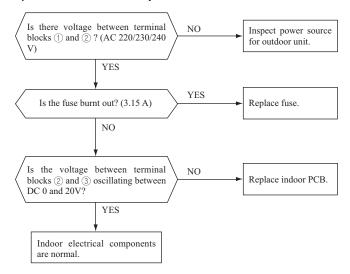
Failure mode		Control input circuit resding	Air conditioning system operation		
cted	① Disconnected wire				
Disconnected wire	② Disconnected wire	Humidity reading is 0%	Anti-condensation control is not done.		
Disc	①② Disconnected wire				
Short	① and ② are shot circuited	Humidity reading is 100%	Anti-condensation control keep doing.		

Remark: Do not perform a continuity check of the humidity sensor with a tester. If DC current is applied, it could damage the sensor.



(vi) Checking the indoor electrical equipment

1) Indoor PCB check procedure



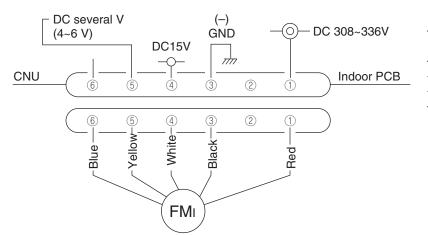
2) Indoor unit fan motor check procedure

This is a diagnostic procedure for determining if the indoor unit's fan motor or the indoor PCB is broken down.

a) Indoor PCB output check

- i) Turn off the power.
- ii) Remove the front panel, then disconnect the fan motor lead wire connector.
- iii) Turn on the power. If the unit operates when the ON/OFF button is pressed, if trouble is detected after the voltages in the following figure are output for approximately 30 seconds, it means that the indoor PCB is normal and the fan motor is broken down.

If the voltages in the following figure are not output at connector pins No. ①, ④ and ⑤, the indoor PCB has failed and the fan motor is normal.



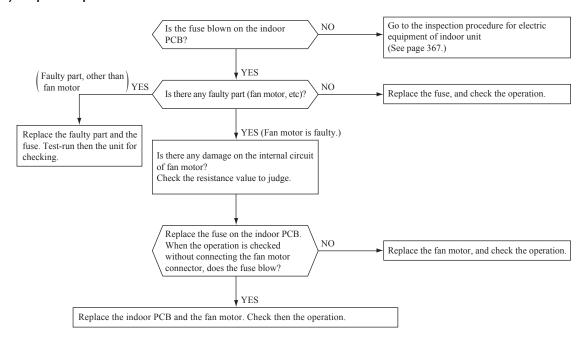
Measuring point	Voltage range when normal
1 - 3	DC 308~336V
4 - 3	DC 15V
5-3	DC several V (4~6V)

b) Fan motor resistance check

Measuring point	Resistance when normal
① - ③ (Red - Black)	20 MΩ or higher
4 - 3 (White - Black)	20 k Q or higher

- Notes (1) Remove the fan motor and measure it without power connected to it.
 - (2) If the measured value is below the value when the motor is normal, it means that the fan motor is faulty.

(vii) Inspection procedure for blown fuse on the indoor PCB



(4) Troubleshooting at the outdoor unit

When troubleshooting the outdoor unit, firstly assess the overview of malfunction and try to presume the cause and the faulty part by checking the error code dispalyed on the remote control and flashing pattern of indicator lamps (Red LED and Green LED), and then proceed further inspection and remedy it.

Self-diagnosis system by microcomputor on indoor and outdoor PCB can assist to find the cause of malfunction smoothly by making a diagnosis of not only the anomaly of microcomutor, but also the anomaly in power supply system, installation space, overload resulting from improper charging amount of refrigerant and etc.

Unless the power is reset, the error log is saved in memory and the inspection indicator lamps on outdoor PCB keep flashing after automatical recovering from malfunction.

After automatical recovering from malfunction, if any another error mode which has a higher priority than the previous error saved in memory occurs, it is overwritten in memory and is displayed.

[Reset of power supply]

Be sure to avoid electrical shock, when replacing or checking the outdoor control PCB, because some voltage is still retained in the electrolytic capacitor on the PCB even after shutting down the power supply to the outdoor unit.

Be sure to start repairing work, after confirming that the Red LED (or Green LED for 71~140 models) on the PCB has been extiguished for more than 10 seconds after more than 3 minutes had been passed since power shut down, and reconfirming that voltage has been discharged sufficiently by measuring the voltage (DC) between both terminals of electrolytic capacitor (C58) (Measurment of voltage may be disturbed by the moisture-proof coating. In such case, remove the coating and measure it by taking care of avoiding electrical shock)

(a) Module of part to be replaced for outdoor unit controller

Outdoor control PCB, Inverter PCB, Temperature thermistor (of outdoor heat exchanger, discharge pipe, outdoor air, IPM and suction pipe), Fuses (for power supply and control PCB), Noise filter, Capacitor, Reactor and Transformer

(b) Replacement procedure of outdoor control PCB

Precautions for Safety

Since the following precaution is the important contents for safety, be sure to observe them.
 WARNING and CAUTION are described as follows:

∴WARNING

Indicates an imminently hazardous situation which will result in death or serious injury if proper safety procedures and instructions are not adhered to.

CAUTION

Indicates a potentially hazardous situation which may result in minor or moderate injury if proper safety procedures and instructions are not adhered to.

✓! WARNING

- Securely replace the PCB according to this procedure.
 If the PCB is incorrectly replaced, it will cause an electric shock or fire.
- Be sure to check that the power source for the outdoor unit is turned OFF before replacing the PCB. The PCB replacement under current-carrying will cause an electric shock or fire.
- After finishing the PCB replacement, check that wiring is correctly connected with the PCB before power distribution. If the PCB is incorrectly replaced, it will cause an electric shock or fire.

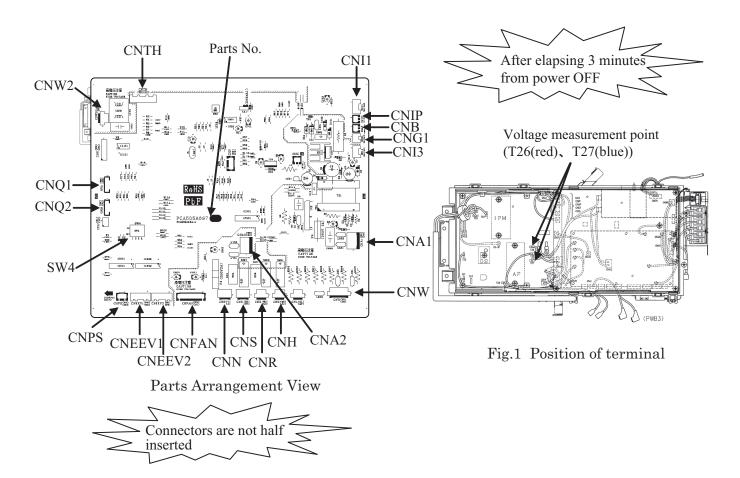
CAUTION

Band the wiring so as not to tense because it will cause an electric shock.

(i) Model FDC71VNX PCA012D021D

- 1) Replace the PCB after elapsing 3 minutes from power OFF.

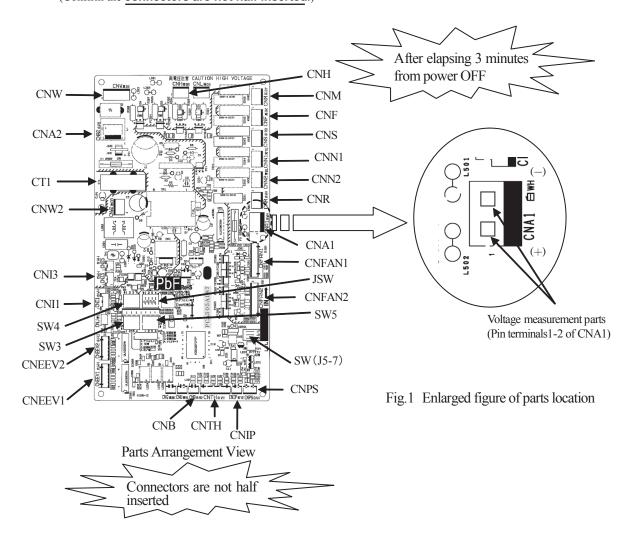
 (Be sure to measure voltage (DC) between T26 and T27 on inverter PCB, and check that the voltage is discharged sufficiently(10V or less).(Refer to Fig.1))
- 2) Disconnect the connectors from the control PCB.
- 3) Match the switches setting (SW4) with the former PCB.
- 4) Connect the connectors to the control PCB.(Confirm the connectors are not half inserted.)



(ii) Model FDC100VNX, 125VNX, 140VNX FDC100VSX, 125VSX, 140VSX

PCA012D043

- Replace the PCB <u>after elapsing 3 minutes from power OFF</u>.
 (<u>Be sure to measure voltage (DC)</u> on both capacitor terminals located in controller back, and check that the voltage is discharged sufficiently.)
- 2) Disconnect the connectors from the control PCB.
- 3) Disconnect the white wiring passing through CT1 on the PCB before replacing the PCB.
- 4) Match the setting switches (SW3-5, JSW) with the former PCB.
- 5) Tighten up a screw after passing white wiring through CT1 of the changed.
- 6) Connect the connectors with the control PCB referring to the parts arrangement of Fig.1. (Confirm the **connectors are not half inserted**.)



(c) Outdoor inverter PCB replacement procedure

Precautions for Safety

Since the following precaution is the important contents for safety, be sure to observe them.
 WARNING and CAUTION are described as follows:

WARNING Indicates an imminently hazar

Indicates an imminently hazardous situation which will result in death or serious injury if proper safety procedures and instructions are not adhered to.

△ CAUTION

Indicates a potentially hazardous situation which may result in minor or moderate injury if proper safety procedures and instructions are not adhered to.

♠ WARNING

- Securely replace the PCB according to this procedure.
 If the PCB is incorrectly replaced, it will cause an electric shock or fire.
- Be sure to check that the power source for the outdoor unit is turned OFF before replacing the PCB. The PCB replacement under current-carrying will cause an electric shock or fire.
- After finishing the PCB replacement, check that wiring is correctly connected with the PCB before power distribution. If the PCB is incorrectly replaced, it will cause an electric shock or fire.

♠ CAUTION

Band the wiring so as not to tense because it will cause an electric shock.

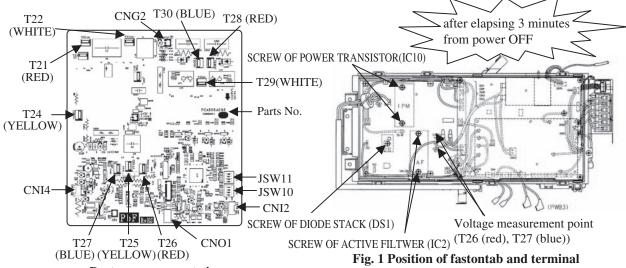
Replace the inverter PCB according to the following procedure.

(i) Model FDC71VNX

1) Replace the PCB after elapsing 3 minutes from power OFF.

PCA012D022G

- (Be sure to measure voltage (DC) between T26 and T27 on inverter PCB, and check that the voltage is discharged sufficiently (10V or less). (Refer to Fig.1))
- Take off the connection of inverter PCB terminal and connector, and remove the screw of power transistor (IC10), active filter (IC2), and diode stack (DS1) then remove the PCB. Wipe off the silicon grease neatly on the controller's radiation heat fins. (Refer to Fig.1 and Parts arrangement view)
- 3) Refer to table 1 for the setting of switch (JSW10, 11) of new PCB.
- 4) Before installing the power transistor (IC10), active filter (IC2), and diode stack (DS1) on the new PCB, apply silicon grease equally to the their surface. (Make full use of the silicon grease.) They may be damaged unless they apply it.
- Tighten the screw of power transistor (IC10), active filter (IC2), and diode stack (DS1) on inverter PCB and connect terminal and connector. Confirm the connection and there is not the half insertion. Tighten properly power transistor, (IC10) active filter (IC2), and diode stack (DS1) with a screw and make sure there is no slack. They can be damage if not properly tighten. (Recommended tightening torque: power transistor (IC10)1.2±0.1 and active filter (IC2)0.98±0.1, diode stack(DS1) 0.5±0.1 Unit N·m



Parts arrangement view

Table. 1 Switch setting

		-1	OFF		-1	ON
Connectors are	JSW10	-2	OFF	JSW11	-2	ON
not half inserted		-3	OFF		-3	ON
		-4	OFF		-4	ON

(ii) Model FDC100VNX, 125VNX, 140VNX

PCA012D025D

- 1) Replace the PCB <u>after elapsing 3 minutes from power OFF</u>.

 (Be sure to measure voltage (DC) on both capacitor terminals located in controller back, and <u>check that the voltage is discharged sufficiently</u>.(Refer to Fig.1))
- 2) Take off the connection of inverter PCB terminal block connector and remove the screw of power transistor then remove the PCB. Wipe off the silicon grease neatly on the controller's radiation heat fins.
- 3) Match the setting switches (JSW10,11) of new PCB with the former PCB.
- 4) Before installing the power transistor on the new PCB, Apply uniformly a bundled of silicon grease first on the surface of power transistor. Make sure it is applied to prevent damage on power transistor.
- 5) Tighten the screw of power transistor on inverter PCB and connect the terminal block. Confirm the connection and don't use soldering in the connection. Tighten properly the power transistor with a screw and make sure there is no slack. Power transistor can be damage if not properly tighten. (Recommended power transistor tightening torque: 0.98~1.47N·m)

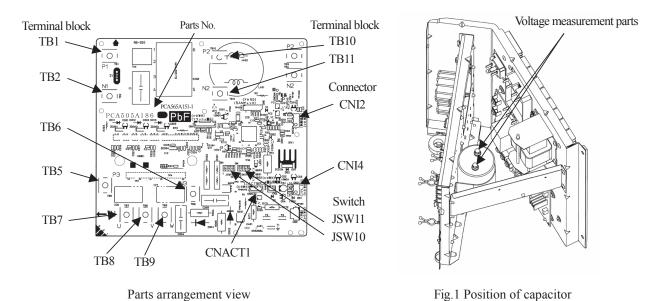


Table. 1 Switch setting

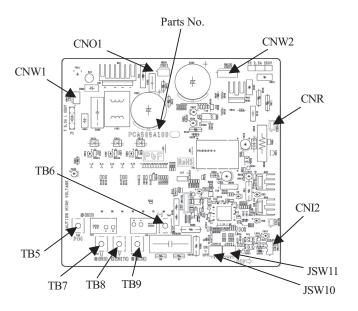
8						
	-1	OFF		-1	OFF	
JSW10	-2	OFF	JSW11	-2	OFF	
JS W 10	-3	OFF	J5 W 11	-3	ON	
	-4	OFF		-4	ON	

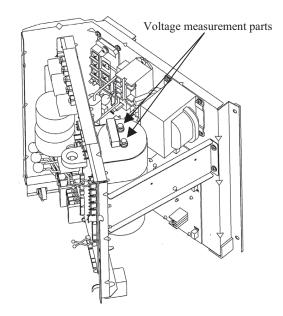
(iii) Model FDC100VSX, 125VSX, 140VSX

PCA012D025F

- Replace the PCB <u>after elapsing 3 minutes from power OFF</u>.

 (Be sure to measure voltage (DC) on both capacitor terminals located in controller back, and <u>check that the voltage is discharged sufficiently</u>.(Refer to Fig.1))
- 2) Take off the connection of inverter PCB terminal block connector and remove the screw of power transistor then remove the PCB. Wipe off the silicon grease neatly on the controller's radiation heat fins.
- 3) Match the setting switches (JSW10,11) of new PCB with the former PCB.
- 4) Before installing the power transistor on the new PCB, Apply uniformly a bundled of silicon grease first on the surface of power transistor. Make sure it is applied to prevent damage on power transistor.
- 5) Tighten the screw of power transistor on inverter PCB and connect the terminal block. Confirm the connection and don't use soldering in the connection. Tighten properly the power transistor with a screw and make sure there is no slack. Power transistor can be damage if not properly tighten. (Recommended power transistor tightening torque: 0.98~1.47N·m)





Parts arrangement view

Fig.1 Position of capacitor

Table. 1 Switch setting

	-1	OFF		-1	ON
JSW10	-2	OFF	JSW11	-2	OFF
	-3	OFF		-3	ON
	-4	OFF		-4	ON

DIP switch setting list (Outdoor unit)

(1) Control PCB

Model FDC71VNX

Switches	Description		Г	Default setting	Remarks
SW3-1	Defrost condition	Normal*/Cold region	OFF	Normal	
SW3-2	Snow protection control	Normal*/Snow protection	OFF	Normal	
SW3-3	Model selection	Cooling only/Heat pump*	OFF	Heat pump	Keep OFF
SW3-4	Defrost prohibition time	ON: 37min*/OFF: 45min	ON	37min.	
SW4-1	Model selection	Domestic/Overseas*	ON	Overseas	Keep ON
SW4-2	Model selection	3-phase/Single phase*	ON	Single phase	Keep ON
SW4-3	Reserved		OFF		Keep OFF
SW4-4	Reserved		OFF		Keep OFF
SW5-1	Model selection		OFF		Keep OFF
SW5-2	Model selection		OFF		Keep OFF
SW5-3	Test run SW	Normal*/Test run	OFF	Normal	
SW5-4	Test run mode	Cooling*/Heating	OFF	Cooling	
SW7-1	Reserved		OFF		Keep OFF
SW7-2	Reserved		OFF		Keep OFF
SW7-3	Reserved		OFF		Keep OFF
SW8-1	Reserved		OFF		Keep OFF
SW8-2	Reserved		OFF		Keep OFF
SW8-3	Reserved		OFF		Keep OFF
SW9	Pump down operation	Normal*/Pump down	OFF	Normal	

Models FDC100,125,140VNX,100,125,140VSX

*	De	fault	60	ttin	n
	DC	Iaui	LSC	ш	ջ

Switches	Description		Default setting		Remarks
SW1	Pump down operation	Normal*/Pump down	OFF	Normal	
JSW1-1				•	
JSW1-2	Model selection		As nor	model	See table 1
JSW1-3	Wiodel selection		As per model		See table 1
JSW1-4					
SW3-1	Defrost condition	Normal*/Cold region	OFF	Normal	
SW3-2	Snow protection control	Normal*/Snow protection	OFF	Normal	
SW3-3	Test run SW	Normal*/Test run	OFF	Normal	
SW3-4	Test run mode	Cooling*/Heating	OFF	Cooling	
SW4-1	Model selection	Domestic/Overseas*	ON	Overseas	See table 1
SW4-2	Model selection	3-phase/Single phase	As per	model	See table 1
SW4-3	Reserved		OFF		Keep OFF
SW4-4	Reserved		ON		Keep ON
SW5-1	Reserved		OFF		Keep OFF
SW5-2	Reserved		OFF		Keep OFF
SW5-3	Reserved		OFF		Keep OFF
SW5-4	Reserved		OFF		Keep OFF

* Default setting
Table 1: Outdoor unit model selection with JSW1-1-JSW1-4 and SW4-1-SW4-2

					0: OF	F 1:ON
	100VNX	100VSX	125VNX	125VSX	140VNX	140VSX
JSW1-1	0	0	1	1	0	0
JSW1-2	0	0	0	0	1	1
JSW1-3	0	0	0	0	0	0
JSW1-4	0	0	0	0	0	0
SW4-1	1	1	1	1	1	1
SW4-2*	1	0	1	0	1	0

* 3-phase: OFF/Single phase: ON

(2) Inverter PCB

C:4-1	71VNX	100, 125, 140VNX	100, 125, 140VSX
Switches	Single phase models	Single phase models	3-phase models
JSW10-1	OFF	OFF	OFF
JSW10-2	OFF	OFF	OFF
JSW10-3	OFF	OFF	OFF
JSW10-4	OFF *	OFF *	OFF *
JSW11-1	ON	OFF	ON
JSW11-2	ON	OFF	OFF
JSW11-3	ON	ON	ON
JSW11-4	ON	ON	ON

 $[\]star$ When checking inverter PCB of FDC71 – 140 models with inverter checker, turn JSW10-4 ON. (Regarding the checking method of inverter PCB with inverter checker, refer to page 379 for details)

Check of anomalous operation data with the remote control

(a) In case of RC-EX1A remote control

[Operating procedure]

- ① On the TOP screen, touch the buttons in the order of "Menu" → "Next" → "Service & Maintenance" → "Service password" → "Set" → "Error display" → "Error history".
- ② When only one indoor unit is connected to the remote control, followings will be displayed.
 - 1. When there is any anomaly: "Loading. Wait a while" is displayed, followed by the operation data at the occurrence of anomaly. Contents of display
 - · Error code
 - · Number and data item
 - 2. When there is no anomaly: "No anomaly" is displayed, and this mode is terminated.
- When two or more indoor units are connected to the remote control, followings will be displayed.
 - 1. When there is any anomaly: If the unit having anomaly is selected on the "Select IU" screen, "Loading. Wait a while" is displayed, followed by the operation data at the occurrence of anomaly.

Contents of display

- · Indoor unit No.
- · Error code
- · Number and data item
- 2. When there is no anomaly: "No anomaly" is displayed, ant this mode is terminated.

Note (1) When the number of connected units cannot be shown in a page, select "Next".

- ④ If you press [RUN/STOP] button, the display returns to the TOP screen.
 - O If you touch "Back" button on the way of setting, the display returns to the last precious screen.

Note (1) When two remote controls are used to control indoor units, the check of anomaly operation data can be made on the master remote control only. (It cannot be operated from the slave remote control.)

■ Anomaly operation data (Corresponding data may not be provided depending on models. Such items will not be displayed.)

Number		Data Item
01	4k 4k	(Operation Mode)
02	SET TEMP	(Set Temperature)
03	RETURN AIR_₺	(Return Air Temperature)
04	回SENSORた	(Remote Control Thermistor Tempeature)
05	THI-R1t	(Indoor Heat Exchanger Thermistor / U Bend)
06	THI-R2t	(Indoor Heat Exchanger Thermistor /Capillary)
07	THI-R3t	(Indoor Heat Exchanger Thermistor /Gas Header)
08	I/U FANSPEED	(Indoor Unit Fan Speed)
09	DEMANDHz	(Frequency Requirements)
10	ANSWERHz	(Response Frequency)
11	I/U EEVP	(Pulse of Indoor Unit Expansion Value)
12	TOTAL I/U RUN	_H (Total Running Hours of The Indoor Unit)
21	OUTDOORt	(Outdoor Air Temperature)
22	THO-R1	(Outdoor Heat Exchanger Thermistor)
23	THO-R2	(Outdoor Heat Exchanger Thermistor)
24	COMPHz	(Compressor Frequency)
25	HPMPa	(High Pressure)
26	LPMPa	(Low Pressure)
27	ڻــــbT	(Discharge Pipe Temperature)
28	COMP BOTTOMtc	(Comp Bottom Temperature)
29	CTAMP	(Current)
30	TARGET SH	(Target Super Heat)
31	ڻHZ	(Super Heat)
32	TDSHt	(Discharge Pipe Super Heat)
33	PROTECTION No	(Protection State No. of The Compressor)
34	O/U FANSPEED	(Outdoor Unit Fan Speed)
35	63H1	(63H1 On/Off)
36	DEFROST	(Defrost Control On/Off)
37	TOTAL COMP RUN_	H (Total Running Hours of The Compressor)
38	0/U EE V1P	(Pulse of The Outdoor Unit Expansion Valve EEVC)
39	0/U EEV2P	(Pulse of The Outdoor Unit Expansion Valve EEVH)

Details of Compressor protection status No. 33

No.	Contents of display	In case of FDC71-140 refer to
"0"	Normal	
"1"	Discharge pipe temperature protection control	P.342, (6).(a).(i)
"2"	Discharge pipe temperature anomaly	P.342, (6).(a).(ii)
"3"	Current safe control of inverter primary current	P.344, (6).(g)
"4"	High pressure protection control	P.342, (6).(b).(i), P.343, (6).(c).(i)
"5"	High pressure anomaly	P.342, (6).(b).(ii)
"6"	Low pressure protection control	P.343, (6).(e).(i)
"7"	Low pressure anomaly	P.343, (6).(e).(ii)
"8"	Anti-frost prevention control	P.344, (6).(k)
"9"	Current cut	P.344, (6).(g)
"10"	Power transistor protection control	P.344, (6).(h)
"11"	Power transistor anomaly (Overheat)	P.344, (6).(i)
"12"	Compression ratio control	P.343, (6).(f)
"13"	Spare	
"14"	Dewing prevention control	P.345, (6).(l)
"15"	Current safe control of inverter secondary current	P.344, (6).(g)
"16"	Stop by compressor rotor lock	
"17"	Stop by compressor startup failure	P.345, (6).(p)

Note(1) Operation data display on the remote control.

Data is dispalyed until canceling the protection control.

In case of multiple protections controlled, only the younger No. is displayed. Note(2) Common item. ① In heating mode.

During protection control by the command signal for reducing compressor frequency from indoor unit, No. "4" is displayed.

② In cooling and dehumidifying mode.

During protection control by the command signal for reducing compressor frequency from indoor unit, No. "8" is displayed.

(b) In case of RC-E5 remote control

Operation data can be checked with remote control unit operation.

- ① Press the CHECK button. The display change "OPER DATA
- 2 Press the (SET) button while "OPER DATA T" is displayed.
- 3 When only one indoor unit is connected to remote control, "DATA LOADING" is displayed (blinking indication during data loading). Next, operation data of the indoor unit will be displayed. Skip to step ⑦.
- 4 When plural indoor units is connected, the smallest address number of indoor unit among all connected indoor unit is displayed. [Example]:
 - " (b) \$\frac{1}{2} \text{SELECT } \text{\(\) \" (blinking 1 seconds) \(\) \" \[\] \\ \] inking.
- ⑤ Select the indoor unit number you would like to have data displayed with the button.
- © Determine the indoor unit number with the (SET) button. (The indoor unit number changes from blinking indication to continuous indication)
 - "[/U000" (The address of selected indoor unit is blinking for 2 seconds.) 1
 - "DATA LOADING" (A blinking indication appears while data loaded.) Next, the operation data of the indoor unit is indicated.
- \bigcirc Upon operation of the $| \triangle | | \nabla |$ button, the current operation data is displayed in order from data number 01.

The items displayed are in the above table.

- *Depending on models, the items that do not have corresponding data are not displayed.
- ® To display the data of a different indoor unit, press the AIR CON NO. button, which allows you to go back to the indoor unit selection screen.
- Pressing the OON/OFF button will stop displaying data.
 - Pressing the (RESET) button during remote control unit operation will undo your last operation and allow you to go back to the previous screen.

OIf two (2) remote controls are connected to one (1) inside unit, only the master control is available for trial operation and confirmation of operation data. (The slave remote control is not available.)

Details of Compressor protection status No. 33

-	Details of Compressor protection status No. 33						
No.	Contents of display	In case of FDC71-140 refer to					
"0"	Normal						
"1"	Discharge pipe temperature protection control	P.342, (6).(a).(i)					
"2"	Discharge pipe temperature anomaly	P.342, (6).(a).(ii)					
"3"	Current safe control of inverter primary current	P.344, (6).(g)					
"4"	High pressure protection control	P.342, (6).(b).(i), P.343, (6).(c).(i)					
"5"	High pressure anomaly	P.342, (6).(b).(ii)					
"6"	Low pressure protection control	P.343, (6).(e).(i)					
"7"	Low pressure anomaly	P.343, (6).(e).(ii)					
"8"	Anti-frost prevention control	P.344, (6).(k)					
"9"	Current cut	P.344, (6).(g)					
"10"	Power transistor protection control	P.344, (6).(h)					
"11"	Power transistor anomaly (Overheat)	P.344, (6).(i)					
"12"	Compression ratio control	P.343, (6).(f)					
"13"	Spare						
"14"	Dewing prevention control	P.345, (6).(l)					
"15"	Current safe control of inverter secondary current	P.344, (6).(g)					
"16"	Stop by compressor rotor lock						
"17"	Stop by compressor startup failure	P.345, (6).(p)					

Number		Data Item
01	345 346	(Operation Mode)
02	SET TEMP	(Set Temperature)
03	RETURN AIRた	(Return Air Temperature)
04	ലSENSORt	(Remote Control Thermistor Tempeature)
05	THI-Rib	(Indoor Heat Exchanger Thermistor / U Bend)
06	THI-R2ზ	(Indoor Heat Exchanger Thermistor /Capillary)
07	THI-R3ზ	(Indoor Heat Exchanger Thermistor /Gas Header)
80	I/U FANSPEED	(Indoor Unit Fan Speed)
09	DEMANDHz	(Frequency Requirements)
10	ANSWERHz	(Response Frequency)
11	I/UEEVP	(Pulse of Indoor Unit Expansion Value)
12	TOTAL I / U RUN	$_{ m H}$ (Total Running Hours of The Indoor Unit)
21	OUTDOORt	(Outdoor Air Temperature)
22	THO-R1c	(Outdoor Heat Exchanger Thermistor)
23	THO-R2ზ	(Outdoor Heat Exchanger Thermistor)
24	COMPHz	(Compressor Frequency)
25	HPMPa	(High Pressure)
26	LPMPa	(Low Pressure)
27	ĭd <u></u>	(Discharge Pipe Temperature)
28	COMP BOTTOM ಓ	(Comp Bottom Temperature)
29	CTAMP	(Current)
30	TARGET SH₺	(Target Super Heat)
31	SHb	(Super Heat)
32	TDSHt	(Discharge Pipe Super Heat)
33	PROTECTION No	$_{\underline{}}$ (Protection State No. of The Compressor)
34	O/UFANSPEED	(Outdoor Unit Fan Speed)
35	63H1	(63H1 On/Off)
36	DEFROST	(Defrost Control On/Off)
37	TOTAL COMP RUN_	$\ \ \ \ \ \ \ \ \ \ \ \ \ $
38	0/U EEV 1P	(Pulse of The Outdoor Unit Expansion Valve EEVC)
39	0/U EEV2P	(Pulse of The Outdoor Unit Expansion Valve EEVH)

Note(1) Operation data display on the remote control.

Data is dispalyed until canceling the protection control.

*In case of multiple protections controlled, only the younger No. is displayed Note(2) Common item.

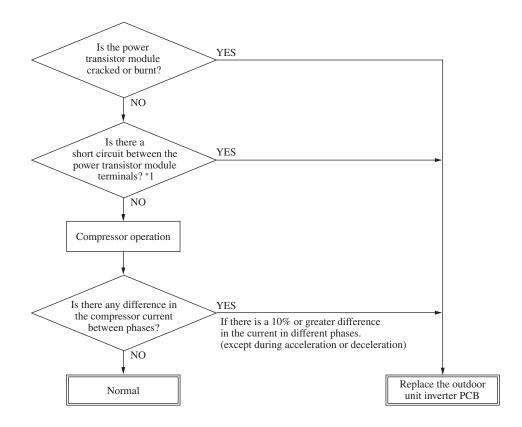
① In heating mode.

During protection control by the command signal for reducing compressor frequency from indoor unit, No. "4" is displayed.

© In cooling and dehumidifying mode.

During protection control by the command signal for reducing compressor frequency from indoor unit, No. "8" is displayed.

(6) Power transistor module (including the driver PCB) inspection procedure



*1 Power transistor module terminal short circuit check procedure

Disconnect the compressor wiring, then conduct a short circuit check.

P-U, P-V, P-W

N-U, N-V, N-W

Check between the P-N terminals.

Bring the tester probes in contact with the following places on each te rminal.

P: Power transistor P terminal,

N: Power transistor N terminal,

U: End of red harness to compressor

V: End of white harness to compressor

W: End of black or blue harness to compressor

Check for a power transistor short circuit.

- When you do not have a diagnostic checker for judging if the inverter is defective, measure between the terminals of the power transistor parts, judge whether the power transistor is defective or not.
- Disconnect the compressor, then measure with the controller incorporated.

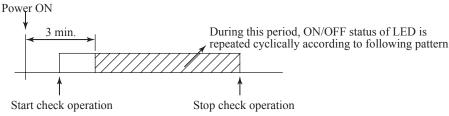
Tester		Normal values (Ω)	
Terminal (+)	Terminal (-)	Model 71	Model 100-140
P	N	0 -	Approx. 1 M
N	P	(Numerical value rises.)	Approx. 300-400
P	U	Several M	
P	V	(Numerical	0
P	W	value rises.)	
N	U		
N	V	Approx. 650 k	Approx. 1.2 M
N	W		
U	P	Approx. 670 k	
V	P	Approx. 4.4 M	Approx. 1.3 M
W	P	Approx. 4.4 M	
U	N	Approx. 650 k	
V	N	Approx. 4.8 M	0
W	N	Approx. 4.9 M	

If the measured values range from 0 \sim several kW, there is a possibility that the elements are damaged, so replace the power transistor parts.

(7) Inverter checker for diagnosis of inverter output

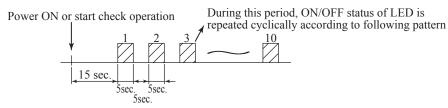
- Checking method
- (a) Model: SRC40-60
 - 1) Setup procedure of checker.
 - a) Power OFF (Turn off the breaker).
 - b) Remove the terminal cover of compressor and disconnect the wires (U, V, W) from compressor.
 - c) Connect the wires U (Red), V (White) and W (Black) of the checker to the terminal of disconnected wires (U, V, W) from compressor respectively.
 - 2) Operation for judgment.
 - a) Power ON and start check operation on cooling or heating mode.
 - b) Check ON/OFF status of 6 LED's on the checker.
 - c) Judge the PCB by ON/OFF status of 6 LED's on the checker.

ON/OFF status of LED	If all of LED are ON/OFF according to following pattern	If all of LED stay OFF or some of LED are ON/OFF
Inverter PCB	Normal	Anomalous

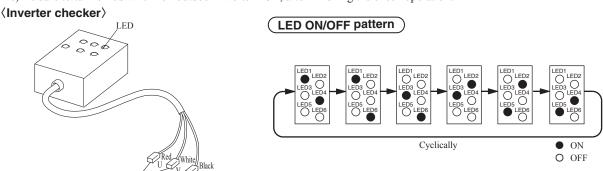


- d) Stop check operation within about 2minutes after starting check operation.
- (b) Model: FDC71-140
 - 1) Setup procedure of checker.
 - a) Power OFF (Turn off the breaker).
 - b) Remove the terminal cover of compressor and disconnect the wires (U, V, W) from compressor.
 - c) Connect the wires U (Red), V (White) and W (Black) of checker to the terminal of disconnected wires (U, V, W) from compressor respectively.
 - 2) Operation for judgment.
 - a) Power ON after JSW10-4 on outdoor inverter PCB was turned ON.
 - b) After 15 seconds since power has turned ON, LED start ON/OFF for 5 seconds cyclically and it repeats 10 times.
 - c) Check ON/OFF status of 6 LED's on the checker.
 - d) Judge the PCB by ON/OFF status of 6 LED's on the checker.

ON/OFF status of LED	If all of LED are ON/OFF according to following pattern	If all of LED stay OFF or some of LED are ON/OFF
Inverter PCB	Normal	Anomalous



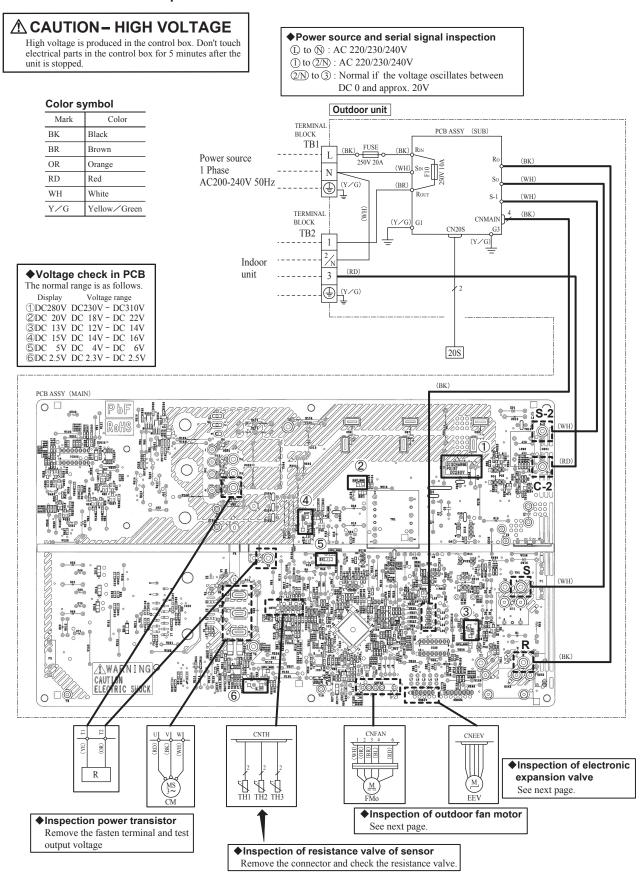
e) Be sure to turn off JSW10-4 on outdoor inverter PCB, after finishing the check operation.



Faston terminal W
Connect to the terminal of the wires which are disconnected from compressor.

(8) Outdoor unit control failure diagnosis circuit diagram Models SRC40ZM-S, 50ZM-S, 60ZM-S

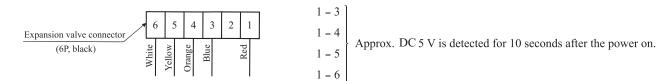
Outdoor unit check points



1) Inspection of electronic expansion valve

Electronic expansion valve operates for approx. 10 seconds after the power on, in order to determine its aperture. Check the operating sound and voltage during the period of time. (Voltage cannot be checked during operation in which only the aperture change occurs.)

- (i) If it is heard the sound of operating electronic expansion valve, it is almost normal.
- (ii) If the operating sound is not heard, check the output voltage.



- (iii) If voltage is detected, the outdoor PCB is normal.
- (iv) If the expansion valve does not operate (no operating sound) while voltage is detected, the expansion valve is defective.

• Inspection of electronic expansion valve as a separate unit

Measure the resistance between terminals with an analog tester.

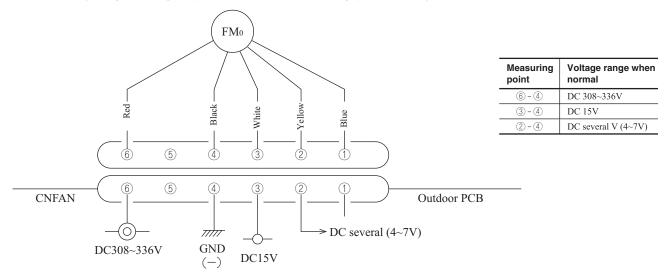
Measuring point	Resistance when normal
1-6	
1-5	$46\pm4\Omega$
1-4	(at 20°C)
1-3	

2 Outdoor unit fan motor check procedure

- When the outdoor unit fan motor error is detected, diagnose which of the outdoor unit fan motor or outdoor PCB is defective.
- Diagnose this only after confirming that the indoor unit is normal.
- (i) Outdoor PCB output check
 - 1) Turn off the power.
 - 2) Disconnect the outdoor unit fan motor connector CNFAN.
 - 3) When the indoor unit is operated by inserting the power supply plug and pressing (ON) the backup switch for more than 5 seconds, if the voltage of pin No. ② in the following figure is output for 30 seconds at 20 seconds after turning "ON" the backup switch, the outdoor PCB is normal but the fan motor is defective.

If the voltage is not detected, the outdoor PCB is defective but the fan motor is normal.

Note (1) The voltage is output 3 times repeatedly. If it is not detected, the indoor unit displays the error message.



(ii) Fan motor resistance check

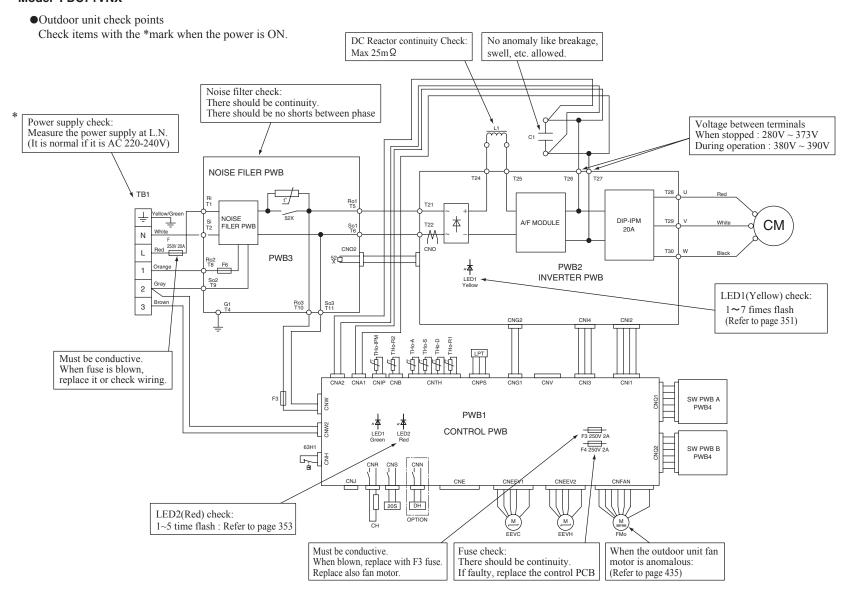
Measuring point	Resistance when normal
6 - 4 (Red - Black)	$20~\mathrm{M}\Omega$ or higher
③ - ④ (White - Black)	20 k Ω or higher

Notes (1) Remove the fan motor and measure it without power connected to it.

(2) If the measured value is below the value when the motor is normal, it means that the fan motor is faulty.

'13 • PAC-T-197

Model FDC71VNX



Power supply check:

TB ÷

Measure the power supply L1,N

(It is normal if it is AC220-240V)

Check items with the *mark when the power is ON.

Noise filter check:

There should be continuity.

There should be no shorts between phases.

DH

OPTION

M

1~5 time flash: Refer to page 351 or 352

LED2(Red) check:

20S

CH1

М

Capacitor check:

Check for anomaly in appearance

PWB2

INVERTER PWB

Check the power transistor

module if there is short, open, or breakdown on the elements

such as damage, swelling, etc.

DC Reactor continuity Check:

Max $25m\Omega$

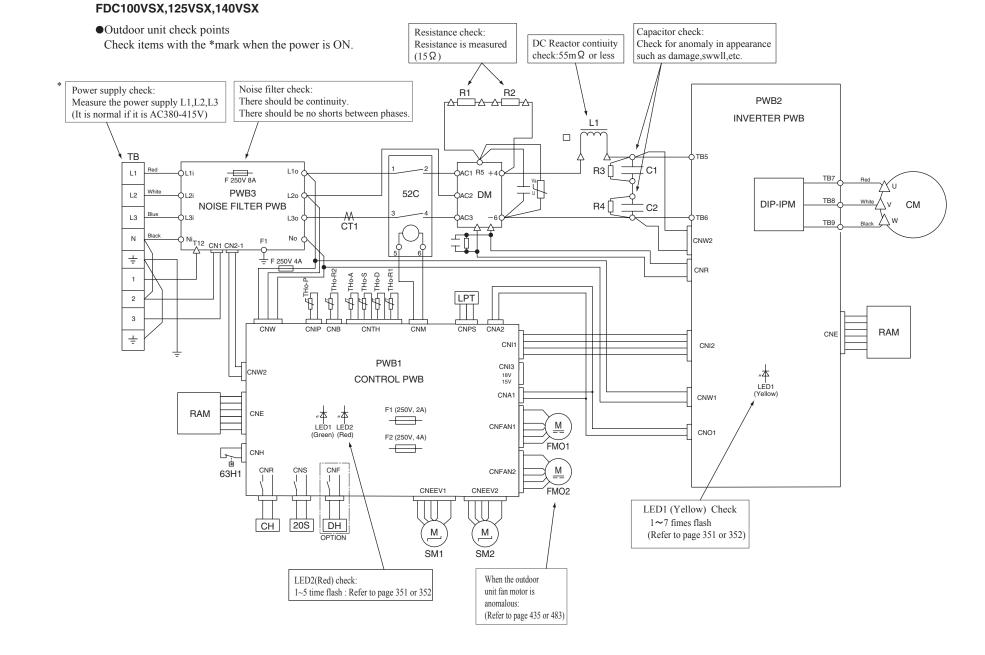
* L1

When the outdoor

unit fan motor is

abnormal: (Refer to page 435 or 483)

383



1.12.2 Troubleshooting flow (1) List of troubles

a) FDT, FDTC, FDEN, FDU, FDUM, FDF series

Remote controller display	Description of trouble	Reference page
None	Operates but does not cool.	387
None	Operates but does not heat.	388
None	Earth leakage breaker activated	389
None	Excessive noise/vibration (1/3)	390
None	Excessive noise/vibration (2/3)	391
None	Excessive noise/vibration (3/3)	392
None	Louver motor failure (FDT, FDTC, FDEN, FDF series)	393
None	Power supply system error (Power supply to indoor control PCB)	394
None	Power supply system error (Power supply to remote control)	395
INSPECT I/U	INSPECT I/U (When 1 or 2 remote controls are connected)	396
INSPECT I/U	INSPECT I/U (Connection of 3 units or more remote controls)	397
⊕WAIT⊕	Communication error at initial operation (Models SRC40-60 only)	398-400
®WAIT®	Communication error at initial operation (Models FDC71-140 only)	401-403
None	No display	404
E1	Remote controller communication circuit error	405
E5	Communication error during operation	406
E6	Indoor heat exchanger temperature thermistor anomaly	407
E7	Return air temperature thermistor anomaly	408
E8	Heating overload operation	409
E9	Drain trouble	410
E10	Excessive number of connected indoor units (more than 17 units) by controlling with one remote control	411
E11	Address setting error of indoor units	412
E14	Communication error between master and slave indoor units	413
E16	Indoor fan motor anomaly	414
E18	Address setting error of moster and slave indoor unit	415
E19	Indoor unit operation check, drain motor check setting error	416
E20	Indoor fan motor rotation speed anomaly	417
E21	Defective panel switch operation (FDT only)	417
E28	Remote control temperature thermistor anomaly	419
E35		420
E35	Cooling overload operation (Models SRC40-60 only) Cooling overload operation (Models FDC71-140 only)	420
		421
E36 E37	Discharge pipe temperature error Outdoor heat exchanger temperature thermistor anomaly	
		423
E38	Outdoor air temperature thermistor anomaly	424
E39	Discharge pipe temperature thermistor anomaly	425
E40	Service valve (gas side) closing operation (Models SRC40-60 only)	426
E40	High pressure error (63H1 activated) (Models FDC71-140 only)	427
E41	Power transistor overheat (Models FDC71-140 only)	428
E42	Current cut	429 · 430
E45	Communication error between inverter PCB and outdoor control PCB (Models FDC71-140 only)	431
E47	Inverter over-current error (Models SRC40-60 only)	432
E47	Inverter PCB A/F module anomaly (Model FDC71 only)	433
E48	Outdoor fan motor anomaly (Models SRC40-60 only)	434
E48	Outdoor fan motor anomaly (Models FDC71-140 only)	435
E49	Low pressure error or low pressure sensor anomaly (Models FDC71-140 only)	436 · 437
E51	Power transistor anomaly (Models SRC40-60 only)	438
E51	Inverter and fan motor anomaly (Models FDC71-140 only)	439
E53	Suction pipe temperature thermistor anomaly (Models FDC71-140 only)	440
E54	Low pressure sensor anomaly (Models FDC71-140 only)	441
E57	Insufficient refrigerant amount or detection of service valve closure (Models SRC40-60 only)	442
E57	Insufficient refrigerant amount or detection of service valve closure (Models FDC71-140 only)	443
E58	Current safe stop (Models SRC40-60 only)	444
E59	Compressor startup failure (Models SRC40-60 only)	445
E59	Compressor startup failure (Models FDC71-140 only)	446 · 447

(b) SRK series

Remote controller display	Description of trouble	Reference page
None	Operates but does not cool.	449
None	Operates but does not heat.	450
None	Earth leakage breaker activated	451
None	Excessive noise/vibration (1/3)	452
None	Excessive noise/vibration (2/3)	453
None	Excessive noise/vibration (3/3)	454
None	Louver motor failure	455
None	Power supply system error (Power supply to indoor control PCB)	456
None	Power supply system error (Power supply to remote control)	457
None	Limit switch anomaly	458
INSPECT I/U	INSPECT I/U (When 1 or 2 remote controls are connected)	459
INSPECT I/U	INSPECT I/U (Connection of 3 units or more remote controls)	460
®WAIT®	Communication error at initial operation	461-463
None	No display	464
E1	Remote control communication circuit error	465
E5	Communication error during operation	466
E6	Indoor heat exchanger temperature sensor anomaly	467
None	Room temperature sensor anomaly	468
E10	Excessive number of connected indoor units (more than 17 units) by controlling with one remote control	469
E14	Communication error between master and slave indoor units	470
E16	Indoor fan motor anomaly	471
E28	Remote controller temperature thermistor anomaly	472
E35	Cooling overload operation	473
E36	Discharge pipe temperature error	474
E37	Outdoor heat exchanger temperature thermistor anomaly	475
E38	Outdoor air temperature thermistor anomaly	476
E39	Discharge pipe temperature thermistor anomaly	477
E40	High pressure error (63H1 activated)	478
E41	Power transistor overheat	479
E42	Current cut	480 · 481
E45	Communication error between inverter PCB and outdoor control PCB	482
E48	Outdoor fan motor anomaly	483
E49	Low pressure error or low pressure sensor anomaly	484 · 485
E51	Inverter and fan motor anomaly	486
E53	Suction pipe temperature thermistor anomaly	487
E54	Low pressure sensor anomaly	488
E57	Insufficient refrigerant amount or detection of service valve closure	489
E59	Compressor startup failure	490 · 491

(2) Troubleshooting

(a) FDT. FDTC. FDEN. FDU. FDUM. FDF series

(a) 1 D 1, 1 D 1 O, 1 D L 11, 1 D O, 1 L	OIVI, I D	i Scrics		
Error code	LED	Green	Red	Content
Remote control: None	Indoor	Keeps flashing	Stays OFF	Operates but does not cool
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

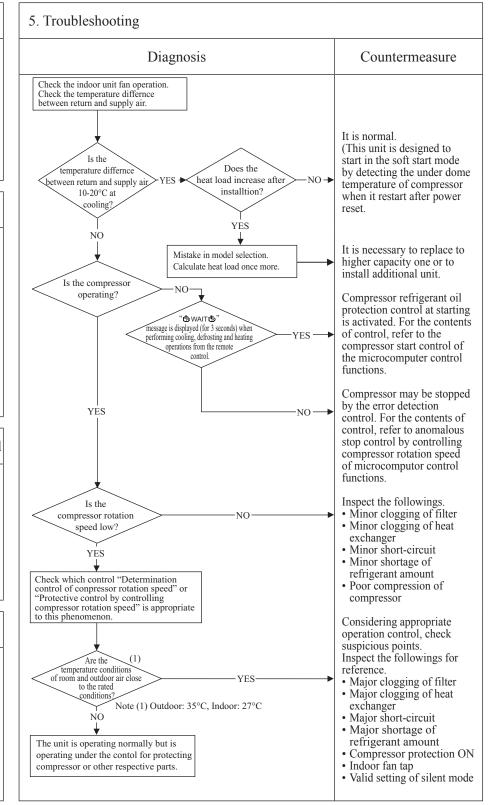
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Poor compression of compressor
- Faulty expansion valve operation



					<u> </u>
	Error code	LED	Green	Red	Content
	Remote control: None	Indoor	Keeps flashing	Stays OFF	Operates but does not heat
		Outdoor	Keeps flashing	Stays OFF	operates out does not heat
-1					

1. Applicable model

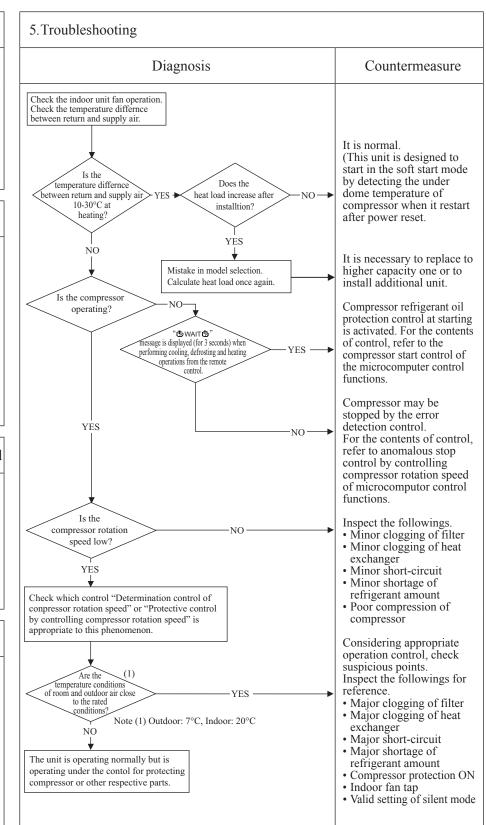
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Faulty 4-way valve operation
- Poor compression of compressor
- Faulty expansion valve operation



Error code LED Green Red Content Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF Indoor Stays OFF Stays OFF						(A
Indoor Stays OFE Stays OFE	Error code	LED	Green	Red	Content	
Remote control: None Indoor Stays Of St	Remote control: None	Indoor	Stays OFF	Stays OFF	Earth leakage breaker activated	
Outdoor Stays OFF Stays OFF Stays OFF		Outdoor	Stays OFF	Stays OFF	Latin leakage ofeaker activated	

5. Troubleshooting 1. Applicable model All models Diagnosis Countermeasure Are OK the insulation resistance and Replace compressor.* NO coil resistance of compressor? YĖS 2. Error detection method Is insulation of respective harnesses OK? Secure insulation NO Is any harness bitten between resistance. pannel and casing YES Check the outdoor unit grounding wire/earth leakage breaker. Check of the outdoor unit grounding wire/earth leakage breaker 3. Condition of Error displayed ① Run an independent grounding wire from the grounding screw of outdoor unit to the grounding terminal on the distribution panel. (Do not connect to another grounding wire.) 2 In order to prevent malfunction of the earth leakage breaker itself, confirm that it is conformed to higher harmonic regulation. * Insulation resistance of compressor · Immediately after installation or when the unit has been left for long time without power supply, the insulation resistance may drop to a few $M\Omega$ because of refrigerant migrated in the compressor. When the earth breaker is activated at lower insulation resistance, check the following points. ① 6 hours after power ON, check if the insulation resistance 4. Presumable cause recovers to normal. (FDC71-140 only) When power ON, crankcase heater heat up compressor and evaporate the refrigerant migrated in the compressor. · Defective compressor 2 Check if the earth leakage breaker is conformed to higher • Noise harmonic regulation or not. Since the unit is equipped with inverter, it is necessary to use components conformed to higher harmonic regulation in order to prevent malfunction of earth leakage breaker.

				9
Error code	LED	Green	Red	Content
Remote control: None	Indoor	_	_	Excessive noise/vibration (1/3)
	Outdoor	-	-	Excessive noise/violation (1/3)

1. Applicable model

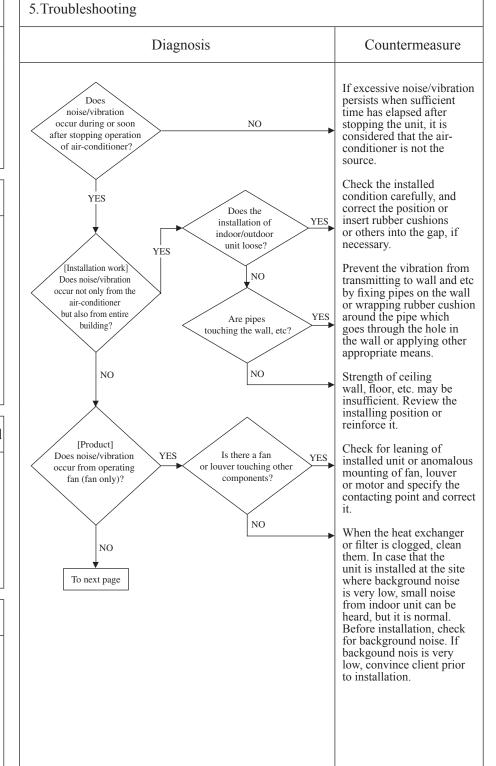
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- ① Improper installation work
 - Improper anti-vibration work at instllation
 - · Insufficient strength of mounting face
- Defective product Before/after shipping from factory
- ③ Improper adjustment during commissioning
 - · Excess/shortage of refrigerant, etc.



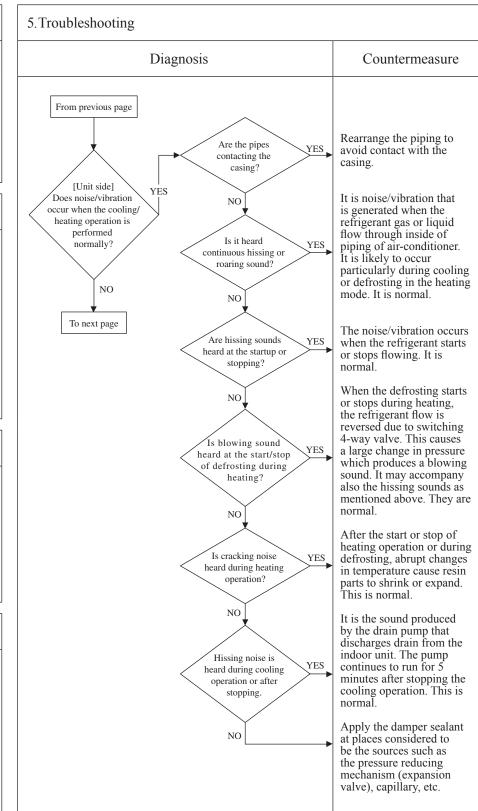
LED Green Red Content Remote control: None Indoor - -					
Remote control: None Indoor Exacesive noise/vibration (2/2)	Error code	LED	Green	Red	Content
	Remote control: None	Indoor	_	_	Excessive noise/vibration (2/3)
Outdoor – – Discontinuing (2/3)		Outdoor	_	-	Excessive horse, violation (2/3)

1.Applicable model All models

2.Error detection method

3. Condition of Error displayed

4. Presumable cause



				<u> </u>
Error code	LED	Green	Red	Content
Remote control: None	Indoor	_	_	Excessive noise/vibration (3/3)
	Outdoor	_	_	Excessive noise, violation (5/5)

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure From previous page If insufficient cooling/ Adjustment heating problem happens due to anomalous operating conditions at cooling/ heating, followings are during commissioning Does noise/vibration occur when the cooling/heating operation is in 2. Error detection method anomalous condition? suspicious. Overcharge of refrigerantInsufficient charge of YES refrigerant • Intrusion of air, nitrogen, etc. In such occasion, it is necessary to recover refrigerant, vacuum-dry and recharge refrigerant. * Since there could be many causes of noise/ vibration, the above do not cover all. In such case, check the conditions when, where, 3. Condition of Error displayed how the noise/vibration occurs according to following check point. • Indoor/outdoor unit • Cooling/heating/fan mode • Startup/stop/during operation • Operating condition (Indoor/outdoor temperatures, pressure) • Time it occurred • Operation data retained by the remote control 4. Presumable cause such as compressor rotation speed, heat exchanger temperature, EEV opening degree, etc. • Tone (If available, record the noise) • Any other anomalies

				<u> </u>
Error code	LED	Green	Red	Content Louver motor failure
Remote control: None	Indoor	Keeps flashing	Stays OFF	
	Outdoor	Keeps flashing	Stays OFF	(FDT, FDTC, FDEN and FDF series)

1. Applicable model

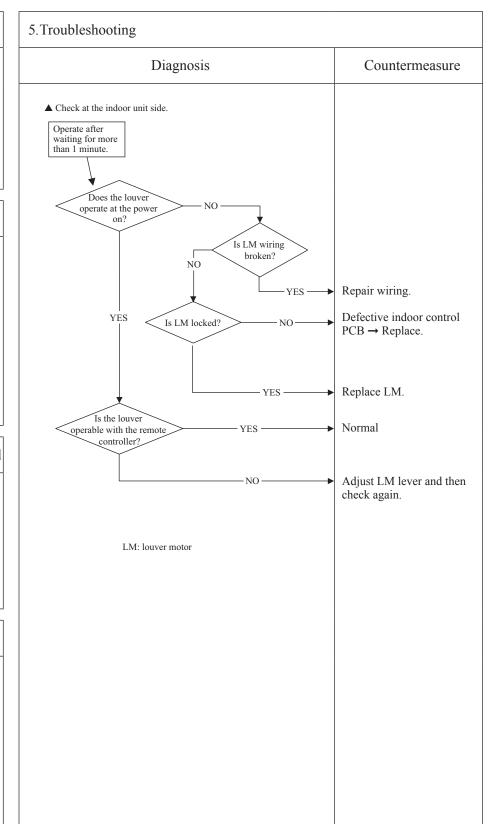
FDT, FDTC, FDEN and FDF series only

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Defective LM
- LM wire breakage Faulty indoor control PCB



_					9
(1	Error code	LED	Green	Red	Content Power supply system error
	Remote control: None	Indoor	Stays OFF	Stays OFF	(Dawar supply to indeer central DCD)
		Outdoor	Stays OFF	2-time flash	(Power supply to indoor control PCB)

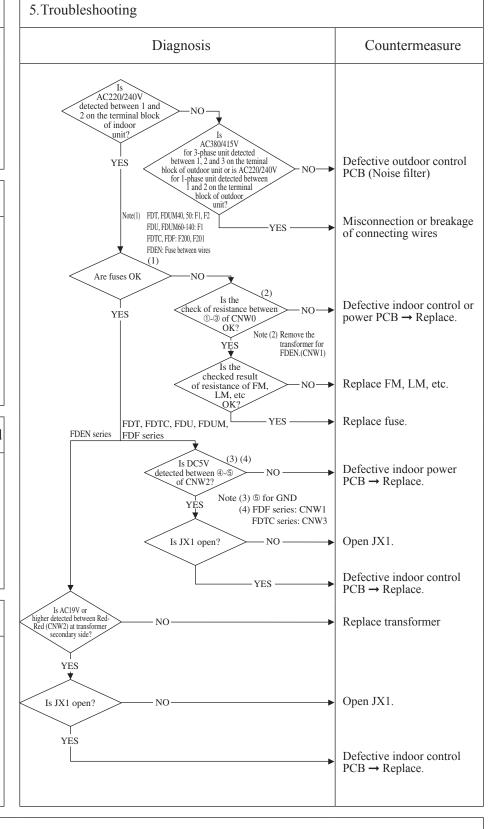
1.Applicable model All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Misconnection or breakage of connecting wires
- · Blown fuse
- Faulty transformer
- Faulty indoor control or power PCB
- Broken harness
- Faulty outdoor control PCB (Noise filter)



					<u> </u>
9	Error code	LED	Green	Red	Content Power supply system error
	Remote control: None	Indoor	Keeps flashing	3-time flash	Power supply system error (Power supply to remote control)
		Outdoor	Keeps flashing	Stays OFF	(1 ower suppry to remote control)
-			1 0	,	

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure Isn't there any Correct. loose connection of remote YES control wires? NO 2. Error detection method Isn't remote control wire broken or Replace wires. YES short-circuited? NO Disconnect remote control wires. Is DC15V or higher detected between X-Y Replace remote control. YES of indoor unit terminal block? 3. Condition of Error displayed NO FDT, FDTC, FDU, FDUM FDF series FDE series Is DC180V Defective indoor power between ①-② of CNW2? PCB→Replace. YES Defective indoor control Note(1)FDTC series: CNW3 FDF series: CNW1 PCB→Replace. 4. Presumable cause Is 24V or higher between (Brown-Brown) of Replace transformer. transformer secondary • Remote control wire side? breakage/short-circuit • Defective remote control • Malfunction by noise • Faulty indoor power PCB Defective indoor control YES PCB→Replace. Broken harness • Faulty indoor control PCB

					9
(1	Error code	LED	Green	Red	Content
	Remote control: INSPECT I/U	Indoor	Keeps flashing	Stays OFF	11 (81 2 6 1 1) 6
		Outdoor	Keeps flashing	2-time flash	(When 1 or 2 remote controls are connected)

All models

2. Error detection method

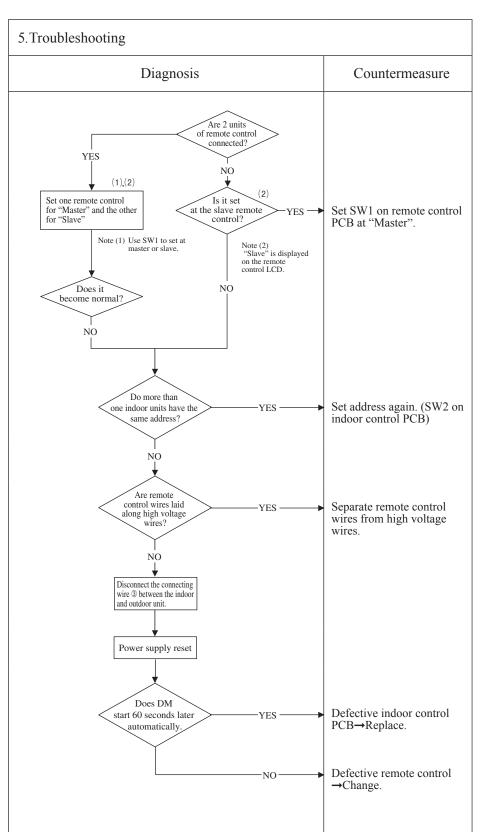
Communication between indoor unit and remote control is disabled for more than 30 minutes after the power on.

3. Condition of Error displayed

Same as above

4. Presumable cause

- Improper setting
- Surrounding environment
- Defective remote control communication circuit
- Faulty indoor control PCB



Note: If any error is detected 30 minutes after displaying "WAIT "on the remote control, the display changes to "INSPECT I/U".

				9
Error code	LED	Green	Red	Content
Remote control: INSPECT I/U	Indoor	Keeps flashing	Stays OFF	11 (81 = 61 1) 6
	Outdoor	Keeps flashing	2-time flash	(Connection of 3 units or more remote control)

All models

2. Error detection method

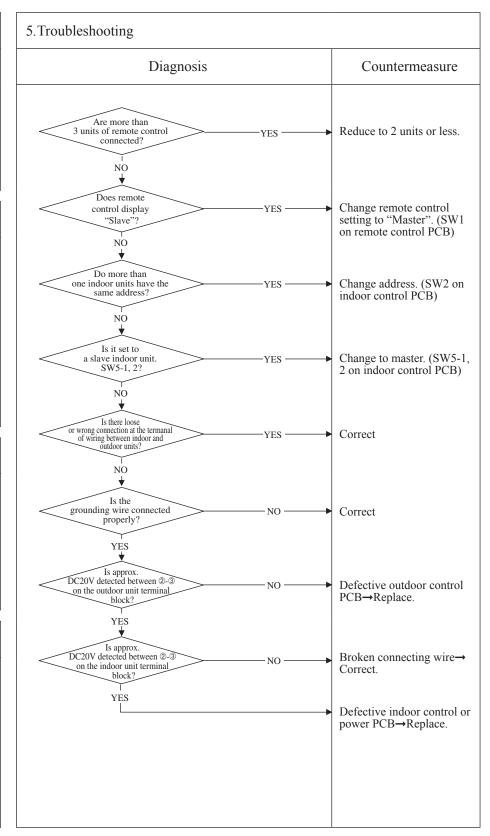
Indoor unit cannot communicate for more than 30 minutes after the power on with remote control.

3. Condition of Error displayed

Same as above

4. Presumable cause

- Improper setting
- Surrounding environment
- Defective remote control communication circuit
- Faulty indoor control or power PCB
- Faulty outdoor control PCB



Note: If any error is detected 30 minutes after displaying "WAIT "on the remote control, the display changes to "INSPECT I/U".

Defective indoor control

PCB→Replace.

_					<u> </u>
	Error code	LED	Green	Red	Content Communication error at
	Remote control: @WAIT@	Indoor	Keeps flashing	Stays OFF	initial operation (1/3)
		Outdoor	_	2-time flash	(Models SRC40-60)
					(1/104015 5110 10 00)

1. Applicable model

Models SRC40-60

When the remote control LCD displays " WAIT " 2 minutes after the power on.

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Blown fuse
- Faulty outdoor sub PCB
- Connection between PCB's
- Blown fuse on single phase model
- Faulty indoor control PCB
- Defective remote control
- Broken remote control wire

5. Troubleshooting Diagnosis Countermeasure The remote controller LCD Turn the breaker off once and then displays "@WAIT@" back on again 3 minutes later. 2 minutes after the power on Is normal condition restored? Isn't blown the power supply fuse (20A) on the outdoor power supply fuse unit controller? See next page. Is AC220/240V detected at the secondary side of Defective outdoor sub NO outdoor sub PCB? PCB→Replace. YES Are OK the connection wires between the Connect properly. NO outdoor sub and the main PCB'S? YES Isn't F10 fuse (250V, 10A) blown. Replace fuse. NO · YES Is the Defective indoor control green LED of indoor unit NO PCB→Replace. flashing? Replace indoor control YES Is the Defective remote control red LED of indoor unit flashing NO →Replace. twice? Broken remote control YES I wire $Y \rightarrow Replace$. Are wires Correct connection wires connected properly between NO the indoor and the outdoor between indoor and units? outdoor units. YES Is approx. DC20V detected between 2/N -3 Defective outdoor sub on the outdoor unit terminal PCB→Replace. block? YES Is approx. Defective connection wire DC20V detected between 2-3 on the indoor unit terminal NO (broken wire) Noise

YES

Note: If any anomaly is detected during communication, the error code E5 is displayed. (Outdoor unit red LED flashes twice.) Inspection procedure is same as above. (Excluding matters related to connection) When the power supply is reset after the occurrence of E5, the LED will display "@WAIT®" if the anomaly continues. If the breaker ON/OFF is repeated in a short period of time (within 1 minute), "@WAIT®" may be displayed. In such occasion, turn the breaker off and wait for 3 minutes.

					<u> </u>
(1	Error code	LED	Green	Red	Content Communication error at
	Remote control: WWAIT	Indoor	Keeps flashing	Stays OFF	initial operation (2/3)
		Outdoor	_	2-time flash	(Models SRC40-60)

Models SRC40-60

When the fuse is blown, the method to inspect inverter before replacing the power supply fuse

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Blown fuse
- Faulty outdoor sub PCBFaulty outdoor main PCBFaulty reactor

5 Taraklashastina	
5. Troubleshooting	T
Diagnosis	Countermeasure
Isn't there a short-circuit between phases of outdoor sub PCB? YES Replace the outdoor sub PCB Replace the outdoor main PCB Isn't reactor the anomalous? NO Replace the reactor. Replace the reactor.	Replace fuse.

Note:			

(1	Error code	LED	Green	Red	Content Communication error at
	Remote control: WAIT	Indoor	Keeps flashing	Stays OFF	initial operation (3/3)
		Outdoor	_	2-time flash	(Models SRC40-60)

Models SRC40-60

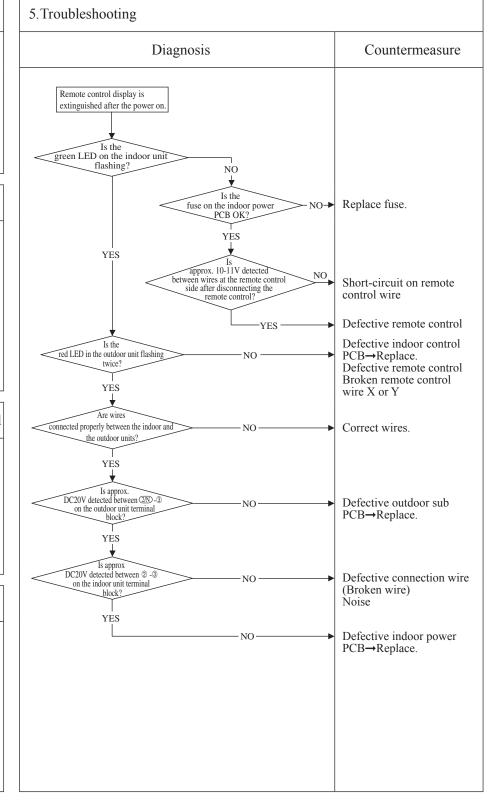
When the remote control display is extinguished after the power on.

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Blown fuse
- Connection between PCB's
- Blown fuse
- Faulty indoor power PCB
- Defective remote control
- Wire breakage on remote control
- Faulty outdoor sub PCB



					3)
Error code	LED	Green	Red	Content Communication error at	
Remote control: WAIT	Indoor	Keeps flashing	Stays OFF	initial operation (1/3)	
	Outdoor	Keeps flashing	2-time flash	(Models FDC71-140)	
Remote control: @WAIT		1 0	,	ilitiai operation (1/3)	

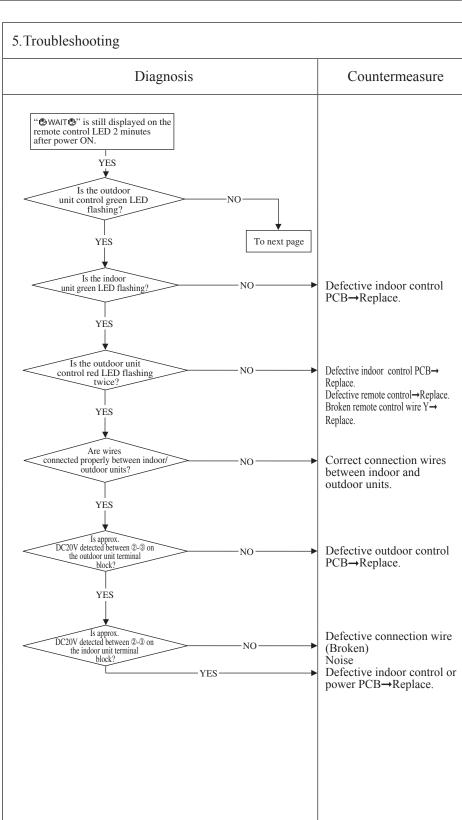
Models FDC71-140

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

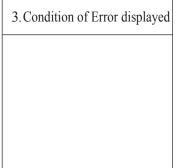
- Faulty indoor control or power PCB
- Defective remote control
- Broken remote control wire
- Faulty outdoor control PCB
- Broken connection wires



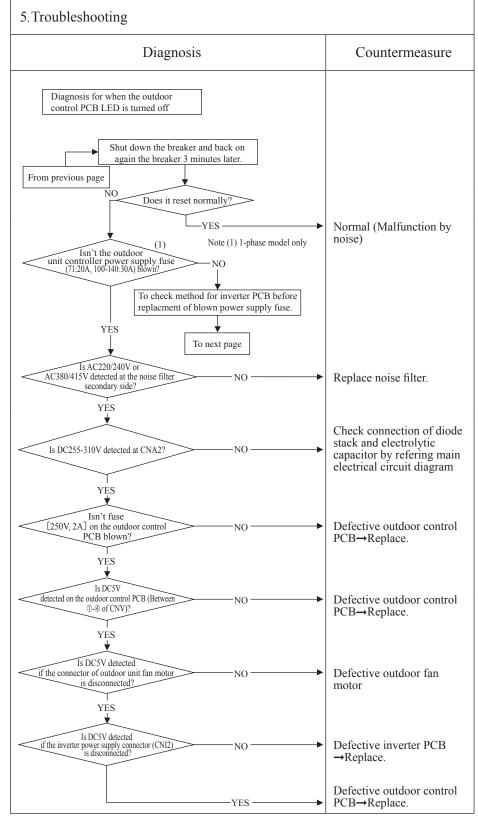
Error code LED Green Red Content Communication error at	
Error code LED Green Red Content Communication error at	
Remote control: WAIT Indoor Keeps flashing Stays OFF initial operation (2/3)	
Outdoor Keeps flashing 2-time flash (Models FDC71-140)	

1.Applicable model Models FDC71-140

2.Error detection method



Faulty noise filter Faulty indoor control PCB Faulty outdoor control PCB Faulty inverter PCB Faulty fan motor



_						9
(1	Error code	LED	Green	Red	Content Communication error at	
	Remote control: @WAIT@	Indoor	Keeps flashing	Stays OFF	initial operation (3/3)	
		Outdoor	Keeps flashing	2-time flash	1	

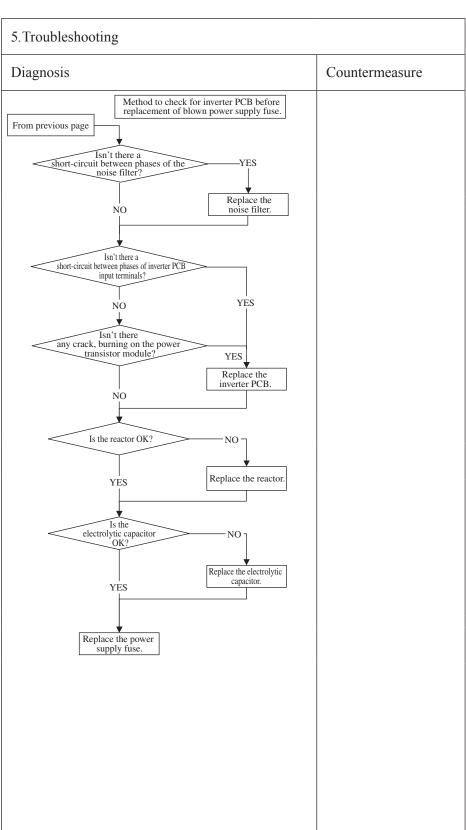
Models FDC71-140

2. Error detection method

3. Condition of Error displayed

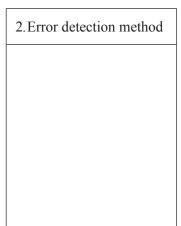
4. Presumable cause

- Blown fuse
- Faulty noise filter
- Faulty inverter PCB
- Faulty reactorFaulty electrolytic capacitor



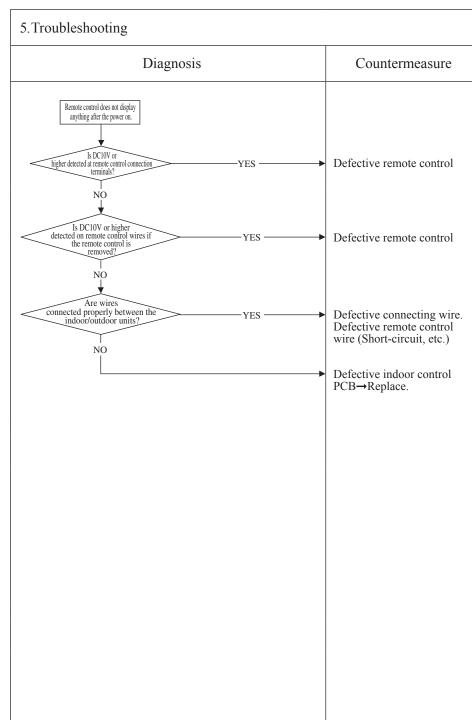
					(1)
U	Error code	LED	Green	Red	Content	
	Remote control: None	Indoor	Stays OFF	Stays OFF	No display	
		Outdoor	Stays OFF	Stays OFF	110 display	

1.Applicable model All models





Faulty indoor control PCB Defective remote control Broken remote control wire



Note:			

Error code LED Green Red Content	
Remote control: E1 Indoor Keeps flashing Stays OFF Remote c	ontrol
Outdoor Keeps flashing Stays OFF communication	circuit error

All models

2. Error detection method

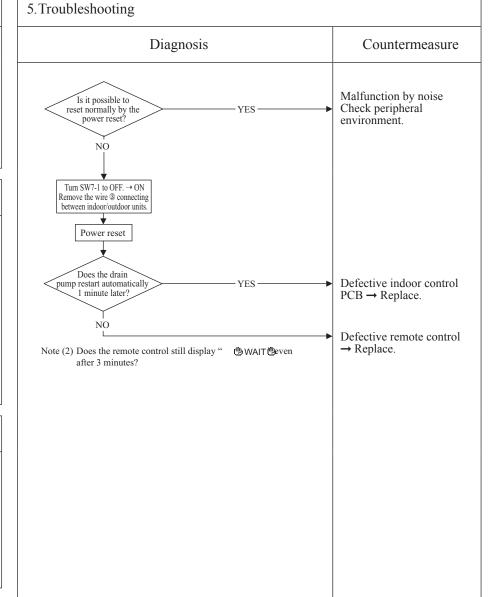
When normal communication between the remote control and the indoor unit is interrupted for more than 2 minutes. (Detectable only with the remote control)

3. Condition of Error displayed

Same as above

4. Presumable cause

- Defective communication circuit between remote control-indoor unit
- Noise
- Defective remote controlFaulty indoor control PCB



Note: If the indoor unit cannot communicate normally with the remote control for 180 seconds, the indoor unit PCB starts to reset automatically.

Content LED Green Red Content					(
Remote control: E5 Indoor Keeps flashing 2-time flash Communication error during operation	Error code	LED	Green	Red	Content	
	Remote control: E5	Indoor	Keeps flashing	2-time flash	Communication error during operation	
Outdoor Keeps flashing See below See below		Outdoor	Keeps flashing	See below	Communication error during operation	

All models

2. Error detection method

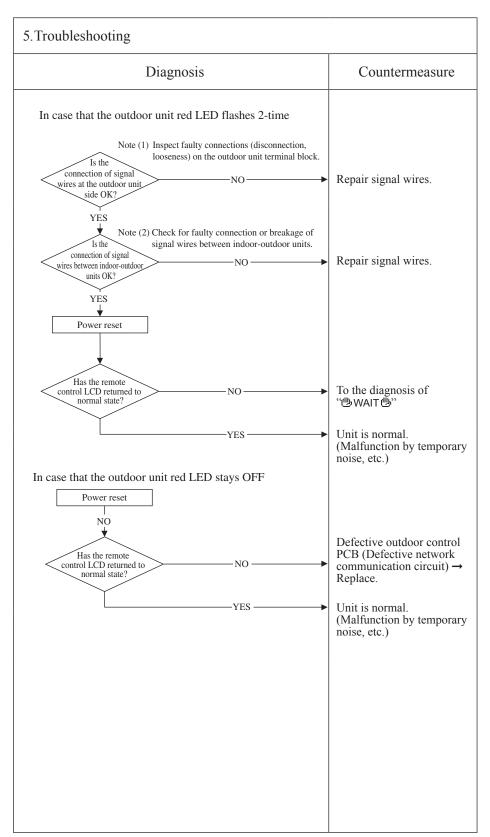
When normal communication between indoor and outdoor unit is interrupted for more than 2 minutes.

3. Condition of Error displayed

Same as above is detected during operation.

4. Presumable cause

- Unit No. setting error
- Broken remote control wire
- Faulty remote control wire connection
- Faulty outdoor control PCB



Note: Pressing the pump-down switch cancels communications between indoor and outdoor unit so that "communication error-E5" is displayed on indoor unit and remote control, but it is normal.

Error code LED Green Red Content	<u> </u>
Remote control: E6 Indoor Keeps flashing 1-time flash Indoor heat exchanger	
Outdoor Keeps flashing Stays OFF temperature thermistor anomaly	maly

All models

2. Error detection method

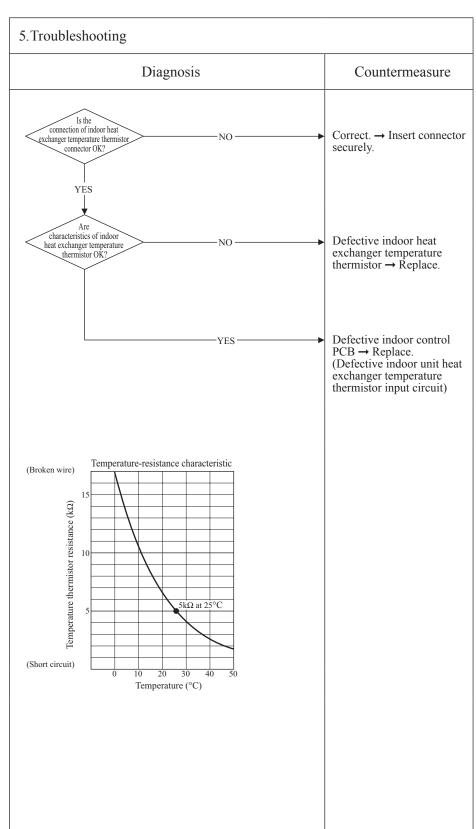
Anomalously low temperature or high temperature (resistance) is detected on the indoor heat exchanger thermistor (ThI-R1, R2 or R3).

3. Condition of Error displayed

- When the temperature thermistor detects -50°C or lower for 5 seconds continuously, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection
- detection.
 Or if 70°C or higher is detected for 5 seconds continuously.

4. Presumable cause

- Defective indoor heat exchanger thermistor connector
- Indoor heat exchanger temperature thermistor anomaly
- Faulty indoor control PCB



						_9
(1	Error code	LED	Green	Red	Content	
	Remote control: E7	Indoor	Keeps flashing	1-time flash		
		Outdoor	Keeps flashing	Stays OFF	thermistor anomaly	

All models

2. Error detection method

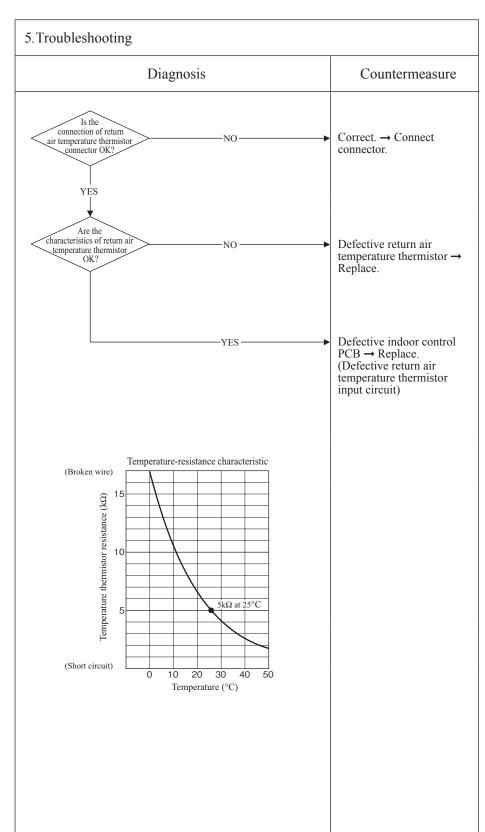
Anomalously low temperature or high temperature (resistance) is detected by indoor return air temperature thermistor (ThI-A)

3. Condition of Error displayed

• When the temperature thermistor detects -50°C or lower for 5 seconds continuously, the compressor stops. After 3-minute delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Defective return air temperature thermistor connector
- Defective return air temperature thermistor
- Faulty indoor control PCB



						_9
(Error code	LED	Green	Red	Content	
	Remote control: E8	Indoor	Keeps flashing	1-time flash	Heating overload operation	
		Outdoor	Keeps flashing	Stays OFF	ricating overload operation	

All models

2. Error detection method

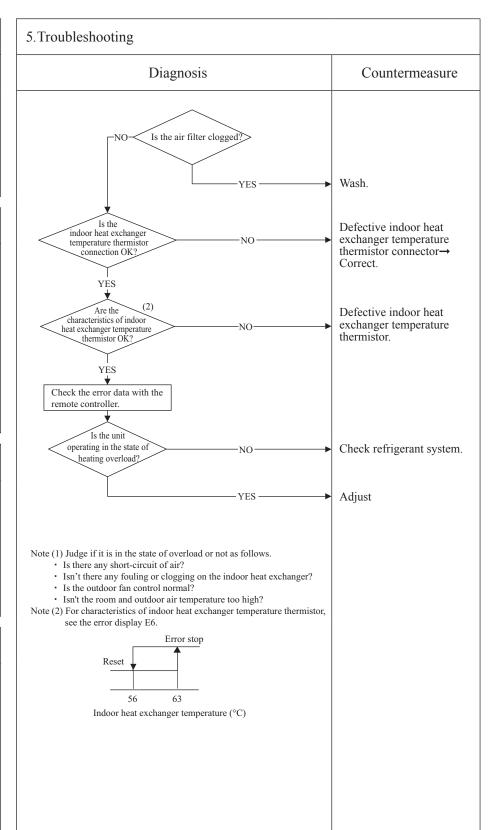
Indoor heat exchanger temperature thermistor (ThI-R1, R2, R3)

3. Condition of Error displayed

When it is detected 5 times within 60 minutes from initial detection or when the overload condition is detected for 6 minutes continuously.

4. Presumable cause

- · Clogged air filter
- Defective indoor heat exchanger temperature thermistor connector
- Defective indoor heat exchanger temperature thermistor
- Anomalous refrigerant system



Note: During heating operation; After starting compressor, compressor rotation speed is decreased by detecting indoor heat exchanger temperature (ThI-R) in order to control high pressure.

Error code
Remote control: E9

LED Green Red
Indoor Keeps flashing 1-time flash
Outdoor Keeps flashing Stays OFF

Content
Drain trouble
(FDT, FDTC, FDU and FDUM series)

1. Applicable model

FDT, FDTC, FDU and FDUM series only

2. Error detection method

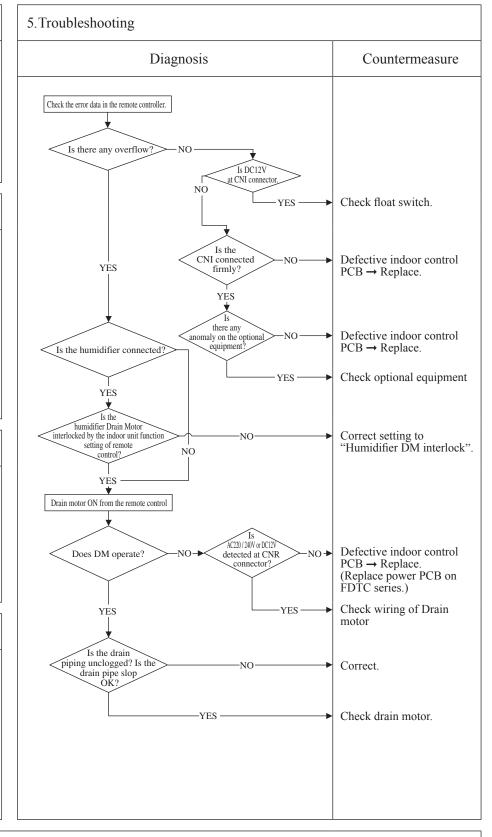
Float switch is activated

3. Condition of Error displayed

If the float switch OPEN is detected for 3 seconds continuously or if float switch connector or wire is disconnected.

4. Presumable cause

- Defective indoor control PCB
- Float switch setting error
- Humidifier DM interlock setting error
- Optional equipment setting error
- Drain piping error
- Defective drain motor
- Disconnection of drain motor wiring



Note: When this error occurred at power ON, disconnection of wire or connector of the float switch is suspected. Check and correct it (or replace it, if necessary).

Remote control: E10		V 0 1			er of connected
		Keeps nasning	Stays OFF	indoor units (mor	e than 17 units)
	Outdoor	Keeps flashing	Stays OFF	by controlling with	one remoto control
.Applicable model	5.Tro	ublesho	oting		
ll models				Diagnosis	Countermeasure
		indoor units c	ore than 17 connected to ore control?	NO NO	→ Defective remote control → Replace.
Error detection method				YES —	Reduce to 16 or less units
/hen it detects more than 17 of idoor units connected to one emote contorl					
. Condition of Error displayed					
ame as above					
Excessive number of indoor units connected					
Defective remote control					

C	Error code	LED	Green	Red	Content Address setting error of	3)
	Remote control: E11	Indoor	Keeps flashing	Keeps flashing		
		Outdoor	Keeps flashing	Stays OFF	indoor units	

All models

2. Error detection method

IU address has been set using the "Master IU address set" function of remote control.

3. Condition of Error displayed

Same as above

4. Presumable cause

Same as above

5. Troubleshooting	
Diagnosis	Countermeasure
In case the wiring is below and "Mastar IU address set" is used, E11 is appeared. IU① IU② IU③	• In cases of RC-EX1A Menu → Next → IU settings → Select IU • In cases of RC-E5 Return address No. to "IU" using [▲] or [▲] button.

Error code Remote control: F14 LED Green Red Indoor Keeps flashing 3-time flash Communication error					<u></u>
Remote control: F14 Indoor Keens flashing 3-time flash Communication error	Error code	LED	Green	Red	
	Remote control: E14	Indoor	Keeps flashing		
Outdoor Keeps flashing Stays Off between master and slave indoor unit		Outdoor	Keeps flashing	Stays Off	between master and slave indoor units

All models

2. Error detection method

When communication error between master and slave indoor units occurs

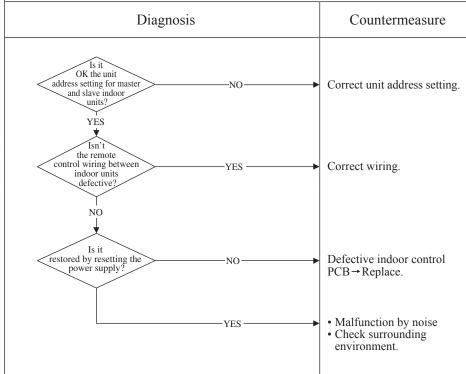
3. Condition of Error displayed

Same as above

4. Presumable cause

- Unit address setting error
- Broken remote control wire
- Defective remote control wire connection
- Defective indoor control PCB

5. Troubleshooting



Note (1) Set dip switches SW5-1 and SW5-2 as shown in the following table. (Factory default setting – "Master")

			Indoor unit	
		Master	Slave-a	Slave-b
Dip	SW5-1	OFF	OFF	ON
switch	SW5-2	OFF	ON	OFF

Note:			

					<u> </u>
Error code	LED	Green	Red	Content	
Remote control: E16	Indoor	Keeps flashing	1(2)-time flash	Indoor fan motor anomaly	
	Outdoor	Keeps flashing	Stays OFF		

Note (1) Value in () is for the FDU, FDUM series FMI2 only.

1. Applicable model

All models

2. Error detection method

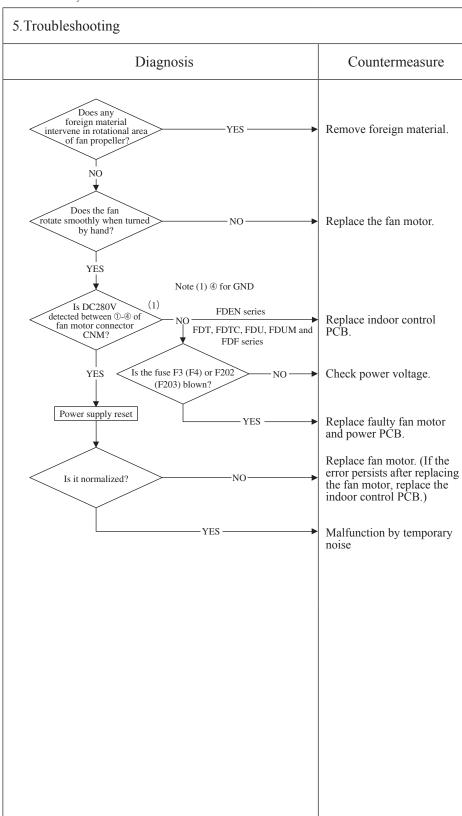
Detected by rotation speed of indoor fan motor

3. Condition of Error displayed

- When actual rotation speed of indoor fan motor drops to lower than 200min⁻¹ for 30 seconds continuously, the compressor and the indoor fan motor stop.
- After 2-seconds, it starts again automatically, but if this error occurs 4 times within 60 minutes after the initial detection.

4. Presumable cause

- Defective indoor power (control) PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on control PCB
- · Blown fuse
- External noise, surge



Error code Remote control: E18 1.Applicable model	LED Green Red Indoor Keeps flashing 1-time flash Outdoor Keeps flashing Stays Off Stays Off Toubleshooting	ng error of indoor units
All models	Diagnosis	Countermeasure
	E18 occurs Is "Master IU address set" function of remote	Countermeasure
2. Error detection method IU address has been set using the "Master IU address set" function of remote control.	control used? YES	Return address No. to "IU" using [▲] or [▲] button.
3. Condition of Error displayed Same as above		
4. Presumable cause Same as above		

		1	1		<u> </u>
Error code	LED	Green	Red	Content Indoor unit oper	ration check
Remote control: E19	Indoor		1-time flash	drain motor aboat	
	Outdoor	Keeps flashing	Stays OFF	dram motor encer	x setting error
1.Applicable model	5 Tro	ublesho	oting		
	3.110	<u>uoiesiio</u>	otting		
All models				Diagnosis	Countermeasure
			occurs		
		when th	ne power ON	N	
			*		
			SW7-1 ndoor contro	ol NO	Defective indoor control PCB (Defective SW7)
2.Error detection method			CB ON ?		→Replace
After indoor operation check, when the communication			YES 		Turn SW7-1 on the indoor control PCB OFF and reset
between indoor and outdoor unit is established and SW7-1 is				•	the power
still kept ON.					
3. Condition of Error displayed					
Same as above					
4. Presumable cause					
Mistake in SW7-1 setting					
(Due to forgetting to turn OFF SW7-1 after indoor operation check)					
Chock)					

Error code	LED	Green	Red	Content Indoor fan motor rotation
Remote control: E20	Indoor	Keeps flashing	1(2)-time flash	
	Outdoor	Keeps flashing	Stays OFF	speed anomaly
	Remote control: E20	Remote control: E20 Indoor	Remote control: E20 Indoor Keeps flashing	Entor code

Note (1) Value in () is for the FDU, FDUM series FMI2 only.

1. Applicable model

All models

2. Error detection method

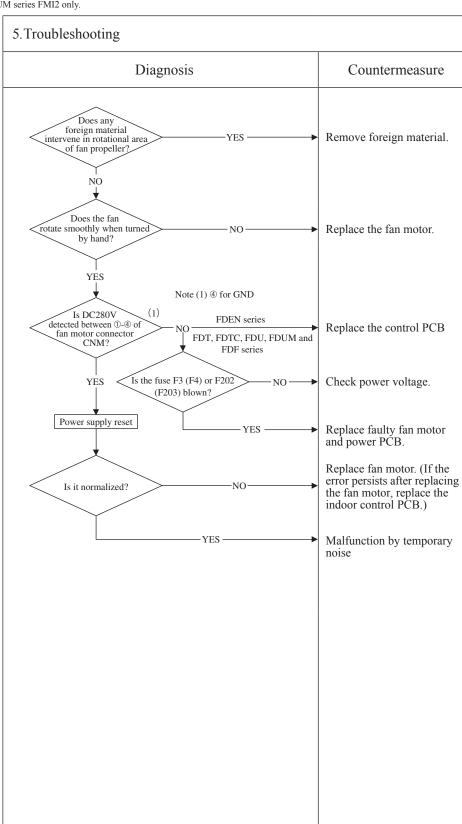
Detected by rotation speed of indoor fan motor

3. Condition of Error displayed

When the actual fan rotation speed does not reach to the speed of [required speed -50 (FDU: -500) min⁻¹] after 2 minutes have been elapsed since the fan motor rotation speed command was output, the unit stops by detecting indoor fan motor anomaly.

4. Presumable cause

- Defective indoor power (control) PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on control PCB
- Blown fuse
- External noise, surge



C	Error code	LED	Green	Red	Content Defective panel switch	
	Remote control: E21	Indoor	Keeps flashing	1-time flash		
		Outdoor	Keeps flashing	Stays OFF	operation (FDT)	

FDT series only

2. Error detection method

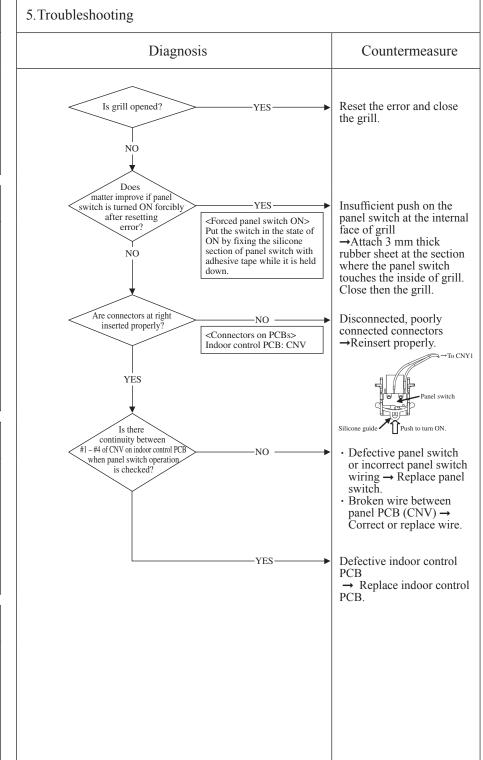
Panel switch (PS) has detected Open for more than 1 second.

3. Condition of Error displayed

Same as above

4. Presumable cause

- Defective panel switch
- Disconnection of wiring
- Defective indoor control PCB



					9
(1	Error code	LED	Green	Red	Content
	Remote control: E28	Indoor	Keeps flashing	Stays OFF	Remote control
		Outdoor	Keeps flashing	Stays OFF	temperature thermistor anomaly

All models

2. Error detection method

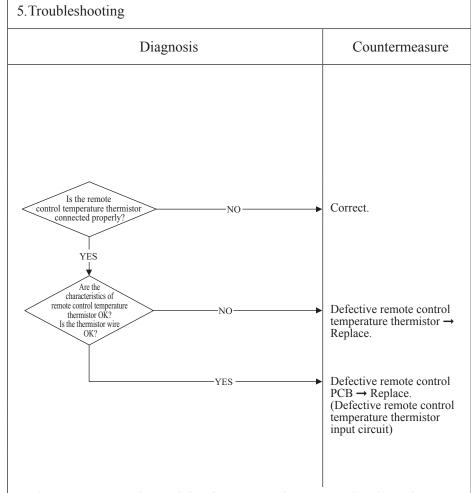
Detection of anomalously low temperature (resistance) of remote control temperature thermistor (Thc)

3. Condition of Error displayed

When the temperature thermistor detects -50°C or lower for 5 seconds continuously, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Faulty connection of remote control temperature thermistor
- Defective remote control temperature thermistor
- Defective remote control PCB



Resistance-temperature characteristics of remote control temperature thermistor (ThC)

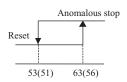
		1	
Temperature (°C)	Resistance value (kΩ)	Temperature (°C)	Resistance value (kΩ)
0	65	30	16
1	62	32	15
2	59	34	14
4	53	36	13
6	48	38	12
8	44	40	11
10	40	42	9.9
12	36	44	9.2
14	33	46	8.5
16	30	48	7.8
18	27	50	7.3
20	25	52	6.7
22	23	54	6.3
24	21	56	5.8
26	19	58	5.4
28	18	60	5.0

Note: After 10 seconds has passed since remote control thermistor was switched from valid to invalid, E28 will not be displayed even if the thermistor harness is disconnected. At same time the thermistor, which is effective, is switched from remote control thermistor to indoor return air temperature thermistor. Even though the remote control thermistor is set to be Effective, the return air temperature displayed on remote control for checking still shows the value detected by indoor return air temperature thermistor, not by remote control temperature thermistor.

					G. G. G. G. G. G. G. G. G. G. G. G. G. G	ú
(Error code	LED	Green	Red	Content	
	Remote control: E35	Indoor	Keeps flashing	Stays OFF		
		Outdoor	_	2-time flash	(Model SRC40-60 only)	

Model SRC40-60

2. Error detection method



Outdoor heat exchanger temperature (°C)

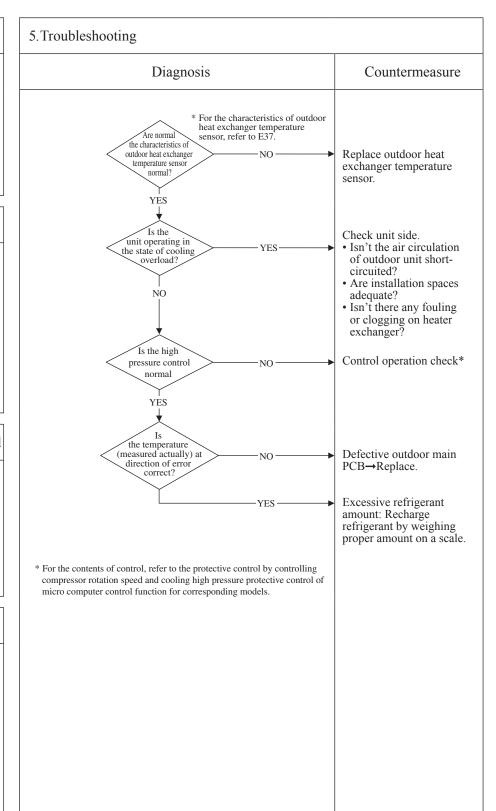
Note(1) Values in () are applicable when outdoor temperature (TH2) is lower than 32°C

3. Condition of Error displayed

When anomalous outdoor heat exchanger temperature occurs 5 times within 60 minutes or 63(56)°C or higher continues for 10 minutes, including the compressor stop.

4. Presumable cause

- Defective outdoor heat
- exchanger temperature sensor
- Defective outdoor main PCB
- Indoor, outdoor unit installation spaces
- Short-circuit of air on indoor, outdoor units
- Fouling, clogging of heat exchanger
- Excessive refrigerant quantity



\Box		LED	Green	Red	
		Indoor control PCB	Keeps flashing	Stays OFF	
	Remote control: E35	Outdoor control PCB	Keeps flashing	1-time flash	
		Outdoor inverter	Yellow		
		PCB	Keeps flashing		

Content

Cooling overload operation (Models FDC71-140)

1. Applicable model

Models FDC71-140

2. Error detection method

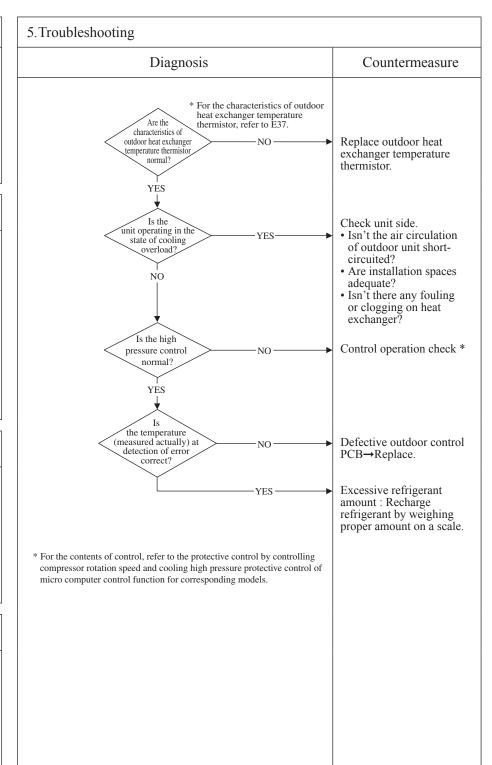
For the error detection method, refer to the protective control by controlling compressor rotation speed and cooling high pressure protective control of micro computer control function for corresponding models.

3. Condition of Error displayed

When outdoor heat exchanger temperature anomaly is detected 5 times within 60 minutes or this anomalous state is detected 60 minutes continuously including compressor stop.

4. Presumable cause

- Defective outdoor heat exchanger temperature thermistor
- Defective outdoor control
 PCB
- Indoor, outdoor unit installation spaces
- Short-circuit of air on indoor, outdoor units
- Fouling, clogging of heat exchanger
- Excessive refrigerant amount



							(1)
0	Б 1	LED	Green	Red			
		Indoor control PCB	Keeps flashing	Stays OFF	Content		
	Remote control: E36	Outdoor control PCB	Keeps flashing	1(5)-time flash		Discharge pipe	
		Outdoor inverter	Yellow	, , , , , , , , , , , , , , , , , , ,		temperature error	
		PCB	Keeps flas	hing	temperature error		

Note (1) Value in [] is for the models SRC40-60.

1. Applicable model

All models

2. Error detection method

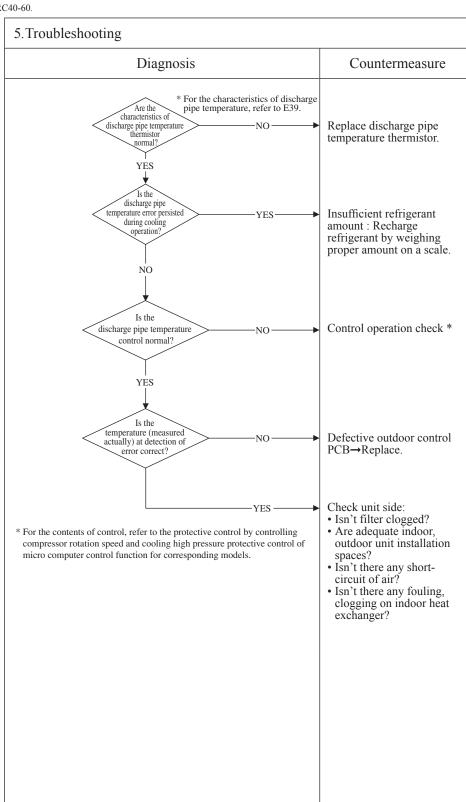
For the error detection method, refer to the protective control by controlling compressor rotation speed and cooling high pressure protective control of micro computer control function for corresponding models.

3. Condition of Error displayed

When discharge pipe temperature anomaly is detected 2 times within 60 minutes or this anomalous state is detected 60 minutes continuously including compressor stop.

4. Presumable cause

- Defective outdoor control PCB
- Defective discharge pipe temperature thermistor
- Clogged filter
 Indoor, outdoor unit installation spaces
- · Short-circuit of air on indoor, outdoor units
- Fouling, clogging of heat exchanger



					a
	LED	Green	Red		
Error code	Indoor control PCB	Keeps flashing	Stays OFF	Content Outdoor heat	
Remote control: E37	Outdoor control PCB	Keeps flashing	1(8)-time flash	exchanger temperature	
	Outdoor inverter	erter Yellow		themistor anomaly	
	PCB	Keeps flashing		themistor anomary	

All models

2. Error detection method

Detection of anomalously low temperature (resistance) on the outdoor heat exchanger temperature thermistor

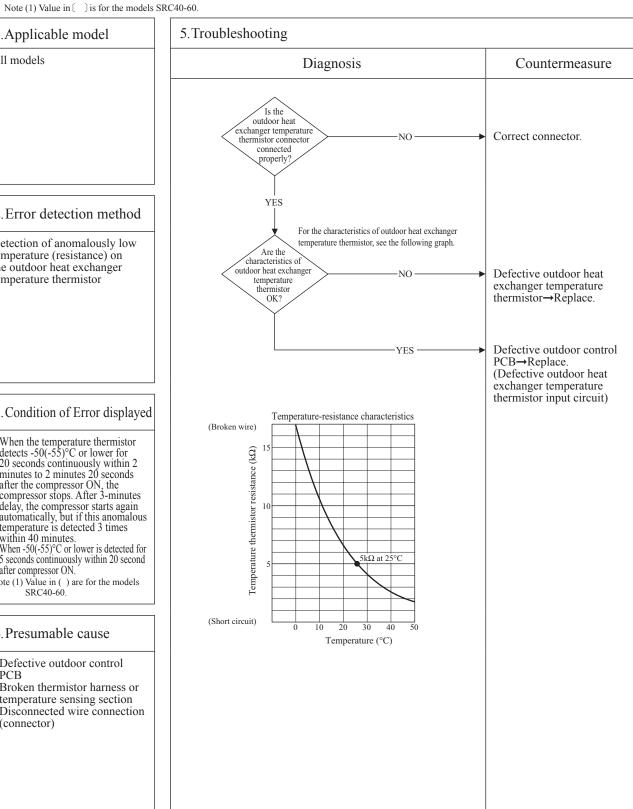
3. Condition of Error displayed

- When the temperature thermistor detects -50(-55)°C or lower for 20 seconds continuously within 2 minutes to 2 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes.
 • When -50(-55)°C or lower is detected for
- 5 seconds continuously within 20 second after compressor ON.

Note (1) Value in () are for the models SRC40-60.

4. Presumable cause

- Defective outdoor control PCB
- · Broken thermistor harness or temperature sensing section
- Disconnected wire connection (connector)



Q	E 1	LED	Green	Red	
		Indoor control PCB	Keeps flashing	Stays OFF	
	Remote control: E38	Outdoor control PCB	Keeps flashing	1(8)-time flash	
		Outdoor inverter	Yellow		
		PCB	Keeps flashing		

Content

Outdoor air temperature thermistor anomaly

Note (1) Value in [] is for the models SRC40-60.

1. Applicable model

All models

2. Error detection method

Detection of anomalously low temperature (resistance) on outdoor air temperature thermistor

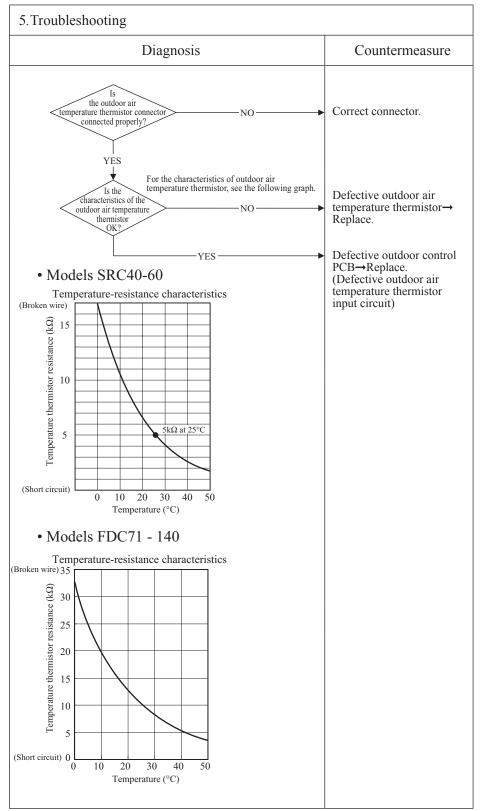
3. Condition of Error displayed

- When the temperature thermistor detects -45(-55)°C or lower for 5 seconds continuously within 2 minutes to 2 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes
- When -45(-55)°C or lower is detected for 5 seconds continuously within 20 second after compressor ON.

 Note (1) Value in () are for the models SRC 40-60

4. Presumable cause

- Defective outdoor control PCB
- Broken thermistor harness or temperature sensing section (Check molding.)
- Disconnected wire connection (connector)



D	Г. 1	LED	Green	Red	
	Error code	Indoor control PCB	Keeps flashing	Stays OFF	
	Remote control: E39	Outdoor control PCB	Keeps flashing	1(8)-time flash	
		Outdoor inverter	Yellow		
		PCB	Keeps flashing		

Content

Discharge pipe temperature thermistor anomaly

Note (1) Value in [] is for the models SRC40-60.

1. Applicable model

All models

2. Error detection method

Detection of anomalously low temperature (resistance) on the discharge pipe temperature thermistor

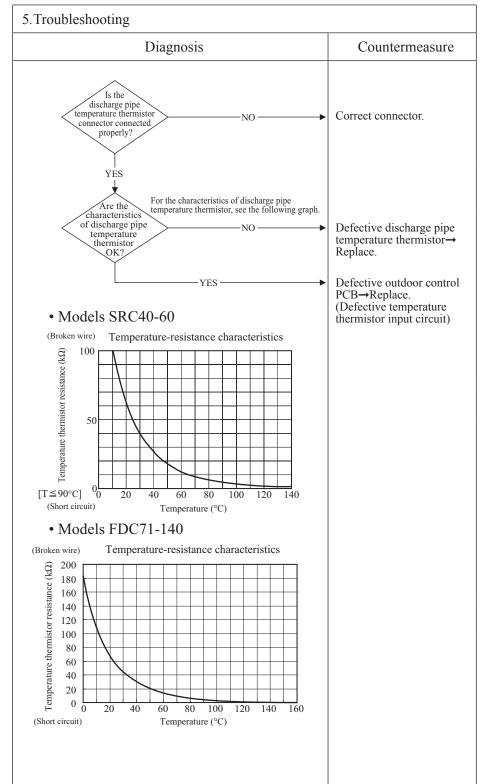
3. Condition of Error displayed

When the temperature thermistor detects -10(-25)°C or lower for 5 seconds continuously within 10 minutes to 10 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes.

Note (1) Value in () is for the models SRC40-60.

4. Presumable cause

- Defective outdoor control PCB
- Broken thermistor harness or temperature sensing section (Check molding.)
- Disconnected wire connection (connector)



					(4)
(1	Error code	LED	Green	Red	Content
	Remote control: E40	Indoor	Keeps flashing	Stays OFF	Service valve (gas side) closing operation
		Outdoor	_	1-time flash	(Sur a sur) i da Sur a sur)

Models SRC40-60

2. Error detection method

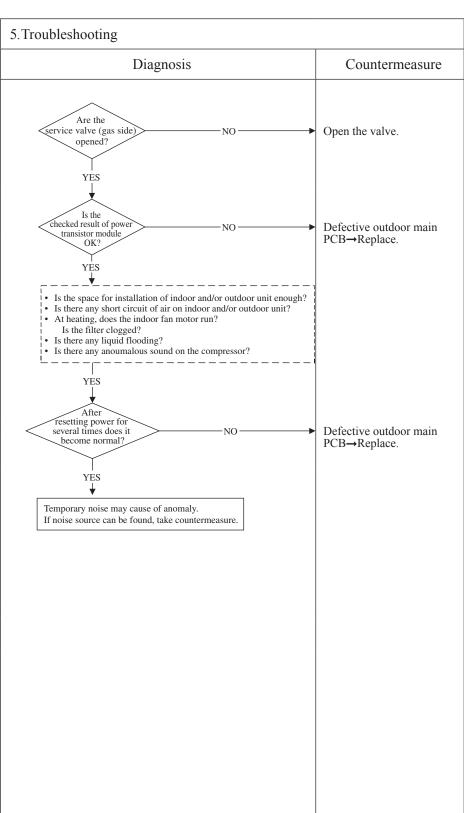
If the inverter output current value exceeds the setting value within 80 seconds after the compressor ON in the heating mode, the compressor stops.

3. Condition of Error displayed

- If the output current of inveter exceeds the specifications, it makes the compressor stopping. (In heating mode)
- After 3-minute delay, the compressor restarts, but if this anomaly occurs 2 times within 20 minute after the intial detection.

4. Presumable cause

- Service valve (gas side) closing
- Defective outdoor main PCB

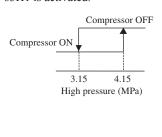


					<u> </u>
\mathcal{C}		LED	Green	Red	Ctt
	Dometa control, E40	Indoor control PCB	Keeps flashing	Stays OFF	Content High pressure error
		Outdoor control PCB	Keeps flashing	1-time flash	
		Outdoor inverter	Yellow		(Models FDC71-140)
		PCB	Keeps flashing		(1110001512071110)

Models FDC71-140

2. Error detection method

When the high pressure switch 63H1 is activated.

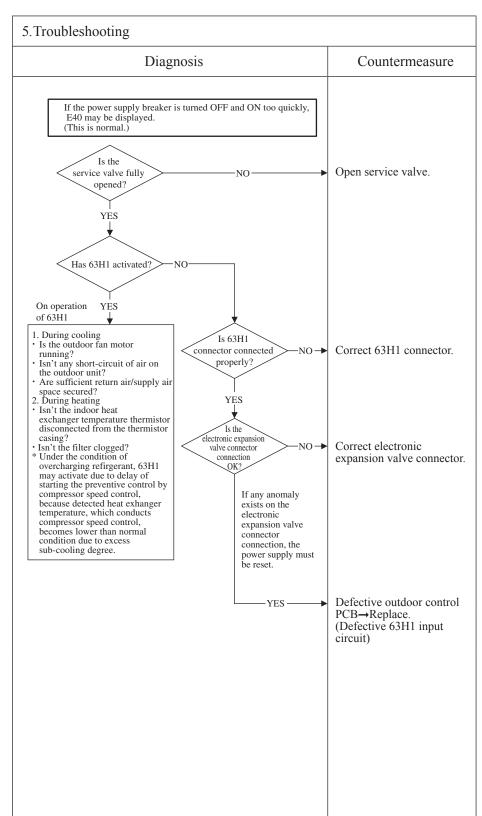


3. Condition of Error displayed

If 63H1 turns OFF (opened), the compressor stops. After 3-minutes delay, the compressor restarts. If this anomaly occurs 5 times within 60 minutes or continues for 60 minutes continuously.

4. Presumable cause

- Short circuit of air flow, disturbance of air flow and clogging filter at outdoor heat exchanger/Breakdown of fan motor
- Defective outdoor control PCB
- Defective 63H1 connector
- Defective electronic expansion valve connector
- Closed service valve
- Mixing of non-condensing gas (nitrogen, etc.)



Note: In the protective control range for compressor startup (initial startup after power ON), even if 63H1 is activated only once (63H1turns OFF), immediately the error is displayed.

						_90
N		LED	Green	Red		
	Error code	Indoor control PCB	Keeps flashing	Stays OFF	Content	
	Remote control: E41	Outdoor control PCB	Keeps flashing	1-time flash	Power transistor overheat	
		Outdoor inverter	Yellow LED		(Models FDC71-140)	
		PCB	6-time flash			

Models FDC71-140

2. Error detection method

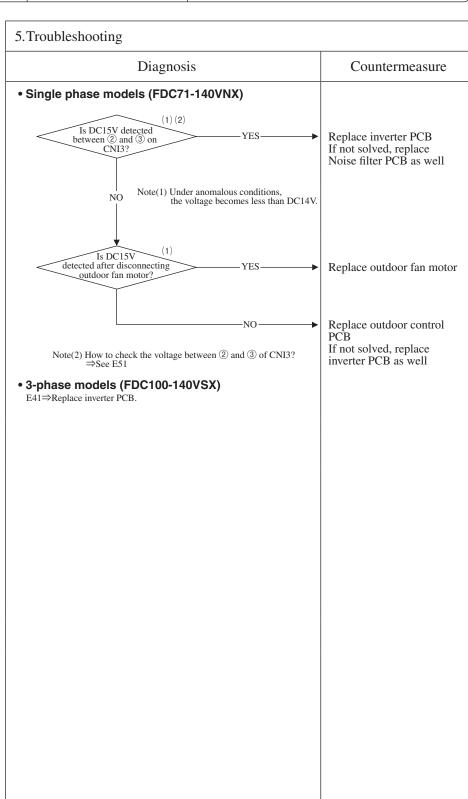
When less than DC14V of the output voltage is detected between ② and ③ on CNI3, E41 is displayed. (See "Note" mentioned below)

3. Condition of Error displayed

Seme as above.

4. Presumable cause

- Inverter PCB anomaly
- Outdoor fan motor anomaly
- Outdoor control PCB anomaly
- Noise filter PCB anomaly



Note: The "Single phase models" of inverter PAC have no function to output the signal for the power transistor overheat. However since the power source for the power transistor and the outdoor fan motor is in the same line, when the anomaly of the outdoor fan motor occurs, E41 is displayed.

					9	
U		LED	Green	Red	Ctt	
	Damata control, E42	Indoor control PCB	Keeps flashing	Stays OFF	Content	
		Outdoor control PCB	Keeps flashing	1-time flash		
		Outdoor inverter	Yellow LED		Current cut (1/2)	
		PCB	1-time flash			

All models

2. Error detection method

In order to prevent from overcurrent of inverter, if the current exceeds the specifications, it makes the compressor stopping.

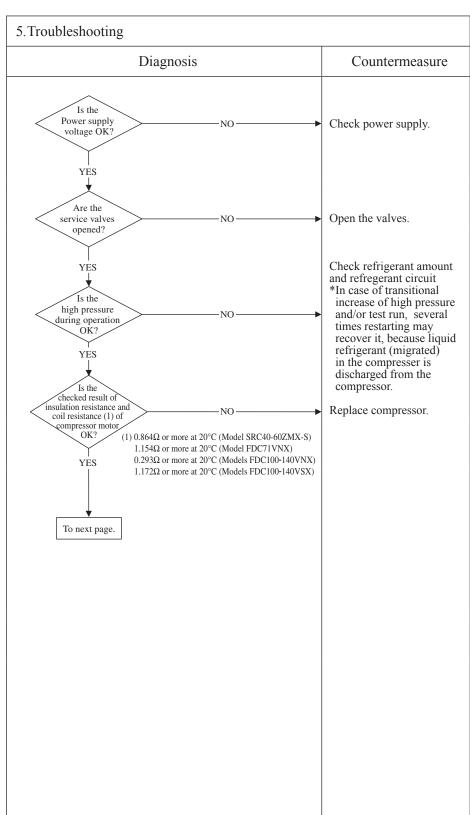
3. Condition of Error displayed

- If the output current of inveter exceeds the specifications, it makes the compressor stopping.
- After 3-minute delay, the compressor restarts, but if this amonaly occurs 4 (3) times within 30 (20) minute after the intial detection.

Note (1) Value in () are for the model SRC 40-60.

4. Presumable cause

- · The valves closed
- Faulty power supply
- Insufficient refrigerant amount
- Faulty compressor
- Faulty power transistor module



					9
		LED	Green	Red	Ctt
'	Remote control: E42	Indoor	Keeps flashing	Stays OFF	Content
		Outdoor control PCB	Keeps flashing	1-time flash	
		Outdoor inverter	Yellow L	ED	Current cut (2/2)
		PCB	1-time flash		

All models

2. Error detection method

In order to prevent from overcurrent of inverter, if the current exceeds the specifications, it makes the compressor stopping.

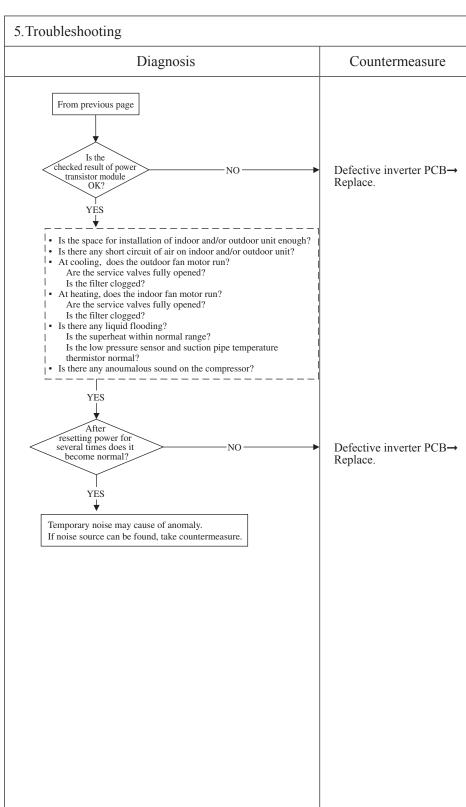
3. Condition of Error displayed

- If the output current of inveter exceeds the specifications, it makes the compressor stopping.
- After 3-minute delay, the compressor restarts, but if this amonaly occurs 4 (3) times within 30 (20) minute after the intial detection.

Note (1) Value in () are the model SRC 40-60.

4. Presumable cause

- Defective inverter PCB
- Faulty power supply
- Insufficient refrigerant amount
- Faulty compressor
- Faulty power transistor module



9	Error code	LED	Green	Red	Т	
		Indoor control PCB	oor control PCB Keeps flashing		[
		Remote control: E45	Outdoor control PCB	Keeps flashing	1-time flash	
			Outdoor inverter	Yellow		
		PCB	Keeps flashing			

Content Communication error between inverter PCB and outdoor control PCB (Models FDC71-140)

1. Applicable model

Models FDC71-140

2. Error detection method

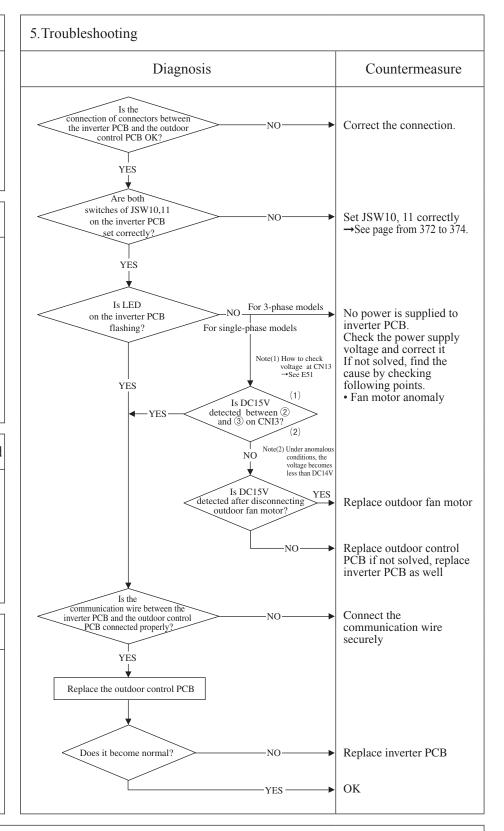
When the communication between inverter PCB and outdoor control PCB is not established.

3. Condition of Error displayed

Same as above.

4. Presumable cause

- Inverter PCB anomaly
- Anomalous connection of connector between the outdoor control PCB and inverter PCB
- · Outdoor control PCB anomaly
- Outdoor fan motor anomaly



					<u> </u>
	Error code	LED	Green	Red	Content
	Remote control: E47	Indoor	Keeps flashing	Stays OFF	Active filter voltage error (Models SRC40-60)
		Outdoor	_	2-time flash	(ivioueis SRC40-00)
l					

Models SRC40-60

2. Error detection method

Error is displayed if the converter voltage exceeds DC340V (3 times within 20 minutes). Remote control may be set after 3 minutes delay.

3. Condition of Error displayed

Same as above

4. Presumable cause

- Defective outdoor PCB
- Dust on outdoor PCBAnomalous power supply

5. Troubleshooting								
Diagnosis	Countermeasure							
Is the power supply normal? NO	Restore normal condition.							
YES Is voltage within the specified range? NO YES	Restore normal condition.							
Soldered surfaces on the outdoor PCB for foreign matter like dust, fouling, etc.	Remove foreign matter like dust, fouling, etc.							
YES —	Defective outdoor PCB→Replace.							

Note:			

				<u> </u>
	LED	Green	Red	
Error code	Indoor	Keeps flashing	Stays off	Content
Remote control: E47	Outdoor control PCB	Keeps flashing	1-time flash	Inverter PCB A/F module anomaly
	Outdoor Inverter	Yellow L	ED	(Model FDC71VNX)
	PCB	7-time flas	hing	

Model FDC71

2. Error detection method

In order to prevent from overcurrent of A/F, if the current exceeds the specifications, it makes the compressor stopping.

3. Condition of error displayed

• If the output current of A/F exceeds the specifications, it makes the compressor stopping.

4. Presumable cause

• Defective inverter PCB

5. Troubleshooting	5. Troubleshooting								
Diagnosis	Countermeasure								
Is the Power supply voltage OK?	Check power supply.								
Is the checked results of insulation resistance and coil resistance (1) of compressor motor OK? (1) 1.154Ω or more at 20°C	Replace compressor.								
YES	Defective outdoor Inverter PCB→Replace.								

Note:			

					<u></u>
9	Error code	LED	Green	Red	Content
	Remote control: E48	Indoor	Keeps flashing	Stays OFF	
		Outdoor	1	ON	(Models SRC40-60)

Models SRC40-60

2. Error detection method

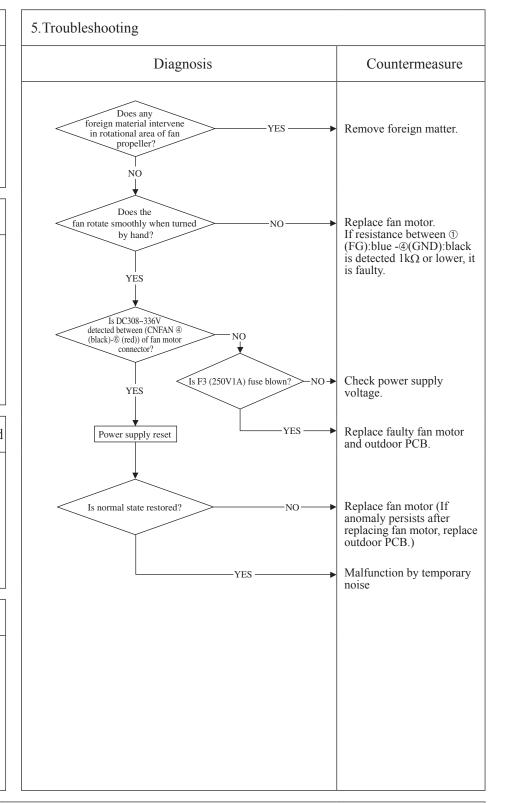
Detected by rotation speed of outdoor fan motor

3. Condition of Error displayed

When actual rotation speed of outdoor fan motor drops to 75min⁻¹ or lower for 30 minutes continuously, the compressor and the outdoor fan motor stop. After 3-minutes delay, it starts again automatically, but if this anomaly occurs 3 times within 60 minutes after the initial detection.

4. Presumable cause

- Defective outdoor PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on outdoor PCB
- Blown F3 fuse



Note: When E48 error occurs, in almost cases F3 fuse (1A) on the outdoor PCB is blown. There are a lot of cases that fuse is blown and E48 occurs due to defective fan motor. And even though only the outdoor PCB (or fuse) is replaced,, another trouble could occur. Therefore when fuse is blown, check whether the fan motor is OK or not.

After confirming the fan motor normal, check by power ON. (Don't power ON without confirming the fan motor normal.)

Ø	Г. 1	LED	Green	Red
	Error code	Indoor control PCB	Keeps flashing	Stays OFF
Remo	Remote control: E48	Outdoor control PCB	Keeps flashing	1-time flash
		Outdoor inverter	Yellow	
		PCB	Keeps flashing	

Outdoor fan motor anomaly
(Models FDC71-140)

1. Applicable model

Models FDC71-140

2. Error detection method

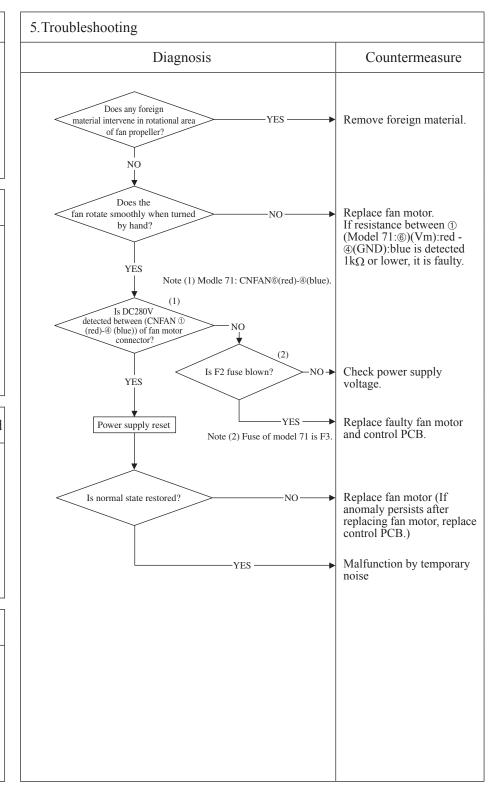
Detected by rotation speed of outdoor fan motor

3. Condition of Error displayed

When actual rotation speed of outdoor fan motor (FMo1) drops to 100min⁻¹ or lower for 30 minutes continuously, the compressor and the outdoor fan motor stop. After 3-minutes delay, it starts again automatically, but if this anomaly occurs 5 times within 60 minutes after the initial detection.

4. Presumable cause

- Defective outdoor control PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on outdoor control PCB
- Blow fuse
- · External noise, surge



Note: When E48 error occurs, in almost cases F2 fuse (4A) [Model 71:F3 fuse (2A)]on the outdoor control PCB is blown. There are a lot of cases that fuse is blown and E48 occurs due to defective fan motor. And even though only the outdoor control PCB (or fuse) is replaced,, another trouble (*1) could occur. Therefore when fuse is blown, check whether the fan motor is OK or not.

After confirming the fan motor normal, check by power ON. (Don't power ON without confirming the fan motor normal.)
*1 The error which does not seem to relate E48 may occur like as "WAITO", Stay OFF of LED on outdoor control PCB, inverter communication error (E45) and etc.

				9
	LED	Green	Red	Gtt
	Indoor control PCB	Keeps flashing	Stays OFF	Low pressure error or
Remote control: E49	Outdoor control PCB	Keeps flashing	1-time flash	
	Outdoor inverter	Yellow	7	(Models FDC71-140)
	PCB	Keeps flas	hing	(Models I DC / I-140)

Models FDC71-140

2. Error detection method

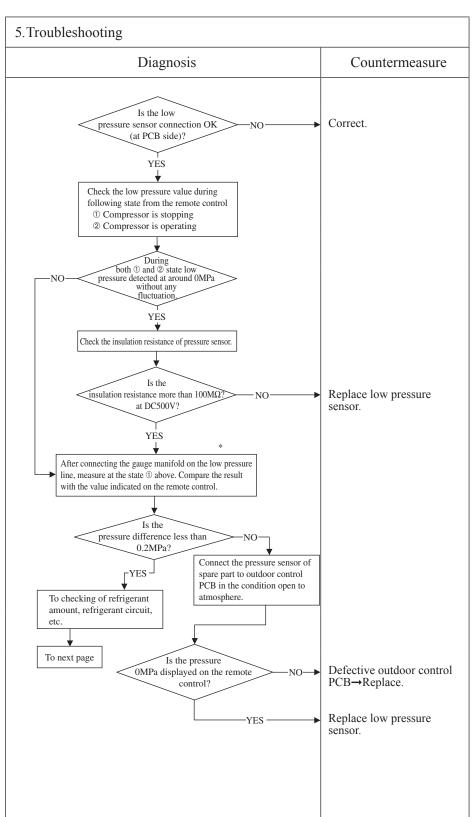
Detected by low pressure drop and suction superheat

3. Condition of Error displayed

- ① When the low pressure sensor detects 0.079MPa or lower for 15 seconds continuously, compressor stops and it restarts automatically after 3-minutes delay. And if this anomaly occurs 3 times within 60 minutes,
- © 10 minutes after the compressor starts, if the low pressure sensor detects 0.15MPa or lower for 60 minutes continuously and compressor suction superheat is detected 30degC or higher for 60 minutes continuously. And if this anomaly occurs 3 times within 60 minutes,
- ③ If low pressure sensor detects 0.079MPa or lower for 5 minutes continuously (including the compressor stop status),

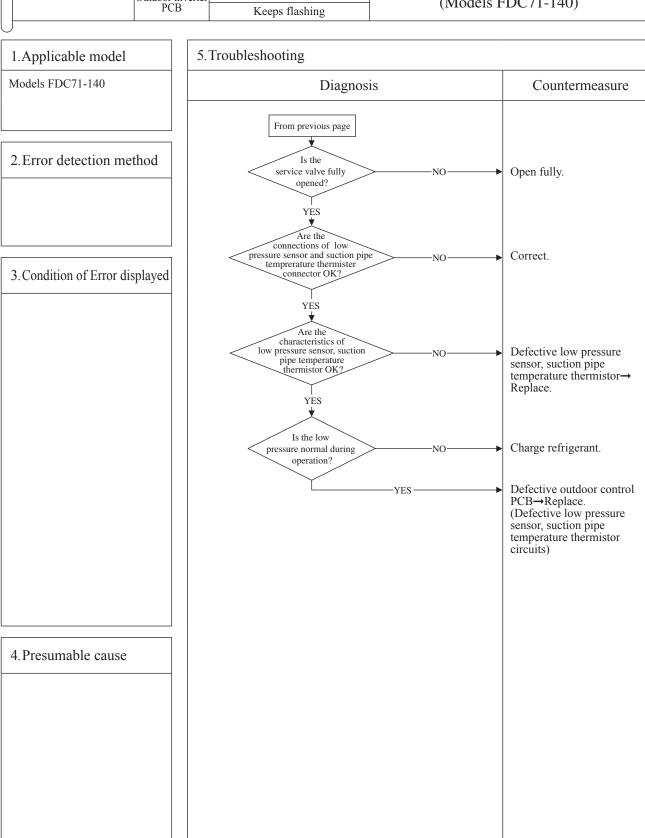
4. Presumable cause

- Defective outdoor control PCB
- Defective low pressure sensor connector
- Defective low pressure sensor
- Defective suction pipe temperature thermistor connector
- Defective suction pipe temperature thermistor



Note: * Connect the gauge manifold to the service valve check joint during cooling, or connect it to the check joint at internal piping of outdoor unit during heating.

					9	
		LED	Green	Red		
		Indoor control PCB	Keeps flashing	Stays OFF	Low pressure error or	
	Remote control: E49	Outdoor control PCB	Keeps flashing	1-time flash		
		Outdoor inverter	Yellow	,	(Models FDC71-140)	
		PCB	Keeps flas	hing	(Wodels FDC/1-140)	
- [



						<u>, </u>
9	9	Error code	LED	Green	Red	Content
		Remote control: E51	Indoor	Keeps flashing	Stays OFF	Power transistor anomaly (Models SRC40-60)
			Outdoor	_	1-time flash	(Models SRC40-00)

1.Applicable model Models SRC40-60

2. Error detection method

Power transistor primary current

3. Condition of Error displayed

If the power transistor primary current exceeds the setting value for 3 seconds, the compressor stops.

4. Presumable cause

- Outdoor control PCB anomaly Dust on outdoor control PCB Blown F2 fuse

Ou	tdoor — 1-time flash	
5	. Troubleshooting	
	Diagnosis	Countermeasure
	Check soldered Surfaces on the outdoor control PCB for foreign matter like dust, fouling etc. YES Isn't F2 fuse (250V, 20A)blown? YES NO NO	Remove foreign matter like dust, fouling, etc. Replace fuse.

N	ote
---	-----

					Θ
		LED	Green	Red	Gtt
	Error code	Indoor control PCB	Keeps flashing	Stays OFF	Content
	Remote control: E51	Outdoor control PCB	Keeps flashing	1-time flash	Inverter and fan motor anomaly
	Outdoor inverter PCB		Yellow L	ED	(Models FDC71-140)
			6-time fla	ash	
- 1					

Models FDC71-140

2. Error detection method

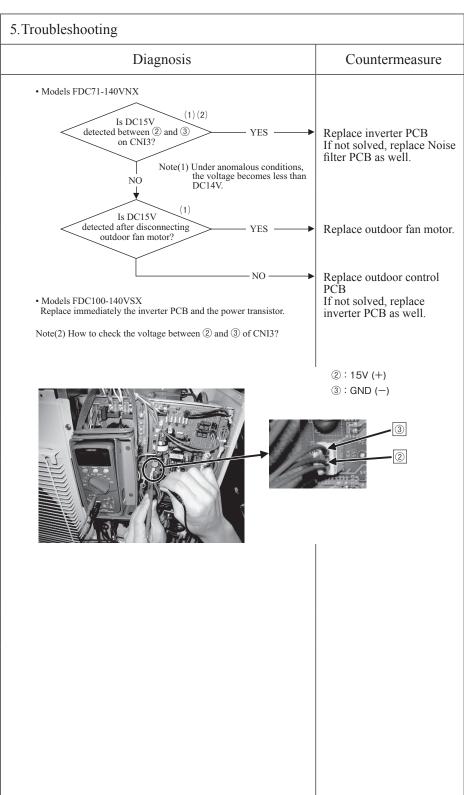
When power transistor anomaly is detected for 15 minutes continuously

3. Condition of Error displayed

Same as above

4. Presumable cause

- Outdoor fan motor anomaly
- Inverter PCB anomaly
- Outdoor control PCB anomaly



Í	Ø	Г. 1	LED	Green	Red	
		Error code	Indoor control PCB	Keeps flashing	Stays OFF	
		Remote control: E53	Outdoor control PCB	Keeps flashing	1-time flash	
			Outdoor inverter	Yellow		
			PCB	Keeps flashing		

Suction pipe temperature thermistor anomaly (Models FDC71-140)

1. Applicable model

Models FDC71-140

2. Error detection method

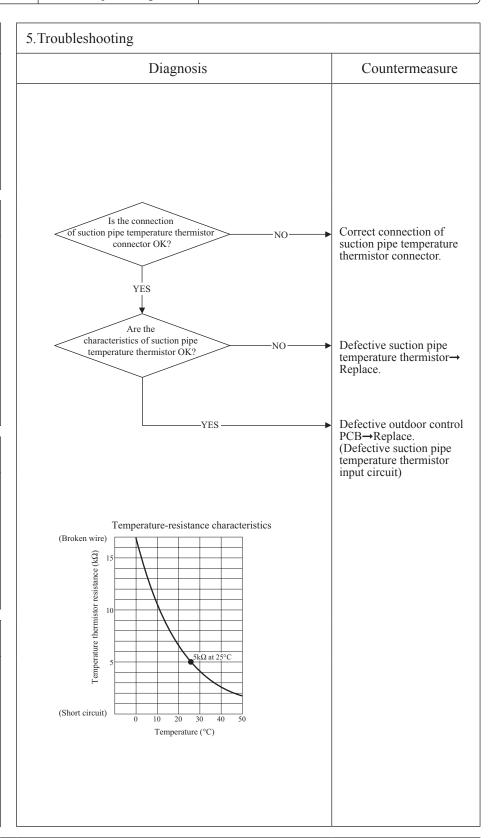
When the suction pipe temperature thermistor detects anomalously low temperature

3. Condition of Error displayed

If the temperature thermistor detects -50°C or lower for 5 seconds continuously within 10 minutes to 10 minutes 20 seconds after compressor ON, the compressor stops. When the compressor is restarted automatically after 3-minutes delay, if this anomaly occurs 3 times within 40 minute.

4. Presumable cause

- Defective suction pipe temperature thermistor connection
- Defective suction pipe temperature thermistor
- Defective outdoor control PCB



				9
	LED	Green	Red	
Error code	Indoor control PCB	Keeps flashing	Stays OFF	Content
Remote control: E54	Outdoor control PCB	Keeps flashing	1-time flash	Low pressure sensor anomaly
	Outdoor inverter Yellow	7	(Models FDC71-140)	
	PCB	Keeps flashing		, ,

Models FDC71-140

2. Error detection method

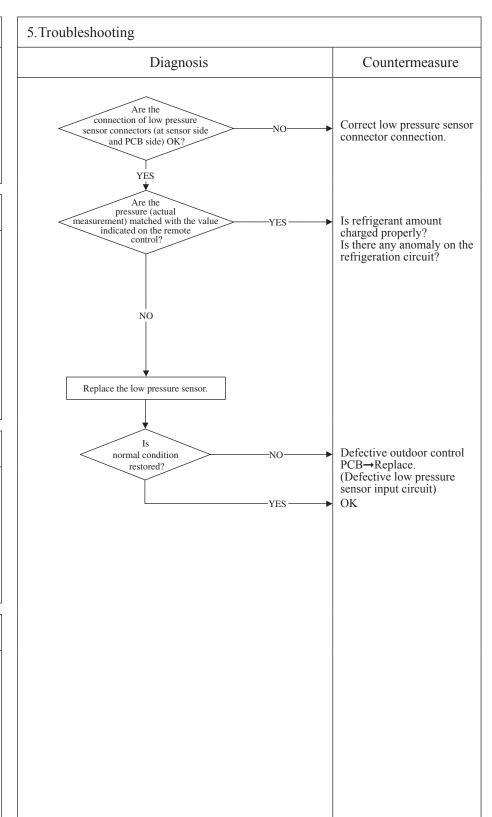
When anomalous voltage (pressure) is detected

3. Condition of Error displayed

If the pressure sensor detects 0V or lower and 4.0V or higher for 5 seconds continuously within 2 minutes to 2 minutes 20 seconds after compressor ON, the compressor stops. When the compressor is restarted automatically after 3-minuts delay, if this anomaly occurs 3 times within 40 minutes

4. Presumable cause

- Defective low pressure sensor connection
- Defective low pressure sensor
- Defective outdoor control PCB
- Improper amount of refrigerant
- Anomalous refrigeration



_					<u> </u>
9	Error code	LED	Green	Red	Content Insufficient refrigerant amount
	Remote control: E57	Indoor	Keeps flashing	Stays OFF	
		Outdoor	_	2-time flash	(Models SRC40-60)

Models SRC40-60

2. Error detection method

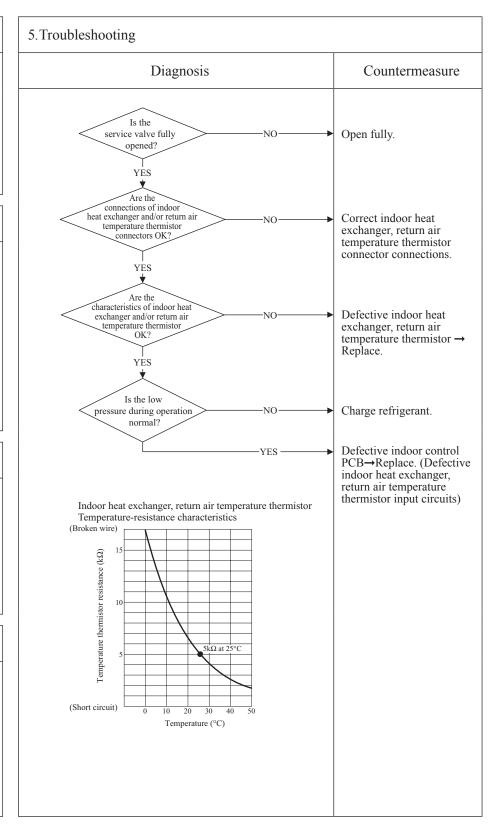
• Judge insufficient refrigerant amount by detecting the temperature differnce between indoor heat exchanger (ThI-R) and indoor return air (ThI-A).

3. Condition of Error displayed

When the insufficient refrigerant amount is detected 3 times within 60 minutes.

4. Presumable cause

- Defective indoor heat exchanger temperature thermistor
- Defective indoor return air temperature thermistor
- Defective indoor control PCB
- Insufficient refregerant amount



Note: When the compressor speed is 50 rps or under at 5 minutes after the start of compressor or the completion of defrosting, the low refrigerant protection control judges, by detecting the difference between the indoor heat exchanger temperature (ThI-R) and the indoor return air temperature (ThI-A), that it is in the state of gas low, and stops the compressor.

Cooling: Indoor return air temperature (ThI-A) – Indoor heat exchanger temperature (ThI-R) \geq 4 deg Heating: Indoor heat exchanger temperature (ThI-A) – Indoor return air temperature (ThI-A) \leq 6 deg

Í	Q	Г. 1	LED	Green	Red
		Error code	Indoor control PCB	Keeps flashing	Stays OFF
		Remote control: E57	Outdoor control PCB	Keeps flashing	1-time flash
			Outdoor inverter	Yellow	
			PCB	Keeps flashing	

Insufficient refrigerant amount or detection of service valve closure (Models FDC71-140)

1. Applicable model

Models FDC71-140

2. Error detection method

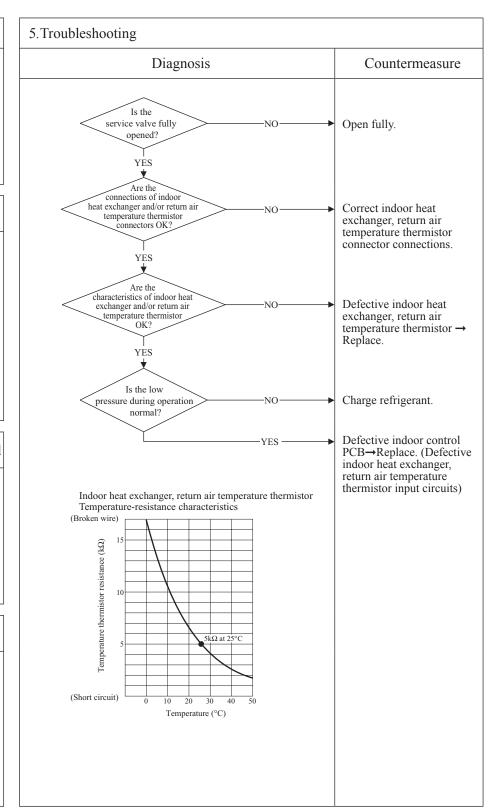
- Judge insufficient refrigerant amount by detecting the temperature differnce between indoor heat exchanger (ThI-R) and indoor return air (ThI-A).
- It detects at initial startup in cooling or dehumidifying mode after power ON.
 (In case of model 71 it cannot detect)

3. Condition of Error displayed

Anomalous stop at initial detection

4. Presumable cause

- Defective indoor heat exchanger temperature thermistor
- Defective indoor return air temperature thermistor
- Defective indoor control PCB
- Insufficient refregerant amount



Note: Insufficient refrigerant amount preventive control makes compressor stopped, if it judges insufficient refrigerant amount by detecting the temperature difference between indoor heat exchanger (ThI-R) and return air temperature (ThI-A) for 1 minute after compressor ON in cooling or dehumidifying mode and for 9 minutes after compressor ON in heating mode. [in cooling mode: (ThI-A)-(ThI-R)>4degC, in heating mode: (ThI-R)-(ThI-A)<4degC]

C	Error code	LED	Green	Red	[Content]
	Remote control: E58	Indoor	Keeps flashing	Stays OFF	Current safe stop
		Outdoor	_	3-time flash	(Models SRC40-60)

Models SRC40-60

2. Error detection method

When the current safe control has operated at the compressor speed of 30 rps or under:

3. Condition of Error displayed

Same as above

4. Presumable cause

- Excessive refrigerant amount Indoor,outdoor unit installation spaces
 • Faulty compressor
 • Defective outdor air temp.

- Defective outdoor PCB

5. Troubleshooting	
Diagnosis	Countermeasure
Is the refrigerant amount nomal?	Adjust the refrigerant amount properly.
Is outdoor ventilation condition good ?	Secure space for inlet and outlet.
Inspect compressor NO	Replace compressor.
Inspect outdor air temp. sensor	Replace sensor.
YES	Defective outdoor PCB→Replace. (Defective outdor air temp. sensor input circuit)

				<u> </u>
Error code	LED	Green	Red	Content
Remote control: E59	Indoor	Keeps flashing	Stays OFF	1 1
	Outdoor	_	2-time flash	(Models SRC40-60)

Models SRC40-60

2. Error detection method

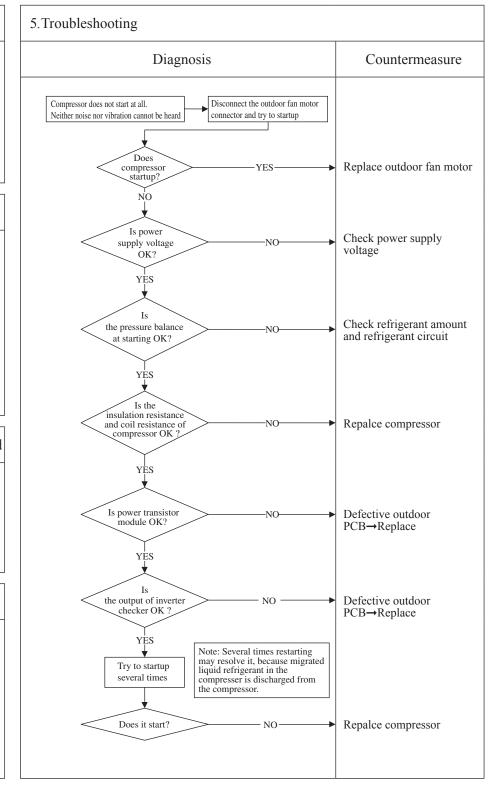
If it fails to change over to the rotor detection operation of compressor motor

3. Condition of Error displayed

If compressor fails to startup for 42 times

4. Presumable cause

- · Outdoor fan motor anomaly
- Outdoor PCB anomaly
- · Anomalous power supply voltage
- Improper refrigerant amount and refrigerant circuit
- Faulty compressor (Motor bearing)



Note: Insulation resistance

- Institution resistance. The unit is left for long period without power supply or soon after installation, migrated liquid refrigerant may dissolve in the refrigerant oil in the compressor. In such case insulation resistance decreases upto several $M\Omega$ or lower. If the electric leakage breaker is activated due to low insulation resistance,
- check tollowings.

 ① Check whehter the insulation resistance can recover or not, ater 6 hours has passed since power ON.
 (By energize the crankcase heater, migrated liquid refrigerant in the refrigerant oil in compressor can be evaporated)
 ② Check whether the electric leakage breake conforms to high-hermonic specifications
 (As units has inverter, in order to prevent from improper operation, be sure to use high-hermonic one.)

					9
(I		LED	Green	Red	
	Error code	Indoor control PCB	Keeps flashing	Stays OFF	Content
	Remote control: E59	Outdoor control PCB	Keeps flashing	5-time flash	Compressor startup failure (1/2)
		Outdoor inverter	Yellow L	ED	(Models FDC71-140)
	PCB		Stays OFF		

Models FDC71-140

2. Error detection method

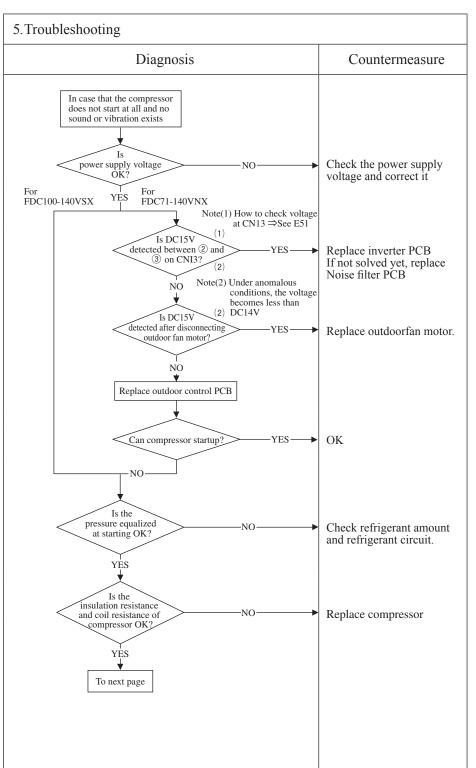
When it fails to change over to the operation for rotor position detection of compressor motor (If the compressor speed cannot increase 11Hz or higher)

3. Condition of Error displayed

If the compressor fails to startup for 20 times (10 patterns x2 times) continuously.

4. Presumable cause

- · Outdoor fan motor anomaly
- Outdoor control PCB anomaly
- · Inverter PCB anomaly
- · Anomalous power supply voltage
- Insufficient or Excessive refrigerant amount
- · Faulty component for refrigerant circuit
- Compressor anomaly (Motor or bearing)



- The unit is left for long period without power supply or soon after installation, insulation resistance may decrease to several MΩ or lower due to the liquid refrigerant migrated in the refrigerant oil in compressor. If the electric leakage breaker is activated due to low insulation resistance, check followings.

 ① Check whether the insulation resistance can recover or not, after 6 hours has passed since power ON.

 (By energize the crankcase heater, liquid refrigerant migrated in the refrigerant oil in compressor can be evaporated)

 - © Check whether the electric leakage breaker conforms to high-harmonic specifications
 (As inverter PAC units has inverter, in order to prevent from improper operation, be sure to use the breaker of high-harmonic type)

Œ		LED	Green	Red	<u>M</u>
		Indoor control PCB	Keeps flashing	Stays OFF	Content
	Remote control: E59	Outdoor control PCB	Keeps flashing	5-time flash	Compressor startup failure (2/2)
		Outdoor inverter PCB	Yellow LED Stays OFF		(Models FDC71-140)

1. Applicable model 5. Troubleshooting Models FDC71-140 Diagnosis Countermeasure From previous page YES Is the (inverter PCB anomaly) power transistor Replace inverter PCB module OK? 2. Error detection method YES After power OFF, turn SW10-4 of inverter PCB ON and connect the inverter checker. Then power ON again. Is the inverter output OK? (Check by inverter checker) Replace inverter PCB Note(1) Several times restarting may recover it, because liquid refrigerant migrated in the compressor could be discharged from the compressor. YES 3. Condition of Error displayed Try to restart several times Replace compressor Does it start? NO-4. Presumable cause

Note:			

						<u>.</u>
9	Error code	LED	Green	Red	Content	
	Remote control: E60	Indoor	Keeps flashing	Stays OFF	Compressor rotor lock error	
					(Models SRC40-60)	
		Outdoor	_	7-time flash	(IVIOUCIS SITE 40 00)	

Models SRC40-60

2. Error detection method

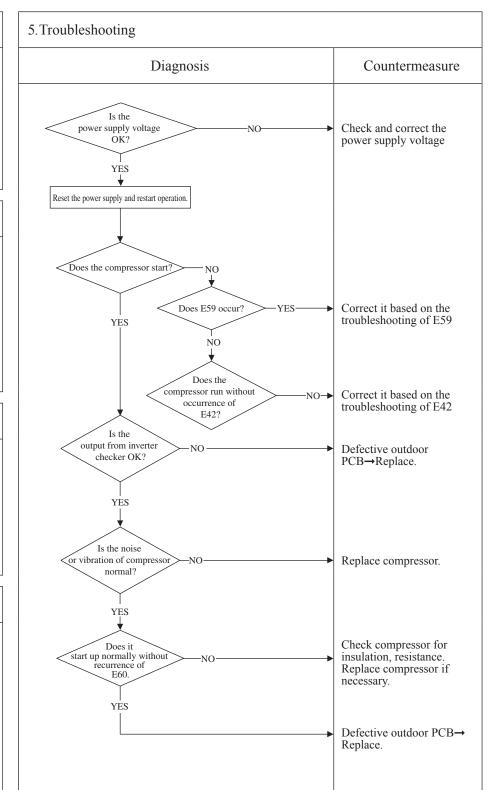
Compressor rotor position

3. Condition of Error displayed

If it fails again to detect the rotor position after shifting to the compressor rotor position detection operation, the compressor stops.

4. Presumable cause

- Defective outdoor fan motor
- Defective outdoor PCB
- · Anomalous power supply voltage
- Improper refrigerant amount and refrigerant circuit
- Defective compressor (motor, bearing)



- Note: Insulation resistance

 The unit is left for long period without power supply or soon after installation, migrated liquid refrigerant may dissolve in the refrigerant oil in the compressor. In such case insulation resistance decreases upto several $M\Omega$ or lower. If the electric leakage breaker is activated due to low insulation resistance, check followings.

 ① Check whether the insulation resistance can recover or not, ater 6 hours has passed since power ON.

 (By energize the crankcase heater, migrated liquid refrigerant in the refrigerant oil in compressor can be evaporated)

 ② Check whether the electric leakage breake conforms to high-hermonic specifications

 (As units has inverter, in order to prevent from improper operation, be sure to use high-hermonic one.)

(b) SRK series

					<u> </u>
(I	Error code	Indoor	RUN light	TIMER light	Content
		display	_	_	Content
	Remote control: None	Outdoor		Red LED	Operates but does not cool
		control PCB	Keeps flashing	Stays OFF	· ·
- 1					

1. Applicable model

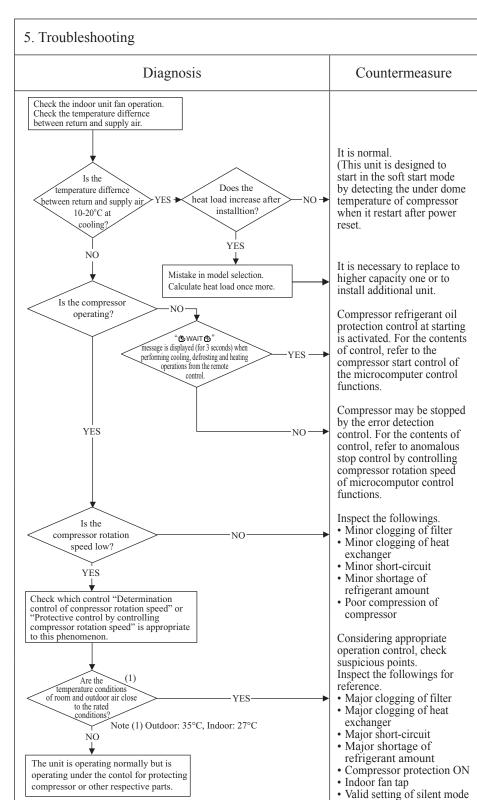
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Poor compression of compressor
- Faulty expansion valve operation



_					<u> </u>
(1	Error code	Indoor	RUN light	TIMER light	Content
		display	_	_	
	Remote control: None	Outdoor		Red LED	Operates but does not neut
		control PCB	Keeps flashing	Stays OFF	1
			•		

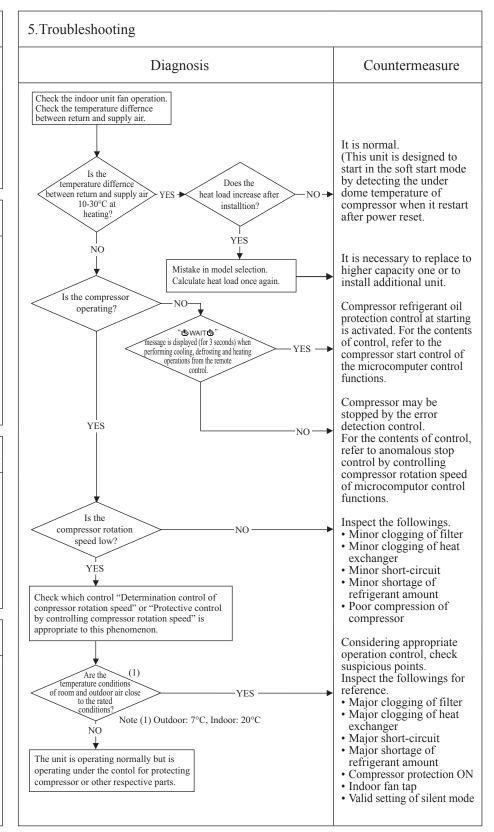
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Faulty 4-way valve operation
- Poor compression of compressor
- Faulty expansion valve operation



					_(<u>1</u>
Error code	Indoor display	RUN light	TIMER light	Content	
Remote control: None	Outdoor	Green LED	Red LED	Earth leakage breaker activated	
	control PCB	Stays OFF	Stays OFF		
	•				

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure Are OK the insulation resistance and Replace compressor.* NO coil resistance of compressor? YĖS 2. Error detection method Is insulation of respective harnesses OK Secure insulation NO Is any harness bitten between resistance. pannel and casing YES Check the outdoor unit grounding wire/earth leakage breaker. Check of the outdoor unit grounding wire/earth leakage breaker 3. Condition of Error displayed ① Run an independent grounding wire from the grounding screw of outdoor unit to the grounding terminal on the distribution panel. (Do not connect to another grounding wire.) 2 In order to prevent malfunction of the earth leakage breaker itself, confirm that it is conformed to higher harmonic regulation. * Insulation resistance of compressor · Immediately after installation or when the unit has been left for long time without power supply, the insulation resistance may drop to a few $M\Omega$ because of refrigerant migrated in the compressor. When the earth breaker is activated at lower insulation resistance, check the following points. ① 6 hours after power ON, check if the insulation resistance 4. Presumable cause recovers to normal. When power ON, crankcase heater heat up compressor and evaporate the refrigerant migrated in the compressor. · Defective compressor 2 Check if the earth leakage breaker is conformed to higher • Noise harmonic regulation or not. Since the unit is equipped with inverter, it is necessary to use components conformed to higher harmonic regulation in order to prevent malfunction of earth leakage breaker.

					_(<u>(</u>
Error code	Indoor	RUN light	TIMER light	Content	
	display	_	_	Content	
Remote control: None	Outdoor	Green LED	Red LED	Excessive noise/vibration (1/3)	
	control PCB	_	-		J
					_

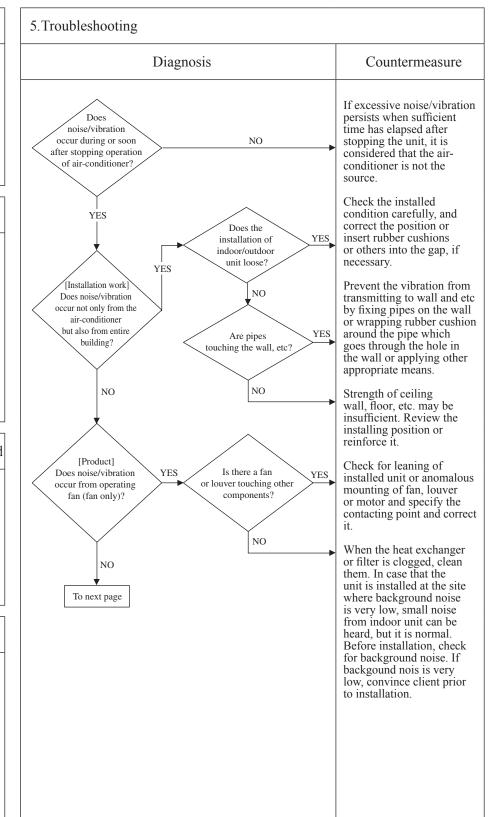
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- ① Improper installation work
 - · Improper anti-vibration work at instllation
 - · Insufficient strength of mounting face
- Defective product Before/after shipping from factory
- ③ Improper adjustment during commissioning
 - · Excess/shortage of refrigerant, etc.



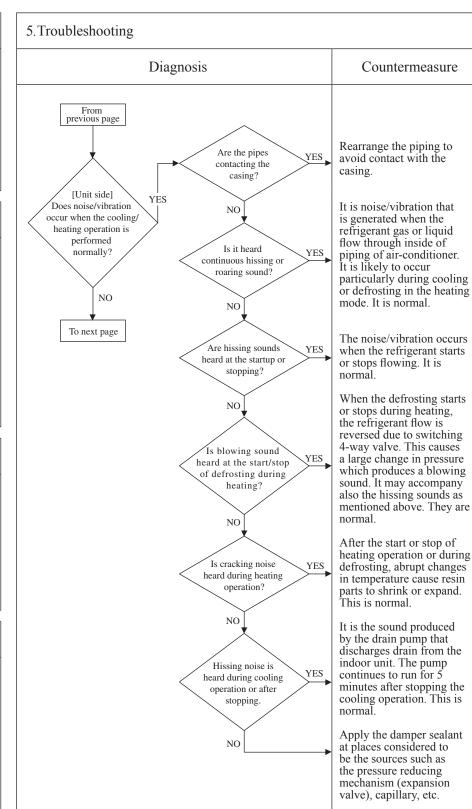
					(1)
q	Error code	Indoor display	RUN light	TIMER light	Content	
	Remote control: None	Outdoor	Green LED	Red LED	Excessive noise/vibration (2/3)	
		control PCB	_	_		J
						_

1.Applicable model All models

2.Error detection method

3. Condition of Error displayed

4. Presumable cause



C	Error code	Indoor display	RUN light	TIMER light	Content	1
	Remote control: None	Outdoor	Green LED	Red LED	Excessive noise/vibration (3/3)	
		control PCB	_	_		J

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure From previous page If insufficient cooling/ Adjustment heating problem happens due to anomalous operating during commissioning Does noise/vibration occur when the conditions at cooling/ cooling/heating operation is in 2. Error detection method heating, followings are anomalous condition? suspicious. • Overcharge of refrigerant YES • Insufficient charge of refrigerant • Intrusion of air, nitrogen, etc. In such occasion, it is necessary to recover refrigerant, vacuum-dry and recharge refrigerant. * Since there could be many causes of noise/ vibration, the above do not cover all. In such case, check the conditions when, where, 3. Condition of Error displayed how the noise/vibration occurs according to following check point. • Indoor/outdoor unit · Cooling/heating/fan mode • Startup/stop/during operation • Operating condition (Indoor/outdoor temperatures, pressure) • Time it occurred • Operation data retained by the remote control 4. Presumable cause such as compressor rotation speed, heat exchanger temperature, EEV opening degree, etc. • Tone (If available, record the noise) · Any other anomalies

Note:		

_							<u>(1</u>
(1	Error code	Indoor display	RUN light	TIMER light	Content		
	Remote control: None	Outdoor	l	Red LED		Louver motor failure	
		control PCB	Keeps flashing	Stays OFF			
)						

1.Applicable model 5. Troubleshooting All models Diagnosis ▲ Check at the indoor unit side. Operate after waiting for more than 1 minute. Does the louver operate at the power 2. Error detection method on? Is LM wiring broken? NO -YES YES Is LM locked? - YES -Is the louver YES Normal operable with the remote

3. Condition of Error displayed

4. Presumable cause • Defective LM • LM wire breakage • Faulty indoor control PCB

Countermeasure Repair wiring. Defective indoor control PCB → Replace. Replace LM. controller? Adjust LM lever and then check again. NO LM: louver motor

9	Error code Remote control: None	display	- Green LED		Power supply system error (Power supply to indoor control PCB)
		CONTROL I CD	Stays OFF	2-time flash	

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure AC220/240V detected between 1 and 2 on the terminal block of indoor unit? AC380/415V for 3-phase unit detected between 1, 2 and 3 on the terminal block of outdoor unit or is AC220/240V for 1-phase unit detected between 1 and 2 on the terminal block of outdoor Defective outdoor control PCB (Noise filter) YES 2. Error detection method Misconnection or breakage of connecting wires YES Are fuse OK Replace fuse. (250V 3.15A)? YES Defective indoor control PCB → Replace. 3. Condition of Error displayed 4. Presumable cause • Misconnection or breakage of connecting wires • Blown fuse Faulty indoor control PCBBroken harness • Faulty outdoor control PCB (Noise filter)

Error code	Indoor display	RUN light	TIMER light	Content Power supply system error
Remote control: None	Outdoor control PCB		Red LED Stays OFF	(Power supply to remote control)

1. Applicable model 5. Troubleshooting All models Diagnosis Countermeasure Isn't there any loose connection of remote Correct. YES control wires? NO 2. Error detection method Isn't remote control wire broken or Replace wires. YES short-circuited? NO Disconnect remote control wires. Is DC15V or higher detected between X-Y Replace remote control. of interface kit terminal block? 3. Condition of Error displayed NO Disconnect connecting wires Is DC15V or higher detected between X-Y Replace interface kit. of indoor unit terminal block? 4. Presumable cause NO Defective indoor control PCB→Replace. • Remote control wire breakage/short-circuit • Defective remote control Malfunction by noiseBroken harness • Faulty indoor control PCB • Faulty interface kit

Error code Remote control: None	Indoor display RUN light Stays OFF Keeps flashing Outdoor Control PCB Keeps flashing Stays OFF Neeps flashing Stays OFF Content Content Limit switc	n anomaly
1.Applicable model	5. Troubleshooting	
All models	Diagnosis	Countermeasure
	Is the inlet panel set correctly? NO	Correction, re-set
2.Error detection method	(1) Are limit switch OK?	Defective limit switch →
The limit switch operates when the indoor unit is stopped.		Replace.
	YES	Defective indoor control PCB → Replace. (Defective limit switch input circuit)
	Note (1) Check the operation of limit switch by checking if the error can be rest or not by pushing the limit switch by finger when the inlet panel is removed.	
3. Condition of Error displayed		
Same as above		
4. Presumable cause		
Defective limit switch Faulty indoor control PCB		

					<u> </u>
	rror code	Indoor display	RUN light	TIMER light	Content INSPECT I/U
R	emote control: INSPECT I/U	Outdoor	I	Red LED 2-time flash	(11/11

1.Applicable model All models

2. Error detection method

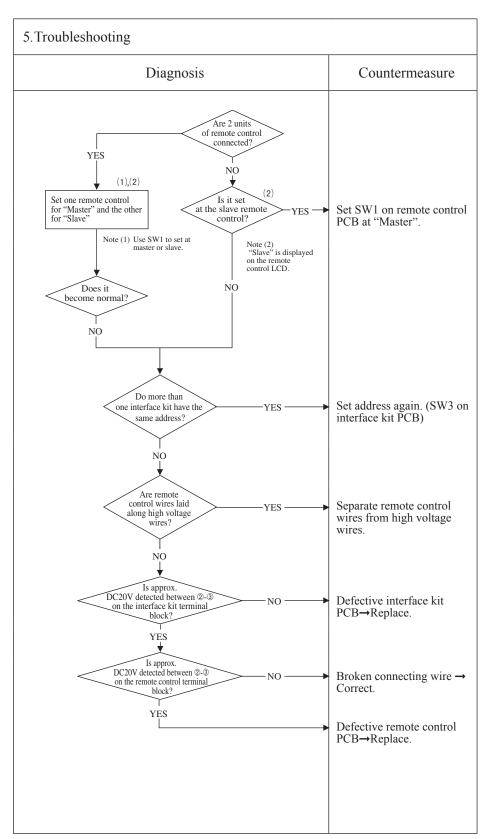
Communication between indoor unit and remote control is disabled for more than 30 minutes after the power on.

3. Condition of Error displayed

Same as above

4. Presumable cause

- Improper setting
- Surrounding environment
- Defective remote control communication circuit
- Faulty interface kit PCB



Note: If any error is detected 30 minutes after displaying "WAIT "on the remote control, the display changes to "INSPECT I/U".

					9
U	Error code Remote control: INSPECT I/U	Indoor display	RUN light	TIMER light	Content INSPECT I/U
		Outdoor		Red LED 2-time flash	(Compostion of 2 varies on many nameta control)

1.Applicable model All models

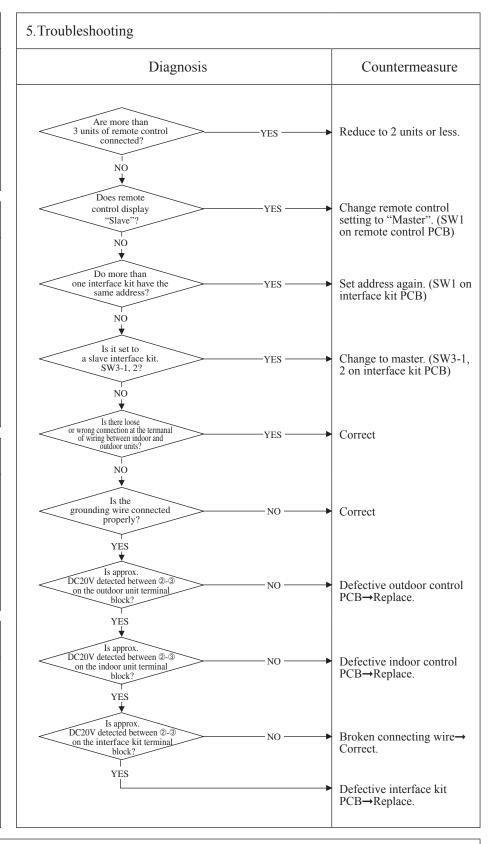
2. Error detection method

Indoor unit cannot communicate for more than 30 minutes after the power on with remote control.

3. Condition of Error displayed Same as above

4. Presumable cause

- Improper setting
- Surrounding environment
- Defective remote control communication circuit
- Faulty indoor control PCB
- Faulty outdoor control PCB
- Faulty interface kit PCB



Note: If any error is detected 30 minutes after displaying "WAIT "on the remote control, the display changes to "INSPECT I/U".

					<u> </u>
(Error code	Indoor	RUN light	TIMER light	Content
		display	_	_	Communication error at
	Remote control: WAIT	Outdoor		Red LED	
		control PCB	Keeps flashing	2-time flash	initial operation (1/3)

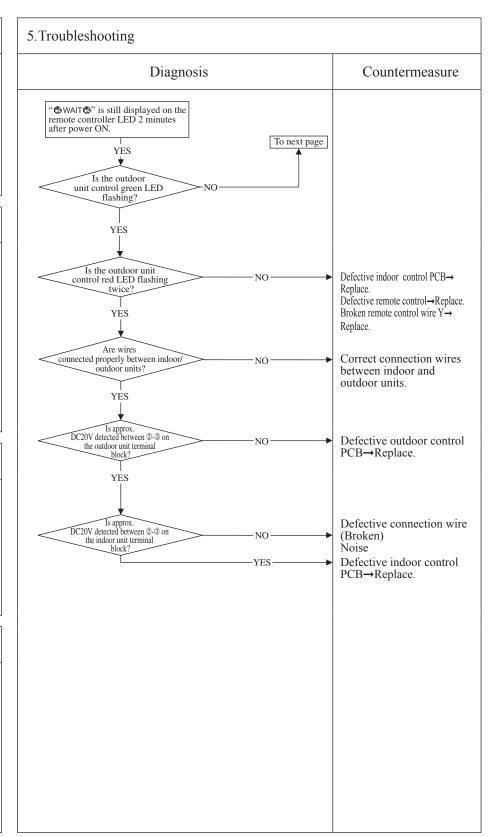
All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

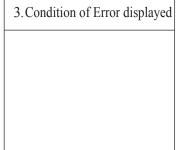
- Faulty indoor control PCB
- Defective remote control
- Broken remote control wire
- Faulty outdoor control PCB
- Broken connection wires



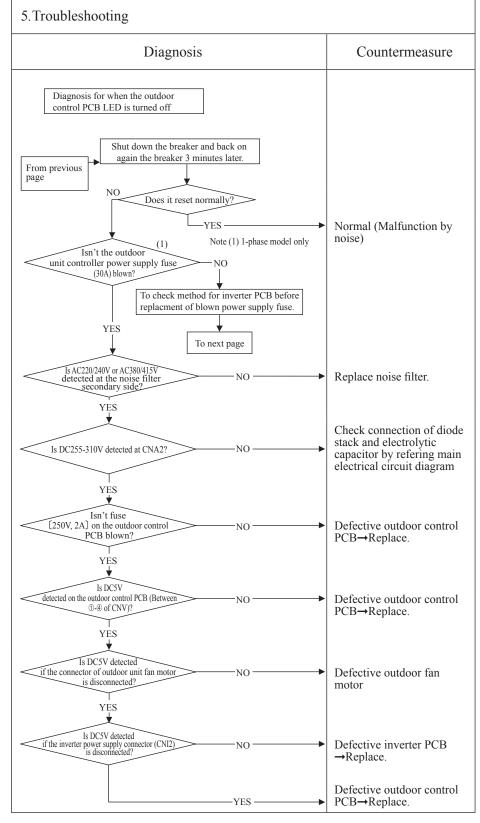
					<u></u>	a)
P	Error code	Indoor	RUN light	TIMER light	Content	
		display	-	_	Communication error at	
	Remote control: WAIT	Outdoor	Green LED	Red LED		
		control PCB	Keeps flashing	2-time flash	initial operation (2/3)	J

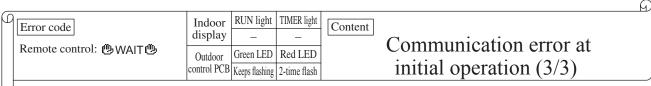
1.Applicable model All models

2. Error detection method



Faulty noise filter Faulty indoor control PCB Faulty outdoor control PCB Faulty inverter PCB Faulty fan motor





All models

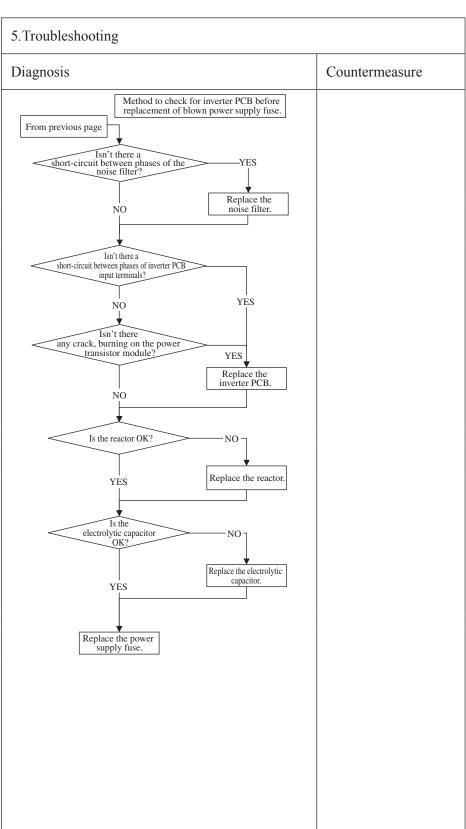
2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Blown fuse
- Faulty noise filter

- Faulty inverter PCB
 Faulty reactor
 Faulty electrolytic capacitor



	Error code	1	N light TIMER light	Content
		display -	- -	
	Remote control: None	Outdoor	en LED Red LED	No display
		control PCB Stays	s OFF Stays OFF	
l				

All models

2. Error detection method

3. Condition of Error displayed

4. Presumable cause

- Faulty indoor control PCBDefective remote controlBroken remote control wire
- Defective interface kit

5. Troubleshooting	
Diagnosis	Countermeasure
Remote control does not display anything after the power on.	
higher detected at remote control connection YES NO	Defective remote control
Is DC10V or higher detected on remote control wires if the remote control is removed? NO	Defective remote control
is DC10V or higher detected at interface kit connection terminals? NO	Defective interface kit
Is DC10V or higher detected on connecting wires if the interface kit is removed?	Defective interface kit
Are wires connected properly between the indoor/outdoor units? NO	Defective connecting wire. Defective remote control wire (Short-circuit, etc.)
	Defective indoor control PCB→Replace.

wire (Short-circuit, etc.)

Defective indoor control PCB→Replace.

					<u>(4)</u>
Ú	Error code	Indoor	RUN light	TIMER light	Content
		display	_	_	Remote control
	Remote control: E1	Outdoor	l	Red LED	
		control PCB	Keeps flashing	Stays OFF	communication circuit error

5. Troubleshooting 1. Applicable model All models Diagnosis Countermeasure Malfunction by noise Is it possible to reset normally by the power reset? Check peripheral YES environment. NO Is DC10V or higher detected at remote control connection terminals? YES Defective remote control 2. Error detection method NO When normal communication between the remote control and Is DC10V or higher detected on remote control wires if the remote control is removed? the indoor unit is interrupted YES Defective remote control for more than 2 minutes. (Detectable only with the remote control) NO Is DC10V or higher detected at interface kit connection YES · Defective interface kit terminals' NO Is DC10V or higher detected on connecting wires if the interface kit is removed? YES Defective interface kit 3. Condition of Error displayed Same as above Are wires connected properly between the indoor/outdoor units? Defective connecting wire. YES Defective remote control

NO

after 3 minutes?

Note (2) Does the remote control still display "

₩AIT @even

4. Presumable cause

- Defective communication circuit between remote control-indoor unit
- Noise
- Defective remote control
- Faulty indoor control PCB
- Defective interface kit

Note: If the indoor unit cannot communicate normally with the remote control for 180 seconds, the indoor unit PCB starts to reset automatically.

				(A)
Error code	Indoor display	RUN light ON	TIMER light 6-time flash	Content
Remote control: E5	Outdoor		Red LED	Communication circl during operation
	control PCB	Keeps flashing	See below	

All models

2. Error detection method

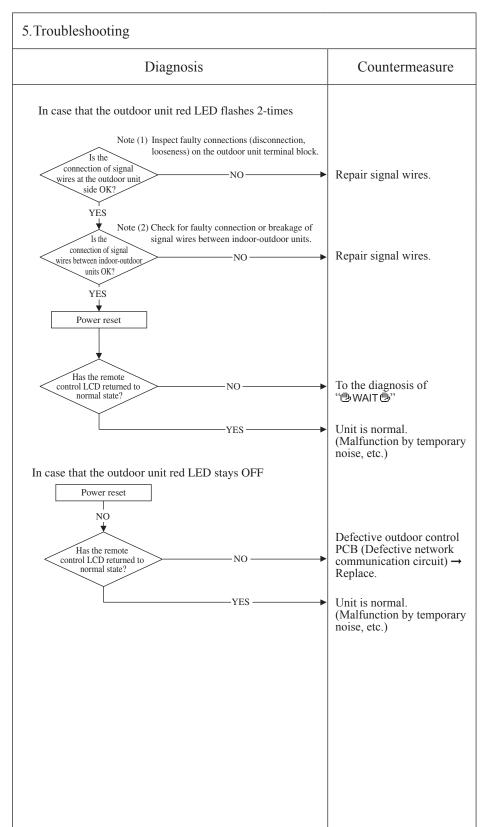
When normal communication between indoor and outdoor unit is interrupted for more than 2 minutes.

3. Condition of Error displayed

Same as above is detected during operation.

4. Presumable cause

- Unit No. setting error
- Broken remote control wire
- Faulty remote control wire connection
- Faulty outdoor control PCB



Note: Pressing the pump-down switch cancels communications between indoor and outdoor unit so that "communication error-E5" is displayed on indoor unit and remote control, but it is normal.

| Error code | Remote control: E6 | Indoor display | Timer light | ON | Outdoor control PCB | Keeps flashing | Stays OFF | Stays OFF | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | Content | C

1. Applicable model

Note(1) Value in () are the Th22.

All models

2. Error detection method

Anomalously low temperature or high temperature (resistance) is detected on the indoor heat exchanger sensor (Th21, Th22).

3. Condition of Error displayed

• When the temperature sensor detects -28°C or lower for 15 seconds continuously, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Defective indoor heat exchanger sensor connector
- Indoor heat exchanger
- temperature sensor anomaly
 Faulty indoor control PCB

5. Troubleshooting Diagnosis Countermeasure Is the connection of indoor heat exchanger temperature sensor Correct. → Insert connector securely. YES Are characteristics of indoor Defective indoor heat heat exchanger temperature sensor OK? exchanger temperature sensor → Replace. Defective indoor control PCB → Replace. (Defective indoor unit heat exchanger temperature sensor input circuit) Temperature-resistance characteristic (Broken wire) Temperature sensor resistance (kΩ) 5kΩ at 25°C (Short circuit) Temperature (°C)

					9
Presentation	Indoor	RUN light	TIMER light	Content	
Error code	display	2-time flash	ON	Room temperature	
Remote control: None	Outdoor		Red LED	gengor anomaly	
	control PCB	Keeps flashing	Stays OFF	sensor anomaly	
,		•			_

All models

2. Error detection method

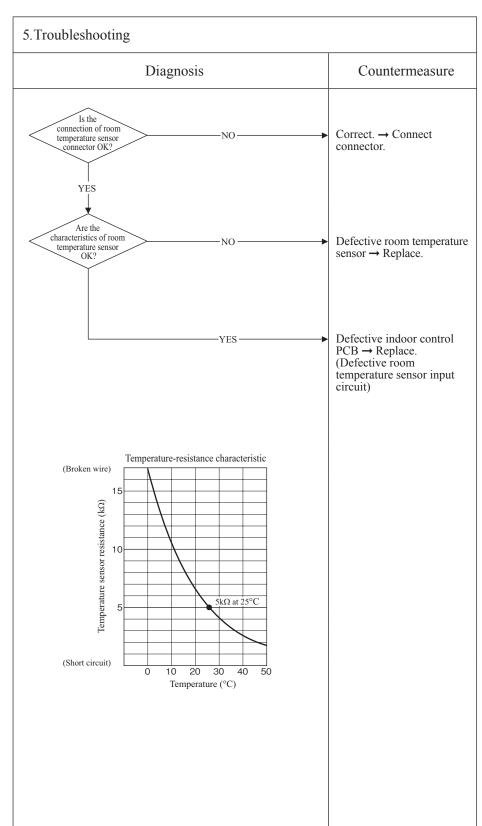
Anomalously low temperature or high temperature (resistance) is detected by indoor room temperature sensor (Th1)

3. Condition of Error displayed

• When the temperature sensor detects -45°C or lower for 15 seconds continuously, the compressor stops. After 3-minute delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Defective room temperature sensor connector
- Defective room temperature sensor
- Faulty indoor control PCB



Error code Remote control: E10	Indoor display Outdoor control PCB RUN light TIMER light Content Excessive number indoor units (more by controlling with on	
1.Applicable model	5. Troubleshooting	
All models	Diagnosis	Countermeasure
	Aren't more than 17 indoor units connected to one remote control?	Defective remote control → Replace.
2. Error detection method	YES	Reduce to 16 or less units.
When it detects more than 17 of indoor units connected to one remote contorl 3. Condition of Error displayed Same as above		
4. Presumable cause • Excessive number of indoor units connected • Defective remote control		

TIMER light Content
Communication error
Red LED between moster and slave indear units
Stays OFF Detween master and stave muoor units
R

All models

2. Error detection method

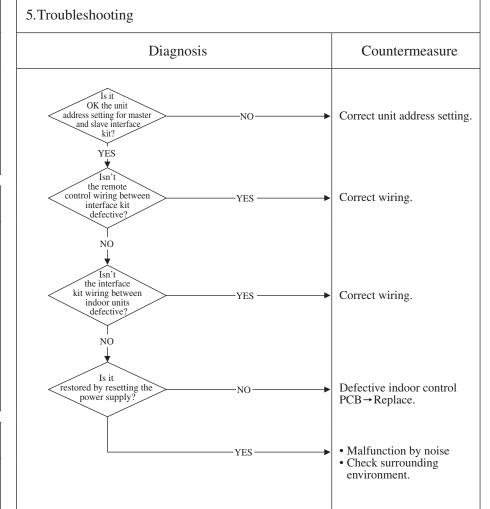
When communication error between master and slave indoor units occurs

3. Condition of Error displayed

Same as above

4. Presumable cause

- Unit address setting error
- Broken remote control wire
- Defective remote control wire connection
- Broken interface kit wire
- Defective interface kit wire connection
- Defective indoor control PCB



Note (1) Set dip switches SW3-1 and SW3-2 as shown in the following table. (Factory default setting – "Master")

			Interface kit	
		Master	Slave1	Slave2
Dip	SW3-1	OFF	OFF	ON
switch	SW3-2	OFF	ON	OFF

		Interface kit			
		Master	Slave1	Slave2	
Dip	SW3-1	OFF	OFF	ON	

						(A
P	Error code	Indoor	RUN light	TIMER light	Content	
		display	6-time flash	ON	Content	
	Remote control: E16	Outdoor	Green LED	Red LED	Indoor fan motor anomaly	
		control PCB	Keeps flashing	Stays OFF	indoor in motor anomary	J
- 1						

All models

2. Error detection method

Detected by rotation speed of indoor fan motor

3. Condition of Error displayed

• When actual rotation speed of indoor fan motor drops to lower than 300min⁻¹ for 30 seconds continuously, the compressor and the indoor fan motor stop.

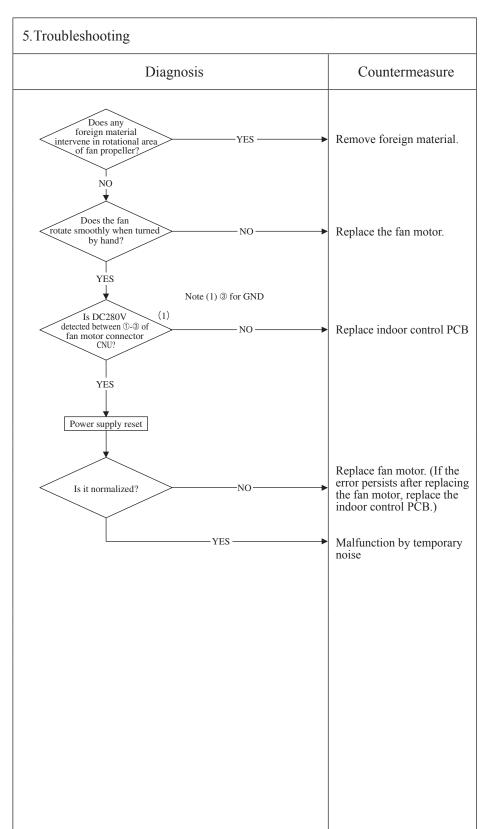
4. Presumable cause

- Defective indoor control PCB
- Foreign material at rotational area of fan propeller

 • Defective fan motor

 • Dust on indoor control PCB

- External noise, surge



| Error code | Remote control: E28 | Indoor display | TIMER light | Content | Remote control | Remote control | Remote control | Regular | Remote control | Regular | Remote control | Regular | Remote control | Remote control | Remote control | temperature thermistor anomaly | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | Remote control | R

1. Applicable model

All models

2. Error detection method

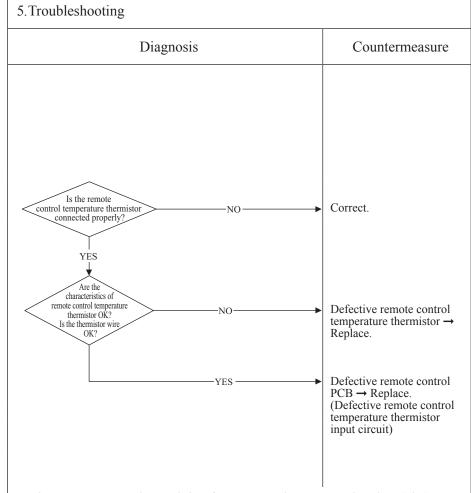
Detection of anomalously low temperature (resistance) of remote control temperature thermistor (Thc)

3. Condition of Error displayed

When the temperature thermistor detects -50°C or lower for 5 seconds continuously, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this error occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Faulty connection of remote control temperature thermistor
- Defective remote control temperature thermistor
- Defective remote control PCB



Resistance-temperature characteristics of remote control temperature thermistor (ThC)

Temperature (°C)	Resistance value ($k\Omega$)	Temperature (°C)	Resistance value ($k\Omega$)
0	65	30	16
1	62	32	15
2	59	34	14
4	53	36	13
6	48	38	12
8	44	40	11
10	40	42	9.9
12	36	44	9.2
14	33	46	8.5
16	30	48	7.8
18	27	50	7.3
20	25	52	6.7
22	23	54	6.3
24	21	56	5.8
26	19	58	5.4
28	18	60	5.0
20	10	00	3.0

Note: After 10 seconds has passed since remote control thermistor was switched from valid to invalid, E28 will not be displayed even if the thermistor harness is disconnected. At same time the thermistor, which is effective, is switched from remote control thermistor to indoor return air temperature thermistor. Even though the remote control thermistor is set to be Effective, the return air temperature displayed on remote control for checking still shows the value detected by indoor return air temperature thermistor, not by remote control temperature thermistor.

Q	Г. 1	Indoor display	RUN light	TIMER light
	Error code	ilidool display	ON	Keeps flashing
	Remote control: E35	Outdoor	Green LED	Red LED
		control PCB	Keeps flashing	1-time flash
		Outdoor inverter PCB	Yellow	LED
			Keeps flashing	

Content

Cooling overload operation

1. Applicable model

All models

2. Error detection method

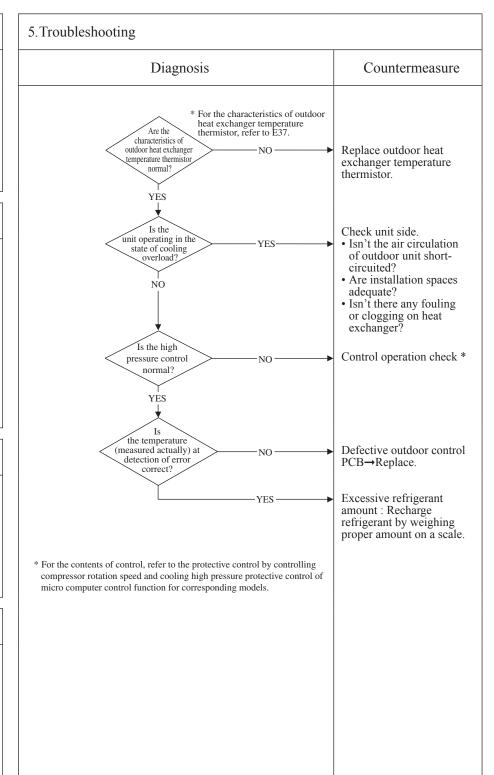
For the error detection method, refer to the protective control by controlling compressor rotation speed and cooling high pressure protective control of micro computer control function for corresponding models.

3. Condition of Error displayed

When outdoor heat exchanger temperature anomaly is detected 5 times within 60 minutes or this anomalous state is detected 60 minutes continuously including compressor stop.

4. Presumable cause

- Defective outdoor heat exchanger temperature thermistor
- Defective outdoor control PCB
- Indoor, outdoor unit installation spaces
- Short-circuit of air on indoor, outdoor units
- Fouling, clogging of heat exchanger
- Excessive refrigerant amount



_							<u>(1</u>
A	[F	Indoor display	RUN light	TIMER light	Content		
	Error code	ilidoor display	ON 5-time fl	5-time flash	Content		
	Remote control: E36	Outdoor	Green LED	Red LED		Discharge pipe	
		control PCB	Keeps flashing	1-time flash		Discharge pipe	
		Outdoor	Yellow	LED		temperature error	
		inverter PCB	Keeps fl	lashing		torrip travers to traver	
					-		_

All models

2. Error detection method

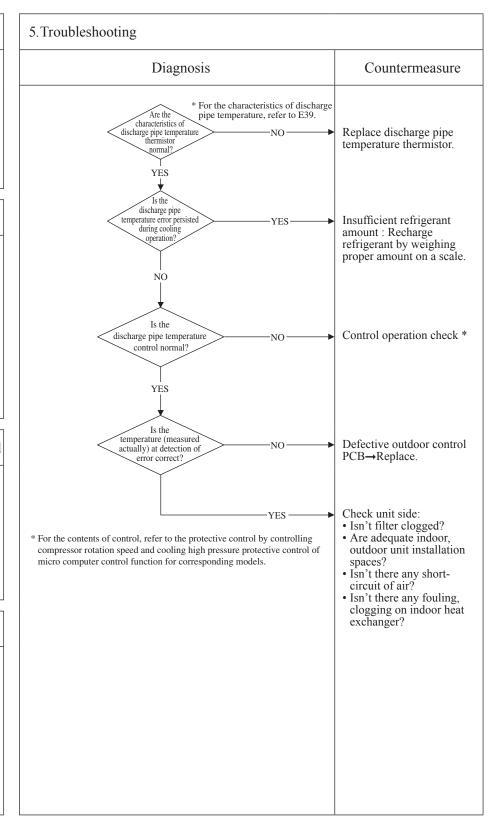
For the error detection method, refer to the protective control by controlling compressor rotation speed and cooling high pressure protective control of micro computer control function for corresponding models.

3. Condition of Error displayed

When discharge pipe temperature anomaly is detected 2 times within 60 minutes or this anomalous state is detected 60 minutes continuously including compressor stop.

4. Presumable cause

- · Defective outdoor control PCB
- Defective discharge pipe temperature thermistor
- Clogged filter
- Indoor, outdoor unit
- installation spaces
 Short-circuit of air on indoor, outdoor units
- · Fouling, clogging of heat exchanger



1	Q	E1	Indoor display	RUN light	TIMER light
		Error code	ilidool display	Keeps flashing	2-time flash
		Remote control: E37	Outdoor	Green LED	Red LED
			control PCB	Keeps flashing	1-time flash
			Outdoor	Yellow	LED
			inverter PCB	Keeps f	lashing

Content

Outdoor heat exchanger temperature themistor anomaly

1. Applicable model

All models

2. Error detection method

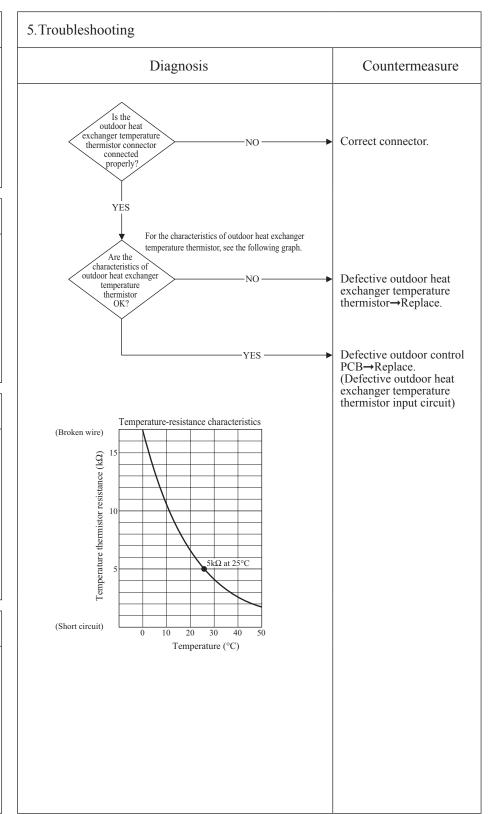
Detection of anomalously low temperature (resistance) on the outdoor heat exchanger temperature thermistor

3. Condition of Error displayed

- When the temperature thermistor detects -50°C or lower for 20 seconds continuously within 2 minutes to 2 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes.
- When -50°C or lower is detected for 5 seconds continuously within 20 second after compressor ON.

4. Presumable cause

- Defective outdoor control PCB
- Broken thermistor harness or temperature sensing section
- Disconnected wire connection (connector)



(A	E1	Indoor display	RUN light	TIMER light	
		Error code	Indoor display	Keeps flashing	1-time flash	
		Remote control: E38	Outdoor	Green LED	Red LED	
			control PCB	Keeps flashing	1-time flash	
			Outdoor	Yellow	LED	
			inverter PCB	Keeps flashing		

Content

Outdoor air temperature thermistor anomaly

1. Applicable model

All models

2. Error detection method

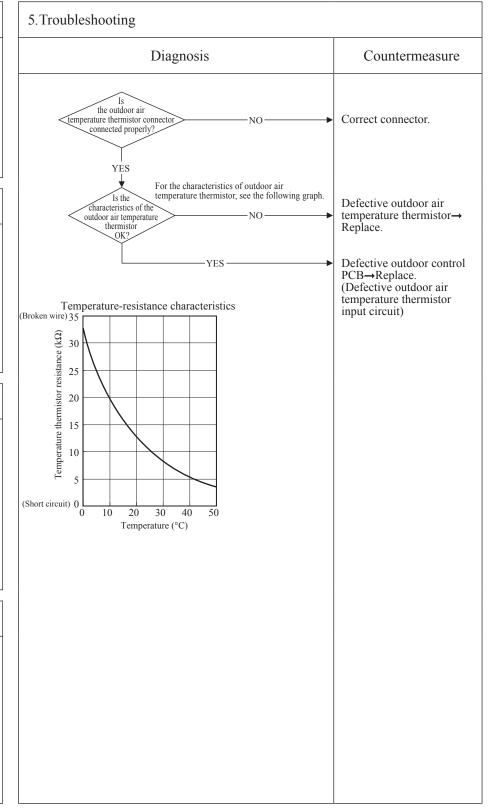
Detection of anomalously low temperature (resistance) on outdoor air temperature thermistor

3. Condition of Error displayed

- When the temperature thermistor detects -45°C or lower for 5 seconds continuously within 2 minutes to 2 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes.
- When -45°C or lower is detected for 5 seconds continuously within 20 second after compressor ON.

4. Presumable cause

- Defective outdoor control PCB
- Broken thermistor harness or temperature sensing section (Check molding.)
- Disconnected wire connection (connector)



					<u> </u>
U		Indoor display	RUN light	TIMER light	Gtt
	Error code	ilidool display	Keeps flashing	4-time flash	Content
	Remote control: E39	Outdoor	Green LED	Red LED	Discharge pipe
		control PCB	Keeps flashing		
		Outdoor	Yellow	LED	temperature thermistor anomaly
		inverter PCB	Keeps flashing		

All models

2. Error detection method

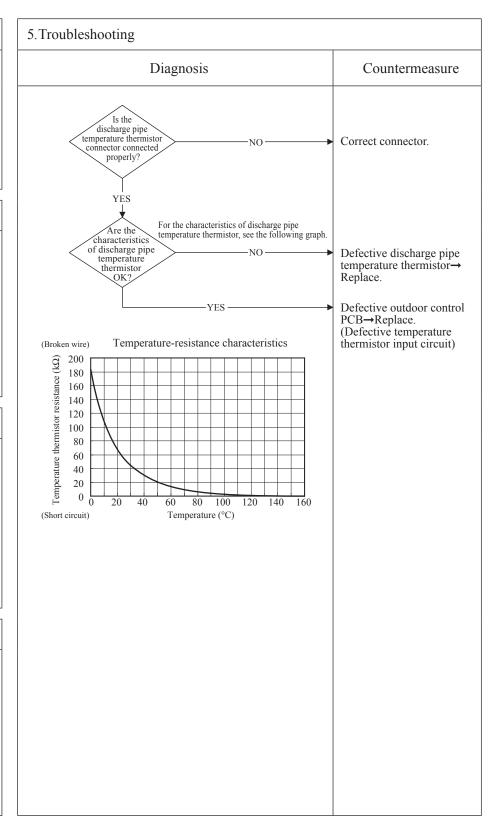
Detection of anomalously low temperature (resistance) on the discharge pipe temperature thermistor

3. Condition of Error displayed

When the temperature thermistor detects -10°C or lower for 5 seconds continuously within 10 minutes to 10 minutes 20 seconds after the compressor ON, the compressor stops. After 3-minutes delay, the compressor starts again automatically, but if this anomalous temperature is detected 3 times within 40 minutes.

4. Presumable cause

- Defective outdoor control PCB
- Broken thermistor harness or temperature sensing section (Check molding.)
- Disconnected wire connection (connector)

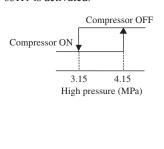


					G
N		Indoor display	RUN light	TIMER light	Contact
	Error code	ilidool display	_	_	Content
	Remote control: E40	Outdoor	Green LED	Red LED	High pressure error
		control PCB	Keeps flashing	1-time flash	<u> </u>
		Outdoor	Yellow	ow LED	(63H1 activated)
		inverter PCB	Keeps fl	ashing	(33 === 3.662 + 6.66 6.7)

All models

2. Error detection method

When the high pressure switch 63H1 is activated.

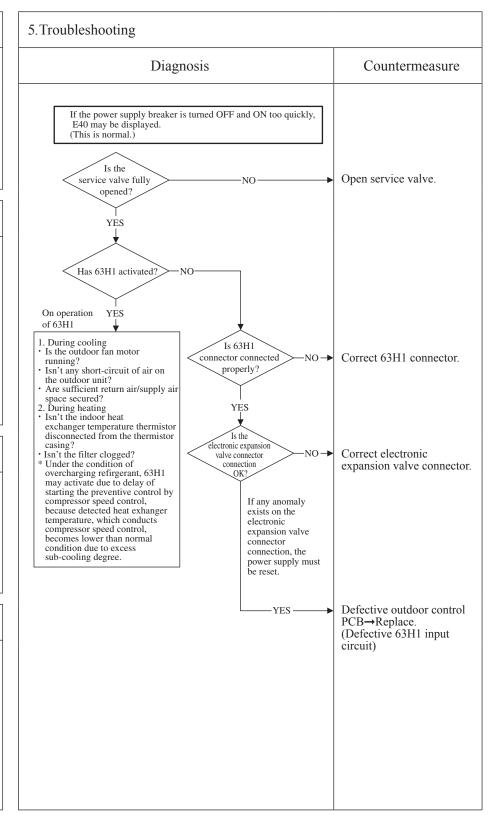


3. Condition of Error displayed

If 63H1 turns OFF (opened), the compressor stops. After 3-minutes delay, the compressor restarts. If this anomaly occurs 5 times within 60 minutes or continues for 60 minutes continuously.

4. Presumable cause

- Short circuit of air flow, disturbance of air flow and clogging filter at outdoor heat exchanger/Breakdown of fan motor
- Defective outdoor control PCB
- Defective 63H1 connector
- Defective electronic expansion valve connector
- Closed service valve
- Mixing of non-condensing gas (nitrogen, etc.)



Note: In the protective control range for compressor startup (initial startup after power ON), even if 63H1 is activated only once (63H1turns OFF), immediately the error is displayed.

_					\mathcal{G}
(C		Indoor display	RUN light	TIMER light	Gtt
	Error code	muoor uispiay	_	_	Content
	Remote control: E41	control: E41 Outdoor		Red LED	
		control PCB	Keeps flashing	1-time flash	Power transistor overheat
		Outdoor	Yellow LED		I ower transistor overheat
		inverter PCB	6-time	flash	
1					

5. Troubleshooting 1. Applicable model All models Countermeasure Diagnosis • Single phase models Is DC15V detected Replace inverter PCB between ② and ③ on CNI3? Note(1) Under anomalous conditions, the voltage becomes less than DC14V. NO Is DC15V detected after disconnecting YES. Replace outdoor fan motor 2. Error detection method outdoor fan motor? NO: Replace outdoor control PCB When less than DC14V of If not solved, replace the output voltage is detected between ② and ③ on CNI3, inverter PCB as well Note(2) How to check the voltage between 2 and 3 of CNI3? E41 ⇒See E51 is displayed. (See "Note" mentioned below) • 3-phase models E41⇒Replace inverter PCB 3. Condition of Error displayed Same as above. 4. Presumable cause

Note: The "Single phase models" of inverter PAC have no function to output the signal for the power transistor overheat. However since the power source for the power transistor and the outdoor fan motor is in the same line, when the anomaly of the outdoor fan motor occurs, E41 is displayed.

Defective inverter PCBDefective outdoor fan motorDefective outdoor control

• Delective noise filter PCB

PCB

					9
U		Indoor display	RUN light	TIMER light	
	Error code	Indoor display	ON	1-time flash	Content
	Remote control: E42	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	1-time flash	Current cut (1/2)
		Outdoor inverter PCB	Yellow	LED	Current cut (1/2)
			1-time	flash	

All models

2. Error detection method

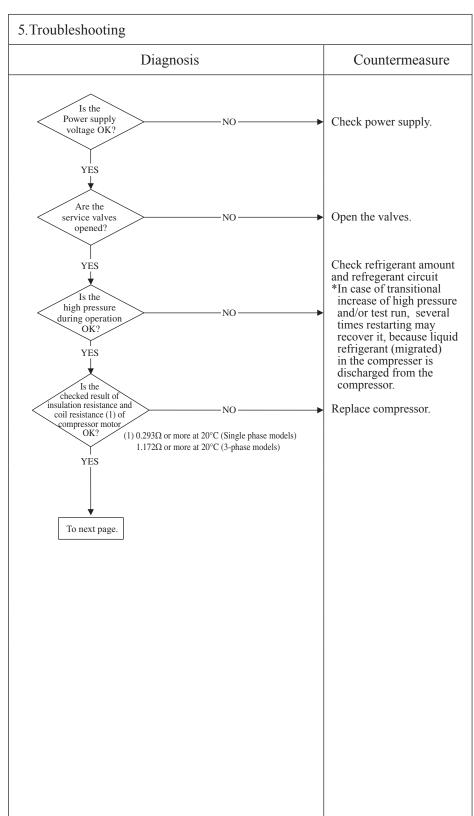
In order to prevent from overcurrent of inverter, if the current exceeds the specifications, it makes the compressor stopping.

3. Condition of Error displayed

- If the output current of inveter exceeds the specifications, it makes the compressor stopping.
- After 3-minute delay, the compressor restarts, but if this amonaly occurs 4 times within 30 minute after the intial detection.

4. Presumable cause

- The valves closed
- Faulty power supply
- Insufficient refrigerant amount
- Faulty compressor
- Faulty power transistor module



					<u> </u>
	9	Indoor display	RUN light	TIMER light	
	Error code	Indoor display	ON	1-time flash	Content
	Remote control: E42	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	1-time flash	Current cut (2/2)
	Outdoor inverter PC	Outdoor	Yellow LED		
		inverter PCB	1-time	flash	

All models

2. Error detection method

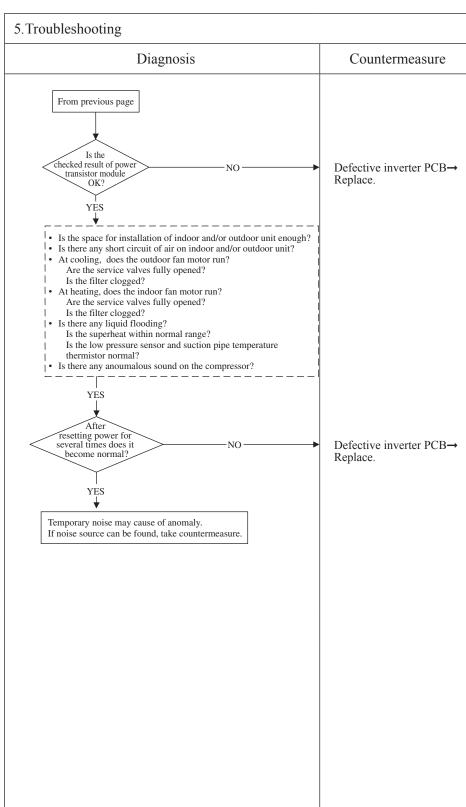
In order to prevent from overcurrent of inverter, if the current exceeds the specifications, it makes the compressor stopping.

3. Condition of Error displayed

- If the output current of inveter exceeds the specifications, it makes the compressor stopping.
- After 3-minute delay, the compressor restarts, but if this amonaly occurs 4 times within 30 minute after the intial detection.

4. Presumable cause

- Defective inverter PCB
- Faulty power supply
- Insufficient refrigerant amount
- Faulty compressor
- Faulty power transistor module



Q		Indoor display	RUN light	TIMER light		
	Error code	ilidool display	_	_		
	Remote control: E45	Outdoor	Green LED	Red LED		
		control PCB	Keeps flashing	1-time flash		
		Outdoor	Yellow LED		l i1	
		inverter PCB	Keeps f	lashing		

Content

Communication error between inverter PCB and outdoor control PCB

1. Applicable model

All models

2. Error detection method

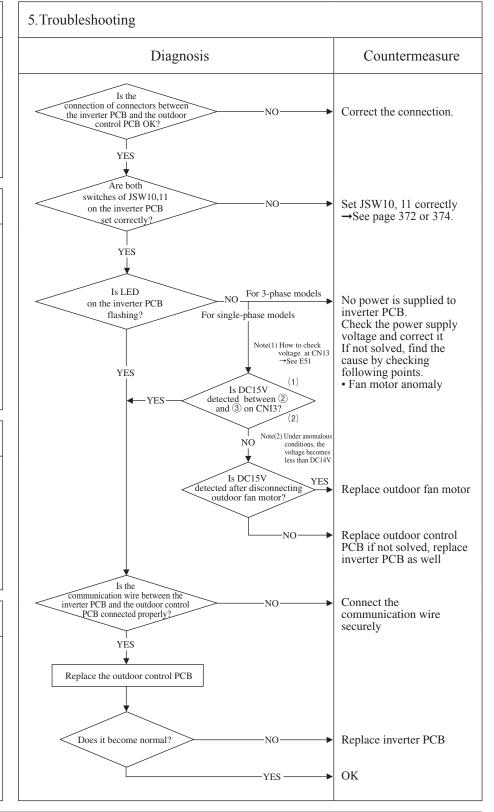
When the communication between inverter PCB and outdoor control PCB is not established.

3. Condition of Error displayed

Same as above.

4. Presumable cause

- Defective inverter PCB
- Defective connector between the outdoor control PCB and inverter PCB
- Defective outdoor control PCB
- Defective outdoor fan motor



N		T 1 1' 1	RUN light TIMER			
	Error code	Indoor display	ON	7-time flash	Content	
	Remote control: E48	Outdoor	Green LED	Red LED	Ω_{11}	
		control PCB	Keeps flashing	1-time flash	Ou	
		Outdoor	Yellow LED			
		inverter PCB	Keeps flashing			

utdoor fan motor anomaly

1.Applicable model

All models

2. Error detection method

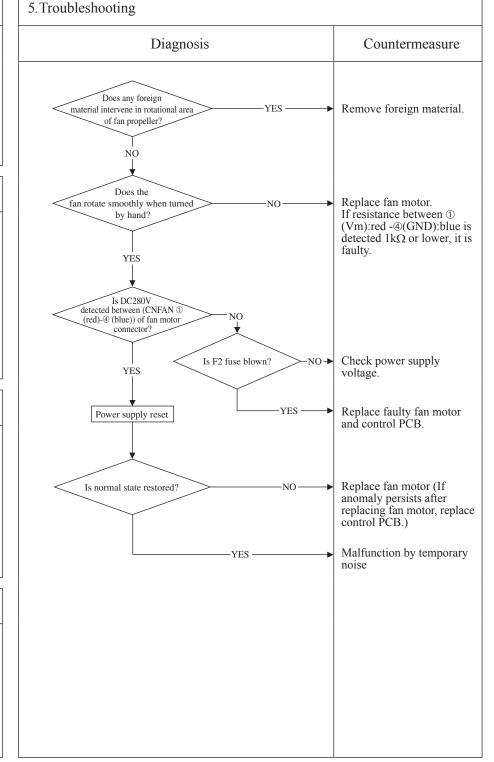
Detected by rotation speed of outdoor fan motor

3. Condition of Error displayed

When actual rotation speed of outdoor fan motor (FMo1) drops to 100min⁻¹ or lower for 30 minutes continuously, the compressor and the outdoor fan motor stop. After 3-minutes delay, it starts again automatically, but if this anomaly occurs 5 times within 60 minutes after the initial detection.

4. Presumable cause

- · Defective outdoor control **PCB**
- · Foreign material at rotational area of fan propeller
- Defective fan motor
- · Dust on outdoor control PCB
- Blow fuse
- · External noise, surge



Note: When E48 error occurs, in almost cases F2 fuse (4A) on the outdoor control PCB is blown. There are a lot of cases that fuse is blown and E48 occurs due to defective fan motor. And even though only the outdoor control PCB (or fuse) is replaced,, another trouble (*1) could occur. Therefore when fuse is blown, check whether the fan motor is OK or not.

After confirming the fan motor normal, check by power ON. (Don't power ON without confirming the fan motor normal.)
*1 The error which does not seem to relate E48 may occur like as "WAIT", Stay OFF of LED on outdoor control PCB, inverter communication error (E45) and etc.

					9
		Indoor display	RUN light	TIMER light	
	Remote control: E49	indoor display			Content
		Outdoor	Green LED	Red LED	Low pressure error or
		control PCB	Keeps flashing	1-time flash	<u>*</u>
		Outdoor	Yellow	LED	low pressure sensor anomaly $(1/2)$
		inverter PCB	Keeps f	lashing	

All models

2. Error detection method

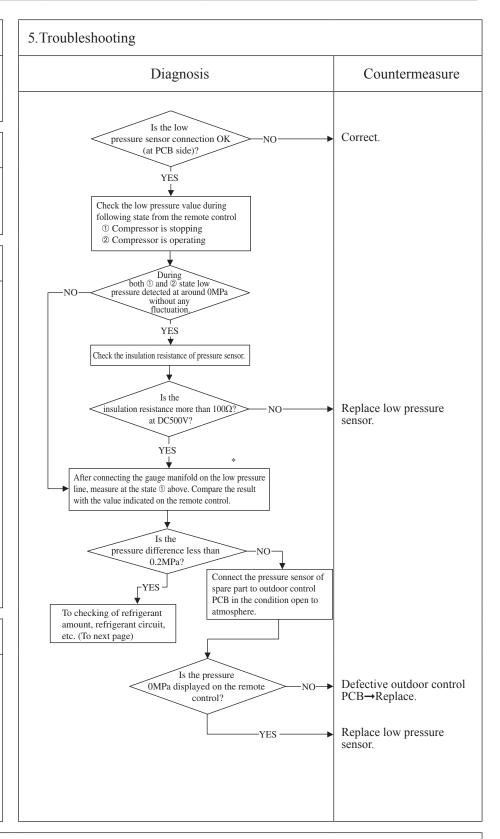
Detected by low pressure drop and suction superheat

3. Condition of Error displayed

- ① When the low pressure sensor detects 0.079MPa or lower for 15 seconds continuously, compressor stops and it restarts automatically after 3-minutes delay. And if this anomaly occurs 3 times within 60 minutes,
- © 10 minutes after the compressor starts, if the low pressure sensor detects 0.15MPa or lower for 60 minutes continuously and compressor suction superheat is detected 30degC or higher for 60 minutes continuously. And if this anomaly occurs 3 times within 60 minutes,
- 3 If low pressure sensor detects 0.079MPa or lower for 5 minutes continuously (including the compressor stop status),

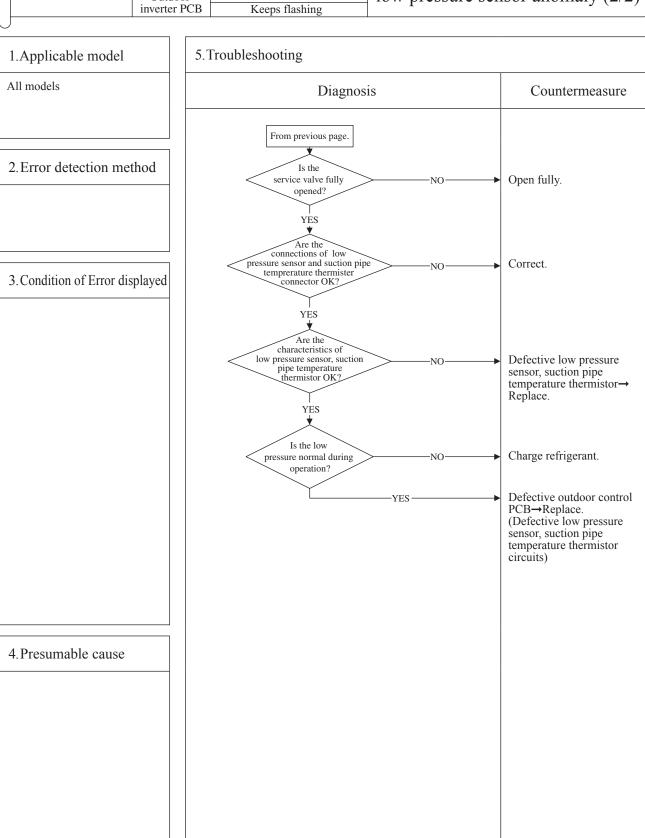
4. Presumable cause

- Defective outdoor control PCB
- Defective low pressure sensor connector
- Defective low pressure sensor
- Defective suction pipe temperature thermistor connector
- Defective suction pipe temperature thermistor



Note: * Connect the gauge manifold to the service valve check joint during cooling, or connect it to the check joint at internal piping of outdoor unit during heating.

_					<u> </u>
	E	Indoor display	RUN light	TIMER light	Content
	Error code	ilidool display	_	_	Content
	Remote control: E49	Outdoor	Green LED	Red LED	Low pressure error or
		control PCB	Keeps flashing	1-time flash	<u> </u>
		Outdoor	Yellow	LED	low pressure sensor anomaly $(2/2)$
		inverter PCB	Keeps fl	lashing	
				lashing	low pressure sensor anomary (2/2



					<u> </u>
(Indoor display	RUN light	TIMER light	Combont
	Error code	muoor uispiay	ON	4-time flash	Content
	Remote control: E51	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	1-time flash	Inverter and fan motor anomaly
		Outdoor	Yellow	LED	
		inverter PCB	6-time flash		
1					

All models

2. Error detection method

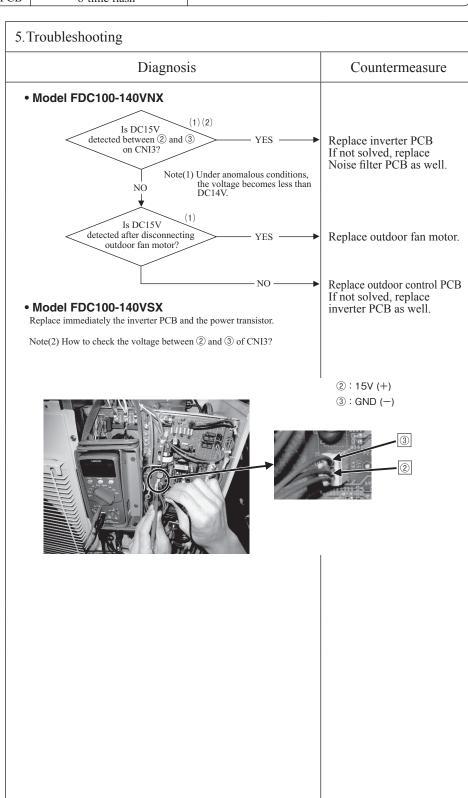
When power transistor anomaly is detected for 15 minutes continuously

3. Condition of Error displayed

Same as above

4. Presumable cause

- Defective outdoor fan motor
 Defective inverter PCB
- Defective outdoor control PCB



0		Г. 1	Indoor display	RUN light	TIMER light
	Error code	ilidool display	Keeps flashing	5-time flash	
		Remote control: E53	Outdoor	Green LED	Red LED
			control PCB	Keeps flashing	1-time flash
			Outdoor	Yellow	LED
			inverter PCB	Keeps flashing	

Content

Suction pipe temperature thermistor anomaly

1.Applicable model

All models

2. Error detection method

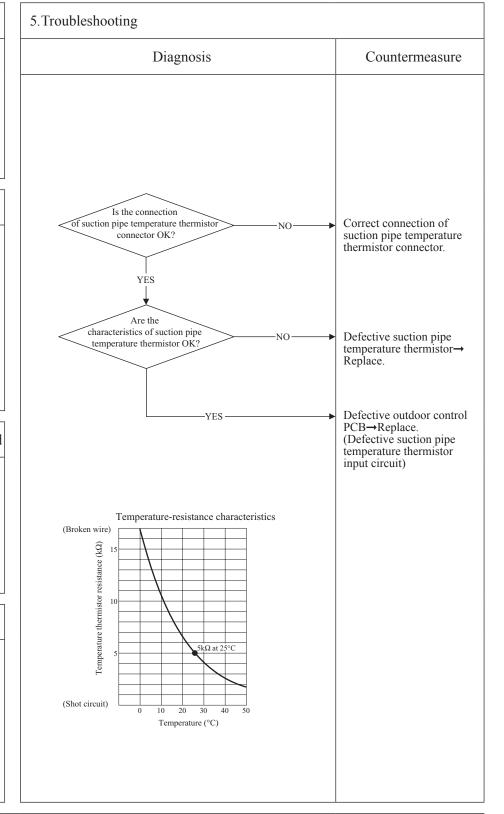
When the suction pipe temperature thermistor detects anomalously low temperature

3. Condition of Error displayed

If the temperature thermistor detects -50°C or lower for 5 seconds continuously within 10 minutes to 10 minutes 20 seconds after compressor ON, the compressor stops. When the compressor is restarted automatically after 3-minutes delay, if this anomaly ocuurs 3 times within 40 minute.

4. Presumable cause

- Defective suction pipe temperature thermistor connection
- Defective suction pipe temperature thermistor
- Defective outdoor control PCB



					<u> </u>
		Indoor display	RUN light	TIMER light	
	Error code	Indoor display	_	_	Content
	Remote control: E54	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	1-time flash	Low pressure sensor anomaly
		Outdoor	Yellow	LED	Low pressure sensor anomary
		inverter PCB	Keeps fl	lashing	
- 1					

All models

2. Error detection method

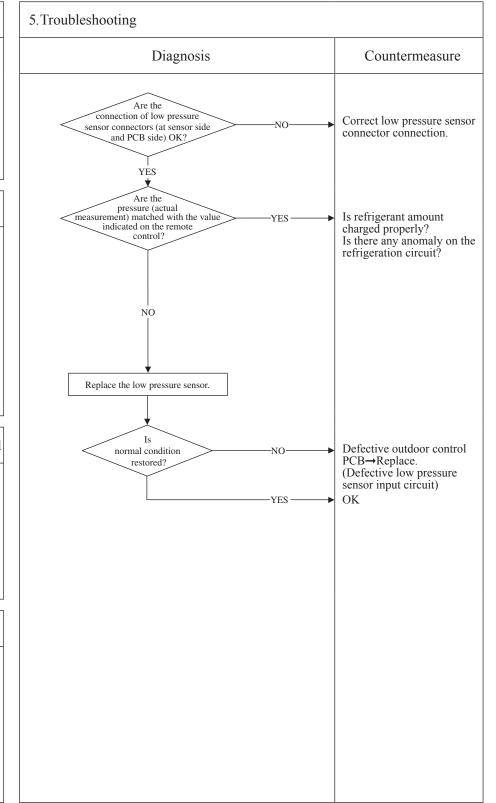
When anomalous voltage (pressure) is detected

3. Condition of Error displayed

If the pressure sensor detects 0V or lower and 4.0V or higher for 5 seconds continuously within 2 minutes to 2 minutes 20 seconds after compressor ON, the compressor stops. When the compressor is restarted automatically after 3-minuts delay, if this anomaly occurs 3 times within 40 minutes

4. Presumable cause

- Defective low pressure sensor connection
- Defective low pressure sensor
- Defective outdoor control PCB
- Improper amount of refrigerant
- Anomalous refrigeration circuit



1		Indoor display	RUN light	TIMER light	ſ
	Error code	ilidool display	7-time flash	ON	l
	Remote control: E57	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	1-time flash	
		Outdoor	Yellow LED		
		inverter PCB	Keeps flashing		

Content

Insufficient refrigerant amount or detection of service valve closure

1. Applicable model

All models

2. Error detection method

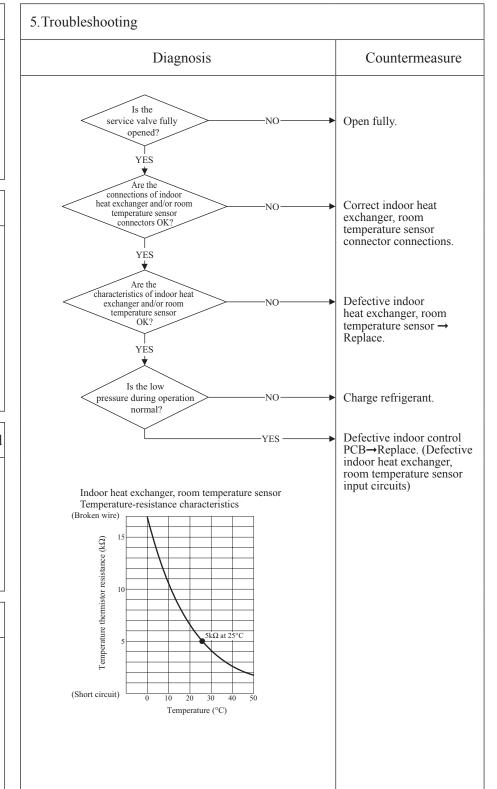
- Judge insufficient refrigerant amount by detecting the temperature differnce between indoor heat exchanger (Th2) and indoor room (Th1).
- It detects at initial startup in cooling or dehumidifying mode after power ON.

3. Condition of Error displayed

Anomalous stop at initial detection

4. Presumable cause

- Defective indoor heat exchanger temperature sensor
- Defective indoor room temperature sensor
- Defective indoor control PCB
- Insufficient refregerant amount



Note: Insufficient refrigerant amount preventive control makes compressor stopped, if it judges insufficient refrigerant amount by detecting the temperature difference between indoor heat exchanger (Th2) and room temperature (Th1) for 1 minute after compressor ON in cooling or dehumidifying mode and for 9 minutes after compressor ON in heating mode. [in cooling mode: (Th1)-(Th2)>4degC, in heating mode: (Th2)-(Th1)<4degC]

					<u> </u>
		Indoor display	RUN light	TIMER light	Ctt
	Error code	ilidool display	_	_	Content
	Remote control: E59	Outdoor	Green LED	Red LED	
		control PCB	Keeps flashing	5-time flash	Compressor startup failure (1/2)
		Outdoor	Yellow	LED	Compressor startup ramare (1/2)
		inverter PCB	Stays	OFF	
1					

All models

2. Error detection method

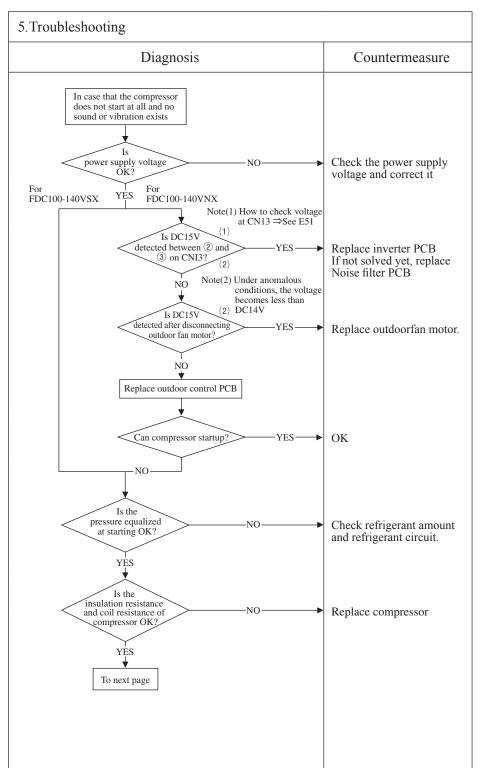
When it fails to change over to the operation for rotor position detection of compressor motor (If the compressor speed cannot increase 11Hz or higher)

3. Condition of Error displayed

If the compressor fails to startup for 20 times (10 patterns x2 times) continuously.

4. Presumable cause

- Faulty outdoor fan motor
- Faulty outdoor control PCB
- Faulty inverter PCB
- · Anomalous power supply voltage
- Insufficient or Excessive refrigerant amount
- Faulty component for refrigerant circuit
- Compressor anomaly (Motor or bearing)



Note: Insulation resistance

- institution resistance. The unit is left for long period without power supply or soon after installation, insulation resistance may decrease to several $M\Omega$ or lower due to the liquid refrigerant migrated in the refrigerant oil in compressor. If the electric leakage breaker is activated due to low insulation resistance, check followings.

 ① Check whether the insulation resistance can recover or not, after 6 hours has passed since power ON.
- (By energize the crankcase heater, liquid refrigerant migrated in the refrigerant oil in compressor can be evaporated)

 © Check whether the electric leakage breaker conforms to high-harmonic specifications
 (As INVERTR PAC units has inverter, in order to prevent from improper operation, be sure to use the breaker of high-harmonic type)

					G
Error code	Indoor display	RUN light	TIMER light	Content	
Remote control: E59	Outdoor	Green LED	Red LED 5-time flash		
	control PCB	Keeps flashing	ertup failure (2/2)		
	Outdoor inverter PCB	Yellow Stays	OFF	1	1 /
1.Applicable model	5.	Troubleshooti	ng		
All models			Diagnos	is	Countermeasure
2. Error detection me	thod	ро	n previous page YES Is the wer transistor nodule OK?	(inverter PCB anomaly) ➤ NO	Replace inverter PCB
		inverter PC inverter che again.	YES r	ne	Replace inverter PCB
3. Condition of Error dis	splayed		estart several times Does it start?	> NO	Replace compressor
4. Presumable cause					

1.13 TECHNICAL INFORMATION

(1) Ceiling cassette-4way type (FDT) Model FDT40ZMXVF

formation to identify the model(s) to vidoor unit model name	FDT40VF			information relates to. Indicated value	s should relat	e to one	
utdoor unit model name	SRC40ZN			heating season at a time. Include at le			'Averag
unction(indicate if present)				Average(mandatory)	Yes		
poling	Yes			Warmer(if designated)	No		
eating	Yes			Colder(if designated)	No		
em	symbol	value	unit	Item	symbol	value	class
esign load	Symbol	value	unit	Seasonal efficiency and energy efficiency		value	Ciass
poling	Pdesignc	4.0	kW	cooling	SEER	7.57	A++
eating / Average	Pdesignh		kW	heating / Average	SCOP/A	4.16	A+
eating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W	-	-
eating / Colder	Pdesignh	-	kW	heating / Colder	SCOP/C	-	unit
eclared capacity at outdoor temperate	ure Tdesignh	1		Back up heating capacity at outdoor t	emperature To	designh	unit
eating / Average (-10°C)	Pdh	3.58	kW	heating / Average (-10°C)	elbu	1.22	kW
eating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
eating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
eclared capacity for cooling, at indoor	temnerature	≥ 27(19°C	and:	Declared energy efficiency ratio, at in	door temperat	ure 27/10	NC and
utdoor temperature Tj	tomporature	0 21 (10) 0	Juna	outdoor temperature Tj	door temperar	u10 27 (10),o ana
=35°C	Pdc	4.00	kW	Tj=35°C	EERd	4.30]-
=30°C	Pdc	2.95	kW	Tj=30°C	EERd	6.42	
=25°C	Pdc	1.90	kW	Tj=25°C	EERd	10.40	վ-
=20°C	Pdc	1.45	kW	Tj=20°C	EERd	16.11	<u> -</u>
eclared capacity for heating / Average	e season, at	indoor		Declared coefficient of performance /	Average seas	on, at inc	loor
mperature 20°C and outdoor tempera			_	temperature 20°C and outdoor tempe			_
i=-7°C	Pdh	4.25	kW	Tj=-7°C	COPd	2.66	_ -
=2°C	Pdh	2.60	kW	Tj=2°C	COPd	4.26	վ-
=7°C	Pdh	1.70	kW	Tj=7°C	COPd	5.35	վ-
=12°C i=bivalent temperature	Pdh Pdh	0.74 4.25	kW kW	Tj=12°C	COPd COPd	4.93 2.66	+[
=blvalent temperature i=operating limit	Pan Pdh	2.45	⊣kW	Tj=bivalent temperature Tj=operating limit	COPa	1.99	
operating innit	i dii	2.40	iki i	ij operating innit	001 0	1.00	
eclared capacity for heating / Warme		indoor		Declared coefficient of performance /		on, at ind	oor
mperature 20°C and outdoor tempera			٦	temperature 20°C and outdoor tempe			_
i=2°C	Pdh	-	kW	Tj=2°C	COPd	-	վ-
=7°C =12°C	Pdh Pdh	-	kW kW	Tj=7°C Tj=12°C	COPd COPd	-	
= 12 C i=bivalent temperature	Pdh	<u> </u>	kW	Tj=bivalent temperature	COPd		+[
=operating limit	Pdh		⊢kW	Tj=operating limit	COPd	-	վ_
		-		3 4 4 4 4 5			
eclared capacity for heating / Colder		idoor		Declared coefficient of performance /		n, at indo	or
emperature 20°C and outdoor tempera	iture Ij Pdh		∖kW	temperature 20°C and outdoor tempe	rature Ij COPd		7
i=-7°C i=2°C	Pdh	-	⊣kW	Tj=-7°C Tj=2°C	COPd	-	+
=7°C	Pdh		⊢kW	Tj=7°C	COPd		_
i=12°C	Pdh	-	kW	Tj=12°C	COPd	-	-
=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	− -
=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-]-
=-15°C	Pdh	-	kW	Tj=-15°C	COPd	-	-
ivalent temperature				Operating limit temperature			
ivalent temperature eating / Average	Tbiv	-7	¬°с	heating Average	Tol	-15	J°c
eating / Average eating / Warmer	Tbiv	-	⊣°c	heating / Warmer	Tol	-13	-00
eating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	∞
			•	1 [•
ycling interval capacity	Doves			Cycling interval efficiency	EEDave		7
r cooling or heating	Pcych	-	kW kW	for cooling for heating	EERcyc COPcyc		+[
noading	Pcych		LVAA	lioi neating	COFCyC		-
egradation coefficient			_	Degradation coefficient			_
poling	Cdc	0.25	-	heating	Cdh	0.25	-
loctric nower input in navver	horthar!- '	hivo mar	,,	Appual alactricity concurred:			
lectric power input in power modes ot ff mode	her than 'act Poff	ive mode	· W	Annual electricity consumption cooling	Qce	185	kWh/a
andby mode	Psb	12	⊣w	heating / Average	Qhe	1617	kWh/a
ermostat-off mode	Pto	14	w	heating / Warmer	Qhe	-	kWh/a
rankcase heater mode	Pck	0	W	heating / colder	Qhe	-	kWh/a
			·	1 [20]	·		
apacity control(indicate one of three of	ptions)			Other items	Luca	EF	J4D(A)
				Sound power level(indoor) Sound power level(outdoor)	Lwa Lwa	55 63	dB(A)
ked	No			Global warming potential	GWP	1975	kgCO2
aged	No			Rated air flow(indoor)	-	1200	m3/h
ariable	Yes			Rated air flow(outdoor)	-	2160	m3/h
				,			
	shi Heavy Ind	dustries A	Air-Condition	urfacturer or of its authorised representa ning Europe, Ltd. xbridge, Middlesex, UB11 1AX,	tive.		

Model FDT50ZMXVF

Information to identify the model(s) to	which the inf	ormation r	alates to:	If function includes heating: Indicate	the heating se	ason the	
Indoor unit model name	FDT50VF		ciales lo.	information relates to. Indicated valu			
Outdoor unit model name	SRC50ZI	MX-S		heating season at a time. Include at	least the heatir	ng seasor	'Average'.
Function(indicate if present)				Average(mandatory)	Yes		
cooling	Yes			Warmer(if designated)	No		
heating	Yes			Colder(if designated)	No		
Item	symbol	value	unit	Item	symbol	value	class
Design load	0,111201	74,40	u	Seasonal efficiency and energy effic		74.40	0.0.00
cooling	Pdesigno	5.0	kW	cooling	SEER	6.91	A++
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	4.09	A+
heating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh	-	kW	heating / Colder	SCOP/C	-	-
Declared capacity at outdoor tempera	turo Tdociani	2		Back up heating capacity at outdoor	tomporaturo T	docianh	unit
heating / Average (-10°C)	Pdh	4.10	kW	heating / Average (-10°C)	elbu	1.00	kW
heating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
		•				•	•
Declared capacity for cooling, at indoo	or temperatur	e 27(19)°C	and	Declared energy efficiency ratio, at it	ndoor temperat	ure 27(19)C and
outdoor temperature Tj			7	outdoor temperature Tj			7
Tj=35°C	Pdc Pdc	5.00	kW	│ Tj=35°C │ Tj=30°C	EERd	3.88 5.90	- ·
Tj=30°C Tj=25°C	Pac	3.69 2.37	kW kW		EERd EERd	8.62	
Tj=20°C	Pdc	1.66	kW	Tj=20°C	EERd	13.72	-[
1]-20 0	1 uc	1.00	KVV	1]-200	LLING	10.72	
Declared capacity for heating / Average	ge season, at	indoor		Declared coefficient of performance	/ Average seas	on, at ind	loor
temperature 20°C and outdoor temper	ature Tj		-	temperature 20°C and outdoor temperature	erature Tj		_
Tj=-7°C	Pdh	4.52	kW	Tj=-7°C	COPd	3.42	-
Tj=2°C	Pdh	2.90	kW	Tj=2°C	COPd	3.43	
Tj=7°C	Pdh	1.87	kW	Tj=7°C	COPd	5.72	 -
Tj=12°C	Pdh	1.10	kW	Tj=12°C	COPd	7.48	-
Tj=bivalent temperature	Pdh Pdh	4.52 3.40	kW kW	Tj=bivalent temperature	COPd COPd	3.42 2.34	
Tj=operating limit	Pan	3.40	KVV	Tj=operating limit	COPa	2.34	-
Declared capacity for heating / Warme	er season at	indoor		Declared coefficient of performance	/ Warmer seas	on at ind	oor
temperature 20°C and outdoor temper				temperature 20°C and outdoor temperature		,	
Tj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	_
Tj=7°C	Pdh	-	kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd	-	_ -
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	_ -
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Declared capacity for heating / Colder	season at ir	ndoor		Declared coefficient of performance	/ Colder seaso	n at indo	or
temperature 20°C and outdoor temper		14001		temperature 20°C and outdoor temperature		ii, at iiiao	OI .
Tj=-7°C	Pdh	-	kW	Tj=-7°C	COPd	-	7-
Tj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	7-
Tj=7°C	Pdh	-	kW	Tj=7°C	COPd	-	-
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd	-	-
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	
Tj=-15°C	Pdh	-	kW	Tj=-15°C	COPd	-	-
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-7	ି℃	heating / Average	Tol	-15	ે°c
heating / Warmer	Tbiv	-	°C	heating / Warmer	Tol	-	°c
heating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	°C
Cycling interval capacity	Б		7,,,,,	Cycling interval efficiency			7
for cooling	Pcycc		kW	for cooling	EERcyc	-	վ⁻
for heating	Pcych	-	kW	for heating	COPcyc	-	1-
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25	7-	heating	Cdh	0.25	7-
Electric power input in power modes of				Annual electricity consumption			7
off mode	Poff	12	W	cooling	Qce	254	kWh/a
standby mode	Psb	12	W	heating / Average	Qhe	1748	kWh/a
thermostat-off mode	Pto	16	W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	0	W	heating / colder	Qhe	-	kWh/a
Capacity control(indicate one of three	options)			Other items			
				Sound power level(indoor)	Lwa	55	dB(A)
				Sound power level(outdoor)	Lwa	63	dB(A)
fixed	No			Global warming potential	GWP	1975	kgČÓ2eq
staged	No			Rated air flow(indoor)	-	1200	m3/h
variable	Yes			Rated air flow(outdoor)	-	2400	m3/h
Contact details for a black	M	4 - 2 1 -	-641	of the second of	_4:		
Contact details for obtaining more information Mitsub				ufacturer or of its authorised represent ning Europe, Ltd.	auve.		
				ning Europe, Lta. kbridge, Middlesex, UB11 1AX,			
	Kingdom	,	. ,				
				-	3 PJF0	007) 4 F A
				[コーピリト()	ハリムご) (I\C I c

Model FDT60ZMXVF

Information to identify the model(s) to v		rmation relates to:	If function includes heating: Indica			
Indoor unit model name Outdoor unit model name	FDT60VF SRC60ZM	Y-8	information relates to. Indicated values			. 'Λνerac
Databol unit model hame	JORUOUZIVI	∧- 3	I meaning season at a time. Include	ar ieast trie neati	ig season	. Averag
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
eating	Yes		Colder(if designated)	No		
tem	symbol	value unit	Item	symbol symbol	value	class
Design load cooling	Pdesignc	5.6 kW	Seasonal efficiency and energy ef	SEER	7.69	A+-
neating / Average	Pdesignh	5.9 kW	heating / Average	SCOP/A	3.86	A
neating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W		-
neating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	-	-
<u> </u>	Ŭ,	·				unit
Declared capacity at outdoor temperate	~ -		Back up heating capacity at outdo			_
leating / Average (-10°C)	Pdh	4.97 kW	heating / Average (-10°C)	elbu	0.93	kW
leating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	-	kW
eating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at indoor	r temperature	27(19°C and	Declared energy efficiency ratio, a	t indoor tempera	ture 27(19	and
utdoor temperature Tj		(.0) 5 and	outdoor temperature Tj	acc. tompora	21 (10	, - and
j=35°C	Pdc	5.60 kW	Tj=35°C	EERd	3.68	
-j=30°C	Pdc	4.15 kW	Tj=30°C	EERd	6.29	-
j=25°C	Pdc	2.65 kW	Tj=25°C	EERd	10.19	_]-
j=20°C	Pdc	1.50 kW	Tj=20°C	EERd	16.67	-
Declared capacity for heating / Average		naoor	Declared coefficient of performance temperature 20°C and outdoor tem		son, at ind	100r
emperature 20°C and outdoor tempera 'j=-7°C	Pdh	5.22 kW	Itemperature 20 C and outdoor ten	nperature 1) COPd	3.07	٦.
j=-7 C Tj=2°C	Pdh	3.15 kW		COPd	3.06	
j=2 ℃ Tj=7°C	Pdh	2.04 kW		COPd	6.30	-
j=7 C Tj=12°C	Pdh	1.01 kW		COPd	6.97	⊣ _
ij=12 0 ij=bivalent temperature	Pdh	5.22 kW	Ti=bivalent temperature	COPd	3.07	⊣ _
j=breaking limit	Pdh	4.56 kW	Tj=operating limit	COPd	2.65	⊣ ₋
,		112.2	[-, -p			
Declared capacity for heating / Warme	r season, at ir	ndoor	Declared coefficient of performance	e / Warmer seas	on, at ind	oor
emperature 20°C and outdoor tempera			temperature 20°C and outdoor ten			_
Γj=2°C	Pdh	- kW	Tj=2°C	COPd	-	⊣ -
j=7°C	Pdh	- kW	Tj=7°C	COPd	-	
Γj=12℃	Pdh	- kW	Tj=12°C	COPd	-	_ -
j=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	
j=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	-
Declared capacity for heating / Colder	season at inc	loor	Declared coefficient of performance	o / Colder seaso	n at indo	or
emperature 20°C and outdoor tempera		1001	temperature 20°C and outdoor tem		ii, at iiiuo	OI .
Γj=-7°C	Pdh [- kW	Tj=-7°C	COPd	-	٦-
Γj=2°C	Pdh	- kW	Tj=2°C	COPd	-	٦_
, Γj=7°C	Pdh	- kW	Ti=7℃	COPd	-	−
, Γj=12℃	Pdh	- kW	Tj=12°C	COPd	-	−
Γj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	−
Γj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	 -
Γj=-15°C	Pdh	- kW	Tj=-15°C	COPd	-	− -
Bivalent temperature	Th	7 00	Operating limit temperature	T		7∘∽
neating / Average	Tbiv	°C	heating / Average	Tol	-15	_ ℃
neating / Warmer	Tbiv	- °C	heating / Warmer	Tol	-	°℃
eating / Colder	Tbiv	- °C	heating / Colder	Tol	-	°C
Cycling interval capacity			Cycling interval efficiency			
or cooling	Pcycc	- kW	for cooling	EERcyc	-	٦-
or heating	Pcych	- kW	for heating	COPcyc	-	٦-
	-,,	1		, 0,0	1	1
Degradation coefficient	_		Degradation coefficient			
ooling	Cdc	0.25 -	heating	Cdh	0.25	-
Testrio nouser input in a sure and the state	harther leve	io mada!	Appual alastriait			
Electric power input in power modes of off mode	her than 'acti Poff	ve mode' 12 W	Annual electricity consumption	000	255	□kWh/a
tandby mode	Poli	12 W	cooling heating / Average	Qce Qhe	2139	kWh/a
hermostat-off mode	Pto	29 W	heating / Warmer	Qhe	- 2139	kWh/a
rankcase heater mode	Pck	0 W	heating / colder	Qhe	-	kWh/a
Tallingue House House	ı on	V V		QIIC.		Ivanii/a
Capacity control(indicate one of three	options)		Other items			
. , , , , , , , , , , , , , , , , , , ,	,		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	64	dB(A)
ixed	No		Global warming potential	GWP	1975	kgČÓ
taged	No		Rated air flow(indoor)	-	1680	m3/h
ariable	Yes		Rated air flow(outdoor)	-	2490	m3/h
			, , , , , , , , , , , , , , , , , , ,			
Contact details for obtaining			ufacturer or of its authorised represe	ntative.		
		ustries Air-Condition				
		e, Stockley Park, U	xbridge, Middlesex, UB11 1AX,			
United	Kingdom					
			Т			
				B PJF	いいつてい	215/

Model FDT71VNXVF1

Model FDT71VNXVF1						
Information to identify the model(s) to which the info	rmation relates	: If function includes heating: Indica	ite the heating sea	ason the	
Indoor unit model name	FDT71VF1	1	information relates to. Indicated va	alues should relate	e to one	
Outdoor unit model name	FDC71VN	X	heating season at a time. Include	at least the heatin	ig season	'Average'
	<u> </u>		<u> </u>			
Function(indicate if present) cooling	Yes		Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes		Colder(if designated)	No		
nodung	100		Coldor(ii dosignatod)	110		
Item	symbol	value unit	Item	symbol	value	class
Design load			Seasonal efficiency and energy ef			
cooling	Pdesigno	7.1 kW	cooling	SEER	5.72	A+
neating / Average	Pdesignh	6.5 kW	heating / Average	SCOP/A	4.09	A+
neating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W		- 71
neating / Warmer	- ,		-	SCOP/C		+
leating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	-	unit -
Declared capacity at outdoor temp	perature Tdesignh		Back up heating capacity at outdo	or temperature To	designh	
neating / Average (-10°C)	Pdh	5.57 kW	heating / Average (-10°C)	elbu	0.93	kW
neating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	-	kW
neating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at in	ndoor temperature	27(19)°C and	Declared energy efficiency ratio, a	at indoor temperate	ure 27(19)C and
outdoor temperature Tj	5.	7.40	outdoor temperature Tj	:	• • • •	_
Γj=35°C	Pdc	7.10 kW	Tj=35°C	EERd	3.48	⊣ -
Γj=30°C	Pdc	5.55 kW	Tj=30°C	EERd	5.83	
Γj=25°C	Pdc	3.38 kW	Tj=25°C	EERd	8.70	-
Γj=20°C	Pdc	3.13 kW	Tj=20°C	EERd	12.42	<u> </u>
Declared capacity for heating / Av		ndoor	Declared coefficient of performance		on, at ind	oor
emperature 20°C and outdoor ten			temperature 20°C and outdoor ten	,		7
_j=-7°C	Pdh	5.75 kW	Tj=-7°C	COPd	2.71	վ-
-j=2°C	Pdh	3.52 kW	Tj=2°C	COPd	3.91	_ -
-j=7°C	Pdh	2.30 kW	Tj=7°C	COPd	5.51	-
; i=12°C	Pdh	2.48 kW	Ti=12°C	COPd	6.95	7-
j=bivalent temperature	Pdh	5.75 kW	Tj=bivalent temperature	COPd	2.71	− _
, ,		4.95 kW	111		2.19	Ⅎ⁻
j=operating limit	Pdh	4.95 KVV	Tj=operating limit	COPd	2.19	
Declared capacity for heating / Wa	armer season, at ir	ndoor	Declared coefficient of performance	ce / Warmer seaso	on, at indo	oor
emperature 20°C and outdoor ten			temperature 20°C and outdoor ten		,	
Γj=2°C	Pdh	- kW	Tj=2°C	COPd		٦_
i=7°C	Pdh	- kW	Tj=7°C	COPd		-
,					<u> </u>	\dashv
¯j=12°C	Pdh	- kW	Tj=12°C	COPd	-	
j=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	
j=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	-
		1	Dealers desertisient of conferences	/ C-ld		
Declared capacity for heating / Co emperature 20°C and outdoor ten		1001	Declared coefficient of performand temperature 20°C and outdoor ten		i, at indoc	Л
		1.00				_
Γj=-7°C	Pdh	- kW	Tj=-7°C	COPd	<u> </u>	
Γj=2°C	Pdh	- kW	Tj=2°C	COPd		
Гj=7°С	Pdh	- kW	Tj=7°C	COPd	-	
Гј=12°С	Pdh	- kW	Tj=12°C	COPd	-	-
j j=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	7-
[j=operating limit	Pdh	- kW	Tj=operating limit	COPd		٦_
j=operating limit	Pdh	- kW	Tj=-15°C	COPd	<u> </u>	-[
<u>j13 C</u>	1 dii	-	1]100	COLU		
Bivalent temperature			Operating limit temperature			
neating / Average	Tbiv	-7 °C	heating / Average	Tol	-20	°C
neating / Warmer	Tbiv	- °C	heating / Warmer	Tol	-	⊸°c
eating / Valmer	Tbiv	- °C	heating / Colder	Tol	-	_ ∵
					-	
Cycling interval capacity			Cycling interval efficiency			¬ _
or cooling	Pcycc	- kW	for cooling	EERcyc		⊣ -
or heating	Pcych	- kW	for heating	COPcyc	-	_
Degradation coefficient			Degradation coefficient			
cooling	Cdc	0.25 -	heating	Cdh	0.25	٦-
lectric power input in power mod			Annual electricity consumption			
ff mode	Poff	15 W	cooling	Qce	435	kWh/a
tandby mode	Psb	15 W	heating / Average	Qhe	2226	kWh/a
nermostat-off mode	Pto	16 W	heating / Warmer	Qhe	-	kWh/a
rankcase heater mode	Pck	25 W	heating / colder	Qhe	-	kWh/a
		**		~0	1	
Capacity control(indicate one of the	ree options)		Other items			
			Sound power level(indoor)	Lwa	64	dB(A)
			Sound power level(outdoor)	Lwa	66	dB(A)
ixed	No		Global warming potential	GWP	1975	kgCO2
taged	No		Rated air flow(indoor)	-	1680	m3/h
•	Yes			-	3600	m3/h
variable	res		Rated air flow(outdoor)	-	3000	_III3/N
Contact details for obtaining	Name and	l address of th	nanufacturer or of its authorised represe	entative.		
			itioning Europe, Ltd.			
1	•		, Uxbridge, Middlesex, UB11 1AX,			
	nited Kingdom	.,	,			
5.	3					
				Δ PIEC		04-/

Model FDT100VNXVF1

Information to identify the model(s)	to which the info	ormation re	lates to:	If function includes heating: Indicate	the heating sea	son the	
Indoor unit model name	FDT100V		iates to.	information relates to. Indicated value			
Outdoor unit model name	FDC100V			heating season at a time. Include at			'Average'.
				3		9	
Function(indicate if present)				Average(mandatory)	Yes		
cooling	Yes			Warmer(if designated)	No		
neating	Yes			Colder(if designated)	No		
	'			,			
tem	symbol	value	unit	Item	symbol	value	class
Design load				Seasonal efficiency and energy effic	iency class		
cooling	Pdesignc	10.0	kW	cooling	SEER	5.84	A+
neating / Average	Pdesignh	13.5	kW	heating / Average	SCOP/A	3.96	А
neating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W	-	-
neating / Colder	Pdesignh		kW	heating / Colder	SCOP/C	-	-
	J	-	1				unit
Declared capacity at outdoor temper	erature Tdesignh	1		Back up heating capacity at outdoor	temperature To	designh	
neating / Average (-10°C)	Pdh	11.42	kW	heating / Average (-10°C)	elbu	2.08	kW
neating / Warmer (2°C)	Pdh		kW	heating / Warmer (2°C)	elbu	-	kW
neating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
, ,							
Declared capacity for cooling, at in-	door temperature	e 27(19°)C a	and	Declared energy efficiency ratio, at i	ndoor temperat	ure 27(19)C and
outdoor temperature Tj	1	,		outdoor temperature Tj		,	,
i=35°C	Pdc	10.00	kW	Ti=35°C	EERd	4.00	7-
i=30°C	Pdc	7.40	kW	Ti=30°C	EERd	5.64	⊣ _
j=35°C	Pdc	5.13	kW	Tj=25°C	EERd	8.49	⊣ _
j=20°C	Pdc	5.38	kW	Tj=20°C	EERd	10.97	⊣ _
, 200	1 40	0.00	ICAA	1 [1] 200	LLINU	10.31	1
Declared capacity for heating / Ave	rane season of	indoor		Declared coefficient of performance	/ Average seco	on at ind	oor
emperature 20°C and outdoor tem		iiiuuul		temperature 20°C and outdoor temp		ori, at iiidi	UUI
emperature 20°C and outdoor tem ij=-7°C	perature 1j Pdh	11.94	kW	temperature 20°C and outdoor temp	erature 1j COPd	2.68	٦_
			-1	117			Ⅎ¯
	Pdh	7.01	kW	Tj=2°C	COPd	3.75	⊣ ⁻
¯j=7°C	Pdh	4.60	kW	Tj=7°C	COPd	5.35	վ-
j=12°C	Pdh	4.70	kW	Tj=12°C	COPd	6.44	⊣ -
j=bivalent temperature	Pdh	11.94	kW	Tj=bivalent temperature	COPd	2.68	⊣ -
j=operating limit	Pdh	9.70	kW	Tj=operating limit	COPd	2.17	-
Declared capacity for heating / Wa		indoor		Declared coefficient of performance		on, at indo	oor
emperature 20°C and outdoor tem	perature Tj		_	temperature 20°C and outdoor temperature	erature Tj		_
j=2°C	Pdh	-	kW	Tj=2°C	COPd	-	
'j=7°C	Pdh	-	kW	Tj=7°C	COPd	-	٦-
j=12°C	Pdh		kW	Ti=12°C	COPd	-	٦-
j=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	٦_
j=operating limit	Pdh	— —	kW	Tj=operating limit	COPd		− _
,							
Declared capacity for heating / Col-	der season, at in	door		Declared coefficient of performance	/ Colder seasor	n. at indoo	or
emperature 20°C and outdoor tem				temperature 20°C and outdoor temperature		,	
Гj=-7°С	Pdh	-	kW	Ti=-7°C	COPd	-	_
j=2°C	Pdh	-	kW	Ti=2°C	COPd		٦_
j=2°C	Pdh		kW	Tj=7°C	COPd		⊣ _
;=12°C	Pdh	<u> </u>	kW		COPd	<u> </u>	Η_
•	Pdh		kW	11,	COPd		⊣ [
j=bivalent temperature		-	-	Tj=bivalent temperature			
j=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	⊣ ⁻
ÿ=-15℃	Pdh	-	kW] [Tj=-15°C	COPd	-	-
P. de die ee				l Construction of the second			
Bivalent temperature	-		700	Operating limit temperature	- .		700
neating / Average	Tbiv	-7	°C	heating / Average	Tol	-20	_ °C
neating / Warmer	Tbiv	-	°C	heating / Warmer	Tol	-	°C
eating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	°C
Cycling interval capacity			7	Cycling interval efficiency			_
or cooling	Pcycc	-	kW	for cooling	EERcyc	-	
or heating	Pcych	-	kW	for heating	COPcyc	-	-
Degradation coefficient				Degradation coefficient			_
ooling	Cdc	0.25	-	heating	Cdh	0.25	-
lectric power input in power mode	s other than 'act	i <u>ve mode</u> '		Annual electricity consumption			_
off mode	Poff	20	W	cooling	Qce	600	kWh/a
standby mode	Psb	20	W	heating / Average	Qhe	4778	kWh/a
hermostat-off mode	Pto	28	W	heating / Warmer	Qhe	-	kWh/a
rankcase heater mode	Pck	25	W	heating / colder	Qhe	-	kWh/a
			î.			-	
Capacity control(indicate one of thr	ee ontions)			Other items			
	- 5 001101			Sound power level(indoor)	Lwa	65	dB(A)
				Sound power level(indoor)	Lwa	70	dB(A)
yod	N.						
xed	No			Global warming potential	GWP	1975	kgCO2e
taged	No			Rated air flow(indoor)	-	2220	m3/h
ariable	Yes			Rated air flow(outdoor)	-	6000	m3/h
				<u> </u>		-	
Contact details for obtaining	Name an	d address	of the man	ufacturer or of its authorised represent	ative.		
	subishi Heavy In						
				bridge, Middlesex, UB11 1AX,			
	ted Kingdom						
	0						
							^
					A PJF0	1007) 4 F

Model FDT100VSXVF1

Model FDT100VSXVF1							
Information to identify the model(s) to			elates to:	If function includes heating: Indicate the	e heating sea	ason the	
Indoor unit model name	FDT100V			information relates to. Indicated values	should relate	e to one	
Outdoor unit model name	FDC100V	SX		heating season at a time. Include at lea	ast the heatin	ıg season '	Average ^t
Function(indicate if present)	V			Average(mandatory)	Yes		
cooling	Yes Yes			Warmer(if designated)	No		
heating	res			Colder(if designated)	No		
Item	symbol	value	unit	Item	symbol	value	class
Design load	Syllibol	value	unit	Seasonal efficiency and energy efficier		value	Class
cooling	Pdesigno	10.0	kW	cooling	SEER	5.79	A+
heating / Average	Pdesignh	13.5	kW	heating / Average	SCOP/A	3.95	A
heating / Warmer	Pdesignh	-	kW	heating / Warmer	SCOP/W	3.33	
neating / Warmer			kW	heating / Warrier	SCOP/W		-
leating / Colder	Pdesignh	-	KVV	rieating / Colder	3007/0	-	unit -
Declared capacity at outdoor tempera	ature Tdesignh			Back up heating capacity at outdoor te	mperature To	desianh	unit
heating / Average (-10°C)	Pdh	11.42	kW	heating / Average (-10°C)	elbu	2.08	kW
heating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
, ,				, ,			
Declared capacity for cooling, at indo	or temperature	27(19°)C	and	Declared energy efficiency ratio, at inde	oor temperat	ure 27(19)	C and
outdoor temperature Tj				outdoor temperature Tj			_
Гј=35℃	Pdc	10.00	kW	Tj=35°C	EERd	4.00	_
Гj=30°С	Pdc	7.40	kW	Tj=30°C	EERd	5.64	-
Tj=25°C	Pdc	5.13	kW	Tj=25°C	EERd	8.42]-
Γj=20°C	Pdc	5.38	kW	Tj=20°C	EERd	10.97	1-
Declared capacity for heating / Avera		ndoor	-	Declared coefficient of performance / A		on, at indo	or
temperature 20°C and outdoor tempe			_	temperature 20°C and outdoor tempera			1
Гј=-7°С	Pdh	11.94	kW	Tj=-7°C	COPd	2.68]-
Γj=2°C	Pdh	7.01	kW	Tj=2°C	COPd	3.75	-
Γj=7°C	Pdh	4.60	kW	Ti=7°C	COPd	5.35	1_
Γj=12°C	Pdh	4.70	kW	Ti=12°C	COPd	6.45	1_
rj=12 C Fj=bivalent temperature	Pdh	11.94	kW	111	COPd	2.68	1
,			_	Tj=bivalent temperature			1
rj=operating limit	Pdh	9.70	kW	Tj=operating limit	COPd	2.17	-
Declared capacity for heating / Warm	erseason ati	ndoor		Declared coefficient of performance / V	Varmer seas	on at indo	or
emperature 20°C and outdoor tempe		ildooi		temperature 20°C and outdoor tempera		on, at mao	OI .
Fi=2°C	Pdh	-	kW	Tj=2°C	COPd	-	1_
	Pdh		kW	Ti=7°C	COPd	-	
Γj=7°C		-	_	111			-
Гj=12°С	Pdh	-	kW	Tj=12°C	COPd	-	-
Γj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	-
Γj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-]-
				1 [
Declared capacity for heating / Colde		door		Declared coefficient of performance / C		n, at indooi	•
temperature 20°C and outdoor tempe			7	temperature 20°C and outdoor tempera			1
Tj=-7°C	Pdh	-	kW	Tj=-7°C	COPd	-	-
Tj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	-
Tj=7°C	Pdh	-	kW	Tj=7℃	COPd	-	-
Γj=12°C	Pdh		kW	Tj=12°C	COPd	-]-
Γj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	1_
Γj=operating limit	Pdh	-	kW	Tj=operating limit	COPd		1_
Fi=-15°C	Pdh	<u> </u>	kW	Ti=-15°C	COPd		1
1) 100	1 411		IKVV		001 u		
Bivalent temperature			_	Operating limit temperature			
heating / Average	Tbiv	-7	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	-	°c	heating / Warmer	Tol	-	°C
neating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	°C
		•	•			•	•
Cycling interval capacity	5		7	Cycling interval efficiency			1
for cooling	Pcycc	-	kW	for cooling	EERcyc	-	-
or heating	Pcych	-	kW	for heating	COPcyc	-	-
Degradation coefficient				Degradation coefficient			
Degradation coefficient cooling	Cdc	0.25	7-	heating	Cdh	0.25]_
	340		-1			, ,,,,,,	-
Electric power input in power modes	other than 'acti	ve mode'		Annual electricity consumption			,
off mode	Poff	20	W	cooling	Qce	605	kWh/a
standby mode	Psb	20	w	heating / Average	Qhe	4782	kWh/a
hermostat-off mode	Pto	48	W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25	⊣w W	heating / colder	Qhe	-	kWh/a
Brannoade neater mode	i UN		144	moduling / colder	WIIC.		IVAA11/q
Capacity control(indicate one of three	e options)			Other items			
. ,	,			Sound power level(indoor)	Lwa	65	dB(A)
				Sound power level(outdoor)	Lwa	70	dB(A)
ïxed	No			Global warming potential	GWP	1975	kgCO2
					GWP		
staged	No			Rated air flow(indoor)	-	2220	m3/h
variable	Yes			Rated air flow(outdoor)	-	6000	m3/h
				600			
Contact details for obtaining				ufacturer or of its authorised representative	ve.		
	,			ning Europe, Ltd.			
		ue, Stockle	ey Park, Ux	dbridge, Middlesex, UB11 1AX,			
Unite	d Kingdom						
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Model FDT71VNXPVF

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son, at in			Tj=operating limit	COPd	2.56	−
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n at ind	loor		Declared coefficient of performance	e / Colder season	at indoo	r
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усп	-	KVV	lior neating	COPCyc	_	1-
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dc	0.25]_		Cdh	0.25	7-
	J.20	1		- Juli	J.20	1
nan 'activ	/e mode'		Annual electricity consumption			
off		w	11	Qce	438	kWh/a
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io		w		Qhe	-	kWh/a
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	add-r ·	of the second	ufacturer or of its suits a first or	ntativo		
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	e, Stockle	ey Park, Ux	koriagė, Miadiesex, UB11 1AX,			
dom						
d of dd dd dd of of dd dd dd dd dd dd dd dd dd dd dd dd dd	In an incomplete in a second i	In at indoor In at indoor In at indoor In In In In In In In In In In In In In	In	Tj=operating limit Declared coefficient of performance temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor 20°C 20°C 20°C 20°C 20°C 20°C 20°C 20°C	Tj=operating limit COPd Declared coefficient of performance / Colder seasor temperature 20°C and outdoor temperature Tj Tj=-7°C COPd Tj=-2°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-12°C COPd Tj=-12°C COPd Tj=-12°C COPd Tj=-15°C CO	Declared coefficient of performance / Colder season, at indoor temperature 20°C and outdoor temperature Tj Tj=-7°C Tj=-7°C Tj=-7°C Tj=-7°C Tj=-7°C ToOPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-7°C COPd Tj=-15°C COPd Tj=-1

Model FDT100VNXPVF

Information to identify the model(s) to which the information relates to	: If function includes heating: Indicate	e the heating season the
Indoor unit model name	FDT50VF x 2	information relates to. Indicated val	
Outdoor unit model name	FDC100VNX	→ 1	at least the heating season 'Average'.
Cutador unit modername	- BOTOUTIA		a load the floating boaden / worage.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy effi	iciency class
cooling	Pdesignc 10.0 kW	cooling	SEER 5.92 A+
heating / Average	Pdesignh 13.1 kW	heating / Average	SCOP/A 3.85 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
			unit
Declared capacity at outdoor temp		Back up heating capacity at outdoo	
heating / Average (-10°C)	Pdh 10.72 kW	heating / Average (-10°C)	elbu 2.38 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
	1 1 07(10)90		
Declared capacity for cooling, at in	idoor temperature 27(19) C and	Declared energy efficiency ratio, at	indoor temperature 27(19) C and
outdoor temperature Tj Ti=35°C	Pdc 10.00 kW	outdoor temperature Tj	EERd 3.91 -
1 2	Pdc 10.00 kW Pdc 7.37 kW	Tj=35 C Tj=30°C	EERd 3.91 - EERd 5.46 -
Tj=30°C Tj=25°C	Pdc 7.37 kW	Tj=30 C Tj=25°C	
Tj=20°C	Pdc 5.70 kW	Tj=20°C	EERd 9.08 - EERd 12.13 -
1j-20 C	Fuc 5.70 KW	1J-20 C	EERU 12.13 -
Declared capacity for heating / Av	erane season, at indoor	Declared coefficient of performance	e / Average season, at indoor
temperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Tj=-7°C	Pdh 11.50 kW	Tj=-7°C	COPd 2.50 -
Tj=2°C	Pdh 7.35 kW	Tj=2°C	COPd 3.68 -
Tj=7°C	Pdh 4.60 kW	Ti=7°C	COPd 5.23 -
Tj=12°C	Pdh 4.50 kW	Tj=12°C	COPd 6.52 -
Tj=bivalent temperature	Pdh 11.50 kW	Tj=bivalent temperature	COPd 2.50 -
Tj=operating limit	Pdh 8.10 kW	Tj=operating limit	COPd 2.22 -
nj operating iiini			00. 0 1.11
Declared capacity for heating / Wa	armer season, at indoor	Declared coefficient of performance	e / Warmer season, at indoor
temperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating / Co		Declared coefficient of performance	
temperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15℃	Pdh - kW	Tj=-15℃	COPd
Divolent tonon and an		On another English to an english	
Bivalent temperature heating / Average	Tbiv ⁻7 ℃	Operating limit temperature heating / Average	Tol -20 ℃
heating / Average heating / Warmer	Tbiv - °C	heating / Warmer	Tol - °C
heating / Warrier	Tbiv - °C	heating / Warrier	Tol - °C
rieating / Colder	TBIV - C	Treating / Colder	101 - 0
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
3	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Electric power input in power mod		Annual electricity consumption	
off mode	Poff 20 W	cooling	Qce 592 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 4768 kWh/a
thermostat-off mode	Pto 38 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
		1.5	
Capacity control(indicate one of th	ree options)	Other items	
		Sound power level(indoor)	Lwa 55 dB(A)
E	□ N-	Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq.
staged	No	Rated air flow(indoor)	- 1200 m3/h
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
Contact details for obtaining	Name and address of the	anufacturer or of its authorised recrease	antativo
	name and address of the ma subishi Heavy Industries Air-Conditi	anufacturer or of its authorised represe	anadve.
	oundwood Avenue, Stockley Park,		
	ted Kingdom		
	9		

Model FDT100VSXPVF

WOUGH FDT 100V3XFVF					
Information to identify the mode					
Indoor unit model name	FDT50VF		information relates to. Indicated v		
Outdoor unit model name	FDC100V	'SX	heating season at a time. Include	at least the heat	ing season 'Average
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
			[[
Item	symbol	value unit	Item	symbol	value class
Design load	0,	raido anno	Seasonal efficiency and energy ef		74.40
cooling	Pdesigno	10.0 kW	cooling	SEER	5.88 A+
heating / Average	Pdesignh		heating / Average	SCOP/A	3.84 A
heating / Warmer	Pdesignh		heating / Warmer	SCOP/W	
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	
					unit
Declared capacity at outdoor ter			Back up heating capacity at outdo		
heating / Average (-10°C)	Pdh	10.72 kW	heating / Average (-10°C)	elbu	2.38 kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	- kW
`					-
Declared capacity for cooling, a	indoor temperatu	re 27(19)°C and	Declared energy efficiency ratio, a	at indoor tempera	ature 27(19)°C and
outdoor temperature Tj			outdoor temperature Tj		
Ti=35°C	Pdc	10.00 kW	Ti=35°C	EERd	3.91 -
Tj=30°C	Pdc	7.37 kW	Tj=30°C	EERd	5.46
1 -			112		
Tj=25°C	Pdc	5.45 kW	Tj=25°C	EERd	9.08 -
Tj=20°C	Pdc	5.70 kW	Tj=20°C	EERd	12.13 -
Declared capacity for heating / /		t indoor	Declared coefficient of performan		son, at indoor
temperature 20°C and outdoor t	emperature Tj		temperature 20°C and outdoor ter		
Tj=-7°C	Pdh	11.50 kW	Tj=-7°C	COPd	2.50 -
Tj=2°C	Pdh	7.35 kW	Ti=2°C	COPd	3.68 -
Tj=7°C	Pdh	4.60 kW	∏i=7°C	COPd	5.23 -
Ti=12°C	Pdh	4.50 kW	Ti=12℃	COPd	6.52 -
1 2	Pdh	11.50 kW	Tj=12 0 Tj=bivalent temperature	COPd	2.50
Tj=bivalent temperature			111		
Tj=operating limit	Pdh	8.10 kW	Tj=operating limit	COPd	2.22 -
			(
Declared capacity for heating / \		indoor	Declared coefficient of performan		ison, at indoor
temperature 20°C and outdoor t			temperature 20°C and outdoor ter		
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	- -
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	
Tj=12°C	Pdh	- kW	∏i=12°C	COPd	
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-
1)-operating limit	1 uii	- KVV	[1]-operating limit	COLU	
Declared consoits for booting //			Declared coefficient of newformers	aa / Caldar aaaa	:
Declared capacity for heating / (ndoor	Declared coefficient of performan		on, at mooor
temperature 20°C and outdoor t			temperature 20°C and outdoor ter		
Tj=-7°C	Pdh	- kW	Tj=-7°C	COPd	
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	
Tj=7°C	Pdh	- kW	│ │Tj=7°C	COPd	- -
Tj=12℃	Pdh	- kW	Tj=12℃	COPd	
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
Tj=-15°C	Pdh	- kW	Tj=-15°C	COPd	\vdash
1]=-13 0	1 UII	-	[1]=-13-0	COLU	
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv	-7 °C	heating / Average	Tol	-20 °C
heating / Warmer	Tbiv	-/ °C	heating / Warmer	Tol	- ℃
				Tol	
heating / Colder	Tbiv	- °C	heating / Colder	101	- °C
Cycling interval conscity			Cycling interval officionay		
Cycling interval capacity	Daviss	- kW	Cycling interval efficiency	EED	
for cooling	Pcycc		for cooling	EERcyc	-
for heating	Pcych	- kW	for heating	COPcyc	
D 11: (6: 1			I		
Degradation coefficient	0.1		Degradation coefficient	0.11	0.05
cooling	Cdc	0.25 -	heating	Cdh	0.25 -
	1 2 2		1 [
Electric power input in power me			Annual electricity consumption	_	
off mode	Poff	20 W	cooling	Qce	596 kWh/a
standby mode	Psb	20 W	heating / Average	Qhe	4772 kWh/a
thermostat-off mode	Pto	58 W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck	25 W	heating / colder	Qhe	- kWh/a
		1 1 1 1 1	1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Capacity control(indicate one of	three ontions)		Other items		
22,25.3, 5551(11010010 0110 01			Sound power level(indoor)	Lwa	55 dB(A)
			Sound power level(indoor)	Lwa	70 dB(A)
Eive d			1 1 ' ' ' ' ' ' '		
fixed	No		Global warming potential	GWP	1975 kgCO2eq
staged	No		Rated air flow(indoor)	-	1200 m3/h
variable	Yes		Rated air flow(outdoor)	-	6000 m3/h
Contact details for obtaining	Name an	d address of the mar	nufacturer or of its authorised repres	sentative.	
		dustries Air-Conditio			
			Jxbridge, Middlesex, UB11 1AX,		
	nited Kingdom	, , , .	3,,,		
	J				

(2) Ceiling cassette-4way compact type (FDTC) Model FDTC40ZMXVF

Design load cooling Pdesign	Information to identify the mod	del(s) to which the info	ormation relates to:	If function includes heating: Indicate	te the heating se	eason the
Function(indicate if present) cooling ves Ves Cooling V		FDTC40V	/F			
receing Yes Continued Types Co	Outdoor unit model name	SRC40ZN	MX-S	heating season at a time. Include a	at least the heati	ng season 'Averag
vesing value value unit provided to the provided provided to the provided provided to the provided pro				7		
Seeding Vea		Vaa				
term symbol value unit being name	•			- 1		
Seagon and cooling	leating	res		Colder(ii designated)	NO	
Seagon and cooling	tem	symbol	value unit	Item	symbol	value class
Society Pedesign 4.0 W Society Section Sec			value ann			varue ciaco
Sealing / Warmer Polesignh Warmer Polesignh Warmer ScoPNW Declared capacity at outdoor temperature Tdesignh Warmer ScoPNW Declared capacity at outdoor temperature Tdesignh Warmer ScoPNW Declared capacity at outdoor temperature Tdesignh Warmer		Pdesigno	4.0 kW			6.53 A+
Declared capacity at outdoor temperature Tdesignh	neating / Average	Pdesignh	4.0 kW	heating / Average	SCOP/A	3.96 A
Declared capacity at outdoor temperature Tdesign's walling / Average (-10°C) Poth S.3.1 NV heating / Average (-10°C) elbu 0.69 keating / A	neating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W	
Back up heating capacity at outdoor temperature Tesignsh eating / Average (-10°C)					SCOP/C	
eating / Average (-10°C) Pdh 3.31 NW heating / Average (-10°C) elbu 6.68 keating / Colder (-22°C) Pdh . NW heating / Colder (-22°C) elbu 5. NW heating / Colder (-22°C) elbu			'			unit
seating / Colled recizery	Declared capacity at outdoor t	emperature Tdesignh	1	Back up heating capacity at outdoor	or temperature T	Γdesignh
peating / Colder (-22°C) elbu	neating / Average (-10°C)	Pdh	3.31 kW	heating / Average (-10°C)	elbu	0.69 kW
Declared capacity for cooling, at indoor temperature 27(19)°C and outdoor temperature 27(19)°C and outdoor temperature 71 1-95°C	neating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	- kW
Juddoor temperature Tj j=30°C Pdc 4.00 kW j=30°C Pdc 2.95 kW j=30°C ERd 3.85 j=20°C Pdc 1.90 kW j=30°C ERd 3.46 j=20°C Pdc 1.90 kW j=20°C ERRd 3.6 j=20°C Pdc 1.37 kW j=20°C ERRd 3.6 j=20°C Pdc 1.37 kW j=20°C ERRd 3.6 j=20°C Pdn 3.57 kW j=20°C COPd 2.7 j=7°C Pdn 2.19 kW j=20°C COPd 2.7 j=2°C Pdn 3.57 kW j=20°C COPd 2.7 j=2°C Pdn 3.57 kW j=20°C COPd 2.3 j=2°C Pdn 3.57 kW j=20°C COPd 2.3 j=2°C Pdn kW j=20°C COPd 2.3 j=2°C Pdn kW j=20°C Pdn kW j=2°C Pdn kW j=20°C COPd 2.3 j=12°C Pdn kW j=10°C COPd 1.1 p=12°C	eating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	- kW
Juddoor temperature Tj Outdoor temperature Tj Outdoor temperature Tj Outdoor temperature Tj Outdoor temperature Tj EERd 3.85 3.85 1;30°C EERd 5.86 3.85 1;35°C EERd 5.86 3.85 1;30°C EERd 5.86 5.86 5.86 5.86 5.86 5.86 5.86 5.86 5.86 5.86 5.87 6.87 6.87 6.87 6.87 6.87 7.87						
=35°C	Declared capacity for cooling,	at indoor temperature	e 27(19)°C and		t indoor tempera	ature 27(19)°C and
Fig. 25°C Pdc 1,90 kW Tig. 25°C EERd 9.05 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 1,91 Tig. 20°C EERd 2,91 Tig. 20°C ECRd 2,91 Tig. 20°C EERd 2,91 Tig. 20°C	⁻j=35°C	Pdc	4.00 kW		EERd	3.85 -
EeR 11.91	:j=30°C	Pdc	2.95 kW	Tj=30°C	EERd	5.46 -
Declared capacity for heating / Average season, at indoor emperature 20°C and outdoor temperature 7 1 1 2 °C Pdh 2.19 kW 1 1 2 °C COPd 3.57 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 3.84 1 1 2 °C COPd 4.84	j=25°C	Pdc	1.90 kW	Tj=25°C	EERd	9.05 -
emperature 20°C and outdoor temperature T	'j=20°C	Pdc	1.37 kW	Tj=20°C	EERd	11.91 -
emperature 20°C and outdoor temperature T						
7°C Pdn 3.57 kW T -2°C COPd 2.7 7°C Pdn 1.40 kW T -2°C COPd 3.84			indoor			ison, at indoor
For C	,					
ij=12°C Pdh 0.78 kW Tj=12°C COP4 4.84 Tj=12°C COP4 2.36 COP4 2						
j=bivalent temperature Pdh 3.57 kW Tj=bivalent temperature COPd 2.7				11.7		
Poperating limit	,			11.7		
Declared capacity for heating / Warmer season, at indoor emperature 20°C and outdoor temperature Tije-2°C Pdh - kW Tij-2°C COP4 - Tij-2°C Pdh - kW Tij-2°C COP4 - Tij-2°C C	īj=bivalent temperature	Pdh			COPd	2.7 -
emperature 20°C and outdoor temperature Tj Tj=2°C Pdh	j=operating limit	Pdh	2.88 kW	Tj=operating limit	COPd	2.36 -
emperature 20°C and outdoor temperature Tj Tj=2°C Pdh						
			indoor			son, at indoor
Fig. 20						
Fig. 12°C Pdh kW Tj=12°C COPd						
February February						
### Path -	,			11 7		
Declared capacity for heating / Colder season, at indoor emperature 20°C and outdoor temperature Tj Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-7°C Pdh RW Tj=-1°C Pdh Rw Tj=-1°C Pd						
emperature 20°C and outdoor temperature Tj Tj=-7°C Pdh NW Tj=-7°C Pdh NW Tj=-7°C Pdh NW Tj=-7°C Pdh NW Tj=-7°C Pdh NW Tj=-7°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh ND Tj=-2°C	Гj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
temperature 20°C and outdoor temperature Tj Tj=-7°C Pdh Pdh RW Tj=-7°C Pdh Pdh RW Tj=-7°C Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh				7 -		
Tj=-7°C Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C Pdh NW Tj=-2°C COPd NTj=-12°C Pdh NW Tj=-12°C Pdh NW Tj=-12°C Pdh NW Tj=-12°C Pdh NW Tj=-12°C COPd NTj=-12°C COPd NTj=-15°C NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C COPd NTj=-15°C NTj=-1			ndoor			on, at indoor
Tig=2°C Pdh						
Tight PC						
Tj=12°C Pdh - kW Tj=12°C COPd Tj=15°C COPd Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - kW Tj=15°C Pdh - keating / Average Pdeating / Average Pdeating / Average Pdeating / Average Pdeating / Average Pdeating / Average Pdeating / P				11.7		
Tig-bivalent temperature Pdh						
Tigoperating limit	Гј=12°С			11.7		
Annual electricity consumption Coperating of mode Post and proper imput in power modes other than 'active mode' standby mode Post and proper individuate one of three options) Capacity control (indicate one of three options) No No No No No No Sivalent temperature Post of par		Pdh	- kW	Tj=bivalent temperature	COPd	
Bivalent temperature leating / Average	ſj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
neating / Average Toiv -7 °C heating / Average Toi -15 °C heating / Warmer Toiv - °C heating / Warmer Toiv - °C heating / Warmer Toi - °C heating / Warmer Toi - °C heating / Warmer Toi - °C heating / Colder Toi - °C heating / Warmer Toi - °C heating / Colder Toi	Γj=-15℃	Pdh	- kW	Tj=-15℃	COPd	
leating / Average reating / Average reating / Average reating / Warmer relating / Colder re						
Peating / Warmer Tbiv -						
Degradation coefficient cooling Pcycc - kW Pcych Pcych - kW Pcych - kW Pcych						
Cycling interval capacity or cooling Pcych - kW For cooling Pcych - kW For cooling For heating COPcyc				11		
Per cooling Pcych	neating / Colder	Tbiv	- ℃	heating / Colder	Tol	- °C
Pegradation coefficient cooling Pcych - kW for cooling for heating Pcych - kW for heating Pcych - kW for heating Pcych - kW for heating Pcych						
Degradation coefficient cooling Cdc 0.25 - Degradation coefficient cooling Cdc 0.25 - Degradation coefficient cooling Cdc 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling cooling Cdh 0.25 - Degradation coefficient cooling cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation coefficient cooling Cdh 0.25 - Degradation Cooling Cdh 0.25 - Degradation Cooling Cdh 0.25 - Degradation Cooling Cdh 0.25 - Degradation Cooling Cdh 0.25 - Degradation Cooling Cdh 0.25 - Degradation Coolin		D	1.3.87		EED.	
Degradation coefficient cooling Cdc 0.25 - Degradation coefficient heating Cdh 0.25 - Collarity consumption cooling heating / Average Aphe Alfa king / Warmer Aphe Colder Corankcase heater mode Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity control(indicate one of three options) Collarity coller Collarity control(indoor) Lwa Gollobal warming potential GWP 1975 king three options Collarity control(indoor) Lwa Gollobal warming potential GWP 1975 king three options Collarity control(indoor) Collarity cont		•				
Annual electricity consumption Cdh C	or neating	Pcych	- KVV	lor neating	СОРсус	- -
Code Code	Degradation coefficient			Degradation coefficient		
Electric power input in power modes other than 'active mode' Iff mode		Cdc	0.25		Cdb	0.25
off mode fit mode poff	-coming	- Cuc	0.23	_ Incoming	Cuii	0.23
off mode fit mode poff	lectric power input in nower	modes other than 'ac	tive mode'	Annual electricity consumption		
tandby mode hermostat-off mode Psb 12 W heating / Average Qhe heating / Warmer Qhe heating / Warmer Qhe heating / Colder Qhe heat					Oce	215 kWh/a
hermostat-off mode Pto 15 W heating / Warmer Qhe - k prankcase heater mode Pck 0 W heating / colder Qhe - k Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Contact details for obtaining nore information Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom				11 0		
Arankcase heater mode Pck 0 W heating / colder Qhe - kt. Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Capacity control(indicate one of three options) Count control indicate one of three options of the manufacturer or of its authorised representative. Mitsubshi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom						
Capacity control(indicate one of three options) Capacity control(indicate one of three options)						- kWh/a
Sound power level(indoor) Sound power level(indoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(outdoor) Sound power level(indoor) Sound power		1 010	- **		Q I I C	1 11/0
xed taged No No Sound power level(indoor) Lwa 60 d Sound power level(outdoor) Lwa 63 d Global warming potential GWP 1975 k Rated air flow(indoor) - 2160 m Contact details for obtaining nore information Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	Capacity control(indicate one	of three options)		Other items		
Sound power level(outdoor) Lwa 63 d Global warming potential GWP Rated air flow(indoor) - 2160 m Contact details for obtaining nore information Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	The state of the s				Lwa	60 dB(A)
No Rated air flow(indoor) No Rated air flow(outdoor) No Rated air flow(outdoor) No Rated air flow(outdoor) Name and address of the manufacturer or of its authorised representative.						
Rated air flow(indoor) - 810 m Yes Rated air flow(outdoor) - 2160 m Contact details for obtaining nore information Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	ixed	No				
Pariable Yes Rated air flow(outdoor) Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom					-	
Contact details for obtaining nore information Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	•				_	
Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	aabio	163			_	2.30 1110/11
Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom	Contact details for obtaining	Name and	d address of the ma	nufacturer or of its authorised repress	entative	
7 Roundwood Avenue, Stockley Park, Uxbridge, Middlesex, UB11 1AX, United Kingdom					manyo.	
United Kingdom	5 6					
			, , 1 and, 0			
B PJA003Z40					B bla(003Z401/

Model FDTC50ZMXVF

Model FDTC50ZMXVF						
Information to identify the model(s) to which the inform	ation relates to:	If function includes heating: Indicate	e the heating sea	ason the	
Indoor unit model name FDTC50VF			information relates to. Indicated val			
Outdoor unit model name	SRC50ZMX-	S	heating season at a time. Include a	t least the heatin	ig season	'Average'.
Function/indicate if nuceent			1 Avenue (mandatami)	Vaa		
Function(indicate if present) cooling	Yes		Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes		Colder(if designated)	No		
neating	103		Colder(ii designated)	140		
Item	symbol val	ue unit	Item	symbol	value	class
Design load			Seasonal efficiency and energy effi			
cooling	_	5.0 kW	cooling	SEER	6.01	A+
heating / Average		4.8 kW	heating / Average	SCOP/A	3.85	A
heating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	-	unit
Declared capacity at outdoor tem	nerature Tdesignh		Back up heating capacity at outdoo	r temperature To	designh	unit
heating / Average (-10°C)		3.95 kW	heating / Average (-10°C)	elbu	0.85	kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at	indoor temperature 27	7(19)°C and	Declared energy efficiency ratio, at	indoor temperat	ure 27(19)°C and
outdoor temperature Tj Ti=35°C	Pdc :	5.00 kW	outdoor temperature Tj	EERd	3.21	٦
Tj=30°C		3.69 kW	Tj=30°C	EERd	4.92	
Tj=25°C		2.37 kW	Tj=25°C	EERd	7.41	-
Tj=20°C		1.37 kW	Tj=20°C	EERd	11.91	1-
Declared capacity for heating / A		oor	Declared coefficient of performance		on, at inc	oor
temperature 20°C and outdoor te		4.05	temperature 20°C and outdoor temp			7
Tj=-7°C		4.25 kW	Tj=-7°C	COPd	2.5	
Tj=2°C Tj=7°C		2.58 kW 1.66 kW	Tj=2°C Tj=7°C	COPd COPd	3.77 5.22	1
Tj=12°C		0.78 kW		COPa	4.84	1_
Tj=bivalent temperature		4.25 kW	Tj=bivalent temperature	COPd	2.5	1_
Tj=blvalent temperature Tj=operating limit		3.45 kW	Tj=blvalent temperature Tj=operating limit	COPd	2.2	1-
, .p			<u> </u>			
Declared capacity for heating / W	armer season, at inde	oor	Declared coefficient of performance	e / Warmer seas	on, at ind	oor
temperature 20°C and outdoor te			temperature 20°C and outdoor temp			-
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	-	
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-	
Tj=bivalent temperature Tj=operating limit	Pdh Pdh	- kW kW	Tj=bivalent temperature Tj=operating limit	COPd COPd		-l ⁻
rj-operating iiriit	Full	-	I j-operating limit	COFu		<u> -</u>
Declared capacity for heating / C	older season, at indoo	or	Declared coefficient of performance	e / Colder seaso	n. at indo	or
temperature 20°C and outdoor te			temperature 20°C and outdoor and outdoor and ou		.,	
Tj=-7°C	Pdh	- kW	∏j=-7°C	COPd	-]-
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	-	-
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-	
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	- 1
Tj=operating limit	Pdh Pdh	- kW	Tj=operating limit	COPd	-	- 1
Tj=-15°C	Pun	- kW	[1]=-15 C	COPd	-	-
Bivalent temperature			Operating limit temperature			
heating / Average	Tbiv	-7 °C	heating / Average	Tol	-15	ି℃
heating / Warmer	Tbiv	- ℃	heating / Warmer	Tol	-	°C
heating / Colder	Tbiv	- ℃	heating / Colder	Tol	-	℃
		-				
Cycling interval capacity		1,14.	Cycling interval efficiency			
for cooling for heating	Pcycc	- kW	for cooling	EERcyc	-	
for neating	Pcych	- kW	for heating	COPcyc	-	-
Degradation coefficient			Degradation coefficient			
cooling	Cdc	0.25 -	heating	Cdh	0.25	7-
	'	'				-
Electric power input in power mod	des other than 'active		Annual electricity consumption			_
off mode	Poff	12 W	cooling	Qce	291	kWh/a
standby mode	Psb	12 W	heating / Average	Qhe	1745	kWh/a
thermostat-off mode	Pto	15 W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	0 W	heating / colder	Qhe	-	kWh/a
Capacity control(indicate one of t	hree options)		Other items			
os.in oi(indicate one of t	50 001010)		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	63	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2eq
staged	No		Rated air flow(indoor)	-	810	m3/h
variable	Yes	<u> </u>	Rated air flow(outdoor)	-	2400	m3/h
Contact details for obtaining			nufacturer or of its authorised represer	ntative.		
	itsubishi Heavy Indust					
	Roundwood Avenue, nited Kingdom	Slockley Park, U	xbridge, Middlesex, UB11 1AX,			
O	mou milyuull					
						^
						/ /

Model FDTC60ZMXVF

Model FDTC60ZMXVF						
Information to identify the model(s) to	which the informat	If function includes heating: Indicate the	heating sea	son the		
Indoor unit model name	FDTC60VF	information relates to. Indicated values :	should relate	e to one		
Outdoor unit model name	SRC60ZMX-S		heating season at a time. Include at leas	st the heatin	g season	'Average'.
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
Item	symbol valu	e unit	Item		value	class
Design load cooling	Pdesignc 5	.6 kW	Seasonal efficiency and energy efficien cooling	cy class SEER	5.76	A+
heating / Average	· · ·	.9 kW	heating / Average	SCOP/A	3.80	A
heating / Warmer	· -	- kW	heating / Warmer	SCOP/W	-	-
heating / Colder		- kW	heating / Colder	SCOP/C	-	-
3			3			unit
Declared capacity at outdoor temperat	ure Tdesignh		Back up heating capacity at outdoor ten	nperature To	designh	
heating / Average (-10°C)		14 kW	heating / Average (-10°C)	elbu	0.76	kW
heating / Warmer (2°C)		- kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
		1000	10		07/10	\00 I
Declared capacity for cooling, at indoo	r temperature 27 (19) C and	Declared energy efficiency ratio, at indo	or temperat	ure 27(19) C and
outdoor temperature Tj Tj=35°C	Pdc 5.	60 kW	outdoor temperature Tj Ti=35°C	EERd	2.81	1
Tj=35°C		13 kW		EERd	4.54	1
Tj=25°C		65 kW		EERd	7.16	1_
Tj=20°C		40 kW	Tj=20°C	EERd	11.38	1_
.,	. 40 1.		1 1.7 200	:\u		
Declared capacity for heating / Averag	e season, at indo	or	Declared coefficient of performance / A	verage seas	on, at ind	oor
temperature 20°C and outdoor temper			temperature 20°C and outdoor temperat			_
Tj=-7°C		60 kW	Tj=-7°C	COPd	2.49]-
Tj=2°C		55 kW	Tj=2°C	COPd	3.74]-
Tj=7°C		10 kW	Tj=7°C	COPd	5.25]-
Tj=12°C		95 kW	Tj=12°C	COPd	5.14	<u></u> -
Tj=bivalent temperature		60 kW	Tj=bivalent temperature	COPd	2.49]-
Tj=operating limit	Pdh 4.	36 kW	Tj=operating limit	COPd	2.11	-
Delegation (Management			Design to the second of the se		4 ! d	
Declared capacity for heating / Warme		or	Declared coefficient of performance / W		on, at ind	oor
temperature 20°C and outdoor temper Tj=2°C	Pdh	- kW	temperature 20°C and outdoor temperated Ti=2°C	COPd		1
Tj=2 C Tj=7°C		- KVV - KW		COPd		ļ-
Tj=12°C				COPd		-l
,	Pdh Pdh		117	COPd	-	
Tj=bivalent temperature Tj=operating limit	Pdh	- kW - kW	Tj=bivalent temperature Tj=operating limit	COPd	-	
rj-operating iiriit	ruii	-	TJ-operating limit	COFU		Γ
Declared capacity for heating / Colder	season, at indoor		Declared coefficient of performance / Co	older seaso	n. at indo	or
temperature 20°C and outdoor temper			temperature 20°C and outdoor temperature		.,	
Tj=-7°C	Pdh	- kW	Tj=-7°C	COPd	-]-
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	-	1-
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-]-
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-]-
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-]-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	7-
Tj=-15°C	Pdh	- kW	Tj=-15°C	COPd	-]-
	•	•				•
Bivalent temperature			Operating limit temperature			70-
heating / Average		<u>-7</u> ℃	heating / Average	Tol	-15]°C
heating / Warmer	Tbiv	- °C	heating / Warmer	Tol	-]°C
heating / Colder	Tbiv	- ℃	heating / Colder	Tol		°C
Cycling interval capacity			Cycling interval efficiency			
for cooling	Pcycc	- kW	for cooling	EERcyc	-	7-
for heating	Pcych	- kW	for heating	COPcyc	-	1-
						<u></u>
Degradation coefficient			Degradation coefficient			-
cooling	Cdc 0.	.25 -	heating	Cdh	0.25	-
Electric power input in power modes o	ther than 'active a	node'	Annual electricity consumption			
off mode		12 W	Cooling	Qce	341	∃kWh/a
standby mode		12 W		Qhe	2172	kWh/a
thermostat-off mode		15 W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode		0 W	heating / volumer	Qhe		kWh/a
		. 1	1			
Capacity control(indicate one of three	options)		Other items			-
			Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	64	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2eq.
staged	No		Rated air flow(indoor)	-	810	m3/h
variable	Yes		Rated air flow(outdoor)	-	2490	m3/h
	NI					
Contact details for obtaining			ufacturer or of its authorised representative	e.		
	shi Heavy Industri					
	dwood Avenue, S Kingdom	nockiej Park, U	kbridge, Middlesex, UB11 1AX,			
United	Milyuulli					

Model FDTC71VNXPVF

Model FDTC71VNXPV	F					
Information to identify the mod	del(s) to which the inf	ormation relates to:	If function includes heating: Indica	ite the heating se	eason the	
Indoor unit model name	FDTC40V	F x 2	information relates to. Indicated va	alues should rela	ite to one	
Outdoor unit model name	FDC71VN	Х	heating season at a time. Include	at least the heat	ing seaso	n 'Average'
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
g	1.00		coluci (ii docigilated)			
Item	symbol	value unit	Item	symbol	value	class
Design load			Seasonal efficiency and energy ef	ficiency class		
cooling	Pdesignc	7.1 kW	cooling	SEER	5.31	Α
heating / Average	Pdesignh	6.8 kW	heating / Average	SCOP/A	3.88	А
heating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	-	-
	-					unit
Declared capacity at outdoor t	emperature Tdesign	h	Back up heating capacity at outdo	or temperature	Tdesignh	
heating / Average (-10°C)	Pdh	5.72 kW	heating / Average (-10°C)	elbu	1.08	kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
	'	· · · · · ·				
Declared capacity for cooling,	at indoor temperatur	e 27(19)°C and	Declared energy efficiency ratio, a	t indoor tempera	ature 27(1	9)°C and
outdoor temperature Tj			outdoor temperature Tj			
Tj=35°C	Pdc	7.10 kW	Tj=35°C	EERd	3.48	-
Tj=30°C	Pdc	5.23 kW	Tj=30°C	EERd	5.23]-
Tj=25°C	Pdc	3.37 kW	Tj=25°C	EERd	8.22	1-
Tj=20°C	Pdc	3.28 kW	Tj=20°C	EERd	12.15	1-
•		1 -				-
Declared capacity for heating	/ Average season, at	indoor	Declared coefficient of performance	ce / Average sea	son. at in	door
temperature 20°C and outdoo			temperature 20°C and outdoor ten		. ,	
Tj=-7°C	Pdh	6.02 kW	Tj=-7°C	COPd	2.50]-
Tj=2℃	Pdh	3.66 kW	Tj=2°C	COPd	3.75	1-
Tj=7°C	Pdh	2.35 kW	Tj=7°C	COPd	5.22	1_
Ti=12°C	Pdh	2.50 kW	Ti=12°C	COPd	6.58	1_
Tj=bivalent temperature	Pdh	6.02 kW	Tj=bivalent temperature	COPd	2.50	-
	Pdh	4.70 kW	1 *	COPd	2.42	-
Tj=operating limit	Pun	4.70 KVV	Tj=operating limit	COPa	2.42	-
Declared capacity for heating	/ Marmar assass at	indoor	Declared coefficient of performance	oo / Marmar aaa	oon of in	door
		IIIuuui			Son, at in	1001
temperature 20°C and outdoo		- kW	temperature 20°C and outdoor ten			7
	Pdh		Tj=2°C	COPd	-	- 1⁻
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	1-
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-	_ -
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-]-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	-
Declared capacity for heating		ndoor	Declared coefficient of performance		on, at indo	oor
temperature 20°C and outdoo			temperature 20°C and outdoor ten			7
Tj=-7°C	Pdh	- kW	Tj=-7°C	COPd	-	վ-
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	-]-
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-	<u> </u> -
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	-
Tj=-15℃	Pdh	- kW	Tj=-15℃	COPd	-]-
Bivalent temperature			Operating limit temperature			70-
heating / Average	Tbiv [-7 °C	heating / Average	Tol	-20]℃
heating / Warmer	Tbiv	- 0°C	heating / Warmer	Tol	-]℃
heating / Colder	Tbiv	- ℃	heating / Colder	Tol	-	°C
Cycling interval capacity			Cycling interval efficiency			
for cooling	Pcycc [- kW	for cooling	EERcyc	-]-
for heating	Pcych	- kW	for heating	COPcyc	-	-
Degradation coefficient			Degradation coefficient			
cooling	Cdc	0.25 -	heating	Cdh	0.25	
Electric power input in power	modes other than 'ac		Annual electricity consumption			_
off mode	Poff	20 W	cooling	Qce	468	kWh/a
standby mode	Psb	20 W	heating / Average	Qhe	2455	kWh/a
thermostat-off mode	Pto	28 W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25 W	heating / colder	Qhe	-	kWh/a
		,				
Capacity control(indicate one	of three options)		Other items			
,	. ,		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	66	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2eg
staged	No		Rated air flow(indoor)	-	810	m3/h
variable	Yes		Rated air flow(outdoor)	_	3600	m3/h
variable	169		I tated all how(outdoor)	-	2000	1110/11
Contact details for obtaining	Nome	addrage of the man	urfacturer or of its authorised record	entativo		
more information			ufacturer or of its authorised repres	entative.		
more inionnation	Mitsubishi Heavy Ind					
	United Kingdom	ae, Glockley Park, U	xbridge, Middlesex, UB11 1AX,			
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Model FDTC100VNXPVF

Model FDTC100VNXPVI	=					
Information to identify the model	(s) to which the information re	lates to:	If function includes heating: Indicate	e the heating se	eason the	
Indoor unit model name	FDTC50VF x 2		information relates to. Indicated val	lues should rela	te to one	
Outdoor unit model name	FDC100VNX		heating season at a time. Include a	it least the heati	ing seasoi	n 'Average
Function(indicate if present)		1	Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
<u> </u>			,			
Item	symbol value u	ınit	Item		value	class
Design load			Seasonal efficiency and energy effi			
cooling		W	cooling	SEER	5.23	Α
heating / Average	ÿ <u> </u>	W	heating / Average	SCOP/A	3.87	A
heating / Warmer		W	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh - k	:W	heating / Colder	SCOP/C	-	-
Declared conscitu at outdoor tom	anoratura Talaajanh		Book up hooting consoity at outdoo	r tomporaturo 7	Edooianh	unit
Declared capacity at outdoor ten heating / Average (-10°C)		w l	Back up heating capacity at outdoon heating / Average (-10°C)	elbu	1.75	kW
heating / Warmer (2°C)		:W	heating / Warmer (2°C)	elbu	-	kW
heating / Walther (2 °C)		:W	heating / Colder (-22°C)	elbu		kW
ricaling / Coldon (ZZ C)	1 311		nodang / colder (ZZ c)	Olbu		1000
Declared capacity for cooling, at	indoor temperature 27(19)°C	and	Declared energy efficiency ratio, at	indoor tempera	ture 27(1	9)°C and
outdoor temperature Tj			outdoor temperature Tj			-,
Tj=35°C	Pdc 10.00 k	:W	Tj=35°C	EERd	3.14]-
Tj=30°C		:W	Tj=30°C	EERd	4.98	1-
Tj=25°C		:W	Tj=25°C	EERd	7.35	1-
Tj=20°C		:W	Tj=20°C	EERd	10.30	1-
			,			
Declared capacity for heating / A			Declared coefficient of performance		son, at inc	door
temperature 20°C and outdoor te			temperature 20°C and outdoor tem		0.70	1
Tj=-7°C		W.	Tj=-7°C	COPd	2.70	1-
Tj=2°C		:W	Tj=2°C	COPd	3.71	1-
Tj=7°C		W	Tj=7°C	COPd	5.30	ļ-
Tj=12°C		W	Tj=12°C	COPd	5.97	-
Tj=bivalent temperature		:W	Tj=bivalent temperature	COPd	2.70]-
Tj=operating limit	Pdh 6.50 k	:W	Tj=operating limit	COPd	2.32	-
Declared conscitutor beating / \A	/amaga agaaa at indaar		Declared coefficient of newformers	. / \\/ = ==== = = = = = =		
Declared capacity for heating / W			Declared coefficient of performance		son, at inc	ioor
temperature 20°C and outdoor te Tj=2°C		:W	temperature 20°C and outdoor tem			1
		w I	Tj=2°C	COPd COPd	-	1
Tj=7°C Tj=12°C		:W	Tj=12°C	COPd		1
,			1 *			ļ ⁻
Tj=bivalent temperature		:W	Tj=bivalent temperature	COPd	-	ļ-
Tj=operating limit	Pdh - k'	:W	Tj=operating limit	COPd	-	-
Declared capacity for heating / C	older season, at indoor		Declared coefficient of performance	e / Colder seaso	on at indo	or
temperature 20°C and outdoor te			temperature 20°C and outdoor tem		,	
Tj=-7°C		:W	Tj=-7°C	COPd	-]-
Tj=2°C	Pdh - k'	w l	Tj=2°C	COPd	-	1-
Ti=7°C	Pdh - k'	w l	Tj=7°C	COPd	-	1_
Tj=12℃		W	Ti=12°C	COPd	-	1_
Tj=bivalent temperature		W	Tj=bivalent temperature	COPd	-	1_
Ti=operating limit		w	Tj=operating limit	COPd	-	1_
Tj=-15°C		w	Ti=-15°C	COPd	-	-
Bivalent temperature			Operating limit temperature			10-
heating / Average		C	heating / Average	Tol	-20	°C
heating / Warmer		c	heating / Warmer	Tol	-	°C
heating / Colder	Tbiv - °C	С	heating / Colder	Tol	-	°C
Cycling interval canacity			Cycling interval efficiency			
Cycling interval capacity for cooling	Pcycc - k	:w	for cooling	EERcyc	-	1_
for heating		.w	for heating	COPcyc	-	-
9	. 57011 - K		···•ag			
Degradation coefficient			Degradation coefficient			
cooling	Cdc 0.25 -		heating	Cdh	0.25	-
Electric power input in power mo		,,	Annual electricity consumption	0	670	16/4/6/-
off mode	Poff 20 W		cooling	Qce	670	kWh/a
standby mode	Psb 20 W		heating / Average	Qhe	3692	kWh/a
thermostat-off mode	Pto 38 W		heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck 25 V	V	heating / colder	Qhe	-	kWh/a
Capacity control(indicate one of	three ontions)		Other items			
Capacity Control(indicate one of	ande options)		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(indoor)	Lwa	70	dB(A)
fixed	No			GWP	1975	kgCO2ed
fixed	No		Global warming potential	GWP -		m3/h
staged	Yes		Rated air flow(outdoor)	-	810	-
variable	res		Rated air flow(outdoor)	-	6000	m3/h
Contact details for obtaining	Name and address of	f the man	ufacturer or of its authorised represe	entative		
	itsubishi Heavy Industries Air-		•	mauve.		
			ning Europe, Lta. xbridge, Middlesex, UB11 1AX,			
	Roundwood Avenue, Stockie) nited Kingdom	y i aik, Už	ADITUGE, IVIIUUIESEX, UDIT TAA,			
O	mod Milguotti					
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Model FDTC100VSXPVF

Model FDTC100VSXPV	F		
Information to identify the model	(s) to which the information relates to:	If function includes heating: Indicat	te the heating season the
Indoor unit model name	FDTC50VF x 2	information relates to. Indicated va	
Outdoor unit model name	FDC100VSX	heating season at a time. Include a	at least the heating season 'Average'
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
nodang	100	Coldor(ii doolgridica)	110
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy eff	ficiency class
cooling	Pdesignc 10.0 kW	cooling	SEER 5.19 A
heating / Average	Pdesignh 10.2 kW	heating / Average	SCOP/A 3.86 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
			unit
Declared capacity at outdoor ter		Back up heating capacity at outdoo	
heating / Average (-10°C)	Pdh 8.45 kW	heating / Average (-10°C)	elbu 1.75 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared conscitutor cooling of	indoor to reach up 27(10)°C and	Declared anamy officional nation of	t indeed to man each use 27(10)°C and
	indoor temperature 27(19)°C and	Declared energy efficiency ratio, at	indoor temperature 27(19) C and
outdoor temperature Tj Tj=35°C	Pdc 10.00 kW	outdoor temperature Tj	EERd 3.14 -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd 3.14 - EERd 4.98 -
Tj=25°C	Pdc 7.37 kW	Tj=30 C Tj=25°C	EERd 4.96 - EERd 7.35 -
Tj=25 C Ti=20°C	Pdc 4.74 kW		EERd 7.35 - EERd 10.30 -
1,-20 0	FUC 3.10 KVV	[1]=20 C	LENU 10.30 -
Declared capacity for heating / A	Verage season at indoor	Declared coefficient of performance	e / Average season at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor tem	
Ti=-7°C	Pdh 9.03 kW	Ti=-7°C	COPd 2.70 -
Tj=2°C	Pdh 5.49 kW	Tj=2°C	COPd 3.71 -
Tj=7°C	Pdh 4.00 kW		COPd 5.30 -
Tj=12°C	Pdh 4.60 kW		COPd 5.97
Tj=bivalent temperature	Pdh 9.03 kW		COPd 3.97 -
Tj=operating limit	Pdh 6.50 kW	Tj=operating limit	COPd 2.70 -
1j-operating limit	Full 0.30 KW	Tj-operating limit	COFu 2.32 -
Declared capacity for heating / V	Warmer season, at indoor	Declared coefficient of performance	e / Warmer season, at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor tem	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=7 C	COPd -
,		11,	
Tj=bivalent temperature		Tj=bivalent temperature	
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating / 0	`older season at indoor	Declared coefficient of performance	e / Colder season, at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor tem	
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Ti=12°C	Pdh - kW	Ti=12°C	COPd -
Tj=bivalent temperature	Pdh - kW	Ti=bivalent temperature	COPd -
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd -
Ti=-15°C	Pdh - kW	Ti=-15°C	COPd
1, 100	1 311] [] 100	001 0
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -20 ℃
heating / Warmer	Tbiv - °C	heating / Warmer	Tol - °C
heating / Colder	Tbiv - °C	heating / Colder	Tol - ℃
		. · · · · · · · · · · · · · · · · · · ·	1
Cycling interval capacity		Cycling interval efficiency	<u>_</u>
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
-		1.	
Electric power input in power mo		Annual electricity consumption	0
off mode	Poff 20 W	cooling	Qce 674 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 3695 kWh/a
thermostat-off mode	Pto 58 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
0	Alara antiana)	1 Other 14-11-1	
Capacity control(indicate one of	three options)	Other items	1
		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq
staged	No	Rated air flow(indoor)	- 810 m3/h
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
			•
Contact details for obtaining		nufacturer or of its authorised represe	entative.
	litsubishi Heavy Industries Air-Conditio		
	Roundwood Avenue, Stockley Park, L	Jxbridge, Middlesex, UB11 1AX,	
Įυ	nited Kingdom		
			D 140007404 A

(3) Ceiling suspended type (FDEN) Model FDEN40ZMXVF

Model FDEN40ZMXVF Information to identify the model(s	s) to which the information	ation relates to:	If function includes heating: Indicate	the heating se	eason the
Indoor unit model name Outdoor unit model name	FDEN40VF SRC40ZMX-S		information relates to. Indicated value	ues should rela	ite to one
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
	•			•	
Item	symbol val	ue unit	Item	symbol	value class
Design load			Seasonal efficiency and energy efficiency		
cooling		4.0 kW	cooling	SEER	6.14 A++
heating / Average	· · ·	3.3 kW	heating / Average	SCOP/A	
heating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/M	
neating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	
			7.5		unit
Declared capacity at outdoor tem			Back up heating capacity at outdoor		
heating / Average (-10°C)		2. 74 kW	heating / Average (-10°C)	elbu	0.56 kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	- kW
neating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	- kW
Declared capacity for cooling, at i	ndoor temperature 27	′(19)°C and	Declared energy efficiency ratio, at	indoor tempera	ature 27(19)°C and
outdoor temperature Tj			outdoor temperature Tj	_	
Tj=35°C		kW	Tj=35°C	EERd	3.92 -
Tj=30°C		2. 95 kW	Tj=30°C	EERd	5.57 -
Tj=25°C		. 90 kW	Tj=25°C	EERd	8.33 -
Tj=20°C	Pdc 1	.39 kW	Tj=20°C	EERd	11.58 -
Declared capacity for heating / Av		oor	Declared coefficient of performance		ason, at indoor
temperature 20°C and outdoor ter		102	temperature 20°C and outdoor temp		2.70 -
Tj=-7°C		2.92 kW	Tj=-7°C	COPd	
Γj=2℃		.78 kW	Tj=2°C	COPd	3.71 -
Γj=7°C		.14 kW	Tj=7°C	COPd	5.14 -
Гj=12°C		0.78 kW	Tj=12°C	COPd	4.62
Γj=bivalent temperature		2.92 kW	Tj=bivalent temperature	COPd	2.70 -
Гj=operating limit	Pdh 2	2.43 kW	Tj=operating limit	COPd	2.31 -
Declared capacity for heating / W emperature 20°C and outdoor ter		oor	Declared coefficient of performance temperature 20°C and outdoor temp		son, at indoor
Γj=2°C	Pdh	- kW	Ti=2°C	COPd	
., σ Γj=7°C	Pdh	- kW	Ti=7°C	COPd	
Tj=12°C	Pdh	- kW	Ti=12°C	COPd	
Γj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-
		l			
Declared capacity for heating / Co		or	Declared coefficient of performance		on, at indoor
temperature 20°C and outdoor ter	Pdh	- kW	temperature 20°C and outdoor temp	COPd	
Tj=-7°C					
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
Γj=-15℃	Pdh	- kW	Tj=-15℃	COPd	
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv	-7 °C	heating / Average	Tol	-15 °C
heating / Warmer	Tbiv	- °C	heating / Warmer	Tol	-10 ℃
neating / Colder	Tbiv	<u>-</u>	heating / Colder	Tol	- °C
	. ~14	1 5		. 01	1 1 ,
Cycling interval capacity			Cycling interval efficiency		
or cooling	Pcycc	- kW	for cooling	EERcyc	
or heating	Pcych	- kW	for heating	COPcyc	- -
Degradation coefficient			Degradation coefficient		
cooling	Cdc	0.25 -	heating	Cdh	0.25 -
	<u>'</u>	•			
Electric power input in power mod			Annual electricity consumption	_	
off mode	Poff	13 W	cooling	Qce	228 kWh/a
standby mode		13 W	heating / Average	Qhe	1214 kWh/a
hermostat-off mode		40 W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck	0 W	heating / colder	Qhe	- kWh/a
Capacity control(indicate one of the	hree options)		Other items		
	•		Sound power level(indoor)	Lwa	60 dB(A)
			Sound power level(outdoor)	Lwa	63 dB(A)
ixed	No		Global warming potential	GWP	1975 kgCO2
staged	No		Rated air flow(indoor)	-	660 m3/h
variable	Yes		Rated air flow(outdoor)		2160 m3/h
Contact details for obtaining			nufacturer or of its authorised represen	ntative.	
71			oning Europe, Ltd. Jxbridge, Middlesex, UB11 1AX,		
Ur	nited Kingdom				
				D DEA	0027072

Model FDEN50ZMXVF

Model FDEN50ZMXVF			
Information to identify the model(s)) to which the information relates to:	If function includes heating: Indicate	e the heating season the
Indoor unit model name	FDEN50VF	information relates to. Indicated value	
Outdoor unit model name	SRC50ZMX-S	heating season at a time. Include at	t least the heating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy effi	
cooling	Pdesignc 5.0 kW	cooling	SEER 5.83 A+
heating / Average	Pdesignh 4.0 kW	heating / Average	SCOP/A 3.81 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Deeless deeless deeless deeless deeless deeless deeless deeless deeless deeless deeless deeless deeless deeles		Deel on beeting and the standard	unit
Declared capacity at outdoor temp heating / Average (-10°C)	Pdh 3.30 kW	Back up heating capacity at outdoo heating / Average (-10°C)	elbu 0.70 kW
heating / Average (-10 C)	Pdh - kW	heating / Average (-10 C)	elbu - kW
heating / Warrier (2 C)	Pdh - kW	heating / Warmer (2 °C)	elbu - kW
incating / Colder (ZZ G)	T GIT	nodding / Colder (22 C)	CIDU IXVV
Declared capacity for cooling, at in	door temperature 27(19)°C and	Declared energy efficiency ratio, at	indoor temperature 27(19)°C and
outdoor temperature Ti	, , ,	outdoor temperature Ti	, ,
Tj=35°C	Pdc 5.00 kW	Tj=35°C	EERd 3.27 -
Tj=30°C	Pdc 3.69 kW	Tj=30°C	EERd 5.08 -
Tj=25°C	Pdc 2.37 kW	Tj=25°C	EERd 7.20 -
Tj=20°C	Pdc 1.39 kW	Tj=20°C	EERd 11.49 -
Declared capacity for heating / Ave		Declared coefficient of performance	
temperature 20°C and outdoor tem		temperature 20°C and outdoor temp	
Tj=-7°C	Pdh 3.54 kW	Tj=-7°C	COPd 2.49 -
Tj=2°C	Pdh 2.15 kW	Tj=2°C	COPd 3.77 -
Tj=7°C	Pdh 1.37 kW	Tj=7°C	COPd 5.21 -
Tj=12°C	Pdh 0.78 kW	Tj=12°C	COPd 4.6 -
Tj=bivalent temperature	Pdh 3.54 kW	Tj=bivalent temperature	COPd 2.49 -
Tj=operating limit	Pdh 2.90 kW	Tj=operating limit	COPd 2.15 -
Declared capacity for heating / Wa	rmer season, at indoor	Declared coefficient of performance	Warmer season, at indoor
temperature 20°C and outdoor tem		temperature 20°C and outdoor temp	
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Ti=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
			'
Declared capacity for heating / Col		Declared coefficient of performance	
temperature 20°C and outdoor tem		temperature 20°C and outdoor temp	
Tj=-7°C	Pdh kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15℃	Pdh - kW	Tj=-15°C	COPd
Discolarity and the second		10	
Bivalent temperature heating / Average	Tbiv -7 °C	Operating limit temperature heating / Average	Tol -15 ℃
heating / Average heating / Warmer	Tbiv -/ °C	heating / Average	Tol - °C
heating / Volder	Tbiv - °C	heating / Volder	Tol - °C
			10. - 0
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
	-		
Degradation coefficient	04-	Degradation coefficient	0.41
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Electric power input in power mode	as other than 'active mode'	Annual electricity consumption	
off mode	Poff 13 W	cooling	Qce 301 kWh/a
standby mode	Psb 13 W	heating / Average	Qhe 1472 kWh/a
thermostat-off mode	Pto 40 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 0 W	heating / warmer	Qhe - kWh/a
		1	- Nevina
Capacity control(indicate one of th	ree options)	Other items	
·		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 63 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq
staged	No	Rated air flow(indoor)	- 660 m3/h
variable	Yes	Rated air flow(outdoor)	- 2400 m3/h
Contact details for obtaining		nufacturer or of its authorised represer	ntative.
	subishi Heavy Industries Air-Conditio		
	oundwood Avenue, Stockley Park, U	ixbriage, Miaaiesex, UB11 1AX,	
Uni	ted Kingdom		
		Т	-
			· • · • • • • • • • • • • • • • • • • •

Model FDEN60ZMXVF

Model FDEN60ZMXVF						
Information to identify the model(s) to	which the information re	elates to:	If function includes heating: Indicate th	e heating sea	ason the	
Indoor unit model name	FDEN60VF		information relates to. Indicated values			
Outdoor unit model name	SRC60ZMX-S		heating season at a time. Include at le	ast the heatin	ng season	'Average'.
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
nodung	100		Coldor(ii doolgridtod)	140		
Item	symbol value	unit	Item	symbol	value	class
Design load			Seasonal efficiency and energy efficie			
cooling	Pdesignc 5.6	kW	cooling	SEER	5.72	A+
heating / Average	Pdesignh 5.0	kW	heating / Average	SCOP/A	3.80	А
heating / Warmer	Pdesignh -	kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	-	-
	•	•				unit
Declared capacity at outdoor tempera	ture Tdesignh	_	Back up heating capacity at outdoor te	emperature To	designh	
heating / Average (-10°C)	Pdh 4.12	kW	heating / Average (-10°C)	elbu	0.88	kW
heating / Warmer (2°C)	Pdh -	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh -	kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at indoo	or temperature 27(19)°C	and	Declared energy efficiency ratio, at inc	loor temperat	ure 27(19)℃ and
outdoor temperature Tj		,	outdoor temperature Tj			,
Tj=35°C	Pdc 5.60	kW	Tj=35°C	EERd	3.15	<u> </u> -
Tj=30°C	Pdc 4.13	kW	Tj=30°C	EERd	4.86	1-
Tj=25°C	Pdc 2.65	kW	Tj=25°C	EERd	7.79	<u> </u> -
Tj=20°C	Pdc 1.40	kW	Tj=20°C	EERd	9.66	-
Declared capacity for heating / Average			Declared coefficient of performance / /		son, at ind	oor
temperature 20°C and outdoor temper		TLAM.	temperature 20°C and outdoor temperature 7°C		0.00	1
Tj=-7°C	Pdh 4.43	kW	Tj=-7°C	COPd	2.68	<u> </u> -
Tj=2°C	Pdh 2.69	kW	Tj=2°C	COPd	3.99	1-
Tj=7°C	Pdh 1.73	kW	Tj=7°C	COPd	4.68	<u> </u> -
Tj=12°C	Pdh 0.77	kW	Tj=12°C	COPd	3.67	<u> </u> -
Tj=bivalent temperature	Pdh 4.43	kW	Tj=bivalent temperature	COPd	2.68	
Tj=operating limit	Pdh 3.60	kW	Tj=operating limit	COPd	2.26	-
			1.1			
Declared capacity for heating / Warm			Declared coefficient of performance / \		on, at indo	oor
temperature 20°C and outdoor temper		1	temperature 20°C and outdoor temperature 20°C			1
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	-	<u> </u> -
Tj=7°C	Pdh -	kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh -	kW	Tj=12°C	COPd	-]-
Tj=bivalent temperature	Pdh -	kW	Tj=bivalent temperature	COPd	-	<u> </u> -
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	-	-
			1			
Declared capacity for heating / Colder			Declared coefficient of performance / 0		n, at indoo	or
temperature 20°C and outdoor temper		1	temperature 20°C and outdoor temperature			1
Tj=-7°C	Pdh -	kW	Tj=-7°C	COPd	-	ļ-
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	-	-
Tj=7°C	Pdh -	kW	Tj=7°C	COPd	-	վ-
Tj=12°C	Pdh -	kW	Tj=12°C	COPd	-	վ-
Tj=bivalent temperature	Pdh -	kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	-	<u> </u> -
Tj=-15°C	Pdh -	kW	Tj=-15°C	COPd	-	-
			1 6 0 0 0 0			
Bivalent temperature	This:]∘c	Operating limit temperature	Tel	45	1 ∘∽
heating / Average	Tbiv -7	°C	heating / Average	Tol	-15]°C
heating / Warmer	Tbiv -	°C	heating / Warmer	Tol	-]°C
heating / Colder	Tbiv -	°C	heating / Colder	Tol	_	°C
Cycling interval capacity			Cycling interval efficiency			
for cooling	Pcycc -	lkW	for cooling	EERcyc	-	7-
for heating	Pcych -	kW	for heating	COPcyc	- -	1_
	. 0,0.1	1		201 byb	I	
Degradation coefficient			Degradation coefficient			
cooling	Cdc 0.25]-	heating	Cdh	0.25]-
	7.20	1	I			1
Electric power input in power modes of	other than 'active mode'		Annual electricity consumption			
off mode	Poff 13	W	cooling	Qce	343	kWh/a
standby mode	Psb 13	w	heating / Average	Qhe	1842	kWh/a
thermostat-off mode	Pto 65	W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck 0	W	heating / colder	Qhe	-	kWh/a
	<u> </u>					· · · ·
Capacity control(indicate one of three	options)		Other items			
, , , , , , , , , , , , , , , , , , , ,	•		Sound power level(indoor)	Lwa	60	dB(A)
			Sound power level(outdoor)	Lwa	64	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2eq
staged	No		Rated air flow(indoor)	-	1080	m3/h
variable	Yes		Rated air flow(outdoor)	_	2490	m3/h
			1			1
Contact details for obtaining	Name and address	of the man	ufacturer or of its authorised represental	tive.		
	ishi Heavy Industries Ai					
			kbridge, Middlesex, UB11 1AX,			
	Kingdom					
				.		^

Model FDEN71VNXVF1

Model FDEN71VNXVF1							
Information to identify the model(s) to	which the info	ormation re	elates to:	If function includes heating: Indicate t	he heating s	eason the)
Indoor unit model name	FDEN71VI			information relates to. Indicated value	s should rela	ate to one	
Outdoor unit model name	FDC71VN	Х		heating season at a time. Include at le	east the heaf	ting seaso	n 'Average
Function(indicate if present)				Average(mandatory)	Yes		
cooling	Yes			Warmer(if designated)	No		
heating	Yes			Colder(if designated)	No		
				-			
Item	symbol v	value ι	unit	Item	symbol	value	class
Design load				Seasonal efficiency and energy efficiency			
cooling	Pdesignc		<w td="" <=""><td>cooling</td><td>SEER</td><td>4.67</td><td>В</td></w>	cooling	SEER	4.67	В
heating / Average	Pdesignh		<w td="" <=""><td>heating / Average</td><td>SCOP/A</td><td>3.80</td><td>A</td></w>	heating / Average	SCOP/A	3.80	A
heating / Warmer	Pdesignh		<w< td=""><td>heating / Warmer</td><td>SCOP/W</td><td></td><td>-</td></w<>	heating / Warmer	SCOP/W		-
heating / Colder	Pdesignh	- k	κW	heating / Colder	SCOP/C	-	-
B 1 1 1 1 1 1 1	-			D 1 0 0 0 1 1			unit
Declared capacity at outdoor tempera	۰ -			Back up heating capacity at outdoor to			71.347
heating / Average (-10°C)	Pdh		kW Ι	heating / Average (-10°C)	elbu	0.86	kW
heating / Warmer (2°C)	Pdh		¢W	heating / Warmer (2°C)	elbu		kW
heating / Colder (-22°C)	Pdh	- k	κW	heating / Colder (-22°C)	elbu	-	kW
Designed association as lines at indeed		- 07/40\00		D-1	-1 4	-t 07/4	0)001
Declared capacity for cooling, at indoo	r temperature	e 27(19) C	and	Declared energy efficiency ratio, at in-	door tempera	ature 27(1	9) C and
outdoor temperature Tj	Daa E	7.40		outdoor temperature Tj	CCD4	2.20	7
Tj=35°C	Pdc		<w td="" <=""><td>Tj=35°C</td><td>EERd</td><td>3.36</td><td><u> </u></td></w>	Tj=35°C	EERd	3.36	<u> </u>
Tj=30°C	Pdc		<w< td=""><td>Tj=30°C</td><td>EERd</td><td>4.65</td><td>-</td></w<>	Tj=30°C	EERd	4.65	 -
Tj=25°C	Pdc		<w td="" <=""><td>Tj=25°C</td><td>EERd</td><td>6.63</td><td>_ -</td></w>	Tj=25°C	EERd	6.63	_ -
Tj=20°C	Pdc	2.95 k	κW	Tj=20°C	EERd	9.52	-
(B. 1							
Declared capacity for heating / Average		ındoor		Declared coefficient of performance /		ason, at in	iaoor
temperature 20°C and outdoor temper		E 00 1.		temperature 20°C and outdoor tempe		0.50	7
Tj=-7°C	Pdh		¢W	Tj=-7°C	COPd	2.52	- 1
Tj=2°C	Pdh		۷V	Tj=2°C	COPd	3.80	4-
Tj=7°C	Pdh		kW	Tj=7°C	COPd	4.80	
Tj=12°C	Pdh		<w td="" <=""><td>Tj=12°C</td><td>COPd</td><td>5.98</td><td>-</td></w>	Tj=12°C	COPd	5.98	 -
Tj=bivalent temperature	Pdh	5.80 k	<w td="" <=""><td>Tj=bivalent temperature</td><td>COPd</td><td>2.52</td><td></td></w>	Tj=bivalent temperature	COPd	2.52	
Tj=operating limit	Pdh	5.10 k	κW	Tj=operating limit	COPd	2.13	-
Declared capacity for heating / Warme		indoor		Declared coefficient of performance /		ison, at in	door
temperature 20°C and outdoor temper	ature Tj			temperature 20°C and outdoor tempe			_
Tj=2°C	Pdh		۷V	Tj=2°C	COPd	-	
Tj=7°C	Pdh	- k	<w td="" <=""><td>Tj=7°C</td><td>COPd</td><td>-</td><td>-</td></w>	Tj=7°C	COPd	-	-
Tj=12°C	Pdh	- k	<w td="" <=""><td>Tj=12°C</td><td>COPd</td><td>-</td><td>7-</td></w>	Tj=12°C	COPd	-	7-
Tj=bivalent temperature	Pdh	- k	κW	Tj=bivalent temperature	COPd	-	7-
Tj=operating limit	Pdh	- k	κW	Tj=operating limit	COPd	-	1 -
				, , , ,			
Declared capacity for heating / Colder	season, at in	ndoor		Declared coefficient of performance /	Colder seas	on, at ind	oor
temperature 20°C and outdoor temper	ature Tj			temperature 20°C and outdoor tempe	rature Tj		
Tj=-7°C	Pdh	- k	κW	Tj=-7°C	COPd	-	7-
Tj=2°C	Pdh	- k	κW	Tj=2°C	COPd	-	7-
Ti=7°C	Pdh	- k	w ا	Tj=7°C	COPd	-	1 ₋
Tj=12°C	Pdh	- k	w ا	Tj=12°C	COPd	-	−
Tj=bivalent temperature	Pdh	- k	κW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh		κW	Tj=operating limit	COPd	-	−
Tj=-15°C	Pdh		ζW	Tj=-15°C	COPd		┦_
1, 100	1 411			1) 10 0	001 0		
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv [-7 °	c S	heating / Average	Tol	-20	J°c
heating / Warmer	Tbiv		Š	heating / Warmer	Tol	-	⊣ _©
heating / Colder	Tbiv		Š	heating / Warrier	Tol	<u> </u>	⊣ _©
	. ~!*		-		. 01		1 -
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcvcc	-]k	κW	for cooling	EERcyc	-	7-
for heating	Pcych		ζW	for heating	COPcyc	<u> </u>	 _
	. 5,501	ļr					1
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25 -	.	heating	Cdh	0.25	7-
-							•
Electric power input in power modes of	ther than 'act	tive mode'		Annual electricity consumption	_		
off mode	Poff		N	cooling	Qce	532	kWh/a
standby mode	Psb		N	heating / Average	Qhe	2394	kWh/a
thermostat-off mode	Pto		Ň	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck			heating / colder	Qhe	-	kWh/a
						-	1
Capacity control(indicate one of three	options)			Other items			
and the state of t	,			Sound power level(indoor)	Lwa	62	dB(A)
				Sound power level(outdoor)	Lwa	66	dB(A)
fixed	No			Global warming potential	GWP	1975	kgCO2ed
staged	No			Rated air flow(indoor)	GWP	1200	m3/h
staged variable	Yes				-	3600	m3/h
variable	162			Rated air flow(outdoor)		1 2000	1113/11
Contact details for abtaining	Nome as -	oddrasa -	f the	unfacturer or of its systemical managers.	otivo		
Contact details for obtaining more information Mitsubis				ufacturer or of its authorised represent ning Europe, Ltd.	auve.		
	awooa Avenu Kingdom	ie, Siockie	угатк, О	xbridge, Middlesex, UB11 1AX,			
Officed	anguoni						
				ī			
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Model FDEN100VNXVF			
Information to identify the mode Indoor unit model name	I(s) to which the information relates FDEN100VF1	to: If function includes heating: Indicated vinformation relates to. Indicated v	
Outdoor unit model name	FDC100VNX		e at least the heating season 'Average
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load cooling	Pdesignc 10.0 kW	Seasonal efficiency and energy e	SEER 5.15 A
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A 3.80 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Declared capacity at outdoor ter	mporeture Tdesignh	Back up heating capacity at outdo	unit
heating / Average (-10°C)	Pdh 11.28 kW	heating / Average (-10°C)	elbu 1.72 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared capacity for cooling, at outdoor temperature Tj	t indoor temperature 27(19)°C and	Declared energy efficiency ratio, a outdoor temperature Tj	at indoor temperature 27(19)°C and
Tj=35°C	Pdc 10.00 kW	Tj=35°C	EERd 3.57 -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd 5.26 -
Tj=25°C	Pdc 4.95 kW	Tj=25°C	EERd 7.28 -
Tj=20°C	Pdc 5.23 kW	Tj=20°C	EERd 9.34 -
Declared capacity for baction 11	Average access of indeed	Declared coefficient of newf-	Anna / Average economic at indees
Declared capacity for heating / A temperature 20°C and outdoor to		Declared coefficient of performan temperature 20°C and outdoor tell	
Tj=-7°C	Pdh 12.20 kW	Tj=-7°C	COPd 2.57 -
Tj=2°C	Pdh 7.45 kW	Tj=2°C	COPd 3.63 -
Tj=7°C	Pdh 4.80 kW	Tj=7°C	COPd 5.22 -
Tj=12°C	Pdh 4.85 kW	Tj=12°C	COPd 5.91 -
Tj=bivalent temperature Tj=operating limit	Pdh 12.20 kW Pdh 8.20 kW	Tj=bivalent temperature Tj=operating limit	COPd 2.57 - 2.05 -
rj-operating iimit	Full 8.20 KVV	I j-operating limit	COPa 2.05 -
Declared capacity for heating / V	Narmer season, at indoor	Declared coefficient of performan	ice / Warmer season, at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor te	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C Tj=12°C	COPd
Tj=12°C Tj=bivalent temperature	Pdh - kW	Tj=12 C	COPd
Tj=operating limit	Pdh - kW	Ti=operating limit	COPd
3 - 1 - 3			
Declared capacity for heating / (Declared coefficient of performan	
temperature 20°C and outdoor to Tj=-7°C		temperature 20°C and outdoor tel	
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Ti=7°C	Pdh - kW	Ti=7°C	COPd -
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15°C	COPd
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv <mark>-7</mark> ℃	heating / Average	Tol -20 °C
heating / Warmer	Tbiv - °C	heating / Warmer	Tol - ℃
heating / Colder	Tbiv - °C	heating / Colder	Tol - °C
Cycling interval capacity		Cycling interval efficiency	
Cycling interval capacity for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
-			
Degradation coefficient	Cda Cas	Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Electric power input in power mo	odes other than 'active mode'	Annual electricity consumption	
off mode	Poff 20 W	cooling	Qce 680 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 4789 kWh/a
thermostat-off mode	Pto 98 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
Capacity control(indicate one of	three options)	Other items	
control maloute one of		Sound power level(indoor)	Lwa 64 dB(A)
		Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2ec
staged	No	Rated air flow(indoor)	- 1680 m3/h
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
Contact details for obtaining	Name and address of the	manufacturer or of its authorised repres	sentative
	fitsubishi Heavy Industries Air-Cond		55du v 6.
7	Roundwood Avenue, Stockley Parl		
U	Inited Kingdom		
			T
			DEA0027072 A

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Model FDEN100VSXVI	F1				
Information to identify the mod					
Indoor unit model name Outdoor unit model name	FDEN100VF1 FDC100VSX		information relates to. Indicated value heating season at a time. Include		n 'Averane'
Catacor anii modornamo	1 DO 100 VOX		I housing coucon at a time. molado	at loadt tile floating doade	ii 7tvolago
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes Yes		Warmer(if designated) Colder(if designated)	No No	
neating	res		Colder(ii designated)	NO	
Item	symbol valu	ie unit	Item	symbol value	class
Design load	D		Seasonal efficiency and energy ef		
cooling heating / Average	· -	0.0 kW 3.0 kW	cooling heating / Average	SEER 5.12 SCOP/A 3.80	A
heating / Warmer	Pdesignh	- kW	heating / Average	SCOP/W -	-
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C -	-
		•			unit
Declared capacity at outdoor to heating / Average (-10°C)		.28 kW	Back up heating capacity at outdo heating / Average (-10°C)	or temperature Tdesignh elbu 1.72	lkW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu -	kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu -	kW
	<u>'</u>				
Declared capacity for cooling,	at indoor temperature 27	7(19)℃ and	Declared energy efficiency ratio, a	t indoor temperature 27(1	9)°C and
outdoor temperature Tj Tj=35°C	Pdc 10	.00 kW	outdoor temperature Tj	EERd 3.57	1_
Tj=30°C		.37 kW	Tj=30°C	EERd 5.26	-
Tj=25°C		.95 kW	Tj=25°C	EERd 7.28	1-
Tj=20°C	Pdc 5	. 23 kW	Tj=20°C	EERd 9.34]
Designation " C : "			I Daylanday (C.)	/ Δ	
Declared capacity for heating / temperature 20°C and outdoor		oor	Declared coefficient of performance temperature 20°C and outdoor tem		uoor
Tj=-7°C		2. 20 kW	Tj=-7°C	COPd 2.57]-
Tj=2°C		.45 kW	Tj=2°C	COPd 3.63]-
Tj=7°C		. 80 kW	Tj=7°C	COPd 5.22]-
Tj=12°C		.85 kW	Tj=12°C	COPd 5.91	-
Tj=bivalent temperature		2.20 kW	Tj=bivalent temperature	COPd 2.57 COPd 2.05	ļ-
Tj=operating limit	Pdh 8	.20 kW	Tj=operating limit	COPa 2.05	-
Declared capacity for heating /	Warmer season, at ind	oor	Declared coefficient of performance	ce / Warmer season, at inc	door
temperature 20°C and outdoor			temperature 20°C and outdoor ten		_
Tj=2°C	Pdh	- kW	Tj=2°C	COPd -	-
Tj=7°C Tj=12°C	Pdh	- kW - kW	Tj=7°C Tj=12°C	COPd -	-
Tj=bivalent temperature	Pdh Pdh	- kW - kW	Tj=12 C Tj=bivalent temperature	COPd -	-
Tj=operating limit	Pdh	- kW	Tj=blvalent temperature Tj=operating limit	COPd -	-
7 - 1 - 3					-
Declared capacity for heating /		or	Declared coefficient of performance		or
temperature 20°C and outdoor Tj=-7°C	temperature Ij	- kW	temperature 20°C and outdoor ten	COPd -	1
Tj=2°C	Pdh	- kW	Ti=2°C	COPd -	-
Tj=7°C	Pdh	- kW	Ti=7°C	COPd -	-
Tj=12°C	Pdh	- kW	Tj=12°C	COPd -	1-
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd -]-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd -	-
Tj=-15℃	Pdh	- kW	Tj=-15°C	COPd -	-
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv	-7 ℃	heating / Average	Tol -20]°C
heating / Warmer	Tbiv	<u>-</u> ℃	heating / Warmer	Tol -	°C
heating / Colder	Tbiv	- °C	heating / Colder	Tol -	°C
Cycling interval capacity			Cycling interval efficiency		
for cooling	Pcycc	- kW	for cooling	EERcyc -]-
for heating	Pcych	- kW	for heating	COPcyc -	1
	•			,	
Degradation coefficient	C4	25	Degradation coefficient	Cdb 0.5	1
cooling	Cdc 0	.25 -	heating	Cdh 0.25	1-
Electric power input in power n	nodes other than 'active	mode'	Annual electricity consumption		
off mode	Poff	20 W	cooling	Qce 685	kWh/a
standby mode		20 W	heating / Average	Qhe 4793	kWh/a
thermostat-off mode		18 W	heating / Warmer	Qhe -	kWh/a
crankcase heater mode	Pck	25 W	heating / colder	Qhe -	kWh/a
Capacity control(indicate one c	of three options)		Other items		
The second secon			Sound power level(indoor)	Lwa 64	dB(A)
			Sound power level(outdoor)	Lwa 70	dB(A)
fixed	No	-	Global warming potential	GWP 1975	kgCO2eq.
staged	No		Rated air flow(indoor)	- 1680	m3/h
variable	Yes		Rated air flow(outdoor)	- 6000	m3/h
Contact details for obtaining	Name and ad-	dress of the ma	nufacturer or of its authorised repres	entative.	
more information	Mitsubishi Heavy Indust	ries Air-Conditio	oning Europe, Ltd.		
		Stockley Park, l	Jxbridge, Middlesex, UB11 1AX,		
	United Kingdom				
			I	DE400070	
					70 /\

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Model FDEN71VNXPVF

Model FDEN71VNXPVF				
	s) to which the information relates to:	If function includes heating: Indicat		
Indoor unit model name	FDEN40VF x 2	information relates to. Indicated val		
Outdoor unit model name	FDC71VNX	heating season at a time. Include a	it least the heating	j season 'Avera
Function(indicate if present)		Average(mandatory)	Yes	
cooling	Yes	Warmer(if designated)	No	
heating	Yes	Colder(if designated)	No	
Item	symbol value unit	Item		alue class
Design load	Data sissa a 7.4 LAM	Seasonal efficiency and energy effi		400
cooling	Pdesignc 7.1 kW	cooling	SEER	4.92 B
neating / Average	Pdesignh 6.7 kW	heating / Average	SCOP/A	3.80 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W	
neating / Colder	Pdesignh - kW	heating / Colder	SCOP/C	- - unit
Declared capacity at outdoor temp	perature Tdesignh	Back up heating capacity at outdoo	or temperature Tdo	
neating / Average (-10°C)	Pdh 5.69 kW	heating / Average (-10°C)	elbu	1.01 kW
neating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu	- kW
neating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu	- kW
		-	'	-
Declared capacity for cooling, at ir	ndoor temperature 27(19)°C and	Declared energy efficiency ratio, at	indoor temperatu	re 27(19)°C an
outdoor temperature Tj		outdoor temperature Tj	_	
Гј=35°С	Pdc 7.10 kW	Tj=35°C	EERd	3.41 -
Tj=30°C	Pdc 5.23 kW	Tj=30°C	EERd	4.84 -
Гј=25°С	Pdc 3.37 kW	Tj=25°C	EERd	7.49 -
Гј=20°С	Pdc 3.14 kW	Tj=20°C	EERd	10.13 -
Declared capacity for heating / Av	erane season at indoor	Declared coefficient of performance	a / Average cosco	n at indoor
Declared capacity for neating / Av emperature 20°C and outdoor ten		temperature 20°C and outdoor tem		ii, at muoor
remperature 20 C and outdoor ten Fi=-7°C	Pdh 6.00 kW	Ti=-7°C	COPd	2.61 -
Γj=2°C	Pdh 3.70 kW	Tj=2°C	COPd	3.63
Γj=7°C	Pdh 2.35 kW	Tj=2 C Tj=7°C	COPd	5.11 -
Γj=12°C	Pdh 2.55 kW	Tj=7 C	COPd	6.07
Γj=12 0 Γj=bivalent temperature	Pdh 6.00 kW	Tj=12 0 Tj=bivalent temperature	COPd	2.61 -
Fj=operating limit	Pdh 4.65 kW	Tj=operating limit	COPd	2.33
1)-operating infint	1 011 4.03 1	TJ-operating limit	COLU	2.33
Declared capacity for heating / Wa	armer season, at indoor	Declared coefficient of performance	e / Warmer seaso	n. at indoor
emperature 20°C and outdoor ten		temperature 20°C and outdoor tem		,
Γj=2°C	Pdh - kW	Tj=2°C	COPd	
, Γi=7°C	Pdh - kW	∏i=7°C	COPd	
Γj=12°C	Pdh - kW	Ti=12℃	COPd	
Γj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd	- -
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd	
		1 - 7	<u> </u>	
Declared capacity for heating / Co		Declared coefficient of performance		, at indoor
temperature 20°C and outdoor ten		temperature 20°C and outdoor tem		
Гј=-7°С	Pdh kW	Tj=-7°C	COPd	
Tj=2℃	Pdh - kW	Tj=2°C	COPd	
Гj=7°С	Pdh - kW	Tj=7°C	COPd	
Гj=12°С	Pdh - kW	Tj=12°C	COPd	
Γj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd	
Гј=-15℃	Pdh - kW	Tj=-15°C	COPd	
2:		1 O		
Bivalent temperature	This 7 °C	Operating limit temperature	Tol -	20 00
neating / Average neating / Warmer	Tbiv -7 °C Tbiv - °C	heating / Average	Tol Tol	-20 °C - °C
9		heating / Warmer		- °C
neating / Colder	Tbiv - °C	heating / Colder	Tol	- 10
Cycling interval capacity		Cycling interval efficiency		
for cooling	Pcycc - kW	for cooling	EERcyc	
or heating	Pcych - kW	for heating	COPcyc	
Degradation coefficient		Degradation coefficient		
cooling	Cdc 0.25 -	heating	Cdh	0.25 -
Loctric nower input in account	los other than lasting madel	Annual electricity consumption		
Electric power input in power mod off mode	Poff 18 W	Annual electricity consumption	Qce	506 kWh/a
oπ mode standby mode	Poπ 18 W	cooling heating / Average	_	2470 kWh/a
trandby mode hermostat-off mode	Psb 18 W W W W W W W W W	heating / Average heating / Warmer	Qne Qhe	- kWh/a
rankcase heater mode	Pck 25 W	heating / warmer	Qhe	- kWh/a
Tankoase Healer Hilling	FCN 23 W	Ineating / coluei	QIIE	- KVV11/a
Capacity control(indicate one of th	ree options)	Other items		
. , , , , , , , , , , , , , , , , , , ,	•	Sound power level(indoor)	Lwa	60 dB(A)
		Sound power level(outdoor)	Lwa	66 dB(A)
ixed	No	Global warming potential		1975 kgCO2
staged	No	Rated air flow(indoor)		660 m3/h
/ariable	Yes	Rated air flow(outdoor)		3600 m3/h
Contact details for obtaining	Name and address of the mar	nufacturer or of its authorised represe	entative.	
	subishi Heavy Industries Air-Conditio			
	oundwood Avenue, Stockley Park, L			
	ted Kingdom	-		

PFA003Z973

Model FDEN100VNXPVF

Model FDEN100VNXPV	F		
Information to identify the model	(s) to which the information relates to	o: If function includes heating: Indica	te the heating season the
Indoor unit model name	FDEN50VF x 2	information relates to. Indicated va	alues should relate to one
Outdoor unit model name	FDC100VNX	heating season at a time. Include	at least the heating season 'Average
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load	•	Seasonal efficiency and energy ef	ficiency class
cooling	Pdesignc 10.0 kW	cooling	SEER 5.07 B
heating / Average	Pdesignh 10.0 kW	heating / Average	SCOP/A 3.80 A
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
aug / colaci	i doolgiiii jiiii		unit
Declared capacity at outdoor ten	nnerature Tdesignh	Back up heating capacity at outdo	
heating / Average (-10°C)	Pdh 8.72 kW	heating / Average (-10°C)	elbu 1.28 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
ricating / Golder (-22 G)	1 011 - 1044	Incating / Colder (-22 C)	CIDU - INVV
Declared conscitutor cooling of	indoor temperature 27(19)°C and	Dealared energy officiency ratio	t indoor temperature 27(19)°C and
	indoor temperature 27 (19) C and		t indoor temperature 27 (19) C and
outdoor temperature Tj	Pdc 10.00 kW	outdoor temperature Tj	EED4 224
Tj=35°C		Tj=35°C	EERd 3.31 -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd 5.05 -
Tj=25°C	Pdc 4.90 kW	Tj=25°C	EERd 7.21 -
Tj=20°C	Pdc 5.20 kW	Tj=20°C	EERd 9.45 -
Declared capacity for heating / A		Declared coefficient of performance	
temperature 20°C and outdoor te		temperature 20°C and outdoor ten	
Tj=-7°C	Pdh 9.50 kW	Tj=-7°C	COPd 2.75 -
Tj=2°C	Pdh 5.85 kW	Tj=2°C	COPd 3.75 -
Tj=7°C	Pdh 4.60 kW	Tj=7°C	COPd 5.00 -
Tj=12°C	Pdh 4.65 kW	Tj=12°C	COPd 5.81 -
Tj=bivalent temperature	Pdh 9.50 kW	Tj=bivalent temperature	COPd 2.75 -
Tj=operating limit	Pdh 6.10 kW	Tj=operating limit	COPd 2.07 -
, ,			-
Declared capacity for heating / V	Varmer season, at indoor	Declared coefficient of performance	ce / Warmer season, at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor ten	
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Ti=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd -
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd -
		117	
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Dealers described to the series of C	Saldan and Saldan	D1	. / O. Idan
Declared capacity for heating / C		Declared coefficient of performance	
temperature 20°C and outdoor to		temperature 20°C and outdoor ten	
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7℃	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15°C	COPd
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -20 °C
heating / Warmer	Tbiv - ℃	heating / Warmer	Tol - °C
heating / Colder	Tbiv - ℃	heating / Colder	Tol - ℃
3 · · · · · ·			
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
	. 0,0.1		55.5,5
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
ig	0.20	[oatmg	0.20
Electric power input in power mo	odes other than 'active mode'	Annual electricity consumption	
off mode	Poff 23 W	cooling	Qce 691 kWh/a
on mode standby mode	Psb 23 W	heating / Average	Qte 691 kWh/a Qhe 3684 kWh/a
standby mode thermostat-off mode			
		heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
		Tour 's	
Capacity control(indicate one of	three options)	Other items	
		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2ed
staged	No	Rated air flow(indoor)	- 660 m3/h
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
Contact details for obtaining	Name and address of the m	anufacturer or of its authorised repres	entative.
	litsubishi Heavy Industries Air-Condit		
	Roundwood Avenue, Stockley Park,		
	nited Kingdom	.3.,,	
-	3		
		I	
			DEADO27072A

Model FDEN100VSXPVF

Model FDEN100VSXF	'VF		
Information to identify the mo	del(s) to which the information rela	ates to: If function includes heating: Ind	icate the heating season the
Indoor unit model name	FDEN50VF x 2	information relates to. Indicated	I values should relate to one
Outdoor unit model name	FDC100VSX	heating season at a time. Inclu	de at least the heating season 'Average'
			3
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
g		golder (ii. doolgilatod)	
Item	symbol value un	it Item	symbol value class
Design load	Symbol value un	Seasonal efficiency and energy	
cooling	Pdesignc 10.0 kV		SEER 5.03 B
	Ŭ	11 0	
heating / Average	3		
heating / Warmer	Pdesignh - kV	11 ~	SCOP/W
heating / Colder	Pdesignh - kV	/ heating / Colder	SCOP/C
			unit
Declared capacity at outdoor		Back up heating capacity at our	ldoor temperature Tdesignh
heating / Average (-10°C)	Pdh 8.72 kV	/ heating / Average (-10°C)	elbu 1.28 kW
heating / Warmer (2°C)	Pdh - kV	/ heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kV	/ heating / Colder (-22°C)	elbu - kW
,			
Declared canacity for cooling	, at indoor temperature 27(19)°C a	nd Declared energy efficiency ratio	o, at indoor temperature 27(19)°C and
outdoor temperature Tj	, at maoor temperature 27 (10) o a	outdoor temperature Tj	r, at mader temperature 27 (10) o and
Tj=35°C	Pdc 10.00 kV		EERd 3.31 -
,	Pdc 7.37 kV	113.5	EERd 5.05 -
Tj=30°C		117	
Tj=25°C	Pdc 4.90 kV	113	EERd 7.21 -
Tj=20°C	Pdc 5.20 kV	/ Tj=20°C	EERd 9.45 -
Declared capacity for heating			ance / Average season, at indoor
temperature 20°C and outdoo		temperature 20°C and outdoor	
Tj=-7°C	Pdh 9.50 kV	/ Tj=-7°C	COPd 2.75 -
Tj=2℃	Pdh 5.85 kV		COPd 3.75 -
Tj=7°C	Pdh 4.60 kV	11 ' .	COPd 5.00 -
Tj=12°C	Pdh 4.65 kV	11,	COPd 5.80 -
,		11,	
Tj=bivalent temperature	Pdh 9.50 kV	113	COPd 2.75 -
Tj=operating limit	Pdh 6.10 kV	/ Tj=operating limit	COPd 2.07 -
Declared capacity for heating			ance / Warmer season, at indoor
temperature 20°C and outdoo	or temperature Tj	temperature 20°C and outdoor	temperature Tj
Tj=2°C	Pdh - kV	/ Tj=2°C	COPd
Tj=7°C	Pdh - kV		COPd
Tj=12°C	Pdh - kV	117	COPd
,		117	
Tj=bivalent temperature	Pdh - kV	113	COPd
Tj=operating limit	Pdh - kV	/ Tj=operating limit	COPd
Declared capacity for heating			ance / Colder season, at indoor
temperature 20°C and outdoo	or temperature Tj	temperature 20°C and outdoor	temperature Tj
Tj=-7°C	Pdh - kV	/ Tj=-7°C	COPd
Tj=2°C	Pdh - kV	/ Tj=2°C	COPd
Tj=7°C	Pdh - kV		COPd
Tj=12°C	Pdh - kV	117	COPd
,		11,	COPd -
Tj=bivalent temperature		113	
Tj=operating limit	Pdh - kV	11,7,1	COPd
Tj=-15℃	Pdh - kV	/ Tj=-15°C	COPd
Bivalent temperature	_	Operating limit temperature	
heating / Average	Tbiv7 °C	heating / Average	Tol -20 °C
heating / Warmer	Tbiv - ℃	heating / Warmer	Tol - °C
heating / Colder	Tbiv - °C	heating / Colder	Tol - °C
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kV		EERcyc
for heating	Pcych - kV		COPcyc
-	-,		9-1
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
	0.20		
Electric power input in nower	modes other than 'active mode'	Annual electricity consumption	
off mode	Poff 23 W	cooling	Qce 696 kWh/a
		heating / Average	
standby mode	Psb 23 W		Qhe 3687 kWh/a
thermostat-off mode	Pto 86 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
Capacity control(indicate one	of three options)	Other items	
		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq.
	No		- 660 m3/h
staged		Rated air flow(indoor)	
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Contact details for obtaining		he manufacturer or of its authorised rep	resentative.
more information	Mitsubishi Heavy Industries Air-C		
		Park, Uxbridge, Middlesex, UB11 1AX,	
	United Kingdom		
			DEA0027072 A

(4) Duct connected-High static pressure type (FDU) Model FDU71VNXVF1

Information to identify the model(e)	. 4			He formation in alread on the attinger to alleade the			
Information to identify the model(s)			relates to:	If function includes heating: Indicate the	0		
Indoor unit model name	FDU71VF			information relates to. Indicated values			
Outdoor unit model name	FDC71VN	Х		heating season at a time. Include at le	ast the hea	ling seaso	n 'Average
Function(indicate if present)				Average (mandatory)	Yes		
	Yes			Average(mandatory)	No		
cooling	Yes			Warmer(if designated)	No		
heating	res			Colder(if designated)	NO		
Item	symbol	value	unit	Item	symbol	value	class
Design load	Syllibol	value	unit	Seasonal efficiency and energy efficie		value	Class
cooling	Pdesignc	7.1	∃kW	cooling	SEER	5.24	l A
heating / Average	Pdesignh	7.0	⊣kW	heating / Average	SCOP/A		A
heating / Warmer	Pdesignh	-	⊣kW	heating / Warmer	SCOP/W		-
heating / Colder	Pdesignh	— <u>:</u>	⊣kW	heating / Colder	SCOP/C		
Tleating / Colder	i designin		KVV	rieating / Colder	300170		unit
Declared capacity at outdoor temp	erature Tdesign	h		Back up heating capacity at outdoor to	mnerature	Tdesignh	urni
heating / Average (-10°C)	Pdh	5.92	7kW │	heating / Average (-10°C)	elbu	1.08	kW
heating / Warmer (2°C)	Pdh	-	⊣kW	heating / Warmer (2°C)	elbu	-	kW
heating / Warrier (2 C)	Pdh		⊣kW	heating / Colder (-22°C)	elbu	<u> </u>	kW
Treating / Colder (-22 C)	i uii		KVV	rieating / Colder (-22 C)	eibu		IK V V
Declared capacity for cooling, at in	door tomporatur	o 27/10)	°C and	Declared energy efficiency ratio, at inc	loor tompor	oturo 27/1	0\°C and
outdoor temperature Tj	door terriperatur	6 21 (13)	Cand	outdoor temperature Tj	ioor terriper	ature Zi (i	3) C and
Tj=35°C	Pdc [7.10	∖kW	Tj=35°C	EERd	3.46	٦_
Tj=30℃	Pdc	5.23	⊣kW	Tj=30°C	EERd	4.72	
Tj=30 C Tj=25°C	Pdc	3.37	- kW	Tj=30 C	EERd	7.94	վ⁻
Ti=20°C	Pdc	3.20	⊣kW	Ti=20°C	EERd	10.38	+
1j=20 C	Puc	3.20	KVV	1j-20 C	EERU	10.30	1-
Declared capacity for heating / Ave	rago coccon -1	indear		Declared coefficient of performance /	Avorage co	ncon of in	door
Declared capacity for heating / Ave		iiiuoor		Declared coefficient of performance / /		มรบท, at in	uUUI
temperature 20°C and outdoor tem	perature Ij Pdh	6.20	\exists_{kW}	temperature 20°C and outdoor temper		2.53	٦
			⊣ 1		COPd		4-
Tj=2°C	Pdh	3.85	kW	Tj=2°C	COPd	3.82	⊣ -
Tj=7°C	Pdh	2.45	kW	Tj=7°C	COPd	5.15	վ -
Tj=12°C	Pdh	2.56	kW	Tj=12°C	COPd	6.28	
Tj=bivalent temperature	Pdh	6.20	kW	Tj=bivalent temperature	COPd	2.53	
Tj=operating limit	Pdh	5.00	kW	Tj=operating limit	COPd	2.06	-
Declared capacity for heating / Wa		indoor		Declared coefficient of performance /		ason, at inc	door
temperature 20°C and outdoor tem	perature Tj		_	temperature 20°C and outdoor temper	ature Tj		_
Tj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	-
Tj=7°C	Pdh	-	kW	Tj=7°C	COPd	-	7-
Tj=12℃	Pdh	-	kW	Tj=12℃	COPd	-	7-
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	7-
Tj=operating limit	Pdh	-	kw	Tj=operating limit	COPd	-	1-
, , ,				, , ,			
Declared capacity for heating / Col	der season, at ir	ndoor		Declared coefficient of performance /	Colder seas	on, at indo	oor
temperature 20°C and outdoor tem				temperature 20°C and outdoor temper			
Ti=-7°C	Pdh ∫	-	kW	Tj=-7°C	COPd		7-
Tj=2°C	Pdh	-	∃kW	Tj=2℃	COPd	-	1 ₋
Ti=7°C	Pdh	-	kW	Tj=7°C	COPd	-	┦_
Ti=12℃	Pdh	-	kW	Tj=12°C	COPd	-	┥_
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	┦_
Tj=operating limit	Pdh	-	⊣kW	Tj=operating limit	COPd	-	┦_
Tj=-15°C	Pdh		kW	Tj=-15°C	COPd	-	+_
1]=-13 C	Full		KVV	1]13 0	COFu		
Bivalent temperature				Operating limit temperature			
heating / Average	Tbiv	-7	∵େ	heating / Average	Tol	-20	ି℃
heating / Warmer	Tbiv			heating / Warmer	Tol	-20	-©
				heating / Warrier			l _c
heating / Colder	Tbiv	-	U	meaning / Colder	Tol	-	10
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc		∖kW	for cooling	EERcyc		7-
for heating	Pcych		⊣kW	for heating	COPcyc		HĪ.
lor rieating	i cycii		KVV	ioi rieating	COI Cyc		<u> </u>
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25	¬. I	heating	Cdh	0.25	٦_
Cooming	Odc	0.23		neating	Ouii	0.23	
Electric power input in power mode	es other than 'ac	tive mod	e'	Annual electricity consumption			
off mode	Poff [15	ĭw l	cooling	Qce	475	kWh/a
standby mode	Psb	15	⊣w l	heating / Average	Qhe	2513	kWh/a
thermostat-off mode	Pto	18	⊣w l	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	22	⊣w l	heating / warrier	Qhe		kWh/a
oranicase neater mode	I UN		v v	modulig / coldel	WI IC		IVA11/a
Capacity control(indicate one of the	oo ontions)			Other items			
Capacity control(indicate one of thi	oe options)			Sound power level(indoor)	Lwa	65	dB(A)
				Sound power level(indoor)	Lwa Lwa	66	dB(A)
fived	No				Lwa GWP	1975	
fixed				Global warming potential			kgCO2eq
staged	No			Rated air flow(indoor)	-	1440	m3/h
variable	Yes			Rated air flow(outdoor)	-	3600	m3/h
Contact date in face of the contact	A1	الداما ا	-£41	and advisor on all the continued.	4:		
Contact details for obtaining				nufacturer or of its authorised representa	auve.		
				ning Europe, Ltd.			
		ue, SiOCk	uey Park, U	xbridge, Middlesex, UB11 1AX,			
Unit	ed Kingdom						
				Т	1		
					1		

Model FDU100VNXVF1

WIOGEI FDO IOUVINAVE			
	del(s) to which the information relates to		
Indoor unit model name	FDU100VF1 FDC100VNX	information relates to. Indicated va	
Outdoor unit model name	FDC100VNX	I neating season at a time. Include	at least the heating season 'Average'.
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
neating	103	Colder(ii designated)	110
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy ef	
cooling	Pdesignc 10.0 kW	cooling	SEER 5.22 A
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A 4.10 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
			unit
Declared capacity at outdoor		Back up heating capacity at outdo	
heating / Average (-10°C)	Pdh 10.91 kW	heating / Average (-10°C)	elbu 2.09 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh	heating / Colder (-22°C)	elbu - kW
Declared conscitutor cooling	at indeed to me another 27(10)°0 and	Declared anamy officional ratio	at indeed to make the 27(10)°C and
outdoor temperature Tj	, at indoor temperature 27(19)°C and	outdoor temperature Tj	at indoor temperature 27(19)°C and
Tj=35°C	Pdc 10.00 kW	Tj=35°C	EERd 3.73 -
Ti=30°C	Pdc 7.42 kW	Tj=30°C	EERd 4.84 -
Tj=30 C Tj=25°C	Pdc 7.42 KW	Tj=30 C Tj=25°C	EERd 7.43
Tj=20°C	Pdc 5.87 kW	Ti=20°C	EERd 10.46 -
,,	. 40 J.01 KVV] [., 200	22.10
Declared capacity for heating	/ Average season, at indoor	Declared coefficient of performance	ce / Average season, at indoor
temperature 20°C and outdoo		temperature 20°C and outdoor ten	
Tj=-7°C	Pdh 11.50 kW	Tj=-7°C	COPd 2.54 -
Tj=2℃	Pdh 6.89 kW	Tj=2°C	COPd 4.07 -
Tj=7°C	Pdh 4.50 kW	Tj=7°C	COPd 5.52 -
Tj=12°C	Pdh 5.20 kW	Tj=12°C	COPd 6.50 -
Tj=bivalent temperature	Pdh 11.50 kW	Tj=bivalent temperature	COPd 2.54 -
Tj=operating limit	Pdh 8.96 kW	Tj=operating limit	COPd 2.16 -
Declared capacity for heating		Declared coefficient of performance	
temperature 20°C and outdoo		temperature 20°C and outdoor ten	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C Tj=12°C	001 u
Tj=12°C	· · · · · · · · · · · · · · · · · · ·	11,	COPd
Tj=bivalent temperature		Tj=bivalent temperature	
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating	/ Colder season, at indoor	Declared coefficient of performance	ce / Colder season, at indoor
temperature 20°C and outdoo		temperature 20°C and outdoor ten	
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Ti=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Ti=7°C	COPd
Tj=12℃	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15℃	COPd
	·		·
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -20 °C
heating / Warmer	Tbiv - °C	heating / Warmer	Tol - °C
heating / Colder	Tbiv - °C	heating / Colder	Tol - °C
Cycling intonual conseils:		Cycling interval officions:	
Cycling interval capacity for cooling	Pcycc - kW	Cycling interval efficiency for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
nor meaning	T Cycli - KVV	_ liot fleating	- -
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
<u> </u>			
Electric power input in power	modes other than 'active mode'	Annual electricity consumption	
off mode	Poff 20 W	cooling	Qce 670 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 4437 kWh/a
thermostat-off mode	Pto 45 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
			-
Capacity control(indicate one	of three options)	Other items	
		Sound power level(indoor)	Lwa 65 dB(A)
<u> </u>		Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq.
staged	No	Rated air flow(indoor)	- 2160 m3/h
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
Occupant details to 11 11	Name on 1 11 22	and the state of t	- mt - th
Contact details for obtaining		inufacturer or of its authorised repres	sentative.
more information	Mitsubishi Heavy Industries Air-Condition		
	7 Roundwood Avenue, Stockley Park, United Kingdom	Oxbridge, Middlesex, OBTLIAX,	
	- Inter Kingdolli		
	4	T	D100007400 A

Model FDU100VSXVF1

Information to identify the model(s)		relates to:	If function includes heating: Indicate			
Indoor unit model name	FDU100VF1		information relates to. Indicated valu			
Outdoor unit model name	FDC100VSX		heating season at a time. Include at	least the heati	ng seaso	n 'Average
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
Item	symbol value	unit	Item		value	class
Design load	D	7.14	Seasonal efficiency and energy effic		= 40	
cooling	Pdesignc 10.0	kW	cooling	SEER	5.19	A
heating / Average	Pdesignh 13.0	kW	heating / Average	SCOP/A	4.10	A+
heating / Warmer	Pdesignh -	kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	-	- 14
Declared capacity at outdoor temp	erature Tdesignh		Back up heating capacity at outdoor	temperature T	decianh	unit
heating / Average (-10°C)	Pdh 10.91	kW	heating / Average (-10°C)	elbu	2.09	kW
heating / Warmer (2°C)	Pdh -	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh -	kW	heating / Colder (-22°C)	elbu	-	kW
ricating / Coldon (ZZ G)	T GIT	1000	riculing / Colder (ZZ G)	CIDA		IXVV
Declared capacity for cooling, at in	door temperature 27(19)	°C and	Declared energy efficiency ratio, at i	ndoor tempera	ture 27(1	9)°C and
outdoor temperature Tj	door tomporature 27 (10)	o una	outdoor temperature Tj	nacor tompora	taro 27 (1	o, o ana
Tj=35°C	Pdc 10.00	kW	Tj=35°C	EERd [3.73	7-
Tj=30°C	Pdc 7.42	kW	Tj=30°C	EERd	4.84	1_
Tj=25°C	Pdc 5.58	⊣kW	Tj=25°C	EERd	7.43	1-
Tj=20°C	Pdc 5.87	⊣kW	Tj=20°C	EERd	10.46	1_
<u>,</u>		1	1			-
Declared capacity for heating / Ave	erage season, at indoor		Declared coefficient of performance	/ Average sea	son, at in	door
temperature 20°C and outdoor tem			temperature 20°C and outdoor temp			
Tj=-7°C	Pdh 11.50	kW	Tj=-7°C	COPd	2.54]-
Tj=2°C	Pdh 6.89	kW	Tj=2°C	COPd	4.07]-
rj=7°C	Pdh 4.50	kW	Tj=7°C	COPd	5.52	7-
rj=12℃	Pdh 5.20	kW	Tj=12℃	COPd	6.50	1-
Tj=bivalent temperature	Pdh 11.50	kW	Tj=bivalent temperature	COPd	2.54	1-
Tj=operating limit	Pdh 8.96	kW	Tj=operating limit	COPd	2.16	1-
, ,		-				
Declared capacity for heating / Wa	rmer season, at indoor		Declared coefficient of performance	/ Warmer seas	son, at in	door
temperature 20°C and outdoor tem	perature Tj		temperature 20°C and outdoor temp	erature Tj		
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	-]-
Tj=7°C	Pdh -	kW	Tj=7°C	COPd	-]-
Tj=12°C	Pdh -	kW	Tj=12°C	COPd	-	7-
Tj=bivalent temperature	Pdh -	kW	Tj=bivalent temperature	COPd	-	1-
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	-	1-
		'				
Declared capacity for heating / Col-	der season, at indoor		Declared coefficient of performance	/ Colder seaso	n, at indo	oor
temperature 20°C and outdoor tem	perature Tj	_	temperature 20°C and outdoor temp	erature Tj		_
Tj=-7°C	Pdh -	kW	Tj=-7°C	COPd	-	-
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	-	-
Tj=7°C	Pdh -	kW	Tj=7°C	COPd	-	-
Tj=12°C	Pdh -	kW	Tj=12°C	COPd	-	-
Tj=bivalent temperature	Pdh -	kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	-]-
Tj=-15℃	Pdh -	kW	Tj=-15°C	COPd	-]-
Bivalent temperature		70-	Operating limit temperature			70-
heating / Average	Tbiv -7	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv -	_°C	heating / Warmer	Tol	-	°C
heating / Colder	Tbiv -	°C	heating / Colder	Tol	-	°C
Cycling intonial careasts			Cycling intornal efficients			
Cycling interval capacity	Povos	lkW	Cycling interval efficiency for cooling	EERcyc [٦_
for cooling for heating	Pcycc - Pcych -	⊣kW		, ,		-[
for heating	Pcych -	KVV	for heating	COPcyc	-	<u> -</u>
Degradation coefficient			Degradation coefficient			
cooling	Cdc 0.25	7-	heating	Cdh	0.25	7-
	0.20	1		5411	3.20	
Electric power input in power mode	es other than 'active mod	le'	Annual electricity consumption			
off mode	Poff 40	Jw	cooling	Qce	675	kWh/a
standby mode	Psb 20	W	heating / Average	Qhe	4441	kWh/a
thermostat-off mode	Pto 65	W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck 25	W	heating / colder	Qhe	-	kWh/a
		-	J			
Capacity control(indicate one of thr	ree options)		Other items			
. , , , , , , , , , , , , , , , , , , ,	, ,		Sound power level(indoor)	Lwa	65	dB(A)
			Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2e
staged	No		Rated air flow(indoor)	-	2160	m3/h
variable	Yes		Rated air flow(outdoor)	-	6000	m3/h
						12
Contact details for obtaining	Name and address	s of the mar	nufacturer or of its authorised represer	ntative.		
	ubishi Heavy Industries			-		
			lxbridge, Middlesex, UB11 1AX,			
	ed Kingdom	•				

(5) Duct connected-Low/Middle static pressure type (FDUM) Model FDUM40ZMXVF

Model FDUM40ZMXVF			
Information to identify the model(s) to	which the information relates to:	If function includes heating: Indicate to	he heating season the
Indoor unit model name	FDUM40VF	information relates to. Indicated value	
Outdoor unit model name	SRC40ZMX-S	heating season at a time. Include at le	east the heating season 'Average'.
Franking (in disease if a recent)		_ A.v. = = = (== = = d = t = = v)	Vac
Function(indicate if present)	Yes	Average(mandatory) Warmer(if designated)	Yes No
heating	Yes	Colder(if designated)	No
ricating	103	Colder(ii designated)	110
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy efficiency	
cooling	Pdesignc 4.0 kW	cooling	SEER 6.01 A+
heating / Average	Pdesignh 3.5 kW	heating / Average	SCOP/A 4.15 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
			unit
Declared capacity at outdoor tempera		Back up heating capacity at outdoor t	
heating / Average (-10°C)	Pdh 2.788 kW	heating / Average (-10°C)	elbu 0.713 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared capacity for cooling, at indo	or temperature 27(19)°C and	Declared energy efficiency ratio, at in	door temperature 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj	
Tj=35°C	Pdc 4.00 kW	Tj=35°C	EERd 4.17 -
Tj=30°C	Pdc 2.95 kW	Tj=30°C	EERd 5.57 -
Tj=25°C	Pdc 1.90 kW	Tj=25°C	EERd 7.45 -
Tj=20°C	Pdc 1.51 kW	Tj=20°C	EERd 10.27 -
		1.5	
Declared capacity for heating / Avera		Declared coefficient of performance /	
temperature 20°C and outdoor tempe		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh 3.05 kW	Tj=-7°C	COPd 2.88 -
Tj=2°C	Pdh 1.79 kW	Tj=2°C	COPd 4.34 -
Tj=7°C	Pdh 1.21 kW	Tj=7°C	COPd 4.90 -
Tj=12°C	Pdh 0.98 kW	Tj=12°C	COPd 5.17 -
Tj=bivalent temperature	Pdh 3.05 kW	Tj=bivalent temperature	COPd 2.88 -
Tj=operating limit	Pdh 2.35 kW	Tj=operating limit	COPd 2.37 -
		_	
Declared capacity for heating / Warm		Declared coefficient of performance /	
temperature 20°C and outdoor tempe		temperature 20°C and outdoor tempe	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating / Colde		Declared coefficient of performance /	
temperature 20°C and outdoor tempe		temperature 20°C and outdoor tempe	
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15°C	COPd
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -15 °C
heating / Warmer	Tbiv - ℃	heating / Warmer	Tol - ℃
heating / Colder	Tbiv - ℃	heating / Colder	Tol - ℃
Cycling interval capacity	_	Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
December 77 1 1		Demodelies #	
Degradation coefficient		Degradation coefficient	0.11
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Fleshie assume to set to	ath on the on to the course of the	Annual alasticitics and	
Electric power input in power modes		Annual electricity consumption	000 134/1/
off mode	Poff 12 W	cooling	Qce 233 kWh/a
standby mode	Psb 12 W	heating / Average	Qhe 1182 kWh/a
thermostat-off mode	Pto 15 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 0 W	heating / colder	Qhe - kWh/a
Compaign construction disease 5.12	ti)	Oth on itoms	
Capacity control(indicate one of three	opuons)	Other items	Luce GO Japan
		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 63 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq
staged	No	Rated air flow(indoor)	- 780 m3/h
variable	Yes	Rated air flow(outdoor)	- 2160 m3/h
Contact details for obtaining		nufacturer or of its authorised representa	ative.
	oishi Heavy Industries Air-Condition		
	ndwood Avenue, Stockley Park, I	Jxbridge, Middlesex, UB11 1AX,	
United	d Kingdom		
		T	
			A ^ .

Model FDUM50ZMXVF

Model FDUM50ZMXVF					
Information to identify the model(s) to		ion relates to:	If function includes heating: Indicate th		
Indoor unit model name	FDUM50VF		information relates to. Indicated values should relate to one		
Outdoor unit model name	SRC50ZMX-S		heating season at a time. Include at lea	ast the heati	ng season 'Average'.
Eupation/indicate if present)			1 Average(mandetery)	Yes	
Function(indicate if present) cooling	Yes		Average(mandatory) Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
neating	res		Colder(ii designated)	NO	
Item	symbol valu	e unit	Item	symbol	value class
Design load	Oymbor valu	o unit	Seasonal efficiency and energy efficie		value oldee
cooling	Pdesignc 5	. 0 kW	cooling	SEER	5.68 A+
heating / Average		.3 kW	heating / Average	SCOP/A	4.36 A+
heating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W	·
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	
	•	•			unit
Declared capacity at outdoor temper			Back up heating capacity at outdoor te		
heating / Average (-10°C)		42 kW	heating / Average (-10°C)	elbu	0.88 kW
heating / Warmer (2°C)		- kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	- kW
		40)00	16		1 07/10\00
Declared capacity for cooling, at indo	oor temperature 27(19)℃ and	Declared energy efficiency ratio, at ind	oor tempera	iture 27(19)°C and
outdoor temperature Tj	Ddo F	OO PAA	outdoor temperature Tj	EED4	2.62
Tj=35°C Tj=30°C		00 kW 69 kW	│ Tj=35°C │ Ti=30°C	EERd	3.62 4.86
Tj=30 C Tj=25°C		37 KW		EERd EERd	6.93
Tj=25 C Tj=20°C		51 kW		EERd	9.50
113-20 0	ruc I.	31 KVV	1]-20 0	LLRU	3.30 -
Declared capacity for heating / Avera	ane season at indo	or	Declared coefficient of performance / A	Average sea	son at indoor
temperature 20°C and outdoor 20°C and outdoor 20°C and 00°C an		J.	temperature 20°C and outdoor temperature		oon, at muoor
Tj=-7°C		78 kW	Tj=-7°C	COPd	2.86 -
Tj=2°C		31 kW	Tj=2°C	COPd	4.33 -
Tj=7°C		50 kW	Tj=7°C	COPd	5.51 -
Tj=12°C		98 kW	Tj=12°C	COPd	6.76 -
Tj=bivalent temperature	Pdh 3.	78 kW	Tj=bivalent temperature	COPd	2.86 -
Tj=operating limit		82 kW	Tj=operating limit	COPd	2.47 -
	-	-			
Declared capacity for heating / Warn	ner season, at indoo	or	Declared coefficient of performance / \	Narmer seas	son, at indoor
temperature 20°C and outdoor temperature	erature Tj		temperature 20°C and outdoor temperature	ature Tj	
Tj=2°C	. u.i	- kW	Tj=2°C	COPd	
Tj=7°C		- kW	Tj=7°C	COPd	
Tj=12°C		- kW	Tj=12°C	COPd	
Tj=bivalent temperature		- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
Deeless deeless to the street of October] [D	2-1-1	
Declared capacity for heating / Colde			Declared coefficient of performance / (on, at indoor
temperature 20°C and outdoor temperature 7°C		- kW	temperature 20°C and outdoor tempera	COPd	
Tj=2°C		- kW	Tj=2°C	COPd	
Ti=7°C		- KVV - KW		COPd	
Tj=12°C	_ '	- KVV - KW	Tj=12°C	COPd	
Tj=bivalent temperature		- kW	Tj=bivalent temperature	COPd	-
Tj=operating limit		- kW	Tj=operating limit	COPd	
Tj=-15°C		- kW	Ti=-15°C	COPd	
,,		1,	1 [.,		
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv -	. 7 ℃	heating / Average	Tol	-15 °C
heating / Warmer	Tbiv	- ℃	heating / Warmer	Tol	- ℃
heating / Colder	Tbiv	- ℃	heating / Colder	Tol	- ℃
	•				
Cycling interval capacity			Cycling interval efficiency		
for cooling	Pcycc	- kW	for cooling	EERcyc	
for heating	Pcych	- kW	for heating	COPcyc	
			1 (=		
Degradation coefficient	o	0.5	Degradation coefficient	0 "	
cooling	Cdc 0.	25 -	heating	Cdh	0.25 -
Electric newer input in newer seeds	other there leading a	anda'	Appual alastriaity consumentian		
Electric power input in power modes off mode		node' 2 W	Annual electricity consumption	000	309 kWh/a
standby mode		2 VV 12 W	cooling heating / Average	Qce Qhe	1382 kWh/a
thermostat-off mode		12 VV	heating / Average heating / Warmer	Qhe	- kWh/a
crankcase heater mode		0 W	heating / warmer heating / colder	Qhe	- kWh/a
oranicoase neater mode	I ON	- v v	Incaming / conden	WIIC.	- NVVII/a
Capacity control(indicate one of three	e options)		Other items		
Sapaony control(maiotic one of the	o optiono,		Sound power level(indoor)	Lwa	60 dB(A)
			Sound power level(outdoor)	Lwa	63 dB(A)
fixed	No		Global warming potential	GWP	1975 kgCO2eq
staged	No		Rated air flow(indoor)	-	780 m3/h
variable	Yes		Rated air flow(outdoor)	-	2400 m3/h
	1				1 1110/11
Contact details for obtaining	Name and add	ress of the mar	ufacturer or of its authorised representat	ive.	
more information Mitsu	bishi Heavy Industri	es Air-Condition	ning Europe, Ltd.		
7 Rou	ındwood Avenue, S	tockley Park, U	xbridge, Middlesex, UB11 1AX,		
	d Kingdom				
				.	00071508

Model FDUM60ZMXVF

Wodel FDUM60ZMXVF			
	to which the information relates to:	If function includes heating: Indicat	
Indoor unit model name Outdoor unit model name	FDUM60VF SRC60ZMX-S	information relates to. Indicated va	
Outdoor unit model name	SRC60ZWX-S	nealing season at a time. Include a	at least the heating season 'Average'
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy eff	
cooling	Pdesignc 5.6 kW	cooling	SEER 6.42 A++
heating / Average	Pdesignh 5.4 kW	heating / Average	SCOP/A 4.37 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
D	and the The Samb	Deal on beating a section of a state of	unit
Declared capacity at outdoor tempo heating / Average (-10°C)	Pdh 4.50 kW	Back up heating capacity at outdoon heating / Average (-10°C)	elbu 0.90 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Warrier (2 C)	elbu - kW
neating / Colder (-22 C)	Full - KVV	Treating / Colder (-22 C)	eibu - KVV
Declared capacity for cooling, at in	door temperature 27(19)°C and	Declared energy efficiency ratio, at	t indoor temperature 27(19)°C and
outdoor temperature Tj		outdoor temperature Tj	,
Tj=35°C	Pdc 5.60 kW	Tj=35°C	EERd 3.64 -
Tj=30°C	Pdc 4.13 kW	Tj=30°C	EERd 5.23 -
Tj=25°C	Pdc 2.65 kW	Tj=25°C	EERd 7.68 -
Tj=20°C	Pdc 1.48 kW	Tj=20°C	EERd 13.10 -
<u></u>			
Declared capacity for heating / Ave		Declared coefficient of performanc	
temperature 20°C and outdoor tem	perature Tj	temperature 20°C and outdoor tem	perature Tj
Tj=-7°C	Pdh 4.80 kW	Tj=-7°C	COPd 2.91 -
Tj=2°C	Pdh 2.85 kW	Tj=2°C	COPd 4.35 -
Tj=7°C	Pdh 1.77 kW	Tj=7°C	COPd 5.62 -
Tj=12℃	Pdh 0.97 kW	Tj=12°C	COPd 5.77 -
Tj=bivalent temperature	Pdh 4.80 kW	Tj=bivalent temperature	COPd 2.91 -
Tj=operating limit	Pdh 4.00 kW	Tj=operating limit	COPd 2.5 -
Declared capacity for heating / Wa emperature 20°C and outdoor tem	perature Tj	Declared coefficient of performanc temperature 20°C and outdoor tem	perature Tj
Γj=2°C	Pdh kW	Tj=2°C	COPd
Гj=7°С	Pdh - kW	Tj=7°C	COPd
Гj=12°С	Pdh - kW	Tj=12°C	COPd
Гj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Dealared consists for booting / Cal	den cocce et indoce	Declared coefficient of newformers	- / Caldan account at indees
Declared capacity for heating / Col temperature 20°C and outdoor tem		Declared coefficient of performanc temperature 20°C and outdoor tem	
riperature 20 C and outdoor tern Fi=-7°C	Pdh - kW	Ti=-7°C	COPd
Γj=2°C	Pdh - kW	Ti=2°C	COPd
Γj=7°C	Pdh - kW	Ti=7°C	COPd
Γj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=12 0 Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=blvalerit temperature Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
rj=-0perating illriit Fj=-15°C	Pdh - kW	Tj=-15°C	COPd
1]13 0	Tuli - RVV	1]13 0	- COI u - -
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -15 ℃
heating / Warmer	Tbiv - °C	heating / Warmer	Tol - ℃
neating / Colder	Tbiv - °C	heating / Colder	Tol - ℃
<u> </u>			
Cycling interval capacity		Cycling interval efficiency	
or cooling	Pcycc - kW	for cooling	EERcyc
or heating	Pcych - kW	for heating	COPcyc
Degradation coefficient		Degradation coefficient	0.11
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
To ability to account to the control of the control			
Electric power input in power mode		Annual electricity consumption	000 1349 /
off mode	Poff 12 W	cooling	Qce 306 kWh/a
standby mode	Psb 12 W	heating / Warmer	Qhe 1731 kWh/a
hermostat-off mode	Pto 25 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 0 W	heating / colder	Qhe - kWh/a
Canacity control/indicate and of the	roo ontions)	Other items	
Capacity control(indicate one of the	ee options)	Sound power level(indoor)	Lwa 60 dB(A)
		11	
ivad	No	Sound power level(outdoor)	Lwa 64 dB(A) GWP 1975 kgCO26
ixed	No No	Global warming potential	GWP 1975 kgCO26
staged variable	Yes	Rated air flow(indoor)	
anavit	162	Rated air flow(outdoor)	- 2490 m3/h
Contact details for obtaining	Name and address of the	anufacturer or of its authorised represe	untativo
Contact details for obtaining more information Mits	Name and address of the ma subishi Heavy Industries Air-Condition		mauve.
	oundwood Avenue, Stockley Park, l		
	ted Kingdom		
-			B B IC0007150

Model FDUM71VNXVF1

Model FDUM/1VNXVF1					
Information to identify the model(s) to which the ir	formation relates to:	If function includes heating: Indicat	e the heating s	eason the
Indoor unit model name	FDUM71		information relates to. Indicated va		
Outdoor unit model name	FDC71VI	VΧ	heating season at a time. Include a	at least the heat	ing season 'Average
			'		
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
Item	symbol	value unit	Item	symbol	value class
Design load			Seasonal efficiency and energy effi		
cooling	Pdesigno	7.1 kW	cooling	SEER	5.24 A
heating / Average	Pdesignh		heating / Average	SCOP/A	3.90 A
heating / Warmer	Pdesignh		heating / Warmer	SCOP/W	
heating / Colder	Pdesignh		heating / Colder	SCOP/C	
nouning / coluct	, accigin		aug / eciaci	000.70	unit
Declared capacity at outdoor tem	perature Tdesign	nh	Back up heating capacity at outdoo	or temperature	
heating / Average (-10°C)	Pdh	5.92 kW	heating / Average (-10°C)	elbu	1.08 kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	- kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	- kW
ineamigy colder (22 c)				0.54	1
Declared capacity for cooling, at	indoor temperatu	re 27(19)°C and	Declared energy efficiency ratio, at	indoor tempers	ature 27(19)°C and
outdoor temperature Tj	indoor temperate	10 27 (13) 0 and	outdoor temperature Tj	indoor tempere	ature 27 (13) o una
Tj=35°C	Pdc	7.10 kW	Ti=35°C	EERd	3.50 -
Tj=30°C	Pdc	5.23 kW	Ti=30°C	EERd	4.85
Tj=25°C	Pdc	3.37 kW	Tj=30 C Tj=25°C	EERd	8.10 -
Ti=20°C	Pdc	3.20 kW		EERd	10.60
1]-20 0	FuC	J.20 KVV	117-20 0	EERU	10.00 -
Declared capacity for booting / A	verage cocces	at indoor	Declared coefficient of performance	e / Averess see	seon at indoor
Declared capacity for heating / A temperature 20°C and outdoor te		it iiidooi	temperature 20°C and outdoor tem		15011, at 111000F
Ti=-7°C	Pdh	6.20 kW	Ti=-7°C	COPd	2.53 -
Tj=2°C	Pdh	3.85 kW		COPd	3.82
	Pan Pdh				5.15
Tj=7°C	Pan Pdh		11 '	COPd	6.28
Tj=12°C			Tj=12°C	COPd	
Tj=bivalent temperature	Pdh	6.20 kW	Tj=bivalent temperature	COPd	2.53 -
Tj=operating limit	Pdh	5.00 kW	Tj=operating limit	COPd	2.06 -
Declared capacity for heating / W		t indoor	Declared coefficient of performance		ison, at indoor
temperature 20°C and outdoor te			temperature 20°C and outdoor tem		
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh	kW	Tj=bivalent temperature	COPd	<u>-</u> -
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
Declared capacity for heating / C		indoor	Declared coefficient of performance		on, at indoor
temperature 20°C and outdoor te			temperature 20°C and outdoor tem		
Tj=-7°C	Pdh	- kW	Tj=-7°C	COPd	
Tj=2°C	Pdh	- kW	Tj=2°C	COPd	
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	
Tj=-15°C	Pdh	- kW	Tj=-15℃	COPd	
		'			<u> </u>
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv	-7 °C	heating / Average	Tol	-20 °C
heating / Warmer	Tbiv	- °C	heating / Warmer	Tol	- °C
heating / Colder	Tbiv	- ℃	heating / Colder	Tol	- °C
			-		
Cycling interval capacity			Cycling interval efficiency		
for cooling	Pcycc	- kW	for cooling	EERcyc	
for heating	Pcych	- kW	for heating	COPcyc	
_			-	•	
Degradation coefficient			Degradation coefficient		
cooling	Cdc	0.25 -	heating	Cdh	0.25 -
Electric power input in power mo	des other than 'a	ctive mode'	Annual electricity consumption		
off mode	Poff	15 W	cooling	Qce	475 kWh/a
standby mode	Psb	15 W	heating / Average	Qhe	2513 kWh/a
thermostat-off mode	Pto	18 W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck	25 W	heating / colder	Qhe	- kWh/a
			-		
Capacity control(indicate one of t	hree options)		Other items		
· · · · · · · · · · · · · · · · · · ·	. ,		Sound power level(indoor)	Lwa	65 dB(A)
			Sound power level(outdoor)	Lwa	66 dB(A)
fixed	No		Global warming potential	GWP	1975 kgCO2ed
staged	No		Rated air flow(indoor)	-	1440 m3/h
variable	Yes		Rated air flow(outdoor)	_	3600 m3/h
	1 .00				1
Contact details for obtaining	Name an	d address of the man	nufacturer or of its authorised represe	entative	
		dustries Air-Conditio			
			lxbridge, Middlesex, UB11 1AX,		
	ited Kingdom	,	5-,,,		
	J :				
					0007159
					~ ~ ~ ~

Model FDUM100VNXVF1

Model FDUM100VNXVF1					
Information to identify the model(s)	to which the information	n relates to:	If function includes heating: Indica	te the heating s	eason the
Indoor unit model name	FDUM100VF1		information relates to. Indicated va		
Outdoor unit model name	FDC100VNX		heating season at a time. Include a	at least the heat	ing season 'Ave
Function(indicate if present)			Average(mandatory)	Yes	
cooling	Yes		Warmer(if designated)	No	
heating	Yes		Colder(if designated)	No	
Item	symbol value	unit	Item	symbol	value class
Design load	D	7	Seasonal efficiency and energy eff		
cooling	Pdesignc 10.0	kW	cooling	SEER	5.22 A
heating / Average	Pdesignh 13.0	kW	heating / Average	SCOP/A	4.10 A
heating / Warmer	Pdesignh -	kW	heating / Warmer	SCOP/W	
heating / Colder	Pdesignh -	kW	heating / Colder	SCOP/C	
Dealers described as the standard and as the standard as the s] [Bl		unit
Declared capacity at outdoor temporal heating / Average (-10°C)	Pdh 10.91	kW	Back up heating capacity at outdoon heating / Average (-10°C)	or temperature elbu	2.09 kW
		⊣kW	heating / Warmer (2°C)	elbu	
heating / Warmer (2°C)	Pdh - Pdh -	⊣kW		elbu	- kW kW
heating / Colder (-22°C)	Pan -	KVV	heating / Colder (-22°C)	eibu	- KVV
Declared capacity for cooling, at inc	door temperature 27(19)	\°C and	Declared energy efficiency ratio, a	t indoor temper	ature 27/19)°C ai
outdoor temperature Tj	Joor temperature 27 (10)	, o and	outdoor temperature Ti	t indoor tempere	11a10 27 (13) 0 ai
Tj=35°C	Pdc 10.00	∃kW	Ti=35°C	EERd	3.73 -
Tj=30°C	Pdc 7.42	kW	Tj=30°C	EERd	4.84
Tj=25°C	Pdc 5.58	⊣kW	Tj=25°C	EERd	7.43
Tj=20°C	Pdc 5.87	⊢kW	Tj=23 C	EERd	10.46
.,	1 45 3.07	17.11	1 [., 20 0	LLING	10.40
Declared capacity for heating / Ave	rage season, at indoor		Declared coefficient of performance	e / Average sea	ason, at indoor
temperature 20°C and outdoor tem			temperature 20°C and outdoor tem		
Tj=-7°C	Pdh 11.50	kW	Tj=-7°C	COPd	2.54 -
Tj=2°C	Pdh 6.89	kW	Tj=2°C	COPd	4.07 -
Ti=7°C	Pdh 4.50	kW	Ti=7°C	COPd	5.52 -
Ti=12°C	Pdh 5.20	kW	Tj=12℃	COPd	6.50 -
Tj=bivalent temperature	Pdh 11.50	⊣kW	Tj=bivalent temperature	COPd	2.54 -
Tj=blvalent temperature Tj=operating limit	Pdh 8.96	H _{kW}	Tj=blvalent temperature	COPd	2.16
rj-operating iiniit	1 011 0.30	IVAA	[1]-operating limit	COI u	2.10
Declared capacity for heating / Wai	rmer season, at indoor		Declared coefficient of performance	e / Warmer sea	son at indoor
temperature 20°C and outdoor tem			temperature 20°C and outdoor tem		oon, at maoor
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	
Tj=7°C	Pdh -	kW	Tj=7°C	COPd	
Tj=12℃	Pdh -	⊢kW	Tj=12°C	COPd	-
,		⊣kW	11 '		<u> </u>
Tj=bivalent temperature	Pdh -		Tj=bivalent temperature	COPd	
Tj=operating limit	Pdh -	kW	Tj=operating limit	COPd	- -
Declared capacity for heating / Colo	der season, at indoor		Declared coefficient of performance	e / Colder seas	on at indoor
temperature 20°C and outdoor tem			temperature 20°C and outdoor tem		on, at maoo.
Tj=-7°C	Pdh -	kW	Tj=-7°C	COPd	
Tj=2°C	Pdh -	kW	Tj=2°C	COPd	
Ti=7°C	Pdh -	kW	Ti=7°C	COPd	
Tj=12℃	Pdh -	kW	Tj=12°C	COPd	
Tj=bivalent temperature		⊢kW	Tj=12 C	COPd	-
		⊣kW	11 '	COPd	
Tj=operating limit			Tj=operating limit		
Tj=-15°C	Pdh -	kW	Tj=-15°C	COPd	
Bivalent temperature			Operating limit temperature		
heating / Average	Tbiv -7	¬°c	heating / Average	Tol	-20 °C
	Tbiv -	⊣°c	heating / Warmer	Tol	-20 ℃
heating / Warmer heating / Colder	Tbiv -	°C	heating / Warmer heating / Colder	Tol	- °C
neating / Colder	I DIV	10	Ineating / Colder	101	- 10
Cycling interval capacity			Cycling interval efficiency		
for cooling	Pcycc -	kW	for cooling	EERcyc	
for heating	Pcych -	kW	for heating	COPcyc	
	<u> </u>	·			
Degradation coefficient			Degradation coefficient		
cooling	Cdc 0.25	-	heating	Cdh	0.25 -
			1		
Electric power input in power mode			Annual electricity consumption	_	070
off mode	Poff 20	_w	cooling	Qce	670 kWh/a
standby mode	Psb 20	_w	heating / Average	Qhe	4437 kWh/a
thermostat-off mode	Pto 45	W	heating / Warmer	Qhe	- kWh/a
crankcase heater mode	Pck 25	W	heating / colder	Qhe	- kWh/a
Consolity control (in dis-	anding-\		Other items		
Capacity control(indicate one of thr	ee options)		Other items	1	CE ID.
			Sound power level(indoor)	Lwa	65 dB(A)
			Sound power level(outdoor)	Lwa	70 dB(A)
fixed	No		Global warming potential	GWP	1975 kgCO
staged	No		Rated air flow(indoor)	-	2160 m3/h
variable	Yes		Rated air flow(outdoor)		6000 m3/h
Contact details for obtaining			nufacturer or of its authorised repres	entative.	
	ubishi Heavy Industries				
		kley Park, L	Jxbridge, Middlesex, UB11 1AX,		
Unite	ed Kingdom				
			Т		
				- 1	0007150

Model FDUM100VSXVF1

Model FDUM100VSXVF	1		
	l(s) to which the information relates		
Indoor unit model name	FDUM100VF1	information relates to. Indicated v	
Outdoor unit model name	FDC100VSX	heating season at a time. Include	at least the heating season 'Average
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load		Seasonal efficiency and energy e	fficiency class
cooling	Pdesignc 10.0 kW	cooling	SEER 5.19 A
heating / Average	Pdesignh 13.0 kW	heating / Average	SCOP/A 4.10 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
	9		unit
Declared capacity at outdoor ter	nperature Tdesignh	Back up heating capacity at outdo	oor temperature Tdesignh
heating / Average (-10°C)	Pdh 10.91 kW	heating / Average (-10°C)	elbu 2.09 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared canacity for cooling at	t indoor temperature 27(19)°C and	Declared energy efficiency ratio	at indoor temperature 27(19)°C and
outdoor temperature Tj	indoor temperature 27(15) 6 and	outdoor temperature Tj	at indoor temperature 27 (15) 6 and
Tj=35°C	Pdc 10.00 kW	Tj=35°C	EERd 3.73 -
Tj=30°C	Pdc 7.42 kW	Ti=30°C	EERd 3.73 -
,	Pdc 7.42 kW	113	EERd 4.84 - EERd 7.43 -
Tj=25°C		Tj=25°C	
Tj=20°C	Pdc 5.87 kW	Tj=20°C	EERd 10.46 -
Designation 11 C 1 11 11	· · · · · · · · · · · · · · · · · · ·	Deslayed City C	/ ^
Declared capacity for heating / A		Declared coefficient of performan	
temperature 20°C and outdoor to		temperature 20°C and outdoor tel	
Tj=-7°C	Pdh 11.50 kW	Tj=-7°C	COPd 2.54 -
Tj=2°C	Pdh 6.89 kW	Tj=2°C	COPd 4.07 -
Tj=7°C	Pdh 4.50 kW	Tj=7°C	COPd 5.52 -
Tj=12°C	Pdh 5.20 kW	Tj=12°C	COPd 6.50 -
Tj=bivalent temperature	Pdh 11.50 kW	Tj=bivalent temperature	COPd 2.54 -
Tj=operating limit	Pdh 8.96 kW	Tj=operating limit	COPd 2.16 -
	· ·		·
Declared capacity for heating / V	Warmer season, at indoor	Declared coefficient of performan	ce / Warmer season, at indoor
temperature 20°C and outdoor to	emperature Tj	temperature 20°C and outdoor ter	mperature Tj
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	∏i=7°C	COPd
Tj=12℃	Pdh - kW	Ti=12℃	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
1)-operating limit	1 011 - 1000	I j-operating limit	
Declared capacity for heating / 0	Colder season, at indoor	Declared coefficient of performan	ice / Colder season, at indoor
temperature 20°C and outdoor to		temperature 20°C and outdoor ter	
Tj=-7°C	Pdh - kW	Ti=-7°C	COPd
Tj=2℃	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Ti=7°C	COPd -
Tj=12°C	Pdh - kW	Tj=7 C Tj=12°C	COPd
Tj=12 C Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
,			
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15°C	COPd
Discolar Atlanta		On another Books	
Bivalent temperature	This 10-	Operating limit temperature	Tal 00 00
heating / Average	Tbiv -7 °C	heating / Average	Tol -20 °C
heating / Warmer	Tbiv - °C	heating / Warmer	Tol - °C
heating / Colder	Tbiv - °C	heating / Colder	Tol - °C
Cycling interval capacity		Cycling interval efficiency	
for cooling	Pcycc - kW	for cooling	EERcyc
for heating	Pcych - kW	for heating	COPcyc
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Electric power input in power mo		Annual electricity consumption	
off mode	Poff 20 W	cooling	Qce 675 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 4441 kWh/a
thermostat-off mode	Pto 65 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
	.		
Capacity control(indicate one of	three options)	Other items	
Supposition of the other of the other of the other of the other ot	55 0010110)	Sound power level(indoor)	Lwa 65 dB(A)
		Sound power level(indoor)	Lwa 70 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2ec
staged	No	Rated air flow(indoor)	2100
variable	Yes	Rated air flow(outdoor)	- 6000 m3/h
Contact details for obtaining		nanufacturer or of its authorised repres	sentative.
	litsubishi Heavy Industries Air-Cond		
	Roundwood Avenue, Stockley Parl	, Uxbridge, Middlesex, UB11 1AX,	
Įυ	nited Kingdom		
			A DICOCO7150

Model FDUM71VNXPVF

Model FDUM71VNXPVF			
Information to identify the model(s	s) to which the information relates to	If function includes heating: Indicate	e the heating season the
Indoor unit model name	FDUM40VFx2	information relates to. Indicated val	
Outdoor unit model name	FDC71VNX	- 1	at least the heating season 'Average
Catagor and modername	- DOTTOR		a load the heating deaden 7 worage
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
heating	Yes	Colder(if designated)	No
Item	symbol value unit	Item	symbol value class
Design load	,	Seasonal efficiency and energy effi	iciency class
cooling	Pdesignc 7.1 kW	cooling	SEER 5.61 A+
heating / Average	Pdesignh 7 kW	heating / Average	SCOP/A 4.05 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Treating / Colder	r dosigninj jittv	ricularly / Coldon	unit
Declared capacity at outdoor temp	nerature Tdesignh	Back up heating capacity at outdoo	
heating / Average (-10°C)	Pdh 5.92 kW	heating / Average (-10°C)	elbu 1.08 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Warrier (2 C)		heating / Warmer (2 C)	
rieating / Colder (-22 C)	Pdh - kW	Treating / Colder (-22 C)	elbu
	1 1 07(10)90] [D.	
Declared capacity for cooling, at in	ndoor temperature 27(19) C and	Declared energy efficiency ratio, at	indoor temperature 27(19) C and
outdoor temperature Tj	D.1.	outdoor temperature Tj	CCD4 Case
Tj=35°C	Pdc 7.10 kW	Tj=35°C	EERd 3.53 -
Tj=30°C	Pdc 5.23 kW	Tj=30°C	EERd 5.13 -
Tj=25°C	Pdc 3.37 kW	Tj=25°C	EERd 8.64 -
Tj=20°C	Pdc 3.20 kW	Tj=20°C	EERd 11.85 -
Declared capacity for heating / Av		Declared coefficient of performance	
temperature 20°C and outdoor ter		temperature 20°C and outdoor tem	
Tj=-7°C	Pdh 6.20 kW	Tj=-7°C	COPd 2.62 -
Tj=2°C	Pdh 3.85 kW	Tj=2°C	COPd 3.97 -
Tj=7°C	Pdh 2.45 kW	Tj=7°C	COPd 5.33 -
Tj=12°C	Pdh 2.56 kW	Tj=12°C	COPd 6.56 -
Tj=bivalent temperature	Pdh 6.20 kW	Tj=bivalent temperature	COPd 2.62 -
Tj=operating limit	Pdh 5.00 kW	Tj=operating limit	COPd 2.09 -
1)-operating limit	1 dii 3.00 KVV	13-operating limit	COI u 2.09
Declared capacity for heating / Wa	armar accept at indeer	Declared coefficient of performance	o / Warmer access at indeer
temperature 20°C and outdoor ter		temperature 20°C and outdoor tem	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating / Co	older season, at indoor	Declared coefficient of performance	e / Colder season, at indoor
temperature 20°C and outdoor ter	nperature Tj	temperature 20°C and outdoor tem	perature Tj
Tj=-7°C	Pdh - kW	Tj=-7°C	COPd
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
Tj=operating limit	Pdh - kW	Tj=operating limit	COPd
Tj=-15°C	Pdh - kW	Tj=-15°C	COPd
1]13 6	Tull - KW	[1]=-10 0	001 u - -
Bivalent temperature		Operating limit temperature	
heating / Average	Tbiv -7 °C	heating / Average	Tol -20 °C
heating / Warmer	─	heating / Warmer	
heating / vvarmer			Tol - ℃
nieating / Colder	Tbiv - °C	heating / Colder	101 - 0
Cycling interval conseits		Cycling interval officians:	
Cycling interval capacity	Povoc - kW	Cycling interval efficiency	FFReve
for cooling	. 0,00	for cooling	LLINOYO
for heating	Pcych - kW	for heating	COPcyc
Daniel della merchanica		Demodelie mi	
Degradation coefficient	04- 025	Degradation coefficient	0.45
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Florida nome i di	In all and and and and and and and and and and	[Annual start 2	
Electric power input in power mod		Annual electricity consumption	
off mode	Poff 15 W	cooling	Qce 444 kWh/a
standby mode	Psb 15 W	heating / Average	Qhe 2422 kWh/a
thermostat-off mode	Pto 18 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 22 W	heating / colder	Qhe - kWh/a
Capacity control(indicate one of th	ree options)	Other items	
· ·		Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 66 dB(A)
fixed	No	Global warming potential	GWP 1975 kgCO2eq
staged	No	Rated air flow(indoor)	- 780 m3/h
variable	Yes	Rated air flow(indoor)	- 3600 m3/h
variable	169	[Ivaled all HOW(Outdoor)	- 3000 1113/11
Contact dataile for all talle in a	Name and states of the	music at many an of the south south and a	antati ca
Contact details for obtaining		nufacturer or of its authorised represe	ernauve.
	subishi Heavy Industries Air-Condition		
	Roundwood Avenue, Stockley Park, I	uxpriage, iviladiesex, UB11 1AX,	
Uni	ited Kingdom		

Model FDUM100VNXPVF

Information to identify the model(s) to	which the in	formation	relates to:	If function includes heating: Indicate th	e heating so	eason the	
Indoor unit model name	FDUM50VF x 2			information relates to. Indicated values			
Outdoor unit model name	FDC100V	/NX		heating season at a time. Include at le	ast the heat	ing seaso	n 'Average
	-						
Function(indicate if present)				Average(mandatory)	Yes		
cooling	Yes			Warmer(if designated)	No		
heating	Yes			Colder(if designated)	No		
lta m	as made al	l		lte me	ا م ما مدس	ali a	alaaa
Design load	symbol	value	unit	Item Seasonal efficiency and energy efficiency	symbol	value	class
cooling	Pdesigno	10.0	kW		SEER	5.14	Α
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	3.88	A
			kW		SCOP/W	3.00	-
heating / Warmer heating / Colder	Pdesignh Pdesignh		kW	heating / Warmer heating / Colder	SCOP/W SCOP/C		-
neating / Colder	Fuesigiiii		KVV	rieating / Colder	300F/C	_	unit
Declared capacity at outdoor temperat	ure Tdesign	nh		Back up heating capacity at outdoor te	mnerature	Tdesianh	uiiit
heating / Average (-10°C)	Pdh	8.22	kW	heating / Average (-10°C)	elbu	1.78	kW
heating / Warmer (2°C)	Pdh		kW	heating / Warmer (2°C)	elbu		kW
heating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
ricating / Golder (-22 G)	1 dii		IXVV	ricating / Colder (-22 C)	Cibu	_	ICVV
Declared capacity for cooling, at indoo	r temneratu	re 27/19)°	°C and	Declared energy efficiency ratio, at ind	oor temper	ature 27/1	9)°C and
outdoor temperature Tj	temperatu	10 27 (13)	O dila	outdoor temperature Tj	oor terripere	ature 27 (i	o) o ana
Ti=35°C	Pdc	10.00	kW	Tj=35°C	EERd	3.76	٦_
Ti=30°C	Pdc	7.40	kW	Tj=30°C	EERd	4.54	1_
Tj=25°C	Pdc	4.80	kW	Tj=25°C	EERd	7.38	+_
Ti=20°C	Pdc	5.10	kW	Tj=20°C	EERd	9.62	┦_
., 200	1 40	3.10	1,744	1 [., 20 0	LLINU	3.52	1
Declared capacity for heating / Averag	e season a	t indoor		Declared coefficient of performance / /	Average ses	ison at in	door
temperature 20°C and outdoor temperature				temperature 20°C and outdoor temper		our, at II	
Ti=-7°C	Pdh	8.85	kW	Tj=-7°C	COPd	2.57	7-
Tj=2°C	Pdh	5.38	kW	Tj=2°C	COPd	3.90	1_
Tj=7°C	Pdh	3.75	kW		COPd	5.00	+_
Ti=12°C	Pdh	4.35	kW		COPd	5.58	+[
,				11,		2.57	+[
Tj=bivalent temperature	Pdh	8.85	kW	Tj=bivalent temperature	COPd		- 1
Tj=operating limit	Pdh	6.10	kW	Tj=operating limit	COPd	2.22	1-
Declared capacity for heating / Warme	roccon o	tindoor		Declared coefficient of performance / \	Marmarasa	oon ot in	door
		LIIIUUUI				son, at in	uooi
temperature 20°C and outdoor tempera	Pdh	_	lkW	temperature 20°C and outdoor temper	COPd	-	٦_
	Pdh		kW	11,			ΗĨ
Tj=7°C		-		Tj=7°C	COPd		- 1⁻
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd	-	
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	_ -
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Declared capacity for heating / Colder		ndoor		Declared coefficient of performance / (on, at ind	oor
temperature 20°C and outdoor temperature 20°C and outdoor temperature			7.147	temperature 20°C and outdoor temper			7
Tj=-7°C	Pdh	-	kW	Tj=-7°C	COPd	-	 -
Tj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	<u> </u> -
Tj=7°C	Pdh	-	kW	Tj=7°C	COPd	-	
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd	-	
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Tj=-15℃	Pdh	-	kW	Tj=-15°C	COPd	-	-
Bivalent temperature			70-	Operating limit temperature	_		70-
heating / Average	Tbiv	-7	_°℃	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	-	°C	heating / Warmer	Tol	-	°C
heating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	°C
Cycling interval capacity	_		7	Cycling interval efficiency			_
for cooling	Pcycc	-	kW	for cooling	EERcyc	-	
for heating	Pcych	-	kW	for heating	COPcyc	-	-
Daniel-Kara W. 1				Demodetics # : :			
Degradation coefficient	C4-	0.25	٦	Degradation coefficient	Cdr	0.05	7
cooling	Cdc	0.25	<u></u>	heating	Cdh	0.25	1-
Electric newer input in newer media.	thorthan!	otivo	٥'	Appual alactricity consumention			
Electric power input in power modes of				Annual electricity consumption	000	604	7L/A/L/-
off mode	Poff	18	W	cooling	Qce	681	kWh/a
standby mode	Psb	18	W	heating / Average	Qhe	3611	kWh/a
thermostat-off mode	Pto	64	W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25	W	heating / colder	Qhe	-	kWh/a
Conseils control/indicat	- m41 >			Othor items			
Capacity control(indicate one of three of	options)			Other items	Luce		Jan'v.
				Sound power level(indoor)	Lwa	60	dB(A)
c .				Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No			Global warming potential	GWP	1975	kgCO2ed
staged	No			Rated air flow(indoor)	-	780	m3/h
variable	Yes			Rated air flow(outdoor)		6000	m3/h
	•			,			
Contact details for obtaining	Name and	d address	of the mar	nufacturer or of its authorised representa	tive.		
				ning Europe, Ltd.			
		ue, Stock	ley Park, L	Ixbridge, Middlesex, UB11 1AX,			
United k	Cingdom						

Model FDUM100VSXPVF

Information to identify the model(s	s) to which the information relates to	: If function includes heating: Indicate	te the heating season the
Indoor unit model name	FDUM50VF x 2	information relates to. Indicated va	
Outdoor unit model name	FDC100VSX	heating season at a time. Include a	at least the heating season 'Averag
Function(indicate if present)		Average(mandatory)	Yes
cooling	Yes	Warmer(if designated)	No
neating	Yes	Colder(if designated)	No
tem	symbol value unit	Item Seasonal efficiency and energy eff	symbol value class
Design load cooling	Pdesignc 10.0 kW	cooling	SEER 5.11 A
neating / Average	Pdesignh 10.0 kW	heating / Average	SCOP/A 3.87 A
neating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
neating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
cating / colder	r deolgrin	Induiting / Colder	unit
Declared capacity at outdoor temp	perature Tdesignh	Back up heating capacity at outdoor	
eating / Average (-10°C)	Pdh 8.22 kW	heating / Average (-10°C)	elbu 1.78 kW
eating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
neating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared capacity for cooling, at ir	ndoor temperature 27(19)°C and	Declared energy efficiency ratio, at	t indoor temperature 27(19)°C and
outdoor temperature Tj	Dda 40.00 I/W	outdoor temperature Tj	EED4 2.76
Γj=35°C Γi=30°C	Pdc 10.00 kW	Tj=35°C	EERd 3.76 -
Γj=30°C	Pdc 7.40 kW	Tj=30°C	EERd 4.54 -
-j=25°C -:20°C	Pdc 4.80 kW	Tj=25°C	EERd 7.38 -
-j=20°C	Pdc 5.10 kW	Tj=20°C	EERd 9.62 -
Declared capacity for heating / Av	erage season at indoor	Declared coefficient of performance	re / Average season at indoor
emperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Fi=-7°C	Pdh 8.85 kW	Ti=-7°C	COPd 2.57 -
Γj=2°C	Pdh 5.38 kW	Ti=2°C	COPd 2.37 -
Γj=7°C	Pdh 3.75 kW	Ti=7°C	COPd 5.00 -
i=12°C	Pdh 4.35 kW	Tj=7 C Tj=12°C	COPd 5.58 -
ij=12 C ij=bivalent temperature	Pdh 4.35 kW	Tj=12 C Tj=bivalent temperature	COPd 3.58 - COPd 2.57 -
j=blvalent temperature j=operating limit	Pdh 8.85 kW	Tj=plyalent temperature	COPd 2.22 -
j-operating iimit	Pull 6.10 KVV	1j-operating limit	COPa 2.22 -
Declared capacity for heating / Wa	armer season, at indoor	Declared coefficient of performance	e / Warmer season, at indoor
emperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Fi=2°C	Pdh - kW	Ti=2°C	COPd
Γj=7°C	Pdh - kW	Ti=7°C	COPd -
i=12°C	Pdh - kW	Tj=12°C	COPd -
,		11,	
j=bivalent temperature	Pdh - kW	Tj=bivalent temperature	COPd
j=operating limit	Pdh - kW	Tj=operating limit	COPd
Declared capacity for heating / Co	older season, at indoor	Declared coefficient of performance	e / Colder season, at indoor
temperature 20°C and outdoor ten		temperature 20°C and outdoor tem	
Fi=-7°C	Pdh - kW	Ti=-7°C	COPd
rj=-7°C	Pdh - kW	Ti=2°C	COPd -
Γj=7°C	Pdh - kW	Ti=7°C	COPd
Γj=12°C	Pdh - kW	Tj=12°C	COPd -
		11,	
j=bivalent temperature		Tj=bivalent temperature	COPd -
j=operating limit	Pdh - kW	Tj=operating limit	COPd -
¯j=-15°C	Pdh - kW	Tj=-15°C	COPd
Bivalent temperature		Operating limit temperature	
neating / Average	Tbiv -7 °C	heating / Average	Tol -20 °C
neating / Average	Tbiv - °C	heating / Warmer	Tol - ℃
neating / Warrier	Tbiv - °C	heating / Warrier	Tol - °C
	0		- 0
Cycling interval capacity		Cycling interval efficiency	
or cooling	Pcycc - kW	for cooling	EERcyc
or heating	Pcych - kW	for heating	COPcyc
Dogwood attack or		Degradation ##:-: '	
Degradation coefficient cooling	Cdc 0.25 -	Degradation coefficient heating	Cdh 0.25 -
oomig	Ouc 0.23 -		Ouii 0.23 -
lectric power input in power mod	es other than 'active mode'	Annual electricity consumption	
off mode	Poff 18 W	cooling	Qce 685 kWh/a
tandby mode	Psb 18 W	heating / Average	Qhe 3614 kWh/a
hermostat-off mode	Pto 84 W	heating / Warmer	Qhe - kWh/a
rankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
Capacity control(indicate one of th	iree options)	Other items	_
	•	Sound power level(indoor)	Lwa 60 dB(A)
		Sound power level(outdoor)	Lwa 70 dB(A)
xed	No	Global warming potential	GWP 1975 kgCO2
taged	No	Rated air flow(indoor)	- 780 m3/h
ariable	Yes	Rated air flow(indoor)	- 6000 m3/h
			1 0000 1110/11
Contact details for obtaining	Name and address of the ma	anufacturer or of its authorised repres	entative.
	subishi Heavy Industries Air-Conditi		
7 R	coundwood Avenue, Stockley Park,		
	ted Kingdom		

(6) Floor standing type (FDF) Model FDF71VNXVD1

Model FDF71VNXVD1						
Information to identify the model(s) to which the	information relates to:	If function includes heating: Indic	ate the heating	season th	ne
Indoor unit model name	FDF71VD		information relates to. Indicated v			
Outdoor unit model name	FDC71VN		heating season at a time. Include			
	1. 20		indumig coddon dra iinio molado	at 1000t 1110 110	amig codo	on morago
Function(indicate if present)			Average(mandatory)	Yes		
cooling	Yes		Warmer(if designated)	No		
heating	Yes		Colder(if designated)	No		
neating	165		Colder (ii designated)	NO		
Item	symbol	value unit	Item		value	class
Design load			Seasonal efficiency and energy e			
cooling	Pdesignc	7.1 kW	cooling	SEER	4.80	В
heating / Average	Pdesignh	6.7 kW	heating / Average	SCOP/A	3.81	Α
heating / Warmer	Pdesignh	- kW	heating / Warmer	SCOP/W	-	-
heating / Colder	Pdesignh	- kW	heating / Colder	SCOP/C	-	-
						unit
Declared capacity at outdoor tem	perature Tdes	ignh	Back up heating capacity at outd	oor temperature	e Tdesign	h
heating / Average (-10°C)	Pdh	5.57 kW	heating / Average (-10°C)	elbu -	1.13	kW
heating / Warmer (2°C)	Pdh	- kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	- kW	heating / Colder (-22°C)	elbu	-	kW
ricating / Golder (-22 G)	i dii	- KVV	incating / Colder (-22 G)	Cibu		IKVV
Declared capacity for cooling, at	indoor tompor	ature 27/10\°C and	Declared energy efficiency ratio,	at indoor tompo	oroturo 27	(10)°C and
	mador tempera	ature 27 (19) C and		at indoor tempe	stature 27	(19) C and
outdoor temperature Tj	D.I.	7.40	outdoor temperature Tj	EED4 [0.04	٦
Tj=35°C	Pdc	7.10 kW	Tj=35°C	EERd	3.21	4-
Tj=30°C	Pdc	5.23 kW	Tj=30°C	EERd	4.75	1-
Tj=25°C	Pdc	3.37 kW	Tj=25℃	EERd	7.09	
Tj=20°C	Pdc	2.84 kW	Tj=20°C	EERd	9.16	-
Declared capacity for heating / A		, at indoor	Declared coefficient of performar		eason, at	indoor
temperature 20°C and outdoor te	mperature Ti		temperature 20°C and outdoor te	mperature Ti		
Ti=-7°C	Pdh	5.93 kW	Ti=-7°C	COPd [2.44]_
Ti=2°C	Pdh	3.60 kW	Ti=2°C	COPd	3.75	1_
,					5.04	1
Tj=7°C	Pdh	2.32 kW	Tj=7°C	COPd		4
Tj=12°C	Pdh	2.40 kW	Tj=12°C	COPd	6.00	վ-
Tj=bivalent temperature	Pdh	5.93 kW	Tj=bivalent temperature	COPd	2.44	」 -
Tj=operating limit	Pdh	4.38 kW	Tj=operating limit	COPd	2.13]-
		·				-
Declared capacity for heating / W	armer season	. at indoor	Declared coefficient of performan	nce / Warmer se	eason, at i	ndoor
temperature 20°C and outdoor te		,	temperature 20°C and outdoor te			
Tj=2°C	Pdh	- kW	Tj=2°C	COPd [-	٦_
				-		
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	- -
Tj=12°C	Pdh	- kW	Tj=12°C	COPd	-	」 -
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	1-
3 4 4 4 4 4			3 1			
Declared capacity for heating / C	older season	at indoor	Declared coefficient of performan	nce / Colder sea	ason at in	door
temperature 20°C and outdoor te		at ilidool	temperature 20°C and outdoor te		20011, at 111	4001
Ti=-7°C	Pdh	- kW	Ti=-7°C	COPd [-	٦
				-		4
Tj=2°C	Pdh	- kW	Tj=2°C	COPd		4-
Tj=7°C	Pdh	- kW	Tj=7°C	COPd	-	վ-
Tj=12℃	Pdh	- kW	Tj=12°C	COPd	-	」 -
Tj=bivalent temperature	Pdh	- kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh	- kW	Tj=operating limit	COPd	-	7-
Tj=-15℃	Pdh	- kW	Ti=-15°C	COPd	-	1-
,						
Bivalent temperature			Operating limit temperature			
heating / Average	Tbiv	-7 °C	heating / Average	Tol	-20	ି°C
	Tbiv	-/ °C		Tol		l _o
heating / Warmer			heating / Warmer	-	-	
heating / Colder	Tbiv	- ℃	heating / Colder	Tol	-	°C
Cycling interest sees 15			Cycling interval officions			
Cycling interval capacity	Dover	1.34/	Cycling interval efficiency	EED F		٦
for cooling	Pcycc	- kW	for cooling	EERcyc	-	4-
for heating	Pcych	- kW	for heating	COPcyc	-	-
			(-			
Degradation coefficient	_		Degradation coefficient			7
cooling	Cdc	0.25 -	heating	Cdh	0.25	-
Electric power input in power mo			Annual electricity consumption	_		_
off mode	Poff	18 W	cooling	Qce	518	kWh/a
standby mode	Psb	18 W	heating / Average	Qhe	2464	kWh/a
thermostat-off mode	Pto	16 W	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25 W	heating / valine	Qhe		kWh/a
oranicase neater mode	i UN	20 11	Incaming / coluct	Qi IC		IVAALIVA
Congoity control/indicate and fi	broo		Other items			
Capacity control(indicate one of t	riree options)		Other items			7
			Sound power level(indoor)	Lwa	61	dB(A)
			Sound power level(outdoor)	Lwa	66	dB(A)
fixed	No		Global warming potential	GWP	1975	kgCO2eq.
staged	No		Rated air flow(indoor)		1080	m3/h
variable	Yes		Rated air flow(indoor)		3600	m3/h
variable	162		[Nated all now(outdoor)	-	5000	1110/11
Contact datails for abtaining		ama and address of the	manufacturer or of its mathematical	onrocentett		
Contact details for obtaining			e manufacturer or of its authorised r	epresentative.		
more information		eavy Industries Air-Cond				
			k, Uxbridge, Middlesex, UB11 1AX,			
	United Kingd	om				
						812 A

PGA000Z812

Model FDF100VNXVD1

Information to identify the model('e) to which the	informatio	n relates to:	If function includes heating: Indica	to the heating	n coacon th	
Indoor unit model name	FDF100VE		ii ieiales lo.	information relates to. Indicated va			
Outdoor unit model name	FDC100VN			heating season at a time. Include a			
				Average (many data ma)	Vaa		
Function(indicate if present) cooling	Yes			Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes			Colder(if designated)	No		
	1			- Constant of the constant of			
Item	symbol	value	unit	Item	symbol	value	class
Design load			ا	Seasonal efficiency and energy ef			
cooling	Pdesignc	10.0	kW	cooling	SEER	5.20	A
heating / Average	Pdesignh	13.0	kW	heating / Average	SCOP/A	3.80	A
heating / Warmer heating / Colder	Pdesignh	-	kW	heating / Warmer	SCOP/W		-
neating / Colder	Pdesignh	-	kW	heating / Colder	SCOP/C	-	unit -
Declared capacity at outdoor tem	perature Tdes	ianh		Back up heating capacity at outdo	or temperatu	re Tdesian	
neating / Average (-10°C)	Pdh	11.52	7kW	heating / Average (-10°C)	elbu	1.48	kW
neating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
neating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
							(40)0-
Declared capacity for cooling, at	indoor tempera	ture 27(19)°C and	Declared energy efficiency ratio, a	t indoor temp	erature 27	(19)°C
outdoor temperature Tj	Pdc	10.00	7kW	outdoor temperature Tj	EEDA	3.53	1
Τj=35°C Τi=30°C	Pdc	7.37	⊣ ^{kvv} kW	Tj=35°C Ti=30°C	EERd EERd	5.26	1.
Tj=30°C Tj=25°C	Pdc	5.14	kW	Tj=25°C	EERd	7.24	1_
Γj=20°C	Pdc	5.45	kW	Tj=20°C	EERd	9.40	1-
-				,			
Declared capacity for heating / A		, at indoor		Declared coefficient of performance		season, at	indoor
emperature 20°C and outdoor te		40.15	ا ا	temperature 20°C and outdoor ten			1
Γj=-7°C	Pdh	12.40	kW	Tj=-7°C	COPd	2.63	- 1
Γj=2℃ Fi=7°C	Pdh	7.15	kW	Tj=2°C	COPd	3.61	+
Γj=7°C Γi=12°C	Pdh Pdh	4.70 5.00	kW kW	Tj=7°C Ti=12°C	COPd COPd	5.11 6.02	+
Γj=12 C Γj=bivalent temperature	Pdh	12.40	kW	Tj=bivalent temperature	COPd	2.63	-
Γj=operating limit	Pdh	8.60	kW	Tj=operating limit	COPd	2.16	_
.j oporaung mm		0.00		if operating initial	00. u		
Declared capacity for heating / W	armer season	, at indoor		Declared coefficient of performance	ce / Warmer s	season, at i	ndoor
emperature 20°C and outdoor te	mperature Tj		_	temperature 20°C and outdoor ten	nperature Tj		_
Γj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	_
Γj=7°C	Pdh	-	kW	Tj=7°C	COPd	-	<u> </u> -
Гj=12°С	Pdh	-	kW	Tj=12°C	COPd	-	-
Γj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	
Γj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Declared capacity for heating / C	older season a	at indoor		Declared coefficient of performance	ce / Colder se	ason at in	door
emperature 20°C and outdoor te		at illidool		temperature 20°C and outdoor ten		acon, at in	4001
Гj=-7°С	Pdh	-	kW	Tj=-7°C	COPd	-]-
Γj=2°C	Pdh	-	kW	Tj=2°C	COPd	-	1-
Γj=7°C	Pdh	-	kW	Tj=7°C	COPd	-]-
Гj=12°С	Pdh	-	kW	Tj=12°C	COPd	-	<u> </u> -
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Гј=-15℃	Pdh	-	kW	Tj=-15°C	COPd	-	-
Bivalent temperature				Operating limit temperature			
neating / Average	Tbiv	-7	େ	heating / Average	Tol	-20	l℃
neating / Warmer	Tbiv	-	°€	heating / Warmer	Tol	-	°C
neating / Colder	Tbiv	-	°C	heating / Colder	Tol	-	℃
Cycling interval capacity	Б		ا ا	Cycling interval efficiency	FFD		1
or cooling	Pcycc	-	kW	for cooling	EERcyc	-	 -
or heating	Pcych	-	kW	for heating	COPcyc	-	-
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25	7-	heating	Cdh	0.25]-
							<u> </u>
lectric power input in power mo				Annual electricity consumption			
off mode	Poff	20	W	cooling	Qce	673	kWh/a
standby mode	Psb	20	W	heating / Average	Qhe	4792	kWh/a
hermostat-off mode	Pto	60	JW	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25	W	heating / colder	Qhe	-	kWh/a
Capacity control(indicate one of t	hree ontions)			Other items			
capacity control(indicate one of t	cc options)			Sound power level(indoor)	Lwa	65	dB(A)
				Sound power level(indeer)	Lwa	70	dB(A)
ïxed	No			Global warming potential	GWP	1975	kgCO2e
staged	No			Rated air flow(indoor)	-	1740	m3/h
variable	Yes			Rated air flow(outdoor)	-	6000	m3/h
Contact details for obtaining				manufacturer or of its authorised re	presentative.		
nore information				litioning Europe, Ltd.			
	United Kingdo		Stockley Parl	k, Uxbridge, Middlesex, UB11 1AX,			
	Jonneu Kingdo	וווע					
	-			T			

Model FDF100VSXVD1

Model FDF100VSXVD1							
Information to identify the model	(s) to which the	informatio	n relates to:	If function includes heating: Indi	cate the heating	season th	he
Indoor unit model name	FDF100VE)1		information relates to. Indicated			
Outdoor unit model name	FDC100VS	SX		heating season at a time. Include	e at least the he	ating seas	son 'Average'.
Function (in dicate if annually)				A (man mid at a mi)	Vaa		
Function(indicate if present) cooling	Yes			Average(mandatory) Warmer(if designated)	Yes No		
heating	Yes			Colder(if designated)	No		
				a construction of the cons	1		
Item	symbol	value	unit	Item	symbol	value	class
Design load			_	Seasonal efficiency and energy			
cooling	Pdesignc	10.0	kW	cooling	SEER	5.17	A
heating / Average	Pdesignh	13.0	kW kW	heating / Average	SCOP/A SCOP/W	3.80	A
heating / Warmer heating / Colder	Pdesignh Pdesignh	-	kW	heating / Warmer heating / Colder	SCOP/W SCOP/C		
ricating / colder	i designin		KVV	ricating / Colder	000170		unit
Declared capacity at outdoor tem	perature Tdes	ignh		Back up heating capacity at outo	door temperatur	e Tdesign	
heating / Average (-10°C)	Pdh	11.52	kW	heating / Average (-10°C)	elbu	1.48	kW
heating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
Declared conseils for cooling at	:	07/10	1\°C ===d	Declared anamy officians, notice			((10)°0
Declared capacity for cooling, at outdoor temperature Tj	maoor tempera	ature 27 (19) C and	Declared energy efficiency ratio, outdoor temperature Tj	, at indoor temp	erature 21	(19) C and
Tj=35°C	Pdc	10.00	∖kW	Tj=35°C	EERd	3.53	٦-
Tj=30°C	Pdc	7.37	kW	Tj=30°C	EERd	5.26	− _
Tj=25°C	Pdc	5.14	kW	Tj=25°C	EERd	7.24	 -
Tj=20°C	Pdc	5.45	kW	Tj=20°C	EERd	9.40	-
Declared capacity for heating / A		, at indoor		Declared coefficient of performa		eason, at	ındoor
temperature 20°C and outdoor te	mperature Ij Pdh	12.40	∃kW	temperature 20°C and outdoor to	emperature 1j COPd	2.63	٦.
Tj=2°C	Pdh	7.15	⊣ ^{kw}	Tj=2°C	COPd	3.61	
Tj=7°C	Pdh	4.70	⊣kW	Tj=7°C	COPd	5.11	 -
Tj=12℃	Pdh	5.00	kW	Tj=12℃	COPd	6.02	− _
Tj=bivalent temperature	Pdh	12.40	kW	Tj=bivalent temperature	COPd	2.63	 -
Tj=operating limit	Pdh	8.60	kW	Tj=operating limit	COPd	2.16	-
Declared capacity for heating / W		, at indoor		Declared coefficient of performa		eason, at	indoor
temperature 20°C and outdoor te	mperature ij Pdh		∃kW	temperature 20°C and outdoor to Tj=2°C	emperature IJ COPd		7
Tj=7°C	Pdh		⊣kW	Tj=2°C	COPd		
Tj=12°C	Pdh		kW	Tj=12°C	COPd		┦_
Tj=bivalent temperature	Pdh	-	⊣kW	Tj=bivalent temperature	COPd	-	┦_
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	− _
		•					•
Declared capacity for heating / C		at indoor		Declared coefficient of performa		ason, at in	idoor
temperature 20°C and outdoor te			المدير	temperature 20°C and outdoor to			_
Tj=-7°C Tj=2°C	Pdh Pdh	-	kW kW	Tj=-7°C Tj=2°C	COPd COPd	-	- -
Tj=2°C	Pdh		⊣kW	Tj=2°C	COPd		-[
Tj=12℃	Pdh	-	⊣kW	Tj=12℃	COPd		┦_
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	− _
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	 -
Tj=-15°C	Pdh	-	kW	Tj=-15°C	COPd		7-
							•
Bivalent temperature	This		٦∞ ا	Operating limit temperature	T.1	- 00	¬∘₀
heating / Average heating / Warmer	Tbiv Tbiv	-7	_]°C °C	heating / Average heating / Warmer	Tol Tol	-20	°C °C
heating / Colder	Tbiv	-	- C	heating / Colder	Tol	-	⊣°c
ricating / colder	TDIV		10	ricating / Colder	101		10
Cycling interval capacity			_	Cycling interval efficiency			_
for cooling	Pcycc	-	kW	for cooling	EERcyc	-	-
for heating	Pcych	-	kW	for heating	COPcyc	-	-
D 11: 65: 1				D 11: 65: 1			
Degradation coefficient cooling	Cdc	0.25	ا ا	Degradation coefficient heating	Cdh	0.25	7
Cooling	Cuc	0.23	1-	neating	Cuii	0.23	1-
Electric power input in power mo	des other than	'active mo	de'	Annual electricity consumption			
off mode	Poff	20	w	cooling	Qce	678	kWh/a
standby mode	Psb	20	w	heating / Average	Qhe	4795	kWh/a
thermostat-off mode	Pto	80	_w	heating / Warmer	Qhe	-	kWh/a
crankcase heater mode	Pck	25	W	heating / colder	Qhe	-	kWh/a
Capacity control(indicate one of t	three ontions)			Other items			
Capacity control(malcate one of t	cc options)			Sound power level(indoor)	Lwa	65	dB(A)
				Sound power level(outdoor)	Lwa	70	dB(A)
fixed	No			Global warming potential	GWP	1975	kgCO2eq.
staged	No			Rated air flow(indoor)	-	1740	m3/h
variable	Yes			Rated air flow(outdoor)	-	6000	m3/h
Our to at alotable ()			dalara e e e				
Contact details for obtaining				manufacturer or of its authorised	representative.		
more information				litioning Europe, Ltd. k, Uxbridge, Middlesex, UB11 1AX	<		
	United Kingde		C.COMICY I dil	., Cabriago, Miladiosoa, ODTT TAV	-,		

(7) Wall mounted type (SRK) Model SRK100VNXPZMX

Information to identify the model(s) to w			elates to:	If function includes heating: Indicate the			
Indoor unit model name Outdoor unit model name	SRK50ZI FDC100\			information relates to. Indicated values theating season at a time. Include at least			'Average'.
	1.20.00					g coaco	, worago .
Function(indicate if present)				Average(mandatory)	Yes		
cooling heating	Yes Yes			Warmer(if designated) Colder(if designated)	No No		
neating	163			Colder(II designated)	140		
Item	symbol	value	unit	Item	symbol	value	class
Design load cooling	Pdesigno	10.0	lkW	Seasonal efficiency and energy efficience cooling	cy class SEER	5.51	Α
heating / Average	Pdesignh		kW	heating / Average	SCOP/A	4.00	A+
heating / Warmer	Pdesignh		kW	heating / Warmer	SCOP/W		-
heating / Colder	Pdesignh	-	kW	heating / Colder	SCOP/C	-	-
Declared conscituate authority and an experience	. Talaaiaa	L		Deale un hanting annaite at authorston		ما مدند داد	unit
Declared capacity at outdoor temperature heating / Average (-10°C)	Pdh	11.60	lkW	Back up heating capacity at outdoor tem heating / Average (-10°C)	elbu	0.00	kW
heating / Warmer (2°C)	Pdh	-	kW	heating / Warmer (2°C)	elbu	-	kW
heating / Colder (-22°C)	Pdh	-	kW	heating / Colder (-22°C)	elbu	-	kW
Declared capacity for cooling, at indoor	temperatur	e 27(19)℃	2 and	Declared energy efficiency ratio, at indo	or tempera	ture 27(19)°C and
outdoor temperature Tj Tj=35°C	Pdc	10.00	lkW	outdoor temperature Tj Tj=35°C	EERd	3.76	1-
Tj=30°C	Pdc	7.37	kW	Tj=30°C	EERd	5.55	-
Tj=25°C	Pdc	5.60	kW	Tj=25°C	EERd	8.39]-
Tj=20°C	Pdc	5.90	kW	Tj=20°C	EERd	11.13	-
Declared capacity for heating / Average	coacon at	indoor		Declared coefficient of performance / Av	oraga saa	con at ind	oor
temperature 20°C and outdoor temperat		illuooi		temperature 20°C and outdoor temperat		son, at mu	001
Tj=-7°C	Pdh	9.70	kW	Tj=-7°C	COPd	2.69]-
Tj=2°C	Pdh	6.30	kW	Tj=2°C	COPd	3.64]-
Tj=7°C	Pdh	4.05	kW	Tj=7°C	COPd	5.87	-
Tj=12°C Tj=bivalent temperature	Pdh Pdh	4.89 11.60	kW kW	Tj=12°C Tj=bivalent temperature	COPd COPd	7.19 2.34	-
Tj-blvalent temperature	Pdh	9.30	kW	Ti=operating limit	COPd	2.02	-
Try operating innit	1 411	0.00	1000	ry operating minic	001 0	2.02	
Declared capacity for heating / Warmer		indoor		Declared coefficient of performance / W		son, at ind	oor
temperature 20°C and outdoor temperat			TLAM	temperature 20°C and outdoor temperat			1
Tj=2°C Tj=7°C	Pdh Pdh	-	kW kW	Tj=2°C Tj=7°C	COPd COPd	-	-
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd		- -
Tj=bivalent temperature	Pdh	-	kW	Tj=bivalent temperature	COPd	-	-
Tj=operating limit	Pdh	-	kW	Tj=operating limit	COPd	-	-
Declared capacity for heating / Colder stemperature 20°C and outdoor temperat		ndoor		Declared coefficient of performance / Cotemperature 20°C and outdoor temperat		on, at indoo	or
Tj=-7°C	Pdh	-	lkW	Tj=-7°C	COPd	-]_
Tj=2℃	Pdh	-	kW	Tj=2℃	COPd	-	-
Tj=7°C	Pdh	-	kW	Tj=7°C	COPd	-]-
Tj=12°C	Pdh	-	kW	Tj=12°C	COPd	-	-
Tj=bivalent temperature	Pdh Pdh	-	kW kW	Tj=bivalent temperature Tj=operating limit	COPd COPd		-
Tj=operating limit Tj=-15°C	Pdh	-	kW	Ti=-15°C	COPd	-	[
	1 411		1000	1,100	001 0		
Bivalent temperature			_	Operating limit temperature			
heating / Average	Tbiv	-10	°C	heating / Average	Tol	-20	°C
heating / Warmer	Tbiv	-	_°C _°C	heating / Warmer	Tol	-	°C ℃
heating / Colder	Tbiv	-	C	heating / Colder	Tol	-	C
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc	-	kW	for cooling	EERcyc	-]-
for heating	Pcych	-	kW	for heating	COPcyc	-	-
Degradation coefficient				Degradation coefficient			
cooling	Cdc	0.25	7-	heating	Cdh	0.25]-
3							
Electric power input in power modes oth				Annual electricity consumption			1
off mode	Poff	20	W	cooling	Qce	636 4060	kWh/a
standby mode thermostat-off mode	Psb Pto	20 125	W	heating / Average heating / Warmer	Qhe Qhe	-	kWh/a kWh/a
crankcase heater mode	Pck	25	w	heating / colder	Qhe	-	kWh/a
		1					ļ.
Capacity control(indicate one of three or	otions)			Other items			1
				Sound power level(indoor) Sound power level(outdoor)	Lwa Lwa	60 70	dB(A) dB(A)
fixed	No			Global warming potential	GWP	1975	kgCO2eq.
staged	No			Rated air flow(indoor)	-	810	m3/h
variable	Yes			Rated air flow(outdoor)	-	6000	m3/h
						_	_
Contact details for obtaining more information Mitsubish				ufacturer or of its authorised representative ing Europe, Ltd.	e.		
				kbridge, Middlesex, UB11 1AX,			
United Ki			- ,				
				A	l	· - -	^

Model SRK100VSXPZMX

Information to identify the model(s) Indoor unit model name	SRK50ZMX-S x2	information relates to. Indicated val	lues should relate to one
Outdoor unit model name	FDC100VSX	heating season at a time. Include a	t least the heating season 'Average
Function(indicate if present)		Average(mandatory)	Yes
cooling heating	Yes Yes	Warmer(if designated) Colder(if designated)	No No
neating	162	Colder(ii designated)	140
Item	symbol value unit	Item	symbol value class
Design load cooling	Pdesignc 10.0 kW	Seasonal efficiency and energy effi cooling	ciency class SEER 5.47 A
heating / Average	Pdesignh 11.6 kW	heating / Average	SCOP/A 4.00 A+
heating / Warmer	Pdesignh - kW	heating / Warmer	SCOP/W
heating / Colder	Pdesignh - kW	heating / Colder	SCOP/C
Dealared conscitu at author temps	arotura Tdaaigah	Pools up heating consoits at outdoo	unit
Declared capacity at outdoor tempe heating / Average (-10°C)	Pdh 11.60 kW	Back up heating capacity at outdoon heating / Average (-10°C)	elbu 0.00 kW
heating / Warmer (2°C)	Pdh - kW	heating / Warmer (2°C)	elbu - kW
heating / Colder (-22°C)	Pdh - kW	heating / Colder (-22°C)	elbu - kW
Declared capacity for cooling, at inc	door tomporature 27/10\°C and	Declared energy efficiency ratio, at	indeer temperature 27/10\°C and
outdoor temperature Tj	door temperature 27(19) C and	outdoor temperature Tj	indoor temperature 27 (19) C and
Tj=35°C	Pdc 10.00 kW	Tj=35°C	EERd 3.76 -
Tj=30°C	Pdc 7.37 kW	Tj=30°C	EERd 5.55 -
Tj=25°C	Pdc 5.60 kW	Tj=25°C	EERd 8.39 -
Tj=20°C	Pdc 5.90 kW	Tj=20°C	EERd 11.13 -
Declared capacity for heating / Ave	rage season, at indoor	Declared coefficient of performance	e / Average season, at indoor
temperature 20°C and outdoor temp		temperature 20°C and outdoor tem	
Tj=-7°C	Pdh 9.70 kW Pdh 6.30 kW	Tj=-7°C	COPd 2.69 -
Tj=2°C Tj=7°C	Pdh 6.30 kW Pdh 4.05 kW	Tj=2°C Tj=7°C	COPd 3.64 - COPd 5.87 -
Tj=12℃	Pdh 4.89 kW	Tj=12°C	COPd 7.19 -
Tj=bivalent temperature	Pdh 11.60 kW	Tj=bivalent temperature	COPd 2.34 -
Tj=operating limit	Pdh 9.30 kW	Tj=operating limit	COPd 2.02 -
Declared capacity for heating / War	rmer season at indoor	Declared coefficient of performance	e / Warmer season, at indoor
temperature 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and outdoor 20°C and 00°C		temperature 20°C and outdoor tem	
Tj=2°C	Pdh - kW	Tj=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature Tj=operating limit	Pdh - kW	Tj=bivalent temperature Tj=operating limit	COPd
., operating in the			00. 0
Declared capacity for heating / Colo		Declared coefficient of performance	
temperature 20°C and outdoor tem _l Tj=-7°C	Pdh - kW	temperature 20°C and outdoor tem	COPd
Tj=2°C	Pdh - kW	Ti=2°C	COPd
Tj=7°C	Pdh - kW	Tj=7°C	COPd
Tj=12°C	Pdh - kW	Tj=12°C	COPd
Tj=bivalent temperature	Pdh - kW Pdh - kW	Tj=bivalent temperature Tj=operating limit	COPd
Tj=operating limit Ti=-15°C	Pdh - kW	Tj=operating limit Ti=-15°C	COPd
•			00. 4
Bivalent temperature	TI: [10]	Operating limit temperature	T. I
heating / Average heating / Warmer	Tbiv -10 °C Tbiv - °C	heating / Average heating / Warmer	Tol
heating / Warrier	Tbiv - °C	heating / Colder	Tol - °C
Cycling interval capacity	Davis Link	Cycling interval efficiency	FFD
for cooling for heating	Pcycc - kW Pcych - kW	for cooling for heating	EERcyc
ior ricating	1 Cycli - KVV	101 Heating	
Degradation coefficient		Degradation coefficient	
cooling	Cdc 0.25 -	heating	Cdh 0.25 -
Electric power input in power mode	s other than 'active mode'	Annual electricity consumption	
off mode	Poff 20 W	cooling	Qce 640 kWh/a
standby mode	Psb 20 W	heating / Average	Qhe 4063 kWh/a
thermostat-off mode	Pto 145 W	heating / Warmer	Qhe - kWh/a
crankcase heater mode	Pck 25 W	heating / colder	Qhe - kWh/a
	ee options)	Other items	
Capacity control(indicate one of thr		Sound power level(indoor)	Lwa 60 dB(A)
Capacity control(indicate one of thr			1a 70 dD(A)
, , ,	Na	Sound power level(outdoor)	Lwa 70 dB(A)
fixed	No No	Global warming potential	GWP 1975 kgCO26
fixed staged	No	Global warming potential Rated air flow(indoor)	GWP 1975 kgCO26 - 810 m3/h
fixed staged		Global warming potential	GWP 1975 kgCO26
Capacity control(indicate one of thr fixed staged variable Contact details for obtaining	No Yes Name and address of the m	Global warming potential Rated air flow(indoor) Rated air flow(outdoor) anufacturer or of its authorised represe	GWP 1975 kgCO2e - 810 m3/h - 6000 m3/h
ixed staged variable Contact details for obtaining more information Mits	No Yes Name and address of the mubishi Heavy Industries Air-Condi	Global warming potential Rated air flow(indoor) Rated air flow(outdoor) anufacturer or of its authorised representioning Europe, Ltd.	GWP 1975 kgČÓ2c - 810 m3/h - 6000 m3/h
exed taged ariable Contact details for obtaining nore information Mits 7 Ro	No Yes Name and address of the mubishi Heavy Industries Air-Condi	Global warming potential Rated air flow(indoor) Rated air flow(outdoor) anufacturer or of its authorised represe	GWP 1975 kgCO2 - 810 m3/h - 6000 m3/h

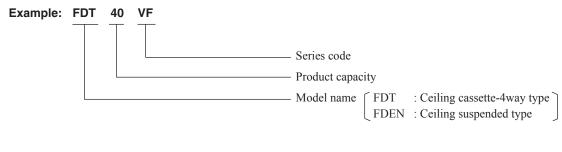
2. V MULTI SYSTEM

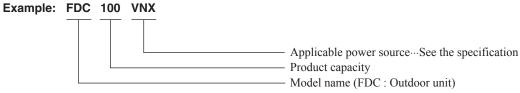
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2.1 GENERAL INFORMATION

2.1.1 How to read the model name





2.1.2 Table of models

Model Capacity	40	50	60	71
Ceiling cassette-4way type (FDT)	0	0	0	0
Ceiling suspended type (FDEN)	0	0	0	0
Outdoor unit to be combined (FDC)	(3 Horse Power) FI			X X ower)

2.1.3 Table of system combinations

Outdoor unit	Туре	Indoor unit assembly capacity	Branch pipe set (Option)
FDC71VNX		40+40	
FDC100VNX FDC100VSX	Twin	50+50	DIS-WA1
FDC125VNX FDC125VSX		60+60 50+71	DI3-W11
FDC140VNX	Twin	71+71	
FDC140VSX	Triple	50+50+50	DIS-TA1 or DIS-WA1×2set

- Notes(1) Always use the branch piping set (option) at branches in the refrigerant piping.

 (2) If wireless specifications are used, use 1 wireless indoor unit in combination with wired indoor units.

 (3) The combinations except the above table forbids.

2.2 SPECIFICATIONS

(1) Indoor units

(a) Ceiling cassette-4way type (FDT)

Operation control Room temperature control Thermostat by electronics Operation display — Safety equipments Overload protection for fan motor. Frost protection thermostat. Installation data Efrigerant piping size (O.D.) mm Liquid line: \$\phi 6.35 (1/4") Gas line: \$\phi 12.7 (1/2") Flare piping Attached length of piping m — Insulation for piping Necessary (both Liquid & Gas lines) Drain hose Hose Connectable VP25(O.D.32)	Item		Model	FDT40VF			
Nominal heating capacity Sound power level Cooling Heating	Power source	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Sound power level Cooling Heating Sound pressure level Cooling Heating Silent mode sound pressure level Exterior dimensions (Height x Width x Depth) mm				kW	4.0		
Sound power level Heating Sound pressure level Heating Silent mode sound pressure level Silent mode sound pre		Nominal heating capacity	у	kW	4.5		
Sound pressure level Cooling Heating		Sound nower level			55		
Exterior dimensions (Height x Width x Depth) Exterior appearance (Munsell color) Net weight Heat exchanger Cooling Heating Heating Available external static pressure Ourside air intake Air filter, Quality / Quantity Shock & vibztion absorber Electric heater Operation control Operation control Operation control Operation datal at the connecting method Affigerant piping size (O.D.) One connecting method Attached length of piping Installation data Attached length of piping Installation for p	uaia	Sound pressure level		dB(A)	P-Hi:39 Hi:33 Me:31 Lo:30		
Exterior appearance (Munsell color) Exterior appearance (Munsell color) Key Barry White (Munsell color) Key UNIT 22 PANEL 5.5 Heat exchanger Fan type & Q'ty Fan motor (Starting method) Air flow Cooling Heating Fan type & Otside air intake Outside air intake Operation control Operation control Poperation control Remote control Operation control Refrigerant piping size (O.D.) Installation data Attached length of piping Menuse Panel 35 x 950 x 950 Plaster White (A.8Y8.9/0.2) near equivalent Nag UNIT 22 PANEL 5.5 Louver fin & inner grooved tubing Turbo fan x1 Cooling Heating P-Hi : 20 Hi : 18 Me : 16 Lo : 14 Possible Attached length of piping Mary Pocket plastic net x1(Washable) Refrigerant piping size (O.D.) Mary Panel 35 x 950 x 950 Plaster White (6.8Y8.9/0.2) near equivalent Nag Unit 22 PANEL 5.5 Louver fin & inner grooved tubing Turbo fan x1 Furbo fan x1		Silent mode sound press	sure level		-		
(Munsell color) Net weight Heat exchanger Heat exchanger Fan type & Q'ty Fan motor (Starting method) Air flow Available external static pressure Outside air intake Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control Remote control Agent a proper size (O.D.) Refrigerant piping size (O.D.) Refrigerant piping Attached length of piping Drain hose Kg GNNE 9-ANEL 5.5 Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Louver fin & inner grooved tubing Furble fan & inner grooved tubing Louver fin & inner grooved tubing Louver fin & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Louver fin & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner grooved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved tubing Furble fan & inner groved	Exterior dim	nensions (Height x Width x	(Depth)	mm			
Heat exchanger Fan type & Q'ty Fan motor (Starting method) Air flow Available external static pressure Outside air intake Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control Operation display Safety equipments Refrigerant piping size (O.D.) Installation data Refrigerant piping Attached length of piping Insulation for piping Insulation of Attached length of piping Insulation of Attached length of piping Insulation of Attached length of piping Insulation of Insulation of piping Insulation of piping Insulation of					1 1000		
Heat exchanger Fan type & Q'ty Fan motor (Starting method) Air flow Air flow Available external static pressure Outside air intake Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control Cafety equipments Refrigerant piping size (O.D.) Installation data Attached length of piping Drain hose Cooling Heating M Available external static pressure Pa O Cooling Heating M Available external static pressure Pa O Pa O P-Hi: 20 Hi: 18 Me: 16 Lo: 14 Possible Possible Possible Possible Possible Autiquity / Quantity Pocket plastic net ×1(Washable) Rubber sleeve(for fan motor) Electric heater W — Operation (option) wired: RC-EX1A , RC-E5 , RCH-E3 wireless: RCN-T-36W Thermostat by electronics Overload protection for fan motor. Frost protection thermostat. Liquid line: \$\phi 6.35 (1/4") Gas line: \$\phi 12.7 (1/2") Insulation for piping Necessary (both Liquid & Gas lines) Pa Connectable VP25(O.D.32)	,			kg			
Fan motor (Starting method) Air flow Cooling Heating Heating Heating Available external static pressure Outside air intake Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control Operation display Safety equipments Refrigerant piping size (O.D.) Installation data Attached length of piping Insulation for piping		nger					
Fan motor (Starting method) Air flow Cooling Heating Heating M³/min P-Hi : 20 Hi : 18 Me : 16 Lo : 14 Available external static pressure Pa							
Available external static pressure Outside air intake Air filter, Quality / Quantity Shock & vibration absorber Electric heater Operation control Operation display Safety equipments Refrigerant piping size (O.D.) Installation data Available external static pressure Pa Opassible Rubber plastic net ×1(Washable) Rubber sleeve(for fan motor) (option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W Thermostat by electronics Overload protection for fan motor. Frost protection thermostat. Liquid line: \$\phi 6.35 (1/4")\$ Gas line: \$\phi 12.7 (1/2")\$ Insulation for piping Attached length of piping Insulation for piping Drain hose Phi: 20 Hi: 18 Me: 16 Lo: 14 Ocite Pa Overload protection fex motor) Coprision wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W Overload protection for fan motor. Frost protection thermostat. Liquid line: \$\phi 6.35 (1/4") Gas line: \$\phi 12.7 (1/2") Flare piping Necessary (both Liquid & Gas lines) Hose Connectable VP25(O.D.32)			W	50 < Direct line start >			
Outside air intake Possible Air filter, Quality / Quantity Pocket plastic net ×1(Washable) Shock & vibration absorber Rubber sleeve(for fan motor) Electric heater W Operation control Remote control Room temperature control (option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W Operation display — Safety equipments Overload protection for fan motor. Frost protection thermostat. Refrigerant piping size (O.D.) mm Gas line: \$\phi 1.2.7 (1/2") Installation data Attached length of piping m Insulation for piping Necessary (both Liquid & Gas lines) Insulation hose Hose Connectable VP25(O.D.32)	Air flow	Air flow		m³/min	P-Hi: 20 Hi: 18 Me: 16 Lo: 14		
Air filter, Quality / Quantity Pocket plastic net ×1(Washable) Shock & vibration absorber Rubber sleeve(for fan motor) Electric heater	Available ex	Available external static pressure		Pa	0		
Shock & vibration absorber Electric heater	Outside air i	intake			Possible		
Electric heater W (option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W Room temperature control Operation display - Overload protection for fan motor. Safety equipments Period of Safety equipments Prost protection thermostat. Installation data Attached length of piping Mecessary (both Liquid & Gas lines) Prost protectable VP25(O.D.32)	Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)		
Operation control Remote control Room temperature control Operation display Safety equipments Refrigerant piping size (O.D.) Installation data Attached length of piping Insulation for piping Drain hose Remote control (option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W Thermostat by electronics Overload protection for fan motor. Frost protection thermostat. Liquid line: \$\phi 6.35 (1/4")\$ Gas line: \$\phi 12.7 (1/2")\$ Flare piping Necessary (both Liquid & Gas lines) Hose Connectable VP25(O.D.32)	Shock & vib	ration absorber			Rubber sleeve(for fan motor)		
Operation control Room temperature control Thermostat by electronics Operation display — Safety equipments Overload protection for fan motor. Frost protection thermostat. Installation data Refrigerant piping size (O.D.) mm Liquid line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2") Flare piping Attached length of piping m — Insulation for piping Necessary (both Liquid & Gas lines) Drain hose Hose Connectable VP25(O.D.32)	Electric hear	ter		W	-		
Control Room temperature control Thermostat by electronics Operation display — Safety equipments Overload protection for fan motor. Frost protection thermostat. Installation Faringerant piping size (O.D.) Installation Gas line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2") Connecting method Flare piping Attached length of piping m Insulation for piping Necessary (both Liquid & Gas lines) Drain hose Hose Connectable VP25(O.D.32)	Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E		
Operation display		Room temperature contr	ol		Thermostat by electronics		
Frost protection thermostat. Refrigerant piping size (O.D.) mm	CONTROL	Operation display			_		
Installation data Attached length of piping Mecessary (both Liquid & Gas lines)	Safety equip	pments					
Installation data Connecting method Flare piping		Refrigerant piping size (O.D.)	mm			
data Attached length of piping m — — — — — — — — — — — — — — — — — —	Installation	Connecting method	i .		T (' '		
Insulation for piping Necessary (both Liquid & Gas lines) Drain hose Hose Connectable VP25(O.D.32)				m	— · · · · · · · · · · · · · · · · · · ·		
Drain hose Hose Connectable VP25(O.D.32)					Necessary (both Liquid & Gas lines)		
pram pamp, max introgra mm mm built-m brail pump , 700	Drain pump	, max lift height		mm	Built-in Drain pump , 700		
IP number IPX0					<u> </u>		
Standard accessories Mounting kit, Drain hose	Standard ac	ccessories			Mounting kit, Drain hose		
Option parts –	Option parts	 S			_		

Item	Indoor air t	emperature	Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only. (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Item			Model	FDT50VF
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz
	Nominal cooling capacity	,	kW	5.0
	Nominal heating capacity		kW	5.4
Operation data	Cooling			55
uata	Sound pressure level	Cooling Heating	dB(A)	P-Hi:39 Hi:33 Me:31 Lo:30
	Silent mode sound press	ure level		_
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840 Panel 35 × 950 × 950
Exterior app				Plaster White (6.8Y8.9/0.2) near equivalent
Net weight			kg	UNIT 22 PANEL 5.5
Heat excha	nger		Ĭ	Louver fin & inner grooved tubing
Fan type &	Fan type & Q'ty			Turbo fan ×1
Fan motor (Fan motor (Starting method)		W	50 < Direct line start >
Air flow	Air flow Cooling Heating		m³/min	P-Hi:20 Hi:18 Me:16 Lo:14
Available ex	kternal static pressure		Pa	0
	Outside air intake			Possible
Air filter, Qu	uality / Quantity			Pocket plastic net ×1(Washable)
Shock & vib	oration absorber			Rubber sleeve(for fan motor)
Electric hea	nter		W	-
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E
control	Room temperature contro	ol		Thermostat by electronics
CONTROL	Operation display	-		_
Safety equip	pments			Overload protection for fan motor. Frost protection thermostat.
	Refrigerant piping size (0	D.D.)	mm	Liquid line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2")
Installation Connecting method			Flare piping	
data	9		m	— · · b-b2
	Insulation for piping			Necessary (both Liquid & Gas lines)
	Drain hose			Hose Connectable VP25(O.D.32)
Drain pump	, max lift height		mm	Built-in Drain pump , 700
IP number				IPX0
Standard ad	ccessories			Mounting kit, Drain hose
Option parts	S			-

Item	Indoor air t	emperature	Outdoor air	r air temperature Standards			
Operation	DB	WB	DB	WB	Standards		
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1		
Heating	20°C	_	7°C	6°C	1505151-11		

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only. (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Mode Item Mode				FDT60VF			
Power source				1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooling capacity		kW	5.6			
	Nominal heating capacity	1	kW	6.7			
Operation data	Sound power level	Cooling Heating		60			
uata	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 33 Me: 31 Lo: 30			
	Silent mode sound press	ure level		_			
Exterior dim	nensions (Height x Width x	Depth)	mm	Unit 246 × 840 × 840 Panel 35 × 950 × 950			
Exterior app				Plaster White (6.8Y8.9/0.2) near equivalent			
Net weight	•		kg	UNIT 24 PANEL 5.5			
Heat excha	nger	-	Ĭ	Louver fin & inner grooved tubing			
Fan type &	Q'ty			Turbo fan ×1			
Fan motor (Starting method)		W	50 < Direct line start >			
Air flow	-	Cooling Heating	m³/min	P-Hi:28 Hi:18 Me:16 Lo:14			
Available ex	rternal static pressure		Pa	0			
Outside air				Possible			
Air filter, Qu	ality / Quantity			Pocket plastic net ×1(Washable)			
Shock & vib	oration absorber			Rubber sleeve(for fan motor)			
Electric hea	iter		W	_			
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E			
control	Room temperature contro	ol		Thermostat by electronics			
Control	Operation display			_			
Safety equip	Safety equipments			Overload protection for fan motor. Frost protection thermostat.			
	Refrigerant piping size (C	D.D.)	mm	Liquid line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2")			
Installation data	Connecting method			Flare piping			
	Attached length of piping		m	_			
	Insulation for piping			Necessary (both Liquid & Gas lines)			
	Drain hose			Hose Connectable VP25(O.D.32)			
Drain pump, max lift height		mm	Built-in Drain pump , 700				
IP number	<u>_</u>			IPX0			
Standard ad	ccessories			Mounting kit, Drain hose			
Option parts	S						

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.(5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Item			Model	FDT71VF1		
Power source				1 Phase 220-240V 50Hz / 220V 60Hz		
Fower sour	Nominal cooling capacity			7.1		
	Nominal heating capacit		kW kW	8.0		
Operation	Sound power level Cooling Heating		. KVV	64		
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 35 Me: 33 Lo: 31		
	Silent mode sound press	sure level	1 [_		
Exterior din	mensions (Height x Width	x Depth)	mm	Unit 246 × 840 × 840 Panel 35 × 950 × 950		
Exterior ap	pearance			Plaster White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent		
Net weight			kg	UNIT 24 PANEL 5.5		
Heat excha	anger			Louver fin & inner grooved tubing		
Fan type &	Q'ty			Turbo fan ×1		
Fan motor	(Starting method)		W	50 < Direct line start >		
Air flow	Air flow Cooling Heating		m³/min	P-Hi:28 Hi:21 Me:19 Lo:17		
Available ex	xternal static pressure		Pa	0		
Outside air	intake			Possible		
Air filter, Qu	uality / Quantity			Pocket plastic net ×1(Washable)		
Shock & vil	bration absorber			Rubber sleeve(for fan motor)		
Electric hea	ater		W	-		
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-T-36W-E		
control	Room temperature control			Thermostat by electronics		
CONTROL	Operation display			_		
Safety equi	Safety equipments			Overload protection for fan motor. Frost protection thermostat.		
	Refrigerant piping size (O.D.)		mm	Liquid line: φ 9.52 (3/8") Gas line: φ 15.88 (5/8")		
Installation data	Connecting method			Flare piping		
	Attached length of piping	g	m	-		
	Drain hose			Hose Connectable VP25(O.D.32)		
Drain pump, max lift height		mm	Built-in Drain pump , 700			
IP number				IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part	ts	,		_		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

 (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.

 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

(b) Ceiling suspended type (FDEN)

Item				FDEN40VF		
Power source				1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity		kW	4.0		
	Nominal heating capacity	/	kW	4.5		
Operation data	Sound power level	Cooling Heating	dB(A)	60		
uata	Sound pressure level	Cooling Heating		P-Hi: 46 Hi: 39 Me: 38 Lo: 37		
	Silent mode sound press	ure level		_		
Exterior din	nensions (Height x Width >	Depth)	mm	210 × 1,070 × 690		
Exterior app	pearance			Plaster White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent		
Net weight			kg	28		
Heat excha	inger			Louver fin & inner grooved tubing		
Fan type &				Centrifugal fan ×2		
Fan motor	(Starting method)		W	25 < Direct line start >		
Air flow		Cooling Heating	m³/min	P-Hi:11 Hi:10 Me:9 Lo:7		
Available ex	xternal static pressure		Pa	0		
Outside air	intake			Not possible		
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)		
Shock & vit	oration absorber	,		Rubber sleeve(for fan motor)		
Electric hea	ater		W	0		
Operation	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-E1R		
control	Room temperature contr	ol		Thermostat by electronics		
Control	Operation display			RUN: Green, TIMER: Yellow, CHECK: Yellow		
Cofoty ogyi	in manufa			Internal thermostat for fan motor.		
Safety equi	priients			Frost protection thermostat.		
	Refrigerant piping size (O.D.)	mm	Liquid line: φ 6.35 (1/4") Gas line: φ 12.7 (1/2")		
Installation data	Connecting method			Flare piping		
	Attached length of piping		m	—		
	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Drain hose			Hose Connectable VP20(O.D.26)		
Drain pump, max lift height		mm	_			
IP number	-, <u>-</u>			IPX0		
	Standard accessories			Mounting kit, Drain hose		
Option part				—		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
- (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

			Model	FDEN50VF		
Item				FDENSOVF		
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity		kW	5.0		
	Nominal heating capacit	У	kW	5.4		
Operation data	Sound power level	Cooling Heating		60		
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 46 Hi: 39 Me: 38 Lo: 37		
	Silent mode sound press	sure level		-		
Exterior din	nensions (Height x Width x	(Depth)	mm	210 × 1,070 × 690		
Exterior app	pearance			Plaster White		
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent		
Net weight			kg	28		
Heat excha	inger			Louver fin & inner grooved tubing		
Fan type &	Q'ty			Centrifugal fan ×2		
Fan motor ((Starting method)		W	25 < Direct line start >		
Air flow Cooling Heating		m³/min	P-Hi:11 Hi:10 Me:9 Lo:7			
Available ex	xternal static pressure		Pa	0		
Outside air	intake			Not possible		
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)		
Shock & vib	oration absorber			Rubber sleeve(for fan motor)		
Electric hea	ater		W	0		
O	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-E1R		
Operation control	Room temperature contr	ol		Thermostat by electronics		
Control	Operation display			RUN: Green, TIMER: Yellow, CHECK: Yellow		
Safety equi	pments			Internal thermostat for fan motor. Frost protection thermostat.		
	Refrigerant piping size (O.D.)	mm	Liquid line:		
Installation Connecting method				Flare piping		
data	Attached length of piping		m	——————————————————————————————————————		
Insulation for piping			Necessary (both Liquid & Gas lines)			
	Drain hose			Hose Connectable VP20(O.D.26)		
Drain pump	n, max lift height		mm	_		
IP number	.,			IPX0		
Standard a	ccessories			Mounting kit, Drain hose		
Option part				<u> </u>		
Sparen part						

Note (1) The data are measured at the following conditions.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Item			Model	FDEN60VF
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz
1 0 1 0 0 0 0	Nominal cooling capacit	V	kW	5.6
	Nominal heating capacity		kW	6.7
Operation	Sound power level	Cooling Heating	, , ,	60
data	Sound pressure level	Cooling Heating	dB(A)	P-Hi: 48 Hi: 41 Me: 39 Lo: 38
	Silent mode sound press	sure level		_
Exterior din	mensions (Height x Width	x Depth)	mm	210 × 1,320 × 690
Exterior ap	pearance			Plaster White
(Munsell co	olor)			(6.8Y8.9/0.2) near equivalent
Net weight			kg	37
Heat excha	anger			Louver fin & inner grooved tubing
Fan type &	Q'ty			Centrifugal fan ×4
	(Starting method)		W	20 ×2 < Direct line start >
Air flow	Air flow Cooling Heating		m³/min	P-Hi: 20 Hi: 16 Me: 14 Lo: 12
Available ex	xternal static pressure		Pa	0
Outside air	intake			Not possible
Air filter, Qu	uality / Quantity			Pocket plastic net ×2(Washable)
Shock & vil	bration absorber			Rubber sleeve(for fan motor)
Electric hea	ater		W	0
O	Remote control			(option) wired: RC-EX1A, RC-E5, RCH-E3 wireless: RCN-E1R
Operation control	Room temperature contr	rol		Thermostat by electronics
CONTROL	Operation display			RUN: Green, TIMER: Yellow, CHECK: Yellow
Safety equi	ipments			Internal thermostat for fan motor. Frost protection thermostat.
	Refrigerant piping size (O.D.)	mm	Liquid line:
Installation	Connecting method			Flare piping
data	Attached length of piping	g	m	-
	Drain hose			Hose Connectable VP20(O.D.26)
Drain pump	o, max lift height		mm	_
IP number				IPX0
Standard a	ccessories			Mounting kit, Drain hose
Option part	ts			_
		-		

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303151-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
 (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.
 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Power source	
Nominal heating capacity (range) kW 8.0	
Operation data Sound power level Cooling Heating Sound pressure level 62 Sound pressure level Cooling Heating Silent mode sound pressure level P-Hi: 50 Hi: 41 Me: 39 Lo: 38 Exterior dimensions (Height x Width x Depth) mm 210 x 1,320 x 690	
Operation data Sound power level Heating Sound pressure level Cooling Heating Silent mode sound pressure level Exterior dimensions (Height x Width x Depth) Sound pressure level Heating Heating Heating Heating Silent mode sound pressure level Exterior dimensions (Height x Width x Depth) MB(A) P-Hi: 50 Hi: 41 Me: 39 Lo: 38	
Sound pressure level Cooling Heating Silent mode sound pressure level — Exterior dimensions (Height x Width x Depth) mm 210 x 1,320 x 690	
Exterior dimensions (Height x Width x Depth) mm 210 × 1,320 × 690	
	J
Exterior appearance Plaster White	
(Munsell color) (6.8Y8.9/0.2) near equivalent	
Net weight kg 37 Heat exchanger Louver fin & inner grooved tubing	
Fan type & Q'ty Centrifugal fan ×4	
Fan motor (Starting method) W 20 ×2 < Direct line start >	
Cooling	
Air flow P-Hi: 20 Hi: 16 Me: 14 Lo: 12	
Available external static pressure Pa 0	
Outside air intake Not possible	
Air filter, Quality / Quantity Pocket plastic net ×2(Washable)	
Shock & vibration absorber Rubber sleeve(for fan motor)	
Electric heater W 0	
Operation Remote control (option) wired: RC-EX1A, RC-E5, RCH-E3 wireless:	: RCN-E1R
Room temperature control I nermostat by electronics	
Operation display RUN: Green, TIMER: Yellow, CHECK: Yellow	'
Safety equipments Internal thermostat for fan motor. Frost protection thermostat.	
Refrigerant piping size (O.D.) mm Liquid line: φ 9.52 (3/8") Gas line: φ 15.88 (5/8")	
Installation Connecting method Flare piping	
data Attached length of piping m —	
Insulation for piping Necessary (both Liquid & Gas lines)	
Drain hose Hose Connectable VP20(O.D.26)	
Drain pump, max lift height mm –	
IP number IPX0	
Standard accessories Mounting kit, Drain hose	
Option parts –	

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat
- higher due to ambient conditions.

 (4) When wireless remote control is used, fan is 3 speed setting (Hi-Me-Lo) only.

 (5) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

(2) Outdoor units

ltem			Model	FDC71VNX		
Power source	ce			1 Phase 220-240V 50Hz / 220V 60Hz		
Nominal cooling capacity (range)		(range)	kW	7.1 [3.2(Min.)~ 8.0(Max.)]		
	Nominal heating capacity	(range)	kW	8.0 [3.6(Min.)~ 9.0(Max.)]		
Operation data	Sound power level	Cooling Heating		66		
uata	0	Cooling	dB(A)	51		
	Sound pressure level	Heating		48		
	Silent mode sound pressu	ire level		-		
Exterior dim	ensions (Height x Width x	Depth)	mm	750×880(+88)×340		
Exterior app	pearance			Stucco White		
(Munsell co	olor)			(4.2Y7.5/1.1) near equivalent		
Net weight	·		kg	60		
	r type & Q'ty			RMT5118MDE2×1		
Compresso	r motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q.	0.675 (M-MA68)		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 2.95kg in outdoor unit (incl. the amount for the piping of : 30m)		
Heat exchar	nger			M shape fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type & 0	Q'ty			Propeller fan ×1		
Fan motor (Starting method)		W	86 < Direct line start >		
Air flow	<u> </u>	Cooling	m³/min	60		
Air ilow		Heating		50		
Shock & vib	ration absorber			Rubber sleeve(for compressor)		
Electric hea	ter		W	20(Crank case heater)		
0-4-4				Internal thermostat for fan motor.		
Safety equip	oments			Abnormal discharge temperature protection.		
	Defidence de la la companya de la Co	· D · \		Liquid line: φ9.52 (3/8")		
	Refrigerant piping size (C	J.D.)	mm	Gas line: φ15.88 (5/8")		
	Connecting method			Flare piping		
nstallation	Attached length of piping		m	-		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)) length	m	Max.50m		
	Vertical height diff. between O		m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Holes size ϕ 20 x 3pcs		
IP number				IP24		
Standard ac	ccessories					
Option parts						

Note (1) The data are measured at the following conditions.

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1505151-11

⁽²⁾ This air-conditioner is manufactured and tested in conformity with the ISO.

⁽³⁾ Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

⁽⁴⁾ The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Item			Model	FDC100VNX	
Power sour	ce			1 Phase 220-240V 50Hz / 220V 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.) ~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 12.5(Max.)]	
Operation data	Sound power level	Cooling Heating		70	
data	0	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		-	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco White	
(Munsell co				(4.2Y7.5/1.1) near equivalent	
Net weight			kg	105	
Compresso	r type & Q'ty			RMT5134MDE2×1	
Compresso	r motor (Starting method)		kW	Direct line start	
Refrigerant	oil (Amount, type)		Q	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. the amount for the piping of : 30m)	
Heat excha	nger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (Starting method)		W	86 x 2 < Direct line start >	
Air flow Cooling Heating		Cooling Heating	m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor)	
Electric hea	iter		W	20(Crank case heater)	
Cofoty ogui	nmonto			Internal thermostat for fan motor.	
Safety equip	prinerits			Abnormal discharge temperature protection.	
	Refrigerant piping size (O	D)	mm	Liquid line: ϕ 9.52 (3/8")	
	heirigerant piping size (O	.D.)	111111	Gas line: φ15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping			m	<u>-</u>	
data Insulation for piping				Necessary (both Liquid & Gas lines)	
	Refrigerant line (one way)		m	Max.100m	
	Vertical height diff. between O	.U. and I.U.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Holes size ϕ 20 x 3pcs	
IP number				IP24	
Standard ad				Edging	
Option part	S			-	

The pipe length is 7.5m.

Item	Indoor air te	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

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⁽²⁾ This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.

Item	Item			FDC100VSX	
Power sour	ce			3 Phase 380-415V 50Hz / 380V 60Hz	
	Nominal cooling capacity	(range)	kW	10.0 [4.0(Min.) ~ 11.2(Max.)]	
	Nominal heating capacity	(range)	kW	11.2 [4.0(Min.)~ 16.0(Max.)]	
Operation data	Sound power level	Cooling Heating		70	
data	0	Cooling	dB(A)	48	
	Sound pressure level	Heating		50	
	Silent mode sound pressu	ire level		=	
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370	
Exterior app	pearance			Stucco White	
(Munsell co	olor)			(4.2Y7.5/1.1) near equivalent	
Net weight			kg	105	
Compresso	r type & Q'ty			RMT5134MDE3×1	
Compresso	r motor (Starting method)		kW	Direct line start	
Refrigerant oil (Amount, type)			l	0.9 M-MA68	
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. the amount for the piping of : 30m)	
Heat excha	nger			M shape fin & inner grooved tubing	
Refrigerant	control			Electronic expansion valve	
Fan type &	Q'ty			Propeller fan ×2	
Fan motor (Starting method)		W	86 x 2 < Direct line start >	
Air flow Cooling Heating			m³/min	100	
Shock & vib	oration absorber			Rubber sleeve(for compressor)	
Electric hea	ter		W	20(Crank case heater)	
Cofoty ogui	nmonto			Internal thermostat for fan motor.	
Safety equip	prinerits			Abnormal discharge temperature protection.	
	Refrigerant piping size (O	D)	mm	Liquid line: φ 9.52 (3/8")	
			111111	Gas line: ϕ 15.88 (5/8")	
	Connecting method			Flare piping	
Installation Attached length of piping			m	-	
data Insulation for piping				Necessary (both Liquid & Gas lines)	
	Refrigerant line (one way)		m	Max.100m	
	Vertical height diff. between O	.U. and I.U.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)	
	Drain hose			Holes size ϕ 20 x 3pcs	
IP number				IP24	
Standard ad				Edging	
Option part	S			-	

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards
Operation	DB	WB	DB	WB	Staridards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	_	7°C	6°C	1303131-11

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

 (4) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

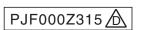
Item			Model	FDC125VNX		
Power sour	rce			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.) ~ 14.0(Max.)]		
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.)~ 17.0(Max.)]		
Operation	Sound power level	Cooling Heating		70		
data		Cooling	dB(A)	48		
	Sound pressure level	Heating		50		
	Silent mode sound pressu	ire level		=		
Exterior din	nensions (Height x Width x	Depth)	mm	1300×970×370		
Exterior app	pearance			Stucco White		
(Munsell co	olor)			(4.2Y7.5/1.1) near equivalent		
Net weight			kg	105		
Compresso	or type & Q'ty			RMT5134MDE2×1		
Compresso	or motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		l	0.9 M-MA68		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. the amount for the piping of : 30m)		
Heat excha	inger			M shape fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×2		
Fan motor ((Starting method)		W	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	100		
Shock & vib	oration absorber			Rubber sleeve(for compressor)		
Electric hea	ater		W	20(Crank case heater)		
Cofoty ogui	inmonto			Internal thermostat for fan motor.		
Safety equi	prilents			Abnormal discharge temperature protection.		
	Refrigerant piping size (O	.D.)	mm	Liquid line: φ9.52 (3/8")		
	• • .			Gas line: φ 15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping		m			
data	Insulation for piping	1		Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.100m		
	Vertical height diff. between O	.u. and i.u.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
ID mumb - ::	Drain hose			Holes size φ 20 x 3pcs IP24		
IP number Standard a				<u>**_</u>		
				Edging		
Option part	15			_		

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB WB		Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

 (4) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.



Item			Model	FDC125VSX
Power sour	се			3 Phase 380-415V 50Hz / 380V 60Hz
	Nominal cooling capacity	(range)	kW	12.5 [5.0(Min.) ~ 14.0(Max.)]
	Nominal heating capacity	(range)	kW	14.0 [4.0(Min.) ~ 18.0(Max.)]
Operation data	Sound power level	Cooling Heating		70
uaia	0	Cooling	dB(A)	48
	Sound pressure level	Heating		50
	Silent mode sound pressu	ire level		=
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370
Exterior app	pearance			Stucco White
(Munsell co	olor)			(4.2Y7.5/1.1) near equivalent
Net weight			kg	105
Compresso	r type & Q'ty			RMT5134MDE3×1
Compresso	r motor (Starting method)		kW	Direct line start
Refrigerant	oil (Amount, type)		l	0.9 M-MA68
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. the amount for the piping of : 30m)
Heat excha	nger			M shape fin & inner grooved tubing
Refrigerant	control			Electronic expansion valve
Fan type &	Q'ty			Propeller fan ×2
Fan motor (Starting method)		W	86 x 2 < Direct line start >
Air flow		Cooling Heating	m³/min	100
Shock & vib	oration absorber			Rubber sleeve(for compressor)
Electric hea	iter		W	20(Crank case heater)
Sofoty ogui	nmonto			Internal thermostat for fan motor.
Safety equip	prinerits			Abnormal discharge temperature protection.
	Refrigerant piping size (O	D)	mm	Liquid line: ϕ 9.52 (3/8")
	heirigerant piping size (O	.D.)	111111	Gas line: ϕ 15.88 (5/8")
	Connecting method			Flare piping
Installation	Attached length of piping		m	<u>-</u>
data	Insulation for piping			Necessary (both Liquid & Gas lines)
	Refrigerant line (one way)		m	Max.100m
	Vertical height diff. between O	.U. and I.U.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)
	Drain hose			Holes size ϕ 20 x 3pcs
IP number	<u> </u>			IP24
Standard ad				Edging
Option part	S			-

The pipe length is 7.5m.

Item	Indoor air te	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB WB		Staridards	
Cooling	27°C	19℃	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

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⁽²⁾ This air-conditioner is manufactured and tested in conformity with the ISO.
(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

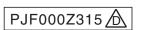
Item			Model	FDC140VNX		
Power source			1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.) ~ 16.0(Max.)]		
	Nominal heating capacity	(range)	kW	16.0 [4.0(Min.)~ 18.0(Max.)]		
Operation data	Sound power level	Cooling Heating		72		
data	0	Cooling	dB(A)	49		
	Sound pressure level	Heating		52		
	Silent mode sound pressu	ire level		-		
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370		
Exterior app	pearance			Stucco White		
(Munsell co	olor)			(4.2Y7.5/1.1) near equivalent		
Net weight			kg	105		
Compresso	r type & Q'ty			RMT5134MDE2×1		
Compresso	r motor (Starting method)		kW	Direct line start		
Refrigerant	oil (Amount, type)		Q	0.9 M-MA68		
Refrigerant	(Type, amount, pre-charge	e length)	kg	R410A 4.5kg in outdoor unit (incl. the amount for the piping of : 30m)		
Heat excha	nger			M shape fin & inner grooved tubing		
Refrigerant	control			Electronic expansion valve		
Fan type &	Q'ty			Propeller fan ×2		
Fan motor (Starting method)		W	86 x 2 < Direct line start >		
Air flow		Cooling Heating	m³/min	100		
Shock & vib	oration absorber			Rubber sleeve(for compressor)		
Electric hea	iter		W	20(Crank case heater)		
Cofoty ogui	nmonto			Internal thermostat for fan motor.		
Safety equip	prinerits			Abnormal discharge temperature protection.		
	Refrigerant piping size (O	D)	mm	Liquid line: ϕ 9.52 (3/8")		
	heirigerant piping size (O	.D.)	111111	Gas line: φ15.88 (5/8")		
	Connecting method			Flare piping		
Installation	Attached length of piping		m	<u>-</u>		
data	Insulation for piping			Necessary (both Liquid & Gas lines)		
	Refrigerant line (one way)		m	Max.100m		
	Vertical height diff. between O	.U. and I.U.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)		
	Drain hose			Holes size ϕ 20 x 3pcs		
IP number				IP24		
Standard ad				Edging		
Option part	S			-		

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB WB		Standards	
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

 (4) The operation data indicate when the air-conditioner is operated at 230V50Hz or 220V60Hz.



Item Power source		Model	FDC140VSX	
			3 Phase 380-415V 50Hz / 380V 60Hz	
rower sour	Nominal cooling capacity	(range)	kW	14.0 [5.0(Min.)~ 16.0(Max.)]
	Nominal heating capacity		kW	14.0 [3.0(Min.)~ 10.0(Max.)]
	Norminal fleating capacity	Cooling	KVV	10.0 [4.0(NIII.) ~ 20.0(NIAX.)]
Operation data	Sound power level	Heating		72
data	Sound pressure level	Cooling	dB(A)	49
	Sourid pressure level	Heating		52
	Silent mode sound press	ure level	Γ	-
Exterior dim	nensions (Height x Width x	Depth)	mm	1300×970×370
Exterior app	pearance			Stucco White
(Munsell co				(4.2Y7.5/1.1) near equivalent
Net weight	•		kg	105
Compresso	or type & Q'ty		Ĭ	RMT5134MDE3×1
Compresso	or motor (Starting method)		kW	Direct line start
Refrigerant	Refrigerant oil (Amount, type)		Q	0.9 M-MA68
	Heat exchanger		_	M shape fin & inner grooved tubing
	Refrigerant control			Electronic expansion valve
Fan type &				Propeller fan ×2
	(Starting method)		W	86 x 2 < Direct line start >
Air flow	,	Cooling Heating	m³/min	100
Shock & vib	oration absorber			Rubber sleeve(for compressor)
Electric hea	iter		W	20(Crank case heater)
0 ()				Internal thermostat for fan motor.
Safety equip	pments			Abnormal discharge temperature protection.
	D-fult-li-li) D \		Liquid line: φ9.52 (3/8")
	Refrigerant piping size (C	J.D.)	mm -	Gas line: φ15.88 (5/8")
	Connecting method			Flare piping
Installation	Attached length of piping		m	-
data	Insulation for piping			Necessary (both Liquid & Gas lines)
	Refrigerant line (one way) length	m	Max.100m
	Vertical height diff. between C	D.U. and I.U.	m	Max.30m (Outdoor unit is higher) Max.15m (Outdoor unit is lower)
	Drain hose			Holes size φ 20 x 3pcs
IP number	•			IP24
Standard ad	ccessories			Edging
Option parts	S			-

The pipe length is 7.5m.

Item	Indoor air t	emperature	Outdoor air	temperature	Standards	
Operation	DB	WB	DB	WB		
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1	
Heating	20°C	_	7°C	6°C	1505151-11	

- (2) This air-conditioner is manufactured and tested in conformity with the ISO.
 (3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

 (4) The operation data indicate when the air-conditioner is operated at 400V50Hz or 380V60Hz.

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(3) Operation chart

The V Multi is a system that allows for different models and capacities of indoor units to be connected so the individual operating characteristics of the indoor and outdoor are provided. Use the procedure shown in Item (c) to calculate the combined operating characteristics.

(a) Operating characteristic of outdoor unit

(220-240V 50Hz/220V 60Hz)

Item	Model	FDC71VNX	FDC100VNX	FDC125VNX	FDC140VNX
Cooling power consumption	kW	1.95	2.33	3.11	4.02
Heating power consumption	K VV	1.85	2.41	3.26	4.03
Cooling running current		8.5/8.9	10.3/10.8	13.7/14.3	17.6/18.4
Heating running current	A	8.1/8.5	10.6/11.1	14.3/15.0	17.6/18.4
Inrush current <max. current="" running=""></max.>	A	5 <17>	5 <24>	5 <	<26>

(380-415V 50Hz/380V 60Hz)

Item	Model	FDC100VSX	FDC125VSX	FDC140VSX		
Cooling power consumption	kW	2.33	3.11	4.02		
Heating power consumption	K VV	2.41	3.26	4.03		
Cooling running current	Α.	5.9/6.2	7.9/8.3	10.1/10.7		
Heating running current	A	6.1/6.4	8.2/8.7	10.1/10.7		
Inrush current <max. current="" running=""></max.>	A	5 <15>				

Note(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO5151-T1 "UNITARY AIR-CONDITIONERS"

(b) Operating characteristic of indoor unit

FDT Series

(220-240V 50Hz/220V 60Hz)

Item	Model	FDT40VF	FDT50VF	FDT60VF	FDT71VF1
Cooling power consumption	$\perp_{\rm kW}$	0.03-0.03/0.03	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08
Heating power consumption	K W	0.03-0.03/0.03	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08
Cooling running current		0.15-0.14/0.15	0.20-0.19/0.20	0.35-0.32/0.35	0.40-0.37/0.40
Heating running current	A	0.15-0.14/0.15	0.20-0.19/0.20	0.35-0.32/0.35	0.40-0.37/0.40

FDEN Series

(220-240V 50Hz/220V 60Hz)

Item	Model	FDEN40VF	FDEN50VF	FDEN60VF	FDEN71VF1
Cooling power consumption	kW	0.05-0.	06/0.06	0.10-0.11/0.11	0.11-0.12/0.14
Heating power consumption	K W	0.05-0.06/0.06		0.09-0.10/0.10	0.10-0.11/0.13
Cooling running current		0.25-0.26/0.29		0.46-0.48/0.50	0.50-0.53/0.67
Heating running current] A	0.23-0.25/0.28		0.42-0.44/0.46	0.46-0.48/0.63

Notes(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO5151-T1 "UNITARY AIR-CONDITIONERS"

⁽²⁾ The values shown in the above table are common to both cooling and heating operations.

(c) Calculation of total operation characteristics

Since the operation characteristics of V Multi system depend on combination of indoor unit, calculate the total operation characteristics of the system by using the formulas below according to speciations of each indoor unit or outdoor unit.

1) 1 Phase models

a) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit + Σ (Power consumption of indoor unit)

b) Total running current

Total running current (A) = Running current of outdoor unit + \sum (Running current of indoor unit)

c) Total power factor

Total power factor (%) = [Total power consumption (W) / Total running current (A) \times Power source] \times 100 Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit

[Example]

(Conditions) Operation Voltage Indoor unit: 220 V, 50 Hz

Outdoor unit: 220 V, 50 Hz

Operation mode Cooling and Heating

Unit----- Outdoor unit: FDC140VNX × 1 unit

Indoor unit: $FDT71VF1 \times 2$ units

Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC140VNX	FDT71VF1
Power consumption (kW)	4.02/4.03	0.08/0.08
Running current (A)	17.6/17.6	0.40/0.40

① Total power consumption (kW)

(Cooling)
$$4.02 + (0.08 \times 2) = 4.18$$

(Heating)
$$4.03 + (0.08 \times 2) = 4.19$$

2 Total running current (A)

(Cooling)
$$17.6 + (0.40 \times 2) = 18.4$$

(Heating)
$$17.6 + (0.40 \times 2) = 18.4$$

3 Total power factor (%)

(Cooling)
$$\frac{4.18 \times 1000}{18.4 \times 220} \times 100 = 99 \%$$

(Heating)
$$\frac{4.19 \times 1000}{18.4 \times 220} \times 100 = 99 \%$$

2) 3 Phase models

a) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit + \sum (Power consumption of indoor unit)

b) Total running current

Total running current (A) = Running current of outdoor unit + $[\Sigma (Running current of indoor unit) \times 1/3]$

c) Total power factor

Total power factor (%) = [Total power consumption (W) / $\sqrt{3}$ × Total running current (A) × Power source] × 100

Total operation characteristics = Operation characteristic value of outdoor unit + Operation characteristic value of indoor unit

[Example]

(Conditions) Operation Voltage Indoor unit: 220 V, 50 Hz

Outdoor unit: 380 V, 50 Hz

Operation mode Cooling and Heating

Unit----- Outdoor unit: FDC125VSX × 1 unit

Indoor unit: FDT50VF × 1 unit, FDT71VF1 × 1 unit

Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC125VSX	FDT50VF	FDT71VF1
Power consumption (kW)	3.11/3.26	0.04/0.04	0.08/0.08
Running current (A)	7.9/8.2	0.20/0.20	0.40/0.40

① Total power consumption (kW)

(Cooling)
$$3.11 + 0.04 + 0.08 = 3.23$$
 (kW)

(Heating)
$$3.26 + 0.04 + 0.08 = 3.38$$
 (kW)

② Total running current (A)

(Cooling) 7.9 +
$$\left[(0.20 + 0.40) \times \frac{1}{3} \right] = 8.1 \text{ (A)}$$

(Heating) 8.2 + $\left[(0.20 + 0.40) \times \frac{1}{3} \right] = 8.4 \text{ (A)}$

(Heating)
$$8.2 + \left[(0.20 + 0.40) \times \frac{1}{3} \right] = 8.4 \text{ (A)}$$

3 Total power factor (%)

(Cooling)
$$\frac{3.23 \times 1000}{\sqrt{3} \times 8.1 \times 380} \times 100 = 61 \%$$

(Heating)
$$\frac{3.38 \times 1000}{\sqrt{3} \times 8.4 \times 380} \times 100 = 61 \%$$

2.3 EXTERIOR DIMENSIONS		
(1) Indoor units		
(a) Ceiling cassette-4way type (FDT)	See page	96
(b) Ceiling suspended type (FDEN)	See page	99
(2) Outdoor units	See page	110
(3) Remote controller (Option parts)	See page	113
2.4 ELECTRICAL WIRING		
(1) Indoor units		
(a) Ceiling cassette-4way type (FDT)	See page	116
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(2) Outdoor units	See page	127
2.5 NOISE LEVEL		
(1) Indoor units		
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(2) Outdoor units	See page	135
2.6 TEMPERATURE AND VELOCITY DISTRIBUTION		
(1) Indoor units		
(a) Ceiling cassette-4way type (FDT)	See page	144
(b) Ceiling suspended type (FDEN)	See page	148
2.7 PIPING SYSTEM	See page	153
2.8 RANGE OF USAGE & LIMITATIONS	See page	156
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2.10.1 Installation of indoor unit		
(1) Ceiling cassette-4way type (FDT)	See page	212
(2) Ceiling suspended type (FDEN)	See page	225
2.10.2 Electric wiring work installation	See page	250
2.10.3 Installation of wired remote control (option)	See page	262
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(1) Model FDC71VNX	See page	284
(2) Models FDC100-140VNX,100-140VSX	See page	292
2.10.5 Instructions for branching pipe set (DIS-WA1,WB1,TA1,TB1)	See page	300
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3. OPTION PARTS

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(3) FDEN series (RCN-E1R)	559
(4) FDU, FDUM, FDF series (RCN-KIT3-E)	563
3.2 SIMPLE WIRED REMOTE CONROL (RCH-E3)	565
3.3 OA SPACER (FDTC series)	571
3.4 DUCT JOINT (FDTC series)	575
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3.1 WIRELESS KIT

(1) FDT seies (RCN-T-36W-E)

Following functions of FDT Type-F indoor unit series are not able to be set with this wireless remote control (RCN-TC-36W-E).

- 1. Individual flap control system
- 2. 4-fan speed setting (P-Hi/Hi/Me/Lo) → 3-fan speed setting (Hi/Me/Lo)

PJF012D010

⚠ WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
- Loose connection or hold will cause abnormal heat generation or fire
- Make sure the power supply is turned off when electric wiring work.
 Otherwise, electric shock, malfunction and improper running may occur

0 0

⚠ CAUTION

- DO NOT install the wireless kit at the following places in order to avoid malfunction places in order to avoid malfunction.

 (B) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.

 (9) Places where the receiver is affected by infrared rays of any other communication
- (1) Places exposed to direct sunlight (2) Places near heat devices (3) High humidity places
- High numinity places
 High ruminity places
 High surface or cold surface enough to generate condensation
 Places exposed to oil mist or steam directly
- (6) Uneven surface (7) Places affected by the direct airflow of the
- AC unit.

DO NOT leave the wireless kit without the cover.
 In case the cover needs to be detached, protect the receiver with a packaging box or bag in order to keep it away from water and dust.

\bigcirc

- For the installation method of the air conditioner itself, refer to the installation manual enclosed in the package.

(1) Accessories

Please make sure that you have all of the following accessories.

Receiver		1	
Wireless remote control	D+D	1	
Parts set		1	L

Remote control holder		1	
Wood screw for holder	O PP	2	
AAA dry cell battery (RO3)		2	

devices
(10)Places where some object may obstruct the communication with the remote control

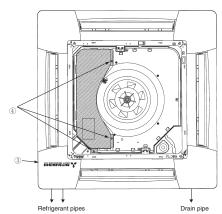
② How to install the receiver

The receiver can be installed by replacing with a corner panel on the applicable decorative panel.

Preparation before installation

- $\textcircled{1} \ \, \textbf{Attach the decorative panel onto the air conditioner according to the installation manual for the installation manual for the conditional part of the condition of$
- the panel.

 ② Remove the air return grille.
- Remove a corner panel located on the refrigerant pipes side.
 Remove three screws and detach the cover (indicated as shadowed area) from the control
- box of the air conditioner.



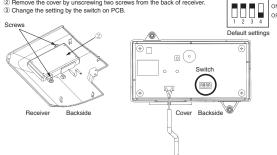
Setting on site

① PCB on the receiver has the following switches to set the functions. Default setting is shown

withmark.				
	SW1	Customized signal setting to avoid mixed communication	ON: Normal OFF: Remote	
	SW2	Receiver master/slave setting	ON: Master OFF: Slave	
	SW3	Buzzer valid/Invalid	ON: Valid OFF: Invalid	
	S W 4	Auto restart	ON : Valid OFF : Invalid	

<To change the settings>

- ② Remove the cover by unscrewing two screws from the back of receiver.③ Change the setting by the switch on PCB.



 $\label{eq:window} \ensuremath{\rlap{ν}}$ When SW1 is turned to OFF position, change the corresponding remote control setting as follows:

How to change the remote control setting
Pressing ACL and AIR FLOW button at the same time or inserting the batteries with pressing $\boxed{\text{AIR FLOW}}$ button will customize the signal.

Note

When the batteries are removed, the setting will return to the default setting.

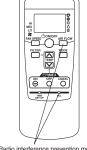
Please make sure to reset it when the batteries are

replaced.

Caution ^

Instruct the customer to set the mentioned above when

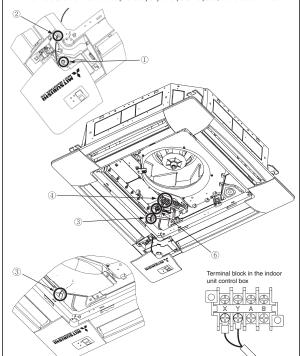
replacing the batteries. (How to set is also mentioned in the user's manual attached on the air conditioner.)



Installation of the receiver

- Loosen the bolts which fix the panel and make a gap between the panel and the indoor unit
- Put the wiring of the receiver through the opening.

 Put the wiring on the notch on the control box so as not to be pinched by the control box and lid as
- shown below. Connect the wiring to the terminal block provided in the control box. (Non-polarized)
- Attach the receiver to the panel according to the panel installation manual. Fix the wiring with the clamp so that the wiring do not contact the edge of control box's metal sheet.
- Beattach the control box lid with 3 screws removed
- Note: Make sure the wires not to be pinched by any other parts like panel, control box and indoor unit.



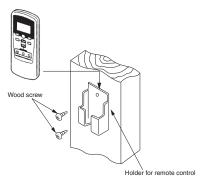
3 Remote control

Installation of the control holder

Caution

- DO NOT install it on the following places 4. Hot surface or cold surface enough to generate Places exposed to direct sunlight
 Places near heat devices
 High humidity places

- Hot surface or cold surface enough to generate condensation
 Places exposed to oil mist or steam directly.
 Uneven surface

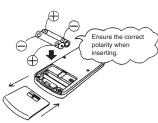


Installation tips for the remote control holder

- Adjust and keep the holder upright
 Tighten the screw to the end to avoid scratching the remote control.
 DO NOT attach the holder on plaster wall.

How to insert batteries

- 1 Detach the back lid.
- Insert the batteries. (two AAA batteries)
 Reattach the back lid.



Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

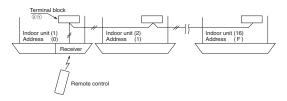
(i) Connect the XY terminal with 2-core wire. As for the size, refer to the following note.

② For Packaged air conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard Within 100m x 0.3 mm²

Within 200m x 0.5 mm²
Within 300m x 0.75mm²
Within 400m x 1.25mm² Within 600m x 2.0 mm



⑤ For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

Master/Slave setting when using plural remote controls

Up to two receivers can be installed in one indoor unit group. When two receivers are used, it is necessary for a receiver to turn OFF SW2 on the receiver PCB to set it as slave.

(For the method of switching, please see Setting on site in the section of 3 How to install the receiver in this manual.)

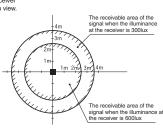
Wireless remote control's operable area

① Standard reachable area of the signal [condition] Illuminance at the receiver: 300lux (when no lighting is installed within 1m of the receiver in an ordinary office.)



② Correlation between illuminance at the receiver and reachable area of the signal in a plain view. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1.1m high under the condition of ceiling height of 2.5m.

When the illuminance becomes double the area is narrowed down to two thirds



3 Installation tips when several receivers are installed close Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receive (When no lighting is installed within 1m of the receiver in an ordinary office)

(4) How to disable the Auto mode operation

VRF system (except heat recovery 3-pipe systems) cannot be operated Make sure to set the remote control for the models so as not to be able

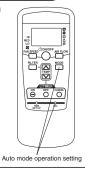
to choose Auto mode

Pushing ACL and MODE button at the same time or inserting the batteries with pressing MODE button will make auto mode operation.

Attention

When the batteries are removed, the setting will return to the default setting (Auto mode is valid).

Instruct the customer to set the mentioned above when eplacing the batteries. (How to set is also mentioned in the user's manual attached on the air conditioner.)



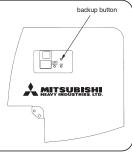
5 Backup button

A Backup button is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to flat batteries, controller lost, or control failure), still it possible to operate as temporary means. Press the button directly when operating it.

The air conditioner starts the operation with the condition of Auto mode, 23°C of set point, High fan

speed and horizontal louver position.

(2) The air conditioner stops the operation when the button is pressed when in operation.



6 Cooling test run operation

- After safety confirmation, turn on the power
- Transmit a cooling operation command with wireless remote control, while the backup button on the receiver is pressed.
- If the backup button on the receiver is pressed during a test run, it will end the test run.

 If you cannot operate the unit properly during a test run, please check by consulting with inspection guides on the wiring diagram of outdoor units.

The to read the two-digit display

- On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

- On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

 (1) An indication will be displayed for one hour after power on.

 (2) An indication will be displayed for 3.5 seconds after transmitting a "STOP" command from the wireless remote control or the operation of the backup button to stop the unit.

 (3) An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.

 (4) When there are no error records to indicate, addresses of all the connected units are displayed.
- (5) When there are some error records remaining, the error records are displayed.(6) Error records can be cleared by transmitting a "STOP" command from the wireless remote control, while the backup button is pressed.

(2) FDTC series (RCN-TC-24W-ER)

Notes:

Following functions of FDTC Type-F indoor unit series are not able to be set with this wireless remote control (RCN-TC-24W-ER)

- 1. Individual flap control system
- 2. 4-fan speed setting (P-Hi/Hi/Me/Lo) → 3-fan speed setting (Hi/Me/Lo)

PJA012D758

⚠ WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal
- Loose connection or hold will cause abnormal heat generation or fire. Make sure the power supply is turned off when electric wiring work.
- Otherwise, electric shock, malfunction and improper running may occur.

0 0

⚠ CAUTION

- DO NOT install the wireless kit at the following places in order to avoid malfunction
- (1) Places exposed to direct sunlight
 (2) Places near heat devices
 (3) High humidity places
 (4) Hot surface or cold surface enough to
 generate condensation
 (5) Places exposed to oil mist or steam directly
 (6) Uneven surface

- (7) Places affected by the direct airflow of the

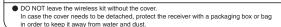
- (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.

 (9) Places where the receiver is affected by infrared rays of any other communication devices

 (10) Places where some object may obstruct the

(8) Places where the receiver is influenced by

communication with the remote control





Note

- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air conditioner itself, refer to the installation manual enclosed in the package.

1 Accessories

Please make sure that you have all of the following accessories

Receiver		1
Wireless remote control	(A.D	1
Parts set		1

Remote control holder		1
Wood screw for holder	ØP	2
AAA dry cell battery (RO3)		2

② How to install the receiver

The receiver can be installed by replacing with a corner panel on the applicable decorative panel.

Preparation before installation

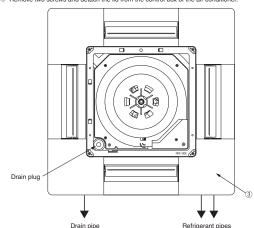
- ① Attach the decorative panel onto the air conditioner according to the installation manual for

- The parier.

 2 Remove the air return grille.

 3 Remove a corner panel located on the refrigerant pipes side.

 4 Remove two screws and detach the lid from the control box of the air conditioner



Setting on site

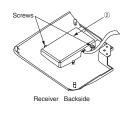
① PCB on the receiver has the following switches to set the functions. Default setting is shown

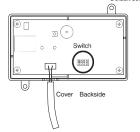
•	Thank .			
	S W 1	Customized signal setting to avoid mixed communication	ON: Normal OFF: Remote	
	S W 2	Receiver master/slave setting	ON : Master OFF : Slave	
	S W 3	Buzzer valid/Invalid	ON: Valid OFF: Invalid	
	S W 4	Auto restart	ON: Valid OFF: Invalid	

<To change the settings>

- Remove the cover by unscrewing two screws from the back of receiver
 Change the setting by the switch on PCB.







When SW1 is turned to OFF position, change the corresponding remote control setting as

How to change the remote control setting

Pressing ACL switch with AIR FLOW button kept pressing or inserting the batteries with pressing AIR FLOW button will customize the signal.

Note

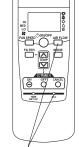
- When the batteries are removed, the setting will return
- When the batteries are removed, the setting will return to the default setting.

 Please make sure to reset it when the batteries are replaced.

Caution ~

- Instruct the customer to set the mentioned above when
- replacing the batteries.

 (How to set is also mentioned in the user's manual attached on the air conditioner.)



Radio interference prevention mode

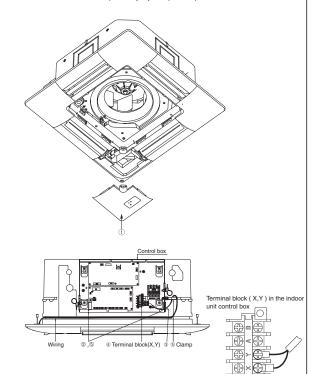
Installation of the receiver

- Attach the receiver to the panel according to the panel installation manual.
 Remove two screws and detach the lid from the control box.
- Put the wring in the control box with other wiring as shown below.

 Connect the wiring to the terminal block (X,Y) provided in the control box.(Non-polarized)

 Fix the wiring with the clamp as shown below.

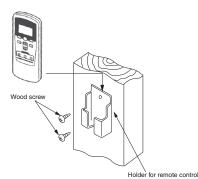
 Reattach the control box lid with 2 screws removed.
- X Note: Make sure wires not to be pinched by any other parts like panel and control box.



③ Remote control

Installation of the control holder

- DO NOT install it on the following places 4. Hot surface or cold surface enough to generate
- Places exposed to direct sunlight
- 2. Places near heat devices 3. High humidity places
- condensation
 5. Places exposed to oil mist or steam directly.
- 6. Uneven surface



- Installation tips for the remote control holder

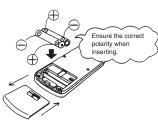
 Adjust and keep the holder upright

 Tighten the screw to the end to avoid scratching the remote control.

 DO NOT attach the holder on plaster wall.

How to insert batteries

- Detach the back lid.
- Insert the batteries. (two AAA batteries)
 Reattach the back lid.



Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

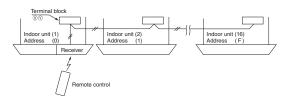
- Connect the XT terminal with 2-core wire. As for the size, refer to the following note.

 For Single packaged air conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard

Within 200m x 0.5 mm Within 300m x 0.75mm Within 400m x 1.25mm Within 600m x 2.0 mm2



⑤ For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

Master/Slave setting when using plural remote controls

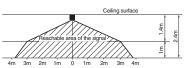
Up to two receivers can be installed in one indoor unit group. When two receivers are used, it is necessary for a receiver to turn OFF SW2 on the receiver PCB to set it as slave.

(For the method of switching, please see Setting on site in the section of

② How to install the receiver in this manual.)

Wireless remote control's operable area

① Standard reachable area of the signal [condition] Illuminance at the receiver: 300lux (when no lighting is installed within 1m of the receiver in an ordinary office.)



 Correlation between illuminance at the receiver and reachable area of the signal in a plain The drawing in the right shows the The receivable area of the signal when the illuminance correlation between the reachable area signal when the illuminand at the receiver is 300lux of the signal and illuminance at the receiver when the remote control is operated at 1m high under the condition of ceiling height of 2.4m. The receivable area of the signal when the illuminance at the receiver is 600lux

Installation tips when several receivers are installed close
Minimum distance between the indoor units which can avoid cross communication is 5m
under the condition of 300lux of illuminance at the receiver. (When no lighting is installed within 1m of the receiver in an ordinary office)

4 How to disable the Auto mode operation

VRF series (except heat recovery 3-pipe systems) cannot be operated

Make sure to set the remote controller for the models so as not to be able to choose Auto mode.

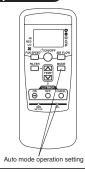
Pressing ACL switch with MODE button kept pressing or inserting the batteries with pressing MODE button will make auto mode

Note

When the batteries are removed, the setting will return to the default setting (Auto mode is valid).

Caution

Instruct the customer to set the mentioned above when replacing the batteries. (How to set is also mention the user's manual attached on the air conditioner.)



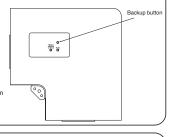
⑤ Backup button

A Backup button is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to flat batteries, control lost, or control failure). still it possible to operate as temporary means

Press the button directly when operating it.

(1) The air conditioner starts the operation it.
the condition of Auto mode, 23°C of set
point, High fan speed and horizontal louve position.

(2) The air conditioner stops the operation when the button is pressed when in operation



© Cooling test run operation

- After safety confirmation, turn on the power.
 Transmit a cooling operation command with wireless remote control, while the backup button on the receiver is pressed.
- the receiver is pressed.

 If the backup button on the receiver is pressed during a test run, it will end the test run.

 If you cannot operate the unit properly during a test run, please check by consulting with inspection guides on the wiring diagram of outdoor units.

⑦ How to read the two-digit display

- On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

 (1) An indication will be displayed for one hour after power on.

 (2) An indication will be displayed for 3.5 seconds after transmitting a "STOP" command from the wireless remote control or the operation of the backup button to stop the unit.
- wireless remote control or the operation of the backup button to stop the unit.

 (3) An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.

 (4) When there are no error records to indicate, addresses of all the connected units are displayed.

 (5) When there are some error records remaining, the error records are displayed.

 (6) Error records can be cleared by transmitting a "STOP" command from the wireless remote control, while the backup button is pressed.

(3) FDEN series (RCN-E1R)

Notes:

Following functions of FDEN Type-F indoor unit series are not able to be set with this wireless remote control (RCN-E1R).

PFA012D620

1. Flap control system 2. 4-fan speed setting (P-Hi/Hi/Me/Lo) \rightarrow 3-fan speed setting (Hi/Me/Lo)

WARNING

• Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal. Loose connection or hold will cause abnormal heat generation or fire.



Make sure the power supply is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.



⚠ CAUTION

• Install a receiver unit where it is not exposed to direct sunrays or intense light from lighting fixtures.



1 Accessories

Please make sure that you have all of the following accessories.

Remoto controller holder	AAA dry cell battery (RO3)	Wood screw for holder	Wireless remote control
	(a)	 (X)	
1	2	2	1

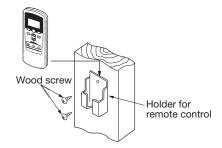
② Installation of the control holder

\triangle CAUTION DO NOT install it on the following places.

- 1. Places exposed to direct sunlight
- 2. Hot surface or cold surface enough to generate condensation
- 3. Places near heat devices
- 4. Places exposed to oil mist or steam directly.
- 5. High humidity places
- 6. Uneven surface

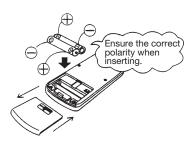
Installation tips for the remote control holder

- · Adjust and keep the holder up right.
- Tighten the screw to the end to avoid scratching the remote control.
- DO NOT attach the holder on plaster wall.



How to insert batteries

- 1 Detach the back lid.
- 1 Insert the batteries. (two AAA batteries)
- 1) Reattach the back lid.



③ FDEN

Setting on site

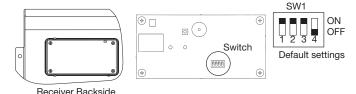
PCB on the receiver has the following switches to set the function.

Default setting is shown with ___ mark.

SW1	Prevents interference during plural setting	ON: Normal (1ch) OFF: Customized (2ch)
SW2	Receiver master/slave setting	ON : Master OFF : Slave
SW3	Buzzer valid/Invalid	ON : Valid OFF : Invalid
SW4	Auto restart	ON : Valid

To change setting

- 1. Remove the front panel.
- 2. Remove four screws located on the back of the receiver and detach the board.
- 3. Change the setting by the switch on PCB.



Refer to Wireless remote control unit operation distance of FDEN in case of plural setting.

Master/Slave setting when using plural remote controls

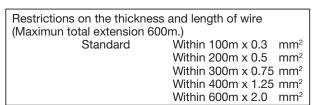
Up to two receiver or wired remote control can be installed in one indoor unit group.

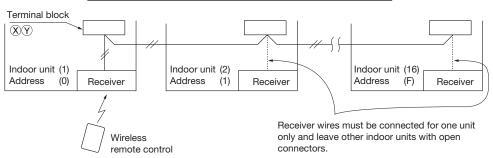
When two receivers or wired remote control are used, it is necessary to change SW on the PCB to set it as slave

Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

- ① Connect indoor units with each other with 2-core wires. As for size, refer to the following note.
- ② The receiver wires must be connected only with the indoor unit that will be operated by the remote control directly.
- ③ Set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.





***ATTENTION**

In a system configured as shown above, up to two receivers are usable. If two receivers are used, it is necessary to designate one of them as a slave by setting SW2. (For the method of changing the setting, refer to Setting on site .) Since other receivers are not usable, do not couple the connectors for them. (Unless the connector is coupled for a receiver, the LED will not be able to make any indication)

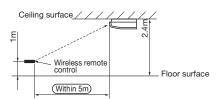
③ FDEN (continued)

Wireless remote control operation distance

① Standard signal receiving range

[Condition]

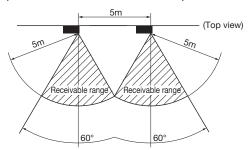
Illuminance at the receiver area: 360 lux. (When no lighting fixture is located within 1m of indoor unit in an ordinary office)

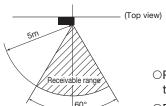


② Points for attention in connecting a plural number of indoor units

[Condition]

Illuminance at the receiver area: 360 lux. (When no lighting fixture is located within 1m of indoor unit in an ordinary office)
When the remote control is used with the aforementioned interference-prevention setting, a minimum distance guaranteeing the prevention of unintended unit responses is 5m.





- OPlease operate remote control switches with the unit faced correctly toward the indoor unit's receiver section.
- OEffective operation distance can vary with the luminance around the receiver and the reflection from walls of the room.
- OWhen the receiver is exposed to intensive light such as from the direct sun or a strong light, it may become operable only from a short distance or unable to receive signals at all.

Backup button

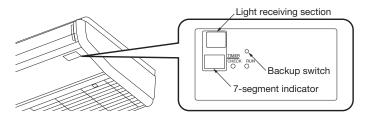
A backup switch is provided on the receiver section of the panel surface.

When operation from the wireless remote control is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.

(1) If pressed while the air conditioner is in a halt, it will cause the air conditioner to start operation in the automatic mode.

Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal

(2) If pressed while the air conditioner is in operation, it will stop the air conditioner.



Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- *If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

③ FDEN (continued)

How to read the two-digit display

A two-digit indicator (7-segment indicator) is provided on the receiver section.

- (1) An indication will be displayed for one hour after power on.
- (2) An indication appears for 3.5 seconds when a "Stop" command is sent from the wireless remote control while the air conditioner is not running.
- (3) An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
- (4) When there are no error records to indicate, addresses are displayed for all of the connected units.
- (5) When there are some error records remaining, the error records are displayed.
- (6) Error records can be cleared by transmitting a "Stop" command from the wireless remote control, while the backup switch is depressed.

(4) Remote control

Setting to avoid mixed communication

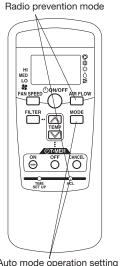
Pressing ACL and AIR FLOW button at the same time or inserting the batteries with pressing AIR FLOW button will customize the signal.

Setting to disable the Auto mode operation

VRF system (except heat recovery 3-pipe system) cannot be operated in Auto mode.

Make sure to set the remote control for the models so as not to be able to choose Auto mode.

Pushing ACL and MODE button at the same time or inserting the batteries with pressing | MODE | button will make auto mode operation.



Auto mode operation setting

***ATTENTION**

When the batteries are removed, the setting will return to the default setting.

Please make sure to reset it when the batteries are replaced.

⚠ Caution

Instruct the customer to set the mentioned above when replacing the batteries. (How to set is also mentioned in the user's manual attached on the air conditioner.)

(4) FDU, FDUM, FDF series (RCN-KIT3-E)

Following functions of FDU indoor unit series are not able to be set with this wireless remote control (RCN-KIT3-E).

1. 4-fan speed setting (PHi/Hi/Me/Lo) →3-fan speed setting (Hi/Me/Lo)

Read this manual together with the installation manual attached to the air conditioner

PJZ012D060/A

⚠ WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.

 Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power supply is turned off when electric wiring work
- Otherwise, electric shock, malfunction and improper running may occur.



0

(10)Places where some object may obstruct the

communication with the remote control

⚠ CAUTION

- DO NOT install the wireless kit at the following places in order to avoid malfunction. (8)Places where the receiver is influenced by the fluorescent lamp (especially in verter
- (1)Places exposed to direct sunlight (2)Places near heat devices
- (3)-High humidity places (4)-Hot surface or cold surface enough to generate condensation (5)-Places exposed to oil mist or steam directly
- (6)Uneven surface (7) Places affected by the direct airflow of the
- AC unit.
- DO NOT leave the wireless kit without the cover. In case the cover needs to be detached, protect the receiver with a packaging box or



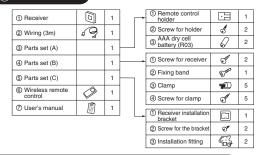
bag in order to keep it away from water and dust.

Attention

- Instruct the customer how to operate it correctly referring to the instruction manual.
 User's manual of a wireless remote control is attached to a indoor unit or a outside unit.
 Read this together with a manual attached to this kit.

1 Accessories

Please make sure that you have all of the following accessories

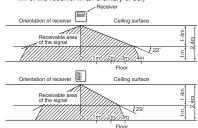


2 Wireless remote control's operable area

(1) When installed on ceiling

1 Standard reachable area of the signal

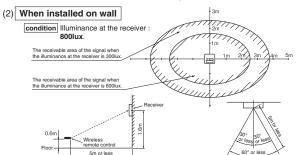
condition Illuminance at the receiver: 300lux (when no lighting is installed within 1m of the receiver in an ordinary of ce.)



(2) Correlation between illuminance at the receiver and reachable area of the signal in a plain

condition Correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1.1m high under the condition of ceiling height of 2.5m.

When the illuminance becomes double, the area is narrowed down to two third



3 How to install the receiver

The following two methods can be used to install the receiver onto a ceiling or a wall. Select a method according to the installation position.

<Installation position>

- (A) Direct installation onto the ceiling with wood screws.
- (B) Installation with accessory's bracket

(1) Drilling of the ceiling (ceiling opening)

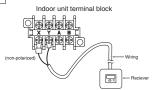
Drill the receiver installation holes with the following dimensions at the ceiling position where wires can be connected.

(A) Direct installation onto the ceiling with wood screws.	88mm(H)×101mm(W)	
(B) Installation with enclosed bracket.	108mm(H)×108mm(W)	<u></u>]
		l w

(2) Wiring connection of receiver

Caution

Do not connect the wiring to the power source of the terminal block If it is connected, printed board will be damaged.

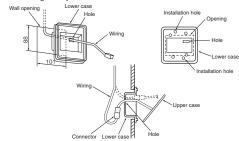


(3) Installation of the receiver

Remove the screw on the side of the receiver and sprit it into the upper case and lower case.Install the receiver with one of the two installation methods (A) or (B) shown below

(A) Direct installation onto the ceiling with screws

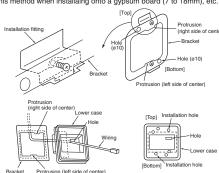
Use this installation method when the ceiling is wooden, and there is no problem for strength in installing directly with wood screws



- 1) Put through the wiring from the back side to the hole of the lower case.
- ②Fit the lower case into the ceiling opening. Make sure that the clearance between the convex part of the back of the lower case and the ceiling opening must be as equal as possible on both sides.
- 3Using the two installation holes shown above, fix the lower case onto the ceiling with the enclosed wood screws. (The other four holes are not used.)
- (4) Connect the wiring with the wiring from the upper case by the connector
- 5) Take out the connector to the backside from the hole of the lower case putting through the wiring at 1.
- 6Fit the upper case and the lower case, and tighten the screws.

(B) Installation with enclosed bracket

Use this method when installaing onto a gypsum board (7 to 18mm), etc.



- ①Catch the two protrusion of the enclosed bracket onto the tting as shown above, and temporarily fix with the screws. (The bracket has an up/down and front/back orientation. Con rm the top/bottom protrusion positions and the positional relation of the ø 10 holes on the bracket and the installation hole on the lower case with the above drawing.)
- ②Insert the end of the installation tting into the back of the ceiling from the opening, and tighten the screws to fix the bracket onto the ceiling.
- ③Pass the wiring from the rear side through the hole on the lower case.④Fit the lower case onto the bracket, and fix the lower case to the bracket using the
- two installation holes shown above. (The other four holes are not used.)
- ⑤Follow step ① to ⑥ for (A) to complete the installation.

4 Remote control

Installation of the control holder

DO NOT install it on the follow

- 1) Places exposed to direct sunlight
- 2) Places near heat devices
- 3) High humidity places
 4) Hot surface or cold surface enough to generate condensation
 5) Places exposed to oil mist or steam directly
- 6) Uneven surface

Installation tips for the remote control holder

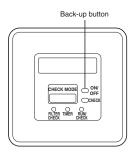
- · Adjust and keep the holder upright.
- . Tighten the screw to the end to avoid scratching the remote control.
- DO NOT attach the holder to plaster wall.

How to insert batteries

- 1 Detach the back lid
- 2 Insert the batteries. (two AAA batteries)
- 3 Reattach the back lid.

5 Cooling test run operation

- •After safety con rmation, turn on the power.
- •Transmit a cooling operation command with wireless remote control, while the backup button on the receiver is pressed.
- •If the backup button on the receiver is pressed during a test run, it will end the test run.
- •If you cannot operate the unit properly during a test run, please check by consulting with inspection guides on the wiring diagram of outdoor units.



6 Setting of wireless remote control and receiver

(A) Methods of avoiding the malfunction due to the mixed communication

Do both procedures ① and ②

This setting is to avoid the mixed communication with other household electric appliances or the mixed communication when two receivers are located closely

①Setting change of the wireless remote control

Pressing ACL and AIRFLOW button at the same time or inserting the batteries with pressing AIRFLOW button will customize the signal.

Note *When the batteries are removed, the setting will return to the default setting. Make sure to reset it when the batteries are replaced.

2 Setting the PCB of the receiver

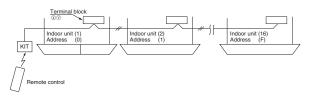
† ●PCB of the receiver HI NED SEED ON/OFF AIR FLOW 833 64 1 C12 C13 8888 FILTER MODE -SW1-1 (Customized signal SW1-4 setting to avoid (Auto restart) mixed communication) SW1-2 (Receiver master/slave setting) Customized signal setting to : Normal : Remote avoid mixed communication : Master : Slave SW1-2 ON : Valid OFF : Invalid Auto restart : Default setting

(B) Control plural indoor units with one remote control

Up to 16 indoor units can be connected

①Connect the XY terminal with 2-core wire As for the size, refer to the following note.

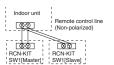
2) For Packaged air conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate Restrictions on the thickness and length of wire (Maximun total extension 600m.) on 600m.)
Within 100m x 0.3 mm²
Within 200m x 0.5 mm²
Within 300m x 0.75mm²
Within 400m x 1.25mm²
Within 600m x 2.0 mm² Standard



③For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate

(C) Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.



Setting	Function
ON	Master
OFF	Slave
	ON

(D) Change setting of auto mode operation

Auto mode operation is prohibited to be selected for KX models (except for KXR

Therefore be sure to change setting of remote control to disable the auto mode operation for these models according to the following procedure.

while pressing the MODE button, press the IACL switch, or while pressing the MODE button, insert the batteries to the remote control. Then the auto mode can be invalid. Attention

When the batteries are removed, it is returned to initial setting (Auto mode

Accordingly when replacing the batteries, be sure to perform the above operation

(E) Change setting of fan speed

While pressing the FAN SPEED button, press the ACL switch, or while pressing the FAN SPEED button, insert the batteries to the remote control. Then the fan speed can be changed from 2-speed setting to 3-speed setting.

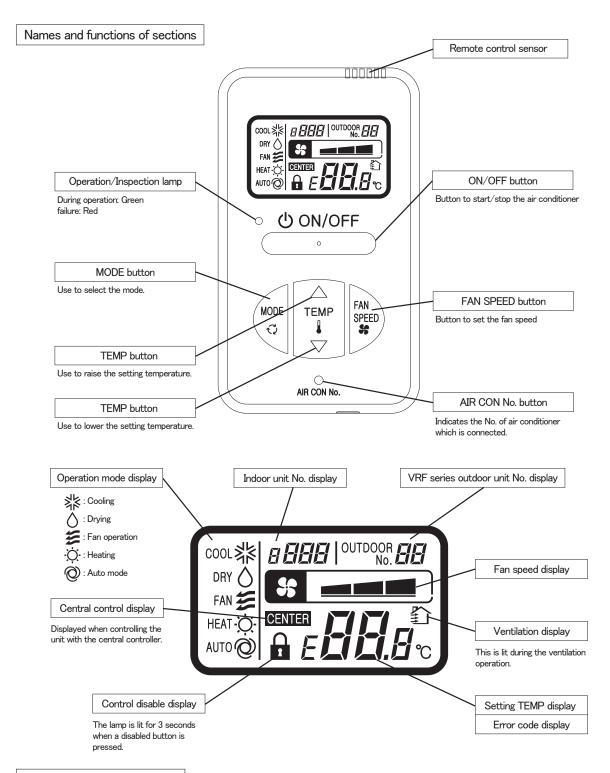
When changing fan speed setting of remote control, be sure to perform the same fan speed setting as that of the indoor unit model to be used.

When the batteries are removed, it is returned to initial setting (Fan speed setting

Accordingly when replacing the batteries, be sure to perform the above operation

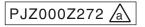
3.2 SIMPLE WIRED REMOTE CONTROL (RCH-E3)

Following functions of FDU indoor unit series are not able to be set with this simple wired remote control (RCH-E3). 1. 4-fan speed setting (PHi/Hi/Me/Lo) \rightarrow 3-fan speed setting (Hi/Me/Lo)

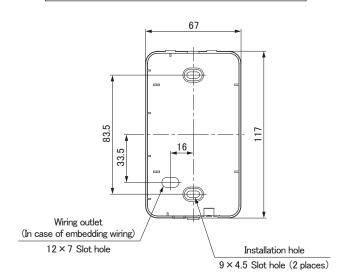


Installation of remote control

- DO NOT install the remote control at the following places in order to avoid malfunction.
- (1) Places exposed to direct sunlight
- (4) Hot surface or cold surface enough to generate condensation (5) Places exposed to oil mist or steam directly
- (2) Places near heat devices (3) High humidity places
- (6) Uneven surface

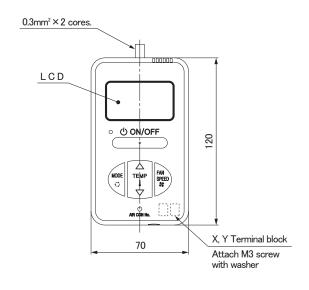


Remote control installation dimensions

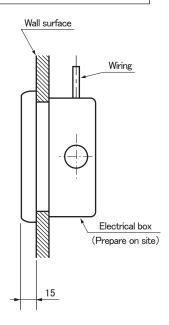


Note: Installation screw for remote control M4 Screw (2 pieces)

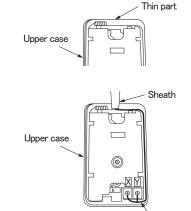
In case of exposing wiring



In case of embedding wiring



The remote control wiring can be extracted from the upper center. After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



The peeling length of each wiring is as follows:

X wiring : 160mm Y wiring : 150mm



Unit:mm

Wiring specifications

- (1) Wiring of remote control should use $0.3 \text{mm}^2 \times 2$ core wires or cables. (on–site configuration)
- (2) Maximum prolongation of remote control wiring is 600m.

If the prolongation is over 100m, change to the size below.

But, the wiring in the remote control case should be 0.3mm^2 (recommended) to 0.5mm^2 .

Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire

connecting section. Be careful about contact failure.

Length	Wiring thickness
100 to 200m	0.5mm² × 2 cores
Under 300m	0.75mm² × 2 cores
Under 400m	1.25mm² × 2 cores
Under 600m	2.0mm ² × 2 cores

Adapted to RoHS directive

Simple Remote Control Installation Manual

PJZ012D069

Read together with indoor unit's installation manual.

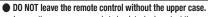
⚠WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
 - Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power supply is turned off when electric wiring work.
 Otherwise, electric shock, malfunction and improper running may occur.



⚠ CAUTION

- DO NOT install the remote control at the following places in order to avoid malfunction.
 - (1) Places exposed to direct sunlight
- (4) Hot surface or cold surface enough to generate condensation
- (2) Places near heat devices
- (5) Places exposed to oil mist or steam directly
- (3) High humidity places
- (6) Uneven surface



In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.



Accessories	Remote control, wood screw (ϕ 3.5 \times 16) 2 pieces
Prepare on site	Remote control cord (2 cores) (Refer to [2. Installation and wiring of remote control]) [In case of embedding cord] Electrical box, M4 screw (2 pieces) [In case of exposing cord] Cord clamp (if needed)

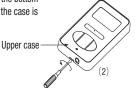
1. Installation procedure

In case of embedding cord

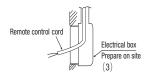
 Make certain to remove the screw on the bottom surface of the remote control.



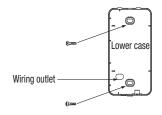
(2) Remove the upper case of the remote control. Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.

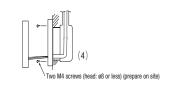


(3) Pre-bury the electrical box and remote control cord.



(4) Prepare two M4 screws (recommended length: 12 – 16mm), and install the lower case to the electrical box. Do not use a screw whose screw head is larger than the height of the wall around the screw hole.





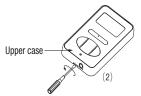
- (5) Connect the remote control cord to the terminal block. Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)
- 6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.

In case of exposing cord

 Make certain to remove a screw on the bottom surface of the remote control.



(2) Remove the upper case of the remote control. Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.

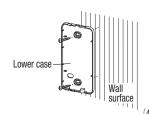


(3) The remote control cord can be extracted from the upper center.

After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



(4) The lower case of the remote control is mounted to a flat wall with two accessory wood screws.



(5) Connect the remote control cord to the terminal block. Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)

The wiring route is as shown in the right.



The wiring in the remote control case should be 0.3 mm^2 (recommended) to 0.5 mm^2 at maximum.

Further, peel off the sheath.

The peeling length of each wiring is as follows:

X wiring : 160mm Y wiring : 150mm



- (6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.
- (7) In the case of exposing installation, secure the remote control cord to the wall surface with a cord clamp so as not to loosen the remote control cord.

2. Installation and wiring of remote control

- (1) Wiring of remote control should use 0.3mm² × 2 core wires or cables. (on-site configuration)
- (2) Maximum prolongation of remote control wiring is 600 m.

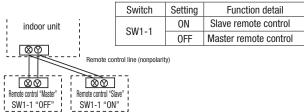
If the prolongation is over 100m, change to the size below.

But, the wiring in the remote control case should be 0.3mm² (recommended) to 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire

connecting section. Be careful about contact failure.

3. Master/ slave setting when more than one remote control are used

(1) Up to two remote controls can be connected to one unit (or one group) of indoor unit.

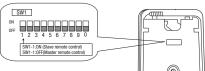


(2) Set the switch SW1-1 of the slave remote control is "Slave" (ON). The factory default is set as "Master" (OFF).

(Note) • The remote control thermistor enabled setting can be set only to the master remote control.

• Install the master remote control at the position to detect room temperature.

The air conditioner operation follows the last operation of the remote control in case of the master / slave setting.



4. The indication when power source is supplied

 At the time of turning the power source on, after the light is on for the first 2 seconds, the display becomes as shown below.

The number displayed on the upper side of LCD in the remote control is the software number,

and this is not an error code.



Software number

(The number in the left is one example. Another number may be shown.)

- (2) Then, "88.0 °C" blinks on the remote control until the communication between the remote control and the indoor unit is established.
- (3) In the case of connecting one remote control with one unit (or one group) of indoor unit, make certain to set the master remote control (factory default).

 If the slave remote control is set, a communication cannot be established.
- (4) If a state where the communication between the remote control and the indoor unit cannot be established continues about for 30 minutes, "E" is displayed. Confirm the wiring of the indoor unit and the outdoor unit and master/slave setting of the remote control.



5. Confirmation method for return air temperature

Return air temperature can be confirmed by the remote control operation.

(1) Press AIR CON NO. button for over 5 seconds.

"88" blinks on the temperature setting indicator.

("88" blinks for approximately 2 seconds while data is read.)



Then, the return air temperature is displayed.

(Example) return air temperature: "27 °C" (blinking)

(Note) For the return air temperature, in the normal case, the return air temperature of the indoor unit is displayed; however, in the case that the remote control thermistor is effective, detected temperature by the remote control thermistor is displayed.

(2) Press ON/OFF button. End.

[In the case that the remote thermistor is ineffective and plural indoor units are connected to one remote control 1

(1) Press AIR CON NO. button for over 5 seconds.

indoor unit No. indicator: "U 000" (blinking) (Among the connected indoor units, the lowest number is displayed.)



(2) Press TEMP or TEMP button. Select the indoor unit No.

(3) Press **MODE** button.

Dectder the indoor unit No.

(Example) indoor unit No. indicator: "U 000"

"88" blinks on the temperature setting indicator. (blinking for approximately 2 to 10 seconds while data is read) Then, the return air temperature is displayed. When AIR CON NO. is pressed, return to the indoor unit selection display (example, "U 000").

(4) Press ON/OFF button. End.

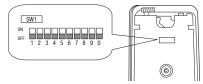
6. Function setting

Each function of the remote control and the indoor unit is automatically set to the initial setting, which is the standard use, on the occasion of connecting the remote control with the indoor unit. In the case of the standard use, the setting change is unnecessary. However, if you whould like to change the initial setting " , change the setting for only the item of the function number. Record the setting contents and stored them.

(1) Function setting item by switch on PCB

Switch No.	Setting	Setting detail	Initial setting
SW1-1	ON	Slave remote control	
SW1-1	0FF	Master remote control	0
SW1-2	ON	Remote control thermistor enabled	
SW1-2 OFF		Remote control thermistor disabled	0
SW1-3	ON	"MODE" button prohibited	
SW1-3 OFF		"MODE" button enabled	0
SW1-4		"ON/OFF" button prohibited	
		"ON/OFF" button enabled	0

Switch No.	Setting	Setting detail	Initial setting
SW1-5		"TEMP" button prohibited	
		"TEMP" button enabled	0
SW1-6	ON	"FAN SPEED" button prohibited	፠ Note 1
SW1-6 OFF		"FAN SPEED" button enabled	፠ Note 1
SW1-7	ON	Auto restart function enabled	
OFF OFF		Auto restart function disabled	0
SW1-8, 9, 0	ON	Not used	
SW1-0, 9, U	0FF	Not used	



- As for the slave remote control, function setting is impossible other than SW1-1.
- In the indoor unit with only one fan speed, "FAN SPEED" button cannot be enabled.

(2) Function setting item by button operation

Classification	Function No.	Function	Setting No.	Setting	Initial setting	
			01	Fan speed: three steps	※ Note 1	The fan speed is three steps, * = =
	01	Indoor unit fan speed	02	Fan speed: two steps (Hi-Lo)	※ Note 1	The fan speed is two steps, % ■■■ - % ■ .
		indoor drift fair speed	03	Fan speed: two steps (Hi-Me)		The fan speed is two steps, * • • • • • .
			04	Fan: one step	※ Note 1	The fan speed is fixed to one step.
			01	Remote control thermistor: no offset	0	
			02	Remote control thermistor: +3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control thermistor: +2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
	03	thermistor at the time	04	Remote control thermistor: +1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
		of cooling	05	Remote control thermistor: -1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
Remote			07	Remote control thermistor: -3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offsett temperature at -3.0°C.
control			01	Remote control thermistor: no offset	0	
function			02	Remote control thermistor: +3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
		Remote control	03	Remote control thermistor: +2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
	04	thermistor at the time	04	Remote control thermistor: +1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
		of heating	05	Remote control thermistor: -1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
			07	Remote control thermistor: -3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -3.0°C.
			01	No ventilator connection	0	
	05	Ventilation setting	02	Ventilator links air-conditioner		In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit.
	06	"Auto" operation setting	01	"Auto" operation enabled	፠ Note 1	
			02	"Auto" operation disabled	፠ Note 1	"Auto" operation disabled
	07	Operation permission/ prohibition	01	Disabled	0	
			02	Enabled		Operation permission/prohibition controller is enabled.
			01	Level input	0	
	08	External input	02	Pulse input		
		Fan speed setting	01	Standard	Note2	
	09		02	High speed 1	Note2	
			03	High speed 2	Note2	
			01	No remaining operation	0	After cooling stopped, no fan remaining operation
	10	Fan remaining	02	0.5 hours		After cooling stopped, fan remaining operation for 0.5 hours
	10	operation at the time of cooling	03	1 hour		After cooling stopped, fan remaining operation for 1 hour
		or cooling	04	6 hours		After cooling stopped, fan remaining operation for 6 hours
			01	No remaining operation	0	After heating stopped or after heating thermostat OFF, no fan remaining operation
		Fan remaining	02	0.5 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 0.5 hours
	11	operation at the time of heating	03	2 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 2 hours
Indoor unit		of ficating	04	6 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 6 hours
			01	No offset	0	
function		Setting temperature	02	Setting temperature offset + 3.0 °C		The setting temperature at the time of heating is offset by +3.0 °C.
	12	offset at the time of heating	03	Setting temperature offset + 2.0 °C		The setting temperature at the time of heating is offset by +2.0 °C.
		neaung	04	Setting temperature offset + 1.0 °C		The setting temperature at the time of heating is offset by +1.0 °C.
			01	Low fan speed	* Note 1	At the time of heating thermostat OFF, operate with low fan speed.
			02	Setting fan speed		At the time of heating thermostat OFF, operate with the setting fan speed.
	13	Heating fan controller	03	Intermittent operation	* Note 1	At the time of heatingr thermostat OFF, intermittently operate.
			04	Fan off	74.1100	At the time of heating thermostat OFF, a fan will be stopped. When the remote control thermistor is enabled, automatically set to "Fan off". Do not set at the time of the indoor unit thermistor.
			01	No offset	0	
			02	Return air temperature offset +2.0 °C	t ~	Offset the return air temperature of the indoor unit by +2.0 °C.
			03	Return air temperature offset +1.5 °C		Offset the return air temperature of the indoor unit by +1.5 °C.
	14	Return air temperature	04	Return air temperature offset +1.0 °C	1	Offset the return air temperature of the indoor unit by +1.0 °C.
	17	offset	05	Return air temperature offset -1.0 °C		Offset the return air temperature of the indoor unit by +1.0 °C.
		-	06	Return air temperature offset -1.5 °C	1	Offset the return air temperature of the indoor unit by -1.5 °C.

Note 1: The symbol " * " in the initial setting varies depending upon the indoor unit and the outdoor unit to be connected, and this is automatically determined as follows:

automatically determined as follows:					
Swith No. Function No.	Function	Setting	Product model		
	"FAN SPEED"	"FAN SPEED" button prohibited	Product model whose indoor fan speed is only one step		
SW1-6	button	"FAN SPEED" button enabled	Product model whose indoor fan speed is two steps or three steps		
		Fan speed: three steps	Product model whose indoor unit fan speed is three steps		
Remote control function 01	Indoor unit fan	Fan speed: two steps (Hi-Lo)	Product model whose indoor unit fan speed is two steps		
speed		Fan speed: two steps (Hi-Me)			
		Fan: one step	Product model whose indoor unit fan speed is only one step		
Remote control function 06	"Auto" operation	"Auto" operation enabled	Product model where "Auto" mode is selectable		
Remote control function 06	setting	"Auto" operation disabled	Product model without "Auto" mode		
Indoor unit function 13	Heating fan	Low fan speed	Product model except FDUS		
illuoor ullit lulicuoli 13	control	Intermittent operation	FDUS		

Note 2: Fan speed of "High speed" setting

Fan speed setting	Indoor unit fan speed setting			
ran speed setting	St a al al - St a al - St a	\$0 mm m - \$0 m	\$6 m m M - \$6 m m	
Standard	Hi — Mid — Lo	Hi — Lo	Hi — Mid	
High speed 1 · 2	UHi — Hi — Mid	UHi — Mid	UHi — Hi	

Initial setting of some indoor unit is "High speed".

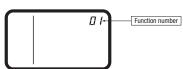
Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.

But only master indoor unit is received the setting change of indoor unit function "07 Operation permission/prohibition" and "08 External input".

7. How to set functions by button operation

(1) Stop air-conditioning, and simultaneously press $\overline{\text{AIR CON NO.}}$ and $\overline{\zeta}$ $\overline{\text{MODE}}$ buttons at the same time for over three seconds.

The function number "01" blinks in the upper right.

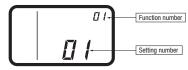


- $(2) \quad \text{Press} \quad \boxed{\text{TEMP}} \triangle \quad \text{or} \quad \boxed{\text{TEMP}} \nabla \quad \text{button.}$ Select the function number
- (3) Press MODE button. Decide the function number

(4) [In the case of selecting the remote control function (01-06)]

1) The current setting number of the selected function number blinks (Example)

Function number: "01" (lighting) Setting number: "01" (blinking)



- ② Press TEMP△ or TEMP▽ button. Select the setting number.
- 3 Press MODE button.

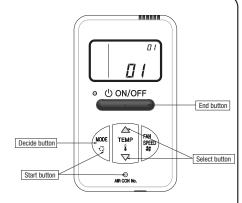
The setting is completed.

Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted. (Example)

Function number: "01" (lighting for 3 to 20 seconds) Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to $\left(5\right)$.



[In the case of selecting the indoor unit function (07-14)]

1) "88" blinks on the temperature setting indicators

(blinking for approximately 2 to 10 seconds while data is read)

After that, the current setting number of the selected function number blinks. (Example)

Function number: "07" (lighting) Setting number: "01" (blinking)

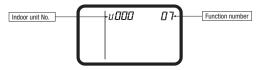


Proceed to (2). [Note]

a. In the case of connecting one remote control to plural indoor units, the display

Indoor unit No. display: "U 000" (blinking)

(Display the lowest number among the connected indoor units.)



b. Press $\boxed{\mathsf{TEMP} \triangle}$ or $\boxed{\mathsf{TEMP} \nabla}$ button.

Select the indoor unit No. to be set.

If "U ALL" is selected, the same setting can be set to all units.

c. Press TMODE button.

Decide the indoor unit No

"88" blinks on the temperature setting indicators. (blinking for 2 to 10 seconds while data

When AIR CON NO. button is pressed, go back to the indoor unit selection display (for example, "U 000" blinking).

② Press TEMP△ or TEMP▽ button.

Select the setting number

3 Press MODE button.

The setting is completed.

Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.

(Example)

Indoor unit No.: "U 000" (lighting for 3 to 20 seconds) Function number: "07" (lighting for 3 to 20 seconds) Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5).

- (5) Press ON/OFF button. The setting is completed.
 - · Even if 00/00/FF button is pressed during setting, the setting is ended. However, any details where the setting has not been completed will be ineffective.
 - · The setting contents are stored in the controller, and even if the power failure occur, this will not be lost.

[Confirmation method for current setting]

According to the operation, the "setting number" displayed first after selecting "function number" and pressing TMODE button is the currently set content. (However, in the case of selecting "U ALL" (all units), the setting number of the lowest number among the indoor units is displayed.)

3.3 OA SPACER (FDTC series)

This manual describes the installation methods for OA spacer (TC-OAS-E) and the duct joint (TC-OAD-E). ©This OA spacer is designed for assembling on the indoor unit (FDTC Series), not for be using independently.



Application model	FDTCA151R, 201R, FDTCA22~56KXE4R, FDTC22~56KXE6 FDTC22~56KXE6A, FDTC22~56KXE6B, FDTC22~56KXE6D
	FDTC40V, 50V, FDTC40~60VB, FDTC25~60VD

- OPrepare the duct (size: Ø75) and the booster fan at site.
- ©For the installation of indoor unit, refer to the installation manual attached to the indoor unit.

SAFETY PRECAUTIONS

Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.

MARNING

- Installation should be performed by the specialist.
 - If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- •

- Install the system correctly according to these installation manuals.
 - Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- Use the genuine accessories and the specified parts for installation.
 If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- Turn off the power source during servicing or inspection work.
- If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- Shut off the power before electrical wiring work.

It could cause electric shock, unit failure and improper running.

ACAUTION

Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.

It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.



(1) Before installation

Confirm the following parts are included:

OA spacer (TC-OAS-E) Spacer Bracket 1 Bracket 2 Bracket 3 Bracket 4 Bolt 2 Bracket 3 Bracket 4 Bolt

Duct joint (TC-OAD-E)				
Duct Joint	Screw	Insulation 1 (120 × 54)	Insulation 2 (40 × 60)	
1	6	1	2	

② Prior study before installation (Usage limitation)

(1) Temperature conditions for OA spacer

- · Adjust the temperature conditions of mixed air with outdoor air and indoor air within the usage range of suction air temperature for the air conditioner.
- ·The usage temperature conditions of intake outdoor air and indoor air around the ducts are shown in the following table.
- · If the temperature conditions of intake outdoor air do not meet, process the outdoor air

Oneration made	Usage temperature conditions				
Operation mode	Intake outdoor air	Indoor air around the ducts			
In heating	5°C DB or higher	18.5°C WB or lower and 60% RH or lower			
In cooling	29°C DB or lower and 80% RH or lower	20°C DB or higher			

(2) Intake outdoor air volume

- Intake outdoor air volume is 2.6 m³/min at the maximum (when two sets of duct joints are used). Up to two sets of duct joint can be installed on OA spacer.

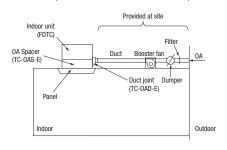
 - In case one set of duct joint is installed: 1.3 m³/min max. In case two sets of duct joint is installed: 2.6 m³/min max.

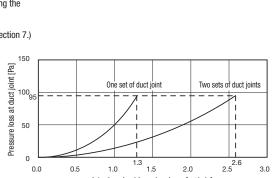
(3) Selection of booster fan

· Select the booster fan based on the duct resistance plus the pressure loss at the duct joint. (See the figure)

(4) Other conditions

- Determine the capacity of air conditioner based on the calculation of air conditioning load including the heat load of intake outdoor air.
- Install the filter for the intake outdoor air and the reverse flow prevention dumper during the
- · Insulate the duct and duct joint in order to prevent dewing.
- Interlock the operation of booster fan with ON/OFF operation of the indoor unit. (See Section 7.)





Introduced outdoor air volume [m3/min]

2.0

Control

326

185

530 ansion botts pitch)

Duct joint (TC-OAD-E)

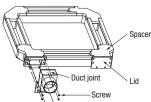
OA spacer Hanger plate for suspension bolt

③ Installation of duct joint (TC-OAD-E) onto OA spacer

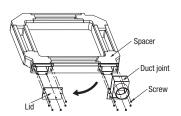
·There are two places where the duct joint can be installed.

When installing one duct joint

Install OA spacer at either one of two installation places on the duct joint.



To install the duct joint, screw it in as shown at left.



0.5

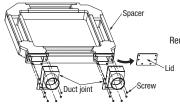
1.0

0.0

When installing the duct joint at the lid side, remove the lid and reinstall it at the other end before installing the duct joint.

3.0

When installing two duct joints



Remove the lid and then install two pieces of duct joint.

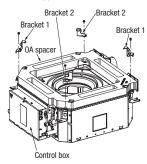
(4) Installation of OA spacer on the indoor unit

OA spacer can be installed regardless whether the indoor unit has already been hanged or not. (It is recommended to install before hanging the unit for convenience of installation.)

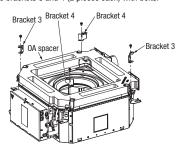
1-1. When installing OA spacer before hanging the indoor unit

① Placing OA spacer on the indoor unit, fix the brackets 1 and 2 (2 pieces each) with bolts.

Install OA spacer in the appropriate position that the duct joint side of OA spacer becomes opposite to the control box of indoor unit (FDTC).



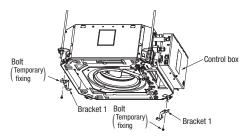
② Fix the brackets 3 and 4 (2 pieces each) with bolts.



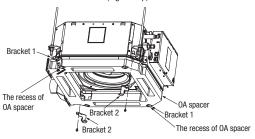
1-2. When installing OA spacer after hanging the indoor unit

① After hanging the indoor unit (*), fix the bracket 1 (2 pieces) temporarily with bolt by 2 turns as shown in the figure.

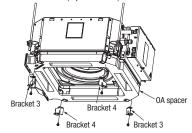
* For the height (position) of hanging the indoor unit, refer to Section 5.



- ② Install OA spacer.
 - i. Install it in the way that the recess of OA spacer will fit on the bracket 1 fixed temporarily at the step \odot .
 - ii. Tighten the bolt of bracket 1.
 - iii. Fix the bracket 2 with bolt. (Tighten up)



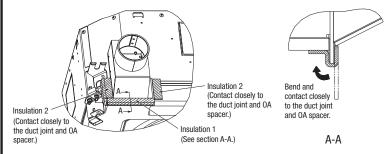
③ Fix the brackets 3 and 4 (2 pieces each) with bolts.



2. Applying insulation

Applying the insulation attached to duct joint set (TC-OAD-E)

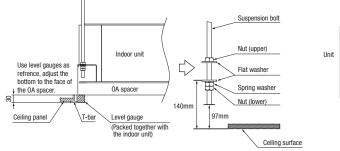
- ① Applying the insulation 1 as shown in the figure.
- ② Applying the insulation 2 as shown in the figure.
- * Be sure to cover the entire surface of sheet metal of the duct joint with the insulation.

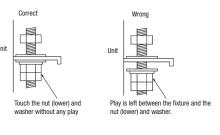


(5) Installation of indoor unit

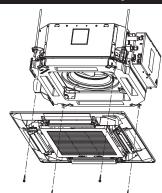
Work procedure

- 1. This units is designed for 2 x 2 grid ceiling.
 - If necessary, please detach the T bar temporarily before you install it.
 - If it is installed on a ceiling other than 2 x 2 grid ceiling, provide an inspection port on the control box side.
- 2. Arrange the suspension bolt at the right position (530mm530mm).
- 3. Make sure to use four suspension bolts and fix them so as to be able to hold 500N load.
- 4. Ensure that the lower end of the suspension bolt should be 97mm above the ceiling plane. Temporarily put the four lower nuts 140mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.
- 5. Adjust the indoor unit position after hanging it by inserting the level gauge (Packed together with the indoor unit.) attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. (*) In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Conrm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer.
 - * Use the level gauge only when OA spacer has been installed before hanging (4 1-1 only).





6 Installation of panel



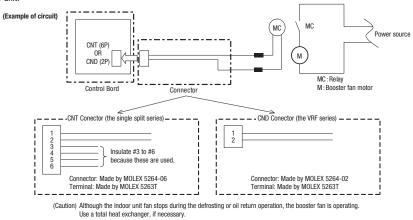
Tighten the panels to the brackets 3 and 4 with bolts. For further details, refer to the installation manual of panel.

(Caution) Connect the connector of lover motor within the control box.

Interlocking with the indoor unit fan

©Connect the Single split series and the VRF series to CNT on the indoor PCB and to CND on the indoor PCB respectively. If a ventilation device is connected been geared with the motion of indoor device (ON: DC12V output, OFF: 0V output), the ventilation device is operated/stopped.

Set it at "VENT LINK" by selecting "No. 11 VENT LINK SET" from the Functional setting by Remote Controller. For details, refer to the "ELECTRIC WIRNG WORK INSTRUCTION" of indoor unit.



3.4 DUCT JOINT (FDTC series)

PJZ012D073

• This product is used by assembling on the spacer (TC-OAS-E)

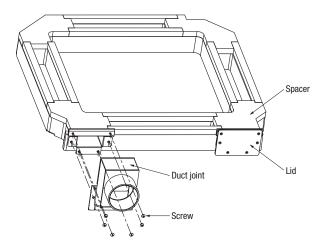
1.Before installation

• Confirm the following parts are included:

Duct joint	Screw	Insulation 1 (120 × 54)	Insulation 2 (40 × 60)
1	6	1	2

2.Regarding the use of this product

- Fix the product on the spacer (TC-OAS-E) as shown below.
 For the installation method, refer to the installation manual of the spacer.



3.5 FILTER KIT (FDUM series)

PJZ012D076A

This manual contains installation points and operating instructions for the filter kit manufactured by MHI. Carry out the work following the instructions below.

This manual also contains information on the usage after installation, so keep this manual properly with USER'S MANUAL provided with the indoor unit.

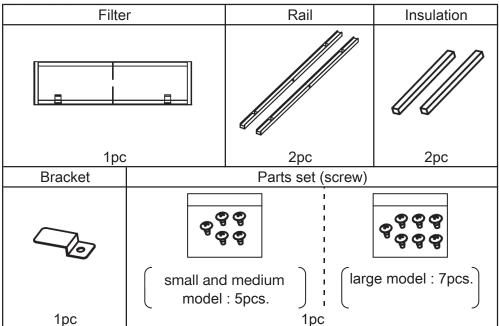
A CAUTION

- · After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- · Clean the air filter regularly.
- · Be sure to entrust qualified serviceman to performance on the air filter.
- Be sure to cut off the power and stop the unit before performing maintenance.

1. Table of filter kit parts No. and corresponding object models

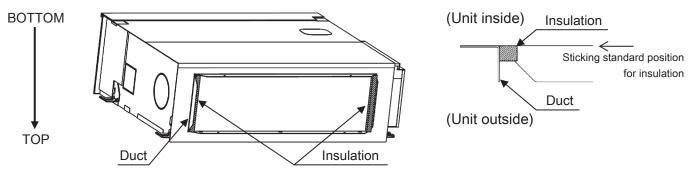
	Small model	Medium model	Large model
Single type	40, 50	60, 71	100 - 140
Multi type	22 - 56	71, 90	112 - 160
Filter Kit	UM-FL1EF	UM-FL2EF	UM-FL3EF

2. Parts list of filter kit

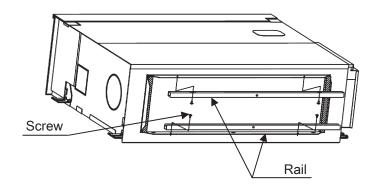


3. Installation Points

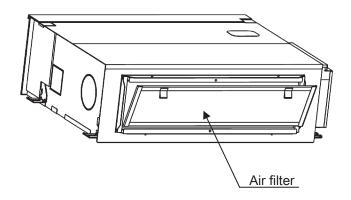
(1) Stick the insulation on both inner sides of the duct, leaving no space up and down.



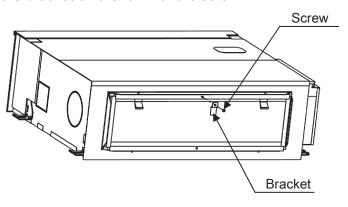
- (*) After unpacking, bottom side of the unit is located at the upper side.
- (2) Install the rail on both inner sides of the duct with the screw.

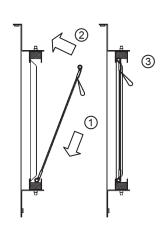


(3) Install the air filter on the rails.



(4) Install the bracket on the rail with the screw.





Installation procesure

(**) When the unit is installed, bottom side of the unit is located at the lower side.

3.6 BASE HEATER KIT (CW-H-E1)

PCZ012D007A

Model Name: CW-H-E1

WARNING

- Follow the instruction and installation manual for outdoor unit when installing the heater.
- ◆ This heater must be installed by authorized personnel.
- Turn off the power supply when the kit is installed.
- Failure to follow the above will result in serious accident like electrical shock or fire.

AREAS TO BE APPLIED

This kit is to be used in an area where the lowest temperature drops below zero.

∆Caution: In case the heater is not applied on the unit which is installed in an area mentioned above, it may be regarded as installation failure and warranty may not be given.

⚠ CAUTION

- Follow the law or regulation of the country where it is installed.
- Do not alter the heater.
- Lay down the heater so that the edge of the sheet metal does not damage the heater.
- Bending radius must be bigger than 25mm.
- Do not use the heater near flammable
- Be sure to check the electrical insulation before
- Be sure to check the drain is not trapped by the
- Do not leave refrigerant oil on the base.

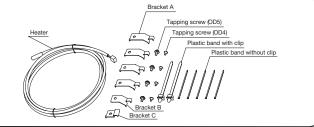
Components

Heater : 1pc Bracket A : 4pcs

Bracket B : 1pcs Bracket C : 1pcs Tapping screw (OD5) : 4pcs

Tapping screw (OD4) : 4pcs Plastic band with clip : 2pcs

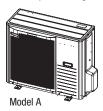
Plastic band : 5pcs



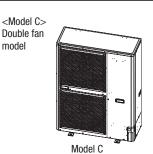
Applicable model

This heater kit is applicable for 3 different models.

Single fan with plastic fan guard model



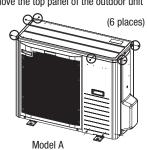


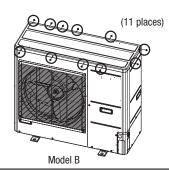


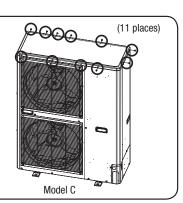
Installation procedure

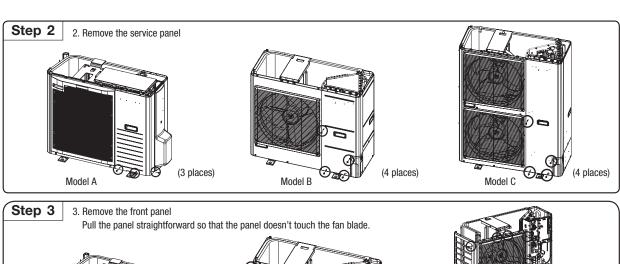
Step 1

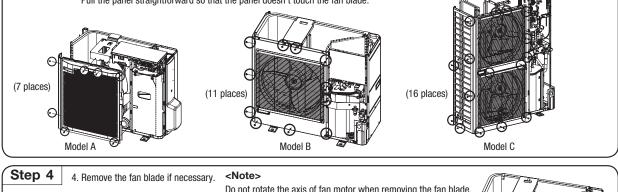
1. Remove the top panel of the outdoor unit

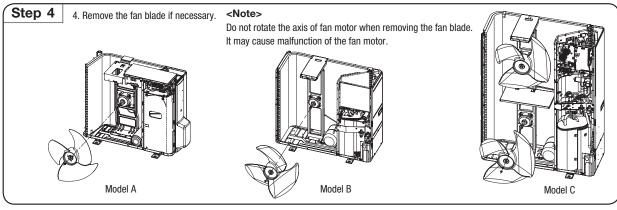


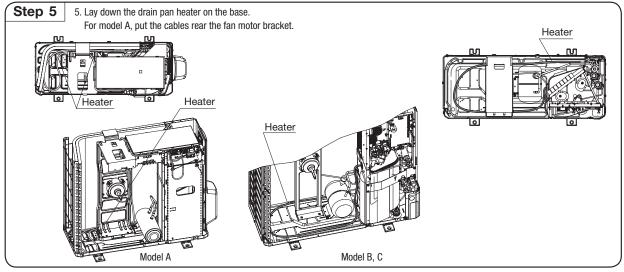






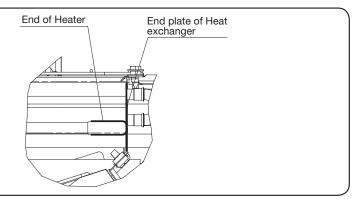






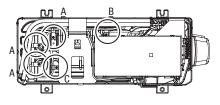
Step 6

6. Put the heater underneath the heat exchanger and align the end of heater with the end plate of heat exchanger.

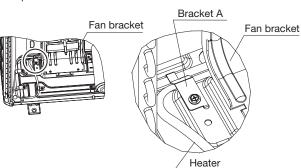


Step 7

7. Fix the heater with brackets.

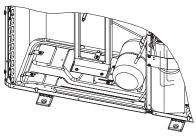


For model A, use 3 pcs of bracket A, 1pc of bracket B and C. Fix bracket A and C with the attached screw (OD4), and fix bracket B with the removed screw which is fastened at the same place.



For model B and C, fix bracket A with the attached screw (OD5).

This bracket is for model B only



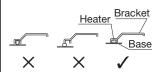
Model A Detail view D Model B, C

<Note for model A>

- 1) Put the end of heating part just after the bracket C
- 2) Fix the incoming and out going cable with one bracket A on the left of fan bracket as figure shows.

<Note>

 Fix the heater so that the bracket doesn't pinch the heater as figure shows.



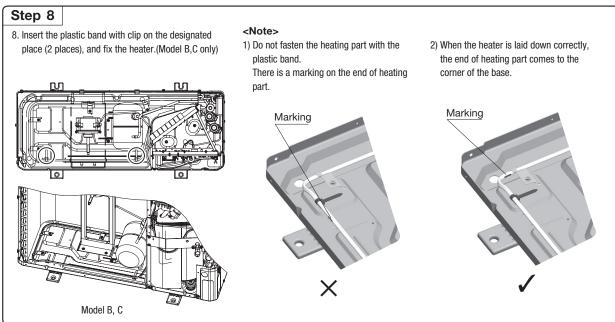
2) Place the heater so as to touch the base completely.

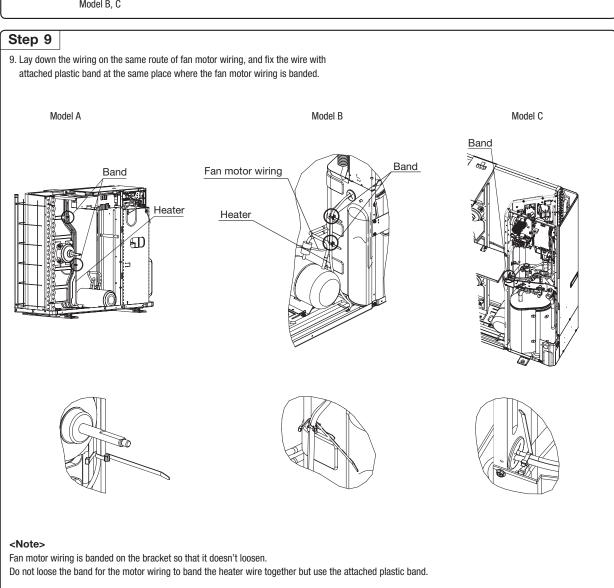


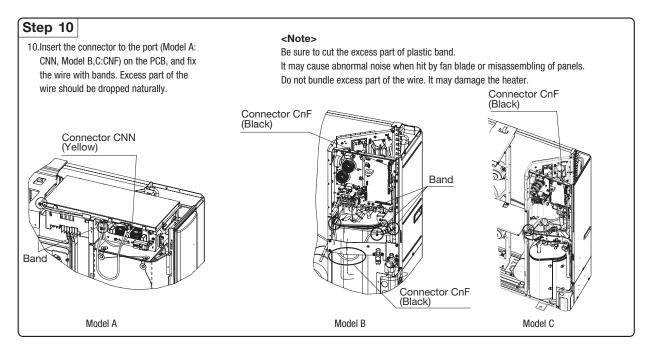
In bending position, twist the heater to make it easier to bend, and get back to be able to fix it with bracket.

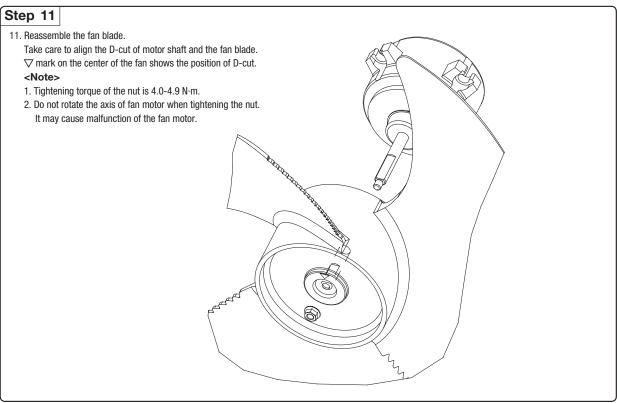


4) Be careful not to be injured by aluminum fin when fixing the heater with screw.



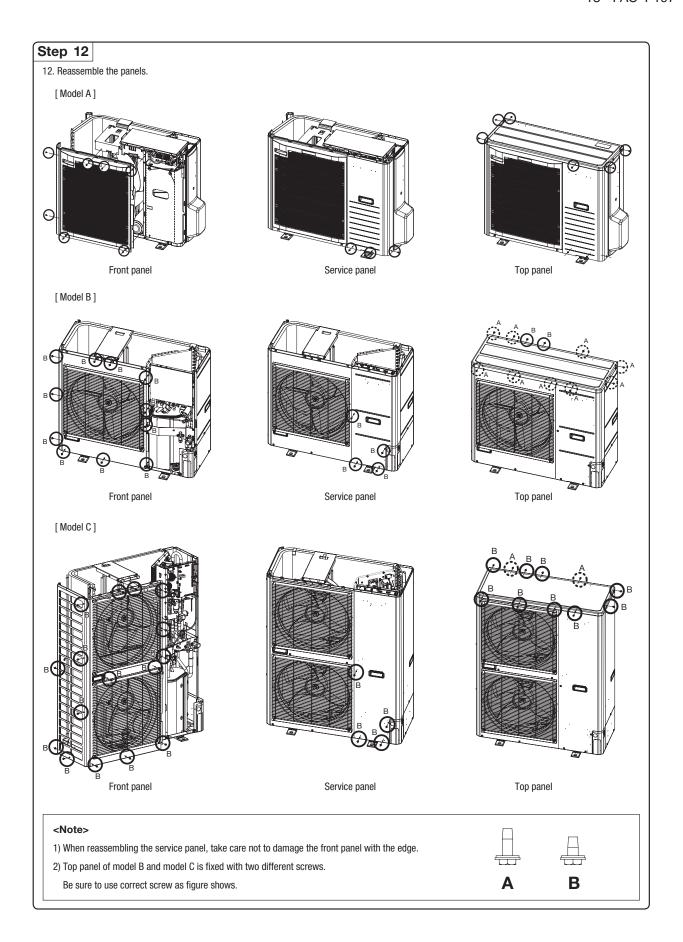






<Note>

- This heater should have bending radius of at least 25mm including non-heating part. Do not bundle the excess part of the wire. It may cause
 disconnection of the heater or insufficient capacity.
- Be sure to prevent the heater from touching any refrigerant piping.
 Especially, pay close attention not to make it touch with pipes which are close to the wiring route such as suction pipe, check valve and check joint.



3.7 INTERFACE KIT

(1) Interface kit (SC-BIKN-E)

RKZ012A088B

Accessories included in package

Be sure to check all the accessories included in package.

No.	Part name			
1	① Indoor unit's connection cable (cable length: 1.8m)			
2	Wood screws (for mounting the interface: ø4x 25)	2		
3	Tapping screws (for the cable clump and the interface mounting bracket)	3		
4	Interface mounting bracket			
(5)	Cable clamp (for the indoor unit's connection cable)	1		
6*	CNT terminal connection cable (total cable length: 0.5m)	1		

* SC-BIKN-EA only

Safety precautions

Before use, please read these Safety Precautions thoroughly before installation.

• All the cautionary items mentioned below are important safety related items to be taken into consideration, so be sure to observe them at all times.

Warning Incorrect installation could lead to serious consequences such as death, major injury or environmental destruction.

Symbols used in these precautions



Always go along these instruction.

After completed installation, carry out trial operation to confirm no anomaly, and ask the
user to keep this installation manual in a good place for future reference.

∴ Warnings



●Installation must be carried out by a qualified installer.

If you install it by yourself, it may cause an electric shock, fire and personal injury, as a result of a system malfunction.

● Install it in full accordance with the instruction manual.

Incorrect installation may cause an electric shock, fire and personal injury.

 Electrical work must be carried out by a qualified electrician in accordance with the technical standard for electrical equipment, the indoor wiring standard and this instruction manual.

Incorrect installation may cause an electric shock, fire and personal injury.

• Use the specific cables for wiring. And connect all the cables to terminals or connectors securely and clamp them with cable clamps in order for external forces not to be transmitted to the terminals directly.

Incomplete connection may cause malfunction, and lead to heat generation and fire.

Use the original accessories and specified components for installation.

If the parts other than those prescribed by us are used, it may cause an electric shock, fire and sersonal injury

Connecting the indoor unit's connection cable to the interface

①Remove the upper case of the interface.

• Remove 2 screws from the interface casing before removal of upper casing.

②Connect the indoor unit's connection cable to the interface.

 Connect the connector of the indoor unit connection cable to the connector on the interface's circuit board.

③Fix the indoor unit's connection cable with the cable clamp.

• Cable can be brought in from the top or from the back.

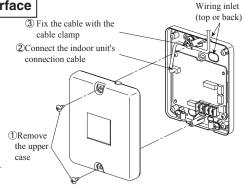
• Cut out the punch-outs for the connection cables running into the casing with cutter.

(4) Connect the indoor unit's connection cable to the indoor control PCB.

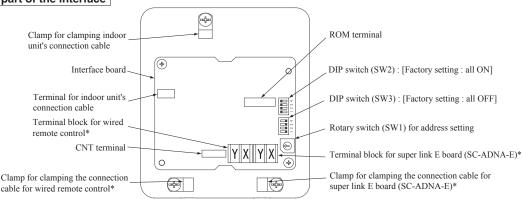
• Connect the indoor unit's connection cable to the indoor control PCB securely

 Clamp the connection cable to the indoor control box securely with the cable clamp provided as an accessory.

 Regarding the cable connection to the indoor unit, refer to the instruction manual for indoor unit.



Name of each part of the interface



*Either the connection cables of super link E board (SC-ADNA-E) or of wired remote control is connectable.

				,		
Switch		Setting	Function	Switch	Setting	Function
SW	SW2-1	ON**	CNT level input	SW2-3	ON**	External input (CNT input)
	5W2-1	OFF	CNT Pulse input	3 W 2-3	OFF	Operation permission/prohibition (CNT input)
	SW2-2	ON**	Wired remote control : Enable	SW2-4	ON**	Annual cooling : Enable***
l sv	3 W 2-2	OFF	Wired remote control : Disable	3 W 2-4	OFF	Annual cooling : Disable***

^{**} Factory setting

*** Indoor fan control at low outdoor air temperature in cooling

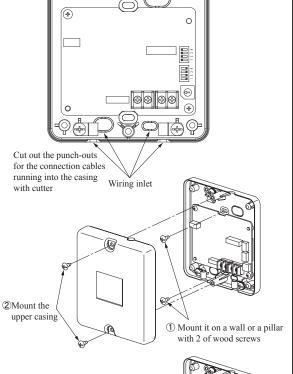
Wiring inlet

Installation of the interface

- Install the interface within the range of the connection cable length (approximately 1.3m) from the indoor unit.
- Be sure not to extend the connection cable on site. If the connection cable is extended, malfunction may occur.
- Fix the interface on the wall, pillar or the like.
- ●DO NOT install the interface and wired remote control at the following places.
 - OPlaces exposed to direct sunlight
 - OPlaces near heating devices
 - OHigh humidity places
 - OSurfaces where are enough hot or cold to generate condensation
 - OPlaces exposed to oil mist or steam directly
 - OUneven surface

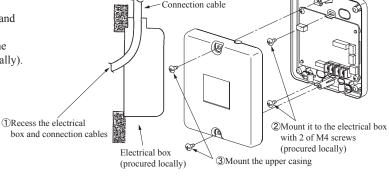
Mounting the interface directly on a wall

- ①Mount the lower casing of the interface on a flat surface with wood screws provided as standard accessory.
- 2 Mount the upper casing.



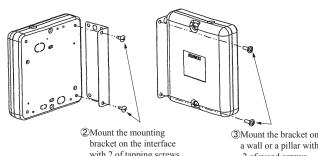
Recessing the interface in the wall

- ①Recess the electrical box (procured locally) and connection cables in the wall.
- 2 Mount the lower casing of the interface to the electrical box with M4 screws (procured locally).
- 3 Mount the upper casing.



Mounting the interface with the mounting bracket

- ①Mount the mounting bracket to the interface with tapping screws provided as standard accessory.
- 2 Mount the mounting bracket on wall or the like with wood screws provided as standard accessory.
- 3 Mount the mounting bracket to a wall surface, etc. using the wood screws provided.



with 2 of tapping screws

2 of wood screws

Installation check items

- ☐ Are the connection cables connected securely to the terminal blocks and connectors?
- ☐ Are the thickness and length of the connection cables conformed with the standard?

Functions of CNT connector

Function

Output 1 Operation output

Output 2 Heating output

Output 4 | Malfunction output

Output 3 Compressor operation output

Output

It is available to operate the air conditioning unit and to monitor the operation status with the external control unit (remote display) by sending the input/output signal through CNT connector on the indoor control PCB.

Content

During air-conditioner operation

During heating operation

During anomalous stop

During compressor running

- ①Connect a external remote control unit (procured locally) to CNT terminal.
- ②In case of the pulse input, switch OFF the DIP switch SW2-1 on the interface PCB.
- ③When setting operation permission/prohibition mode, switch OFF the DIP switch SW2-3 on the interface PCB.

Output signal

ON/OFF

ON

ON

ON

ON

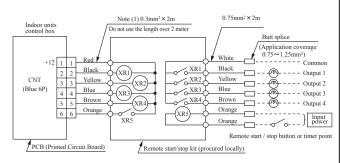
Relay

XRı

XR₂

XR₃

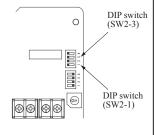
XR4



- ■XR_{1~4} are for the DC 12V relay
- XR5 is a DC 12/24V or AC 220~240V relay
- ●CNT connector (local) maker, model

Connector	Molex	5264-06	
Terminals	Molex	5263T	

I/	Function	SW2-1		SW2-3			Air-	Operation by	
Input/ Output		Setting		Setting	Input signal		Content	Conditioner	Remote Control
- mp				betting	Level/Pulse	XR5	Content		Tremote Control
				ON*		$OFF{\rightarrow}ON$	External input	ON	
			Level input	UN*	Level	ON→OFF	External input	OFF	Allowed
	Б. 1			OFF		OFF→ON	Operation permission	OFF	
Input	External control					ON→OFF	Operation prohibition	OFF	Not allowed
	input			ONI#	ON* Pulse	OFF→ON	FF→ON External input	OFF→ON	
				OIV.				ON→OFF	Allowed
			OFF Level	Laval	OFF→ON	Operation permission	ON		
				Level	ON→OFF	Operation prohibition	OFF	Not allowed	

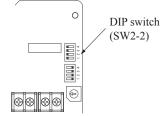


Connection of super link E board

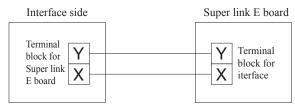
Regarding the connection of super link E board, refer to the instruction manual of super link E board. For electrical work, power supply for all of units in the super link system must be turned OFF.

①Switch ON the DIP switch SW2-2 (Factory setting: ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, Temperature Setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.



②Wiring connection between the interface and the super link E board.



No.	Names of recommended signal wires			
1	Shielded wire			
2	Vinyl cabtyre round cord			
3	Vinyl cabtyre round cable			
4	Vinyl insulated wirevinyl sheathed cable for control			

Within 200 m $0.5 \text{ mm}^2 \times 2 \text{ cores}$ Within 300 m $0.75 \text{ mm}^2 \times 2 \text{ cores}$ Within 400 m $1.25 \text{ mm}^2 \times 2 \text{ cores}$ Within 600 m $2.0 \text{ mm}^2 \times 2 \text{ cores}$

3Clamp the connection cables with cable clamps.

^{*} Factory setting

DIP suitch

0

Connection of wired remote control

Regarding the connection of wired remote control, refer to the instruction manual of wired remote control.

①Switch ON the DIP switch SW2-2 (Factory setting : ON) on the interface PCB.

Caution: Wireless remote control attached to the indoor unit can be used in parallel, after connecting the wired remote control. However, some of functions other than the basic functions such as RUN/STOP, Temperature Setting, etc. may not work properly and may have a mismatch between the display and the actual behavior.

②Wiring connection between the interface and the wired remote control.

Installation and wiring of wired remote control

- (A) Install the wired remote control with reference to the attached instruction manual of wired remote control.
- ⊕ 0.3mm² x 2-core cable should be used for the wiring of wired remote control.
- © Maximum length of wiring is 600m.

If the length of wiring exceeds 100m, change the size of cable as mentioned below.

100m-200m: $0.5\text{mm}^2\times2$ -core, 300m or less: $0.75\text{mm}^2\times2$ -core, 400m or less: $1.25\text{mm}^2\times2$ -core, 600m or less: $2.0\text{mm}^2\times2$ -core However, cable size connecting to the terminal of wired remote control should not exceed 0.5mm^2 . Accordingly if the size of connection cable exceeds 0.5mm^2 , be sure to downsize it to 0.5mm^2 at the nearest section of the wired remote control and waterproof treatment should be done at the connecting section in order to avoid contact failure.

- Don't use the multi-core cable to avoid malfunction.
- Except he wiring of wired remote control away from grounding (Don't touch it to any metal frame of building, etc.).
- © Connect the connection cables to the terminal blocks of the wired remote control and the interface securely (no polarity).
- 3Clamp the connection cables with cable clamps.

Control of multiple units by a single wired remote control

Multiple units (up to 16) can be controlled by a single wired remote control. In this case, all units connected with a single wired remote control will operate under the same mode and same setting temperature.

- ①Connect all the interface with 2-core cables of wired remote control line.
- ②Set the address of indoor unit for remote control communication from "0" to "F" with the rotary switch SW1 on the interface PCB.
- (3) After turning the power ON, the address of indoor unit can be displayed by pressing AIR CON button on the wired remote control.

Make sure all indoor units connected are displayed in order by pressing \blacksquare or \blacksquare button.

Master/Slave setting wired when 2 of wired remote control are used

Maximum two wired remote control can be connected to one indoor unit (or one group of indoor units)

①Set the DIP switch SW1 on the wired remote control to "Slave" for the slave remote control. (Factory setting: Master)

O Caution: Remote control sensor is invalid.

• When using the wireless remote control in parallel with the wired remote control;

Since temperature setting range of wired remote control is different from that of wireless remote control, please adjust the setting range of wired remote control to be the same setting range of wireless remote control by following procedure. (The set temperature may not be displayed correctly on the wireless remote control, unless change of temperature setting range is done.)

Changing procedure of temperature setting range is as follows.

How to set upper and lower limit of temperature sting range

- 1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for 3 seconds or more.
 - The indication changes to "FUNCTION SET▼"
- 2. Press **▼**button once, and change to the "TEMP RANGE ▲" indication.
- 3. Press (SET) button, and enter the temperature range setting mode.
- Confirm that the "Upper limit ▼" is shown on the display.
- 5. Press (SET)button to fix.
- 6. ①Indication: "ⓑ∨∧SET UP"→"UPPER 28°C ∨∧"
 - ②Select the upper limit value 30°C with temperature setting button \square ."UPPER30°C \vee " (blinking)
 - ③Press (SET) button to fix. "UPPER 30°C" (Displayed for two seconds)

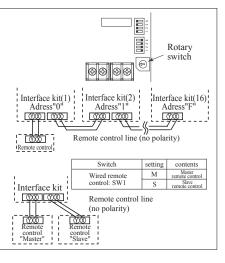
 After the fixed upper limit value displayed for two seconds, the indication will returm to "UPPER LIMIT ▼".
- 7. Press button once, "LOWER LIMIT ▲" is selected, press (SET) button to fix.

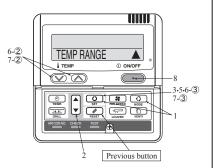
 ①Indication: "♠∨ ∧ SET UP" → "LOWER 20°C ∨ ∧"
 - ②Select the lower limit value 18°C with temperature setting button \square ."LOWER18°C \wedge " (blinking)
 - ③Press (SET) button to fix. "LOWER 18°C" (Displayed for two seconds)

 After the fixed lower limit value displayed for two seconds, the indication will returm to "LOWER LIMIT▼"
- 8. Press ON/OFF button to finish.

Temperature setting range

Mode	Temperature setting range
Cooling, Heating, Dry, Auto	18-30℃

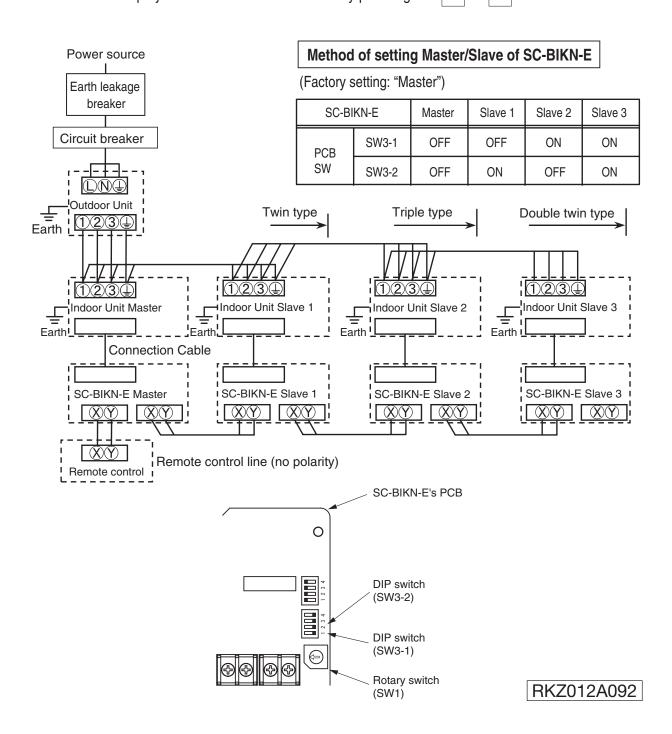




- It is possible to quit in the middle by pressing ON/OFF button, but the change of setting is incompleted.
- During setting, if pressing (RESET) button, it returns to the previous screen.

(2) Cable connection for SRK twin / triple installation

- ①Connect the same pairs number of terminal block "①,②,and ③"and " \otimes and \otimes " between master and slave indoor units.
- ②Do the same address setting of all inside units belong to same refrigerant system by rotary switch SW1 on SC-BIKN-E's PCB (Printed circuit board).
- ③Set slave indoor unit as "slave 1" through "slave 3" by address switch SW3-1, 3-2 on SC-BIKN-E's PCB.
- (4) When the AIR CON NO. button on the remote control unit is pressed after turning on the power, an indoor unit's address number will be displayed. Do not fail to confirm that the connected indoor unit's numbers are displayed on the remote control unit by pressing the ▲ or ▼ button.



3.8 SUPER LINK E BOARD (SC-ADNA-E)

PJZ012D029F

- Read and understand the instructions completely before starting installation.
- Refer to the instructions for both indoor and outdoor units.

Safety precautions

- Carefully read "Safety precautions" first, Follow the instructions for installation.
- Precautions are grouped into "Warning⚠" and "Caution⚠". The "Warningڝ" group includes items that may lead to serious injury or death if not observed. The items included
- in the "Caution not group also may lead to serious results under certain conditions. Both groups are crucial for safety installation. Read and understand them carefully.

 After installation, conduct the test operation of the device to check for any abnormalities. Describe how to operate the device to the customer following the installation instruction manual. Instruct the customer to keep this installation instruction for future reference.

∕:\Warning

- This device should be installed by the dealer where you purchase the device or a licensed professional shop. If the device is incorrectly installed by the
- customer, it may result in electric shock or fire.

 Install the device carefully following the installation instruction. If the device is incorrectly installed, it may result in electric shock or fire.
- Use the accessory parts and specified parts for installation. If any parts that do not match the specifications are used, it may result in electric shock or fire.
- A person with the electrical service certification should conduct the service based on the "Technical standards for electrical facilities", "Electrical Wiring Code", and the installation instruction. If the work is done incorrectly, it may result in electric shock or fire.
- Wiring should be securely connected using the specified types of wire. No external force on the wire should be applied to any terminals. If a secure connection is not achieved, it may result in electric shock or fire.

1 Application

Indoor-to-outdoor three core communication specification type 3 (since

2 Accessories

SL E board	Metal box	Metal cover	Screw for Ground
	(8)		M4×8L 2 pieces
Pan head screws	Locking supports	Binding band	Grommet
ø4x8L 2 pieces	To secure the print board and the metal box Made of nylon 4 pieces	89	

3 Function

Allowing the center console SL1N-E, SL2N-E, and SL3N-AE/BE to control and monitor the commercial air conditioning unit.

4 Control switching

Settings can be changed by the switch SW3 on the SL E board as in the fol-

Switch	Symbol	Switch	Remarks
	4	ON	Master
	1	OFF (default)	Slave
		ON	Fixed previous protocol
	2	OFF (default)	Automatic adjustment of Super Link protocol
SW3	3	ON	Indicates the forced operation stop when abnormality has occurred.
	3	OFF (default)	Indicates the status of running/stop as it is, when abnormality has occurred.
	4	ON	The hundredth address activated "1"
	4	OFF (default)	The hundredth address activated "0"

.♠Caution

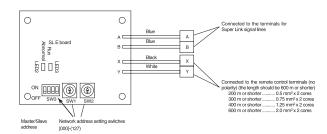
- Provide ground connection.
- The ground line should never be connected to the gas supply piping, the water supply piping, the lightning conductor rod, nor the telephone ground. If the grounding is improper, it may result in electric shock.
- Do not install the device in the following locations.
 - 1.Where there is mist/spray of oil or steam such as kitchens. 2.Where there is corrosive gases such as sulfurous acid gas.

 - 3. Where there is a device generating electromagnetic waves. These may interfere with the control system resulting in the device becoming uncontrollable.
 - 4. Where flammable volatile materials such as paint thinner and gasoline may exist or where they are handled. This may cause a fire.

5 Connection Outline

Note for setting the address

- Set the address between 00 and 47 for the previous Super Link connection and between 000 and 127 for the new Super Link connection. (*1)
- Do not set the address overlapping with those of the other devices in the network. (The default is 000)



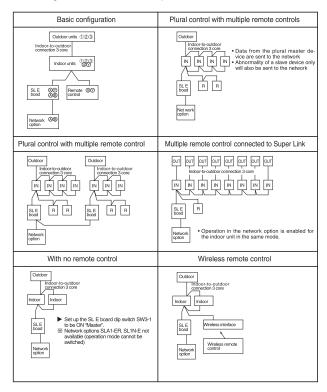
(*1) Whether the actual link is either the new Super Link or the previous Super Link depends on the models of the connected outdoor and indoor units. Consult the agent or the dealer.

Signal line specification

Communication method	Previous Super Link	New Super Link
Line type	MVVS	MVVS
Line diameter	0.75 - 1.25mm ²	0.75/1.25mm ²
Signal line (total length)	up to 1000m	up to 1500/1000m (*2)
Signal line (maximum length)	up to 1000m	up to 1000m

- (*2) Up to 1500 m for 0.75 mm^2 , and up to 1000 m for 1.25 mm^2 . Do not use 2.0 mm². It may cause an error.
- (*3) Connect grounding on both ends of the shielding wire. For the grounding method, refer to the section "6 Installation".

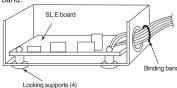
- Set the Super Link network address with SW1 (tens place), SW2 (ones place), and SW3 (hundreds place).
- (2) Set the SL E board SW3-1 to be ON (Master) when using this without any remote control (no wired remote control nor wireless remote control).
- (3) Set up the plural master/slave device using the dip switches on the indoor unit board.
- (4) Set up the remote control master/slave device using the slide switch on the remote control board.
- (5) Set up "0" to "F" using the address rotary switch on the indoor unit board when controlling the indoor unit with the multiple remote control.



6 Installation

- 1. When using the metal box (mounted on the indoor unit / mounted on the back of the remote control):
 - (1) Mount the SL E board in the metal box using the locking supports.
 - (2) Wiring should go through the provided grommet since then through the wiring to the hole on the Metal box.

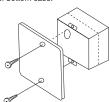
Secure the grommet after inserting the grommet into the Metal box as shown in below figure, then tie the wiring at the outlet of the unit using a binding band.



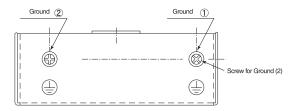
▲ When installed outside the indoor unit, put the metal cover on.



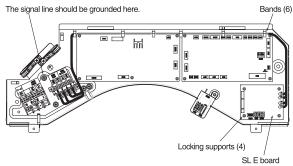
When installed on the back of the remote control, mount it directly on the remote control bottom case.



Connect grounding. Connect grounding for the power line to Ground 1, and grounding for the signal line to Ground 2 or to the Ground on the indoor unit control box.



- 2. When connecting to the indoor unit control box (ceiling-concealed type and FDT type only):
 - (1) Mount the SL E board in the control box using the locking supports.
 - (2) Remove 6 bands from the box and put the wiring through the bands to be secured.



Electrical shock hazard! Make sure to turn the power off for servicing. Be cautious so that no abnormal force should be applied to the wiring. Do not let the SL E board hung by the wiring. Do not damage the board with a screw driver.

The board is sensitive to static electricity. Release the static electricity of your body before servicing.

(you can do this by touching the control board which is grounded).

Location of installation

Install the device at the location where there are no electromagnetic waves nor where there is water and dust. The specified temperature range of the device is 0 to 40° C. Install the device at the location where the ambient temperature stays within the range. If it exceeds the specification, make sure to provide solution such as installing a cooling fan. When used outside of the range, it may cause abnormal operation.

7 Indicator display

Check the LED 3 (green) and LED 2 (red) on the SL E board for flashing.

SL E board LEDs			Display on the
Red	Green	Inspection mode	integrated network control device
Off	Flashing	Flashing Normal communication	
Off	Disconnection in the remote control communication line (X or Y) Short-circuit in the remote control communication line (between X and Y) Faulty indoor unit remote control power Faulty remote control communication circuit Faulty CPU on SL E board		No corresponding unit number
One flash	Flashing	Disconnection in the Super Link signal line (A or B) Short-circuit in the Super Link signal line (between A and B) Faulty Super Link signal circuit	
Two flashes	Flashing	Faulty address setting for the SL E board (Set up the address for previous SL E board : more than 48 new SL E board : more than 128)	
Three flashes	Flashing	SL E board parent not set up when used without a remote control Faulty remote control communication circuit	E1
flashes Flashing and the		Address overlapping for the SL E board and the Super Link network connected indoor unit	E2
Off	Flashing	Number of connected devices exceeds the specification for the multiple indoor unit control	E10

PJZ012D029C

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