

# **DATA BOOK**

## **MICRO INVERTER PACKAGED AIR-CONDITIONERS**

(Split system, air to air heat pump type)

#### **CEILING CASSETTE-4 WAY TYPE**

Twin type Triple type 250VSAWPVH 280VSAWPVH

Double twin type FDT200VSAWPVH FDT200VSAWTVH FDT200VSAWDVH 250VSAWDVH 280VSAWDVH

#### **CEILING CASSETTE-4 WAY COMPACT TYPE**

Double twin type FDTC200VSAWDVH 250VSAWDVH

### **DUCT CONNECTED-HIGH STATIC PRESSURE TYPE**

Sinale type FDU200VSAWVH 250VSAWVH 280VSAWVH

#### DUCT CONNECTED-LOW/MIDDLE STATIC PRESSURE TYPE

Twin type Triple type FDUM200VSAWPVH FDUM200VSAWTVH 250VSAWPVH 280VSAWPVH

#### **CEILING SUSPENDED TYPE**

Twin type 250VSAWPVH 280VSAWPVH

Triple type Double twin type FDE200VSAWPVH FDE200VSAWTVH FDE200VSAWDVH 250VSAWDVH 280VSAWDVH

### V Multi System

(OUTDOOR UNIT) (INDOOR UNIT) FDC200VSA-W FDT50VH FDE50VH 250VSA-W 60VH 60VH 280VSA-W 71VH 71VH 100VH 100VH 125VH 125VH 140VH 140VH

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

## TABLE OF CONTENTS

<b>1. MICRO INVERTER PACKAGED AIR-CONDITIONERS</b>	2
2. V MULTI SYSTEM	204
3. OPTION PARTS	224

## **1. MICRO INVERTER PACKAGED AIR-CONDITIONERS**

## CONTENTS

1.1 SPECIFICATIONS	4
(1) Ceiling cassette-4 way type (FDT)	4
(2) Ceiling cassette-4 way compact type (FDTC)	11
(3) Duct connected-High static pressure type (FDU)	13
(4) Duct connected-Low/Middle static pressure type (FDUM)	16
(5) Ceiling suspended type (FDE)	20
1.2 EXTERIOR DIMENSIONS	27
(1) Indoor units	27
(2) Outdoor units	37
(3) Remote control (Option parts)	38
1.3 ELECTRICAL WIRING	41
(1) Indoor units	41
(2) Outdoor units	47
1.4 NOISE LEVEL	48
1.5 CHARACTERISTICS OF FAN	55
1.6 TEMPERATURE AND VELOCITY DISTRIBUTION	58
1.7 PIPING SYSTEM	67
1.8 RANGE OF USAGE & LIMITATIONS	71
1.9 SELECTION CHART	77
1.9.1 Capacity tables	77
(1) Ceiling cassette-4 way type (FDT)	77
(2) Ceiling cassette-4 way compact type (FDTC)	80
(3) Duct connected-High static pressure type (FDU)	81
(4) Duct connected-Low/Middle static pressure type (FDUM)	83
(5) Ceiling suspended type (FDE)	85
<b>1.9.2</b> Correction of cooling and heating capacity in relation to air flow rate control (Fan speed)	92
<b>1.9.3</b> Correction of cooling and heating capacity in relation to one way length of refrigerant piping	92
1.9.4 Height difference between the indoor unit and outdoor unit	92
1.10 APPLICATION DATA	93
1.10.1 Installation of indoor unit	93
(1) Ceiling cassette-4 way type (FDT)	93
(2) Ceiling cassette-4 way compact type (FDTC)	99
(3) Duct connected-High static pressure type (FDU)	107
(4) Duct connected-Low/Middle static pressure type (FDUM)	113
(5) Ceiling suspended type (FDE)	119

(6)	Effective range of cool/hot wind (Reference)	123
1.10.	2 Electric wiring work installation	124
1.10.	3 Installation of wired remote control (Option parts)	128
1.10.	4 Installation of outdoor unit	140
1.10.	5 Method for connecting the accessory pipe	144
1.10.	6 Instructions for branching pipe set (DIS-WA1G,WB1G,TA1G,TB1G) .	146
1.10.	7 Safety precautions in handling air-conditioners with flammable refrigerant .	149
1.11 T	ECHNICAL INFORMATION	153
(1)	Ceiling cassette-4 way type (FDT)	153
(2)	Ceiling cassette-4 way compact type (FDTC)	168
(3)	Duct connected-High static pressure type (FDU)	173
(4)	Duct connected-Low/Middle static pressure type (FDUM)	180
(5)	Ceiling suspended type (FDE)	189

### How to read the model name



FDC : Outdoor unit

## **1.1 SPECIFICATIONS**

#### (1) Ceiling cassette-4 way type (FDT)

#### (a) Twin type

ltem					Model	In		H NOVH (2 unite)	DI200VSAV	Outdoor unit EDC200VSA-W
Power source								3 Phase 3	80-415V 50E	
Fower source	Nominal coolin	a capacity (range			kW			20.0[	6 8(Min ) — 2	22 4(Max )]
	Nominal heatin	g capacity (range			kW			22.4 [	6 6(Min ) — 2	25.0(Max.)]
	-	g capacity (range	Coolina					[	5.48	
	Power consum	ption	Heating		kW				5.27	
	Max power cor	sumption			1				12.00	
			Cooling						8.7 / 9.1	
	Running currer	ıt	Heating		A				8.3 / 8.7	
	Inrush current,	max current							5,19	
			Cooling						91	
Operation data	Power factor		Heating		%				92	
	EER		Cooling						3.65	
	COP		Heating		1				4.25	
		_	Cooling							72
	Sound power l	evel	Heating				62			74
			Cooling		-	P	P-Hi: 47 Hi: 39 N	/le: 36 Lo: 30		58
	Sound pressure	e level	Heating		dB(A)	P	P-Hi: 47 Hi: 39 M	/e:36 Lo:29		59
	Silent mode		Cooling		-					55 /53(Normal/Silent)
	sound pressure	e level	Heating		1					
			Thousing				Unit 298 x 84	40 x 840		
Exterior dimensi	ons (Height x Wid	ith x Depth)			mm		Panel 35 x 9	50 x 950		1505×970×370
Exterior appeara	ance					1	Fine sno	ow		Stucco white
(Munsell color)							(8.0Y9.3/0.1) nea	ır equivalent		(4.2Y7.5/1.1) near equivalent
(RAL color)							(RAL 9003) near	equivalent		(RAL 7044) near equivalent
Net weight					kg		Unit 25 Pa	anel 5		144
Compressor typ	e & Q'ty									GTC5150SC40MF x 1
Compressor mo	tor (Starting meth	nod)			kW					Direct line start
Refrigerant oil (A	mount, type)				L					1.55(M-MB75R)
Refrigerant (Typ	e, amount, pre-c	harge length)			kg		R32 4.3	in outdoor uni	t (Incl. the arr	ount for the piping of 30m)
Heat exchanger						L	ouver fin & inner g	rooved tubing		M shape fin & inner grooved tubing
Refrigerant cont	rol						Electronic expansion valve			
Fan type & Q'ty							Turbo far	1 x1		Propeller fan x2
Fan motor (Star	ing method)				W		140 < Direct li	ne start >		86x2 < Direct line start >
Ainflow			Cooling		3/100100		118-07 118-06 N	An: 00   n: 17		148
AIF HOW			Heating		1 m/min		-HI: 37 HI: 20 N	/ie: 23 LO: 17		134
Available extern	al static pressure				Pa		0			0
Outside air intak	e						Possib	le		-
Air filter, Quality	/ Quantity					F	Pocket plastic net	x1(Washable)		-
Shock & vibratio	n absorber						Rubber sleeve(for fan motor) Rubber sleeve (for fan motor & co			
Electric heater					W		_			20(Crank case heater)
	Remote contro	I					(Option) Wire	ed: RC-EX3A,	RC-E5, RCI	H-E3 Wireless : RCN-T-5BW-E2
Operation	Room tempera	ture control						The	mostat by el	ectronics
Control	Operation disp	lay							_	
Sofoty oguipmo	ata						Overloa	ad protection fo	r fan motor. I	Frost protection thermostat
Salety equipment	lis						Internal thermo	stat for fan mo	tor. Abnorma	I discharge temperature protection
			Liquid lin	e		1/11 + 9.52	, <sub>(3/8")</sub> Pipe ② φ 9	.52(3/8")x0.8	①φ 9.52(3/8	")x0.8 or <i>φ</i> 12.7(1/2")x0.8
	Refrigerant pip	ing size	Liquid in		mm	., ο φ σ.οε	0/U φ 9.52	2(3/8")		
	(O.D)		Gas line			I/U φ 15.8	8 (5/8") Pipe ② ¢	15.88(5/8")x1.0	$(1)\phi$ 22.22	(7/8")x1.0 or
							φ 25.4(1*	)x1.0 or φ 28.5	8(11/8°)X1.0	0/0 φ 22.22 (7/8")
	Connecting me	ethod					Flare pip	bing		Liquid : Flare piping / Gas : Brazing
Installation data	Attached lengt	n of piping			m			Nesser		— 
	Insulation for p	iping						Necessa	ry (both Liqui	d & Gas lines)
	Retrigerant line	(one way) length			m		May 50 //	0	Max.70	
	Martin at the tasks						Viax.50 (0	Outdoor unit is	higher & Out	boor air temperature $\geq 43$ C)
	Vertical height	diff. between 0/0	and I/U		m		Max.30 (0	Jutdoor unit is	higher & Out	door air temperature > 43°C)
								Max.1	5 (Outdoor ui	hit is lower)
Drein	Urain hose					Hos	se connectable wi	un VP25(O.D.32	<u>-)</u>	Hole size $\phi$ 20 x 3 pcs.
Drain pump, ma	x iiit neight				mm		Buiit-In drain p	ump , 850		_
Recommended	Dreaker Size				A				-	
L.H.A. (LOCKed r	otor ampere)	0	Naua 10		A		1 1 0	0.000	5.U	
Interconnecting	wires	Size x (	Jore number				φ 1.6mm	x 3 cores + ear	ui cable / Ter	
Standard	orios					+	IPX0	Drain boos		IP24
Option ports	501185					+	iviouriting kit, L	JI AILL NOSE	n concer : / 5	Connecting pipe, Eaging
Option parts								IVIOLIC	on sensor : LE	5-1-3BW-E
Notes (1) The	data are measur	ed at the followir	g conditions				The pipe ler	ngth is 7.5m.		
	Item	Indoor air ter	nperature	Outo	door air tem	perature	Chand.			
Opera	tion	DB	WB	D	В	WB	Standard	er er		
	Cooling	27°C	19°C	35	°C	24°C	ISO5151-	T1		
H	leating	20°C		7°	С	6°C	ISO5151-	H1		
(2) This			and tested in	conform	nity with the	ISO				
	air-conditioner i	s manufactured -				ation these	values are some	what higher du	le to ambien	t conditions.
(3) Sou	air-conditioner i	s manufactured a s the value in an	anechoic cha	mber. D	urina opera					
(3) Sour (4) Sele	air-conditioner i nd level indicate ct the breaker si	s manufactured a s the value in an ze according to t	anechoic cha he own natio	mber. D nal stan	uring opera dard.		values are some	what higher de		
(3) Sour (4) Sele (5) The	air-conditioner i nd level indicate ct the breaker si operation data ii	s manufactured as the value in an ze according to t ndicate when the	anechoic cha he own natio air-conditior	mber. D nal stan er is ope	dard. erated at 40	00V 50Hz o	or 380V 60Hz.	what highlor de		
(3) Sour (4) Sele (5) The (6) Indo	air-conditioner i nd level indicate ct the breaker si operation data in or unit specifica	s manufactured a s the value in an ze according to t ndicate when the tions for one unit	anechoic cha he own natio air-conditior . Capacity ar	mber. D nal stan er is ope d opera	dard. erated at 40 tion data is	00V 50Hz o two indoor	or 380V 60Hz. r units are combi	ned and run to	gether.	
(3) Sour (4) Sele (5) The (6) Indo (7) Brar	air-conditioner i nd level indicate ct the breaker si operation data in or unit specifica aching pipe set "	s manufactured a s the value in an ze according to f ndicate when the tions for one unit DIS-WB1G"×1(C	anechoic cha he own natio air-condition . Capacity ar ption). ① : Pi	mber. D nal stan er is ope d opera pe of O/	dard. erated at 40 tion data is /U – Branc	00V 50Hz o two indoor ch, ② : Pipe	or 380V 60Hz. r units are combine e of Branch — I/U	ned and run to	gether.	
(3) Sour (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicate ct the breaker si operation data in or unit specifica iching pipe set " 1/2H pipes havi	s manufactured as the value in an ze according to f ndicate when the tions for one unit DIS-WB1G"×1(C ng a 1.0mm or th	anechoic cha he own natio air-conditior . Capacity ar ption). ① : Pi icker wall for	mber. D nal stander er is opera d opera pe of O/ $\phi$ 19.05	dard. erated at 40 tion data is /U — Branco 5 or larger p	00V 50Hz o two indoor ch, ② : Pipe pipes.	or 380V 60Hz. r units are combine e of Branch — I/U	ned and run to	gether.	
(3) Soui (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicate ct the breaker si operation data ii or unit specifica tching pipe set " 1/2H pipes havi Panel color	s manufactured as s the value in an ze according to the ndicate when the tions for one unit DIS-WB1G"×1(C mg a 1.0mm or the Panel model	anechoic cha he own natio air-conditior . Capacity ar ption). ① : Pi icker wall for	Imber. D nal stan er is ope d opera pe of O/ $\phi$ 19.05	dard. erated at 40 tion data is (U — Branco or larger p	00V 50Hz o s two indoor ch, ② : Pipe pipes.	or 380V 60Hz. r units are combine e of Branch — I/U	ned and run to J Remote	gether.	
(3) Soui (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicate ct the breaker si operation data i or unit specifica ching pipe set " 1/2H pipes havi	s manufactured as s the value in an ze according to t dicate when the tions for one unit DIS-WB1G"×1(C ng a 1.0mm or th Panel model	anechoic cha he own natio air-conditior . Capacity ar ption). ① : Pi icker wall for Panel t	mber. D nal stan er is ope d opera pe of O/ $\phi$ 19.05 ype	dard. erated at 40 tion data is (U – Branco 5 or larger p	00V 50Hz o s two indoor ch, ② : Pipe pipes. (Munsell c	or 380V 60Hz. r units are combin e of Branch — I/U color)	ned and run to Remote wirel	gether. control ess	
(3) Soui (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicate ct the breaker si operation data i or unit specifica ching pipe set " 1/2H pipes havi Panel color Fine snow	s manufactured i s the value in an ze according to i ndicate when the tions for one unii DIS-WB1G"×1(C ng a 1.0mm or th Panel model T-PSA-5BW-E	anechoic cha he own natio air-conditior . Capacity ar ption). ① : P icker wall for Panel f	mber. D nal stan er is ope d opera pe of O/ $\phi$ 19.05 ype ard	Uring opera dard. erated at 44 tion data is /U — Branc 5 or larger p (8 nVC	00V 50Hz o two indoor ch, ② : Pipe oppes. (Munsell c	values are solvied r 380V 60Hz. r units are combin e of Branch — I/U color) ar equivalent	Remote Remote RCN-T-5	gether. control ess BW-E2	
(3) Sour (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicates ct the breaker si operation data ii or unit specifica tching pipe set " 1/2H pipes havii Panel color Fine snow	s manufactured ; s the value in an ze according to 1 ndicate when the tions for one unit DIS-WB1G"×1(C ng a 1.0mm or th Panel model T-PSA-5BW-E T-PSAE-5BW-E	anechoic cha he own natio air-conditior . Capacity ar ption). ① : Pi icker wall for Panel i Stand Draft prev	imber. D nal stan er is ope d opera pe of $O/$ $\phi$ 19.05 ype ard vention	Uring opera dard. erated at 41 tion data is /U — Branc 5 or larger p (8.0YS	00V 50Hz o s two indoor sh, ② : Pipe oipes. (Munsell c 0.3 / 0.1) nea	or 380V 60Hz. r units are combine e of Branch — I/U color) ar equivalent	Remote RCN-T-5	gether. control ess BW-E2	
(3) Soui (4) Sele (5) The (6) Indo (7) Brar (8) Use	air-conditioner i nd level indicates ct the breaker si operation data ii or unit specifica iching pipe set " 1/2H pipes havi Panel color Fine snow haow black	s manufactured ; s the value in an ze according to 1 ndicate when the tions for one unit DIS-WB1G"×1(C ng a 1.0mm or th Panel model T-PSA-5BW-E T-PSA-5BW-E T-PSA-5BB-E	anechoic cha he own natio air-conditior . Capacity ar ption). ① : P icker wall for Panel Stand Draft prev Stand	mber. D nal stan er is ope d opera pe of O/ $\phi$ 19.05 ype ard rention ard	Uring opera dard. erated at 41 (U – Branc 5 or larger p (8.0YS) (7.2BG	00V 50Hz o s two indoor ch, ② : Pipe oipes. (Munsell c 0.3 / 0.1) nea (2.9 / 0.6) ne	values are solved or 380V 60Hz. r units are combin e of Branch — I/U color) ar equivalent ear equivalent	Remote Remote RCN-T-5 RCN-T-5	gether. control ess BW-E2 BB-E2	

				Model		FD1250V	SAWPVH	
Item					Indoor unit FDT	125VH (2 units)	Outdoor unit FDC250VSA-W	
Power sourc	e					3 Phase 380-415	50Hz / 380V 60Hz	
	Nominal cool	ing capacity (range)		kW		25.0 [ 6.8(Min	.) - 28.0(Max.)]	
	Nominal heat	ing capacity (range)		kW		28.0 [ 5.7(Min	.) - 31.5(Max.)]	
	Power consu	motion	Cooling			8.	20	
			Heating	kW		7.	37	
	Max power c	onsumption				1	1.2	
	Bunning curr	ont	Cooling			12.8	/ 13.5	
	Training our		Heating	A		11.7	/ 12.3	
	Inrush curren	t, max current				5,	20	
Operation de	Power factor		Cooling	0/		ç	3	
Operation da	ala Fower lactor		Heating	70		ç	91	
	EER		Cooling			3.	05	
	COP		Heating	1		3.	80	
	0		Cooling		6	3	73	
	Sound power	level	Heating	1	64	4	75	
			Cooling	i	P-Hi: 48 Hi: 41	Me: 39 Lo: 31	58	
	Sound press	ure level	Heating	dB(A)	P-Hi: 48 Hi: 41	Me: 38 Lo: 31	62	
	Silent mode		Cooling				56 / 55 (Normal/Silent)	
	sound pressu	ire level	Heating		-	-	59 / 58 (Normal/Silent)	
			1 1 1		Unit 298 x	840 × 840		
Exterior dime	ensions (Height x V	/idth x Depth)		mm	Panel 35 x	950 × 950	1505 × 970 × 370	
Exterior appe	earance				Fines	snow	Stucco white	
(Munsell cold	or)				(8 0Y9 3/0 1) n	ear equivalent	(4 2Y7 5/1 1) near equivalent	
(BAL color)	,				(RAL 9003) ne	ar equivalent	(BAL 7044) near equivalent	
Net weight				ka	L Init 25	Panel 5	1/5	
Compressor	type & O'ty			Ng	011123	-	GTC51509C/0ME v 1	
Compressor	motor (Starting	athod)		L/V/		_		
Pofrigoront	inotor (Starting me			K.VV			1 55 (M MD75D)	
Defrigerant C	(Tupo, cmount, type)	oborgo langet-)		L	-	- E 1 in outdoor unit (knot ti		
Heat avert	(Type, amount, pre-	-criarge length)		кд	K32 3	s. i in outdoor unit (incl. ti	Mohono fin 9 inner successful to the	
Heat exchan	iger				Louver fin & inner	r grooved tubing	IN snape fin & inner grooved tubing	
Refrigerant c	control					Electronic ex	pansion valve	
Fan type & C	2'ty				lurbo t	an × 1	Propeller fan × 2	
Fan motor (S	Starting method)		1	W	140 < Direct	t line start >	86 × 2 < Direct line start >	
Air flow			Cooling	m <sup>3</sup> /min	P-Hi: 38 Hi: 28	Me: 25 Lo: 18	148	
			Heating	,	1 111 00 111 20	110.20 20.10	153	
Available ext	ternal static pressu	re		Pa	0	)	0	
Outside air ir	ntake				Poss	sible	-	
Air filter, Qua	ality / Quantity				Pocket plastic ne	et ×1 (Washable)	_	
Shock & vibr	ration absorber				Rubber sleeve	(for fan motor)	Rubber sleeve (for compressor )	
Electric heat	er			W	-	-	20 (Crank case heater)	
	Remote cont	rol			(Option) W	/ired : RC-EX3A , RC-E5 ,	RCH-E3 Wireless : RCN-T-5BW-E2	
Operation	Room tempe	rature control				Thermostat I	by electronics	
CONTROL	Operation dis	play					_	
						Overload protec	tion for fan motor	
Sofoty oquin	monto					Frost protect	on thermostat	
Salety equip	Inents					Internal thermos	stat for fan motor	
						Abnormal discharge t	emperature protection	
			Liquid line		I/U & 9.52 (3/8") Pipe ② ¢	5 9.52 (3/8") × 0.8 ① φ 1	2.7 (1/2") × 0.8	
					I/U φ 9.52 (3/8") <sup>Pipe</sup> ② φ 9.52 (3/8") × 0.8 ① φ 12.7 (1/2") × 0.8 O/U φ 12.7 (1/2")			
	Befrigerant p	ining size (O D)	Elquid line	mm		2.7 (1/2")		
	Refrigerant p	iping size (O.D)	Gas line	mm	/U φ 15.88 (5/8") <sup>Pipe</sup> ②	2.7 (1/2") φ 15.88 (5/8") × 1.0 ①		
	Refrigerant p	iping size (O.D)	Gas line	mm	I/U φ 15.88 (5/8") <sup>Pipe</sup> ② φ 25.4	2.7 (1/2") φ 15.88 (5/8") × 1.0 ① (1") × 1.0 or φ 28.58 (1	¢ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8")	
	Refrigerant p	iping size (O.D) nethod	Gas line	mm	I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare p	2.7 (1/2") φ 15.88 (5/8") × 1.0 ① (1") × 1.0 or φ 28.58 (1 biping	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing	
Installation	Refrigerant p Connecting n Attached leng	iping size (O.D) nethod th of piping	Gas line	mm m	U/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare p	2.7 $(1/2")$ $\phi$ 15.88 $(5/8") \times 1.0$ () $(1") \times 1.0$ or $\phi$ 28.58 (1 piping	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing	
Installation d	Refrigerant p Connecting n Attached leng Ista	iping size (O.D) nethod th of piping piping	Gas line	mm m	U/U φ 15.88 (5/8") <sup>Pipe</sup> (2) φ 25.4 Flare p	2.7 (1/2") φ 15.88 (5/8") × 1.0 ① ( (1") × 1.0 or φ 28.58 (1) biping - Necessary (both	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing – .iquid & Gas lines)	
Installation d	Connecting n Attached leng Insulation for Refrigerant li	iping size (O.D) nethod gth of piping piping ne (one way) length	Gas line	mm m m	I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare p	2.7 (1/2")	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing – Liquid & Gas lines) x.70	
Installation d	A Refrigerant p Connecting n Attached leng Insulation for Refrigerant li	iping size (O.D) nethod th of piping piping ne (one way) length	Gas line	mm m m m	I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare p	2.7 (1/2") (\$\phi\$ 15.88 (5/8") × 1.0 ① ( (1") × 1.0 or \$\phi\$ 28.58 (1 biping - Necessary (both Ma 0 (Outdoor unit is higher 8	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Installation d	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh	iping size (O.D) nethod <u>th of piping</u> piping ne (one way) length t diff. between O/U a	Gas line	mm m m m	/U φ 15.88 (5/8") Pipe (2) /U φ 15.88 (5/8") Pipe (2) Flare p 	2.7 (1/2") (\$\phi\$ 15.88 (5/8") × 1.0 (1") (1") × 1.0 or \$\phi\$ 28.58 (1) oping - Necessary (both   Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8		
Installation d	Attached leng Insulation for Refrigerant li Vertical heigh	iping size (O.D) nethod th of piping piping ne (one way) length t diff. between O/U a	Gas line	mm m m m	/U φ 15.88 (5/8") Pipe (2 φ 25.4 Flare p 	2.7 (1/2") (1 15.88 (5/8") × 1.0 (1) (1") × 1.0 or φ 28.58 (1) ipiping Necessary (both 1) Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 Max.15 (Outdo		
Installation d	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose	iping size (O.D) nethod th of piping piping ne (one way) length t diff. between O/U a	Gas line	mm m m m	I/U φ         15.88 (5/8")         Pipe @           φ         25.4         Flare p	2.7 (1/2") \$\phi\$ 1.88 (5/8") \times 1.0 () (1") \times 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 \$\phi\$ 28.58 (1) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1) \$\phi\$ 28.		
Installation d	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height	iping size (O.D) nethod gth of piping piping ne (one way) length t diff. between O/U a	das line	mm m m m m	I/U φ         15.88 (5/8")         Pipe @           I/U φ         15.88 (5/8")         Pipe @           φ         25.4         Flare p           Max.50         Max.30           Hose connectable \         Built-in drain	2.7 (1/2") \$\phi\$ 1.88 (5/8") \times 1.0 () (1") \times 1.0 or \$\phi\$ 28.58 (1 biping Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 Max.15 (Outdo with VP25 (O.D.32) pump , 850	$\phi$ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Installation d Drain pump, Recommend	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size	iping size (O.D) nethod gth of piping piping ne (one way) length t diff. between O/U a	das line	mm m m m m A	I/U φ         15.88 (5/8")         Pipe (2)           I/U φ         15.88 (5/8")         φ         25.4           Flare p         -         -           Max.50         -         -           Hose connectable v         Built-in drain	2.7 (1/2") (\$\phi\$ 15.88 (5/8") × 1.0 () (1") × 1.0 or \$\phi\$ 28.58 (1 ) ) Necessary (both Ma 0 (Outdoor unit is higher & Max.15 (Outdo with VP25 (O.D.32) pump , 850	$\phi$ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Drain pump, Recommend L.R.A. (Lock	Attached leng Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere)	iping size (O.D) nethod <u>piping</u> ne (one way) length t diff. between O/U a	das line	mm m m m A A	/U φ 15.88 (5/8") Pipe (2) //U φ 15.88 (5/8") Pipe (2) Flare p 	2.7 (1/2") (p 15.88 (5/8") × 1.0 ① (1") × 1.0 or $\phi$ 28.58 (1 biping Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 Max.15 (Outdo with VP25 (O.D.32) pump , 850 5	$\phi$ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — Liquid & Gas lines) x.70 Ω Outdoor air temperature ≤ 43°C) is Outdoor air temperature > 43°C) is Outdoor air temperature > 43°C) ior unit is lower) Hole size $\phi$ 20 x 3 pcs. — –	
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect	Attached leng Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Jed breaker size ed rotor ampere) ting wires	iping size (O.D) hethod piping ne (one way) length t diff. between O/U a Size x Co	das line Gas line nd I/U re number	mm m m m A A A	/U φ 15.88 (5/8") Pipe @ φ 25.4 Flare p 	2.7 (1/2") (\$\phi\$ 15.88 (5/8") × 1.0 () ( (1") × 1.0 or \$\phi\$ 28.58 (1 biping - Necessary (both   Max 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 Max.15 (Outdo with VP25 (O.D.32) pump , 850 5 res (Including earth cab		
Installation d Drain pump, Recommend L.R.A. (Locke Interconnect IP number	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ing wires	iping size (O.D) nethod th of piping piping ne (one way) length t diff. between O/U a Size x Co	das line Gas line nd I/U re number	mm m m m M A A	I/U φ         15.88 (5/8")         Pipe @           I/U φ         15.88 (5/8")         Pipe @           φ         25.4         Flare p	2.7 (1/2") \$\phi\$ 1.88 (5/8") \times 1.0 (). (1") \times 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 (1") \times 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 28.58 (1 \$\phi\$ 28.58 (1 \$\p		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere) ting wires	iping size (O.D) nethod gth of piping piping ne (one way) length t diff. between O/U a Size x Co	das line Gas line nd I/U re number	mm m m m A A A	I/U φ 15.88 (5/8")         Pipe ©           I/U φ 15.88 (5/8")         Pipe ©           φ 25.4         Flare p           -         -           Max.50         Max.30           Hose connectable v         Built-in drain           -         -           φ 1.6 mm x 3 co         IP           Mountino kit         -	2.7 (1/2") \$\phi\$ 1.88 (5/8") \times 1.0 (). (1") \times 1.0 or \$\phi\$ 28.58 (1 \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 \$\phi\$ 28.50 (1 \$\phi\$ 28.50 (1 \$\		
Drain pump, Recommend L.R.A. (Locket Interconnect IP number Standard acc Option parts	Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Jed breaker size ed rotor ampere) ting wires	iping size (O.D) nethod gth of piping piping ne (one way) length t diff. between O/U a Size x Co	das line Gas line nd I/U re number	mm m m m A A A	I/U φ 15.88 (5/8")         Pipe @           I/U φ 15.88 (5/8")         Pipe @           φ 25.4         Flare p	2.7 (1/2") () 15.88 (5/8") × 1.0 ① ((1") × 1.0 or $\phi$ 28.58 (1 ) ) ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit 1) (Outdoor 1) (Outdoor 1) 0 (Outdoor 1) (Outdoor 1) (Outdoor 1) 0 (Outdoor 1)	$\phi$ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Drain pump, Recommend L.R.A. (Lockel Interconnect IP number Standard acc Option parts Notee (1) T	Attached leng Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Jed breaker size ed rotor ampere) ting wires	iping size (O.D) nethod piping ne (one way) length t diff. between O/U a Size x Co	das line Gas line nd I/U re number	mm m m m A A A	/U φ 15.88 (5/8") Pipe (2) //U φ 15.88 (5/8") Pipe (2) Flare p 	2.7 (1/2") (¢ 15.88 (5/8") × 1.0 ① (1") × 1.0 or ¢ 28.58 (1 ) ) ) Necessary (both   Ma ) (Outdoor unit is higher 8 Max.15 (Outdo with VP25 (O.D.32) pump , 850 5 res (Including earth cab X0 ;, Drain hose Motion senso The pipe length is :	φ 22.22 (7/8") × 1.0 or 1/8") × 1.0 O/U $φ$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — Liquid & Gas lines) x.70 Outdoor air temperature ≤ 43°C) to Utdoor air temperature > 43°C) or unit is lower) Hole size $φ$ 20 x 3 pcs. — — 5/5 le) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging r : LB-T-5BW-E -5m.	
Drain pump, Recommend L.R.A. (Locke Interconnect IP number Standard acc Option parts Notes (1) T	Attached leng Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height bed breaker size ed rotor ampere) ting wires cessories i The data are measu Item	piping size (O.D) hethod piping ne (one way) length t diff. between O/U a Size x Co red at the following c	Gas line Gas line nd I/U re number onditions. ir temperature	mm m m m A A A	VU φ 15.88 (5/8") Pipe (2) VU φ 15.88 (5/8") Pipe (2) φ 25.4 Flare p 	2.7 (1/2") \$\phi\$ 1.88 (5/8") \times 1.0 (), (1") \times 1.0 or \$\phi\$ 28.58 (1) \$\phi\$ 1.0 or \$\phi\$ 28.50 (1) \$\phi\$ 28.50 (1) or \$\phi\$ 28.50 (1) \$\phi\$ 28.50 (1) or \$\phi\$ 28.50 (1) or		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ing wires cessories he data are measu Item Operation	piping size (O.D) hethod th of piping piping ne (one way) length t diff. between O/U a Size x Co Size x Co red at the following c Indor a	Gas line Gas line nd I/U re number onditions. ir temperature ww	mm m m m A A A	VU φ 15.88 (5/8") Pipe (2) φ 25.4           Flare μ           -           -           Max.50           Max.31           Hose connectable N           Built-in drain           φ 1.6 mm x 3 co           IP           Mounting kit           Dor air temperature           WP	2.7 (1/2") \$\phi\$ 1.0 or \$\phi\$ 2.58 (5/8") \times 1.0 (), (1") \times 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 ) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1 \$\phi\$ 28.58 (1 \$\phi\$ 1.0 or \$\phi\$ 28.50 (1 \$\phi\$ 28.		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard act Option parts Notes (1) T	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere) ting wires cessories ine data are measu Item Operation Cooline*1	piping size (O.D)  hethod  piping ne (one way) length  t diff. between O/U a  Size x Co  red at the following c  Indoor a  DB  27°C	and I/U Gas line	mm m m m A A A Outd DB <sup>®</sup>	VU φ 15.88 (5/8") Pipe (2)           VU φ 15.88 (5/8") φ 25.4           Flare p	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (		
Drain pump, Recommend L.R.A. (Locket Interconnect IP number Standard ace Option parts Notes (1) T	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere) ting wires cessories time Operation Cooling*1 Heatine*2	piping size (O.D) nethod piping ne (one way) length t diff. between O/U a Size x Co Size x Co red at the following c Indoor a DB 27°C	Gas line Gas line Ind I/U re number onditions. ir temperature UB 19°C 20°C	mm m m M A A A A Outd DB 335°C	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Max.50         Max.30           Hose connectable         Built-in drain           φ 1.6 mm x 3 co         IP           Mounting kit         VIII           Or air temperature         WB           24°C         S°C	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit 9 0 (Outdoor unit 15 (Outdoor 15 0 (I)		
Drain pump, Recommend L.R.A. (Locka Interconnect IP number Standard acc Option parts Notes (1) T	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere) ting wires cessories inhe data are measu Item Operation Cooling*1 The adia care """	piping size (O.D) nethod th of piping ne (one way) length t diff. between O/U a Size x Co Size x Co red at the following c Indoor a DB 27°C the manufacture d	Ind I/U Gas line ond I/U re number onditions. ir temperature I9°C 20°C	mm m m A A A A S S C Utd DB 35°C 7°C	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Flare p         -           Max.50         Max.30           Hose connectable v         Built-in drain           φ 1.6 mm x 3 co         IP           Mounting kit         VIII           Soor air temperature         WB           24°C         6°C	2.7 (1/2") (p 15.88 (5/8") × 1.0 ① (1") × 1.0 or $\phi$ 28.58 (1 ) ) ) Diping - Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 Max.15 (Outdor with VP25 (O.D.32) pump , 850 5 res (Including earth cab X0 5, Drain hose Motion senso The pipe length is 3 Standards ISO5151-T1 ISO5151-H1		
Drain pump, Recommend L.R.A. (Locke Interconnect IP number Standard acc Option parts Notes (1) T	Attached leng Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ting wires cessories indata are measu Item Operation Cooling*1 Heating*2	piping size (O.D) nethod th of piping piping ne (one way) length t diff. between O/U a Size x Co Size x Co Indoor a DB 27'C ris manufactured and a set	and I/U Gas line Gas line nd I/U re number onditions. ir temperature WB 19°C 20°C t tested in conform	mm m m M A A A A A A A C U U B B 35°C V with the I	VU φ 15.88 (5/8")         Pipe @           VU φ 15.88 (5/8")         Pipe @           φ 25.4         Flare p           -         -           Max.50         Max.30           Hose connectable v         Built-in drain           φ 1.6 mm x 3 co         IP)           Mounting kit         -           cor air temperature         WB           24°C         6°C           So.         cor air correctable v	2.7 (1/2") \$\phi\$ 1.0 or \$\phi\$ 2.58 (5/8") \times 1.0 (), (1") \times 1.0 or \$\phi\$ 28.58 (1) \$\phi\$ 28.58 (1) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1) \$\phi\$ 28.58 (1) \$\phi\$ 1.0 or \$\phi\$ 28.58 (1) \$\phi\$ 28.58		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard act Option parts Notes (1) T (2) (3) (4)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ing wires cessories tem Operation Cooling*1 Heating*2 This air-conditione Sound level indicat	piping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  Size x Co  red at the following c Indoor a DB 27'C r is manufactured and tes the value in an an an size according to the	And Internet	mm m m m A A A Outd DB 35°C 7°C ty with the I	VU φ 15.88 (5/8")         Pipe @           VU φ 15.88 (5/8")         Pipe @           φ 25.4         Flare g	2.7 (1/2") \$\phi\$ 1.0 or \$\phi\$ 2.58 (5/8") \times 1.0 (). (1") \times 1.0 or \$\phi\$ 28.58 (1 ) 0 (1") \times 1.0 or \$\phi\$ 28.58 (1 ) 0 (0 utdoor unit or higher 8 0 (0 utdoor unit is higher 8 1 SO5151-H1 1 SO5151-H1 1 what higher due to ambient		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height led breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Select the breaker	ping size (O.D)  hethod  piping ne (one way) length t diff. between O/U a  find of the following c  red at the following c  red at the following c  r is manufactured and tes the value in an an size according to the indicate when the ai	and I/U Gas line Gas line Ind I/U re number Ind I/U In	mm m m m A A A A A A C DB S 5°C 7°C ty with the I tring operati ard.	VU φ 15.88 (5/8") Pipe (2)           VU φ 15.88 (5/8") Pipe (2)           φ 25.4           Flare p	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) Necessary (both   Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 4 0 (Outdoor unit is higher 8 0 (Outdoor unit 15 0 (Outdoor		
Drain pump, Recommend L.R.A. (Locke Interconnect IP number Standard ace Option parts Notes (1) T (2) (3) (4) (5) (6)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Ided breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Select the breaker The operation data Indoor unit specific	piping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  Size x Co  red at the following c  Indoor a  DB 27'C r is manufactured and tes the value in an an size according to the indicate when the ai ations for one unit. C	and I/U Gas line Gas line Ind I/U re number Onditions. ir temperature WB 19°C 20°C It fested in conformi echoic chamber. Du own national stancconditioner is oper apacity and operat	mm m m m A A A A A A C U U U U U U U U U U U U U	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Flare p         -           Max.5C         Max.3C           Hose connectable v         Built-in drain           Φ 1.6 mm x 3 co         IP           Mounting kit         -           Or air temperature         WB           24°C         6°C           SO.         on these values are somew           V 50Hz or 220V 60Hz.         wo indoor units are combir	2.7 (1/2") () 15.88 (5/8") × 1.0 ①, (1") × 1.0 or $\phi$ 28.58 (1) ipiping - Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit 10 (Outdoor		
Drain pump, Recommend L.R.A. (Locka Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Jed breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Sound level indica Select the breaker The operation dat Indoor unit specific Branching pipe sel	piping size (O.D)  hethod  piping  ne (one way) length  t diff. between O/U a  Size x Co  red at the following c  Indoor a  DB  27°C  r is manufactured and tes the value in an an size according to the indicate when the ai aitons for one unit. C "DIS-WB1G"×1(Opti	re number onditions. ir temperature WB 19°C 20°C 41 tested in conforming cechoic chamber. Du own national stance r-conditioner is ope apacity and operat on). ① : Pipe of O/	mm m m m A A A A A A A A A C C C C C C C	I/U φ         15.88 (5/8")         Pipe @           I/U φ         15.88 (5/8")         Pipe @         25.4           Flare p         -         -           Max.5C         Max.3C         -           Max.3C         Max.3C         -           Hose connectable v         Built-in drain         -           φ         1.6 mm x 3 co         -           Mounting kit         -         -           Or air temperature         WB         -           24°C         6°C         SO.           on these values are somew         V 50Hz or 220V 60Hz.         wo indoor units are combir           © : Pipe of Branch-I/U         :         Pipe of Branch-I/U	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1) (1")		
Installation d Drain pump, Recommend L.R.A. (Locke Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ting wires cessories in cessories in cessories in tem Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Select the breaker Indoor unit specific Branching pipe sel Use 1/2H pipes ha	piping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  Size x Co  Size x Co  red at the following c  red at the fol	Image: constraint of the second s	mm m m m A A A A A A A A A A A A A A A	I/U \$\phi\$ 15.88 (5/8")         Pipe \$\phi\$           I/U \$\phi\$ 15.88 (5/8")         Pipe \$\phi\$           I/U \$\phi\$ 15.88 (5/8")         Pipe \$\phi\$           I/U \$\phi\$         I/I \$\phi\$           I/I \$\phi\$         I \$\phi\$	2.7 (1/2")		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ing wires cessories tem Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Indoor unit specific Branching pipe set Use 1/2H pipes ha Panel color	iping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  Size x Co  red at the following c Indoor a  DB 27°C r is manufactured and tes the value in an an an size according to the indicate when the ai ations for one unit. C "DS-WB1G"×1(Opti ving a 1.0mm or thicl Panel model	A series of the	mm m m m A A A A A A C C T C C V With the I ring operati ard. rated at 230 on data is t J-Branch, o or larger p	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Flare p         -           Max.50         Max.30           Hose connectable         Built-in drain           Φ 1.6 mm x 3 co         IP2           Mounting kit         -           Φ 1.6 mm x 3 co         IP2           Φ 1.6 mm x 3 co         IP2           Δοr air temperature         IP2           Δ0 or air temperature         Of 6"C           SO.         6"C           SO.         on these values are somew           V 50Hz or 220V 60Hz.         wo indoor units are combir           ② : Pipe of Branch-I/U         ipes.           (Munsell color)         (Munsell color)	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit is higher 8 1 SO5151-T1 1 SO5151-T1 1 SO5151-H1 vhat higher due to ambier ned and run together. Remote control		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Sound level indica Select the breaker Indoor unit specific Branching pipe sed Use 1/2H pipes ha Panel color	ping size (O.D)  hethod  piping ne (one way) length  t diff. between O/U a  finding the following c  red at the following c  red at the following c  r is manufactured and res the value in an an size according to the indicate when the ai cations for one unit. C "DIS-WB1G*×1(Optiving a 1.0mm or thick  Panel model	and I/U Gas line Gas line Gas line Ind I/U re number Ind I/U I	mm m m m A A A A A DB 35°C 7°C ty with the I tring operati ard. 2°T ty with the I tring operati ard. 3°C 7°C ty with the I tring operation ard a to the second or a to the second or a t	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Flare p         -           Max.50         Max.30           Hose connectable v         Built-in drain           Φ 1.6 mm x 3 co         Built-in drain           Φ 1.6 mm x 3 co         IP           Mounting kit         -           Φ 1.6 mm x 3 co         IP           Mounting kit         -           Or air temperature         WB           24°C         6°C           SO.         on these values are somew           V 50Hz or 220V 60Hz.         wo indoor units are combir           () Fipe of Branch-I/U         ipes.           (Munsell color)         -	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit 1 (Solor		
Installation d Drain pump, Recommend L.R.A. (Locke Interconnect IP number Standard ace Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height Ided breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Select the breaker The operation data Indoor unit specifit Branching pipe set Use 1/2H pipes ha Panel color Fine sport	piping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  figure at the following c  red at the following c  r is manufactured and tes the value in an an size according to the indicate when the ai ations for one unit. C "DIS-WB1G"×1(Opti Ving a 1.0mm or thick Panel model T-PSA-5BW-E	and I/U Gas line Gas line Gas line Ind I/U re number Ind I/U Iremperature WB Ig°C 20°C It ested in conformi echoic chamber. Du own national stanc r-conditioner is oper apacity and operat on). ① : Pipe of O/ rer wall for $\phi$ 19.05 Panel type Standard	mm m m m A A A A A A A A C U U U U U U U U U U U	I/U φ 15.88 (5/8")         Pipe (2)           I/U φ 15.88 (5/8")         Pipe (2)           Flare p         -           Max.50         Max.30           Hose connectable v         Built-in drain           Φ 1.6 mm x 3 co         Pipe (2)           Φ 1.6 mm x 3 co         Pipe (3)           Φ 1.6 mm x 3 co         Pipe (3)           Φ 1.6 mm x 3 co         Pipe (3)           Φ 1.0	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outdoor unit 1 (Outdoor 1 (Outd		
Drain pump, Recommend L.R.A. (Locka Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ting wires cessories the data are measu Item Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Select the breaker The operation dat Select the breaker Indoor unit specific Branching pipe sel Use 1/2H pipes ha Panel color Fine snow	piping size (O.D)  hethod  th of piping  ne (one way) length  t diff. between O/U a  Size x Co  red at the following c  Indoor a  DB  27°C  r is manufactured and res the value in an an size according to the indicate when the ai aitons for one unit. C "DIS-WB1G"×1(Opti ving a 1.0mm or thick  Panel model  T-PSA-5BW-E  T-PSAE-5BW-E	and I/U Gas line Gas line Gas line Gas line Gas line Ind I/U I Ind I/U Ind I/U I Ind	mm m m m m A A A A A A A A A A C C C C C	I/U φ 15.88 (5/8")         Pipe @           I/U φ 15.88 (5/8")         Pipe @           I/U φ 15.88 (5/8")         Pipe @           I         Max.50           Max.30         Max.30           Hose connectable v         Max.30           Hose connectable v         Built-in drain           Φ         1.6 mm x 3 co           Φ         1.6 mm x 3 co           I         Mounting kit           Φ         1.6 mm x 3 co           I         Mounting kit           Φ         6°C           SO.         6°C           SO.         SOHz or 220V 60Hz.           wo indoor units are combir         2 : Pipe of Branch-I/U           ipes.         (Munsell color)           .3 / 0.1) near equivalent         1.3 / 0.1	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1) (1")		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ting wires cessories inded the track of	iping size (O.D)  hethod  th of piping piping ne (one way) length t diff. between O/U a  Size x Co  Size x Co  red at the following c  Indoor a  DB  27°C  ris manufactured and size according to the indicate when the ai Size x Co  Panel model T-PSA-5BW-E T-PSA-5BB-E	Image: constraint of the second s	mm m m m m A A A A A A A A A A A A A A	VU φ 15.88 (5/8")         Pipe @           VU φ 15.88 (5/8")         Pipe @           φ 25.4         Flare p	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) Necessary (both Ma 0 (Outdoor unit is higher 8 Max.15 (Outdo with VP25 (O.D.32) pump , 850 (0.0000 genth cab (0.0000 genth cab (0		
Installation d Drain pump, Recommend L.R.A. (Lock Interconnect IP number Standard acc Option parts Notes (1) T (2) (3) (4) (5) (6) (7) (8)	Refrigerant p Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose max lift height ded breaker size ed rotor ampere) ing wires cessories team Operation Cooling*1 Heating*2 This air-conditione Sound level indicat Refrigerant Reate the preaker The operation data Indoor unit specific Branching pipe set Use 1/2H pipes ha Panel color Fine snow Shadow black	iping size (O.D)  hethod  th of piping piping ne (one way) length  t diff. between O/U a  Size x Co  Size x Co  red at the following c Indoor a  DB  27°C r is manufactured and tes the value in an an an size according to the indicate when the ai ations for one unit. C "DS-WBTG"x1(Opti ving a 1.0mm or thick Panel model T-PSA-5BW-E T-PSA-5BB-E T-PSA-5BB-E	and I/U Gas line Gas	mm m m m m A A A A A A A A A A A A A C C T C C Utd M B B S S'C 7'C C T'C ty with the I rring operati ard. s'C C Outdd D B C S S'C ( 7'C C ( 8,0Y9 ( 8,0Y9 ( 8,0Y9 ( 7,2BG)) ( 7,2BG)) ( 7,2BG))	I/U φ 15.88 (5/8")       Pipe (2)         I/U φ 15.88 (5/8")       Pipe (2)         φ 25.4       Flare p	2.7 (1/2") (1") × 1.0 or $\phi$ 28.58 (1 (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) (1") × 1.0 or $\phi$ 28.58 (1 ) Necessary (both Ma 0 (Outdoor unit is higher 8 0 (Outd		

						Model		FD12	BOVSAW	PVH	
Item							Indoor unit FDT	140VH (2 units)		Outdoor unit FDC280VSA-W	
Power sou	irce							3 Phase 380-4	5V 50Hz	/ 380V 60Hz	
		Nominal cool	ing cap	acity (range)		kW		27.0 [ 7.5 (N	/lin.) - 31.	5 (Max.) ]	
	L	Nominal heat	ing cap	acity (range)		kW		30.0 [ 6.3 (N	1in.) - 33.	5 (Max.) ]	
		Power consu	motion		Cooling				9.11		
	L	i ower consu	mption		Heating	kW			8.95		
		Max power c	onsump	otion					11.4		
			ont		Cooling			14	.0 / 14.7		
		Running curre	ent		Heating	A		10	3.5 / 14.2		
		Inrush curren	t, max o	current					5, 20		
0		Devery feaster			Cooling	0/			94		
Operation	data	Power factor			Heating	%			96		
	F	EER			Cooling				2.96		
	F	COP			Heating				3.35		
	F				Cooling		6	3		75	
		Sound power	r level		Heating		6	4		77	
	F				Cooling		P-Hi: 48 Hi: 42	Me: 39 Lo: 32		61	
		Sound pressu	ure leve	1	Heating	dB(A)	P-Hi: 48 Hi: 41	Me: 38 Lo: 31		63	
	F	Silent mode			Cooling					55 / 54 (Normal/Silent)	
		sound pressu	ire level		Heating		-	-		56 / 55 (Normal/Silent)	
					1		Unit 298 ×	840 × 840			
Exterior di	mensio	ns (Height x V	Vidth x I	Depth)		mm	Panel 35 ×	950 × 950		1505 × 970 × 370	
Exterior an	pearan	ICE					Fine	snow		Stucco white	
(Munsell o	olor)	-					(8 0Y9 3/0 1) n	ear equivalent		(4.2Y7.5/1.1) near equivalent	
(BAL color	·)						(RAL 9003) ne	ear equivalent		(RAL 7044) near equivalent	
Net weight	,t					ka	l Init 95	Panel 5		155	
Compress	or type	& Q'tv				y	011123	-		GTC5150SC40ME × 1	
Compress	or moto	or (Starting me	athod)			k/\//		_		Direct line start	
Refrigeran	t οil (Δ.»	nount type)				1		_	-	1.55 (M-MR75R)	
Refrigeran	t (Tupo	amount pro	-charac	length)		ka	- 020	5.6 in outdoor unit //no	l the am	ount for the piping of 30m)	
Heat even	ander	, amount, pre-	Juarye	isiigiiij		ry .	Louver fin & inno	r arooved tubing		M shape fin & inner arooved tubing	
Refrigerer	langer							Elastronia	evpanali		
Fon tuno 8	t control						Turbo	Electronic	expansio	Bropollor for y 2	
Fon motor	(Ctortin	a mothod)				10/		t line start >			
Fan motor	(Startin	ig method)			Cooling	VV	140 < Direc	t line start >	_	86 × 2 < Direct line start >	
Air flow					Cooling	m³/min	P-Hi: 38 Hi: 29	Me: 26 Lo: 19		130	
					Heating				_	140	
Available e	external	static pressu	re			Ра		) 		0	
Outside al	r intake						Pos	sible	_	-	
Air filter, Q	uality /	Quantity					Pocket plastic ne	et ×1 (Washable)			
Shock & v	ibration	absorber					Rubber sleeve	Rubber sleeve (for fan motor) Rubber sleeve (for comp			
Electric he	ater					W	-	-		20 (Crank case heater)	
Operation		Remote conti	rol				(Option) W	/ired : RC-EX3A , RC-E	5, RCH-	E3 Wireless : RCN-1-5BW-E2	
control	Ļ	Room tempe	rature c	ontrol				Thermost	at by elec	ctronics	
		Operation dis	splay						_		
							Overload protection for fan motor				
							Frost protection thermostat				
Safety equ	upment	S						Frost prote	ection the	ermostat	
Safety equ	uipment	S						Frost prote Internal therr	ection the nostat for	ermostat r fan motor rature protection	
Safety equ	uipment	s			1		Dina @ d	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper	rmostat fan motor rature protection	
Safety equ	uipment	S			Liquid line		I/U φ 9.52 (3/8") Pipe ② φ	Frost prote Internal therr Abnormal discharg 9 9.52 (3/8") × 0.8 ① 2.7 (1/2")	ection the nostat for le temper p 12.7 (1)	rmostat r fan motor rature protection /2") × 0.8	
Safety equ	lipment	s Refrigerant p	iping siz	ze (O.D)	Liquid line	mm	I/U φ 9.52 (3/8") <sup>Pipe</sup> ② 0/U φ 1	Frost prote Internal therr Abnormal discharg 9.52 (3/8") × 0.8 ① 2.7 (1/2") 0 0 15 88 (5/8") × 1 0	ection the nostat for le temper p 12.7 (1/	ermostat r fan motor rature protection /2") × 0.8 2 (7/8") × 1.0 or	
Safety equ	uipment	Refrigerant pi	iping siz	ze (O.D)	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe</sup> ② ( O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③ φ 25.4	Frost prote Internal therr Abnormal discharg \$9.52 (3/8") × 0.8 ① 2.7 (1/2") \$\phi\$ 1.0 or \$\phi\$ 28.58	ection the nostat for le temper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") >	armostat r fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or < 1.0 O/U φ 22.22 (7/8")	
Safety equ	uipment	Refrigerant pi	iping siz	ze (O.D)	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe ②</sup> φ O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe ③</sup> φ 25.4 Flare J	Frost prote Internal them Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1, 1) $\phi$ 22.2 (1 1/8") >	rmostat fan motor rature protection /2") × 0.8 (2 (7/8") × 1.0 or <1.0 O/U φ 22.22 (7/8") Líquid : Flare / Gas : Brazing	
Safety equ	uipment	Refrigerant pi Connecting n Attached leng	iping siz	ze (O.D)	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe ②</sup> O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe ②</sup> φ 25.4 Flare	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 ① 2.7 (1/2") )\$	ection the nostat for μe temper φ 12.7 (1/ ① φ 22.2 (1 1/8") >	rmostat fan motor rature protection $(2^{\circ}) \times 0.8$ $(2^{\circ} (7/8^{\circ}) \times 1.0 \text{ or}$ $(1.0 \text{ O/U } \phi 22.22 (7/8^{\circ}))$ Liquid : Flare / Gas : Brazing —	
Safety equ	ipment	Refrigerant pi Connecting n Attached leng Insulation for	iping siz	ze (O.D) iping	Liquid line Gas line	mm	I/U φ 9.52 (3/8") Pipe ② φ Ο/U φ 1 I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ	Frost prote Internal discharg \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	th Liquid	rmostat fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or <1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ	uipment	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li	iping siz nethod gth of p piping ine (one	ze (O.D) iping	Liquid line Gas line	mm m	//U φ 9.52 (3/8") <sup>Pipe ②</sup> φ Ο/U φ 1 //U φ 15.88 (5/8") <sup>Pipe ②</sup> φ 25.4 Flare μ	Frost prote Internal therr Abnormal discharge \$\$ 9.52 (3/8") × 0.8 (1) 2.7 (1/2") \$\$ 15.88 (5/8") × 1.0 (1") × 1.0 or \$\$ 28.58 piping - Necessary (bo	ection the nostat for $\phi$ 12.7 (1) (1 1/8") > (1 1/8") > th Liquid Max.60	rmostat fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or < 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li	iping siz nethod gth of p piping ine (one	iping way) length	Liquid line Gas line	mm m m	//U φ 9.52 (3/8") Pipe ② φ //U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ - - - - -	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 () 2.7 (1/2") \$ 0 \$ 15.88 (5/8") × 1.0 (1") × 1.0 or \$ \$ 0 \$ 2.58	ection the nostat for μ 12.7 (1) 1 φ 22.2 (1 1/8") > th Liquid Max.60 er & Outde	rmostat ' fan motor 'ature protection '(2") × 0.8 '2 (7/8") × 1.0 or < 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh	iping siz nethod gth of p piping ine (one t diff. b	ze (O.D) iping way) length etween O/U ar	Gas line Gas line	mm m m m	//U φ 9.52 (3/8") Pipe ② φ O/U φ 1 //U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ 	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1, $(1 \phi 22.2 (1 1/8") >$ th Liquid Max.60 or & Outdo or & Outdo or & Outdo	armostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or (1.0 O/U φ 22.22 (7/8")) Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature > 43°C)	
Safety equ	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh	iping siz nethod gth of p piping ine (one it diff. b	ze (O.D) iping i way) length etween O/U ar	Gas line Gas line	mm m m m	I/U φ 9.52 (3/8") <sup>Pipe ②</sup> φ O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe ②</sup> flare j - - - - - - - - - - - - - - - - - - -	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1) (1) $\phi$ 22.2 (1 1/8") > L th Liquid Max.60 er & Outdo er & Outdo er & Outdo r & Outdo r & Outdo	rmostat fan motor rature protection /2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature > 43°C) t is lower)	
Safety equ	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose	iping siz nethod gth of p piping ine (one it diff. b	ze (O.D) iping : way) length etween Q/U ar	Liquid line Gas line Id I/U	mm m m m	I/U φ 9.52 (3/8") Pipe ② φ O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1) (1 0 $\phi$ 22.2 (1 1/8") > (1 1/8"	$\begin{array}{c} \mbox{rmostat} \\ \mbox{fan motor} \\ \mbox{rature protection} \\ \mbox{/2"} \times 0.8 \\ \mbox{$2$ (7/8") \times 1.0 \text{ or}} \\ \mbox{$4$ (1.0 O/U $\phi$ 22.22 (7/8") \\ \hline \mbox{Liquid} : Flare / Gas : Brazing \\ \hline $-$$	
Safety equ Installation	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height	iping siz nethod gth of p piping ne (one t diff. b	iping way) length etween O/U ar	Gas line	mm m m m	I/U φ 9.52 (3/8") <sup>Pipe (2)</sup> φ O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe (2)</sup> φ 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Frost prote Internal discharg	ection the nostat for le temper $\phi$ 12.7 (1) (1 0 $\phi$ 22.2 (1 1/8") > (1 1/8"	rmostat fan motor rature protection $(2^{''}) \times 0.8$ $(2^{'}(7/8^{''}) \times 1.0 \text{ or}$ $(1.0 \text{ O}/U \ \phi \ 22.22 \ (7/8^{''})$ Liquid : Flare / Gas : Brazing — & Gas lines) flare / Gas : Brazing — & Gas lines) flare / Gas : Brazing — & Gas lines) flare / Gas : Brazing — & Hole size $\phi \ 20 \times 3 \ \text{pcs.}$	
Safety equ Installation Drain pum Recomme	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose Lift height reaker size	iping siz nethod gth of p piping ne (one it diff. b	ze (O.D) iping way) length etween O/U ar	Gas line Gas line	mm m m m A	//U φ 9.52 (3/8") Pipe ② φ //U φ 15.88 (5/8") O/U φ 1 //U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare μ 	Frost prote Internal itherr Abnormal discharg \$\phi_9.52 (3/8") × 0.8 (1) 2.7 (1/2") \$\phi_15.88 (5/8") × 1.0 (1") × 1.0 or \$\phi_28.58 piping 	ection the nostat for le temper $\phi$ 12.7 (1/ 1) $\phi$ 22.2 (1 1/8") > L th Liquid Max.60 rr & Outd draw & Outd tdoor uni	$\begin{array}{c} \text{rmostat} \\ \text{fan motor} \\ \text{rature protection} \\ (2^{''}) \times 0.8 \\ (2^{''}) \times 1.0 \text{ or} \\ (1.0 \text{ O/U } \phi 22.22 (7/8'') \\ \text{Liquid : Flare / Gas : Brazing} \\ \hline \\ $	
Safety equ Installation Drain pum Recomme L.R.A. (Loc	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere)	iping size nethod gth of p piping ine (one it diff. b	ze (O.D) iping way) length etween O/U ar	Liquid line Gas line id I/U	mm m m m M A A	//U φ 9.52 (3/8") Pipe ② φ O/U φ 1 //U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ 	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1) (1) $\phi$ 22.2 (1 1/8") > (1 1/8") > th Liquid Max.60 or & Outdo r & Outdo r & Outdo r & Outdo tdoor unit - 5/5	ermostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or (1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature > 43°C) t is lower) Hole size $\phi$ 20 x 3 pcs. —	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne	p, max ndeta br cked rot scting w	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) irres	iping siz	ze (O.D) iping way) length etween O/U ar	Liquid line Gas line Ind I/U	mm m m m A A	//U φ 9.52 (3/8") <sup>Pipe</sup> ② φ O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ② φ 25.4 Flare μ 	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1) (1) $\phi$ 22.2 (1 1/8") > (1 1/8")	rmostat fan motor rature protection $(2^n) \times 0.8$ $(2^n) \times 1.0$ or $(1.0 O/U \ \phi 22.22 (7/8"))$ Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature > 43°C) t is lower) Hole size $\phi 20 \times 3$ pcs. — Termainal block (Screw fixing type)	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number	p, max nded br cked rot acting w	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires	iping siz nethod gth of p piping ine (one it diff. b	ze (O.D) iping e way) length etween O/U ar	Liquid line Gas line Id I/U	mm m m m M A A	I/U φ 9.52 (3/8") <sup>Pipe ②</sup> φ O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe ②</sup> φ 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Frost prote Internal therr Abnormal discharg	ection the nostat for le temper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 23.2 (1 1/8") > 1 $\phi$ 23.2 (1 1/8") > 1 $\phi$ 23.2 (1 1/8") >	armostat         fan motor         rature protection $(2'') \times 0.8$ $(2'', 0'') \times 1.0$ or $(1.0 O/U \phi 22.22 (7/8"))$ Liquid : Flare / Gas : Brazing	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard	p, max nded brocked rot ecting w	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires	iping siz nethod gth of p piping ine (one it diff. b	ze (O.D) iping way) length etween O/U ar Size x Cor	Liquid line Gas line Id I/U e number	mm m m m A A	I/U φ 9.52 (3/8") Pipe ② φ O/U φ 1 I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 ①. 2.7 (1/2") \$ 0 15.88 (5/8") × 1.0 (1") × 1.0 or \$ 28.58 piping - Necessary (bo 0 (Outdoor unit is highe 0 (Internet) 1 (Interne) 1 (Internet) 1 (Internet) 1 (Internet) 1 (Internet) 1 (I	ection the nostat for le temper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") >	rmostat fan motor rature protection $(2'') \times 0.8$ $(2'(7/8'') \times 1.0 \text{ or}$ $(1.0 \text{ O})U \phi 22.22 (7/8'')$ Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature $\leq 43^{\circ}$ C) oor air temperature $> 43^{\circ}$ C) oor air temperature $> 43^{\circ}$ C) t is lower) Hole size $\phi 20 \times 3 \text{ pcs.}$ — Termainal block (Screw fixing type) IP24 Connecting pine Edging	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option pair	n data p, max nded bring w nded bring w nded concerning w accessed	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires	iping siz	ze (O.D) iping : way) length etween O/U ar Size x Cor	Liquid line Gas line Id I/U	mm m m m A A	I/U φ 9.52 (3/8") Pipe ② φ O/U φ 1 I/U φ 15.88 (5/8") Pipe ② φ 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Frost prote Internal discharg \$\phi 5.2 (3/8") \times 0.8 (). 2.7 (1/2") \$\phi 15.88 (5/8") \times 1.0 (1") \times 1.0 or \$\phi 28.58 piping - Necessary (bo 0 (Outdoor unit is highe 0 (Outdoor unit is highe 0 (Outdoor unit is highe 0 (Outdoor unit is highe 0 (Outdoor unit is highe Max.15 (Ou with VP25 (O.D.32) p pump , 850 res (Including earth of X0 t, Drain hose Motion ser	ection the nostat for le temper b 12.7 (1) 1 \$\phi\$ 22.2 (1 1/8") > 1 \$\phi\$ th Liquid Max.60 er & Outd tr & Outd tdoor uni 5/5 able) / ^ able) / ^	rmostat fan motor rature protection $(2^{''}) \times 0.8$ $(2^{'}) \times 1.0 \text{ or}$ $(1.0 \text{ O/U } \phi 22.22 (7/8"))$ Liquid : Flare / Gas : Brazing — & Gas lines) foor air temperature $\leq 43^{\circ}$ C) oor air temperature $\geq 43^{\circ}$ C) oor air temperature $\geq 43^{\circ}$ C) t is lower) Hole size $\phi 20 \times 3 \text{ pcs.}$ — Termainal block (Screw fixing type) IP24 Connecting pipe, Edging T-5BW-E	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Note (1)	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) <i>i</i> res	iping sizies	ze (O.D) iping way) length etween O/U ar Size x Cor	Liquid line Gas line	mm m m m A A	I/U φ 9.52 (3/8")         Pipe ② φ           I/U φ 15.88 (5/8")         Pipe ②           I/U φ 15.88 (5/8")         Pipe ③           Flare μ         -           -         -           Max.50         Max.30           Hose connectable         Built-in drain           φ 1.6 mm x 3 co         IP           Mounting kit         -	Frost prote Internal discharg \$\phi\$-52 (3/8") \times 0.8 (). 2.7 (1/2") \$\phi\$-52 (3/8") \times 0.8 (). 2.7 (1/2") \$\phi\$-5.88 (5/8") \times 1.0 (1") \times 1.0 or \$\phi\$ 28.58 \$\phi\$-10 (1") \times 1.0 or \$\phi\$ 28.58 \$\phi\$-10 (1") \times 1.0 or \$\phi\$ 28.58 \$\phi\$-10 (0utdoor unit is highed 0 (Outdoor unit is highed 0 (Outdoo	ection the nostat for le temper b 12.7 (1)	rmostat fan motor rature protection /2") × 0.8 (2(7/8") × 1.0  or $(1.0 \text{ O}/U \phi 22.22 (7/8"))$ Liquid : Flare / Gas : Brazing — & Gas lines) foor air temperature ≤ 43°C) oor air temperature ≤ 43°C) t is lower) Hole size $\phi$ 20 x 3 pcs. — Termainal block (Screw fixing type) IP24 Connecting pipe, Edging T-5BW-E	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option pai Notes (1)	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires	iping sizi nethod piping ine (one t diff. b red at tt	ze (O.D) iping way) length etween O/U ar Size x Cor he following cc Indoor ai	Liquid line Gas line Ind I/U e number	mm m m M A A A	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") φ 25.4           Flare μ           -           Max.50           Max.31           Hose connectable           Built-in drain           φ 1.6 mm x 3 co           IP           Mounting kit	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 ① 2.7 (1/2") \$ 0 15.88 (5/8") × 1.0 (1") × 1.0 or \$ 28.58 opining Necessary (bo 0 (Outdoor unit is higher 0 (O	ection the nostat for le temper p 12.7 (1, 1) p 22.2 (1 1/8") > 1	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1	n data p, max p, max n data p, max n data n	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires	iping sizing sizing sizing sizing sizing sizing sizing size size size size size size size size	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor aii DB	Liquid line Gas line ad I/U e number e number	mm m m m A A A	I/U φ 9.52 (3/8") O/U φ 1         I/U φ 15.88 (5/8") O/U φ 25.4         Flare μ         Φ 25.4         Flare μ         Max.50         Max.31         Hose connectable         Built-in drain         Φ 1.6 mm x 3 ccc         IP         Mounting kit         Dor air temperature         WB	Frost prote Internal therr Abnormal discharg \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ection the nostat for le temper p 12.7 (1, 1) p 22.2 (1 1/8") > 1 d 22.2 (1 1/8") = 1 d 22.2 (1 1/8") > 1	rmostat fan motor rature protection $(2^n) \times 0.8$ $(2^n) \times 1.0$ or $(1.0 O/U \ \phi 22.22 (7/8"))$ Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature ≤ 43°C) oor air temperature > 43°C) t is lower) Hole size $\phi 20 \times 3$ pcs. — Termainal block (Screw fixing type) IP24 Connecting pipe, Edging T-5BW-E	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1)	n data p, max n data p, max cked rot cked rot cked rot cked rot n data n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical height Drain hose lift height reaker size tor ampere) vires pries ata are measu Item Operation Cooline*1	iping siz nethod piping ne (one tt diff. b	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor ai DB 27°C	Liquid line Gas line d I/U e number e number temperature WB	mm m m m A A A Outdd DB 35°C	I/U φ 9.52 (3/8") O/U φ 1         I/U φ 15.88 (5/8") O/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare j         -	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 ① 2.7 (1/2") \$ 0 15.88 (5/8") × 1.0 (1") × 1.0 or \$ \$ 0 2.58 (5/8") × 1.0 (1") × 1.0 or \$ \$ \$ 0 2.58 (5/8") × 1.0 (1") × 1.0 or \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ection the nostat for letemper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") >	ermostat         fan motor         rature protection         '2") × 0.8         1/2") × 0.8         2(7/8") × 1.0 or         < (1.0 O/U $\phi$ 22.22 (7/8")         Liquid : Flare / Gas : Brazing            & Gas lines)         oor air temperature ≤ 43°C)         oor air temperature > 43°C)         t is lower)         Hole size $\phi$ 20 x 3 pcs.            Termainal block (Screw fixing type)         IP24         Connecting pipe, Edging         T-5BW-E	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option pau Notes (1)	p, max p, max cclassoc trs ) The da	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires reis ata are measu Item Operation Cooling*1 Heatino*2	iping siz	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor air DB 27°C	Liquid line Gas line d I/U e number e number temperature WB 19°C	mm m m M A A A A Outdd DB 35°C	I/U φ 9.52 (3/8")         Pipe ② φ           I/U φ 15.88 (5/8")         Pipe ②           φ 25.4         Flare μ           -         -	Frost prote Internal therr Abnormal discharg \$ 0.52 (3/8") × 0.8 ① 2.7 (1/2") \$ 0 15.88 (5/8") × 1.0 (1") × 1.0 or \$ 0 28.58 0 (1") × 1.0 or \$ 0 28.58 0 (1") × 1.0 or \$ 0 28.58 0 (0utdoor unit is highe 0 (0utdoor unit	ection the nostat for le temper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") >	rmostat fan motor rature protection /2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\overline\$ 2.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires ories ata are measu Item Operation Cooling*1 Heating*2	iping size	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor ai DB 27°C	Liquid line Gas line d I/U e number inditions. r temperature WB 19°C 20°C	mm m m A A A A Outda DB 35°C 7°C	I/U φ 9.52 (3/8") Pipe ② q           I/U φ 15.88 (5/8") Pipe ② q           I/U φ 15.88 (5/8") φ 25.4           Flare q           Max.50           Max.51           Max.52           Max.31           Hose connectable           Built-in drain           Φ 1.6 mm x 3 co           IP           Mounting kit           Cor air temperature           WB           24°C           6°C	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 ①. 2.7 (1/2") \$ 15.88 (5/8") × 1.0 (1") × 1.0 or \$ 28.58 piping - Necessary (bo 0 (Outdoor unit is highe 0 (Outdoor unit is hi	ection the nostat for le temper $\phi$ 12.7 (1) $) \phi$ 22.2 (1 1/8") > (1 1/8") >	rmostat fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1)	n data p, max nded br cked rot cked rot cked rot accesscc rts ) The da	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) <i>i</i> res ories ata are measu Item Operation Cooling*1 Heating*2 air-conditione	iping sizes in the second seco	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Indoor ai DB 27°C inufactured and value in an ane	Liquid line Gas line d I/U e number nditions. temperature WB 19°C 20°C tested in conformit	mm m m A A A A S C Utdd DB 35°C y with the I	I/U φ 9.52 (3/8") Pipe ② q           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") Pipe ③ q           Flare µ           -           Max.50           Max.30           Hose connectable           Built-in drain           φ 1.6 mm x 3 co           IP           Mounting kit           Cor air temperature           WB           24°C           6°C           SO.           on these values are somew	Frost prote Internal therr Abnormal discharg \$ 9.52 (3/8") × 0.8 (), 2.7 (1/2") \$ 15.88 (5/8") × 1.0 (1") × 1.0 or \$ 28.58 opiping Necessary (bo 0 (Outdoor unit is highe 0 (Outdoor unit is higher 0 (Outdoor unit is	ection the nostat for le temper $\phi$ 12.7 (1) $) \phi$ 22.2 (1 1/8") > L th Liquid Max.60 er & Outd Max.60 er & Outd tdoor uni 5/5 able) / - isor : LB- is 7.5m.	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	n data p, max naded bri ked rot ked rot ked rot sciencesso rts ) The da	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires ata are measu Item Operation Cooling*1 Heating*2 air-conditione id level indicat	iping size actions of the second seco	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor ain DB 27°C infactured and value in an ane cording to the	Liquid line Gas line d I/U e number e number inditions. temperature WB 19°C 20°C tested in conformit choic chamber. Du own national stand	mm m m m A A A A A C U U U U U B B 35°C 7°C V with the la S5°C 7°C V with the la S5°C	I/U φ 9.52 (3/8") Pipe ② 0 O/U φ 1           I/U φ 15.88 (5/8") O/U φ 25.4           Flare µ	Frost prote Internal therr Abnormal discharg \$\phi 9.52 (3/8") \times 1.0 (1") \times 1.0 or \$\phi 2.8.8 (1") \times 1.0 or \$\phi 2.8.8 (1") \times 1.0 or \$\phi 2.8.8 0 (0.0000 unit is higher 0	ection the nostat for letemper p 12.7 (1) (1 p 22.2 (1 1/8") > (1 1/8") > (1 1/8") > (1 1/8") > (1 4/8") > (1	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	n data p, max nded br nded br	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires Drei	iping size act	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor he following cc Indoor aii DB 27°C	Liquid line Gas line d I/U e number e number WB 19°C 20°C tested in conformi choic chamber. Du vwn national stand -conditioner is oper	mm m m M A A A A A A A A A C A C Utdd DB B 35°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") Pipe ② φ           Flare μ	Frost prote Internal therr Abnormal discharg \$ 0.52 (3/8") × 0.8 (), 2.7 (1/2") \$ 0.58 (5/8") × 1.0 (1") × 1.0 or \$\$ 0.25 (10') × 1.0 (1") × 1.0 or \$\$ 0.25 (20') × 1.0 (10') × 1.0 or \$\$\$ 0.25 (20') × 1.0 (10') × 1.0 or \$\$\$ 0.25 (20') × 1.0 (1	ection the nostat for letemper $\phi$ 12.7 (1) (1) $\phi$ 22.2 (1 1/8") > th Liquid Max.60 rr & Outd for & Outd for & Outd for & Outd for & Outd for & Outd for r & Outd for & Outd for r & Outd for r & Outd	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	p, max p, max p, max nded br cked roto cked roto cked roto cked solar accessoc ts ) The da 2) This a 3) Soun 4) Selecc 5) The c	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical height Drain hose lift height reaker size tor ampere) vires ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat ct the breaker peration data or unit specific	iping siz	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Indoor air DB 27°C indoor air DB 27°C indoor air DB 27°C indoor air DB 27°C	Liquid line Gas line Gas line d I/U e number nditions. temperature WB 19°C 20°C tested in conformit choic chamber. Du own national stand conditioner is oper apacity and operati	mm m m m A A A A DB 35°C 7°C 7°C 7°C 7°C ty with the 1 irring operati ard. arated at 230 on data is th	I/U φ 9.52 (3/8") <sup>Pipe ②</sup> φ           I/U φ 15.88 (5/8") <sup>Pipe ②</sup> φ           I/U φ 15.88 (5/8") <sup>Pipe ②</sup> φ           Φ 25.4           Flare	Frost prote Internal therr Abnormal discharg \$ 0.52 (3/8") × 0.8 () 2.7 (1/2") \$ 0.588 (5/8") × 1.0 (1") × 1.0 or \$\$ 0.25 (3/8") × 1.0 (1") × 1.0 or \$\$ 0.25 (0.0 - 0.0) 0.20 (0.000 or unit is higher 0.20 (0.000 or unit is	ection the nostat for letemper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 20.2 (1 1/8") >	rmostat fan motor rature protection /2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1	p, max n data p, max nded bi n data nded bi n data nded bi nded bi n	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical height Drain hose lift height reaker size tor ampere) irres Drain hose lift height reaker size tor ampere) irres orries ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat t the breaker or unit specific ching pipe set	iping size nethod gth of p piping ne (one it diff. b red at ti r is mare size acc indications "DIS-V	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Size x Cor Indoor ai DB 27°C infactured and value in a nate cording to the te when the air for one unit. Cr VB1G*x1(Optic	Liquid line Gas line Gas line d I/U e number e number wB 19°C 20°C tested in conformi choic chamber. Du own national stand conditioner is oper apacity and operati n). ① : Pipe of O/I	mm m m m A A A A A DB 35°C 7°C ty with the 1 ring operati ard. zated at 230 on data is th J-Branch, for a larger	I/U φ 9.52 (3/8") Pipe ② q           I/U φ 15.88 (5/8") Pipe ② q           I/U φ 15.88 (5/8") φ 25.4           Flare q	Frost prote Internal therr Abnormal discharg \$\phi 9.52 (3/8") × 0.8 (1), 2.7 (1/2") \$\phi 15.88 (5/8") × 1.0 (1") × 1.0 or \$\phi 28.58 piping - Necessary (bo 0 (0utdoor unit is highe 0 (Outdoor unit is highe 1 (SO5151-T1 ISO5151-T1 ISO5151-H1 what higher due to amit hed and run together.	ection the nostat for le temper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") >	rmostat fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or < (1.0 O/U \$\overline\$ 2.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1)	n data p, max nded bi p, max nded bi cked rold cked rold	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) <i>i</i> res Dries ata are measu Item Operation Cooling*1 Heating*2 air-conditionee d level indicat t the breaker operation data t the breaker operation data t the breaker operation data t the breaker operation data	iping size	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Size x Cor Size x Cor Landor ai DB 27°C inufactured and value in an ane cording to the te when the air for one unit. Cr VB1G"x1(Optic .0mm or thick	Liquid line Gas line Gas line ad I/U e number e number miditions. r temperature WB 19°C 20°C tested in conformit conditioner is oper apacity and operati on). ① : Pipe of O/U er wall for $\phi$ 19.05	mm m m m A A A A A A A C C C C C C C C C	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") φ 25.4           Flare μ           -           Max.50           Max.30           Hose connectable           Built-in drain           Φ 1.6 mm x 3 co           IP           Mounting kit           Or air temperature           WB           24°C           6°C           SO.           on these values are somew           V 50Hz or 220V 60Hz.           © : Pipe of Branch-I/U           ipes.	Frost prote Internal therr Abnormal discharg \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ection the nostat for le temper $\phi$ 12.7 (1) $) \phi$ 22.2 (1 1/8") > th Liquid Max.60 rr & Outd rr & Outd rr & Outd rr & Outd tdoor uni 	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1)	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) <i>i</i> res Dries ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat ct the breaker operation data or unit specific ching pipe set 1/2H pipes ha nel color	iping siz	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Size x Cor Indoor ai DB 27°C Size x Cor Landoor ai DB 27°C Size x Cor Landoor ai DB 27°C Size x Cor Size x Cor Landoor ai DB 27°C Size x Cor Size x	Liquid line Gas line d I/U e number e number inditions. temperature WB 19°C 20°C tested in conformi tested in conformi conditioner is ope apacity and operati apacity and operati apacity and operati pacity and operati apacity and operati	mm m m m A A A A A A A A A A A C C U T C V with the la '''' C V with the la ''''' C V with the la '''''' C V with the la ''''''''''''''''''''''''''''''''''''	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") φ 25.4           Flare μ           -           Max.50           Max.51           Max.52           Max.33           Hose connectable           Built-in drain           Φ           Φ           Φ           Φ           Mounting kit           Or air temperature           WB           24°C           6°C           SO.           on these values are somew           V 50Hz or 220V 60Hz.           wo indoor units are combir           ②         Piench-I/U           ipes.           (Munsell color)	Frost prote Internal therr Abnormal discharg \$\phi 9.52 (3/8") \times 1.0 (1") \times 1.0 or \$\phi 2.8.8 (1") \times 1.0 or \$\phi 2.8.8 (10) \times 1.0 or \$\phi 2.8.8.8 (10) \times 1.0 or \$\phi 2.8.8.8 (10) \times 1.0 or \$\phi 2.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8	ection the nostat for le temper p 12.7 (1, 1) $\oplus$ 22.2 (1 1/8") > 1 th Liquid Max.60 er & Outder er & Outder er & Outder er & Outder er & Outder fr &	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	ipment n data p, max n data n data p, max n data n data p, max n data n data n data n data p, max n data n	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical height Drain hose lift height reaker size tor ampere) vires ories ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat or unit specific ching pipe set 1/2H pipes ha nel color	iping siz nethod gth of p piping ine (one t diff. b red at tt r is mar r is mar r is mar size ac ci indicat cations "DS-V ving a 1	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Indoor air DB 27°C Size x Cor Indoor air DB 27°C Size x Cor Nufactured and Cording to the te when the air for one unit. C, VB1G*x1(Optic I.Omm or thick nel model SA-5RW-F	Liquid line Gas line Gas line d I/U e number e number wB 19°C 20°C tested in conformi choic chamber. Du vown national stand conditioner is oper apacity and operati remul for $\phi$ 19.05 Panel type Standard	mm m m m A A A A A A A A A A A A A A A	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") φ 25.4           Flare μ	Frost prote Internal therr Abnormal discharg \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ection the nostat for letemper b 12.7 (1) (1 \$\overline\$ 22.2 (1 1/8") > th Liquid Max.60 mr & Outdor mr & Outdor mr & Outdor mr & Outdor for & Outd	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U & 22.22 (7/8") Liquid : Flare / Gas : Brazing — & Gas lines) oor air temperature ≤ 43°C) oor air temperature ≤ 43°C) oor air temperature > 43°C) t is lower) Hole size & 20 × 3 pcs. — Termainal block (Screw fixing type) IP24 Connecting pipe, Edging T-5BW-E ditions.	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	n data p, max nded bi nded bi ccting w accesso ts The da 2) This a 3) Soun 2) This a 4) Selec 5) The da 3) Soun 7) Branda 8) Use 1 Par Fir	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical height Drain hose lift height reaker size tor ampere) vires ories ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat or the breaker peration data or unit specific ching pipe set 1/2H pipes ha nel color ne snow	iping siz nethod gth of p iping ne (one t diff. b red at tt r is mar res the size acc indicat ations "DIS-V "DIS-V "DIS-V	ze (O.D) iping iway) length etween O/U ar Size x Cor Size x Cor Indoor ai DB 27°C 27°C 27°C 27°C 27°C 27°C 27°C 28°C	Liquid line Gas line Gas line d I/U e number e number wB 19°C 20°C tested in conformit choic chamber. Du von national stand cconditioner is oper apacity and operati ny). ① : Pipe of O/A er wall for $\phi$ 19.05 Panel type Standard Draft newention	mm m m m A A A A A A A A A A A A A A A	I/U φ 9.52 (3/8") Pipe ② φ           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") Q 25.4           Flare μ	Frost prote Internal therr Abnormal discharg \$ 0.52 (3/8") × 0.8 () 2.7 (1/2") \$ 0.58 (5/8") × 1.0 (1") × 1.0 or \$\$ 0.25 (2/8") × 1.0 (0.000 unit is higher 0.0 (Outdoor unit is higher	ection the nostat for letemper $\phi$ 12.7 (1) (1) $\phi$ 22.2 (1 1/8") > th Liquid Max.60 rr & Outd for & Outd for & Outd for & Outd for a could for a coul	rmostat fan motor rature protection /2") × 0.8 /2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loo Interconne IP number Standard a Option par Notes (1)	a) data p, max nded bi cked rot cking w accessed ts The da accessed ts The da accessed ta	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) vires ata are measu Item Operation Cooling*1 Heating*2 air-conditione d level indicat ct the breaker paraton data or unit specific ching pipe set nel color nel color ne snow	iping siz nethod gth of p piping ne (one at diff. b red at tl r is mar tes the size acc i indicat size acc i indicat size acc viving a 1 Par T-PS	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Indoor air DB 27°C Size x Cor Indoor air DB 27°C Size x Cor Nufactured and value in an ane cording to the e when the air for one unit. Cr VB1G*x1(Optic .0mm or thick nel model SA-5BW-E SA-5BW-E	Liquid line Gas line Gas line di //U e number e number unditions. temperature WB 19°C 20°C tested in conformit choic chamber, Du own national stand conditioner is oper apacity and operati n). ``Pipe of O/U er wall for $\phi$ 19.05 Panel type Standard Draft prevention Standard	mm m m m A A A A A A A A A C T T C T C T C T C T	I/U φ 9.52 (3/8") O/U φ 1         I/U φ 15.88 (5/8") O/U φ 1         I/U φ 15.88 (5/8") Pipe (2) φ 25.4         Flare	Frost prote Internal therr Abnormal discharg \$ 0.52 (3/8") × 0.8 (). 2.7 (1/2") \$ 0.588 (5/8") × 1.0 (1") × 1.0 or \$\$ 0.2.7 (1/2") \$ 0.10 (ot door unit is highe 0.10 (ot door unit is higher 0.10 (ot door unit is higher 1.10 (ot door unit is higher 1.1	ection the nostat for letemper $\phi$ 12.7 (1) 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 22.2 (1 1/8") > 1 $\phi$ 2010 th Liquid Max.60 r & Outd door unit door unit stoor : LB- is 7.5m.	rmostat fan motor rature protection (2") × 0.8 (2 (7/8") × 1.0 or < (1.0 O/U \$\u03c6 22.22 (7/8") Liquid : Flare / Gas : Brazing 	
Safety equ Installation Drain pum Recomme L.R.A. (Loc Interconne IP number Standard a Option par Notes (1	n data	Refrigerant pi Connecting n Attached leng Insulation for Refrigerant li Vertical heigh Drain hose lift height reaker size tor ampere) irres Dries atta are measu Item Operation Cooling*1 Heating*2 air-conditioner d level indicat t the breaker or unit specific ching pipe set 1/2H pipes ha nel color ne snow dow black	iping size nethod gth of p piping ine (one it diff. b red at ti r is mara tes the size ac indicat indicat indicat indicat r Par T-PS T-PS	ze (O.D) iping way) length etween O/U ar Size x Cor Size x Cor Size x Cor Size x Cor Indoor ai DB 27°C Indoor ai DB 27°C Indoor ai Cor Indoor ai Sar-SB-E SA-SBB-E SA-SBB-E Cor Indoor ai Cor Indoor ai Cor Indoor ai Indoor ai Indoor ai Indoor ai Sar-SB-E Cor Indoor ai Indoor A	Liquid line Gas line Gas line d I/U e number e number mditions. r temperature WB 19°C 20°C tested in conformi choic chamber. Du own national stand conditioner is oper apacity and operati ny). (1) : Pipe of O/I er wall for $\phi$ 19.05 Panel type Standard Draft prevention Standard	mm m m m A A A A A A A A DB 35°C TC ty with the la r7C ty with the la 35°C TC ty with the la r7C ty with the la r7C ty with the la r7C ty with the la r7C ty attended the la strong operation the la s	I/U φ 9.52 (3/8") Pipe ② q           I/U φ 15.88 (5/8") O/U φ 1           I/U φ 15.88 (5/8") Q 25.4           Flare µ           -           Max.50           Max.31           Hose connectable           Built-in drain           -           Mounting kit           -           Mounting kit           -           WB           24°C           6°C           SO.           on these values are somew           V 50Hz or 220V 60Hz.           wo indoor units are combir           2) Pipe of Branch-I/U           ipes.           (Munsell color)           .3 / 0.1) near equivalent           2.9 / 0.6) near equivalent	Frost prote Internal therr Abnormal discharg § 9.52 (3/8") × 0.8 ① 2.7 (1/2") § 15.88 (5/8") × 1.0 (1") × 1.0 or $\phi$ 28.58 joiping Necessary (bo O (Outdoor unit is higher 0 (O	ection the nostat for le temper $\phi$ 12.7 (1) $) \phi$ 22.2 (1 1/8") > th Liquid Max.60 rr & Outd drax.60 rr & Outd drax.60 rr & Outd drax.60 rr & Outd door unit sor : LB- is 7.5m.	rmostat fan motor rature protection /2") × 0.8 12 (7/8") × 1.0 or < (1.0 O/U \$\overline\$ 2.22 (7/8") Liquid : Flare / Gas : Brazing 	

#### (b) Triple type

						Model				FDT200VSAV	ЛТҮН	
Item								ndoor unit FDT7	1VH (3 units	000 4451/501	Outdoor unit FDC200VSA-W	
Power so	ource	Naminal analia				1-10/			3 Phase	380-415V 50F	z / 380V 60Hz	
	ŀ	Nominal cooling	g capacity (range)			KVV kW			20.0	$\frac{1}{6} \frac{6}{6} \frac{6}{10} \frac{1}{10} 1$	22.4(Max.)]	
	ŀ	Nominal neatin	y capacity (range)	Cooling		KVV			22.4	<u>5 56</u>	:5.0(Wax.)]	
		Power consum	ption	Heating		kW				5.27		
	ŀ	Max power cor	sumption			1				12.00		
		Bunning ourron	+	Cooling						8.8 / 9.3		
		Running curren	1	Heating		A				8.3 / 8.7		
	[	Inrush current,	max current							5,19		
Operation	n data	Power factor		Cooling		%				91		
operation	ii dulu			Heating		70				92		
		EER		Cooling		-				3.60		
		COP		Heating						4.25		
		Sound power le	evel	Cooling		-		59			72	
	-			Heating		-		60	1		74	
		Sound pressure	e level	Cooling		dB(A)		2-HI: 46 HI: 34 N	/ie: 31 Lo: 20		58	
	-	Cilent mede		Cooling		-		-HI: 40 HI: 34 N	/le: 31 L0: 20	>	55 /52/Normal/Silont)	
		sound pressure	level	Heating		-		55 /53(Normal/Silen				
-				Theating				Unit 236 × 84	40 × 840			
Exterior d	dimensio	ns (Height x Wic	Ith x Depth)			mm		Panel 35 x 9	50 x 950		1505×970×370	
Exterior a	appearan	се						Fine sno	ow		Stucco white	
(Munsell	color)							(8.0Y9.3/0.1) nea	r equivalent		(4.2Y7.5/1.1) near equivalent	
(KAL cold	olor)					1		(RAL 9003) near	equivalent			
Net weigh	11[	° O'tu				кд		Unit 21 Pa	dilei 5			
Compres	sor type	a U ly r (Starting meth	od)			L/\//	-				Direct line start	
Refrigere		nount type)	ouj			1					1 55/M_MR75R\	
Refrigera	int OII (AII	amount pre-cl	arge length)			L ka			in outdoor u	nit (Incl. the arr	iount for the piping of 30m)	
Heat excl	rant (Type, amount, pre-charge length)					Ng	1	R32 4.3 in outdoor unit (Incl. the amount for the piping of 30m)				
Refrigera	erant control							ouver nir a niner g	Ele	ectronic expans	ion valve	
Fan type	& Q'tv							Turbo far	1 x1		Propeller fan x2	
Fan moto	or (Startin	ng method)				W		50 < Direct lir	ne start >		86x2 < Direct line start >	
		<u> </u>		Cooling		37.	_				148	
Air flow				Heating		m <sup>-</sup> /min	F	-Hi: 28 Hi: 18 N	/le: 15 Lo: 12	2	134	
Available	external	static pressure				Pa		0			0	
Outside a	air intake							Possib	le		-	
Air filter, 0	Quality /	Quantity					F	Pocket plastic net	x1(Washable		_	
Shock &	vibration	absorber						Rubber sleeve(fo	r fan motor)		Rubber sleeve (for fan motor & compressor)	
Electric h	neater					W		-			20(Crank case heater)	
Operation	n	Remote contro						(Option) Wire	ed: RC-EX3/	A, RC-E5, RCI	I-E3 Wireless : RCN-T-5BW-E2	
control	"	Room tempera	ture control			ļ			Th	ermostat by el	ectronics	
		Operation displ	ay									
Safety eq	quipment	s						Overload protection for fan motor. Frost protection thermostat				
	1							Pipe 2 & 9	52(3/8")x0.8	10101. ADHOITHA	$^{1}$ x0.8 or $\neq$ 12.7(1/2") x0.8	
		Refrigerant pipi	na size	Liquid lin	e		I/U φ 9.52	<sup>2 (3/8")</sup> O/U φ 9.52	2(3/8")	φ 0.02(0/0	γκοιο οι φ τ2.1 (π2 γκοιο	
		(O.D)	5	Casilina		mm	1/11 + 15 9	Pipe ② φ	15.88(5/8")x1	.0 ①φ 22.22	7/8")x1.0 or	
				Gas line			νο φ 13.6	φ 25.4(1"	)x1.0 or φ 28	.58(1 1/8")x1.0	O/U φ 22.22 (7/8")	
		Connecting me	thod					Flare pip	ping		Liquid : Flare piping / Gas : Brazing	
Installatio	on data	Attached length	n of piping			m		_			-	
Installatio	Jii uala	Insulation for p	ping						Necess	ary (both Liqui	d & Gas lines)	
	-	Retrigerant line	(one way) length			m			Necessary (both Liquid & Gas lines) Max 70			
		Vortical balant				1	Max.70 Max.50 (Outdoor unit is higher & Outdoor air temperature ≤ 43°C)					
		vertical height		a a a 1 / 1			Max.50 (Outdoor unit is higher & Outdoor air temperature $\leq 43$ C) Max.30 (Outdoor unit is higher & Outdoor air temperature $> 43$ °C)				door air temperature $\leq 43^{\circ}$ C)	
			diπ. between 0/0	and I/U		m		Max.50 (0 Max.30 (0	Outdoor unit i Outdoor unit i	s higher & Outo	door air temperature $\leq 43^{\circ}$ C) door air temperature > 43^{\circ}C)	
Drain pur	ŀ	Drain boso	dim. between 0/0	and I/U		m		Max.50 (0 Max.30 (0	Outdoor unit i Outdoor unit i Max th VP25/O D	s higher & Outo s higher & Outo 15 (Outdoor un 32)	door air temperature $\leq 43^{\circ}$ C) door air temperature > 43^{\circ}C) hit is lower) Hole size $\neq 20 \times 3$ pcc	
Dee	mn mav	Drain hose	diff. between 0/0	and I/U		m	Ho	Max.50 (( Max.30 (( se connectable wi	Outdoor unit i Outdoor unit i Max th VP25(O.D.	s higher & Outo s higher & Outo 15 (Outdoor un 32)	door air temperature $\leq 43^{\circ}$ C) door air temperature > 43^{\circ}C) hit is lower) Hole size $\phi$ 20 x 3 pcs.	
I Recomm	mp, max	Drain hose lift height	diff. between 0/0	and I/U		m mm A	Hos	Max.50 ( Max.30 ( se connectable wi Built-in drain p	Outdoor unit i Outdoor unit i Max th VP25(O.D. ump , 850	s higher & Outo s higher & Outo 15 (Outdoor un 32)	door air temperature ≤ 43°C) door air temperature > 43°C) nit is lower) Hole size $φ$ 20 x 3 pcs. −	
L.R.A. (Lo	mp, max lended br	Drain hose lift height reaker size tor ampere)	am. between 0/0	and I/U		m mm A A	Ho	Max.50 ( Max.30 ( se connectable wi Built-in drain p	Outdoor unit Outdoor unit i Max th VP25(O.D. ump , 850	s higher & Out s higher & Out s higher & Out (15 (Outdoor un 32) 	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. —	
L.R.A. (Lo	mp, max lended br ocked rot	Drain hose lift height reaker size tor ampere) rires	Size x C	and I/U		m mm A A	Ho	Max.50 ( Max.30 ( se connectable wi Built-in drain p ¢ 1.6mm	Outdoor unit i Outdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e	s higher & Out s higher & Out s higher & Out (15 (Outdoor un 32) - 5.0 arth cable / Ter	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type)	
L.R.A. (Lo Interconn	mp, max lended br ocked rot necting w er	Drain hose lift height reaker size tor ampere) rires	Size x C	ore number		m mm A A	Ho	Max.50 ( Max.30 ( se connectable wi Built-in drain p \$	Outdoor unit i Outdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e	s higher & Out s higher & Out 15 (Outdoor un 32) 5.0 arth cable / Ter	door air temperature ≤ 43°C) door air temperature > 43°C) nit is lower) Hole size $\phi$ 20 x 3 pcs. — minal block (Screw fixing type) IP24	
L.R.A. (Lo Interconn IP numbe Standard	mp, max lended br locked rot necting w er I accesso	Drain hose lift height reaker size tor ampere) rires	Size x C	ore number		m mm A A	Ho	Max.50 ( Max.30 ( se connectable wi Built-in drain p \$	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e	Milk / 0 s higher & Out s higher & Out .15 (Outdoor un 32) 	door air temperature ≤ 43°C) door air temperature > 43°C) nit is lower) Hole size $\phi$ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging	
L.R.A. (Lo Interconn IP numbe Standard Option pa	mp, max lended bi locked rot necting w er I accesso arts	Drain hose lift height reaker size tor ampere) rires	Size x C	ore number		m mm A A	Ho	Max.50 ( Max.30 ( se connectable wi Built-in drain p φ 1.6mm IPX0 Mounting kit, [	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo	Miax / 0 s higher & Out s higher & Outu 15 (Outdoor uu 32) 	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging β-T-5BW-E	
L.R.A. (Lo Interconn IP numbe Standard Option pa Notes (1	mp, max lended br locked rot necting w er I accesso arts 1) The da	Drain hose lift height reaker size tor ampere) rires pries ata are measur	Size x C	ore number		m mm A A	Ho	Max.50 (( Max.30 (( se connectable wi Built-in drain p ¢ 1.6mm IPX0 Mounting kit, [ The pipe ler	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + ei Drain hose Mor ngth is 7.5m.	Max / 0 s higher & Out s higher & Outa 15 (Outdoor un 32) 	door air temperature ≤ 43°C) door air temperature > 43°C) hit is lower) Hole size $\phi$ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E	
Intercomme I.R.A. (Loc Interconn IP numbe Standard Option pa Notes (	mp, max lended bi locked rot hecting w er I accesso arts 1) The di	Drain hose lift height reaker size tor ampere) irres pries ata are measur Item	Size x C	ore number g conditions.	Outc	m mm A A boor air tem	Ho	Max.50 (( Max.30 (( se connectable wi Built-in drain p φ 1.6mm IPX0 Mounting kit, [ The pipe let	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mor ngth is 7.5m.	s higher & Out s higher & Out s higher & Out (15 (Outdoor un 32) 	loor air temperature ≦ 43°C) door air temperature > 43°C) it is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E	
L.R.A. (Lo Interconn IP numbe Standard Option pa Notes (	mp, max lended bi locked rot necting w er acts 1) The da Operatio	Drain hose lift height reaker size tor ampere) rires orries ata are measur Item on	Size x C	ore number g conditions. perature WB	Outc	m A A A door air tem B	Ho: Ho: perature WB	Max.50 (( Max.30 (( Built-in drain p 0 1.6mm IPX0 Mounting kit, [ The pipe lef	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + ei Drain hose Mor ngth is 7.5m. ds	s higher & Out s higher & Out s higher & Out (15 (Outdoor un 32) 	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E	
IL.R.A. (Lo Interconn IP numbe Standard Option pa Notes (	mp, max lended biocked rot necting w er arts 1) The da Operatic Cc	Drain hose lift height reaker size tor ampere) rires ata are measur litem on boling	Size x C Size x C ed at the followin Indoor air ten DB 27°C	ore number g conditions. perature WB 19°C	Outc D 35	m mm A A door air tem B °C	Perature WB 24°C	Max.50 (( Max.30 (( se connectable wi Built-in drain p \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo' ngth is 7.5m. ds 	s higher & Out s higher & Out 15 (Outdoor ui 32) 5.0 arth cable / Ter ion sensor : LE	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E	
Recommine L.R.A. (Loc Interconn IP numbe Standard Option pa Notes (	mp, max lended brocked rot necting w ar arts 1) The dr Operatio	Drain hose lift height reaker size tor ampere) rires ata are measur litem n boling eating	ed at the followin Indoor air ten DB 27°C 20°C	g conditions. perature 19°C –	Outc D 35 7°	m mm A A boor air tem B °C C	Hot perature WB 24°C 6°C	Max.50 (( Max.30 () se connectable wi Built-in drain p Φ 1.6mm IPX0 Mounting kit, [ The pipe lef Standard ISO5151- ISO5151-	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mor ngth is 7.5m. ds 	s higher & Out s higher & Out 15 (Outdoor u 32) 5.0 arth cable / Ter ion sensor : LE	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E	
Recommine L.R.A. (Lo Interconn IP numbe Standard Option pa Notes (	mp, max lended bio ocked rot accesso arts 1) The di Operatic Cc He 2) This a	Drain hose lift height reaker size tor ampere) rires ata are measur litem n poling eating ir-conditioner is	ed at the followin Indoor air ten DB 27°C 20°C s manufactured a	ore number g conditions. perature WB 19°C – nd tested in o	Outc D 35 7°	m mm A A door air tem B C C	Ho: Ho: Perature WB 24°C 6°C 9 ISO.	Max.50 (( Max.30 (/ Be connectable wi Built-in drain p \$\$\$ 1.6mm IPX0 Mounting kit, [ The pipe lea Standard ISO5151- ISO5151-	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mor ngth is 7.5m. ds T1 H1	s higher & Out s higher & Out 15 (Outdoor ui 32) 5.0 arth cable / Ter ion sensor : LE	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E	
I Recommi L.R.A. (Lc Interconn IP numbe Standard Option pa Notes ()	mp, max lended bio ocked rot hecting w ar accesso arts 1) The di Operatic Cc He 2) This a 3) Sound	Drain hose lift height reaker size tor ampere) rires ata are measur n n boling ating ir-conditioner is d level indicates	Size x C Size x C ed at the followin Indoor air ten DB 20°C s manufactured a s the value in an a	g conditions. pperature WB 19°C – nd tested in d unechoic chai	Outc D 35 7° conform mber. D	m mm A A door air tem B C C C	Perature WB 24°C 6°C ISO. ation these	Max.50 (( Max.30 () se connectable wi Built-in drain p φ 1.6mm IPX0 Mounting kit, [ The pipe lef Standard ISO5151- ISO5151- values are some	Dutdoor unit i           Dutdoor unit i           Max           th VP25(O.D.           ump , 850           x 3 cores + e           Drain hose           Mor           ngth is 7.5m.           ds	Max/r0 s higher & Out s higher & Out .15 (Outdoor ui 32) 5.0 arth cable / Ter  ition sensor : LE	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E a conditions.	
L.R.A. (Lc Interconn IP numbe Standard Option pa Notes ()	mp, max eended br ocked rot necting w er 1 accesso arts 1) The d Operation He 2) This a 3) Sound 4) Select	Drain hose lift height reaker size tor ampere) iries ata are measur boling ating iri-conditioner is d level indicates t the breaker size	ed at the followin Indoor air ten DB 20°C s manufactured a the value in an a ze according to t	g conditions. perature WB 19°C 	Outco D 35 7° conform nber. D nal stan	m mm A A door air tem B °C C C bity with the uring opera dard.	Perature WB 24°C 6°C 9 ISO.	Max.50 (( Max.30 (/ Built-in drain p # 1.6mm IPX0 Mounting kit, [ The pipe ler Standard ISO5151- ISO5151-	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Drain hose Mor ingth is 7.5m. ds T1 H1 what higher of	Max/0 s higher & Out s higher & Out .15 (Outdoor ui 32) 5.0 arth cable / Ter  ion sensor : LE	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E t conditions.	
L.R.A. (Lc Interconn Interconn IP number Standard Option pa Notes ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	mp, max eended br ocked rot necting w er 1 accesso arts 1) The d. Operation (1) The d. Operation (2) This a (3) Sound (4) Select (5) The operation (5) The o	Drain hose lift height reaker size tor ampere) irres ata are measur ltem on soling eating l level indicates t the breaker si peration data ir peration data ir unit societion	Size x C Size x C ed at the followin Indoor air ten DB 27°C 20°C s manufactured a s the value in an ze according to t dicate when the	g conditions. perature WB 19°C 	Outco D 355 7° conform mber. D nal stan er is opp	m mm A A door air tem B C C C C C C C C C C C C C	Perature WB 24°C 6°C 24SO. ation these 20V 50Hz c	Max.50 (( Max.30 (/ Built-in drain p 0 1.6mm IPX0 Mounting kit, [ The pipe ler Standard ISO5151- ISO5151- Values are somer values are somer	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + ei Drain hose Mor ngth is 7.5m. ds T1 H1 what higher o	s higher & Out s higher & Out s higher & Out (15 (Outdoor un 32) 	toor air temperature ≦ 43°C) door air temperature > 43°C) it is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E t conditions.	
L.R.A. (Lc Interconn IP number Standard Option pa Notes ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	mp, max rended bio ocked rot recting w arts 1) The di- Operatic Cc 2) This a 3) Sounc 5) The op 6) Indoo 7) Branc	Drain hose lift height reaker size tor ampere) irres ata are measur poling atting ir-conditioner ir d level indicates t the breaker si peration data ir r unit specificat	ed at the followin Indoor air ten DB 27°C 20°C s manufactured a s the value in an a se according to t idicate when the ions for one units 05-TB1/C='10°C	g conditions. perature WB 19°C – nd tested in d nechoic chai nechoic chai necondition Capacity am	Outc D 35 7° conform nber. D val stan er is oppra d oppra	m mm A A A A C Goor air tem B C C C C C C C C C C C C C C C C C C	Ho: Ho: perature WB 24°C 6°C 9 ISO. ation these DOV 50Hz c three indo	Max.50 (( Max.30 (( se connectable wi Built-in drain p	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + ei Drain hose Mor ngth is 7.5m. ds 	due to ambien	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E t conditions.	
L.R.A. (Lc) Interconn IP numbe Standard Option pp Notes ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	mp, max rended bio ocked rot recting w ar accesso arts 1) The d Operatio Cc He 2) This a 3) Sounce 4) Select 5) The op 6) Indoo 7) Branc 8) Use 1	Drain hose lift height reaker size tor ampere) rires ata are measuru poling ating d level indicates peration data ir r unit specificat hing pipe set "I	Size x C Size x C Size x C Size x C Size x C Size x C DB 27°C 20°C S manufactured a s the value in an s ze according to t indicate when the ions for one unit DIS-TB1G"x1(Op g a 1.0mm or th	and I/U ore number g conditions. perature WB 19°C	Outc D 355 7" conform hber. D al stan r is op- d opera e of O/l $\phi$ 19.0!	m m A A A A door air tem B C C iv with the buring oper dard. erated at 4( tion data is U - Branch S o ranch	Hore Hore WB 24°C 6°C 1SO. ation these DOV 50Hz c three indo n, @ : Pipe pipes.	Max.50 (( Max.30 (( Built-in drain p 0 1.6mm IPX0 Mounting kit, [ The pipe ler Standard ISO5151- ISO5151- Values are somew or 380V 60Hz. or units are comb of Branch − I/U	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mor ngth is 7.5m. ds 	s higher & Out s higher & Out s higher & Out (15 (Outdoor ui 32) 	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E t conditions.	
Intercomm Intercomm IP numbe Standard Option pp Notes ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	mp, max rended biocked rot bocked rot recting wer accessor arts 1) The d Operation Ccc He 2) This a 3) Sounce 4) Select 5) The op 6) Indoo 7) Branc 8) Use 1.	Drain hose lift height reaker size tor ampere) rires ata are measure boling boling ating ir-conditioner is d level indicates t the breaker siz peration data ir r unit specificat hing pipe set "it /2H pipes havit	ed at the followin Indoor air ten DB 27°C 20°C s manufactured a s the value in an ze according to t dicate when the ions for one unit DIS-TB1G"×1(0) ng a 1.0mm or the	and I/U ore number g conditions. perature WB 19°C nd tested in c anechoic char air-condition Capacity any Capacity any Capacity any Ceker wall for	Outo D 355 7' conform ber. D lal stan er is opp d opera e of O// $\phi$ 19.05	m A A A A A C C C C C C C C C C C C C C	Hore Hore WB 24°C 6°C B ISO. ation these DOV 50Hz of three indo n, @ : Pipe pipes.	Max.50 (( Max.30 () Built-in drain p built-in drain p d 1.6mm IPX0 Mounting kit, [ Standard ISO5151- ISO5151- Values are some or 380V 60Hz. or units are comb of Branch — I/U	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo' ngth is 7.5m. ds 	s higher & Out s higher & Out 15 (Outdoor ui 32) 5.0 arth cable / Ter ion sensor : LE due to ambien n together.	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E t conditions.	
Intercommu	mp, max lended biocked rot bocked rot laccesso arts 1) The d Operatic Coc He 2) This a 3) Sound 4) Select 5) The o 6) Indoo 7) Branc 8) Use 1.	Drain hose lift height reaker size tor ampere) rires ata are measur boling ating ir-conditioner is d level indicates t the breaker sii d level indicates t the breaker sii d level indicates t the breaker sii must specifical hing pipe set " /2H pipes havii unel color	ed at the followir Indoor air ten DB 27°C 20°C s manufactured a s the value in an a ze according to t dicate when the ions for one unit DIS-TB1G"×1(Op ng a 1.0mm or th Panel model	ore number g conditions. perature WB 19°C – nd tested in o unechoic chai te own natior com nation Capacity and tion). ① : Pip cker wall for Panel ty	Outc D 355 7' conform Ther. D al stan r is op d operate e of O/l/ $\phi$ 19.05	m A A A Coor air tem B C C C C C C C C C C C C C C C C C C	Perature WB 24°C 6°C 24 SO. ation these 20V 50Hz c three indo 1, ② : Pipe pipes. (Munsell c	Max.50 (( Max.30 () se connectable wi Built-in drain p \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo' ngth is 7.5m. ds  H1 what higher of Dined and rur Remot wir	witk // 0 s higher & Out s Outdoor u s Out s Outdoor u	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E t conditions.	
Intercommu	mp, max rended br ocked rot recting wer a accesso arts 1) The dr Operation Operation (Co Het 2) This a 3) Sound 4) Select 5) The ol 6) Indoo 7) Branc 8) Use 1. Pa	Drain hose lift height reaker size tor ampere) irres ata are measur ata are measur litem on boling boling ating ir-conditioner is d level indicates t the breaker sis d level indicates t the breaker sis multiples havir runit specifical hing pipe set " /2H pipes havir unel color page page:	Size x C Size x C ed at the followir Indoor air ten DB 27°C 20°C s manufactured a s the value in an a ze according to t dicate when the ions for one unit DIS-TB1G"×1(Op g a 1.0mm or th Panel model T-PSA-5BW-E	and I/U ore number g conditions. perature WB 19°C nd tested in o unechoic chai te own natior capacity an tion). ① : Pip cker wall for Panel ty Standa	Outc D 35 $7^{\prime}$ conform mber. D ala stan r is opp d opera e of O// $\phi$ 19.00 $\phi$ 19.00 $\gamma$ pe rd_	m mm A A A A C C C C C C C C C C C C C	Hot Hot WB 24°C 6°C BISO. ation these 00V 50Hz c three indo , (2) : Pipe pipes. (Munsell c	Max.50 (( Max.30 (/ Built-in drain p # 1.6mm IPX0 Mounting kit, [ The pipe ler Standard ISO5151- ISO5151- ISO5151- values are somew or 380V 60Hz. or units are comt of Branch — I/U	Dutdoor unit i Dutdoor unit i Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo' ngth is 7.5m. ds T1 H1 what higher of bined and rur Remot wir	Milk // 0 s higher & Out s higher & Out s higher & Out 15 (Outdoor u 32) 5.0 arth cable / Ter ion sensor : LE due to ambien n together. e control eless ERW E2	loor air temperature ≦ 43°C) loor air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging B-T-5BW-E t conditions.	
Intercommu	mp, max ended br ocked rot ecting wer a accesso arts 1) The dr Operatic Co He 2) This a 3) Sound 4) Select 5) The oj 6) Indoo 7) Branc 8) Use 1. Fi	Drain hose lift height reaker size tor ampere) irres ata are measur litem n boling eating ir-conditioner is d level indicates t the breaker sis d level indicates t the breaker sis multipies havin r unit specificat hing pipe set " //2H pipes havin unel color ne snow	Size x C Size x C ad at the followin Indoor air ten DB 27°C 20°C s manufactured a the value in an a ze according to t indicate when the ions for one unit DIS-TB1G"×1(Op ng a 1.0mm or th Panel model T-PSA-5BW-E T-PSAE-5BW-E	g conditions. perature WB 19°C – nd tested in d nnechoic chan te own nation air-conditione Capacity and tion). ① : Pip cker wall for Panel ty Standa Draft prev	Outco D 355 7" conform mber. D nal stan er is opp al opera e of O// $\phi$ 19.00 rpp rd antion	m m A A A Output door air tem B C C C C C C C C C C C C C C C C C C	Ho: Ho: WB 24°C 6°C BISO. ation these 00V 50Hz c three indo n, ② : Pipe pipes. (Munsell c	Max.50 (( Max.30 (/ Built-in drain p	Dutdoor unit i Dutdoor unit i Max Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo ngth is 7.5m. ds T1 H1 what higher of pined and rur Remot wir RCN-T	s higher & Out s higher & Out 15 (Outdoor ui 32) 5.0 arth cable / Ter ion sensor : LE due to ambien n together. e control eless	door air temperature ≦ 43°C) door air temperature > 43°C) nit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E t conditions.	
Intercommunication intercommunic	mp, max ended brocked rot becting w arts 1) The dr Operatic Cc He 2) This a 3) Sounc 4) Select 5) The op 6) Indoor 7) Branc 8) Use 1. Pa Fi	Drain hose lift height reaker size tor ampere) irres ata are measure volies ata are measure tem on oling beating level indicates t the breaker sis peration data ir runit specificat hing pipe set " /2H pipes havir unel color ne snow any hlack	Size x C Size x C ad at the followin Indoor air ten DB 27°C 20°C a manufactured a the value in an i ze according to t dicate when the cons for one unit DIS-TB1G"×1(Op ng a 1.0mm or th Panel model T-PSA-5BW-E T-PSA-5BW-E T-PSA-5BB-E	g conditions. perature WB 19°C 	Outco D 335 $7^{\circ}$ conform ther. D al stan e of O/l $\phi$ 19.05 rd operate e of O/l $\phi$ 19.05 rd rd rd rd rd rd rd	m m A A A A door air tem B C C C C C C C C C C C C C C C C C C	Perature WB 24°C 6°C ISO. ation these OUV 50Hz c three indo n, ② : Pipe pipes. (Munsell c 3.3 / 0.1) nea	Max.50 (( Max.30 () Built-in drain p	Dutdoor unit i Dutdoor unit i Max Max th VP25(O.D. ump , 850 x 3 cores + e Drain hose Mo rgth is 7.5m. ds T1 H1 what higher o Dined and rur Remot wir RCN-T BCN-T	due to ambien  to together.  e control eless -5BR-F2 -	loor air temperature ≦ 43°C) loor air temperature > 43°C) iit is lower) Hole size φ 20 x 3 pcs. — minal block (Screw fixing type) IP24 Connecting pipe, Edging 3-T-5BW-E t conditions.	

#### (c) Double twin type

					Model				FDT200VSA	WDVH	
Item	m wer source Nominal cooling capacity (range)					l I	ndoor unit FDTS	50VH (4 unit	s)	Outdoor unit FDC200VSA-W	
Power source								3 Phas	e 380-415V 50	Hz / 380V 60Hz	
	Nominal coolir	g capacity (range)			kW			20	0 [ 6.8(Min.) —	22.4(Max.)]	
	Nominal heatir	g capacity (range)			kW			22	4 [ 6.6(Min.) —	25.0(Max.)]	
	<b>D</b>		Cooling						5.78		
	Power consum	iption	Heating		kW				5.80		
	Max power co	nsumption							12.00		
			Cooling						92/9	7	
	Running currer	nt	Heating		٨				0.2 / 0.		
	Inruch ourrent	may aurrant	Tleating		~				5.17.5.		
	inrush current,	max current							5,18		
Operation dat	a Power factor		Cooling		%				91		
			Heating						92		
	EER		Cooling						3.46		
	COP		Heating						3.86		
	Cound nouser I	eel	Cooling				55			72	
	Sound power i	evei	Heating				56			74	
			Cooling			F	P-Hi: 41 Hi: 33 N	/le: 30 Lo: 2	26	58	
	Sound pressur	e level	Heating		dB(A)	F	P-Hi: 42 Hi: 33 M	/e: 28 Lo:	20	59	
	Cilont mode		Cooling			· · ·		10.20 20.1		55 /53(Normal/Silent)	
	sound pressure		Heating								
	Sound pressure		Heating				11-11-000 0	40 040		56/54(Normal/Silent)	
Exterior dimer	nsions (Height x Wi	dth x Depth)			mm		Unit 236 × 8 Donal 25 × 0	40 × 840		1505×970×370	
Eutories enner							Fallel 33 X 9	30 X 930		0	
(Munacil	ardrice							ow or ogginglast		Stucco white	
	)						(0.019.3/0.1) Nea (RAL 0002) peop	a equivalent		(H.2 T / .5/ I. I) near equivalent	
					k=			and E		144	
iver weight					ку		Unit 19 Pa	ailei J		144	
Compressor ty	ype & Q'ty	0					-			GIC5150SC40MF x 1	
Compressor n	notor (Starting met	nod)			kW		_			Direct line start	
Refrigerant oil	(Amount, type)				L					1.55(M-MB75R)	
Refrigerant (T	ype, amount, pre-c	harge length)			kg		R32 4.3	3 in outdoor	unit (Incl. the ar	nount for the piping of 30m)	
Heat exchang	hanger					L	ouver fin & inner o	rooved tubi	ng	M shape fin & inner grooved tubing	
Refrigerant co	ant control						Louver fin & inner grooved tubing M shape fin & inner grooved tubin Electronic expansion valve				
Fan type & Q'	s O'tv					1	Turbo fan x1 Propeller fan x2				
Fan motor (St	arting method)				\M/		Iurbo tan x1     Propeller tan x2       50 < Direct line start >     86x2 < Direct line start >				
	arting method)		Casling		VV		JU < Direct in	le start >			
Air flow			Cooling		m³/min	F	P-Hi: 22 Hi: 16 M	/le: 13 Lo: 1	10	148	
			Heating							134	
Available exte	rnal static pressure				Pa		0			0	
Outside air int	ake						Possib	le		-	
Air filter, Quali	ty / Quantity					F	Pocket plastic net	x1(Washabl	e)	-	
Shock & vibra	tion absorber						Rubber sleeve(fo	or fan motor)		Rubber sleeve (for fan motor & compressor)	
Electric heater	r				W		_			20(Crank case heater)	
	Remote contro	0					(Option) Wire	ed : RC-EX	A . RC-E5 . RC	H-E3 Wireless : BCN-T-5BW-E2	
Operation	Boom tempera	ture control					(******)	т	hermostat by e		
control	Operation disp	lov							nonnootat by o		
		iay					Overla	ad protoction	for fan motor	Fract protaction thermostat	
Safety equipm	nents						Internal thermo	ad protection	motor Abnorm	al discharge temperature protection	
							Pipo 20	6 52(2/8")			
	Pofrigorant pin		Liquid lir	ne		I/U φ 6.35	(1/4") FIDE 3 2 9	9.02(0/0/) ")x0.8 0/U	.0.8 () φ 9.52(	5/6 )XU.0 01	
		ing size			mm		φ 12.7 (1/2 Pino @ # 1	2 7 20 8 0	φ 0.02(0/0 )	→ 22.22(7/8")×1.0 or	
	(0.5)		Gas line			I/U φ 12.7	$(1/2") = \frac{1}{6} \frac{1}{25} \frac{1}{4} \frac{1}{1}$	2.7 x0.8 @	58(1 1/8")x1 0	$O(1 \pm 22.22(7/8))(7.00)$	
	Connecting m	athod					φ 20:4(1 )			Liquid : Elaro piping / Gas : Brazing	
	Attached longt	h of piping			~		i iaie pip	Jing		Elquid . I lare pipilig / Gas . Drazing	
Installation da	ta Insulation for m	in or piping			111		_	Nesse			
	Insulation for p	iping						Neces	sary (both Liqu	Id & Gas lines)	
	Retrigerant line	e (one way) length			m	-		<u> </u>	Max.70		
							Max.50 (	Outdoor unit	is higher & Ou	door air temperature $\leq 43$ °C)	
	Vertical height	diff. between O/U a	nd I/U		m		Max.30 (	Outdoor unit	is higher & Ou	door air temperature > 43°C)	
								Ma	x.15 (Outdoor ι	nit is lower)	
	Drain hose				-	Ho	se connectable w	ith VP25(O.D	0.32)	Hole size $\phi$ 20 x 3 pcs.	
Drain pump, n	nax lift height				mm		Built-in drain p	ump , 850	ĺ		
Recommende	d breaker size				А				_		
L.R.A. (Locker	d rotor ampere)				А				5.0		
Interconnectin	a wires	Size v C	ore number				ሰ 1 6mm	x 3 cores	earth cable / To	rminal block (Screw fixing type)	
IP number	9	0120 X 0	s.s number					)			
Standard acco	esories						Mounting Lit	, Drain booo		Connecting pipe Edging	
Ontinuaru acce	55501185						iviouriting kit, i		·		
Option parts								M	buon sensor : L	B-1-3BW-E	
Notes (1) Th	e data are measu	red at the following	conditions				The pipe le	ngth is 7.5m.			
	ltom	Indoor air tem	perature	Outd	oor air tem	perature					
000	ration		WR		2	WR	Standar	ds			
	Cooling	27°C	10°C	0E	-	24°C	1005151	.T1			
	Usating	210	190	30	<u> </u>	240	1005151	1.14			
	пеаилд	200	_	10	ر ا	00	1505151-	·H1			
(2) Th	is air-conditioner i	s manufactured a	nd tested in	conform	ity with the	ISO.					
(3) Sc	ound level indicate	s the value in an a	nechoic cha	ımber. Dı	uring opera	ation these	values are some	what higher	due to ambier	at conditions.	
(4) Se	elect the breaker s	ze according to th	e own natic	nal stanc	dard.						
(5) Th	e operation data i	ndicate when the	air-conditior	er is ope	erated at 40	00V 50Hz c	r 380V 60Hz.				
(6) Inc	door unit specifica	tions for one unit.	Capacity ar	id operat	ion data is	four indoo	r units are combi	ned and rur	n together.		
(7) Br	anching pipe set "	DIS-WB1G"×1,"D	S-WA1G"×	2 (Option	n). Pipe ① :	O/U - Br	anch, ② : Branch	n – Branch,	③: Branch -	I/U	
(8) Us	se 1/2H pipes havi	ng a 1.0mm or thi	cker wall for	φ 19.05	or larger p	pipes.					
	Danal sala	Donalmandal	Drest	unc		(N.A	velor)	Remo	ote control	]	
	Panel color	Panel model	Panel	ype		(iviunsell c	olor)	w	ireless		
	<b>-</b>	T-PSA-5BW-E	Stand	ard	·- ··				T = DW = -	1	
	Fine snow	T-PSAE-5BW-F	Draft nrev	ention	(8.0Y9	0.3 / 0.1) nea	ar equivalent	RCN-	I-5BW-E2		
			Stand	ard						-	
1	Shaow black		Droft	unu (ontion	(7.2BG	2.9 / 0.6) ne	ear equivalent	RCN-	T-5BB-E2		
		I-E-OBE-OBB-E	- ural prev							1	

						Model			FDT2	OVSAV	VDVH	
Item								Indoor unit FE	OT60VH (4 units)		Outdoor unit FDC250VSA-W	
Power sou	irce								3 Phase 380-4	5V 50H	Iz / 380V 60Hz	
		Nominal cool	ling cap	bacity (range)		kW			25.0 [ 7.2(1	1in.) - 2	8.0(Max.)]	
		Nominal heat	ting cap	pacity (range)		kW			28.0 [ 5.2(1	1in.) - 3	1.5(Max.)]	
		Power consu	motion		Cooling					7.30		
			mption		Heating	kW				6.80		
		Max power c	onsum	ption						11.2		
		Bunning curr	ont		Cooling				11	.4 / 12.	0	
		Running curr	ent		Heating	A			1(	.8 / 11.	4	
		Inrush curren	it, max	current						5, 20		
Operation	data	Dowor footor			Cooling	0/				93		
Operation	uala	Fower lactor			Heating	70				91		
		EER			Cooling					3.42		
		COP			Heating					4.12		
		- ·			Cooling				58		73	
		Sound power	r level		Heating				59		75	
					Cooling			P-Hi: 44 Hi: 34	4 Me: 30 Lo: 27		58	
		Sound press	ure leve	el	Heating	dB(A)		P-Hi: 44 Hi: 34	4 Me: 30 Lo: 23		62	
		Silent mode			Cooling			-			56 / 55 (Normal/Silent)	
		sound pressu	ure leve		Heating				-		59 / 58 (Normal/Silent)	
					riodanig			Linit 236	x 840 x 840			
Exterior di	mensic	ons (Height x V	Vidth x	Depth)		mm		Panel 35	× 950 × 950		1505 × 970 × 370	
Exterior an	pearar	nce						Fine	snow		Stucco white	
(Munsell o	olor)							(8,079,3/0,1)	near equivalent		(4.2Y7.5/1 1) near equivalent	
(RAL color	()							(BAL 9003) r	near equivalent		(RAL 7044) near equivalent	
Net woight	, t					ka	+	Unit 01	Panel 5		1/5	
Comprose	or turn-	& ∩'+v				ку	+	Unit 21	_			
Compress	or mot	or (Starting m	athod'		_	L/W			_	_		
Pofrigere		or (order unity me	50100)			1				_		
Reirigeran		nount, type)	ohair	longth)		L		Doc	E t in ordele er orde //	+	I.30 (IVI-IVIB/5K)	
Herrigeran	it (Type	e, amount, pre	-cnarge	e ierigth)		кд		K32	o. i in outdoor unit (Inc	. une ar	Mehane fin 8 immer van hij hij	
Heat exch	anger							Louver fin & inn	er grooved tubing		IVI shape fin & inner grooved tubing	
Refrigeran	t contr	control						Electronic expansion valve				
Fan type 8	Q'ty (Starting method)							Turbo fan × 1 Propeller fan × 2				
Fan motor	(Starti	ng method)			1	W		50 < Direc	ct line start >		86 × 2 < Direct line start >	
Air flow					Cooling	m³/min		P-Hi: 26 Hi: 17	7 Me: 14 Lo: 11		148	
	Heating										153	
Available e	externa	I static pressu	re			Pa			0		0	
Outside ai	r intake	Э						Pos	ssible		-	
Air filter, Q	uality /	Quantity						Pocket plastic i	net ×1 (Washable)		_	
Shock & v	ibratior	n absorber						Rubber sleev	e (for fan motor)		Rubber sleeve (for compressor )	
Electric he	ater					W			-		20 (Crank case heater)	
Onerstien		Remote cont	rol					(Option)	Wired : RC-EX3A , RC-E	5 , RCI	H-E3 Wireless : RCN-T-5BW-E2	
Operation		Room tempe	rature o	control					Thermost	at by el	ectronics	
CONTROL		Operation dis	splay							_		
									Overload pro	ection	for fan motor	
Sofoty og	inmon	to							Frost prote	ction tl	hermostat	
Salety equ	lipinen	15							Internal therr	nostat f	or fan motor	
									Abnormal discharg	e temp	erature protection	
					Liquid line		1/11 # 6	35 (1/4") Pipe 3	②φ 9.52 (3/8") × 0.8 (	)φ 12.	7 (1/2") × 0.8	
		Refrigerant p	ipina si	ze (O.D)		mm		0/υφ	12.7 (1/2")			
		rioingerant p	iping o	20 (0.2)	Gas line		I/U φ 1	2.7 (1/2") Pipe 3	φ 12.7 × 0.8 ②φ 15.	8 × 1.0	$(1) \phi 22.22 (7/8") \times 1.0 \text{ or}$	
							· ·	φ 25.4	(1°) × 1.0 or φ 28.58 (	1/8"):	× 1.0 0/0 φ 22.22 (7/8")	
		Connecting r	nethod					Flare	piping		Liquid : Flare / Gas : Brazing	
Installation	n data	Attached leng	gth of p	piping		m			-		-	
audiol		Insulation for	piping		_		-		Necessary (bo	n Liqui	a & Gas lines)	
		Retrigerant I	ine (one	e way) length		m				viax.70		
								Max.s	ou (Outdoor unit is highe	r & Out	door air temperature ≤ 43°C)	
		Vertical heigh	nt diff. b	etween O/U ar	nd I/U	m	L	Max.3	30 (Outdoor unit is highe	r & Out	tdoor air temperature > 43°C)	
							ļ		Max.15 (Ou	door u	nit is lower)	
		Drain hose					н	lose connectable	e with VP25 (O.D.32)		Hole size $\phi$ 20 x 3 pcs.	
Drain pum	ip, max	lift height				mm	<u> </u>	Built-in drai	in pump , 850		—	
Recomme	nded b	oreaker size				A				_		
L.R.A. (Loo	cked ro	otor ampere)				A				5/5		
Interconne	ecting v	vires		Size x Cor	e number		ļ	φ1.6 mmx3 c	ores (Including earth c	able) /	<pre>/ Termainal block (Screw fixing type)</pre>	
IP number								II	PX0		IP24	
Standard a	access	ories						Mounting k	kit, Drain hose		Connecting pipe, Edging	
Option par	rts								Motion ser	sor : L	3-T-5BW-E	
Notes (1)	) The d	ata are measu	ired at t	the following co	onditions.				The pipe length	s 7.5m.		
[		Item		Indoor ai	r temperature	Outde	loor air te	emperature	Standarda			
[		Operation		DB	WB	DB		WB	Standards			
ן ו		Cooling*1		27°C	19°C	35°C		24°C	ISO5151-T1			
[		Heating*2			20°C	7°C	;	6°C	ISO5151-H1			
(	2) This	air-conditione	r is ma	nufactured and	tested in conformi	y with the I	ISO.					
(	3) Sour	nd level indica	tes the	value in an ane	choic chamber. Du	ring operati	ion these	values are some	ewhat higher due to amb	ient co	nditions.	
(	4) Sele	ct the breaker	size ac	cording to the	own national stand	ard.						
(	o) The 6) Inde	operation data	a Indica	te when the air	-conditioner is oper	ated at 230	JV SUHZ (	or 220V 60Hz.	ined and run together			
0	o) inuo 7) Bran	or unit specific	t "DIS-\	NB1G"×1 "DIS	S-WA1G"x2(Ontion	. Pipe ① : (	0/U-Brar	nch. (2) : Branch	Branch. (3) : Branch-	/U		
(	8) Use	1/2H pipes ha	iving a	1.0mm or thick	er wall for $\phi$ 19.05	or larger p	pipes.			-		
ÌÌ	_		_	1		<u> </u>			Remote control			
	Pa	anel color	Pa	nei model	Panel type		(Munse	ell color)	wireless			
			T-P	SA-5BW-E	Standard	(0			DON T COM T			
	Fi	ine snow	T-PS	AE-5BW-E	Draft prevention	(8.0Y9	9.3 / 0.1) ı	near equivalent	KCN-T-5BW-E2			
			T-P	SA-5BB-F	Standard				1 1			
1	Sha	dow black	T_P	SAF-5RR-F	Draft prevention	(7.2BG	2.9 / 0.6)	near equivalent	RCN-T-5BB-E2			
1 1			1 1-1-5		Sian provonuoli	1			1			

					woder		FD12	OVSAWDVH			
Item						Indoor unit FD1	F71VH (4 units)	Outdoor unit FDC280VSA-W			
Power sour	rce						3 Phase 380-4	5V 50Hz / 380V 60Hz			
	Nomir	inal cooling c	capacity (range)		kW		27.0 [ 7.5 ()	1in.) - 31.5 (Max.) ]			
	Nomir	inal heating c	capacity (range)		kW		30.0 [ 6.3 ()	1in.) - 33.5 (Max.) ]			
		0		Cooling				7.77			
	Power	er consumpti	ion	Heating	kW			8.60			
	Maxin	nower consu	umption	Triouting				11 /			
	intex p	power conica		Cooling			1.	0/125			
	Runnii	ning current		Leating	^		1	.9/12.3			
				Heating	A		1	5.07 13.7			
	Inrush	h current, ma	ax current	1				5, 20			
Operation	data Rowo	or factor		Cooling	04			94			
Operation	uala Fower	eriacion		Heating	70			96			
	EER			Cooling				3.47			
	COP			Heating				3.49			
	001			Cooling		E	0	75			
	Sound	nd power leve	el	Cooling		5	9	75			
		•		Heating		6	0	11			
	Sound	nd prossure la	ovol	Cooling	dB(A)	P-Hi: 46 Hi: 34	Me: 31 1 o: 26	61			
		ia pressure le	6761	Heating	GD(A)	1 -111. 40 111. 04	WIG. 01 LO. 20	63			
	Silent	t mode		Cooling				55 / 54 (Normal/Silent)			
	sound	d pressure le	evel	Heating		-					
				1.1000.03		Linit 236 v	8/0 × 8/0				
Exterior dir	nensions (Hei	eight x Width	n x Depth)		mm	Banol 35 v		1505 × 970 × 370			
Eutories en							330 × 330	0			
Extendiap	pearance					Fines	snow	Stucco white			
(Munsell co	olor)					(8.0Y9.3/0.1) n	ear equivalent	(4.2Y7.5/1.1) near equivalent			
(RAL color	)					(RAL 9003) ne	ear equivalent	(RAL 7044) near equivalent			
Net weight					kg	Unit 21	Panel 5	155			
Compresso	or type & Q'ty	tv				_	-	GTC5150SC40MF × 1			
Compresso	or motor (Star	- arting method	d)		kW	_	_	Direct line start			
Dofrigerent		tune)	-,	_	1		_	1 66 (M MD76D)			
neirigerant	. on (Amount,	, type)	and the set of the		L	-	- 5 0 la sutel				
Refrigerant	(Type, amou	ount, pre-cha	irge length)		kg	R32 3	5.6 in outdoor unit (Inc	I. the amount for the piping of 30m)			
Heat excha	anger					Louver fin & inne	r grooved tubing	M shape fin & inner grooved tubing			
Refrigerant	control						Electronic	expansion valve			
Fan type &	Q'ty					Turbo f	an × 1	Propeller fan × 2			
Fan motor	(Starting met	ethod)			W	50 < Direct	Iurbo fan x 1 Propeller fan x 2 50 < Direct line start > 86 x 2 < Direct line start >				
	(***********		-	Cooling				136			
Air flow				Useties	m³/min	P-Hi: 28 Hi: 18	Me: 15 Lo: 12	100			
				Heating	_			140			
Available e	xternal static	c pressure			Pa	C	)	0			
Outside air	intake					Poss	sible	-			
Air filter, Qu	uality / Quanti	itity				Pocket plastic ne	et ×1 (Washable)	_			
Shock & vi	bration absor	orber				Rubber sleeve	(for fan motor)	Rubber sleeve (for compressor )			
Electric hor	ator				۱۸/		()	20 (Crapk case beater)			
LIECTIC TIE		ata aantual			••	(Option) M		E DOLL EQ. Wireless : DON T EDW EQ.			
Operation	Reilio	ole control				(Option) W		S, NOR-ES WILCIESS . NOIN- 1-3BW-EZ			
oporation	I Room	n temperatur	ra control				at by electronics				
control											
control	Opera	ation display	/				monitost	_			
control	Opera	ation display	/				Overload pro	- ection for fan motor			
control	Opera	ation display	/				Overload pro Frost prot				
control Safety equi	Opera	ation display	/				Overload pro Frost prot	ection for fan motor ection thermostat nostat for fan motor			
control	Opera	ration display	/				Overload pro Frost prot Internal therr Abnormal discharg	ection for fan motor ection thermostat nostat for fan motor le temperature protection			
control Safety equi	Opera	ration display	/	1			Overload pro Frost prot Internal therr Abnormal discharg	ection for fan motor action thermostat is tor fan motor is tor fan motor is temperature protection $ba = 12.7 (1/2^{\circ}) \times 0.8$			
control Safety equi	Opera ipments	ation display	/	Liquid line		I/U φ 9.52 (3/8") Pipe ③(	Overload pro Frost prot Internal therr Abnormal discharg Ø φ 9.52 (3/8") × 0.8 ( 2.7 (1/2")	$\frac{1}{2} = \frac{1}{2}$			
Control	Opera ipments Refrig	gerant piping	g size (O.D)	Liquid line	mm	I/U φ 9.52 (3/8") Pipe ③(3 Ο/U φ 1	Overload pro Frost prot Internal therr Abnormal discharg 2 \$\phi\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") 2 \$\phi\$ 1.88 × 1.0 0 d	ection for fan motor ection for fan motor ection thermostat nostat for fan motor le temperature protection $(10^{\circ} 12.7 (1/2^{\circ}) \times 0.8$			
control Safety equi	Opera ipments Refrig	gerant piping	g size (O.D)	Liquid line Gas line	mm	//U φ 9.52 (3/8") <sup>Pipe</sup> ③(2 ) O/U φ 1 //U φ 15.88 (5/8") <sup>Pipe</sup> ④ 25.4	Overload pro           Frost prot           Internal therr           Abnormal discharg           ◊ φ 9.52 (3/8") × 0.8 (2.7 (1/2")           (2φ 15.88 × 1.0 ) ↓ φ           (1") × 1.0 or φ 28.58	$\frac{1}{2} = \frac{1}{2} + \frac{1}$			
Safety equ	Opera ipments Refrig	gerant piping	g size (O.D)	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe</sup> ③(3 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③ φ 25.4 Flare t	Overload pro           Frost prot.           Internal therr           Abnormal discharg           \$\overline{9}, 9.52 (3/8") × 0.8 (           2.7 (1/2")           \$\overline{\phi}, 1.0 or \$\overline{\phi}, 25.88           \$\overline{1}, 1.0 or \$\overline{\phi}, 25.88	$\frac{1}{2} = \frac{1}{2} + \frac{1}$			
Safety equi	Opera ipments Refrig	gerant piping	g size (O.D)	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe</sup> ③( O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③ φ 25.4 Flare p	Overload pro Frost prot Internal therr Abnormal discharg 2	$\begin{array}{c} - \\ - \\ \hline \\ - \\ \hline \\ ection for fan motor \\ ection thermostat \\ nostat for fan motor \\ e temperature protection \\ \hline \\ \phi 12.7 (1/2") \times 0.8 \\ \hline \\ 22.22 (7/8") \times 1.0 \text{ or} \\ (1 1/8") \times 1.0 \text{ O/U } \phi 22.22 (7/8") \\ \hline \\ \hline \\ Liquid : Flare / Gas : Brazing \\ \hline \end{array}$			
Safety equi	Opera ipments Refrig Conne Attact	gerant piping necting metho ched length o	g size (O.D) od	Liquid line Gas line	mm	I/U φ 9.52 (3/8") <sup>Pipe</sup> (3)( O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> (3 φ 25.4 Flare p -	Overload pro Frost prot Internal therr Abnormal discharg 2	$\begin{array}{c} - \\ - \\ - \\ \hline \\ ection for fan motor \\ ection thermostat \\ nostat for fan motor \\ e temperature protection \\ \hline \phi 12.7 (1/2") \times 0.8 \\ \hline \\ 22.22 (7/8") \times 1.0 \text{ or} \\ (1 1/8") \times 1.0 \text{ O/U } \phi 22.22 (7/8") \\ \hline \\ \hline \\ Liquid : Flare / Gas : Brazing \\ \hline \\ - \\ \hline \\ \hline \\ H \ liquid & Gas \ lines \\ \end{array}$			
Safety equi	Opera ipments Refrig Conne Attach Insula	gerant piping necting metho shed length o ation for pipin	g size (O.D) od of piping ing	Liquid line Gas line	mm	//U φ 9.52 (3/8") <sup>Pipe</sup> ③(3 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③ Flare p -	Overload pro Frost prot Internal therr Abnormal discharg 2	$\begin{array}{c} \hline \\ \hline $			
Safety equi	data Refrig Refrig Refrig	gerant piping necting methor shed length o ation for piping gerant line (c	g size (O.D) od of piping ing one way) length	Liquid line Gas line	mm m	I/U φ 9.52 (3/8") Pipe ③(3 Ο/U φ 1 I/U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare μ –	Overload pro           Frost prot.           Internal discharg           Ø 9.52 (3/8") × 0.8 (           2.7 (1/2")           Ø \$ 15.88 × 1.0 ① \$	$\begin{array}{c} - \\ - \\ - \\ \hline \\  \end{array} \\ \hline \\  \end{array} \\ \begin{array}{c} \text{ection for fan motor} \\ \text{action thermostat} \\ \text{nostat for fan motor} \\ \text{le temperature protection} \\ \hline \\ \hline \\ \phi 12.7 (1/2") \times 0.8 \\ \hline \\ \hline \\ 22.22 (7/8") \times 1.0 \text{ or} \\ (1 1/8") \times 1.0 \text{ O/U } \phi 22.22 (7/8") \\ \hline \\ \hline \\ \hline \\ & \\ \hline \\ & \\ \hline \\ & \\ \hline \\ & \\ \hline \\ \\ & \\ \hline \\ \\ \\ \\$			
Safety equi	data Refrig	gerant piping necting metho ched length o ation for pipin gerant line (c	g size (O.D) od of piping ing one way) length	Liquid line Gas line	mm m m	I/U φ 9.52 (3/8") <sup>Pipe</sup> 3(3 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> 3 Flare g - - - - - - - 	Overload pro Frost prot Internal therr Abnormal discharg 0 € 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2 \$\phi 15.88 × 1.0 ① \$\phi 4 (1") × 1.0 or \$\phi 28.58 biping - Necessary (bo	=			
Safety equi	data Vertica Vertica	gerant piping necting metho ched length o ation for piping gerant line (c cal height diff	g size (O.D) od of piping ing one way) length if. between O/U ar	Liquid line Gas line	mm m m m	//U φ 9.52 (3/8") Pipe ③(2 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{0}\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2\$\overline{0}\$ 0 \$\overline{0}\$ \$\verline{0}\$ \$\overline{0}\$ \$\overline{0}\$ \$\overline{0}\$ \$\overline{0}\$ \$\verline{0}\$ \$\overline{0}\$ \$\verline{0}\$ \$\v	a by boots into − exection for fan motor postat for fan motor te temperature protection 1 φ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing Liquid & Gas lines) Max.60 re & Outdoor air temperature ≤ 43°C) re & Outdoor air temperature > 43°C)			
Safety equi	data Conne Attact Insula Refrig Vertica	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff	g size (O.D) od of piping ing one way) length if. between O/U ar	Liquid line Gas line nd I/U	mm m m m	//U φ 9.52 (3/8") <sup>Pipe</sup> ③(3 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> 3 25.4 Flare g - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg 2	a by location of a motor action thermostat nostat for fan motor the temperature protection D φ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing Liquid & Flare / Gas : Brazing th Liquid & Gas lines) Max.60 or & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature > 43°C) tdoor unit is lower)			
Safety equi	data Opera	gerant piping necting methor shed length o ation for pipin gerant line (c cal height diff	g size (O.D) od of piping one way) length if. between O/U ar	Liquid line Gas line nd I/U	mm m m m	I/U φ 9.52 (3/8") Pipe ③(3 O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ 4 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Overload pro           Frost prot.           Internal therr           Abnormal discharg           20 φ 9.52 (3/8") × 0.8 (2.7 (1/2")           (2 φ 15.88 × 1.0 ① φ (1") × 1.0 or φ 28.58           opiping           -           0 (Outdoor unit is highed)           0 (With VP25 (O.D.32))	a by section (or both for b			
Safety equi	data connection data data data Refrig Vertica Drain	gerant piping necting metho shed length o ation for pipin gerant line (c cal height diff	g size (O.D) od of piping one way) length f. between O/U ar	Liquid line Gas line nd I/U	mm m m m	//U φ 9.52 (3/8") Pipe ③ ( 0/U φ 1 //U φ 15.88 (5/8") Pipe ③ Flare μ - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg 2 \$\overline{\phi}\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2) \$\overline{\phi}\$ 1.0 0" \$\overline{\phi}\$ 28.58 biping - Necessary (bo 0 (Outdoor unit is high Max.15 (Ou with VP25 (0.D.32) pump. 850				
Safety equi	data conne data data conne Attach Insula Refrig Vertica Drain Drain Drain Drain	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff	g size (O.D) od of piping ing one way) length if. between O/U ar	Liquid line Gas line nd I/U	mm m m	//U φ 9.52 (3/8") Pipe ③(2 O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare g 	Overload pro Frost prot Internal therr Abnormal discharg 2				
Safety equi	opera ipments Refrig Conne Attact Insula Refrig Vertica Drain b, max lift heig ded breaker	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff	g size (O.D) od of piping ing one way) length f. between Q/U ar	Liquid line Gas line nd I/U	mm m m m m	//U φ 9.52 (3/8") <sup>Pipe</sup> ③(3 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ③ 4 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg ⊉ φ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2 φ 15.88 × 1.0 ① ¢ (1") × 1.0 or φ 28.58 opiping - Necessary (bo 0 (Outdoor unit is higher 0 (Outdoor unit is higher) 0 (Outdoor unit is	a by location to 			
Drain pump Recommer	data presidente	gerant piping hecting method shed length of ation for piping gerant line (c cal height diff hose hose eight r size npere)	g size (O.D) od of piping one way) length if. between O/U ar	Liquid line Gas line nd I/U	mm m m m A A	I/U φ 9.52 (3/8") Pipe ③(3 O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ 4 25.4 Flare μ - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg $2 \phi 9.52 (3/8'') \times 0.8$ ( 2.7 (1/2'') ( $2 \phi 15.88 \times 1.0$ ) $\phi$ (1'') $\times 1.0$ or $\phi 28.58$ opining - Necessary (bc 0 (Outdoor unit is highe 0 (Outdoor unit is highe Max.15 (Ou with VP25 (O.D.32) p.pump , 850				
Drain pump Recommer L.R.A. (Loc	data connection data data data Refrig Vertica Drain o, max lift hein heded breaker ked rotor am cting wires	gerant piping necting metho shed length o ation for piping gerant line (c cal height diff hose eight r size npere)	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor	Liquid line Gas line nd I/U	mm m m M A A	//U φ 9.52 (3/8") Pipe ③(2 O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare p - - - - - - - - - - - - - - - - - - -	Overload pro           Frost prot           Internal therr           Abnormal discharg           2) \$\phi\$ 9.52 (3/8") × 0.8 (2.7 (1/2")           (2) \$\phi\$ 15.88 × 1.0 (1) \$\phi\$ (1") × 1.0 or \$\phi\$ 28.58           biping           -           0           (Outdoor unit is highed)           0 (Outdoor unit is highed)           0 (Outdoor unit is highed)           0 (Outdoor unit is highed)           0 (Participant)           0 (Participant)           0 (Participant)           0 (Participant)           0 (Outdoor unit is highed)           0 (Participant)           0 (Partipant)           0 (Partipant)	a by locationso → exection for fan motor exction thermostat nostat for fan motor ie temperature protection i) $\phi$ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing ↓ Liquid : Flare / Gas : Brazing ↓ th Liquid & Gas lines) Max.60 or $a$ Outdoor air temperature ≤ 43°C) or & Outdoor air temperature > 43°C) r & Outdoor air temperature > 43°C) toor unit is lower) ↓ Hole size $\phi$ 20 × 3 pcs. ↓ - 5/5 able) / Termainal block (Screw fixing type)			
Installation Drain pump Recommer L.R.A. (Loc Interconner IP number	opera ipments Refrig Conne Attact Insula Refrig Vertica Drain o, max lift hein nded breaker iked rotor am cting wires	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff n hose night r size npere)	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor	Liquid line Gas line nd I/U	mm m m m A A	<ul> <li>I/U φ 9.52 (3/8") Pipe ③(2) O/U φ 1</li> <li>I/U φ 15.88 (5/8") φ 25.4</li> <li>Flare p</li> <li>Flare s</li> <li>Max.50</li> <li>Max.30</li> <li>Hose connectable 1</li> <li>Built-in drain</li> <li>φ 1.6 mm x 3 co</li> <li>IP2</li> </ul>	Overload pro           Frost prot           Internal therr           Abnormal discharg           ∅ φ 9.52 (3/8") × 0.8 (2.7 (1/2")           ② φ 15.88 × 1.0 ① φ           (1") × 1.0 or φ 28.58           opining           -           0 (Outdoor unit is highed)           0 (Dutdoor unit is highed)           10 (Dutdoor unit is highed)           10 (Dutdoor unit is highed)           10 pump , 850           res (Including earth of X0	a by section of a motor = section for fan motor action thermostat 1) $φ$ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U $φ$ 22.22 (7/8") Liquid : Flare / Gas : Brazing Liquid : Flare / Gas : Brazing th Liquid & Gas lines) Max.60 or & Outdoor air temperature ≤ 43°C) or & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature ≤ 43°C) tdoor unit is lower) Hole size $φ$ 20 x 3 pcs. - - 5/5 able) / Termainal block (Screw fixing type) IP24			
Drain pump Recommer L.R.A. (Loc Interconnee Standard a	opera ipments Refrig Conne Attact Insula Refrig Vertica Drain Drain Do, max lift heir ded breaker ked rotor am cting wires cccessories	gerant piping hecting metho ched length o ation for pipin gerant line (c cal height diff h hose hight r size npere)	g size (O.D) od of piping ing one way) length f. between Q/U ar Size x Cor	Liquid line Gas line nd I/U re number	mm m m m A A	<ul> <li>I/U φ 9.52 (3/8") Pipe ③(3) O/U φ 1</li> <li>I/U φ 15.88 (5/8") Pipe ③</li> <li>I/U φ 15.88 (5/8") Pipe ③</li> <li>Flare ţ</li> <li>Flare ţ</li> <li>Flare ţ</li> <li>Max.50</li> <li>Max.30</li> <li>Hose connectable u</li> <li>Built-in drain</li> <li>φ 1.6 mm x 3 coo</li> <li>IP.</li> <li>Mounting kit</li> </ul>	Overload pro Frost prot Internal therr Abnormal discharg 2	a       b) view view view view view view view view			
Drain pump Recommer L.R.A. (Loc Interconner IP number Standard a Ontion por	data connection data data Refrig Connection Attach Insula Refrig Vertica Drain Drain Drain co, max lift heig ded breaker ked rotor am cting wires ccessories	gerant piping necting metho shed length o ation for pipin gerant line (c cal height diff n hose eight r size npere)	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor	Liquid line Gas line nd I/U	mm m m m A A	I/U φ 9.52 (3/8") Pipe ③( O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ Flare p - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2\$\overline{9} 4 55.88 × 1.0 ① \$\overline{9}\$ (1") × 1.0 or \$\overline{9} 28.58 biping - Necessary (bo 0 (Outdoor unit is higher Max.15 (Ou with VP25 (O.D.32) 10 pump , 850 res (Including earth of X0 t, Drain hose Mation con	a by section for a motor = section for fan motor ection thermostat nostat for fan motor ie temperature protection i) $\phi$ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing 			
Drain pump Recommer L.R.A. (Loc Interconner IP number Standard a Option par	data connection data data data Refrig Vertica Drain Drain Drain Drain co, max lift hei ked rotor am cting wires	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff n hose eight r size npere)	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor	Liquid line Gas line nd I/U re number	mm m m m A A	//U φ 9.52 (3/8") Pipe ③(2 O/U φ 1 I/U φ 15.88 (5/8") Pipe ③ φ 25.4 Flare g 	Overload pro Frost prot Internal therr Abnormal discharg 2	a by section of a motor = section for fan motor postat for fan motor te temperature protection 1) $\phi$ 12.7 (1/2") × 0.8 (22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing Liquid : Flare / Gas : Brazing Liquid & Gas lines) Max.60 r & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature > 43°C) toor unit is lower) Hole size $\phi$ 20 x 3 pcs. - - 5/5 able) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging sor : LB-T-5BW-E o 7.5m			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments Refrig Conne Attact Insula Refrig Vertica Drain p, max lift heig ided breaker kked rotor am cting wires ccessories ts The data are	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff n hose night r size npere) e measured a	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor	A liquid line Gas line ad I/U re number ponditions.	mm m m m A A	//U φ 9.52 (3/8") <sup>Pipe</sup> ③(2 O/U φ 1 I/U φ 15.88 (5/8") <sup>Pipe</sup> ② Flare p - - - - - - - - - - - - - - - - - - -	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ② \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( ① \$\overline{9} 9.5 (3/8") × 0.8 ( ① \$\overline{9}	a       b) solutions         -       -         section for fan motor       -         action thermostat       -         10 $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         or & Outdoor air temperature ≤ 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging       -         sor : LB-T-5BW-E       s.7.5m.			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	data Refrig Conne Attach Insula Refrig Vertica Drain o, max lift heig oded breaker ked rotor am cting wires cccessories ts The data are Ite	gerant piping hecting metho ched length o ation for pipin gerant line (c cal height diff hose hight r size npere) e measured a em	g size (O.D) od of piping ing one way) length f. between Q/U ar Size x Cor at the following co	Liquid line Gas line ad I/U re number onditions. r temperature	mm m m M A A A	<ul> <li>I/U φ 9.52 (3/8") Pipe ③(3) O/U φ 1</li> <li>I/U φ 15.88 (5/8") Pipe ③</li> <li>I/U φ 15.88 (5/8") Pipe ③</li> <li>Flare ţ</li> <li>Flare ţ</li> <li>Max.50</li> <li>Max.50</li> <li>Max.30</li> <li>Hose connectable 1</li> <li>Built-in drain</li> <li>φ 1.6 mm x 3 coo</li> <li>IP.</li> <li>Mounting kit</li> <li>por air temperature</li> </ul>	Overload pro Frost prot Internal therr Abnormal discharg 2)	a by location to the section for fan motor action thermostat nostat for fan motor be temperature protection [1] $\phi$ 12.7 (1/2") × 0.8 22.22 (7/8") × 1.0 or (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing			
Drain pump Recommer L.R.A. (Loc Interconner IP number Standard a Option par Notes (1)	data connection data data Refrig Connection Attach Insula Refrig Vertica Drain Drain Drain co, max lift heig ded breaker ked rotor ann cting wires cccessories ts The data are Ite Opera	gerant piping necting metho shed length o ation for pipin gerant line (c cal height diff h hose oight r size nppere) e measured a em ration	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor Size x Cor at the following cc Indoor ai	Liquid line Gas line ad I/U re number pnditions. r temperature WB	mm m m M A A A Outdot DB	I/U φ 9.52 (3/8") Pipe ③(3)         I/U φ 15.88 (5/8") Pipe ③         I/U φ 15.88 (5/8") φ 25.4         Flare μ         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         Dor air temperature         WB	Overload pro Frost prot Internal therr Abnormal discharg ⊉ φ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (⊉ φ 15.88 × 1.0 °) φ (1") × 1.0 ° φ 28.58 biping Necessary (bo 0 (Outdoor unit is higher 0 (Outdoor unit is	a       b) solutions         -       -         section for fan motor       -         b) $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature ≥ 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging       -         isor : LB-T-5BW-E       s 7.5m.			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	data conne data data data conne Attach Insula Refrig Vertica Drain Drain Drain Drain Conne Attach Insula Refrig Vertica Drain Conne Attach Insula Refrig Vertica Drain Conne Attach Insula Refrig Vertica Drain Conne Attach Insula Refrig Drain Drain Conne Attach Insula Refrig Vertica Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Attach Insula Refrig Drain Conne Refrig Drain In Conne Refrig Drain Conne Refrig Drain Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne Refrig Conne C	gerant piping necting methor ched length o ation for pipin gerant line (c cal height diff n hose bight r size npere) e measured a em ration ling*1	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor at the following cc Indoor ai DB 27°C	Liquid line Gas line d I/U e number onditions. r temperature WB 19°C	mm m m A A A Outda DB 35°C	I/U φ 9.52 (3/8") Pipe ③ (2)         O/U φ 1         I/U φ 15.88 (5/8") Pipe ③         φ 25.4         Flare p         -         Max.50         Max.31         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         WB         24°C	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2\$\overline{9} 9.52 (3/8") × 0.8 ( (1") × 1.0 or \$\overline{9} 28.58 opining Necessary (bo 0 (Outdoor unit is higher 0 (Out	a       b) solution of a motor         -       -         ection for fan motor       -         bott for fan motor       -         ction thermostat       -         nostat for fan motor       -         iction thermostat       -         10 φ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U φ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature ≥ 43°C)       -         tdoor unit is lower)       -         Hole size φ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       -         IP24       Connecting pipe, Edging         isor : LB-T-5BW-E       s.5.m.			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments Refrig Conne Attact Insula Refrig Vertica Drain p, max lift heig nded breaker ked rotor am cting wires ccessories ts The data are Ite Opera	gerant piping hecting metho ched length o ation for pipin gerant line (c cal height diff n hose hight r size npere) e measured a em ration ling*1	g size (O.D) od of piping ing one way) length f. between Q/U ar Size x Cor Size x Cor at the following cc Indoor ai DB 27°C	Liquid line Gas line ad I/U re number onditions. r temperature WB 19°C	mm m m m A A A Outdot DB 35°C	I/U φ 9.52 (3/8") Pipe ③ (3/0)/U φ 1         I/U φ 15.88 (5/8") O/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare g         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         Sor air temperature         WB         24°C         6°C	Overload pro Frost prot Internal therr Abnormal discharg ⊉ φ 9.52 (3/8") × 0.8 ( 2.7 (1/2") ② φ 15.88 × 1.0 ① ¢ (1") × 1.0 or φ 28.58 oiping - Necessary (bo 0 (Outdoor unit is highe 0 (Outdoor unit is highe) 0 (Outdo	a       b) solution of a motor         action thermostat       nostat for fan motor         be temperature protection       b) $\phi$ 12.7 (1/2") × 0.8         22.22 (7/8") × 1.0 or       (11/8") × 1.0 or         (11/8") × 1.0 O/U $\phi$ 22.22 (7/8")       Liquid : Flare / Gas : Brazing         Liquid : Flare / Gas : Brazing			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	data data data data data data Refrig Vertica Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Coone tked rotor am cccessories ts The data are The data are Coolir Heatir Heatir	gerant piping mecting metho shed length o ation for pipin gerant line (c cal height diff n hose pight r size mpere) e measured a em ration ling*1 ting*2 sinditioner is n	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor Size x Cor Lindoor ai DB 27°C manufactured and	Liquid line Gas line d I/U re number onditions. r temperature WB 19°C 20°C tested in conformi	mm m m m A A A Outdo DB 35°C 7°C Y with the IS	I/U φ 9.52 (3/8") Pipe ③ (3 O/U φ 1)         I/U φ 15.88 (5/8") Pipe ③ (3 O/U φ 1)         I/U φ 15.88 (5/8") φ 25.4         Flare μ         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         Dor air temperature         WB         24°C         6°C         SO.	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (② \$\overline{9} 5.88 × 1.0 ① \$\overline{9} ( (1") × 1.0 or \$\overline{9} 28.58 piping - Necessary (bo 0 (Outdoor unit is higher 0 (Outdoor unit is higher 0 (Outdoor unit is higher 0 (Outdoor unit is higher Max.15 (Ou with VP25 (O.D.32) 10 pump , 850 res (Including earth of X0 t, Drain hose The pipe length Standards ISO5151-T1 ISO5151-H1	a by location of the motor = feetion for fan motor postat for fan motor te temperature protection (1 1/8") × 1.0 or (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing 			
Drain pump Recommer L.R.A. (Loc Interconner IP number Standard a Option par Notes (1)	data connection data Connection Attach Insula Refrig Vertica Drain Drain Drain Drain Drain Connection Attach Insula Refrig Vertica Drain Drain Connection Attach Insula Refrig Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Connection Refrig Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Drain Connection Refrig Drain Drain Drain Connection Refrig Drain Drain Connection Refrig Drain Drain Connection Refrig Drain Drain Connection Refrig Drain Drain Connection Refrig Drain Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Connection Refrig Drain Sound Ievel Sound Ievel	gerant piping necting metho shed length o ation for piping gerant line (c cal height diff n hose oight r size npere) e measured a em ration ling*1 ing*2 nditioner is n e indicates th	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor at the following co Indoor ai DB 27°C manufactured and he value in an ane	Liquid line Gas line Gas line	mm m m m A A A A S'C y with the IS r'ing operation	I/U φ 9.52 (3/8") Pipe ③ (3/8") O/U φ 1         I/U φ 15.88 (5/8") Pipe ③         φ 25.4         Flare g	Overload pro Frost prot Internal therr Abnormal discharg 2 \$\overline{\phi}\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2\$\overline{\phi}\$ 9.58 × 1.0 () \$\overline{\phi}\$ () (2\$\overline{\phi}\$ 1.0 or \$\overline{\phi}\$ 8.58 × 1.0 () \$\overline{\phi}\$ 0 ( (1") × 1.0 or \$\overline{\phi}\$ 8.58 × 1.0 () \$\overline{\phi}\$ 0 ( (1") × 1.0 or \$\overline{\phi}\$ 8.50 () (0.000 coverline{\phi}\$ 0 (Outdoor unit is higher (0.000 coverline{\phi}\$ 0 (0.000 coverline{\phi}\$ 0.50 () (0.000 coverline{\phi}\$ 0 (0.000 coverline{\phi}\$ 0 () (0.000 coverline{\phi}\$ 0 () (0.000 coverline{\phi}\$ 0 () () () () () () () () () () () () ()	a       b) solutions         -       -         ection for fan motor       -         postat for fan motor       -         p (2.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ (22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature ≥ 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging         isor : LB-T-5BW-E       s 7.5m.         able)       -			
Drain pump Recommer L.R.A. (Loc Interconner Standard a Option par Notes (1)	data connection data Connection Attach Insula Refrig Vertica Drain o, max lift hein nded breaker Drain o, max lift hein nded breaker Insula Refrig Vertica Drain connection Insula Refrig Vertica Drain Drain Drain Drain Drain Drain Connection Attach Insula Refrig Vertica Drain Drain Drain Drain Drain Drain Connection Insula Refrig Vertica Drain Drain Drain Connection Insula Refrig Vertica Drain Drain Connection Insula Refrig Vertica Drain Drain Drain Drain Connection Drain Drain Drain Drain Connection Drain Drain Drain Connection Drain Drain Drain Connection Drain Drain Drain Connection Drai	gerant piping necting methor ched length o ation for piping gerant line (c cal height diff n hose night r size npere) e measured a em ration ling*1 nigitationer is n el indicates th breaker size	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the	Liquid line Gas line Gas line	mm m m A A A A Outdo DB 35°C 7°C y with the Is ring operatiand.	I/U φ 9.52 (3/8") Pipe ③ (2)         O/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare p         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP2         Mounting kil         Dor air temperature         WB         24°C         6°C         SO.         on these values are somew	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{0}\$\overline{0}\$ 2.7 (1/2") ② \$\overline{0}\$ \$\overline{0}\$ (1") × 1.0 or \$\overline{0}\$ \$\overline{0}\$ \$\overline{0}\$ (1") × 1.0 or \$\overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline{0}\$ \$ overline	a       b) solutions         -       -         ection for fan motor       -         action thermostat       -         b) $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature ≤ 43°C)       -         r & Outdoor air temperature ≤ 43°C)       -         tdoor unit is lower)       -         blob       /         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       -         IP24       Connecting pipe, Edging         isor : LB-T-5BW-E       s 7.5m.			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	data Refrig Conne Attach Insula Refrig Vertica Drain	gerant piping necting metho shed length o ation for pipin gerant line (c cal height diff n hose eight r size mpere) e measured a em ration ling*1 ting*2 moditioner is n el indicates th breaker size	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor Size x Cor at the following co Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air	Liquid line Gas line d I/U e number onditions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du own national stand conditioner is oper	mm m m m A A A Outdo DB 35°C 7°C y with the IS ring operatia ard.	I/U φ 9.52 (3/8") Pipe ③ (3         I/U φ 15.88 (5/8") Pipe ③ (3         I/U φ 15.88 (5/8") φ 25.4         Flare μ         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         Or air temperature         WB         24°C         6°C         SO.         on these values are somev         V 50Hz or 220V 60Hz.	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (② \$\overline{9} 5.88 × 1.0 ① \$\overline{9} ( (1") × 1.0 or \$\overline{9} 28.58 piping - Necessary (bo Necessary (bo Max.15 (Ou with VP25 (O.D.32) 10 pump , 850 res (Including earth of X0 t, Drain hose The pipe length Standards ISO5151-T1 ISO5151-H1 vhat higher due to aml	a       b         a       a         bection for fan motor       b         cetion thermostat       b         nostat for fan motor       b         b $\phi$ 12.7 (1/2") × 0.8         22.22 (7/8") × 1.0 or       (11/8") × 1.0 O/U $\phi$ 22.22 (7/8")         Liquid : Flare / Gas : Brazing			
Drain pump Recommer L.R.A. (Loc Interconner IP number Standard a Option par Notes (1)	ipments ipments  Refrig Conne Attach Insula Refrig Vertica Drain Opera idata Refrig Vertica Drain Opera idata Refrig Conne Conne Drain Dra	gerant piping necting metho shed length o ation for piping gerant line (c cal height diff hose oight r size npere) e measured a em ration ling*1 ting*2 molitioner is n el indicates th breaker size tion data indi	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ns for one unit. C	Liquid line Gas line Gas line nd I/U re number nditions. r temperature WB 19°C 20°C tested in conformi conditioner is oper apacity and operati	mm m m m A A A A A A Coutde DB 35°C 7°C y with the IS ring operational ato at 230 on data is to	I/U φ 9.52 (3/8") Pipe ③ (3/0)U φ 1           I/U φ 15.88 (5/8") Pipe ③           I/U φ 15.88 (5/8") φ 25.4           Flare μ           -           Max.50           Max.30           Hose connectable           Built-in drain           φ 1.6 mm x 3 coo           IP:           Mounting kit           Sor air temperature           WB           24°C           6°C           SO.           on these values are somew           V 50Hz or 220V 60Hz.           vo indoor units are combir	Overload pro Frost prot Internal therr Abnormal discharg \$\overline\$0 \overline\$1 \overlin	a       b) social visco         -       -         eection for fan motor       -         b) $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature $\geq$ 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging       -         usor : LB-T-5BW-E       s 7.5m.         bient conditions.       -			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments ipments Refrig Conne Attact Insula Refrig Vertica Drain Drain Opera Nerrig Vertica Drain Drain Conne Attact Insula Refrig Vertica Insula Refrig Drain Drain Insula Refrig Drain Insula Refrig Drain Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Refrig Drain Insula Sourde breaker Refrig Inte ata are Ite Opera Sound level Into operati Into operati Into operati Into operati	gerant piping necting method ched length o ation for piping gerant line (c cal height diff n hose eight r size npere) e measured a em ration ling*1 ting*2 nonditioner is n lindicates th breaker size tion data indi t specification pipe set *DIS	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ons for one unit. C. S-WB1G*x1, "DIS	Liquid line Gas line Gas line d I/U e number e number e number unditions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du own national stand -conditioner is oper apacity and operati -WA IG *2(Option)	mm m m m A A A A A A A A A A A A A A A	I/U φ 9.52 (3/8")         Pipe ③ (3/8")           I/U φ 15.88 (5/8")         O/U φ 1           I/U φ 15.88 (5/8")         φ 25.4           Flare g         -           Max.50         Max.30           Hose connectable         Built-in drain           φ 1.6 mm x 3 co         IP           Mounting kit         -           Δ         24°C           6°C         SO.           on these values are somew         V 50Hz.           V 50Hz or 220V 60Hz.         % Eranch-           //U-Branch, (2) : Branch-         2	Overload pro Frost prot Internal therr Abnormal discharg ⊉ φ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (⊉ φ 15.88 × 1.0 ) ⊕ φ (1") × 1.0 or φ 28.58 opiping Necessary (bo 0 (Outdoor unit is higher 0 (Outdoor unit i	a       b) solutions         -       -         ection for fan motor       -         bott for fan motor       -         ction thermostat       -         10 \$\phi\$ 12.7 (1/2") × 0.8       -         :22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U \$\phi\$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         re & Outdoor air temperature > 43°C)       -         tdoor unit is lower)       -         Hole size \$\phi\$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       -         IP24       Connecting pipe, Edging         ssor : LB-T-5BW-E       s 7.5m.         bient conditions.       -			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments ipments Refrig Conne Attact Insula Refrig Vertica Drain o, max lift heir nded breaker Drain o, max lift heir nded breaker Insula Refrig Vertica Drain o, max lift heir nded breaker Insula Coolin The data are Ite Opera Coolin Heatin ) Select the b ) Shoor unit Samo level ) Shoor unit Samo level ) Shoor unit ) Select the b ) The operatin ) Indoor unit	gerant piping necting methor ched length o ation for piping gerant line (c cal height diff n hose pight r size npere) e measured a em ration ling*1 ting*2 unditioner is n el indicates th breaker size tion data indi t specification pipe set "DIS pipes having	g size (O.D) od of piping ing one way) length f. between O/U ar f. between O/U ar Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ns for one unit. C. S-WB1G"x1, "DIS a 1.0mm or thick	Liquid line Gas line Gas line	mm m m m A A A A Outdo DB 35°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7	I/U φ 9.52 (3/8") Pipe ③ (2)         O/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare p	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ② \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( ③ \$\overline{9} 9.52 (3/8") × 0.8 ( \$\overline{9} 9.5 (3/8") × 0.8 ( \$\overline{9} 9	a       b) solutions         -       -         ection for fan motor       -         action thermostat       -         b) $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       Max.60         or & Outdoor air temperature ≤ 43°C)       or         r & Outdoor air temperature > 43°C)       re & Outdoor air temperature > 43°C)         tdoor unit is lower)       -         blob       // Termainal block (Screw fixing type)         IP24       Connecting pipe, Edging         usor : LB-T-5BW-E       s 7.5m.         isor : LB-T-5BW-E       s 7.5m.         ison : conditions.       //U			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments data Refrig Conne Attact Insula Refrig Vertica Drain Drain Drain Drain Drain ccessories ts The data are Ite Opera Coolir Heatin Heatin Heatin Heatin Sound level Select the b Sound level Shore or and Coolir Heatin Heatin Heatin Heatin Sound level Sound leve	gerant piping mecting metho shed length o ation for pipin gerant line (c cal height diff n hose eight r size npere) e measured a em ration ling*1 tion data size tion data rize tion data rize tion data not t specification pipes set "DIS pipes having	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane a according to the ing one unit. C S-WB1G"x1, "DIS I a 1.0mm or thick	Liquid line Gas line Gas line Ind I/U re number pnditions. r temperature WB 19°C 20°C tested in conformi bechoic chamber. Du own national stand conditioner is oper apacity and operati J-WAI G*x2(Option) er wall for $\phi$ 19.05	mm m m m M M A A A A A A A C Utdd DB 35°C 7°C y with the IS ring operatia ard. x ated at 230 on data is tv. Pipe ①: C or larger p	I/U \$\phi\$ 9.52 (3/8") Pipe ③ (3 O/U \$\phi\$ 1) O/U \$\phi\$ 1         I/U \$\phi\$ 15.88 (5/8") Pipe ③ (3 O/U \$\phi\$ 1)         I/U \$\phi\$ 15.88 (5/8") Pipe ③ (3 O/U \$\phi\$ 1)         I/U \$\phi\$ 15.88 (5/8") Pipe ③ (3 O/U \$\phi\$ 1)         Max.50         Max.50         Max.30         Hose connectable         Built-in drain         \$\phi\$ 1.6 mm x 3 co         IP:         Mounting kit         \$\phi\$ 1.6 mm x 3 co         IP:         Mounting kit         \$\phi\$ 1.6 mm x 3 co         IP:         Mounting kit         \$\phi\$ 1.6 mm x 3 co         IP:         Mounting kit         \$\phi\$ 24°C         6°C         SO.         on these values are somew         V 50Hz or 220V 60Hz.         vo indoor units are combir         J/U-Branch, (2) : Branch-ipes.         Maxeell is in the solution of th	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (② \$\overline{9} 5.88 × 1.0 ① \$\overline{9} ( (1*) × 1.0 or \$\overline{9} 28.58 biping - Necessary (bo 0 (Outdoor unit is higher 0 (Outdoor unit is higher 0 (Outdoor unit is higher Max.15 (Ou with VP25 (O.D.32) 10 pump , 850 res (Including earth of X0 t, Drain hose The pipe length Standards ISO5151-T1 ISO5151-T1 ISO5151-H1 what higher due to aml hed and run together. Branch- Branch. ③ : Branch-	a       b) social visco         -       -         exection for fan motor       -         b) $\phi$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         or & Outdoor air temperature ≤ 43°C)       -         br & Outdoor air temperature > 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging       -         isor : LB-T-5BW-E       s 7.5m.         bient conditions.       -			
Installation Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1) (2 (3 (4 (5) (6) (7 (8) (7) (8) (7) (8) (1) (8) (7) (8) (7) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8	ipments ipments  Conne Attach Insula Refrig Vertica Drain Dr	gerant piping hecting metho hed length o ation for piping gerant line (c cal height diff hose bight r size npere) e measured a em ration ling*1 breaker size tion data indi pipe set "DIS pipes having ploor	g size (O.D) od of piping ing one way) length if. between O/U ar Size x Cor Size x Cor at the following co Indoor ai DB 27°C anufactured and he value in an ane according to the icate when the air a cording to the icate when the air a 1.0mm or thick Panel model	Liquid line Gas line Gas line Ind I/U re number onditions. r temperature WB 19°C 20°C tested in conformi tested in conformi tested in conformi schoic chamber. Du own national stand conditioner is ope apacity and operati S-WA1G"×2(Option) er wall for $\phi$ 19.05 Panel type	mm m m m A A A A A A A A A Cutdd DB 35°C 7°C y with the IS 35°C 7°C y with the IS 35°C 7°C y with the IS 35°C 7°C y with the IS 35°C 7°C y cutdd at 230 at 2300 at 230 at 230 at 200 at 200 at 230 at 200 at	I/U φ 9.52 (3/8") Pipe ③ (3/6)/O/U φ 1         I/U φ 15.88 (5/8") Pipe ③         φ 25.4         Flare g	Overload pro Frost prot Internal therr Abnormal discharg 0 & 9.52 (3/8") × 0.8 ( 2.7 (1/2") (2) & 15.88 × 1.0 ① ¢ (1") × 1.0 or ¢ 28.58 biping Necessary (bo Outdoor unit is highe 0 (Outdoor unit is highe) 0 (Outdoor unit i	a       b) social visco         -       -         ection for fan motor       -         postat for fan motor       -         p (2.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U $\phi$ (22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature > 43°C)       -         tdoor unit is lower)       -         Hole size $\phi$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       IP24         Connecting pipe, Edging         stor : LB-T-5BW-E       s 7.5m.         bient conditions.       //U			
Drain pump Recommer L.R.A. (Loc Interconnee Interconnee Notes (1) Xotes (1)	opera ipments adata Refrig Conne Attact Insula Refrig Vertica Drain Drain Drain Drain Conne Attact Insula Refrig Vertica Drain Drain Drain Conne Attact Insula Refrig Drain	gerant piping necting methor ched length o ation for piping gerant line (c cal height diff in hose bight r size npere) e measured a em ration ling*1 ting*2 noditioner is n el indicates th breaker size tion data indi t specification pipe set "DIS pipes having blor	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ns for one unit. C S-WB1G*x1, *DIS a 1.0mm or thick Panel model I-PSA-SRW-F	Liquid line Gas line Gas line Ind I/U e number e number e number moditions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du own national stand -conditioner is ope apacity and operati -WATG*.2(Option) er wall for $\phi$ 19.05 Panel type Standard	mm m m m A A A A Outdo DB 35°C 7°C y with the IS ring operatil ard. ated at 230 on data is tv. Pipe ① : C or larger p	I/U φ 9.52 (3/8") Pipe ③ (2)         O/U φ 1         I/U φ 15.88 (5/8") Pipe ③         φ 25.4         Flare p	Overload pro Frost prot Internal therr Abnormal discharg \$\overline{0} \overline{0}	a       b) solutions         -       -         ection for fan motor       -         bott for fan motor       -         ction thermostat       -         10 \$\phi\$ 12.7 (1/2") × 0.8       -         22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U \$\phi\$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       Max.60         rr & Outdoor air temperature ≤ 43°C)       -         rd Outdoor air temperature > 43°C)       tdoor unit is lower)         Hole size \$\phi\$ 20 x 3 pcs.       -         -       -         5/5       able) / Termainal block (Screw fixing type)         IP24       Connecting pipe, Edging         isor : LB-T-5BW-E       s.7.5m.         isoin : conditions.       //U			
Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1)	opera ipments data Attack Insula Refrig Vertica Drain Drao Drao Drao Drao Drao Drao Drao Drao Drao Drao Drao Drao Drao Drao Dranching p Dranching p Dranching p Dranching p Dranching p Dranching p Dranching p Dranching p Drain Dranching p Drain Drai	gerant piping mecting metho hed length o ation for pipin gerant line (c cal height diff in hose bight r size mpere) e measured a em ration ling*1 ting*2 moditioner is n el indicates th breaker size pipes st "DIS pipes having blor	g size (O.D) od of piping ing one way) length f. between O/U ar f. between O/U ar Size x Cor Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ns for one unit. C. S-WB1G"x1, "DIS a 1.0mm or thick Panel model IPSA-SBW-E IPSA-SBW-E	Liquid line Gas line Gas line Ind I/U re number re number inditions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du wom national stand -conditioner is oper apacity and operati S-WA1G"×2(Option) er wall for $\phi$ 19.05 Panel type Darft enumerity	mm m m m A A A A Outdo DB 35°C 7°C y with the IS ring operatia ard. 25°C 7°C y with the IS ring operatia ard. 8.0°C 9.0°	I/U φ 9.52 (3/8") Pipe ③ (2)/U φ 1         I/U φ 15.88 (5/8") Pipe ③ (2)/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare μ	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") (② \$\overline{9} 5.88 × 1.0 ① \$\overline{9} ( (1") × 1.0 or \$\overline{9} 28.58 piping - Necessary (bc 0 (Outdoor unit is higher 0 (Outdoor unit is higher 0 (Outdoor unit is higher Max.15 (Ou with VP25 (O.D.32) 10 pump , 850 res (Including earth of X0 t, Drain hose Motion ser The pipe length Standards ISO5151-T1 ISO5151-H1 vhat higher due to aml need and run together. Branch, ③ : Branch- Remote control wireless RCN-T-5BW-E2	a       b         a       a         bection for fan motor       b         cetion thermostat       b         nostat for fan motor       b         b $\phi$ 12.7 (1/2") × 0.8         22.22 (7/8") × 1.0 or       (11/8") × 1.0 O/U $\phi$ 22.22 (7/8")         Liquid : Flare / Gas : Brazing			
Installation Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1) (2 (3 (4 (5) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (7) (6) (7) (7) (6) (7) (7) (7) (7) (8) (7) (8) (7) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8	opera ipments Refrig Conne Attach Insula Refrig Vertica Drain Drain Drain Drain Drain Opera Coolir tes The data are The data are Coolir Heati 2) This air-con 3) Sound level 4) Select the b 5) The operati 2) The operation 3) Sound level 4) Select the b 5) The operation 5) Notor unit 7) Branching p 7) This and the base 1/2 H p Panel col Fine snov	gerant piping hecting metho hed length o ation for piping gerant line (c cal height diff hose bight r r size npere) e measured a em ration ling*1 breaker size tion data indi pipe set "DIS pipes having ploor I ow T ow T	g size (O.D) od of piping ing one way) length if. between O/U ar if. between O/U ar Size x Cor at the following co Indoor ai DB 27°C anufactured and he value in an ane according to the icate when the air ns for one unit. C. S-WB1G"x1, "DIS a 1.0mm or thick Panel model I-PSA-5BW-E -PSAE-5BW-E	Liquid line Gas line Gas line Ind I/U re number re number onditions. r temperature WB 19°C 20°C tested in conformi tested in conformi tested in conformi schoic chamber. Du own national stand conditioner is ope apacity and operati S-WA1G"×2(Option) er wall for $\phi$ 19.05 Panel type Standard Draft prevention	mm m m m m A A A A A A A A Coutdd DB 35°C 7°C y with the IS ring operation atta is the A string operation atta is the A stri	I/U φ 9.52 (3/8") Pipe ③ (3/0)/U φ 1         I/U φ 15.88 (5/8") Pipe ③         I/U φ 15.88 (5/8") φ 25.4         Flare µ         -         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP:         Mounting kit         Or air temperature         WB         24°C         6°C         SO.         on these values are somew         V50Hz or 220V 60Hz.         vo indoor units are combin         J/U-Branch, ② : Branch-         pes.         (Munsell color)         3 / 0.1) near equivalent	Overload pro Frost prot Internal therr Abnormal discharg \$\overline\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (\$\overline\$ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (\$\overline\$ 9.52 (3/8") × 0.8 ( 0 (\$\overline\$ 1.0 or \$\overline\$ 9.58 opping 	a       b         a       a         a       a         b       a         b       b         c       b         c       b         c       b         c       b         c       b         c       c			
Installation Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1) (2 (3 (4 (5) (6) (6) (6) (6) (6) (7) (7) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	opera ipments ipments Refrig Conne Attact Insula Refrig Vertica Drain Drain Drain Opera inded breaker ked rotor am cting wires ts The data are Opera Coolir Heatir Sound level Sound level Data in coolir Heatir Drain level Sound level Drain level Sound level Sound level Sound level Sound level Drain	gerant piping necting metho ched length o ation for pipin gerant line (c cal height diff n hose eight r size npere) e measured a em ration ling*1 ting*2 nditioner is n lind*1 breaker size tion data indi t specification pipe set *DIS pipes having pioner	g size (O.D) od of piping ing one way) length f. between O/U ar f. between O/U ar Size x Cor at the following cc Indoor ai DB 27°C manufactured and he value in an ane according to the icate when the air ns for one unit. C. S-WB1G"x1, "DIS a 1.0mm or thick Panel model F-PSA-5BW-E F-PSA-5BW-E T-PSA-5BB-E	Liquid line Gas line Gas line d I/U e number e number e number e number gatitions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du own national stand -conditioner is ope apacity and operati -WA (G*x2(Option) er wall for $\phi$ 19.05 Panel type Standard Draft prevention Standard	mm m m m A A A A A A A A A A A A A A A	I/U φ 9.52 (3/8") Pipe ③ (3/0)/U φ 1         I/U φ 15.88 (5/8") O/U φ 1         I/U φ 15.88 (5/8") φ 25.4         Flare g	Overload pro Frost prot Internal therr Abnormal discharg ⊉ φ 9.52 (3/8") × 0.8 ( 2.7 (1/2") (⊉ φ 15.88 × 1.0 ① ¢ (1") × 1.0 or φ 28.58 jping Necessary (bo 0 (Outdoor unit is highe 0 (Outdoor unit is highe 1 (So5151-T1 ISO5151-T1 ISO5151-T1 ISO5151-H1 vhat higher due to ami Remote control wireless RCN-T-5BW-E2 0 (Outdoor unit is higher 0 (Outdoor uni	a       b) solutions         -       -         ection for fan motor       -         bott for fan motor       -         ction thermostat       -         10 \$\phi\$ 12.7 (1/2") × 0.8       -         :22.22 (7/8") × 1.0 or       -         (1 1/8") × 1.0 O/U \$\phi\$ 22.22 (7/8")       -         Liquid : Flare / Gas : Brazing       -         th Liquid & Gas lines)       -         Max.60       -         r & Outdoor air temperature > 43°C)       -         tdoor unit is lower)       -         Hole size \$\phi\$ 20 x 3 pcs.       -         -       -         5/5       -         able) / Termainal block (Screw fixing type)       -         IP24       Connecting pipe, Edging         stor : LB-T-5BW-E       s 7.5m.         bient conditions.       //U			
Installation Drain pump Recommer L.R.A. (Loc Interconnee IP number Standard a Option par Notes (1) (2 (3 (4 (5 (6 (6 (6) (6) (6) (6) (6) (6) (6) (6) (	Operation           ipments         Refrig           connet         Attach           Insula         Refrig           vertica         Drain           p, max lift heig         Drain           Coolin         Heatin           2) The operating         Sound level           3) Sound level         Sound level           3) Use 1/2H p         Panel col           Fine sno         Shadow bl	gerant piping necting methor ched length o ation for piping gerant line (c cal height diff n hose pight r size npere) e measured a em ration ling*1 ting*2 unditioner is n el indicates th breaker size tion data indit t specification pipe set "DIS pipes having ploor I ow T ow T ow T ou T ou T ou T ou T ou T ou T T	g size (O.D) od of piping ing one way) length f. between O/U ar Size x Cor Size x Cor Size x Cor at the following cc Indoor ai DB 27°C anufactured and he value in an ane according to the icate when the air ns for one unit. C. s - WB1G"x1, "DIS a 1.0mm or thick Panel model I-PSA-5BW-E -PSAE-5BW-E -PSAE-5BB-E -PSAE-5BB-E	Liquid line Gas line Gas line Ind I/U e number e number e number mditions. r temperature WB 19°C 20°C tested in conformi schoic chamber. Du wown national stand -conditioner is oper apacity and operati -WAI G"x2(Option) er wall for $\phi$ 19.05 Panel type Standard Draft prevention	mm m m m A A A A A A A A A A A A A A A	I/U φ 9.52 (3/8")       Pipe ③ (2)         O/U φ 1       O/U φ 1         I/U φ 15.88 (5/8")       φ 25.4         Flare p       -         Max.50       Max.30         Hose connectable 1       Built-in drain         Φ 1.6 mm x 3 co       IP:         Φ 0.7 O/D Paranch, ② : Branch-       IP:         Φ 0.0 I color)       3 / 0.1) near equivalent         2.9 / 0.6) near equivalent       10.0 (IP:	Overload pro Frost prot Internal therr Abnormal discharg ⊉ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ② \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( 2.7 (1/2") ③ \$\overline{9} 9.52 (3/8") × 0.8 ( ③ \$\overline{9} 0.6 (0.5 (0.5 (0.5 (0.5 (0.5 (0.5 (0.5 (0.5	a by source of the second se			



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

#### (a) Double twin type

ltom						woder				SAWDVH		
Rowor co	urco						in		3 Phase 380, 415V			
Fowersc		Nominal coolin	a capacity (range	)		k/M			20.0 [ 7 1(Min )	- 22 4(Max )]		
		Nominal heatin	g capacity (range	) )		kW			22.4 [ 6.6(Min.)	- 25.0(Max.)]		
		Normania	g oupdoiry (runge	Coolin	a				6.9	2		
		Power consum	ption	Heatin	q	kW			6.3	7		
		Max power cor	sumption		<u> </u>				12.	00		
				Coolin	g				11.0 /	11.6		
		Running currer	it	Heatin	g	А			15.5 /	16.3		
		Inrush current,	max current		-				5,	19		
0		Dan (a star		Coolin	g	0/			9			
Operation	n data	Power factor		Heatin	g	%			9			
		EER		Coolin	g				2.8	9		
		COP		Heatin	g				3.5	2		
		0		Coolin	g			50		72		
		Sound power in	evei	Heatin	g			29	ĺ	74		
		Council museous	a lavral	Coolin	g		_		25 1 - 07	58		
		Sound pressure	ellevel	Heatin	g	UD(A)		-ni. 44 ni. 40 ivie. 3	55 LU. 27	59		
		Silent mode		Coolin	g			55 /53(Normal/S				
		sound pressure	elevel	Heatin	g					56 /54(Normal/Silent)		
Exterior of	dimensio	ons (Height x Wig	tth x Depth)			mm		Unit 248 × 570 ×	570	1505×970×370		
								Panel 10 x 620 x	: 620			
Exterior a	appearar	nce						Fine snow	wivelent	Stucco white		
(IVIUNSEI)	color) ar )							(BAL 9003) near eq	uivalent	(4.2 t / .5/ t. t) near equivalent		
Net weight	ht					ka		Linit 13.5 Panol	25	144		
Compres	sor type	& O'tv				Ng				GTC5150SC40ME v 1		
Compres	sor mot	or (Starting meth	lod)			k\M				Direct line start		
Refrigera	nt oil (Ar	nount type)				1				1.55(M-MR75R)		
Refrigera	nt (Time	amount pre-0	harge length)			ka L			outdoor unit (Incl. the	amount for the piping of 30m)		
Heat exc	hander	., amount, pro-0				··9	L.	ouver fin & inner groo	ved tubing	M shape fin & inner grooved tubing		
Refrigera	anger 1t control							Louver fin & inner grooved tubing M shape fin & inner grooved tubing Electronic expansion valve				
Fan type	<u>it control</u> & Q'ty							Electronic expansion valve				
Fan moto	or (Startin	na method)				W		50 < Direct line st	tart >	86x2 < Direct line start >		
		ig mounda)		Coolin	a			00 ( Dirottinio )		148		
Air flow				Heatin	a	m°/min		P-Hi: 13 Hi: 11 Me:	9 Lo: 7	134		
Available	external	l static pressure			5	Pa		0		0		
Outside a	air intake	) )						Possible		_		
Air filter,	Quality /	Quantity					F	Pocket plastic net x1()	Nashable)	_		
Shock &	vibration	absorber						Rubber sleeve(for far	n motor)	Rubber sleeve (for fan motor & compressor)		
Electric h	eater					W		_	,	20(Crank case heater)		
		Remote contro	1					(Option) Wired :	RC-EX3A, RC-E5, P	CH-E3 Wireless : RCN-TC-5AW-E3		
Operation	n j	Room tempera	ture control						Thermostat b	/ electronics		
CONTROL		Operation disp	lay						-			
Safaty or	uipmont	ic.						Overload p	rotection for fan mot	or. Frost protection thermostat		
Salety et	upmen							Internal thermostat	for fan motor. Abno	mal discharge temperature protection		
				Liquid	line		I/U & 6.35	(1/4") Pipe 32φ 9.5	52(3/8")x0.8 ①φ 9.	52(3/8")x0.8 or		
				I LIQUIQ			$I/U \phi 6.35 (1/4")$ Pipe (3)(2) $\phi$ 9.52(3/8")x0.8 (1) $\phi$ 9.52(3/8")x0.8 or $\phi$ 12.7(1/2")x0.8 O/U $\phi$ 9.52(3/8")					
		Refrigerant pip	ing size	Liquid		mm	/// φ 12.7 (1/2") Pipe ③ φ 12.7x0.8 ② φ 15.88x1.0 ① φ 22.22(7/8")x1.0 or					
		Refrigerant pip (O.D)	ing size	Gas lin	ie	mm	I/U φ 12.7	(1/2") Pipe ③ φ 12.7x	(0.8 ② φ 15.88x1.0 or φ 28 58(1 1/8")x	(1) $\phi$ 22.22(7/8")x1.0 or		
		Refrigerant pip (O.D)	ing size	Gas lin	ie	mm	l/U φ 12.7	(1/2") Pipe ③ φ 12.7» φ 25.4(1")x1.0	(0.8 ② φ 15.88x1.0 or φ 28.58(1 1/8")x <sup>-</sup>	① φ 22.22(7/8")x1.0 or .0 O/U φ 22.22 (7/8")		
		Refrigerant pip (O.D) Connecting me	ing size	Gas lin	ie	mm	l/U φ 12.7	(1/2") Pipe ③ φ 12.7> φ 25.4(1")x1.0 Flare piping	(0.8 ② φ 15.88x1.0 or φ 28.58(1 1/8")x <sup>2</sup>	① φ 22.22(7/8")x1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing		
Installatio	on data 1	Refrigerant pip (O.D) Connecting me Attached lengt	ing size thod n of piping	Gas lin	ie	mm	I/U φ 12.7	· (1/2") Pipe ③ φ 12.7> φ 25.4(1")x1.0 Flare piping –	<ul> <li>(0.8 ② φ 15.88x1.0)</li> <li>or φ 28.58(1 1/8")x</li> <li>Necessary (both L</li> </ul>	<ol> <li>φ 22.22(7/8")×1.0 or</li> <li>O/U φ 22.22 (7/8")</li> <li>Liquid : Flare piping / Gas : Brazing</li> <li></li></ol>		
Installatio	on data	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p	ing size hthod h of piping jping (one way) length	Gas lin	ie		I/U φ 12.7	Pipe ③	<ul> <li>(0.8 ② φ 15.88×1.0 or φ 28.58(1 1/8")×</li> <li>Necessary (both L</li> </ul>	① φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) 70		
Installatic	on data	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line	ing size hthod n of piping jping (one way) length	Gas lin	ie	mm m m	I/U φ 12.7	(1/2") Pipe ③ φ 12.7> φ 25.4(1")x1.0 Flare piping - Max 50 (Outr	(0.8 ② φ 15.88x1.0 or φ 28.58(1 1/8")× Necessary (both L Max	() φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C)		
Installatic	on data	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height	ing size thod n of piping iping (one way) length diff, between Q/l	Gas lin	lê	mm 	I/U φ 12.7	(1/2") Pipe ③ \$\phi\$ 12.75 \$\phi\$ 25.4(1")X1.0 Flare piping 	0.8 (2) \$\phi\$ 1.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & hoor unit is higher &	(1) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C)		
Installatio	on data	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height	ing size thod n of piping iping (one way) length diff. between O/U	Gas lin	ie		I/U φ 12.7	(1/2") Pipe ③ ∲ 12.75	0.8 (2) \$\phi\$ 1.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoo			
Installatio	on data (	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose	ing size n of piping iping (one way) length diff. between O/U	Gas lin	ie	mm m m m	I/U φ 12.7	(1/2") Pipe (3) \$	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoor P20((0, D.26)			
Installatio Drain pur	on data np, max	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height	ing size thod n of piping jping (one way) length diff. between O/U	Gas lin	ie	mm m m m m	I/U φ 12.7	(1/2") Pipe ③ ¢ 12.75 ¢ 25.4(1")×1.0 Flare piping — Max.50 (Outo Max.30 (Outo Se connectable with V Built-in drain pumo	0.8 (2) \$\phi\$ 1.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoo P20(O.D.26) \$\phi\$ 850	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installatic Drain pur Recomm	n data np, max ended b	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size	ing size thod n of piping jping (one way) length diff. between O/L	Gas lin	ie	mm 	I/U φ 12.7	(1/2") Pipe ③	0.8 (2 φ 15.88x1.0 or φ 28.58(1 1/8")x <sup>-</sup> Necessary (both L Max door unit is higher & Max.15 (Outdoo 'P20(O.D.26) o, 850	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Drain pur Recomm L.R.A. (Lt	n data np, max ended b ocked ro	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere)	ing size thod n of piping iping (one way) length diff. between O/L	Gas lin	ie	mm m m m m A A	I/U φ 12.7	(1/2") Pipe ③	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoo P20(O.D.26) 0, 850 	(1) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 x 3 pcs. —		
Installatic Drain pur Recomm L.R.A. (Lo Interconr	nn data np, max ended b ocked ro necting w	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping (one way) length diff. between O/L Size x	Gas lin	r	mm m m m m M A A	/U φ 12.7	(1/2") Pipe (3) \$\phi\$ 12.75 \$\phi\$ 25.4(1")x1.0 Flare piping 	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x^- Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoor P20(O.D.26) 0, 850 5 cores + earth cable /			
Drain pur Recomm L.R.A. (Lo Intercomo	np, max ended b ocked ro ecting w	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping iping (one way) length diff. between O/L	Gas lin and I/U Core numbe	r	mm m m m m M A A	H/U φ 12.7	(1/2") Pipe ③	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoo P20(O.D.26) 0, 850 5. cores + earth cable /			
Installatic Drain pur Recomm L.R.A. (Lo Interconr Interconr Interconr	np, max ended b ocked ro ecting w ar	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping (one way) length diff. between O/L	I and I/U	r	mm m m m A A	<i>I/U φ</i> 12.7	(1/2*) Pipe (3) \$	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & Max.15 (Outdoor (P20(O.D.26)) 0, 850 	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 × 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging		
Installatic Drain pur Recomm L.R.A. (Lt Interconr IP numbe Standard Option pu	mp, max ended b ocked ro necting w er accesso arts	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping (one way) length diff. between O/U	Gas lin	r	mm m m m A A	<i>I/U φ</i> 12.7 	(1/2") Pipe ③ φ 12.75 φ 25.4(1")x1.0 Flare piping — Max.50 (Outo Max.30 (Outo Max.30 (Outo See connectable with V Built-in drain pump φ 1.6mm x 3 ( IPX0 Mounting kit, Drair OA Spacer : T	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & Max.15 (Outdoo (P20(O.D.26) 5, 850 	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 x 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging DE-E, Motion sensor : LB-TC-5W-E		
Installatic Drain pur Recomm L.R.A. (Lo Interconr IP numbe Standard Option p: Notes (	mp, max ended b ocked ro necting w er accesso arts 1) The d	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping (one way) length diff. between O/L Size x ed at the followi	Gas lin Gas lin I and I/U Core numbe		mm m m m A A	<i>V</i> U φ 12.7	(1/2") Pipe ③ φ 12.75 φ 25.4(1")×1.0 Flare piping — — — — — — — — — — — — — — — — — — —	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & Max.15 (Outdoo 'P20(O.D.26) 0, 850 	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 x 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging E , Motion sensor : LB-TC-5W-E		
Installatic Drain pur Recomm L.R.A. (Lt Interconr IP numbe Standard Option pa Notes (	nn data mp, max ended b ocked ro necting w ar accesso arts 1) The d	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires	ing size thod n of piping (one way) length diff. between O/L Size x ed at the followi	Gas lin Gas lin Core numbe	r	mm m m m A A		(1/2") Pipe ③ φ 12.75 φ 25.4(1")×1.0 Flare piping — Max.50 (Outo Max.30 (Outo Se connectable with V Built-in drain pump φ 1.6mm x 3 o IPX0 Mounting kit, Drair OA Spacer : T The pipe length	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x" Necessary (both L Max door unit is higher & Max.15 (Outdoo 'P20(O.D.26) 0, 850 	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installatic Drain pur Recomm L.R.A. (Lo Intercom IP numbe Standard Option pi Notes (	on data np, max ended b ocked ro necting w arts 1) The d Operation	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories	ed at the followi	Gas lin Gas lin J and I/U Core numbe	r	mm m m m A A A	HOU φ 12.7	(1/2") Pipe ③ ∲ 12.75 ∲ 25.4(1")x1.0 Flare piping — Max.50 (Outo Max.30 (Outo Be connectable with V Built-in drain pump ∳ 1.6mm x 3 i IPX0 Mounting kit, Drair OA Spacer : T The pipe length Standards	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x^- Necessary (both L Max door unit is higher & Max.15 (Outdoo P20(O.D.26) 0, 850 	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installatic Drain pur Recomm L.R.A. (Lo Interconn IP numbe Standard Option pi Notes (	on data mp, max ended b ocked ro laccesso arts 1) The d Operation	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires cories	ing size thod n of piping iping (one way) length diff. between O/L Size x ed at the followi Indoor air te DB 27°C	Gas lin Gas lin J and I/U Core number ng condition mperature WB 19°C	r IS.	mm m m m A A A Operaintem; 3	U φ 12.7	(1/2*) Pipe ③	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x^- Necessary (both L Max door unit is higher & door unit is higher & Max.15 (Outdoo P20(O.D.26) 0, 850 	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 x 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging E , Motion sensor : LB-TC-5W-E		
Drain pur Recomm L.R.A. (Lo Intercomr IP numbe Standard Option pa Notes (	on data mp, max ended b ocked ro necting w or accesso arts 1) The d Operatio	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires pories	ing size thod n of piping (one way) length (one way) length diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C	Gas lin Gas lin I and I/U Core numbe	r 000000000000000000000000000000000000	mm m m m A A A Operair temp 3 C	UU \$\$ 12.7	(1/2*) Pipe ③ \$\phi\$ 12.75 \$\phi\$ 25.4(1*)x1.0 Flare piping 	0.8 (2) \$\phi\$ 15.88x1.0 or \$\phi\$ 28.58(1 1/8")x^- Necessary (both L Max door unit is higher & Max.15 (outdoo P20(0.D.26) ), 850  5. cores + earth cable / hose C-OAS-E2 , TC-OAE is 7.5m.	() \$\$\$ \$		
Installation Drain pur Recomm L.R.A. (Lo Interconr IP number Standard Option pr Notes (	on data mp, max ended b ocked ro laccesso arts 1) The d Operatio Co He	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories lata are measur on litem on litem	ing size thod n of piping (one way) length diff. between O/U Size x ed at the followi Indoor air te DB 27°C 20°C	Gas lin Gas lin I and I/U Core numbe	r IS. Outdd 35'' 7'C	mm m m m A A A oor air tem 3 C	UU \$\$ 12.7	(1/2*) Pipe (3) \$	0.8       (2)       (2)       (2)         0 or \$\phi\$ 28.58(1 1/8")x"         0 or \$\phi\$ 28.58(1 1/8")x"         Necessary (both L         Max         door unit is higher &         door unit is higher &         Max.15 (Outdoor         P20(O.D.26)         0.5         cores + earth cable /         n hose         C-OAS-E2 , TC-OAI         is 7.5m.	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Drain pur Recomm L.R.A. (Lo Interconr IP numbe Standard Option pr Notes (	on data mp, max ended b ocked ro lecting w accesso arts 1) The d Operatio Cc He 2) This a	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories lata are measur pooling pating air-conditioner i	ing size thod n of piping (one way) length diff. between O/U Size x ed at the followi Indoor air te DB 27'C 20'C s manufactured	Gas lin Gas lin I and I/U Core numbe	r IB IS. Outdd ISC ISC ISC ISC ISC ISC ISC ISC ISC ISC	mm m m m A A A C C C	UU \$\$ 12.7	(1/2*) Pipe ③ φ 12.75 φ 25.4(1*)x1.0 Flare piping — Max.50 (Outo Max.30 (Outo Max.30 (Outo See connectable with V Built-in drain pump φ 1.6mm x 3 ( IPX0 Mounting kit, Drair OA Spacer : T The pipe length Standards ISO5151-T1 ISO5151-T1	(0.8 (2) \$\phi\$ 1.88x1.0     or \$\phi\$ 28.58(1 1/8")x^2     Necessary (both L     Max door unit is higher &     Max.15 (Outdoo     P20(O.D.26)     \$     cores + earth cable /     n hose     C-OAS-E2 , TC-OAI     is 7.5m.       thigher due to cond	① φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing 		
Installatic Drain pur Recomm L.R.A. (Lt Interconr IP numbe Standard Option pa Notes ( ( ( (	on data mp, max ended b ocked ro necting w accesso arts 1) The d Operation Co He 2) This a 3) Soler	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires lata are measur on boiling eating air-conditioner it d level indicate	ing size thod n of piping jping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an a caccording to	Gas lin Gas lin J and I/U Core numbe Core numbe MB 19°C — and tested i anechoic d anechoic d	r IS. INTERPORT	mm m m m A A A C C C C C C C	HU \$\$ 12.7	(1/2*) Pipe ③ φ 12.75 φ 25.4(1*)x1.0 Flare piping — — Max.50 (Outo Max.30 (Outo Max.30 (Outo Max.30 (Outo See connectable with V Built-in drain pump φ 1.6mm x 3 ( IPX0 Mounting kit, Drain OA Spacer : T The pipe length Standards ISO5151-T1 ISO5151-T1	(a) (2) (4) (5) (5) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installation Drain pur Recomm L.R.A. (Loc Intercom IP number Standard Option por Notes ( ( ( ( ( ( ( ( ( ( ( ( ( (	on data mp, max ended b ocked ro necting w arts 1) The d Operatic Co He 2) This a 3) Sound 4) Selec 5) The o	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories lata are measur on booling eating air-conditioner i d level indicate t the breaker si	ing size thod n of piping iping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ze according to dicate when the	Gas lin Gas lin J and I/U Core numbe ng condition mperature WB 19°C — and tested i anechoic cl the own nat	r IS. Outda IS. INTERPORT	mm m m m m m A A A A C C C C C C C C C C C C C C C C	UU \$ 12.7	(1/2*)         Pipe ③ ∲ 12.75 ∲ 25.4(1*)x1.0           Flare piping         -           -         -           Max.50 (Outo Max.30 (Outo se connectable with V Built-in drain pump	(a) (2) (4) (5) (5) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installatic Drain pur Recomm L.R.A. (Lc Interconn IP numbe Standard Option pi Notes ( ( ( ( ( ( ( (	on data mp, max ended b ocked ro necting w ar accesso arts 1) The d Operation (Co He 2) This a 3) Sound 4) Selec 5) The o 6) Indoo	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories tata are measur on tem on oling eating air-conditioner i d level indicate t the breaker si peration data ii peration data ii	ing size thod n of piping iping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ze according to ndicate when the tions for one unit	Gas lin Gas lin J and I/U Core numbe Core numbe Ing condition mperature WB 19°C — — and tested i anechoic cl the own nat a e air-conditio t. Capacity a	r IS. Outdd ISS ISS ISS ISS ISS ISS ISS ISS ISS I	mm m m m m m A A A A C C C C C C C C C C C	UU \$ 12.7	(1/2*) Pipe ③	(0.8 (2) \$\phi\$ 15.88x1.0     (or \$\phi\$ 28.58(1 1/8")x^{-1}x	(Î φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging HE , Motion sensor : LB-TC-5W-E ient conditions.		
Installatic Drain pur Recomm L.R.A. (Lo Interconn IP numbe Standard Option pi Notes ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	on data mp, max ended b ocked ro lecting w ar accesso arts 1) The d Operatic Co He 2) This a 3) Souma 4) Selec 5) The o 6) Indoo	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires Dries lata are measur nooling eating air-conditioner i d level indicate t the breaker si peration data i peration data i ching pipe set	ing size thod n of piping iping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C s manufactured s the value in an ze according to ndicate when thh ions for one uni DIS-WB1G"×1,"	Gas lin Gas lin J and I/U Core numbe Core numbe Ing condition mperature WB 19°C — and tested i anechoic cl the own nat e air-conditio t. Capacity <i>i</i> DIS-WA1G"	r Inconformation Inco	mm m m m m A A A A C C C C C C C C C C C	Hore the second	(1/2*) Pipe ③ \$\$\$\$ 12.75 \$	0.8       (2)       (2)       (2)         0 or \$\u03c6 28.58(1 1/8")x"       1/8")x"         Necessary (both L       Max         Joor unit is higher &       Max.15         Joor unit is higher &       Max.15         Max.15       (Outdoor 1000)         P20(O.D.26)       -         >, 850       -         1       hose         COAS-E2, TC-OAE       -         is 7.5m.       -	<ul> <li>(Î) φ 22.22(7/8")×1.0 or</li> <li>O O/U φ 22.22 (7/8")</li> <li>Liquid : Flare piping / Gas : Brazing</li></ul>		
Installatio	on data mp, max ended b ocked ro lecting wer accesso arts 1) The d Operatic Cc Ct Ct Ct Ct Ct Ct Ct Ct Ct Ct	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires cories lata are measur nooling eating air-conditioner i d level indicate t the breaker sis peration data ir or unit specifica shing pipe set "/2H pipes havi	ing size thod n of piping (one way) length (one way) length diff. between O/U Size x ed at the followi Indoor air te DB 27'C 20'C s manufactured s the value in an ze according to ndicate when th tions for one uni DIS-WB1G"×1," ng a 1.0mm or ti	Gas lin Gas lin I and I/U Core numbe Core numbe MB 19°C — and tested i anechoic cl the own nat e air-conditic t. Capacity a plaswith a condition t. Capacity a plaswith a condition the condition t. Capacity a plaswith a condition t. Capacity a condition t. Capacity a condit	r Inconforminamber Du Inco	mm m m m m A A A A C C C C C C C C C C C	HU \$\phi\$ 12.7	(1/2*)         Pipe ③ φ 12.75 φ 25.4(1*)x1.0           Flare piping         -           Max.50 (Outo Max.30 (Outo Max.30 (Outo See connectable with V Built-in drain pump           φ 1.6mm x 3 of IPX0           Mounting kit, Drain OA Spacer : T           The pipe length           Standards           ISO5151-T1           ISO5151-H1           values are somewha or 380V 60Hz.           r units are combined anch, ② : Branch —	(0.8 (2) \$\phi 15.88x1.0         or \$\phi 28.58(1 1/8")x^2             Necessary (both L             Max         door unit is higher &             Max.15 (Outdoo             P20(0.0.26)             , s50	(Î) φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging DEE, Motion sensor : LB-TC-5W-E ient conditions. — I/U		
Installatio	on data mp, max ended b ocked ro lecting war accesso arts 1) The d Operatio Cr He 2) This a 3) Sound 4) Selec 5) The o 6) Indoo 7) Branc 8) Use 1	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories lata are measur on soling eating d level indicates t the breaker si peration data in r unit specifica thing pipe set " /2H pipes havi irilla type	ing size thod n of piping jiping (one way) length diff. between O/U Size x ed at the followi Indoor air te DB 27'C 20'C s manufactured s the value in an ze according to ndicate when the tions for one uni DIS-WB1G"×1," g a 1.0mm or tl	Gas lin Gas lin J and I/U Core numbe Core numbe I g condition mperature WB 19°C — and tested i anechoic cl anechoic cl anechoic cl capacity a DIS-WA1G" incker wall fi	r Inconforminamber. Du Inconfo	mm m m m m A A A A A C C C C C C C C C C	berature WB 24'C 6'C ISO. Vt 50Hz o four indoo O/U – Braipes.	(1/2*) Pipe (3) \$	All Content of the second seco	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size $\phi$ 20 x 3 pcs. — — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging -E , Motion sensor : LB-TC-5W-E ient conditions. — I/U		
Installatio	on data mp, max ended b ocked ro necting w accesso arts 1) The d Operation Co He 2) This a 3) Sound 4) Selec 5) The o 6) Indoo 7) Branc 8) Use 1 G	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires lata are measur on boiling eating air-conditioner i d level indicate it the breaker si t the breaker si t the preaker si	ing size thod n of piping jiping (one way) length diff. between O/U Giff. between O/U Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ce according to ndicate when thi tions for one uni DIS-WB1G"x1," ng a 1.0mm or ti Panel mode	Gas lin Gas lin J and I/U Core numbe Core numbe Ing condition mperature WB 19°C — and tested i anechoic cl the own nat a anechoic cl the own nat a air-conditio t. Capacity a DIS-WA1G" nicker wall for al	r Inconforminamber. Du Inconfo	mm m m m A A A A C C C C C C C C C C C C	berature WB 24°C 6°C ISO. ttion these 00V 50Hz o four indoo 0/U – Brai jpes. Panel color	(1/2") Pipe ③ φ 12.75 φ 25.4(1")x1.0 Flare piping — — Max.50 (Outo Max.30 (Outo Max.30 (Outo See connectable with V Built-in drain pump φ 1.6mm x 3 ( IPX0 Mounting kit, Drair OA Spacer : T The pipe length Standards ISO5151-T1 ISO5151-T1 ISO5151-T1 Values are somewha or 380V 60Hz. r units are combined anch, ② : Branch —	All (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	(Î) $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		
Installatio	on data mp, max ended b ocked ro necting w arts 1) The d Operatic Co He 2) This a 3) Sound 4) Selec 5) The o 6) Indoo 7) Branc 8) Use 1 G He	Refrigerant pip (O.D) Connecting me Attached lengt Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories data are measur on bata	ing size thod n of piping iping (one way) length diff. between O/U diff. between O/U Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ze according to dicate when the tions for one uni DIS-WB1G"x1," ng a 1.0mm or ti Panel mode TC-PSA-5AV	Gas lin Gas li	r IIS. INTERPORT	mm m m m m A A A A A A C C C C C C C C C	UU \$ 12.7	(1/2") Pipe ③ ∲ 12.75 ¢ 25.4(1")x1.0 Flare piping — Max.50 (Outo Max.30 (Outo Be connectable with V Built-in drain pump ¢ 1.6mm x 3 IPX0 Mounting kit, Drair OA Spacer : T The pipe length Standards ISO5151-T1 ISO5151-H1 values are somewha or 380V 60Hz. r units are combined anch, ② : Branch —	All (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	(Î) φ 22.22(7/8")×1.0 or .0 O/U φ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — quid & Gas lines) .70 Dutdoor air temperature ≤ 43°C) Dutdoor air temperature > 43°C) or unit is lower) Hole size φ 20 x 3 pcs. — 0 Terminal block (Screw fixing type) IP24 Connecting pipe, Edging -E , Motion sensor : LB-TC-5W-E ient conditions. — I/U		
Installatic Drain pur Recomm L.R.A. (Lc Interconn IP numbe Standard Option pi Notes ( ( ( ( ( ( ( ( ( ( ( ( ( (	on data mp, max ended b ocked ro necting w ar accesso arts 1) The d Operatic Co He 2) This a 3) Sound 4) Selec 5) The o 6) Indoo 7) Brance 8) Use 1 G Ho	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires ories atta are measur on tem on tem on n cooling aating air-conditioner i d level indicate t the breaker si peration data ii peration data ii viril pipe set " /2H pipes havi virile type	ing size thod n of piping iping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ze according to ndicate when thm tions for one uni DIS-WB1G"×1," ng a 1.0mm or t Panel mode TC-PSAE-5AV	Gas lin Gas li	r IIS. Outdo IIIS. IIIS. IIIIIIIIIIIIIIIIIIIIIIIIII	mm m m m m A A A A A C C C C C C C C C C	UU \$ 12.7	(1/2") Pipe ③	All Content of the second seco	(i) φ 22.22(7/8")×1.0 or         .0 O/U φ 22.22 (7/8")         Liquid : Flare piping / Gas : Brazing		
Installatic Drain pur Recomm L.R.A. (Lc Interconn IP numbe Standard Option pi Notes ( ( ( ( ( ( ( ( ( ( (	on data mp, max ended b pocked ro lecting w er accesso arts 1) The d Operatic Co He 2) This a 3) Sounna 4) Selec 5) The o 6) Indoo 7) Branc 8) Use 1 G Ho	Refrigerant pip (O.D) Connecting me Attached lengti Insulation for p Refrigerant line Vertical height Drain hose lift height reaker size tor ampere) vires cories lata are measure not seating air-conditioner i d level indicate t the breaker si peration data ii peration data ii ching pipe set " /2H pipes havi irrille type oneycomb	ing size thod n of piping iping (one way) length diff. between O/L diff. between O/L Size x ed at the followi Indoor air te DB 27°C 20°C s manufactured s the value in an ze according to ndicate when th tions for one uni DIS-WB1G"×1," ng a 1.0mm or ti Panel mode TC-PSAE-5AV TC-PSAE-5AV	Core numbe     Core numbe     Core numbe     mperature     WB     19°C  and tested i     anechoic cl the own nat     e air-conditio     DIS-WA1G"     nicker wall fe el     F /-E     S V-E     Dra V-E     S	r Ins. Ins. Ins. Ins. Ins. Ins. Ins. Ins.	mm m m m A A A A A C C C C C C C C C C C	UU \$\phi\$ 12.7	(1/2") Pipe ③ \$\phi\$ 12.75 \$\phi\$ 25.4(1")x1.0 Flare piping 	All Content of the second seco	() $\phi$ 22.22(7/8")×1.0 or .0 O/U $\phi$ 22.22 (7/8") Liquid : Flare piping / Gas : Brazing — — — — — — — — — — — — —		

1				Iviodei		FDIG	50VSAWDVH			
Item					Indoor unit FDT	C60VH (4 units)	Outdoor unit FDC250VSA-W			
Power sour	rce					3 Phase 380-4	15V 50Hz / 380V 60Hz			
	Nominal cool	ling capacity (range)		kW		25.0 [ 7.1(	Vin.) - 28.0(Max.)]			
	Nominal heat	ting capacity (range)		kW		28.0 [ 5.2(	Vin.) - 31.5(Max.)]			
	Power consu	motion	Cooling				9.43			
	Fower consu	Imption	Heating	kW			8.75			
	Max power c	onsumption					11.2			
	Bunning our	ont	Cooling			1.	4.7 / 15.5			
		ent	Heating	A		1	3.9 / 14.6			
	Inrush curren	it, max current		1			5, 20			
			Cooling	<u> </u>			93			
Operation d	data Power factor		Heating	%			91			
	EER		Cooling				2.65			
	COP		Heating				3.20			
			Cooling				73			
	Sound power	r level	Heating		6	0	75			
			Cooling				58			
	Sound press	ure level	Heating	dB(A)	P-Hi: 46 Hi: 42	Me: 38 Lo: 31	62			
	Silent mode		Cooling				56 / 55 (Normal/Silent)			
	sound press	ire level	Heating		-					
			Theating		Linit 2/18 v	570 × 570				
Exterior dim	nensions (Height x V	Vidth x Depth)		mm	Panel 10 x	620 × 620	1505 × 970 × 370			
Exterior apr	nearance				Fine (	020 × 020	Stucco white			
(Muneoll oc	pour unice					ear equivalent	(4 2V7 5/1 1) pear equivalant			
	)				(BAL 0003) pc	ar equivalent	(RAI 7044) near equivalent			
Not wainht	/			ka		Panol 2 5	14E			
	or type & O'ty			ĸy	Unit 13.5	1 and 2.0	140 GTC51509C40ME 1			
Compresso	n type of Q Ly	athad		1444		-				
Dofring	oil (Amount track	eu 100)		KVV		-				
Reirigerant	OII (AMOUNT, TYPE)	ala aveca 1		L	-	- E dia aminina di Alfred				
Retrigerant	(1ype, amount, pre	-cnarge length)		кg	K32	b. I in outdoor unit (Ind	i. the amount for the piping of 30m)			
Heat excha	anger				Louver fin & inne	r grooved tubing	M shape fin & inner grooved tubing			
Refrigerant	control					Electronic	expansion valve			
Fan type &	Q'ty				Turbo f	an × 1	Propeller fan × 2			
Fan motor (	(Starting method)		1	W	50 < Direct	line start >	86 × 2 < Direct line start >			
Air flow			Cooling	m³/min	P-Hi: 14 Hi: 12	Me: 10 Lo: 8	148			
			Heating	,			153			
Available ex	xternal static pressu	re		Pa	C	)	0			
Outside air	intake				Poss	sible	-			
Air filter, Qu	uality / Quantity				Pocket plastic ne	et ×1 (Washable)	_			
Shock & vib	bration absorber				Rubber sleeve	(for fan motor)	Rubber sleeve (for compressor )			
Electric hea	ater			W	C	)	20 (Crank case heater)			
	Remote cont	rol			(Option) Wi	red : RC-EX3A , RC-E	5, RCH-E3 Wireless : RCN-TC-5AW-E3			
Operation	Room tempe	rature control				Thermos	at by electronics			
Control	Operation dis	splay					_			
						Overload pro	tection for fan motor			
Cofety any						Frost prot	ection thermostat			
Salety equil	ipments					Internal then	nostat for fan motor			
						Abnormal dischar	e temperature protection			
			Liquid line		I/U & 6 35 (1/4") Pipe 32	2φ 9.52 (3/8") × 0.8	1) φ 12.7 (1/2") × 0.8			
	Refrigerant p	ipina size (O.D)	Liquid into	mm	φ 0/υ φ 1	2.7 (1/2")	_			
	i tonigorani p	iping 6i26 (612)	Gas lino		I/U φ 12.7 (1/2") Pipe 3 φ	φ 12.7 × 0.8 ②φ 15.	$88 \times 1.0  (1) \phi  22.22  (7/8") \times 1.0 \text{ or}$			
			Gas IIIE		φ 25.4 (	$I/U \phi$ 12.7 (1/2") Pipe (3) $\phi$ 12.7 × 0.8 (2) $\phi$ 15.88 × 1.0 (1) $\phi$ 22.22 (7/8") × 1.0 or $\phi$ 25.4 (1") × 1.0 or $\phi$ 28.58 (1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8")				
	O a marking and	a a dia a di	Gasine		Flare piping Liquid : Flare / Gas : Brazing					
	Connecting r	nethod	Gasille	<i>w</i> -	Flare p	biping	1 1/8") × 1.0 Ο/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing			
Installation	Connecting r Attached leng	nethod gth of piping	Gasinie	m	Flare p -	biping	1 1/8") × 1.0 O/U ϕ 22.22 (7/8") Liquid : Flare / Gas : Brazing 			
Installation	data Connecting r Attached leng Insulation for	nethod gth of piping piping		m	Flare p	biping - Necessary (bo	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing 			
Installation	data Connecting r Attached leng Insulation for Refrigerant I	nethod gth of piping piping ine (one way) length		m	Flare	Necessary (bo	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing - th Liquid & Gas lines) Max.70			
Installation	data Connecting r Attached leng Insulation for Refrigerant I	nethod gth of piping piping ine (one way) length		m	Flare p 	Necessary (bc	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 r & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature ≤ 43°C)			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh	nethod gth of piping piping ine (one way) length nt diff. between O/U a	nd I/U	m m m	Flare p 	Necessary (bc) (Outdoor unit is high) (Outdoor unit is high)	1 1/8") × 1.0 O/U ϕ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C)			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh	nethod g hof piping piping ine (one way) length it diff. between O/U a	nd I/U	m m m	Flare p 	) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high Max.15 (Outdoor unit is high	1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Liquid & Liquid Ring of OCCUP			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose	nethod gth of piping ; piping ine (one way) length it diff. between O/U a	nd I/U	m m m	Hare p 	) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high Max.15 (OL with VP25 (O.D.32)	1 1/8") × 1.0 O/U $φ$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size $φ$ 20 x 3 pcs.			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose b, max lift height	nethod gth of piping piping ine (one way) length nt diff. between O/U a	nd I/U	m m m	Flare p 	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Outdoor unit is high)</li> </ul>	1 1/8") × 1.0 O/U $φ$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size $φ$ 20 x 3 pcs. —			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose p, max lift height ded breaker size	nethod gth of piping piping ine (one way) length nt diff. between O/U a	nd I/U	m m m mm	Hare Flare F	<ul> <li>) Necessary (bc)</li> <li>Necessary (bc)</li> <li>) (Outdoor unit is high)</li> <li< td=""><td>1 1/8") × 1.0 O/U <math>\phi</math> 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid &amp; Gas lines) Max.70 or &amp; Outdoor air temperature ≤ 43°C) er &amp; Outdoor air temperature &gt; 43°C) tdoor unit is lower) Hole size <math>\phi</math> 20 x 3 pcs. —</td></li<></ul>	1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 or & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size $\phi$ 20 x 3 pcs. —			
Drain pump Recommen L.R.A. (Lock	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose o, max lift height ded breaker size ked rotor ampere)	nethod gth of piping piping ine (one way) length at diff. between O/U a	nd I/U	m m m M A A	Hare p Max.50 Max.30 Hose connectable Built-in drain	) (Outdoor unit is high 0 (Outdoor unit is high 0 (Outdoor unit is high 0 (Outdoor unit is high Max.15 (OL with VP25 (O.D.32) pump , 850	1 1/8") × 1.0 O/U $\phi$ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size $\phi$ 20 x 3 pcs. — 5/5			
Drain pump Recommen L.R.A. (Lock Interconnec	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose p, max lift height ided breaker size ked rotor ampere) cting wires	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co	nd I/U re number	m m m A A	Hare μ 	) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high Max.15 (Ou with VP25 (O.D.32) pump , 850 res (Including earth o	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — 5/5 able) / Termainal block (Screw fixing type)			
Drain pump Recommen L.R.A. (Lock Interconnec IP number	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose b, max lift height ded breaker size ked rotor ampere) cting wires	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co	nd I/U re number	m m m A A	Flare μ 	) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high Max.15 (Ou with VP25 (O.D.32) pump , 850 res (Including earth of X0	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 eable) / Termainal block (Screw fixing type) IP24			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose p, max lift height Ided breaker size ked rotor ampere) cting wires ccessories	nethod gth of piping piping ine (one way) length nt diff. between O/U a Size x Co	nd I/U re number	m m m A A	Flare μ 	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Outwith VP25 (O.D.32)</li> <li>pump , 850</li> <li>res (Including earth of X0</li> <li>, Drain hose</li> </ul>	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 er & Outdoor air temperature ≤ 43°C) er & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 eable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option parts	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D, max lift height ided breaker size ked rotor ampere) cting wires ccessories ts	nethod gth of piping piping ine (one way) length nt diff. between O/U a Size x Co	nd I/U re number	m m m A A	<ul> <li>Flare μ</li> <li>-</li> <li>Max.50</li> <li>Max.30</li> <li>Mose connectable +</li> <li>Built-in drain</li> <li>φ 1.6 mm x 3 co</li> <li>IP</li> <li>Mounting kit</li> <li>OA Space</li> </ul>	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Outdoo</li></ul>	1 1/8") × 1.0 O/U ϕ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) tdoor unit is lower) Hole size ϕ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose o, max lift height ded breaker size ked rotor ampere) cting wires ccessories ts The data are measu	nethod gth of piping piping ine (one way) length at diff. between O/U a Size x Co	nd I/U re number	m m m A A	<ul> <li>Flare μ</li> <li>Max.50</li> <li>Max.30</li> <li>Hose connectable</li> <li>Built-in drain</li> <li>φ 1.6 mm x 3 co</li> <li>IP</li> <li>Mounting kit</li> <li>OA Space</li> </ul>	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (OL</li> <li>with VP25 (O.D.32)</li> <li>pump , 850</li> <li>res (Including earth of X0)</li> <li>, Drain hose</li> <li>per : TC-OAS-E2 , TC-</li> <li>The pipe length</li> </ul>	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose o, max lift height nded breaker size ked rotor ampere) cting wires ccessories ts The data are measu	nethod gth of piping piping ine (one way) length nt diff. between O/U a Size x Co Size x Co rred at the following c Item Indoor a	nd I/U re number onditions. r temperature	m m m A A A	Flare μ 	<ul> <li>) (Outdoor unit is high</li> <l< td=""><td>1 1/8') × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid &amp; Gas lines) Max.70 ar &amp; Outdoor air temperature ≤ 43°C) ar &amp; Outdoor air temperature &gt; 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.</td></l<></ul>	1 1/8') × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ad Option part Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose p, max lift height ded breaker size ked rotor ampere) cting wires ccessories ts The data are measu Operation	nethod gh of piping piping ine (one way) length it diff. between O/U a Size x Co ired at the following c Item Indoor a DB	re number onditions. r temperature WB	m m m A A A Outd	Flare μ Flare	) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high ) (Outdoor unit is high Max.15 (OL with VP25 (O.D.32) pump , 850 res (Including earth of X0 ;, Drain hose cer : TC-OAS-E2 , TC- The pipe length Standards	1 1/8') × 1.0 O/U φ 22.22 (7/8'') Liquid : Flare / Gas : Brazing  th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs.  Hole size φ 20 x 3 pcs.  J J Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D, max lift height ded breaker size ked rotor ampere) cting wires The data are measu Operation Cooling	nethod gth of piping ip piping ine (one way) length it diff. between O/U a Size x Co Size x Co Item Indoor a DB 27°C	re number	m m m A A A Outd DB	Flare μ Flare	<ul> <li>Necessary (bc</li> <li>Necessary (bc</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Ou</li> <li>with VP25 (O.D.32)</li> <li>pump , 850</li> </ul> res (Including earth of X0 control (Control (Co	1 1/8") × 1.0 O/U <i>φ</i> 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size <i>φ</i> 20 x 3 pcs. — — 5/5 able) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E, Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D, max lift height Ided breaker size ked rotor ampere) cting wires ccessories ts The data are measu Operation Cooling Heating	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co red at the following c Item Indoor a DB 27°C 20°C	re number  ponditions. r temperature  WB  19°C  _	m m m A A A Outd DB 35°C	Flare μ       Max.50       Max.31       Hose connectable μ       Built-in drain       φ 1.6 mm x 3 co       IP       Mounting kit       OA Space       oor air temperature       WB       24°C       6°C	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Outdoo</li></ul>	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D	nethod gth of piping piping ine (one way) length at diff. between O/U a Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and	nd I/U re number nditions. r temperature 19°C 1 I tested in conformi	m m m A A A Outd DB 35°C 7°C y with the 1	Flare μ Flare	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (OU</li> <li>with VP25 (O.D.32)</li> <li>pump , 850</li> <li>res (Including earth of the transformation of the transformat</li></ul>	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m.			
Drain pump Recommen L.R.A. (Lock Interconnec Standard ac Option part: Notes (1)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose o, max lift height ded breaker size ked rotor ampere) cting wires Cocessories ts The data are measu Operation Cooling Heating Philametric conditione Sound level indica	rethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an	re number ponditions. r temperature WB 19°C 	m m m A A A A Outd DB 35°C 7°C ty with the 1 ring operati	Flare μ	<ul> <li>) (Outdoor unit is high</li> <li>) (Outdoor unit is high&lt;</li></ul>	1 1/8") × 1.0 O/U ¢ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size ¢ 20 x 3 pcs. — — 5/5 rable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part Notes (1) (2) (3) (4)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the	nd I/U re number nd I/U re number nd I/U re number nd I/U re number lt tested in conformi cohoic chamber. Du own national stand	m m m A A A A A S S C U t W the I r C t y with the I r c t y with the I r c t y with the I s c c t y c	Flare ; Max.50 Max.30 Hose connectable Built-in drain ↓ ↓ 1.6 mm x 3 co IP: Mounting kit OA Spac oor air temperature WB ↓ 24°C 6°C SO. oon these values are somew	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (OL</li> <li>with VP25 (O.D.32)</li> <li>pump , 850</li> <li>res (Including earth of X0</li> <li>c, Drain hose</li> <li>cer : TC-OAS-E2 , TC-</li> <li>The pipe length</li> <li>Standards</li> <li>ISO5151-T1</li> <li>ISO5151-T1</li> <li>ISO5151-H1</li> <li>what higher due to am</li> </ul>	1 1/8') × 1.0 O/U φ 22.22 (7/8'')  Liquid : Flare / Gas : Brazing  th Liquid & Gas lines)  Max.70  r & Outdoor air temperature ≤ 43°C)  r & Outdoor air temperature > 43°C)  tdoor unit is lower)  Hole size φ 20 x 3 pcs.  Hole size φ 20 x 3 pcs.  Description:  S/5  able) / Termainal block (Screw fixing type)  IP24 Connecting pipe, Edging OAD-E, Motion sensor : LB-TC-5W-E is 7.5m.  bient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part Notes (1) ( ( ( ( ) ( ) ( ) ( 4) ( 5) ( 4) ( 5)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D, max lift height ded breaker size ked rotor ampere) cting wires Ccessories ts The data are measu Operation Cooling Heating Diselect the breaker Diselect the breaker Diselect the breaker Diselect the breaker Code the breaker Diselect th	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai	re number onditions. r temperature WB 19°C - I tested in conformi conditioner is ope own national stand	m m m A A A Outid DB 35°C y with the I ring operati ard. ared at 230 con drt 100	Flare μ           Max.50           Max.30           Hose connectable           Built-in drain           Φ           Max.30           Hose connectable           Built-in drain           Φ           Mounting kit           OA Space           oor air temperature           WB           2           24°C           6°C           SO.           ion these values are somew           W50Hz or 220V 60Hz.	<ul> <li>Necessary (bc</li> <li>Necessary (bc</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Ou</li> <li>with VP25 (O.D.32)</li> <li>pump , 850</li> <li>res (Including earth of X0</li> <li>c, Drain hose</li> <li>cer : TC-OAS-E2 , TC-</li> <li>The pipe length</li> <li>Standards</li> <li>ISO5151-T1</li> <li>ISO5151-T1</li> <li>ISO5151-H1</li> <li>what higher due to am</li> </ul>	1 1/8') × 1.0 O/U φ 22.22 (7/8')  Liquid : Flare / Gas : Brazing  th Liquid & Gas lines)  Max.70  ar & Outdoor air temperature ≤ 43°C)  ar & Outdoor air temperature > 43°C)  tdoor unit is lower)  Hole size φ 20 x 3 pcs.  Hole size φ 20 x 3 pcs.  J  Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E  is 7.5m.  Dient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1) (2) (3) (4) (5) (6) (6) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D, max lift height ded breaker size ked rotor ampere) cting wires ccessories ts The data are measu Operation Cooling Heating P) This air-conditione D) Select the breaker D he operation data D heoperation data D heating pine social	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co Size x Co Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. Cf * UNS-WR16*2*1 "DI	re number  re number  re number  re number  r temperature  WB  19°C  - It tested in conformi achoic chamber. Du own national stand -conditioner is ope apacity and operati	m m m A A A A A A A A A A A A A A A A A	Flare µ         -         Max.50         Max.30         Hose connectable µ         Built-in drain	<ul> <li>Necessary (bc)</li> <li>Necessary (bc)</li> <li>O (Outdoor unit is high)</li> <li>Max.15 (Outdoor unit</li></ul>	1 1/8') × 1.0 O/U ϕ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) tdoor unit is lower) Hole size ϕ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			
Drain pump Recommen L.R.A. (Lock Interconneo IP number Standard ac Option part Notes (1) (2) (3) (4) (4) (5) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose Drain hose Drain hose Drain hose Drain hose Cocessories ts The data are measu Cooling Heating This air-conditione Select the breaker Drain duele indica Select the breaker Drain conditione Select the breaker Drain conditione Select the breaker Drain conditione Select the breaker Drain conditione Select the breaker Drain conditione Drain conditione Drain conditione Dependition Drain conditione Drain conditione Dra	nethod gth of piping piping ine (one way) length at diff. between O/U a Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C t "DIS-WB1G"×1, "DIS	nd I/U re number nd itions. r temperature WB 19°C 19°C - l tested in conformi achoic chamber. Du own national standconditioner is ope apacity and operati 3-WA1G*x2(Option	m m m A A A A A A DB S5°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7°C 7	Flare ; Max.50 Max.30 Hose connectable · Built-in drain ↓ ↓ 1.6 mm x 3 co ↓ ↓ 24°C ↓ ↓ 6°C SO. Ion these values are somew ↓ 50Hz or 220V 60Hz. wo indoor units are combir O/U-Branch, ② : Branch-	<ul> <li>A rest of the 2010 of the 201</li></ul>	1 1/8") × 1.0 O/U ϕ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size ϕ 20 × 3 pcs. — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1) (2) (3) (4) (5) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose Drain hose Drain hose Drain hose Drain hose Cost ampere) cting wires Cocessories ts The data are measu Cooling Heating Phota in-conditione Sound level indica Select the breaker Drain conditione Sound level indica Select the breaker Dhoop ration duit specific Branching pipe sel Grille type	nethod gth of piping piping ine (one way) length it diff. between O/U a Size x Co Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C t"DIS-WB1G"×1, "DIS Panel model	nd I/U re number number nd I/U re number numbe	m m m A A A A Outd DB 35°C 7°C ty with the 1 rring operati ard. ty arted at 230 on data is t . Pipe ① : ( Pane	Flare ;	Necessary (bc     Necessary (bc))     Necessary (bc)     Necessary (bc))     Necessary (bc)     Necessary (bc))     Necessary (bc)     Necessary (bc))     Necessary (bc)     Necessary (bc))	1 1/8") × 1.0 O/U φ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size φ 20 x 3 pcs. — - 5/5 srable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — Dient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1) (2) (3) (4) (5) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D	nethod gth of piping piping ine (one way) length at diff. between O/U a Size x Co Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C t "DIS-WB1G"×1, "DIS- Panel model TC PSA FAW F	re number	m m m A A A A A A A A A A C C C T C C V With the I r i'r C V with the I a s f'C Y with the I Pane	Flare ;         Image: Constraint of the second of the s	<ul> <li>A provide the second sec</li></ul>	1 1/8') × 1.0 O/U ¢ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) ar & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size ¢ 20 x 3 pcs. — 5/5 (able) / Termainal block (Screw fixing type) 1P24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			
Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part: Notes (1) (2) (3) (4) (5) (6) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose Drain hose Drain hose Drain hose Drain hose Drain hose Drain hose Cost or ampere) ting wires Cocessories ts The data are measu Operation Cooling Heating Diselect the breaker Diselect the breaker Dis	nethod gth of piping ipiping ine (one way) length it diff. between O/U a Size x Co Size x Co ired at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C t "DIS-WBIG"×1, "DI Panel model TC-PSA-5AW-E TC pSAE 5AW-E	I das interestions interesting	m m m A A A A A A A A A A A A A A A A A	Flare μ         Max.50         Max.30         Hose connectable         Built-in drain         φ 1.6 mm x 3 co         IP         Mounting kit         OA Space         coor air temperature         WB         2 24°C         6°C         SO.         IN 50Hz or 220V 60Hz.         wo indoor units are combir         O/U-Branch, ② : Branch-         el color (Munsell color)	Necessary (bc     Necessary (bc)))	1 1/8') × 1.0 O/U ¢ 22.22 (7/8") Liquid : Flare / Gas : Brazing 			
Installation	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose Drain hose Cooling Heating Heating Drain data Drain hose Cooling Heating Drain devel indica Di Select the breaker Draho operation data Dranching pipe set Grille type Honey comb	nethod gth of piping ipiping ine (one way) length it diff. between O/U a Size x Co Size x Co Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C "DIS-WB1G"×1, "DIS Panel model TC-PSA5AW-E TC-PSA5-5AW-E	Ind I/U  re number  re number  re number  r temperature  WB  19°C  19°C  conditions is ope apacity and operati S-WA1G"×2(Option Panel type Standard Draft prevention	m m m A A A A A A A A A A A A A A A A A	Flare ↓         Max.50         Max.30         Hose connectable ↓         Built-in drain	Necessary (bc     Necessary (bc     Necessary (bc     O(utdoor unit is high)     Max.15 (Ou     with VP25 (O.D.32)     pump , 850     res (Including earth of     X0     G)     Train hose     corres (Including earth of     X0     Standards     ISO5151-T1     ISO5151-T1     ISO5151-T1     ISO5151-H1     vhat higher due to am     red and run together.     Branch, ③ : Branch-     Remote control     wireless     RCN-TC-5AW-E3	1 1/8') × 1.0 O/U ¢ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 r & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size ¢ 20 x 3 pcs. — — 5/5 sable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			
Installation Drain pump Recommen L.R.A. (Lock Interconnec IP number Standard ac Option part Notes (1) (2) (3) (4) (5) (6) (7)	data Connecting r Attached leng Insulation for Refrigerant I Vertical heigh Drain hose D	nethod gth of piping piping ine (one way) length at diff. between O/U a Size x Co Size x Co red at the following c Item Indoor a DB 27°C 20°C r is manufactured and tes the value in an an size according to the a indicate when the ai cations for one unit. C t "DIS-WB1G"×1, "DI Panel model TC-PSA-5AW-E TC-PSAG-5AW-E	Ind I/U  re number  re number  re number  r temperature  WB  19°C  - It tested in conformi achoic chamber. Du own national stand -conditioner is ope apacity and operati 5-WATG*x2(Option Panel type Standard Draft prevention Standard D a final stand	m m m A A A A A A A A A A A A A A A A A	Flare µ         Image: Constraint of the second s	<ul> <li>A construction of the second of</li></ul>	1 1/8") × 1.0 O/U ¢ 22.22 (7/8") Liquid : Flare / Gas : Brazing — th Liquid & Gas lines) Max.70 ar & Outdoor air temperature ≤ 43°C) r & Outdoor air temperature > 43°C) tdoor unit is lower) Hole size ¢ 20 × 3 pcs. — - - 5/5 srable) / Termainal block (Screw fixing type) IP24 Connecting pipe, Edging OAD-E , Motion sensor : LB-TC-5W-E is 7.5m. — bient conditions.			



#### (3) Duct connected-High static pressure type (FDU)

#### (a) Single type

							odel FDU200VSAWVH						
Item							Indoor unit FDU200VH		Outd	loor unit FDC200VSA-W			
Power source							3 Pha	ise 380-415V	50Hz / 380V 60	)Hz			
	Nominal cooling	capacity (range	)		kW		21	0.0 [ 7.2(Min.)	- 22.4(Max.)]				
	Nominal heating	capacity (range	)		kW		22	2.4 [ 6.5(Min.)	- 25.0(Max.)]				
	Power consume	otion	Cooling					6.	15				
			Heating		kW			5.	67				
	Max power cons	sumption					12.0						
	Bunning current		Cooling				9.8 / 10.3						
	Training current		Heating		A			8.9	9.4				
	Inrush current, n	nax current						5	, 23				
Operation data	Bower factor		Cooling		0/			9	1				
	FOWER IACIDI		Heating		70			9	2				
	EER		Cooling					3.	25				
	COP		Heating					3.	95				
			Cooling							72			
	Sound power lev	vei	Heating				78			74			
	Cooling				10(4)	P	P-Hi: 52 Hi: 50 Me: 47 Lo:	45		58			
	Sound pressure	level	Heating		dB(A)	P	-Hi: 52 Hi: 50 Me: 47 Lo:	44		59			
	Silent mode		Cooling							55 /53(Normal/Silent)			
	sound pressure	level	Heating				-	56 /54(Normal/Silent)					
Exterior dimension	ons (Height x Widt	th x Depth)			mm		379×1600×893			1505×970×370			
										Stucco white			
(Munsell color)							—		(4.2	Y7.5/1.1) near equivalent			
(Multisell Color)							88		(	144			
Comprossor type	2. O'tu				ĸġ		66			CTC51509C40ME × 1			
Compressor type	or (Starting moth	ad)			k/M/					Direct line start			
Defrigorent oil (A		Ju)			1								
Refrigerant (Tup)	a amount pro ch	arga langth)			L		- B22.4.2kg in outdo	or unit (Incl. t	a amount for th	1.33(IVI-IVIB/3R)			
Heingerant (Type	e, amount, pre-ch	arge lengtil)			ку		R32 4.3kg III Outdo			te pipilig of solli)			
Heat exchanger						L L	ouver lin & inner grooved tub		ivi snap	be in a inner grooved lubing			
Fan type & O'ty							Ountrifungel fam. 0	Electronic ex	bansion valve	Due y alley fay - 0			
Fan type & Q ty							Centrifugai fan ×3			Propeller fan ×2			
Fan motor (Starting method)					VV		130+350 < Direct line start	>	86	5×2 < Direct line start >			
Air flow	Air flow Heating					P	P-Hi: 80 Hi: 72 Me: 64 Lo:	56		134			
Available externa				Pa		Standard : 72, Max : 200			0				
Outside air intake	Outside air intake						Possible			_			
Air filter, Quality /	Quantity						Procure locally			_			
Shock & vibration	n absorber						Rubber sleeve(for fan moto	r)	Rubb	er sleeve (for Compressor)			
Electric heater					W				2	20(Crank case heater)			
	Remote control						(Option) Wired : RC-E	X3A, RC-E5	, RCH-E3 Wire	eless : RCN-KIT4-E2			
Operation	Room temperati	ure control						Thermostat b	v electronics				
control	Operation displa	av				_							
0-6-6-							Overload protection for fan motor. Frost protection thermostat						
Safety equipmen	Its						Internal thermostat for far	n motor, Abno	rmal discharge	temperature protection			
	D. Garage and a larle		Liquid li	ne		I/U	J φ 9.52 (3/8") Pipe φ 9.52(3	3/8")x0.8 or q	0 12.7(1/2")x0.8	O/U \$\$\phi\$ 9.52(3/8")			
	(OD)	ig size	Cas line		mm	I/U	J φ 25.4 (1") Pipe φ 22.22(7	/8")x1.0 or φ	25.4(1")x1.0 or	φ 28.58(1 1/8")x1.0			
	(0.0)		Gasinie				O/U φ 22.22 (7	/8")					
	Connecting met	hod					Brazing Liquid : Flare / Gas : Brazi						
	Attached length	of piping			m		_			_			
Installation data	Insulation for pip	bing					Nece	essary (both L	iquid & Gas line	es)			
- instanation udld	Refrigerant line	(one wav) length			m		Max.70(Liquid pip	ing: φ 12.7, (	Gas piping: $\phi$ 2	5.4 or φ 28.58),			
	Thomgorant into (	(one way) length					Max.40(Liquid pi	ping: φ 9.52)	, Max.35(Gas pi	ping: <i>ф</i> 22.22)			
							Max.50 (Outdoor un	it is higher &	Outdoor air tem	perature $\leq 43^{\circ}$ C)			
	Vertical height d	iff. between O/U	and I/U		m		Max.30 (Outdoor un	it is higher &	Outdoor air tem	perature > 43°C)			
							M	ax.15 (Outdo	or unit is lower)				
	Drain hose					Hose	e connectable VP25 (I.D.25, C	D.D.32)	F	tole size $\phi$ 20 x 3 pcs.			
Drain pump, max	k lift height				mm		_			_			
Recommended b				A			-	-					
L.R.A. (Locked ro				A			5	/5					
Interconnecting v	wires	Size x 0	Core number				φ 1.6mm x 3 cores +	earth cable	Terminal block	(Screw fixing type)			
IP number							IPX0			IP24			
Standard access	ories						Mounting kit		C	onnecting pipe, Edging			
Option parts								Motion sens	or : LB-KIT2				
Notes (1) The c	data are measure	d at the followir	ng conditions	5.				The p	ipe length is 7.5m.				
	Itom	Indoor air ter	nperature	Outd	oor air tem	perature	External static pressure			1			
Operation DB WB DB				3	WB	of indoor unit	Star	ndards					
Cooling         27°C         19°C         35°C					c	24°C		ISO.5	151-T1				
Heating 20°C – 7°C					2	<u>240</u> 6°C 72Pa ISO5151-11							
(2) This air conditionar is manufactured and tosted in confermity with					-	100	1			I			
(2) This ( (3) Soun (4) Selec	air-conditioner is id level indicates of the breaker siz	the value in an e according to t	and tested in anechoic cha he own natic	amber. D	uring opera dard.	ation these	values are somewhat highe	er due to aml	pient conditions	S.			
	and a second	all a set a strate a set of	a function of the second second second										

(6) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
(6) 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-EX3A, RC-EXZ3A and RC-E5 only)
(7) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

				Model	FDU250VSAWVH					
Item					Indoor uni	t FDU250VH	Outdoor unit FDC250VSA-W			
Power source						3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling ca	pacity (range)		kW		25.0 [ 7.2(Min.)	- 28.0(Max.)]			
	Nominal heating ca	pacity (range)		kW		28.0 [ 6.7(Min.)	- 31.5(Max.)]			
	<b>J</b>	, , , , , , , , , , , , , , , , , , , ,	Cooling	1 1		8.2	5			
	Power consumption	า	Heating	- kw		7.5	5			
	Max power consum	ntion	riouting	k		11	2			
	Iviax power consum	iption	Cooling	+ +		12.7 /	13.3			
	Running current		Heating			11.6/	10.0			
	Laurala arrestata arresta		Пеаціну			11.87	12.2			
	Inrush current, max	current				5, 2	25			
Operation data	Power factor		Cooling	- %		92				
			Heating			93	}			
	EER Cooling					3.03				
	COP Heating					3.7	5			
	Couling Cooling					70	73			
	Sound power level		Heating	1 1		/8	75			
			Cooling	1 1	P-Hi: 52 Hi: 50 Me: 47 Lo: 45		58			
	Sound pressure lev	el	Heating	dB(A)	P-Hi: 52 Hi: 5	0 Me: 47 Lo: 44	62			
	Silont modo		Cooling		1 111.02 111.0	0 100. 47 20. 44	56 / 55 (Normal/Silent)			
	sound prossure low	al	Heating				EQ / EQ (Normal/Silent)			
	Sound pressure lev	31	Heating				59 / 56 (Normal/Silent)			
Exterior dimensi	ons (Height x Width >	Depth)		mm	379 × 1	1600 × 893	$1505 \times 970 \times 370$			
Exterior appeara	ince						Stucco white			
(Munsell color)						_	(4.2Y7.5/1.1) near equivalent			
(BAL color)							(RAL 7044) near equivalent			
				lun l		22				
Iver weight				кд		00	145			
Compressor type	e & Q'ty					-	GTC5150SC40MF × 1			
Compressor mo	tor (Starting method)			kW		-	Direct line start			
Refrigerant oil (A	frigerant oil (Amount, type)			L		– 1.55 (M-MB75F				
Refrigerant (Typ	efrigerant (Type, amount, pre-charge length)			kg	R32	5.1 in outdoor unit (Incl. the	e amount for the piping of 30m)			
Heat exchanger	Heat exchanger				Louver fin & inr	ner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant cont	rol			1 1		Electronic exp	ansion valve			
Fan type & Q'ty					Centrifu	ugal fan x 3	Propeller fan x 2			
Fan motor (Start	ing method)			W/	130 ± 350 <	Direct line start >	86 × 2 < Direct line start >			
Tairmotor (otair	ing motilod)		Cooling	- ··	100 1 000 <		149			
Air flow			Cooling	m³/min	P-Hi: 80 Hi: 7	2 Me: 64 Lo: 56	148			
			Heating				153			
Available externa	al static pressure			Pa	Standard:	72 Max: 200	0			
Outside air intak	e				Pc	ossible	-			
Air filter, Quality	/ Quantity				Procu	ire locally	-			
Shock & vibratio	n absorber			1 1	Rubber sleev	/e (for fan motor)	Rubber sleeve (for compressor)			
Electric heater				w		_	20 (Crank case heater)			
	Remote control				(Option	Wired : BC-EX3A BC-E5	BCH-E3 Wireless : BCN-KIT/-E2			
Operation	Ream temperature	control			(Option	Thermostet by				
control		CONTION			Thermostat by electronics					
	Operation display									
						Overload protecti	on for fan motor			
Safety equipmer	nts					Frost protection thermostat				
					Internal thermostat for fan motor					
	ī.		1			Abnormal discharge te	temperature protection			
			Liquid line	-	I/U φ 12.7 (1/2'	') Pipe φ 12.7 (1/2") × 0.8 (	D/U φ 12.7 (1/2")			
	Refrigerant piping s	size (O.D)	Gas line	mm	I/U φ 25.4 (1")	Pipe φ 22.22 (7/8") × 1.0 or	φ 25.4 (1") × 1.0 or φ 28.58 (1 1/8") × 1.0			
						υ/υ φ 22.22 (//8") ·				
	Connecting method	1		ļļ	Bi	razıng	Liquid : Flare / Gas : Brazing			
	Attached length of	piping		m		-	-			
Installation data	Insulation for piping	1				Necessary (both L	iquid & Gas lines)			
	Refrigerant line (or	e way) length		m		Max	.70			
					Max.	50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)			
	Vertical height diff.	between O/U ar	id I/U	m	Max.	30 (Outdoor unit is higher &	Outdoor air temperature > 43°C)			
						Max 15 (Outdoo	pr unit is lower)			
	Drain hose				Hose connectable	VP25 (LD 25 OD 32)	Hole size & 20 x 3 pcs			
Drain pump may	v lift hoight			mm		VI 20 (I.D.20, O.D.02)				
Becommonded	hreaker size			Δ IIII		ļ				
	ater emperate			A .			- F			
L.H.A. (LOCKED r	ulur ampere)			A		5/				
Interconnecting	wires	Size x Cor	e number	ļļ	φ1.6 mmx3 (	cores (Including earth cable	e) / Iermainal block (Screw fixing type)			
IP number						IPX0	IP24			
Standard accessories					Μοι	inting kit	Connecting pipe, Edging			
Option parts						Motion sense	or : LB-KIT2			
Notes (1) The data are measured at the following conditions.				· · · · ·			The nine length is 7.5m			
Notes (1) The data are measured at the following conditions.				au alu kausu sust	Entrue 1 1 1					
	Item	Indoor air	temperature	Outdo	oor air temperature	External static pressure	Standards			
Operation DB WB		DB	WB	of indoor unit						
	Cooling	27°C	19°C	35°C	24°C	72Pa	ISO5151-T1			
Heating 20°C —			-	7℃	6°C		ISO5151-H1			

(3) Sound level indicates the value in an anechoic chamber. During operation these values 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 400V 50Hz or 380V 60Hz.
(6) 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-EX3A and RC-E5 only)
(7) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

PJG000Z625

				Model	FDU280VSAWVH						
Item					Indoor ur	it FDU280VH	Outdoor unit FDC280VSA-W				
Power source						3 Phase 380-415V 5	0Hz / 380V 60Hz				
	Nominal cooling ca	pacity (range)		kW		27.0 [ 6.9 (Min.) -	- 31.5 (Max.)]				
	Nominal heating ca	pacity (range)		kW		30.0 [ 6.9 (Min ) -	- 33 5 (Max )]				
	i tomina noading oa	subity (range)	Cooling			9.15	5000 ((((((((((((((((((((((((((((((((((				
	Power consumption	1	Heating	1/10/		9.10					
			Heating	KVV		9.12	<u> </u>				
	Max power consum	ption				11.4					
	Bunning current		Cooling			14.2 / 1	4.9				
	ridining outlotte		Heating	A		14.0 / 1	4.7				
	Inrush current, max	current				5, 25	5				
			Cooling			93					
Operation data	Operation data Power factor Heating					94					
	EEB Cooling					2.95	5				
						2.50					
	COP					3.28	75				
	Sound power level Cooling					78	/5				
			Heating				77				
	Sound procesure low		Cooling		P-Hi: 52 Hi:	50 Me: 47 Lo: 45	61				
	Sound pressure levi	51	Heating	UD(A)	P-Hi: 52 Hi:	50 Me: 47 Lo: 44	63				
	Silent mode		Coolina	1 1			55 / 54 (Normal/Silent)				
	sound pressure leve		Heating	1			56 / 55 (Normal/Silent)				
			Tiodaling								
Exterior dimensi	ons (Height x Width x	Depth)		mm	379 ×	1600 × 893	1505 × 970 × 370				
Exterior appeara	ance						Stucco white				
(Munsell color)						_	(4.2Y7.5/1.1) near equivalent				
(BAL color)							(RAL 7044) near equivalent				
Not weight				ka		00	165				
	0.011			ĸy		80	155				
Compressor typ	e & Q'ty					-	GTC5150SC40MF × 1				
Compressor mo	tor (Starting method)			kW		-	Direct line start				
Refrigerant oil (A	(mount, type)			L		-	1.55 (M-MB75R)				
Refrigerant (Typ	e, amount, pre-charg	e length)		kg	R3	2 5.6 in outdoor unit (Incl. the	amount for the piping of 30m)				
Heat exchanger	at exchanger				Louver fin & ir	ner grooved tubing	M shape fin & inner grooved tubing				
						Electronic expa	ansion value				
Fon type & O'ty					Contrit	Liectionic expe	Brapallar fan y 2				
Fail type & Q ty					Centra	ugariari × 3					
Fan motor (Star	ing method)		(	VV	130 + 350 <	Direct line start >	86 × 2 < Direct line start >				
Air flow			Cooling	m <sup>3</sup> /min		72 Mo: 64 Lo: 56	136				
			Heating		F-11.00 11.	72 WIE. 04 LO. 30	140				
Available extern	al static pressure			Pa	Standard	: 72 Max: 200	0				
Outside air intak	Α				P	ossible	_				
Air filtor Quality	/ Ouantity				Proc						
Air niter, Quanty					FIUC	Procure locally –					
Shock & vibratio	n absorber				Rubber slee	Rubber sleeve (for fan motor) Rubber sleeve (for comp					
Electric heater				W		-	20 (Crank case heater)				
Onesting	Remote control				(Optic	n) Wired : RC-EX3A , RC-E5 ,	RCH-E3 Wireless : RCN-KIT4-E2				
Operation	Room temperature	control				Thermostat by electronics					
control	Operation display			1							
						Overload protectio	n for fan motor				
						Erest protection	thormostat				
Safety equipme	nts					t for fon motor					
						Abnormal discharge temperature protection					
			Liquid line		Ι/Ο φ 12.7 (1/2	") Pipe φ 12.7 (1/2") × 0.8 0	/U φ 12.7 (1/2")				
	Retrigerant piping s	ize (O.D)	Gas line	mm	I/U φ 25.4 (1")	Pipe $\phi$ 22.22 (7/8") × 1.0 or $\phi$	5 25.4 (1") × 1.0 or φ 28.58 (1 1/8") × 1.0				
				ļ		U/U φ 22.22 (7/8")					
	Connecting method				E	Brazing	Liquid : Flare / Gas : Brazing				
	Attached length of	piping		m		T					
Installation data	Insulation for piping					Necessary (both Lic	quid & Gas lines)				
	Refrigerant line (on	e way) length		m		Max.6	60				
		,, 5			May		(t)				
	Vortical boight diff	otwoon 0/LL and	41/11	m	Max	30 (Outdoor unit is higher & C	Nutdoor air tomporaturo $\geq 43^{\circ}$ C)				
	Ventical neight unit.	between 0/0 and	u // U		Ivia/						
						Max. 15 (Outdoor	unit is lower)				
	Drain hose				Hose connectable	e VP25 (I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs.				
Drain pump, ma	x lift height			mm		_	—				
Recommended breaker size											
L.R.A. (Locked rotor ampere)						5/5					
Interconnecting wires Size x Core number					φ16 mm × 3	cores (Including earth cable)	/ Termainal block (Screw fixing type)				
IP number					φσ ιιιιι x Ο						
					· · · ·						
Standard accessories				ļ	Мо		Connecting pipe, Edging				
Option parts						Motion senso	r : LB-KIT2				
Notes (1) The data are measured at the following conditions.						The pipe length is 7.5m.					
	Itom	Indoor oir	temperaturo	Outde	or air temporaturo	External static processo					
						Standards					
Oper		DR	VVB	DB	WB						
	Cooling	270	19 <sup>-</sup> C	35°C	24°C	- 72Pa	1505151-11				
	Heating	20°C	-	7°C	6°C		ISO5151-H1				
(2) Thi	s air-conditioner is m	anufactured and	tested in confor	mity with the	e ISO.						

(3) Sound level indicates the value in an anechoic chamber. During operation these values 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 400V 50Hz or 380V 60Hz.
(6) 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-EX3A and RC-E5 only)
(7) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

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

#### (a) Twin type

Itom				N	lodel	FDUM200VSAWPVH					
Item						Indoor unit FDUM100VH (2 u	inits)	Outd	loor unit FDC200VSA-W		
Power source	F					3 Pha	ase 380-415V	50Hz / 380V 60	)Hz		
	Nominal cooling	g capacity (range)		k	W	2	0.0 [ 6.8(Min.	) — 22.4(Max.)]			
	Nominal heating	g capacity (range)		k	W	2	2.4 [ 6.7(Min.	) — 25.0(Max.)]			
	Power consum	ation	Cooling				6.	58			
	r ower consum	0001	Heating	k	W		5.	59			
	Max power con	sumption					12	.00			
		•	Cooling				10.4	/ 11.0			
	Running current	t	Heating				8.8	/92			
	Inrush current	nax current					5	19			
	ini don odnoni, i		Cooling					, 10			
Operation data	Power factor		Cooling	9	6						
			Heating					2			
	EER		Cooling				3.	04			
	COP		Heating				4.	01			
	Sound nower le	vol	Cooling			65			72		
		VG1	Heating			05			74		
	0	Level.	Cooling	10	(4)	D 115 44 115 00 Max 00 1 a			58		
	Sound pressure	level	Heating	dB	(A)	P-HI: 44 HI: 38 Me: 36 LO	30		59		
	Silent mode		Cooling						55 /53(Normal/Silent)		
	sound pressure	level	Heating			—			56 /5/(Normal/Silent)		
Exterior dimensio	no (Height v Wid	th v Donth)	Theating			280, 1270, 740			1505.070.270		
Exterior dimensio	Shis (Height X Wid	ui x Depuij				280×13/0×/40			0		
Exterior appeara	nce								Stucco white		
(Munsell color)						_		(4.2	Pr7.5/1.1) near equivalent		
(RAL color)								(RA	AL 7044) near equivalent		
Net weight				k	g	54			144		
Compressor type	e & Q'ty								GTC5150SC40MF x 1		
Compressor mot	or (Starting meth	od)		k'	W	_			Direct line start		
Refrigerant oil (A	mount, type)	,		1	_	_			1.55(M-MB75B)		
Refrigerant (Type	e amount pre-ch	arge length)		k	a	B32.4.3 in outdoo	e amount for the	e piping of 30m)			
Heat exchanger	o, amount, pro or	large length)			9	Louver fin & inner grooved tuk		M shar	tip & inner grooved tubing		
Defilement	- 1					Eduver III & IIIIel glooved tur	ning Electronic co	IVI SI IAL			
Retrigerant contr	01						Electronic ex	pansion vaive	D		
Fan type & Q'ty						Centrifugal fan ×3			Propeller fan ×2		
Fan motor (Starti	ing method)			V	V	100+130 < Direct line start	>	86	6×2 < Direct line start >		
Air flow			Cooling		min	P Hi: 26 Hi: 28 Mo: 25 Lo	10		148		
AIT HOW			Heating	1117		F-HI. 30 HI. 26 MIE. 25 LO	. 19		134		
Available externa	al static pressure			P	a	Standard : 60, Max : 100			0		
Outside air intake						Possible			_		
Air filter Quality /	/ Quantity					Procure locally			_		
Shock & vibration	n absorbor					Pubber sloove/for fan moto	rl	Pubbor clo	ove (for fan motor & compressor)		
Shock & vibration	il absorbei				v	Rubbel Sleeve(IOI Ial11100	1)				
Electric rieater				v	v	-					
Operation	Remote control					(Option) Wired : RC-E	X3A , RC-E5	, RCH-E3 Wire	eless : RCN-KI14-E2		
control	Room temperat	ure control				Thermostat by electronics					
	Operation displ	ау					-	_			
Safety equipmen	its					Overload protection	on for fan mo	tor. Frost protec	tion thermostat		
ouloty equipment						Internal thermostat for far	n motor. Abno	ormal discharge	temperature protection		
			Liquid line			I/U φ 9.52 (3/8") Pipe 2 φ 9.5	2(3/8")x0.8	①φ 9.52(3/8")xi	0.8 or <i>φ</i> 12.7(1/2")x0.8		
	Refrigerant pipi	ng size	Liquid line	m	m	O/U φ 9.52(3	3/8")				
	(O.D)		Gas line			I/U φ 15.88 (5/8") Pipe 2 φ 1	5.88(5/8")x1.0	) ①φ 22.22(7/8	8")x1.0 or		
			Gastine			φ 25.4(1")x1.0 or φ 28.58(1 1/8")x1.0 Ο/U φ 22.22 (7/8")					
	Connecting me	thod				Flare piping		Liqu	uid : Flare / Gas : Brazing		
Installation data	Insulation for pi	ping				Nece	essary (both l	iquid & Gas line	es)		
inotaliation data	Refrigerant line	(one way) length		l r	n		Ma	x.70			
						Max 50 (Outdoor ur	nit is higher &	Outdoor air tem	1000000000000000000000000000000000000		
	Vertical height o	liff between 0/LLa	nd I/I I	r	n	Max 30 (Outdoor un	nit is higher &	Outdoor air tem	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 +		
	Vortiournoight e					Max.00 (Outdoor ar	av 15 (Outdo	or unit is lowor)			
	Dusta hara										
	Urain nose				H	ose connectable VP25 (I.D.25, (	J.D.32)	F	TOTE SIZE $\phi$ 20 X 3 pcs.		
Drain pump, max	k lift height			m	m	Built-in drain pump , 600			_		
Recommended b	oreaker size			A	4		-				
L.R.A. (Locked ro	otor ampere)			A	4		5	.0			
Interconnecting v	wires	Size x Co	re number			φ 1.6mm x 3 cores ⊣	earth cable	/ Terminal block	(Screw fixing type)		
IP number						IPX0			IP24		
Standard access	ories					Mounting kit. Drain hose		С	onnectina pipe. Edging		
Option parts						Filter set :	LIM-FL3EE	Motion sensor :	I B-KIT2		
						1 1101 0011	0				
Notes (1) The c	data are measure	ed at the following	conditions.				The p	pipe length is 7.5m.			
	Item	Indoor air temp	erature	Outdoor ai	r temperature	External static pressure	0.	n el e vel e			
Operati	ion	DB	WB	DB	WB	of indoor unit	Sta	ndards			
	oolina	27°C	19°C	35°C	24°C		ISO	5151-T1			
	eating	20°C		7°C	6°C		1900	151-H1			
		200		, 0		1	1 1000		1		
(2) This a	air-conditioner is	manufactured an	d tested in co	nformity wi	th the ISO.						
(3) Soun	nd level indicates	the value in an ar	echoic cham	ber. During	operation the	se values are somewhat highe	er due to am	bient conditions	S.		
(4) Selec	ot the breaker siz	e according to the	own nationa	I standard.							
(5) The c	operation data in	dicate when the a	ir-conditioner	is operated	1 at 400V 50H	z or 380V 60Hz.					
(6) Indoo	or unit specificat	ions for one unit.	apacity and	operation d	ata is two ind	oor units are combined and ru	un together.				
(7) Brand	cning pipe set "[	us-wB1G"×1(Opt	ion). (1) : Pipe	ot U/U – I	∃ranch, ② : P	ipe of Branch - I/U					
(8) Statio	c pressure of op	ional air filter "UN	-FL3EF" is 5F	a initially.							

(a) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3A,RC-EXZ3A and RC-E5 only) (10) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

				Model	FDUM250VSAWPVH					
Item					Indoor unit FDU	JM125VH (2 units)	Outdoor unit FDC250VSA-W			
Power source						3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling ca	pacity (range)		kW		25.0 [ 6.8(Min.	) - 28.0(Max.)]			
	Nominal heating ca	pacity (range)		kW		28.0 [ 5.2(Min.	) - 31.5(Max.)]			
	Dowor concumption		Cooling			8.	74			
	Fower consumption	I	Heating	kW		7.9	90			
	Max power consum	ption		1		11	.2			
	Duration		Cooling			13.6	/ 14.3			
	Running current		Heating	A		12.5 / 13.2				
	Inrush current, max	current		1		5,	25			
On evention data	Daway fastar		Cooling	0/		9	3			
Operation data	Power lactor		Heating	- <sup>%</sup>		9	1			
	EER		Cooling	1		2.	36			
	COP		Heating	1		3.	54			
			Cooling	1			73			
	Sound power level		Heating	1		67	75			
			Cooling	1			58			
	Sound pressure leve	əl	Heating	dB(A)	P-Hi: 45 Hi: 4	0 Me: 34 Lo: 29	62			
	Silent mode		Cooling	1			56 / 55 (Normal/Silent)			
sound pressure level Heating				-		-	59 / 58 (Normal/Silent)			
Exterior dimensions (Height x Width x Depth)					280 × 1	370 × 740	1505 × 970 × 370			
Exterior appeara	nce						Stucco white			
(Munsell color)						-	(4.2Y7.5/1.1) near equivalent			
(RAL color)	_						(RAL 7044) near equivalent			
Net weight						54	145			
Compressor typ	e & Q'ty					-	GTC5150SC40MF × 1			
Compressor mo	tor (Starting method)			kW			Direct line start			
Refrigerant oil (A	mount, type)			L		-	1.55 (M-MB75R)			
Refrigerant (Typ	e, amount, pre-charg	e length)		kg	R32	5.1 in outdoor unit (Incl. th	e amount for the piping of 30m)			
Heat exchanger					Louver fin & inn	ner grooved tubing	M shape fin & inner grooved tubing			
Refrigerant cont	rol			1		Electronic ex	pansion valve			
Fan type & Q'ty					Centrifu	gal fan × 3	Propeller fan × 2			
Fan motor (Starting method)				W	100 + 200 < 1	Direct line start >	86 × 2 < Direct line start >			
Cooling				2			148			
Air flow Heating				m³/min	P-Hi: 39 Hi: 3	2 Me: 26 Lo: 20	153			
Available extern	Available external static pressure				Standard :	60 Max : 100	0			
Outside air intak					Po	ssible	_			
Air filter Quality	/ Quantity				Procu	re locally	_			
Shock & vibratio	n absorber				Rubber sleev	e (for fan motor)	Rubber sleeve (for compressor)			
Electric bostor	11 80301061			10/			20 (Crank case beater)			
LIGGING HEATER	Pomoto control			**	(Ontion	Wirod . PC EX3A PC E5	PCH_E3 Wireless : PCN_KIT4_E2			
Operation	Remote control	oontrol			Option	Thermostet h	, NOR-E3 WIREESS . NON-KI14-E2			
control	Room temperature	Control								
	Operation display					- ian fau fan matau				
						Erect protect	on thermostat			
Safety equipmer	nts					Internal thermos	tat for fan motor			
						Abnormal discharge to	an of fail motor			
			Liquid line		I/U φ 9.52 (3/8") Pipe @	$\phi 9.52 (3/8") \times 0.8 \ (1 \phi 1)$	2.7 (1/2") × 0.8			
	Refrigerant piping s	ize (O.D)	Casline	- mm	0/U φ I/U φ 15.88 (5/8") Pipe (	<u>12.7 (1/2")</u> ②φ 15.88 (5/8") × 1.0 ①φ	o 22.22 (7/8") × 1.0 or			
					φ 25	.4 (1") × 1.0 or φ 28.58 (1	//8") × 1.0 O/U φ 22.22 (7/8")			
	Connecting method				Flare	e piping	Liquid : Flare / Gas : Brazing			
Inotallation data	Attached length of p	piping		m		-	-			
installation uata	Insulation for piping					Necessary (both L	iquid & Gas lines)			
	Refrigerant line (on	e way) length		m		Max	x.70			
					Max.	50 (Outdoor unit is higher &	Outdoor air temperature ≦ 43°C)			
	Vertical height diff.	petween O/U an	d I/U	m	Max.	30 (Outdoor unit is higher &	Outdoor air temperature > 43°C)			
						Max.15 (Outdo	or unit is lower)			
	Drain hose			ļ	Hose connectable	VP25 (I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs.			
Drain pump, ma	x lift height			mm	Built-in dra	in pump , 600	_			
Recommended	oreaker size			A						
L.R.A. (Locked r	otor ampere)			A		5	/5			
Interconnecting	wires	Size x Core	e number		φ 1.6 mm x 3 c	cores (Including earth cabl	e) / Termainal block (Screw fixing type)			
IP number						PX0	IP24			
Standard access	sories				Mounting I	kit, Drain hose	Connecting pipe, Edging			
Option parts						Filter set : UM-FL3EF . I	Motion sensor : LB-KIT2			
Notes (1) The o	lata are measured at	the following co	nditions.		1		The pipe length is 7.5m.			
	Item	Indoor air	temperature	Outd	oor air temperature	External static pressure	Ctan daude			
Oper	ation	DB	WB	DB	WB	of indoor unit	Standards			
	Cooling	27°C	19°C	35°C	24°C		ISO5151-T1			
	Heating	20°C	-	7°C	6°C	60Pa	ISO5151-H1			
(0) This	air conditioner in	nufactured and	tostad in conform	ity with the !	so					
(2) I I IS (3) Sou	nd level indicates the	value in en enc	choic chamber D	iring operati	ou.	ewhat higher due to ambion	t conditions			
(4) Sol	ect the breaker size of	cording to the	own national stand	lard.	ST. LIGGE VAILES ALE SUITE	and the second sec	conditiono.			
(5) The	operation data indica	te when the air-	conditioner is one	rated at 400	V 50Hz or 380V 60Hz					
(6) Inde	or unit specifications	for one unit. Ca	apacity and operat	ion data is t	wo indoor units are comb	pined and run together.				
(7) D	In the second second second			L Dura di	O : D's s of Description     I/I I	<b>U</b> 4				

(7) Branching pipe set "DIS-WB1G"x1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U
(8) Static pressure of option air filter "UM-FL3EF" is 5Pa initially.
(9) The external static pressure setting can be changed to 10-100Pa. (For RC-EX3A and RC-E5 only)
(10) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

				Model	FDUM280VSAWPVH						
Item					Indoor unit FDL	JM140VH (2 units)	Outdoor unit FDC280VSA-W				
Power source						3 Phase 380-415V	50Hz / 380V 60Hz				
	Nominal cooling ca	pacity (range)		kW		27.0 [ 7.8 (Min.)	- 31.5 (Max.) ]				
	Nominal heating ca	bacity (range)		kW		30.0 [ 6.3 (Min.)	- 33.5 (Max.) ]				
	Power consumption		Cooling			10.	05				
	Power consumption		Heating	kW	8.47						
	Max power consum	ption		]		11.4					
	Bunning ourrent		Cooling			15.4 /	16.2				
	Running current		Heating	A		12.8 /	13.5				
	Inrush current, max	current		1		5,	22				
On constitute state	Denne (a star		Cooling	0/		9	4				
Operation data	Power factor		Heating	- <sup>%</sup>		9	6				
	EER		Cooling			2.0	69				
	COP		Heating			3.5	54				
			Cooling				75				
	Sound power level		Heating	1		70	77				
Cooling							61				
	Sound pressure leve	əl	Heating	dB(A)	P-Hi: 47 Hi: 40	0 Me: 35 Lo: 30	63				
	Silent mode		Cooling				55 / 54 (Normal/Silent)				
sound pressure level Heating						-	56 / 55 (Normal/Silent)				
riouring											
Exterior dimensions (Height x Width x Depth)				mm	280 × 1	370 × 740	1505 × 970 × 370				
Exterior appeara	nce						Stucco white				
(Munsell color)						_	(4.2Y7.5/1.1) near equivalent				
(BAL color)							(RAL 7044) near equivalent				
Net weight				ka		54	155				
Compressor type	& O'tv			Ng		-	GTC5150SC40ME v 1				
Compressor type & Q'ty				kW.		_					
Befrigerant oil (A	mount type)					_	1 55 (M-MB75B)				
Refrigerant (Type		o longth)		L ka	D30	5 6 in outdoor unit (Incl. th	a amount for the piping of 30m)				
Refrigerant (Type, amount, pre-charge length)				ку	Louwerfin & inn	5.6 In outdoor unit (incl. th	M shape fin & inper grouved tubing				
Heat exchanger					Louver lin & inn	ler grooved tubing	Wi shape in & inner grooved tubing				
Retrigerant control					Centrifugal fan x 3		Dansion valve				
Fan type & Q'ty				14/	Centriu	gai iari × 3 Dive et l'e e eterte	Propeller Ian x 2				
Fan motor (Starting method)				VV	100 + 200 < 1	Direct line start >	86 × 2 < Direct line start >				
Air flow Cooling				m³/min	P-Hi: 48 Hi: 3	5 Me: 28 Lo: 22	136				
Heating							140				
Available external static pressure				Pa	Standard : (	60 Max : 100	0				
Outside air intake					Po	ssible	-				
Air filter, Quality /	Quantity				Procu	re locally	-				
Shock & vibration	n absorber				Rubber sleev	e (for fan motor)	Rubber sleeve (for compressor )				
Electric heater				W		-	20 (Crank case heater)				
Operation	Remote control				(Option	(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-KIT4-E2					
control	Room temperature	control				Thermostat b	y electronics				
	Operation display					-					
						Overload protect	ion for fan motor				
Safety equipmen	ts					Frost protection thermostat					
5						Internal thermos	tat for fan motor				
					1/11 / 0.50 (0/01) Dis - (6	Abnormal discharge te	emperature protection				
			Liquid line		0/U φ 9.52 (3/8 ) Pipe (2	)φ 9.52 (3/6) × 0.6 ()φ 1 12 7 (1/2")	2.7 (1/2 ) × 0.8				
	Refrigerant piping s	ize (O.D)		mm	I/II ф 15.88 (5/8") Pine (	<u></u>	$(\pm 22.22)(7/8") \times 1.0 \text{ or}$				
			Gas line		φ 25.	.4 (1") × 1.0 or φ 28.58 (1 1	/8") × 1.0 O/U φ 22.22 (7/8")				
	Connecting method				Flare	piping	Liquid : Flare / Gas : Brazing				
	Attached length of	piping		m		-	_				
Installation data	Insulation for piping					Necessary (both L	iquid & Gas lines)				
	Refrigerant line (on	e way) length		m		Max	60				
				1	Max.	50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)				
	Vertical height diff.	etween O/U an	d I/U	m	Max.	30 (Outdoor unit is higher &	Outdoor air temperature > $43^{\circ}$ C)				
	Ŭ					Max.15 (Outdo	or unit is lower)				
	Drain hose				Hose connectable	VP25 (I.D.25, O.D.32)	Hole size $\phi$ 20 x 3 pcs.				
Drain pump. max	lift height			mm	Built-in dra	in pump . 600	_				
Recommended b	oreaker size			A			-				
L.R.A. (Locked ro	otor ampere)			Α		5	/5				
Interconnecting v	vires	Size x Core	number		φ1.6 mm x 3 c	ores (Including earth cabl	e) / Termainal block (Screw fixing type)				
IP number					<u> </u>	PX0	IP24				
Standard access	ories				Mounting I	kit. Drain hose	Connecting nine Edging				
Option parts						Filter set : UM-FL3EF	Motion sensor : LB-KIT2				
				1	1						
INDIES (1) The data are measured at the following conditions.							The pipe length is 7.5m.				
					oor air temperature	External static pressure	Standards				
Operation DB WB					WB	of indoor unit					
Cooling 27°C 19°C 3					24°C	60Pa	ISO5151-T1				
	Heating	20°C	-	7°C	6°C		ISO5151-H1				
(2) This	air-conditioner is ma	nufactured and	tested in conformi	ty with the Is	so.						
(3) Sou	nd level indicates the	value in an ane	choic chamber. Du	iring operati	on these values are some	ewhat higher due to ambien	t conditions.				
(4) Sele	ct the breaker size a	cording to the c	wn national stanc	lard.							
(5) The	operation data indica	te when the air-	conditioner is ope	rated at 400	V 50Hz or 380V 60Hz.						
(6) Indo	(6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.										

#### (b) Triple type

				Mo	odel		FDUM200	VSAWTVH		
Item					li	ndoor unit FDUM71VH (3 u	nits)	Outd	oor unit FDC200VSA-W	
Power source						3 Pha	ase 380-415V	50Hz / 380V 60	Hz	
	Nominal cooling	g capacity (range)		kW	/	2	0.0 [ 6.8(Min.)	) — 22.4(Max.)]		
	Nominal heating	g capacity (range)		kW	/	2	2.4 [ 6.7(Min.)	) — 25.0(Max.)]		
	Power consum	otion	Cooling				6.	58		
	- oner concump		Heating	kW	/		5.	59		
	Max power con	sumption					12	.00		
	Bunning current	•	Cooling				10.4	/ 11.0		
	Running current	L	Heating	A			8.8	/ 9.2		
	Inrush current, i	max current					5	, 19		
Operation data	Dowor factor		Cooling	0/			g	11		
Operation data	FOWER IACION		Heating	70			g	2		
	EER		Cooling				3.	04		
	COP		Heating				4.	01		
	0		Cooling			05			72	
	Sound power le	vei	Heating			65			74	
	0	Level.	Cooling				. 05		58	
	Sound pressure	level	Heating	dB(/	A)	P-HI: 38 HI: 33 Me: 29 Lo	: 25		59	
	Silent mode		Cooling						55 /53(Normal/Silent)	
	sound pressure	level	Heating			—			56 /54 (Normal/Silent)	
Exterior dimension	ons (Height x Wid	th x Depth)		mn	1	280 × 950 × 635			1505×970×370	
Exterior appeara	nce	-1-7							Stucco white	
(Munsell color)						_		(4.2)	Y7.5/1.1) near equivalent	
(RAL color )								(84	1 7044) near equivalent	
Net weight				ka		34		(1 1/-	1//	
Compressor type	& O'tv			Ng		-		(	3TC5150SC40ME x 1	
Compressor type	or (Starting moth	od)		k\A	/				Direct line start	
Defrigorent oil (A		00)			'   					
Reingerant oli (A	mount, type)	avera lan ath)	-	L			w.unit (Incal the		1.55(WI-WIB/SR)	
Reingerant (Type	e, amount, pre-cr	large length)		кд		R32 4.3 IN OULDOO	r unit (inci. tri	e amount for the	piping of som	
Heat exchanger						Louver fin & inner grooved tui	oing	ivi snap	e fin & inner grooved tubing	
Refrigerant contr	01						Electronic ex	pansion valve		
Fan type & Q'ty						Centrifugal fan ×3			Propeller fan ×2	
Fan motor (Starting method)						130 < Direct line start >		86	×2 < Direct line start >	
Air flow			Cooling	m <sup>3</sup> /n	nin	P-Hi: 24 Hi: 19 Me: 15 Lo	: 10		148	
			Heating			1			134	
Available externa	I static pressure			Pa		Standard : 35, Max : 100			0	
Outside air intake	Э					Possible			_	
Air filter, Quality /	Quantity					Procure locally			_	
Shock & vibration	n absorber					Rubber sleeve(for fan moto	or)	Rubber slee	eve (for fan motor & compressor)	
Electric heater				W		_		2	20(Crank case heater)	
	Remote control					(Option) Wired : RC-E	EX3A , RC-E5	, RCH-E3 Wire	less : RCN-KIT4-E2	
Operation	Room temperat	ure control				Thermostat by electronics				
CONTROL	Operation displ	ay					-	_		
Cofety equipment	4.0					Overload protecti	on for fan mo	tor, Frost protect	tion thermostat	
Salety equipmen	is					Internal thermostat for fai	n motor, Abno	ormal discharge	temperature protection	
			Liquid line		L.	′U φ 9.52 (3/8") Pipe ②φ 9.5	52(3/8")x0.8	①φ 9.52(3/8")x0	).8 or φ 12.7(1/2")x0.8	
	Refrigerant pipi	ng size		mn	, L	O/U φ 9.52(3	3/8")			
	(O.D)		Gas line		.   r	′U φ 15.88 (5/8") Pipe ②φ 1	5.88(5/8")x1.0	) ①φ 22.22(7/8	3")x1.0 or	
						φ 25.4(1")x1.0 or φ 28.58(1 1/8")x1.0 O/U φ 22.22 (7/8")				
	Connecting me	thod				Flare piping		Liqu	uid : Flare / Gas : Brazing	
Installation data	Insulation for pi	ping				Nec	essary (both l	_iquid & Gas line	s)	
	Refrigerant line	(one way) length		m			Ma	x.70		
						Max.50 (Outdoor ur	nit is higher &	Outdoor air tem	perature ≦ 43°C)	
	Vertical height o	liff. between O/U an	d I/U	m		Max.30 (Outdoor ur	nit is higher &	Outdoor air tem	perature > 43°C)	
						N	lax.15 (Outdo	or unit is lower)		
	Drain hose				Hos	e connectable VP25 (I.D.25,	O.D.32)	Н	lole size $\phi$ 20 x 3 pcs.	
Drain pump, max	lift height			mn	ו ו	Built-in drain pump , 600			-	
Recommended b	oreaker size			A			-	_		
L.R.A. (Locked ro	otor ampere)			A			5	.0		
Interconnecting v	wires	Size x Cor	e number			φ 1.6mm x 3 cores -	+ earth cable	/ Terminal block	(Screw fixing type)	
IP number		·				IPX0			IP24	
Standard access	ories					Mounting kit, Drain hose		Co	onnecting pipe, Edging	
Option parts						Filter set :	UM-FL2EF,	Motion sensor :	LB-KIT2	
Notes (1) The c	lata are measure	d at the following (	conditions				- ,			
		sa at the following t	Jonanions.			1	The p	pipe length is 7.5m.		
	Item	Indoor air tempe	rature	Outdoor air	temperature	External static pressure	Sta	ndards		
Operati	ion	DB	WB	DB	WB	of indoor unit	014	lidardo		
C	ooling	27°C	19°C	35°C	24°C	35Pa	ISO5	5151-T1		
Н	eating	20°C		7°C	6°C	551 8	ISO5	i151-H1		
(2) This :	air-conditioner is	manufactured and	tested in con	formity with	the ISO					
(3) Soun	d level indicates	the value in an ane	echoic chambe	er. Durina a	peration these	values are somewhat high	er due to am	bient conditions	3.	
(4) Selec	ct the breaker siz	e according to the	own national	standard.	,					
(5) The c	operation data in	dicate when the air	-conditioner is	operated	at 400V 50Hz	or 380V 60Hz.				
(6) Indoo	or unit specificat	ions for one unit. C	apacity and or	peration da	ta is three inde	oor units are combined and	run together.			
(7) Brand	ching pipe set "[	DIS-TB1G"×1(Optic	n). ① : Pipe of	f O/U — Br	anch, ② : Pipe	e of Branch — I/U				
(8) Statio	c pressure of opt	tional air filter "UM-	FL3EF" is 5Pa	ι initially.						

(0) The acternal static pressure setting can be changed to 10-100Pa. (For RC-EX3A,RC-EXZ3A and RC-E5 only) (10) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

#### (5) Ceiling suspended type (FDE)

#### (a) Twin type

lteres				Model			FDE200V	SAWPVH			
Dowerser					ln In	aoor unit FDE100VH (2 units)	200 4451	Outdoor unit FDC200VSA-W			
Fower source	Nominal cooling	a capacity (rango)		F/W		3 Phase 3	6 7/Min	- 22 4(Max )]			
	Nominal beating	a capacity (range)		kW	1	20.0 [	[ 6 6(Min )	- 25 0(Max)]			
		g suprony (range)	Cooling	1.1.1	1	22.4	62	29			
	Power consum	ption	Heating	kW			5.6	56			
	Max power con	sumption		1			12.	00			
	Dumpin to com		Cooling				10.0 /	10.5			
	Running curren	L	Heating	А			8.9 /	9.3			
	Inrush current,	max current					5,	19			
Operation data	Power factor		Cooling	- %			9	1			
oporation data			Heating	,			92	2			
	EER		Cooling	4			3.1	8			
	СОР		Heating				3.9	76			
	Sound power le	evel	Cooling	-		64 72 74					
			Cooling	-				58			
Sound pressure level Heating					P	-Hi: 48 Hi: 43 Me: 38 Lo: 34		59			
Silent mode Cooling				-			55 /53(Normal/Silent)				
sound pressure level Heating				-		_		56 /54(Normal/Silent)			
Exterior dimensions (Height x Width x Depth)						250 × 1620 × 690	1505×970×370				
Exterior appeara	nce					Plaster white		Stucco white			
(Munsell color) (RAL color)						(6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent		(4.2Y7.5/1.1) near equivalent (RAL 7044) near equivalent			
Net weight				kg		43		144			
Compressor type				—		GTC5150SC40MF x 1					
Compressor mot	od)	kW		_		Direct line start					
Refrigerant oil (A		L		_		1.55(M-MB75R)					
Refrigerant (Type, amount, pre-charge length)					R32 4.3 in outdoor unit (Incl. the a			e amount for the piping of 30m)			
Heat exchanger	-1				Lo	ouver fin & inner grooved tubing	M shape fin & inner grooved tubing				
Fon type & O'ty	01					Contrifugal for v4	ctronic exp	Bropallar fan 22			
Fan type & Qity Fan motor (Starting method)						80 < Direct line start >					
Cooling				•••				148			
Air flow		- m³/min	P-	Hi: 32 Hi: 26 Me: 21 Lo: 16.5	5	134					
Available externa		Pa		0		0					
Outside air intake								_			
Air filler, Quality /	Quantity				F	Pubbar sloova (for fan motor)					
Electric heater	Tabsorbei			W				20 (Crank case beater)			
Libotilo libatol	Remote control					(Option) Wired : BC-EX3	3A . RC-E	5. BCH-E3 Wireless : BCN-E-E3			
Operation	Room temperat	ture control				Thermostat by electronics					
Control	Operation displ	ay									
Safety equipmen	ts					Overload protection fo Internal thermostat for fan mo	or fan mot otor, Abno	or, Frost protection thermostat rmal discharge temperature protection			
	Refrigerant nini	na size	Liquid line		I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 ① φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8 O/U φ 9.52(3/8")						
	(O.D)	ng size	Gas line	— mm	1/L	/U φ 15.88 (5/8") Pipe @ φ 15.88(5/8")x1.0 ① φ 22.22(7/8")x1.0 or					
	Connecting mo	thod	I			φ 25.4(1")X1.0 ( Elare piping	υrφ 28.50 Ι	Liquid : Elare piping / Gas : Brazing			
Installation data	Insulation for p	nina		+		Necess	ny (both l	iquid & Gas lines)			
Installation data	Refrigerant line	(one way) length		m	1	14006334	Max				
		. ,, ,, ,,				Max.50 (Outdoor unit is	higher &	Outdoor air temperature $\leq 43^{\circ}$ C)			
	Vertical height of	diff. between O/U and	1 I/U	m		Max.30 (Outdoor unit is	higher &	Outdoor air temperature $> 43$ °C)			
						Max.1	15 (Outdoo	or unit is lower)			
	Drain hose				Hos	e connectable with VP20(O.D.20	6)	Hole size $\phi$ 20 x 3 pcs.			
Drain pump, max	lift height			mm		-	]				
Recommended b	oreaker size			A				-			
L.R.A. (Locked ro	otor ampere)	0- 0	a construction of the second sec	A		1.1.00	5.	0			
Interconnecting v	wires	Size x Core	number	-		φ 1.6mm x 3 cores + ear	rin cable /	IEITIIIIIIII DIOCK (SCREW TIXING TYPE)			
Standard access	ories					Mounting kit Drain hose		IF24 Connecting pipe Edging			
Option parts	0.103			+	1	Nounting NL, DIAIT HOSE	Notion ser	Isor : LB-E			
Notes (1) The c	data are measure	ed at the following c	onditions.		1	The size length is 7.5m					
	lterre	Indoor air tompo	raturo Ou	tdoor air tom	The pipe length is 7.5m.						
Operati	ion	DB	WB		WR	Standards					
C	ooling	27°C	19°C 3	5°C	24°C ISO5151-T1						
Heating 20°C – 7°C						ISO5151-H1					
(2) This :	air-conditioner is	s manufactured and	tested in confor	mity with the	e ISO						
(3) Soun	d level indicates	the value in an ane	choic chamber.	During oper	ation these	values are somewhat higher du	ue to amb	ent conditions.			
(4) Select (5) The c	operation data in	dicate when the air	-conditioner is o	oerated at 4	00V 50Hz o	r 380V 60Hz.					
(6) Indoo	(5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz. (6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.										

(6) Indeer this pipe set "DIS-WB1G" x1(Option). (): Pipe of O/U – Branch, (2): Pipe of Branch – I/U (8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

Mod							FDE250VSAWPVH				
Item							Indoor unit FD	E125VH (2 units)	Outdoor unit FDC250VSA-W		
Power sou	irce							3 Phase 380-415V	50Hz / 380V 60Hz		
	1	Nominal cooling ca	pacity (range)		kW			25.0 [ 6.7(Min.	) - 28.0(Max.)]		
		Nominal heating car	pacity (range)		kW			28.0 [ 5.2(Min	) - 31 5(Max )]		
	ŀ	tornina noading ou	subity (range)	Cooling		1		2010 [ 012(,1111	20		
	F	Power consumptior	I	Heating	L/W			7 (	33		
		Max power consum	ntion	rieating				1.	2		
	Ľ	Max power consum	ption	Cooling				10.0	.2		
	F	Running current		Lisating				12.07	13.5		
	- H			неаціпд	- A			12.07	13.3		
	Ľ	nrush current, max	current					5,	20		
Operation	data F	Power factor		Cooling	%			9	3		
				Heating	,-			9	1		
	E	EER		Cooling				3.0	05		
	(	COP		Heating				3.5	53		
		0		Cooling				<b>0</b> 4	73		
	1	Sound power level		Heating	1			64	75		
				Cooling	1				58		
	1	Sound pressure leve	el	Heating	dB(A)		P-Hi: 48 Hi: 4	5 Me: 40 Lo: 35	62		
	5	Silent mode		Cooling	1				56 / 55 (Normal/Silent)		
		sound pressure leve		Heating	-			-	59 / 58 (Normal/Silent)		
				riouting	-						
Exterior di	mension	is (Height x Width x	Depth)		mm		250 × 1	620 × 690	1505 × 970 × 370		
Exterior ap	opearanc	ce					Plast	er white	Stucco white		
(Munsell co	olor)						(6.8Y8.9/0.2)	near equivalent	(4.2Y7.5/1.1) near equivalent		
(RAL color	· )						(RAL 9016) near equivalent		(RAL 7044) near equivalent		
Net weight	t				kg			43	145		
Compress	or type &	& Q'ty						_	GTC5150SC40MF × 1		
Compress	or motor	r (Starting method)			kW			_	Direct line start		
Refrigeran	t oil (Am	ount type)			1			_	1.55 (M-MB75B)		
Refrigeran		amount pre-charge	e lenath)		ka	B32 5 1 in outdoor un		5.1 in outdoor unit (Incl. th	e amount for the nining of 30m)		
Heat exchanger				Kg		Louwer fin 8 inr	or grooved tubing	M abapa fin & inpar grooved tubing			
Defrigeren	1				· ·						
Fan type & O'ty							Cantrife	Electronic exp	Dansion valve		
Fan type & Q'ty						Centritu	garian × 4	Propener lan × 2			
Fan motor	Starting	g method)			W	-	80 < Dire	ct line start >	86 × 2 < Direct line start >		
Air flow Cooling			m <sup>3</sup> /min		P-Hi: 32 Hi: 2	9 Me: 23 Lo: 17	148				
Heating				,				153			
Available e	external s	static pressure			Pa			0	0		
Outside air	r intake						Not	oossible	_		
Air filter, Q	uality / C	Quantity				F	Pocket plastic	net × 2 (Washable)	-		
Shock & vi	ibration a	absorber				1	Rubber sleev	e (for fan motor)	Rubber sleeve (for compressor )		
Electric he	ater				W	—			20 (Crank case heater)		
	F	Remote control					(Option) Wired : BC-EX3A , BC-E5 , BCH-E3 Wireless : BCN-E				
Operation		Room temperature	control		1		(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-E-E3				
control		Operation display	Sontrol						-		
		oporation display						Overlead protect	ion for fan matar		
								Erost protecti	on thermostat		
Safety equ	uipments	6				Internal thermostat for fan motor					
								Abnormal discharge te	emperature protection		
<u> </u>	1				1		Pine @	) φ 9.52 (3/8") × 0.8 ① φ 1	2.7 (1/2") × 0.8		
				Liquid line		I/U φ 9.5	0/U Ø	12.7 (1/2")			
	F	Retrigerant piping s	ize (O.D)	Cas line	mm	1/11 / 45	oo (F /on Pipe	2φ 15.88 (5/8") × 1.0 ① d	22.22 (7/8") × 1.0 or		
				Gas line		μυφ 15.	φ 25	.4 (1") × 1.0 or φ 28.58 (1	/8") × 1.0 O/U φ 22.22 (7/8")		
	(	Connecting method					Flare	e piping	Liquid : Flare / Gas : Brazing		
	1	Attached length of p	piping		m			-	_		
Installation	n data 📊	nsulation for piping			1	1		Necessary (both L	iquid & Gas lines)		
	F	Refrigerant line (on	e way) length		m	1		Max			
	F					1	Max.	50 (Outdoor unit is higher &	Outdoor air temperature ≤ 43°C)		
		Vertical height diff	petween O/U an	d I/U	m		Мах	30 (Outdoor unit is higher &	Outdoor air temperature $> 43^{\circ}$ C)		
	'						Max.	May 15 (Outdo	or unit is lower)		
	F	Drain hose			+	L/~	se connoctable	with VP20 (0 0 26)	Hole size & 20 x 3 pos		
Drain pump max lift height						1 110	Se connectable	e with VF20 (0.D.20)	The size $\psi \ge 0 \times 3$ pcs.		
Urain pump, max lift height								-	_		
Recommended breaker size									-		
L.R.A. (Locked rotor ampere)					A			5,	C)		
Interconnecting wires Size x Core number					ļ	ļ	φ 1.6 mm x 3 c	ores (Including earth cabl	e) / Termainal block (Screw fixing type)		
IP number								PX0	IP24		
Standard accessories							Mounting	kit, Drain hose	Connecting pipe, Edging		
Option parts						Motion ser	nsor : LB-E				
Notes (1)	) The dat	ta are measured at	the following co	nditions.		•		The pire levels 1 - 7	Fm		
F	Item Indoor air temperature Outdoor air temperature				<u>om.</u>						
	Oneret	item	indoor air	temperature	Uutdo	ioor air ten	iperature	Standards			
	Operation		DR	VVB							
		Cooling	2/0	19.0	35°C		24 0	1505151-11			
		Heating	20°C	I —	1 7°C		6°C	ISO5151-H1	1		

(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 values 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 400V 50Hz or 380V 60Hz.
(6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
(7) Branching pipe set "DIS-WB1G"×1(Option). ① : Pipe of O/U-Branch, ② : Pipe of Branch-I/U
(8) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

			Model	FDE280VSAWPVH							
Item					Indo	or unit FC	DE140VH (2 units)	Outdoor unit FDC280VSA-W			
Power source							3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling ca	pacity (range)		kW			27.0 [ 7.1 (Min.)	- 31.5 (Max.) ]			
	Nominal heating ca	nacity (range)		kW			30.0 [ 5.8 (Min )	- 33.5 (Max.)]			
	Tronnia nearing ou	paony (range)	Cooling				0.0 [ 0.0 (1011)				
	Power consumption	ו	Lisating	1.1.1.1			9.0				
			Heating	KVV.			0.5	10			
	Max power consum	iption	<b>0</b> "				11	4			
	Running current		Cooling				14.3 /	15.1			
			Heating	A			13.5 /	14.2			
	Inrush current, max	current					5, 2	20			
Operation data Rower factor Cooling				0/			94	4			
	FOWERIACION		Heating	70			90	3			
	EER		Cooling				2.9	00			
	COP		Heating	1		3.34					
			Cooling		1			75			
	Sound power level		Heating	1			65	77			
			Cealing					61			
	Sound pressure lev	el	Cooling	dB(A)	P-Hi	: 49 Hi: 4	5 Me: 40 Lo: 36	01			
			Heating					63			
	Silent mode		Cooling				_	55 /54 (Normal/Silent)			
	sound pressure leve	əl	Heating					56 / 55 (Normal/Silent)			
Exterior dimensions (Height x Width x Depth)				mm		250 x 1	1620 × 690	1505 × 970 × 370			
Extorier											
Exterior appea	ii ai iCe					Plast	ler White	Stucco white			
(Munsell color)					(6.	8Y8.9/0.2)	near equivalent	(4.2Y /.5/1.1) near equivalent			
(RAL color)					(F	KAL 9016)	near equivalent	(RAL 7044) near equivalent			
Net weight				kg			43	155			
Compressor ty	/pe & Q'ty						-	GTC5150SC40MF × 1			
Compressor m	notor (Starting method)			kW			-	Direct line start			
Refrigerant oil	(Amount, type)			L			_	1.55 (M-MB75R)			
Refrigerant (T	ne amount pre-charg	charge length)		ka	R32 5.6 in outdoor unit (Incl. th			e amount for the piping of 30m)			
Heat exchanger				Ng	Louw	or fin & in	or grooved tubing	M shape fin & inner grouved tubing			
Refrigerant control					LOUV						
Refrigerant col	ntroi					0	Electronic exp	ansion vaive			
Fan type & Q t	y					Centrifi	igai fan × 4	Propeller fan × 2			
Fan motor (Starting method)				W		90 < Dire	ct line start >	86 × 2 < Direct line start >			
Air flow				m <sup>3</sup> /min	D_Li	· 24 Li- 2	9 Mo: 22 Lo: 18	136			
Heating						. 54 111. 2	5 Wie. 23 LO. 16	140			
Available exter	rnal static pressure			Pa			0	0			
Outside air inta	ake					Not	possible	_			
Air filter, Qualit	y / Quantity			1	Pock	et plastic	net × 2 (Washable)	_			
Shock & vibrat	tion absorber				Bu	ibber sleev	(for fan motor)	Bubber sleeve (for compressor)			
Electric heater				١٨/	1.10		_	20 (Crank case beater)			
LIGGUIG HEALEI	Domoto control					- 20 (Crank case heater					
Operation	Remote control	t			(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-E-E3						
control	Room temperature	control					I nermostat b	y electronics			
	Operation display										
							Overload protect	on for fan motor			
Safety equipm	ents						Frost protection	on thermostat			
							Internal thermost	at for fan motor			
	1						Abnormal discharge te	emperature protection			
			Liquid line		I/U φ 9.52 (3/	/8") Pipe (2 ∩/LL &	2) φ 9.52 (3/8") × 0.8 (1) φ 12 12 7 (1/2")	2.7 (1/2") × 0.8			
	Refrigerant piping s	ize (O.D)	0 "	mm	101	Fine Pine	(0, 2, 7) (2) ø 15.88 (5/8") × 1 0 ∩ #	22.22 (7/8") × 1.0 or			
			Gas line		μυ φ 15.88 (	<sup>5/8")</sup> φ 25	i.4 (1") × 1.0 or φ 28.58 (1 1	/8") × 1.0 O/U φ 22.22 (7/8")			
	Connecting method	1		i	İ	Flan	e piping	Liquid : Flare / Gas : Brazing			
	Attached length of	piping		m	İ		-				
Installation dat	a Insulation for piping						Necessary (hoth I	iquid & Gas lines)			
	Refrigerant line (on	e way) length		m			Mov	60			
	Inonigorant inte (01	o way iongin				Mari	50 (Outdoor unit in higher o	Outdoor air tomporaturo $< 42^{\circ}$ O			
	Vortical baisht sliff	botwoon 0/11	41/11	-		IVIAX.	20 (Outdoor unit is higher &	Outdoor all temperature $\geq 43.0$			
	ventical height un.	between 0/0 and	1/0			IVIAX.	SU (Outdoor unit is higher &	outdoor all temperature > 43 C)			
							Max. 15 (Outdoo	or unit is lower)			
	Drain hose				Hose c	onnectabl	e with VP20 (O.D.26)	Hole size $\phi$ 20 x 3 pcs.			
Drain pump, m	hax lift height			mm			-	-			
Recommended	d breaker size			A				-			
L.R.A. (Locked	l rotor ampere)			A			5/	5			
Interconnecting wires Size x Core number					φ1	.6 mm x 3 o	cores (Including earth cable	e) / Termainal block (Screw fixing type)			
IP number							IPX0	IP24			
Standard accessories						Mounting	kit, Drain hose	Connecting pipe, Edging			
Option parts							Motion ser	sor : LB-E			
Notes (1) The	e data are measured at	the following cor	nditions.				The pipe length is 7	5m.			
Item Indoor air temperature Outdoor air temperature											
ODe	Operation DB WB DB		WB Standards		Standards						
	Coolina	27°C	19°C	35°0	; 2	24°C ISO5151-T1		-			
	Heating	20°C		7°C		- 6°C	IS05151-H1	-			
	· ·9	200			'						

(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 values are somewhat higher due to ambient conditions.

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

(6) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
(6) Indoor unit specifications for one unit. Capacity and operation data is two indoor units are combined and run together.
(7) Branching pipe set "DIS-WB1G"×1(Option). ①: Pipe of O/U-Branch, ②: Pipe of Branch-I/U

(8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

#### (b) Triple type

						Model	FDE200VSAWTVH					
Item							In	door unit FDE71VH (3 un	its)	Outdoor unit FDC200VSA-W		
Power source								3 Pha	ase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling	g capacity (rang	e)			kW		2	0.0 [ 7.5(Min.)	- 22.4(Max.)]		
	Nominal heating	g capacity (rang	e)			kW		2	2.4 [ 6.6(Min.)	- 25.0(Max.)]		
	Power consum	ntion	C	Cooling					6.2	29		
			F	leating	_	kW			5.0	36 22		
	Max power con	isumption		Cooling					10.0	10.5		
	Running curren	t		Jeating	_				89/	10.5		
	Inrush current.	max current		leating	_				5	19		
				Coolina					9	1		
Operation data	Power factor		F	leating	_	% –			9	2		
	EER		0	Cooling					3.	18		
	COP		H	leating					3.9	96		
	Sound power le	avol	C	Cooling			60 72					
			F	Heating				00		74		
	Sound pressure	elevel	0	Cooling	d	B(A)	P-	-Hi: 47 Hi: 41 Me: 37 Lo	32	58		
Heating										59		
	Silent mode	laural.		Cooling				_		55 /53(Normal/Silent)		
Enterior dimensio	sound pressure	the v Denth)		Heating	_			010 1000 000		56 /54 (Normal/Silent)		
Exterior dimensio	ons (Height X Wid	ith x Depth)				mm		210 × 1320 × 690		1505×970×370		
(Munsell color) (RAL color )	nce						Plaster white (6.8Y8.9/0.2) near equivalent (RAL 9016) near equivalent			Stucco white (4.2Y7.5/1.1) near equivalent (RAL 7044) near equivalent		
Net weight						kg	33			144		
Compressor type	e & Q'ty							-		GTC5150SC40MF x 1		
Compressor mot	or (Starting meth	iod)				kW		-		Direct line start		
Refrigerant oil (A	mount, type)					L	_			1.55(M-MB75R)		
Refrigerant (Type	e, amount, pre-cl	narge length)				kg		R32 4.3 in outdoo	e amount for the piping of 30m)			
Heat exchanger							Lo	M shape fin & inner grooved tubing				
Refrigerant contr	February Control								Electronic exp	pansion valve		
Fan type & Q'ty						14/		Centrifugal fan ×4		Propeller fan ×2		
Fan motor (Starti	Fan motor (Starting method)							50 < Direct line start >		149		
Air flow	Air flow Cooling Heating						P-	-Hi: 20 Hi: 16 Me: 13 Lo	: 10	134		
Available externa	al static pressure					Pa		0		0		
Outside air intake	e							Not possible		-		
Air filter, Quality /	Quantity						P	ocket plastic net ×2(Washal	ole)	-		
Shock & vibratio	n absorber					14/		Rubber sleeve (for fan moto	or)	Rubber sleeve (for fan motor & compressor)		
Electric neater	Demote control					VV		(Ontion) Wined - DC		20 (Grank case neater)		
Operation	Remote control	ture control					Thermostat by electronics					
control	Operation displ	av										
Safety equipmen	ts						Overload protection for fan motor, Frost protection thermostat					
oulory equipment	1							Internal thermostat for far	n motor, Abno	rmal discharge temperature protection		
	Refrigerant pipi	na sizo	L	iquid line			I/U φ 9.52 (3/8") Pipe ② φ 9.52(3/8")x0.8 ① φ 9.52(3/8")x0.8 or φ 12.7(1/2")x0.8 O/U φ 9.52(3/8")					
	(O.D)	19 0120		2	- '	mm –	0/0 φ 9.52(3/8°) 1/1 μ 4 5 60 (5/01) Pipe ② φ 15.88(5/8")x1.0 ① φ 22.22(7/8")x1.0 or					
				aas line			1/0	φ 25.4(1")x	1.0 or φ 28.5	B(1 1/8")x1.0 O/U φ 22.22 (7/8")		
	Connecting me	thod						Flare piping		Liquid : Flare piping / Gas : Brazing		
Installation data	Insulation for pi	iping						Nece	essary (both L	iquid & Gas lines)		
	Refrigerant line	(one way) lengt	h			m		50 (0 ) )	Max			
	Vortical baight	diff between O/	Lond	/1.1		_  -		Max.50 (Outdoor un	hit is nigher &	Outdoor air temperature $\geq 43$ C)		
	ventical height o	uiii. Detween O/	U anu i/	/0		'''  -		Max.30 (Outdoor ur	av 15 (Outdo			
	Drain hose						Hos	e connectable with VP20(0	D 26)	Hole size $\phi$ 20 x 3 pcs		
Drain pump, max	k lift height					mm		_				
Recommended b	oreaker size					A			-	-		
L.R.A. (Locked ro	otor ampere)					A			5	0		
Interconnecting v	wires	Size x	Core n	umber				φ 1.6mm x 3 cores +	earth cable	Terminal block (Screw fixing type)		
IP number								IPX0		IP24		
Standard access	ories							Mounting kit, Drain hose		Connecting pipe, Edging		
Option parts									Motion ser	nsor : LB-E		
Notes (1) The o	data are measure	ed at the follow	ring cor	nditions.			The pipe length is 7.5m.					
	Item	Indoor air te	emperat	ture	Outdoor	air tempe	erature	Chandauda	]			
Operati	ion	DB	W	/B	DB		WB	Standards				
C	ooling	27°C	19	9°C	35°C	2	24°C	ISO5151-T1	]			
н	leating	20°C	-	-	7°C		6°C	ISO5151-H1				
(2) This : (3) Soun (4) Selec (5) The c	air-conditioner is ad level indicates of the breaker siz operation data ir	s manufactured s the value in ar ze according to ndicate when th	l and te n anech the ow ne air-co	ested in con noic chambe vn national s onditioner is	formity v er. During standard operate	with the IS g operation d. ed at 400	SO. on these v IV 50Hz or	values are somewhat highe 7 380V 60Hz.	er due to amb	bient conditions.		
(6) Indoo (7) Bran	(6) Indoor unit specifications for one unit. Capacity and operation data is three indoor units are combined and run together. (7) Branching pipe set "DIS-TB1G"×1(Option) ① Pipe of O/U - Branch ② Pipe of Branch - I/U											

(8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

#### (c) Double twin type

					Mc	del		FDE200VSAWDVH				
Item							Indoor unit FDE5	i0VH (4 units)	Outdoor unit FDC200VSA-W			
Power source								3 Phase 380-415V	50Hz / 380V 60Hz			
	Nominal cooling	g capacity (rang	le)		kW	1		20.0 [ 7.8(Min.)	— 22.4(Max.)]			
	Nominal heating	g capacity (rang	le)		kW	1		22.4 [ 6.6(Min.)	- 25.0(Max.)]			
	_		C	Cooling				6.	29			
	Power consum	ption	Н	leating	– kW	/		5.	66			
	Max power cor	sumption		5	-			12	.00			
		loaniption		Cooling				10.0	/ 10.5			
	Running curren	t		leating				8.9	/03			
	Inruch ourront	max current		leating	- ^			5	10			
	initusii curteni,	max current		Na allian					, 15			
Operation data	Power factor			Jooling	- %			9				
			H	leating	_			9	2			
	EER		C	Cooling	4			3.	18			
	COP		н	leating				3.	96			
	Sound power le	avel	С	Cooling			60 72					
			H	leating				74				
	Sound propour	laval	C	Cooling	dP(/	~		10:26 10:21	58			
	Sound pressure	ellevel	Н	leating	<u>ар(</u> ,	-)	F-HI. 40 HI. 30 N	Ne. 30 LU. 31	59			
	Silent mode		С	Cooling					55 /53(Normal/Silent)			
	sound pressure	level	Н	leating	1		-		56 /54(Normal/Silent)			
Exterior dimension	ons (Height x Wid	Ith x Depth)			mm	1	210 × 1070	1505×970×370				
Exterior appeara	nce						Plaster w	vhite	Stucco white			
(Munsell color)							(6.8Y8.9/0.2) nea	ir equivalent	(4.2Y7.5/1.1) near equivalent			
(RAL color)							(RAL 9016) near	equivalent	(RAL 7044) near equivalent			
Net weight					ka		28		144			
Compressor type	Compressor type & Q'ty								GTC5150SC/0ME x 1			
Compressor type	or (Starting moth	od)			k/M	1			Direct line start			
Defrigerent oil (A		00)										
Reingerant Oli (A		avera law oth)			L			) in autology unit (logal th				
Reingerant (Type	e, amount, pre-ci	large lengtri)			ĸy		NJ2 4.3	s in outdoor unit (inci. th				
Heat exchanger	Real exchanger						Louver fin & inner g	prooved tubing	M shape fin & inner grooved tubing			
Refrigerant contr	For these & Other							Electronic ex	pansion valve			
Fan type & Q'ty							Centrifugal	fan ×2	Propeller fan ×2			
Fan motor (Starting method)				W		30 < Direct lir	ne start >	86×2 < Direct line start >				
Air flow			С	Cooling		nin	P-Hi: 13 Hi: 10	Me:9 10:7	148			
Heating									134			
Available external static pressure					Pa		0		0			
Outside air intake							Not poss	sible	-			
Air filter, Quality /	Quantity						Pocket plastic net	×2(Washable)	-			
Shock & vibration	n absorber						Rubber sleeve (fo	or fan motor)	Rubber sleeve (for fan motor & compressor)			
Electric heater					W		—		20 (Crank case heater)			
Oneration	Remote control						(Option) V	Vired: RC-EX3A, RC-E	5, RCH-E3 Wireless : RCN-E-E3			
control	Room temperat	ture control					Thermostat by electronics					
oona o	Operation displ	ay										
Safety equipmen	ite						Overloa	ad protection for fan mo	tor, Frost protection thermostat			
Callety equipment	1.5						Internal thermo	stat for fan motor, Abno	ormal discharge temperature protection			
			Li	iauid line		I/U φ	6.35 (1/4") Pipe 3 2 ¢	9.52(3/8")x0.8 ①φ 9.	52(3/8")x0.8 or			
	Refrigerant pipi	ng size			mm	י ו <u>י</u>	φ 12.7(1/2	")x0.8 Ο/Ο φ 9.52(3/8"				
	(O.D)		G	as line		I/U φ	12.7 (1/2") Pipe ③ φ 1	2.7x0.8 ②φ 15.88x1.0	) (1) \phi 22.22(7/8")x1.0 or			
							φ 25.4(1*)	(1.0 or φ 28.58(1 1/8")x	1.0 0/0 φ 22.22 (7/8°)			
	Connecting me						Flare pip	ang	Liquid : Flare piping / Gas : Brazing			
Installation data	Insulation for pi	ping						Necessary (both L	liquid & Gas lines)			
	Refrigerant line	(one way) lengt	h		m			Max	x.70			
							Max.50 (0	Outdoor unit is higher &	Outdoor air temperature $\leq 43^{\circ}$ C)			
	Vertical height of	diff. between O/	U and I/	U	m		Max.30 (0	Outdoor unit is higher &	Outdoor air temperature $> 43^{\circ}$ C)			
								Max.15 (Outdo	or unit is lower)			
	Drain hose						Hose connectable wi	th VP20(O.D.26)	Hole size $\phi$ 20 x 3 pcs.			
Drain pump, max	k lift height				mm	1	-		-			
Recommended b	oreaker size				A			-	-			
L.R.A. (Locked ro	otor ampere)				A			5	.0			
Interconnecting v	Interconnecting wires Size x Core number						φ 1.6mm	x 3 cores + earth cable	/ Terminal block (Screw fixing type)			
IP number	P number						IPX0	)	IP24			
Standard access	ories						Mounting kit, [	Drain hose	Connecting pipe, Edging			
Option parts								Motion se	nsor : LB-E			
Notes (1) The c	data are measur	ed at the follow	ina con	ditions		1						
							The pipe le	ngth is 7.5m.				
	Item	Indoor air te	emperati	ure Out	tdoor air	temperatur	e Standard	ds				
Operati	ion	DB	W	B	DB	WB						
	ooling	27°C	19	°C 3	5°C	24°C	24°C ISO5151-T1					
ЦН	leating	20°C	_	- 7	ΤĊ	6°C	ISO5151-	H1				
(2) This a	air-conditioner is	s manufactured	and tes	sted in confor	mity with	the ISO.						
(3) Soun	d level indicates	the value in ar	n anech	oic chamber.	During o	peration th	ese values are some	what higher due to aml	bient conditions.			
(4) Selec	ot the breaker siz	ze according to	the ow	n national sta	ndard.			-				
(5) The c	operation data ir	idicate when th	ne air-co	onditioner is op	perated a	at 400V 50	Hz or 380V 60Hz.					
(6) Indoo	or unit specificat	ions for one un	nit. Capa	acity and oper	ation dat	ta is four ir	ndoor units are combi	ned and run together.				
(7) Brand	ching pipe set "I	DIS-WB1G"×1,	"DIS-W/	A1G"×2(Optio	n). Pipe	1): O/U -	- Branch, ② Branch -	– Branch, ③ Branch -	– I/U			

(8) Use 1/2H pipes having a 1.0mm or thicker wall for  $\phi$  19.05 or larger pipes.

				Model		FDE250VSAWDVH				
Item Power source					Indoor unit FD	E60VH (4 units)	Outdoor unit FDC250VSA-W			
Power source					3 Phase 380-415		50Hz / 380V 60Hz			
	Nominal cooling ca	bacity (range)		kW		) - 28.0(Max.)]				
	Nominal heating ca	bacity (range)		kW	28.0 [ 5.2(Min.) - 31.5(Max.)]					
	Power consumption	Power consumption		_		8.0	)4			
			Heating	kW		7.3	32			
	Max power consum	ption				11	.2			
	Bunning current	Bupping current				12.5 /	13.2			
		Heating		A	11.6 / 12.2					
	Inrush current, max	Inrush current, max current			5, 20					
Operation data	Power factor	Power factor Cooling		06	93					
operation data	T Ower lactor	Heating		70	91					
	EER Cooling			3.11						
	COP		Heating		3.83					
	Sound newer level		Cooling			e0	73			
	Sound power lever		Heating				75			
	Sound processing low		Cooling		D Liv 47 Liv 41 May 27 Lay 22		58			
	Sound pressure levi	ei	Heating	UD(A)	F-11. 47 11. 41 We. 37 E0. 32		62			
	Silent mode		Cooling				56 / 55 (Normal/Silent)			
	sound pressure leve		Heating		-		59 / 58 (Normal/Silent)			
Exterior dimon	nione (Height y Width y	Dopth)	-		040 4000 000		1505 x 070 x 270			
Exterior dimens		Deptil)	Indoor unit         FOREWORK (4 units)         Curdoor unit         Control or unit           0         kW         250 (7.80 km).280 (V6/2x0 km).2         Second Se							
Exterior appear	rance				Plaste	er white	Stucco white			
(Munsell color)					(6.8Y8.9/0.2)	near equivalent	(4.2Y7.5/1.1) near equivalent			
(RAL color)					(RAL 9016) n	near equivalent	(RAL 7044) near equivalent			
Net weight				kg	:	33	145			
Compressor ty	pe & Q'ty				-		GTC5150SC40MF × 1			
Compressor m	otor (Starting method)			kW		-	Direct line start			
Refrigerant oil	(Amount, type)			L		— 1.55 (M-				
Refrigerant (Ty	pe, amount, pre-charg	e length)		kg	R32 5.1 in outdoor unit (Incl. the amount for the piping of 30m)					
Heat exchange	r				Louver fin & inner grooved tubing M shape fin & inner grooved tubing					
Refrigerant cor	ntrol					Electronic exp	ansion valve			
Fan type & Q'ty	/				Centrifug	gal fan × 4	Propeller fan × 2			
Fan motor (Sta	rting method)			W	50 < Direc	ct line start >	86 × 2 < Direct line start >			
Airdou			Cooling				148			
AIT NOW			Heating		P-Hi: 20 Hi: 16	5 Me: 13 Lo: 10	153			
Available exter	nal static pressure			Pa		0	0			
Outside air inta	Valiabile external static pressure Dutside air intake i/i filter, Quality / Quantity				Not p	Not possible				
Air filter, Quality	/ Quantity				Pocket plastic n	et × 2 (Washable)	_			
Shock & vibrati	filter, Quality / Quantity				Rubber sleeve (for fan motor) Rubber sleeve (for compress					
Electric heater	lectric heater			W	– 20 (Crank case heater)					
	leater W — 20 (Crank case heater) 20 (Crank c					5. RCH-E3 Wireless : RCN-E-E3				
Operation Boom temperature control				Thermostat by electronics						
control	Operation display			1						
						Overload protect	ion for fan motor			
Safety equipments				Frost protection thermostat						
				Internal thermostat for fan motor						
				Abnormal discharge temperature protection						
			Liquid line		I/U & 6 35 (1/4") Pipe ③	(2) $\phi$ 9.52 (3/8") × 0.8 (1) $\phi$	12.7 (1/2") × 0.8			
	Refrigerant piping s	ize (O D)		mm	γοφοιοο (π+ ) Ο/U φ	12.7 (1/2")				
		()	Gas line		I/U φ 12.7 (1/2") Pipe 3	$\phi$ 12.7 × 0.8 (2) $\phi$ 15.88 ×	$(1.0 \ (1) \phi 22.22 \ (7/8") \times 1.0 \text{ or}$			
					φ 25.4	(1°) × 1.0 or φ 28.58 (1 1/	8") × 1.0 0/0 φ 22.22 (7/8")			
	Connecting method				Flare	piping	Liquid : Flare / Gas : Brazing			
Installation dat	Attached length of piping			m						
inotanation dat	Insulation for piping		m – Necessary (both Liquid & Gas lines)		Iquid & Gas lines)					
	Refrigerant line (on	e way) length		m		Max.70				
					Max.5	0 (Outdoor unit is higher &	Outdoor air temperature $\leq 43^{\circ}$ C)			
	Vertical height diff. between O/U and I/U     m     Max.50 (Outdoor unit is higher & Outdoor air temperature ≤ 43       Vertical height diff. between O/U and I/U     m     Max.30 (Outdoor unit is higher & Outdoor air temperature > 43       Drain hose     Hose connectable with VP20 (0.D.26)     Hole size $\phi$ 20		Outdoor air temperature > 43°C)							
			or unit is lower)							
-	Drain hose				Hose connectable	e with VP20 (O.D.26)	Hole size $\phi$ 20 x 3 pcs.			
Drain pump, m	ax lift height			Max. 15 (Guidea and 15 Kern)           Hose connectable with VP20 (O.D.26)         Hole size \$\phi\$ 20 x 3 pcs.           mm						
Recommended	I breaker size			A	_					
L.R.A. (Locked	d breaker size     A     -       d rotor ampere)     A     5/5       ig wires     Size x Core number     φ 1.6 mm x 3 cores (Including earth cable) / Termainal block (Screw fixing type)				5					
Interconnecting	g wires	Size x Core	e number		φ 1.6 mm x 3 c	ores (Including earth cable	e) / Termainal block (Screw fixing type)			
IP number	Inflocung wirds         Ø 1.6 limit X 5 cores (including earth cable) / Termainal block (Screw fixing typ iber           iber         IPX0         IP24           ard accessories         Mounting kit, Drain hose         Connecting pipe, Edging				IP24					
Standard accessories Option parts				Mounting kit, Drain hose		Connecting pipe, Edging				
Option parts	tion parts Motion sensor : LB-E Motion sensor : LB-E									
Notes (1) The	data are measured at	A								
	ltem	Item     Indoor air temperature     Outdoor air temperature     Standards								
One	eration	DB	WB	DR	WB	Standards				
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1				
	Heating	20°C	-	7°C	6°C	ISO5151-H1	-			
(0) Th	is air conditioner is	nufactured and	tostod in conform	ity with the !	so 1					
(3) Sc	ound level indicates the	value in an ane	choic chamber. D	uring operati	on these values are some	what higher due to ambien	t conditions.			

(a) Solution level indicates the value in an anectoic chamber. During operation these values are somewhat higher due to ambler.
(4) Select the breaker size according to the own national standard.
(5) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.
(6) Indoor unit specifications for one unit. Capacity and operation data is four indoor units are combined and run together.
(7) Branching pipe set "DIS-WB1G"×1, "DIS-WA1G"×2 (Option). Pipe ① : O/U-Branch, ② : Branch-Branch, ③ : Branch-I/U
(8) Use 1/2H pipes having a 1.0mm or thicker wall for φ 19.05 or larger pipes.

				Model	FDE280VSAWDVH				
Item					Indoor unit	DE71VH (4 units)	Outdoor unit FDC280VSA-W		
Power source						3 Phase 380-415V	50Hz / 380V 60Hz		
	Nominal cooling ca	pacity (range)		kW	27.0 [ 7.5 (Mir		- 31.5 (Max.) ]		
	Nominal heating ca	pacity (range)		kW		30.0 [ 5.8 (Min.)	- 33.5 (Max.) ]		
	Devuer consumption	_	Cooling			9.1	15		
	Power consumption	1	Heating	kW		8.9	98		
	Max power consum	Max power consumption		1		11	.4		
	Development	Cool			14.1 / 14.8				
	Running current	Running current Heating		A		13.5 /	14.2		
	Inrush current, max	Inrush current, max current		1	5, 20				
	<b>D</b>	Cooling			94				
Operation data	a Power factor	Power factor Heating		- %		9			
	EER	EER Cooling				2.9	2.95		
	COP		Heating	1	3.34				
			Cooling				75		
	Sound power level		Heating	1	60		77		
			Cooling	-			61		
	Sound pressure leve	el	Heating	dB(A)	P-Hi: 47 Hi: 41 Me: 37 Lo: 32		63		
	Silent mode		Cooling	-			55 / 54 (Normal/Silent)		
	sound pressure leve	əl	Heating	-			56 / 55 (Normal/Silent)		
			ling						
Exterior dimer	nsions (Height x Width x	Depth)		mm	210 × 1320 × 690		1505 × 970 × 370		
Exterior appearance				Plaster white		Stucco white			
(Munsell color	)				(6.8Y8.9/0.2	2) near equivalent	(4.2Y7.5/1.1) near equivalent		
(RAL color)					(RAL 9016	near equivalent	(RAL 7044) near equivalent		
Net weight				kg		33	155		
Compressor ty	ype & Q'ty				-		GTC5150SC40MF × 1		
Compressor n	notor (Starting method)			kW			Direct line start		
Refrigerant oil	(Amount, type)			L		-	1.55 (M-MB75R)		
Refrigerant (Type, amount, pre-charge length)				kg	R3	2 5.6 in outdoor unit (Incl. th	amount for the piping of 30m)		
Heat exchanger					Louver fin & ir	ner grooved tubing	M shape fin & inner grooved tubing		
Refrigerant co	ntrol					Electronic exp	bansion valve		
Fan type & Q'1	ty				Centri	iugal fan × 4	Propeller fan × 2		
Fan motor (Starting method)				W	50 < Dir	ect line start >	86 × 2 < Direct line start >		
Air flow			W         50 < Direct line start >         86 × 2 < Direct line start >           Cooling         m³/min         P-Hi: 20 Hi: 16 Me: 13 Lo: 10         136           Heating         Pa         0         140           V         Not possible         -						
			Heating	111 /11111	F-11.20 11.	TO ME. 13 LO. 10	140		
Available exter	rnal static pressure	Heating         m³/min         P-Hi: 20 Hi: 16 Me: 13 Lo: 10         140           static pressure         Pa         0         0           Quantity         Pocket plastic net × 2 (Washable)         -		0					
Outside air int	ilable external static pressure side air intake filter, Quality / Quantity			Not	possible	-			
Air filter, Qualit	ty / Quantity				Pocket plastic	net × 2 (Washable)	-		
Shock & vibrat	tion absorber				Rubber slee	eve (for fan motor)	Rubber sleeve (for compressor )		
Electric heater	•			W		_	20 (Crank case heater)		
Remote control				(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-E-E3					
Operation	Room temperature	control			Thermostat by electronics				
Control	Operation display					_			
					Overload protection for fan motor				
Safety equipm	Safety equipments				Frost protection thermostat				
outory oquipin	equipments			Internal thermostat for fan motor		tat for fan motor			
			1			Abnormal discharge te	mperature protection		
Liquid line			$I/U \phi 9.52 (3/8")$ Pipe $(3/2) \phi 9.52 (3/8") \times 0.8$ $(1) \phi 12.7 (1/2") \times 0.8$						
	Refrigerant piping s	Refrigerant piping size (O.D)		mm	Din	<u>יייי (יי∠)</u> גראייי (יי∠) גראייי (יי∠)	22 (7/8") × 1.0 or		
			Gas line		/U φ 15.88 (5/8") <sup>μ</sup> φ 2	5.4 (1") × 1.0 or φ 28.58 (1 1	$1/8"$ × 1.0 O/U $\phi$ 22.22 (7/8")		
	Connecting method	Connecting method			Fla	re piping	Liquid : Flare / Gas : Brazing		
	Attached length of	piping		m		-	_		
Installation da	ta Insulation for piping	1				Necessary (both L	iquid & Gas lines)		
	Refrigerant line (on	e way) length		m		Max	60		
					Max	— — — — — Necessary (both Liquid & Gas lines) Max.60 Max.50 (Outdoor unit is higher & Outdoor air temperature ≦ 43°C)			
	Vertical height diff.	between 0/U an	d I/U	m	Max.30 (Outdoor unit is higher & Outdoor air temperature > 43°C)				
						Max.15 (Outdo	or unit is lower)		
	Drain hose				Hose connectable with VP20 (O.D.26) Hole size $\phi$ 20 x 3 pcs.				
Drain pump, n	nax lift height			mm		_	_		
Recommende	d breaker size			A		-	-		
L.R.A. (Locked	d rotor ampere)			A		Max.30 (Outdoor unit is ingriner & Outdoor unit terripperature > 43 C) Max.15 (Outdoor unit is lower) nnectable with VP20 (O.D.26) Hole size $\phi$ 20 x 3 pcs. 			
Interconnectin	g wires	A         5/5           s         Size x Core number         φ 1.6 mm x 3 cores (Including earth cable) / Termainal block (Screw fixing type)           IPX0         IP24							
IP number				IPX0 IP24					
Standard acce	essories			1	Mounting	kit, Drain hose	Connecting pipe, Edging		
Option parts						Motion ser	Isor : LB-E		
Notes (1) The data are measured at the following conditions.									
		Indoor oir	temperaturo	0.1+4	or air temporaturo	i ne pipe iength is 7.	<u>5m.</u>		
	eration					- Standards			
// 1		00	10°C		000	+	·		
	Cooling	27°C	10°C	35°C	2/1°C	ISO5151_T1			
	Cooling	27°C	19°C	35℃	24°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 values 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 400V 50Hz or 380V 60Hz.
(6) Indoor unit specifications for one unit. Capacity and operation data is four indoor units are combined and run together.
(7) Branching pipe set "DIS-WB1G"×1, "DIS-WA1G"×2 (Option). Pipe ① : O/U-Branch, ② : Branch-Branch, ③ : Branch-I/U
(8) Use 1/2H pipes having a 1.0mm or thicker wall for *φ* 19.05 or larger pipes.

## **1.2 EXTERIOR DIMENSIONS**

(1) Indoor units

(a) Ceiling cassette-4 way type (FDT) Models FDT50VH, 60VH, 71VH



#### Models FDT100VH, 125VH, 140VH



# (b) 4-way ceiling cassette type (FDTC)Models FDTC50VH, 60VH (Inlet grill type : Honeycomb)



#### Models FDTC50VH, 60VH (Inlet grill type : Grid)





#### (c) Duct connected-High static pressure type (FDU) Models FDU200VH, 250VH, 280VH

PJG000Z754



#### (d) Duct connected-Low / Middle static pressure (FDUM) Model FDUM71VH

PJG000Z486

(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.



#### Models FDUM100VH, 125VH, 140VH





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

### PJG000Z487

Model FDE50VH



								18
	¢12.7 (1∕2") (Flare)	¢6.35(1/4")(Flare)	VP20	(M10 or M8)	PE cover	Plate cover	(Knock out)	llnit.m
Content	Gas piping	Liquid piping	Drain piping	Hole for suspension bolts	Back cutout	Top cutout	Hole for drain piping (for left back)	
Symbol	, A	В	C 1,2	D	ш	LL.	C	



ഥ

110

Ū

 $\triangleleft$ 

Air return grille

76

 $\circ$ 

<u>75</u>

802

PFA004Z084



Models FDE60VH, 71VH

PFA004Z085
## Models FDE100VH, 125VH, 140VH



PFA004Z086



(2) Outdoor units

'21 • PAC-DB-394

PCB004Z470

#### (3) Remote control (Option parts)

## (a) Wired remote control

## Model RC-EX3A



#### Installation space



#### • Do not install the remote control at following places.

- 1) It could cause break-down or deformation of remote control.
  - Where it is exposed to direct sunlight
  - Where the ambient temperature becomes 0 °C or below, or 40 °C or above
  - · Where the surface is not flat
  - · Where the strength of installation area is insufficient
- 2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.
   Place with high humidity where condensation occurs on the remote control
  - · Where the remote control gets wet
- 3) Accurate room temperature may not be detected using the temperature sensor of the remote control.
  - · Where the average room temperature cannot be detected
  - Place near the equipment to generate heat
  - · Place affected by outside air in opening/closing the door
  - Place exposed to direct sunlight or wind from air-conditioner
  - Where the difference between wall and room temperature is large
- 4) When you are using the automatic grille up and down panel in the IU, you may not be able to confirm the up and down motion.
  - Where the IU cannot be visually confirmed
- 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.

#### R/C cable:0.3mm<sup>2</sup> x 2 cores

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 mm <sup>2</sup> x 2 cores
≦ 300m	0.75 mm <sup>2</sup> x 2 cores
≦ 400m	1.25 mm <sup>2</sup> x 2 cores
≦600m	2.0 mm <sup>2</sup> x 2 cores

Adapted 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 0.5mm<sup>2</sup>. 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 <sup>2</sup> × 2 cores
Under 300m	0.75mm <sup>2</sup> × 2 cores
Under 400m	1.25mm <sup>2</sup> × 2 cores
Under 600m	2.0mm <sup>2</sup> × 2 cores

#### PJZ000Z295

## (b) Wireless remote control RCN-E2(Option parts)





Unit: mm

## **1.3 ELECTRICAL WIRING**

(1) Indoor units

(a) Ceiling cassette-4 way type (FDT) Models FDT50VH, 60VH, 71VH, 100VH, 125VH, 140VH



PJF000Z735



(b) Ceiling casette-4 way compact type (FDTC) Models FDTC50VH, 60VH

2. See the wiring diagram of outdoor unit about the line between Notes 1. ---- indicates wiring on site. indoor unit and outdoor unit.

- Use twin core cord (0.3mm<sup>2</sup>) at remote control line. ы. С
- 4

PJF000Z739

Do not put remote control line alongside power source line. Draft prevention function (% 1) is provided on the panel TC-PSA(G)E-5AW-E only. ъ.

(c) Duct connected-High static pressure type (FDU) Models FDU200VH, 250VH, 280VH

	Description
IICIII	Connector
V	Drain pump motor
ٺ	Fuse
4i1,2	Fan motor
	Float switch
	Reactor
D·2	Indication lamp (Green-Normal operation)
D•3	Indication lamp (Red-Inspection)
S	Motion sensor
V2	Remote control communication address
V5	Plural units Master / Slave setting
N6	Model capacity setting
V7-1	Operation check, drain pump motor test run
1	Terminal block (Power source) ( mark)
12	Terminal block (Signal line) ( mark)
c	Temperature sensor (Remote control)
i-A	Temperature sensor (Return air)
i-R1,2,3	Temperature sensor (Heat exchanger)
mark	Closed-end connector





PJG000Z755

(d) Duct connected-Low/Middle static pressure type (FDUM) Model FDUM71VH



#### Models FDUM100VH, 125VH, 140VH

Meaning of n	narks
ltem	Description
CNB-Z	Connector
DM	Drain pump motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
	Reactor
LED·2	Indication lamp (Green-Normal operation)
LED•3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SW2	Remote control communication address
SW5	Plural units Master / Slave setting
SW6	Model capacity setting
SW7-1	Operation check, drain pump motor test run
TB1	Terminal block (Power source) ( mark)
TB2	Terminal block (Signal line) ( mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
mark	Closed-end connector

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



PJG000Z490

(e) Ceiling suspended type (FDE) Models FDE50VH, 60VH, 71VH, 100VH, 125VH, 140VH



PFA004Z087



200V	19		72					The defrost operation interval becomes shorter
250V	vc	5.5	60	φ1.6mm × 3	φ1.6mm	SW3-1	Defrost control change	turned ON in the area where outside temperature
280V	77		00					becomes below the freezing point.
%At the co	nnection with FDUN	M indoor unit.						When this switch is turned ON, the outdoor unit
1000	MAX over current	Power cable size	Power cable length	Indoor-outdoor		C1013 3	Crown arrord free control	ian win runnoi ou seconas in every 10 minutes, when outdoor termorature falls to 3°C or lower and
Model	(¥)	(mm <sup>2</sup> )	(m)	wire size X number	Earth wire size	7-0 000		the compressor is not running when the unit is used
200V	19		72					in a very snowy country, set this switch to ON.
250V	20	5.5	69	φ1.6mm × 3	φ1.6mm			Method of trial operation
280V	22		62					①Trial operation can be performed by using SW3-3,4.
%At the cc	nnection with FDU	indoor unit.						Compressor will be in the operation when SW3-3 is ON
Model	MAX over current (A)	Power cable size (mm <sup>2</sup> )	Power cable length (m)	Indoor-outdoor wire size X number	Earth wire size	SW3-3,4	Trial operation	③Cooling trial operation will be performed when SW34 is OFF, and heating trial operation when
200V	23		60					SW3-4 is ON.
250V	75	5.5	22	φ1.6mm × 3	φ1.6mm			④Be sure to turn OFF SW3-3 after the trial operation
280V	67		20					is finished.
The specif to the insta	fications shown in the	e above table are fo or the construction in	or units without heaters instructions of the indo	<ol> <li>For units with heate or unit.</li> </ol>	ars, refer			

Yellow Yellow/Green

Gray

## (2) Outdoor units

#### Models FDC200VSA-W, 250VSA-W, 280VSA-W

PCB004Z471

Switchgear of circuit breaker capacity which is calculated from MAX. over current should be chosen along the regulations in each country. The above the guardinor in each country. The cache 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:

## **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 type (FDT)
  - (i) Sound power level









Model FDT60VH

80

×-

Noise level Cooling : 58 dB (A) Heating : 59 dB (A)

-Cooling O -

-Heating

80

70

60

50

:000





(ii) Sound pressure level





Measured mike position









Mid octave band frequency (Hz)



- 49 -



#### (c) Duct connected-High static pressure type (FDU)

(i) Sound power level

Models FDU200VH, 250VH, 280VH













1000

500

Model FDUM71VH

Sound Pressure Level (Standard  $2 \times 10^{-5}$ Pa)

50

40

30

20

10

(e) Ceiling suspended type (FDE)





#### (2) Outdoor units

#### (a) Sound power level (Rated capacity value)



#### (b) Sound pressure level (Rated capacity value)

Measured mike position: at highest noise level in position as mentioned below Distance from front side 1m Height 1m



## **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.

#### Models FDU200VH, 250VH, 280VH

■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)



#### (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.

## Model FDUM71VH



#### Characteristic FAN(2)



#### Model FDUM100VH Characteristic FAN(1)



Characteristic FAN(2)



- 56 -

#### Model FDUM125VH Characteristic FAN(1)



#### Model FDUM140VH Characteristic FAN(1)



### **Characteristic FAN(2)**



## Characteristic FAN(2)



## **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 cassette-4 way type (FDT) Model FDT50VH

#### Cooling Air flow: P-Hi

Louver position





### Velocity distribution



#### Heating Air flow: P-Hi

Louver position



#### Temperature distribution



## Models FDT60VH, 71VH

Cooling Air flow: P-Hi

Louver position







#### Velocity distribution



## Heating Air flow: P-Hi

Louver position



### Temperature distribution







## Models FDT100VH, 125VH, 140VH

### Cooling Air flow: P-Hi

#### Louver position





#### Velocity distribution



## Heating Air flow: P-Hi

Louver position



## Temperature distribution







(2) Ceiling casstte-4 way compact type (FDTC) Model FDTC50VH

## Cooling Air flow: P-Hi



## Heating Air flow: P-Hi

Louver position







## Model FDTC60VH

## Cooling Air flow: P-Hi















## (3) Ceiling suspended type (FDE)

## Model FDE50VH

## Cooling Air flow: P-Hi







## Heating Air flow: P-Hi

Louver position







#### Models FDE60, 71VH

## Cooling Air flow: P-Hi







Louver position







#### Models FDE100, 125VH

## Cooling Air flow: P-Hi







Louver position







#### Model FDE140VH

## Cooling Air flow: P-Hi







Louver position







## **1.7 PIPING SYSTEM**

## (1) Single type





•Refrigerant line (one way) pipe size

Model	Gas line	Liquid line
200	In case of $\phi$ 22.22 : 35m	In case of $\phi$ 9.52 : 40m (200)
250	In case of $\phi$ 25.4 or $\phi$ 28.58 : 70m (200, 250)	In case of $\phi$ 12.7 : 70m (200, 250)
280	60m (280)	60m (280)

#### (2) Twin type

#### Models 200, 250, 280



Refrigerant line (one way) pipe size

5 9.52 : 40m (200) 5 12.7 : 70m (200, 250) 60m (280)

#### (3) Triple type

Model 200



•Refrigerant line (one way) pipe size

Gas line	Liquid line
In case of $\phi$ 22.22 : 35m	In case of $\phi$ 9.52 : 40m
In case of $\phi$ 25.4 or $\phi$ 28.58 : 70m	In case of $\phi$ 12.7 : 70m

## (4) Double twin type

Models 200, 250, 280



> 2nd branch pipe of gas  $(\phi 9.52)$ Diameter joint of different

Ŀ.

----<del>-</del>---

# Preset point of the protective devices

Parts name	Mark	Equipped unit	200, 250, 280 model
Temperature sensor (for protection over- loading in heating)	Thi-R	Indoor unit	OFF 63°C ON 56°C
Temperature sensor (for frost prevention)	Thi-R		OFF 1.0°C ON 10°C
Temperature sensor (for protection high pressure in cooling)	Tho-R	Outdoor unit	OFF 64°C ON 50°C
Temperature sensor (for detecting discharge pipe temperature)	Tho-D	Outdoor unit	OFF 135°C ON 90°C
High pressure switch (for protection)	63H1	Outdoor unit	OFF 4.15MPa ON 3.15MPa
Low pressure sensor (for protection)	PSL	Outdoor unit	OFF 0.227MPa ON 0.079MPa

## **1.8 RANGE OF USAGE & LIMITATIONS**

		See next page.
	nge	When used below -5℃, install a snow hood (Option).
Recommendable area to	install	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 exterior dimensions. Install the indoor unit at least 2.5m higher than the floor surface.
Temperature and humidity indoor unit in the ceiling (	r conditions surrounding the Note 2)	Dew point temperature : 28°C (FDE : 23°C) or less, relative hummdity : 80% or less
Limitations on unit and piping installation		See pages 73-75.
Limitation of refrigerant		7.95kg See page 76.
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 unbalance	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, triple and double-twin specifications separately in a room with partition.

17) Location with receiving heat radiation from another heat source.

Note 2. If ambient temperature and humidity exceed the above values, add polyurethane foam insulation (10mm or thicker) on the outer plate of indoor unit.

Both gas and liquid pipes need to be coverd 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.

PCA001Z907
### Operating temperature range ■ Cooling



# 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 air flow rate.

"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 optional 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  $-5^{\circ}$ 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.

\*Strict installation restrictions apply when outdoor temperature exceeds 44°C.

For details, refer to chapter 1.10.4 Installation of outdoor unit, 1. HAULAGE AND INSTALLATION, 5) Installation space.

Limitation on unit and piping installation - single,twin,triple,W-twin.

- Check the following points against the specification of the indoor unit and the installation site.
  Observe the following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance.
  The total liquid piping length of the system is restricted by the equivalent length (Le). The equivalent length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm.

### FDC200V

Dootvisti	an.	Dimensional restrictions	Marks appearing in the drawing											
Restrict		Dimensional restrictions	Single	Twin	Triple (A)	Triple(B)(2)	W-twin							
Total equivalent length (Liquid	piping)	$\leq$ 70 m	Le	Le	Le	Le	Le							
One-way nine length of	Liquid piping	$ \leq 40m (L : \phi 9.52)  40-70m(L : \phi 12.7) $		141	L+L1,	(1)	2 ابد ابد ا							
refrigerant piping	Gas piping	$\leq$ 70m	L	L+L2	L+L2, L+L3	L+L1 (1)	L+Lb+L3, L+Lb+L4							
	Liquid piping	$\leq$ 70m												
Main pipe length	Gas piping		L	L	L	L	L							
One way pipe length from the point to the second branching	first branching point	$\leq$ 5m	-	-	-	La	-							
One-way pipe length after the	first branching point	$\leq$ 30m	-	L1,L2	L1,L2 L1,L2,L3		La+L1, La+L2 La+L3, La+L4							
One-way pipe length from the indoor units through the secon	first branching point to nd branching point	$\leq$ 27m	-	-	-	La+L2,La+L3	-							
One-way pipe length difference from the first branching point to the indeer	Twin Type, W–Twin	$\leq$ 10m	-	IL1-L2I	-	-	(L1+La)-(L3+Lb) ,  (L1+La)-(L4+Lb) ,  (L2+La)-(L3+Lb) ,  (L2+La)-(L4+Lb) ,  L1-L2 ,  L3-L4							
units	Triple Type(A)	$\leq$ 3m	-	-	L1-L2 , L2- L3 , L3-L1	-	-							
	Triple Type(B)	3m – 10m	-	-	-	L1-(La+L2), L1-(La+L3) <sup>(1)</sup>	-							
One-way pipe length different branching point to the indoor	ce from the second unit	$\leq$ 10m	-	-	-	IL2–L3I	IL1-L2I,IL3-L4I							
Total pipe length after the sec	ond branching point	$\leq$ 15m	-	-	-	-	L1+L2,L3+L4							
Elevation difference between	When the outdoor unit is positioned higher	$\leq$ 50m <sup>(3)</sup>	ц		ц	н	ц							
indoor and outdoor units	When the outdoor unit is positioned lower	$\leq$ 15m					n							
Elevation difference between	indoor units	$\leq 0.5m$	-	h	h1,h2,h3	h1,h2,h3	h1,h2,h3,h4,h5,h6							

### [Formula to calculate equivalent length (Le)]

In case of new piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52)
In case of existing piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52) + 1.56 × (length of $\phi$ 15.88)

## 

# • For model 200V, always use $\phi$ 12.7mm liquid main pipe when one-way piping length exceeds 40m and $\phi$ 9.52mm if it is 40m or less. If $\phi$ 9.52mm liquid pipe is used in an installation having one-way pipe longer than 40m, it may cause degradation of performance and/or water drops in the indoor unit.

• Always use  $\phi$  25.4mm or  $\phi$  28.58mm gas main pipe "L" when the length of "L" exceeds 35m.

If  $\phi$  22.22mm gas pipe is used in an installation having one-way pipe longer than 35m, it may cause degradation of performance and/or water drops in the indoor unit.

Notes:

(1) Install the indoor units so that L + L1 becomes the longest one-way pipe.

(2) Connect the indoor unit with the maximum capacity to L1.

(3) If the outdoor temperature is above 43°C, the dimensional restriction is  $\leq$  30m.

Limitation on unit and piping installation - single,twin,W-twin.

- Check the following points against the specification of the indoor unit and the installation site.
  Observe the following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance.
  The total liquid piping length of the system is restricted by the equivalent length (Le). The equivalent length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm.

### • FDC250/280V

Destricti		Dimensional restrictions		Marks appe	aring in the dra	awing
Resulcu		Dimensional restrictions	Single	Twin	Triple	W-twin
Total equivalent length(Liquid	piping)	$\begin{array}{l} [250V] \leqq 70m \\ [280V] \leqq 60m \end{array}$	Le	Le		Le
One-way pipe length of refrige	erant piping	$\begin{array}{l} \mbox{[250V]} \leqq \mbox{70m} \\ \mbox{[280V]} \leqq \mbox{60m} \end{array}$	L	L+L1 L+L2		L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4
	Liquid piping	$\begin{array}{l} [250V] \leqq 70m \\ [280V] \leqq 60m \end{array}$				
Main pipe length	Gas piping	$ \stackrel{\leq}{=} 35m (L: \phi 22.22) \\ [250V] 35-70m \\ [280V] 35-60m \\ (L: \phi 25.4 \text{ or } \phi 28.58) \\ \end{cases} $	L	L		L
One-way pipe length after the	first branching point	$\leq$ 30m	-	L1,L2		La+L1, La+L2 La+L3, La+L4
One-way pipe length difference branching point to the indoor	e from the first units	$\leq$ 10m	-	L1-L2	-	(L1+La)-(L3+Lb) ,  (L1+La)-(L4+Lb) ,  (L2+La)-(L3+Lb) ,  (L2+La)-(L4+Lb) ,  L1-L2 ,  L3-L4
One-way pipe length differend branching point to the indoor	e from the second unit	$\leq$ 10m	-	-		L1-L2 , L3-L4
Total pipe length after the sec	ond branching point	$\leq$ 15m	-	-		L1+L2,L3+L4
Elevation difference between	When the outdoor unit is positioned higher	$\leq$ 50m <sup>(3)</sup>	н	н		н
indoor and outdoor units	When the outdoor unit is positioned lower	$\leq$ 15m				
Elevation difference between	ndoor units	$\leq 0.5m$	-	h		h1,h2,h3,h4,h5,h6

### [Formula to calculate equivalent length (Le)]

In case of new piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52)
In case of existing piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52) + 1.56 × (length of $\phi$ 15.88)

### 

• Always use  $\phi$  25.4mm or  $\phi$  28.58mm gas main pipe "L" when the length of "L" exceeds 35m. If  $\phi$  22.22mm gas pipe is used in an installation having one-way pipe longer than 35m, it may cause degradation of performance and/or water drops in the indoor unit.

Notes:

(1) If the outdoor temperature is above 43°C, the dimensional restriction is  $\leq$  30m.





— 75 —

### Limitation of refrigerant and additional refrigerant charge

(1) Determine if the factory refrigerant charge of the outdoor unit is sufficient to cover the total liquid piping length.

ltem Capacity	Factory refrigerant charge (kg)	Liquid piping length covered with factory refrigerant charge (m)
200V	4.3	
250V	5.1	30
280V	5.6	

(2) If the factory charge does not cover the total liquid piping length, an addition of refrigerant is necessary.

### Step1 - Calculate the total equivalent length, Le:

[Formula to calculate equivalent length (	(Le)	
---	------	--

In case of new piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52)
In case of existing piping	Le = (length of $\phi$ 12.7) + 0.52 × (length of $\phi$ 9.52) + 1.56 × (length of $\phi$ 15.88)

Step2 - Determine from the table below the additional refrigerant charge:

Model EDC200 *			Equivalent length (Le)		
WOUELEDG200	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50>	50 <le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60>	60 <le≦70 m<="" td=""></le≦70>
Additional refrigerant charge (kg)	Okg	0.20kg	2.11kg	2.98kg	3.65kg
			Equivalent length (Le)		
Model FDC250	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60></td></le≦50>	50 <le≦60 m<="" td=""><td>60<le≦70 m<="" td=""></le≦70></td></le≦60>	60 <le≦70 m<="" td=""></le≦70>
Additional refrigerant charge (kg)	Okg	0.44kg	1.31kg	2.18kg	2.85kg
Model EDC280					
WOUELEDG200	≦30 m	30 <le≦40 m<="" td=""><td>40<le≦50 m<="" td=""><td>50<le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55></td></le≦50></td></le≦40>	40 <le≦50 m<="" td=""><td>50<le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55></td></le≦50>	50 <le≦55 m<="" td=""><td>55<le≦60 m<="" td=""></le≦60></td></le≦55>	55 <le≦60 m<="" td=""></le≦60>
Additional refrigerant charge (kg)	Okg	0.44kg	1.31kg	1.96kg	2.35kg

\*For FDC200VSA-W only, even if the total liquid piping length > 30m, there may be cases where additional refrigerant charge is not required

 It is not necessary to remove or add refrigerant charge even if the total liquid piping length is less than 3 m.
 If an existing pipe system is used, the refrigerant charge will vary according to the liquid pipe size. For further information, see "6. UTILIZATION OF EXISTING PIPING" in chapter 1.10.4 Installation of outdoor unit.

### Examples:

FDC250VSA-W - W-twin system with L( $\phi12.7)=35$  m; La( $\phi9.52)=Lb(\phi9.52)=5$  m; L1( $\phi9.52)=L2(\phi9.52)=L3(\phi9.52)=L4(\phi9.52)=3$  m Total liquid piping length = 57 m, additional refrigerant charge is necessary Step 1: Le = 35 + 0.52 x (5 + 5 + 3 + 3 + 3 + 3) = 46.44 m Step 2: additional refrigerant charge = 1.31 kg

FDC200VSA-W - Twin system with L( $\phi$ 9.52) = 30 m; L1( $\phi$ 9.52) = L2( $\phi$ 9.52) = 6 m Total liquid piping length = 42 m, additional refrigerant charge might be necessary Step 1: Le = 0 + 0.52 x (30 + 6 + 6) = 21.84 m Step 2: additional refrigerant charge = 0 kg

FDC280VSA-W - Single system with L( $\phi$ 12.7) = 25 m Total liquid piping length = 25 m, no additional refrigerant charge needed

# **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-4 way type (FDT)

Model FDT200VSAWPVH Indoor unit FDT100VH (2 uints) Outdoor unit FDC200VSA-W

Cooling n	node	de la la la la la la la la la la la la la													(kW)	ŀ	leating	mode	: HC				(kW)	
Outdoor							Inde	oor air t	empera	ture							Outdoor ai		or air		Indoor	air temp	erature	
air	18°0	DB	21°0	CDB	23°0	DB	26°0	DB	27°0	27°CDB 28°CDB			31°CDB 33°CDB			temperature		°CDB						
temperature	12°C	WB	14°C	CWB	16°C	WB	18°C	WB	19°C	CWB	20°0	WB	22°CWB 24°CWB		ſ	°CDB	°CWB	16	18	20	22	24		
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	ſ	-19.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	16.21	21.53	17.54	22.10	17.27	22.81	17.02	24.23	17.98	25.65	17.38	Ĩ	-17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	16.24	21.65	17.58	22.24	17.31	22.93	17.05	24.31	18.00	25.68	17.39	I	-15.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	16.27	21.78	17.61	22.38	17.35	23.05	17.08	24.38	18.01	25.72	17.39		-13.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	16.27	21.86	17.64	22.50	17.38	23.15	17.11	24.45	18.03	25.76	17.40	ļ	-11.5	-12	11.93	11.80	11.67	11.54	11.40
19					20.67	16.31	21.94	17.66	22.61	17.41	23.25	17.13	24.52	18.04	25.80	17.41	Ļ	-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	16.20	21.58	17.56	22.22	17.31	22.86	17.03	24.13	17.96	25.40	17.34		-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	16.09	21.22	17.45	21.84	17.20	22.47	16.94	23.74	17.87	25.01	17.26		-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	16.77	19.88	16.05	21.04	17.40	21.64	17.15	22.28	16.88	23.54	17.83	24.81	17.23	ļ	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	16.73	19.72	16.00	20.86	17.36	21.45	17.09	22.37	16.92	23.30	17.78			ļ	-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	16.61	19.39	15.89	20.51	17.25	21.09	17.00	22.03	16.83	22.97	17.72			ļ	1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	16.51	19.07	15.79	20.16	17.16	20.72	16.91	21.69	16.75	22.65	17.65				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	15.19	17.45	16.32	18.74	15.68	19.81	17.06	20.36	16.81	21.35	16.66	22.33	17.58			ŀ	3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	15.15	17.23	16.24	18.41	15.59	19.46	16.97	20.00	16.73	21.00	16.58	22.01	17.52			ļ	5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	15.06	16.98	16.15	18.04	15.47	19.00	16.84	19.54	16.61	20.50	16.46	21.46	17.40			ļ	7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	14.98	16.73	16.06	17.67	15.36	18.54	16.72	19.09	16.49	20.00	16.34	20.92	17.29			ŀ	9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	14.89	16.47	15.98	17.29	15.24	18.08	16.59	18.63	16.38	19.50	16.22	20.37	17.19				11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	14.81	16.22	15.89	16.92	15.13	17.62	16.47	18.17	16.26	19.00	16.11	19.83	17.07			ļ	13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	14.68	15.84	15.53	16.36	14.96	16.93	16.29	17.49	16.09	18.25	15.94	19.01	16.92			ļ	15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			L	16.5	16	27.25	27.10	26.94	26.76	26.57
																								_

PJF000Z588 / 🖳

PJF000Z588

### Model FDT250VSAWPVH

Indoor unit FDT125VH (2 units)

### Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	Heatir	g mode:	НС				(kW)
Outdoor							Ind	oor air t	emperat	ure							Out	loor air		Indoor	air temp	erature	
air	18°0	CDB	21°0	DB	23°0	CDB	26°0	CDB	27°0	CDB	28°CDB		31°CDB		33°CDB		temp	erature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	CWB	18°0	WB	19°0	CWB	20°0	WB	22°0	CWB	24°0	WB	°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	11.35	11.22	11.10	10.97	10.84
11					25.67	20.35	27.17	21.86	27.92	21.69	28.75	21.43	30.42	22.66	32.08	22.24	-17.7	-18	12.14	12.00	11.87	11.73	11.59
13					25.70	20.36	27.20	21.88	27.95	21.70	28.78	21.54	30.45	22.67	32.11	22.25	-15.7	-16	12.92	12.78	12.64	12.49	12.35
15					25.72	20.38	27.23	21.89	27.98	21.71	28.81	21.55	30.48	22.68	32.15	22.26	-13.5	-14	13.71	13.55	13.41	13.25	13.10
17					25.73	20.38	27.32	21.93	28.11	21.77	28.94	21.59	30.56	22.71	32.20	22.27	-11.5	-12	14.39	14.24	14.08	13.93	13.77
19					25.84	20.43	27.43	21.97	28.26	21.82	29.06	21.65	30.66	22.74	32.25	22.29	-9.5	-10	15.09	14.92	14.77	14.60	14.45
21					25.45	20.25	26.98	21.79	27.78	21.64	28.57	21.47	30.17	22.57	31.75	22.14	-7.5	-8	15.77	15.61	15.44	15.28	15.12
23					25.05	20.08	26.53	21.61	27.29	21.45	28.08	21.29	29.68	22.41	31.26	21.99	-5.5	-6	16.05	15.89	15.73	15.58	15.42
25			23.45	20.54	24.85	20.00	26.30	21.52	27.05	21.35	27.84	21.20	29.43	22.32	31.01	21.92	-3.0	-4	16.32	16.17	16.02	15.87	15.72
27			23.26	20.46	24.66	19.92	26.08	21.44	26.81	21.27	27.97	21.24	29.13	22.23			-1.0	-2	16.59	16.46	16.31	16.17	16.02
29			22.89	20.28	24.24	19.74	25.64	21.26	26.35	21.09	27.54	21.08	28.72	22.09			1.0	0	16.87	16.74	16.60	16.46	16.32
31			22.51	20.11	23.83	19.57	25.20	21.09	25.91	20.93	27.11	20.94	28.31	21.96			2.0	1	17.01	16.87	16.74	16.60	16.47
33	20.84	18.57	21.81	19.79	23.43	19.40	24.76	20.92	25.46	20.76	26.69	20.78	27.92	21.82			3.0	2	19.33	19.16	19.00	18.85	18.71
35	20.70	18.51	21.54	19.68	23.02	19.23	24.32	20.75	25.00	20.59	26.26	20.63	27.51	21.70			5.0	4	23.97	23.74	23.50	23.33	23.17
37	20.43	18.38	21.27	19.55	22.69	19.09	23.90	20.58	24.54	20.42	25.69	20.43	26.83	21.47			7.0	6	28.61	28.30	28.00	27.81	27.64
39	20.32	18.32	21.18	19.51	22.55	19.03	23.67	20.50	24.27	20.32	25.31	20.29	26.35	21.31			9.0	8	29.99	29.73	29.47	29.27	29.07
41	20.93	18.61	21.43	19.63	22.36	18.96	23.38	20.39	23.94	20.20	24.88	20.14	25.80	21.14			11.5	10	31.36	31.15	30.95	30.73	30.50
43	19.81	18.07	20.68	19.29	21.93	18.77	22.83	20.18	23.34	19.98	24.16	19.89	24.96	20.86			13.5	12	32.44	32.24	32.03	31.82	31.59
46	17.88	17.16	18.45	18.08	19.05	17.60	19.72	19.01	20.36	18.91	21.26	18.89	22.15	19.98			15.5	14	33.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			16.5	16	34.07	33.87	33.67	33.44	33.22

Notes(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)

<sup>(</sup>a) Twin type

### Model FDT280VSAWPVH

### Indoor unit FDT140VH (2 units)

Outdoor unit FDC280VSA-W

Cool	ling	mode

Cooling m	ode															(kW)	Heat	ng mode:	нс				(kW)
Outdoor							Ind	oor air t	emperat	ure							Ou	door air		Indoor	air temp	erature	
air	18°0	DB	21°0	DB	23°	CDB	26°CDB 27°CDB 28°CDB 3				31°0	CDB	33°0	CDB	ten	perature			°CDB				
temperature	12°C	WB	14°C	WB	16°0	CWB	18°0	WB	19°0	WB	20°C	WB	22°0	WB	24°C	WВ	°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	13.25	13.10	12.96	12.81	12.66
11					27.72	21.98	29.34	23.61	30.15	23.42	31.05	23.14	32.85	24.47	34.65	24.02	-17	7 -18	13.73	13.57	13.43	13.27	13.12
13					27.75	21.99	29.37	23.63	30.18	23.43	31.08	23.27	32.88	24.48	34.68	24.03	-15	7 -16	14.21	14.05	13.90	13.74	13.58
15					27.78	22.01	29.41	23.64	30.22	23.45	31.12	23.28	32.92	24.49	34.72	24.04	-13	5 -14	14.69	14.52	14.37	14.20	14.03
17					27.79	22.01	29.51	23.68	30.36	23.51	31.25	23.32	33.01	24.53	34.77	24.05	-11.	5 -12	15.42	15.26	15.09	14.92	14.76
19					27.91	22.06	29.62	23.73	30.52	23.57	31.39	23.38	33.11	24.56	34.83	24.08	-9.	-10	16.17	15.99	15.82	15.64	15.48
21					27.48	21.87	29.14	23.54	30.00	23.37	30.86	23.19	32.58	24.38	34.29	23.91	-7.	-8	16.90	16.72	16.54	16.37	16.20
23					27.06	21.69	28.65	23.34	29.48	23.16	30.33	23.00	32.05	24.20	33.76	23.75	-5.	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	22.19	26.84	21.60	28.41	23.24	29.22	23.06	30.07	22.89	31.78	24.11	33.49	23.67	-3.	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	22.10	26.63	21.51	28.17	23.15	28.96	22.97	30.21	22.94	31.46	24.01			-1.	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	21.90	26.18	21.32	27.69	22.96	28.46	22.78	29.75	22.77	31.02	23.86			1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	21.72	25.74	21.14	27.21	22.78	27.98	22.60	29.28	22.61	30.58	23.72			2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	20.06	23.56	21.38	25.30	20.95	26.74	22.59	27.50	22.42	28.82	22.44	30.15	23.57			3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	19.99	23.27	21.25	24.86	20.77	26.27	22.41	27.00	22.24	28.36	22.28	29.71	23.43			5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	19.85	22.97	21.12	24.50	20.62	25.81	22.23	26.51	22.05	27.74	22.06	28.98	23.19			7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	19.79	22.87	21.07	24.36	20.55	25.56	22.14	26.21	21.95	27.34	21.92	28.46	23.02			9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	20.10	23.14	21.20	24.15	20.48	25.25	22.02	25.85	21.81	26.87	21.75	27.87	22.83			11.	5 10	33.60	33.38	33.16	32.92	32.68
43	21.40	19.52	22.33	20.84	23.68	20.27	24.66	21.79	25.21	21.58	26.09	21.48	26.96	22.53			13.	5 12	34.76	34.54	34.32	34.09	33.84
46	19.31	18.53	19.92	19.53	20.58	19.01	21.30	20.53	21.99	20.42	22.96	20.40	23.92	21.58			15.	5 14	35.91	35.71	35.50	35.26	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72			16.	5 16	36.50	36.29	36.08	35.83	35.59



PJF000Z588 A

### (b) Triple type

### Model FDT200VSAWTVH

Indoor unit FDT71VH (3 uints)

### Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	Heati	ng mode	: HC				(kW)
Outdoor							Inde	oor air t	empera	ture							Out	door air		Indoor	air temp	erature	
air	18°C	DB	21°0	DB	23°0	CDB	26°0	CDB	27°0	DB	28°0	DB	31°0	CDB	33°0	DB	tem	perature			°CDB		
temperature	12°C	WB	14°C	WB	16°C	WB	18°0	WB	19°C	WB	20°C	WB	22°0	WB	24°0	WB	°CD	°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	8.95	8.85	8.76	8.65	8.55
11					20.38	17.82	21.53	19.42	22.10	19.16	22.81	18.93	24.23	20.12	25.65	19.55	-17.	7 -18	9.67	9.56	9.46	9.34	9.23
13					20.48	17.85	21.65	19.45	22.24	19.20	22.93	18.96	24.31	20.14	25.68	19.55	-15.	7 -16	10.38	10.27	10.16	10.04	9.92
15					20.57	17.88	21.78	19.49	22.38	19.23	23.05	18.98	24.38	20.15	25.72	19.56	-13.	5 -14	11.10	10.98	10.86	10.73	10.60
17					20.59	17.88	21.86	19.52	22.50	19.26	23.15	19.01	24.45	20.17	25.76	19.57	-11.	5 -12	11.93	11.80	11.67	11.54	11.40
19					20.67	17.91	21.94	19.54	22.61	19.29	23.25	19.03	24.52	20.18	25.80	19.57	-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	17.81	21.58	19.43	22.22	19.19	22.86	18.94	24.13	20.09	25.40	19.49	-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	17.71	21.22	19.34	21.84	19.09	22.47	18.84	23.74	20.01	25.01	19.43	-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	18.38	19.88	17.65	21.04	19.28	21.64	19.04	22.28	18.79	23.54	19.97	24.81	19.39	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	18.24	19.72	17.61	20.86	19.23	21.45	18.99	22.37	18.81	23.30	19.92			-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	17.95	19.39	17.51	20.51	19.14	21.09	18.89	22.03	18.73	22.97	19.85			1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	17.65	19.07	17.40	20.16	19.03	20.72	18.80	21.69	18.64	22.65	19.78			2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	16.35	17.45	17.11	18.74	17.29	19.81	18.94	20.36	18.71	21.35	18.56	22.33	19.72			3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	16.23	17.23	16.89	18.41	17.20	19.46	18.84	20.00	18.61	21.00	18.48	22.01	19.64			5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	16.01	16.98	16.64	18.04	17.08	19.00	18.62	19.54	18.49	20.50	18.36	21.46	19.53			7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	15.79	16.73	16.39	17.67	16.97	18.54	18.17	19.09	18.38	20.00	18.24	20.92	19.42			9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	15.58	16.47	16.15	17.29	16.85	18.08	17.72	18.63	18.25	19.50	18.12	20.37	19.31			11.	10	25.09	24.92	24.75	24.58	24.40
43	15.68	15.36	16.22	15.89	16.92	16.58	17.62	17.27	18.17	17.81	19.00	18.00	19.83	19.20			13.	12	25.95	25.79	25.63	25.45	25.27
46	15.34	15.04	15.84	15.53	16.36	16.03	16.93	16.59	17.49	17.14	18.25	17.82	19.01	18.63			15.	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			16.	16	27.25	27.10	26.94	26.76	26.57

Notes(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

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

### (c) Double twin type

### Model FDT200VSAWDVH

### Indoor unit FDT50VH (4 uints)

### Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	ŀ	leating	; mode	: HC				(kW)
Outdoor							Inde	oor air t	empera	ture							ſ	Outdo	oor air		Indoor	air temp	erature	
air	18°0	DB	21°0	DB	23°0	CDB	26°0	DB	27°0	DB	28°0	CDB	31°0	DB	33°0	DB		tempe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°0	WB	24°0	WB	ĺ	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	тс	SHC	TC	SHC	TC	SHC	тс	SHC	TC	SHC	ľ	-19.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	17.46	21.53	19.06	22.10	18.75	22.81	18.45	24.23	19.61	25.65	18.91	Ì	-17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	17.49	21.65	19.09	22.24	18.78	22.93	18.48	24.31	19.62	25.68	18.92	ſ	-15.7	-16	10.38	10.27	10.16	10.04	9.92
15		20.57 17.52 21.78 19.13 22.38 18.81 23.05 18.51 24.38 19.63 25.72 18.92 13.5 20.59 17.53 21.66 19.15 22.50 18.84 23.15 18.53 24.45 19.64 25.76 18.93 -11.5															-14	11.10	10.98	10.86	10.73	10.60		
17		20.57         17.52         21.78         19.13         22.38         18.81         23.05         18.51         24.38         19.63         25.72         18.92         -13.5           20.59         17.53         21.86         19.15         22.50         18.84         23.15         18.53         24.45         19.64         25.76         18.93         -11.5           0.07         7.57         21.86         19.15         22.50         18.84         23.15         14.53         24.45         19.64         25.76         18.93         -11.5															-12	11.93	11.80	11.67	11.54	11.40		
19		20.59         17.53         21.86         19.15         22.50         18.84         23.15         18.53         24.45         19.64         25.76         18.93         -11.5         -           20.67         17.55         21.94         19.17         22.61         18.86         23.25         18.55         24.45         19.64         25.76         18.93         -11.5         -           20.67         17.55         21.94         19.17         22.61         18.86         23.25         18.55         24.52         19.66         25.80         18.93         -9.5         -         18.55         24.52         19.66         25.80         18.93         -         -         -         -         -         -         19.5         -         -         -         -<															-10	12.75	12.61	12.48	12.34	12.20		
21					20.35	17.46	21.58	19.07	22.22	18.78	22.86	18.46	24.13	19.59	25.40	18.87	L	-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	17.37	21.22	18.99	21.84	18.69	22.47	18.39	23.74	19.53	25.01	18.82	L	-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	18.19	19.88	17.33	21.04	18.95	21.64	18.65	22.28	18.35	23.54	19.49	24.81	18.80		-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	18.14	19.72	17.28	20.86	18.91	21.45	18.61	22.37	18.37	23.30	19.45				-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	17.95	19.39	17.20	20.51	18.82	21.09	18.53	22.03	18.29	22.97	19.40			ļ	1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	17.65	19.07	17.11	20.16	18.75	20.72	18.45	21.69	18.23	22.65	19.35				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	16.35	17.45	17.11	18.74	17.02	19.81	18.66	20.36	18.38	21.35	18.17	22.33	19.29				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	16.23	17.23	16.89	18.41	16.93	19.46	18.58	20.00	18.29	21.00	18.09	22.01	19.24			ļ	5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	16.01	16.98	16.64	18.04	16.83	19.00	18.47	19.54	18.20	20.50	18.00	21.46	19.16			ļ	7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	15.79	16.73	16.39	17.67	16.74	18.54	18.17	19.09	18.11	20.00	17.91	20.92	19.07			ļ	9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	15.58	16.47	16.15	17.29	16.63	18.08	17.72	18.63	18.01	19.50	17.81	20.37	18.99				11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	15.36	16.22	15.89	16.92	16.54	17.62	17.27	18.17	17.81	19.00	17.72	19.83	18.91				13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	15.04	15.84	15.53	16.36	16.03	16.93	16.59	17.49	17.14	18.25	17.58	19.01	18.63			ļ	15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69	ļ		L	16.5	16	27.25	27.10	26.94	26.76	26.57
																				PJ	F00	0Z:	588	

### Model FDT250VSAWDVH

### Indoor unit FDT60VH (4 Units)

### Outdoor unit FDC250VSA-W

Cooling mo	ode	Indoor air temperature           18°CDB         21°CDB         23°CDB         26°CDB         27°CDB         28°CDB         31°CDB         33°CDB           12°CWB         14°CWB         16°CWB         18°CWB         19°CWB         20°CWB         22°CWB         24°CWB           12°CWB         14°CWB         16°CWB         18°CWB         19°CWB         20°CWB         22°CWB         24°CWB           C         SHC         TC         SHC														(kW)	Hea	ting mo	e:H0	С				(kW)
Outdoor		Indoor air temperature           CDB         21°CDB         23°CDB         26°CDB         27°CDB         28°CDB         31°CDB         33           CWB         14°CWB         16°CWB         18°CWB         19°CWB         20°CWB         22°CWB         22°CWB         24°           SHC         TC         SH														$\neg$		utdoor a	ir		Indoor	air temp	erature	
air	18°C	DB	21°0	CDB	23°0	DB	26°0	DB	27°0	CDB	28°0	DB	31°0	DB	33°0	DB	te	mperatu	e			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°C	WB	24°C	WB	°C	DB ℃\	/В	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	TC	SHC	-1	9.8 -2	)	11.35	11.22	11.10	10.97	10.84								
11					25.67	21.69	27.17	23.68	27.92	23.27	28.75	22.86	30.42	24.26	32.08	23.32	-1	7.7 -1	3	12.14	12.00	11.87	11.73	11.59
13				i – –	25.70	21.70	27.20	23.69	27.95	23.28	28.78	22.88	30.45	24.26	32.11	23.85	-1	5.7 -1	3	12.92	12.78	12.64	12.49	12.35
15					25.72	21.70	27.23	23.70	27.98	23.28	28.81	22.88	30.48	24.27	32.15	23.33	-1	3.5 -1	4	13.71	13.55	13.41	13.25	13.10
17					25.73	21.71	27.32	23.72	28.11	23.31	28.94	22.91	30.56	24.28	32.20	23.33	-1	.5 -1	2	14.39	14.24	14.08	13.93	13.77
19					25.84	21.74	27.43	23.74	28.26	23.34	29.06	22.93	30.66	24.29	32.25	23.34	-9	.5 -1	)	15.09	14.92	14.77	14.60	14.45
21					25.45	21.63	26.98	23.64	27.78	23.24	28.57	22.73	30.17	24.22	31.75	23.28	-7	.5 -		15.77	15.61	15.44	15.28	15.12
23					25.05	21.52	26.53	23.53	27.29	23.15	28.08	22.74	29.68	24.15	31.26	23.23		.5 -		16.05	15.89	15.73	15.58	15.42
25			23.45	22.58	24.85	21.47	26.30	23.48	27.05	23.09	27.84	22.70	29.43	24.10	31.01	23.20	5	.0 -	· ]	16.32	16.17	16.02	15.87	15.72
27			23.26	22.52	24.66	21.42	26.08	23.44	26.81	23.04	27.97	22.72	29.13	24.06			- 1	.0 -		16.59	16.46	16.31	16.17	16.02
29			22.89	22.42	24.24	21.31	25.64	23.33	26.35	22.95	27.54	22.64	28.72	24.00			1	0 0		16.87	16.74	16.60	16.46	16.32
31			22.51	22.06	23.83	21.21	25.20	23.24	25.91	22.85	27.11	22.56	28.31	23.94			2	0 '		17.01	16.87	16.74	16.60	16.47
33	20.84	20.41	21.81	21.38	23.43	21.10	24.76	23.15	25.46	22.77	26.69	22.48	27.92	23.88			3	0 2		19.33	19.16	19.00	18.85	18.71
35	20.70	20.28	21.54	21.11	23.02	21.00	24.32	23.04	25.00	22.68	26.26	22.40	27.51	23.82			5	0 4		23.97	23.74	23.50	23.33	23.17
37	20.43	20.02	21.27	20.84	22.69	20.92	23.90	22.96	24.54	22.58	25.69	22.29	26.83	23.72			7	0 6		28.61	28.30	28.00	27.81	27.64
39	20.32	19.92	21.18	20.75	22.55	20.88	23.67	22.91	24.27	22.53	25.31	22.23	26.35	23.66			9	0 8		29.99	29.73	29.47	29.27	29.07
41	20.93	20.43	21.43	21.00	22.36	20.83	23.38	22.84	23.94	22.47	24.88	22.15	25.80	23.57			1	.5 1	)	31.36	31.15	30.95	30.73	30.50
43	19.81	19.42	20.68	20.26	21.93	20.72	22.83	22.38	23.34	22.35	24.16	22.02	24.96	23.46			1	.5 1	2	32.44	32.24	32.03	31.82	31.59
46	17.88	17.51	18.45	18.08	19.05	18.68	19.72	19.33	20.36	19.96	21.26	20.83	22.15	21.71			1	.5 1	ιT	33.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	22.79	13.91	13.63			1	.5 1	; T	34.07	33.87	33.67	33.44	33.22

Notes(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 (k₩) SHC :Sensible heat capacity (k₩) HC :Heating capacity (k₩)

PJF000Z588 /H

### Model FDT280VSAWDVH

### Indoor unit FDT71VH (4 Units)

### Outdoor unit FDC280VSA-W

Cooling m	node
-----------	------

Cooling m	(kW)           Indoor air temperature           Indoor air temperature         Indoor air temperature         Sanct A         Sanct A											He	eating I	mode:H	С				(kW)					
Outdoor							Ind	oor air t	emperat	ure							Г	Outdo	or air		Indoor	air temp	erature	
air	18°0	DB	21°0	CDB	23°0	CDB	26°0	DB	27°0	CDB	28°0	DB	31°0	CDB	33°0	DB		temper	ature			°CDB		
temperature	12°C	WB	14°0	WB	16°0	WB	18°0	WB	19°C	CWB	20°0	WB	22°0	WB	24°0	WB	٩	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	TC	SHC	тс	SHC	TC	SHC	F	19.8	-20	13.25	13.10	12.96	12.81	12.66
11					27.72	23.42	29.34	25.57	30.15	25.13	31.05	24.69	32.85	26.20	34.65	25.19	-	17.7	-18	13.73	13.57	13.43	13.27	13.12
13					27.75	23.43	29.37	25.58	30.18	25.14	31.08	24.71	32.88	26.20	34.68	25.76	E	15.7	-16	14.21	14.05	13.90	13.74	13.58
15					27.78	23.43	29.41	25.59	30.22	25.14	31.12	24.71	32.92	26.21	34.72	25.20	-	13.5	-14	14.69	14.52	14.37	14.20	14.03
17					27.79	23.45	29.51	25.62	30.36	25.18	31.25	24.74	33.01	26.22	34.77	25.20	-	11.5	-12	15.42	15.26	15.09	14.92	14.76
19					27.91	23.48	29.62	25.64	30.52	25.21	31.39	24.76	33.11	26.24	34.83	25.21		-9.5	-10	16.17	15.99	15.82	15.64	15.48
21				ļ	27.48	23.36	29.14	25.53	30.00	25.10	30.86	24.55	32.58	26.16	34.29	25.14		-7.5	-8	16.90	16.72	16.54	16.37	16.20
23					27.06	23.24	28.65	25.41	29.48	25.00	30.33	24.56	32.05	26.08	33.76	25.09		-5.5	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	24.39	26.84	23.19	28.41	25.36	29.22	24.94	30.07	24.51	31.78	26.03	33.49	25.05		-3.0	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	24.32	26.63	23.13	28.17	25.31	28.96	24.89	30.21	24.54	31.46	25.99				-1.0	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	24.21	26.18	23.02	27.69	25.20	28.46	24.78	29.75	24.45	31.02	25.92				1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	23.83	25.74	22.91	27.21	25.10	27.98	24.68	29.28	24.37	30.58	25.85				2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	22.04	23.56	23.09	25.30	22.79	26.74	25.00	27.50	24.59	28.82	24.28	30.15	25.79				3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	21.90	23.27	22.80	24.86	22.68	26.27	24.89	27.00	24.49	28.36	24.19	29.71	25.73				5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	21.62	22.97	22.51	24.50	22.59	25.81	24.80	26.51	24.39	27.74	24.08	28.98	25.62			L	7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	21.51	22.87	22.41	24.36	22.55	25.56	24.74	26.21	24.33	27.34	24.01	28.46	25.55			H	9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	22.06	23.14	22.68	24.15	22.50	25.25	24.67	25.85	24.27	26.87	23.92	27.87	25.46			H	11.5	10	33.60	33.38	33.16	32.92	32.68
43	21.40	20.97	22.33	21.88	23.68	22.38	24.66	24.17	25.21	24.14	26.09	23.78	26.96	25.34			H	13.5	12	34.76	34.54	34.32	34.09	33.84
46	19.31	18.91	19.92	19.53	20.58	20.17	21.30	20.88	21.99	21.56	22.96	22.50	23.92	23.45			H	15.5	14	35.91	35.71	35.50	35.26	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	24.62	15.02	14.72				16.5	16	36.50	36.29	36.08	35.83	35.59



PJF000Z586

### (2) Ceiling cassette-4 way compact type (FDTC) (a) Double twin type

Model FDTC200VSAWDVH Indoor unit FDTC50VH (4 units)

### Outdoor unit FDC200VSA-W

Cooling m	node		Indoor air temperature         3       21°CDB       23°CDB       26°CDB       27°CDB       28°CDB       31°CDB       22°CWB       22         B       14°CWB       16°CWB       18°CWB       19°CWB       20°CWB       22°CWB       22°CWB       22         HC       TC       SHC       TC       SHC													(kW)	Heat	ng mode	: HC				(kW)
Outdoor							Inde	oor air t	empera	ture							Ou	door air		Indoor	air temp	erature	
air	18°C	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°C	DB	33°0	DB	tem	perature			°CDB		
temperature	12°C	WB	14°C	WB	16°C	WB	18°C	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB	°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	8.95	8.85	8.76	8.65	8.55
11					20.38	14.78	21.53	15.75	22.10	15.57	22.81	15.42	24.23	16.15	25.65	15.75	-17.	7 -18	9.67	9.56	9.46	9.34	9.23
13					20.48	14.82	21.65	15.80	22.24	15.62	22.93	15.46	24.31	16.17	25.68	15.76	-15.	7 -16	10.38	10.27	10.16	10.04	9.92
15					20.57	14.86	21.78	15.84	22.38	15.67	23.05	15.51	24.38	16.19	25.72	15.77	-13.	5 -14	11.10	10.98	10.86	10.73	10.60
17					20.59	14.87	21.86	15.87	22.50	15.72	23.15	15.54	24.45	16.21	25.76	15.78	-11.	5 -12	11.93	11.80	11.67	11.54	11.40
19					20.67	14.91	21.94	15.91	22.61	15.76	23.25	15.58	24.52	16.24	25.80	15.79	-9.	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	14.77	21.58	15.77	22.22	15.61	22.86	15.44	24.13	16.12	25.40	15.68	-7.	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	14.64	21.22	15.63	21.84	15.46	22.47	15.31	23.74	15.99	25.01	15.57	-5.	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	15.03	19.88	14.57	21.04	15.56	21.64	15.40	22.28	15.23	23.54	15.93	24.81	15.51	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	14.97	19.72	14.51	20.86	15.49	21.45	15.33	22.37	15.26	23.30	15.84			-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	14.83	19.39	14.37	20.51	15.36	21.09	15.19	22.03	15.15	22.97	15.75			1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	14.69	19.07	14.23	20.16	15.22	20.72	15.06	21.69	15.03	22.65	15.64			2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	13.66	17.45	14.45	18.74	14.09	19.81	15.09	20.36	14.94	21.35	14.91	22.33	15.55			3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	13.60	17.23	14.36	18.41	13.97	19.46	14.96	20.00	14.80	21.00	14.79	22.01	15.44			5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	13.49	16.98	14.24	18.04	13.81	19.00	14.79	19.54	14.64	20.50	14.62	21.46	15.27			7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	13.40	16.73	14.14	17.67	13.66	18.54	14.62	19.09	14.48	20.00	14.45	20.92	15.11			9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	13.29	16.47	14.02	17.29	13.52	18.08	14.45	18.63	14.32	19.50	14.28	20.37	14.95			11.	10	25.09	24.92	24.75	24.58	24.40
43	15.68	13.19	16.22	13.92	16.92	13.37	17.62	14.28	18.17	14.16	19.00	14.12	19.83	14.78			13.	12	25.95	25.79	25.63	25.45	25.27
46	15.34	13.03	15.84	13.75	16.36	13.15	16.93	14.04	17.49	13.93	18.25	13.87	19.01	14.54			15.	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.44	12.40	12.15	13.04	11.88	13.34	12.80	13.56	12.63	13.77	12.46	13.98	13.13			16.	16	27.25	27.10	26.94	26.76	26.57

### Notes(1) These data show average status.

s(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)

### Model FDTC250VSAWDVH

### Indoor unit FDTC60VH (4 units)

Outdoor unit FDC250VSA-W

Cooling me	ode															(kW)	Heati	ng mode:I	HC				(kW)
Outdoor							Ind	loor air t	emperat	ture							Ou	door air		Indoor	air temp	erature	
air	18°0	CDB	21°0	CDB	23°0	CDB	26°0	CDB	27°	CDB	28°0	DB	31°0	CDB	33°0	CDB	ten	perature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	WB	22°0	CWB	24°0	CWB	°CD	3 °CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	тс	SHC	тс	SHC	TC	SHC	тс	SHC	тс	SHC	-19	3 -20	11.35	11.22	11.10	10.97	10.84
11					25.67	17.15	27.17	18.09	27.92	17.88	28.75	17.67	30.42	18.28	32.08	17.74	-17	7 -18	12.14	12.00	11.87	11.73	11.59
13					25.70	17.17	27.20	18.10	27.95	17.89	28.78	17.68	30.45	18.29	32.11	17.75	-15	7 -16	12.92	12.78	12.64	12.49	12.35
15					25.72	17.18	27.23	18.11	27.98	17.90	28.81	17.69	30.48	18.30	32.15	17.76	-13	5 -14	13.71	13.55	13.41	13.25	13.10
17					25.73	17.18	27.32	18.16	28.11	17.96	28.94	17.74	30.56	18.33	32.20	17.78	-11.	5 -12	14.39	14.24	14.08	13.93	13.77
19					25.84	17.23	27.43	18.20	28.26	18.01	29.06	17.78	30.66	18.36	32.25	17.79	-9.	-10	15.09	14.92	14.77	14.60	14.45
21					25.45	17.05	26.98	18.01	27.78	17.81	28.57	17.59	30.17	18.20	31.75	17.64	-7.	-8	15.77	15.61	15.44	15.28	15.12
23					25.05	16.86	26.53	17.82	27.29	17.63	28.08	17.41	29.68	18.02	31.26	17.48	-5.	-6	16.05	15.89	15.73	15.58	15.42
25			23.45	17.30	24.85	16.78	26.30	17.73	27.05	17.52	27.84	17.32	29.43	17.94	31.01	17.41	-3.	-4	16.32	16.17	16.02	15.87	15.72
27			23.26	17.22	24.66	16.69	26.08	17.64	26.81	17.43	27.97	17.36	29.13	17.83			-1.	-2	16.59	16.46	16.31	16.17	16.02
29			22.89	17.04	24.24	16.51	25.64	17.46	26.35	17.25	27.54	17.20	28.72	17.70			1.0	0	16.87	16.74	16.60	16.46	16.32
31			22.51	16.85	23.83	16.32	25.20	17.28	25.91	17.07	27.11	17.04	28.31	17.56			2.0	1	17.01	16.87	16.74	16.60	16.47
33	20.84	15.78	21.81	16.52	23.43	16.15	24.76	17.10	25.46	16.90	26.69	16.89	27.92	17.43			3.0	2	19.33	19.16	19.00	18.85	18.71
35	20.70	15.71	21.54	16.40	23.02	15.97	24.32	16.93	25.00	16.73	26.26	16.72	27.51	17.29			5.0	4	23.97	23.74	23.50	23.33	23.17
37	20.43	15.57	21.27	16.27	22.69	15.82	23.90	16.76	24.54	16.55	25.69	16.51	26.83	17.06			7.0	6	28.61	28.30	28.00	27.81	27.64
39	20.32	15.52	21.18	16.23	22.55	15.77	23.67	16.67	24.27	16.45	25.31	16.38	26.35	16.91			9.0	8	29.99	29.73	29.47	29.27	29.07
41	20.93	15.82	21.43	16.34	22.36	15.69	23.38	16.55	23.94	16.32	24.88	16.22	25.80	16.73			11.	10	31.36	31.15	30.95	30.73	30.50
43	19.81	15.26	20.68	16.00	21.93	15.50	22.83	16.33	23.34	16.10	24.16	15.96	24.96	16.46			13.	12	32.44	32.24	32.03	31.82	31.59
46	17.88	14.31	18.45	14.99	19.05	14.30	19.72	15.17	20.36	15.03	21.26	14.97	22.15	15.59			15.	i 14	33.52	33.33	33.13	32.91	32.68
50	11.78	11.53	12.33	12.08	12.97	11.98	13.27	12.93	13.48	12.76	13.69	12.58	13.91	13.27			16.	16	34.07	33.87	33.67	33.44	33.22



PJG000Z649 🙆

### (3) Duct connected-High static pressure type (FDU) (a) Single type

Model FDU200VSAWVH

Indoor unit FDU200VH

Outdoor unit FDC200VSA-W

Cooling m	node		Indoor air temperature           B         21°CDB         23°CDB         26°CDB         27°CDB         28°CDB         31°CD         33°CD           B         14°CWB         16°CWB         18°CWB         19°CWB         20°CWB         22°CWB         24°CW           HC         TC         SHC         TC <th>He</th> <th>ating</th> <th>mode</th> <th>: HC</th> <th></th> <th></th> <th></th> <th>(kW)</th>														He	ating	mode	: HC				(kW)
Outdoor			Indoor air temperature           21°CDB         23°CDB         26°CDB         27°CDB         28°CDB         31°CDB         33°CD           14°CWB         16°CWB         18°CWB         19°CWB         20°CWB         22°CWB         22°CWB         24°CV           C         TC         SHC         TC <td< td=""><td></td><td>Dutdo</td><td>or air</td><td></td><td>Indoor</td><td>air temp</td><td>erature</td><td></td></td<>															Dutdo	or air		Indoor	air temp	erature	
air	18°C	DB	21°0	DB	23°0	CDB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	CDB	te	empe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°C	WB	24°0	CWB	°	DB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-	9.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	14.92	21.53	15.88	22.10	15.72	22.81	15.59	24.23	16.33	25.65	15.98	-	7.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	14.96	21.65	15.94	22.24	15.77	22.93	15.63	24.31	16.36	25.68	15.99	-	5.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	15.00	21.78	15.99	22.38	15.83	23.05	15.68	24.38	16.38	25.72	16.00	-	3.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	15.00	21.86	16.02	22.50	15.87	23.15	15.72	24.45	16.41	25.76	16.01	-	11.5	-12	11.93	11.80	11.67	11.54	11.40
19					20.67	15.04	21.94	16.05	22.61	15.92	23.25	15.76	24.52	16.43	25.80	16.02	-	9.5	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	14.91	21.58	15.91	22.22	15.77	22.86	15.61	24.13	16.29	25.40	15.91	-	7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	14.77	21.22	15.77	21.84	15.62	22.47	15.46	23.74	16.17	25.01	15.78	-	5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	15.13	19.88	14.69	21.04	15.69	21.64	15.55	22.28	15.40	23.54	16.11	24.81	15.73	-	3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	15.06	19.72	14.63	20.86	15.62	21.45	15.47	22.37	15.43	23.30	16.02			-	1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	14.93	19.39	14.48	20.51	15.48	21.09	15.34	22.03	15.31	22.97	15.92				1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	14.78	19.07	14.35	20.16	15.35	20.72	15.20	21.69	15.18	22.65	15.81				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	13.74	17.45	14.53	18.74	14.21	19.81	15.21	20.36	15.06	21.35	15.06	22.33	15.71				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	13.68	17.23	14.43	18.41	14.07	19.46	15.07	20.00	14.93	21.00	14.94	22.01	15.60				5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	13.57	16.98	14.32	18.04	13.92	19.00	14.89	19.54	14.76	20.50	14.76	21.46	15.42				7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	13.46	16.73	14.20	17.67	13.76	18.54	14.72	19.09	14.59	20.00	14.59	20.92	15.25				9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	13.36	16.47	14.08	17.29	13.61	18.08	14.55	18.63	14.43	19.50	14.41	20.37	15.07				1.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	13.25	16.22	13.98	16.92	13.45	17.62	14.37	18.17	14.26	19.00	14.23	19.83	14.91			1	3.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	13.09	15.84	13.81	16.36	13.22	16.93	14.12	17.49	14.02	18.25	13.98	19.01	14.65			1	5.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.46	12.40	12.15	13.04	11.92	13.34	12.83	13.56	12.67	13.77	12.51	13.98	13.16			1	6.5	16	27.25	27.10	26.94	26.76	26.57

Notes(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.

<sup>(2)</sup> Capacities are based on the following condition 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 FDU250VSAWVH

### Indoor unit FDU250VH

Indoor unit FDU280VH

### Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	Heatin	g mode:H	IC				(kW)
Outdoor							Ind	oor air t	emperat	ure							Outo	oor air		Indoor	air temp	erature	
air	18°0	DB	21°0	CDB	23°	CDB	26°0	DB	27°0	CDB	28°0	DB	31°0	CDB	33°(	CDB	temp	erature			°CDB		
temperature	12°C	WB	14°0	WB	16°0	CWB	18°C	WB	19°0	WB	20°0	WB	22°0	CWB	24°0	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	11.35	11.22	11.10	10.97	10.84
11					25.67	20.48	27.17	22.06	27.92	21.84	28.75	21.64	30.42	22.80	32.08	22.29	-17.7	-18	12.14	12.00	11.87	11.73	11.59
13					25.70	20.49	27.20	22.07	27.95	21.85	28.78	21.65	30.45	22.81	32.11	22.30	-15.7	-16	12.92	12.78	12.64	12.49	12.35
15					25.72	20.50	27.23	22.08	27.98	21.86	28.81	21.66	30.48	22.82	32.15	22.31	-13.5	-14	13.71	13.55	13.41	13.25	13.10
17					25.73	20.50	27.32	22.11	28.11	21.92	28.94	21.70	30.56	22.84	32.20	22.32	-11.5	-12	14.39	14.24	14.08	13.93	13.77
19					25.84	20.55	27.43	22.16	28.26	21.97	29.06	21.74	30.66	22.88	32.25	22.33	-9.5	-10	15.09	14.92	14.77	14.60	14.45
21					25.45	20.39	26.98	21.99	27.78	21.79	28.57	21.58	30.17	22.72	31.75	22.20	-7.5	-8	15.77	15.61	15.44	15.28	15.12
23					25.05	20.23	26.53	21.82	27.29	21.63	28.08	21.42	29.68	22.57	31.26	22.06	-5.5	-6	16.05	15.89	15.73	15.58	15.42
25			23.45	20.79	24.85	20.16	26.30	21.74	27.05	21.54	27.84	21.33	29.43	22.50	31.01	22.00	-3.0	-4	16.32	16.17	16.02	15.87	15.72
27			23.26	20.71	24.66	20.07	26.08	21.66	26.81	21.46	27.97	21.38	29.13	22.41			-1.0	-2	16.59	16.46	16.31	16.17	16.02
29			22.89	20.55	24.24	19.91	25.64	21.50	26.35	21.30	27.54	21.24	28.72	22.29			1.0	0	16.87	16.74	16.60	16.46	16.32
31			22.51	20.39	23.83	19.75	25.20	21.34	25.91	21.15	27.11	21.09	28.31	22.17			2.0	1	17.01	16.87	16.74	16.60	16.47
33	20.84	18.80	21.81	20.09	23.43	19.59	24.76	21.19	25.46	20.99	26.69	20.96	27.92	22.05			3.0	2	19.33	19.16	19.00	18.85	18.71
35	20.70	18.74	21.54	19.98	23.02	19.43	24.32	21.03	25.00	20.83	26.26	20.81	27.51	21.93			5.0	4	23.97	23.74	23.50	23.33	23.17
37	20.43	18.61	21.27	19.86	22.69	19.30	23.90	20.88	24.54	20.68	25.69	20.63	26.83	21.73			7.0	6	28.61	28.30	28.00	27.81	27.64
39	20.32	18.56	21.18	19.82	22.55	19.25	23.67	20.79	24.27	20.58	25.31	20.51	26.35	21.59			9.0	8	29.99	29.73	29.47	29.27	29.07
41	20.93	18.84	21.43	19.93	22.36	19.18	23.38	20.70	23.94	20.47	24.88	20.36	25.80	21.43			11.5	10	31.36	31.15	30.95	30.73	30.50
43	19.81	18.33	20.68	19.61	21.93	19.01	22.83	20.50	23.34	20.27	24.16	20.14	24.96	21.19			13.5	12	32.44	32.24	32.03	31.82	31.59
46	17.88	17.47	18.45	18.08	19.05	17.93	19.72	19.33	20.36	19.29	21.26	19.23	22.15	20.39			15.5	14	33.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			16.5	16	34.07	33.87	33.67	33.44	33.22



### Model FDU280VSAWVH

### Outdoor unit FDC280VSA-W

Cooling m	ode															(kW)	н	eating	mode:H	IC				(kW)
Outdoor							Ind	oor air t	emperat	ture							Γ	Outdo	oor air		Indoor	air temp	erature	
air	18°0	CDB	21°0	CDB	23°	CDB	26°0	CDB	27°0	CDB	28°	CDB	31°	CDB	33°0	CDB		tempe	rature			°CDB		
temperature	12°0	WB	14°0	WB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	WB	22°0	WB	24°0	WB	(	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Ē	19.8	-20	13.25	13.10	12.96	12.81	12.66
11					27.72	22.12	29.34	23.83	30.15	23.59	31.05	23.37	32.85	24.63	34.65	24.08	Ē	17.7	-18	13.73	13.57	13.43	13.27	13.12
13					27.75	22.13	29.37	23.84	30.18	23.60	31.08	23.38	32.88	24.64	34.68	24.09	Ē	15.7	-16	14.21	14.05	13.90	13.74	13.58
15					27.78	22.14	29.41	23.85	30.22	23.61	31.12	23.39	32.92	24.65	34.72	24.10	E	13.5	-14	14.69	14.52	14.37	14.20	14.03
17					27.79	22.14	29.51	23.88	30.36	23.67	31.25	23.43	33.01	24.67	34.77	24.11	E	11.5	-12	15.42	15.26	15.09	14.92	14.76
19					27.91	22.20	29.62	23.93	30.52	23.73	31.39	23.48	33.11	24.71	34.83	24.12		-9.5	-10	16.17	15.99	15.82	15.64	15.48
21					27.48	22.02	29.14	23.75	30.00	23.54	30.86	23.31	32.58	24.54	34.29	23.97		-7.5	-8	16.90	16.72	16.54	16.37	16.20
23					27.06	21.85	28.65	23.57	29.48	23.36	30.33	23.13	32.05	24.38	33.76	23.83	Е	-5.5	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	22.46	26.84	21.77	28.41	23.48	29.22	23.27	30.07	23.04	31.78	24.30	33.49	23.76	Г	-3.0	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	22.37	26.63	21.68	28.17	23.39	28.96	23.18	30.21	23.09	31.46	24.20			E	-1.0	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	22.20	26.18	21.50	27.69	23.22	28.46	23.01	29.75	22.94	31.02	24.08			E	1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	22.02	25.74	21.33	27.21	23.05	27.98	22.84	29.28	22.78	30.58	23.94			E	2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	20.31	23.56	21.70	25.30	21.16	26.74	22.88	27.50	22.67	28.82	22.64	30.15	23.82			Е	3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	20.24	23.27	21.58	24.86	20.98	26.27	22.71	27.00	22.50	28.36	22.48	29.71	23.68			E	5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	20.10	22.97	21.45	24.50	20.85	25.81	22.55	26.51	22.33	27.74	22.28	28.98	23.47			Е	7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	20.05	22.87	21.41	24.36	20.79	25.56	22.46	26.21	22.23	27.34	22.15	28.46	23.32			Г	9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	20.35	23.14	21.52	24.15	20.71	25.25	22.35	25.85	22.11	26.87	21.99	27.87	23.14			Г	11.5	10	33.60	33.38	33.16	32.92	32.68
43	21.40	19.80	22.33	21.18	23.68	20.53	24.66	22.14	25.21	21.89	26.09	21.75	26.96	22.88			Г	13.5	12	34.76	34.54	34.32	34.09	33.84
46	19.31	18.87	19.92	19.53	20.58	19.36	21.30	20.88	21.99	20.84	22.96	20.77	23.92	22.02				15.5	14	35.91	35.71	35.50	35.26	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72		i i	Ē	16.5	16	36.50	36.29	36.08	35.83	35.59

Notes(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)

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

PJG000Z649 🔏

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

### (4) Duct connected-Low/Middle static pressure type (FDUM) (a) Twin type

### Model FDUM200VSAWPVH Indoor unit FDUM100VH (2 unit)

### Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	Н	eating	mode	: HC				(kW)
Outdoor							Inde	oor air t	empera	ture							Г	Outdo	or air		Indoor a	air temp	erature	
air	18°0	DB	21°0	DB	23°0	CDB	26°0	DB	27°0	DB	28°0	CDB	31°0	CDB	33°0	DB	t	emper	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°0	WB	24°0	WB	٩	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	тс	SHC	тс	SHC	тс	SHC	тс	SHC	TC	SHC	Ē	19.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	15.45	21.53	16.68	22.10	16.38	22.81	16.09	24.23	16.96	25.65	16.28	Ē	17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	15.48	21.65	16.72	22.24	16.41	22.93	16.13	24.31	16.97	25.68	16.28	Ē	15.7	-16	10.38	10.27	10.16	10.04	9.92
15		20.57 15.52 21.78 16.75 22.38 16.45 23.05 16.16 24.38 16.98 25.72 16.29 -11 20.59 15.52 21.78 16.75 22.38 16.45 23.05 16.16 24.38 16.98 25.72 16.29 -1															13.5	-14	11.10	10.98	10.86	10.73	10.60	
17		20.57         15.52         21.78         16.75         22.38         16.45         23.05         16.16         24.38         16.98         25.72         16.29         -13           20.59         15.52         21.86         16.77         22.50         16.48         23.15         16.18         24.45         17.00         25.76         16.29         -11           0.007         7.57         16.70         40.76         40.70         40.90         40.95															11.5	-12	11.93	11.80	11.67	11.54	11.40	
19		20.59         15.52         21.86         16.77         22.50         16.48         24.45         17.00         25.76         16.29         11.33           20.59         15.55         21.94         16.77         22.61         16.31         23.25         16.20         24.52         17.01         25.76         16.29         -11.53           20.67         15.55         21.94         16.79         22.61         16.51         23.25         16.20         24.52         17.01         25.80         16.31         -9.5															-9.5	-10	12.75	12.61	12.48	12.34	12.20	
21					20.35	15.44	21.58	16.69	22.22	16.41	22.86	16.11	24.13	16.94	25.40	16.24		-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	15.35	21.22	16.60	21.84	16.32	22.47	16.02	23.74	16.86	25.01	16.18		-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	16.06	19.88	15.31	21.04	16.56	21.64	16.26	22.28	15.98	23.54	16.82	24.81	16.15		-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	16.02	19.72	15.25	20.86	16.51	21.45	16.22	22.37	16.00	23.30	16.78			L	-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	15.92	19.39	15.16	20.51	16.41	21.09	16.14	22.03	15.93	22.97	16.72				1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	15.81	19.07	15.05	20.16	16.33	20.72	16.04	21.69	15.84	22.65	16.65				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	14.59	17.45	15.63	18.74	14.96	19.81	16.23	20.36	15.96	21.35	15.77	22.33	16.59				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	14.55	17.23	15.56	18.41	14.86	19.46	16.14	20.00	15.87	21.00	15.69	22.01	16.54				5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	14.46	16.98	15.47	18.04	14.76	19.00	16.02	19.54	15.77	20.50	15.58	21.46	16.43			L	7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	14.38	16.73	15.39	17.67	14.65	18.54	15.92	19.09	15.66	20.00	15.47	20.92	16.34				9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	14.31	16.47	15.31	17.29	14.54	18.08	15.80	18.63	15.56	19.50	15.37	20.37	16.24				11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	14.22	16.22	15.22	16.92	14.43	17.62	15.68	18.17	15.45	19.00	15.26	19.83	16.15				13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	14.09	15.84	15.11	16.36	14.27	16.93	15.52	17.49	15.29	18.25	15.11	19.01	16.01			L	15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			L	16.5	16	27.25	27.10	26.94	26.76	26.57
																				PJ	G00	0Z6	623	A

### Model FDUM250VSAWPVH

### Indoor unit FDUM125VH (2 units)

### Outdoor unit FDC250VSA-W

Cooling m	ode															(kW)	Hea	ting mod	:HC					(kW)
Outdoor							Ind	oor air t	emperat	ure								utdoor ai			Indoor	air temp	erature	
air	18°C	DB	21°0	DB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	DB	31°0	CDB	33°0	DB	te	nperatur				°CDB		
temperature	12°C	WB	14°0	WB	16°0	WB	18°C	CWB	19°C	CWB	20°0	WB	22°0	WB	24°C	WB	°C	DB °CW	B 1	6	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	.8 -2	11	.35	11.22	11.10	10.97	10.84
11					25.67	21.16	27.17	22.80	27.92	22.65	28.75	22.50	30.42	23.75	32.08	23.36	-1	.7 -18	12	.14	12.00	11.87	11.73	11.59
13					25.70	21.17	27.20	22.81	27.95	22.66	28.78	22.51	30.45	23.76	32.11	23.38	-1	.7 -10	12	.92	12.78	12.64	12.49	12.35
15					25.72	21.18	27.23	22.82	27.98	22.67	28.81	22.52	30.48	23.77	32.15	23.39	-1	.5 -14	13	.71	13.55	13.41	13.25	13.10
17					25.73	21.19	27.32	22.86	28.11	22.72	28.94	22.57	30.56	23.79	32.20	23.41	-1	.5 -12	14	.39	14.24	14.08	13.93	13.77
19					25.84	21.23	27.43	22.91	28.26	22.77	29.06	22.61	30.66	23.82	32.25	23.42	-9	.5 -10	15	.09	14.92	14.77	14.60	14.45
21					25.45	21.06	26.98	22.72	27.78	22.58	28.57	22.44	30.17	23.66	31.75	23.26	-7	.5 -8	15	.77	15.61	15.44	15.28	15.12
23					25.05	20.89	26.53	22.54	27.29	22.40	28.08	22.25	29.68	23.49	31.26	23.10	-{	.5 -6	16	.05	15.89	15.73	15.58	15.42
25			23.45	21.33	24.85	20.80	26.30	22.45	27.05	22.30	27.84	22.17	29.43	23.41	31.01	23.03	-3	.0 -4	16	.32	16.17	16.02	15.87	15.72
27			23.26	21.25	24.66	20.72	26.08	22.36	26.81	22.22	27.97	22.21	29.13	23.30			- 1	.0 -2	16	.59	16.46	16.31	16.17	16.02
29			22.89	21.07	24.24	20.54	25.64	22.19	26.35	22.04	27.54	22.05	28.72	23.17			1	0 0	16	.87	16.74	16.60	16.46	16.32
31			22.51	20.91	23.83	20.36	25.20	22.01	25.91	21.76	27.11	21.90	28.31	23.03			2	0 1	17	.01	16.87	16.74	16.60	16.47
33	20.84	19.26	21.81	20.58	23.43	20.20	24.76	21.84	25.46	21.70	26.69	21.74	27.92	22.90			3	0 2	19	.33	19.16	19.00	18.85	18.71
35	20.70	19.19	21.54	20.46	23.02	20.02	24.32	21.67	25.00	21.52	26.26	21.58	27.51	22.76			5	0 4	23	.97	23.74	23.50	23.33	23.17
37	20.43	19.05	21.27	20.34	22.69	19.89	23.90	21.50	24.54	21.35	25.69	21.38	26.83	22.53			7	0 6	28	.61	28.30	28.00	27.81	27.64
39	20.32	19.00	21.18	20.29	22.55	19.82	23.67	21.42	24.27	21.25	25.31	21.24	26.35	22.38			9	0 8	29	.99	29.73	29.47	29.27	29.07
41	20.93	19.29	21.43	20.41	22.36	19.75	23.38	21.30	23.94	21.13	24.88	21.08	25.80	22.19			1	.5 10	31	.36	31.15	30.95	30.73	30.50
43	19.81	18.76	20.68	20.07	21.93	19.56	22.83	21.08	23.34	20.91	24.16	20.82	24.96	21.92			13	.5 12	32	.44	32.24	32.03	31.82	31.59
46	17.88	17.51	18.45	18.08	19.05	18.38	19.72	19.33	20.36	19.81	21.26	19.80	22.15	21.00			1	.5 14	33	.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			10	.5 16	34	.07	33.87	33.67	33.44	33.22

### Notes(1) These data show average status.

(1) Inese 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 (k₩) SHC ∶Sensible heat capacity (k₩) HC ∶Heating capacity (k₩)

PJG000Z623 🔏

### Model FDUM280VSAWPVH

### Indoor unit FDUM140VH (2 units)

Outdoor unit FDC280VSA-W

Cooling me	ode															(kW)	Heating	mode:H	IC				(kW)
Outdoor							Ind	loor air t	emperat	ture							Outd	oor air		Indoor	air temp	erature	
air	18°0	DB	21°0	CDB	23°0	CDB	26°0	CDB	27°0	CDB	28°0	CDB	31°0	CDB	33°(	CDB	temp	erature			°CDB		
temperature	12°C	WB	14°0	CWB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	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	13.25	13.10	12.96	12.81	12.66
11					27.72	22.85	29.34	24.63	30.15	24.46	31.05	24.30	32.85	25.65	34.65	25.23	-17.7	-18	13.73	13.57	13.43	13.27	13.12
13					27.75	22.86	29.37	24.64	30.18	24.47	31.08	24.31	32.88	25.66	34.68	25.25	-15.7	-16	14.21	14.05	13.90	13.74	13.58
15					27.78	22.87	29.41	24.65	30.22	24.48	31.12	24.32	32.92	25.67	34.72	25.26	-13.5	-14	14.69	14.52	14.37	14.20	14.03
17					27.79	22.88	29.51	24.69	30.36	24.54	31.25	24.38	33.01	25.70	34.77	25.28	-11.5	-12	15.42	15.26	15.09	14.92	14.76
19					27.91	22.93	29.62	24.74	30.52	24.59	31.39	24.42	33.11	25.73	34.83	25.29	-9.5	-10	16.17	15.99	15.82	15.64	15.48
21					27.48	22.75	29.14	24.54	30.00	24.39	30.86	24.23	32.58	25.55	34.29	25.12	-7.5	-8	16.90	16.72	16.54	16.37	16.20
23					27.06	22.56	28.65	24.35	29.48	24.19	30.33	24.03	32.05	25.37	33.76	24.95	-5.5	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	23.04	26.84	22.47	28.41	24.24	29.22	24.09	30.07	23.94	31.78	25.28	33.49	24.87	-3.0	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	22.95	26.63	22.38	28.17	24.15	28.96	24.00	30.21	23.99	31.46	25.17			-1.0	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	22.76	26.18	22.19	27.69	23.96	28.46	23.81	29.75	23.82	31.02	25.02			1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	22.58	25.74	21.99	27.21	23.77	27.98	23.50	29.28	23.65	30.58	24.87			2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	20.80	23.56	22.23	25.30	21.81	26.74	23.59	27.50	23.43	28.82	23.48	30.15	24.73			3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	20.72	23.27	22.10	24.86	21.62	26.27	23.40	27.00	23.24	28.36	23.31	29.71	24.58			5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	20.58	22.97	21.97	24.50	21.48	25.81	23.22	26.51	23.06	27.74	23.09	28.98	24.33			7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	20.52	22.87	21.92	24.36	21.41	25.56	23.13	26.21	22.95	27.34	22.94	28.46	24.17			9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	20.84	23.14	22.04	24.15	21.33	25.25	23.01	25.85	22.82	26.87	22.77	27.87	23.96			11.5	10	33.60	33.38	33.16	32.92	32.68
43	21.40	20.26	22.33	21.68	23.68	21.13	24.66	22.77	25.21	22.58	26.09	22.49	26.96	23.67			13.5	12	34.76	34.54	34.32	34.09	33.84
46	19.31	18.91	19.92	19.53	20.58	19.85	21.30	20.88	21.99	21.40	22.96	21.39	23.92	22.68			15.5	14	35.91	35.71	35.50	35.26	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72			16.5	16	36.50	36.29	36.08	35.83	35.59



PJG000Z623

### (b) Triple type

### Model FDUM200VSAWTVH

Indoor unit FDUM71VH (3 unit)

Outdoor unit FDC200VSA-W

Cooling n	node															(kW)	H	eating	mode	HC				(kW)
Outdoor							Inde	oor air t	empera	ture							Г	Outdo	or air		Indoor a	air temp	erature	
air	18°C	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	t	empe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°C	WB	18°0	WB	19°C	WB	20°0	WB	22°C	WB	24°C	WB	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	8.95	8.85	8.76	8.65	8.55
11					20.38	17.11	21.53	18.53	22.10	18.32	22.81	18.15	24.23	19.23	25.65	18.79	Ŀ	17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	17.15	21.65	18.57	22.24	18.37	22.93	18.19	24.31	19.25	25.68	18.80	Ŀ	15.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	17.18	21.78	18.61	22.38	18.41	23.05	18.22	24.38	19.27	25.72	18.81	Ŀ	13.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	17.19	21.86	18.64	22.50	18.45	23.15	18.25	24.45	19.29	25.76	18.82	Ŀ	11.5	-12	11.93	11.80	11.67	11.54	11.40
19					20.67	17.22	21.94	18.66	22.61	18.48	23.25	18.28	24.52	19.32	25.80	18.83		-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	17.09	21.58	18.55	22.22	18.36	22.86	18.17	24.13	19.20	25.40	18.74		-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	16.98	21.22	18.42	21.84	18.23	22.47	18.04	23.74	19.09	25.01	18.64		-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	17.52	19.88	16.93	21.04	18.36	21.64	18.18	22.28	17.99	23.54	19.04	24.81	18.59		-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	17.45	19.72	16.86	20.86	18.31	21.45	18.12	22.37	18.02	23.30	18.98				-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	17.34	19.39	16.75	20.51	18.18	21.09	18.00	22.03	17.92	22.97	18.88				1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	17.21	19.07	16.62	20.16	18.06	20.72	17.88	21.69	17.81	22.65	18.80				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	15.81	17.45	16.99	18.74	16.51	19.81	17.95	20.36	17.77	21.35	17.71	22.33	18.72				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	15.76	17.23	16.89	18.41	16.39	19.46	17.83	20.00	17.65	21.00	17.60	22.01	18.63				5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	15.66	16.98	16.64	18.04	16.25	19.00	17.68	19.54	17.52	20.50	17.45	21.46	18.48				7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	15.57	16.73	16.39	17.67	16.12	18.54	17.54	19.09	17.37	20.00	17.31	20.92	18.34				9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	15.47	16.47	16.15	17.29	15.98	18.08	17.39	18.63	17.23	19.50	17.16	20.37	18.20				11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	15.36	16.22	15.89	16.92	15.85	17.62	17.24	18.17	17.09	19.00	17.01	19.83	18.05				13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	15.04	15.84	15.53	16.36	15.65	16.93	16.59	17.49	16.88	18.25	16.80	19.01	17.84				15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69				16.5	16	27.25	27.10	26.94	26.76	26.57

Notes(1) These data show average status.

(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)

### (5) Ceiling suspended type (FDE) (a) Twin type

### Model FDE200VSAWPVH

### Indoor unit FDE100VH (2 uints)

### Outdoor unit FDC200VSA-W

Cooling mode (kW) H														leating	; mode	: HC				(kW)				
Outdoor							Inde	oor air t	empera	ture								Outdo	oor air		Indoor a	air temp	erature	
air	18°0	DB	21°0	DB	23°0	CDB	26°0	CDB	27°0	DB	28°0	DB	31°0	CDB	33°0	DB		tempe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°0	WB	19°C	WB	20°0	WB	22°C	WB	24°0	WB	Ì	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	тс	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	ľ	-19.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	15.26	21.53	16.40	22.10	16.15	22.81	15.93	24.23	16.75	25.65	16.20	Ì	-17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	15.31	21.65	16.44	22.24	16.19	22.93	15.97	24.31	16.77	25.68	16.21		-15.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	15.34	21.78	16.48	22.38	16.23	23.05	16.00	24.38	16.78	25.72	16.21		-13.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	15.34	21.86	16.51	22.50	16.27	23.15	16.03	24.45	16.80	25.76	16.22		-11.5	-12	11.93	11.80	11.67	11.54	11.40
19	19         20.67         15.37         21.94         16.53         22.61         16.31         23.25         16.05         24.52         16.82         25.80         16.23         -9.5         -10         12.75         12.61         12.48         12.34         12.20           21         20.35         15.25         21.58         16.42         22.22         16.19         22.86         15.95         24.13         16.72         25.40         16.15         -7.5         -8         13.57         13.43         13.29         13.14         13.00           0																							
21	21         20.35         15.55         21.22         16.42         22.22         16.19         22.86         15.95         25.41         16.15         -7.5         -8         13.57         13.43         13.29         13.14         13.09           23         20.04         15.15         21.22         16.31         21.44         16.07         22.47         15.83         23.74         16.62         25.01         16.06         -5.5         -6         13.78         13.64         13.51         13.37         13.24																							
23	21         20.05         15.25         21.38         16.42         22.32         16.19         22.47         15.74         25.01         16.15         -7.5         -8         13.57         13.43         13.29         13.14         13.00           23         20.04         15.15         21.22         16.31         21.84         16.07         22.47         15.83         23.74         16.62         25.01         16.06         -5.5         -6         13.78         13.64         13.51         13.24           25         18.76         15.73         18.88         16.04         16.01         22.28         15.78         23.54         16.62         25.01         16.06         -5.5         -6         13.78         13.64         13.54         13.24           25         18.76         15.88         16.04         16.01         22.28         15.78         23.54         16.62         2.61         16.06         -5.5         -6         13.78         13.64         13.54         13.24           25         18.76         15.88         14.64         16.01         22.28         15.78         23.64         16.02         -4         13.99         13.86         13.73         13.61         13.7																							
25	23         20.04         15.15         21.22         16.31         21.84         16.07         22.47         15.83         23.74         16.62         25.01         16.06         -5.5         -6         13.78         13.64         13.51         13.37         13.24           25         18.76         15.73         19.88         15.08         21.04         16.01         22.28         15.78         23.54         16.62         -3.0         -4         13.99         13.66         13.73         13.60         13.47																							
27			18.61	15.67	19.72	15.03	20.86	16.19	21.45	15.96	22.37	15.81	23.30	16.52				-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	15.56	19.39	14.92	20.51	16.08	21.09	15.85	22.03	15.72	22.97	16.44				1.0	0	14.41	14.29	14.18	14.06	13.94
31	27         10.07         10																							
33	16.68	14.27	17.45	15.22	18.74	14.69	19.81	15.86	20.36	15.64	21.35	15.53	22.33	16.28				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	14.23	17.23	15.15	18.41	14.58	19.46	15.76	20.00	15.54	21.00	15.43	22.01	16.21				5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	14.14	16.98	15.05	18.04	14.45	19.00	15.62	19.54	15.40	20.50	15.29	21.46	16.07				7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	14.04	16.73	14.95	17.67	14.33	18.54	15.47	19.09	15.27	20.00	15.16	20.92	15.95				9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	13.96	16.47	14.86	17.29	14.20	18.08	15.34	18.63	15.15	19.50	15.03	20.37	15.82				11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	13.86	16.22	14.77	16.92	14.08	17.62	15.21	18.17	15.02	19.00	14.89	19.83	15.71				13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	13.73	15.84	14.62	16.36	13.89	16.93	15.00	17.49	14.83	18.25	14.71	19.01	15.52				15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69				16.5	16	27.25	27.10	26.94	26.76	26.57
																				PF	A00	4Z1	10	

### Model FDE250VSAWPVH

### Indoor unit FDE125VH (2 units)

### Outdoor unit FDC250VSA-W

Cooling me	ing mode													(kW)	Н	eating	mode:H	С				(kW)		
Outdoor							Ind	oor air t	emperat	ure							Г	Outdo	oor air		Indoor	air temp	erature	
air	18°0	DB	21°0	DB	23°0	CDB	26°0	DB	27°0	DB	28°0	DB	31°0	CDB	33°0	DB	Т	tempe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	WB	20°0	WB	22°0	WB	24°0	WB		CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	Γ	-19.8	-20	11.35	11.22	11.10	10.97	10.84
11					25.67	17.17	27.17	18.21	27.92	17.92	28.75	17.63	30.42	18.28	32.08	17.58	E	-17.7	-18	12.14	12.00	11.87	11.73	11.59
13					25.70	17.18	27.20	18.22	27.95	17.93	28.78	17.64	30.45	18.29	32.11	17.58	Ē	-15.7	-16	12.92	12.78	12.64	12.49	12.35
15					25.72	17.19	27.23	18.23	27.98	17.93	28.81	17.65	30.48	18.30	32.15	17.59	E	-13.5	-14	13.71	13.55	13.41	13.25	13.10
17					25.73	17.20	27.32	18.26	28.11	17.98	28.94	17.69	30.56	18.32	32.20	17.60	E	-11.5	-12	14.39	14.24	14.08	13.93	13.77
19					25.84	17.24	27.43	18.30	28.26	18.03	29.06	17.72	30.66	18.35	32.25	17.63	E	-9.5	-10	15.09	14.92	14.77	14.60	14.45
21					25.45	17.08	26.98	18.14	27.78	17.86	28.57	17.56	30.17	18.21	31.75	17.50	Е	-7.5	-8	15.77	15.61	15.44	15.28	15.12
23					25.05	16.93	26.53	17.98	27.29	17.70	28.08	17.42	29.68	18.07	31.26	17.38	Е	-5.5	-6	16.05	15.89	15.73	15.58	15.42
25			23.45	17.55	24.85	16.84	26.30	17.90	27.05	17.63	27.84	17.33	29.43	18.00	31.01	17.31	E	-3.0	-4	16.32	16.17	16.02	15.87	15.72
27			23.26	17.47	24.66	16.77	26.08	17.82	26.81	17.54	27.97	17.38	29.13	17.92			Е	-1.0	-2	16.59	16.46	16.31	16.17	16.02
29			22.89	17.31	24.24	16.61	25.64	17.67	26.35	17.40	27.54	17.24	28.72	17.81			E	1.0	0	16.87	16.74	16.60	16.46	16.32
31			22.51	17.16	23.83	16.46	25.20	17.52	25.91	17.24	27.11	17.10	28.31	17.70			E	2.0	1	17.01	16.87	16.74	16.60	16.47
33	20.84	16.02	21.81	16.86	23.43	16.30	24.76	17.36	25.46	17.09	26.69	16.98	27.92	17.59			E	3.0	2	19.33	19.16	19.00	18.85	18.71
35	20.70	15.95	21.54	16.75	23.02	16.15	24.32	17.22	25.00	16.95	26.26	16.84	27.51	17.48				5.0	4	23.97	23.74	23.50	23.33	23.17
37	20.43	15.82	21.27	16.65	22.69	16.02	23.90	17.07	24.54	16.80	25.69	16.67	26.83	17.30			Е	7.0	6	28.61	28.30	28.00	27.81	27.64
39	20.32	15.78	21.18	16.60	22.55	15.97	23.67	17.00	24.27	16.72	25.31	16.56	26.35	17.18			Г	9.0	8	29.99	29.73	29.47	29.27	29.07
41	20.93	16.05	21.43	16.71	22.36	15.91	23.38	16.91	23.94	16.61	24.88	16.43	25.80	17.03			Г	11.5	10	31.36	31.15	30.95	30.73	30.50
43	19.81	15.55	20.68	16.40	21.93	15.74	22.83	16.72	23.34	16.43	24.16	16.22	24.96	16.81			Г	13.5	12	32.44	32.24	32.03	31.82	31.59
46	17.88	14.71	18.45	15.52	19.05	14.72	19.72	15.73	20.36	15.54	21.26	15.40	22.15	16.13			Г	15.5	14	33.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			Г	16.5	16	34.07	33.87	33.67	33.44	33.22

Notes(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.
(2) Development of Zero.
(2) Development of Zero.
(2) Development of Zero.
(3) Development of Zero.

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

PFA004Z110 /A

### Ν

Cooling me	ode															(kW)	Heating	mode:H	С				(kW)
Outdoor							Ind	oor air te	emperat	ure							Outdo	or air		Indoor	air temp	erature	
air	18°0	DB	21°0	DB	23°0	CDB	26°0	CDB	27°C	DB	28°0	DB	31°0	DB	33°0	DB	tempe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°0	WB	19°C	WB	20°C	WB	22°C	WB	24°C	WB	°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	TC	SHC	-19.8	-20	13.25	13.10	12.96	12.81	12.66
11					27.72	18.54	29.34	19.67	30.15	19.35	31.05	19.04	32.85	19.74	34.65	18.99	-17.7	-18	13.73	13.57	13.43	13.27	13.12
13					27.75	18.55	29.37	19.68	30.18	19.36	31.08	19.05	32.88	19.76	34.68	18.99	-15.7	-16	14.21	14.05	13.90	13.74	13.58
15					27.78	18.56	29.41	19.69	30.22	19.36	31.12	19.06	32.92	19.77	34.72	19.00	-13.5	-14	14.69	14.52	14.37	14.20	14.03
17	7         27.79         18.57         29.51         19.72         30.36         19.42         31.25         19.10         33.01         19.79         34.77         19.01         -11.5         -12         15.42         15.20         14.92         14.76           19         27.91         18.62         29.62         19.77         30.52         19.47         31.39         19.14         33.11         19.92         34.83         19.04         -9.5         -10         16.17         15.99         15.82         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         14.54         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48         15.64         15.48																						
19	1         27.91         18.62         29.07         30.52         19.74         31.39         19.14         33.11         19.79         34.77         19.10         -11.5         -12         15.26         15.09         14.92         14.76           9         27.91         18.62         29.62         19.77         30.52         19.47         31.39         19.14         33.11         19.82         34.83         19.04         -9.5         -10         16.17         15.99         15.82         15.64         15.48           14         27.84         18.45         29.14         19.59         30.00         19.29         30.66         18.97         32.58         19.67         34.29         18.00         16.71         15.99         15.82         15.64         16.54																						
21	9       27.91       18.62       29.62       19.77       30.52       19.47       31.39       19.14       33.11       19.82       34.83       19.04       -9.5       -10       16.17       15.99       15.82       15.64       15.48         11       27.48       18.45       29.14       19.59       30.00       19.29       30.86       18.97       32.58       19.67       34.29       18.90       -7.5       -8       16.90       16.72       16.54       16.37       16.20         12       27.06       18.28       28.65       19.42       29.44       19.11       30.33       18.81       32.05       19.67       33.76       18.77       -5.5       -6       17.70       14.96       14.62       14.63       16.30       16.20       14.65       14.																						
23					27.06	18.28	28.65	19.42	29.48	19.11	30.33	18.81	32.05	19.52	33.76	18.77	-5.5	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	18.96	26.84	18.19	28.41	19.33	29.22	19.04	30.07	18.72	31.78	19.44	33.49	18.70	-3.0	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	18.87	26.63	18.11	28.17	19.25	28.96	18.95	30.21	18.77	31.46	19.35			-1.0	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	18.70	26.18	17.94	27.69	19.08	28.46	18.79	29.75	18.62	31.02	19.24			1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	18.53	25.74	17.78	27.21	18.92	27.98	18.62	29.28	18.47	30.58	19.11			2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	17.30	23.56	18.21	25.30	17.61	26.74	18.75	27.50	18.46	28.82	18.34	30.15	19.00			3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	17.22	23.27	18.09	24.86	17.44	26.27	18.60	27.00	18.30	28.36	18.19	29.71	18.88			5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	17.09	22.97	17.98	24.50	17.30	25.81	18.44	26.51	18.15	27.74	18.00	28.98	18.69			7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	17.04	22.87	17.93	24.36	17.25	25.56	18.36	26.21	18.06	27.34	17.89	28.46	18.55			9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	17.34	23.14	18.05	24.15	17.18	25.25	18.26	25.85	17.94	26.87	17.74	27.87	18.39			11.5	10	33.60	33.38	33.16	32.92	32.68
43	21.40	10.80	22.33	16.76	23.68	17.00	24.00	16.00	25.21	17.74	20.09	16.62	20.90	10.10			13.5	14	34.70	34.54	34.32	34.09	35.84
40 50	19.31	12.89	12.92	12.05	20.58	12.90	21.30	14.05	21.99	14.29	22.90	10.03	23.92	14.72			15.5	14	30.91	30.71	30.50	35.20	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.55	14.05	14.50	14.20	14.70	14.49	15.02	14.72			10.5	10	30.50	30.29	30.00	30.03	35.59



PFA004Z110 🖳

### (b) Triple type

### Model FDE200VSAWTVH

Indoor unit FDE71VH (3 uints)

### Outdoor unit FDC200VSA-W

Cooling n	ling mode													(kW)	Heatin	g mode	: HC				(kW)		
Outdoor							Inde	oor air t	empera	ture							Outd	oor air		Indoor	air temp	erature	
air	18°C	DB	21°0	DB	23°0	DB	26°0	CDB	27°0	DB	28°0	DB	31°0	DB	33°0	DB	temp	erature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°0	WB	19°C	WB	20°C	WB	22°C	WB	24°0	WB	°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	8.95	8.85	8.76	8.65	8.55
11					20.38	15.96	21.53	17.14	22.10	16.96	22.81	16.82	24.23	17.73	25.65	17.36	-17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	16.00	21.65	17.19	22.24	17.01	22.93	16.86	24.31	17.76	25.68	17.37	-15.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	16.04	21.78	17.23	22.38	17.06	23.05	16.91	24.38	17.78	25.72	17.38	-13.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	16.04	21.86	17.26	22.50	17.11	23.15	16.95	24.45	17.80	25.76	17.39	-11.5	-12	11.93	11.80	11.67	11.54	11.40
19					20.67	16.08	21.94	17.29	22.61	17.15	23.25	16.98	24.52	17.82	25.80	17.40	-9.5	-10	12.75	12.61	12.48	12.34	12.20
21					20.35	15.95	21.58	17.16	22.22	17.01	22.86	16.84	24.13	17.71	25.40	17.29	-7.5	-8	13.57	13.43	13.29	13.14	13.00
23					20.04	15.82	21.22	17.02	21.84	16.87	22.47	16.71	23.74	17.58	25.01	17.18	-5.5	-6	13.78	13.64	13.51	13.37	13.24
25			18.76	16.24	19.88	15.76	21.04	16.96	21.64	16.80	22.28	16.64	23.54	17.52	24.81	17.13	-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	16.18	19.72	15.69	20.86	16.89	21.45	16.73	22.37	16.67	23.30	17.44			-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	16.04	19.39	15.56	20.51	16.76	21.09	16.60	22.03	16.56	22.97	17.35			1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	15.92	19.07	15.43	20.16	16.63	20.72	16.47	21.69	16.44	22.65	17.24			2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	14.71	17.45	15.67	18.74	15.29	19.81	16.51	20.36	16.35	21.35	16.33	22.33	17.15			3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	14.65	17.23	15.58	18.41	15.17	19.46	16.37	20.00	16.22	21.00	16.21	22.01	17.04			5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	14.55	16.98	15.47	18.04	15.02	19.00	16.20	19.54	16.06	20.50	16.04	21.46	16.88			7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	14.44	16.73	15.36	17.67	14.87	18.54	16.04	19.09	15.91	20.00	15.88	20.92	16.72			9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	14.35	16.47	15.25	17.29	14.73	18.08	15.87	18.63	15.75	19.50	15.72	20.37	16.56			11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	14.24	16.22	15.15	16.92	14.58	17.62	15.72	18.17	15.59	19.00	15.55	19.83	16.40			13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	14.09	15.84	14.99	16.36	14.36	16.93	15.46	17.49	15.36	18.25	15.31	19.01	16.16			15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.78	13.34	13.07	13.56	13.28	13.77	13.49	13.98	13.69			16.5	16	27.25	27.10	26.94	26.76	26.57

Notes(1) These data show average status.

(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)

PFA004Z110

### (c) Double twin type

### Model FDE200VSAWDVH

### Indoor unit FDE50VH (4 uints)

### Outdoor unit FDC200VSA-W

Cooling mode (kW														(kW)	He	eating	mode	: HC				(kW)		
Outdoor							Inde	oor air t	empera	ture								Outdo	or air		Indoor a	air temp	erature	
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	CDB	28°0	DB	31°0	CDB	33°0	DB	t	empe	rature			°CDB		
temperature	12°C	WB	14°C	WB	16°0	WB	18°C	WB	19°C	CWB	20°0	WB	22°0	CWB	24°C	WB	٩	CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	-	19.8	-20	8.95	8.85	8.76	8.65	8.55
11					20.38	15.57	21.53	16.62	22.10	16.48	22.81	16.40	24.23	17.23	25.65	16.96	Ŀ	17.7	-18	9.67	9.56	9.46	9.34	9.23
13					20.48	15.61	21.65	16.67	22.24	16.55	22.93	16.44	24.31	17.26	25.68	16.97	-	15.7	-16	10.38	10.27	10.16	10.04	9.92
15					20.57	15.65	21.78	16.73	22.38	16.60	23.05	16.49	24.38	17.29	25.72	16.98	-	13.5	-14	11.10	10.98	10.86	10.73	10.60
17					20.59	15.66	21.86	16.77	22.50	16.65	23.15	16.53	24.45	17.32	25.76	17.00	Ŀ	11.5	-12	11.93	11.80	11.67	11.54	11.40
19         20.67         15.69         21.94         16.80         22.61         16.69         33.25         16.57         24.52         17.34         25.80         17.01         -9.5         -10         12.75         12.61         12.41           21         20.35         15.56         21.58         16.64         22.22         16.54         22.86         16.42         24.13         17.20         25.40         16.87         -7.5         -8         13.57         13.43         13.25															12.48	12.34	12.20							
21	19         20.07         13.09         21.94         10.80         22.01         10.05         23.25         16.57         24.52         17.34         25.80         17.01         -8.5         -10         12.75         12.61         12.64         12.34           21         20.05         15.65         16.64         22.22         16.64         22.22         16.42         24.13         17.20         25.40         16.87         -7.5         -8         13.57         13.43         13.29         13.14           23         20.04         15.41         21.29         14.49         16.30         22.74         12.06         25.04         16.87         -7.5         -8         13.57         13.43         13.29         13.14															13.00								
23	21         20.35         15.56         21.58         16.64         22.22         16.54         22.86         16.42         24.13         17.20         25.40         16.87         -7.5         -8         13.57         13.43         13.29         13.14         13.0           23         20.04         15.41         21.22         16.49         21.84         16.39         22.47         16.26         23.74         17.06         25.01         16.75         -5.5         -6         13.78         13.64         13.57         13.29         13.14         13.09															13.24								
25			18.76	15.72	19.88	15.34	21.04	16.42	21.64	16.31	22.28	16.19	23.54	16.99	24.81	16.68		-3.0	-4	13.99	13.86	13.73	13.60	13.47
27			18.61	15.65	19.72	15.27	20.86	16.35	21.45	16.23	22.37	16.23	23.30	16.91				-1.0	-2	14.20	14.08	13.95	13.83	13.71
29			18.31	15.51	19.39	15.13	20.51	16.20	21.09	16.08	22.03	16.09	22.97	16.79				1.0	0	14.41	14.29	14.18	14.06	13.94
31			18.01	15.36	19.07	14.98	20.16	16.06	20.72	15.94	21.69	15.97	22.65	16.67				2.0	1	14.51	14.40	14.29	14.17	14.06
33	16.68	14.24	17.45	15.09	18.74	14.83	19.81	15.92	20.36	15.80	21.35	15.84	22.33	16.57				3.0	2	16.19	16.05	15.91	15.79	15.67
35	16.56	14.18	17.23	15.00	18.41	14.69	19.46	15.77	20.00	15.65	21.00	15.71	22.01	16.45				5.0	4	19.54	19.35	19.15	19.02	18.89
37	16.34	14.07	16.98	14.87	18.04	14.53	19.00	15.59	19.54	15.48	20.50	15.52	21.46	16.26				7.0	6	22.89	22.64	22.40	22.25	22.11
39	16.12	13.96	16.73	14.76	17.67	14.37	18.54	15.40	19.09	15.31	20.00	15.34	20.92	16.07				9.0	8	23.99	23.78	23.58	23.42	23.25
41	15.90	13.85	16.47	14.64	17.29	14.20	18.08	15.22	18.63	15.13	19.50	15.15	20.37	15.89			Ŀ	11.5	10	25.09	24.92	24.75	24.58	24.40
43	15.68	13.74	16.22	14.53	16.92	14.04	17.62	15.03	18.17	14.95	19.00	14.96	19.83	15.71				13.5	12	25.95	25.79	25.63	25.45	25.27
46	15.34	13.58	15.84	14.35	16.36	13.80	16.93	14.76	17.49	14.69	18.25	14.68	19.01	15.43				15.5	14	26.82	26.66	26.50	26.32	26.14
50	11.84	11.60	12.40	12.15	13.04	12.43	13.34	13.07	13.56	13.24	13.77	13.11	13.98	13.69			Ŀ	16.5	16	27.25	27.10	26.94	26.76	26.57
																				PF	A00	4 <b>Z</b> 1	10	$\mathbb{A}$

### Model FDE250VSAWDVH

### Indoor unit FDE60VH (4 units)

### Outdoor unit FDC250VSA-W

Cooling me	ode															(kW)	Hea	ting mo	de:H	С				(kW)
Outdoor							Ind	oor air t	emperat	ure								utdoor	air		Indoor	air temp	erature	
air	18°0	DB	21°0	DB	23°0	DB	26°0	DB	27°0	DB	28°0	DB	31°0	CDB	33°0	CDB	te	mperati	ıre			°CDB		
temperature	12°C	WB	14°C	WB	16°C	WB	18°0	WB	19°C	WB	20°C	WB	22°C	WB	24°0	WB	°C	с∣в	WB	16	18	20	22	24
°CDB	тс	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	-1	.8 -	20	11.35	11.22	11.10	10.97	10.84
11					25.67	18.75	27.17	20.06	27.92	19.80	28.75	19.55	30.42	20.46	32.08	19.85	-1	7.7 -	18	12.14	12.00	11.87	11.73	11.59
13					25.70	18.76	27.20	20.07	27.95	19.81	28.78	19.56	30.45	20.47	32.11	19.86	-1	5.7 -	16	12.92	12.78	12.64	12.49	12.35
15					25.72	18.77	27.23	20.08	27.98	19.82	28.81	19.57	30.48	20.48	32.15	19.86	-1	3.5 -	14	13.71	13.55	13.41	13.25	13.10
17					25.73	18.78	27.32	20.11	28.11	19.88	28.94	19.61	30.56	20.50	32.20	19.89	-1	.5 -	12	14.39	14.24	14.08	13.93	13.77
19					25.84	18.82	27.43	20.16	28.26	19.92	29.06	19.66	30.66	20.53	32.25	19.90	-9	.5 -	10	15.09	14.92	14.77	14.60	14.45
21					25.45	18.67	26.98	19.99	27.78	19.75	28.57	19.50	30.17	20.39	31.75	19.77	-7	.5 .	-8	15.77	15.61	15.44	15.28	15.12
23					25.05	18.51	26.53	19.83	27.29	19.59	28.08	19.34	29.68	20.25	31.26	19.65	-{	.5 .	-6	16.05	15.89	15.73	15.58	15.42
25			23.45	19.10	24.85	18.44	26.30	19.75	27.05	19.51	27.84	19.26	29.43	20.18	31.01	19.58		.0 ·	4	16.32	16.17	16.02	15.87	15.72
27			23.26	19.03	24.66	18.35	26.08	19.68	26.81	19.43	27.97	19.30	29.13	20.09			- '	.0 ·	2	16.59	16.46	16.31	16.17	16.02
29			22.89	18.88	24.24	18.20	25.64	19.52	26.35	19.28	27.54	19.17	28.72	19.98			1	.0	0	16.87	16.74	16.60	16.46	16.32
31			22.51	18.72	23.83	18.04	25.20	19.36	25.91	19.13	27.11	19.03	28.31	19.86			2	.0	1	17.01	16.87	16.74	16.60	16.47
33	20.84	17.35	21.81	18.43	23.43	17.89	24.76	19.22	25.46	18.98	26.69	18.90	27.92	19.75			3	.0	2	19.33	19.16	19.00	18.85	18.71
35	20.70	17.29	21.54	18.31	23.02	17.73	24.32	19.06	25.00	18.83	26.26	18.76	27.51	19.64			5	.0	4	23.97	23.74	23.50	23.33	23.17
37	20.43	17.17	21.27	18.20	22.69	17.60	23.90	18.92	24.54	18.68	25.69	18.58	26.83	19.45			7	.0	6	28.61	28.30	28.00	27.81	27.64
39	20.32	17.13	21.18	18.17	22.55	17.55	23.67	18.84	24.27	18.59	25.31	18.47	26.35	19.32			9	.0	8	29.99	29.73	29.47	29.27	29.07
41	20.93	17.40	21.43	18.27	22.36	17.49	23.38	18.74	23.94	18.49	24.88	18.33	25.80	19.17			1	.5	0	31.36	31.15	30.95	30.73	30.50
43	19.81	16.90	20.68	17.96	21.93	17.32	22.83	18.56	23.34	18.30	24.16	18.11	24.96	18.95			13	.5 '	12	32.44	32.24	32.03	31.82	31.59
46	17.88	16.05	18.45	17.06	19.05	16.28	19.72	17.54	20.36	17.38	21.26	17.27	22.15	18.21			1	.5	4	33.52	33.33	33.13	32.91	32.68
50	11.78	11.54	12.33	12.08	12.97	12.71	13.27	13.01	13.48	13.22	13.69	13.42	13.91	13.63			1	.5	6	34.07	33.87	33.67	33.44	33.22

Notes(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)

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

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

PFA004Z110 / A

### Model FDE280VSAWDVH

### Indoor unit FDE71VH (4 units)

Outdoor unit FDC280VSA-W

Cooling m	ode															(kW)	н	leating	mode:H	IC				(kV
Outdoor							Inc	oor air t	emperat	ure							Γ	Outdo	oor air		Indoor	air temp	erature	
air	18°0	CDB	21°0	CDB	23°0	CDB	26°	CDB	27°	CDB	28°	CDB	31°	CDB	33°	CDB		tempe	erature			°CDB		
temperature	12°C	CWB	14°0	WB	16°0	CWB	18°0	CWB	19°0	CWB	20°0	CWB	22°0	CWB	24°0	CWB		°CDB	°CWB	16	18	20	22	24
°CDB	TC	SHC	TC	SHC	тс	SHC	TC	SHC	TC	SHC	TC	SHC	тс	SHC	тс	SHC	Γ	-19.8	-20	13.25	13.10	12.96	12.81	12.66
11			i —		27.72	20.25	29.34	21.67	30.15	21.39	31.05	21.12	32.85	22.10	34.65	21.44		-17.7	-18	13.73	13.57	13.43	13.27	13.12
13		İ	i —	ĺ	27.75	20.26	29.37	21.68	30.18	21.40	31.08	21.13	32.88	22.11	34.68	21.45	Ī	-15.7	-16	14.21	14.05	13.90	13.74	13.58
15					27.78	20.27	29.41	21.69	30.22	21.41	31.12	21.14	32.92	22.12	34.72	21.45	Г	-13.5	-14	14.69	14.52	14.37	14.20	14.03
17					27.79	20.28	29.51	21.72	30.36	21.47	31.25	21.18	33.01	22.14	34.77	21.48		-11.5	-12	15.42	15.26	15.09	14.92	14.76
19					27.91	20.33	29.62	21.77	30.52	21.51	31.39	21.23	33.11	22.17	34.83	21.49	Г	-9.5	-10	16.17	15.99	15.82	15.64	15.48
21					27.48	20.16	29.14	21.59	30.00	21.33	30.86	21.06	32.58	22.02	34.29	21.35		-7.5	-8	16.90	16.72	16.54	16.37	16.20
23					27.06	19.99	28.65	21.42	29.48	21.16	30.33	20.89	32.05	21.87	33.76	21.22		-5.5	-6	17.20	17.02	16.86	16.69	16.52
25			25.32	20.63	26.84	19.91	28.41	21.33	29.22	21.07	30.07	20.80	31.78	21.79	33.49	21.15		-3.0	-4	17.49	17.32	17.17	17.00	16.84
27			25.12	20.55	26.63	19.82	28.17	21.25	28.96	20.98	30.21	20.85	31.46	21.70				-1.0	-2	17.78	17.63	17.48	17.32	17.17
29			24.72	20.39	26.18	19.65	27.69	21.08	28.46	20.82	29.75	20.70	31.02	21.58				1.0	0	18.08	17.93	17.79	17.63	17.49
31			24.31	20.22	25.74	19.49	27.21	20.91	27.98	20.66	29.28	20.55	30.58	21.45				2.0	1	18.22	18.08	17.93	17.79	17.64
33	22.51	18.74	23.56	19.90	25.30	19.32	26.74	20.76	27.50	20.50	28.82	20.41	30.15	21.33				3.0	2	20.71	20.53	20.36	20.20	20.04
35	22.35	18.68	23.27	19.78	24.86	19.15	26.27	20.59	27.00	20.34	28.36	20.26	29.71	21.21				5.0	4	25.68	25.43	25.18	25.00	24.82
37	22.06	18.54	22.97	19.65	24.50	19.01	25.81	20.43	26.51	20.17	27.74	20.07	28.98	21.00				7.0	6	30.66	30.32	30.00	29.80	29.61
39	21.95	18.50	22.87	19.62	24.36	18.96	25.56	20.35	26.21	20.08	27.34	19.95	28.46	20.87				9.0	8	32.13	31.86	31.58	31.36	31.14
41	22.60	18.79	23.14	19.73	24.15	18.89	25.25	20.24	25.85	19.97	26.87	19.80	27.87	20.70				11.5	10	33.60	33.38	33.16	32.92	32.68
43	21.40	18.25	22.33	19.40	23.68	18.71	24.66	20.05	25.21	19.77	26.09	19.56	26.96	20.46				13.5	12	34.76	34.54	34.32	34.09	33.84
46	19.31	17.34	19.92	18.43	20.58	17.58	21.30	18.95	21.99	18.77	22.96	18.65	23.92	19.67				15.5	14	35.91	35.71	35.50	35.26	35.01
50	12.72	12.47	13.32	13.05	14.01	13.73	14.33	14.05	14.56	14.28	14.78	14.49	15.02	14.72				16.5	16	36.50	36.29	36.08	35.83	35.59

Notes(1) These data show average status.

(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)

-88 -

### [Refernces data]

The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.





2 Heating



Note (1) These data show the case where the operation frequency of a compressor is maximum.

### [References data]

The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.



Outdoor air temperature (°CDB)





### [References data]

The following figures show capacity variation against outdoor and indoor temperature. Capacity compensation coefficient shows the ratio of maximum capacity at any temperature to nominal capacity.



Outdoor air temperature (°CDB)





# 1.9.2 Correction of cooling and heating capacity in relation to air flow rate control (Fan speed)

Fan speed	P-Hi or Hi	Me	Lo
Coefficient	1.00	0.97	0.95

# 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.

### Models FDC200, 250, 280

Equivale	Equivalet piping length (1) (m)			10	15	20	25	30	35	40	45	50	55	60	65	70	75
	Heating		1	0.998	0.995	0.991	0.988	0.984	0.981	0.977	0.974	0.970	0.967	0.963	0.960	0.956	0.953
	200model		1	0.997	0.991	0.984	0.978	0.971	0.965	-	-	-	-	-	-	-	-
	250model	φ22.22	1	0.995	0.985	0.975	0.965	0.954	0.944	-	-	-	-	-	-	-	-
	280model		1	0.993	0.979	0.966	0.952	0.937	0.923	-	-	-	-	-	-	-	-
	200model		-	-	-	-	-	-	0.988	0.984	0.981	0.977	0.974	0.970	0.967	0.963	0.960
Cooling	250model	φ25.4	-	-	-	-	-	-	0.978	0.972	0.966	0.960	0.953	0.947	0.941	0.935	0.929
	280model		-	-	-	-	-	-	0.968	0.960	0.951	0.943	0.932	0.925	0.916	-	-
	200model		-	-	-	-	-	-	0.999	0.997	0.995	0.993	0.991	0.989	0.987	0.985	0.983
	250model	$\phi$ 28.58	-	-	-	-	-	-	0.997	0.994	0.990	0.987	0.983	0.980	0.976	0.973	0.969
	280model		-	-	-	-	-	-	0.995	0.991	0.985	0.981	0.975	0.971	0.965	-	-

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.

Gas pipe diameter (mm)	φ12.7	φ15.88	φ 19.05	φ22.22	φ25.4	φ28.58
Equivalent bend length	0.20	0.25	0.30	0.35	0.40	0.45

### 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	35m	40m	45m	50m
Adjustment coefficient	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90

### **Piping length limitations**

Item	FDC200, 250	FDC280	
Max. one way piping length	70m	60m	
Max. vertical height difference	Outdoor unit is higher 50m (Outdoor air temperature≤43°C) Outdoor unit is higher 30m (Outdoor air temperature>43°C) Outdoor unit 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 FDT250VSAWPVH with the air flow "P-Hi", the piping length of 15m, the outdoor unit located 5m lower than the indoor unit, indoor wet-bulbtemperature 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-4 way type(FDT)

For electrical wiring work (Indoor unit), refer to page 124. For remote control installation, refer to page 128. For vireless kit installation, refer to page 225. For electrical wiring work (Outdoor unit) and refrigerant pipe work installation for outdoor unit, refer to page 140. For motion sensor kit installation, refer to page 262. 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 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: 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. 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. a Improper installation may cause explosion, injury, water leakage, electric shock, and fire Check the density refered by the foumula (accordance with IS05149). Ø If the density exceeds the limit density please consult the dealer and installate the ventilation system Ouse 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. In case of R32, the refrigerant could be ignited because of its flammability. Install the unit in a location that can hold heavy weight. 0 Improper installation may cause the unit to fall leading to accide Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes. a 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.  $\bigcirc$ 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. Ø 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 0 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 0 panel property. Improper fitting may cause abnormal heat and fire. Check for refrigerant gas leakage after installation is completed. Ø 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 R32 or 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. 0 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.  $\bigcirc$ 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. 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. Ø 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.  $\bigcirc$ Improper repair may cause water leakage, electric shock or fire. Consult the dealer or a specialist about removal of the air-conditioner. 0 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.  $\sum$ Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get ned, or electric shock Shut off the power before electrical wiring work. Ø It could cause electric shock, unit failure and improper running

<ul> <li>Perform earth wiring surely.</li> <li>Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Im cause unit failure and electric shock due to a short-circuit.</li> </ul>	proper earth could
<ul> <li>Earth leakage breaker must be installed.</li> <li>If the earth leakage breaker is not installed, it can cause electric shocks.</li> </ul>	0
<ul> <li>Use the circuit breaker of correct capacity. Circuit breaker should be the one that displote under over current.</li> <li>Using the incorrect one could cause the system failure and fire</li> </ul>	connect all
<ul> <li>Do not use any materials other than a fuse of correct capacity where a fuse should be</li> </ul>	e 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	e gas leakages. 🔿
If the gas leaks and gathers around the unit, it could cause fire.	
• Up not install and use the unit where controlve gas (puch as summulas actuing as etc.) of name as thinner, petroleum etc.) may be generated or accumulated, or volatif fammable substan it could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas cou- ting and the substance of the substa	uld 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 plan.	
• Do not use the indoor unit at the place where water splashes such as laundry.	$\overline{\mathbb{N}}$
Indoor unit is not waterproot. It could cause electric shock and tree.  Do not use the indoor unit for a special purpose such as food storage, cooling for pre instrument, preservation of animals, plants, and a work of art. It would cause the demee of the iteme	cision
Could cause the earlinge of the terms.     Do not install nor use the system near equipments which generate electromagnetic wave or Equipments like inverter equipment, private power generator, high-frequency medical equipment, or t equipment inght influence the air-conditioner and cause a malfunction and breakdown. Or the air co- influence medical equipments or telecommunication equipments, and obstruct their medical activity of	high harmonics. elecommunication nditioner might or cause jamming.
Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control.	$\bigcirc$
Do not install the indoor unit at the place listed below.      Disconsidered formership are smith lists	enacial enrave ara
Places Writer laminature gas could reak.     Places where calcon fiber, metal powder or any powder is floated.     Place where factors there, metal powder or any powder is floated.     Place where the substances which affect the air confidiner are generated     such as sulfde gas, chioride gas, acid, akail or ammonic atmospheres.     Places exposed to all mist or steam directly.     On vehicles and ships     Places where machiners which generates high harmonics is used	beach.
according to the installation manual for each model because each indoor unit has ea - Locations with any obstacles which can prevent init and - 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 - Locations where an equipment affected by high harmonics is - Locations where an equipment affected by high harmonics is - Locations where the infrared receiver is place where is exposed to the direct sunlight or the strong light beam. (in case of the Locations where an equipment affected by high harmonics is - Dusty place or where the lens face could placed. (If vet or radio receiver is placed whith 5m) - Locations where drainage cannot tun off safely.	ch limitation) anel at following places. detection, or Jong period of time. agnetic wave generates. sture or humidity for a be fouled or damaged.
<ul> <li>Do not put any valuables which will break down by getting wet under the air-condition</li> </ul>	oner.
Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages      O not use the base frame for the outdoor unit which is corroded or damaged after a lon      It could cause the unit fallino down and injury.	g period of use.
Pay attention not to damage the drain pan by weld sputter when brazing work is don     If sputter entered into the unit during brazing work, it could cause damage (joinhole) of drain pan and     To weld how for a specific damage the option of the part o	e near the unit. leakage of water.
<ul> <li>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 below</li> </ul>	ingings.
Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrige If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack occur, which can cause serious accidents.	rant piping work. k of oxygen can
<ul> <li>For drain pipe installation, be sure to make descending slope of greater than 1/100, not and not to make air-bleeding.</li> </ul>	to make traps,
Check if the drainage is correctly done during commissioning and ensure the space for inspection and Ensure the insulation on the pipes for refrigeration circuits or as not to condense watch become leiched in curve of the case condense and the variable for each part data watch the condense watch the condense watch and the condense watch the condense watch the condense watch the condense watch and the condense watch the condense watch the condense watch the condense watch the condense watch the condense watch the condense watch the co	d maintenance.
Do not install the outdoor unit where is likely to be a nest for insects and small animal Insects and small animals could come into the electronic components and cause breakdown and fire. I keen the surrounding clause.	als. nstruct 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 plac     by hand. Lise portective elowes in order to avoid injury by the aluminum fin.	ce, moving the unit
Make sure to dispose of the packaging material.     Leaving the material.	•
Learning use materials may cause injury as metals like nan 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 raise electric check	$\overline{\mathbb{Q}}$
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  Do not clean up the air-conditioner with water.	e a burn or frostbite. 🚫
It could cause electric shock.	$\underline{\otimes}$
Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.	$\bigcirc$
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 it could cause fire or water leakage.	cause injury.

### PJF012D051

This manual is for the installation of the indoor unit.



### 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.
  - In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
  - 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 air flow 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, nowder and/or steam directly such as above frver
- 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.)

- ②Check 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.
- ③If 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

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 air flow.



It is possible to set the air flow direction port by port independently. Refer to the user's manual for details.

### **③Preparation before installation**

- If suspension bolt becomes longer, do reinforcement of earthquake resistant.
   OFor 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.
- 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



### **(4)**Installation of indoor unit

### Work procedure

- 1. Set the suspension bolt length to about 50 mm from the ceiling.
- Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 150 mm from the ceiling.
- Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
- 4. Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (\*1) onto suspension bolts. Make sure that the upper washers do not slide down.
- 5. Suspend the indoor unit.
- 6. After suspending the indoor unit, mount the level gauge (\*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places).
- Remove the temporary fixing carton of washers (from all 4 places).
   Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water.
- (Keep the height difference at both ends of the indoor unit within 3 mm.) 9 Tighten the upper puts of the suspension holts (4 places)







### PJF012D037

# Panel installation





¢¥(



### 10 Panel setting

<Flap swing range setting (Individual flap cotrol setting)>

9 Installing the inlet grille

It is possible to change the swing range of the flap by the vired ermote control. Once the upper and lower limit positions are set, the flap will swing within the set range. It is also possible to set the different range to each flap.

### <Anti draft setting>

The anti draft function will not be operated if the anti draft panel is installed and its wirings are only connected. To operate the anti draft function, enable the anti draft setting by using the wired or wireless remote control.

Note: It is not possible to set by the following remote control models or older.

Wired:RC-EX1A, RC-E5, RCH-E3 Wireless: RCN-E1R

Once you have enabled the settings in this mode, the anti draft function is operated when the air-conditioner is started, and the parts of the anti draft mechanism are always open when the air-conditioner is operating. When the air-conditioner is stopped, they are closed. It is possible to enabled or disabled the anti draft function for each air outlet.

For the setting details, refer to the user's manual supplied with the remote control.

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

### PJF012D509

This manual is for the installation of the indoor unit. For electrical wiring work (Indoor unit), refer to page 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 234. For electrical wiring work (Outdoor unit) and refrigerant pipe work installation for outdoor unit, refer to page 140. For motion sensor kit installation, refer to page 267. 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 is and a to protect yourget.						
•	in order to protect yourself. P The precautionary items mentioned below are distinguished into two levels, [ <u>AWARNING</u> ] and [ <u>ACAUTION</u> ]. [ <u>AWARNING</u> ]: 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 "Marke" used here are as shown on the right:						
•	<ul> <li>▶ The meanings of warks used net e are as shown on the right.</li> <li>▶ Never do it under any circumstances.</li> <li>▶ Always do it according to the instruction.</li> </ul>						
•	After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the						
	cleaning, operation method and temperature setting method) with user's manual of this unit.	IIItoi					
	Ask your customers to keep this installation manual together with the user's manual. Also, ask them i	to hand					
/							
$\left  \right $	WARNING						
	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	Ð					
	<ul> <li>Install the system correctly according to these installation manuals.</li> <li>Improper installation may cause explosion, injury, water leakage, electric shock, and fire.</li> </ul>	0					
	• Check the density refered by the foumula (accordance with IS05149).						
L	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 ur	it. 🕒					
	Ventilate the working area well in case the refrigerant leaks during installation.      If the officience contents the first tasks area is and used						
	In ure reinigeraum contracts ure me, toxic gas is produced.						
	Install the unit in a location that can hold heavy weight.						
L	Improper installation may cause the unit to fall leading to accidents.	U					
	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.	0					
	Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.	$\bigcirc$					
H	in an is mixed in, the pressure in the county cycle will rise adnormally and may cause explosion and injuries.  Re sure to have the electrical wiring work done by qualified electrical installer and use evolution electric						
	De source with insufficient capacity and improper work can cause electric shock and fire. How a source with insufficient capacity and improper work can cause electric shock and fire.						
	Os specifica whe to reactive withing assert are writing where entimes securely, and now the cause securely in order not to apply unexpected stress on the terminal. Loose connections or hold could result in abnormal heat generation or fire.	0					
	• 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 beat and fire.	U					
h	Check for refrigerant gas leakage after installation is completed.						
L	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 R32 or R410A. Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.	0					
	Tighten the flare nut according to the specified method by with torque wrench.      If the flare nut according to the specified method by the flare nut according to the specified method.						
H	n ure hare now work ugintenieu winn excess longue, it count cause burst and reinigerant leakage alter a long period.  Do not nut the drainage nine directly into drainage channels where noisonous gases such as suffide are o	an					
	<ul> <li>So not you are and around the moory into around to failines where poisonous gases such as sulling gas to OCCUI.</li> </ul>	$\Box$					
L	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 efrigreant leak.						
	<ul> <li>connect une pybes for retrigeration circuit securely in installation work before compressor is operated.</li> <li>If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries di o abnormal high pressure in the system.</li> </ul>						
	• Stop the compressor before removing the pipe after shutting the service valve on pump down work.						
L	If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circ and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.	uit 🕛					
	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.	0					
	Do not repair by yourself. And consult with the dealer about repair. Improper repair may cause water leakage, electric shock or fire.	$\bigcirc$					
	• Consult the dealer or a specialist about removal of the air-conditioner. Improper installation may cause water leakage, electric shock or fire.	0					
	• Turn off the power source during servicing or inspection work.	0					
L	If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.	•					
	<ul> <li>uo nor run me unit when me panel or protection guard are taken off.</li> <li>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.</li> </ul>	$\bigcirc$					
	Shut off the power before electrical wiring work. It could cause electric shock, unit failure and improper running.	0					

▲ 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 learns short, drue to a short, circuit	•
Earth leakage breaker must be installed.     If the earth leakage breaker is not installed, it can cause electric shocks.	0
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.	0
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.	$\bigcirc$
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.	$\odot$
<ul> <li>Uo not instail and use me unit where corrosive gas (such as sumruous acid gas etc.) or nammane gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile finamable substances are handled it could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.</li> </ul>	$\odot$
<ul> <li>Secure a space for installation, inspection and maintenance specified in the manual. Insufficient space can result in accident such as personal injury due to failing from the installation place.</li> </ul>	0
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 indexer unit for a censel is wraped with a place the	$\bigcirc$
<ul> <li>Do not use the motor unit for a special purpose such as fold storage, cooling for precision instrument, preservation of animals, plants, and a work of art.</li> <li>It could cause the damage of the items.</li> </ul>	$\bigcirc$
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 an antifunction and treakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.	$\odot$
Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control.	$\odot$
Do not install the indoor unit at the place listed below.     Places where flammable gas could leak.     Place where achon fiber, metal powder or any powder is floated.     Place where the substances which affect the air conditioner are generated such as sufide gas, chloride gas, acid, akail or anmonic atmospheres.     Places exposed to oll mist or steam directly.     On vehicles and ships     Places where machinery which generates high harmonizs is used	
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 obstades which can prevent inite and      outlet air of the unit     Locations where whation can be amplified due to      insufficient strength of structure.     Locations where where the infrared receiver is exposed to the      infrared specification unit)     Locations where adjument affected by high harmonics is - busy place or where the lens face could be fould or damage      placed. (TV set or radio receiver is placed within Sm)     Locations where administry is placed within Sm)     Locations where administry is placed within Sm)	tes. a d.
Do not put any valuables which will break down by getting wet under the air-conditioner. Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.     Do not use the base frame for the outdroor unit which is controlled or damaged after a loop partial of use	$\bigcirc$
It could cause the unit faling down and njury. P Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.	$\bigcirc$
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.	0
<ul> <li>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.</li> </ul>	0
• Be sure to perform an eignification by pressuring with integer gas after comprete tengerant 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. • Ear drain ping installation, he sure to make descending clone of areater than 1/100 point to make traps.	•
and not in make air-bleeding. Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.	0
<ul> <li>Ensure the insulation on the pipes for reingeration circuit so as not to condense water. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.</li> </ul>	0
• Do not instant the outdoor bint where is inkery to be a nest to insects and similar animats. Insects and small animats outdo come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.	$\odot$
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.	0
make sure to usplose or use 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. <ul> <li>Do not touch any button with wet hands.</li> </ul>	$\approx$
It could cause electric shock.  Do not touch the refrigerant piping with bare hands when in operation.	<b>X</b>
the pupe using operation would become very not or colo according to the operating condition, and it could cause a burn or frostbite     Do not clean up the air-conditioner with water.     It could cause electric shock.	$\overline{\Diamond}$
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.	Ŏ
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.	$\bigcirc$



### 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.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection. 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 air flow 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.)
- (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.
- ③If 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 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 of air flow.





- 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 air flow direction port by port independently. Refer to tne user's manual for details

### **③Preparation before installation**

- If suspension bolt becomes longer, do reinforcement of earthquake resistant. OFor 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.
- 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



### (4)Installation of indoor unit

Work procedure

- This unit is designed to install on a system ceiling.
- If necessary, remove T bars temporarily before installing the unit.
- When it is installed on a ceiling other than the system ceiling, install an inspection port at the control box side
- Determine the position of suspension bolts (530 mm × 530 mm)
- Use 4 suspension bolts, and fix them such that each bolt can withstand a pull-out load of 500 N. 3.
- Set the suspension bolt length to about 50 mm from the ceiling.
- Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 130 mm from the ceiling.
- Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently 6 distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
- Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (\*1) onto suspension bolts. Make sure that the upper washers do not slide down Suspend the indoor unit.
- 9. After suspending the indoor unit, mount the level gauge (\*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places) 10. Remove the temporary fixing carton of washers (from all 4 places).
- 11. Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water (Keep the height difference at both ends of the indoor unit within 3 mm.)
- 12. Tighten the upper nuts of the suspension bolts (4 places)





### - 101 -



### Panel installation

PJF012D503





For the setting details, refer to the user's manual supplied with the remote control.

# FRESH AIR INTAKE (Location for installation) FOR FDTC

At the time of installation use the duct hole (cut out) located at the positions shown in follwing diagram, as and when required.

### (1) Temperature conditions for OA spacer<sup>(1)</sup>

- 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 satisfy, process the outdoor air before intaking.

On another manda	Usage temperature conditions			
Operation mode	Intake outdoor air	Indoor air around the ducts		
Heating	5℃ DB or higher	18.5°C WB or lower and 60% RH or lower		
Cooling	29°C DB or lower and 80% RH or lower	20°C DB or higher		

Note(1) : For the OA spacer, refer to page 293.



# Fresh air intake amount & static pressure characteristics

FDTC50VH, 60VH



## **CHARACTERISTICS OF AIR FLOW IN DIVIDED DUCT FOR FDTC**



### Models FDTC50VH, 60VH

### Divided duct connection method

1. Open some one during 4 knock out holes, and please connect a divided duct.

It isn't possible to use more than one hole at the same time.

- 2. Please make the wind shielding a blowout vent or the side where a divided duct was connected.
- 3. The shotage of the external static pressure by pressure loss for a connected divided duct and blowout unit is made up by a booster fan.

example : When 2.5m<sup>3</sup>/min of ventilation by divided duct is needed in model FDTC60VH (In case of connection duct  $\phi$  125 x 5m)

①Duct resistance : Pressure loss by a flexible duct =35Pa (7Pa/m x 5m)

2Blowout unit : Pressure loss by a blowout unit =10Pa

③External static pressure when being 2.5m³/min =17Pa (See upper table.)

 $\Rightarrow$ Correspondence by a booster fan =(1+(2)-(3)=28Pa

PJG012D039

### (3) Duct connected-High static pressure type (FDU)

### (a) Indoor unit

•This manual is for the installation of an indoor unit and an outdoor air processing unit (FDU-F). •For electrical wiring work (Indoor), refer to page 124.

For remote control installation, refer to page 128. For wireless kit installation, refer to page 243.

For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 140.

### 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>. [Augustation]: 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.

### 

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.	U
Install the system correctly according to these installation manuals.	•
Improper installation may cause explosion, injury, water leakage, electric shock, and fire.	U
Check the density refered by the foumula (accordance with IS05149).	
If the density exceeds the limit density, please consult the dealer and installate the ventilation system.	U
• 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 overtum of the unit.	0
•Ventilate the working area well in case the refrigerant leaks during installation.	
If the refrigerant contacts the fire, toxic gas is produced.	U
in case of R32, the reingerant could be ignited because of its manimability.	_
Install the unit in a location that can note neavy weight. Improper installation may cause the unit to fall leading to accidents.	0
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.	$\overline{\frown}$
If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.	$\heartsuit$
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.	0
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.	0
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.	U
Use the specified pipe, flare nut, and tools for R32 or R410A. Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.	0
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.	U
• Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.	$\sim$
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.	$\odot$
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.	Ð
• 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.	U
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.	$\bigcirc$
improper repair may cause water leakage, electric snock or life.	$\leq$
Consult the dealer or a specialist about removal of the air-conditioner. Improper installation may cause water leakage, electric shock or fire.	0
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.	$\bigcirc$
roucning me 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.	

	<b>▲ CAUTION</b>	
	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 course with thinks and adviction doubters find with a school arising it.	•
	Cause unit rainute and relations should unlike use of a should caudud.  Earth leakage breaker must be installed. If the earth leakage breaker is not installed, it could cause electric shocks or fire.	0
	Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.	0
	Using the incorrect one could cause the system nature and the. Do not use any materials other than a fuse of correct capacity where a fuse should be used. Connection the circuit by wire cooper wire could cause unit failure and fire.	$\bigcirc$
•	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.	$\overline{\bigcirc}$
	Do not install and use the unit where corrosive gas (such as suffurous acid gas etc.) or flammable gas (such as thimer, 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.	$\bigcirc$
	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.	0
	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.	$\bigcirc$
	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.	$\bigcirc$
•	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.	$\bigcirc$
•	Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control.	$\bigcirc$
	Do not install the indoor unit at the place listed below.         Places where fammable gas could leak.         Places where cashon fiber, metal powder or any powder is floated.         Places where cashon fiber, metal powder or any powder is floated.         Places where cashon fiber, metal powder or any powder is floated.         Places where cashon fiber, metal powder or any powder is floated.         Highly saited area such as beach.         Highly saited area such as beach.           > Places where dawners which after the air-conditioner are generated such as sulfide gas, chick gas, acid, alkali or ammonic atmospheres.         Heavy snow area         Heavy snow area           > Places where dawner dawn dynamic or steam directly.         Places where the system is affected by some form a chimmer.         Places where dawner dawne dawner dawner dawner dawner dawner dawner dawner dawn	$\bigcirc$
	<ul> <li>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)</li> <li>Locations with any obtacles which can prevent inlet and outlet air of the unit</li> <li>Locations where vibration can be amplified due to insufficient strength of structure.</li> <li>Locations where the infrared receiver is exposed to the infrared specification unit)</li> <li>Locations where an equipment affected by high harmonics is placed. (IV set or radio receiver is placed where drainage cannot run off safely.</li> <li>Locations where drainage cannot run off safely.</li> <li>Locations where drainage cannot run off safely.</li> </ul>	of time.
•	Do not put any valuables which will break down by getting wet under the air-conditioner. Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.	$\bigcirc$
	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.	$\bigcirc$
	P av 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.	0
	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.	0
	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.	$\bigcirc$
	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.	0
	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. Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.	0
	Up on this tail the outdoor unit where is likely to be a nest tor insects and small animals. Insects and small animals could one into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.	$\bigcirc$
	Pay extra attention, carrying the unit by hand. Carry the unit with 2 people if its 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.	0
	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.	0
	Do not operate the system without the air lifer.     It may cause the breakdown of the system due to clogging of the heat exchanger.     Do not now button with work head on	$\bigotimes$
	r or not count any outlon with wet nations. It could cause electric shock. Do not fouch the refrigerant mining with hare bands when in operation	$\mathbb{N}$
	The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite. <b>Do not clean up the air-conditioner with wate</b> .	$\mathbb{R}$
	It could cause electric shock. Do not turn off the power source immediately after stopping the operation.	$\otimes$
	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.	
1	It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.	$\mathcal{S}$
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.
- · 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





①This unit monitors the outdoor air temperature at the position of sensor A in the figure, and controls the start and stop with the thermostat based on the value of sensor A and the setting temperature by the remote control.



Remote control's setting temperature indicates the outdoor air temperature that controls the start and stop of operation by the thermostat.

When the thermostat is turned off, the operation is changed to the fan mode so that the outdoor air is blown out directly into the room. For example if the remote control is set to 22°C in cooling operation, and if the outdoor air temperature is 22°C or lower at that time, the unit will go into fan operation.

- (2)When there is a difference between the air-conditioning temperature in the room during cooling operation and the temperature of air blown out from the outdoor air processing unit, dewing water may drip from the unit. To prevent the dewing, provide
- a sufficient heat insulation means at the air blow outlet. ③Since the air blow outlet on the outdoor air processing unit may blow out the outdoor air directly, orient the outlet in such a
- way that it will not blow air directly to persons in the room. (4) Since the unit controls the thermostat start and stop by monitoring the outdoor air temperature, it is prohibited to monitor the room
- temperature by means of the room temperature monitoring by changing the thermostat setting at the remote control side and the optional remote thermistor. Otherwise, dewing water may drip from the unit at lower outdoor air temperatures during cooling operation. Sinstall the remote control of the outdoor air processing unit at a place closer to the administrator to avoid the end user from using the remote control

When handing over the unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place of the remote control for the outdoor air processing unit and the position of air blow outlet

### **(4)**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.





### ⑧Drain 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 dick 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. Insert the supplied drain hose (the end made of soft PVC) to the step of the drain socket on the indoor unit and fix it securely with the clamp.
  - Do not apply adhesives on this end.



- 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 about 5mm left to the nut.
- Do not apply adhesives on this end.
- Do not use acetone-based adhesives to connect to the drain socket.



- end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site). %As for drain pipe, apply VP25 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.
  - 1.5m~2m Supporting ׼ Insulation material Air vent No trap О D Not touching the wat 167 X than 1/100 •When sharing a drain pipe for more than one unit, lay the main pipe 100mm hø below the drain outlet of the unit. In addition, select VP30 or bigger size for b) VP30 or h main drain pipe. 1/100

## **®Drain pipe (continued)**

- 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.

## Drain up

- OThe cases of FDUA and mounting a drain-up KIT (optional parts)
- 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 2000 cc of water to the unit through the air outlet by using a feed water pump.
- 2. Check the drain while cooling operation.



#### **9**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.



#### **DExternal 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-Uhi) 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.

E.S.P. buttor

 Push "◆" marked button(E.S.P. button).
 Select indoor unit No. by using ◆ button.
 Select setting No. by using ◆ button and set E.S.P. by ○ button.
 See detailed procedure in technical manual.

Notice

You can not set E.S.P. by wireless remote control.

With E.S.P. setting, confirm that actual E.S.P. agrees with E.S.P. setting.



#### **(1)**External static pressure setting

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.

 Setting No.
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19

 ES.P. (Pa)
 10
 20
 30
 40
 50
 60
 70
 80
 90
 100
 11
 120
 130
 140
 150
 160
 170
 180
 200

 Xi ff 20 is selected for the setting No. on the remote control, the setting No. shows No.
 19.

### **①Check 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	
Power source 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 108.

## Models FDU200VH, 250VH, 280VH

(i) 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.



- (ii) Take out the fan unit located at the near side in the arrow direction.

(iii) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



(iv) Take out the fan unit in the arrow direction.



PJG012D021

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

## (a) Indoor unit

This manual is for the installation of an indoor unit. For electrical wiring work (Indoor), refer to page 124. For remote control installation, vork (Outdoor) and refrigerant pipe work installation, refer to page 243. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 140.

## 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. <u>Liccuritor</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.

- So they hold with the set of block you heard and safety so shrup hold with by any means.
   The meanings of "Marks" used here are as shown on the right:
   Never of 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.

## 

	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 snock, and fire.	-
	Check the density refered by the fournula (accordance with ISU5149). If the density exceeds the limit density please consult the dealer and installate the ventilation system.	0
-	Ise the nenuine 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.	Ð
	•Ventilate the working area well in case the refrigerant leaks during installation.	
	If the refrigerant contacts the fire, toxic gas is produced.	
	In case of R32, the refrigerant could be ignited because of its flammability.	
	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.	0
	Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.	$\frown$
	If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.	$\odot$
	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.	0
	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.	0
	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.	-
	•Use the specified pipe, flare nut, and tools for R32 or R410A.	
	Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.	-
	Ignten the flare nut according to the specified method by with torque wrench. If the flare nut were tightened with evenes torque, it could ensue have and refrigerent lealers after a lane paried.	
_	In the hair full were upinelied with excess longue, it could cause burst and reingerant leakage and a folig period.     Po pet put the designed price directly into designed phone burst and reingerant leakage and a sufficiency of the second price of the second phone burst and the second	-
	<ul> <li>Do not put the dramage pipe directly into dramage channels where poisonous gases such as sumde gas can OCCUR.</li> </ul>	$\bigcirc$
	Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also	$\bigcirc$
-	cause the corrosion of the indoor unit and a resultant unit failure or reingerant leak.	
	Connect the pipes for retrigeration circuit securely in installation work before compressor is operated. If the compressor is operated when the consist value is open without compacting the pipe, it could cause evelocing 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.	Ð
	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.	Ð
	Do not repair by yourself. And consult with the dealer about repair.	$\bigcirc$
	Improper repair may cause water leakage, electric shock or fire.	$\odot$
	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.	
_	IT 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 ratating equipment, but surface or high utilage section could cause an injury to be caught in the machine, to get	$\bigcirc$
	rousing are reading equiphent, not surface, or nigh voltage section could cause an injury to be cadight in the hildchille, to get burned, or electric shock.	$\odot$
	Shut off the power before electrical wiring work.	
	It could cause electric shock, unit failure and improper running	U,

	▲ 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 before for find, due to a short circuit.	
	Earth leakage breaker must be installed.     If the earth leakage breaker is not installed.	0
	<ul> <li>Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.</li> </ul>	0
	Using the incorrect one could cause the system name and me.     Do not use any materials other than a fuse of correct capacity where a fuse should be used.     Consection the circuit by wire no noner wire could cause unit failure and fire	$\bigcirc$
	<ul> <li>Do not install the indoor unit near the location where there is possibility of flammable gas leakages.</li> <li>If the gas leaks and gathers around the unit, if could cause fire.</li> </ul>	$\widecheck{\bigcirc}$
	<ul> <li>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.</li> </ul>	$\bigcirc$
┢	It could cause the corroson of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause tire. Secure a space for installation, inspection and maintenance specified in the manual.	0
	Bo not use the indoor unit at the place where water splashes such as laundry.     Indoor unit on twateroord, it could cause electric shock and fire.	$\overline{\bigcirc}$
	<ul> <li>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.</li> </ul>	$\overline{\bigcirc}$
╞	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, pivate power generator, high-frequency medical equipment, or telecommunication	0
	equipment might influence the air-conditioner and cause a mafunction and breakdown. Or the air-conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming. O 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.	$\odot$
	Places where flammable gas could leak.     Places where cosmetics or special sprays and requently used.     Places where the substances which affect the air-conditioner are generated such as sublifie gas, clindrig gas, adi, alkail or ammoric atmospheres.     Places exposed to oil mist or steam directly.     On vehicles and ships     Places where machinery which generates high harmonics is used.     Altitude over 100mm	
	according to the installation manual for each model because each inidoor unit has each limitation) - Locations with any obstacles which can prevent inlet and outting i or of the unit - Locations where vibration can be amplified due to insufficient - Locations where the infrared receiver is exposed to the direct sungipt or the strong light beam. (in case of the infrared - Locations where an equipment affected by high harmonics is placed (TV set or radio receiver is placed within 5m) - Locations where drianae cannot run off safety.	$\otimes$
┝	It can affect performance or function and etc fouled or damaged.  Do not put any valuables which will break down by getting wet under the air-conditioner.	$\bigcirc$
	<ul> <li>Concersion could only when the rearms number is night than advis or oran pipe is cooged, and it damages user's beenings.</li> <li>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.</li> </ul>	$\overline{\bigcirc}$
	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.	0
	<ul> <li>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.</li> </ul>	0
	Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit. Toxic exhaust gas would flow into rom and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.	$\bigcirc$
	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.	0
	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 does during comprisioning and ansure the mace for inspection and maintenance.	0
	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.	0
	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.	$\bigcirc$
	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.	0
	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.	0
	It may cause the breakdown of the system due to clogging of the heat exchanger.  D on of touch any button with wet hands.	$\bigotimes$
┡	It could cause electric shock.  Do not touch the refrigerant piping with bare hands when in operation.	$\approx$
╟	The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.  D on tot clean up the air-conditioner with water.  Headed ensure lotted a burder.	× 1
	III COUID CAUSE VECTICS STOCK. Do not turn off the power source immediately after stopping the operation. Be sure to variation more than 5 minutes. Otherwise it could cause water leakane or breakdrown	$\overline{\Diamond}$
l	Do not control the operation with the circuit breaker.     I could cause find on the operation with the circuit breaker.     I could cause first or water leakane in addition the fan may start operation unexpectedly and it may cause injury	Ŏ

Adhere to the

below for the length of the suspension bolts.

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 air flow 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.) (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.



## **③Preparation 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.





Multi type	22-56	71,90	112-160
Single type	40-50	60, 71	100-140
A	786	986	1404
B	472	472	530
С	135	135	180

Pipe locations UNIT: mm





## (4)Installation of indoor unit





回日

[mm]

Pour water into a convex joint

Connecting port of top drain pipe

Standard hard polyvinyl chloride pipes

Transparent soft tube (Prepare on site)

Insulating material

P.C. board

0

VP30 or hinne

an 1/100

Ņo trap

X

100 or less

**30**0

ā



## -116 -

#### **8**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.
- 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.

#### Single unit wiring connection



#### (9) External static pressure setting

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 "  $\blacklozenge$  " marked button(E.S.P button).
- 2 Select indoor unit No. by using  $\clubsuit$  button.

You can not set E.S.P. by wireless remote control.

③ Select setting No. by using ♦ button and set E.S.P. by ○ button. See detailed procedure in technical manual.



Caution

Notice

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.

### 9 External static pressure setting (continued)

#### How to start automatic setting

- (1), (2) Same setting as MANUAL SETTING.
- 3 Select [AUT] by using  $\clubsuit$  button and press  $\bigcirc$  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.

#### Notice

- 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.

### **(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	
Power source 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 air flow 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 114.

## (i) Model FDUM71VH

 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 FDUM100VH, 125VH, 140VH

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.



PFA012D636B

## (5) Ceiling suspended type (FDE)

This manual is for the installation of an indoor unit. For electrical wiring work (Indoor), refer to page 124. For remote control installation, refer to page 128. For wireless kit installation, refer to page 253. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to page 140.

SAFETY PRECAUTIONS	
<ul> <li>Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation in order to protect yourself.</li> <li>The precautionary items mentioned below are distinguished into two levels, <u>AWARNING</u> and <u>ACA2U</u></li> <li><u>Wrong</u> installation would cause serious consequences such as injuries or death.</li> <li><u>AVARNING</u>: Wrong installation might cause serious consequences depending on circumstances.</li> <li>Both mentions the important items to protect your health and safety so strictly follow them by any meanings of "Marks" used here are as shown as follows:</li> <li><u>Never or tunder any circumstances</u>.</li> <li><u>O</u> [<u>Always do it according to the instruction</u>.</li> <li>After completing the installation, do commissioning to confirm there are no abnormalities, and explain customers about "SAFETY PRECAUTONS", correct operation method and maintenance method (ari flicteration, operation method and temperature setting method) with user's manual of this unit.</li> <li>Ask your customers to keep this installation manual together with the user's manual. Also, ask them to lower the user's manual to the new user when the owner is changed.</li> </ul>	n work TION . leans. to the ter hand
A WARNING	
Installation should be performed by the specialist. If you install the unit by yoursell, 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 IS05149). 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.	0
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 overtum of the unit. Ventilate the working area well in case the refrigerant leaks during installation. If the refigerant contacts the fire, toxic gas is produced.	0
In case of R32, the refrigerant could be ignited because of its flammability.  Install the unit in a location that can hold heavy weight. Improper installation may cause the unit to fall leading to accidents.	0
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.	0
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.	$\underline{\bigcirc}$
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. Losse connections or hold could result in abnormal heat generation or fire.	0
<ul> <li>Arrange the electrical wires in the control lox property to prevent them from rising, int the lid of the services panel property. Improper fitting may cause abnormal heat and fire.</li> <li>Check for profilement accurate leadena office installation is completed.</li> </ul>	0
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.     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.     If the specified nine fare nut and topic for R30 or R4100.	
Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle. Triphten the fare nut according to the specified method hy 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 infalure 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.	0
• 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.	0
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.     Obo not renair by yourself, And consult with the dealer about renair.	
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 notiver is sumfield during servicing or inspection work if or wild cause alectric shock and initiate but the notaration for	
On or run the unit when the panel or protection guard are taken off.     Touching the rolating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get     burned, or electric shock.	$\bigcirc$
Shut off the power before electrical wiring work. It could case electric shock unit failure and improver unning	

$\left( \right)$	▲ CAUTION			
•	Perform earth wiring surely.			
	Do not connect the earth winng to the gas pipe, water pipe, lightning rod and telephone earth winng. Improper earth could cause unit failure, electric shock and fire due to a short-circuit.	a		
	Earth leakage breaker must be installed. If the earth leakage breaker is not installed, it can cause fire and electric shocks.	0		
•	Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current. Using the incorrect near cuid cause the system failure and fire.	0		
•	Do not use any materials other than a fuse of correct capacity where a fuse should be used.     Connection the circuit bruie or conner wire could gauge unit failure and fire			
•	Do not install the indoor unit near the location where there is possibility of flammable gas leakages. If the nas leaks and rathers around the unit if could cause free	$\overline{\Diamond}$		
•	In the gar lead and galance around the dime, it would be determine the subfact of	$\overline{\bigcirc}$		
•	Secure a space for installation, inspection and maintenance specified in the manual.	0		
•	Insumcient space can result in accident such as personal injury due to railing from the installation place. Do not use the indoor unit at the place where water splashes such as laundry.	$\overline{\wedge}$		
•	Indoor unit is not waterproof, it could cause electric shock and tre. 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. Hould cause the demone of the inter-	$\overline{\bigcirc}$		
•	To 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.	$\bigcirc$		
٠	Do not install the remote control at the direct sunlight. It could cause breakdown or deformation of the remote control.	$\bigcirc$		
•	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.     Figure where carbon fiber, metal powder or any powder is floated.     Highly salted area such as beach.			
	such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres. Discos avroad to all mich enter attorn directly. Places where the system is affected by	$\odot$		
	rraces exposed to on miss or steam directly.     on vehicles and ships     Smoke from a chimney.     Altitude over 1000m			
•	Traces where machinely when generates right naminities is used. 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)			
	<ul> <li>Locations with any obstacles which can prevent inlet and outlet air of the unit</li> <li>Do not instant the motion sensor at following places. It could cause detection error, incapacity</li> </ul>			
	<ul> <li>Locations where vibration can be amplified due to insufficient strength of structure.</li> <li>Detection, or characteristic degradation.</li> <li>Place where vibration is applied to it for a long</li> </ul>	$\sim$		
	Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared	$\heartsuit$		
	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. Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.	$\odot$		
٠	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 fallion down and injury	$\bigcirc$		
•	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 (pinble) of drain pan and leakage of water. To awald damaging, kean the ladow rule backed or cover the ladow rule.	O		
•	Install the drain pipe to drain the water surely according to the installation manual.	0		
•	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) to user's health and safety.	$\otimes$		
٠	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.	0		
٠	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 mointenance	$\bigcirc$		
•	Ensure the insulation on the pipes for refrigeration circuits o as not to condense water.	Ă		
•	Incomprise insolation could cause contrained and it would wet certify, noor, and any other valuables. Do not install the outdoor unit where is likely to be a nest for insects and small animals.	1		
•	Insects and smail animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep 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 njury by the aluminum fin. <b>Make sure to disonse of the nackaning material</b>	U		
	Leaving the materials may cause injury as metals like nail and woods are used in the package.	U		
	IN IN OPERATE THE SYSTEM WITHOUT THE AIR TITTER. It may cause the breakdown of the system due to clogging of the heat exchanger.	$\bigcirc$		
•	Do not touch any button with wet hands. It could cause electric shock.	$\overline{\bigcirc}$		
•	Do not touch the refrigerant piping with bare hands when in operation. The pipe during operation would become very but or old execution to the operation condition and it could enviro a true or freshilde	Ň		
•	The pipe carring operation mount excerne very not or contaccording to the operating condition, and it could cause a burn of Hostbille. Do not clean up the air-conditioner with water.	ਨੀ		
	It could cause electric shock. Do not turn off the power source immediately after stopping the operation.	꽃		
Ļ	Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.	$\underline{\heartsuit}$		
( •	uo 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.	$\bigcirc$		



١



### 6 Drain pipe

The drain pipes may pull out either from back, right or left side.

- 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

- 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 A Beware of a possible outflow of water that may
- occur upon removal of a drain plug.
- 2. Fix the drain hose at the lowest point with a hose clamp supplied as an acces % Give a drain hose a gradient of 10mm 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.
- Connect VP20(prepare on site) to drain hose. (adhesive must not be used.)
- % Use commercially available rigid PVC general pipe VP20 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.
  - 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 power provider of the country, and be executed according to the technical stan-dards 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 wiring from clips.
- Remove the control box (Screw ①, 2pcs). Pull out the control box by sliding along the groove on the bracket (Direction (A)→(B)).
- Remove the lid of control box (Screw 2), 2pcs).
- Hold each wiring inside the unit and connect to the terminal block surely. Fix the wiring by clamp. Install the lid of control box (Screw 2), 2pcs)
- Return the control box to the original place by sliding along the groove on the bracket (Direction  $(\mathbb{B} \rightarrow \mathbb{A})$ ). Install the removed parts at their original places.
- Wiring for the signal receiving section of wireless kit (Option) and motion sensor kit (Option) are connected at the time of shipping from the factory. It is not necessary to disconnect these wiring when wired remote control is connected. When the wired/wireless kits are used together, it becomes necessary to set the slaves and remote control. For the methods of installing the wireless kit and the motion sensor kit, refer to the attached installation

When installing the Superlink adapter, remove the band fixed the wiring from receiver.





## 

The air return grille must be attached who	en electrical cabling work is completed.
. Fix the chains tied to the air return grille onto the indoor unit with screws supplied as accessories (4 pieces).	2. Close the air return grille. This completes the unit installtion work.
Fix with screws Chain-Ch	Fixed section of chain
10 Check list after installation	on
OL	
Check the following items after all inst	-U-t
	allation work completed.
Check if	allation work completed.  Expected trouble Check
Check if The indoor and outdoor units are fixed secu	allation work completed.           Expected trouble         Check           urely?         Falling, vibration, noise
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done?	Expected trouble         Check           urely?         Falling, vibration, noise         Insufficient capacity
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done?	allation work completed. Expected trouble Check urely? Falling, vibration, noise Insufficient capacity Water leakage
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done? Water is drained properly?	allation work completed.  Expected trouble Check urely? Falling, vibration, noise Insufficient capacity Water leakage Water leakage
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done? Water is drained properly? Power source voltage is same as mentioned in the model name	allation work completed.  Expected trouble Check urely? Falling, vibration, noise Insufficient capacity Water leakage Water leakage : plate? PCB burnt out, not working at al
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done? Water is drained properly? Power source voltage is same as mentioned in the model name There is mis-wiring or mis-connection of pip	allation work completed.  Expected trouble Check urely? Falling, vibration, noise Insufficient capacity Water leakage Vater leakage iplate? PCB burnt out, not working at al
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done? Water is drained properly? Power source voltage is same as mentioned in the model name There is mis-wiring or mis-connection of pij Earth wiring is connected properly?	allation work completed.  Expected trouble Check urely? Falling, vibration, noise Insufficient capacity Water leakage Water leakage plate? PCB burnt out, not working at al plate? PCB burnt out, not working at al Electric shock
Check if The indoor and outdoor units are fixed secu Inspection for leakage is done? Insulation work is properly done? Water is drained properly? Power source voltage is same as mentioned in the model name There is mis-wiring or mis-connection of pin Earth wiring is connected properly? Cable size comply with specified size?	allation work completed.         Expected trouble       Check         urely?       Falling, vibration, noise         Insufficient capacity       Water leakage         Water leakage       iplate?         PCB burnt out, not working at all       iplate?         Electric shock       PCB burnt out, not working at all

## (6) Effective range of cool/hot wind (Reference)

## (a) FDT series

Guideline for ceiling height

Ean speed setting		Mc	odel	
ran speed setting	FDT50VH, 60VH	FDT71VH	FDT100VH	FDT125VH, 140VH
Hi	2.7m	3.0m	3.2m	3.6m
P-Hi	3.5m	3.8m	4.3m	4.5m

Note (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) FDE series

Model	Effective range
FDE50VH	7.5m
FDE60VH, 71VH	8.0m
FDE100VH, 125VH, 140VH	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 wind to reach the floor.

5. Wind speed at the effective range: 0.5 m/s

PSC012D117A

## 1.10.2 Electric wiring work installation • FDT, FDTC, FDU, FDUM, FDE 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

#### instruct

- 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 .

 $\underline{\mathbb{A}} \underline{\mathbb{W}} \underline{\mathbb{A}} \underline{\mathbb{W}} \underline{\mathbb{R}} \underline{\mathbb{W}} \underline{\mathbb{$ 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.
   O 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

#### 

•Be sure to have the electrical wiring work done by qualified electrical installer, A 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 0 rising. Fit the lid of the services panel property. Improper fitting may cause abnormal heat and fire. Ouse the genuine option parts. And installation should be performed by a 0 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.  $\bigcirc$ Improper repair may cause water leakage, electric shock or fire. Consult the dealer or a specialist about removal of the air-conditioner. 0 mproper installation may cause water leakage, electric shock or fire. Turn off the power source during servicing or inspection work. 0 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. 0 It could cause electric shock, unit failure and improper running 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. A Make sure to install earth leakage breaker on power source line. easure thing to high ha 0 Absence of breaker could cause electric shock • Use the circuit breaker of correct capacity. Circuit breaker should be the one A 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.  $\bigcirc$ 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 minule 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  $\bigcirc$ 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.  $\bigcirc$ 

## Control mode switching

•	The control content of	indoor uni	ts can be switched in following way. ( is the default setting)			
	Switch No.	Contro	Control Content			
	SW2	Indoor	Indoor unit address (0-Fh)			
	SW5-1	Maste	Master/Slave Switching (plural /Slave unit Setting)			
	SW5-2	Waster				
	SW6-1-4	Model	Model capacity setting			
ON Operation check, Drain pump			Operation check, Drain pump motor test run			
	5007-1	0FF	Normal operation			

①Electrical wiring conn	ection								
<ul> <li>Electrical wiring work m provider. These wiring sp instructions are observed</li> <li>Do not use cords other than copp</li> </ul>	ust be perfo ecifications er ones.	rmed by are dete	an electli rmined on	cian an qu the assun	alified by nption that	a local power the following			
Do not use any supply line lighter than one specified in parentheses for each type below. braided cord (code designation 60245 IEC 51), if allowed in the relevant part 2;									
<ul> <li>ordinary tough rubber sheathed</li> <li>flat twin tinsel cord (code desig</li> </ul>	<ul> <li>ordinary tough rubber sheathed cord (code designation 60245 IEC 53);</li> <li>flat twin tinsel cord (code designation 60227 IEC 41);</li> </ul>								
<ul> <li>– ordinary polyvinyl chloride shea</li> <li>② Connect the power source to the</li> </ul>	thed cord (code de outdoor unit.	signation 60	227 IEC 53);						
③ Pay extra attention so as not to c burn all the boards at once.	onfuse signal line a	and power so	ource line conn	ection, because	e an error in the	ir connection can be			
Connect ground wires b between indoor units. The and outdoor units, and pn Do not turn on the power The ground wires must be Use the round crimp term Use dedicated branch cir trip the power source bre Install the overcurrent a	fore connec ground wire stered from i source before connected b inals for conn cuits, avoidir aker, resulting nd earth leak	ting wire s need to undue st comple by the Cla lections t ng combi g in secon age brea	es betweer b be longer ress. ting the wo iss D grour to the term nation with ndary accio kers (sens	n the indoor r than the v nding conn inal block. n other dev dents.	or and outco wires betwo n <u>p terminal</u> ection. vices. Othe rent: 30 m/	loor units and sen the indoor <u>Electric cable</u> rwise, it could A) specified to			
respective models.	d outdoor oig	onl ooblo	o to ovtono	ion onbloo	on the we	. If the joint is			
<ul> <li>Do not connect indoor and wetted with intruding wa resulting in communication to prevent the water intru</li> <li>When running wires (wir</li> </ul>	ter, it could on errors. (If it sion complete es for power	cause a ( t is inevit ely.) source, r	ground ins able to cor	ulation fai nect cable	lure or poo s on the w	veen indoor			
and outdoor units, or oth against assault by rat, or	ier) benind ti other.	ne ceilin	g, protect	them usin	ig copper o	or other pipes			
<ul> <li>It is up to 3.5 mm<sup>2</sup> the size of 5.5 mm<sup>2</sup> or larger, provi</li> <li>If signal and power source of 220%</li> <li>If the remote control fails to dete</li> </ul>	e of power sou de a dedicate e cables are c 240/380/415 V is cr ct the unit No. (add	urce cable d pull box connected prinected mis dress) at 15 p	es connecte for branch d mistaken stakenly to A-B minutes after to	ed to indoo ning conner ly, it could signal cable, it uming the pow	r units. Whe ction to inde burn down is protected at i er on, check an	n using cables or units. all PCBs. initial occasion only. d repair all signal			
<ul> <li>3 Cut the jumper wire J10SL1 of bu</li> <li>4 If any anomaly is found on wires</li> <li>At the outside of indoor a</li> </ul>	arnt PCB, and reconn between the A-B te and outdoor ur	mect connec rminal block nits, take	tors CnK (yellov and the PCB, r Care to av	v) and CnK1 (w eplace them. oid direct (	hite) to CnK2 (b contacts be	<sup>lack).</sup> tween remote			
<ul> <li>In no event connect the p</li> </ul>	DWer Source	of 220/24	40/380/41	5 V to the r	emote con	rol terminal			
<ul> <li>block. It could cause failu</li> <li>Connections of wiring bet</li> <li>When connecting wires between on the power source terminal block</li> </ul>	res. ween units, g units, ground wire ick or signal termir	round wi or remote co al block in th	re and rem ontrol wire, con ne control box.	IOTE CONTRO nect them acco Connect the gr	I cable ording to the nu ound wire to the	mber of terminals e ground terminal on			
<ul> <li>(2) Make sure to install an earth leak</li> <li>(3) When the earth leakage breaker</li> <li>(5) witch + Close B function or wining</li> </ul>	age breaker for the is exclusive for the aircuit breaker in a	e power sour e earth leaka	ce. Select a bre ge protection,	aker for inverte it is necessary	er circuit. to connect also	an isolating switch			
(Switch + class B luse) of wining     (4) Install the isolating switch close t	o the unit.	enes to the f	rmly Conf	irm alaa n	aannaata	or wire (from			
terminal) is disconnected	in the control	box.	rmiy. Cont	irm also no	o connecto	or wire (from			
When installing an auxiliar	y electric hea	ter, consi	ult the elec	tric heater	manual or t	echnical data.			
Cable connection	for single	e unit	installa	ation					
①As for connecting method of not directly connect power s ※As for exceptional connect	power source, ource line to ir cting method c	, select fro nside unit of power s	om following ource, disc	g connectin uss with the	g patterns. e power pro	In principle, do vider of the			
(2)For cable size and circuit br	technical docu eaker selection	iments, ai 1. refer to	the outdoo	instruction runit instal	lation manu	al.			
Single-phase m	odel	1,10101 10		Three-phas	e model				
Power source			Doner s	ource					
Earth leakage breaker			Earth leaka	ige breaker					
Circuit breaker			Circuit	breaker					
Power source line	3			Power sou	irce line				
Outdoor unit Earth			U1L2L Outdoo	3 N 🕀 i ir unit	= Earth				
1230			12	30					
	or connecting line	e	112	Indoor-0	utdoor connec	ing line			
Indoor unit			Indoor	runit					
	line		144	Bemote contri	ol line				
XY									
'Remote control			Remote	control					
Cable connection	for a V m	ulti c	onfigur	ation ir	nstallat	ion			
①Connect the same pairs nu	mber of term	inal bloc	k "(1), (2).	and ③"a	nd " (X) and	l (Y)" between			
master and slave indoor u	nits.								
switch SW2 on indoor unit	's PCB (Printe	e units D d circuit	board).	une reirige	adın syster	n by rotary			
3 Set slave indoor unit as "s	lave 1" throu	gh "slave	3" by add	lress switc	h SW5-1, 5	-2 on PCB.			
When the AIR CON No. bu     indoor unit's address numb	tton on the rer er will be disp	note con laved Do	trol unit is p not fail to d	pressed afte confirm the	er turning or t the conne	1 the power, an			
unit's numbers are displaye	d on the remo	ite contro	l unit by pre	essing the	or 🔽	button.			
ower source	Method of	settina I	Master/SI=	ve of ind	or unit				
arth leakage breaker	(Factory set	ting: "Mag	ster")						
Circuit breaker	Indoor U	Init	Master	Slave 1	Slave 2	Slave 3			
	PCB	SW5-1	OFF	OFF	ON	ON			
Earth	switch	SW5-2	OFF	ON	0FF	ON			
Uutdoor unit	Twin type	-	Triple ty	/pe	Double	twin type			
		1							

	Method of	of setting	Master/Sla	ave of indo	or unit		
Earth leakage breaker	(Factory s	etting: "Ma	ster")				
Circuit breaker	Indoor	r Unit	Master	Slave 1	Slave 2	Slave 3	
	PCB	SW5-1	0FF	OFF	ON	ON	
L N Earth	switch	SW5-2	0FF	ON	0FF	ON	
	Twin typ	e l	Triple ty	/pe	Double	twin type	
				1		·	Ţ
1230	123	Earth	123	Eart	h 123	$\square$	Earth
Indoor unit Master	Indoor unit Slave	91¦ ¦	Indoor unit S	Slave 2	Indoor u	nit Slave 3	
				!		]	
XY Re	mote control line (no	polarity)					
Remote control							

②Remote control, wiring and functions		③Operation and c	onfirmation from remote contro	1
Do not install it on the following places     ①Places exposed to direct sublicht	No	. Item	Operation from the eco touch remote controller (RC-EX series)	e Operation from the standard remote control (RC-E series)
©Places near heat devices @Places near heat devices @High humidity places @Hot surface or cold surface enough to generate condensation	1	Check the number of units connected in the multi remote control system.	$[Menu] \Rightarrow [Service setting] \Rightarrow [Service & Maintenance] \Rightarrow [Service password] \Rightarrow [IU address]$	<ol> <li>Press the AIR CON NO button to display the IU address.</li> <li>Press the A or ♥ button and check addresses of connected indoor units one by one.</li> </ol>
©Praces exposed to oil mist or steam directly. ©Uneven surface	2	Check if each unit is connected properly in the remote control system.	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address] ⇒ [Check run mode]	<ol> <li>Press the   AIR CON NO   button to display the UI address.</li> <li>Press the   ▲] or ▼ button and select one of IU addresses.</li> <li>Press the ○ (MODE) button. The unit starts to blow air.</li> </ol>
Installation and wiring of remote control	3	Setting main/sub remote controls	$\begin{array}{l} [Menu] \Rightarrow [Service setting] \Rightarrow \\ [R/C function settings] \Rightarrow \\ [Service password] \Rightarrow \\ [Main/Sub of R/C] \end{array}$	Set SW1 to "Sub" for the sub remote control unit.
<ul> <li>①Install remote control referring to the attached installation manual.</li> <li>②Wiring of remote control should use 0.3mm<sup>2</sup>×2 cores wires or cables. The insulation thickness is 1mm or more. (on-site configuration)</li> <li>③Maximum prolongation of remote control wiring is 600 m. If the prolongation is over 100m, change to the size below.</li> </ul>	4	Checking operation data	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Operation data]	$\begin{array}{l} \label{eq:product} \mbox{Press the CHECK button.} \Rightarrow "IFFE NATA ~ V"\\ is displayed. \Rightarrow \mbox{Press the } \mbox{(SET) button.} \\ \Rightarrow "InfLINDING" is displayed. \Rightarrow Select one of addresses for connected indoor units by pressing the $\mbox{$\square or $\mbox{$\square or $V$}}$ button. \Rightarrow "IFFE NATA" is displayed. \Rightarrow Select data by pressing the $\mbox{$\square or $V$}$ button. \Rightarrow $\mbox{$\square or $V$}$ button $\mbox{$\square or $V$}$ button $\mbox{$\square or $V$}$ button $\mbox{$\square or $V$}$ button $\mbox{$\square or $V$}$ button $\mbox{$\square or $V$}$ b$
But, wiring in the remote control case should be under 0.5mm <sup>2</sup> . 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	5	Checking inspection display	$[Menu] \Rightarrow [Service setting] \Rightarrow [Service & Maintenance] \Rightarrow [Service password] \Rightarrow [Error display]$	Press the [CHECK] button. ⇒ "OPER DATA ▼" is displayed. ⇒ Press the [▼] button. ⇒ "ERROR MATA ▲" is displayed. ⇒ Press the @ (SET) button. ⇒ "DATA UPADING" is displayed. ⇒ Data is displayed.
Under 300m	6	Cooling test run from remote control	[Menu] ⇒ [Service setting] ⇒ [Installation settings] ⇒ [Service password] ⇒ [Test run] ⇒ [Cooling test run] ⇒ [Start]	Start the system by pressing the <u>(TONVOFF</u> ) button.     Select "25 (COO)" with the    ((MODE) button. 9 Press the    TEST Dutton for 3 seconds or inorger. The screen display will switch to "☆ TEST RIM     ♥".     Gereasing the    (SET) button, while the "★ TEST RIM     ♥" displayed, starts the cooling test run. The screen display will switch to "    # TEST RIM".
Control plural indoor units by a single remote control	7	Trial operation of drain pump from remote control	[Menu] ⇒ [Service setting] ⇒ [Installation settings] ⇒ [Service password] ⇒ [Test run] ⇒ [Drain pump test run] ⇒ [Run]	Start the system by pressing the (○DNOFF) button. The display will change to *3 TEINE ♥ <sup>-</sup> . (2) Press the ♥ button once to display "DMNPMP \$ ". (3) Pressing the ○ (SET) button starts the drain pump operation. The display will
<ul> <li>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.</li> <li>②Connect all indoor units with 2 cores remote control line.</li> <li>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.</li> </ul>		he menu configuratio ontrol is different, refe Description of CN	n may vary depending on models of i er to the installation manual attached	show "6(Q) IUSILF". the remote control. If the model of your remote to the remote control. d circuit board
Indoor unit (1) Address "0" Address "1" Address "1" A		Indoor PCB           +12         1           CNT         2           (Blue/6P)         3           4         4           5         5           CNTA         1           CNTA         1           CNTA         1           CNTA         1           CNTA         1           2         2           Note (1) To be no longer th	Note         (1) 0.3 mm <sup>2</sup> × 2 m           Read         Massimily 2 mm           Base         Massimily 2 mm           Mode         Massimily 2 mm           Mode         Massimily 2 mm           Mode         Massimily 2 mm           Mode         Massimily 2 mm           Massimily 2 mm         Massimily 2 mm	Mile         Output consecting constant           Popplicate range: 0.75 - 1.25 mmP)           R1         Black           Black         Output 1           R2         Yellow           Output 3         Output 3           Black         Output 3           Black         Output 3           Brown         Dutput 1           Output 3         Display           Black         Output 3           Brown         Dutput 4           Display         Remote 0W/DFF witch           Origing         rimer constant           Display         Remote 0W/DFF witch         DC2W           DC2W         DC2W
Master/ slave setting when more than one remote control unit are used		XR1-4 are DC 12 V XR5 is a DC 12 V, 2 Maker and model Connector : Molex	relays. (Equivalent to Omron's LY2 24 V or 100 V relay. (Equivalent to 0 of CnT connector (Site side) 5264-06	F) )mron's MY2F)
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 control", "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		Terminal : Molex CnTA connector is and model Connector : J.S.T. I Terminal : J.S.T. I Output 1 – 4 and is Factory default is s Output	5263T sused on FDT, or other. <check w<br="">Mfg. XAP02V-1-E Mfg. SXA-01T-P0.6 nput1/2 can be selected/set as rec set as shown below.</check>	ith the specifications.> (Site side) Maker quired from following items.
control unit in the position where you want to check room temperature.		RUN output     Heating output     Compressor 0     Inspection (err     Cooling output     Ean ON output	t () N output () or) output () t ()	Fan ON output 3 Defrost/oil return output Ventilation output Heater output Free cleaning output Inderg ounged ergor output
Indoor unit Remote control line (No polarity) Remote control "Master" Slave"		(rain very output)     (rain very output)     (rain Very output	12     (3)       ohibition     (6)       op     (7)       og     (8)       sq     (8)       sq <td>Setting temp. shift           Compulsory thermostal OFF           Temporary stop           Silent mode           -5         Output 4           -6         Input 1</td>	Setting temp. shift           Compulsory thermostal OFF           Temporary stop           Silent mode           -5         Output 4           -6         Input 1
	Ŀ	CNT-4   Output 3 C	Compressor ON output CNT thod, refer to the technical data.	TA   Input 2   RUN/STOP

 $\triangle$ 

А

#### **(5)** Operation and setting from remote control A : Refer to the instruction manual for RC-EX series 🔿 : Nearly same function setting and operations are possible. \*1: Remote controls before RC-EX1A don't have this function. B : Refer to the installation manual for RC-EX series $\bigtriangleup$ : Similar function setting and opperations are possible. \*2: Remote controls before RC-EX3 don't have this function C : Loading a utility software vie Internet Setting & display item Description RC-FX3A BC-E5 1.Remote Control network 1 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. 2 Main/sub setting of remote control A pair of remote control (including option wireless remote control) can be connected within the remote control network В Set one to "Main" and the other to "Sub' 2.TOP scrren, Switch manipulation 'Control", "State", or "Details" can be selected. (3-8) 1 Menu A 2 Operation mode "Cooling", "Heating", "Fan", "Dry" or "Auto" can be set. А 3 Set temp. 4 Air flow direction "Set temperature" can be set by 0.5°C interval. A "Air flow direction" [Individual flap control] can be set. Select Enable or Disable for the "3D AUTO" (in case of FDK). \*1 А 5 Fan speed "Fan speed" can be set. 6 Timer setting 7 ON/OFF "Timer operation" can be set Α "On/Off operation of the system" can be done. A The system operates and is controlled according to the function specified to the F1 switch. The system operates and is controlled according to the function specified to the F2 switch. 8 F1 SW A 9 F2 SW A Select the language to display on the remote control. • Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian,Polish, Japanese and Chinese 10 Select the language А 11 Zone ON/OFF operation "On/Off for each zone" can be set. А 3.Useful functions Individual flap control The moving range (the positions of upper limit and lower limit) of the flap for individual flap can be set. А Set also the left and right limit positions for FDK. \*1 Details ......You can set Enable or Disable for anti draft motion performed at each blow outlet in each operation mode. ON/OFF setting .....You can set ON/OFF (operation/stop) of anti draft function for the enabled blow outlet set in Details. \*2 Anti draft setting А When the panel with the anti-draft function is assembled 3 Timer settings Set On timer by hour he period of time to start operation after stopping can be set. The period of set time can be set within range of 1 hour-12 houres (1hr interval). The operation mode, set temp. and fan speed at starting operation can be set. $\triangle$ А The period of time to stop operation after starting can be set Set Off timer by hour А $\bigtriangleup$ The period of set time can be set within range of 1 hour-12 houres (1hr interval). 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. Set On timer by clock А The clock time to stop operation can be set. • The set clock time can be set by 5 minutes interval Set Off timer by clock А [Once (one time only)] or [Everyday] operation can be switched Confirmation of timer settings Status of timer settings can be seen. 4 Favorite setting Set the operation mode, setting temperature, air flow capacity and air flow direction for the choice setting operations, А [Administrator] 5 Weekly timer Set them for the Favorite set 1 and the Favorite set 2 respectively 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. Δ The operation mode, set temp. and fan speed at starting operation can be set. When leaving home for a long period like a vaction leave, the unit can be operated to maintain the room temperature not to be hotter in summer or not to be colder in winter. • The judgment to switch the operation mode (Cooring $\Leftrightarrow$ Heating) is done by the both factors of the set temp. and outdoor air temp. 6 Home leave mode A [Administrator password] The set temp. and fan speed can be set. No of the period term is determined we that the determined of the period termined termined of the external vertilator can be done. It is necessary to set from [Menu] $\Rightarrow$ [Service setting] $\Rightarrow$ [R/C function settings] $\Rightarrow$ [Ventilation setting]. • If the "Independent" is selected for the ventilation setting, the ventilator can be operated or stopped. 7 External Ventilation When the ventilator is combined. А 8 Select the language Select the language to display on the remote control. А Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian, Polish, Japanese and Chinese. \*1 <sup>2</sup> The period of time to operate the unit by prioritizing the quietness can be set. 9 Silent mode control А Start and end can be set for the silent mode 4.Energy-saving setting Administrator password To prevent 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. (10 miuutes interval) When setting is "Enable", this timer will activate whenever the ON timer is set. 1 Sleep time А Power consumption can be reduced by restructing the maximum capacity Set the [Start time], the [End time] and the capacity limit % (Peak-cut %). 2 Peak-cut timer 4-operation patterns per day can be set at maximum. The setting time can be changed by 5-minute interval. The selectable range of capacity limit % (Peak-cut %) is from 0% to 40-80% (20% interval) Holiday setting is available. А After the elapse of the set time period, the current set temp. will be set back to the [Set back time.] • The setting can be done in cooling and heating mode respectively. • Selectable range of the set time is from 20 min. to 120 min. (10 min. interval). 3 Automatic temp set back A Set the [Set back temp.] by 1°C interval. 4 Motion sensor control When the motion sensor is used, it is necessary to set Enable or Disable for the "Power control" and the "Auto-off" А When the panel with the motion sensor is assembled. 5 Filter 1 Filter sign reset Filter sian reset The filter sign can be reset A Setting next cleaning date The next cleaning date can be set A 6.User setting Clock setting 1 Internal settings The current date and time can be set or revised А If a power failure continues no longer than 80 hours, the clock continues to tick by the built-in power source Date and time display [Display] or [Hide] the date and/or time can be set, and [12H] or [24H] display can be set A When select [Enable], the +1hour adjustment of current time can be set. When select [Disable], the [Summer time] adjustment can be reset Summer time A Contrast The contrast of LCD can be adjusted higher or lower. A Backlight Switching on/off a light can be set and period of the lighting time can be set within the range of 5 sec.-90 sec. (5 sec. interval). A It can set with or without [Control sound (beep sound)] at touch panel Control sound A Operation lamp luminance Permission/Prohibition setting This is used to adjust the luminance of operation lamp Α 2 Administrator settings Permission/Prohibition setting of operation can be set. [On/Off] [Change set temp] [Change operation mode] [Change flap direction] [Change fan speed] [High power operation] [Administrator password] Energy-saving operation] [Timer] Request for administrator can be set. Α [Individual flap control] [Weekly timer] [Select the language] [Anti draft setting] \*1 The period of time to operate the outdoor unit by prioritizing the quiteness can be set. • 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 aday by 5 minutes interal. Outdoor unit silent mode timer А $\triangle$

Setting temp range

The upper/lower limit of temp. setting range can be set. • The limitation of indoor temp. setting range can be set for each operation mode in cooling and heating.

tting & display item		Description	RC-EX3A	RC-E	
Administrator	Temp increment setting	The temp increment setting can be changed by 0.5°C or 1.0°C.	Α		
Administrator settings	Set temp display	Ways of displaying setting temperatures can be selected.	A		
[Administrator password]	R/C display setting	Register [Room name] [Name of I/U] [Zone name]			
		Display [Indoor temp display] or not. Display [Error code display] or not	А		
		Display [Heating stand-by display] [Defrost operation display] [Auto cooling/heating display] [Display temp of R/C, Room, Outdoor] or not			
	Change administrator password	The administrator password can be changed. (Default setting is "0000")	Α		
	Ed /EQ (constitution and the set	The administrator password can be reset.	В	<u> </u>	
	F1/F2 function setting *1	Functions can be set for F1 and F2. Selectable functions: [Anti draft UN/UFF] "2 [High nower operation] [Energy-saving operation] [Silent mode cont] [Home leave mode] [Eavorite set 1] [Eavorite set 2] and [Eilter sign reset] [	Α		
ervice setting		רווקה שמיים ששיות שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שלי ערווקה שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שליים שלי		<u> </u>	
	Installation date	The [Installation date] can be registed.			
Installer settings		When registering the [Instaration date], the [Next service date] is displayed automatically.     (For changing the [Next service date], places refer the item of (Service 8, Maintenance))	В		
[Service password]	Company information	(For changing the [Next service date], please relef the file of [Service & Maintenance])		<u> </u>	
[OCIVICC password]	Company information	The [Company] mornauon] can be registed and can be displayed on the R/C.     The [Company] can be registered within 26 characters.			
		The [Phone No.] can be registed within 13 digits.			
	Test run	On/Off operation of the test run can be done.			
	Cooling test run	The [Cooling test run] can be done at 5°C of set temp. for 30 minutes.	В		
	Duct unit sottings	Uniy drain pump can be operated.		-	
	Static pressure adjustment	In case of combination with only the ducted indoor unit which has a function of static pressure adjustment, the static pressure			
		is adjustable.			
		It can be set for each indoor unit individually.	в		
	Zone settings	Set when performing zone control.	l I		
	Zone settings reset	Hesets all zone control settings. The est address of each index with decided hy auto address action method can be abased to any other address. Was written 100 million at a	в	<u> </u>	
	Address setting of	The set address of each induor unit decided by address setung method can be changed to any other address. (For multiple KX units only) Main indoor unit address can be set	<u>в</u>		
	main IU	Only the Main indoor unit can change operation mode and the Sub indoor units dominated by the Main indoor shall follow.	В	4	
		The Main indoor unit can domain 10 indoor units at a maximum.	· · ·		
	IU back-up function	When a pair of indoor units (2 groups) is connected to one unit of remote control, it can be set Enable or Disable for the	В		
	Motion concor colling	[IU rotation], [IU capacity back-up] and [IU fault back-up]			
	When the panel with the motion	Set Enable or Disable for the infrared sensor detectors of indoor units connected to the remote control.	R		
	sensor is assembled.	n oncere to consider, it cannot be control are include control for the energy-saving setting.			
R/C function setting	Main/Sub R/C	The R/C setting of [Main/Sub] can be changed.	В		
[Convice personal]	Return air temp	When two or more indoor units are connected to one unit of remote control, suction sensors, which are used for the	_		
[Service password]		judgement by thermostat, can be selected.	В		
	R/C sensor	* It can be set the mode to switch to the remote control sensor. It can be selected from cooling and heating	B		
	R/C sensor adjustment	The offset value of IR/C sensor] sensing temp, can be set respectively in heating and cooling.	B		
	Operation mode	Enable or Disable can be set for each operation mode.	B	2	
	°C / °F	Set the unit for setting temperatures.	в		
		• °C or °F can be selected.			
	Fan speed	Fan speeds can be selected. When two or more indeer units are connected to one unit of remote control, the range to apply CNT inputs can be set	B	+	
	Lipper/lower flap control	Iston at fixed nosition) or Iston at any nosition) can be selected for the unner and lower louvers	B		
	Left/right flap control *1	[Fixed position stop] or [Stop at any position] can be selected for the right and left louvers.	B		
	Ventilation setting	Combination control for ventilator can be set.	В	C	
	Auto-restart	The operation control method after recovery of power failure happened during operation can be set.	В	C	
	Auto temp setting	[Enable] or [Disable] of [Auto temp setting] can be selected.	В		
Ill cottingo	Auto fan speed	Lenablej or [Disable] of [Auto fan speed] can be selected.	B	+	
IU seuniys	Filter sign	The setting of filter sign display timer can be done from following patterns	B	$\vdash$	
[Service password]	External input 1	The connect of control by external input 1 can be changed.	B		
[]	External input 1 signal	The type of external input 1 signal can be changed.	B		
	External input 2	The connect of control by external input 2 can be changed.	В		
	External input 2 signal	The type of external input 2 signal can be changed.	В		
	Heating thermo-OFF temp adjustment	The judgement temp. of heating themo-off can be adjusted within the range from 0 to +3°C (1°C interval)	В		
	Return temperature adjustment	The sensing temp, or return air temp, sensor built in the indoor unit can be adjusted within the range of ±2 0.	B		
	Fan control in beating thermo-OFF	Fan control, when the beating thermostat is turned OFF, can be changed.	B	$\vdash$	
	Anti-frost temp	Judgment temperature for the anti-frost control during cooling can be changed.	B	$\square$	
	Anti-frost control	When the anti-frost control of indoor unit in cooling is activated, the fan speed can be changed.	B	ĒČ	
	Drain pump operation	In any operation mode in addition to cooling and dry mode, the setting of drain pump operation can be done.	В	0	
	Keep fan operating after cooling is stopped	The time period residual fan operation after stopping or thermo-off in cooling mode can be set.	В		
	Keep tan operating after heating is stopped	The time period residual tan operation after stopping or thermo-off in heating mode can be set.	B	1	
	Ean circulator operation in neating	In ease that the fan is operated as the circulator, the fan control rule can be set	В В	+	
	Control pressure adjust	When only the OA processing units are operated, control pressure value can be channed	B	<u> </u>	
	Auto operation mode	The [Auto rule selection] for switching the operation mode automatically can be selected from 3 patterns.	B	<u> </u>	
	Thermo. rule setting	When selecting [Outdoor air temp. control], the judgment temp can be offset by outdoor temp	В		
	Auto fan speed control	Auto switching range for the auto fan speed control can be set.	В		
	IU overload alarm	If the difference between the setting temperature and the suction temperature becomes larger than the temperature difference set for	В		
	External output setting *1	uic overroad arann, at so minutes aren de start of operation, the overroad atarni signal is transmitted from the external output (UNT-5). Functions assigned to the external outputs 1 to 4 can be changed	R	<u> </u>	
Service & Maintenance	IU address	Max 16 indoor units can be connected to one remote control, and all address No. of the connected indoor units can be displayed	ں م	<u> </u>	
Convice & maintelidite		The indoor unit conforming to the address No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan.	В		
[Service password]	Next service date	The [Next service date] can be registered.	AB	0	
	Operation data	Ine [Next service date] and [Company Information] is displayed on the message screen. The [Operation date] for index unit and outdoor unit and he displayed		$\vdash$	
	Uperation data	The toberation uatal for indoor unit and outdoor unit can be displayed.	В	$\vdash$	
	Frror history	The error history can be displayed	í <sup>I</sup>		
	Display anomaly data	The operation data just before the latest error stop can be displayed.	В	4	
1 ·	Erase anomaly data	Anomaly operation data can be erased.	j l		
	Reset periodical check	The timer for the periodical check can be reset.	L		
	Saving IU 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	<u> </u>	
	Ouverig to obtaingo	userase in addressi ICPU resett (Restore of default setting) [Touch panel calibration]	В	4	
	Special settings	Address No. and consolition of indeer units connected to the constant and inclusion	P .		
nntact company	Special settings Indoor unit capacity display *1	Address No. and capacities of indoor units connected to the remote control are displayed.	В	-	
Intact company	Special settings Indoor unit capacity display *1	Address No. and capacities of indoor units connected to the remote control are displayed. Shows registered [Contact company] and [Contact phone].	В	<u> </u>	
ontact company spection [Confirmation of Inspection	Special settings Indoor unit capacity display *1	Address No. and capacities of indoor units connected to the remote control are displayed. Shows registered [Contact company] and [Contact phone]. This is displayed when any error occurs.	<u>B</u>		

## 1.10.3 Installation of wired remote control (Option parts) (1) Model RC-EX3A

# 1) 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.

<b>MARNING</b>	Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
	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.



Never do.



Always follow the instructions given.

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, this manual should be given to a new owner.

## **WARNING**

	Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
0	Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.
0	Be sure to use accessories and specified parts for installation work. Use of unspecified parts may result in drop, fire or electric shocks.
0	Install the unit properly to a place with sufficient strength to hold the weight. If the place is not strong enough, the unit may drop and cause injury.
0	Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.
	Shut OFF the main power source before starting electrical work. Otherwise, it could result in electric shocks, break-down or malfunction.
$\bigcirc$	<b>Do not modify the unit.</b> It could cause electric shocks, fire, or break-down.
0	Be sure to turn OFF the power circuit breaker before repairing/ inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.

	<u> </u> <i>▲</i> WARNING
$\bigcirc$	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.
$\bigcirc$	Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.
$\bigcirc$	Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.
$\bigcirc$	Do not operate the unit with wet hands. It could cause electric shocks.
$\bigcirc$	<b>Do not wash the unit with water.</b> It could cause electric shocks, fire, or break-down.
0	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.
0	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. If dew or water enters the unit, it may cause screen display anomalies.
0	<ul> <li>When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.</li> <li>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.</li> <li>The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.</li> </ul>
	<b>Do not leave the remote control with its upper case removed.</b> If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

$\bigcirc$	<ul> <li>Do not install the remote control at following places.</li> <li>(1) It could cause break-down or deformation of remote control. <ul> <li>Where it is exposed to direct sunlight</li> <li>Where the ambient temperature becomes 0 °C or below, or 40 °C or above</li> <li>Where the surface is not flat</li> <li>Where the strength of installation area is insufficient</li> </ul> </li> <li>(2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.</li> <li>Place with high humidity where condensation occurs on the remote control</li> </ul>
<b>O</b>	<ul> <li>Where the remote control gets wet</li> <li>(3) Accurate room temperature may not be detected using the temperature sensor of the remote control</li> </ul>
	<ul> <li>Where the average room temperature cannot be detected</li> <li>Place near the equipment to generate heat</li> </ul>
	<ul> <li>Place affected by outside air in opening/closing the door</li> </ul>
	<ul> <li>Place exposed to direct sunlight or wind from air-conditioner</li> </ul>
	<ul> <li>Where the difference between wall and room temperature is large</li> </ul>
	To connect to a personal computer via USB, use the dedicated
	software.
	Do not connect other USB devices and the remote control at the
	same time.
	It could cause malfunction or break-down of the remote control/personal computer.

## 2) Accessories & Prepare on site

## Following parts are provided.

Accessories R/C main unit, wood screw ( $\phi$  3.5 x 16) 2 pcs., Quick reference

Following parts are arranged at site. Prepare them according to the respective installation procedures.

Item name	Q'ty	Remark
Switch box For 1 piece or 2 pieces (JIS C 8340 or equivalent)	1	
Thin wall steel pipe for electric appliance directly on a wall. (JIS C 8305 or equivalent)	As required	These are not required when installing directly on a wall.
Lock nut, bushing (JIS C 8330 or equivalent)	As required	
Lacing (JIS C 8425 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 mm <sup>2</sup> x 2 pcs.)	As required	See right table when longer than 100m

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 mm <sup>2</sup> x 2 cores
≦ 300m	0.75 mm <sup>2</sup> x 2 cores
≦ 400m	1.25 mm <sup>2</sup> x 2 cores
≦ 600m	2.0 mm <sup>2</sup> x 2 cores

# 3) Installation place

Secure the installation space shown in the figure.

For the installation method, "embedding wiring" or "exposing wiring" can be selected.

For the wiring direction, "Backward", "Upper center" or "Upper left" can be selected.

Determine the installation place in consideration of the installation method and wiring direction.

## Installation space



# 4) Installation procedure

Perform installation and wiring work for the remote control according to the following procedure.

Dimensions (Viewed from front)



To disassemble the R/C case into the upper and lower pieces after assembling them once

 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. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.

Take care to protect the removed upper case from moisture or dust.

In case of embedding wiring

(When the wiring is retrieved "Backward")

① Embed the switch box and the R/C wires beforehand. Seal the inlet hole for the R/C wiring with putty.



② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.



Wiring hole on

bottom case

- ③ 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. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
- ④ Install the upper case with care not to pinch wires of R/C.

## Cautions for wire connection

Use wires of no larger than 0.5 mm<sup>2</sup> for wiring running through the remote control case. Take care not to pinch the sheath.

Tighten by hand  $(0.7 \text{ N} \cdot \text{m or less})$  the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.

In case of exposing wiring

(When the wiring is taken out from the "upper center" or "upper left" of R/C)

① 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.



- ② Fix the bottom R/C case on a flat surface with two wood screws.
- ③ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)
- ④ 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. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
- (5) Install the top case with care not to pinch wires of R/C.
- 6 Seal the area cut in 1 with putty.



## 5) Main/Sub setting when more than one remote control are used

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.



R/C operation	Main	Sub		
Run/Stop, Ch Change flap speed operat	0	0		
High power o	peration, En	ergy-saving operation	0	0
Silent mode of	control		0	×
Useful	Individual fl	ap control	0	×
functions	Anti draft se	etting	0	×
	Timer		0	0
	Favorite se	tting	0	0
	Weekly time	er	0	×
	Home leave	e mode	0	×
	External ve	ntilation	0	0
	Select the I	0	0	
	Silent mode	e control	0	×
Energy-savin	g setting		0	×
Filter	Filter sign r	eset	0	0
User setting	Initial settin	gs	0	0
	Administrator settings	Permission/ Prohibition setting	0	x
		Outdoor unit silent mode timer	0	x
		Setting temp. range	0	×
		Temp increment setting	0	x
		Set temp. display	0	0
		R/C display setting	0	0
		Change administrator password	0	0
		F1/F2 function setting	0	0

○ : operable ×: not operable							
R/C operation	IS		·	Main	Sub		
Service	Installation	Installati	on date	0	×		
setting	settings	Compan	0	0			
		Test run			×		
		Static pr	essure adjustment	0	x		
		Change	auto-address	0	x		
		Address	setting of main IU	0	×		
		IU back-	up function	0	×		
		Motion s	sensor setting	0	×		
	R/C function	Main/Su	b of R/C	0	0		
	settings	Return a	air temp.	0	×		
		R/C sen	sor	0	×		
		R/C sen	sor adjustment	0	×		
		Operatio	on mode	0	×		
		°C / °F	0	×			
		Fan spe	0	×			
		External	0	×			
		Upper/lc	0	×			
		Left/righ	0	×			
		Ventilati	0	×			
		Auto-res	0	×			
		Auto ten	0	×			
		Auto fan	0	×			
	IU settings		0	×			
	Service &	IU addre	0	0			
	Maintenance	Next ser	0	×			
		Operatio	0	×			
		Error	Error history	0	0		
		display	Display/erase anomaly data	0	×		
			Reset periodical check	0	0		
		Saving IU settings		0	×		
		Special	Erase IU address	0	x		
	settir	settings	CPU reset	0	0		
			Restore of default setting	0	×		
			Touch panel calibration	0	0		
		Indoor u	nit capacity display	0	x		

## Advice: 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. Special software is necessary for the connection. For details, view the web site.



## Advice: 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).

If the administrator password is forgotten, it can be initialized by holding down the [F1] and [F2] switches together for five 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.



## Advice

When connecting two or more FDT/FDTC to one R/C, unify the panel type either to a panel with anti draft function or a standard panel.

## (2) Model RC-E5

PJA012D730

Read together with indoor unit's installation manual. 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 source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur. 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 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. Remote control, wood screw ( $\phi$  3.5×16) 2 pieces Accessories Prepare on site Remote control cord (2 cores) the insulated 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. S 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. Control cord Erectrical box Prepare on site) 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]

- ③ 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)

5 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.



Sheath

The wiring inside the remote control case should be within 0.3mm<sup>2</sup> (recommended) to 0.5mm<sup>2</sup>. 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	<b>_</b>
X wiring : 215mm	X wiring : 170mm	The peeling-off length
Y wiring : 195mm	Y wiring : 190mm	of sheath

- 6 Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
- Ø 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 0.3mm<sup>2</sup> × 2 cores wires or cables. (on-site configuration)
- 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 0.5mm<sup>2</sup>. 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<sup>2</sup> × 2 cores

Under 300m ......0.75mm<sup>2</sup> × 2 cores

Under 400m .....1.25mm<sup>2</sup> × 2 cores

Under 500m .....2.0mm<sup>2</sup> × 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 sensor 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.

ΠЬ RE The left mark is only an example. Other marks may ®₩AIT® М appear.

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)

## 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 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 79°F).

When you set upper and lower limit by this function, control as below.

1. When (2) 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 2 TEMP 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 O (SET) and C. (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 <u>(SET)</u> 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  $\bigtriangledown$  . Indication example: "UPPER 26°C  $\lor \land$ " (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 ▲" is selected (valid during cooling, dry, fan, automatic)
  - ① Indication: " $\bigcirc$  ∨ ∧ SET UP" → "LOWER 18°C ∧"
  - (2) Select the lower limit value with temperature setting button  $\bigtriangledown$  . Indication example: "LOWER 24°C  $\lor \land$ " (blinking)
  - ③ Press <u>○</u>(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.



	initial function setting for typica rol and indoor unit are connect ong as they are used in a typicitu would like to change the initis procedure of functional setting <b>v of function setting]</b> : Stop air-conditioner and pres (	al using is performed a ted. al manner, there will b al setting marked " i s shown as the follo	utomatically by the indo e no need to change th , set your desired setti	por unit connected, when re e initial settings.	emote	Note 1: The initial setti Function No.	ng marked * ::: Item	is decided by Default	connected ind	loor and ou Model	utdoor unit, and is aut	omatically defined	d as followir	ng table.
	To and indoor unit are connects ong as they are used in a typic. u would like to change the initi- procedure of functional setting of function setting : Stop air-conditioner and pres "C"(MODE) buttons at Press "()" (STL) buttons	ed. al manner, there will b al setting marked " is shown as the follo	e no need to change th ', set your desired setti	e initial settings.		Function No.	Item	Default		Model				
	u would like to change the initi procedure of functional setting v of function setting] : Stop air-conditioner and pres " " " " (MODE) buttons at a Press " ()" (MODE) buttons at	al setting marked "	, set your desired setti	a second second second second second			ALLER MINISEL		1	"Auto-RUN" mode selectable indoor unit.				
	v of functional setting v of function setting : Stop air-conditioner and pres " ( )" (MODE) buttons at press ())" (SET) button	is shown as the follo	If you would like to change the initial setting marked "O", set your desired setting as for the selected item.				noro non oci	AUTO RUN O	Ŧ	Indoor u	nit without "Auto-RUN	" mode		
	* of function setting] : Stop air-conditioner and pres " ; (MODE) buttons at Press " ; (); (SET) button		ing diagram.			Remote control	SECTION SPEED 3	W 🕒 🗺 VAL	ID	Indoor ur	nit with two or three st	ep of air flow sett	ing	
	: Stop air-conditioner and pres " " " " (MODE) buttons at Press " ()" (SET) button					function06		63 INV	ALID	Indoor u	nit with only one of air	flow setting		
	" (MODE) buttons at	s " O " (SET) and		Record and keen	the	Remote control function07	REAL FOOAFK 21	ि किस्टि INVA	U LTD	Indoor u	nit with automatically s	swing louver Ilv swing louver		
	e · Press * ( () )* (SET) hutton	the same time for over	hree seconds.	setting		Remote control	I/U FAN	HI-MID-LO	LIU	Indoor u	nit with three step of a	ir flow setting		
		1.				function13		HI-LO		Indoor ur	nit with two step of air	flow setting		
	: Press " (HESEI) but Press A V hutton	tton.						HI-MID						
	: Press ON/OFF button.		Consult the	he technical data etc. for	each control details	Pomoto control	MODEL TYPE	I FAN SPEED		Indoor un	nit with only one of air	flow setting		
	ssible to finish above setting on th	he way,				function15	NOULL THE	COOLING ONL'	·	Exclusive	e cooling unit			
	tinished change of setting is unav Initial settings	vailable.	Stop air-conditioner an	d press		Note 3: As for plural in	ndoor unit, set in	door function:	to each mast	er and slav	ve indoor unit.			
Image: Image:	Automatic criterion		the same time for over the	DE) buttons ree seconds		But only mast	er indoor unit is	received the s	etting change	of indoor u	unit function "05 EXTE	RNAL INPUT" ar	nd "06 PERI	MISSION /
		l				PROHIBISHI	JN".							
			FUNCTION SET	7										
					Indoor unit	No. are indicated only v	vhen		Note2: Fan :	setting of "HI	IGH SPEED"			
	CTION T (Remote control func	tion)		(Indoor unit fun	ction) 1/U FUNCTION ▲ plural indo	or units are connected.			Fan	n tap	In the start of the start of the start	door unit air flow se	tting	50 at - 50 at
Interaction       Interaction	Function				17/000 4	PUNCTION Inc. IEAN SPEED SET	setting					LE Ma La	900 - 90.	900-90.
	01 EMAESP SET	setting	-		1/0001 \$		STANDARD	*	SPEED SPEED	STANDARD	UH - HI - Me - Lo	HI - ME - LO	Hi - LO	Hi - Me
		GMIAIESP VALID	Validate setting o Invalidate setting	f ESP:External Static Press of ESP	Sure 1/0002+		HIGH SPEED	2 *	SET	HIGH SPEED1 2	UH - UH - Hi - Me	UH - Hi - Me	UH - Me	UH - Hi
Number         Numer         Numer         Numer <td>02 AUTO RUN SET</td> <td>CODEFOR PHILEP</td> <td>invalidate setting</td> <td>01201</td> <td>1/0004 \$</td> <td>03 FILTER SIGN SET</td> <td>Interference</td> <td>-</td> <td>Initial function</td> <td>on setting of</td> <td>- I some indoor unit is "HIGH</td> <td>SPEED".</td> <td></td> <td></td>	02 AUTO RUN SET	CODEFOR PHILEP	invalidate setting	01201	1/0004 \$	03 FILTER SIGN SET	Interference	-	Initial function	on setting of	- I some indoor unit is "HIGH	SPEED".		
Note: 100:100:100:100:100:100:100:100:100:10		AUTO RUN ON AUTO RUN OFF	X Automatical open	ation is impossible			INDICATION TYPE 1	UFF O	The filter sign is	s indicated a	fter running for 180 hours			
Line of the second se	03 MA TEMP SW				To set other indoor unit, press		TYPE 2		The filter sign is	s indicated a	fter running for 600 hours			
Bit Bit Bit Bit Bit Bit Bit Bit Bit Bit			Temperature sett	ina button is not workina	AIR CON No. button, which		TYPE 4		The filter sign is The filter sign is	s indicated a s indicated a	itter running for 1000 hour	s. s, then the indoor un	it will be stop;	bed by
Internet       Distriction         B       Distriction       Distriction         B       Distriction       Distriction       Distriction         B       Distriction       Distriction       Distriction       Distriction         B       Distriction       Distriction       Distriction       Distriction       Distriction	04 SE MODE SW	A-DEL VALTO	~ '		allows you to go back to the indoc				compulsion after	er 24 hours.				
BL ID MOVES 21       Comparing Processing Procesprocessing Processing Processing Processing Procesprocessing Proce		SE INVALID	Mode button is no	ot working	(for example: I/I I 000 A)	V-T-FUOLITUN			If you change t you must chan	ne indoor fur ge the remot	nction "04 🤝 🖃 POSITION le control function "14 🖘 🕫	i", ¤POSITION * accordir	ngly.	
Image: Section	05 O ON/OFF SW	Jacon Val TD	_	•	(ioi example: i/o ooo =).		4POSITION	STOP O	You can select	the louver s	top position in the four.			
B       B		50 INVALID	On/Off button is n	not working		05 EXTERNAL INPUT	Ince and		The louver can	stop at any	position.			
Classification         Classif	06 ESFAN SPEED SW	A REAL VALUE	*				LEVEL INPU PULSE INPU	r   0	-					
Image: Difference of the second se		5 2 INVALID	K Fan speed button	n is not working		06 OPERIOR/RINSSON/PRINTING	1 0202 111 0	· · · ·						
Image: Normal Distribution         Counter Mathematics         Counter Mathmatics	07 EE LUUVER SW	estern valito	*				INVALID		Permission/oro	hibition cont	rol of operation will be val	d		
Image: Interview         Image: Interview<		SEE INVALID	X Louver button is r	not working		07 EMERGENCY STOP	Linexo	1.0	- Comborompio			·u.		
United         Example         United         Use of Signal Sign	08 TET TIMEK 20	ළැම VALID	_				VALID		With the VRF s	orios itis us	and to stop all indoor units	connected with the	same outdoor	unit immediate
P1         EVENUE 41         Final Particle States in the specific or analysis, and b be at the productly -10° Consean in themperature.           P1         EVENUE 4000         Final Particle States in themperature and sign at the set of producting -10° Consean in themperature.           P1         EVENUE 4000         Final Particle States in themperature and sign at the set of producting -10° Consean in themperature.           P1         EVENUE 4000         Final Particle States in themperature and the set of producting -10° Consean in themperature.           P1         EVENUE 4000         Final Particle States in themperature and the set of producting -10° Consean in themperature andit and themperature and themperature and themperature anditand t		ం 🖸 INVALID	Timer button is no	ot working					When stop sign	nal is inputed	from remote on-off termi	nal "CNT-6", all indoc	or units are st	opped immedia
Brance humber is works	09 LEISENGUR SE	SENSOR OFF	O Remote thermistor is	not working.										
Image: Note: Sec: Sec: Sec: Sec: Sec: Sec: Sec: Se		SENSOR ON	Remote thermistor is	working.			OFFSET +3.0	>	To be reset for	producing +	3.0°C increase in tempera	ture during heating.		
Bit NOR 1.100         Benetic bemetics is susking, and to be set producing +10 C broases in humpstate.           Bit NOR 1.100         Bit Normality is susking, and to be set producing +10 C broases in humpstate.           Bit NOR 1.100         Bit Normality is susking, and to be set producing +10 C broases in humpstate.           Bit NOR 1.100         Bit Normality is susking, and to be set producing +10 C broases in humpstate.           Bit NOR 1.100         Bit Normality is susking, and to be set producing +10 C broases in humpstate.           Bit NOR 1.100         Bit NOR 1.100           Bit NOR 1.100         Bit NOR 1.1000 <t< td=""><td></td><td>SENSOR +2.06</td><td>Remote thermistor is</td><td>working, and to be set for produ</td><td>cing +3.0 C increase in temperature.</td><td>08 * SP OFFSET</td><td>0FFSET +1.0</td><td>&gt;</td><td>To be reset for To be reset for</td><td>producing + producing +</td><td>2.0 C increase in tempera 1.0 C increase in tempera</td><td>iture during heating. iture during heating.</td><td></td><td></td></t<>		SENSOR +2.06	Remote thermistor is	working, and to be set for produ	cing +3.0 C increase in temperature.	08 * SP OFFSET	0FFSET +1.0	>	To be reset for To be reset for	producing + producing +	2.0 C increase in tempera 1.0 C increase in tempera	iture during heating. iture during heating.		
Interpretation         Interpr		SENSOR +1.05	Remote thermistor is Remote thermistor is	working, and to be set for produ	cing +1.0°C increase in temperature.		NO OFFSET	0						
ID         ID<		SENSOR -2.0%	Remote thermistor is	working, and to be set for produ	cing -2.0°C increase in temperature.		OFFSET +2.0	>	To be reset pro	ducing +2.0	°C increase in return air te	mperature of indoor	unit.	
10       INVEST       0       INVEST       0 <t< td=""><td>10 LAUTO RESTART</td><td>SENSOR -3.0%</td><td>Remote thermistor is</td><td>working, and to be set for produ</td><td>icing -3.0°C increase in temperature.</td><td>OO IRETURN ATR TEMP</td><td>OFFSET + 1.5</td><td></td><td>To be reset pro</td><td>ducing +1.5</td><td>C increase in return air te</td><td>mperature of indoor</td><td>unit.</td><td></td></t<>	10 LAUTO RESTART	SENSOR -3.0%	Remote thermistor is	working, and to be set for produ	icing -3.0°C increase in temperature.	OO IRETURN ATR TEMP	OFFSET + 1.5		To be reset pro	ducing +1.5	C increase in return air te	mperature of indoor	unit.	
III         UNLID         UNLID           11         UNLID         In case of Striple split setes, by connecting wetaliation device to CNT of the indoor printed circuit board, fin case of Striple split setes, by connecting the CND of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of whole to CNT of the indoor printed circuit board, the operation of the top control the control the control the control the top control the cont		INVALID	0			00 neronitrarren	NO OFFSET	0	TO be reser pro	Jubbing +1.0	C Increase in return an te	imperature of mooor	um.	
INVEST         INVEST         In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device is linked with the CNT of the indoor printed circuit board (in case of VHE series, by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilation device independent by connecting ventilatin device independent by connecting ventilatin device	11 I VENT LTNK SET	VALID	_				OFFSET - 1.0 OFFSET - 1.5	2	To be reset pro	ducing -1.0	C increase in return air te	mperature of indoor u	unit.	
WHT LINK       In case of Single spit sense, by contending the CMD of the Indoor printed crout board (new VHF sense), by concerding it to CMD of the Indoor printed crout board (new VHF sense), by concerding it to CMD of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding it to CND of the Indoor printed crout board (new VHF sense), by concerding	IT I YEAR CEAN OCT	NO VENT	0				OFFSET -2.0	5	To be reset pro	ducing -1.5 ducing -2.0	C increase in return air te	mperature of indoor u	unit.	
WHI LINK         Indoor printed cricuit board (note)         Repeation of ventiliation device is linked with the poperation of indoor unit.           IVENT LINK         IVENT LINK         INTERGETTERS         When heating themotat is OFF, fe in sets of sets does at speed.           IVENT LINK         IVENT LINK         INTERGETTERS         When heating themotat is OFF, fe in sets of sets does at speed.           IVENT LINK         IVENT LINK         IVENT LINK         When heating themotat is OFF, fe in sets of set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         When heating themotat is ofFF, fe in sets of set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         Fe in a poes is set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         Fe in any device is set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         Fe in any device is set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         Fe in any device is set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         Control for a set automatcally.           IVENT LINK         IVENT LINK         IVENT LINK         IVENT LINK         Conted for set automatcally.			In case of Single s indoor printed circ	split series, by connecting ve uit board (in case of VRF se	entilation device to CNT of the eries, by connecting it to CND of the	10 1 % HAN CUNTRUL	LOW FAN SPE		When heating t	thermostat is	OFF, fan speed is low sp	eed.		
Image         Operation of moder with a single states, by connecting vertilation device to CNT of the indoor printed circuit board (in case of NPP series, by connecting vertilation device indoor device the control of the indoor printed circuit board (in case of NPP series, by connecting vertilation device indoor device the control of the indoor printed circuit board (in case of NPP series, by connecting vertilation device indoor device the control of the indoor printed circuit board (in case of NPP series, by connecting vertilation device indoor device the control of the indoor printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device the printed circuit board (in case of NPP series, by connecting vertilation device indoor device).           13         12		VENT LINK	indoor printed circ	cuit board), the operation of	ventilation device is linked with the		SET FAN SPE	Ð	When heating t	thermostat is	OFF, fan speed is set sp	eed.		
INU VENT LINK         Conception of the CMD of the index prime cloud board in CAD of the index prime cloud board, you can operate listic the ventilation device independently by CD (VEN) button.         When here and here have independently by CD (VEN) button.           12         ILTIPP PNRKE SET         INN CHANGE         If you change the range of set temperature, the indication of set temperature, temperatere, temperatere, temperature, temperatere, temperature, temperat			operation of indoc In case of Single soli	or unit. it series, by connectina ventilatio	n device to CNT of the indoor printed		INTERMITTE	CE	When heating t	thermostat is	OFF, fan speed is operal	ed intermittently.		
12       TOP RAVES SET       Low Charge In index data mode an avoid provide stage data mode and mode and mode and mode and mode and mode and mode and mode and mode and mode and		NO VENT LINK	circuit board (in case	of VRF series, by connecting it	to CND of the indoor printed circuit		FAN OFF		When heating t	thermostat is	OFF, the fan is stopped.	sot automatically		
INN CHNRE         If you change the range of set temperature, the indication of set temperature, the indis det indication of set temperature, the indication of	12 TEMP RANGE SET		board), you can ope	rate /stop the ventilation device i	independently by LC (VENT) button.				Do not set "FAI	N OFF" when	n the indoor unit's thermis	tor is working.		
Image: Notice of the state of the		INDN CHANGE	O If you change the	range of set temperature, the	ne indication of set temperature	1.1 FROST POPULATION TOWN			Change of inde	or heat over	anger temperature to eta	t frost prevention cor	ntrol	
I3         IJUITIN         Win not vary following the control, and keep the set temperature.         III BP LW           HI-RID-10         XA frow of na becomes the three speed of Xeal - Xea	1	NO INDN CHANGE	If you change the	range of set temperature. th	ne indication of set temperature		TEMP HIGH		a nango or muu					
HI-IRO-10       X       Ar tow of an becomes the two speed of X-at-X-at-X-at-X-at-X-at-X-at-X-at-X-at	13. TZUEAN		will not vary follow	ring the control, and keep th	e set temperature.		TEMP LOW	10	4					
HI-LU         X         Art tow of na becomes the two speed of Xeta - YeL :           HI         Art tow of na becomes the two speed of Xeta - YeL :         To control free type vention, the indoor fan tag is raised.           14         5-27 YGLILIN         Art tow of na becomes the two speed of Xeta - YeL :         To control free type vention, the indoor fan tag is raised.           14         5-27 YGLILIN         Hyou change the indoor function '14 - SPENTIUN', you must change the indoor fan tag is raised in the four.         To control free type vention, do fan tag is raised.           15         HURELINFE         Heat PRP         Na         The lower can stop at any position in the four.           16         INTERNINE CALL         Hyou change do far the indoor printed circuit board from extrang.         To control free type vention, do far the indoor printed circuit board from extrang.           16         INTERNINTION         Hyou change do for the indoor printed circuit board from extrang.         To control free type vention, do far the indoor printed circuit board from extrang.           17         IRRENTING INTERCON         Hyou change do for the indoor printed circuit board from extrang.         To first RENNINE         After cooling is topped is OFF, the lan perform extra operation.           16         INTERNINTION         Hyou inquit into CNI of the indoor printed circuit board from extrang.         Hyou inquit into CNI of the indoor printed circuit board from extrang.           17         IRRENTI		HI-MID-LO	X Air flow of fan bec	omes the three speed of 🕷 📶	178-1168-1168-1168501788-1168-1	12 FROST PREVENTION CONTROL	1000-0000		Working only w	ith the Singl	e split series.			
If FM SPEED         X         Ar flow of fan is fixed at one speed.           14         ISP PISITION         If you change the remote control function '14 som PSITION ', you must change the indoor function '14 som PSITION ', you must change the indoor function '14 som PSITION ', you must change the indoor function '14 som PSITION ', you must change the indoor function '14 som PSITION ', ', work making and fan.         Drain pump is un during cooling, dry and hading.           15         INDEEL TYPE         INDEX NUMBER         Drain pump is un during cooling, dry and hading.           16         INTERNING         INDEX NUMBER         INDEX NUMBER         After cooling is stopped is OFF, the fan perform exita operation.           16         INTERNING         INDEX NUMBER         INDEX NUMBER         After cooling is stopped is OFF, the fan perform exita operation.           17         INDEX NUMBER         INDEX NUMBER         INDEX NUMBER         After cooling is stopped is OFF, the fan perform exita operation.           17         INDEX NUMBER         INDEX NUMBER         INDEX NUMBER         After cooling is stopped is OFF, the fan perform exita operation.           18         INDEX NUMBER         INDEX NUMBER         INDEX NUMBER         After charing is stopped or healing thermostatis OFF be fan perform exita operation.           16         INDEX NUMBER         INDEX NUMBER         INDEX NUMBER         INDEX NUMBER           17         INDEX NUMBER <t< td=""><td>   </td><td>HL-LU HL-NID</td><td>Air flow of fan bec</td><td>comes the two speed of \$2aat comes the two speed of \$2aat</td><td>1-496(U). 1-486(D).</td><td></td><td>FAN CUNTRO FAN CONTRO</td><td>LUNI C</td><td>To control frost</td><td>t prevention,</td><td>the indoor fan tap is raise</td><td>d.</td><td></td><td></td></t<>		HL-LU HL-NID	Air flow of fan bec	comes the two speed of \$2aat comes the two speed of \$2aat	1-496(U). 1-486(D).		FAN CUNTRO FAN CONTRO	LUNI C	To control frost	t prevention,	the indoor fan tap is raise	d.		
14       572*PESITION       If you change the remote control function '14 - 572*PESITION *, you must change the indoor function extend, indoor must indoor function '14 - 572*PESITION *, you must change the indoor form extend, indoor must indoor function extend, indoor must indoor function extend, indoor must change the indoor form extend, indoor must indoor function extend, indoor must indoor function '14 - 572*PESITION *, you must change the indoor form extend extend on the indoor fu	l t	1 FAN SPEED	※ Air flow of fan is fi	xed at one speed.		13 DRAIN PUMPLINK			1.					
Open with the second	14 ST POSITION		If you change the	remote control function "14	-≂POSITION ",		章O 章OAND來	- 10	Drain pump is Drain pump is	run during co run during co	coling and dry.			
Intervent         Intervent <t< td=""><td></td><td>4DOCUTION STOD</td><td>you must change</td><td>the indoor function "04 -&gt;</td><td>POSITION" accordingly.</td><td></td><td>意心AND※A</td><td>D≋</td><td>Drain pump is r</td><td>run during co</td><td>coling, dry, heating and far</td><td>n.</td><td></td><td></td></t<>		4DOCUTION STOD	you must change	the indoor function "04 ->	POSITION" accordingly.		意心AND※A	D≋	Drain pump is r	run during co	coling, dry, heating and far	n.		
15       INDERT PYFE         16       INDERT PYFE         17       IREM INFINITION         17       IREM INFINITION         18       INDERT PYFE		FREE STOP	The louver can st	e rouver stop position in the op at any position.	ioui.	14 SFAN REMAINING	B-OHND-S		oran pump is i	un uunng co	sonny, ury and tan.			
Image: Contract of the index state         Image: Contract of the index state         Image: Contract of the index state         Image: Contract of the index state         Image: Contract of the index state           16         INCLUSING INLY         Image: Contract of the index state         Image: Contract of the index	15 NODEL TYPE	HEAT PLIMP	*				NO REMAININ	; 0	After cooling is	stopped is C	OFF, the fan does not perf	orm extra operation.	hour	
16         EXTRM         6 FUR         Atter cooling is stopped to PEF, the fan perform extra operation for six hours.           16         INDEVIDUEL         INDEVIDUEL         INDEVIDUEL         INDEXIDING         Index of the indoor printed circuit board from external, the indoor printed circuit board from external, the indoor printed circuit board from external, the indoor printed circuit board from external, the indoor printed circuit board from external, all units which indoor unit will be operated independently according to the input from external, all units which connect to the same remote control are operated according to the input from external, all units which connect to the same remote control are operated according to the input from external, all units which connect to the same remote control are operated according to the input from external.         IDEXEMINING         Atter heating is stopped to heating thermostals IS OFF, the fan perform extra operation for two hours.           17         IND THY MINININGTION         Innomal working indication, indoor unit temperature is indicated instead of air flow.         IDEXEMINING         Atter heating is stopped to heating thermostals IS OFF, the fan perform extra operation for two hours.           18         INDEXNITION         Only the master remote control can be indicated.         During heating is stopped to heating thermostals IS OFF.         The fan perform intermittent operation for two hours.           18         INDEXNITION         INDEXNITION OFF         INDEXNITION OFF         During heating is stopped or heating thermostals IS OFF.         The fan perform intermittent operation for twe hours. <t< td=""><td></td><td>COOLING ONLY</td><td>*</td><td></td><td></td><td></td><td>1 HOUR</td><td></td><td>After cooling is</td><td>stopped is C</td><td>OFF, the fan perform extra</td><td>operation for half an</td><td>indur. Jr.</td><td></td></t<>		COOLING ONLY	*				1 HOUR		After cooling is	stopped is C	OFF, the fan perform extra	operation for half an	indur. Jr.	
International processing and procesing and processing and processing and processing and	16 EXTERNAL CONTROL SET		- If you input circul	Linto CnT of the indeer and	ted circuit board from ovtome! the	15 16 FAN DENATION	6 HOUR		After cooling is	stopped is C	OFF, the fan perform extra	operation for six hou	urs.	
LIK RLLENLS         [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, all units which in normal working indication, indoor unit temperature is indicated instead of all flow.         Constraints in a stopped or heating thermostate IOFF, the temperature is indicated instead of all flow.           12         1800 HIVE/HIXENTER         Intervention indication indoor unit temperature is indicated instead of all flow.         Intervention indication indoor unit temperature is indicated instead of all flow.           18         WebNEIDATION         United Print Intervention indication should not be indicated.         Intervention intermittent operation for the indicated.	l	INDIVIDUAL	indoor unit will be	operated independently ac	cording to the input from external.	10 A THE BOLL OF	NO REMAININ	0	After heating is	stopped or	heating thermostat is OFF	, the fan does not pe	rform extra o	peration.
17         IREGRATION OF UNICIDITION OF INDICIDITION OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIAL OF INDICENTIALO INTO INTRO INTRE ANDIALE OF INTRO INTRE ANDIALE OF	[	FUR ALL UNITS	If you input into CN	IT of the indoor printed circuit I e remote control are operated	board from external, all units which		0.5 HOUR 2 HOUR		After heating is	stopped or	heating thermostat is OFF	the fan perform extr	a operation for	r half an hour.
INDICATION OF         In normal working indication, indoor unit temperature is indicated instead of air flow.         Indication         Indication<	17 ROOM TEMP INDICATION SET		CONTROL TO THE SEAT	is remote control are operated	according to the input norm external.		6 HOUR		After heating is	stopped or l	heating thermostat is OFF	, the fan perform ext	ra operation f	or six hours.
Construct and the indicated of the indindicated of the indicated of the indicated of the indicated of t		INUICATION OFF	In normal working	indication, indoor unit tempe	arature is indicated instead of air flow	16 X FAN INTERMETTENCE	NO REMAININ	- -	-					
INFLORM         Who was speed after wenty influed: OFF.           INDICATION OF         Indication should not be indicated.         During heating is stopped or heating thermostal is OFF, the fan perform intermittent operation for five n multises OFF.			(Only the master	remote control can be indic	ated.)		zoni nOFF smi	NON	During heating	is stopped o	or heating thermostat is OF	FF, the fan perform ir	ntermittent op	eration for five i
INDICATION OFF Heating preparation indication should not be indicated.	18   XCENINUICATION	INDICATION ON	0					04	with low fan sp During heating	eed after two is stopped o	enty minutes' OFF. or heating thermostat is OF	F, the fan perform ir	ntermittent op	eration for five i
ALL INCOMES CONTROL		INDICATION OFF	Heating preparati	on indication should not be	indicated.	17 0000000 000000	sminUH smin	UN	with low fan sp	eed after five	e minutes' OFF.			
19 b/r SET LV IPROSURE LOUINA L	1 t		1			TTY THRESSURE CONTROL			-					
C I emperature inclusion is by degree 0.     F      Temperature inclusion is by degree 0.     Temperature inclusion is by degree 1.     Temperature inc	19 6/1= SET	5	O Tomperature !!!	nation in hy deares C			STANDARD							

(finished)

## How to set function

1. Stop air-conditioner and press ○ (SET) (MODE) buttons at the same time for over three seconds, and the "FUNCTION SET ▼" will be displayed.

FUNCTION SET	₹

2. Press O (SET) button.

5. Press O (SE

- Make sure which do you want to set, "
   FUNCTION ▼"
   (remote control function) or "I/U FUNCTION ▲" (indoor
   unit function).
- Press ▲ or ▼ button. Selectt <sup>®</sup> FUNCTION ▼ " (remote control function) or "I/U FUNCTION ▲ " (indoor unit function).

	E FUNCTION	Ŧ
Γ) button.	I/U FUNCTION	

- 6. [On the occasion of remote control function selection]
  - ① "DATA LOADING" (Indication with blinking)  ${\scriptstyle \downarrow}$

Display is changed to "01 OM ESP SET".

Press or vertice button. "No. and function" are indicated by turns on the remote control function table, then you can select from them. (For example)



③ Press ○ (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.

	D2
SET COMPLETE	

7. Press ON/OFF button. Setting is finished.



#### [On the occasion of indoor unit function selection]

 $\odot~$  "DATA LOADING" (Blinking for 2 to 23 seconds to read the data)  $\downarrow~$ 

Indication is changed to "02 FAN SPEED SET". Go to 2 .

#### [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.

I/U000	

(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 O.(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)

	<i>02</i> ←	L	Function N	٩c
Fan Speed Set	←	H	Function	

③ Press ○ (SET) button. The current setting of selected function is indicated. (For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.

	<i>02</i>		
STANDARD	←	Ӈ	Setting

Press or button.

Select the setting.

S Press (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.

DZ SET COMPLETE

When plural indoor units are connected to a remote control, press the <u>AIR CON No.</u> button, which allows you to go back to the indoor unit selection screen. (example "I/U 000 ▲")

 It is possible to finish by pressing <u>ON/OFF</u> 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 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 Models FDC200VSA-W, 250VSA-W, 280VSA-W

PSC012D154B

Inverter driven split PAC FDC200VSA-W, FDC250VSA-W, FDC280VSA-W Designed for R32 refrigerant

Accessory pipe

ID22.22

ID22.22

sory pipe B

Check before installation work

piece

[ Accessory ]

1 piece 

Edging

knock-out hole protection

 Model name and power supply Refrigerant piping length

 Piping, wiring and miscellaneous small parts Indoor unit installation manual

OThis installation manual deals with outdoor units and general installation specifications only. For indoor units, refer to page 93.
OWhen 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 mishandling.

- The precations describe below are divided into AWARNING and ACUTION. 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 ACUTION. 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 supply 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 supply 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. 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.



ſ	$\wedge$	CAU	JTION
•	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 is short-circularilla. Newer connect the grounding wire to a gas pipe because if gas leaks, it could cause explosion or ignition.	$\bigcirc$	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 subplicit gas, chloride gas, acid and alkaline can occur.
0	Use the circuit breaker for all pole with correct capacity. Using the incorrect circuit breaker, it can cause the unit maliturcion and fire.	-	<ul> <li>Vehicles and ships         <ul> <li>Locations where cosmetic or special sprays are often used.</li> <li>Locations with direct exposure of oil mist and steam such as kitchen and machine plant.</li> <li>I orations where any methodes which neuroph bin mource harmonics are used.</li> </ul> </li> </ul>
	The isolater should be locked in accordanced with EV6021+1. <b>C</b> Take care where carrying the util fix thand. If the util weights more than 2006, it must be carried by two or more persons. Do not carry by the plastic straps, always use the carry handle when carrying the util by hand. Use downes to minimize the risk of cuts by the duminum firs.		Locations with saily altengeneses such as coastilinis     Locations with with year of the such as an to provide base filters and snow hood mentioned in the manual)     Locations where the unit is exposed to chimney smuste     Locations with a failuble (more them 100m high)
	Dispose of any packing materials correctly. Any remaining packing materials correctly and the provide the pack of the packing material packing materials and experiments and the packing material packing materials and wood. And to avoid danger of sufficient to keep the plastic wrapper away from hidren and to decise after the rit tup.		Locations with ammonic atmospheres (e.g. organic fertilizer),     Locations the location chronic ge, snow melling agent),     Locations where heat radiation from other heat succe can affect the unit
	Pay attention not to damage the drain pan by weld spatter when welding work is done near the indoor unit. If weld spatter enteed in 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.		-Locations without good air circulation: Locations with any obstacted which can prevent linkt and outlet air of the unit Locations where short circuit of air can occur (in case of multiple units installation)
	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.		<ul> <li>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.</li> </ul>
	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.	-	Do not install the outdoor unit in the locations listed below.     I orations where discharged hot air or operation sound of the outdoor unit can bother neighborhood
	Perform installation work properly according to this installation manual. Improper installation can cause abnormal vibrations or increased noise generation.		<ul> <li>Locations where outlet ar of the outdoor unit blows directly to an animal or plants. The outlet air can affect adversely to the plant etc.</li> <li>Locations where vibration can be amplified and transmitted due to insufficient strength of structure.</li> </ul>
	Earth leakage breaker must be installed If the earth leakage breaker is not installed, it can cause fire or electric shocks.	1	<ul> <li>Locations where vibration and operation sound generated by the outdoor unit can affect seriously. (on the wall or at the place near bed room)</li> <li>Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)</li> </ul>
19	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.	1	-Locatoris where drainage cannot run off sately. 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 cases accumulate around the unit it can cause fire.	1	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 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.	1	Do not touch any buttons with wet hands     It can cause electric shocks
	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.	-	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.
	Insufficient space can result in accident such as personal injury due to failing from the installation place.  When the outdoor unit is installed on a mod or a high place, provide normanent ladders and handrails along the access route and fences and handrails around the outdoor unit.	-	Do not clean up the unit with water It can cause electric shocks
	It safety facilities are not provided, it can cause personal injury due to failing from the installation place.	-	Do not operate the outdoor unit with any article placed on it.
	Do not instal nor use the system cises to the equipment that generates electromagnetic heats or night requires praymonds. Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause mailfunctions and breakdowns. The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause iammino.		You may incur property damage or personal injure from a fail of the article.  Do not step onto the outdoor unit.
	Do not install the outdoor unit in a location where insects and small animats can inhabit. Insects and small animats can enter the electric parts and cause damage or fire. Instruct the user to keep the surroundings clean.	1	tou may near injury from a orop or fail.     Do not touch the suction or aluminum fin on the outdoor unit.
	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 failing down and cause personal injury.	1	This may cause injury.

#### Notabilia as a unit designed for R32

- Do not use any refrigerant other than R32. R32 will rise to pressure about 1.6 times higher than that of a conventional refrigerant. A cylinder containing R32 has a light blue indication mark on the top.
  A unit designed for R32 has acquired 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

A clim bound dimension of the flared part of a refrigerant pipe and a trare nut s parament size in measurement in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of the flared part of a refrigerant pipe and a trare nut s parament size in the second dimension of t

Dedicated R32 tools a) Gauge m b) Charge h Charge hose c) Electronic scale for refrigerant charging d) Torque wrench e) Flare tool f) Protrusion control copper pipe gauge 9) Vacuum pump ada
 h) Gas leak detector

#### MITSURISHI HEAVY INDUSTRIES THERMAL SYSTEMS ITD



## 2. REFRIGERANT PIPING WORK

1) Restrictions on unit installation and use

UNITS OF UNIT INSCRIPTION THE GOOD looking points against the specification of the indox unit and the installation site. following restrictions regarding unit installation and use. Improper installation can cause compressor failure or degradation of performance. uid piping length of the system is restricted by the equivalent length (E). It length (Le) is a virtual length corresponding to an equivalent length of liquid piping using a diameter of 12.7mm. Observe the following po Observe the following The total liquid piping The co

• FDC250/280V

FDC200V							
Destrict		Nervenienel contrictions		Mar	ks appearing in t	the drawing	
MOSU ILU	on	billeisiona resolutions	Single	Twin	Triple (A)	Triple(B) <sup>(2)</sup>	W-twin
Total equivalent length (Liquid	piping)	≤ 70 m	Le	Le	Le	Le	Le
	Liquid piping	$\leq 40m (L : \phi 9.52)$ 40-70m(L : $\phi 12.7$ )					
One-way pipe length of refrigerant piping	Gas piping	$\leq$ 70m	L	L+L1 L+L2	L+L1, L+L2, L+L3	L+L1 (1)	L+La+L1, L+La+L2 L+Lb+L3, L+Lb+L4
	Liquid piping	≦ 70m					
Main pipe length	Gas piping	$\leq 35m (L : \phi 22.22)$ 35-70m (L : $\phi 25.4 \text{ or}$ $\phi 28.58)$	L	L	L	L	L
One way pipe length from the point to the second branching	first branching point	$\leq 5m$	-	-	-	La	-
One-way pipe length after the	first branching point	$\leq 30m$	-	L1,L2	L1,L2,L3	L1	La+L1, La+L2 La+L3, La+L4
One-way pipe length from the indoor units through the second	first branching point to ad branching point	$\leq 27m$	-	-	-	La+L2,La+L3	-
One-way pipe length difference from the first	Twin Type, W–Twin	$\leq 10m$	-	IL1-L2I	-	-	IL1+La)-(L3+Lb)(, IL1+La)-(L4+Lb)(, IL2+La)-(L3+Lb)(, IL2+La)-(L3+Lb)(, IL2+La)-(L4+Lb)(, IL1-L2), IL3-L4
units	Triple Type(A)	$\leq 3m$	-	-	L1-L2I,IL2- L3UL3-L1I	-	-
	Triple Type(B)	3m ~ 10m	-	-	-	L1-(La+L2), L1-(La+L3)(1)	-
One-way pipe length different branching point to the indoor	ce from the second unit	$\leq 10m$	-	-	-	IL2-L3I	IL1-L2I,IL3-L4I
Total pipe length after the sec	Total pipe length after the second branching point		-	-	-	-	L1+L2,L3+L4
Elevation difference between	When the outdoor unit is positioned higher	$\leq 50m^{(3)}$	н	н	н	н	н
indoor and outdoor units	When the outdoor unit is positioned lower	$\leq 15m$					
Elevation difference between	ndoor units	≦ 0.5m	-	h	h1,h2,h3	h1,h2,h3	h1,h2,h3,h4,h5,h6
	<ul> <li>For model 2 40m and φ!</li> </ul>	00V, always use $\phi$ 9.52mm if it is 40m	12.7mm liq or less.	uid main pij	pe when on	e-way pipin	g length exceed

Total equivalent length(Liquid piping)		(250V) ≥ 70m (280V) ≥ 60m	Le	Le		Le
One-way pipe length of refrig	erant piping	[250V] ≤ 70m (280V] ≤ 60m	L	L+L1 L+L2		L+La+L1, L+La+L L+Lb+L3, L+Lb+L
	Liquid piping	[250V] ≦ 70m [280V] ≦ 60m				
Main pipe length	Gas piping	≤ 35m (L : φ 22.22) [250V] 35-70m [280V] 35-60m (L : φ 25.4 or φ 28.58)	L	L		L
One-way pipe length after the	first branching point	$\leq 30m$	-	L1,L2		La+L1, La+L2 La+L3, La+L4
One-way pipe length difference from the first branching point to the indoor units		≤ 10m	-	IL1-L2I	-	I(L1+La)-(L3+Lb) I(L1+La)-(L4+Lb) I(L2+La)-(L3+Lb) I(L2+La)-(L4+Lb) IL1-L2, IL3-L4
One-way pipe length different branching point to the indoor	e from the second unit	$\leq 10m$	-	-		IL1-L2UL3-L4
Total pipe length after the sec	ond branching point	≦ 15m	-	-		L1+L2,L3+L4
Elevation difference between	When the outdoor unit is positioned higher	$\leq 50m^{(3)}$				
indoor and outdoor units When the outdoor unit is positioned lower		$\leq 15m$	n			n
Elevation difference between	indoor units	≤ 0.5m	-	h		h1,h2,h3,h4,h5,h
(Formula to calculate equ	ivalent length (Le)]					1
In case of new piping	Le = (length of $\phi$ 12.7	) + 0.52 × (length of $\phi$ 9.	52)			

estrictions Marks appearing in the drawing Single Twin Triple W-twin

 $\label{eq:linear} \mbox{In case of existing piping} \qquad \mbox{Le} = (\mbox{length of } \phi \ 12.7) + 0.52 \times (\mbox{length of } \phi \ 9.52) + 1.56 \times (\mbox{length of } \phi \ 15.88)$ 

Notes: (1) Install the indoor units so that L + L1 becomes the longest one-way pipe. (2) Connect the indoor unit with the maximum capacity to L1. (3) If the outdoor temperature is above 43°C, the dimensional restriction is  $\leq 30$ m.

model 200V, always use φ12.7m and φ9.52mm if it is 40m or less 9.52mm liquid pipe is used in an ins It de 52mm liquid piè la vin la ministilation having one-way pipe longer than 40m, it may cause doparation of performance and/or water drops in the indoor unit. Nangs use dd25. Mmm or d20.50mm gas main pipe "1", when the length of "1" exceeds 35m. If de 22.22mm gas points used in a ministilation having one-way pipe longer than 35m, it may cause disgraduation of performance and/or water drops in the indoor unit.

#### 2) Determination of pipe size b the following guidelines based on the indoor unit specifications.

		Model	2007		Model 250V, 280V				
		Gas pipe	Liquid pipe	Gas pipe	Liquid pipe	Gas pipe	Liquid pipe		
	Outdoor unit connected		\$9.52	¢22.22	φ12.7	¢22.22	¢12.7		
Uth			Flare	Brazing	Flare	Brazing	Flare		
Refrigeran	t piping (main pipe L)	\$22.22 or \$25.4 or \$28.58	\$9.52 or \$12.7	\$22.22 or \$25.4 or \$28.58	φ12.7	\$22.22 or \$25.4 or \$28.58	¢12.7		
a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l	Indoor unit connected	¢25.4	¢12.7	¢25.4	φ12.7				
In the case of a single type	Capacity of indoor unit	Model	200V	Model 25	IOV, 280V	1 '	-		
	Branching pipe set	DIS-	WB1G	DIS-	WB1G				
	Refrigerant piping (branch pipe L1,L2)	¢15.88	¢9.52	¢15.88	¢9.52	1			
in the case of a twin type	Indoor unit connected	¢15.88	¢9.52	¢15.88	¢9.52		-		
	Capacity of indoor unit	Model	100V×2	Model 125V	×2,140V×2	1			
	Branching pipe set	DIS-	TB1G						
	Refrigerant piping (branch pipe L1,L2,L3)	φ15.88	¢9.52						
in the case of a triple type A	Indoor unit connected	¢15.88	¢9.52	-	-		-		
	Capacity of indoor unit	Model	71V×3						
	Branching pipe set	DIS-	WB1G	DIS-WB1G		DIS-WB1G			
	Refrigerant piping (branch pipe La,L1)	¢15.88	¢9.52	φ15.88	¢9.52	φ15.88	¢9.52		
to the score of a bisis have 0	Branching pipe set	DIS-	NA1G	DIS-WA1G		DIS-WA1G			
in the case of a triple type b	Refrigerant piping (branch pipe L2,L3)	¢15.88	¢9.52	¢12.7	¢9.52	¢15.88	¢9.52		
	Indoor unit connected	¢15.88	¢9.52	¢12.7	¢6.35	¢15.88	¢9.52		
	Capacity of indoor unit	Model	71V×3	Model 60V×2	+ Model 125V	Model 71V×2+ Model 100V, 71V×2+ 140V			
	Branching pipe set	DIS-	WB1G	DIS-	WB1G	DIS-	WB1G		
	Refrigerant piping (branch pipe La,Lb)	φ15.88	¢9.52	¢15.88	¢9.52	φ15.88	¢9.52		
In the case of a W-bain time	Branching pipe set	DIS-	WA1G	DIS-W	11G × 2	DIS-W	A1G×2		
in the case of a life and type	Refrigerant piping (branch pipe L1,L2,L3,L4)	¢12.7	¢9.52	¢12.7	¢9.52	φ15.88	¢9.52		
	Indoor unit connected	¢12.7	¢9.52	¢12.7	d6.35	φ15.88	¢9.52		
	Capacity of indoor unit	Mode	50V×4	Model 60	I×4,71V×4	Model	71V×4		
	When the model 50V or model 60V model is connected as an indoor unit, always use a $\phi$ 9.52 liquid pipe for the branch (branching pipe – indoor unit) and a different diameter jo branching pipe set for connection with the indoor unit (46.33 on the liquid pipe side).								

ranching pipe set a φ6.35 pipe is If a \$\phi 6.35 pipe is used for connection A riser pipe must be a part of the A branching part must be dressed For the details of installation work disorder may occur, causing one of the indoor units to fall short of the rated capacity. ally at a point as close to an indoor unit as possible. ial supplied as an accessory. ing area, see the installation manual supplied with your branching pipe set.

### 3) How to use pipe reducer.











< Single type >

< Twin type >

riple type A >

### About brazing





Power supply, signal line and ground terminal block	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
2resunding terminal	
arounding terminal	
Uo not connect to the grounding wire from another unit, but install a dedicated wire up to the grounding wire from the distribution board.	
Wring guide	╟╧╢╴
Wiring diagram	
It is attached on the back side of the service panel.	
Dutgoing cable direction	
Das like the refrigerant pipe, it can be let out in any of the following directions: side right, front, rear and	
based	Medale 200M 250

#### 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.

Indoor-outdoor wire size × number

duit and a voltage drop is 2%.

								≫lr	n case of FDUM indoor u	unit combination.					
	Model	Power supply	Power cable size (mm <sup>2</sup> )	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoor wire size × number		Model	Power supply	Power cable size (mm <sup>2</sup> )	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoo wire size × num
[	200V	3 phase 4 wire		19	72				200V	3 phase 4 wire		19	72		
[	250V	380-415V 50Hz	5.5	20	69	φ1.6mm	φ1.6mm × 3		250V	380-415V 50Hz	5.5	20	69	φ1.6mm	φ1.6mm ×
[	280V	380V 60Hz		20	69				280V	380V 60Hz		22	62		
	≪In case of FDU indoor uni	it combination.						_							
	Model	Power supply	Power cable size (mm <sup>2</sup> )	MAX. over current (A)	Power cable length (m)	Earth wire size	Indoor-outdoor wire size × number	•Th in	e specifications shown in the door unit.	above table are for unit	s without heaters. For u	inits with heaters, refer	to the installation instruc	tions or the construction	n instructions of th
[	200V	3 phase 4 wire		23	60			SV	vitchgear or circuit breaker c	apacity which is calculat	ed from MAX, over curre	ent should be chosen ald	ong the regulations in ea	ch country. stained in a conduit and	a voltage drop is '
[	250V	380-415V 50Hz	5.5	25	55	φ1.6mm	φ1.6mm × 3	Fo	r an installation falling outside	e of these conditions, folli	ow the internal cabling re	equilations. Adapt it to the	regulation in effect in ea	ich country.	a voltage urop is a
[	280V	380V 60Hz		25	55			●Us	e an all-pole disconnection t	pe breaker with at 3mn	n or more gap between t	the contact points, that p	provide full disconnection	n under over-voltage cab	egory III.

## **5. COMMISSIONING**

When yo	nost care not to incur ou operate switches	an electric shock or bu (SW3, SW5) for on-site	urns. Do not leave the u setting, be careful not t	init with the service pane to touch a live part.	el open.	Items to chec	k before a te	• When you leave the outdoor unit with power suppli be sure to close the panel.	ied to it,		
CAUTION YOU can	10t Check discharge p	pressure from the liquid s	service valve charge port.			installation manual	Item	Спеск пет	Uneck		
When no	ower supply is cut of	ff to reset the unit, give	e 3 or more minutes bef	ore you turn on power a	again after power is cut			If brazed, was it brazed under a nitrogen gas flow?	_		
off. If the	his procedure is not	observed in turning on	power again, "Commun"	ication error between ou	utdoor and indoor unit"		Refrigerant	Were air-tightness test and vacuum extraction surely performed?			
may occ	aur.					2	plumbing	Are near insulation materials instanted on both liquid and gas pipes?	-		
) Test run metho	d							He service values surely opened to obtain igno and gas systems: Have you recorded the additional refrinerant charge uniums and refrinerant nine length on the nanel's lab	412		
(1) A test run can be initiate	ed from an outdoor	unit by using SW3-3 ar	nd SW3-4 for on-site	SW-3-3 SW-3-4				Is the unit free of cabino errors such as uncompleted connection, an absent or reversed phase?	un.		
setting		anic by daing owo-o ai	10 000-4 101 011-310	OFF Coo	ling during a test run			Are properly rated electrical equipments used for circuit breakers and cables?			
(2) Switching SW3-3 to ON	will start the compre	SSOL	L	ON Hea	ting during a test run			Doesn't cabling cross-connect between units, where more than one unit are installed?			
(3) The unit will start a cooling of	operation, when SW3-4	is OFF, or a heating operation	tion, when SW3-4 is ON.	OFF - Normal	or After the test operation			Aren't indoor-outdoor signal wires connected to remote control wires?			
(4) Do not fail to switch SW	V3-3 to OFF when a	test run is completed				4	Electric	Do indoor-outdoor connecting cables connect between the same terminal numbers?			
							wiring	Are either VCT cablyre cables or WF flat cables used for indoor-outdoor connecting cables?			
) Checking the st	late of the u	init in operati	on	Check joint of the	charge port of the			Does grounding satisfy the D type grounding (type III grounding) requirements?	-		
Use check joints provided on th	ne piping before and aff	er the four-way valve insta	alled inside the outdoor	Occiliar Discharge	gas service valve			Is the unit grounded with a dedicated grounding wire not connected to another unit's grounding wire	167		
unit for checking discharge pro	essure and suction pre	essure.		Discharge pressu (High pressure)	In Suction pressure			Are capies iree or loose screws at their connection points?			
As indicated in the table show	wn on the right, press	ure detected at each poi	int will vary	Heating Suction pressur	Discharge pressure			Are cables held down with cable clamps so that no external force works onto terminal connection	ns?		
depending on whether a cool	ling or heating operation	ion has been selected.	c	peration (Low pressure)	(High pressure)	-	Indoor unit	Is indoor unit installation work completed ? Where a fees sever should be attrached aste as index unit is the free sever attrached to the index unit	12		
Cotting CW2 1	CW2 2 on (	nito	_					where a race cover should be attached onto an motor unit, is the race cover attached to the motor unit	u		
(1) Defrost control switching	(SW3-1)	I run in the defrost mo	de more frequently			Test run proc	edure • Al	ways carry out a test run and check the following in order as li	isted.		
•Set this switch to ON, w	when installed in a re	aion where outdoor tem	inerature falls below zerr	during the season the i	unit is run for a heating	Turn		The contents of operation	Check		
operation.						<ol> <li>Open the ga</li> </ol>	s side service valve	fully.			
(2) Snow guard fan control (	(SW3-2)					② Open the liquid side service valve fully.					
·When this switch is turn	ned on, the outdoor u	unit fan will run for 10 s	seconds in every 10 min	utes, when outdoor temp	erature falls to 3°C or	3 Close the panel.					
lower and the compress	or is not running.					(4) Where a remot	e control unit is used fo	r unit setup on the installation site, follow instructions for unit setup on the installation site with a remote control un	nit.		
<ul> <li>When the unit is used in</li> </ul>	.n a very snowy cour	ntry, set this switch to f	ON.			5 SW3-3 UN /	SW3-4 UFF: the uni	t will start a cooling operation.	-		
) Failure diagnosis	s in a test ru	n				(6) When the un	it starts oneration in	will sole a lieaulig operation.			
7 Tullule ulugilosis	in a tost ru	<u></u>				<ul> <li>Place your h</li> </ul>	and before the indo	or unit's diffuser to check whether cold (warm) winds come out in a cooling (heating) operation.			
Error indicated on the Printed circuit bo	ard LED(The cycles of 5 seconds	s) Failure	a event	Act	ion	8 Make sure the su	hat a red LED is not	blinking.			
remote control unit Red LED	Green LED	00114				(9) When you co	emplete the test run	do not forget to turn SW3-3 to the OFF position.			
E40 Blinking on	nce Blinking continuoush	y (occurs mainly during a hr	n with service valves shut eating operation)	<ol> <li>Check whether the service</li> <li>If an error has been cancele</li> </ol>	e valves are open. d when 3 minutes have elansed	Where option	ns are used, check t	heir operation according to the respective instruction manuals.			
E49 Blinking on	nce Blinking continuously	y Low pressure error or operat (occurs mainly during a co	tion with service valves shut coling operation)	since a compressor stop, yo effecting Check Reset from	u can restart the unit by the remote control unit.	<20	DV, 250V, 28				
<ul> <li>If an error code other that</li> </ul>	an those listed above	e is indicated, refer to	the wiring diagram of th	ne outdoor unit and the	indoor unit.						
3) The state of the	alactronic a	vnancion valu	0								
) The state of the		Apalisiuli valvo	6								
The following table illustra	ates the steady stat	tes of the electronic e	expansion valve.								
140	Been neuror in turned on	When the unit com	nes to a normal stop	When the unit come	es to an abnormal stop						
W	nen power is turned on	During a cooling operation	During a heating operation	During a cooling operation	During a heating operation			SW3			
Valve for a cooling operation C	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			비난 이 내 이 나는 다			
	ina on the fir	st operation a	after turning or	the circuit bre	eaker.						
i) Heed the followi	t in the standby mor	le (waiting for a compre	accor startun) which con	continue un to 30 minut	tes to prevent the oil lovel						
b) Heed the followi	c in the Standard y IIIOu	peration after turning or	the circuit breaker. If th	at is the case, do not su	ispect a unit failure.						
<ul> <li>Heed the followi</li> <li>This outdoor unit may start in the compressor from low</li> </ul>	wenno on the list of		the state of the second state of the	start in cooling mode a	while to prevent from			<b>┑</b> ┟ <b>┶╾╨</b> ┘¶?			
b) Heed the following • This outdoor unit may start in the compressor from low • At the first operation of he	ating mode after turr	ning on the circuit break	ker, the outdoor unit may	start in cooling mode a							
b) Heed the followi •This outdoor unit may start in the compressor from low •At the first operation of he liquid refrigerant back to c	ating mode after turr ompressor. If that is	ning on the circuit break the case, do not suspec	ct a unit failure.	Start in cooling mode a				▝▙▙▆▀▋▘▕			

Check whether an existing pipe syste	m is reusable or not by us	sing the following flow chart.		
ST	ART			
Are an outdoor unit and an inc existing pipe system to reuse	oor unit connected to the	NO		
YES				
Are the existing units	our products?	Which of the following refrigeration oils	ake an inquiry reusability.	
YES	•	YES Suniso, MS, Barrel Freeze, HAB, Freol, ether oil, ester oil		
Does the existing pipe system to (1) The pipe length is 50m or lee (2) The pipe size conforms to th (3) The elevation difference betw conforms to the following re	reuse satisfy all of the following s. table of pipe size restrictions. veen the indoor and outdoor units strictions.	? NO	<b>,</b>	
Where the outdoor unit is a Where the outdoor unit is b YES	bove: 30m or less elow: 15m or less	Check with the flow chart developed for a case w an existing pipe system is reused for a twin-triple-double-twin model nublished as a	here	
Is the unit to install in the exis twin-triple-double-twin model	fing pipe system a ?	YES Change the branching pipe to a specified type.	Change is impossible.	
NO	+	Change		
Is the existing nine system to rear	t te free of corrosion. Name or dente?	YES Repair the damaged parts.	Repair is impossible.	
NO		Repair	'	
Is the existing pipe system to n (Check whether refrigerant cha the system before)	use free of gas leaks? rge was required frequently for	Check the pipe system for air tightness on the site.	Air tightness is impossible.	
NO	*	Air tightness is OK	Remove is	
Are there any branch pipes with	no indoor unit connected?	Remove those branches.	impossible	
NO		Remove		
Are heat insulation materials of reuse free of peel-offs or deteri (Heat insulation is necessary for	the existing pipe system to oration? r both gas and liquid pipes)	Repair the damaged parts.	Repair is impossible.	
ND	*	D Repair :		
Aren't there any loose pipe sup	ports?	Repair the damaged parts.	1	
No loose pipe supports	Some I	loose pipe supports Repair		
The existing pipe s	system is reusable.	The existing pipe system is not reus Install a new pipe system.	able.	
WARNING <where td="" the<=""><td>existing unit can t</td><td>pe run for a cooling operation.&gt;</td><td></td></where>	existing unit can t	pe run for a cooling operation.>		
Carry out the f	bliowing steps with the	e excising unit (in the order of (1), (2), (3) and	nd (4))	
(1) Hun the u (2) Stop the ii (3) Close the I (4) Blow with wash the	III IOF 30 MINUTES for a ndoor fan and run the u iquid side service valve o nitrogen gas. If disu pipe system or install a fara nut do not use th	courny operation. nit for 3 minutes for a cooling operation (retu f the outdoor unit and pump down (refrigerant i colored refrigeration oil or any foreign matter new pipe system. a old one but use the one supplied with the	urning liquid) recovery) s is discharged by the	
Process	a flare to the dimensio	ns specified for R32.	outdoor unit.	
• Turn o	n-site setting switch S	W5-1 to the ON position. (Where the gas pig	pe size is φ19.05)	

 If you choose to wash the pipe system, contact our distributor in the area. <Table of pipe size restrictions> Applicable pipe size combination is restricted by the following table. Pipe length is limited according to the total refrigerant charge amount. For additional charging amount of refrigerant, refer to 2.8, Additional refrigerant charge. Standard pipe size Otlasbie A-Restricted to shorter pipe length limits X:Not usable 
 \$ \$\begin{aligned} \$\col\$ \$\ Pipe size Gas pipe 200V 0 0 0 Jsability 250V 280V × × × 0 0 0 
 Pipe such
 Lipset pp

 Out pipe
 Contractor pp

 Model
 Combination of capacity

 View
 100+100

 Trans
 101+100

 Trans
 11+1+17

 Trans
 11+1+21

 Trans
 11+1+21

 Trans
 11+1+21

 Trans
 11+1+21

 Trans
 12+125, 140+140

 Trans
 125+125, 140+140
 <Pipe system after the branching pipe> After 1st branch \*\*3 After 2nd branch 
 φ9.52
 φ9.52

 φ12.7
 φ15.88
 φ19.05<sup>®1</sup>
 φ12.7
 φ15.88
 φ19.05<sup>®1</sup>
 × © ○ × © ○ × © ○#4 -× -× 0 
 ···
 ···
 ···

 71+140
 ×
 ○
 ○#4

 >
 ×
 ○
 ○#4

 1+71+71
 ×
 ○
 ○
 Triple A Triple B Triple B <The model types of existing units of which branching pipes are reusable.> Models later than Type 8. •FDC \* \* \* 8 0 • •FDCP \* \* \* 8 0 •
# 1.10.5 Method for connecting the accessory pipe Models FDC200VSA-W, 250VSA-W, 280VSA-W

# PSC012D028H

- Be sure to use the accessory pipe to connect the service valve on the gas side with the field pipe.
- Be sure to use the straight pipe (Procured at the field) shown in the table 1 applicable to the model of outdoor unit.
- When tightening the flare, connect the pipe securely by pressing the flared face of pipe against the service valve.
- When brazing between the pipe in place and the attached pipe, confirm that no excessive force is applied to the flare joint. Otherwise gas could leak from the flare joint.
- Connect the attached pipe according to the following steps (1 5).
- (1) Referring to Table 2 and Table 3, prepare the straight pipe and the elbow in the field, which are used in the construction examples (A) (D) applicable to the connecting direction.
- (2) Firstly, use the accessory pipe to assemble the connecting pipe assembly <u>outside the outdoor unit.</u> (As shown in the figure of connecting examples (A D).)
- ③ After assembling the connecting pipe, connect it to the service valve on the gas side <u>inside the outdoor unit.</u> Tighten the flare nut with appropriate torque.

Prop	er torque
φ 19.05	100-130N•m

- ④ After connection of the connecting pipe assembly to the service valve on the gas side, braze the connecting pipe assembly and the field pipe.
- (5) When connecting pipe contacts wiring, attach heat insulating material to the pipe in order to prevent from contacting of the pipe and wiring. (If the wiring is rubbed with the pipe and the cover of wiring is teared, there is a risk of a short circuit or an electtric shock.)

# [Connection example A - D applicable to the connecting direction.]

 The piping angle shown below is an example in case of 15mm of heat insulating material. Adjust an angle, according to the thickness of heat insulating material. Pass the connecting pipe in a hole after angle adjustment.





# 1.10.6 Instructions for branching pipe set (DIS-WA1G, WB1G, TA1G, TB1G)

PSB012D865A

# 🖄 WARNING / CAUTION

- This set is for R410A and R32 refrigerant.
   Select a branching ping and and R32 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.
- An improperty installed branching pipe set can cause degraded performance or an abnormal
   Provide good heat insulation to the pipes by following instructions contained in this manual.
- Improper heat insulation of 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."

Propobing pipe act type	Supported outdoor/in	loor unit combinations	Part lists						
branching 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	laint A				
	ALID	2HP+2HP		7	ID9.52 ID9.52 ID9.52				
DIS-WA1G	40r	1.5HP+2.5HP		0 1 2	Flare joint	1 129			
(Two-way branching set)	5HP	2.5HP+2.5HP			(for indoor unit side connection)	L M			
(Two way brandning bot)		2HP+3HP	ID9.52 🗍 🕄		Joint B 2 pieces				
	6HP	3HP+3HP		1 piece	0D15.88 D ID12.7	One each for liquid and gas			
		2HP+4HP	1 picco	i piece					
		4HP+4HP	ID9.52	ID15.88					
	8HP					E P			
DIS-WB1G	om	3HP+5HP			Joint C 1 piece				
(Two-way branching set)		511 7 511			0D12.7 D9.52				
	10HP	5HP+5HP	ID12.7 J ID9.52	ID25.4 ID15.88					
	12HP	6HP+6HP	1 piece	1 piece		One each for liquid and gas			
DIS-TA1G (Three-way branching set)	6HP	2HP+2HP+2HP	109.52 () () () () () () () () () ()	D12.7 () () () (2) () () (D15.88 1 piece	Joint A ID9.52 3 pieces Flare joint (for indoor unit side connection)	One each for liquid and gas			
DIS-TB1G (Three-way branching set)	8HP	3HP+3HP+3HP	109.52 0 0 0 0 0 0 0 0 0 0 0 0 0	1015.88 () () () () () () () () () () () () () (	Joint A         2 pieces           Flare joint (for indoor unit side connection)         Joint B         1 piece           OD15.88         Dint D         1 piece           Joint D         1 piece         ID12.7           Joint D         1 piece         ID12.7           ID12.7         OD9.52         ID12.7	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." ID stands for inner diameter and OD, outer diameter (4) A branching pipe set must always be installed into the posture as illustrated in the drawing below.



# 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-WA1G

Outdoor unit



#### 2-2 DIS-WB1G





Supported c Outdoor unit model	ombinations Indoor unit model	Liquid branching pipe	Gas branching pipe
6HP	2HP+2HP+2HP	Connecting pipe Joint A (\$\phi\$.952) ID9.52 Joint A Joint A CAUTION Reference	1 2 3 4 1015.88 3

#### 2-4 DIS-TB1G Applicable to the difference in length of pipes after the branch being less than 3m \* Connection is not allowed when the difference in length of pipes is larger than 3m.



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

Indo

#### 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 3m and shorter than 10m

	Outdoor unit model	Indoor unit model	Branching pipe	Branching pipe set type	Liquid branching pipe	Gas branching pipe
or unit			a		Flare joint $(\phi \ 6.35)$ $(\phi \ 6.35)$ $(\phi \ 9.52)$ ID9.52 $(\phi \ 9.52)$ $(\phi \ 0.52)$ $(\phi \ $	Joint B 2 J D15.88 J ID15.88
	6HP	2HP+2HP+2HP	b	DIS-WA1G	Flare joint $(\phi 6.35)$ $\downarrow \rightarrow$ Joint A Connecting pipe $(\phi 9.52)$ ID9.52 $\downarrow \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	Joint B
	aup		a	DIS-WB1G	ID9.52 ↓ ② ID9.52 ↓ ③ ↓ ③ Joint C ID9.52	ID15.88 ID25.4 ID15.88
	внь	3HP + 3HP + 3HP	b	DIS-WA1G	109.52 109.52 1 109.52 1 109.52	ID15.88 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 3m \* Connection is not allowed when the difference in length of pipes is larger than 3m.



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):



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.





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. It has an adhesive layer on the entire inner face. Remove a separator and wrap it around the branching pipe.

PSA012B839G

# 1.10.7 Safety precautions in handling air-conditioners with flammable refrigerant

# R32 REFRIGERANT USED



 This equipment uses flammable refrigerants. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.
 There is information included in the user's manual and/or installation manual.

 The user's manual should be read carefully.
 A service personnel should be handing this equipment with reference to the installation manual.

This safety precaution sheet is for R32 refrigerant. If you want to know the type of refrigerant in the unit, check the label attached to the outdoor unit.
The precautionary items mentioned below are distinguished into two levels, <u>A WARNING</u> and <u>A CAUTION</u>.

WARNING : Wrong installation would cause serious consequences such as injuries or death.

A CAUTION : Wrong installation might cause serious consequences depending on circumstances.

#### 

Strict compliance of the domestic laws must be observed when disposing the appliance.

- Do not use means to accelerate the defrosting process or to clean, other than those recommended
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.
- Do not pierce or burn.
  Be aware that refrigerants may not contain an odour.
  The ducts connected to an appliance shall not
- contain a potential ignition source.

## 

## (1. General)

by the manufacturer.

- The installation of pipe-work shall be kept to a minimum.
- Pipe-work shall be protected from physical damage.
  Compliance with national gas regulations shall be
- Mechanical connections shall be accessible for
- maintenance purposes.Keep any required ventilation openings clear of
- obstruction. • Servicing shall be performed only as recommended
- by the manufacturer. • Equipment piping in the occupied space shall be
- Equipment piping in the occupied space share be installed in such a way to protect against accidental damage in operation and service.
   Precautions shall be taken to avoid excessive
- Precautions shall be taken to avoid excessive vibration or pulsation to refrigerating piping.
- Protection devices, piping and fitting shall be protected as far as possible against adverse effects for example, the danger of water collection and freezing in relief pipes or the accumulation of dirt and debris.
- · Provision shall be made for expansion and
- contraction of long runs of piping.
   Piping in refrigerating systems shall be designed and installed to minimize the likelihood hydraulic shock damaging the system.
- The indoor equipment and pipes shall be securely mounted and guarded to avoid accidental rupture of equipment from moving furniture or reconstruction activities.
- Instructions for wiring to external zoning dampers and/or mechanical ventilation, to ensure that upon detection of a leak, the zoning dampers are driven fully open and additional mechanical ventilation is activated.
- For appliances using A2L refrigerants, connected via an air duct system to one or more rooms, the supply and return air shall be directly ducted to the space. Open areas such as false ceilings shall not be used as a return air duct.
- The following information requirements apply for enhanced tightness refrigerating systems using A2L refrigerants.
- Where safety shut off valves are specified, the minimum room area may be determined based on the maximum amount of refrigerant that can be leaked as determined in GG.12.2. (IEC 60335-2-40:2018)
- Where safety shut off valves are specified, the location of the valve in the refrigerating system relative to the occupied spaces shall be as described in GG.12.1.(IEC 60335-2-40:2018)

- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- If the refrigerant charge amount in the system is ≥1.84 kg, an unventilated area where the appliance is installed shall be so constructed that should any refrigerant leak, it will not stagnate so as to create a fire or explosion hazard.

## 3. Qualification of workers

2. Unventilated areas

- The staff in servicing operations must hold the national gualification or other relevant gualifications.
- 4. Information on servicing
- 4.1 Checks to the area
- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised.
- For repair to the refrigerating system, 4.2 to 4.6 shall be completed prior to conducting work on the system.
- 4.2 Work procedure
- Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.
- 4.3 General work area
- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out.
- Work in confined spaces shall be avoided
- 4.4 Checking for presence of refrigerant
  The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

- 4.6 No ignition sources
- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition such a manner that it may lead to the risk of fire or explosion
- that it may lead to the risk of fire or explosion.
  All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks.
  "No Smoking" signs shall be displayed.
- 4.7 Ventilated area
- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
- A degree of ventilation shall continue during the period that the work is carried out.
- The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
- 4.8 Checks to the refrigerating equipment
  Where electrical components are being changed, they shall be fit for the purpose and to the correct specification.
- At all times the manufacturer's maintenance and
- service guidelines shall be followed.If in doubt consult the manufacturer's technical department for assistance.
- The following checks shall be applied to
- installations using flammable refrigerants:
   the actual refrigerant charge size is in accordance with the room size within which the refrigerant containing parts are installed.
- containing parts are installed.
   the ventilation machinery and outlets are operating adequately and are not obstructed;
- if an indirect refigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant,
- marking to the equipment continues to the visible and legible. Markings and signs that are illegible shall be corrected,
- refrigerating pipe or components are installed in a position where they are unlikely to e exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

- 4.9 Checks to electrical devices
- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- It the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised.
- Initial safety checks shall include:
- that safety crecks shall include.
   that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
   that no live electrical components and wiring are
- exposed while changing, recovering or purging the system.
- that there is continuity of earth bonding

#### 5. Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- If it is absolutely necessary to have an electrical supply to equipment during servicing then a permanently operating from of leak detection shall be located at the most critical point to warm of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected.
   This shall include damage to cables, excessive number of connections, terminals not made to
- number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc. Ensure that the apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres.
- Replacement parts shall be in accordance with the manufacturer's specifications.

(6. Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage
- and current permitted for the equipment in use. Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- The test apparatus shall be at the correct rating.
  Replace components only with parts specified by
- the manufacturer.
- Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

#### NOTE

The use of silicone sealant can inhibit the effectiveness of some types of leak detection equipment. Intrinsically sate components do not have to be insulated prior to working on them.

#### (7. Cabling)

 Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

# 

- 8. Detection of flammable refrigerants
- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks.
- A halide torch (or any other detector using a naked flame) shall not be used.
  Electronic leak detectors may be used to detect
- Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
   Ensure that the detector is not a potential source of
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
   Leak detection equipment shall be set at a percentage
- of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- Examples of leak detection fluids are
- bubble method
- fluorescent method agents
- If a leak is suspected, all naked flames shall be removed/extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
  Removal of refrigerant shall be according to Item.9.
- Removal of refrigerant shall be according to Item.9

## (9. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs - or for any other purpose - conventional procedures shall be used. However, for flammable refrigerants it is important that best practice is followed since flammability is a consideration.
- The following procedure shall be adhered to: – remove refrigerant;
- purge the circuit with inert gas; (Option for A2L)
   evacuate;(Option for A2L)
- evacuate;(Option for A2L)
   purge with inert gas ;(Option for A2L)
- open the circuit by cutting or brazing.
  The refrigerant charge shall be recovered into the
- For appliances containing flammable refrigerants,
- other than A2L refrigerants, the system shall be "flushed" with OFN to render the unit safe for flammable refrigerants.
- This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for purging refrigerant systems.
- For appliances containing flammable refrigerants. other than A2L refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the to system with oxygen-free nitrogen and continuing fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system.
- When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe-work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and that ventilation is available.

#### 10. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed. – Ensure that contamination of different refrigerants
- dose not occur when using charging equipment. Hoses of lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate according to the instructions.
- Ensure that the refrigerating system is earthed
- Prior to charging the system with refrigerant.
   Label the system when charging is complete (if
- not already). – Extreme care shall be taken not to overfill the refrigerating system.
- Prior to recharging the system, it shall be pressuretested with the appropriate purging gas.
- tested with the appropriate purging gas.The system shall be leak-tested on completion of charging but prior to commissioning.
- A follow up leak test shall be carried out prior to leaving the site.

#### (11. Decommissioning)

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.
- It is recommended good practice that all
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is
- refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. • It is essential that electrical power is available
- before the task is commenced.
- a) Become familiar with the equipment and its operation. b) Isolate system electrically.
- c) Before attempting the procedure ensure that

   mechanical handling equipment is available, if
  required, for handling refrigerant cylinders,
- required, for handling refrigerant cylinders, – all personal protective equipment is available and
- being used correctly, - the recovery process is supervised at all times by
- a competent person, – recovery equipment and cylinders conform to the appropriate standards.
- d) Pump down refrigerant system, if possible
- e) If a vacuum is not possible, make a manifold so
- that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place.
- g) Start the recovery machine and operate in
- accordance with instructions. h) Do not overfill cylinders. (No more than 80 %
- volume liquid charge). i) Do not exceed the maximum working pressure of
- the cylinder, even temporarily .j) When the cylinders have been filled correctly and the process completed, make sure that the
- cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off. k) Recovered refrigerant shall not be charged into
- Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.

#### (12. Labelling)

- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed
- The label shall be dated and signed. • For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

# 

#### 13. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure
- that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for
- the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order.
- Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants
- including, when applicable, flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order.

- · Hoses shall be complete with leak-free disconnect couplings and in good condition.
- Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged.Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant dose not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall
- be employed to accelerate this process
- When oil is drained from a system, it shall be carried out safely.

14. Other safety precautions

- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts.
- Flammable refrigerant used, refrigerant tubing protected or enclosed to avoid mechanical damage (IEC/EN 60335-2-40/A1).
- Tubing protected to extent that it will not be handled or used for carrying during moving of product (IEC/ EN 60335-2-40/A1).
- Flammable refrigerant used, low temperature solder alloys, such as lead/tin alloys, not acceptable for pipe connections
- (IEC/EN 60335-2-40/A1).
- Do not use flare nut indoor which is locally procured.

## Selection of installation location for the indoor unit

#### • Minimum installation area for indoor unit

## 

The indoor unit shall be installed in a room with minimum installation area or more according to the refrigerant charge amount (factory refrigerant charge +additional refrigerant charge).

For factory refrigerant charge, refer to the outdoor unit label model name or installation sheet.

For additional refrigerant charge, refer to the outdoor unit installation sheet.

• If the refrigerant charge amount in the system is < 1.84 kg, there are no additional minimum floor area requirements.

If the refrigerant charge amount in the system is ≥ 1.84 kg, you need to comply with additional minimum floor area requirements as described in the following table.
For further details regarding the installation location of indoor unit, refer to technical manual.





In case of installing the indoor unit in an enclosed ceiling space, ensure there is a sufficient ventilation opening around the unit. In the event of refrigerant leakage, this countermeasure would prevent an increased concentration of refrigerant.

# **1.11 Technical information** (1) Ceiling cassette-4 way type(FDT)

# Model FDT200VSAWPVH

Model(s) : FDC200VSA-W / F	DT100VH (x2	units)					
Outdoor side heat exchanger of air-condit	ioner :	air					
Indoor side heat exchanger of air-conditio	ner :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	20.0	kW	cooling energy	η s,c	262.3	%
				efficiency			
Declared cooling capacity for part load at	given outdoor	temperatur	es	Declared energy e	fficiency ratio or gas utilization efficie	ncy /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	ctor for part load at given outdoor ten	nperatures	Гј
<b>T</b> :	5.		1				1
Tj=+35°C	Pac	20.0	ĸvv	Tj=+35℃	EERd or	379.0	%
Ti- 1 20°C	Dda	447	14M		GUEc,bin / AEFc,bin		-
TJ=+30 C	Pac	14.7	ĸvv	Tj=+30°C	EERd or	570.0	%
Ti-+25°C	Pdo	9.5	EW/		GUEc,bin / AEFc,bin		-
1]-+25 C	Puc	9.5	ĸvv	Tj=+25℃	EERd or	776.0	%
Ti=+20°⊂	Pdc	7.4	KW/	T 00%5	GUEc,bin / AEFc,bin		-
1]-1200	T uc	7.4	~~~	I J=+20°C	EERd or	946.0	%
Description		-	1		GUEC,bin / AEFC,bin		
	Cdo	0.25					
	Cuc	0.20	-				
			J				
Power consumption in other than 'active n	node'						
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase heater	mode P <sub>CK</sub>	0.012	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	Standby mode	P <sub>SB</sub>	0.008	kW
							4
Other items							
				For air-to-air air-co	onditioner:	0000	m3/b
Capacity control		variable		air flow-rate,outdoo	or measured	0000	111-711
							_
Sound power level,	Luc	72.0	dB				
outdoor	-WA	12.0	u.D				
			_				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			,				
GWP of the		675	kg CO2eq.				
refrigerant			(100years)				
Contact details Mitsubis	shi heavy indu	stries therm	al systems,L	TD			
** If Cdc is not determined by measureme	nt then the de	fault degrad	lation coeffici	ent air-conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	-conditioners,	the test resu	ult and perfor	mance data be obtai	ined on the basis of the performance		
of the outdoor unit, with a combination of	ndoor unit(s) r	ecommend	ed by the ma	nufacturer or importe	er.		
1							



Information to identify the model(s) to which th	e information	relates :		FDC200VS	A-W / FDT100VH (x2 ι	units)		
Outdoor side heat exchanger of heat pump :		air			•	·		
Indoor side heat exchanger of heat pump :		air						
Indication if the heater is equipped with a supp	lementary hea	ater :		1	١o			
if applicable : electric motor								
Parameters shall be declared for the average h	neating seaso	n, paramete	ers for the w	armer and c	older heating seasons a	are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space heating	ng energy efficiency ŋs,h		
	Prated,h	22.4	kW				179.0	%
Declared heating capacity for part load at indo	or temperature	e 20°C			Declared coefficient of	f performance or gas utilization efficier	ncy /	
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoor tempera	atures Tj	
			_					_
Tj=−7°C	Pdh	11.1	kW		Tj=-7℃	COPd or	345.0	0/_
			-			GUEh,bin / AEFh,bin	343.0	70
T <sub>j</sub> =+2°C	Pdh	6.7	kW		T <sub>j</sub> =+2°C	COPd or	469.0	0/_
			-			GUEh,bin / AEFh,bin	405.0	70
T <sub>j</sub> =+7°C	Pdh	6.6	kW		T <sub>j</sub> =+7°C	COPd or	E4E 0	0/.
			-			GUEh,bin / AEFh,bin	545.0	70
T <sub>j</sub> =+12°C	Pdh	8.0	kW		Tj=+12℃	COPd or		0/
			-			GUEh.bin / AEFh.bin	663.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW		T <sub>biv</sub> =bivalent	COPd or	000 0	0/
	i	-	-		temperature	GUEh,bin / AEFh.bin	289.0	70
T <sub>OL</sub> =operation limit	Pdh	12.5	kW		T <sub>OL</sub> =operation limit	COPd or		~
	I		1			GUEh.bin / AFFh.bin	289.0	%
For air-to-water heat pumps ·	Pdh	-	кW		For air-to-water heat	COPd or		
Ti=-15°C	. un				pumps:Ti=-15°C	GUEh.bin / AEFh.bin	-	%
$(if T_{cl} \leq -20^{\circ}C)$					(if $T_{ol} \leq -20^{\circ}C$ )			1
Bivalent temperature	This	-10.0	°C		For water-to-air heat			1
· · · · · · ·	DIV		1		pumps:Operation limit		-	°C
Degradation			1		T <sub>ol</sub> temperature			
coefficient	Cat	0.25	-					1
heat pumps**	- 011							
			J					
				1				
Power consumption in modes other than 'activ	e mode'				Supplementary heater			1
	e mode				back up boating capac	elbu	-	kW
Off mode	POFF	0.008	kW		back-up nearing capac	Sity		1
Thermostat-off mode	PTO	0.030	kW		Type of operay input			1
Crankcase heater mode	Рск	0.012	kW		Standby mode	P <sub>SB</sub>	0.008	kW
	- GR				Stanuby mode			1
Other items				1				
Other items					For oir to oir boot num			1
		variable	1		-inflamments autole and	ips.	8040	m <sup>3</sup> /h
Capacity control	ļ	Variable	]		air flow-rate,outdoor m	heasured		J
			1		Francisco de sino da sia	hand an one of		1
Sound power level,	L <sub>WA</sub>	74.0	dB		For water-/brine-to-air	neat pumps :		m <sup>3</sup> /h
outdoor measured			J		Rated brine or water to	ow-rate,	_	
			1		outdoor side heat excr	nanger		J
Emissions of nitrogen	NOx		mg/kWh					
oxides(if applicable)	***	-	fuel input					
			GCV					
				1				
CIA/D of the			ka co					
		675	ky CO2eq. (100vears)					
retrigerant	ļ		]`,00.0)					
Contact details Mitsubishi	heavy industr	ries thermal	systems,LT	D	ore shall be 0.05			
ii Gun is not determined by measurement th	en the default	uegradation	coefficient	air-condition	iers snall de 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-con-	ditioners,the te	est result an	id performar	nce data be o	obtained on the basis of	f the performance		
of the outdoor unit, with a combination of indoo	or unit(s) recor	mmended by	y the manufa	acturer or im	porter.			

# Model FDT250VSAWPVH

Model(s) : FDC250VS	SA-W / FDT125VH (x2	units)					
Outdoor side heat exchanger of a	ir-conditioner :	air					
Indoor side heat exchanger of air	-conditioner :	air					
Type : vapour compression							
if applicable : electric mo	tor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	25.0	kW	cooling energy	η s,c	244.8	%
				efficiency			
Declared cooling capacity for part	t load at given outdoor	temperatu	res	Declared energy e	fficiency ratio or gas utilization	efficiency /	
Tj and indoor 27°C/19°C(dry/wet b	oulb)			auxiliary energy fa	ctor for part load at given outdo	or temperatures	Tj
Ti=+35°C	Pdc	25.0	kW/	T:- + 25°0			1
rj=-00 0	i de	20.0		TJ=+35 C	EERd or	314.0	%
Ti=+30°C	Pdc	18.4	kW	Ti- + 20°C	GUEC, DIN / AEFC, DIN		-
.,			]	1j=+30 C		525.0	%
Ti=+25°C	Pdc	11.8	kW	Ti=+25°C	EEPd or		-
	~~		1	1]25-0		711.0	%
Tj=+20°C	Pdc	7.3	kW	Ti=+20°C	EERd or		-
		<u></u>	1	1 200	GLIEC bin / AEEC bin	927.0	%
Degradation			1				1
coefficient for	Cdc	0.25	-				
air-conditioners**							
			-				
Power consumption in other than	'active mode'						
Off mode	Porr	0.009	kW	Crankcase heater	mode Por	0.012	kW
Thermostat-off mode	P <sub>TO</sub>	0.027	kW	Standby mode	P <sub>SB</sub>	0.009	kW
			J				1
Other items							1
O			1	For air-to-air air-co	onditioner:	8880	m³/h
Capacity control		variable	]	air flow-rate,outdoo	or measured		
			1				
Sound power level,	L <sub>WA</sub>	73.0	dB				
outdoor			]				
If an also addresses							
Emissions of nitrogon	NOx	-	fuel input				
nxides	***		GCV				
UNICES			]001				
			7				
GWP of the		675	kg CO2eq.				
refrigerant			(Tobyears)				
Contact details	Mitsubishi heavv indu	stries them	nal systems I	_TD			
** If Cdc is not determined by me	asurement then the de	fault degra	dation coefficient	cient air-conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to mult	i-spilt air-conditioners	the test res	ult and perfo	rmance data be obta	ained on the basis of the perform	mance	
	,						

of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.



Information to identify the model(s) to which	the information	relates :		FDC250VSA-V	/ / FDT125VH (x2 ι	units)			
Outdoor side heat exchanger of heat pump :		air							
Indoor side heat exchanger of heat pump :		air							
Indication if the heater is equipped with a su	oplementary he	eater :		No					
if applicable : electric motor									
Parameters shall be declared for the average	e heating seaso	on , parame	ters for the	warmer and colo	ler heating seasons	are optional.			
Item	Symbol	Value	Unit	Iter	n	Symbol		Value	Unit
Rated heating capacity				Se	asonal space				
	Prated,h	28.0	kW	hea	ating energy	η s,h		171.1	%
				effi	ciency				
Declared heating capacity for part load at inc	loor temperatur	re 20°C		De	clared coefficient of	performance or gas utilization	ation efficier	ncy /	
and outdoor temperature Tj				au	kiliary energy factor	for part load at given outd	loor tempera	atures Tj	
Tj=−7°C	Pdh	12.6	kW	Tj=	-7°C	COPd or		202.0	0/
	-		-			GUEh,bin / AEFh,bin		303.0	70
T <sub>i</sub> =+2°C	Pdh	7.7	kW	T <sub>i</sub> =	+2°C	COPd or		442.0	0/
			-			GUEh.bin / AEFh.bin		443.0	%
T <sub>i</sub> =+7°C	Pdh	5.7	kW	T <sub>i</sub> =	+7°C	COPd or			
,	ŀ		1	,		GUEh bin / AEEh bin		527.0	%
T.=+12℃	Pdh	6.7	kW	Т.=	+12°C	COPd or			
1	· .		1	1		GLIEb bin / AEEb bin		648.0	%
This=bivalent temperature	Pdh	14.2	кW	Tes	=bivalent	COPd or			1
		-	1	ten	nperature			276.0	%
T <sub>ot</sub> =operation limit	Pdh	15.1	kW	т	=operation limit	COPd or	ł		
			1	101	- sporation mill	GUEb bin / AEEb bin		194.0	%
For air to water beat numera	Pdb	-	kw/		air to water bact		ŀ		
$T = 15^{\circ}$	Pull		KVV	FUI DUI	mps:T = $15^{\circ}$ C	CUPU OF		-	%
$(if T < 20^{\circ}C)$				/if ·	пра. 1j=-13 С	GOEII,DIII/ AEI II,DIII	L		1
(II 1 <sub>0L</sub> <-20 C)				(11	I <sub>OL</sub> <-20 C)				
Divelent temperature	-	-10.0	·~	For	water-to-air heat		Г		1
	biv	-10.0	C	1.01	water-to-air neat			_	°C
Degradation	1		1	т	tomporaturo				C
	0	0.25		' ol	temperature		L		]
	C <sub>dh</sub>	0.25	-						
neat pumps	ļ		]						
							Г		1
Power consumption in modes other than 'act	ive mode'			Su	pplementary heater		elbu	-	kW
0.17			1	ba	ck-up heating capac	city	L		
	POFF	0.009	KVV				Г		1
Thermostat-off mode	P <sub>TO</sub>	0.032	kW	Ту	be of energy input		P <sub>SB</sub>	0.009	kW
Crankcase heater mode	P <sub>CK</sub>	0.012	kW	Sta	indby mode		l		
Other items							г		1
	Г		1	For	air-to-air heat pum	ips:		9180	m <sup>3</sup> /h
Capacity control	l	variable	]	air	flow-rate,outdoor m	leasured	l		
	г		1				г		1
Sound power level,	L <sub>WA</sub>	75.0	dB	Fo	water-/brine-to-air	heat pumps :			2.4
outdoor measured			]	Ra	ted brine or water fl	ow-rate,		-	m³/h
	,		,	out	door side heat exch	nanger			l
Emissions of nitrogen	NOV		mg/kWh						
oxides(if applicable)	NUX ***	-	fuel input						
			GCV						
GWP of the		675	kg CO2eq.						
refrigerant		0/0	(100years)						
			-						
Contact details Mitsubis	ni heavy indust	ries therma	l systems.L	TD					
** If Cdh is not determined by measurement	then the defaul	It degradatio	on coefficie	nt air-conditioner	s shall be 0,25.				
*** from 26 September 2018		-							
Where information relates to multi-spilt air-or	nditioners the t	test result a	ind perform	ance data he obi	ained on the basis	of the performance			
of the outdoor unit, with a combination of ind		mmended I	hy the man	ifacturer or impo	iter				
			-, man						

# Model FDT280VSAWPVH

Model(s): FDC280VSA-W / FD	T140VH (x2	units)					
Outdoor side heat exchanger of air-condition	ner :	air					
Indoor side heat exchanger of air-condition	er :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	27.0	kW	cooling energy efficiency	η s,c	245.5	%
Declared cooling capacity for part load at gi	ven outdoor	temperatur	es	Declared energy eff	ficiency ratio or gas utilization efficien	ncy /	•
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fac	ctor for part load at given outdoor tem	nperatures	Тј
Tj=+35℃	Pdc	27.0	kW	Tj=+35°C	EERd or	300.0	%
T:- 120°0	Dde	40.0	12) 07		GUEc,bin / AEFc,bin		
1J=+30 C	Puc	19.9	ĸvv	Tj=+30°C	EERd or	512.0	%
Ti−+25°C	Ddo	12.9	F/W		GUEc,bin / AEFc,bin		1
1]=+23 0	Fuc	12.0		Tj=+25°C	EERd or	739.0	%
Ti=+20°C	Pdc	8.2	k\M/	T: . 00%0	GUEc,bin / AEFc,bin		
1]-1200	i uc	0.2		Ij=+20°C	EERd or	931.0	%
Degradation					GUEC,DIN / AEFC,DIN		]
	Cdc	0.25					
air-conditioners**	Cuc		-				
Power consumption in other than 'active mo Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heater n Standby mode	node P <sub>CK</sub> P <sub>SB</sub>	0.012	kW kW
Other items							1
Capacity control		variable		For air-to-air air-cor air flow-rate,outdoo	nditioner: or measured	8160	m <sup>3</sup> /h
Sound power level,	L <sub>WA</sub>	75.0	dB				
outdoor							
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
GWP of the		675	kg CO2eq.				
refrigerant		6/5	(100years)				
Contact details Mitsubish	i heavy indu	stries therm	al systems I	TD			
** If Cdc is not determined by measuremen	t then the de	efault degrad	dation coefficients,	cient air-conditioners	shall be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spilt air-o	onditioners.	the test resi	ult and perfo	rmance data be obtai	ined on the basis of the performance	9	
of the outdoor unit, with a combination of in	door unit(s)	recommend	led by the m	anufacturer or import	er.		
			,				



Information to identify the model(s) to which	the information	relates :		FDC280VS	SA-W / FDT140VH (x2 ι	units)			
Outdoor side heat exchanger of heat pump :		air							
Indoor side heat exchanger of heat pump :		air							
Indication if the heater is equipped with a su	oplementary he	ater :		1	۱o				
if applicable : electric motor									
Parameters shall be declared for the average	e heating seaso	on , parame	eters for the	warmer and	colder heating seasons	s are optional.			
Item	Symbol	Value	Unit		Item	Symbol		Value	Unit
Rated heating capacity					Seasonal space				
	Prated,h	30.0	kW		heating energy efficiency	η s,h		165.6	%
Deployed booting consolity for part load at inc	loor tomporatu	~ 20°C	I		Declared coefficient of	f norformanae er gae utilize	tion officia		I
Declared heating capacity for part load at Inc	loor temperatur	re 20 C			Declared coefficient of	r performance or gas utiliza	ation enicie	ency /	
and outdoor temperature 1					auxiliary energy factor	for part load at given outd	oor tempe	eratures 1j	
T =_7°C	Pdb	16.2	KW/		T =_7°C	COPd or			1
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 un				1, 70			285.0	%
T - 12%	Ddb	9.6	14147		T-10°C	GUEh,bin / AEFh,bin			-
1 <sub>j</sub> =+2 C	Pan	5.0	KVV		1 <sub>j</sub> =+2 C	COPa or		410.0	%
T		6.2	1		T . 7°2	GUEh,bin / AEFh,bin			-
l <sub>j</sub> =+7°C	Pdh	6.3	kW		I <sub>j</sub> =+/°C	COPd or		553.0	%
			1			GUEh,bin / AEFh,bin			-
T <sub>j</sub> =+12°C	Pdh	6.5	kW		Tj=+12℃	COPd or		622.0	%
			1			GUEh,bin / AEFh,bin			-
T <sub>biv</sub> =bivalent temperature	Pdh	17.8	kW		T <sub>biv</sub> =bivalent	COPd or		231.0	%
		[	1		temperature	GUEh,bin / AEFh,bin			-
T <sub>OL</sub> =operation limit	Pdh	17.8	kW		T <sub>OL</sub> =operation limit	COPd or		231.0	%
			-			GUEh,bin / AEFh,bin			1
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or		-	%
Tj=-15℃					pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin			
(if T <sub>OL</sub> <-20°C)					(if T <sub>OL</sub> <-20°C)				
			-						-
Bivalent temperature	T <sub>biv</sub>	-10.0	°C		For water-to-air heat				
			_		pumps:Operation limit				°C
Degradation					T <sub>ol</sub> temperature				
coefficient	C <sub>dh</sub>	0.25	-						
heat pumps**									
									_
Power consumption in modes other than 'act	ive mode'				Supplementary heater	r	albu		KM/
					back-up heating capao	city	eibu	-	KVV
Off mode	POFF	0.009	kW						-
Thermostat-off mode	P <sub>TO</sub>	0.032	kW		Type of energy input				
Crankcase heater mode	Р <sub>ск</sub>	0.012	kW		Standby mode		P <sub>SB</sub>	0.009	kW
			-						4
Other items									
					For air-to-air heat pum	ins.			]
Capacity control		variable	1		air flow-rate outdoor m	peasured		8400	m³/h
	l		1		an now-rate,outdoor n	leasured			J
Sound power level			1		For water /bring to gir	haat numna i			1
Sound power level,	L <sub>WA</sub>	77.0	dB		For water-/brine-to-air	neat pumps :			m <sup>3</sup> /h
outdoor measured			]		Rated brine or water to	low-rate,			
	1				outdoor side heat excl	nanger		ļ	L
Emissions of nitrogen	NOx		mg/kWh						
oxides(if applicable)	***	-	tuel input						
	ļ		GCV						
				-					
			1						
GWP of the		675	kg CO2eq.						
refrigerant	l		(Tobyears)	′					
Contact details Mitsubis	hi heavy indust	ries therma	l systems,L	TD					
** If Cdh is not determined by measurement	then the defaul	t degradati	on coefficier	nt air-conditi	oners shall be 0,25.				
*** from 26 September 2018									
Where information relates to multi-spilt air-co	onditioners,the	test result a	and performa	ance data be	obtained on the basis	of the performance			
of the outdoor unit, with a combination of ind	oor unit(s) reco	mmended	by the manu	ufacturer or i	mporter.				
1									



PJF000Z731 🛕

# Model FDT200VSAWTVH

Model(s): FDC200VS	SA-W / FDT71VH (x3 u	nits)					
Outdoor side heat exchanger of a	ir-conditioner :	air					
Indoor side heat exchanger of air	-conditioner :	air					
Type: vapour compression	t						
if applicable : electric mo	otor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated,c	20.0	kW	Seasonal space cooling energy efficiency	η s,c	262.3	%
Declared cooling capacity for part Tj and indoor 27°C/19°C(dry/wet b	load at given outdoor bulb)	temperatu	res	Declared energy e auxiliary energy fa	efficiency ratio or gas utilizatior actor for part load at given outd	oor temperatures <sup>-</sup>	Гј
Tj=+35℃	Pdc	20.0	kW	Tj=+35℃	EERd or GUEc.bin / AEFc.bin	377.0	%
Tj=+30℃	Pdc	14.7	kW	Tj=+30℃	EERd or GUEc.bin / AEFc.bin	571.0	%
Tj=+25℃	Pdc	9.5	кW	Tj=+25℃	EERd or GUEc,bin / AEFc,bin	781.0	%
Tj=+20°C	Pdc	8.3	кW	Tj=+20°C	EERd or GUEc,bin / AEFc,bin	952.0	%
Degradation coefficient for air-conditioners**	Cdc	0.25	]-				_
Power consumption in other than Off mode Thermostat-off mode	'active mode' P <sub>OFF</sub> P <sub>TO</sub>	0.008 0.024	kW kW	Crankcase heater Standby mode	r mode P <sub>CK</sub> P <sub>SB</sub>	0.012	kW kW
Other items							_
Capacity control		variable	]	For air-to-air air-co air flow-rate,outdo	onditioner: oor measured	8880	m <sup>3</sup> /h
Sound power level, outdoor	L <sub>WA</sub>	72.0	dB				
If engine driven: Emissions of nitrogen oxides	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kg CO₂eq. (100years)				
Contact details	Mitsubishi heavy indus	stries them	nal systems,L	.TD			
*** from 26 September 2018 Where information relates to mult of the outdoor unit, with a combin	asurement then the def i-spilt air-conditioners,ti ation of indoor unit(s) r	auit degra he test res ecommeno	uation coeffic ult and perfor led by the ma	mance data be obta	snall be 0,25. ained on the basis of the perfor ter.	mance	

histor a base a dechaging of the large is: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask of the large is a segmentary failer: picture of the lask	Information to identify the model(s)	to which the information	relates :		FDC200VSA-W / FDT71VH (x3)	units)		
note substanding of visual games?       a         note substanding of visual games?       B         note substanding of visual games?       Single Names         note substanding of visual games?       Name         note substand note substand hana (ketton wisual games)       Name <td>Outdoor side heat exchanger of hea</td> <td>at pump :</td> <td>air</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Outdoor side heat exchanger of hea	at pump :	air					
Include of the predictive supposed with a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is the same and calce heating assess are calculated.       Impactive is a supplementary heater is a supplementary heater.       Impactive is a supplementary heater is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater.       Impactive is a supplementary heater. <td>Indoor side heat exchanger of heat</td> <td>pump :</td> <td>air</td> <td></td> <td></td> <td>·</td> <td></td> <td></td>	Indoor side heat exchanger of heat	pump :	air			·		
Targetorize         Sector for part set of the servery and codes holds:         Sector for part set of the servery and codes holds:         Sector for part set of the servery and codes holds:         Sector for part for part set of the servery and codes holds:         Sector for part for part set of the servery and codes holds:         Sector for part for part set of the sector part set of the sector part for part for part for part set of the sector part for pa	Indication if the heater is equipped v	with a supplementary he	ater :		No			
The mean and back other is a longer tanging sealer.         Specified         Value	if applicable : electric mot	tor						
Signal     Synthet     Value     Use     Inter     Synthet     Value     Use     Inter       State healing capacity     Protech     22.4     KV     Seasonal space hearing energy efficiency (p.h.)     T78.9     6,       Value of healing capacity for particulal at locar temperature 20°C     Declared coefficience of performance are particulated.     T78.9     6,       Value of healing capacity for particulal at locar temperature 20°C     Declared coefficience of performance are particulated.     22.0     9,       Car Co     Pah     6.7     OV     Cashon of the particulated at given outdoor informance are particulated.     22.0     9,       Car Co     Pah     6.8     VV     Tain 70°C     COOR informance are particulated.     22.0     9,       Car Co     Pah     6.8     VV     Tain 70°C     COOR informance are particulated.     22.0     9,       Car Co     Pah     6.8     VV     Tain 70°C     COOR informance are particulated.     22.0     9,       Car Co     Pah     6.8     VV     Tain 70°C     COOR informance are particulated.     22.0     9,       Car Co     Pah     6.0     VV     Tain 70°C     COOR informance are particulated.     22.0     9,       Car Co     Pah     6.0     VV     Tain 70°C     C	Parameters shall be declared for the	e average heating seaso	on, parameter	rs for the w	armer and colder heating seasons	are optional.		
etect hasting copacity     Praile //h     22.4     V/V     Second space hasting copy efficiency (p.h.     17.8     4       Decisive heating copacity for part load a finitox imperature 20°C     Column of addom timperature 20°C     Col	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Decident action is accord or rest or rest of rest or	Rated heating capacity	- Official	Value	0 m	Seasonal space hea	ting energy efficiency ns h	Value	
Decision that hold a calculation for part local is index thereperature 20°     Part 110     Part	Italed heating capacity	Prated,h	22.4	kW	Seasonal space nea	ung energy eniciency ris,n	179.0	%
backate hading capacity for part load at index temperature 3/2 and output for disconterest in the formation of the part of the section of the section of the part of the section of								
backets obtain defaulting capacity for particular to $C$ is a construction of the defaulting capacity for particular defaulting capacity for particular defaulting capacity for particular defaulting capacity for particular default is expected on the construction of the default of the default of the construction of the default of the default of the construction of			00%0		<b>D</b> 1 1 <b>(</b> 1 1		,	1
The outport in particular digree dubtice terms the outport is performed by the term particle is in the outport in particular digree dubtice terms the outport is performed by the terms of the outport is performed by the outport is performed by the outport is performed by the terms of the outport is performed by the outport is performed by the outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performed by the term outport is performance. The outport is performance	Declared heating capacity for part ic	ad at indoor temperatur	re 20°C		Declared coefficient	of performance or gas utilization effi	ciency /	
fp-rCG     Pdth     111     W     fp-rCG     00% or     00% or       fp-rCG     Pdth     111     W     00% or     00% or     00% or       fp-rCG     Pdth     6.6     W     00% or     00% or     00% or       fp-rCG     Pdth     0.0     W     00% or     00% or     00% or       fp-r12C     Pdth     0.0     W     00% or     00% or     00% or       fp-r12C     Pdth     0.0     W     00% or     00% or     00% or       fp-r12C     Pdth     0.0     W     00% or     00% or     00% or       fp-r12C     Pdth     0.0     W     00% or     00% or     00% or       fp-r12C     O0% or     00% or     00% or     00% or     00% or       fp-r12C     O0% or     00% or     00% or     00% or     00% or       fp-r12C     O0% or     00% or     00% or     00% or     00% or       fp-r12C     O0% or     00% or     00% or     00% or     00% or       fp-r12C     O0% or     00% or     00% or     00% or     00% or       fp-r16C     ff-r2     0.0     00% or     00% or     00% or       fp-r16C     0.00     W <td< td=""><td>and outdoor temperature 1j</td><td></td><td></td><td></td><td>auxiliary energy facto</td><td>or for part load at given outdoor temp</td><td>peratures 1j</td><td></td></td<>	and outdoor temperature 1j				auxiliary energy facto	or for part load at given outdoor temp	peratures 1j	
Image: Product of the second secon	<b>-</b> -0-		44.4					1
pr-20     Pan     47     W       f=70     Pan     6       f=70     Pan     7       f=70     0     7       f=70 <td>I<sub>j</sub>=-7°C</td> <td>Pdh</td> <td>11.1</td> <td>kW</td> <td>I<sub>j</sub>=-7°C</td> <td>COPd or</td> <td>323.0</td> <td>%</td>	I <sub>j</sub> =-7°C	Pdh	11.1	kW	I <sub>j</sub> =-7°C	COPd or	323.0	%
(=20)     Pah     x     W     T=2C     CON a     CON a     460.0     %       [=770     Pah     6     W     T=72C     CON a     CON a     S22.0     %       [=770     Pah     6     W     T=72C     CON a     S22.0     %       [=770     Pah     6     W     T=72C     CON a     S22.0     %       [=770     Pah     6     W     T=72C     CON a     S22.0     %       [=770     Pah     6     W     T=770     CON a     S22.0     %       [=770     Pah     6     W     T=770     CON a     S22.0     %       [=770     Pah     6     W     T=770     CON a     S22.0     %       [=770     Pah     12.5     W     T=770     CON a     S22.0     %       [=770     Pah     12.5     W     T_1=720     CON a     S22.0     %       [=770     Pah     12.5     W     T_1=720     CON a     S22.0     %       [=770     Pah     12.5     W     T_1=720     CON a     S22.0     %       [=770     Pah     10.0     Con     F     F     F     F     F						GUEh,bin / AEFh,bin		
f=r <sup>-</sup> CC Point Collegian AERises f=r <sup>-</sup> CC Point Collegian AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERises f=r <sup>-</sup> CC Colle or GUEL bin AERIS (AERISES f=r <sup>-</sup> CC Colle or f=r <sup>-</sup>	T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or	490.0	%
r=7°C     Pah     66     W     T, +7°C     COP or     532.0     %       r=12°C     Pah     60     W     T, +7°C     COP or     532.0     %       r_motion     R_motion     R     0     W     T, +7°C     COP or     532.0     %       r_motion     R_motion     R     80     W     T, +7°C     COP or     532.0     %       r_motion     Pah     72.5     W     T, +12°C     COP or     532.0     %       r_motion     Pah     72.5     W     T, +12°C     COP or     532.0     %       r_motion     Pah     72.5     W     T, +12°C     COP or     77.6     97.6     <						GUEh,bin / AEFh,bin		
t=+12℃ Pan 80 W two-basenet temperature Pan 125 W two-basenet temperature Pan 125 W two-basenet temperature Pan 125 W tra-spectration limit Pan 125 W tra-spec	T <sub>j</sub> =+7°C	Pdh	6.6	kW	T <sub>j</sub> =+7°C	COPd or	532.0	%
If in 12°C     Pain     8.0     W     If in 12°C     ODD ar     GUB, bin / AEF, bin       Image: basis of temperature     Pain     12°S     W     If in 12°S     GUB, bin / AEF, bin       Image: basis of temperature     Pain     12°S     W     If in 12°S     GUB, bin / AEF, bin       Image: basis of temperature     Pain     12°S     W     If in 12°S     GUB, bin / AEF, bin       Image: basis of temperature     Pain     12°S     W     If in 12°S     GUB, bin / AEF, bin       Image: basis of temperature     Tax     14°S     If in 12°S     GUB, bin / AEF, bin       If Tax     Cold     Cold     If in 12°S     GUB, bin / AEF, bin       If tax     Cold     Cold     If in 12°S     If in 12°S       Sweler temperature     Tax     14°S     If in 12°S     If in 12°S       If tax     Cas     02°S     If in 12°S     If in 12°S     If in 12°S       Sweler temperature     Tax     02°S     If in 12°S     If in 12°S     If in 12°S       Twoer consumption in modes other than 'active mode'     If in 12°S     If in 12°S     If in 12°S     If in 12°S       There is an an and prove if week, in 12°S     If in 12°S     If in 12°S     If in 12°S     If in 12°S       There is an and prove if week, in 12°S						GUEh,bin / AEFh,bin		
T <sub>12</sub> -bivalent temperature Pdh 125 wW T <sub>14</sub> -physient COPH or COULD bin / AEFh.bin COPH or COULD bin / AEFh.bin COPH or COULD bin / AEFh.bin COPH or COULD bin / AEFh.bin CoPH or COULD bin / AEFh.bin Signature T <sub>12</sub> w The water heat COPH or COULD bin / AEFh.bin Signature CoPH or COULD bin / AEFh.bin Signature CoPH or COULD bin / AEFh.bin Signature CoPH or COULD bin / AEFh.bin Signature CoPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COULD bin / AEFh.bin Signature CoPH or COPH or COPH or COULD bin / AEFh.bin Signature CoPH or COP	T <sub>j</sub> =+12°C	Pdh	8.0	kW	T <sub>j</sub> =+12°C	COPd or	636.0	%
Important temperature     Pdh     12.5     W     Important temperature     Pdh     12.5       Important temperature     Pdh     12.5     W     Important temperature     ODB.bin / AEPh.bin       Important temperature     Pdh     1.5     W     Important temperature     ODB.bin / AEPh.bin       If Ta, <2000						GUEh,bin / AEFh,bin		
Fig. responsion limit     Pdn     12.5     W     Image: paralitic conditions in the conditions of the parality is the manufacture or importer.     CDPU or conditions in the conditions of the parality is the manufacture or importer.       fig. action water heat pumps ::     Pdn     0.00     V     Pdi art to water heat is the conditions of the parality is the manufacture or importer.       added mining of the parality is the manufacture or importer.     Top or parality is the parality is the parality is the manufacture or importer.     Import importer importer	T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent	COPd or	070.0	0/
Figspectration limit     Pdh     12.5     kW     Tg.=spectration limit     COPE or GUELbin / AEPhain       Gr air-to-water heat pumps : [= 15°]     Pdh     .     .     .     .       Swalerit temperature     Tg.     10.0     °C     .     .     .       Swalerit temperature     Tg.     .     .     .     .     .       Tg. coperation limit     Com     .     .     .     .     .       Swalerit temperature     Tg.     .     .     .     .     .       Tg. coperation limit     Com     .     .     .     .     .       Tg. coperation limit     Com     .     .     .     .     .     .       Swalerit temperature     Tg.     .     .     .     .     .     .     .       Tg. coperation limit     Code     .     .     .     .     .     .     .       Tg. coperation limit     .     .     .     .					temperature	GUEh,bin / AEFh.bin	276.0	/0
Draw water heat pumps:     Pdh     NW       for air-lowater heat pumps:     Pdh     NW       for air-lowater heat coPurp     CuEhbin / AEPhbin       if T <sub>xx</sub> <-20'0)	T <sub>OI</sub> =operation limit	Pdh	12.5	kW	To =operation limit	COPd or		
For all-to-water heat pumps :       Pdh        MV         [150]       For all-to-water heat pumps :       Pdh        MV         [150]       Bould in Lemona         MV         [150]       OUE how NAE Theam          MV         Deparation	•		·		GE 171 111	GLIEb bin / AEEb bin	276.0	%
value developmentary heat purps: (1) divelopment (ref CVCH 0) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	For air-to-water boot oursoo	Ddb	-	K/M/	For air to water best			1
Piological (T <sub>a</sub> < 20°C)	$T = -15^{\circ}$	Full	lI	K V V	pumpe:T = 15°C		-	%
In (2 < > Sto C) Sixelent temperature T <sub>ur</sub> 10.0 °C Degradation C <sub>a</sub> 0.25 · Por water-to-air heat pumps: T <sub>u</sub> temperature T <sub>u</sub> temperature C <sub>a</sub> 0.25 · Por water-to-air heat pumps: T <sub>u</sub> temperature Supplementary heater ebu · wW Supplementary heater ebu · wW Type of energy input Sandby mode Por into-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode Por into-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode For water-to-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode For water-to-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode For water-to-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode For water-to-air heat pumps: air flow-rate.outdoor measured Supplementary heater ebu · wW Standby mode For water-to-air heat pumps: air flow-rate.outdoor measured · m <sup>2</sup> /h outdoor measured · m <sup>2</sup> /h Ver water-to-air heat pumps : Rated bine or water frow rate, outdoor measured · m <sup>2</sup> /h ver information relates to mult-spit air-conditioners, the text result and performance data be obtained on the basis of the performance // the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	(if T < 20°C)				(if T < 20°C)	GOEII, biil / AEI II, biil		1
awatent temperature       Tav       10.0       C         begradation coefficient       Can       0.25       .       .       C         Power consumption in modes other than 'active mode'       .	(II 1 <sub>OL</sub> <-20 C)				(II 1 <sub>0L</sub> <-20 C)			
avalent temperature $I_{uv}$ $I_{uv}$ $U$ $C$ $I_{uv}$ $I_{uv}$ $C$ $I_{uv}$		_	40.0	<u></u>	Convertes to sink out			1
begradation coefficient C <sub>n</sub> , 0.25 · Power consumption in modes other than 'active mode' Premerative mode Prover 0.0008 kW Df mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate off mode Prover 0.0008 kW Threemostate of mode Prover 0.0008 kW Threemostate of mode Prover 0.0008 kW Threemostate of mode Prover 0.0008 kW Threemostate of threemostate Prover 0.0008 kW Standby mode Prover 0.0008 kW For vater-borne-to-air heat pumps : Rated brine or water flow-rate, audoor measured invisions of ntrogen wideo(if applicable) WP or the Formation of three proves of threemostate threemat systems.LTD Three information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Bivalent temperature	l <sub>biv</sub>	-10.0	-0				°
Pegradation pegradation pegradation performance data be obtained on the basis of the p					pumps:Operation Im	at	-	C
pedificient C <sub>en</sub> 0.25 - Power consumption in modes other than 'active mode' D'mode Porr 0.000 KW D'mode Porr 0.000 KW Type of energy input P <sub>am</sub> 0.000 WW Type of energy input P <sub>am</sub> 0.000 WW Standby mode Pom 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Type of energy input P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>am</sub> 0.000 WW Standby mode P <sub>a</sub>	Degradation				I ol temperature			J
heat pumps <sup>**</sup>	coefficient	C <sub>dh</sub>	0.25	-				
Power consumption in modes other than 'active mode' 2fm mode Porr Doto Note Note Porr Doto Note Note Porr Doto Note Note Porr Doto Note Porr	heat pumps**							
Power consumption in modes other than 'active mode'  Thermostat-off mode Porr To O008 WW Dankcase heater mode Por OC O012 WW Data teams Dependent of the teams Dependent of the team of team of the team of the team of team of team of the team of te								
Power consumption in modes other than 'active mode' <ul> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplementary heatler</li> <li>Bupplemetary heatler</li>             &lt;</ul>								
Dff mode       Porr       0.000       kW         Dff mode       Pro       0.000       kW         Darkcase heater mode       Pro       0.0012       kW         Dither flems       Data       Variable       Type of energy input       Pes       0.008       kW         Standby mode       Pro       0.012       KW       Standby mode       Pes       0.008       kW         Dither flems       Standby mode       Pes       0.008       kW       For air-to-air heat pumps:       air flow-rate, outdoor measured       8040       m <sup>3</sup> /h         Sound power level, utdoor measured       Lyux       74.0       dB       For water-forine-to-air heat pumps :       Rated brine or water flow-rate, outdoor measured       -       m <sup>3</sup> /h         Initistions of nitrogen       Nox       -       figrov       -       m <sup>2</sup> /h       -       m <sup>3</sup> /h         SWP of the       E75       kg COzeq, figroveration       -       -       -       -       -       -       -       -       -       -       m <sup>3</sup> /h       -       -       m <sup>3</sup> /h       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	Power consumption in modes other	than 'active mode'			Supplementary heat	er		134/
Off mode       Porr       0.008       kW         Crankcase heater mode       Pro       0.003       kW         Crankcase heater mode       Por       0.012       KW         Collection of mode       Por       0.012       Type of energy input       Psile         Collection of mode       Por       0.012       KW       Standby mode       Standby mode         Collection of mode       Por       0.012       KW       Standby mode       Standby mode         Collection of mode       Por       0.012       KW       Standby mode       Standby mode         Sound power level, nutdoor measured       Lwn       74.0       dB       For water-/brine-to-air heat pumps:       air flow-rate, outdoor measured       m <sup>3</sup> /n         Swides(if applicable)       NOX					back-up heating cap	acity	-	KVV
Inemostat-off mode Pro 0.030 kW   Crankcase heater mode Pox 0.012 kW   Standby mode Pais 0.008 kW   Diher items Capacity control variable For air-to-air heat pumps: air flow-rate, olutioor measured 8040 m³/h   Sound power level, utdoor measured Lwh 74.0 dB For water-/brine-to-air heat pumps: air flow-rate, olutioor measured   Simissions of nitrogen wrides NOX err mg/kWh fuel input GCV   WP of the efrigerant 675 kg CO:eq. (100years)	Off mode	POFF	0.008	kW	baok ap noaking oap	Jony		
Drankcase heater mode     P <sub>Ck</sub> 0.012     kW     Standby mode     P <sub>SB</sub> 0.008     kW       Dther items     Dapacity control     variable     For air-to-air heat pumps: air flow-rate, outdoor measured     80.40     m <sup>3</sup> /h       Standby mode     L <sub>WA</sub> 74.0     dB     For water-/brine-to-air heat pumps : Rated brine or water flow-rate, outdoor side heat exchanger     m <sup>3</sup> /h       Standby mode     NOX     mg/kWh tuei input GCV     mg/kWh     m <sup>3</sup> /h     m <sup>3</sup> /h       SWP of the efrigerant     675     kg CO:eq. (100/years)     m <sup>3</sup> /h     m <sup>3</sup> /h       Ver information relates to multi-split air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Thermostat-off mode	PTO	0.030	kW	Type of energy input			1
Sundace status with Machine     Cut     Cut <td< td=""><td>Crankcase heater mode</td><td>Per</td><td>0.012</td><td>kW</td><td>Ctandbu mada</td><td>P<sub>SB</sub></td><td>0.008</td><td>kW</td></td<>	Crankcase heater mode	Per	0.012	kW	Ctandbu mada	P <sub>SB</sub>	0.008	kW
Differ items         Capacity control         Sound power level,         Jutdoor measured         Brissions of nitrogen         Nxides(if applicable)         Nox         •         mg/kWh         fuel input         GCV         SWP of the         efrigerant         Contact details         Mitsubishi heavy industries thermal systems.LTD         2 natact details         Mitsubishi heavy industries thermal systems.LTD         * from 28 September 2018         Yhere information relates to multi-split air-conditioners,the test result and performance data be obtained on the basis of the performance         f the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.		· CK	0.012		Standby mode		I	1
Joher items Japacity control Japacity contrel Japacity contrel Japacity contrel Japacity co								
Capacity control       variable       for air-to-air feat pumps: air flow-rate, outdoor measured       air flow-rate, outdoor measured         Sound power level, butdoor measured       L <sub>WA</sub> <b>74.0</b> dB       For water-/brine-to-air heat pumps : Rated brine or water flow-rate, outdoor side heat exchanger       m <sup>3</sup> /h         Emissions of nitrogen wides(if applicable)       NOX ***       _       mg/kWh fuel input GCV       Rated brine or water flow-rate, outdoor side heat exchanger       _         3WP of the efrigerant       675       kg CO:eq. (100years)       _       _       _         2ontact details       Mitsubishi heavy industries thermal systems, LTD       _       _       _         * for 2 September 2018       Vhere information relates to multi-spit air-conditioners, the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.       _       _	Other items							1
Capacity control       variable       jair flow-rate, outdoor measured         Sound power level, outdoor measured       L <sub>V/A</sub> <b>74.0</b> dB       For water-/brine-to-air heat pumps : Rated brine or water flow-rate, outdoor side heat exchanger       .       m <sup>3</sup> /h         Emissions of nitrogen xxides(if applicable)       NOX ***       mg/kWh fuel input GCV       .       .       .       m <sup>3</sup> /h         SWP of the efrigerant       675       kg COzeq. (100 years)       .       .       .       .         *       If Cah is not determined by measurement then the default degradation coefficient air-conditioners shall be 0.25.       .       .       .         ** from 28 September 2018       Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.       .					For air-to-air heat pu	mps:	8040	m <sup>3</sup> /h
Sound power level, butdoor measured Emissions of nitrogen mixides(if applicable) NOx effigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. *** form 26 September 2018 Yhere information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Capacity control		variable		air flow-rate,outdoor	measured		]
Sound power level, butdoor measured Emissions of nitrogen NOX sxides(if applicable) NOX T4.0 dB mg/kWh fuel input GCV SWP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD 1 fCdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0.25. The outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.								,
with our measured       minute       minut       minute       min	Sound power level,	Luzza	74.0	dB	For water-/brine-to-a	ir heat pumps :		
Emissions of nitrogen pxides(if applicable) NOX *** SWP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. ** from 26 September 2018 Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	outdoor measured	-wA			Rated brine or water	flow-rate,	-	m <sup>3</sup> /h
Emissions of nitrogen bxides(if applicable) WP of the efrigerant Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. ** from 26 September 2018 Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.					outdoor side heat ex	changer		
bxides(if applicable)       NOX +++       -       fuel input GCV         3WP of the efrigerant       675       kg CO2eq. (100years)         2ontact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance if the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Emissions of nitrogen			mg/kWh				
GCV GCV GCV GCV GT5 Kg COzeq. (100years) Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. ** from 26 September 2018 Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	oxides(if applicable)	NOx		- fuel input				
GWP of the efrigerant       675       kg COzeq. (100years)         Contact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.				GCV				
GWP of the efrigerant       675       kg CO2eq. (100years)         Contact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.			·					
GWP of the efrigerant       675       kg CO2eq. (100years)         Contact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.								
675       N3 00004- (100years)         contact details       Mitsubishi heavy industries thermal systems, LTD         2ontact details       Mitsubishi heavy industries thermal systems, LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance         of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	GWP of the			ka COrea				
Contact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.			675	(100vears)				
Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. ** from 26 September 2018 Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	retrigerant			,				
Contact details Mitsubishi heavy industries thermal systems,LTD * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. ** from 26 September 2018 Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.								
Contact details       Mitsubishi heavy industries thermal systems,LTD         * If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25.         ** from 26 September 2018         Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.		1						
* If Cdh is not determined by measurement then the default degradation coefficient air-conditioners shall be 0,25. *** from 26 September 2018 Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Contact details	Mitsubishi heavy indust	tries thermal s	systems,LT	)			
** from 26 September 2018 Where information relates to multi-spilt air-conditioners,the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	** If Cdh is not determined by meas	urement then the defaul	t degradation	coefficient	air-conditioners shall be 0,25.			
Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	*** from 26 September 2018							
of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.	Where information relates to multi-s	pilt air-conditioners,the t	test result and	d performar	ce data be obtained on the basis	of the performance		
	of the outdoor unit, with a combinati	on of indoor unit(s) reco	mmended by	the manufa	cturer or importer.			
			,					
						r		7721

# Model FDT200VSAWDVH

Model(s): FDC200	/SA-W / FDT50VH (x4 u	inits)					
Outdoor side heat exchanger of	f air-conditioner :	air					
Indoor side heat exchanger of a	air-conditioner :	air					
Type : vapour compression	l						
if applicable : electric m	notor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	20.0	kW	cooling energy	η s,c	262.3	%
				efficiency			
Declared cooling capacity for pa	art load at given outdoor	temperatu	ires	Declared energy e	fficiency ratio or gas utilization	efficiency /	
Tj and indoor 27°C/19°C(dry/we	t bulb)			auxiliary energy fa	ctor for part load at given outdo	oor temperatures	Tj
Ti-125°C	Dda	20.0	12147				1
IJ-+35 C	Puc	20.0	KVV	Tj=+35℃	EERd or	355.0	%
Ti=+30°C	Pdc	14 7	kW	Ti- 1 20°0	GUEc,bin / AEFc,bin		-
1	1 40	14.7		1j=+30 C	EERO Or	537.0	%
Ti=+25℃	Pdc	9.5	kW	Ti=+25℃	GUEC, DIT / AEFC, DIT		-
				1]=123.0	GUEc bin / AEEc bin	799.0	%
Tj=+20°C	Pdc	8.2	kW	Ti=+20°C	EERd or		
			_	.,	GUEc.bin / AEFc.bin	1020.0	%
Degradation							-
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other tha	an 'active mode'	0.008		Crankcase beater	mode Pov	0.012	
Thermostat-off mode	PTO	0.000	kW	Standby mode	Pen	0.012	kW
	. 10	0.024			. 36	0.000	
Other items							
				For air-to-air air-co	nditioner:	0000	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoo	or measured	8880	
Sound power level,	Lui	72.0	dD				
outdoor	LWA	72.0	uв				
			-				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			7				
GWP of the		675	kg CO <sub>2</sub> eq. (100years)				
refrigerant			]````				
Contact details	Mitsuhishi heavy indu	strips than	nal sveteme l				
** If Cdc is not determined by m	neasurement then the de	fault degra	adation coeffi	cient air-conditioners	shall be 0,25.		
*** from 26 September 2018		5					
Where information relates to mu	ulti-spilt air-conditioners.	the test re	sult and perfo	ormance data be obta	ined on the basis of the perfor	mance	
of the outdoor unit, with a comb	ination of indoor unit(s)	recommen	ded by the m	anufacturer or impor	ter.		



Information to identify the model(s) t	to which the information	relates :		FDC200V	<u>SA-W / FDT50V</u> H (x4 un	its)		
Outdoor side heat exchanger of hea	it pump :	air						
Indoor side heat exchanger of heat	pump :	air						
Indication if the heater is equipped w	vith a supplementary he	ater :			No			
if applicable : electric mot	or							
Parameters shall be declared for the	e average heating seaso	n , paramete	ers for the w	armer and o	colder heating seasons a	are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space			
	Prated,h	22.4	kW		heating energy	η s,h	171.9	%
					efficiency			
Declared heating capacity for part lo	ad at indoor temperatur	e 20°C			Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoor t	emperatures Tj	
								_
Tj=−7°C	Pdh	11.1	kW		T <sub>j</sub> =-7°C	COPd or	302.0	%
						GUEh,bin / AEFh,bin		
Tj=+2°C	Pdh	6.7	kW		Tj=+2°C	COPd or	458.0	%
		r	1			GUEh,bin / AEFh,bin		
Tj=+7°C	Pdh	6.6	kW		Tj=+7°C	COPd or	548.0	%
						GUEh,bin / AEFh,bin		
T <sub>j</sub> =+12°C	Pdh	8.0	kW		T <sub>j</sub> =+12°C	COPd or	619.0	%
			1			GUEh,bin / AEFh,bin		4
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW		T <sub>biv</sub> =bivalent	COPd or	256.0	%
		r	1		temperature	GUEh,bin / AEFh,bin		
T <sub>OL</sub> =operation limit	Pdh	12.5	kW		T <sub>OL</sub> =operation limit	COPd or	256.0	%
			1			GUEh,bin / AEFh,bin		4
For air-to-water heat pumps :	Pdh	-	kW		For air-to-water heat	COPd or	-	%
Tj=-15°C					pumps:Tj=-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)					(if T <sub>OL</sub> <-20°C)			
			1					, I
Bivalent temperature	T <sub>biv</sub>	-10.0	°C		For water-to-air heat			
			1		pumps:Operation limit		-	°C
Degradation					T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-					
heat pumps**								
								- I
Power consumption in modes other	than 'active mode'				Supplementary heater	e	elbu -	kW
		r	1		back-up heating capac	ity		
Off mode	P <sub>OFF</sub>	0.008	kW					- I
Thermostat-off mode	P <sub>TO</sub>	0.030	kW		Type of energy input	F	P <sub>SB</sub> 0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.012	kW		Standby mode			
Other items								- I
		r	1		For air-to-air heat pum	ps:	8040	m <sup>3</sup> /h
Capacity control		variable	l		air flow-rate,outdoor m	easured	5040	]
			1					,
Sound power level,	Lwa	74.0	dB		For water-/brine-to-air	heat pumps :		
outdoor measured	-114		l		Rated brine or water fl	ow-rate,	-	m³/h
			1		outdoor side heat exch	nanger		
Emissions of nitrogen	NOv		mg/kWh		1			
oxides(if applicable)	NOX ***	-	fuel input					
			GCV					
GWP of the		675	kg CO2eq.					
refrigerant		0/5	(100years)					
			-					
Contact details	Mitsubishi heavy indust	ries thermal	systems,LT	D				
** If Cdh is not determined by measu	urement then the default	degradation	n coefficient	air-conditio	ners shall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-si	nilt air-conditioners the t	est result an	d performan	ice data be	obtained on the basis of	the performance		
of the outdoor unit, with a combination	on of indoor unit(s) reco	mmended hu	/ the manufa	acturer or in	nporter.			
					P			
						٢		I
							PJF000	)Z731 /⁄

# Model FDT250VSAWDVH

Model(s) : FDC250VSA-W / F	DT60VH (x4 i	units)					
Outdoor side heat exchanger of air-condi	tioner :	air					
Indoor side heat exchanger of air-condition	oner :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	25.0	kW	cooling energy efficiency	η s,c	338.5	%
Declared cooling capacity for part load at	aiven outdoor	r temperatu	res	Declared energy e	fficiency ratio or gas utilization effi	ciency /	ļ
Tj and indoor 27°C/19°C(dry/wet bulb)	5			auxiliary energy fa	ctor for part load at given outdoor	temperatures	Tj
Tj=+35℃	Pdc	25.0	kW	Tj=+35°C	EERd or	353.0	%
T: + 22°0	Dela	40.4	1		GUEc,bin / AEFc,bin		-
TJ=+30°C	Pac	18.4	KVV	Tj=+30°C	EERd or	601.0	%
Ti- 125°C	Ddo	44.0	LAV		GUEc,bin / AEFc,bin		-
1]-1200	FUG	11.0		j=+25°C	EERd or	1106.0	%
Ti=+20℃	Pdc	7.8	kW/	T: . 00%0	GUEc,bin / AEFc,bin		-
1]-1200	T de	7.0		1j=+20°C	EERd or GUEc,bin / AEFc,bin	1636.0	%
Degradation							-
coefficient for	Cdc	0.25	-				
air-conditioners**							
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heater Standby mode	mode Р <sub>ск</sub> Р <sub>sв</sub>	0.012 0.009	kW kW
Other items							_
Capacity control		variable	]	For air-to-air air-co air flow-rate,outdoo	nditioner: or measured	8880	m <sup>3</sup> /h
Sound power level,		72.0	dB				
outdoor	LWA	73.0	dВ				
If engine driven:	NOv		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the		075	kg CO2eq.				
refrigerant		6/5	(100years)				
** If Cdc is not determined by measurement	sni neavy indu	efault deors	nai systems,L	ient air-conditioners	shall be 0.25		
*** from 26 Sontombor 2019		sidun uegid			5nun 90 0,20.		
Whore information relates to multi acity -	r conditioner-	the test	ult and new-	manoo data ba abta:	nod on the basis of the norfer	<u></u>	
of the outdoor unit, with a combination of	indoor unit(o)		ded by the me	mance uata de obtai	neu on the basis of the performan	Ce	
		recommen			JI.		



Information to identify the model(s) to wh	ich the informatior	n relates :		FDC250VS	SA-W / FDT60VH (x4 u	nits)		
Outdoor side heat exchanger of heat pur	np :	air						
Indoor side heat exchanger of heat pump	):	air						
Indication if the heater is equipped with a	supplementary he	eater :		1	٩o			
if applicable : electric motor								
Parameters shall be declared for the ave	rage heating seas	on , parame	eters for the	e warmer and	d colder heating seasor	ns are optional.		
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity					Seasonal space			
	Prated,h	28.0	kW		heating energy	η s,h	185.6	%
					efficiency			
Declared heating capacity for part load a	t indoor temperatu	re 20°C			Declared coefficient o	f performance or gas utilization	on efficiency /	
and outdoor temperature Tj					auxiliary energy factor	for part load at given outdoo	r temperatures Tj	
							. ,	
Ti=-2,℃	Pdh	12.6	kW		T <sub>i</sub> =-7°C	COPd or	244.0	
			•			GUEh,bin / AEFh,bin	311.0	70
T <sub>i</sub> =+2°C	Pdh	7.7	kW		T <sub>i</sub> =+2°C	COPd or		
,			1		1	GUEh.bin / AEFh.bin	444.0	%
T <sub>i</sub> =+7°C	Pdh	5.2	kW		Ti=+2℃	COPd or		
1			1		1	GLIEb bin / AEEb bin	635.0	%
T;=+12°C	Pdh	6.1	kW		T <sub>1</sub> =+12°C	COPd or		1
,	1		1		,	GUEh bin / AEFh bin	857.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	1	T <sub>biv</sub> =bivalent	COPd or		1.
	1			1	temperature	GUEh.bin / AEFh bin	282.0	%
T <sub>OI</sub> =operation limit	Pdh	15.0	kW		T <sub>OI</sub> =operation limit	COPd or	_	1.
• •				1		GUEh.bin / AEFh bin	206.0	%
For air-to-water heat numps	Pdh	-	kW		For air-to-water heat	COPd or		1
Ti=-15℃			1		pumps:T=-15°C	GUEh,bin / AEFh,bin	-	%
, (if T <sub>∩I</sub> <-20°C)				1	(if T <sub>OI</sub> <-20°C)		L	
					C OL · · · /			
Bivalent temperature	The	-10.0	°C		For water-to-air heat			1
	Div		1		pumps:Operation limit		-	°C
Degradation					T <sub>ol</sub> temperature			
coefficient	Cdb	0.25	-				L	4
heat pumps**	- 41							
			1					
				1				
Power consumption in modes other than	'active mode'				Supplementary heater			]
					back-up heating capa	city	elbu -	KVV
Off mode	P <sub>OFF</sub>	0.009	kW		3.1			
Thermostat-off mode	P <sub>TO</sub>	0.032	kW		Type of energy input			]
Crankcase heater mode	P <sub>CK</sub>	0.012	kW		Standby mode		P <sub>SB</sub> 0.009	KVV
			1					
Other items				1				
					For air-to-air heat pur	IDS:		m3//r
Capacity control		variable		1	air flow-rate.outdoor n	neasured	9180	111~/11
	I			1			L	-
Sound power level,	.	75.0			For water-/brine-to-air	heat pumps :		1
outdoor measured	L <sub>WA</sub>	75.0	aв		Rated brine or water f	low-rate.	-	m <sup>3</sup> /h
	1			1	outdoor side heat excl	hanger		
Emissions of nitrogen			mg/kWh			- J	L	
oxides(if applicable)	NOx	-	fuel input					
······································			GCV	1				
	1			1				
				1				
GWP of the			ka COsea					
refrigerant		675	(100years	;)				
	I			1				
Contact details	bishi heavv indust	ries therma	svstems I	TD				
** If Cdh is not determined by measurem	ent then the defau	It degradati	on coefficie	ent air-condit	ioners shall be 0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt a	r-conditioners the	test result a	and perform	nance data b	e obtained on the basis	s of the performance		
of the outdoor unit, with a combination of	indoor unit/e) reco	mmended	by the mor	nufacturer or	importer			
			of the find		portor.			

# Model FDT280VSAWDVH

Model(s):	x = 4. " · · · ·						
PDC280VSA-W / FL	0T71VH (x4 u	units)					
Indoor side heat exchanger of air condition		air					
		air					
if applicable :							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Dratad a	27.0	L\\\/			270.9	0/
	Flateu,c	27.0	KVV	efficiency	1  5,0	2/ 9.0	70
Declared cooling capacity for part load at o	iven outdoor	temperatu	res	Declared energy et	fficiency ratio or gas utilization effici	ency /	
Tj and indoor 27°C/19°C(dry/wet bulb)		·		auxiliary energy fac	ctor for part load at given outdoor te	mperatures	Tj
Tj=+35℃	Pdc	27.0	kW	Ti=+35°C	EERd or		
			-	,	GUEc,bin / AEFc,bin	370.0	%
Tj=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or	550.0	o/
			4		GUEc,bin / AEFc,bin	550.0	%
Tj=+25℃	Pdc	12.8	kW	Tj=+25℃	EERd or	070.0	o/
			-		GUEc,bin / AEFc,bin	870.0	%
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or	4000.0	o/
			-		GUEc.bin / AEFc.bin	1230.0	%
Degradation			]				4
coefficient for	Cdc	0.25	-				
air-conditioners**							
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heater Standby mode	mode Р <sub>СК</sub> Р <sub>SB</sub>	0.012	kW kW
Other items						<b></b>	
		r	7	For air-to-air air-co	nditioner:	8160	m³/h
Capacity control		variable		air flow-rate,outdoo	or measured		
			1				
Sound power level,	L <sub>WA</sub>	75.0	dB				
outdoor							
If ongine driven:			mg/k\\/b				
Emissions of nitrogen	NOx	-	fuel input				
oxides			GCV				
GWP of the		077	kg CO2ea.				
refrigerant		0/5	(100years)				
			-				
Contact details Mitcubic	ni heavy indu	stries them	nal systems I	TD			
** If Cdc is not determined by measurement	nt then the de	efault degra	idation coeffic	ient air-conditioners	shall be 0,25.		
*** from 26 September 2018		5					
Where information relates to multi-spilt air-	conditioners	the test res	sult and perfor	mance data be obtain	ned on the basis of the performance	2	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommen	ded by the ma	anufacturer or importe	er.		
				succession of importe			



Information to identify the model(s) to wh	nich the information	on relates :		FDC280V	SA-W / FDT71VH (x4 u	nits)			
Outdoor side heat exchanger of heat pur	mp :	air							
Indoor side heat exchanger of heat pump	p :	air							
Indication if the heater is equipped with a	a supplementary I	heater :			No				
if applicable : electric motor									
Parameters shall be declared for the ave	rage heating sea	ison , parame	eters for the	warmer an	id colder heating seasor	ns are optional.			
Item	Symbol	Value	Unit		Item	Symbol		Value	Unit
Rated heating capacity					Seasonal space				
	Prated,h	30.0	kW		heating energy	η s,h		158.9	%
					efficiency				
Declared heating capacity for part load a	at indoor temperat	ture 20°C	•	1	Declared coefficient o	f performance or gas utiliza	ation efficie	encv /	
and outdoor temperature Ti					auxiliary energy factor	for part load at given outd	oor tempe	ratures Ti	
. ,					, , , , , , , , , , , , , , , , , , , ,		·	,	
T₁=-7°C	Pdh	16.2	kW		Ti=-2℃	COPd or		040.0	0/
			-			GUEh.bin / AEFh.bin		240.0	%
T <sub>i</sub> =+2°C	Pdh	9.6	kW		T <sub>i</sub> =+2°C	COPd or			
		L	3			GUEh.bin / AEFh.bin		400.0	%
T <sub>i</sub> =+7°C	Pdh	6.3	kW		Ti=+2℃	COPd or			
,			1		,	GUEh.bin / AEFh.bin		530.0	%
T <sub>i</sub> =+12°C	Pdh	6.7	kW		Ti=+12℃	COPd or			
		L			ľ	GUEh.bin / AEFh hin		740.0	%
Thiv=bivalent temperature	Pdh	17.8	kW		T <sub>biv</sub> =bivalent	COPd or			1, 1
		L	1		temperature	GUEh bin / AEEb bin		230.0	%
	Pdh	17.8	kW/		To =operation limit	COPd or			
		L	1					230.0	%
For air to water best surres		-	L-14/		For oir to water but t				1
For all-to-water neat pumps : $T = 15^{\circ}$ C	Pan		KVV		For all-to-water neat pumps: $T = 15^{\circ}C$	CUPa or GUEb bin / AEEb bin		-	%
(if T < 20°C)					(if $T < 20^{\circ}$ C)	GOEII,DIII/ AEFII,DIII			-
(ii 1 <sub>0L</sub> <-20 C)					(II 1 <sub>0L</sub> < -20 C)				
Rivelant temperature	т	-10.0	~		For water-to-air heat				7
Bivalent temperature	biv	-10.0			numps:Operation limit			_	°C
Descridation			1					-	C
		0.25			1 <sub>0</sub> temperature				-
coencient	C <sub>dh</sub>	0.25	-						
heat pumps**			J						
				-					
									- I
Power consumption in modes other than	'active mode'				Supplementary heater	r	elbu	-	kW
	_		1		back-up heating capa	city			
Off mode	P <sub>OFF</sub>	0.009	kW						- I
Thermostat-off mode	P <sub>TO</sub>	0.032	kW		Type of energy input		P <sub>SB</sub>	0.009	kW
Crankcase heater mode	Р <sub>ск</sub>	0.012	kW		Standby mode		-		
				1					
Other items									- I
			-		For air-to-air heat pur	nps:		8400	m <sup>3</sup> /h
Capacity control		variable			air flow-rate,outdoor m	neasured		0.00	
			_						_
Sound power level,	L	77.0	dP		For water-/brine-to-air	heat pumps :			
outdoor measured	EWA	11.0	ab		Rated brine or water f	low-rate,		-	m <sup>3</sup> /h
			_		outdoor side heat excl	hanger			
Emissions of nitrogen			mg/kWh			-			-
oxides(if applicable)	NOx	-	fuel input						
			GCV						
			-						
				1					
GWP of the			ka COsea						
refrigerant		675	(100years)						
		·	1						
Contact details	bishi heavy indu	stries therma	systems   1	TD					
** If Cdh is not determined by measurem	ent then the defa	ult degradati	on coefficier	nt air-condi	tioners shall be 0,25.				
*** from 26 September 2019		-0							
	ir conditioners +-	o toot rooult	and perform	anoo data l	ha abtained on the kari-	of the performance			
where mornation relates to multi-split a	findoor unitioners,the		anu performa	ance uata t	oe optained on the basis	or the performance			
or the outdoor unit, with a combination of	indoor unit(s) re	commended	by the mant	uracturer or	mporter.				
							PJ	F000	Z731 /
							1		<u> </u>

# Models FDT50VH, 60VH, 71VH, 100VH, 125VH, 140VH

Model(s): FDT50VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	4.4	kW	Total electric power input	$P_{elec}$	0.040	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	55.0	dB
Heating capacity	P <sub>rated,h</sub>	5.4	kW				
Contact details	Mitsubishi I	neavy indu	ustries ther	mal systems,LTD			

Model(s): FDT60VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	5.5	kW	Total electric power input	P <sub>elec</sub>	0.070	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.1	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	58.0	dB
Heating capacity	P <sub>rated,h</sub>	6.7	kW				
Contact details	Mitsubishi I	neavy indu	ustries ther	mal systems,LTD			

Model(s) : FDT71VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	6.2	kW	Total electric power input	P <sub>elec</sub>	0.080	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	0.9	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	59.0	dB
Heating capacity	P <sub>rated,h</sub>	8.0	kW				
Contact details	Mitsubishi ł	neavy indu	ustries the	mal systems,LTD			

Model(s): FDT100VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	8.4	kW	Total electric power input	$P_{elec}$	0.130	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.6	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	62.0	dB
Heating capacity	P <sub>rated,h</sub>	11.2	kW				
Contact details	Mitsubishi h	ieavy indu	ustries therm	al systems,LTD			

Model(s): FDT125VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	9.6	kW	Total electric power input	P <sub>elec</sub>	0.140	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	2.9	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	63.0	dB
Heating capacity	$P_{rated,h}$	14.0	kW				
Contact details	Mitsubishi	neavy indi	ustries th	mal systems,LTD			

Model(s): FDT140VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	10.4	kW	Total electric power input	P <sub>elec</sub>	0.140	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	3.6	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	63.0	dB
Heating capacity	P <sub>rated,h</sub>	16.0	kW				
Contact details	Mitsubishi I	neavy indi	ustries the	mal systems,LTD			

# (2) Ceiling cassette-4 way compact type(FDTC) Model FDTC200VSAWDVH

Model(s): FDC200VS	A-W / FDTC50VH	(4 units)						
Outdoor side heat exchanger or	f air-conditioner :	air						
Indoor side heat exchanger of a	air-conditioner :	air						
Type : vapour compression								
f applicable : electric mo	tor							
Item	Symbol	Value	Unit	Item	Symbol		Value	Unit
Rated cooling capacity	Prated,c	20.0	kW	Seasonal spac efficiency ηs,c	e cooling energy		235.6	%
Declared cooling capacity for participation of the	art load at given ou t bulb)	itdoor tem	peratures	Declared energ auxiliary energ	gy efficiency ration y factor for part le	or gas utilizat bad at given o	tion efficiency / utdoor tempera	atures Tj
Tj=+35℃	Pdc	20.0	]kW	Tj=+35℃	EERd or GUEc.bin / /	AEFc.bin	297.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or GUEc,bin / A	AEFc,bin	482.0	%
Гј=+25°С	Pdc	9.5	kW	Tj=+25℃	EERd or GUEc,bin / A	AEFc,bin	698.0	%
Гј=+20°С	Pdc	7.7	kW	Tj=+20°C	EERd or GUEc,bin / A	AEFc,bin	990.0	%
Degradation	0.1	0.25						
coefficient for	Cdc	0.25	-					
Power consumption in other that	an 'active mode'							
Off mode	P <sub>OFF</sub>	0.008	kW	Crankcase hea	iter mode F	ск	0.012	kW
I hermostat-off mode	P <sub>TO</sub>	0.024	ĸw	Standby mode	ŀ	SB	0.008	kW
Other items				For eir to eir ei	r conditioner			1
Capacity control		variable		air flow-rate,ou	tdoor measured		8880	m <sup>3</sup> /h
Sound power level,	1	72.0	dD					
outdoor	LWA	72.0	uв					
If engine driven:			ma/kWh					
Emissions of nitrogen	NOx ***	-	fuel input					
oxides			GCV					
GWP of the			T					
refrigerant		675	(100years)					
		L	1					
Contact details	Mitsubishi heavy in	dustries th	ermal svste	ms.LTD				
* If Cdc is not determined by m	easurement then t	the default	t degradation	n coefficient air-c	onditioners shall	be 0,25.		
*** from 26 September 2018								
Where information relates to m	ulti-spilt air-conditic	oners,the t	est result an	d performance d	ata be obtained	on the basis o	f the performar	nce
of the outdoor unit, with a comb	ination of indoor ur	nit(s) reco	mmended b	y the manufactur	er or importer.			

PJF000Z736

nformation to identify the model	(s) to which the inform	ation relates :	FDC200VSA-W / FDTC50VH (x4 units)		
Outdoor side heat exchanger of I	heat pump :	air			
ndoor side heat exchanger of he	eat pump :	air			
ndication if the heater is equipped	ed with a supplementa	iry heater :	No		
f applicable : electric mo	tor				
Parameters shall be declared for	the average heating	season, parameters fo	r the warmer and colder heating seasons are optional.		
tom	Symbol		ltem Symbol	Value	Unit
	Symbol	value Unit	Symbol	value	Unit
Rated heating capacity	Prated,h	<b>22.4</b> kW	Seasonal space heating energy efficiency ns,h	166.1	%
Declared heating capacity for pa and outdoor temperature Tj	rt load at indoor tempe	erature 20°C	Declared coefficient of performance or gas utilization effi auxiliary energy factor for part load at given outdoor temp	ciency / perature	es Tj
Tj=-7°C	Pdh	11.1 kW	Tj=-7°C COPd or	202.0	0/
Tj=+2℃	Pdh	6.7 kW	GUEh,bin / AEFh,bin Tj=+2°C COPd or	464.0	04
Tj=+7℃	Pdh	6.6 kW	GUEh,bin / AEFh,bin Tj=+7°C COPd or	404.0	/0
	Pdh	8.0 kW	GUEh,bin / AEFh,bin	495.0	%
T. = hivelent temperature	Pdh	12.5 kW	GUEh,bin / AEFh,bin	555.0	%
$\Gamma_{\rm ev}$ =operation limit	Ddb	12.5 k\A/	temperature GUEh,bin / AEFh,bin	248.0	%
	run	12.0	GUEh,bin / AEFh,bin	248.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	Pdh	kW	For air-to-water heat COPd or pumps:Tj=-15°C GUEh,bin / AEFh,bin (if $T_{OL}$ <-20°C)	-	%
Bivalent temperature	T <sub>biv</sub>	-10.0 °C	For water-to-air heat		]
Degradation			pumps:Operation limit T <sub>ol</sub> temperature	•	°C
coefficient heat pumps**	C <sub>dh</sub>	0.25 -			
Power consumption in modes ot	her than 'active mode'		Supplementary heater elbu	-	kW
Off mode	P <sub>OFF</sub>	0.008 kW			7
I hermostat-off mode Crankcase heater mode	Р <sub>то</sub> Р <sub>ск</sub>	0.030 kW 0.012 kW	Type of energy input P <sub>SB</sub> Standby mode	0.008	kW
Other items			For sic to sic heat summer		1
Capacity control		variable	air flow-rate,outdoor measured	8040	m <sup>3</sup> /h
Sound power level, butdoor measured	L <sub>WA</sub>	<b>74.0</b> dB	For water-/brine-to-air heat pumps : Rated brine or water fiow-rate, outdoor side heat exchanger	-	m <sup>3</sup> /h
Emissions of nitrogen oxides(if applicable)	NOx ***	mg/kWh - fuel input GCV			_
GWP of the refrigerant		675 kg CO2eq. (100years)			
Contact details ** If Cdh is not determined by me *** from 26 September 2018 Where information relates to mul of the outdoor unit, with a combin	Mitsubishi heavy indu easurement then the o ti-spilt air-conditioners nation of indoor unit(s)	stries thermal systems lefault degradation coe s,the test result and pe p recommended by the	,LTD fficient air-conditioners shall be 0,25. formance data be obtained on the basis of the performance manufacturer or importer.		

# Model FDTC250VSAWDVH

		(v/ unite)					
Outdoor side heat exchanger of air-co	nditioner :	air					
Indoor side heat exchanger of air-cond	ditioner :	air					
Type : vapour compression		un					
if applicable : electric motor							
ltem	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated cooling capacity	Cymbol	Value		Seasonal space	Cymbol	Value	
	Prated,c	25.0	kW	cooling energy	n s.c	249.5	%
				efficiency			
Declared cooling canacity for part load	l at given o	utdoor tem	ineratures		efficiency ratio or das utilization	efficiency	/
Ti and indoor $27^{\circ}$ C/19°C(drv/wet bulb)	at given o		porataroo	auxiliary energy f	actor for part load at given outd	oor temper	, atures Ti
				aanaa y energy i		oor tompoi	
Tj=+35℃	Pdc	25.0	kW	Ti=+35℃	FERd or		1
		L	4	1 000	GLIEC bin / AEEC bin	272.0	%
Tj=+30°C	Pdc	18.4	kW	Ti=+30°C	EERd or		-
		L	1	1 0000	GLIEC bin / AEEC bin	480.0	%
Tj=+25℃	Pdc	11.8	kW	Ti=+25℃	EERd or		-
		L	1	1 200	GLIEC bin / AEEC bin	715.0	%
Tj=+20°C	Pdc	7.7	kW	Ti=+20℃	EERd or		-
		L	1	1]-120 0	GLIEC bin / AEEC bin	1285.0	%
Degradation			]				4
coefficient for	Cdc	0.25	_				
air conditioners**	040						
			J				
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heate Standby mode	er mode Р <sub>СК</sub> Р <sub>SB</sub>	0.012	kW kW
Other items							
				For air-to-air air-	conditioner:		
Capacity control		variable	]	air flow-rate,outd	oor measured	8880	məm
			-				-
Sound power level,	1	72.0	dD				
outdoor	⊢WA	73.0	uв				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOX ***	-	fuel input				
oxides			GCV				
			-				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
Contact details Mitsubis	hi heavy in	dustries th	ermal syste	ms,LTD			
** If Cdc is not determined by measure	ement then	the defaul	t degradatio	n coefficient air-cor	nditioners shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spil	t air-conditi	oners,the t	test result ar	nd performance dat	a be obtained on the basis of th	e performa	ince
of the outdoor unit, with a combination	of indoor u	init(s) reco	mmended b	y the manufacturer	or importer.		



Information to identify the model(s) to w	which the inform	ation relates	s :	FDC250V	/SA-W / FDTC60VH (x	4 units)			
Outdoor side heat exchanger of heat pu	ump :	air							
Indoor side heat exchanger of heat pun	np :	air							
Indication if the heater is equipped with	a supplementa	ry heater :			No				
if applicable : electric motor									
Parameters shall be declared for the av	verage heating s	eason, para	ameters fo	or the warn	ner and colder heating	seasons are optional.			
Item	Symbol	Value	Unit		Item	Symbol		Value	Unit
Rated heating capacity					Seasonal space				
	Prated,h	28.0	kW		heating energy	η s,h		160.4	%
					efficiency				
Declared heating capacity for part load	at indoor tempe	rature 20 °C	>		Declared coefficient	of performance or gas utili	zation	efficiency /	·
and outdoor temperature Tj					auxiliary energy facto	or for part load at given ou	tdoor te	mperatures	s Tj
					, ,			·	
T <sub>i</sub> =-7°C	Pdh	12.6	kW		T <sub>i</sub> =-7°C	COPd or			]
		·			,	GUEh.bin / AEFh.bin		259.0	%
T <sub>1</sub> =+2°C	Pdh	7.7	kW		T <sub>i</sub> =+2°C	COPd or			
		L				GUEh bin / AEEh bin		393.0	%
T <sub>i</sub> =+7°C	Pdh	5.2	kW		T <sub>i</sub> =+7°C	COPd or			
,		LI			,	GLIEb bin / AEEb bin		557.0	%
T <sub>i</sub> =+12°C	Pdh	6.1	kW		Ti=+12°C	COPd or		-	1 1
					1	GLIEb bin / AEEb bin		682.0	%
T <sub>bic</sub> =bivalent temperature	Pdh	14.2	kW		T <sub>bb</sub> =bivalent	COPd or			
and the statement of the statement of					temperature			235.0	%
To =operation limit	Pdh	15.1	kW		To = operation limit	COPd or			1
								175.0	%
For oir to water best surgers	Ddh				For oir to water hard			<u> </u>	1
T=-15°C	Full	LI'	KVV		numps:T=-15°C	GUEh bin / AEEh bin		-	%
$(\text{if } T_{\alpha} < 20^{\circ} \text{C})$					$(if T_{e_1} \le 20^{\circ}C)$	ooen,binn Aer 11,bin		L	J
(11182 <-20 0)					(11 102 <-20 0)				
Rivalent temperature	т.,	-10.0	°C		For water-to-air heat				ר ר
Divalent temperature	biv	10.0	0		numps:Operation lim	it			°C
Degradation									Ũ
	C	0.25							
heat numns**	Udh	0.20	-						
near pumps									
				_					
Device concurrentian in modes other the	n la altra mandal				Cumplementer ( beat				л I
Power consumption in modes other that	in active mode				Supplementary heate		elbu	-	kW
Off mode	P	0.000			back-up heating capa	acity			J
	P	0.003							л I
	P	0.032			Type of energy input		$P_{SB}$	0.009	kW
Claincase heater mode	L CK	0.012	KVV		Standby mode				] [
				-					
Other items									- I
					For air-to-air heat put	mps:		9180	m <sup>3</sup> /h
Capacity control		variable			air flow-rate,outdoor	measured			J
									- I
Sound power level,	L <sub>WA</sub>	75.0	dB		For water-/brine-to-ai	ir heat pumps :			2
outdoor measured					Rated brine or water	fiow-rate,		-	m³/h
					outdoor side heat exe	changer			] [
Emissions of nitrogen	NOx	1	mg/kWh						
oxides(if applicable)	***	- 1	fuel input						
			GCV						
				4					
GWP of the		675	kg CO2eq.						
refrigerant			(100years)	)					
Contact details Mitsut	bishi heavy indu	stries therm	al systems	s,LTD					
** If Cdh is not determined by measure	ment then the d	efault degra	dation coe	efficient air-	conditioners shall be 0	),25.			
*** from 26 September 2018									
Where information relates to multi-spilt	air-conditioners	,the test res	ult and pe	rformance	data be obtained on th	e basis of the performanc	е		
of the outdoor unit, with a combination	of indoor unit(s)	recommend	ded by the	manufactu	urer or importer.				
	. /								
							-		
							-   F	JF00	10Z736

# Models FDTC50VH, 60VH

Model(s) : FDTC50VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	3.8	kW	Total electric power input	P <sub>elec</sub>	0.050	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.2	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	59.0	dB
Heating capacity	P <sub>rated,h</sub>	5.4	kW				
Contact details	Mitsubishi I	neavy ind	ustries ther	mal systems,LTD			

Model(s) : FDTC60VH							
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Cooling capacity (sensible)	P <sub>rated,c</sub>	3.9	kW	Total electric power input	$P_{elec}$	0.060	kW
Cooling capacity (latent)	P <sub>rated,c</sub>	1.7	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	P <sub>rated,h</sub>	6.7	kW				
Contact details	Mitsubishi h	neavy ind	ustries ther	nal systems,LTD			



# (3) Duct connected-High static pressure type(FDU) Model FDU200VSAWVH

	< EDU200\//						
Outdoor oldo hoot ovehonger of		7					
		air					
ndoor side heat exchanger of air	-conditioner :	air					
Type : vapour compression							
f applicable : electric mo	otor						
tem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	20.0	kW	cooling energy	η s,c	200.9	%
				efficiency			
Declared cooling capacity for par	t load at given outdoor	temperatu	res	Declared energy e	efficiency ratio or gas utilization	efficiency /	
تj and indoor 27°C/19°C(dry/wet	bulb)			auxiliary energy fa	actor for part load at given outde	oor temperatures	Tj
			-				-
ſj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or	325.0	%
			_		GUEc,bin / AEFc,bin		
ſj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	462.0	%
		-	_		GUEc,bin / AEFc,bin		
Гј=+25°С	Pdc	9.9	kW	Tj=+25°C	EERd or	656.0	%
			_		GUEc,bin / AEFc,bin	000.0	70
Гј=+20°С	Pdc	7.8	kW	Tj=+20°C	EERd or	740.0	0/_
			_		GUEc,bin / AEFc,bin	740.0	70
Degradation							-
coefficient for	Cdc	0.25	-				
air-conditioners**							
			-				
Thermostat-off mode	P <sub>TO</sub>	0.270	kW	Standby mode	P <sub>SB</sub>	0.014	kW
Other items							-
			_	For air-to-air air-co	onditioner:	8880	m³/h
Capacity control		variable		air flow-rate,outdo	or measured		
			-				
Sound power level,	L <sub>WA</sub>	72.0	dB				
butdoor							
			_				
f engine driven:			mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			- I				
GWP of the		675	kgCO2eq.				
efrigerant			(Tobyears)				
	1						
Contact details	Mitsubishi heavy indu	stries therm	nal systems,L	TD			
IT Cdc is not determined by me	asurement then the de	erault degra	dation coeffic	ent air-conditioners	s snall be 0,25.		
** from 26 September 2018							
Where information relates to mult	ti-spilt air-conditioners,	the test res	ult and perfor	mance data be obta	ained on the basis of the perfor	mance	
of the outdoor unit, with a combin	nation of indoor unit(s)	recomment	ded by the ma	anufacturer or impor	ter.		



Information to identify the model(s) to	o which the information r	elates :	FD	C200VSA-W /	FDU200VH		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat p	oump :	air					
Indication if the heater is equipped w	vith a supplementary hea	iter :		No			
if applicable : electric moto	or						
Parameters shall be declared for the	average heating seasor	n, parameter	s for the war	mer and colder heating	seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Pated boating capacity	Gymbol	Value		Seasonal space	Gymbol	Value	
Rated heating capacity	Prated h	22.4	kW	heating energy	nsh	139.1	%
	i latou,ii			efficiency	10,0		<i>,</i> ,,
							-
Declared heating capacity for part loa	ad at indoor temperature	e 20°C		Declared coefficient of	performance or gas utilization	efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor t	emperatures Tj	
			1				-
Tj=-7°C	Pdh	12.1	kW	T <sub>j</sub> =-7°C	COPd or	304.0	%
			1		GUEh,bin / AEFh,bin		_
T <sub>j</sub> =+2°C	Pdh	7.4	kW	T <sub>j</sub> =+2°C	COPd or	338.0	%
			-		GUEh,bin / AEFh,bin		
T <sub>j</sub> =+7°C	Pdh	6.5	kW	T <sub>j</sub> =+7°C	COPd or	443.0	%
			_		GUEh,bin / AEFh,bin	445.0	70
T <sub>i</sub> =+12℃	Pdh	7.4	kW	T <sub>i</sub> =+12℃	COPd or	540.0	ov.
			-		GUEh.bin / AEFh.bin	543.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	13.7	kW	T <sub>biv</sub> =bivalent	COPd or		1.
		L	1	temperature		245.0	%
T <sub>ex</sub> =operation limit	Ddh	13.7	kW	T <sub>ex</sub> =operation limit			1
	i uli		1			245.0	%
			1		GUEh,bin / AEFh,bin		- 1
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or	-	%
Ij=-15°C				pumps: 1 j=-15°C	GUEh,bin / AEFh,bin		
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
			1				-
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heat			
			_	pumps:Operation limit		-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				
heat pumps**							
			1				
Power consumption in modes other t	than 'active mode'			Supplementary beater			
Fower consumption in modes other t	that active mode					elbu -	kW
Off mode	P	0.014	LAN/	back-up heating capac	city		_
	OFF	0.014	KVV				
I nermostat-off mode	P <sub>TO</sub>	0.160	KVV	Type of energy input	I	Р <sub>SB</sub> 0.014	kW
Crankcase heater mode	Рск	0.008	kW	Standby mode			
Other items							-
			_	For air-to-air heat pum	ps:	8040	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor m	easured		
			_				_
Sound power level				For water-/brine-to-air	heat pumps :		ן ך
outdoor measured	L <sub>WA</sub>	74.0	dB	Rated brine or water f	ow-rate	-	m <sup>3</sup> /h
		L	1	outdoor side boot over			
Tantaniana af c'horonoù				outdoor side neat excr	langel	L	J
Emissions of nitrogen	NOx		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
			-				
GWP of the		675	kg CO2eq.				
refrigerant		0.0	(100years)				
Contact details	Mitsubishi heavy indust	ries thermal o	systems I TD				
* If Cdh is not determined by measu	rement then the default	degradation	coefficient ai	r-conditioners shall be 0	25.		
*** from 26 September 2019							
from 26 September 2018							
Where information relates to multi-sp	vilt air-conditioners, the te	est result and	performance	e data be obtained on the	e basis of the performance		
of the outdoor unit, with a combinatio	on of indoor unit(s) recom	nmended by	the manufact	turer or importer.			
						DIOC	07005
						PJG00	JUZ625

# Model FDU250VSAWVH

Model(s): FDC250VSA-W	FDU250VH	ł					
Outdoor side heat exchanger of a	air-conditioner :	air					
Indoor side heat exchanger of air	r-conditioner :	air					
Type : vapour compression							
if applicable : electric mo	otor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	25.0	kW	cooling energy	η s,c	192.4	%
				efficiency			
Declared cooling capacity for par	rt load at given outdoor	temperatur	res	Declared energy	refficiency ratio or gas utilization	efficiency /	
Tj and indoor 27°C/19°C(dry/wet	bulb)			auxiliary energy	factor for part load at given outd	oor temperatures	s Tj
T:			٦			<b></b>	1
1j=+35°C	Pac	25.0	ĸvv	Tj=+35°C	EERd or	303.0	%
Ti- 1 20°0	Dda	40.4	1000		GUEc,bin / AEFc,bin		_
1j=+30 C	Pac	18.4	ĸvv	Tj=+30°C	EERd or	434.0	%
Ti-+25°C	Dda	44.0	LAN .		GUEc,bin / AEFc,bin		-
1j-+25 C	Fuc	11.0	NVV	Tj=+25°C	EERd or	588.0	%
Ti=+20°C	Pdc	7 8	kW	T: 100%C	GUEc,bin / AEFc,bin		1
., .200	i de	1.0	٦	1J=+20°C	EERd or	720.0	%
Degradation			ן ר		GUEC, bin / AEFC, bin		]
	Cdc	0.25					
air conditioners**	Cuc		-				
			-				
Power consumption in other than	a 'active mode'						
Off mode	P <sub>OFF</sub>	0.014	kW	Crankcase heate	er mode Р <sub>СК</sub>	0.008	kW
Thermostat-off mode	P <sub>TO</sub>	0.270	kW	Standby mode	P <sub>SB</sub>	0.014	kW
			-				-
Other items							-
			,	For air-to-air air-	conditioner:	8880	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outo	door measured		
			-				
Sound power level,	L <sub>WA</sub>	73.0	dB				
outdoor							
	I		, I				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			ן ר				
GWP of the		675	kgCO2eq. (100years)				
remgerant							
Contact details	Mitsuhishi haava indu	etrice there	al svetomo l				
** If Cdc is not determined by me	easurement then the de	fault degrad	dation coeffic	ient air-conditione	ers shall be 0,25.		
*** from 26 Sentember 2018					·		
Where information relates to mul	ti-spilt air-conditioners	the test rea	ult and perfe	mance data be of	ntained on the basis of the porfor	mance	
of the outdoor upit with a combin	nation of indoor unit(e).	recommend	led by the m	anufacturer or imp	orter	manue	
			ica by the file				



Information to identify the model(s)	to which the information	relates :	FD	C250VSA-W /	FDU250VH		
Outdoor side heat exchanger of hea	at pump :	air					
Indoor side heat exchanger of heat	pump :	air					
Indication if the heater is equipped	with a supplementary he	ater :		No			
if applicable : electric mo	tor						
Parameters shall be declared for th	e average heating seaso	on , parameter	rs for the wa	rmer and colder heating	seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	28.0	kW	heating energy	η s,h	138.7	%
				efficiency			
Declared heating capacity for part le	oad at indoor temperatur	re 20°C		Declared coefficient of	performance or gas utilizati	ion efficiency /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdo	or temperatures Tj	
		(0.0	1			r	7
l <sub>j</sub> =-/°C	Pdh	12.6	kW	I <sub>j</sub> =-/°C	COPd or	303.0	%
T-12°C	Ddb	77	LAN .	T-12°C	GUEh,bin / AEFh,bin		_
1 <sub>j</sub> =+2 C	Pan	1.1	ĸvv	1 <sub>j</sub> =+2 C	COPa or	338.0	%
T=+7°C	Pdb	67	kW/	T=+7°C	GUEh,bin / AEFh,bin		_
	i un	0.1				440.0	%
T.=+12°C	Pdh	7.4	kW	T.=+12°C	COPd or		-
	i un	L	1		GUEh bin / AEEb bin	540.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent	COPd or		
		L	1	temperature	GUEh.bin / AEFh.bin	240.0	%
T <sub>OL</sub> =operation limit	Pdh	14.2	kW	T <sub>OL</sub> =operation limit	COPd or		-
		L	1		GUEh.bin / AEFh.bin	240.0	%
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		%
Tj=-15℃			-	pumps:Tj=-15°C	GUEh,bin / AEFh,bin	-	70
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			
							_
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heat			
			1	pumps:Operation limit		-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				
heat pumps**							
							٦
Power consumption in modes other	than 'active mode'			Supplementary heater		elbu -	kW
Off mode	Pass	0.014	k\M/	back-up heating capac	sity		
Thermostat-off mode	Pro	0.160	kW	Turne of energy insuc			٦
Crankcase beater mode	Por	0.008	kW	Standby made		P <sub>SB</sub> 0.014	kW
	- CK	0.000		Standby mode			
Other items							
				For air-to-air heat pum	DS:		
Capacity control		variable	1	air flow-rate.outdoor m	easured	9180	m <sup>s</sup> /n
		<u> </u>	1			· · · · · ·	
Sound power level,	1	75.0	dD	For water-/brine-to-air	heat pumps :		
outdoor measured	LWA	75.0	aв	Rated brine or water flo	ow-rate,	-	m <sup>3</sup> /h
				outdoor side heat exch	anger		
Emissions of nitrogen	NO		mg/kWh				
oxides(if applicable)	NUX ***	-	fuel input				
			GCV				
			1				
GWP of the		675	kg CO2eq.				
refrigerant			(Tooyears)				
				<u>  </u>			
Contact details	Mitsubishi heavy indust	tries thermal s	systems,LTD		25		
In Comis not determined by meas		t degradation	coenicient a	an-conditioners shall be u	J,25.		
irom 20 September 2018	and a second state of the			a data ka aktor ( ) ( )	a handa af tha see former		
of the outdoor unit with a commutive	ion of indeer unit(-) -	est result and	the manuf	e data be obtained on th	ie basis of the performance		
or the outdoor unit, with a combinat	ION OF INDOOF UNIT(S) FECO	mmended by	ule manufac	clurer or importer.			

# Model FDU280VSAWVH

Model(s): FDC280VSA-W	/ FDU280VI	+					
Outdoor side heat exchanger of air	r-conditioner :	air					
Indoor side heat exchanger of air-o	conditioner :	air					
Type : vapour compression							
if applicable : electric moto	or						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	27.0	kW	cooling energy	η s,c	194.0	%
				efficiency			
Declared cooling capacity for part	load at given outdoor	temperatur	es	Declared energy	efficiency ratio or gas utilization	efficiency /	
Tj and indoor 27°C/19°C(dry/wet bi	ulb)			auxiliary energy	factor for part load at given outdo	oor temperatures	Tj
		i	-			r	1
Tj=+35°C	Pdc	27.0	kW	Tj=+35°C	EERd or	295.0	%
			7		GUEc,bin / AEFc,bin		-
Tj=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or	425.0	%
T:	5.	10.0	<b></b> .		GUEc,bin / AEFc,bin		-
1j=+25 C	Pac	12.8	ĸvv	Tj=+25°C	EERd or	595.0	%
Ti- 1 20°0	Dda	7.0	1444		GUEc,bin / AEFc,bin		-
1j=+20 C	Puc	7.6	KVV	Tj=+20°C	EERd or	730.0	%
			ן ר		GUEc,bin / AEFc,bin		J
Degradation		0.25					
coefficient for	Cdc	0.25	-				
air-conditioners**							
Device a second in the set of the set							
Power consumption in other than a	active mode						
Off mode	POFF	0.014	kW	Crankcase heate	er mode P <sub>CK</sub>	0.008	kW
Thermostat-off mode	Ρτο	0.270	kW	Standby mode	P <sub>SB</sub>	0.014	kW
			1				1
Other items							
				For air-to-air air-	conditioner:		2.4
Capacity control		variable	]	air flow-rate.outd	loor measured	8160	m³/n
			-				-
Sound power level,		75.0	40				
outdoor	LWA	75.0	αв				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			,				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
Contact details	Mitsubishi heavy indu	stries therm	al systems,L	TD			
** If Cdc is not determined by mea	surement then the de	efault degrad	dation coeffic	eint air-conditione	rs shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-	spilt air-conditioners,	the test res	ult and perfor	mance data be ob	tained on the basis of the perform	mance	
of the outdoor unit, with a combina	tion of indoor unit(s)	recommend	ed by the ma	anufacturer or impo	orter.		



Information to identify the model(s) to which t	he information	relates :	FD	C280VSA-W /	FDU280VH			
Outdoor side heat exchanger of heat pump :		air						
Indoor side heat exchanger of heat pump :		air						
Indication if the heater is equipped with a sup	plementary he	eater :		No				
if applicable : electric motor								
Parameters shall be declared for the average	heating sease	on , paramete	ers for the wa	armer and colder heating	g seasons are optional.			
Item	Symbol	Value	Unit	Item	Symbol		Value	Unit
Rated heating capacity				Seasonal space				
	Prated,h	30.0	kW	heating energy	η s,h		145.0	%
				efficiency				
Declared heating capacity for part load at ind	oor temperatu	re 20°C		Declared coefficient of	performance or gas utilization	n efficier	icy /	
and outdoor temperature Tj				auxiliary energy factor	for part load at given outdoor	tempera	atures Tj	
			,			-		,
T <sub>j</sub> =-7°C	Pdh	14.2	kW	T <sub>j</sub> =-7°C	COPd or		282.0	%
			-		GUEh,bin / AEFh,bin			
Tj=+2°C	Pdh	8.7	kW	T <sub>j</sub> =+2°C	COPd or		372.0	%
			-		GUEh,bin / AEFh,bin			
T <sub>j</sub> =+7°C	Pdh	6.9	kW	T <sub>j</sub> =+7°C	COPd or		450.0	%
			-		GUEh,bin / AEFh,bin			
T <sub>j</sub> =+12°C	Pdh	8.2	kW	T <sub>j</sub> =+12°C	COPd or		530.0	%
		r	1		GUEh,bin / AEFh,bin		-	-
T <sub>biv</sub> =bivalent temperature	Pdh	16.0	kW	T <sub>biv</sub> =bivalent	COPd or		245.0	%
			1	temperature	GUEh,bin / AEFh,bin	ļ		-
T <sub>OL</sub> =operation limit	Pdh	16.0	kW	T <sub>OL</sub> =operation limit	COPd or		245.0	%
			1		GUEh,bin / AEFh,bin			-
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		-	%
T <sub>j</sub> =-15°C				pumps:Tj=-15°C	GUEh,bin / AEFh,bin	Ĺ		]
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)				
			1.			г		1
Bivalent temperature	T <sub>biv</sub>	-10.0	с	For water-to-air heat				0-
			1	pumps:Operation limit			-	č
Degradation		0.05		I ol temperature		L		J
	C <sub>dh</sub>	0.25	-					
heat pumps**			J					
						Г		1
Power consumption in modes other than 'acti	ve mode'			Supplementary heater		elbu	-	kW
Off mode	P	0.014	L/M	back-up heating capac	aty	L		]
Thermostat-off mode	Pro	0.014	k\M	Turnet		ſ		1
Crankcase bester mode	Par	0.100	k\M	Type of energy input	I	P <sub>SB</sub>	0.014	kW
	· CK	0.000	1	Standby mode		Ļ		1
Other items								
				For air-to-air heat num	ns:	ſ		1.
Capacity control		variable	1	air flow rate outdoor m	po.		8400	m <sup>3</sup> /h
			1		casarca	L		1
Sound nower level			1	For water-/brine-to air	heat numns .	Γ		1
outdoor measured	L <sub>WA</sub>	77.0	dB	Rated brine or water fl	ow-rate		-	m <sup>3</sup> /h
		L	1	outdoor side heat even	anger			
Emissions of nitrogen			ma/kWh			L		1
oxides(if applicable)	NOx	-	fuel input					
			GCV					
		L						
GWP of the		075	ka COper					
refrigerant		6/5	(100years)					
-			-					
Contact details Mitsubish	ni heavy indust	tries thermal	systems,LTE	)				
** If Cdh is not determined by measurement	hen the defau	It degradation	n coefficient a	air-conditioners shall be	0,25.			
*** from 26 September 2018								
Where information relates to multi-spilt air-co	nditioners,the	test result an	d performan	ce data be obtained on	the basis of the performance			
of the outdoor unit, with a combination of inde	oor unit(s) reco	ommended by	y the manufa	cturer or importer.				



# Model FDU200VH, 250VH, 280VH

ſ

Г

Model(s) : FDU200VH										
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Cooling capacity (sensible)	P <sub>rated,c</sub>	14.9	kW	Total electric power input	$P_{elec}$	1.180	kW			
Cooling capacity (latent)	P <sub>rated,c</sub>	5.1	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	78.0	dB			
Heating capacity	P <sub>rated,h</sub>	22.4	kW							
Contact details	Mitsubishi heavy industries thermal systems,LTD									

Model(s) : FDU250VH											
ltem	Symbol	Value	Unit	ltem	Symbol	Value	Unit				
Cooling capacity (sensible)	P <sub>rated,c</sub>	20.8	kW	Total electric power input	$P_{elec}$	1.180	kW				
Cooling capacity (latent)	P <sub>rated,c</sub>	4.2	kW	Sound power level (per speed setting,if applicable)	$L_WA$	78.0	dB				
Heating capacity	P <sub>rated,h</sub>	28.0	kW								
Contact details	Mitsubishi heavy industries thermal systems,LTD										

Model(s) : FDU280VH											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Cooling capacity (sensible)	P <sub>rated,c</sub>	22.5	kW	Total electric power input	$P_{elec}$	1.180	kW				
Cooling capacity (latent)	P <sub>rated,c</sub>	4.5	kW	Sound power level (per speed setting,if applicable)	$L_{WA}$	78.0	dB				
Heating capacity	P <sub>rated,h</sub>	30.0	kW								
Contact details	Mitsubishi heavy industries thermal systems,LTD										


#### (4) Duct connected-Low/Middle static pressure type(FDUM) Model FDUM200VSAWPVH

Model(s): FDC200VSA-W	FDUM100	VH (2 units	)				
Outdoor side heat exchanger of air-condition	oner :	air					
Indoor side heat exchanger of air-condition	ner :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space coo	bling energy		
	Prated,c	20.0	kW	efficiency ηs,c		259.8	%
Declared cooling capacity for part load at g	given outdoo	or temperatu	res	Declared energy eff	iciency ratio or gas utilization efficie	ency /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fact	tor for part load at given outdoor ten	nperatures	Tj
		r	1			r	7
Tj=+35°C	Pdc	20.0	kW	Tj=+35℃	EERd or	326.0	%
			1		GUEc,bin / AEFc,bin		_
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	539.0	%
		r	1		GUEc,bin / AEFc,bin		_
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or	832.0	%
			,		GUEc,bin / AEFc,bin		4
Tj=+20°C	Pdc	7.4	kW	Tj=+20°C	EERd or	934.0	%
					GUEc,bin / AEFc,bin		
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than 'active m	ode'	0.000	1	O	oda D	0.040	]
Off mode	POFF	0.008	KVV	Crankcase neater m	node P <sub>CK</sub>	0.012	KVV
Thermostat-on mode	r <sub>to</sub>	0.024	ĸvv	Standby mode	⊂ SB	0.006	KVV
Other items					-141		٦.
Capacity control		variable	1	For air-to-air air-con		8,880	m <sup>3</sup> /h
		Variable		air flow-rate,outdoor	rmeasured		J
			1				
Sound power level,	L <sub>WA</sub>	72.0	dB				
outdoor							
			1				
	NOx	_	mg/kvvn				
Emissions of nitrogen	***						
oxides			GCV				
GWP of the			1				
rofrigoropt		675	кgCO2eq. (100years)				
reingerant		L	) í				
Contact details Mitcubiek	i heavy indu	istries them	nal systems				
** If Cdc is not determined by measurement	nt then the d	efault deora	idation coeffi	cient air-conditioners	shall be 0,25.		
*** from 26 September 2018		and alogic					
Where information relates to multi spilt oir	conditioner	the test ro	sult and perfe	rmance data be obtai	ined on the basis of the performance	-0	
of the outdoor unit with a combination of the	adoor unit(a)		ded by the ~	anufacturer or import	er		
	idoor unit(S)	recommen	ueu by trie fr		сı.		



Information to identify the model(s) to v	which the information	ation relates	s: F	DC200VSA-W /	FDUM100VH (2 units)		
Outdoor side heat exchanger of heat p	ump :	air					
Indoor side heat exchanger of heat put	np :	air					
Indication if the heater is equipped with	n a supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the a	verage heating s	eason , par	ameters for	the warmer and colder he	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	22.4	kW	Seasonal space heatin	g energy efficiency ηs,h	182.8	%
Declared heating capacity for part load and outdoor temperature Tj	at indoor tempe	rature 20°C	:	Declared coefficient of auxiliary energy factor	performance or gas utilization for part load at given outdoor	n efficiency / temperature	s Tj
Tj=−7°C	Pdh	11.1	kW	Tj=−7°C	COPd or GUEh,bin / AEFh,bin	330.0	%
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh,bin / AEFh,bin	506.0	%
Tj=+7°C	Pdh	6.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh,bin / AEFh,bin	544.0	%
T <sub>j</sub> =+12℃	Pdh	8.0	kW	T <sub>j</sub> =+12℃	COPd or GUEh,bin / AEFh,bin	608.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	283.0	%
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	283.0	%
For air-to-water heat pumps : $T_j$ =-15°C (if $T_{OL}$ <-20°C)	Pdh	-	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	COPd or GUEh,bin / AEFh,bin	-	%
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heat pumps:Operation limi	it	-	°C
Degradation coefficient heat pumps**	C <sub>dh</sub>	0.25	-	I <sub>ol</sub> temperature			
Power consumption in modes other the	an 'active mode'			Supplementary heate back-up heating capa	er elbu acity	_	kW
Off mode Thermostat-off mode Crankcase heater mode	Р <sub>оғғ</sub> Р <sub>то</sub> Р <sub>ск</sub>	0.008 0.030 0.012	kW kW kW	Type of energy input Standby mode	P <sub>SB</sub>	0.008	kW
Other items Capacity control		variable		For air-to-air heat pur air flow-rate,outdoor r	mps: measured	8040	m <sup>3</sup> /h
Sound power level, outdoor measured	L <sub>WA</sub>	74.0	dB	For water-/brine-to-ai Rated brine or water outdoor side heat exc	r heat pumps : flow-rate, changer	_	m <sup>3</sup> /h
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kg CO₂eq. (100years)				
Contact details Mitsu ** If Cdh is not determined by measure *** from 26 September 2018	bishi heavy indu ment then the de	stries therm efault degra	nal systems,l dation coeffi	LTD icient air-conditioners sha	all be 0,25.		
Where information relates to multi-spilt of the outdoor unit, with a combination	air-conditioners, of indoor unit(s)	the test res, recommend	ult and perfo	ormance data be obtained nanufacturer or importer.	d on the basis of the perform	ance	

#### Model FDUM250VSAWPVH

Model(s): FDC250VSA-W	FDUM125	VH (2 units	)				
Outdoor side heat exchanger of air-condit	ioner :	air					
Indoor side heat exchanger of air-condition	ner :	air					
Type : vapour compression							
if applicable : electric motor							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space co	ooling energy		
	Prated,c	25.0	kW	efficiency ŋs,c		245.1	%
Declared cooling capacity for part load at	given outdoor	temperatur	es	Declared energy e	fficiency ratio or gas utilization eff	iciency /	
Tj and indoor 27°C/19°C(dry/wet bulb)				auxiliary energy fa	ctor for part load at given outdoor	temperatures -	Tj
			_				
Tj=+35℃	Pdc	25.0	kW	Tj=+35℃	EERd or	301.0	%
			_		GUEc,bin / AEFc,bin		,
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or	513.0	%
		·	,		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or	724.0	%
			-		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	6.9	kW	Tj=+20°C	EERd or	945.0	%
		r	7		GUEc,bin / AEFc,bin		J
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than 'active n	node'						
or			1				1
	P <sub>OFF</sub>	0.009	KVV	Crankcase heater	mode P <sub>CK</sub>	0.012	KVV
Thermostat-off mode	PTO	0.027	ĸvv	Standby mode	P <sub>SB</sub>	0.009	ĸvv
Other items							1
		variable	1	For air-to-air air-co	inditioner:	8880	m³/h
		Variable	]	air flow-rate,outdoo	or measured		J
O sure dia sure la sure l			]				
Sound power level,	L <sub>WA</sub>	73.0	dB				
outdoor			J				
If anging driven:			mg/k/M/b				
Emissions of nitrogen	NOx	-	fuel input				
ovides	***		GCV				
			1001				
GWP of the			kaCOssa				
refrigerant		675	(100years)				
Telligerant		ļ	1				
Contact details Mitsubis	hi heavy indu	stries thern	nal systems.L	.TD			
** If Cdc is not determined by measureme	nt then the de	efault degra	dation coeffic	eint air-conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air	-conditioners,	the test res	ult and perfo	rmance data be obta	ined on the basis of the performa	nce	
of the outdoor unit, with a combination of i	ndoor unit(s)	recommend	ied by the ma	anufacturer or import	er.		
1							

Information to identify the model(s) to v	which the informa	tion relate	s: FDO	C250VSA-W /	FDUM125VH (2 units)		
Outdoor side heat exchanger of heat p	ump :	air					
Indoor side heat exchanger of heat put	mp :	air					
Indication if the heater is equipped with	n a supplementar	y heater :		No			
if applicable : electric motor		,					
Parameters shall be declared for the a	verage heating se	eason . pa	rameters for t	he warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Pated heating capacity	Cymbol	Value		Seasonal space heat	ing energy efficiency ns h	Value	
Rated heating capacity	Prated,h	28.0	kW	Seasonal space near	ing energy eniciency rps,in	172.9	%
Declared heating capacity for part load and outdoor temperature Ti	at indoor temper	rature 20°C	;	Declared coefficient of auxiliary energy facto	of performance or gas utilization e	efficiency /	Ti
				damiary energy lacto	i loi partioda at giron oataoor te	, inportation of	.,
Tj=−7°C	Pdh	12.6	kW	Tj=-7℃	COPd or	298.0	%
			٦		GUEh,bin / AEFh,bin		
Tj=+2℃	Pdh	7.7	kW	T <sub>j</sub> =+2℃	COPd or	430.0	%
T.=+7°C	Pdb	5.2	kW	T.=+7°C	GUEh,bin / AEFh,bin		-
1j=17 0	T UIT	0.2	KVV	1j=17 C	GUEh bin / AEEh bin	565.0	%
T <sub>j</sub> =+12°C	Pdh	6.2	kW	T <sub>j</sub> =+12°C	COPd or	667.0	0/
			_		GUEh,bin / AEFh,bin	007.0	/0
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent	COPd or	268.0	%
T	D. <sup>th</sup>	45.4	1.34	temperature	GUEh,bin / AEFh,bin		-
I <sub>OL</sub> =operation limit	Pdh	15.1	KVV	I <sub>OL</sub> =operation limit	COPd or	200.0	%
For air-to-water heat numps :	Pdh	-	kW	For air-to-water bea	COPd or		
$T_i=-15^{\circ}C$	1 dil			pumps:T <sub>i</sub> =-15°C	GUEh,bin / AEFh,bin	-	%
, (if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			1
			-				-
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	it		0-
5		r	-	pumps:Operation li	nit	-	ĉ
	0	0.05		I ol temperature			
coemcient	C <sub>dh</sub>	0.25	-				
near pumps			_]				
							٦
Power consumption in modes other the	an 'active mode'			Supplementary hea	ter elbu	-	kW
Offmode	P	0.009	k\M/	back-up neating ca	pacity		
Thermostat off mode	P_a	0.003	KW	Turne of encountries of			٦
Crankcase bester mode	Peu	0.032	k\//	Type or energy input	P <sub>SB</sub>	0.009	kW
Claincase heater mode	I CK	0.012	KVV	Standby mode		L	]
Other items							
		variable		For air-to-air heat pur	nps:	9180	m <sup>3</sup> /h
Capacity control		variable	<u>-</u>	air now-rate,outdoor r	neasurea	L	L
Sound power level.				For water-/brine-to-ai	r heat pumps :		1
outdoor measured	L <sub>WA</sub>	75.0	dB	Rated brine or water	flow-rate,	-	m <sup>3</sup> /h
		ı	-	outdoor side heat exc	hanger		
Emissions of nitrogen			mg/kWh		-		-
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
GWP of the		675	kg CO2eq.				
refrigerant		0/5	(100years)				
Contact details Mitsu	ubishi heavv indu	stries ther	mal systems.I	LTD			
* If Cdh is not determined by measure	ment then the de	fault degr	adation coeffic	cient air-conditioners sh	all be 0,25.		
** from 26 September 2018		-					
Where information relates to multi-spilt	air-conditioners.	the test re	sult and perfo	rmance data be obtaine	d on the basis of the performanc	e	
of the outdoor unit, with a combination	of indoor unit(s)	recommer	nded by the ma	anufacturer or importer.	, ,		
	. ,		-				

#### Model FDUM280VSAWPVH

Model(s) EDC280VSA-W	FDUM140	VH (2 unite	)				
Outdoor side heat exchanger of air-condition	oner ·	oir	/				
Indoor side heat exchanger of air-condition	er :	air					
		air					
if applicable : electric motor							
Itom	Sumbol	Value	Linit	Itom	Symbol	Value	Linit
	Symbol	value		Seasonal space of		value	
	Prated,c	27.0	kW	officionov na o	Joining energy	241.0	%
				enciency rps,c			
Declared cooling capacity for part load at a	iven outdoor	temperatur		Declared energy et	fficiency ratio or gas utilization efficie	ancy /	1
Ti and indoor $27^{\circ}$ C/19°C(dr//wet bulb)		temperatur	63	auxiliary energy fa	ctor for part load at given outdoor te	mneratures <sup>.</sup>	ті
				uuxiiury energy iu		inperaturee	.,
Tj=+35℃	Pdc	27.0	kW	Ti=+35℃	FERd or		1
			1	.,	GUEc bin / AEEc bin	294.0	%
Tj=+30℃	Pdc	19.9	kW	Ti=+30°C	EERd or		
			1	,	GUEc.bin / AEFc.bin	476.0	%
Tj=+25℃	Pdc	12.8	kW	Ti=+25°C	EERd or		
			1	,	GUEc.bin / AEFc.bin	772.0	%
Tj=+20°C	Pdc	7.0	kW	Tj=+20°C	EERd or	004.0	0/
			-		GUEc.bin / AEFc.bin	994.0	%
Degradation			]				-
coefficient for	Cdc	0.25	-				
air-conditioners**							
			-				
Power consumption in other than 'active m	ode'						
			_				_
Off mode	P <sub>OFF</sub>	0.009	kW	Crankcase heater	mode P <sub>CK</sub>	0.012	kW
Thermostat-off mode	P <sub>TO</sub>	0.032	kW	Standby mode	P <sub>SB</sub>	0.009	kW
Other items							-
		r	1	For air-to-air air-co	onditioner:	8160	m³/h
Capacity control		variable	]	air flow-rate,outdoo	or measured		
		r	1				
Sound power level,	L <sub>WA</sub>	75.0	dB				
outdoor							
			1				
If engine driven:	NOx		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
			1				
GWP of the		675	kgCO2eq. (100vears)				
refrigerant			(,)				
	hi hogan in d	otrios H					
** If Cdc is not determined by measurement	nt then the de	stries therm	ial systems, l	ient air-conditioners	shall be 0.25		
*** from 26 Contember 2040				section conditioners			
II UIII 20 September 2018	oond!!!er	the test	سر بر احمد <del>ا</del>	monoo data balahi	inad on the basis of the sector	-	
of the outdoor unit with a combination of	conditioners,	une test res	uit and perfo	mance data be obta	lined on the basis of the performance	e	
or the outdoor unit, with a combination of I	idoor unit(S)	ecomment	ieu by the m	anulaciuler of import			

PJG000Z491 🖄

Information to identify the model(s) to	which the informa	tion relates	: FDC	280VSA-W /	FDUM140VH (2 units)		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat pu	ump :	air					
Indication if the heater is equipped with	th a supplementar	y heater :		No			
if applicable : electric motor							
Parameters shall be declared for the	average heating s	eason, para	ameters for th	ne warmer and colder h	eating seasons are optiona	al.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space heat	ing energy efficiency ns,h		
	Prated,h	30.0	kW			166.0	%
Declared heating capacity for part loa	d at indoor tempe	rature 20°C		Declared coefficient of	of performance or gas utilization	ation efficiency /	
and outdoor temperature Tj				auxiliary energy facto	r for part load at given outd	oor temperatures	Ti
Ti=−2°C	Pdh	14.2	kW	T <sub>i</sub> =-7°C	COPd or	204.0	0/
				,	GUEh,bin / AEFh,bin	321.0	%
T <sub>i</sub> =+2°C	Pdh	8.7	kW	T <sub>i</sub> =+2°C	COPd or	400.0	o/
,		ιι		,	GUEh.bin / AEFh.bin	400.0	%
T <sub>i</sub> =+7°C	Pdh	6.3	kW	Ti=+2℃	COPd or		
J				J	GUEh bin / AEEh bin	560.0	%
T₁=+12°C	Pdh	7.1	kW	T;=+12°C	COPd or		1
1				,	GLIEb bin / AEEb bin	780.0	%
T <sub>bix</sub> =biyalent temperature	Pdh	16.0	kW	T <sub>biv</sub> =bivalent	COPd or		1
				temperature	GLIEb bin / AEEb bin	240.0	%
T <sub>ex</sub> =operation limit	Pdh	16.0	kW	T <sub>or</sub> =operation limit	COPd or		1
	1 011	10.0	r	.UL Sporadori milit		240.0	%
For air to water best sums :	Dah		k\\/	For air to water here			1
For all-to-water near pumps . $T = 15^{\circ}C$	Pull		KVV	FOI all-to-water field		-	%
$(if T_{a} < 20^{\circ}C)$				$(if T_{-1} < 20^{\circ}C)$	OUEN,BITT AET 1,BIT		]
(11102<-200)				(II 1 <sub>0</sub> <-20 C)			
Rivalent temperature	т	-10.0	°C	For water to air bea	+		1
Divalent temperature	biv	-10.0	C		nit	_	~
Degradation					IIIL	-	C
Degradation	0	0.05		I ol temperature			]
coefficient	C <sub>dh</sub>	0.25	-				
neat pumps^^							
							1
Power consumption in modes other the	nan 'active mode'			Supplementary hea	ter	elbu —	kW
	5			back-up heating cap	pacity		J
Off mode	P <sub>OFF</sub>	0.009	kW				1
Thermostat-off mode	P <sub>TO</sub>	0.032	kW	Type of energy input		P <sub>SB</sub> 0.009	kW
Crankcase heater mode	Р <sub>ск</sub>	0.012	kW	Standby mode			]
Other items							1
				For air-to-air heat pur	nps:	8400	m <sup>3</sup> /h
Capacity control		variable		air flow-rate,outdoor r	neasured		]
							,
Sound power level,	Luna	77.0	dB	For water-/brine-to-ai	r heat pumps :		
outdoor measured	-wA			Rated brine or water	flow-rate,	-	m³/h
				outdoor side heat exc	hanger		J
Emissions of nitrogen	NOv		mg/kWh				
oxides(if applicable)	***	-	fuel input				
			GCV				
GWP of the		67F	kg CO2eq.				
refrigerant		0/5	(100years)				
-			.				
Contact details Mits	subishi heavv indu	stries therm	al systems.L	TD			
** If Cdh is not determined by measur	rement then the de	fault degrad	dation coeffic	cient air-conditioners sh	all be 0,25.		
*** from 26 September 2018		-					
Where information relates to multi-spi	It air-conditioners	the test resi	ult and perfor	mance data be obtaine	d on the basis of the perfor	mance	
of the outdoor unit with a combination	n of indoor unit(e)	recommend	ed by the ma	anufacturer or importer			
				analaotaror or importer.			

#### Model FDUM200VSAWTVH

	EDUM74V	(H (3 unite)					
Outdoor side heat exchanger of air-condition	ner ·	oir					
Indoor side heat exchanger of air-condition	er :	air					
		all					
if applicable : electric motor							
Item	Symbol	Value	Unit	ltem	Symbol	Value	Linit
	Symbol	value				value	Onit
Rated cooling capacity	Prated c	20.0	kW	Seasonal space coo	bling energy	259.8	%
	1 14104,0			enciency hs,c			, o
					licional ratio ar cas utilization officia		
Ti and indeer 27°C(40°C(dr/(ust hulb))		rtemperatu	ires	Declared energy en	tor for part load at siver outdoor tor		т:
				auxiliary energy lac	tor for part load at given outdoor ten	ilperatures	IJ
Ti=+35°C	Pdc	20.0	kW	Ti- 125°0		[	1
.,			]	1j=+35 C		326.0	%
Ti=+30℃	Pdc	14 7	k\W	T: . 00%0	GUEC,DIN / AEFC,DIN		
1]-130 0	T UC	14.7		Ij=+30°C	EERd or	546.0	%
Ti- 125°C	Dda	0.5	LAV		GUEc,bin / AEFc,bin		
1]-+23 0	Fuc	9.5	L	Tj=+25°C	EERd or	828.0	%
T: 100%0	Data	- 4			GUEc,bin / AEFc,bin		-
TJ=+20 C	Pac	7.4	ĸvv	Tj=+20°C	EERd or	926.0	%
			1		GUEc,bin / AEFc,bin		J
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**			J				
Power consumption in other than 'active me	ode'						
Off mode	POFF	0.008	kW	Crankcase heater n	node P <sub>CK</sub>	0.012	kW
Thermostat-off mode	P <sub>TO</sub>	0.024	kW	Standby mode	P <sub>SB</sub>	0.008	kW
			1			<u> </u>	1
Other items							
				For air-to-air air-cor	nditioner:		m3/h
Capacity control		variable	]	air flow-rate.outdoo	r measured	8,880	1119/11
			1				
Sound power level.		70.0	10				
outdoor	L <sub>WA</sub>	72.0	aв				
			1				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
			-				
		_					
GWP of the		675	kgCO2eq.				
refrigerant		075	(100years)				
Contact details Mitsubish	i heavy indu	stries thern	nal systems,	LTD			
** If Cdc is not determined by measuremen	t then the de	efault degra	adation coeff	icient air-conditioners	shall be 0,25.		
*** from 26 September 2018							
Where information relates to multi-spilt air-o	conditioners	,the test res	sult and perfe	ormance data be obta	ined on the basis of the performanc	е	
of the outdoor unit, with a combination of in	door unit(s)	recommen	ded by the n	nanufacturer or import	ter.		

Information to identify the model(s) to	which the informa	ation relate	s: F	DC200VSA-W /	FDUM71VH (3 units)		
Outdoor side heat exchanger of heat	oump :	air					
Indoor side heat exchanger of heat pu	imp :	air					
Indication if the heater is equipped wit	h a supplementa	ry heater :		No			
if applicable : electric motor							
Parameters shall be declared for the a	average heating s	eason , pa	rameters for	the warmer and colder h	eating seasons are optional.		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	22.4	kW	Seasonal space heatin	ig energy efficiency ηs,h	182.8	%
Declared heating capacity for part load and outdoor temperature Tj	d at indoor tempe	rature 20°0	C	Declared coefficient of auxiliary energy factor	performance or gas utilization for part load at given outdoor	temperature	l es Tj
T <sub>j</sub> =-7°C	Pdh	11.1	kW	Tj=−7°C	COPd or	327.0	%
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh.bin / AEFh.bin	506.0	%
T <sub>j</sub> =+7°C	Pdh	6.7	kW	T <sub>j</sub> =+7°C	COPd or GUEh.bin / AEFh.bin	546.0	%
T <sub>j</sub> =+12°C	Pdh	8.0	kW	T <sub>j</sub> =+12℃	COPd or GUEh.bin / AEFh.bin	615.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	276.0	%
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	276.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	Pdh	-	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C (if T <sub>OL</sub> <-20°C)	COPd or GUEh,bin / AEFh,bin	-	%
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heat pumps:Operation lim	it	_	°C
Degradation coefficient heat pumps**	C <sub>dh</sub>	0.25	-	T <sub>ol</sub> temperature			
Power consumption in modes other th	an 'active mode'		_	Supplementary heater back-up heating capa	er elbu acity	_	kW
Off mode Thermostat-off mode Crankcase heater mode	Р <sub>ОFF</sub> Р <sub>ТО</sub> Р <sub>СК</sub>	0.008 0.030 0.012	kW kW kW	Type of energy input Standby mode	P <sub>SB</sub>	0.008	kW
Other items		variable	1	For air-to-air heat pur	mps:	8040	m³/h
		variable	ן נ ר				] ]
outdoor measured	L <sub>WA</sub>	74.0	dB	Rated brine or water outdoor side heat exc	flow-rate, changer	-	m <sup>3</sup> /h
Emissions of nitrogen oxides(if applicable)	NOx ***	_	mg/kWh fuel input GCV				
GWP of the refrigerant		675	kg CO2eq. (100years)				
Contact details Mits	ubishi heavy indu	stries therr	nal systems,l	LTD			
** If Cdh is not determined by measure *** from 26 September 2018	ement then the de	efault degra	adation coeffi	icient air-conditioners sha	all be 0,25.		
Where information relates to multi-spil	t air-conditioners,	,the test re	sult and perfo	ormance data be obtaine	d on the basis of the performa	ance	
of the outdoor unit, with a combinatior	of indoor unit(s)	recommen	ided by the m	nanufacturer or importer.			



#### Models FDUM71VH, 100VH, 125VH, 140VH

Model(s) : FDUM71VH											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Cooling capacity (sensible)	Prated,c	5.8	kW	Total electric power input	Pelec	0.200	kW				
Cooling capacity (latent)	Prated,c	1.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB				
Heating capacity	Prated,h	8.0	kW								
Contact details	Mitsubishi h	eavy ind	ustries the	mal systems,LTD							
Model(s) : FDUM100VH											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Cooling capacity (sensible)	Prated,c	7.7	kW	Total electric power input	Pelec	0.290	kW				
Cooling capacity (latent)	Prated,c	2.3	kW	Sound power level (per speed setting,if applicable)	LWA	65.0	dB				
Heating capacity	Prated,h	11.2	kW								
Contact details	Mitsubishi h	Mitsubishi heavy industries thermal systems,LTD									
Model(s) : FDUM125VH											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Cooling capacity (sensible)	Prated,c	10.5	kW	Total electric power input	Pelec	0.330	kW				
Cooling capacity (latent)	Prated,c	2.0	kW	Sound power level (per speed setting,if applicable)	LWA	67.0	dB				
Heating capacity	Prated,h	14.0	kW								
Contact details	Mitsubishi h	eavy ind	ustries the	mal systems,LTD							
Model(s) : FDUM140VH											
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Cooling capacity (sensible)	Prated,c	11.2	kW	Total electric power input	Pelec	0.450	kW				
Cooling capacity (latent)	Prated,c	2.8	kW	Sound power level (per speed setting,if applicable)	LWA	70.0	dB				
Heating capacity	Prated,h	16.0	kW								
Contact details	Mitsubishi h	eavy ind	ustries the	mal systems,LTD							



#### (5) Ceiling suspended type(FDE) Model FDE200VSAWPVH

Model(s): FDC2001/5	SA-W /	FDF100	VH (2unite)				
Outdoor side heat exchanger o	f air-conditioner :	air					
Indoor side heat exchanger of a	air-conditioner :	air					
Type : vapour compression							
if applicable : electric mo	tor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal spac	e		
5 , ,	Prated,c	20.0	kW	cooling energy	η s,c	260.7	%
				efficiency			
Declared cooling capacity for p	art load at given ou	tdoor tem	peratures	Declared energ	gy efficiency ratio or gas utiliza	tion efficiency /	
Tj and indoor 27°C/19°C(dry/we	et bulb)		-	auxiliary energ	y factor for part load at given o	utdoor tempera	atures Tj
							_
Tj=+35°C	Pdc	20.0	kW	Tj=+35°C	EERd or	331.0	%
			-		GUEc,bin / AEFc,bin	001.0	/0
Tj=+30°C	Pdc	14.7	kW	Tj=+30°C	EERd or	551.0	%
		r	-		GUEc,bin / AEFc,bin		
Tj=+25°C	Pdc	9.5	kW	Tj=+25°C	EERd or	847.0	%
		r	-		GUEc,bin / AEFc,bin		
Tj=+20°C	Pdc	7.3	kW	Tj=+20°C	EERd or	885.0	%
			-		GUEc,bin / AEFc,bin		
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Off mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.008	kW kW	Crankcase hea Standby mode	tter mode P <sub>CK</sub> P <sub>SB</sub>	0.012	kW kW
Other items							
				For air-to-air ai	r-conditioner:		<b>_</b>
Capacity control		variable	•	air flow-rate,ou	tdoor measured	8,880	m³/n
Sound power level.			]				
outdoor	L <sub>WA</sub>	72.0	dB				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
		r	-				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
T							
Contact details	Vitsubishi heavy ind	dustries th	ermal syste	ms,LTD	onditionare shall be 0.25		
in Cuc is not determined by h	ieasurement then t	ne uerauli	uegradatio	i coenicient alf-0	onulioners shall be 0,25.		
*** trom 26 September 2018						<b>6</b> 11 <b>6</b>	
Where information relates to m	ulti-spilt air-conditio	ners,the t	est result ar	d performance d	ata be obtained on the basis o	t the performan	nce
of the outdoor unit, with a comb	pination of indoor ur	nit(s) reco	mmended b	y the manufactur	er or importer.		

Information to identify the model(s) to w	hich the in	formation r	elates	FDC200VSA-W /	FDE100VH (2units)		
Outdoor side heat exchanger of heat pu	imp :	air					
Indication if the heater is equipped with	a supplem	entary hea	ter	No			
if applicable : electric motor	a cappion						
Parameters shall be declared for the av	erage heat	ting seasor	n, paramete	ers for the warmer and c	colder heating seasons are c	ptional.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Ductorill	004	1.3.47	Seasonal space		470.0	0/
	Prated,r	1 22.4	KVV	neating energy	η s,n	178.0	%
Declared heating capacity for part load	at indoor te	emperature	20°C	Declared coefficient of	of performance or gas utiliza	tion efficie	ncv /
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdo	oor temper	atures Tj
. ,				, ,,		·	
T <sub>i</sub> =-7°C	Pdh	11.1	kW	T <sub>i</sub> =-7°C	COPd or	220.0	0/
			-		GUEh,bin / AEFh,bin	320.0	70
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or	402.0	0/.
			4		GUEh,bin / AEFh,bin	493.0	70
T <sub>i</sub> =+7°C	Pdh	6.6	kW	T <sub>i</sub> =+7°C	COPd or	500.0	0/
,		L	4		GUEh,bin / AEFh,bin	529.0	70
T <sub>i</sub> =+12°C	Pdh	8.0	kW	T <sub>i</sub> =+12°C	COPd or		0/
1			_	1	GUEh,bin / AEFh,bin	600.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent	COPd or	000.0	0/
			4	temperature	GUEh,bin / AEFh,bin	269.0	70
T <sub>oL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or	200.0	0/
		L	4		GUEh,bin / AEFh,bin	269.0	70
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		0/
Tj=−15°C			_	pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin	-	70
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			4
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heat			
			4	pumps:Operation limi	it	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				-
heat pumps**							
			-				
						-	-
Power consumption in modes other that	n 'active m	ode		Supplementary heate	elbu	-	kW
o	<b>D</b>		٦	back-up heating capa	acity		
Off mode	POFF	0.008	KVV				1
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Type of energy input	Psp	0.008	kW
Crankcase heater mode	P <sub>CK</sub>	0.012	kW	Standby mode	35		
Othersiteme							
Other Items				For air to air beat pur	mpe:		1
Capacity control		variablo	٦	air flow-rate outdoor	mps.	8,040	m³/h
Capacity control		Variable	1		licasurcu		1
Sound power level,	1	74.0	dD	For water-/brine-to-ai	r heat pumps :		1
outdoor measured	LWA	74.0	uВ	Rated brine or water	flow-rate,	-	m³/h
		·	-	outdoor side heat exc	changer		]
Emissions of nitrogen	NOx		mg/kWh fuol input				
	***	-	GCV				
GWP of the		675	kg CO2ea.				
refrigerant		0/5	(100years)				
			/				
	-: - · ·	durat ' ''					
Contact details Mitsubis	hi heavy in	dustries the	ermal syster	ms,LTD			
*** from 26 September 2018	nent then t	ine default	degradation	coefficient air-condition	ners snall be 0,25.		
Where information relates to multi-spilt	air-conditic	ners the te	st result and	d performance data be	obtained on the basis of the	performan	ice
of the outdoor unit, with a combination of	of indoor u	nit(s) recom	nmended by	the manufacturer or im	porter.		-
			,				

#### Model FDE250VSAWPVH

Model(s)			(11 (0) (2) (5)				
Outdoor side heat exchanger o	f air-conditioner	FDE125	/H (ZUNITS)				
Indoor side heat exchanger of	air-conditioner	air					
Type : vapour compression		ali					
if applicable : electric mo	tor						
Item	Symbol	Value	Linit	ltem	Symbol	Value	Unit
Pated cooling capacity	Symbol	value		Seasonal space	Symbol	value	
Rated cooling capacity	Prated,c	25.0	kW	coolina enerav	n s.c	244.8	%
				efficiency	•		
Declared cooling capacity for p	art load at given out	tdoor tem	peratures	Declared energy	efficiency ratio or gas utilizat	ion efficiency /	,
Tj and indoor 27°C/19°C(dry/we	et bulb)		porataree	auxiliary energy	factor for part load at given ou	utdoor tempera	atures Tj
		r	-				-
Tj=+35°C	Pdc	25.0	kW	Tj=+35°C	EERd or	314.0	%
			-		GUEc,bin / AEFc,bin		4
Tj=+30°C	Pdc	18.4	kW	Tj=+30°C	EERd or	516.0	%
			Т		GUEc,bin / AEFc,bin		-
Tj=+25°C	Pdc	11.8	kW	Tj=+25°C	EERd or	721.0	%
<b>T</b> i			7		GUEc,bin / AEFc,bin		-
1j=+20°C	Pdc	6.8	KVV	Tj=+20°C	EERd or	912.0	%
			1		GUEc,bin / AEFc,bin		
Degradation		0.25					
	Cdc	0.25	-				
air-conditioners**			]				
Device concurrentian in other th	na la ativia ana dal						
Power consumption in other that	an 'active mode'						
Off mode	POFF	0.009	kW	Crankcase heate	er mode Por	0.012	kW
Thermostat-off mode	PTO	0.027	kW	Standby mode	P <sub>SB</sub>	0.009	kW
			]				_1
Other items							
				For air-to-air air-	conditioner:		2.4
Capacity control		variable	,	air flow-rate.outd	loor measured	8880	m³/n
			-				-
Sound power level,		72.0	dD				
outdoor	LWA	73.0	ав				
			-				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
	1		7				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
I							
Contact details	Mitsubishi heavy ind	dustries th	ermal syster	ms,LTD			
If Cdc is not determined by n	neasurement then the	ne defauli	degradatior	o coefficient air-con	ditioners shall be 0,25.		
*** from 26 September 2018							
Where information relates to m	ulti-spilt air-condition	ners,the t	est result an	d performance data	a be obtained on the basis of	the performan	се
of the outdoor unit, with a comb	bination of indoor un	nit(s) reco	mmended by	/ the manufacturer	or importer.		



Information to identify the model(s) to	which the inf	ormation	relates :	FDC250VSA-W /	FDE125VH (2units)		
Outdoor side heat exchanger of heat	pump :	air					
Indoor side heat exchanger of heat p	ump :	air					
Indication if the heater is equipped w	ith a suppleme	entary hea	ater :	No			
if applicable : electric motor							
Parameters shall be declared for the	average heati	ing seaso	n, paramete	rs for the warmer and	d colder heating seasons	are optional.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated,h	28.0	kW	heating energy efficiency	η s,h	167.0	%
Declared heating capacity for part loa and outdoor temperature Tj	ad at indoor te	mperature	e 20 ℃	Declared coefficien auxiliary energy fac	t of performance or gas u stor for part load at given	utilization efficien outdoor tempera	icy / itures Tj
Tj=−7°C	Pdh	12.6	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	286.0	%
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2℃	COPd or GUEh,bin / AEFh,bin	411.0	%
T <sub>j</sub> =+7°C	Pdh	5.2	kW	Tj=+7℃	COPd or GUEh,bin / AEFh,bin	557.0	%
T <sub>j</sub> =+12°C	Pdh	6.2	kW	T <sub>j</sub> =+12°C	COPd or GUEh,bin / AEFh,bin	663.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh,bin / AEFh,bin	261.0	%
$T_{OL}$ =operation limit	Pdh	15.1	kW	T <sub>OL</sub> =operation limit	COPd or GUEh,bin / AEFh,bin	193.0	%
For air-to-water heat pumps : T <sub>j</sub> =-15°C	Pdh	-	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	t COPd or GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			_
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air heapumps:Operation line	at mit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				
heat pumps**			]				
Power consumption in modes other t	han 'active mo	ode'		Supplementary hea back-up heating ca	ater pacity	elbu -	kW
Off mode	P <sub>OFF</sub>	0.009	kW				_
Thermostat-off mode	P <sub>TO</sub>	0.032	kW	Type of energy inpu	ut		12) 47
Crankcase heater mode	P <sub>CK</sub>	0.012	kW	Standby mode		P <sub>SB</sub> 0.009	KVV
Other items				For air-to-air heat p	umps:	0480	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoo	r measured	9180	
Sound power level, outdoor measured	$L_{WA}$	75.0	dB	For water-/brine-to- Rated brine or water	air heat pumps : er flow-rate, exchanger	-	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV			L	J
GWP of the refrigerant		675	kg CO2eq. (100years)				
Contact details Mitsub	ishi heavv ind	lustries th	ermal svsten	ns,LTD			
** If Cdh is not determined by measu	rement then the	he default	degradation	coefficient air-condit	ioners shall be 0.25		
*** from 26 September 2018	. e.none thori ti						

Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.



#### Model FDE280VSAWPVH

Juldoor side neat exchanger of air-	conditioner :	air					
ndoor side heat exchanger of air-co	onditioner :	air					
ype : vapour compression							
applicable : electric motor							
tem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space			
	Prated,c	27.0	kW	cooling energy	η s,c	233.8	%
				efficiency			
Declared cooling capacity for part lo	ad at given out	door tem	peratures	Declared energy e	efficiency ratio or gas utiliza	tion efficiency /	
j and indoor 27°C/19°C(dry/wet bul	b)			auxiliary energy fa	ictor for part load at given o	outdoor tempera	atures Tj
	-		-				-
ſj=+35°C	Pdc	27.0	kW	Tj=+35℃	EERd or	290.0	%
	_		_		GUEc,bin / AEFc,bin	250.0	70
⁻j=+30°C	Pdc	19.9	kW	Tj=+30°C	EERd or	460.0	0/2
	-		-		GUEc,bin / AEFc,bin	400.0	70
Гј=+25°С	Pdc	12.8	kW	Tj=+25°C	EERd or	C07.0	0/
	-		-		GUEc,bin / AEFc,bin	607.0	70
Гj=+20°С	Pdc	7.2	kW	Tj=+20°C	EERd or	070.0	0/
	L		-		GUEc,bin / AEFc,bin	970.0	70
Degradation	Ţ		1		,	L	-
coefficient for	Cdc	0.25	-				
air-conditioners**							
	L		1				
Dff mode Thermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heater Standby mode	mode Р <sub>СК</sub> Р <sub>SB</sub>	0.012	kW kW
Off mode Thermostat-off mode Other items	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heater Standby mode	mode P <sub>CK</sub> P <sub>SB</sub>	0.012	kw kw
Off mode Thermostat-off mode Other items Capacity control	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable	kw kw	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW m <sup>3/h</sup>
Off mode Thermostat-off mode Other items Capacity control Sound power level.	P <sub>OFF</sub>	0.009 0.032 variable	kW  kW 	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW m³/h
Dff mode Thermostat-off mode Dther items Capacity control Sound power level, putdoor	P <sub>off</sub> [ P <sub>to</sub> [	0.009 0.032 variable 75.0	kW kW	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW m <sup>3</sup> /h
Off mode Thermostat-off mode Other items Capacity control Sound power level, butdoor	P <sub>off</sub> [ P <sub>to</sub> [	0.009 0.032 variable 75.0	kW kW	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Off mode Thermostat-off mode Dther items Capacity control Sound power level, putdoor f engine driven:	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0	kW kW ] dB ] ma/kW/b	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub> onditioner: or measured	0.012 0.009 8160	kW kW
Dff mode Thermostat-off mode Dther items Capacity control Sound power level, butdoor f engine driven: Emissions of nitrogen	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0	kW kW dB mg/kWh fuel input	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub> onditioner: or measured	0.012 0.009 8160	kW kW
Off mode hermostat-off mode Other items Capacity control Cound power level, utdoor F engine driven: Cimissions of nitrogen vides	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0	kW kW dB mg/kWh fuel input	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Off mode Thermostat-off mode Other items Capacity control Sound power level, utdoor F engine driven: Emissions of nitrogen xides	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0	kW kW dB mg/kWh fuel input GCV	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Dff mode Thermostat-off mode Dther items Capacity control Sound power level, butdoor f engine driven: Emissions of nitrogen ixides	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0	kW kW dB mg/kWh fuel input GCV	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub> onditioner: or measured	0.012 0.009 8160	kw kw
Dff mode Thermostat-off mode Dther items Capacity control Sound power level, putdoor f engine driven: Emissions of nitrogen ixides GWP of the	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675	kW kW dB mg/kWh fuel input GCV kgCO2eq.	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Off mode Thermostat-off mode Other items Capacity control Sound power level, utdoor E engine driven: Emissions of nitrogen xides SWP of the efrigerant	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675	kW kW dB dB fuel input GCV kgCO2eq. (100years)	Crankcase heater Standby mode For air-to-air air-cc air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Dff mode 'hermostat-off mode Dther items Capacity control Sound power level, utdoor f engine driven: Emissions of nitrogen xides SWP of the efrigerant	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675	kW kW dB mg/kWh fuel input GCV kgCO2eq. (100years)	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Off mode Thermostat-off mode Ther items Capacity control Sound power level, utdoor F engine driven: Emissions of nitrogen xides SWP of the efrigerant	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675	kW kW dB dB mg/kWh fuel input GCV kgCO2eq. (100years)	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW ]m <sup>3</sup> /h
Off mode         ihermostat-off mode         Dther items         Capacity control         Cound power level, utdoor         iengine driven:         imissions of nitrogen         xides         SWP of the         efrigerant         contact details         Mitsu	P <sub>OFF</sub> [ P <sub>TO</sub> [ L <sub>WA</sub> [ NOx [ 	0.009 0.032 variable 75.0 - 675	kW kW dB dB mg/kWh fuel input GCV kgCO2eq. (100years) ermal syste degradation	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
off mode         hermostat-off mode         other items         capacity control         ound power level,         utdoor         engine driven:         missions of nitrogen         xides         SWP of the         efrigerant         contact details         Mitsu	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675 lustries th	kW kW dB dB fuel input GCV kgCO2eq. (100years) ermal syste degradatior	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW
Diff mode Thermostat-off mode Thermostat-off mode Dther items Capacity control Sound power level, butdoor If engine driven: Emissions of nitrogen ixides SWP of the efrigerant Contact details * If Cdc is not determined by measu ** from 26 September 2018	Porr [ Pro [ Lwa [ NOx [ ***	0.009 0.032 variable 75.0 - 675 ustries th ne default	kW kW dB dB mg/kWh fuel input GCV kgCO2eq. (100years) ermal syste degradation	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kw kw ]m <sup>3</sup> /h
Off mode         Thermostat-off mode         Thernostat-off mode         Dther items         Capacity control         Sound power level, nutdoor         f engine driven:         Emissions of nitrogen         ixides         GWP of the         efrigerant         Contact details         Mitsu         * If Cdc is not determined by measu         ** from 26 September 2018         Vhere information relates to multi-st	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675 ustries th ne default	kW kW dB dB mg/kWh fuel input GCV kgCO2eq. (100years) ermal syste degradation	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW ]m <sup>3</sup> /h
Off mode         "hermostat-off mode         "hermostat-off mode         Other items         Capacity control         Sound power level, autdoor         'engine driven:         "imissions of nitrogen xides         SWP of the         efrigerant         'ontact details         '' If Cdc is not determined by measu '* from 26 September 2018         Yhere information relates to multi-s f the outdoor unit, with a combinati	P <sub>OFF</sub> P <sub>TO</sub>	0.009 0.032 variable 75.0 - 675 (ustries the to the default ners,the to the to the default	kW kW dB dB mg/kWh fuel input GCV kgCO2eq. (100years) ermal syste degradation est result an mmended by	Crankcase heater Standby mode For air-to-air air-co air flow-rate,outdo	mode P <sub>CK</sub> P <sub>SB</sub>	0.012 0.009 8160	kW kW ] m <sup>3</sup> /h

Information to identify the model(s) to	which the in	formation i	relates :	FDC280VSA-W /	FDE140VH (2units)		
Outdoor side heat exchanger of heat p	oump :	air					
Indoor side neat exchanger of neat pu	mp : h a suppler	all optary bos	tor :	No			
if applicable electric motor	n a supplen	ientary nea	101.	NO			
Parameters shall be declared for the a	verage hea	ting seaso	n, paramete	rs for the warmer and	colder heating seasons are op	tional.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	30.0	kW	heating energy	η s,h	154.8	%
Declared heating capacity for part load	l at indoor t	emperature	20°C	Declared coefficient	of performance or gas utilization	on efficien	
and outdoor temperature Tj		omporatare		auxiliary energy fact	tor for part load at given outdoo	or tempera	atures Ti
				,		•	
T <sub>i</sub> =-7°C	Pdh	14.2	kW	T <sub>i</sub> =-7°C	COPd or	204.0	0/
			-		GUEh,bin / AEFh,bin	294.0	70
T <sub>i</sub> =+2°C	Pdh	8.7	kW	T <sub>i</sub> =+2°C	COPd or	264.0	0/
,			J	,	GUEh,bin / AEFh,bin	301.0	%
T <sub>i</sub> =+7°C	Pdh	5.8	kW	T <sub>i</sub> =+7℃	COPd or	504.0	0/
,		<u> </u>	1	,	GUEh,bin / AEFh,bin	521.0	70
T <sub>i</sub> =+12°C	Pdh	6.9	kW	T <sub>i</sub> =+12°C	COPd or	COE 0	0/
,		<u> </u>	-	,	GUEh,bin / AEFh,bin	000.0	70
T <sub>biv</sub> =bivalent temperature	Pdh	16.0	kW	T <sub>biv</sub> =bivalent	COPd or	000.0	0/
		<u> </u>	-	temperature	GUEh,bin / AEFh,bin	230.0	70
T <sub>oL</sub> =operation limit	Pdh	16.0	kW	T <sub>OL</sub> =operation limit	COPd or	220.0	0/
		<u> </u>	•		GUEh,bin / AEFh,bin	230.0	70
For air-to-water heat pumps :	Pdh	-	kW	For air-to-water heat	COPd or		0/
Tj=−15°C				pumps:T <sub>j</sub> =-15°C	GUEh,bin / AEFh,bin	-	70
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			-
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	t		
			1	pumps:Operation lin	nit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				-
heat pumps**							
			-				
							-
Power consumption in modes other th	an 'active m	iode.		Supplementary heat	ter elbu	-	kW
Offerende	р	0.000	1.1.1.	back-up neating cap	Jacity		J
	POFF	0.009	KVV				1
I hermostat-off mode	P <sub>TO</sub>	0.032	KVV	Type of energy inpu	t P <sub>SB</sub>	0.009	kW
Crankcase heater mode	P <sub>CK</sub>	0.012	kW	Standby mode	00		]
Other items							
Other items				For air-to-air heat n	imps:		1.
Capacity control		variable	1	air flow-rate outdoor	measured	8400	m <sup>3</sup> /h
		Variable	-		measured		1
Sound power level,	1	77.0	dD	For water-/brine-to-a	air heat pumps :		]
outdoor measured	LMA	11.0	uв	Rated brine or wate	r flow-rate,	-	m³/h
				outdoor side heat ex	kchanger		]
Emissions of nitrogen	NOx		mg/kWh				
	***	-	GCV				
		L	1001				
GWP of the		675	ka CO2ea				
refrigerant		0/5	(100years)				
			-				
		1 1 2 2					
Contact details Mitsubis	shi heavy in	dustries the	ermal systen	ns,LTD			
IT CON IS NOT DETERMINED by measure	ement then	the default	aegradation	coefficient air-condition	oners shall be 0,25.		
Where information relates to multi-spil	t air-conditio	oners the te	est result and	d performance data be	e obtained on the basis of the n	erforman	ce
of the outdoor unit, with a combination	of indoor u	nit(s) recor	nmended by	the manufacturer or i	mporter.		



#### Model FDE200VSAWTVH

Model(s): FDC200V	'SA-W	FDE71V	H (3units)				
Outdoor side heat exchanger	of air-conditioner :	air					
Indoor side heat exchanger of	air-conditioner :	air					
i ype : vapour compression	1						
ii applicable : electric m	0101						
Item	Symbol	Value	Unit		Symbol	Value	Unit
Rated cooling capacity	Prated,c	20.0	kW	cooling energy	η s,c	260.7	%
			I	eniciency			
Declared cooling capacity for Tj and indoor 27°C/19°C(dry/w	part load at given out /et bulb)	tdoor tem	peratures	auxiliary energy	y efficiency ratio or gas utiliz factor for part load at given	outdoor tempera	atures Tj
Tj=+35℃	Pdc	20.0	kW	Tj=+35℃	EERd or	328.0	%
Tj=+30°C	Pdc	14.7	kW	Tj=+30℃	EERd or	516.0	%
Tj=+25℃	Pdc	9.5	kW	Tj=+25℃	EERd or GUEc.bin / AEFc.bin	806.0	%
Tj=+20°C	Pdc	8.2	kW	Tj=+20°C	EERd or GUEc,bin / AEFc.bin	1080.0	%
Degradation			]		,,-		4
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other the off mode Thermostat-off mode	nan 'active mode' Ρ <sub>ΟFF</sub> Ρ <sub>ΤΟ</sub>	0.008	kW kW	Crankcase heat Standby mode	ter mode P <sub>CK</sub> P <sub>SB</sub>	0.012	kW kW
Other items							_
Capacity control		variable	-	For air-to-air air air flow-rate,out	-conditioner: door measured	8,880	m <sup>3</sup> /h
Sound power level, outdoor	L <sub>WA</sub>	72.0	dB				
If engine driven: Emissions of nitrogen oxides	NOx ***	-	mg/kWh fuel input GCV				
GWP of the		675	kgCO2eq. (100years)				
nemyeranı		L	J .				
Contact details	Mitsubishi heavv inc	dustries th	ermal syste	ems,LTD			
** If Cdc is not determined by	measurement then the	he default	degradatio	n coefficient air-co	onditioners shall be 0,25.		
*** from 26 September 2018							
Where information relates to r	nulti-spilt air-conditio	ners,the t	est result ar	nd performance da	ata be obtained on the basis	of the performa	nce
of the outdoor unit, with a com	ibination of indoor un	nit(s) reco	mmended b	y the manufacture	er or importer.		



Information to identify the model(s) to	which the in	formation r	elates	FDC200VSA-W /	FDE71VH (3units)		
Outdoor side heat exchanger of heat p	ump :	air					
Indoor side heat exchanger of heat put	np :	air					
Indication if the heater is equipped with	n a supplem	entary hea	ter	No			
Parameters shall be declared for the a	verane heat	ina seasor	naramete	rs for the warmer and	colder heating seasons are	ontional	
Item	Svmbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity				Seasonal space			
	Prated,h	22.4	kW	heating energy efficiency	η s,h	178.0	%
Declared heating capacity for part load and outdoor temperature Tj	at indoor te	emperature	20°C	Declared coefficient auxiliary energy facto	of performance or gas utilize or for part load at given outc	ation efficie loor temper	ncy / atures T
T <sub>j</sub> =-7°C	Pdh	11.1	kW	T <sub>j</sub> =-7°C	COPd or GUEh,bin / AEFh,bin	312.0	%
T <sub>j</sub> =+2°C	Pdh	6.7	kW	T <sub>j</sub> =+2°C	COPd or GUEh.bin / AEFh.bin	495.0	%
T <sub>j</sub> =+7°C	Pdh	6.6	kW	T <sub>j</sub> =+7°C	COPd or GUEb bin / AEEb bin	529.0	%
T <sub>j</sub> =+12°C	Pdh	8.0	kW	T <sub>j</sub> =+12°C	COPd or GUEb bin / AEEb bin	615.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	12.5	kW	T <sub>biv</sub> =bivalent	COPd or GUEb bin / AEEb bin	267.0	%
T <sub>OL</sub> =operation limit	Pdh	12.5	kW	T <sub>OL</sub> =operation limit	COPd or GUEb bin / AEEb bin	267.0	%
For air-to-water heat pumps : T,=-15°C	Pdh	-	kW	For air-to-water heat pumps:T <sub>i</sub> =-15°C	COPd or GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)			1
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air heat	it	-	°C
Degradation			1	T <sub>ol</sub> temperature			
coefficient	Cdh	0.25	-	01 1			J
heat pumps**	- un						
Power consumption in modes other the	an 'active m	ode		Supplementary heat	er elbu	-	kW
Off mode	P <sub>OFF</sub>	0.008	kW	<b>3 1</b>	,		4
Thermostat-off mode	P <sub>TO</sub>	0.030	kW	Type of energy input			1
Crankcase heater mode	Рск	0.012	kW	Standby mode	P <sub>SB</sub>	0.008	kW
Other items				For air-to-air heat pu	mos.		1
Capacity control		variable	]	air flow-rate,outdoor	measured	8,040	m <sup>3</sup> /h
Sound power level,	1	74.0	dB	For water-/brine-to-a	ir heat pumps :		1.
outdoor measured	LVVA	74.0	чD	Rated brine or water	flow-rate,	-	m <sup>3</sup> /h
Emissions of nitrogon		·	ma/k\//b	outdoor side heat ex	cnanger		
oxides(if applicable)	NOx ***	-	fuel input GCV				
GWP of the		675	ka CO2ea				
refrigerant		0/5	(100years)				
Contact details Mitsubis	shi heavy in	dustries th	ermal syster	ms,LTD			
*** If Cdh is not determined by measure	ment then t	ne default	degradation	coefficient air-conditio	ners shall be 0,25.		
nom zo September zo ro							

Where information relates to multi-spilt air-conditioners, the test result and performance data be obtained on the basis of the performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer.



#### Model FDE200VSAWDVH

Model(s): FDC200VSA	W ∕ FI	DE50VH	H (4units)				
Outdoor side heat exchanger of a	air-conditioner : ai	ir					
Indoor side heat exchanger of air	-conditioner : ai	ir					
Type : vapour compression							
if applicable : electric moto	ır						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity				Seasonal space	9		
	Prated,c	20.0	kW	cooling energy	η s,c	260.7	%
				efficiency			
Declared cooling capacity for par	t load at given outdo	oor temp	peratures	Declared energ	y efficiency ratio or gas utilizati	ion efficiency /	
Tj and indoor 27°C/19°C(dry/wet	bulb)			auxiliary energy	r factor for part load at given ou	utdoor tempera	atures Tj
Ti=+35℃	Pdc	20.0	kW	T: .05%0			1
1, 100 0		20.0		1j=+35 C		327.0	%
Ti=+30°C	Pdc	14.7	кW	Ti-+30°C	GOEC, DIT / AEFC, DIT		1
<b>j</b>			1	1j=+30 C		513.0	%
Tj=+25℃	Pdc	9.5	kW	Ti=+25℃	EERd or		1
			1	.,	GUEc,bin / AEFc,bin	812.0	%
Tj=+20°C	Pdc	8.5	kW	Tj=+20°C	EERd or	4000.0	0/
					GUEc,bin / AEFc,bin	1080.0	70
Degradation							-
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other than	'active mode'						
0."	<u></u> Г		1			0.040	1
Off mode	P <sub>OFF</sub>	0.008	KW	Crankcase heat	ter mode P <sub>CK</sub>	0.012	KVV
mermostat-on mode	FTO	0.024	ĸvv	Standby mode	FSB	0.008	ĸvv
Othor itoms							
Other items				For air-to-air air	-conditioner		1.
Capacity control	v	ariable	]	air flow-rate out	door measured	8,880	m <sup>3</sup> /h
	L_		1	an non rato,out		<u> </u>	1
Sound power level,	, [	70.0	10				
outdoor	LWA	72.0	ав				
			_				
If engine driven:			mg/kWh				
Emissions of nitrogen	NOx ***	-	fuel input				
oxides			GCV				
	F		,				
GWP of the		675	kgCO2eq.				
refrigerant			(100years)				
Contact dataile		otrice 4	ormel e: :=(				
** If Cdc is not determined by me	asurement then the	default	degradation	n coefficient air-co	onditioners shall be 0.25		
*** from 26 Sentember 2018		asiauit	203100000				
Where information relates to mult	ti-snilt air-conditions	ors the t	est result or	nd performance d	ata he obtained on the basis of	the performan	ice
of the outdoor unit with a combin	ation of indoor unit	s) recor	nmended h	v the manufacture	er or importer	are perioritial	
		2,1000		,			

Information to identify the model(s) to w	hich the inf	ormation r	elates	FDC200VSA-W /	FDE50VH (4units)		
Outdoor side heat exchanger of heat pu	mp :	air					
Indication if the heater is equipped with	ip : a supplem	entary hea	ter	No			
if applicable : electric motor	u ouppioni	ontary nou					
Parameters shall be declared for the av	erage heat	ing season	, paramete	rs for the warmer and c	colder heating seasons are o	ptional.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Proted h	22 4	kW	Seasonal space	neh	178 1	0/2
	r rateu,n	22.4	NVV.	efficiency	1  5,11	170.1	70
Declared heating capacity for part load	at indoor te	mperature	20°C	Declared coefficient of	of performance or gas utilizat	ion efficier	ncy /
and outdoor temperature Tj				auxiliary energy facto	or for part load at given outdo	or tempera	atures Tj
			-				-
$T_j = -7^{\circ}C$	Pdh	11.1	kW	Tj=-7℃	COPd or	327.0	%
T : 0°0	<b>D</b> "		1	T . 0°0	GUEh,bin / AEFh,bin		-
1 <sub>j</sub> =+2°C	Pdh	6.7	KVV	$I_j = +2^{\circ}C$	COPd or	507.0	%
T : 7%	<b>D</b> "		1	T . 7%	GUEh,bin / AEFh,bin		-
$\Gamma_{j} = +7^{2}C$	Pan	6.6	KVV	$I_j = +7^{\circ}C$	COPd or	502.0	%
T . 10°0	<b>D</b> "		1	T . 10%	GUEh,bin / AEFh,bin		-
T <sub>j</sub> =+12 <sup>-</sup> C	Pan	7.9	KVV	$I_j = +12^{\circ}C$	COPd or	575.0	%
T = = hivelent temperature	Ddb	40.5	LAN/	T = hivelent			-
i <sub>biv</sub> -bivalent temperature	Pull	12.5	ĸvv			278.0	%
	Ddb	42.5	L/M	temperature	GOEd or		
	Pull	12.5	ĸvv		CUPU 01	278.0	%
For air-to-water heat numps :	Pdh		kW	For air-to-water heat	COPd or		
T <sub>i</sub> =-15°C	i un			pumps:T=-15°C	GUEh.bin / AEFh.bin	-	%
$(\text{if } T_{\alpha} \leq -20^{\circ} \text{C})$				$(if T_{o} < -20^{\circ}C)$			J
(1110) (1200)				(11102 < 20 0)			
Bivalent temperature	Thin	-10.0	ാ	For water-to-air heat			1
	• DIV	1010		pumps:Operation limi	it	-	℃ 2°
Degradation			1				-
	Cath	0.25	-				1
heat pumps**	Can						
		L	-				
Power consumption in modes other that	n 'active mo	ode		Supplementary heate	er elbu	-	kW
	D	0.000	1.3.47	back-up neating capa	acity		]
	POFF	0.008	KVV				1
Thermostat-off mode	P <sub>TO</sub>	0.030	KVV	Type of energy input	P <sub>SB</sub>	0.008	kW
Crankcase heater mode	Рск	0.012	kW	Standby mode			J
Other items							
				For air-to-air heat pur	mps:	0.040	m <sup>3</sup> /h
Capacity control		variable	]	air flow-rate,outdoor	measured	8,040	1119/11
			-				1
Sound power level,	L <sub>WA</sub>	74.0	dB	For water-/brine-to-ai	r neat pumps : flow-rate		m <sup>3</sup> /h
			J	outdoor side heat exc	changer	-	111-711
Emissions of nitrogen	NOV		mg/kWh		5		1
oxides(if applicable)	NUX ***	-	fuel input				
			GCV				
GWP of the			ka COper				
refrigerant		675	(100vears)				
			(100)0010)				
Contact details Mitsubis	ni heavy ind	dustries the	ermal syster	ns,LTD			
1*** from 26 September 2019	nent then t	ne default	degradation	coefficient air-condition	ners shall be 0,25.		
Where information relates to multi-spilt	air-conditio	ners the te	st result and	l performance data be	obtained on the basis of the	performan	ce
of the outdoor unit, with a combination of	of indoor un	nit(s) recom	mended by	the manufacturer or im	porter.	- 5	

#### Model FDE250VSAWDVH

Indoor side heat exchanger of a Type : vapour compression if applicable : electric mo Item Rated cooling capacity Declared cooling capacity for pa Tj and indoor 27 °C/19°C(dry/we Tj=+35°C	tor Symbol Prated,c art load at given ou t bulb)	air air Value 25.0	Unit	Item	Symbol		
Type : vapour compression if applicable : electric moving Rated cooling capacity Declared cooling capacity for pa Tj and indoor 27 °C/19°C(dry/we	tor Symbol Prated,c art load at given ou t bulb)	Value 25.0	Unit	Item Seasonal space	Symbol		
rype:     Vapour compression       f applicable :     electric mo       tem	tor Symbol Prated,c art load at given out t bulb)	Value 25.0	Unit	Item Seasonal space	Symbol		
Tj=+35°C	Symbol Prated,c art load at given ou t bulb)	Value 25.0	Unit kW	Item Seasonal space	Symbol		
tem Rated cooling capacity Declared cooling capacity for pa Tj and indoor 27 °C/19°C(dry/we Tj=+35°C	Symbol Prated,c art load at given ou t bulb)	Value 25.0	Unit kW	Item Seasonal space	Symbol		
Rated cooling capacity Declared cooling capacity for pa Tj and indoor 27 °C/19°C(dry/we Tj=+35°C	Prated,c art load at given ou t bulb)	25.0	kW	Seasonal space		Value	Unit
Declared cooling capacity for pa Tj and indoor 27°C/19°C(dry/we Tj=+35°C	art load at given ou t bulb)	tdoor tem	1.1.1.1	cooling energy	nsc	274.6	%
Declared cooling capacity for pa Fj and indoor 27 °C/19°C(dry/we Fj=+35°C	art load at given ou t bulb)	tdoor tem		efficiency	.10,0		/0
Tj and indoor 27 °C/19°C(dry/we	it bulb)			Declared operation	officionov rotio or goo utilizati	on officionov /	
rj=+35℃	( buib)		peratures	auxiliary energy f	actor for part load at given of	itdoor tempers	itures Ti
Γj=+35℃					actor for particula at given of		
	Pdc	25.0	kW	Ti=+35°C	EERd or		
		L	4		GUEc,bin / AEFc,bin	328.0	%
Гј=+30°С	Pdc	18.4	kW	Tj=+30°C	EERd or	522.0	0/
			_		GUEc,bin / AEFc,bin	532.0	70
Гј=+25°С	Pdc	11.8	kW	Tj=+25°C	EERd or	781.0	0/
			_		GUEc,bin / AEFc,bin	701.0	70
ſj=+20°C	Pdc	7.8	kW	Tj=+20°C	EERd or	1340.0	%
			-		GUEc,bin / AEFc,bin		/0
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Power consumption in other that	in 'active mode'						
Off mode	P <sub>OFF</sub>	0.009	kW	Crankcase heater	r mode P <sub>CK</sub>	0.012	kW
Thermostat-off mode	P <sub>TO</sub>	0.027	kW	Standby mode	P <sub>SB</sub>	0.009	kW
			1				1
Other items							1
Capacity control		variable	]	For air-to-air air-c	onditioner:	8880	m <sup>3</sup> /h
			_				-
Sound power level,	Luca	73.0	dB				
butdoor	-WA	10.0	u.D				
			-				
f engine driven:	NOv		mg/kWh				
Emissions of nitrogen	***	-	fuel input				
oxides			GCV				
GWP of the		675	kgCO2eq.				
efrigerant			(100years)				
Contact details N	/litsubishi heavy inc	dustries th	ermal syster	ms,LTD			
* If Cdc is not determined by m	easurement then t	he default	degradatior	n coefficient air-cond	ditioners shall be 0,25.		
** from 26 September 2018							
Vhere information relates to mu	ulti-spilt air-conditio	ners,the t	est result an	d performance data	be obtained on the basis of	the performan	ce
of the outdoor unit, with a comb	ination of indoor ur	nit(s) reco	mmended by	the manufacturer of	or importer.		

Information to identify the model(s) to v	vhich the in	formation	relates ·	FDC250VSA-W	EDE60VH (4units)		
Outdoor side heat exchanger of heat p	ump :	air	1010100	10020010/11/			
Indoor side heat exchanger of heat pur	np :	air					
Indication if the heater is equipped with	a supplem	nentary hea	ater :	No			
If applicable : electric motor	vorago hog	ting cooco	n noromoto	re for the warmer and	coldor booting coopone are	ontional	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	- )			Seasonal space	-)		
	Prated,h	28.0	kW	heating energy efficiency	η s,h	179.1	%
Declared heating capacity for part load and outdoor temperature Tj	at indoor t	emperature	e 20 °C	Declared coefficient auxiliary energy fact	of performance or gas utilizator for part load at given outd	ation efficien oor tempera	icy / atures Tj
T <sub>j</sub> =-7°C	Pdh	12.6	]kW	T <sub>j</sub> =-7°C	COPd or GUEh bin / AEEh bin	304.0	%
T <sub>j</sub> =+2°C	Pdh	7.7	kW	T <sub>j</sub> =+2°C	COPd or GLIEb bin / AEEb bin	442.0	%
T <sub>j</sub> =+7°C	Pdh	5.2	kW	T <sub>j</sub> =+7°C	COPd or GLIEb bin / AEEb bin	591.0	%
T <sub>j</sub> =+12°C	Pdh	6.2	kW	T <sub>j</sub> =+12°C	COPd or GUEh bin / AEEh bin	728.0	%
T <sub>biv</sub> =bivalent temperature	Pdh	14.2	kW	T <sub>biv</sub> =bivalent temperature	COPd or GUEh.bin / AEFh.bin	275.0	%
T <sub>OL</sub> =operation limit	Pdh	15.1	kW	$T_{OL}$ =operation limit	COPd or GUEh,bin / AEFh.bin	203.0	%
For air-to-water heat pumps : $T_i$ =-15°C	Pdh	-	kW	For air-to-water heat pumps:T <sub>j</sub> =-15°C	COPd or GUEh,bin / AEFh,bin	-	%
(if T <sub>OL</sub> <-20°C)				(if T <sub>OL</sub> <-20°C)		L	1
Bivalent temperature	$T_{biv}$	-10.0	°C	For water-to-air hea	t nit	-	ື
Degradation			1	T <sub>ol</sub> temperature			
coefficient	C <sub>dh</sub>	0.25	-				-
heat pumps**							
Power consumption in modes other that	an 'active m	node'		Supplementary heat	ter elbu	-	kW
Off mode	POFF	0.009	kW	back-up neating cap	Jacity		]
Thermostat-off mode	PTO	0.032	kW	Type of energy input	t		1
Crankcase heater mode	Рск	0.012	kW	Standby mode	P <sub>SB</sub>	0.009	kW
	GR	0.012	1				]
Other items				For air-to-air heat p	umps:		] .,,
Capacity control		variable	]	air flow-rate,outdoor	measured	9180	m³/n
Sound power level, outdoor measured	$L_WA$	75.0	dB	For water-/brine-to-a Rated brine or wate	air heat pumps : r flow-rate, xchanger	-	m³/h
Emissions of nitrogen oxides(if applicable)	NOx ***	-	mg/kWh fuel input GCV		kondingen		1
GWP of the refrigerant		675	kg CO2eq. (100years)				
Contact details Mitsubis	hi heavy in	dustries th	ermal syster	ns,LTD			
** If Cdh is not determined by measure	ment then	the default	degradation	coefficient air-conditi	oners shall be 0,25.		
*** from 26 September 2018			4 14	1			
of the outdoor unit, with a combination	of indoor u	oners,the te nit(s) recor	est result and mmended by	a performance data be the manufacturer or i	e obtained on the basis of the importer.	e performan	ce

PFA004Z088

#### Model FDE280VSAWDVH

Model(s): FDC280VSA	-W /	FDE71V	H (4units)				
Outdoor side heat exchanger of a	ir-conditioner :	air					
	-conditioner :	air					
f applicable : electric moto	r						
	·				0		
	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	Prated c	27.0	kW/		nsc	252.0	%
	1 1000,0	21.0		efficiency	1 0,0	202.0	/0
Declared eacling conseits for per	lood at given out	tdoor tom		Declared operat	v officianov ratio or aco utiliza	tion officionay /	
Deciared cooling capacity for part	noad at given ou	laoor lem	peratures	auxiliary energy	y eniciency ratio or gas utiliza	utdoor tempers	atures Ti
	50107			auxiliary chergy	nacion for particula at given o	ataoor tempere	itures ij
Гј=+35°С	Pdc	27.0	kW	Ti=+35°C	EERd or		]
			1	.,	GUEc.bin / AEFc.bin	306.0	%
Гј=+30°С	Pdc	19.9	kW	Tj=+30°C	EERd or	470.0	0/
			-		GUEc,bin / AEFc,bin	478.0	%
ſj=+25°C	Pdc	12.8	kW	Tj=+25°C	EERd or	762.0	%
			-		GUEc,bin / AEFc,bin	/62.0	/0
Гј=+20°С	Pdc	8.2	kW	Tj=+20°C	EERd or	1092.0	%
			-		GUEc,bin / AEFc,bin	1002.0	
Degradation							
coefficient for	Cdc	0.25	-				
air-conditioners**							
Dff mode Γhermostat-off mode	P <sub>OFF</sub> P <sub>TO</sub>	0.009	kW kW	Crankcase heat Standby mode	ter mode P <sub>CK</sub> P <sub>SB</sub>	0.012	kW kW
Other items							1
Capacity control		variable	]	For air-to-air air air flow-rate,out	-conditioner: door measured	8160	m <sup>3</sup> /h
Sound power level,		75.0	dD				
outdoor	LWA	/5.0	uв				
			-				
f engine driven:	NOV		mg/kWh				
Emissions of nitrogen	INUX ***	-	fuel input				
oxides			GCV				
			Т				
SWP of the		675	kgCO2eq.				
efrigerant							
		huotrico +h	ormal avata				
* If Cdc is not determined by mea	asurement then the	he default	degradation	coefficient air-co	nditioners shall be 0.25.		
** from 26 September 2018			0				
Vhere information relates to mult	i-spilt air-conditio	ners the t	est result an	d performance da	ta be obtained on the basis of	the performan	ce
of the outdoor unit with a combin	ation of indoor un	nit(s) reco	mmended h	the manufacture	r or importer	are periornall	
					. e. importet.		

Information to identify the model(s) to v	which the in	formation	relates :	FDC280VSA-W /	FDE71VH (4units)		
Outdoor side heat exchanger of heat p	ump :	air					
Indoor side heat exchanger of heat pur	np :	air ontony bor	tor :	No			
if applicable : electric motor		entary nea		110			
Parameters shall be declared for the a	verage hea	ting seaso	n , paramete	rs for the warmer and	colder heating seasons are op	tional.	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heating capacity	Prated h	30.0	kW	Seasonal space	nsh	161.3	%
	T Tatoa, II	00.0		efficiency	11 0,11		/0
Declared heating capacity for part load	at indoor te	emperature	e 20 °C	Declared coefficient	of performance or gas utilization	on efficien	icy /
and outdoor temperature Tj				auxiliary energy fact	tor for part load at given outdoo	or tempera	itures Tj
T.=-7°C	Pdh	14.2	kW/	T.=-7°C	COPd or		1
	1 dil	14.2		1 1 1	GLIEb bin / AEEb bin	302.0	%
T <sub>i</sub> =+2°C	Pdh	8.7	kW	T₁=+2°C	COPd or		
1		•	1	1	GUEh,bin / AEFh,bin	380.0	%
T <sub>i</sub> =+7°C	Pdh	5.8	kW	T <sub>i</sub> =+7°C	COPd or	520.0	0/
,			J	,	GUEh,bin / AEFh,bin	536.0	%
T <sub>j</sub> =+12°C	Pdh	6.9	kW	T <sub>j</sub> =+12°C	COPd or	716.0	%
			-		GUEh,bin / AEFh,bin	/ 10.0	/0
T <sub>biv</sub> =bivalent temperature	Pdh	16.0	kW	T <sub>biv</sub> =bivalent	COPd or	236.0	%
			1	temperature	GUEh,bin / AEFh,bin		-
I <sub>OL</sub> =operation limit	Pdh	16.0	KVV	I <sub>OL</sub> =operation limit	COPd or	236.0	%
For air-to-water heat numps :	Pdh		k/W	For air-to-water heat	GUEN, DIN / AEFN, DIN		-
T <sub>i</sub> =-15°C	1 un	-		pumps:T=-15°C	GUEh.bin / AEFh.bin	-	%
$(\text{if } T_{\text{cl}} \leq -20^{\circ}\text{C})$				(if $T_{cl} \leq -20^{\circ}C$ )			J
				(11 10) (120 0)			
Bivalent temperature	T <sub>biv</sub>	-10.0	°C	For water-to-air hea	t		1
			1	pumps:Operation lin	nit	-	°C
Degradation				T <sub>ol</sub> temperature			
coefficient	$C_{dh}$	0.25	-				-
heat pumps**							
Power consumption in modes other that	an 'active m	ode'		Supplementary heat	ter		1
				back-up heating cap	elbu	-	kW
Off mode	$P_{OFF}$	0.009	kW		-		-
Thermostat-off mode	P <sub>TO</sub>	0.032	kW	Type of energy inpu	t p	0.000	144/
Crankcase heater mode	P <sub>CK</sub>	0.012	kW	Standby mode	⊢ <sub>SB</sub>	0.009	KVV
			-	-			-
Other Items				For air-to-air heat n	imps:		1.
Capacity control		variable	1	air flow-rate.outdoor	measured	8400	m <sup>3</sup> /h
			-				-
Sound power level,	L <sub>WA</sub>	77.0	dB	For water-/brine-to-a	air heat pumps :		0.7
outdoor measured				Rated brine or wate	r flow-rate,	-	m³/h
Emissions of nitrogen			mg/kWh	Saturo side fiedt es	, containing of		J
oxides(if applicable)	NOx ***	-	fuel input				
			GCV				
GWP of the			1				
refrigerant		675	kg CO2eq. (100vears)				
Contact details Mitsubis	ni heavy in	be deferrit	ermal systen	ns,LID	anora aball ba 0.05		
*** from 26 September 2018	ment then t		uegradation		UTETS SHAIL DE U,23.		
Where information relates to multi-spilt	air-conditio	oners,the te	est result and	d performance data be	e obtained on the basis of the p	erforman	ce
of the outdoor unit, with a combination	of indoor u	nit(s) recor	nmended by	the manufacturer or i	mporter.		

٦

#### Models FDE50VH, 60VH, 71VH, 100VH, 125VH, 140VH

Г

Model(s) : FDE50VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	U
Cooling capacity (sensible)	P <sub>rated,c</sub>	3.8	kW	Total electric power input	P <sub>elec</sub>	0.050	k۷
Cooling capacity (latent)	P <sub>rated,c</sub>	1.2	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dE
Heating capacity	P <sub>rated,h</sub>	5.4	kW				
Contact details	Mitsubishi	neavy ind	ustries the	rmal systems,LTD			
Model(s) : FDE60VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Ur
Cooling capacity (sensible)	P <sub>rated,c</sub>	5.0	kW	Total electric power input	P <sub>elec</sub>	0.080	k٧
Cooling capacity (latent)	P <sub>rated,c</sub>	0.6	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	P <sub>rated,h</sub>	6.7	kW				
Contact details	Mitsubishi	neavy ind	ustries ther	rmal systems,LTD			
Model(s) : FDE71VH							
Item	Symbol	Value	Unit	Item	Symbol	Value	Ur
Cooling capacity (sensible)	P <sub>rated,c</sub>	5.6	kW	Total electric power input	P <sub>elec</sub>	0.080	kV
Cooling capacity (latent)	P <sub>rated,c</sub>	1.5	kW	Sound power level (per speed setting,if applicable)	L <sub>WA</sub>	60.0	dB
Heating capacity	P <sub>rated,h</sub>	8.0	kW				
Contact dataila	Mitcubichi						
Contact details	IVIIISUDISIII	neavy ind	ustries ther	rmal systems,LTD			
Model(s) : FDE100VH	WIGGUDISHI	neavy ind	ustries ther	rmal systems,LTD			
Model(s) : FDE100VH	Symbol	neavy ind Value	Unit	mal systems,LTD	Symbol	Value	Uı
Model(s) : FDE100VH Item Cooling capacity (sensible)	Symbol P <sub>rated,c</sub>	Value 8.4	Unit kW	Item	Symbol P <sub>elec</sub>	<b>Value</b> 0.130	Ur kV
Model(s) : FDE100VH  Item  Cooling capacity (sensible)  Cooling capacity (latent)	Symbol P <sub>rated,c</sub> P <sub>rated,c</sub>	Value 8.4 1.6	Unit kW kW	Item         Total electric power input         Sound power level         (per speed setting,if applicable)	Symbol P <sub>elec</sub> L <sub>WA</sub>	Value 0.130 64.0	Ur kV dB
Model(s) : FDE100VH Item Cooling capacity (sensible) Cooling capacity (latent) Heating capacity	Symbol Prated,c Prated,c Prated,c	Value 8.4 1.6 11.2	Unit kW kW kW	Total electric power input Sound power level (per speed setting,if applicable)	<b>Symbol</b> P <sub>elec</sub> L <sub>WA</sub>	Value 0.130 64.0	Ur kV dB
Model(s) : FDE100VH Item Cooling capacity (sensible) Cooling capacity (latent) Heating capacity Contact details	Symbol Prated.c Prated.c Prated.c Mitsubishi	Value 8.4 1.6 11.2 neavy ind	Unit kW kW kW kW	Item         Total electric power input         Sound power level         (per speed setting,if applicable)	Symbol P <sub>elec</sub> L <sub>WA</sub>	Value 0.130 64.0	Ur kV dE
Model(s) : FDE100VH Item Cooling capacity (sensible) Cooling capacity (latent) Heating capacity Contact details Model(s) : FDE125VH	Symbol Prated,c Prated,c Prated,c Mitsubishi	Value 8.4 1.6 11.2 heavy ind	Unit kW kW kW ustries the	Item         Total electric power input         Sound power level (per speed setting,if applicable)         mal systems,LTD	Symbol P <sub>elec</sub> L <sub>WA</sub>	Value 0.130 64.0	Ur kV dB
Model(s) : FDE100VH Item Cooling capacity (sensible) Cooling capacity (latent) Heating capacity Contact details Model(s) : FDE125VH Item	Symbol Prated.c Prated.c Prated.c Mitsubishi Symbol	Value          Value         8.4         1.6         11.2         neavy ind         Value	Unit KW KW KW Ustries then Unit Unit	Item         Total electric power input         Sound power level         (per speed setting, if applicable)         rmal systems, LTD	Symbol P <sub>elec</sub> L <sub>WA</sub>	Value 0.130 64.0 Value	Ur kV dB
Model(s) : FDE100VH Item Cooling capacity (sensible) Cooling capacity (latent) Heating capacity Contact details Model(s) : FDE125VH Item Cooling capacity (sensible)	Symbol Prated,c Prated,c Prated,h Mitsubishi Symbol Prated,c	Value           8.4           1.6           11.2           neavy ind           Value           9.3	Unit kW kW kW ustries then Unit kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems,LTD         Item         Total electric power input	Symbol P <sub>elec</sub> L <sub>WA</sub> Symbol P <sub>elec</sub>	Value 0.130 64.0 Value 0.130	Ur kV dE
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)	Symbol Prated,c Prated,c Prated,c Mitsubishi Symbol Prated,c Prated,c	Value           8.4           1.6           11.2           neavy ind           Value           9.3           3.2	Unit kW kW kW ustries then Unit kW kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         rmal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)	Symbol Pelec L <sub>WA</sub> Symbol Pelec L <sub>WA</sub>	Value 0.130 64.0 Value 0.130 64.0	Ur kV dB Ur kV dB
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity (latent)	Symbol Prated.c Prated.c Prated.c Mitsubishi Symbol Prated.c Prated.c Prated.c	Value 8.4 1.6 11.2 neavy ind 9.3 3.2 14.0	Unit kW kW kW kW ustries ther Unit kW kW kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         rmal systems, LTD         Item         Sound power level (per speed setting, if applicable)         Sound power level (per speed setting, if applicable)	Symbol Pelec L <sub>WA</sub> Symbol Pelec L <sub>WA</sub>	Value 0.130 64.0 Value 0.130 64.0	Ur kV dE Ur kV
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Item         Cooling capacity (latent)         Heating capacity         Cooling capacity (latent)         Heating capacity         Contact details	Symbol Prated.c Prated.c Prated.h Mitsubishi Symbol Prated.c Prated.c Prated.c N	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0	Unit kW kW kW ustries ther Unit kW kW kW ustries ther	Item         Total electric power input         Sound power level (per speed setting, if applicable)         rmal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         rmal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         rmal systems,LTD	Symbol P <sub>elec</sub> L <sub>WA</sub> Symbol P <sub>elec</sub> L <sub>WA</sub>	Value           0.130           64.0           Value           0.130           64.0           64.0	Ui kV dE Ui kV dE
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE140VH	Symbol Prated.c Prated.c Prated.h Mitsubishi Symbol Prated.c Prated.c Prated.c Prated.h Mitsubishi	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0	Unit kW kW kW Ustries then Unit kW kW ustries then kW kW kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Image: systems, LTD         Image: systems, LTD	Symbol Pelec L <sub>WA</sub> Symbol Pelec L <sub>WA</sub>	Value 0.130 64.0 Value 0.130 64.0	Ur kV dE Ur kV
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE140VH         Item	Symbol Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Symbol Symbol	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0           neavy ind           Value	Unit Unit Unit Unit Unit Unit Unit Unit	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Image: systems,LTD         Image: systems,LTD	Symbol Pelec L <sub>WA</sub> Symbol Pelec L <sub>WA</sub>	Value 0.130 64.0 Value 0.130 64.0 Value Value Value	Ur kV dB Ur
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (latent)         Heating capacity (sensible)         Cooling capacity (latent)         Heating capacity         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE140VH         Item         Cooling capacity (sensible)	Symbol Prated,c Prated,c Prated,c Symbol Prated,c Symbol Prated,c Prated,c Prated,h Mitsubishi Mitsubishi Symbol Prated,c Prated,c Prated,c Prated,c Prated,c Prated,c Prated,c	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0           neavy ind           Understand           0.12	Unit kW kW kW ustries then Unit kW kW kW kW kW kW kW kW kW kW kW kW kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems, LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Imal systems, LTD	Symbol Pelec L <sub>WA</sub> Symbol Pelec L <sub>WA</sub>	Value 0.130 64.0 Value 0.130 64.0 Value 0.140	Ui kV dE Ui kV dE
Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE140VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)	Symbol Prated.c Prated.c Prated.c Prated.c Symbol Prated.c Prated.	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0           neavy ind           10.2           3.8	Unit KW KW KW Uustries ther KW KW KW KW KW KW KW KW KW KW KW KW KW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems,LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)	Symbol Pelec LWA Symbol Pelec LWA Symbol Pelec LWA	Value           0.130           64.0           0	Ui kV dE Ui kV dE
Contact details         Model(s) : FDE100VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE125VH         Item         Cooling capacity (sensible)         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity         Contact details         Model(s) : FDE140VH         Item         Cooling capacity (sensible)         Cooling capacity (latent)         Heating capacity (latent)	Symbol Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c Prated.c	Value           8.4           1.6           11.2           neavy ind           9.3           3.2           14.0           neavy ind           Ualue           9.3           3.2           14.0           neavy ind           Ualue           3.8           16.0	Unit kW kW kW kW ustries then kW kW kW ustries then kW kW kW kW kW	Item         Total electric power input         Sound power level (per speed setting, if applicable)         mal systems, LTD         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)         Item         Total electric power input         Sound power level (per speed setting, if applicable)	Symbol Pelec LWA Symbol Pelec LWA Symbol Pelec LWA	Value           0.130           64.0           0           0.130           64.0           0.130           64.0           0.130           64.0           0.130           64.0           0.130           64.0           0.130           65.0	Ui kV dE Ui kV dE

PFA004Z088

# 2. V MULTI SYSTEM

## CONTENTS

2.1 GENERAL INFORMATION	205
2.1.1 How to read the model name	205
2.1.2 Table of models	205
2.1.3 Table of system combinations	205
2.2 SPECIFICATIONS	206
(1) Indoor units	206
(a) Ceiling cassette-4 way type (FDT)	206
(b) Ceiling suspended type (FDE)	212
(2) Outdoor units	218
(3) Operation chart	221
2.3 EXTERIOR DIMENSIONS	223
2.4 ELECTRICAL WIRING	223
2.5 NOISE LEVEL	223
2.6 TEMPERATURE AND VELOCITY DISTRIBUTION	223
2.7 PIPING SYSTEM	223
2.8 RANGE OF USAGE & LIMITATIONS	223
2.9 SELECTION CHART	223
2.10 APPLICATION DATA	223
2.11 TECHNICAL INFORMATION	223

## **2.1 GENERAL INFORMATION**

2.1.1 How to read the model name



### 2.1.2 Table of models

Model	50	60	71	100	125	140
Ceiling cassette-4way type (FDT)	0	0	0	0	0	0
Ceiling suspended type (FDE)	0	0	0	0	0	0
Outdoor unit to be combined (FDC)	Outdoor unit to be combined (FDC)         FDC200VSA- FDC250VSA- FDC280VSA- FDC280VSA-					

### 2.1.3 Table of system combinations

Outdoor unit	Туре	Indoor unit assembly capacity	Branch pipe set (Option)
	Twin	100+100	DIS WR1G
	1 WIII	71+125	D13-WD10
FDC200VSA-W	Triple	71+71+71	DIS-TB1G or DIS-WA1G×1set DIS-WB1G×1set
	Double twin	50+50+50+50	DIS-WA1G×2set DIS-WB1G×1set
	Twin	125+125	DIS-WB1G
		60+60+125	DIS-TB1G
FDC250VSA-W	Triple	71+71+100	DIS-WA1G×1set DIS-WB1G×1set
	Double twin	60+60+60+60	DIS-WA1G×2set DIS-WB1G×1set
	Twin	140+140	DIS-WB1G
FDC280VSA-W	Triple	71+71+140	DIS-TB1G or DIS-WA1G×1set DIS-WB1G×1set
	Double twin	71+71+71+71	DIS-WA1G×2set DIS-WB1G×1set

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-4 way type (FDT)

ltem				Model	FDT50VH						
Development							1 Dhara 000 0401/ 501 - ( 000)				
Power sour				1.3.67			1 Phase 220-240V 50Hz / 220V	60HZ			
	Nominal cooli	ng capacity		KVV			5.0				
	Nominal neati	ng capacity	Casling	KVV			5.4				
Operation	Sound power	level	Cooling				55				
data			Heating				56	00			
	Sound pressu	ire level	Cooling	dB(A)			P-Hi: 41 Hi: 33 Me: 30 Lo	: 26			
			Heating				P-Hi: 42 Hi: 33 Me: 28 Lo	: 20			
	Silent mode s	ound pressu	ire level								
Exterior dim	nensions (Heigh	nt x Width x	Depth)	mm			Unit 236 × 840 × 840 Panel 35 × 950 × 950				
Exterior appearance							Fine snow				
(Munsell co	olor)						(8.0Y9.3/0.1) near equivale	ent			
(RAL color)						(RAL 9003) near equivalent					
Net weight				kg			Unit 19 Panel 5				
Heat exchanger							Louver fin & inner arooved tu	bina			
Fan type &	Q'tv						Turbo fan ×1				
Fan motor (	Starting metho	d)		W			50 < Direct line start >				
Air flow	Air flow Cooling Heating						P-Hi:22 Hi:16 Me:13 Lo	: 10			
Available ex	ternal static pr	ressure	ling	Pa		0					
Outside air	intake	0000.0					Possible				
Air filter Qu	Air filter, Quality / Quantity						Pocket plastic net x1(Washa	ble)			
Shock & vibration absorber						Bubber sleeve(for fan moto					
Electric heater				W							
Licetherica	Remote contr	ol			(Or	otion) Wired :	BC-EX3A BC-E5 BCH-E3 W	ireless : BCN-T-5BW-E2			
Operation	Room temper	ature contro			(0)		Thermostat by electronics				
control	Operation dis	nlav						5			
		piay				Internal thermostat for fan motor					
Safety equi	pments					Frost protection thermostat					
	Í.							)			
	Refrigerant pi	ping size ( O	.D.)	mm			$\psi 0.03 (1/4)$	)			
Installation	Connocting m	othod						/			
data	Attached long	ith of piping					T late pipilig				
uata	Inculation for	nining		111	1		Necessary (both Liquid & Gas	linos			
	Drain boso	piping					Hose connectable V/P25(O D	32)			
Drain numn	Diali iluse	+					Puilt in drain pump 850	.52)			
Drain pump	, max int neigh			111111							
Standard av	Cossorios						Mounting kit, Drain boso				
Option part	000000000000000000000000000000000000000				1		Motion consor : LB T 5BW	E			
	5 						Wotion sensor . EB-1-3BW	-L			
Notes (	1) The data are	measured a	at the follow	ving cor	naitions.						
	Item	Indoor a	ir temperat	ure	Outdoor air	temperature	Ctandarda				
	Operation	DB	W	В	DB	WB	Standards				
	Cooling 27°C 1			°C	35°C	24°C	ISO5151-T1				
	Heating 20°C			_	7℃	6°C	ISO5151-H1				
	0 TI: :										
() () ()	<ol> <li>I his air-cond</li> <li>Sound level higher due to</li> <li>The operation</li> </ol>	ditioner is ma indicates the o ambient co on data indic	anutacture e value in a onditions. ate when t	d and te an anech he air-ce	ested in confor noic chamber. onditioner is op	mity with the IS During operation perated at 230	50. n these values are somewhat / 50Hz or 220V 60Hz.				

Item				Model			FDT60VH			
Power sour	се						1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooli	ng capacity		kW			5.6			
	Nominal heati	ng capacity		kW			6.7			
			Cooling				58			
Operation	Sound power	level	Heating	1			59			
Juala	0		Cooling	dB(A)			P-Hi:44 Hi:34 Me:30 Lo:27			
	Sound pressu	ire ievei	Heating	1			P-Hi:44 Hi:34 Me:30 Lo:23			
	Silent mode s	ound pressu	ire level	1			_			
Exterior dim	iensions (Heigh	nt x Width x	Depth)	mm			Unit 236 × 840 × 840 Panel 35 × 950 × 950			
Exterior apr	pearance						Fine snow			
(Munsell co	plor)						(80Y93/01) near equivalent			
(RAL color	)						(RAL 9003) near equivalent			
	/						Linit 21			
Net weight				kg			Panel 5			
Heat exchai	nger						Louver fin & inner grooved tubing	•		
Fan type & (										
Fan motor (Starting method)				\M/			50 < Direct line start >	-		
				vv						
Air flow			Heating	m³/min		P-Hi:26 Hi:17 Me:14 Lo:11				
Available ex	ternal static pr	ressure		Pa			0			
Outside air	Outside air intake						Possible			
Air filter, Quality / Quantity							Pocket plastic net ×1(Washable)			
Shock & vib	Shock & vibration absorber						Rubber sleeve(for fan motor)			
Electric hea	ter			W			_			
Operation	Remote contr	ol			(Op	tion) Wired : F	RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-T-5E	3W-E2		
control	Room temper	ature contro					Thermostat by electronics			
Control	Operation dis	play					—			
Safety equip	oments				Internal thermostat for fan motor. Frost protection thermostat					
							Liquid line: $\phi$ 6.35 (1/4")			
	Refrigerant pi	ping size ( O	.D.)	mm			Gas line: $\phi$ 12.7 (1/2")			
Installation	Connecting m	nethod					Flare piping			
data	Attached leng	ith of piping		m						
	Insulation for	pipina					Necessary (both Liquid & Gas lines)			
	Drain hose	5					Hose connectable VP25(O.D.32)			
Drain pump	, max lift heigh	t		mm			Built-in drain pump. 850			
IP number	,	-					IPX0			
Standard ad	cessories						Mounting kit. Drain hose			
Option parts	S						Motion sensor : LB-T-5BW-E			
Nister (	- 4) The alate and									
Notes (	1) The data are	measured a	at the iolio	wing con	iditions.					
	Item	Indoor a	ir tempera	ure	Outdoor air t	emperature	Standards			
•	Operation	DB	W	В	DB	WB	Standards			
[	Cooling	27°C	19	°C	35°C	24°C	ISO5151-T1			
	Heating 20°C			-	7℃	6°C	ISO5151-H1			
(1	2) This air-cond 3) Sound level higher due to	ditioner is ma indicates the o ambient co	anufacture e value in a onditions.	d and te	sted in conforr oic chamber. I	nity with the IS During operatio	O. n these values are somewhat			

Item				Model			FDT71VH			
Power sour	се						1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooli	ng capacity		kW			7.1			
	Nominal heati	ng capacity		kW			8.0			
			Cooling				59			
Operation	Sound power	level	Heating	1			60			
Juala	0	un laural	Cooling	dB(A)			P-Hi:46 Hi:34 Me:31 Lo:26			
	Sound pressu	re level	Heating	1			P-Hi:46 Hi:34 Me:31 Lo:26			
	Silent mode s	ound pressu	ire level	1			_			
Exterior dim	iensions (Heigh	nt x Width x	Depth)	mm			Unit 236 × 840 × 840 Panel 35 × 950 × 950			
Exterior apr	pearance						Fine snow			
(Munsell co	plor)						(80Y93/01) near equivalent			
(RAL color)							(RAL 9003) near equivalent			
							l Init 21			
Net weight				kg			Panel 5			
Heat exchanger							Louver fin & inner grooved tubing			
Fan type & Q'ty										
Fan motor (	Starting metho	d)		١٨/			50 < Direct line start >			
Air flow			Heating	m³/min		P-Hi:28 Hi:18 Me:15 Lo:12				
Available ex	ternal static pr	essure		Pa			0			
Outside air	Outside air intake						Possible			
Air filter, Quality / Quantity							Pocket plastic net ×1(Washable)			
Shock & vib	Shock & vibration absorber						Rubber sleeve(for fan motor)			
Electric hea	ter			W			_			
Operation	Remote contr	ol			(Op	tion) Wired : F	RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-T-5BW-	E2		
control	Room temper	ature contro					Thermostat by electronics			
Control	Operation dis	play					_			
Safety equip	oments				Internal thermostat for fan motor.					
							Liquid line: $\phi 9.52 (3/8")$			
	Refrigerant pi	ping size ( O	.D.)	mm			Gas line:			
Installation	Connecting m	ethod					Elare piping			
data	Attached leng	th of piping		m						
	Insulation for	nining					Necessary (both Liquid & Gas lines)			
	Drain hose	piping					Hose connectable VP25(O D 32)			
Drain numn	max lift heigh	+		mm			Built-in drain pump 850			
IP number	, max int heigh						IPY0			
Standard ac	cossorios						Mounting kit. Drain bose			
Option parts	200300103						Motion sensor : I B-T-5BW-F			
option para										
Notes (	1) The data are	measured a	at the follow	wing con	iditions.					
	Item	Indoor ai	r temperat	ture	Outdoor air t	emperature	Oten deude			
	Operation	DB	W	B	DB	WB	Standards			
	Cooling 27°C 19°		°C	35°C	24°C	ISO5151-T1				
	Heating 20°C			_ †	7℃	6°C	ISO5151-H1			
				ا - + م م ا						
		indiactor the	anutacture	u and te	sied in confor	THEY WITH THE IS	DU.			
	bigber due t	nuicates (Ne	value II a	an anech	iole champer. I	Juning operatio	n mese values are somewhat			
6	4) The operatio	n data indic	ate when t	he air-co	onditioner is or	perated at 230V	/ 50Hz or 220V 60Hz.			

				Model		FDT100VH					
Item											
Power sou							1 Phase 220-240V 50Hz / 220V 60Hz				
	Nominal cooling cap	acity		kW	ļ		10.0				
	Nominal heating cap	acity	0 "	kW			11.2				
Operation	Sound power level		Cooling Heating				62				
Gala	Sound pressure leve	I	Cooling Heating	dB(A)		P-Hi: 47 Hi: 39 Me: 36 Lo: 30 P-Hi: 47 Hi: 39 Me: 36 Lo: 29					
	Silent mode sound p	ressu	ure level	1			_				
Exterior di	mensions (Height × Wi	dth ×	Depth)	mm		Unit 298 × 840 × 840 Panel 35 × 950 × 950					
Exterior appearance							Fine snow				
( Munsell o	color)					(8.0Y9.3/0.1) near equivalent					
(RAL color)							( RAL 9003 ) near equivalent				
Net weigh	t			kg		Unit 25 Panel 5					
Heat exch	anger						Louver fin & inner grooved tubing				
Fan type 8	& Q'ty						Turbo fan ×1				
Fan motor	(Starting method)			W			140 < Direct line start >				
Air flow	r flow Cooling Heating					P-Hi: 37 Hi: 26 Me: 23 Lo: 17					
Available e	external static pressure			Pa			0				
Outside air intake							Possible				
Air filter, Quality / Quantity						Pocket plastic net ×1 (Washable)					
Shock & vibration absorber							Rubber sleeve (for fan motor)				
Electric he	eater			W			_				
	Remote control				(	Option) Wired :	RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5BW-E2				
Operation	Room temperature of	ontro	bl		`	Thermostat by electronics					
control	Operation display					_					
						Internal thermostat for fan motor					
Safety equ	upments						Frost protection thermostat				
							Liquid line: $\phi$ 9.52 (3/8")				
	Refrigerant piping size	ze ( O	).D. )	mm			Gas line: \$\phi 15.88 (5/8")				
Installation	Connecting method						Flare piping				
data	Attached length of p	ipina		m							
	Insulation for piping	1 5					Necessary (both Liquid & Gas lines)				
	Drain hose						Hose connectable VP25 (O.D.32)				
Drain pum	p. max lift height			mm			Built-in drain pump. 850				
IP number							IPX0				
Standard a	accessories						Mounting kit, Drain hose				
Option pa	rts						Motion sensor : LB-T-5BW-E				
Notes (1	) The data are measure	d at t	the followi	na cond	itions.		The pipe length is 7.5m.				
	Item Indoc	temperatu	re	Outdoor air	temperature	Standards					
	Operation DB WE				DB	WB					
	Cooling 27°C 19				35°C	24°C	ISO5151-T1				
l L	Heating 20°C	;	-		7°C	6°C	ISO5151-H1				
(2)	<ol> <li>Ihis air-conditioner is</li> <li>Sound level indicates higher due to ambien</li> </ol>	man the v t con	ufactured /alue in an ditions.	and test anechoi	ed in confor ic chamber.	mity with the IS0 During operation	0. n these values are somewhat				



Item			Model		FDT125VH				
Power sour	rce					1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cooling capac	itv	kW			12.5			
	Nominal heating capac	ity	kW			14.0			
		Coolina				63			
Operation	Sound power level	Heating	1			64			
data		Cooling	dB(A)			P-Hi:48 Hi:41 Me:39 Lo:31			
	Sound pressure level	Heating			P-Hi: 48 Hi: 41 Me: 38 Lo: 31				
	Silent mode sound pre	ssure level	1			_			
Exterior dir	nensions (Height × Width	n × Depth)	mm			Unit 298 × 840 × 840 Panel 35 × 950 × 950			
Exterior ap	pearance					Fine snow			
(Munsell c	olor)					(8.0Y9.3/0.1) near equivalent			
(RAL color	·)					(RAL 9003) near equivalent			
Net weight			kg			Unit 25 Panel 5			
Heat excha	ander					Louver fin & inner grooved tubing			
Fan type &						Turbo fan x1			
Fan motor	(Starting method)		W			140 < Direct line start >			
	(otarting motiloa)	Cooling							
Air flow		Heating	m³/min		P-Hi:38 Hi:28 Me:25 Lo:18				
Available e	xternal static pressure		Pa			0			
Outside air	intake					Possible			
Air filter, Quality / Quantity						Pocket plastic net ×1 (Washable)			
Shock & vibration absorber						Rubber sleeve (for fan motor)			
Electric hea	ater		W			-			
Operation	Remote control			(	(Option) Wired :	RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5BW-E2			
control	Room temperature cor	trol			I hermostat by electronics				
	Operation display					-			
Safety equi	ipments					Internal thermostat for fan motor Frost protection thermostat			
						Liquid line: \$\phi 9.52 (3/8")			
	Refrigerant piping size	( O.D. )	mm			Gas line: \$\phi 15.88 (5/8")			
Installation	Connecting method					Flare piping			
data	Attached length of pipi	na	m						
	Insulation for piping	0				Necessary (both Liquid & Gas lines)			
	Drain hose					Hose connectable VP25 (O.D.32)			
Drain pump	o, max lift height		mm			Built-in drain pump, 850			
IP number						IPX0			
Standard a	ccessories					Mounting kit, Drain hose			
Option par	ts					Motion sensor : LB-T-5BW-E			
Notes (1)	The data are measured	at the followi	ng condi	itions.		The pipe length is 7.5m.			
	Item Indoor a	ir temperatu	re	Outdoor air	temperature	Standards			
	Cooling 27°C	10°C		35°C	24°C	ISO5151-T1			
	Heating 20°C	190	<u> </u>						
(n)	This air-conditioner is m	anufactured	and test	10 $100$ $100$ $100$					
(2)	Sound level indicates th	e value in an	anechoi	c chamber	During operation	z. u these values are somewhat			
(0)	higher due to ambient of	onditions.	2100101	e enamoer.	2 anng operation				
(4)	The operation data indi	cate when the	e air-con	ditioner is c	perated at 230V	50Hz or 220V 60Hz.			



Item				Model		FDT140VH					
Power sou	Irce						1 Phase 220-240V 50Hz / 220V 60Hz				
1 0 0 0 1 300	Nominal cooling	a canacity		kW			14.0				
	Nominal beating	g capacity		kW			16.0				
	Normaricating	goupdony	Cooling				63				
Operation	Sound power le	evel	Heating				64				
data			Cooling	dB(A)		P-Hi: 48 Hi: 42 Me: 39 Lo: 32					
	Sound pressure	e level	Heating				P_Hi: 48 Hi: 41 Me: 38 Lo: 31				
	Silent mode sou	und pressu	ure level				-				
Exterior di	mensions (Height	× Width ×	Depth)	mm		Unit 298 × 840 × 840 Panel 35 × 950 × 950					
Exterior appearance							Fine snow				
(Munsell c	color )						(8.0Y9.3/0.1) near equivalent				
(BAL color)							( BAL 9003 ) near equivalent				
						Unit 25					
				kg			Panel 5				
Heat excha	anger						Louver fin & inner grooved tubing				
Fan type &	a Q'ty						Turbo fan ×1				
Fan motor	(Starting method)	)		W			140 < Direct line start >				
Air flow Cooling Heating			Cooling Heating	m³/min		P-Hi:38 Hi:29 Me:26 Lo:19					
Available e	external static pres	ssure		Pa			0				
Outside air intake						Possible					
Air filter, Q	Air filter, Quality / Quantity						Pocket plastic net ×1 (Washable)				
Shock & vi	ibration absorber						Rubber sleeve (for fan motor)				
Electric he	ater			W			_				
Operation	Remote control				(	Option) Wired :	RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-T-5BW-E2				
control	Room temperat	ture contro	bl				Thermostat by electronics				
Control	Operation displ	lay				_					
Safety equ	lipments						Internal thermostat for fan motor				
							Frost protection thermostat				
	Refrigerant pipi	ina size ( O	).D. )	mm			Liquid line: $\phi$ 9.52 (3/8")				
	rienigerant pipi						Gas line: $\phi$ 15.88 (5/8")				
Installation	Connecting me	thod					Flare piping				
data	Attached length	n of piping		m							
	Insulation for pi	iping					Necessary (both Liquid & Gas lines)				
	Drain hose						Hose connectable VP25 (O.D.32)				
Drain pum	p, max lift height			mm			Built-in drain pump, 850				
IP number							IPX0				
Standard a	accessories						Mounting kit, Drain hose				
Option par	ts						Motion sensor : LB-T-5BW-E				
Notes (1	) The data are me	easured at t	the followi	ng cond	itions.		The pipe length is 7.5m.				
		Indoor air t	temperatur	e	Outdoor air	temperature	Standards				
	Operation DB WE				DB	WB					
	Cooling 27°C 19°C				35°C	24°C	ISO5151-T1				
	Heating	20°C			/ U   b U   ISU5151-H1						
(2)	<ul> <li>This air-condition</li> <li>Sound level india</li> </ul>	ner is man cates the v	ufactured value in an	and test anecho	ed in confor ic chamber.	mity with the IS During operatio	O. n these values are somewhat				
1	higher due to an	nbient con	ditions.								



#### (b) Ceiling suspended type (FDE)

Item				Model		FDE50VH					
Derver eeuw							1 Dhase 200 040\/ 50LI= / 000\/	col 1-			
Power source	Ve Nominal apoli	na oonooitu		1/1/			1 Phase 220-240V 50Hz / 220V	00H2			
	Nominal cooli	ng capacity		KVV L/M			5.0				
	Nominal neau	ng capacity	Casling	KVV			5.4				
Operation data	Sound power	level	Heating				60				
Guiu	Sound pressu	ire level	Cooling Heating	dB(A)		P-Hi: 46 Hi: 38 Me: 36 Lo: 31					
	Silent mode s	ound pressu	ire level	1			_				
Exterior dim	ensions (Heigh	nt x Width x	Depth)	mm		210 × 1070 × 690					
Exterior app	bearance			İ		Plaster white					
(Munsell co	( Munsell color )						(6.8Y8.9/0.2) near equivaler	nt			
(RAL color	)						(RAL 9016) near equivalen	t			
Net weight				ka		28					
Heat exchar	nger					Louver fin & inner arooved tubing					
Fan type & Q'ty						Centrifugal fan ×2					
Fan motor (Starting method)				w			30 < Direct line start >				
Air flow	Air flow Cooling Heating			m³/min			P-Hi:13 Hi:10 Me:9 Lo:	7			
Available external static pressure				Pa			0				
Outside air intake				İ		Not possible					
Air filter, Quality / Quantity							Pocket plastic net ×2(Washab	ole)			
Shock & vibration absorber						Rubber sleeve(for fan motor	)				
Electric hea	ter			W			_				
Operation	Remote contr	ol			(	(Option) Wired	: RC-EX3A , RC-E5 , RCH-E3	Wireless : RCN-E-E3			
operation	Room temper	ature contro					Thermostat by electronics				
Control	Operation dis	play					—				
Safoty oquir	omonte					Overload protection for fan motor					
Salety equi	Sinents						Frost protection thermostat	t			
	Pofrigorant ni			mm			Liquid line: φ 6.35 (1/4")				
	neingerant pi	ping size (O	.0.)				Gas line: φ 12.7 (1/2")				
Installation	Connecting m	nethod					Flare piping				
data	Attached leng	th of piping		m			_				
	Insulation for	piping					Necessary (both Liquid & Gas li	ines)			
	Drain hose						Hose connectable VP20(O.D.2	26)			
Drain pump	, max lift heigh	t		mm			_				
IP number							IPX0				
Standard ad	cessories						Mounting kit, Drain hose				
Option parts	S						Motion sensor : LB-E				
Notes (1	1) The data are	measured a	t the follow	ving con	ditions.		The pipe length is 7.5m.				
	Item	Indoor ai	r temperat	ure	Outdoor air	temperature	Standards				
	Operation	DB	VV	В	DB	WB					
Cooling 27°C 19			19	°C	35°C	24°C	ISO5151-T1				
l l	Heating 20°C				7°C	0°C	ISO5151-H1				
() () (4	2) This air-cond 3) Sound level higher due to 4) The operatio	ditioner is ma indicates the o ambient co on data indica	anufacture e value in a onditions. ate when t	d and te an anech he air-co	sted in confor loic chamber. I onditioner is of	mity with the IS During operation perated at 230	SO. on these values are somewhat / 50Hz or 220V 60Hz.				



Item				Model	FDE60VH						
	-						1 DL 000 0 (0) ( 501 L ( 000)	( 00)			
Power source				1.14/			1 Phase 220-240V 50Hz / 220V	60Hz			
	Nominal cooli	ng capacity		KVV			5.6				
	Nominal neati	ng capacity		KVV			6.7				
Operation data	Sound power	level	Heating				60				
dulu	Sound pressu	ire level	Cooling Heating	dB(A)			P-Hi:47 Hi:41 Me:37 Lo	: 32			
	Silent mode s	ound pressu	re level	1			—				
Exterior dim	ensions (Heigh	nt x Width x	Depth)	mm			210 × 1320 × 690				
Exterior app	bearance						Plaster white				
(Munsell co	olor)						(6.8Y8.9/0.2) near equivale	ent			
(RAL color	)						(RAL 9016) near equivale	nt			
Net weight				kg		33					
Heat exchai	nger				İ	Louver fin & inner grooved tubing					
Fan type & 0	Q'ty				İ		Centrifugal fan ×4				
Fan motor (	Fan motor (Starting method)			W	İ		50 < Direct line start >				
Air flow	Air flow Cooling Heating			m³/min			P-Hi:20 Hi:16 Me:13 Lo	: 10			
Available external static pressure				Pa			0				
Outside air	intake				İ	Not possible					
Air filter, Quality / Quantity				İ		Pocket plastic net ×2(Washa	ble)				
Shock & vibration absorber						Rubber sleeve(for fan moto	or)				
Electric heater				W			_				
Oranatian	Remote contr	ol				(Option) Wired	: RC-EX3A , RC-E5 , RCH-E3	Wireless : RCN-E-E3			
Operation	Room temper	ature contro	I				Thermostat by electronics	3			
Control	Operation dis	play					_				
Safety equip	oments				Overload protection for fan motor Frost protection thermostat						
	<b>D</b> (1)		<b>.</b>				Liquid line: φ 6.35 (1/4"	)			
	Refrigerant pi	ping size ( O	.D. )	mm			Gas line: \$\phi\$ 12.7 (1/2"	)			
Installation	Connecting m	nethod			İ		Flare piping				
data	Attached leng	th of piping		m	ĺ		_				
	Insulation for	piping					Necessary (both Liquid & Gas	lines)			
	Drain hose						Hose connectable VP20(O.D	.26)			
Drain pump	, max lift heigh	t		mm			-				
IP number							IPX0				
Standard ad	ccessories						Mounting kit, Drain hose				
Option parts	S						Motion sensor : LB-E				
Notes (1	1) The data are	measured a	t the follow	ving cor	iditions.		The pipe length is 7.5m.				
	Item	Indoor ai	r tempera	ture	Outdoor air	temperature	Standards				
	Operation	DB	W	в	DB	WB	Gtanudius				
	Cooling 27°C 19°			°C	35°C	24°C	ISO5151-T1				
	Heating 20°C			- 1	7°C	6°C	ISO5151-H1				
	2) This air-conc	litioner is ma	anufacture	d and te	sted in confor	mity with the IS	SO				
(;	<ul> <li>3) Sound level</li> <li>higher due to</li> <li>4) The operation</li> </ul>	indicates the o ambient co on data indica	e value in a onditions. ate when t	an anech he air-co	noic chamber.	During operation	/ 50Hz or 220V 60Hz.				



Item				Model			FDE71VH					
Power sour	ce						1 Phase 220-240V 50Hz / 220V	60Hz				
1 owor board	Nominal cooli	na capacity	(range)	kW			7 1					
	Nominal heati	ng capacity	(range)	kW			8.0					
			Cooling				0.0					
Operation data	Sound power	level	Heating				60					
	Sound pressu	re level	Cooling Heating	dB(A)		P-Hi: 47 Hi: 41 Me: 37 Lo: 32						
	Silent mode s	ound pressu	re level				-					
Exterior dim	nensions (Heigh	nt x Width x	Depth)	mm		210 × 1320 × 690						
Exterior app	bearance						Plaster white					
(Munsell co	olor)						(6.8Y8.9/0.2) near equivale	nt				
(RAL color	)						(RAL 9016) near equivalen	t				
Net weight	-			kg			33					
Heat exchai	nger			Ŭ			Louver fin & inner grooved tub	ing				
Fan type & 0	Q'ty					Centrifugal fan ×4						
Fan motor (Starting method)				W			50 < Direct line start >					
Air flow	Air flow Cooling Heating			m³/min			P-Hi:20 Hi:16 Me:13 Lo:	: 10				
Available ex	ternal static pr	essure		Pa		0						
Outside air	intake					Not possible						
Air filter, Quality / Quantity						Pocket plastic net ×2(Washab	ole)					
Shock & vibration absorber							Rubber sleeve(for fan motor	)				
Electric heater				W			_	-				
Oranatian	Remote contr	ol			(	Option) Wired	: RC-EX3A , RC-E5 , RCH-E3	Wireless : RCN-E-E3				
Operation	Room temper	ature contro	I				Thermostat by electronics					
Control	Operation dis	play					_					
Cofoty oggi		-				Overload protection for fan motor						
Salety equip	pments					Frost protection thermostat						
	Defrigerent ni						Liquid line: φ 9.52 (3/8")					
	Refrigerant pi	ping size ( O	.D.)	mm			Gas line: φ 15.88 (5/8")	)				
Installation	Connecting m	lethod					Flare piping					
data	Attached leng	th of piping		m			_					
	Insulation for	piping					Necessary (both Liquid & Gas I	ines)				
	Drain hose						Hose connectable VP20(O.D.	26)				
Drain pump	, max lift heigh	t		mm			_					
IP number							IPX0					
Standard ad	ccessories						Mounting kit, Drain hose					
Option parts	S						Motion sensor : LB-E					
Notes (1	1) The data are	measured a	t the follow	ving con	ditions.		The pipe length is 7.5m.					
	Item	Indoor ai	r temperat	ture	Outdoor air	temperature	Standarda					
	Operation	DB	W	B	DB	WB	Standards					
	Cooling	Cooling 27°C 19		°C	35°C	24°C	ISO5151-T1					
	Heating 20°C			-	7°C	6°C	ISO5151-H1					
(;	2) This air-cond 3) Sound level higher due to 4) The operatio	ditioner is ma indicates the cambient co n data indica	anufacture value in a onditions. ate when t	d and te an anech he air-co	sted in conform loic chamber. I ponditioner is op	mity with the IS During operatio	O. n these values are somewhat / 50Hz or 220V 60Hz.					



Item					FDE100VH			
Power source						1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cooling capacity			kW		10.0		
Operation data	Nominal heating capacity			kW	11.2			
	Sound pow	Sound power level		dB(A)	64			
	Sound pres				P-Hi: 48 Hi: 43 Me: 38 Lo: 34			
	Silent mode sound pressure level				_			
Exterior dimensions (Height $\times$ Width $\times$ Depth)				mm	250 × 1620 × 690			
Exterior appearance ( Munsell color ) ( RAL color )					Plaster white ( 6.8Y8.9/0.2 ) near equivalent ( RAL 9016 ) near equivalent			
Net weight				kg	43			
Heat excha	anger				Louver fin & inner grooved tubing			
Fan type & Q'ty					Centrifugal fan ×4			
Fan motor (Starting method)				W	80 < Direct line start >			
Air flow Cooling Heating			m³/min	P-Hi: 32 Hi: 26 Me: 21 Lo: 16.5				
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	_			
Operation	Remote control				(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-E-E3			
control	Room temperature control				Thermostat by electronics			
Control	Operation display				_			
Safety equipments					Overload protection for fan motor Frost protection thermostat			
	Refrigerant piping size ( O.D. )				Liquid line:			
				mm	Gas line:			
Installation	Connecting			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					Motion sensor : LB-E			
Notes (1) The data are measured at the following cor					litions. The pipe length is 7.5m.			
	Item Indoor air		temperatu	re	Outdoor air	r temperature	Standards	
	peration	DB	WB		DB	WB		
	Cooling	27°C	19°C	-	35°C	24°C		
	neating	20.0			/ U   DU   ISU5151-H1			
<ul> <li>(2) I his air-conditioner is manufactured and tested in conformity with the ISO.</li> <li>(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.</li> </ul>								


		Model		EDE125VH					
Item									
Power sour	ce					1 Phase 220-240V 50Hz / 220V 60Hz			
	Nominal cool	ing capacity		kW			12.5		
	Nominal heat	ing capacity		kW			14.0		
Operation	Sound power	level	Cooling Heating			64			
Gata	Sound pressu	ure level	Cooling Heating	dB(A)	) P-Hi: 48 Hi: 45 Me: 40 Lo: 35				
	Silent mode s	sound pressu	ire level				_		
Exterior dim	nensions (Heig	ht × Width ×	Depth)	mm			250 × 1620 × 690		
Exterior app	bearance						Plaster white		
(Munsell co	olor)						(6.8Y8.9/0.2) near equivalent		
(RAL color	)						(RAL 9016) near equivalent		
Net weight				kg			43		
Heat excha	nger						Louver fin & inner grooved tubing		
Fan type &	Q'ty						Centrifugal fan ×4		
Fan motor (	Starting metho	od)		W			80 < Direct line start >		
Air flow			Cooling Heating	m³/min		P-Hi: 32 Hi: 29 Me: 23 Lo: 17			
Available ex	kternal static p	ressure		Pa		0			
Outside air	intake						Not possible		
Air filter, Qu	ality / Quantity	/					Pocket plastic net ×2 (Washable)		
Shock & vit	pration absorbe	ər				Rubber sleeve (for fan motor)			
Electric hea	ater			W					
Operation	Remote conti	rol				(Option) Wired : RC-EX3A , RC-E5 , RCH-E3 Wireless : RCN-E-E3			
control	Room temper	rature contro					Thermostat by electronics		
	Operation dis	splay				— Output and much attention for for mathem			
Safetv equi	pments					Overload protection for fan motor			
	1					Frost protection thermostat			
	Refrigerant pi	iping size ( O	.D. )	mm		Liquid line: $\phi$ 9.52 (3/8")			
							Gas line: $\phi$ 15.88 (5/8")		
Installation	Connecting n	nethod					Flare piping		
data	Attached leng	gth of piping		m					
	Drain boso	piping					Hose connectable VP20 (O D 26)		
Drain pump	max lift beigh	nt		mm					
	, max int neigi								
Standard av	cossories						Mounting kit. Drain bose		
Ontion parts						Motion sensor : LR-F			
Notes (1)	The data are r	neasured at	the followi	na cond	litions		The pipe length is 7.5m		
		re 🛛	Outdoor air		Standards				
		27°C	10°C		35°C	24°C	ISO5151-T1		
	Heating	20°C				6°C	ISO5151-H1		
(2)	This air-condit	tioner is man	ufactured	and test	ed in confor	mity with the IS	0		
(2)	Sound level in	dicates the v	alue in an	anecho	ic chamber	During operatio	o. n these values are somewhat		
(0)	higher due to	ambient con	ditions						

higher due to ambient conditions. (4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.



			Model			FDE140VH			
nem						1 Disease 000 0401/ 501 la / 0001/ 601 la			
Power sour	rce			1.147			1 Phase 220-240V 50Hz / 220V 60Hz		
	Nominal cool	ing capacity		KVV			14.0		
	Nominal heat	ing capacity		KVV			16.0		
Operation	Sound power	level	Cooling Heating			65			
Guia	Sound pressu	ure level	Cooling Heating	dB(A)			P-Hi: 49 Hi: 45 Me: 40 Lo: 36		
	Silent mode s	ound pressu	re level				-		
Exterior din	nensions (Heigl	ht $\times$ Width $\times$	Depth)	mm			250 × 1620 × 690		
Exterior ap	pearance				1		Plaster white		
(Munsell co	olor)						(6.8Y8.9/0.2) near equivalent		
(RAL color	)						(RAL 9016) near equivalent		
Net weight	,			ka			43		
Heat excha	inder			- Ng			Louver fin & inner arooved tubing		
Fan type &	O'tv						Centrifugal fan x4		
Fan motor	(Starting metho	pd)		w			90 < Direct line start >		
Air flow	(otal ting motile		Cooling Heating	m³/min			P-Hi: 34 Hi: 29 Me: 23 Lo: 18		
Available ex	xternal static p	ressure	ling	Pa			0		
Outside air	intake						Not possible		
Air filter, Qu	ality / Quantity	,					Pocket plastic net ×2 (Washable)		
Shock & vit	pration absorbe	er					Rubber sleeve (for fan motor)		
Electric hea	ater	-		W			_		
	Remote contr	rol				(Option) Wire	d: RC-EX3A, RC-E5, RCH-E3 Wireless: RCN-E-E3		
Operation	Room temper	rature contro	1		1		Thermostat by electronics		
control	Operation dis	play					_		
							Overload protection for fan motor		
Safety equi	pments					Frost protection thermostat			
	Defilement					Liquid line: $\phi$ 9.52 (3/8")			
	Refrigerant pi	iping size ( O	.D.)	mm		Gas line: φ15.88 (5/8")			
Installation	Connecting m	nethod				Flare piping			
data	Attached leng	oth of piping		m			_		
	Insulation for	piping					Necessary (both Liquid & Gas lines)		
	Drain hose						Hose connectable VP20 (O.D.26)		
Drain pump	o, max lift heigh	nt		mm			-		
IP number							IPX0		
Standard a	ccessories						Mounting kit, Drain hose		
Option parts						Motion sensor : LB-E			
Notes (1) The data are measured at the followi			ng cond	itions.		The pipe length is 7.5m.			
Item Indoor air temperature		e	Outdoor air	temperature					
0	peration	DB	WB		DB WB Standards				
	Cooling	27°C	19°C		35°C	24°C	ISO5151-T1		
	Heating	20°C	-		7°C	6°C	ISO5151-H1		
(2)	This air-condit	ioner is man	ufactured	and test	ed in confor	mity with the IS	0.		
(3)	Sound level in	dicates the v	alue in an	anecho	ic chamber.	During operatio	n these values are somewhat		
	higher due to ambient conditions.								
(4)	(4) The operation data indicate when the air-conditioner is operated at 230V 50Hz or 220V 60Hz.								



### (2) Outdoor units

				Model					
Item						FDC200VSA-W			
Power sou	rce						3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal coo	oling capacity		kW			20.0		
	Nominal hea	ating capacity		kW		22.4			
			Coolina		72				
Operation	Sound powe	er level	Heating			74			
data			Cooling				58		
Guia	Sound press	sure level	Heating	dB(A)			59		
	Silont modo		Cooling				55 /53 (Normal/Silont)		
	Silent mode		Useting				55755 (Normal/Silent)		
	Isound press	sure level	пеаціпд				50/54 (Normal/Silent)		
Exterior dir	nensions (Hei	ght × Width ×	Depth)	mm			1505×970×370		
Exterior ap	pearance						Stucco white		
(Munsell c	olor )						(4.2Y7.5/1.1) near equivalent		
(RAL color	.)						(RAL 7044) near equivalent		
Net weight				kg			144		
Compresso	or type & Q'ty						GTC5150SC40MF ×1		
Compresso	or motor (Star	ting method)		kW			Direct line start		
Refrigerant	oil (Amount, t	type)		L			1.55 (M-MB75R)		
Refrigerant	(Type, amou	nt, pre-charge	e length)	kg		R32 4.3 in	outdoor unit (Incl. the amount for the piping of 30m)		
Heat excha	anger						M shape fin & inner grooved tubing		
Refrigerant	control						Electronic expansion valve		
Fan type &	Q'tv					Propeller fan ×2			
Fan motor	(Starting meth	nod)		W			86x2 < Direct line start >		
	(ortaining moti		Cooling				148		
Air flow			Heating	m³/min			134		
Shock & vil	bration absorb	ber				F	ubber sleeve (for fan motor & compressor)		
Electric hea	ater			W			20 (Crank case heater)		
Sofoty ogu	inmonto					Internal thermostat for fan motor			
Salety equ	ipments						Abnormal discharge temperature protection		
	Defilerent				Liquid line: $\phi$ 9.52 (3/8")				
	Reingerant	piping size ( O	.D.)		Gas line: <i>φ</i> 22.22 (7/8")				
	Connecting	method					Liquid line : Flare / Gas : Brazing		
	Attached ler	nath of pipina		m					
Installation	Insulation fo	or pipina				Necessary (both Liquid & Gas lines)			
data	Refrigerant	line (one wav)	lenath	m		Necessary (both Liquid & Gas intes)			
Guia	litionigorant	line (ene way)	longai			Max 50 (Out	door unit is higher & Outdoor air temperature $\leq 43^{\circ}$ C)		
	Vortical baight	diff botwoon O	lland I/II			Max 20 (Out	rdoor unit is higher & Outdoor air temperature $\geq 450$		
	Ventical height	uiii. Detweeli 0/				Wax.50 (Ou	Max 15 (Outdoor unit in lower)		
	Ducin Iso a								
	Drain nose						Hole size $\phi 20 \times 3$ pcs.		
IP number			_				IP24		
Standard accessories						Connecting pipe, Edging			
Option parts					-				
Notes (1) The data are measured at the followi		ng cond	itions.		The pipe length is 7.5m.				
	Item	Indoor air t	emperatur	re	Outdoor air temperature		Standards		
	Cooling		10°C	_	25°C		1005151 T1		
Cooling 27°C 19°C			350	240					
	Heating	20.0			70	60	1505151-11		
(2) (3) (4)	<ul> <li>(2) This air-conditioner is manufactured and tested in conformity with the ISO.</li> <li>(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.</li> <li>(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.</li> </ul>								



				Model				
Item				FDC250VSA-W				
Power sour	rce						3 Phase 380-415V 50Hz / 380V 60Hz	
	Nominal coo	ling capacity		kW			25.0	
	Nominal heat	ting capacity		kW			28.0	
			Cooling				73	
Operation	Sound powe	r level	Heating	1			75	
data			Coolina				58	
	Sound press	ure level	Heating	dB(A)			62	
	Silent mode		Cooling	1			56 /55 (Normal/Silent)	
	sound pressu	ure level	Heating				59 /58 (Normal/Silent)	
Exterior din	nensions (Heig	ght × Width ×	Depth)	mm			1505×970×370	
Exterior ap	pearance						Stucco white	
( Munsell co	, olor )						(4.2Y7.5/1.1) near equivalent	
(RAL color	)						(RAL 7044) near equivalent	
Net weight				kg			145	
Compresso	or type & Q'ty						GTC5150SC40MF ×1	
Compresso	or motor (Starti	ing method)		kW			Direct line start	
Refrigerant	oil (Amount, ty	(aqv		L			1.55 (M-MB75R)	
Refrigerant	(Type, amoun	nt. pre-charge	lenath)	ka		R32 5.1 in	outdoor unit (Incl. the amount for the piping of 30m)	
Heat excha	inder	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5/				M shape & inner grooved tubing	
Refrigerant	control						Electronic expansion valve	
Fan type &	Q'tv					Propeller fan x2		
Fan motor	Starting metho	od)		W			86x2 < Direct line start >	
A ! fl	<u>(                                    </u>		Cooling				148	
AIR TIOW			Heating	m /min			153	
Shock & vit	oration absorb	er					Rubber sleeve (for compressor)	
Electric hea	ater			W			20 (Crank case heater)	
Safety equi	inments						Internal thermostat for fan motor	
Callety oqui							Abnormal discharge temperature protection	
	Refrigerant p	nining size ( 0	( ם	mm	Liquid line: <i>φ</i> 12.7 (1/2")			
	Tionigorant p	iping 6126 ( 0					Gas line:	
	Connecting r	method			Liquid line : Flare / Gas : Brazing			
	Attached len	gth of piping		m				
Installation	Insulation for	r piping				Necessary (both Liquid & Gas lines)		
data	Refrigerant I	line (one way)	length	m		Max.70		
						Max.50 (Out	door unit is higher & Outdoor air temperature ≦ 43°C)	
	Vertical height of	diff. between O/	U and I/U	m		Max.30 (Ou	tdoor unit is higher & Outdoor air temperature > 43°C)	
							Max.15 (Outdoor unit is lower)	
	Drain hose						Hole size $\phi 20 \times 3$ pcs.	
IP number							IP24	
Standard accessories						Connecting pipe, Edging		
Option parts					-			
Notes (1) The data are measured at the followi		the followi	ng cond	itions.		The pipe length is 7.5m.		
	Item	Indoor air t	emperatur	re	Outdoor air	temperature	Standards	
	peration	DB	WB		DB	WB		
Cooling 27°C 19°C			<u>35°C</u>	24°C	ISO5151-T1			
	Heating	20'C			70	60	ISU5151-H1	
(2)	This air-condi	tioner is man	utactured	and test	ed in confor	mity with the IS	0.	
(3)	(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat							
(4)	higher due to ambient conditions.							
(4)								

			Model	FROM WANK					
Item					FDC280VSA-W				
Power sour	се						3 Phase 380-415V 50Hz / 380V 60Hz		
	Nominal cooling	g capacity		kW			27.0		
	Nominal heatin	g capacity		kW			30.0		
			Cooling				75		
Operation	Sound power le	evel	Heating	1			77		
data			Cooling				61		
	Sound pressure	e level	Heating	dB(A)			63		
	Silent mode		Cooling				55 /54 (Normal/Silent)		
	sound pressure	e level	Heating				56 /55 (Normal/Silent)		
Exterior din	nensions (Height	× Width ×	Depth)	mm			1505×970×370		
Exterior app	bearance						Stucco white		
(Munsell co	olor)					(4.2Y7.5/1.1) near equivalent			
(RAL color	)						(RAL 7044) near equivalent		
Net weight				kg			155		
Compresso	r type & Q'ty						GTC5150SC40MF ×1		
Compresso	r motor (Starting	) method)		kW			Direct line start		
Refrigerant	oil (Amount, typ	e)		L			1.55 (M-MB75R)		
Refrigerant	(Type, amount,	pre-charge	length)	kg		R32 5.6 in	outdoor unit (Incl. the amount for the piping of 30	)m)	
Heat excha	nger	·					M shape & inner grooved tubing		
Refrigerant	control					Electronic expansion valve			
Fan type &	Q'ty					Propeller fan ×2			
Fan motor (	Starting method	)		W			86x2 < Direct line start >		
A: (I		,	Cooling	37 .			136		
AIR NOW			Heating	m <sup>-</sup> /min			140		
Shock & vit	pration absorber						Rubber sleeve (for compressor)		
Electric hea	iter			W			20 (Crank case heater)		
Safety equi	oments						Internal thermostat for fan motor		
Caloty oqui						A	bnormal discharge temperature protection		
	Refrigerant pipi	ina size ( O	L )	mm	Liquid line:				
		ing 0120 ( 0			Gas line: <i>φ</i> 22.22 (7/8")				
	Connecting me	ethod					Liquid line : Flare / Gas : Brazing		
	Attached length	h of piping		m			_		
Installation	Insulation for p	iping					Necessary (both Liquid & Gas lines)		
data	Refrigerant line	e (one way)	length	m			Max.60		
						Max.50 (Out	door unit is higher & Outdoor air temperature $\leq$ 4	43°C)	
	Vertical height diff	. between O/	U and I/U	m		Max.30 (Out	door unit is higher & Outdoor air temperature > 4	l3°C)	
						Max.15 (Outdoor unit is lower)			
	Drain hose						Hole size $\phi 20 \times 3$ pcs.		
IP number							IP24		
Standard accessories							Connecting pipe, Edging		
Option parts						-			
Notes (1) The data are measured at the followir			ng cond	itions.		The pipe length is 7.5m.			
Item Indoor air temperatur		re	Outdoor air	temperature	Standards				
0	peration	DB	WB		DB WB		Standards		
Cooling 27°C 19°C			35°C	24°C	ISO5151-T1				
Heating 20°C –				7℃	6°C	ISO5151-H1			
(2)	This air-conditio	ner is man	ufactured	and test	ed in confo	rmity with the IS	0.		
(3)	(3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat								
	higher due to ambient conditions.								
(4)	(4) The operation data indicate when the air-conditioner is operated at 400V 50Hz or 380V 60Hz.					perated at 400V	50Hz or 380V 60Hz.		



### (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

operating enaluetensite of	380-415V 50Hz/380V 60Hz)			
Item	Model	FDC200VSA-W	FDC250VSA-W	FDC280VSA-W
Cooling power consumption	1-337	5.22/5.22	7.92/7.92	8.83/8.83
Heating power consumption	K W	5.01/5.01	7.09/7.09	8.67/8.67
Cooling running current		8.0/8.4	12.1/12.7	13.3/14.0
Heating running current	A	7.6/8.0	11.0/11.5	12.8/13.4
Inrush current (L.R.A) <max. current="" running=""></max.>	А	5<20>	5<20>	5<20>

Note(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

### (b) Operating characteristic of indoor unit

#### **FDT Series**

Item	lodel	FDT50VH	FDT60VH	FDT71VH	FDT100VH	FDT125VH	FDT140VH
Cooling power consumption	1-337	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08	0.13-0.13/0.13	0.14-0.14/0.14	0.14-0.14/0.14
Heating power consumption	KW	0.04-0.04/0.04	0.07-0.07/0.07	0.08-0.08/0.08	0.13-0.13/0.13	0.14-0.14/0.14	0.14-0.14/0.14
Cooling running current		0.36-0.33/0.36	0.62-0.57/0.62	0.70-0.64/0.70	1.05-0.96/1.05	1.12-1.02/1.12	1.12-1.02/1.12
Heating running current	A	0.36-0.33/0.36	0.62-0.57/0.62	0.70-0.64/0.70	1.05-0.96/1.05	1.12-1.02/1.12	1.12-1.02/1.12

#### **FDE Series**

(220-240V 50Hz/220V 60Hz) Model FDE50VH FDE60VH FDE71VH FDE100VH FDE125VH FDE140VH Item Cooling power consumption 0.05-0.05/0.05 0.08-0.08/0.08 0.08-0.08/0.08 0.13-0.13/0.13 0.13-0.13/0.13 0.14-0.14/0.14 kW 0.05-0.05/0.05 0.08-0.08/0.08 0.08-0.08/0.08 0.13-0.13/0.13 0.13-0.13/0.13 0.14-0.14/0.14 Heating power consumption Cooling running current 0.50-0.50/0.50 0.75-0.75/0.75 0.75-0.75/0.75 1.20-1.20/1.20 1.20-1.20/1.20 1.30-1.30/1.30 А Heating running current 0.50-0.50/0.50 0.75-0.75/0.75 0.75-0.75/0.75 1.20-1.20/1.20 1.20-1.20/1.20 1.30-1.30/1.30

Notes(1) This packaged air-conditioner is manufactured and tested in conformity with the following standard. ISO-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 specifications of each indoor unit or outdoor unit.

#### (i) Total power consumption

Total power consumption (kW) = Power consumption of outdoor unit +  $\Sigma$  (Power consumption of indoor unit)

#### (ii) Total running current

Total running current (A) = Running current of outdoor unit + [ $\Sigma$  (Running current of indoor unit) × 1/3]

#### (iii) 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

 -	 	 	

(220-240V 50Hz/220V 60Hz)

[Example]

(Conditions)

Operation voltage ······· Indoor unit: 230 V, 50 Hz Outdoor unit: 400 V, 50 Hz Operation mode ········ Cooling and Heating Unit······ Outdoor unit: FDC250VSA-W × 1 unit Indoor unit: FDT60VH × 2 units, FDT125VH × 1 unit

### Operation characteristics of each unit

(Cooling/Heating)

Item Model	FDC250VSA-W	FDT60VH	FDT125VH
Power consumption (kW)	7.92/7.09	0.07/0.07	0.14/0.14
Running current (A)	12.1/11.0	0.62/0.62	1.12/1.12

① Total power consumption (kW)

(Cooling) 7.92 + 0.07 × 2 + 0.14 = 8.20 (kW) (Heating) 7.09 + 0.07 × 2 + 0.14 = 7.37 (kW)

② Total running current (A)

(Cooling)  $12.1 + \left[ (0.62 \times 2 + 1.12) \times \frac{1}{3}) \right] \doteq 12.9 \text{ (A)}$ (Heating)  $11.0 + \left[ (0.62 \times 2 + 1.12) \times \frac{1}{3}) \right] \doteq 11.8 \text{ (A)}$ 

③ Total power factor (%)

(Cooling)  $\frac{8.20 \times 1000}{\sqrt{3} \times 12.9 \times 400} \times 100 = 92 \%$ (Heating)  $\frac{7.37 \times 1000}{\sqrt{3} \times 11.8 \times 400} \times 100 = 90 \%$ 

## **2.3 EXTERIOR DIMENSIONS**

(1) Indoor units	
(a) Ceiling cassette-4 way type (FDT)See page	27
(b) Ceiling suspended type (FDE)See page	34
(2) Outdoor unitsSee page	37
(3) Remote control (Option parts)See page	38
2.4 ELECTRICAL WIRING	
(1) Indoor units	
(a) Ceiling cassette-4 way type (FDT)See page	41
(b) Ceiling suspended type (FDE)See page	46
(2) Outdoor unitsSee page	47
2.5 NOISE LEVEL	
(1) Indoor units	
(a) Ceiling cassette-4 way compact type (FDT)See page	48
(b) Ceiling suspended type (FDE)See page	52
(2) Outdoor unitsSee page	53
2.6 TEMPERATURE AND VELOCITY DISTRIBUTION	
(1) Indoor units	
(a) Ceiling cassette-4 way type (FDT)See page	58
(b) Ceiling suspended type (FDE)See page	63
2.7 PIPING SYSTEMSee page	67
2.8 RANGE OF USAGE & LIMITATIONSSee page	71
2.9 SELECTION CHARTSee page	77
2.10 APPLICATION DATA	
2.10.1 Installation of indoor unit	
(1) Ceiling cassette-4 way type (FDT)See page	93
(2) Ceiling suspended type (FDE)See page	119
2.10.2 Electric wiring work installationSee page	124
2.10.3 Installation of wired remote control (Option parts)See page	128
2.10.4 Installation of outdoor unitSee page	140
2.10.5 Method for connecting the accessory pipe	144
2.10.6 Instructions for branching pipe set (DIS-WA1G,WB1G,TA1G,TB1G)See page	146
2.10.7 Safety precautions in handling air-conditioners with flammable refrigerantSee page	149
2.11 TECHNICAL INFORMATION	
(1) Ceiling cassette-4 way type (FDT)See page	153
(2) Ceiling suspended type (FDE)See page	189

# **3. OPTION PARTS**

# CONTENTS

3.1 WIRELESS KIT	225
3.1.1 FDT series (RCN-T-5BW-E2, RCN-T-5BB-E2)	225
3.1.2 FDTC series (RCN-TC-5AW-E3)	234
3.1.3 FDU,FDUM series (RCN-KIT4-E2)	243
3.1.4 FDE series (RCN-E-E3)	253
3.2 MOTION SENSOR KIT	262
3.2.1 FDT series (LB-T-5BW-E, LB-T-5BB-E)	262
3.2.2 FDTC series (LB-TC-5W-E)	267
3.2.3 FDU,FDUM series (LB-KIT2)	272
3.2.4 FDE series (LB-E)	280
3.2.5 User's manual	285
3.3 SIMPLE WIRED REMOTE CONROL (RCH-E3)	287
3.4 OA SPACER (FDTC series)	293
3.5 DUCT JOINT (FDTC series)	297
3.6 FILTER KIT (FDUM series)	298
3.7 BASE HEATER KIT (CW-H-E1)	300
3.8 SUPERLINK E BOARD (SC-ADNA-E)	306

# 3.1 WIRELESS KIT

### 3.1.1 FDT series (RCN-T-5BW-E2, RCN-T-5BB-E2)

(1) Specification Receiver

#### Installation position of wireless kit



Refrigerant pipe

#### Installation of wireless kit 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 AC
- (8)Places where the receiver is influencedby the fluorescent lamp(especially inverter type)
- (9)Places where the receiver is affected by infrared
- rays of any other communication devices (10)Places where some object may obstruct the
- communication with the remote control

#### Setting switch on PCB of receiver

SW1	Prevent interference during plural setting	ON:Normal OFF:Remote			
SW2	Receiver master/ slave setting	ON:Master OFF:Slave			
SW3	Buzzer	ON:Valid OFF:Invalid			
SW4	Auto restart	ON:Valid OFF:Invalid			
Default setting: mark					

#### Notes

- Receiver can install the position as shown.
   Two LR03 AAA dry cell batteries for remote control are enclosed.
- (3)See spec sheet of "Wireless remote control" about remote control.

#### Remote control



#### Remote control holder

#### Wireless remote control's operable area

 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 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two thirds.

> The receivable area of the signal when the illuminance at 1 m 1 m 2m 3m 4m The receiver is 300lux

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 receiver. (When no lighting is installed within 1m

of the receiver in an ordinary office.)

Unit:mm

PJF000Z632

### (2) Installation manual

Notes:

1.Following function of FDT indoor unit series are not able to be set with this wireless remote control.
 Individual flap control system

2. This wireless remote control can operate the prevention function without connecting the wired remote control.

PJF012D035C

### **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.

MARNING 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.

$\bigcirc$	Never do.	0	Always follow the instructions given.

•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, this manual should be given to a new owner.

	WARNING
0	<ul> <li>Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.</li> </ul>
0	<ul> <li>Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.</li> </ul>
0	<ul> <li>Be sure to use accessories and specified parts for installation work.</li> <li>Use of unspecified parts may result in drop, fire or electric shocks.</li> </ul>
0	<ul> <li>Install the unit properly to a place with sufficient strength to hold the weight.</li> <li>If the place is not strong enough, the unit may drop and cause injury.</li> </ul>
0	• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.
0	<ul> <li>Shut OFF the main power source before starting electrical work.</li> <li>Otherwise, it could result in electric shocks, break-down or malfunction.</li> </ul>
$\bigcirc$	<ul> <li>Do not modify the unit. It could cause electric shocks, fire, or break-down.</li> </ul>
0	• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
$\otimes$	• 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.
$\bigcirc$	• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.
$\bigcirc$	• Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.
$\bigcirc$	Do not operate the unit with wet hands.     It could cause electric shocks.

$\bigcirc$	Do not wash the unit with water. It could cause electric shocks, fire, or break-down.						
0	<ul> <li>Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.</li> <li>Improper connections or fixing could cause heat generation, fire, etc.</li> </ul>						
0	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.						
	• Do not leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.						
CAUTION							
$\bigcirc$	<ul> <li>Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.</li> <li>(1) Places exposed to direct sunlight</li> <li>(8) Places where the receiver is influenced by</li> <li>(2) Places near heat devices</li> <li>(3) High humidity places</li> <li>(4) Hot surface or cold surface enough to</li> <li>(9) Places where the receiver is affected by infrared rays of any other communication devices</li> <li>(5) Places exposed to oil mist or steam directly (10) Places where some object may obstruct the</li> <li>(6) Uneven surface</li> <li>(7) Places affected by the direct air flow of the AC unit</li> </ul>						
Please make sure that you have all of the following accessories.							
	① Receiver 1 ① Wireless remote control (RCN-E2) 2 1						
	② Parts set (A)   1   ③ Remote control holder   1						

③ Installation manual 1

а	accessories.					
	① Wireless remote control (RCN-E2)	Ø	1			
	② Remote control holder	·=	1			
	③ Screw for holder	đ	2			
	④ AAA dry cell battery (LR03)	Q	2			
	⑤ User's manual	Ī	1			

# <sup>2</sup>Preparation before installation

### 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	OFF : Customized
SW2	Receiver master/ slave setting	ON : Master	OFF : Slave
SW3	Buzzer	ON : Valid	OFF : Invalid
SW4	Auto restart	ON : Valid	OFF : Invalid



# **③** How to install the receiver(continued)

### Installation of the receiver

- ① Loosen the bolts which fix the panel and make a gap between the panel and the indoor unit.
- ② Put the wiring of the receiver through the opening.
- ③ 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.
- ④ Connect the wiring to the terminal block provided in the control box. (No polarity)
- 5 Attach the receiver to the panel according to the panel installation manual.
- 6 Fix the wiring with the clamp so that the wiring do not contact the edge of control box's metal sheet.
- O Reattach the control box lid with 3 screws removed.





# (4) Wireless remote control (continued)

2. Setting details The following functions can be set.

Button	Number indicator	Function setting
	00	Fan speed setting : Standard
FAN SPEED	01	Fan speed setting : Setting 1 *
	02	Fan speed setting : Setting 2 *
	00	Room heating temperature adjustment : Disable
MODE	01	Room heating temperature adjustment : +1°C
NODE	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
FILTER	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D 00 Anti draft setting : Disable		Anti draft setting : Disable
(Up/Down)	01	Anti draft setting : Enable
	00	Infrared sensor setting (Motion sensor setting) : Disable
SILENI	01	Infrared sensor setting (Motion sensor setting) : Enable
	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
HIFOWER	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF
	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
OFF TIMER	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NICUT	00	Remote control signal receiver LED : Brightness High
SETBACK	01	Remote control signal receiver LED : Brightness Low
OL I BAOK	02	Remote control signal receiver LED : OFF



# **5** Receiver (continued)

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 1.0m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two thirds.



 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.)

(When no lighting is installed within 1m of the receiver in an ordinary office )

### Backup switch

A backup switch 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 switch directly when operating it.

- 1. 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 switch is pressed when in operation.



### Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control unit, 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.

### How to read the 2-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 switch 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.

## 3.1.2 FDTC series (RCN-TC-5AW-E3)

### (1) Specification

Receiver



Installation position of wireless kit





(1)Receiver must be installed to the position as shown. (2)Two LR03 AAA dry cell batteries for remote

(3)See spec sheet of "Wireless remote control"

Installation of wireless kit

# 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-generating 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 (8)Places where the receiver is influenced
- by fluorescent lamp 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 communication with the remote control

#### Setting switch on PCB

SW1	Prevents interference during multiple setting	ON:Normal OFF:Remote
SW2	Receiver master/ slave setting	ON:Master OFF:Slave
SW3	Buzzer	ON:Valid OFF:Invalid
SW4	Auto restart	ON:Valid OFF:Invalid

Default setting: mark

### Wireless remote control's operable area

①Standard 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 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two thirds.



③ Installation tips when several receivers are installed close to one another 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)

Unit:mm

### PJF000Z634

#### Remote control





<u>1</u>4°

65

33

control are enclosed.

about remote control.

Notes



32.5

### (2) Installation manual

### PJF012D506B

# Safety precautions

•Please read this manual carefully before starting installation work to install the unit properly. All of the following are important information to be observed strictly.

MARNING 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 symbols 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, this manual should be given to the new owner.

	<b>WARNING</b>
0	<ul> <li>Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.</li> </ul>
0	<ul> <li>Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.</li> </ul>
0	<ul> <li>Be sure to use accessories and specified parts for installation work.</li> <li>Use of unspecified parts may result in drop, fire or electric shocks.</li> </ul>
0	<ul> <li>Install the unit properly to a place with sufficient strength to hold the weight.</li> <li>If the place is not strong enough, the unit may drop and cause injury.</li> </ul>
0	• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.
0	<ul> <li>Shut OFF the main power source before starting electrical work.</li> <li>Otherwise, it could result in electric shocks, break-down or malfunction.</li> </ul>
$\bigcirc$	<ul> <li>Do not modify the unit. It could cause electric shocks, fire, or break-down.</li> </ul>
0	• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
$\bigcirc$	• 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.
$\bigcirc$	• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.
$\bigcirc$	• Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.
$\bigcirc$	Do not operate the unit with wet hands.     It could cause electric shocks.

					<b>WARN</b>	ING		
$\bigcirc$	• Do not wash the unit with water. It could cause electric shocks, fire, or break-down.							
0	• 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.							
0	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.							
0	•	<b>Do not lea</b> If dew, wate	<b>ve the</b> r, insect,	ren , etc	note control with its F c. enter through the hole,	PCB d it cou	<b>ase re</b> d cause	moved. e electric shocks, fire or break-down.
					<b>∕</b> ∆CAUTI	ON		
0	<ul> <li>Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.</li> <li>(1) Places exposed to direct sunlight</li> <li>(2) Places near heat-generating devices</li> <li>(3) High humidity places</li> <li>(4) Hot surface or cold surface enough to generate condensation</li> <li>(5) Places exposed to oil mist or steam directly (10)</li> <li>(6) Uneven surface</li> <li>(7) Places affected by the direct air flow of the AC unit</li> <li>(8) Places in order to avoid malfunction.</li> <li>(8) Places where the receiver is influenced by fluorescent lamp (especially inverter type) or sunlight</li> <li>(9) Places where the receiver is affected by infrared rays of any other communication devices</li> <li>(10) Places where some object may obstruct the communication with the remote control</li> </ul>							
	Acc	essorie	S					
	se mai	ke sure that	you na	ve a	Bracket mounting screw	sorie:	з. 1 Г	Wireless remote control (RCN-E2)
② P0	СВ			1	6 Wiring (For communication)	$\overline{\bigcirc}$	1	Remote control holder
3 PC	CB mour	nting support	<u> </u>	2	Wiring (For receiving)	$\overline{\bigcirc}$	1	④ AAA dry cell battery (LR03)     ①     2
④ Br	acket (	Sheet metal)		1	<ul> <li>8 Installation manual</li> </ul>		1	(5) User's manual
					9 Parts set	1	1	
								)
2 Set	Prep ting o	of PCB	n bef	or		otion	Dofe	
	essory							
	SW1	Prevents int	terterenc	e dı	iring multiple setting		ON :	Normal OFF : Remote
	SW2 Receiver master/slave setting				ON :	Master OFF : Slave		
	SW3 Buzzer						ON	: Valid OFF : Invalid

SW4 Auto restart

ON : Valid

OFF : Invalid

# Preparation before installation (continued)

### To change setting

1. Change the setting of switches on the accessory PCB.



### Master/Slave setting when using multiple remote controls

Up to two receivers or wired remote controls can be installed on one indoor unit group. In such occasion, it is necessary to change the setting to slave on either one.

To change the setting on the receiver, refer to the instruction manual of the receiver.

2. When SW1 is turned to OFF position, change the wireless remote control setting.
For the method of changing the setting, refer to Setting to avoid mixed communication of
④ Wireless remote control.

\*For the receivable area of the signal, refer to (5) Receiver .

# 3 How to install the receiver

It is possible to install the receiver by replacing the corner lid on the panel.

### Preparation before installation

- ① Remove the inlet grille according to the installation manual of the panel.
- ② Remove the corner lid at the refrigerant pipe side.
- ③ Loosen screws (2 pcs.) on the control box of the unit.
- ④ Slide the control lid in the arrow direction, and remove it.



# **③** How to install the receiver(continued)

### Installation of the receiver

- (1) Connect the wire connector (Communication) to CNB on PCB.
- $\overbrace{(2)}^{\sim}$  Connect the wire connector (Receiver) to CN3 on PCB.
- $\overline{(3)}$  Install the PCB mounting supports on the bracket (Sheet metal).
- (4) Install PCB on the PCB mounting supports.
- (5) Insert the bracket (Sheet metal) in one side of control box, and fix the other side with screws as shown in the figure.
- 6 Connect round terminals of wires (Communication) to the terminal block (X, Y) in the control box. The wires have no polarity.
- ⑦ Fix wires with bands as shown in the figure.
- (at 4 places) as shown in the figure.
- (9) Pass the wiring (Communication) through the opening on the panel.
- (i) Connect connectors of the wiring (Communication) and the receiver.
- (1) Install the receiver on the panel according to the installation manual of the panel.
- (2 pcs.).





# (4) Wireless remote control (continued)

2. Setting details The following functions can be set.

Button	Number indicator	Function setting
	00	Fan speed setting : Standard
FAN SPEED	01	Fan speed setting : Setting 1 *
	02	Fan speed setting : Setting 2 *
	00	Room heating temperature adjustment : Disable
MODE	01	Room heating temperature adjustment : +1°C
MODE	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
FILTER	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
(Up/Down)	01	Anti draft setting : Enable
	00	Infrared sensor setting (Motion sensor setting) : Disable
SILENI	01	Infrared sensor setting (Motion sensor setting) : Enable
	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
HI POWER	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
ON TIVIER	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
OFF TIMER	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
	00	Remote control signal receiver LED : Brightness High
NIGHT	01	Remote control signal receiver LED : Brightness Low
OLIDAON	02	Remote control signal receiver LED : OFF
Refer to serv	vice manual.	

# **5** Receiver

### **1** Control multiple indoor units with one remote control

Up to 16 indoor units can be connected.

- 1. Connect the XY terminal with 2 cores wire. As for the size, refer to the note on the right.
- 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 (Maximum length is 600m.) Standard Within  $0.3 \text{ mm}^2 \times 100 \text{m}$ 

Within	0.5 mm <sup>2</sup> × 200m
Within	0.75mm <sup>2</sup> × 300m
Within	1.25mm <sup>2</sup> × 400m
Within	$2.0 \text{ mm}^2 \times 600 \text{m}$

### For the shop series

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.





- 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.

### 3.1.3 FDU, FDUM series (RCN-KIT4-E2)





### Installation precautions

Do not install it on the following placesin 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 AC unit
- (8) Places where the receiver is influenced by the flourescent 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 pbject may obstruct the communication with the remote control

### Wireless remote control operable area

Adapted to **RoHS** directive

### When installed on ceiling

1. Standard reachable area of the signa

[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.
  - [Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m.



### (2) Installation manual

### PJZ012D112

# 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.

A WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.

 $\underline{\land}$  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.

Never do.	0	Always follow the instructions given.
-----------	---	---------------------------------------

•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, this manual should be given to a new owner.

(	
0	<ul> <li>Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.</li> </ul>
0	<ul> <li>Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.</li> </ul>
0	<ul> <li>Be sure to use accessories and specified parts for installation work.</li> <li>Use of unspecified parts may result in drop, fire or electric shocks.</li> </ul>
0	<ul> <li>Install the unit properly to a place with sufficient strength to hold the weight.</li> <li>If the place is not strong enough, the unit may drop and cause injury.</li> </ul>
0	• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.
0	<ul> <li>Shut OFF the main power source before starting electrical work.</li> <li>Otherwise, it could result in electric shocks, break-down or malfunction.</li> </ul>
$\bigcirc$	• Do not modify the unit. It could cause electric shocks, fire, or break-down.
0	• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
$\oslash$	• 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.
$\bigcirc$	• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.
$\bigcirc$	• Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.
$\bigcirc$	• Do not operate the unit with wet hands. It could cause electric shocks.

			Z	<u>.</u> WA	RNIN	IG						
	• <b>Do not wash the unit with water.</b> It could cause electric shocks, fire, or break-down.											
• Us ele Im	• 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.											
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.												
	o not leave the ren dew, water, insect, et	note co c. enters	ontro s thro	ol with bugh the	<b>its PC</b> hole, it	B case removed. could cause electric sho	ocks, fir	e or bi	reak-down.			
			Z	<b>≜CA</b>	UTIO	N						
<ul> <li>It could cause break-down or deformation of remote control.</li> <li>Places exposed to direct sunlight</li> <li>Places near heat devices</li> <li>High humidity places</li> <li>Hot surface or cold surface enough to generate condensation</li> <li>Places exposed to oil mist or steam directly (10) Places where some object may obstruct the communication with the remote control</li> <li>Places affected by the direct air flow of the AC unit</li> <li>Accessories</li> </ul>												
	ssories											
1 Acces Please make	sories	all of the	e foll	owing a	ccesso	ries.		1				
1 Acces Please make	SSORIES sure that you have ①Receiver	all of the	e foll	owing a	CCESSO ① Wire ② Rem	ries. less remote control (RCN-E2) note control holder		1				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m)	all of the	e foll	owing a	CCESSO ① Wire ② Rem ③ Scre	ries. less remote control (RCN-E2) note control holder w for holder		1 1 2				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A)	all of the	e foll 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA	ries. less remote control (RCN-E2) lote control holder w for holder . dry cell battery (LR03)		1 1 2 2				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B)	all of the	e foll 1 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Use	ries. less remote control (RCN-E2) lote control holder w for holder . dry cell battery (LR03) *s manual		1 1 2 2 1				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C)	all of the	e foll 1 1 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ User ① Scre ② Fixir	ries. less remote control (RCN-E2) note control holder w for holder dry cell battery (LR03) *s manual w for receiver ng band		1 1 2 2 1 2 1				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1	owing a	CCESSO ① Wire ② Rerr ③ Scre ④ AAA ⑤ User ① Scre ② Fixir ③ Clan	ries. less remote control (RCN-E2) note control holder w for holder . dry cell battery (LR03) *s manual w for receiver ng band np		1 1 2 2 1 2 1 5				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre	ries. less remote control (RCN-E2) note control holder w for holder . dry cell battery (LR03) *s manual w for receiver ng band np w for clamp		1 1 2 2 1 2 1 5 5				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre ① Reco ② Screv	ries. less remote control (RCN-E2) note control holder w for holder . dry cell battery (LR03) *s manual w for receiver . dg band . hp w for clamp eiver installation bracket w for the bracket		1 1 2 2 1 2 1 5 5 5				
1 Acces Please make	SSOTIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre ① Reco ② Screv ③ Insta	ries. less remote control (RCN-E2) note control holder w for holder dry cell battery (LR03) *s manual w for receiver ng band np w for clamp eiver installation bracket v for the bracket allation fitting		1 2 2 1 2 1 5 5 5 1 2 2 2				
Acces Please make	SSORIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1 1 1 1	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Used ① Scre ② Fixir ③ Clan ④ Scre ① Rece ② Screv ③ Insta	ries. less remote control (RCN-E2) note control holder w for holder dry cell battery (LR03) *s manual w for receiver ng band np w for clamp eiver installation bracket v for the bracket allation fitting		1         1         2         1         2         1         5         5         1         2         2         1         5         2         2         2         1         2         2				
<ol> <li>Acces</li> <li>Please make</li> <li>Please make</li> <li>Prepa</li> <li>Setting on s</li> </ol>	SSORIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1 1 tall	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre ② Screv ③ Insta	ries. less remote control (RCN-E2) note control holder w for holder dry cell battery (LR03) *s manual w for receiver ng band np w for clamp siver installation bracket v for the bracket allation fitting		1 1 2 2 1 5 5 1 2 2 1 2 1 2 2 1 2 1 2 2 1 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	ed			
Acces Please make Please make Please make Please make Please make	SSORIES sure that you have ① Receiver ② Wiring (3m) ③ Parts set (A) ④ Parts set (B) ⑤ Parts set (C) ⑥ Installation manual Tration befor Site Eiver has the	all of the	e foll 1 1 1 1 1 1 1 tall Preventure R	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre ② Screv ③ Insta ⑤ Insta	ries. less remote control (RCN-E2) tote control holder w for holder dry cell battery (LR03) *s manual w for receiver ng band np w for clamp eiver installation bracket v for the bracket allation fitting ON : Normal O [ON : Master] O	€	1 1 2 1 2 1 5 5 1 2 2 1 2 2 1 2 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ed			
Acces Please make Please make Please make Please make  Please make  Please make Pleas	SSORIES sure that you have          ① Receiver         ② Wiring (3m)         ③ Parts set (A)         ④ Parts set (B)         ⑤ Parts set (C)         ⑥ Installation manual	all of the	e foll 1 1 1 1 1 1 1 tall Prevenue dur R	owing a	CCESSO ① Wire ② Rem ③ Scre ④ AAA ⑤ Usel ① Scre ② Fixir ③ Clan ④ Scre ② Screv ③ Insta ⑤ Insta ⑤ Insta ③ Insta	ries. less remote control (RCN-E2) tote control holder w for holder dry cell battery (LR03) *s manual w for receiver ig band np w for clamp eiver installation bracket v for the bracket allation fitting ON : Normal ON : Master O	<pre></pre>	1 1 2 1 2 1 5 5 1 2 2 1 2 2 1 5 5 1 2 2 2 1 5 5 5 5 5 5 5 5 5 5 5 5 5	ed			



# **③** How to install the receiver(continued)

(5) Take out the connector to the backside from the hole of the lower case putting through the wiring at ①.
(6) Fit the upper case and the lower case, and tighten the screws.

### (B) Installation with enclosed bracket



- ① Catch the two protrusion of the enclosed bracket onto the fitting as shown above, and temporarily fix with the screws. (The bracket has an Upper/Lower and front/back orientation. Confirm the Upper/Lower protrusion positions and the positional relation of the ø10 holes on the bracket and the installation hole on the lower case with the above drawing.)
- ② Insert the end of the installation fitting into the back of the ceiling from the opening, and tighten the screws to fix the bracket onto the ceiling.
- ③ Pass the wiring from the rear side through the hole on the lower case.
- ④ Fit 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.)
- (5) Follow step (1) to (6) for (A) to complete the installation.





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	0.3 mm² × 100m						
	Within	0.5 mm² × 200m						
	Within	0.75mm² × 300m						
	Within	1.25mm² × 400m						
	Within	2.0 mm <sup>2</sup> × 600m						
			-					

# **(5)** Receiver (continued)

### For the shop series

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.


# **(5)** Receiver (continued)



#### How to read the 6-digit display

A 6-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 unit 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 unit, while the backup switch is depressed.

# 3.1.4 FDE series (RCN-E-E3)

#### (1) Specification

Receiver



Notes (1) Two LR03 AAA dry cell batteries for remote control are enclosed.

(2) See spec sheet of "Wireless remote control" about remote control.

Setting switch on PCB of receiver

133.4

SW1	Prevent interference during plural setting	ON: Normal OFF: Remote
SW2	Receiver master/ slave setting	ON: Master OFF: Slave
SW3	Buzzer	ON:Valid OFF:Invalid
SW4	Auto restart	ON : Valid OFF : Invalid

Default setting: mark



#### Remote control



#### Remote control holder



#### Installation of wireless kit

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 AC unit(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
- communication with the remote control

Wireless remote control's operable area

- ① Standard signal receiving range
  - [condition] Illuminance at the receiver area:360lux. (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:360lux.



Unit:mm

PFA004Z079

- 253 -

PFA012D635

#### (2) Installation manual

# 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. ▲ Never do. ▲ Always follow the instructions given. 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, this manual should be given to a new owner.

(	
0	• Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
	<ul> <li>Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.</li> </ul>
	<ul> <li>Be sure to use accessories and specified parts for installation work.</li> <li>Use of unspecified parts may result in drop, fire or electric shocks.</li> </ul>
0	<ul> <li>Install the unit properly to a place with sufficient strength to hold the weight.</li> <li>If the place is not strong enough, the unit may drop and cause injury.</li> </ul>
0	• Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.
0	<ul> <li>Shut OFF the main power source before starting electrical work.</li> <li>Otherwise, it could result in electric shocks, break-down or malfunction.</li> </ul>
$\bigcirc$	<ul> <li>Do not modify the unit. It could cause electric shocks, fire, or break-down.</li> </ul>
0	• Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
$\otimes$	• 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.
$\bigcirc$	• Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.
$\bigcirc$	<ul> <li>Do not use the unit in a place where it gets wet, such as laundry room.</li> <li>It could cause electric shocks, fire, or break-down.</li> </ul>
$\bigcirc$	• Do not operate the unit with wet hands. It could cause electric shocks.

O       • Do not wash the unit with water. 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.         ●       • 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.         ●       • 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.         ●       • 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.         ●       • Lould cause maffunction or break-down due to hazardous effects on the inverter, privat power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment ecould disrupt medical activities, video broadcasting or cause noise interference.         ●       • Do not leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down to could cause break-down or deformation of remote control.         (1)       Places encer heat devices       (8)       Places where the receiver is influenced							
<ul> <li>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. When installing the unit at a hospital, telecommunication facility, etc., tak measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, privat power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or ommunication equipment could disrupt medical activities, video broadcasting or cause noise interference.</li> <li>O no to leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down or deformation of remote control. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down or deformation of remote control. If leaves exposed to direct sunlight (a) Places exposed to direct sunlight (b) Places near heat devices (c) High humidity places (c) High humidity places (c) Places near heat devices (c) Places or cold surface enough to (c) Places seposed to oil mist or steam directly (10) Places where the receiver is affected by infrare rays of any other communication devices. (c) Places affected by the direct air flow of the AC unit. (c) Places affected by the direct air flow of the AC unit. (c) Places affected by the direct air flow of the AC unit. (c) Places make sure that you have all of the following accessories. (c) Places make sure that you have all of the following accessories. (c) Places make sure that you have all of the following accessories. (c) Places make sure that you have all of the following accessories. (c) Places make sure that you have all of the following accessories. (c) Places were that you have all of the following accessories. (c) Place sure to the device the following accessories. (c)</li></ul>	$\overline{\bigcirc}$	• Do not wash the unit with water.  It could cause electric shocks, fire, or break-down					
<ul> <li>electronic parts from external forces. Improper connections or fixing could cause heat generation, fire, etc.</li> <li>When installing the unit at a hospital, telecommunication facility, etc., tak measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, privat power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down it could cause break-down or deformation of remote control. (1) Places exposed to direct sunlight (2) Places near heat devices (3) Places near heat devices (4) Hot surface or cold surface enough to (5) Places supposed to alimist or steam directly (10) Places where the receiver is affected by infrare rays of any other communication devices. (5) Places seposed to oil mist or steam directly (10) Places where bene object may obstruct the (6) Uneven surface (7) Places affected by the direct air flow of the AC unit. (1) Places affected by the direct air flow of the AC unit. (2) Places make sure that you have all of the following accessories. (3) Installation manual (4) Wireles remote control (RON-E2) 1 (5) Places transet 1 (6) Uneven surface (7) Places af</li></ul>	$\overline{0}$	• Use the specified cables for	wiring, and connec	t them secure	ly with	care to protect	
<ul> <li>When installing the unit at a hospital, telecommunication facility, etc., tak measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, privat power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment excluded disrupt medical activities, video broadcasting or cause noise interference.</li> <li>Do not leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down frequency is a statistical from the remote control.</li> <li>Places exposed to direct sunlight</li> <li>Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.</li> <li>High humidity places</li> <li>Places where the receiver is affected by infrare generate condensation</li> <li>Places where the receiver is affected by infrare rays of any other communication devices.</li> <li>Places affected by the direct air flow of the AC unit.</li> <li>Places make sure that you have all of the following accessories.</li> <li>Installation manual in the statistical flow of the AC unit.</li> <li><u>Places were that you have all of the following accessories.</u></li> <li><u>Places were that you have all of the following accessories.</u></li> <li><u>Places were that you have all of the following accessories.</u></li> <li><u>Places were that you have all of the following accessories.</u></li> <li><u>Place were that you have all of the f</u></li></ul>		electronic parts from externa	Il forces.	ation fire ato			
<ul> <li>measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, privat power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment, etc. The influences transmitted from the remote control to medical or 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.</li> <li>Do not leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down to could cause break-down or deformation of remote control. I Places exposed to direct sunlight Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight. High numidity places (5) Places exposed to oil mist or steam directly (10) Places where the receiver is affected by infrare rays of any other communication devices. (5) Places suffacted by the direct air flow of the AC unit. Communication with the remote control (7) Places affected by the direct air flow of the AC unit. Places make sure that you have all of the following accessories. I Receiver 1 1 I restaliation manual 1 I wring 1 I</li></ul>		When installing the unit a	t a hospital telec	ommunicatio	n fac	ility etc. take	
<ul> <li>Do not leave the remote control with its PCB case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down              <b>A CAUTION</b> </li> <li>Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.         </li> <li>Places exposed to direct sunlight         <ul> <li>Places near heat devices</li> <li>Places near heat devices</li> <li>Places exposed to oil mist or steam directly (10) Places where the receiver is affected by infrare rays of any other communication devices.</li> <li>Places suffected by the direct air flow of the AC unit.         </li> </ul> </li> <li>Accessories         <ul> <li>Places exposed to diffect air flow of the AC unit.</li> </ul> </li> <li>Places where that you have all of the following accessories.         <ul> <li>Receiver</li> <li>Installation manual</li> <li>Image: Image:</li></ul></li></ul>	0	measures to suppress electr It could cause malfunction or b power generator, high frequency The influences transmitted from could disrupt medical activities,	ic noises. reak-down due to ha medical equipment, ra the remote control to video broadcasting or	zardous effects adio communica o medical or co cause noise inte	s on the ation ec mmuni erference	e inverter, private quipment, etc. cation equipmen ce.	
CAUTION      On ot install the wireless kit at the following places in order to avoid malfunction.     It could cause break-down or deformation of remote control.     (1) Places exposed to direct sunlight     (2) Places near heat devices     (3) High humidity places     (4) Hot surface or cold surface enough to     (9) Places where the receiver is affected by infrare     generate condensation     (5) Places exposed to oil mist or steam directly     (10) Places where some object may obstruct the     (6) Uneven surface     (7) Places affected by the direct air flow of the AC unit.      (7) Places affected by the direct air flow of the AC unit.      (1) Places make sure that you have all of the following accessories.      (1) Places remote control (RCN-E2)      (1) Places the to control holder     (1) Places that the following accessories	0	• Do not leave the remote cont If dew, water, insect, etc. enters the	trol with its PCB cas rough the hole, it could	se removed. cause electric sh	nocks, f	fire or break-down	
<ul> <li>Do not install the wireless kit at the following places in order to avoid malfunction. It could cause break-down or deformation of remote control.</li> <li>(1) Places exposed to direct sunlight</li> <li>(2) Places near heat devices</li> <li>(3) High humidity places</li> <li>(4) Hot surface or cold surface enough to generate condensation</li> <li>(5) Places exposed to oil mist or steam directly</li> <li>(10) Places where some object may obstruct the (6) Uneven surface</li> <li>(7) Places affected by the direct air flow of the AC unit.</li> <li>(9) Accessories</li> <li>Please make sure that you have all of the following accessories.</li> <li>1 Receiver</li> <li>1 / 2 Parts set</li> <li>1 / 3 Installation manual</li> <li>1 / 4 Wiring</li> </ul>							
Please make sure that you have all of the following accessories.         1       Receiver         2       Parts set         3       Installation manual         4       Wiring	<ul> <li>(2) Places near heat devices the fluorescent lamp (especially inverter type) or sunlight.</li> <li>(3) High humidity places type) or sunlight.</li> <li>(4) Hot surface or cold surface enough to generate condensation (5) Places exposed to oil mist or steam directly (10) Places where some object may obstruct the communication with the remote control (7) Places affected by the direct air flow of the AC unit.</li> </ul>						
Image: serie that you have all of the following accessiones.         1       Receiver       1         2       Parts set       1         3       Installation manual       1         4       Wiring       1         6       User's manual       1         1       1       1		(7) Places affected by the direct air flow	of the AC unit.				
1       Accelver       1         2       Parts set       1         3       Installation manual       1         4       Wiring       1         6       Windust reinder control holder       1         3       Installation manual       1         6       User's manual       2         6       User's manual       1		(7) Places affected by the direct air flow	of the AC unit.				
2     Parts Set     1       3     Installation manual     1       4     Wiring     1       5     User's manual     1	1 Ac Please	(7) Places affected by the direct air flow	of the AC unit.	te control (BCN-E2)		1	
3 Installation manual       1         4 Wiring       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         4 Wiring       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual         Image: Constallation manual       Image: Constallation manual	1 Ac Please	(7) Places affected by the direct air flow	of the AC unit.	te control (RCN-E2)		1 1	
4 Wiring 6 User's manual 1	1 Ac Please	(7) Places affected by the direct air flow	of the AC unit.	te control (RCN-E2) rol holder		1 1 2	
	1 Ac Please	(7) Places affected by the direct air flow CCESSORIES make sure that you have all of the for 1 Receiver 1 2 Parts set 1 3 Installation manual 1 1	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03)		1 1 2 2	
	1 Ac Please	(7) Places affected by the direct air flow CCESSORIES make sure that you have all of the for 1 Receiver E: 1 2 Parts set 1 3 Installation manual 1 4 Wiring 0 1 0 0 1 0 0 1 0 0 0 1 0	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03)		1 1 2 2 1	
	1 Ao Please	(7) Places affected by the direct air flow CCESSORIES make sure that you have all of the for 1 Receiver 1 2 Parts set 1 3 Installation manual 1 4 Wiring 1 eparation before instal	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03)		1 1 2 2 1	
Setting on site	1 Ao Please 2 Pro	(7) Places affected by the direct air flow CCESSORIES make sure that you have all of the for 1 Receiver 1:1 2 Parts set 1 3 Installation manual 1 4 Wiring 1 Eparation before instal on site	of the AC unit.	te control (RCN-E2) ol holder der pattery (LR03)		1 1 2 2 1	
Setting on site PCB on the receiver has the following switches to set the function. Default setting is shown with mark.	Ac Please     Please     Provements     Prove	(7) Places affected by the direct air flow CCESSORIES make sure that you have all of the for 1 Receiver 1 2 Parts set 1 3 Installation manual 1 4 Wiring 1 eparation before instal on site the receiver has the following switches etting is shown with mark.	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03)		1 1 2 2 1	
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         OFF : Customized	Action     Please     Please     Please     Provement     Setting     PCB on th     Default set     Sw1	(7) Places affected by the direct air flow	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03) I		1 1 2 2 1	
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         OFF : Customized         SW2       Receiver master/slave setting	Please     Please     Please     Pro     Setting     PCB on th     Default set     Sw1     Sw2	(7) Places affected by the direct air flow         ccessories         make sure that you have all of the for         1         2       Parts set         1         2       Parts set         3       Installation manual         4       Wiring         0       0         eparation before insta         on site         he receiver has the following switches         etting is shown with mark.         Prevents interference during plural setting         Receiver master/slave setting	of the AC unit.	te control (RCN-E2) rol holder der pattery (LR03) I		1 1 2 2 1	

ON : Valid OFF : Invalid

SW4

Auto restart







# **(5) Wireless remote control (continued)**

2. Setting details The following functions can be set.

Button	Number indicator	Function setting
	00	Fan speed setting : Standard
FAN SPEED	01	Fan speed setting : Setting 1 *
	02	Fan speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
NODE	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
FILTER	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
(Up/Down)	01	Anti draft setting : Enable
	00	Infrared sensor setting (Motion sensor setting) : Disable
SILENI	01	Infrared sensor setting (Motion sensor setting) : Enable
	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
	00	Remote control signal receiver LED : Brightness High
NIGHI	01	Remote control signal receiver LED : Brightness Low
OLIDAON	02	Remote control signal receiver LED : OFF



# **(6)** Receiver (continued)

#### Wireless remote control's operable area

- 1. Standard signal receiving range [Condition] Illuminance at the receiver area: 300 lux.
- (When no lighting fixture is located within 1m of indoor unit in an ordinary office)



#### **Backup switch**

A backup switch is provided on the receiver section of the panel surface. When operation from the wireless remote control unit 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.

- If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling 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 unit, 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 exerct the unit property during a test run, please check wiring by consulting
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

#### 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 unit 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 unit, while the backup switch is depressed.

2. Points for attention in connecting a plural number of indoor units [Condition] Illuminance at the receiver area: 300 lux.

5m (Top view)



# **3.2 MOTION SENSOR KIT**

# 3.2.1 FDT series(LB-T-5BW-E, LB-T-5BB-E)

(1) Specification

#### Motion sensor kit



Installation position of motion sensor kit



Note

(1) Motion sensor must be installed to the position as shown.

Unit:mm

#### Installation of motion sensor kit Do not install the motion sensor 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) Places affected by the direct airflow of the indoor unit
- (7) Places where the motion sensor is influenced
- (7) Places where the motion sensor is initialenced by the fluorescent lamp or sunlight
  (8) Places where the motion sensor is affected by infrared rays of any other communication devices
  (9) Places where some object may obstruct the motion appage.
- motion sensor

Standard detectable area



Height of the ceilir	ng h[m]	2.7	3.5	4.0
Dotostable area	$\phi$ a[m]	about 4.5	about 6.4	about 7.6
Delectable alea	$\phi$ b[m]	about 6.4	about 8.3	about 9.5

PJF000Z730

#### (2) Installation manual

# PJF012D036

# Marke sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.

# 

• Do not install the motion sensor kit at the following places in order to aboid 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) Places affected by the direct air flow of the Indoor unit
- (7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight
- (8) Places where the motion sensor is affected by infrared rays of any other communication devices
- (9) Places where some object may obstruct the motion sensor

Do not leave the motion sensor without the cover.
 In case the cover needs to be detached, protect the motion sensor with a packaging 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.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

1

# **1** Accessories

Please make sure that you have the motion sensor.

Motion sensor



# (2) Installing the motion sensor

It is possible to install the motion sensor by replacing with a corner lid on the panel.





Hight of the ceiling	h[m]	2.7	3.5	4.0
Detectable scope	$\phi$ a[m]	about 4.5	about 6.4	about 7.6
Detectable scope <sup>2</sup>	$\phi$ b[m]	about 6.4	about 8.3	about 9.5

# Preparation before installation

- ① Install the panel onto the indoor unit according to the installation manual for the panel.
- 2 Remove the inlet grille.
- ③ Remove the corner lid (A) located on the panel.
- ④ Loosen 2 screws for the control lid. (It is unnecessury to remove the screws.)
- (5) Slide the control lid, and open and remove it.



# Installation of the motion sensor

- ① Loosen the bolts which fix the panel, and make a gap between the panel and the indoor unit.
- 2 Pass the wiring of the motion sensor through the opening of the panel.
- ③ Hang the wiring on the hook which is on the panel's inside.
- ④ Pass the wiring through the opening of the control box.
- (5) Connect the connecter to CNL(3P,Black) on PWB in the contorl box.
- 6 Tighten the bolts which fix the panel.
- O Install the motion sensor on the panel.
- $\circledast$  Fix the motion sensor by the screw.
- (9) Reinstall the control lid, and tighten 2 screws.



# **③** Setting the motion sensor

The motion sensor will not function if it is only installed. Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older. Wired:RC-EX1A, RC-E5, RCH-E3 Wireless: RCN-E1R

# 3.2.2 FDTC series (LB-TC-5W-E)

#### (1) Specification

#### Motion sensor kit



Installation position of motion sensor kit



Note

(1)Motion sensor must be installed to the position as shown.

Unit:mm

#### Installation of motion sensor kit

Do not install the motion sensor kit at the following

- Do not install the motion sensor kit at the folio places in order to avoid malfunction. (1)Places exposed to direct sunlight (2)Places near heat-generating devices (3)High humidity places
- (4)Hot surface or cold surface
- enough to generate condensation
- (5)Places directly exposed to oil mist or steam (6)Places affected by the direct airflow of the indoor unit
- (7)Places where the motion sensor may be influenced by fluorescent lamp or sunlight
- (8)Places where the motion sensor may be affected by (9)Places where some object may obstruct the
- motion sensor
- (10)Places where there may be impact on the motion sensor
- (11)Places with strong radio wave or static electricity
- (12)Dusty place where the motion sensor
  - lens may become tainted or be damaged



Height of the ceilir	ng h[m]	2.7	3.5	4.0
Detectable area	$\phi$ a[m]	about 4.5	about 6.4	about 7.6
Delectable area	$\phi$ b[m]	about 6.4	about 8.3	about 9.5

#### PJF000Z509

PJF012D504



- Instruct the customer how to operate the motion sensor kit correctly by 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 all components are in the package.

Motion sensor

1

# (2) Installing the motion sensor

It is possible to install the motion sensor by replacing the corner lid on the panel.



Height of the ceiling	h[m]	2.7	3.5	4.0
Detectable area	$\phi$ a[m]	about 4.5	about 6.4	about 7.6
Detectable area <sup>(2)</sup>	$\phi$ b[m]	about 6.4	about 8.3	about 9.5

# Preparation before installation

- ① Remove the inlet grille according to the installation manual of the panel.
- ② Remove the corner lid at the drain pipe side.
- ③ Loosen screws (2 pcs.) on the control box of the unit. (It is not necessary to remove the screws.)
- 4 Slide the control lid in the arrow direction, and remove it.





# **③** Setting the motion sensor

The motion sensor will not function if it is only installed. Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older ones. Wired:RC-EX1A, RC-E5, RCH-E3 Wireless: RCN-E1R

## 3.2.3 FDU, FDUM series (LB-KIT2)



#### Installation precautions

Do not install the motion sensor 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 air flow of the AC unit
- (8) Places where the motion sensor is influenced by the fluorescent lamp (especially inverter type) or sunlight
- (9) Places where the motion sensor is affected by infrared rays of any other communication devices
- (10) Place that the motion sensor have a shock
- (11) Place with the strong radio wave or static electricity
- (12) Place that motion sensor lens become tainted or have damaged.Dusty place
- (13) Do not run in parallel with strong voltage lines such as power source wiring

Wiring connection



#### (2) Installation manual

# PJZ012D134



 $\boldsymbol{\varnothing}$  Please prepare a relay wiring for connecting the motion sensor and indoor unit on site. (0.2mm<sup>2</sup> or thicker, triplex (red, white and black) cable for communication, with the maximum length of 8m.)

# 2 Installing the motion sensor

- The recommended height is lower than 4000mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- · Sensor will detect the object with a different temperature from the surrounding.
- · Sensor may not detect small children or infants with little motion.
- Although motion sensor can be installed on a wall, it is recommended to install it on the ceiling plane.
- If the sensor is installed on the wall, the sensing distance in the front direction is about 5m, covering the angle of about 100 degrees.



Side of screws for fixing the case





Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	$\phi$ A (m)	4.5	6.4	7.6
Detectable area	$\phi$ B (m)	6.4	8.3	9.5

# Installing the motion sensor

There are the following 3 methods to install the motion sensor on the ceiling plane or wall surface (hereinafter called "ceiling plane"). Select the method according to the installation position.

#### <How to install>

- (A) Direct installation by screws to the ceiling plane with the wiring in the ceiling space.
- (B) Direct installation by screws to the ceiling plane with the wiring in the room.
- (C) Installation with switch box (prepare at the site)



Positional relation for pulling out relay wiring hole and installing holes.



## Option (B)

- Select this method if the ceiling plane has sufficient strength to install the motion sensor directly with screws.
- Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. (The same as ② of Option (A))
- ② Pull the wiring of the motion sensor toward the side. Cut off the thinner part of the upper case.



(2) Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. \_ower case (The same as (2) of Option (A)) ③ Pull the wiring of the motion sensor. (The same as (3) of Option (A)) (4) Pass the relay wiring through the hole on the lower case from switch box. Installing hole (5) Fix the lower case to switch box using the installing Switch box installing hole hole (1 place). Fix to the switch box Lower case 100% Installing hole Install to the ceiling plane Switch box Installing hole (6) Connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor. (The same as (6) of Option (A)) ⑦ Place the connecting part between switch box and the hole of the lower case through passed the wiring at step (4). (8) Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws. (The same as (9) of Option (A))  $\cap$ Wiring connection in the control box of indoor unit CAUTION: Attached wirings to the motion sensor vary depending on the model of the indoor unit. Make sure your model before installing. <In case of the CnL connector is on the indoor unit PCB (FDT/FDK/FDTC)> ① Connect the same color to the relay wiring (prepare on site) and the attached wiring <1>. 2 Remove the control box cover from the indoor unit. (3) Connect CnL connector (3P, black) to the PCB. CnL connector (3P, black) White White Connect Red Red wirings with the Black same colors Black Relay wiring Attached wiring to (prepare on site) motion sensor <1>



#### Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

# 3.2.4 FDE series (LB-E)

(1) Specification

# Motion sensor kit



#### Installation position of motion sensor kit Motion



Note

1. The recommended height, is lower than 4m for motion sensor.

When the installation height is higher, motion detection accuracy might be reduced.

#### Installation of motion sensor kit

DO NOT install the motion sensor kit at the following places in order to avoid malfunction.

- 1) Places exposed to direct sunlight
- ) Places near heat devices ) High humidity places 2 3
- 4) Hot surface or cold surface
- enough to generate condensation ) Places exposed to oil mist or steam directly 5
- 6 Uneven surface Ś
- 7 ) Places affected by the direct airflow of the AC unit
- (8) Places where the motion sensor is influenced by the fluorescent lamp (especially inverter type) or sunlight
- (9) Places where the motion sensor is affected by infrared rays of any other communication devices
- 1 0 ) Place that the motion sensor have a shock
- 1 1 ) Place with the strong radio wave or static electricity
- (12) Place that motion sensor lens become tainted or have damaged Dusty





High of the ceiling	h[m]	2.7	3.5	4.0
Detectable area	A[m]	2.9	3.9	4.5
Detectable area	φA[m]	4.5	6.4	7.6
Detectable area	B[m]	3.9	4.8	5.4
Detectable area	φB[m]	6.4	8.3	9.5

#### PFA004Z077

#### PFA012D633 🛦

#### (2) Installation manual

# Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB. Loose connection or hold will cause abnormal heat generation or fire. Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.

- Do not install the motion sensor 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 (10) Place that the motion sensor have a shock
  - (6) Places affected by the direct air flow of the Indoor unit
  - (7)Places where the motion sensor is influenced by the fluorescent lamp or sunlight
- (8) Places where the motion sensor is affected by infrared rays of any other communication devices (9) Places where some object may obstruct the
  - motion sensor
- (11) Place with the strong radio wave or Static
- electricity
- (12) Place that motion sensor lens become tainted or have damaged. Dusty place
- Do not leave the motion sensor without the cover. In case the cover needs to be detached, protect the motion sensor with a packaging or bag.
  - In order to keep it away from water and dust.

#### Attention

- · This manual describes how to install the motion sensor kit.
- 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 all components are in the package.



# (2) Installing the motion sensor

- It is possible to install the motion sensor by replacing the indoor unit.
- The recommended height is lower than 4000mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- Sensor will detect the object with a different temperature from the surrounding.
- · Sensor may not detect small children or infants with little motion.
- Use the separate motion sensor so that person's activity can be detected when the detectable area differs from the person's activity area.
- Use the separate motion sensor when using both wireless remote control and motion sensor together.



# The detectable area



Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	A (m)	2.9	3.9	4.5
Detectable area	φ A (m)	4.5	6.4	7.6
Detectable area	B (m)	3.9	4.8	5.4
Detectable area	φ B (m)	6.4	8.3	9.5



**CAUTION**: Connect the connectors before installing the motion sensor.

In case of connecting after the motion sensor has been installed, it will be necessary to remove the panel.

# Wiring connection in the control box

- ① Connect the wiring from the motion sensor (attached to the indoor unit, color of the wiring: white, red and black, connector: 3P, white) to the attached wiring to the motion sensor kit.
- ② Fix the wiring with clips (6 places).
- ③ Connect CnG connector (4P, blue) to the PCB.
- ④ Connect CnV2 connector (4P, black) to the PCB.



# **③** Setting the motion sensor

The motion sensor will not function if it is only installed.

Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older. Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

# 3.2.5 User's manual

PJZ012A164

# SAFETY PRECAUTIONS

# 

If a child, person with disease or other persons needed for assist uses this product, people around the person should take sufficient care.

A halt of the air-conditioner due to abnormal situation or motion sensor's control may cause a feeling of sickness or accident.

# **ATTENTION**

- The sensor may not detect a person near the border of detection range.
- Installation near an object with a different temperature from the surrounding may cause a false detection of human.
- Due to correction of temperature setting, some people may feel chilly.

This product uses infrared sensor to detect person's activity level to support control of air-conditioner. Please set the control you like from the remote control.

Indoor unit control	Detective situation	Description of control	Display of eco touch remote control
(1) Power control	Activity level is large	Lower the indoor temperature setting for comfort.	Power control ON
	Activity level is small	Raise the indoor temperature setting for energy-saving.	Power control ON
Auto off     ■	No one is detected for 1 hour.	Stop operation and stand by	In auto-off mode
2 Auto-on	No one is detected for 12 hours.	Stop operation	-
1+2	Any combination of the above	Any of the above	Any of the above
All disabled (default setting)	-	Standard control	-

If the sensor is disconnected or defective, the control will be set as if it no detects (or less) activity level.

Refer to the next section for setting method. Menu

Direction

22

- 11

- When power control is enabled
- The amount of human motion is detected by a motion sensor to adjust the Set temp.

During power control, "Power control ON" will be displayed on the message display.

F2: Energy-sa Menu 16:32 (Mon) Direction Cooling Set temp -70 23 **23.0**° Time \$\$ 0 - 11 I In auto-off F2: Energy-saving 1: High po

**23.0**°c

20·20 (Tue)

Heating

÷6;

Time Ð

Power control ON

- When auto-off is enabled
- The unit will enter the "Operation wait" state when an hour has elapsed since the last time a human presence was detected and will be in "Complete stop" state after another 12 hours.
- "Operation wait"...The unit stops but will resume operation when human presence is detected. When the unit is in "Complete stop", "In auto-off mode" will be displayed on the message display.
- "Complete stop"...When auto-off is enabled, the unit stops. The unit will not resume operation even when human presence is detected. The message "In auto-off mode" will disappear from the message display, and the operation lamp will turn off.



# **3.3 SIMPLE WIRED REMOTE CONTROL (RCH-E3)**

Note: 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 (P-Hi/Hi/Me/Lo) → 3-fan speed setting (Hi/Me/Lo)



- (2) Places near heat devices
- (3) High humidity places
- (5) Places exposed to oil mist or steam directly
- (6) Uneven surface

PJZ000Z272

<sup>(4)</sup> Hot surface or cold surface enough to generate condensation
In case of embedding wiring



But, the wiring in the remote control case should be 0.3mm<sup>2</sup> (recommended) to 0.5mm<sup>2</sup>. 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 <sup>2</sup> × 2 cores
Under 300m	0.75mm <sup>2</sup> × 2 cores
Under 400m	1.25mm <sup>2</sup> × 2 cores
Under 600m	2.0mm <sup>2</sup> × 2 cores

Remote control installation dimensions

Adapted to **RoHS** directive





ditte

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 "  $\bigcirc$  ", 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		Switch No.	Setting	Setting detail	Initial setting	OFF
CW1 1	ON	Slave remote control		1	CWH E	ON	"TEMP" button prohibited		1
OFF OFF	0FF	Master remote control	0			0FF	"TEMP" button enabled	0	$\subseteq$
CWH 0	ON	Remote control temperature sensor enabled		1	CW1 C	ON	"FAN SPEED" button prohibited	※ Note 1	
5W1-2 0FF	OFF	Remote control temperature sensor disabled	0	]	5W1-0	OFF	"FAN SPEED" button enabled	% Note 1	
CW1 2	ON	"MODE" button prohibited		]	CW1 7	ON	Auto restart function enabled		<ul> <li>As for the</li> </ul>
SW1-3	OFF	"MODE" button enabled	0	]	3W1-7	OFF	Auto restart function disabled	0	than SW1
CWH A	ON	"ON/OFF" button prohibited		]	CW1 0 0 0	ON	Naturand		<ul> <li>In the indo</li> </ul>
SW1-4	OFF	"ON/OFF" button enabled	0	]	SW1-8, 9, 0	OFF	NUL USEU		be enabled

SW1 U 1 2 3 4 5 6 7 8 9 0 0 slave remote control, function setting is impossible other

#### -1 or unit with only one fan speed, "FAN SPEED" button cannot

#### $(\mathbf{2}) \quad \textbf{Function setting item by button operation}$

Classification	Function	No. Func	ction	Setting No.	Setting	Initial setting			Ren	arks		
				01	Fan speed: three steps	* Note 1	The fan speed	is three steps, 🕸 🖬 🖬	- \$\$ am - \$\$ a.			
1				02	Fan speed: two steps (Hi-Lo)	% Note 1	The fan speer	is two steps. St ===	Х н.			
	01	Indoor unit	fan speed	03	Fan speed: two steps (Hi-Mo)		The fan eneor	is two steps	St and			
				03	Fail speed, two steps (TII-We)	W Note 4	The fan an ac	is two steps, ••				
				04	ran. one step	* NULE I	The fail speed	is lixed to one step.				
				01	Remote control temperature sensor: no oliset	0						
				02	Remote control temperature sensor: +3.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offset temperat	ture at +3.0°C.	
		Remote con	ntrol	03	Remote control temperature sensor: +2.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offset temperat	ture at +2.0°C.	
	03	thermistor a	at the time	04	Remote control temperature sensor: +1.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offset temperat	ture at +1.0°C.	
	of cooling			05	Remote control temperature sensor: -1.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offset temperat	ture at -1.0°C.	
				06	Remote control temperature sensor: -2.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offset temperat	ture at -2.0°C.	
Remote				07	Remote control temperature sensor: -3.0 °C		At the time of	cooling, in the case of	remote control temperature ser	sor enabled, offsett tempera	iture at -3.0°C.	
control				01	Remote control temperature sensor: no offset	0						
function				02	Remote control temperature sensor: +3.0 °C		At the time of	heating, in the case of	remote control temperature ser	isor enabled, offset temperat	ture at +3.0°C	
		Domoto con	strol	03	Remote control temperature sensor: +2.0 °C		At the time of	heating, in the case of	remote control temperature ser	isor enabled, offset temperat	ture at +2 0°C	
	04	thermistor	at the time	04	Remote control temperature sensor: +1.0 °C		At the time of	heating, in the case of	remote control temperature ser	isor enabled, offset temperat	ture at +1.0°C	
	04	of heating	at the time	05	Pomote control temperature concorr -1.0 °C		At the time of	heating, in the case of	remote control temperature ser	isor enabled, offset temperat	turo at -1.0°C	
		or notating		00	Denote control temperature sensor1.0 C		At the time of	heating, in the case of	remote control temperature ser	isor enabled, offset temperal	ture at 0.000	
				06	Remote control temperature sensor: -2.0 °C		At the time of	neaung, in the case of	remote control temperature ser	isor enabled, onset temperal	ture at -2.0°C.	
				07	Remote control temperature sensor: -3.0 °C	~	At the time of	neating, in the case of	remote control temperature ser	isor enabled, offset temperat	ture at -3.0°C.	
	05	Mandiladian		01	No ventilator connection	0					-	
	05	venulation	setung	02	Ventilator links air-conditioner		In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in cas connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operatio			circuit board (in case of VRF serie ked with the operation of indoor uni		
	06	"Auto" oper	ration	01	"Auto" operation enabled	※ Note 1						
		setting		02	"Auto" operation disabled	% Note 1	"Auto" operat	ion disabled				
	07	Operation p	ermission/	01	Disabled	0						
	U/	prohibition		02	Enabled		Operation per	mission/prohibition con	trol is enabled.			
		- · ·		01	Level input	0						
	80	External inp	out	02	Pulse input							
		_		01	Standard	% Note 2						
	00	Fan sneed s	ottina	02	High speed 1	W Note 2						
	0.5	i an spece	02		High apond 0	X Note 2						
				03	nigii speeu z	% NULE Z	A4					
		Fan remain	ina	01	No remaining operation	0	Alter couling s	ater cooling stopped, no fan remaining operation				
	10	operation at	at the time	02	U.5 nours		After cooling s	Increased for remaining operation for 1 hour				
	of cooling			03	1 hour		After cooling s	arer cooling stopped, fan remaining operation for i nour				
			04	6 hours		After cooling stopped, fan remaining operation for 6 hours						
		Ean romain	ina	01	No remaining operation	0	After heating	stopped or after heating	g thermostat OFF, no fan remair	iing operation		
	11	oneration at	t the time	02	0.5 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 0.5 hours After heating stopped or after heating thermostat OFF, fan remaining operation for 2 hours					
		of heating		03	2 hours							
Indoor unit				04	6 hours		After heating	stopped or after heating	g thermostat OFF, fan remaining	operation for 6 hours		
function				01	No offset	0						
Turretion		Setting tem	perature	02	Setting temperature offset + 3.0 °C		The setting te	mperature at the time of	of heating is offset by +3.0 °C.			
	12	offset at the	e time of	03	Setting temperature offset + 2.0 °C		The setting te	mperature at the time (	of heating is offset by +2.0 °C.			
		nearing		04	Setting temperature offset + 1.0 °C		The setting te	mperature at the time of	of heating is offset by +1.0 °C.			
	<u> </u>	-		01	I ow fan speed	% Note 1	At the time of	heating thermostat OF	F. operate with low fan sneed			
1				02	Setting fan speed		At the time of	eating thermostat OFF	onerate with the setting fan snee	d		
	13	Heating for	controller	02	Intermittent operation	X Noto 1	At the time -4	hosting thermostat OFF,	intermittently seconds	u.		
		inouring full		03	intermittent operation	<sup>™</sup> NULE I	At the time of	heating thermostat OF	r, mennillenuy operate.			
		_		04	Fan off	<u></u>	When the rem	ote control thermistor is	s enabled, automatically set to "	Fan off". Do not set at the tir	me of the indoor unit temperature s	
				01	NO OTISEL	0	077 1 11 1					
				U2	netum air temperature offset +2.0 °C		Unser the ret	in air temperature of t	ne indoor unit by +2.0 °C.			
		Return air te	emperature	03	Return air temperature ottset +1.5 °C		Unset the retu	im air temperature of t	ne indoor unit by +1.5 °C.			
	14	offset		04	Return air temperature offset +1.0 °C		UTISET the retu	im air temperature of t	ne indoor unit by +1.0 °C.			
				05	Return air temperature offset -1.0 °C		UTTSET THE retu	im air temperature of t	ne indoor unit by -1.0 °C.			
				06	Return air temperature offset -1.5 °C		UTTSET THE retu	im air temperature of t	ne indoor unit by -1.5 °C.			
L				07	Return air temperature offset -2.0 °C		Offset the retu	im air temperature of t	he indoor unit by -2.0 °C.			
Note 1. The sumb	ol" ※ " ir	the initial setting	na varias da	nendina unon the	indoor unit and the outdoor unit to be con	nected and t	hie ie	Note 2: Fan sneed of	"High speed" setting			
automatic	ally daterm	ined as follower	-9 varios de	ponoing upon the		mootou, and t	10		ingn opeed betaing	ndoor unit fan sneed sotting		
automatic	any utitill				1			Fan speed setting	St	se an # - to -	St	
Swith No.		Function		Setting	Product model			Standard	volter vitte	vi mi di di di di di di di di di di di di di	vo === «s ==	
T UNCOUTIN			"FAN SPEFD	" button prohibited	Product model whose indoor fan speed i	s only one ste		Jiah speed 1 + 0				
SW1-6	- -	AN SPEED"	"EAN ODEE	" hutton	Product model whose indoor fan speed i	s two steps or	three	night speed 1 • 2		UHI — MIQ	ині — ні	
	D	uttor1	FAN SPEEL	button enabled	steps			initial setting of some	e inaoor unit is "High speed".			
			Fan speed:	three steps	Product model whose indoor unit fan spe	eed is three st	eps	Note 3: As for plural i	indoor unit, set indoor functions	to each master and slave in	door unit.	
Remote control func	tion 01	uuor unit fan	Fan speed:	two steps (Hi-Lo)	Product model whose indoor unit fan spe	eed is two step	)S	But only mas	ter indoor unit is received the s	etting change of indoor unit f	function "07 Operation permission/	
	s	peed	Fan speed:	two steps (Hi-Me)	Draduat model whose indeed with (	and in calus	atan	prohibition" =	and "08 External input".	J J	,	
		Auto" oporation	ran: one ste	p stion on oblad	Product model whose indoor unit fan spe	eeu is only one	e step	promotion t	Enormal input :			
Remote control func	tion 06	etting	"Auto" oper	auon disabled	Product model without "Auto" mode IS SE	ICULADIE						
	а Н	eating fan	Low fan sne	ed	Product model excent FDUS		_					
Indoor unit functi	on 13	ontrol	Intermittent	operation	FDUS							
·	control				1							



## 3.4 OA SPACER (FDTC series)

This manual describes the installation methods for OA spacer (TC-OAS-E2) 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	FDTC15-56KXZE1
	FDTC25-60VH

 $\bigcirc$ Prepare the duct (size: ø75) and the booster fan at site.

 $\ensuremath{\mathbb O}$  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.

<u>A</u> WARNING					
Installation should be performed by the specialist.	0				
I you instail the unit by yoursell, it may lead to serious trouble such as water leakage, electric shock, lire, 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.	U				
• Shut off the power before electrical wiring work.					
It could cause electric shock, unit failure and improper running.	U				
CAUTION					
• 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.	$\bigcirc$				
It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.	U.				

## ① Before installation

A spacer (TC	-0AS-E2)					Duct joint (TC	-OAD-E)		
Spacer	Bracket 1	Bracket 2	Bracket 3	Bracket 4	Bolt	Duct Joint	Screw	Insulation 1 $(120 \times 54)$	Insulation 2 (40 × 60)
		2			After the second				$\bigcirc$
1	2	2	2	2	8	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 before intaking.

On continue and a	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% BH or lower	20°C DB or higher			

#### (2) Intake outdoor air volume

· Intake outdoor air volume is 3.0 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: 1.5 m<sup>3</sup>/min max.

- In case two sets of duct joint is installed: 3.0 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 duct work at site.
- · 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.)







## ③ Installation of duct joint (TC-OAD-E) onto OA spacer

#### ·There are two places where the duct joint can be installed.



## (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.)



## **(5) Installation of indoor unit**

#### Work procedure

- 1. This units is designed for  $2 \times 2$  grid ceiling.
- If necessary, please detach the T bar temporarily before you install it.
- If it is installed on a ceiling other than  $2 \times 2$  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 102mm above the ceiling plane. Temporarily put the four lower nuts 182mm 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.

## $\bigcirc$ 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: OV 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 control. For details, refer to the "ELECTRIC WIRNG WORK



## 3.5 DUCT JOINT (FDTC series)

## PJZ012D073

## • This product is used by assembling on the spacer (TC-OAS-E2) **1.Before installation**

• Confirm the following parts are included:



### 2.Regarding the use of this product

- Fix the product on the spacer (TC-OAS-E2) as shown below.For the installation method, refer to the installation manual of the spacer.



## 3.6 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.



- · 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

Filte	r	Rail		Insulation	
1 pc	2 pc	s.	2 pcs.		
Bracket	Parts set(screw)				
		<b>2</b>		<mark>କ</mark> କ କ କ କ କ କ କ	
1	small and model :	d medium 5 pcs.		e model : 7 pcs.	
I PC.		10	)C.		

## 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.

## 3.7 BASE HEATER KIT (CW-H-E1)

PCZ012D007A

Model Name: CW-H-E1

## 

- 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 substances.
- Be sure to check the electrical insulation before use.
- Be sure to check the drain is not trapped by the heater.

Model C

- Do not leave refrigerant oil on the base.
- Bracket A Components Heater : 1 pc. Tapping screw (OD5) Bracket A : 4 pcs. Tapping screw (OD4) Bracket B : 1 pcs. Plastic band with clip Plastic band without clip Bracket C : 1 pcs. Tapping screw (OD5) : 4 pcs. • Tapping screw (OD4) : 4 pcs. • Plastic band with clip : 2 pcs. Plastic band : 5 pcs. Bra

# Applicable model

Model A



Model B

## **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.

#### WARNING Æ

- 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 source when the kit is installed.
- Failure to follow the above will result in serious accident like electrical shock or fire.







## Step 9

9. Lay down the wiring on the same route of fan motor wiring, and fix the wire with attached plastic band at the same place where the fan motor wiring is banded.





#### <Notes>

- 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.



PJZ012D029K 🕅

## 3.8 SUPERLINK E BOARD (SC-ADNA-E)

Read and understand the instructions completely before starting installation. • Refer to the instructions for both indoor and outdoor units.



• Carefully read "Safety precautions" first. Follow the instructions for installation.

- Precautions are grouped into "Warning A" and "Caution A". The "Warning A" group includes items that may lead to serious injury or death if not observed. The items included in the "Caution<sup>A</sup>" 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 instruc-
- tion 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
- ustomer, 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 October 2007)

### 2 Accessories



#### 3 Function

Allowing the central control SL1N-E, SL2NA-E, and SL4-AE/BE to control and monitor the commercial air-conditioner unit.

#### 4 Control switching

Settings can be changed by the DIP switch SW3 on the SL E board as in the following

Switch	Symbol	Switch	Remarks
SW3	1	ON	Master
		OFF (default)	Slave
		ON	Fixed previous protocol
	2	OFF (default)	Automatic adjustment of Superlink protocol
	0	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 Superlink connection
- and between 000 and 127 for the new Superlink 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 Superlink or the previous Superlink depends on the models of the connected outdoor and indoor units. Consult the agent or the dealer.

Signal line specification

Communication method	Previous Superlink	New Superlink
Line type	MVVS	MVVS
Line diameter	0.75 - 1.25mm <sup>2</sup>	0.75/1.25mm <sup>2</sup>
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<sup>2</sup>, and up to 1000 m for 1.25 mm<sup>2</sup>. Do not use 2.0 mm<sup>2</sup>. 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 Superlink 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 controller 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):
  - Mount the SL E board in the metal box using the locking supports.
     Wining about a through the provided group at incention they when the provided group at the provided group
  - (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.



Locking supports (4)

▲ 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.



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 screwdriver.

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  $40^{\circ}$ 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 boa	ard LEDs		Display on the
Red	Green	Inspection mode	integrated network control device
Off	Flashing	Normal communication	
Off	Off	<ul> <li>Disconnection in the remote control communication line (X or Y)</li> <li>Short-circuit in the remote control communication line (between X and Y)</li> <li>Faulty indoor unit remote control power</li> <li>Faulty remote control communication circuit</li> <li>Faulty CPU on SL E board</li> </ul>	No corresponding unit number
One flash	Flashing	<ul> <li>Disconnection in the Superlink signal line (A or B)</li> <li>Short-circuit in the Superlink signal line (between A and B)</li> <li>Faulty Superlink signal circuit</li> </ul>	
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	<ul> <li>SL E board parent not set up when used without a remote control</li> <li>Faulty remote control communication circuit</li> </ul>	E1
Four flashes	Flashing	<ul> <li>Address overlapping for the SL E board and the Superlink network connected indoor unit</li> </ul>	E2
Off	Flashing	Number of connected devices exceeds the specification for the multiple indoor unit control	E10

## **MICRO INVERTER PACKAGED AIR-CONDITIONERS**



MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD. 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 100-8332, Japan http://www.mhi-mth.co.jp/en/

Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without notice. © Copyright MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.