



MOVE THE WORLD FORWARD  MITSUBISHI
HEAVY
INDUSTRIES
GROUP

VRF inverter multi-system Air-Conditioners

KXZ

**High Performance
Air-Conditioning**

50Hz

20KX02E
ASIA

High Performance Air-Conditioning



KXZ

The Mitsubishi Heavy Industries Thermal Systems KXZ VRF series delivers high performance in cooling and heating for all commercial applications. It offers the highest level of design flexibility, improved efficiency as well as enhanced operational functions.



Line Up



Micro model



KXZ Lite



KXZ

RC-EX3A

Simple use with advanced setting Remote control



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KXZ system is the best air conditioning solution for "Sophisticated" buildings

KX VRF series delivers high cooling/heating performance for all commercial applications.



High Efficiency & Comfort

- High energy efficiency with advanced technology
- Energy saving control by VTCC (Variable Temperature & Capacity Control)
- Individual, centralized and customized comfort control

Design Flexibility

- Long piping length and wide limitation of piping
- Various indoor units to each application
- Easy selection and design software

Easy & Customized Control

- Individual advanced control by wired and wireless remote controller
- Various options for BMS & Centralized controller

Good Serviceability

- Easy access for maintenance
- Engineering and monitoring tool available

"Micro series" for small offices, shops and residential applications

Industry leading compact design, energy efficiency, and high reliability from our high technology



Specific cases of VRF system installation from Mitsubishi Heavy Industries Thermal Systems

Case study: Hotel and Leisure



VRF heat recovery systems from Mitsubishi Heavy Industries Thermal Systems KX range are part of the exacting specification for luxury hotels and airport-style bus station. Mitsubishi Heavy Industries Thermal Systems VRF systems feature advanced inverter technology which adjusts compressor output to match the cooling or heating demands of the indoor units to save energy and eliminate temperature fluctuations. Simultaneous heating or cooling can be provided in different areas as required, with heat gain in sunnier, south facing rooms providing useful energy for rooms on the cooler, shadier side of the buildings.



Case study: Education



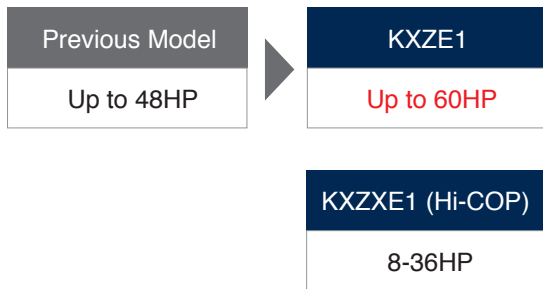
A VRF system with inverter control from Mitsubishi Heavy Industries Thermal Systems is helping to make Crossways Academy in Lewisham a cool place to learn for 500 students. Comfortable temperatures need to be maintained as economically as possible in rooms where large numbers of students will enter or leave at the same time. IT equipment being switched on and off and the use of electric blinds to control glare will all contribute to substantial fluctuations in heat load. A VRF KX system from Mitsubishi Heavy Industries Thermal Systems provides an ideal solution. Much of the building was designed to rely on natural ventilation, with windows operated electronically. The air conditioning system is linked to this control system to close down when windows are opened. Mitsubishi Heavy Industries Thermal Systems KX is particularly appropriate for many such retrofit applications.





KXZ

The KXZ product lineup has been extended to offer solutions delivering up to 60 horsepower (60HP) when using a combination of 3 outdoor units. Furthermore with the addition of the Hi-COP series, installation options have been greatly increased.



By combining 3 outdoor units 60HP can be achieved

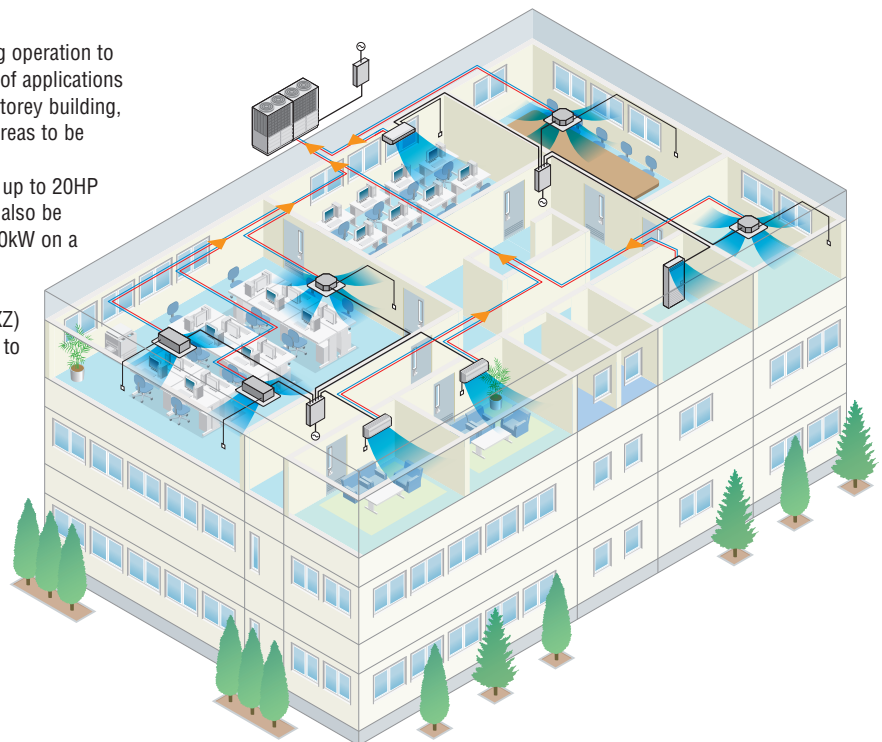
Heat pump systems

The heat pump systems operate with 2 inter-connecting pipes, thus commonly referred to as a '2-pipe system'.

These systems provide either a heating or cooling operation to all indoor units and are suitable for a wide range of applications from an individual apartment to an entire multi storey building, especially where there are significant open plan areas to be controlled.

The range starts with a 11.2kW cooling capacity, up to 20HP with 56.0kW cooling capacity. Outdoor units can also be "twinned" or "tripled" providing up to 60HP/168.0kW on a single system.

The range has a total piping length of 1000m (KXZ) and the furthest indoor unit can be connected up to 160m (KXZ) from the outdoor unit.




Capacity Range

Capacity	4HP	5HP	6HP	8HP	10HP	12HP	14HP	16HP	17HP	18HP	20HP
Model Code : kW	11.2	14	15.5	22.4	28	33.5	40.0	45.0	47.5	50.0	56.0
BTU / h	38,200	47,800	52,900	76,400	95,500	114,300	136,500	153,500	162,100	170,600	191,100
Capacity	22HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	
Model Code : kW	61.5	67.0	73.5	80.0	85.0	90.0	95.0	100.0	106.0	112.0	
BTU / h	209,800	228,600	250,800	273,000	290,000	307,100	324,100	341,200	361,700	382,100	
Capacity	42HP	44HP	46HP	48HP	50HP	52HP	54HP	56HP	58HP	60HP	
Model Code : kW	120.0	125.0	130.0	135.0	142.5	145.0	150.0	156.0	162.0	168.0	
BTU / h	409,400	426,500	443,600	460,600	486,200	494,700	511,800	532,200	552,700	573,200	


Product Line Up

<Outdoor units>

Micro model




11.2kW 4HP	14.0kW 5HP	15.5kW 6HP
FDC112KXEN6	FDC140KXEN6	FDC155KXEN6
FDC112KXES6	FDC140KXES6	FDC155KXES6




22.4kW 8HP	28.0kW 10HP	33.5kW 12HP
FDC224KXE6G	FDC280KXE6G	FDC335KXE6G

KXZ Lite




22.4kW 8HP	28.0kW 10HP
FDC224KXZPE1	FDC280KXZPE1

Standard model KXZE1



28.0kW 10HP	33.5kW 12HP	40.0kW 14HP	45.0kW 16HP	47.5kW 17HP	50.0kW 18HP	56.0kW 20HP
FDC280KXZE1	FDC335KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1

FDC280,335 FDC400~560




61.5kW 22HP	67.0kW 24HP	73.5kW 26HP	80.0kW 28HP	85.0kW 30HP	90.0kW 32HP	95.0kW 34HP	100.0kW 36HP	106.0kW 38HP	112.0kW 40HP
FDC615KXZE1	FDC670KXZE1	FDC735KXZE1	FDC800KXZE1	FDC850KXZE1	FDC900KXZE1	FDC950KXZE1	FDC1000KXZE1	FDC1060KXZE1	FDC1120KXZE1
FDC280KXZE1	FDC335KXZE1	FDC335KXZE1	FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1
FDC335KXZE1	FDC335KXZE1	FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1

FDC615,670



FDC735 FDC800~1120



120.0kW 42HP	125.0kW 44HP	130.5kW 46HP	135.0kW 48HP	142.5kW 50HP	145.0kW 52HP	150.0kW 54HP	156.0kW 56HP	162.0kW 58HP	168.0kW 60HP
FDC1200KXZE1	FDC1250KXZE1	FDC1300KXZE1	FDC1350KXZE1	FDC1425KXZE1	FDC1450KXZE1	FDC1500KXZE1	FDC1560KXZE1	FDC1620KXZE1	FDC1680KXZE1
FDC400KXZE1	FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC475KXZE1	FDC500KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1
FDC400KXZE1	FDC400KXZE1	FDC450KXZE1	FDC450KXZE1	FDC475KXZE1	FDC475KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1
FDC400KXZE1	FDC450KXZE1	FDC450KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC500KXZE1	FDC560KXZE1	FDC560KXZE1	FDC560KXZE1

FDC1200~1680

Hi-COP model KXZXE1



FDC224 FDC280,335

22.4kW 8HP	28.0kW 10HP	33.5kW 12HP
FDC224KXZXE1	FDC280KXZXE1	FDC335KXZXE1



FDC450



FDC500



FDC560~670

45.0kW 16HP	50.0kW 18HP	56.0kW 20HP	61.5kW 22HP	67.0kW 24HP
FDC450KXZXE1	FDC500KXZXE1	FDC560KXZXE1	FDC615KXZXE1	FDC670KXZXE1
FDC224KXZXE1	FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1
FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC335KXZXE1



FDC735



FDC800















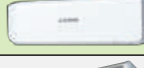




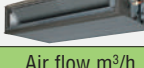




FDC850~1000

73.5kW 26HP	80.0kW 28HP	85.0kW 30HP	90.0kW 32HP	95.0kW 34HP	100.0kW 36HP
FDC735KXZXE1	FDC800KXZXE1	FDC850KXZXE1	FDC900KXZXE1	FDC950KXZXE1	FDC1000KXZXE1
FDC224KXZXE1	FDC224KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1
FDC280KXZXE1	FDC280KXZXE1	FDC280KXZXE1	FDC335KXZXE1	FDC335KXZXE1	FDC335KXZXE1



<Indoor units> A range of 17 types of exposed or concealed indoor units available in a wide range of capacities (total 93 indoor models).
The best solution of indoor units for all applications is available from our full lineup.

				1.5kW <0.5HP>	2.2kW <0.8HP>	2.8kW <1HP>	3.6kW <1.25HP>		
Micro model (4~6HP) 				←					
Micro model (8~12HP) 				←					
KXZ Lite 				←					
Standard model KXZE1 				←					
Hi-COP model KXZZXE1 				←					
Ceiling Cassette	4way	FDT				FDT28KXZE1	FDT36KXZE1		
	4way Compact NEW	FDTC		FDTC15KXZE1	FDTC22KXZE1	FDTC28KXZE1	FDTC36KXZE1		
	2way	FDTW				FDTW28KXE6F			
	1way	FDTS							
	1way Compact	FDTQ			FDTQ22KXE6F	FDTQ28KXE6F	FDTQ36KXE6F		
Duct Connected	High Static Pressure	FDU							
	Low/Middle Static Pressure	FDUM			FDUM22KXE6F	FDUM28KXE6F	FDUM36KXE6F		
	Low Static Pressure(thin)	FDUT		FDUT15KXE6F-E	FDUT22KXE6F-E	FDUT28KXE6F-E	FDUT36KXE6F-E		
	Compact & Flexible	FDUH			FDUH22KXE6F	FDUH28KXE6F	FDUH36KXE6F		
Wall Mounted		FDK		FDK15KXZE1	FDK22KXZE1	FDK28KXZE1	FDK36KXZE1		
Ceiling Suspended		FDE					FDE36KXZE1		
Floor Standing	2way	FDW				FDW28KXE6F			
	With Casing	FDL							
	Without Casing	FDU				FDU28KXE6F			
OA Processing unit		FDU-F			• FDU-F series are not connectable to Micro model (4~6HP), KXZ				
Air flow m ³ /h				150	250	350	500		
Fresh Air Ventilation and Heat Exchange unit		SAF		SAF150E7	SAF250E7	SAF350E7	SAF500E7		
Fresh Air Assembly		SAF-DX			SAF-DX250E6	SAF-DX350E6	SAF-DX500E6		

	4.5kW <1.6HP>	5.6kW <2HP>	7.1kW <2.5HP>	9.0kW <3.2HP>	11.2kW <4HP>	14.0kW <5HP>	16.0kW <6HP>	22.4kW <8HP>	28.0kW <10HP>
	→								
	→								
	→								
	→								
	FDT45KXZE1	FDT56KXZE1	FDT71KXZE1	FDT90KXZE1	FDT112KXZE1	FDT140KXZE1	FDT160KXZE1		
	FDTC45KXZE1	FDTC56KXZE1							
	FDTW45KXE6F	FDTW56KXE6F	FDTW71KXE6F	FDTW90KXE6F	FDTW112KXE6F	FDTW140KXE6F			
	FDS45KXE6F		FDS71KXE6F						
	FDU45KXE6F	FDU56KXE6F	FDU71KXE6F	FDU90KXE6F	FDU112KXE6F	FDU140KXE6F	FDU160KXE6F	FDU224KXZE1	FDU280KXZE1
	FDUM45KXE6F	FDUM56KXE6F	FDUM71KXE6F	FDUM90KXE6F	FDUM112KXE6F	FDUM140KXE6F	FDUM160KXE6F		
	FDUT45KXE6F-E	FDUT56KXE6F-E	FDUT71KXE6F-E						
	FDK45KXZE1	FDK56KXZE1	FDK71KXZE1	FDK90KXZE1					
	FDE45KXZE1	FDE56KXZE1	FDE71KXZE1		FDE112KXZE1	FDE140KXZE1			
	FDFW45KXE6F	FDFW56KXE6F							
			FDFL71KXE6F						
	FDFU45KXE6F	FDFU56KXE6F	FDFU71KXE6F						
Lite.				FDU650FKXZE1		FDU1100FKXZE1		FDU1800FKXZE1	FDU2400FKXZE1
		800	1000						
		SAF800E7	SAF1000E7						
		SAF-DX800E6	SAF-DX1000E6						



Outdoor units

Micro model Heat pump systems

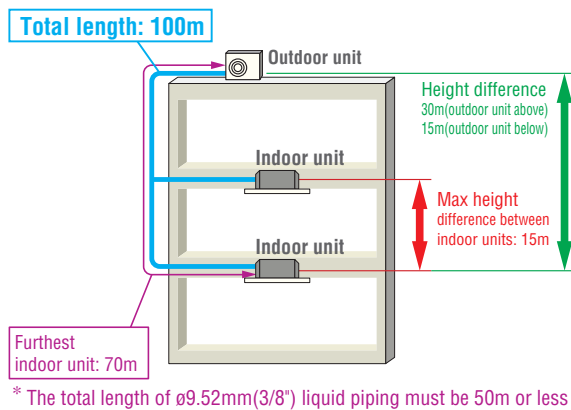
4, 5, 6HP (11.2kW~15.5kW)

Model No.	Nominal Cooling Capacity
FDC112KXEN6	11.2kW (220V)
FDC140KXEN6	14.0kW (220V)
FDC155KXEN6	15.5kW (220V)
FDC112KXES6	11.2kW (380V)
FDC140KXES6	14.0kW (380V)
FDC155KXES6	15.5kW (380V)

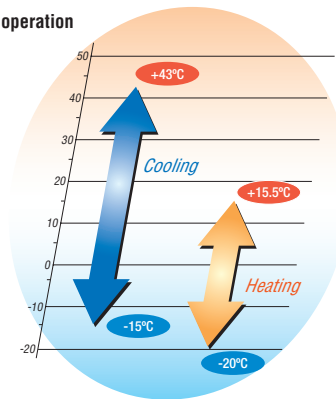
- Connect up to 8 indoor units/up to 150% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- KX6 employs DC inverter compressors ONLY.
- Industry leading total piping length up to 100m and a maximum pipe run of 70m.



Note: FDUT15KXE6F-E, FDC15KXE1 and FDK15KXE1 can not be connected to the above systems.



Range of operation



Specifications

Item	Model	FDC112KXEN6	FDC140KXEN6	FDC155KXEN6	FDC112KXES6	FDC140KXES6	FDC155KXES6
Nominal horse power		4HP	5HP	6HP	4HP	5HP	6HP
Power source		1 Phase 220-240V, 50Hz			3 Phase 380-415V, 50Hz		
Starting current	A				5		
Max current	A	23			13.5		
Nominal capacity	Cooling	11.2	14.0	15.5	11.2	14.0	15.5
	Heating	12.5	16.0	16.3	12.5	16.0	16.3
Electrical characteristics	Power consumption	Cooling	2.80	4.17	4.71	2.80	4.17
		Heating	2.89	4.31	4.38	2.89	4.31
Exterior dimensions	HxWxD	mm 845x970x370					
Net weight	kg	85			87		
Sound pressure level	Cooling/Heating	52/54	53/57	53/57	52/54	53/57	53/57
Refrigerant	Type / GWP	R410A / 2088					
	Charge	kg/TCO ₂ Eq 5.0 / 10.44					
Refrigerant piping size	Liquid line	ø9.52(3/8")					
	Gas line	ø15.88(5/8")					
Capacity connection	%	80~150					
Number of connectable indoor units		6	8	8	6	8	8

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. 'tonne(s) of CO₂ equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.

Refrigerant piping

Outdoor unit (HP)		4	5	6
Gas pipe	Furthest indoor unit =<70m	ø15.88		
Liquid pipe		ø9.52		

Branch pipes



DIS-22-1G
DIS-180-1G

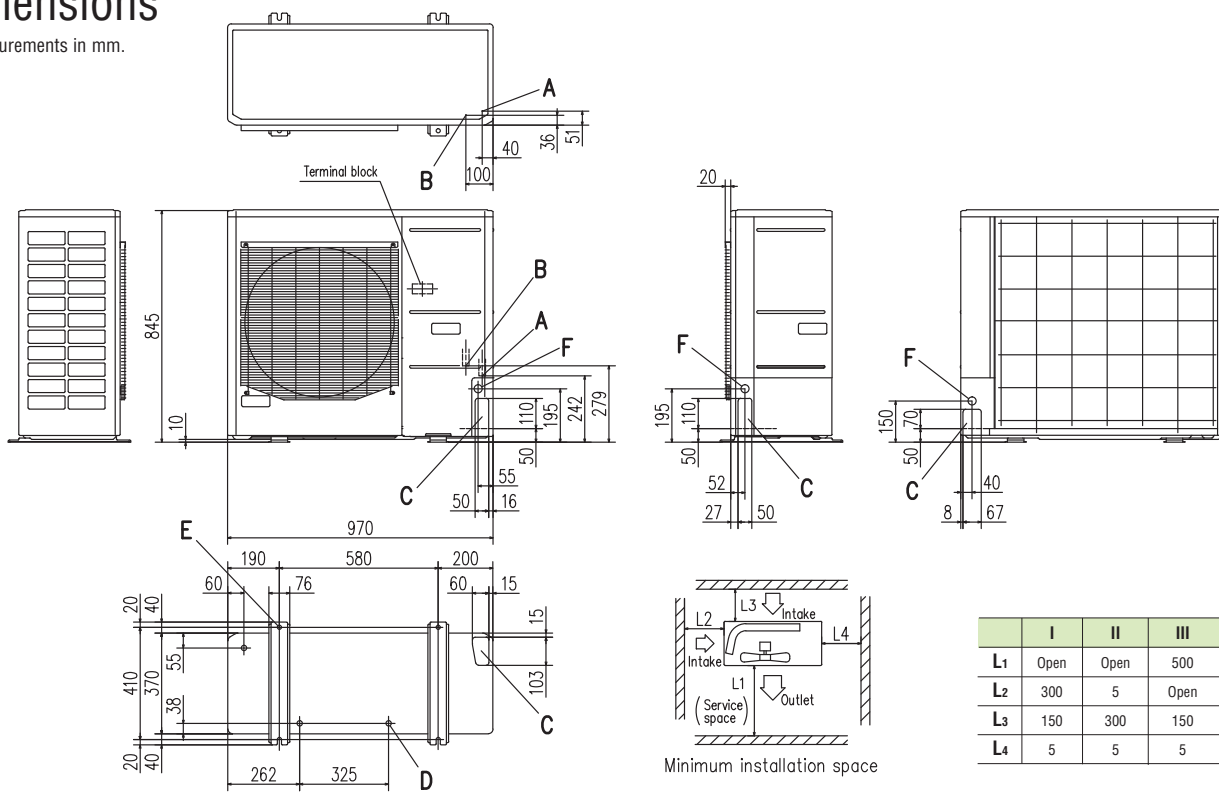
Header pipe



HEAD4-22-1G
HEAD6-180-1G

Dimensions

All measurements in mm.



Mark	Content	
A	Service valve connection (gas side)	ø15.88 (5/8") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	ø20 x 3 places
E	Anchor bolt hole	M10 x 4 places
F	Cable draw-out hole	ø30 x 3 places

Notes:

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



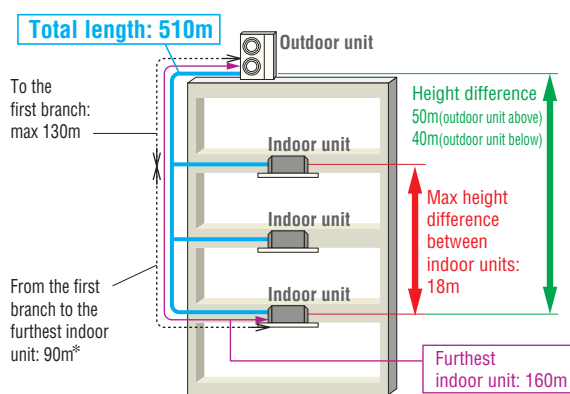
Micro model Heat pump systems

8, 10, 12HP (22.4kW~33.5kW)



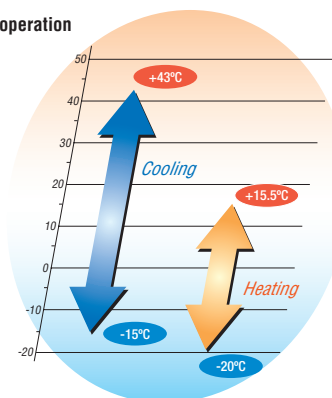
Model No.	Nominal Cooling Capacity
FDC224KXE6G	22.4kW
FDC280KXE6G	28.0kW
FDC335KXE6G	33.5kW

- Connect up to 24 indoor units/up to 150% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- These units employ DC inverter compressors ONLY.
- Industry leading total piping length up to 510m and a maximum pipe run of 160m.



* The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m.

Range of operation



Specifications

Item		Model	FDC224KXE6G	FDC280KXE6G	FDC335KXE6G
Nominal horse power			8HP	10HP	12HP
Power source			3 Phase 380-415V, 50Hz		
Starting current		A	5		
Max current		A	20		
Nominal capacity	Cooling	kW	22.4	28.0	33.5
	Heating	kW	25.0	31.5	37.5
Electrical characteristics	Power consumption	Cooling	5.60	8.09	9.82
		Heating	6.03	8.21	10.12
Exterior dimensions		HxWxD	1675x1080x480		
Net weight		kg	221		
Sound pressure level		Cooling/Heating	58/58	59/60	61/61
Refrigerant	Type / GWP		R410A / 2088		
	Charge	kg/TCO ₂ Eq	11.5 / 24.012		
Refrigerant piping size	Liquid line	mm(in)	ø9.52(3/8")		
	Gas line	mm(in)	ø19.05(3/4")	ø22.22(7/8")	ø25.4(1") [ø22.22(7/8")]
Capacity connection		%	50~150		
Number of connectable indoor units			22	24	24

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. 'tonne(s) of CO₂ equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
 4. [] : Pipe sizes applicable to European installations are shown in parentheses.

Refrigerant piping

Outdoor unit (HP)		8	10	12
Gas pipe	Furthest indoor unit =<90m	ø19.05	ø22.22	ø25.4(ø22.22)
Liquid pipe		ø9.52		ø12.7
Gas pipe	90m	ø22.22	ø25.4(ø22.22)	
Liquid pipe	=<Furthest indoor unit	ø12.7		

Branch pipes



DIS-22-1G
DIS-180-1G



DIS-371-1G

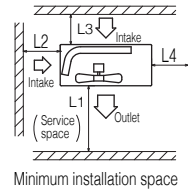
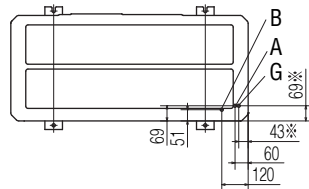
Header pipe



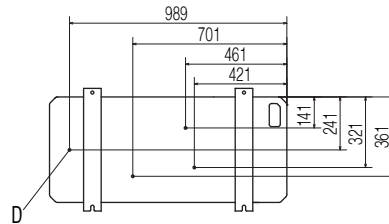
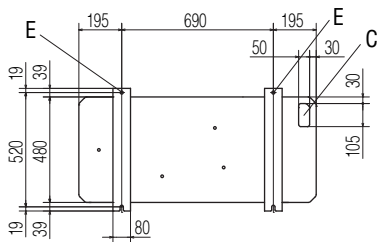
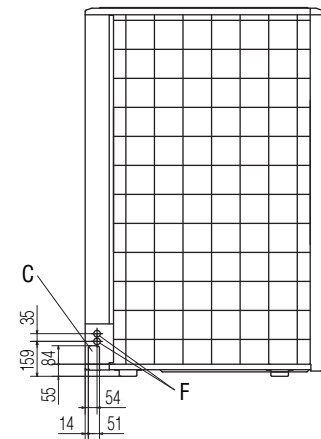
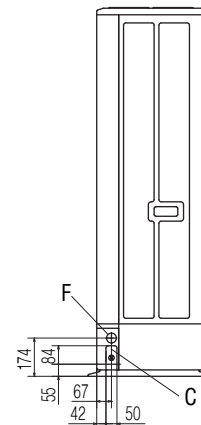
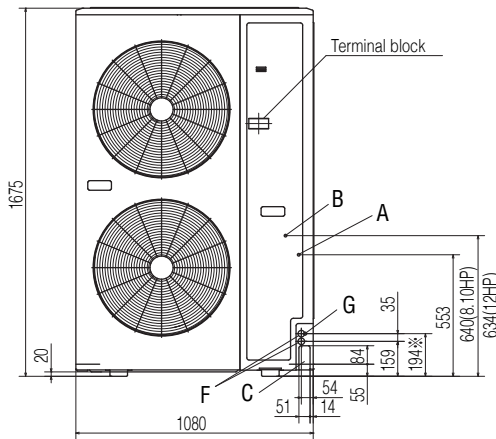
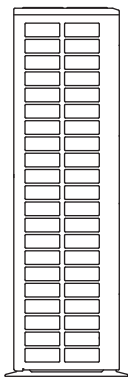
HEAD4-22-1G
HEAD6-180-1G
HEAD8-371-2

Dimensions

All measurements in mm.



	I	II	II
L1	Open	Open	1500
L2	300	5	Open
L3	300	300	300
L4	5	5	5



Mark	Content	224	280	335
A	Service valve connection of the attached connecting pipe (gas side)	ø19.05 (3/4") (Flare)	ø19.05 (3/4") (Flare)	ø19.05 (3/4") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
C	Pipe/cable draw-out hole	4places	4places	4places
D	Drain discharge hole	ø20 × 4places	ø20 × 4places	ø20 × 4places
E	Anchor bolt hole	M10 × 4places	M10 × 4places	M10 × 4places
F	Cable draw-out hole	ø30 × 2places (front) ø45 (side) ø30 × 2places (back)	ø30 × 2places (front) ø30 × 2places (side) ø30 × 2places (back)	ø30 × 2places (front) ø45 (side) ø30 × 2places (back)
G	Connecting position of the local pipe. (gas side)	ø19.05 (3/4")(Brazing)	ø22.22 (7/8")(Brazing)	ø25.4 (1")(Brazing)

Notes:

- (1) It must not be surrounded by walls on the four sides.
- (2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
- (3) Where the unit is subject to strong winds, the blower outlet should face perpendicularly to the dominant wind direction.
- (4) Leave a 1m or more space above the unit.
- (5) A wall in front of the blower outlet must not exceed the units height.
- (6) The model name label is attached on the lower right corner of the front.
- (7) Connect the Service valve with local pipe by using the pipe of the attachment.(Gas side only)
- (8) Mark ※ shows the connecting position of the local pipe.(Gas side only)



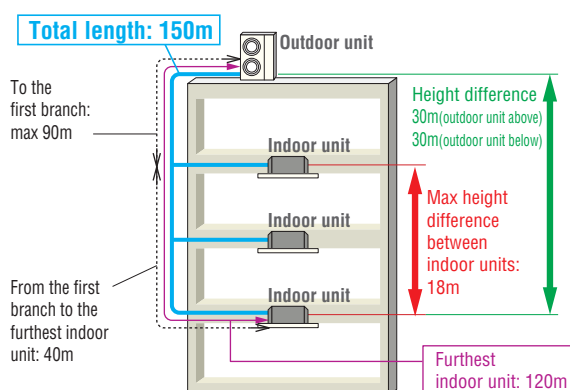
KXZ Lite Heat pump systems

8, 10HP (22.4kW - 28.0kW)

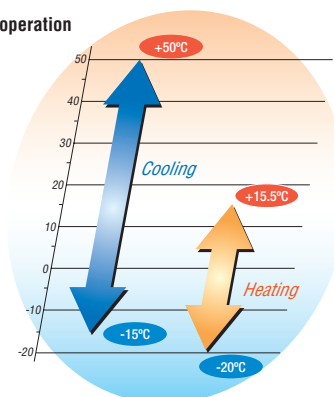
Model No.	Nominal Cooling Capacity
FDC224KXZPE1	22.4kW
FDC280KXZPE1	28.0kW



- Connect up to 8 indoor units/up to 120% capacity.
- High efficiency with COP (in cooling) up to 4.0.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- KXZ Lite extends a cooling range operation up to 50°C.
- External static pressure is available up to 35 Pa.
- Tropical usage mode.



Range of operation



Specifications

Item	Model	FDC224KXZPE1	FDC280KXZPE1
Nominal horse power		8HP	10HP
Power source		3 Phase 380-415V, 50Hz	
Starting current	A	5	
Max current	A	21	22
Nominal capacity	Cooling	22.4	28.0
	Heating	22.4	28.0
Electrical characteristics	Power consumption	Cooling	5.6
		Heating	4.8
Exterior dimensions	HxWxD	mm 1505x970x370	
Net weight	kg	165	
Sound pressure level	Cooling/Heating	dB(A) 59/60	60/63
Refrigerant	Type / GWP	R410A / 2088	
	Charge	kg/TCO ₂ Eq 8.9 / 18.583	
Refrigerant piping size	Liquid line	mm(in) ø9.52(3/8")	
	Gas line	ø19.05(3/4") ø22.22(7/8")	
Capacity connection	%	50~120	
Number of connectable indoor units		8	8

1. The data are measured under the following conditions (ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. 'tonne(s) of CO₂ equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.

Refrigerant piping

Outdoor unit (HP)		8	10
Gas pipe	Furthest indoor unit =<90m	ø19.05	ø22.22
Liquid pipe		ø9.52	
Gas pipe	90m	ø22.22	ø25.4/ø28.58
Liquid pipe	=<Furthest indoor unit	ø9.52	

Branch pipes



DIS-22-1G
DIS-180-1G

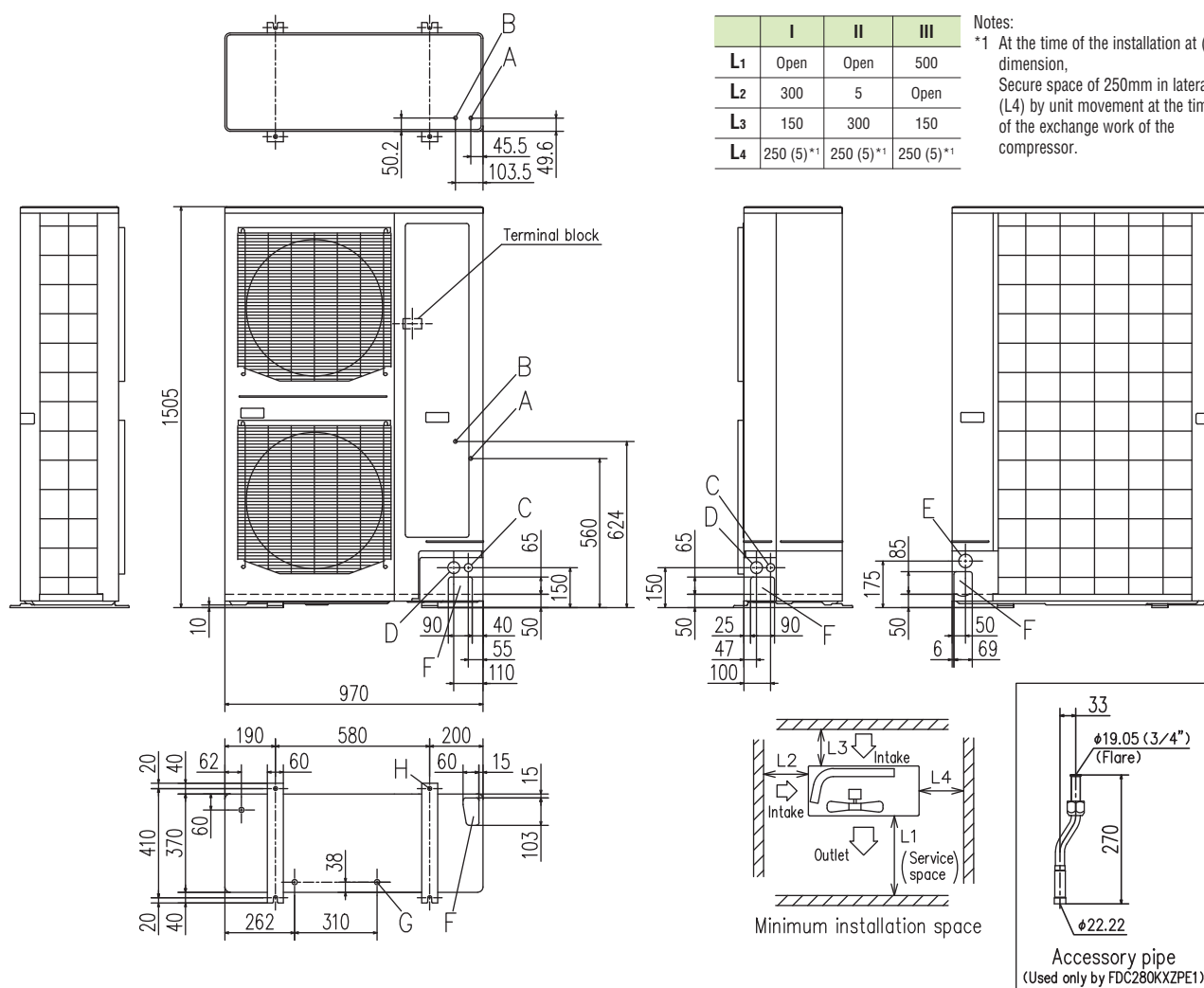
Header pipe



HEAD4-22-1G
HEAD6-180-1G

Dimensions

All measurements in mm.



	I	II	III
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	250 (5)*1	250 (5)*1	250 (5)*1

Notes:

*1 At the time of the installation at () dimension, Secure space of 250mm in lateral (L4) by unit movement at the time of the exchange work of the compressor.

Notes:

- (1) It must not be surrounded by walls on the four sides.
- (2) The unit must be fixed with anchor bolts.
An anchor bolt must not protrude more than 15mm.
- (3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
- (4) Leave 1m or more space above the unit.
- (5) A wall in front of the blower outlet must not exceed the units height.
- (6) The model name label is attached on the lower right corner of the front panel.
- (7) Connect the Service valve with local pipe by using the pipe of the attachment.
(Gas side only) (Accessory pipe is used only by FDC280KXZPE1)
- (8) Regarding attaching the pipe of accessories, refer to an attached installation manual.

Mark	Content	
A	Service valve connection of the attached connecting pipe (gas side)	ø19.05 (3/4") (Flare)
B	Service valve connection (liquid side)	ø9.52 (3/8") (Flare)
C	Cable draw-out hole (front · side)	ø30 × 2places
D	Cable draw-out hole (front · side)	ø45 × 2places
E	Cable draw-out hole (back)	ø50
F	Pipe/cable draw-out hole	4places
G	Drain discharge hole	ø20 × 3places
H	Anchor bolt hole	M10 × 4places



KXZ Heat pump systems

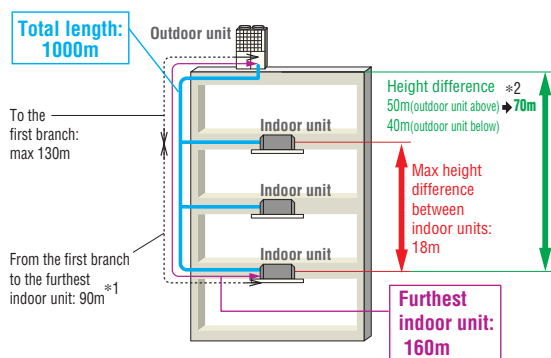
10, 12HP (28.0kW, 33.5kW)

Model No.	Nominal Cooling Capacity
FDC280KXZE1	28.0kW
FDC335KXZE1	33.5kW

- Connect up to 29 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.9.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

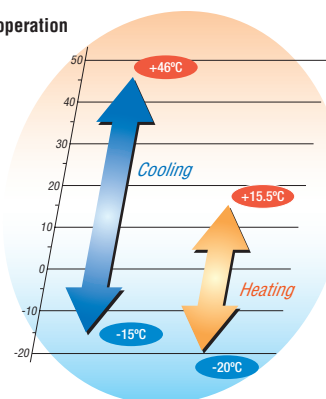


Uniform footprint of models (10,12HP) allows continuous side-by-side installation



- *1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
 *2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series. Please refer to page 56.

Range of operation



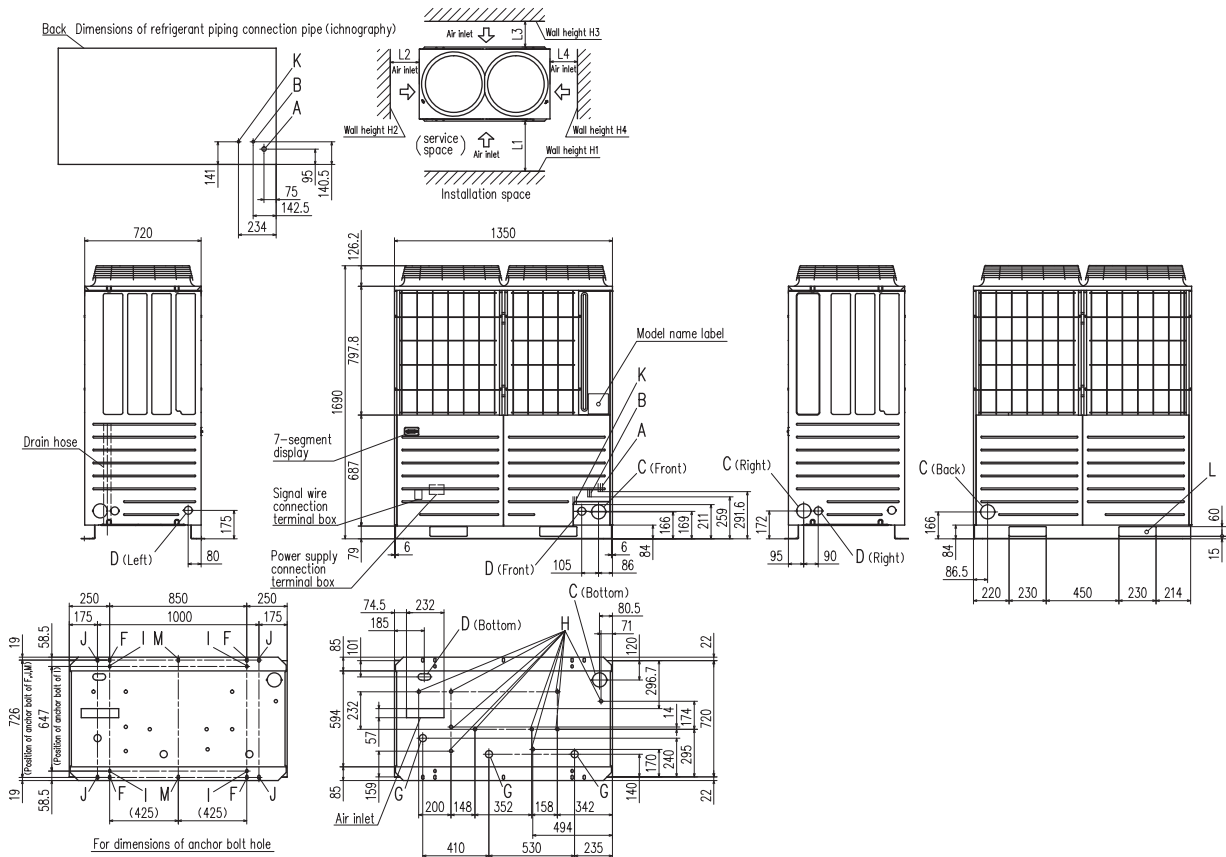
Specifications

Item	Model	FDC280KXZE1	FDC335KXZE1
Nominal horse power		10HP	12HP
Power source		3 Phase 380-415V, 50Hz	
Starting current	A	5	
Max current	A	21.2	
Nominal capacity	Cooling	28.0	33.5
	Heating	31.5	37.5
Electrical characteristics	Power consumption	Cooling	7.24
		Heating	7.28
Exterior dimensions	HxWxD	1690x1350x720	
Net weight	kg	272	
Sound pressure level	Cooling/Heating	55/57	61/58
Refrigerant	Type / GWP	R410A / 2088	
	Charge	11.0 / 22.968	
Refrigerant piping size	Liquid line	ø9.52(3/8")	ø12.7(1/2")
	Gas line	ø22.22(7/8")	ø25.4(1") [ø22.22(7/8")]
Capacity connection	%	50~130	
Number of connectable indoor units		24	29

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. 'tonne(s) of CO2 equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
 4. [] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

All measurements in mm.

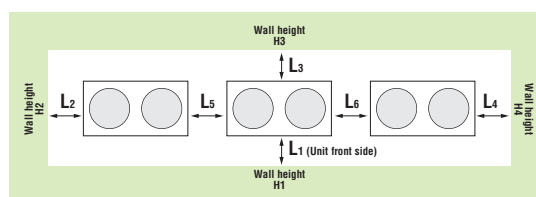


Mark	Content	280	335
A	Refrigerant gas piping connection pipe	ø22.22(Brazing)	ø25.4(Brazing)
B	Refrigerant liquid piping connection pipe	ø9.52(Flare)	ø12.7(Flare)
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (right · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 10 places	
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

Installation example		
Dimensions	1	2
L ₁	500	Open
L ₂	10(30)	10(30)
L ₃	100	100
L ₄	10(30)	Open
H ₁	1500	Open
H ₂	No limit	No limit
H ₃	1000	No limit
H ₄	No limit	Open

(): In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

When more than one unit is installed



Installation example		
Dimensions	1	2
L ₁	500	Open
L ₂	10(30)	200
L ₃	100	300
L ₄	10(30)	Open
L ₅	10(30)	400
L ₆	10(30)	400
H ₁	1500	Open
H ₂	No limit	No limit
H ₃	1000	No limit
H ₄	No limit	Open

(): In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.



KXZ Heat pump systems

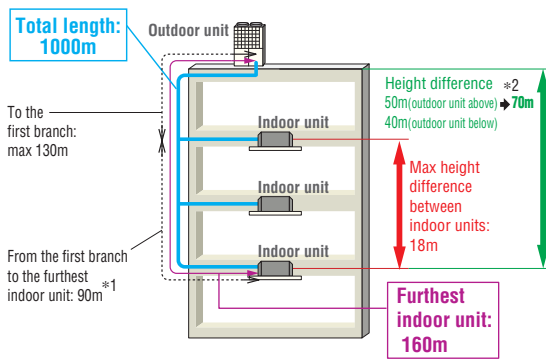
14, 16, 17, 18, 20HP (40.0kW~56.0kW)

Model No.	Nominal Cooling Capacity
FDC400KXZE1	40.0kW
FDC450KXZE1	45.0kW
FDC475KXZE1	47.5kW
FDC500KXZE1	50.0kW
FDC560KXZE1	56.0kW

- Connect up to 48 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.6.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

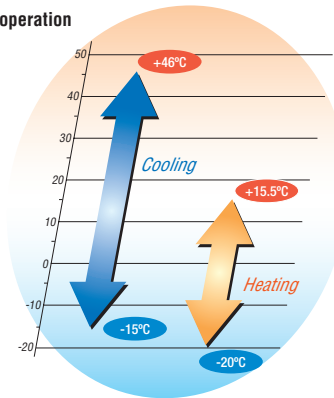


Uniform footprint of all models (from 14HP~20HP) allows continuous side-by-side installation



- *1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
 *2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series. Please refer to page 56.

Range of operation



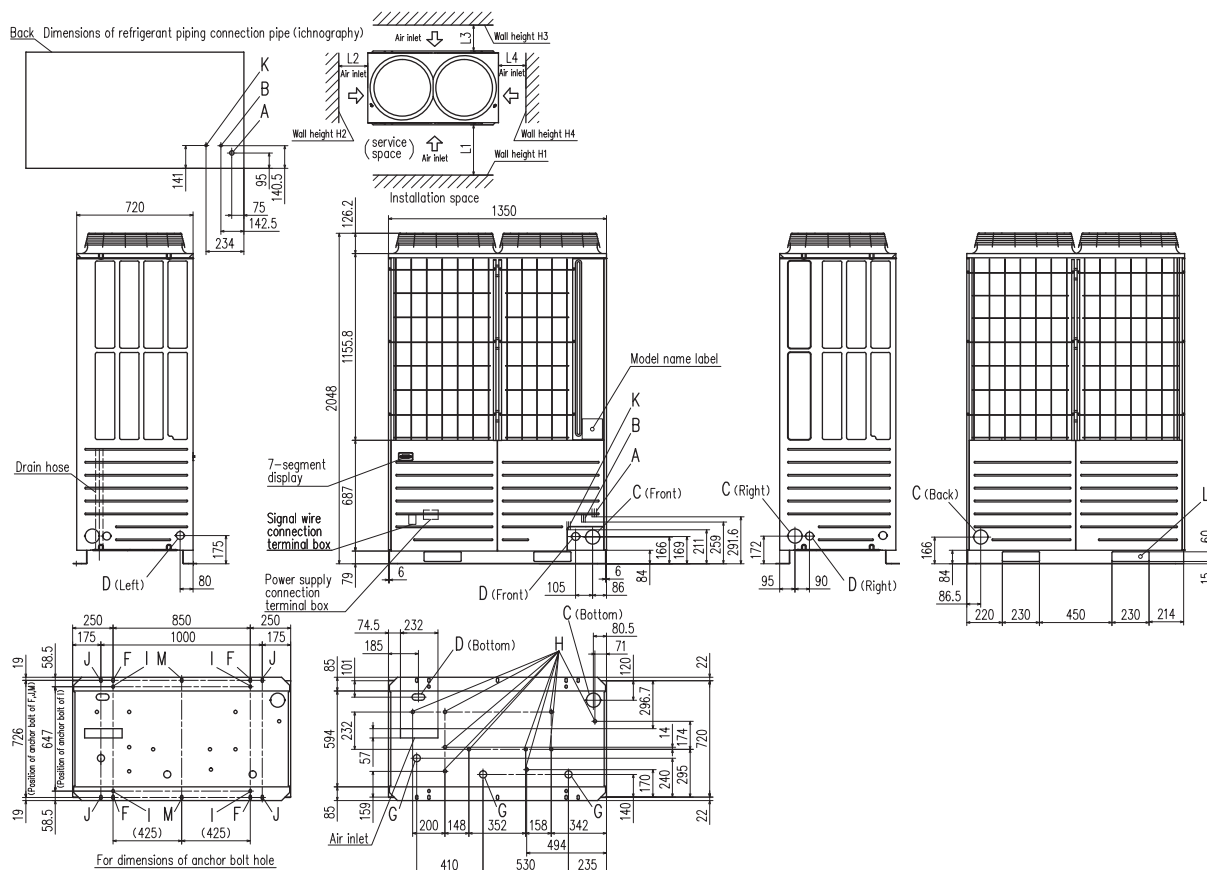
Specifications

Item	Model	FDC400KXZE1	FDC450KXZE1	FDC475KXZE1	FDC500KXZE1	FDC560KXZE1	
Nominal horse power		14HP	16HP	17HP	18HP	20HP	
Power source		3 Phase 380-415V, 50Hz					
Starting current	A	5			8		
Max current	A	32			42.4		
Nominal capacity	Cooling	40.0	45.0	47.5	50.0	56.0	
	Heating	45.0	50.0	53.0	56.0	63.0	
Electrical characteristics	Power consumption	Cooling	10.96	13.98	13.98	13.97	16.62
		Heating	10.69	12.50	13.00	13.49	15.95
Exterior dimensions	HxWxD	mm 2048x1350x720					
Net weight	kg	317			370		
Sound pressure level	Cooling/Heating	60/62	61/62	61/61	61/62	64/66	
Refrigerant	Type / GWP	R410A / 2088					
	Charge	kg/TCO ₂ Eq 11.5 / 24.012					
Refrigerant piping size	Liquid line	mm(in) ø12.7(1/2")					
	Gas line	ø25.4(1") [ø28.58(1 1/8")] ø28.58(1 1/8")					
Capacity connection	%	50~130					
Number of connectable indoor units		34	39	41	43	48	

1. The data are measured under the following conditions(SO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. 'tonne(s) of CO₂ equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
 4. [] : Pipe sizes applicable to European installations are shown in parentheses.

Dimensions

All measurements in mm.

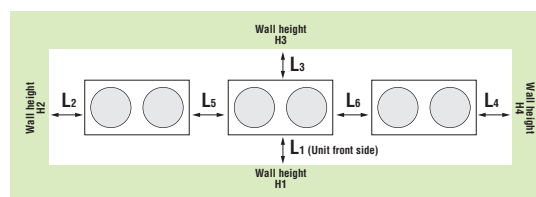


Mark	Content	400	450, 475, 500, 560
A	Refrigerant gas piping connection pipe	ø25.4(Brazing)	ø28.58(Brazing)
B	Refrigerant liquid piping connection pipe	ø12.7(Flare)	
C	Refrigerant piping exit hole	ø88(or ø100)	
D	Power supply entry hole	ø50 (right · left · front), long hole 40 x 80 (bottom)	
F	Anchor bolt hole	M10 x 4 places	
G	Drain waste water hose hole	ø45 x 3 places	
H	Drain hole	ø20 x 10 places	
K	Refrigerant oil equalization piping connection pipe	ø9.52(Flare)	
L	Carrying in or hole for hanging	230 x 60	

Dimensions	Installation example	
	1	2
L ₁	500	Open
L ₂	10(30)	10(30)
L ₃	100	100
L ₄	10(30)	Open
H ₁	1500	Open
H ₂	No limit	No limit
H ₃	1000	No limit
H ₄	No limit	Open

(): In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

When more than one unit is installed



Dimensions	Installation example	
	1	2
L ₁	500	Open
L ₂	10(30)	200
L ₃	100	300
L ₄	10(30)	Open
L ₅	10(30)	400
L ₆	10(30)	400
H ₁	1500	Open
H ₂	No limit	No limit
H ₃	1000	No limit
H ₄	No limit	Open

(): In case it is the promised installation location that the outdoor unit is used on conditions with the ambient temperature of 43°C or more.

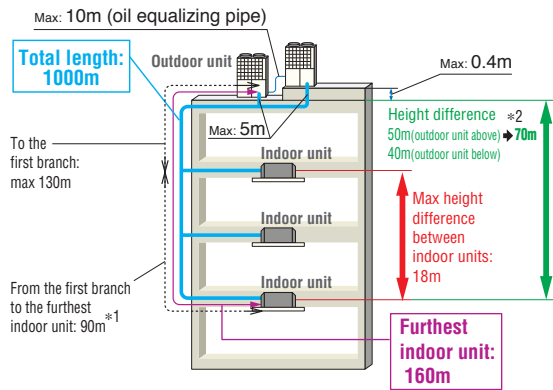
KXZ Heat pump combination systems

22, 24HP (61.5kW, 67.0kW)



Model No.	Nominal Cooling Capacity
FDC615KXZE1 (FDC280+FDC335)	61.5kW
FDC670KXZE1 (FDC335+FDC335)	67.0kW

- Connect up to 58 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.8.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

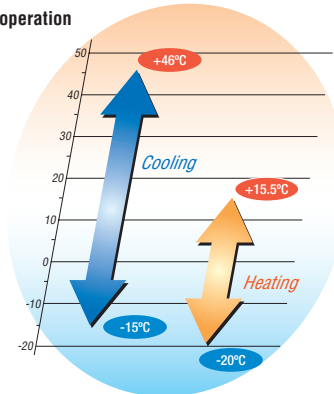


*1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
 *2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series. Please refer to page 56.



Uniform footprint of all models (from 22HP, 24HP) allows continuous side-by-side installation

Range of operation



Specifications

Exterior dimension : Please refer to page37.

Item		Model	FDC615KXZE1	FDC670KXZE1
Combination (FDC)			280KXZE1 335KXZE1	335KXZE1 335KXZE1
Nominal horse power			22HP	24HP
Power source			3 Phase 380-415V, 50Hz	
Starting current		A	10	
Max current		A	42.4	
Nominal capacity	Cooling	kW	61.5	67.0
	Heating	kW	69.0	75.0
Electrical characteristics	Power consumption	Cooling	16.20	17.92
		Heating	16.32	18.08
Exterior dimensions		HxWxD mm	1690x2700x720	
Net weight		kg	544	
Refrigerant charge		R410A kg	11.0x2	
Refrigerant piping size	Liquid line	mm(in)	ø12.7(1/2")	
	Gas line	mm(in)	ø28.58(1 1/8")	
Capacity connection		%	50~130	
Number of connectable indoor units			53	58

1. The data are measured under the following conditions (ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

KXZ Heat pump combination systems

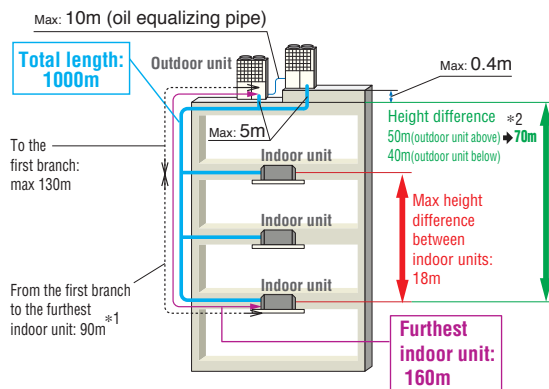
26, 28, 30, 32, 34, 36, 38, 40HP (73.5kW~112.0kW)

Model No.	Nominal Cooling Capacity
FDC735KXZE1 (FDC335+FDC400)	73.5kW
FDC800KXZE1 (FDC400+FDC400)	80.0kW
FDC850KXZE1 (FDC400+FDC450)	85.0kW
FDC900KXZE1 (FDC450+FDC450)	90.0kW
FDC950KXZE1 (FDC475+FDC475)	95.0kW
FDC1000KXZE1 (FDC500+FDC500)	100.0kW
FDC1060KXZE1 (FDC500+FDC560)	106.0kW
FDC1120KXZE1 (FDC560+FDC560)	112.0kW

- Connect up to 80 indoor units/up to 130% capacity.
- High efficiency with COP (in cooling) up to 3.7.
- These units employ DC inverter multiport compressors with concentrated winding motor.
- Industry leading total piping length up to 1000m and a maximum pipe run of 160m.

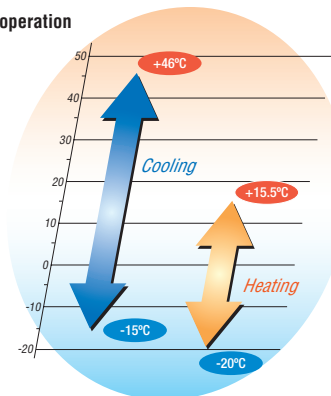


• In case of 26HP



- *1 The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)
- *2 In case of height difference up to 70m, please contact your dealer. Height difference up to 90m is possible with High Head series. Please refer to page 56.

Range of operation



Specifications

Exterior dimension : Please refer to page37,39.

Item	Model	FDC735KXZE1	FDC800KXZE1	FDC850KXZE1	FDC900KXZE1	FDC950KXZE1	FDC1000KXZE1	FDC1060KXZE1	FDC1120KXZE1	
		Combination (FDC)	335KXZE1 400KXZE1	400KXZE1 400KXZE1	400KXZE1 450KXZE1	450KXZE1 450KXZE1	475KXZE1 475KXZE1	500KXZE1 500KXZE1	500KXZE1 560KXZE1	560KXZE1 560KXZE1
Nominal horse power		26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	
Power source		3 Phase 380-415V, 50Hz								
Starting current	A	10					16			
Max current	A	53.2	64			84.8				
Nominal capacity	Cooling	kW								
	Heating	kW								
Electrical characteristics	Power consumption	Cooling	kW							
		Heating	kW							
Exterior dimensions	HxWxD	mm								
Net weight	kg	589	634			740				
Refrigerant charge	R410A	kg		kg						
Refrigerant piping size	Liquid line	mm(in)							mm(in)	
	Gas line	mm(in)							mm(in)	
Capacity connection	%	%								
Number of connectable indoor units		63	69	73	78	80				

1. The data are measured under the following conditions (ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. Piping length is 7.5m.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 3. [] : Pipe sizes applicable to European installations are shown in parentheses.


















Indoor units

Benefits Summary

When using RC-EX3A (Remote control), functions with symbol ● are available.
However, for RC-E5 (Remote control), functions with ※ are not available.

Energy Saving	Inverter technology	Inverter control technology functions at high efficiency with smooth operation from high speed to low speed. A smooth sine voltage wave is attained.
	Energy-saving ※	Since the capacity is controlled automatically based on the outdoor temperature, energy can be saved without losing comfort.
	Motion sensor ※	This sensor detects human activity and shifts the temperature setting according to the amount of activity in the room.
	Home leave operation ※	This function ensures that when the room is unoccupied for long periods of time, the unit will maintain a moderate indoor temperature, avoiding extremely hot or cool temperatures.
	Set temperature auto return ※	This function allows you to program a preferred set temperature that the unit will return to each time it is operated.
Comfort	Automatic operation	This function automatically selects the required heating or cooling function based on the current room conditions.
	Silent operation	This function allows you to program periods where the unit will operate with reduced noise levels, perfect for night time and an uninterrupted sleep.
	Hi power operation ※	Use the high power function to quickly reach your optimum temperature level when you first turn on the unit. This function will operate for a maximum of 15 minutes before returning to normal operation.
Air flow	Flap control system	This function allows you to set the upper and lower limit positions of the flap at each air outlet individually, providing you with complete control over interior air flow.
	Vertical auto swing	The vertical louvers on your unit will move up and down continuously during operation. This function allows you to set the up/down swing position of the louver to your preferred operation angle.
	Draft prevention setting ※	Draft Prevention setting provides a comfortable air flow without any draft feeling. Whether cooling or heating a room, the remote control can be used to instantly suppress any warm or cool drafts. This accurately assists how air flow is directed out of the indoor unit.
	Automatic fan speed	The unit's on-board microcomputer continuously monitors the room's air temperature and adjusts the air flow automatically.
Timer	Sleep timer	This function allows you to set a pre-determined amount of time between 30 and 240 minutes that your unit will operate for before switching off.
	Peak-cut timer ※	This function lets you to preset the capacity limit during certain periods of the day, minimising energy consumption during peak billing times, thus reducing operation costs.
	Weekly timer	Set your unit to turn on and off automatically on a weekly basis to suit your usual room usage on each day.
Convenient	Function Switch ※	From the eight available functions on the unit, this function allows you to set two functions to operate automatically.
	Favourite setting ※	Operation mode, set temperature, fan speed and air flow direction automatically adjust to the programmed favourite setting.
	Static pressure adjustment	This is operable when connecting duct type indoor units equipped with the external static pressure adjustment function. It will adjust the airflow accordingly based on the connected duct static pressure.
	Select the language ※	Set the language to be displayed on the remote control.
	Air filter	The air filter in the unit traps and removes airborne dust particles and other allergens to provide you with a clean air function.
	Filter sign	This warning alerts when the filter needs to be cleaned.
	Outside air intake	This function provides clean fresh air into the room through the external air intake, avoiding the constant recycling of internal air.
Others	Self diagnostics	The internal microcomputer automatically runs a diagnostic of the system in the event of a malfunction. This enables your authorised dealer to isolate and repair any issues.
	Built in drain pump	The built-in drain pump, allows greater flexibility with installation, offering a great solution for applications with limited space.
	Improved serviceability	The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of the unit and can be slid out for easy maintenance.

	FDT	FDTC	FDTW	FDTS	FDTQ	FDU	FDUM	FDUT	FDUH	FDK	FDE	FDW	FDL	FDU	FDU-F
															
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	● Option	● Option	● Option	● Option		● Option	● Option	● (71only) Option		● Option	● Option				● Option
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ontrol	● Option	● Option													
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
						●	●	● (71only)							●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	● procure locally	● Option	● Option	● Option	●	●	●	●	●	● procure locally
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
air.	●	● Option	●	●	●	●	●	●	●						●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	● *1	●	●	● Option						● *2
						●	●								

*1 : Except 224 • 280 *2 : Except 1800 • 2400



Ceiling Cassette -4way- FDT

Model No.

- FDT28KXZE1
- FDT36KXZE1
- FDT45KXZE1
- FDT56KXZE1
- FDT71KXZE1
- FDT90KXZE1
- FDT112KXZE1
- FDT140KXZE1
- FDT160KXZE1



Draft Prevention Panel (Option)

Remote control (option)

Wired



RC-EX3A



RC-E5



RCH-E3

Wireless



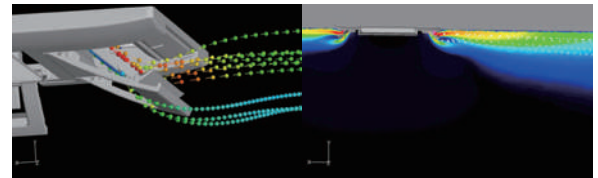
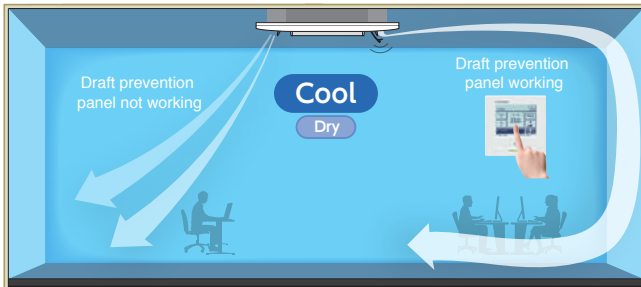
RCN-T-5AW-E2

Draft Prevention Panel

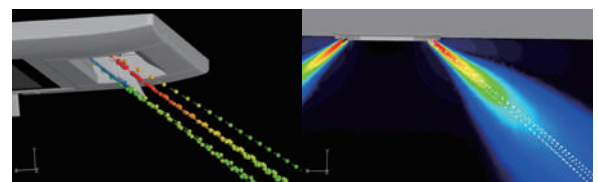
(Option)

Draft Prevention Panel prevents cold / hot draft being blown directly on the user.
It is possible to set Draft Prevention Panel for each air outlet.

Advanced airflow control technology cultivated through aircraft development.



Draft Prevention Panel working



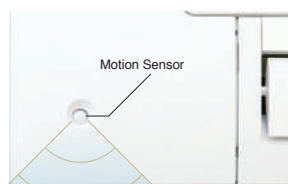
Draft Prevention Panel placed at off position

User can position panels by using the remote controller only (RC-EX3A, RCN-T-5AW-E2) when Draft Prevention Panel is available.

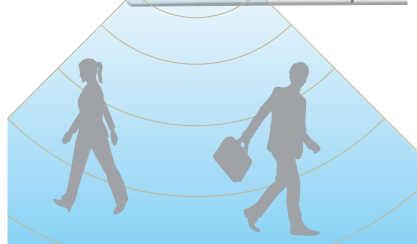
Motion Sensor

(Option)

Motion sensor is equipped in the corner of the panel and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-T-5W-E



Improve the aerodynamic performance of the unit

New designed component has better aerodynamic performance and achieve lower noise.

New design turbo fan



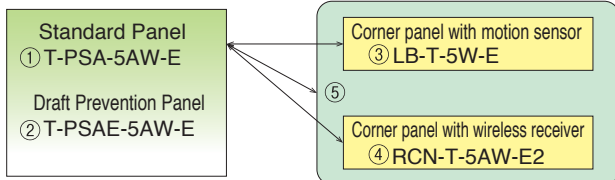
Fan guard (standard equipment)



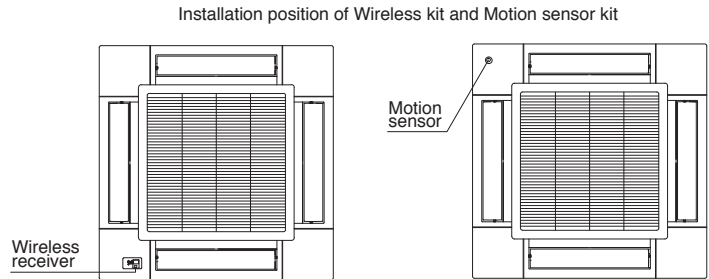
Panel select pattern

(Option)

8 patterns of panel are available.



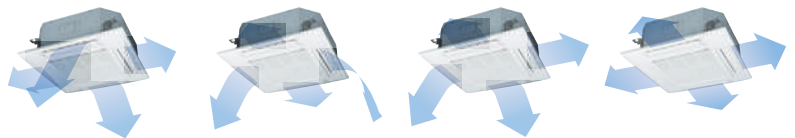
- ① Standard Panel only
- ①+③ Standard Panel with corner panel with motion sensor
- ①+④ Standard Panel with corner panel with wireless receiver
- ①+⑤ Standard Panel with corner panel with motion sensor & corner panel with wireless receiver
- ② Draft Prevention Panel only
- ②+③ Draft Prevention Panel with corner panel with motion sensor
- ②+④ Draft Prevention Panel with corner panel with wireless receiver
- ②+⑤ Draft Prevention Panel with corner panel with motion sensor & corner panel with wireless receiver



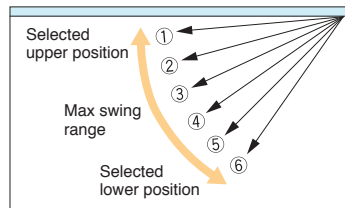
*Wireless receiver and Motion sensor can be installed to the position as shown

Individual flap control system

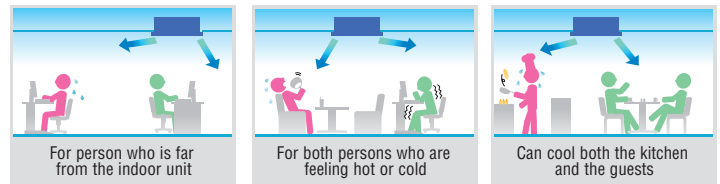
According to room conditions, four directions of air flow can be controlled individually by utilizing the flap control system. Individual flap control is available even after installation.



Flap can swing within an upper and lower flap range position within can be selected with a wired remote control.



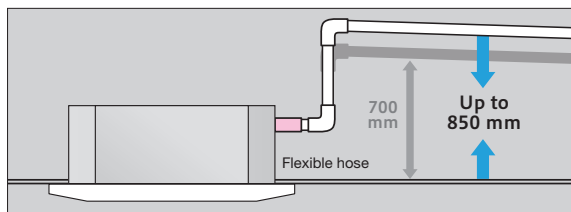
*The wireless remote control is not applicable to the Individual flap control system.



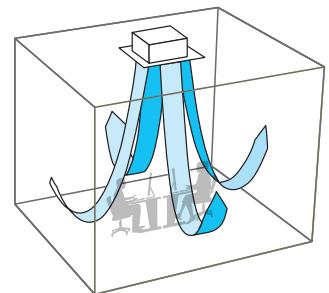
850mm Drain Pump

Suitable for High ceilings

Drain can be discharged upwards by 850mm from the ceiling surface. It allows a piping layout with a high degree of freedom. Depending on the installation location and 185mm flexible hose as a standard equipment supports easy workability.

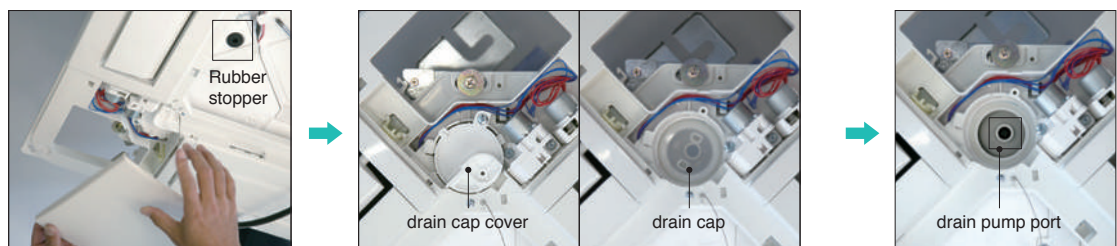


The Powerful blowout of ultra high tap carry comfortable air flow to foot even in high ceiling. It is ideal for high ceiling offices and stores, etc., with a wide, uniform air flow throughout the room.



Easy check of drain pan

Easy inspection of the condition of the drain pan is possible by removing corner lid only.



Remove corner lid.

Remove drain cap cover and check the condition. It is necessary to clean-up, firstly remove the rubber stopper to drain water out and secondly remove the drain cap.

Clean up the area around the drain pump port.



Specifications

Item	Model	FDT28KXZE1	FDT36KXZE1	FDT45KXZE1	FDT56KXZE1	FDT71KXZE1
Nominal cooling capacity	kW	2.8	3.6	4.5	5.6	7.1
Nominal heating capacity	kW	3.2	4.0	5.0	6.3	8.0
Power source		1 Phase 220-240V, 50Hz				
Power consumption	Cooling	0.04-0.04			0.07-0.07	0.08-0.08
	Heating	0.04-0.04			0.07-0.07	0.08-0.08
Sound power level	dB(A)	49		50	55	62
Sound pressure level	dB(A)	P-Hi:38 Hi:33 Me:30 Lo:28		P-Hi:38 Hi:33 Me:31 Lo:29	P-Hi:44 Hi:33 Me:31 Lo:29	P-Hi:47 Hi:35 Me:32 Lo:28
Exterior dimensions H x W x D	mm	Unit:236x840x840 Panel:35x950x950				
Net weight	kg	Unit:20 Standard Panel:5			Unit:21.5 Standard Panel:5	
Air flow	m ³ /min	P-Hi:20 Hi:14 Me:12 Lo:10	P-Hi:20 Hi:14 Me:12 Lo:10	P-Hi:20 Hi:15 Me:13 Lo:10	P-Hi:26 Hi:16 Me:13 Lo:11	P-Hi:28 Hi:17 Me:14 Lo:12
Outside air intake		Possible				
Panel		T-PSA-5AW-E, T-PSAE-5AW-E				
Air filter, Q'ty		Pocket Plastic net x1 (Washable)				
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-T-5AW-E2				
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")	

Item	Model	FDT90KXZE1	FDT112KXZE1	FDT140KXZE1	FDT160KXZE1
Nominal cooling capacity	kW	9.0	11.2	14.0	16.0
Nominal heating capacity	kW	10.0	12.5	16.0	18.0
Power source		1 Phase 220-240V, 50Hz			
Power consumption	Cooling	0.13-0.13		0.14-0.14	
	Heating	0.13-0.13		0.14-0.14	
Sound power level	dB(A)	65		66	
Sound pressure level	dB(A)	P-Hi:49 Hi:38 Me:36 Lo:31	P-Hi:49 Hi:39 Me:37 Lo:31	P-Hi:49 Hi:42 Me:39 Lo:32	P-Hi:49 Hi:42 Me:39 Lo:33
Exterior dimensions H x W x D	mm	Unit:298x840x840 Panel:35x950x950			
Net weight	kg	Unit:25 Standard Panel:5			
Air flow	m ³ /min	P-Hi:37 Hi:25 Me:22 Lo:15	P-Hi:38 Hi:26 Me:23 Lo:17	P-Hi:38 Hi:28 Me:25 Lo:18	P-Hi:38 Hi:29 Me:26 Lo:19
Outside air intake		Possible			
Panel		T-PSA-5AW-E, T-PSAE-5AW-E			
Air filter, Q'ty		Pocket Plastic net x1 (Washable)			
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-T-5AW-E2			
Installation data Refrigerant piping size	mm(in)	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")			

- The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
- Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.





Ceiling Cassette -4way Compact FDTC

NEW

Model No.

- FDTC15KXZE1
- FDTC22KXZE1
- FDTC28KXZE1
- FDTC36KXZE1
- FDTC45KXZE1
- FDTC56KXZE1



Draft Prevention Panel (option)

Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



RCN-TC-5AW-E2

European design & Flat panel



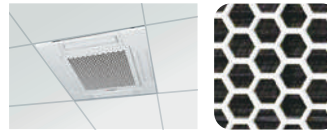
Compact Design

□700mm → □620mm

It's only 14kg

Height of thin panel and main body is only 248 mm allowing it to be a very easy installation.

Integrated ceiling system design 600x600

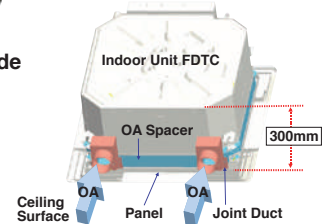


A grille designed with a unique structure and a clean white panel that blends with the room. This design was invented by zweigrad GmbH & Co. KG in Germany.

Taking OA (Outside Air) into inside

Fresh air can be taken in without optional parts. When the fresh air is insufficient, optional parts can be used.

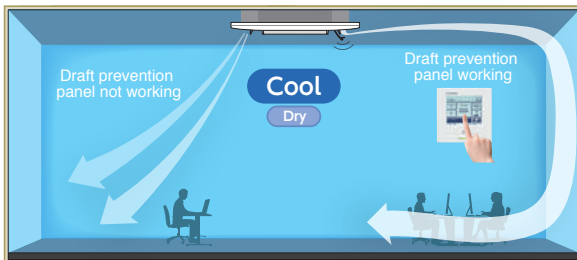
OA Spacer TC-OAS-E2(option)
Joint Duct TC-OAD-E(option)



Draft Prevention Panel

(Option)

Draft Prevention Panel prevents cold/hot draft being blown directly on the user. It is possible to set Draft Prevention Panel for each air outlet.



User can position panels by using the remote controller only (RC-EX3A, RCN-TC-5AW-E2) when Draft Prevention Panel is available.

Individual flap control system

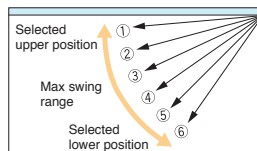
According to room temperature conditions, four directions of air flow can be controlled individually by following Flap control system.



Individual flap control is available even after installation.

The flap can swing within the range of upper and lower flap position selected with wired remote control.

*The wireless remote control is not applicable to the Individual flap control system.



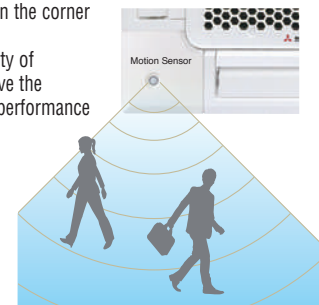
Motion Sensor

(Option)

Motion sensor is equipped in the corner of the panel and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



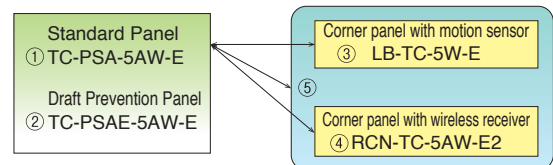
LB-TC-5W-E



Panel select pattern

(Option)

8 patterns of panel are available. Please refer to P69.



850mm Drain Pump

Drain can be discharged upward by 850 mm from the ceiling surface close to the indoor unit. It allows a piping layout with a high degree of freedom depending on the installation location.

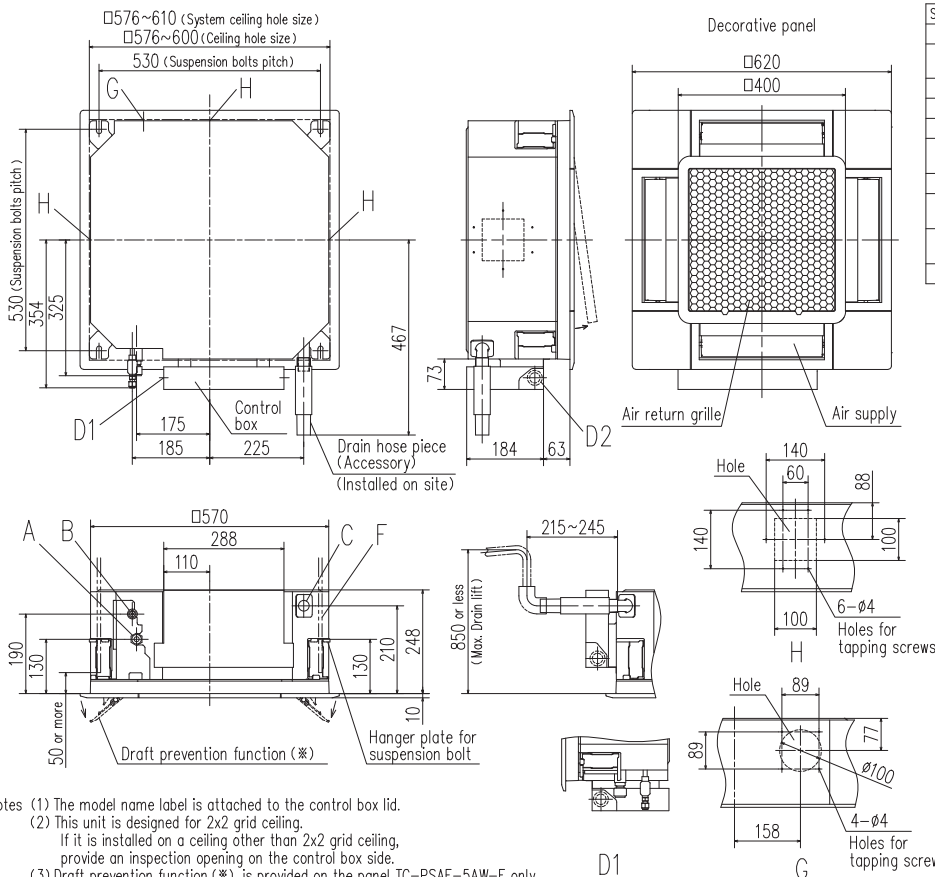
Specifications

Item	Model	FDTC15KXZE1	FDTC22KXZE1	FDTC28KXZE1	FDTC36KXZE1	FDTC45KXZE1	FDTC56KXZE1	
Nominal cooling capacity	kW	1.5	2.2	2.8	3.6	4.5	5.6	
Nominal heating capacity	kW	1.7	2.5	3.2	4.0	5.0	6.3	
Power source		1 Phase 220-240V, 50Hz						
Power consumption	Cooling	0.03-0.03			0.04-0.04		0.05-0.05	0.06-0.06
	Heating	0.03-0.03			0.04-0.04		0.05-0.05	0.06-0.06
Sound power level	dB(A)	Cooling:47 Heating:46		49		Cooling:54 Heating:53	Cooling:58 Heating:57	60
Sound pressure level	Cooling	P-Hi:33 Hi:30 Me:28 Lo:25		P-Hi:35 Hi:32 Me:29 Lo:25		P-Hi:39 Hi:36 Me:31 Lo:26	P-Hi:43 Hi:39 Me:36 Lo:28	P-Hi:47 Hi:43 Me:39 Lo:31
	Heating	P-Hi:33 Hi:30 Me:26 Lo:22		P-Hi:35 Hi:32 Me:29 Lo:25		P-Hi:39 Hi:36 Me:31 Lo:26	P-Hi:43 Hi:39 Me:36 Lo:28	P-Hi:47 Hi:43 Me:39 Lo:31
Exterior dimensions H x W x D	mm	Unit:248x570x570 Panel:10x620x620						
Net weight	kg	Unit:12.5 Standard Panel:2.5		Unit:13 Standard Panel:2.5		Unit:14 Standard Panel:2.5		
Air flow	Cooling	P-Hi:8 Hi:7 Me:6 Lo:5		P-Hi:9 Hi:8 Me:7 Lo:6		P-Hi:10 Hi:9 Me:8 Lo:6	P-Hi:12 Hi:10 Me:9 Lo:7	P-Hi:14 Hi:12 Me:10 Lo:8
	Heating	P-Hi:8 Hi:7 Me:6 Lo:5		P-Hi:9 Hi:8 Me:7 Lo:6		P-Hi:10 Hi:9 Me:8 Lo:6	P-Hi:12 Hi:10 Me:9 Lo:7	P-Hi:14 Hi:12 Me:10 Lo:8
Outside air intake		Possible						
Panel		TC-PSA-5AW-E, TC-PSAE-5AW-E						
Air filter, Q'ty		Pocket Plastic net x1 (Washable)						
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-TC-5AW-E2						
Installation data		Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			
Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			

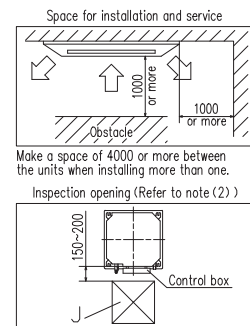
1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

All measurements in mm.



Symbol	Content		
	Model	15,22,28	36,45,56
A	Gas piping	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	
C	Drain piping	VP25 (O.D.32)	
D1	Power supply connection		
D2	Remote control code and signal wiring connection		
F	Suspension bolts	(M10 or M8)	
G	Outside air opening for ducting	(Knock out)	
H	Air outlet opening for ducting	ø125 (Knock out)	
J	Inspection opening	450X450	



Make a space of 4000 or more between the units when installing more than one.

Inspection opening (Refer to note (2))

- Notes (1) The model name label is attached to the control box lid.
 (2) This unit is designed for 2x2 grid ceiling.
 If it is installed on a ceiling other than 2x2 grid ceiling, provide an inspection opening on the control box side.
 (3) Draft prevention function (※) is provided on the panel TC-PSAE-5AW-E only.



Ceiling Cassette -2way- FDTW

Model No.

FDTW28KXE6F	FDTW90KXE6F
FDTW45KXE6F	FDTW112KXE6F
FDTW56KXE6F	FDTW140KXE6F
FDTW71KXE6F	



Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

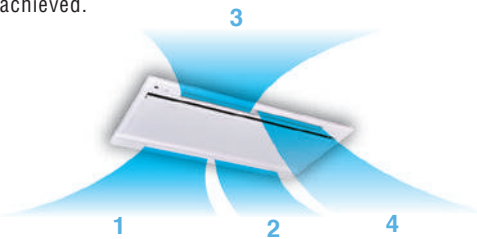
Wireless



RCN-TW-E2

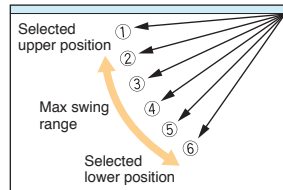
Individual flap control system

According to room temperature conditions, four directions air flow can be controlled individually by flap control system. Due to optimization of outlet design of air flow our new advanced technology, sufficient air flow is secured and long reach of air flow is achieved.



The flap can swing within the range of upper and lower flap position selected with wired remote control.

*The wireless remote control is not applicable to the individual flap control system.



750mm Drain Pump

Drain can be discharged upward by 750mm from the ceiling surface close to the indoor unit. It allows a piping layout with a high degree of freedom depending on the installation location.

Installation workability

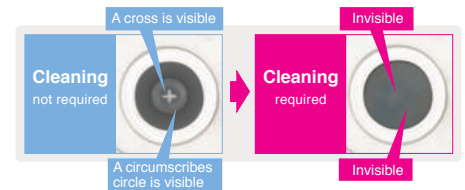
Drainage spout

Drainage flow test can be done easily by use of this drainage spout.



Transparent access hole to drain pan

Condition of the bottom of a drain pan can be checked through this transparent access hole without removing drain pan.



Motion Sensor

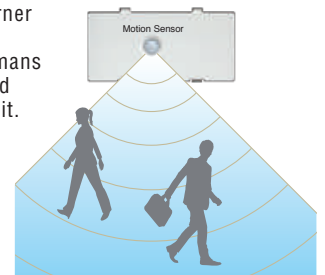
NEW

(Option)

Motion sensor is equipped in the corner of the panel and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-TW-6W



Specifications

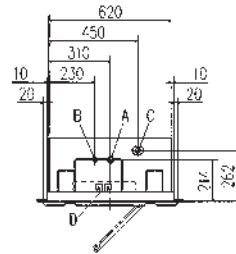
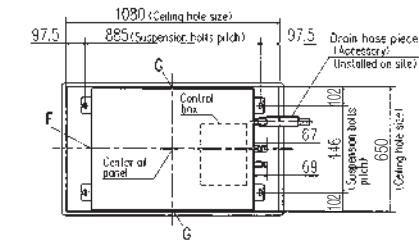
Item	Model	FDTW28KXE6F	FDTW45KXE6F	FDTW56KXE6F	FDTW71KXE6F	FDTW90KXE6F	FDTW112KXE6F	FDTW140KXE6F	
Nominal cooling capacity	kW	2.8	4.5	5.6	7.1	9.0	11.2	14.0	
Nominal heating capacity	kW	3.2	5.0	6.3	8.0	10.0	12.5	16.0	
Power source		1 Phase 220-240V, 50Hz							
Power consumption	Cooling	0.09-0.09	0.10-0.10		0.14-0.14	0.19-0.19			
	Heating	0.09-0.09	0.10-0.10		0.14-0.14	0.19-0.19			
Sound power level	dB(A)	58					65	—	
Sound pressure level	dB(A)	P-Hi:42 Hi:38 Me:34 Lo:31					P-Hi:48 Hi:45 Me:41 Lo:37		
Exterior dimensions H x W x D	mm	Unit:325x820x620 Panel:20x1120x680				Unit:325x1535x620 Panel:20x1835x680			
Net weight	kg	Unit:20 Panel:8.5	Unit:21 Panel:8.5		Unit:23 Panel:8.5	Unit:35 Panel:13			
Air flow	m ³ /min	P-Hi:14.5 Hi:12 Me:10 Lo:9					P-Hi:31 Hi:27 Me:23 Lo:20		
Outside air intake		Possible							
Panel		TW-PSA-26W-E				TW-PSA-46W-E			
Air filter, Q'ty		Pocket Plastic net x2 (Washable)				Pocket Plastic net x3 (Washable)			
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-TW-E2							
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")			

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

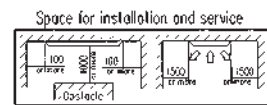
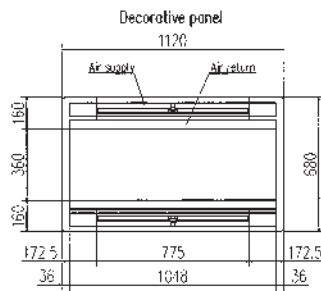
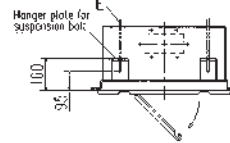
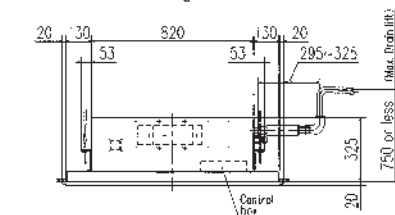
All measurements in mm.

FDTW28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F



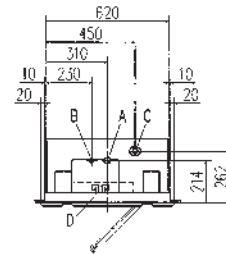
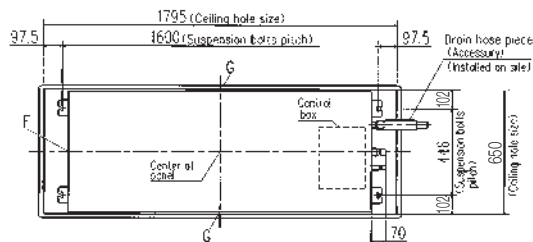
Symbol	Model	28	45, 56	71
A	Gas piping	φ52 (3/8" Flare)	φ71 (2 1/2" Flare)	φ89 (3 1/2" Flare)
B	Liquid piping	φ6.35 (1/4" Flare)	φ9.52 (3/8" Flare)	φ12.7 (1/2" Flare)
C	Drain piping	VP25 (O.D. 32)		
D	Plate for wiring			
E	Suspension bolts	M10		
F	Outside air opening for ducting	: Knock out :		
G	Air outlet opening for ducting	: Knock out :		

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



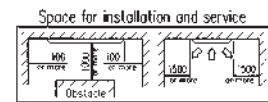
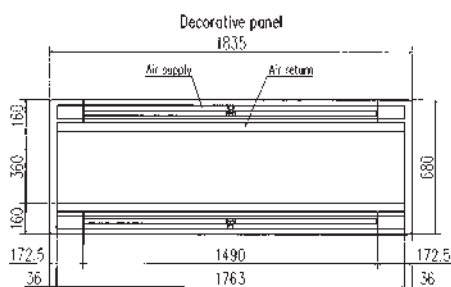
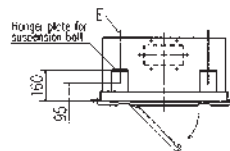
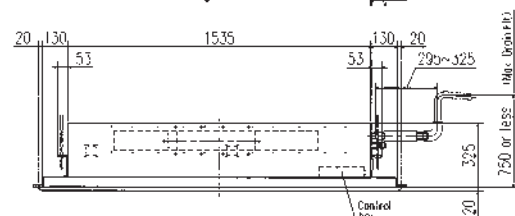
Make a space of 400 or more between the units when installing more than one.

FDTW90KXE6F, 112KXE6F, 140KXE6F



Symbol	Model	90, 112, 140
A	Gas piping	φ76.2 (3" Flare)
B	Liquid piping	φ9.52 (3/8" Flare)
C	Drain piping	VP25 (O.D. 32)
D	Plate for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	: Knock out :
G	Air outlet opening for ducting	: Knock out :

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



Make a space of 500 or more between the units when installing more than one.

Ceiling Cassette -1way- FDTS

Model No.
FDTS45KXE6F
FDTS71KXE6F



Remote control (option)

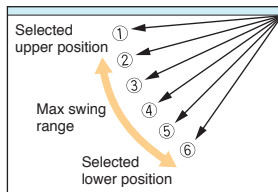


Individual flap control system

Two directions of air flow can be controlled individually by flap control system.



The flap can swing within the range of upper and lower flap position selected with wired remote control.



*The wireless remote control is not applicable to the individual flap control system.

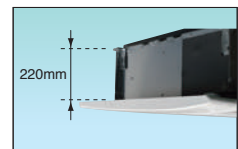
Wireless remote control

For wireless remote control simply attach an additional panel with infrared receiver on the right side of the main decorative panel.



Compact design

Indoor unit size (W:1,150 x D:565) brings easy installation for 1,200 x 600 ceiling and Panel size (1,250 x 650) is suitable for 1,200 x 600 ceiling. Height is the industry's lowest height level 220mm and weight is 27/28kg only.



Motion Sensor

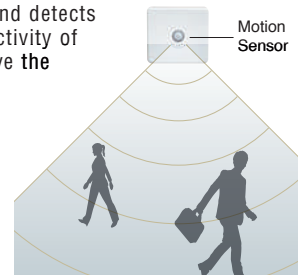
NEW

(Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-KIT



600mm Drain Pump

Drain can be discharged upward by 600mm from the ceiling surface close to the indoor unit. It allows a piping layout with a high degree of freedom depending on the installation location.

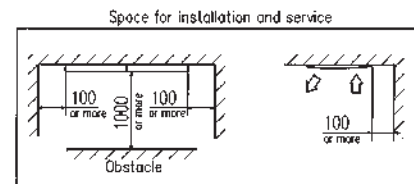
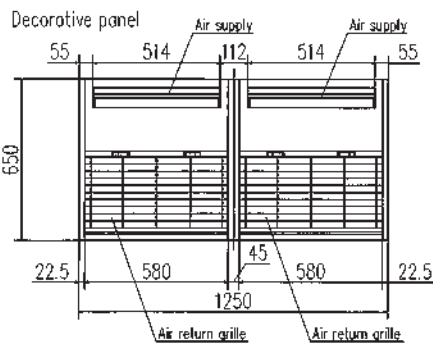
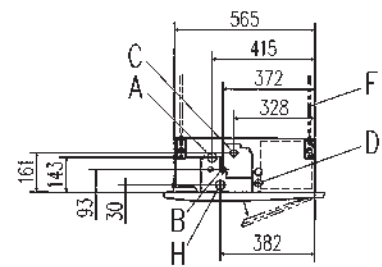
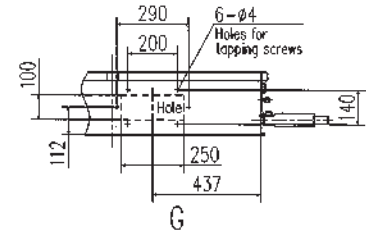
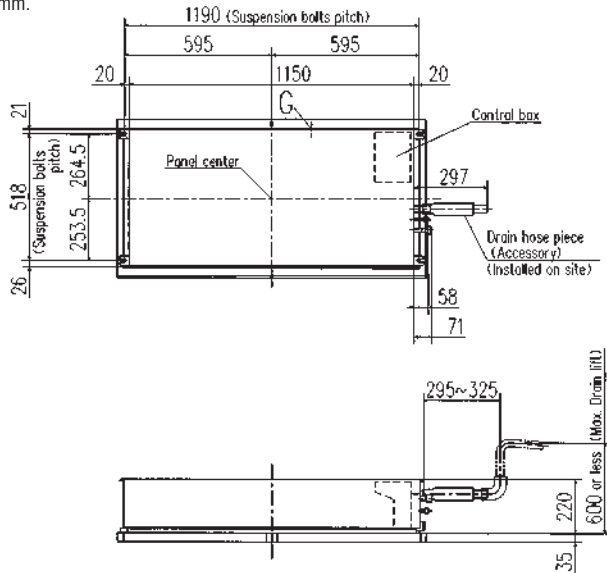
Specifications

Item	Model	FDTS45KXE6F	FDTS71KXE6F
Nominal cooling capacity	kW	4.5	7.1
Nominal heating capacity	kW	5.0	8.0
Power source		1 Phase 220-240V, 50Hz	
Power consumption	Cooling kW	0.04-0.04	0.09-0.09
	Heating kW	0.04-0.04	0.09-0.09
Sound power level	dB(A)	60	61
Sound pressure level	dB(A)	P-Hi:42 Hi:40 Me:38 Lo:35	P-Hi:49 Hi:46 Me:41 Lo:36
Exterior dimensions H x W x D	mm	Unit:220x1150x565 Panel:35x1250x650	
Net weight	kg	Unit:27 Panel:5	Unit:28 Panel:5
Air flow	m ³ /min	P-Hi:13 Hi:12 Me:11 Lo:9.5	P-Hi:17 Hi:15 Me:12 Lo:9.5
Outside air intake		Possible	
Panel		TS-PSA-3AW-E	
Air filter, Q'ty		Pocket Plastic net x2 (Washable)	
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-TS-E2	
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

All measurements in mm.



Symbol	Content		
	Model	45	71
A	Gas piping	ø12.7 (1/2") (Flare)	ø15.88 (5/8") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	ø9.52 (3/8") (Flare)
C	Drain piping	VP25 (O.D.32)	
D	Hole for wiring		
F	Suspension bolts	(M10)	
G	Outside air opening for ducting	(Knock out)	
H	Drain piping (Gravity drainage)	VP25 (I.D.25 , O.D.32)	



Ceiling Cassette -1way Compact-FDTQ

Model No.
 FDTQ22KXE6F
 FDTQ28KXE6F
 FDTQ36KXE6F



Fits into standard
600 x 600 ceiling

Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



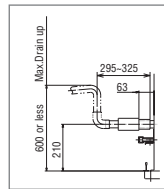
RCN-KIT4-E2

Compact design

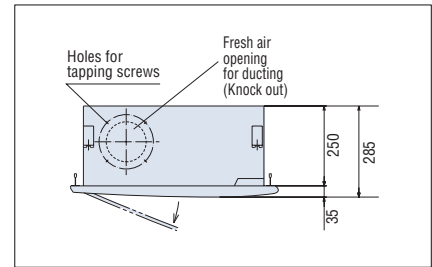
- Comfortable effective cooling for small rooms, with low fan speed air flow at just 5.4m³/min.



Optional wide panel shown for solid ceiling



Condensate drain pump included as standard



Ultra slim design at just 250mm above the ceiling

Specifications

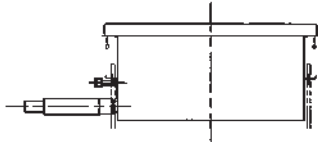
Item	Model	FDTQ22KXE6F				FDTQ28KXE6F				FDTQ36KXE6F			
Panel Name		Direct blow panel		Duct panel		Direct blow panel		Duct panel		Direct blow panel		Duct panel	
Panel mode (Option)		TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER	TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER	TQ-PSA-15W-E	TQ-PSB-15W-E	QR-PNA-14W-ER	QR-PNB-14W-ER
Nominal cooling capacity	kW	2.2				2.8				3.6			
Nominal heating capacity	kW	2.5				3.2				4.0			
Power source		1 Phase 220-240V, 50Hz											
Power consumption	Cooling	0.05-0.07				0.05-0.07				0.05-0.07			
	Heating	0.05-0.07				0.05-0.07				0.05-0.07			
Sound power level	dB(A)	60											
Sound pressure level	dB(A)	P-Hi:45 Hi:41 Me:38 Lo:33				P-Hi:45 Hi:41 Me:38 Lo:33				P-Hi:45 Hi:41 Me:38 Lo:33			
Exterior dimensions	Unit	250x570x570											
	H x W x D	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650	35x625x650	35x780x650
Net weight	kg	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3	Unit:23 Panel:2.5	Unit:23 Panel:3
Air flow	m ³ /min	P-Hi:8 Hi:7 Me:6 Lo:5				P-Hi:8 Hi:7 Me:6 Lo:5				P-Hi:8 Hi:7 Me:6 Lo:5			
Outside air intake		Possible											
Air filter, Q'ty		Pocket Plastic net x1 (Washable)											
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2											
Installation data		Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")											
Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")											

1. The data are based on the following conditions(SO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

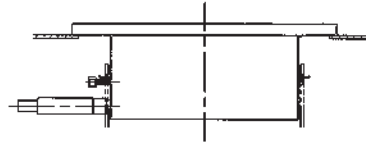
Dimensions

All measurements in mm.

Direct blow panel (TQ-PSA-15W-E)

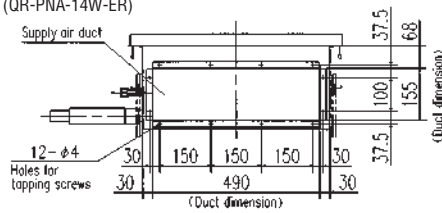


Direct blow panel (TQ-PSB-15W-E)

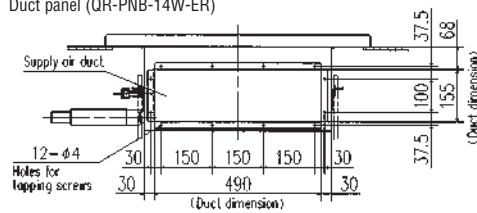


Symbol	Content
	Model
A	Gas piping
B	Liquid piping
C	Drain piping
D	Hole for wiring
E	Suspension bolts
F 1.2	Outside air opening for ducting (Knock out)

Duct panel (QR-PNA-14W-ER)



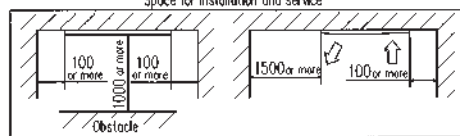
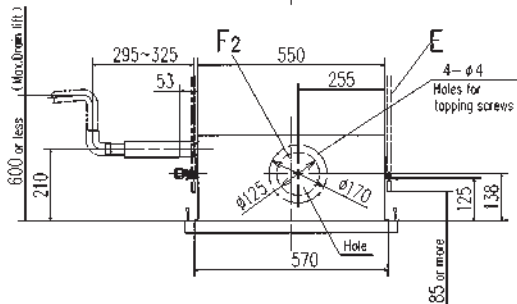
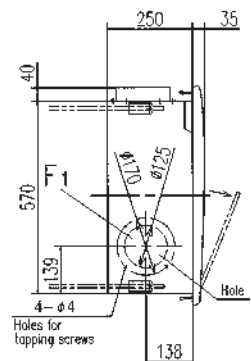
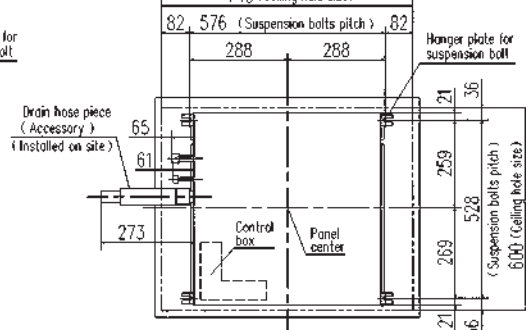
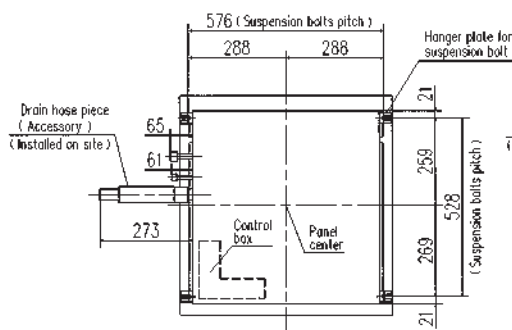
Duct panel (QR-PNB-14W-ER)



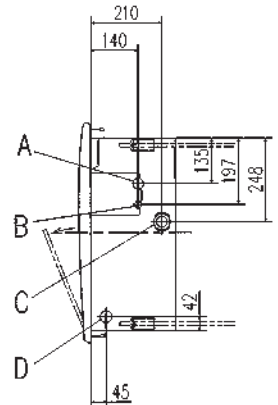
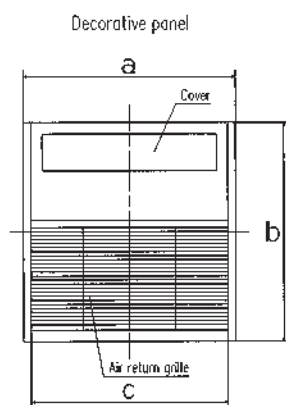
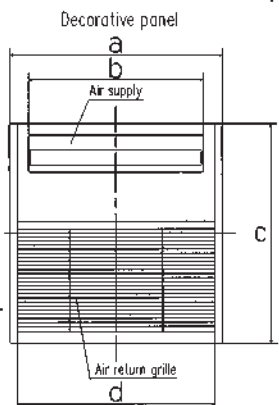
Notes

- (1) The model name label is attached on the fan case inside the air return grille.
- (2) This unit is designed for 2X2 grid ceiling.

* In case of Direct blow panel



Make a space of 3000 or more between the units when installing more than one.



Dimension Table

Unit:mm

model	a	b	c	d
TQ-PSA-15W-E	625	514	650	580
TQ-PSB-15W-E	780	514	650	580

Dimension Table

Unit:mm

model	a	b	c
QR-PNA-14W-ER	625	650	580
QR-PNB-14W-ER	780	650	580



Duct Connected -High Static Pressure- FDU

- Model No.**
 FDU45KXE6F
 FDU56KXE6F
 FDU71KXE6F
 FDU90KXE6F
 FDU112KXE6F
 FDU140KXE6F
 FDU160KXE6F



- Model No.**
 FDU224KXZE1
 FDU280KXZE1



Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



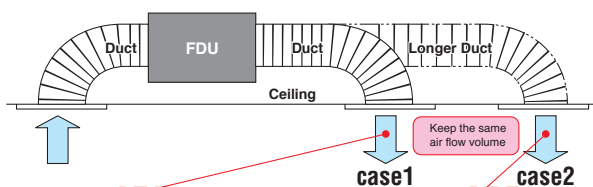
RCN-KIT4-E2

External Static Pressure(E.S.P) control

The External Static Pressure (E.S.P.) can be manually set on the wired remote controller. Indoor unit will control the fan speed to keep rated air flow volume at each fan speed setting. You can set required E.S.P. by wired remote controller, calculated with the set air flow rate and the pressure loss of the duct.



E.S.P. button RC-E5
 External Static Pressure (E.S.P.) can be set by E.S.P. button.



Setting No.	No.8	No.9	No.10	No.11	No.12	No.13	No.14	No.15
E.S.P.	80Pa	90Pa	100Pa	110Pa	120Pa	130Pa	140Pa	150Pa

*Range of 80~150 Pa is set at ex-factory default.
 Range of 10~200 Pa is available by setting SW8-4 switch on at site.

<Expansion of external static pressure range>

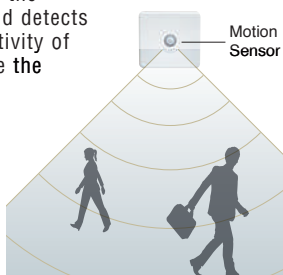
Previous **10~130Pa** → Current **10~200Pa**

Motion Sensor **NEW** (Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-KIT

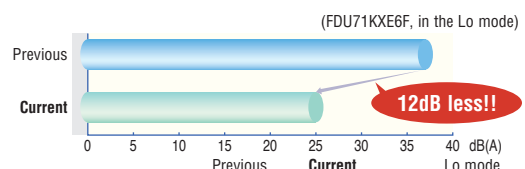


Thin design



	Previous	Current	
FDU71KXE6F	297	280	17mm less!!
FDU112/140KXE6F	350	280	70mm less!!

Reduction of sound pressure level



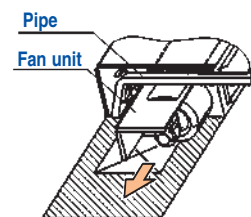
	Previous	Current	
FDU90KXE6F	37	25	12dB(A) less!!
FDU112KXE6F	38	30	8dB(A) less!!
FDU140KXE6F	39	29	10dB(A) less!!

Transparent inspection window

Dirt condition of the bottom of a drain pan can be checked through this transparent inspection window without removing drain pan. (Please refer to P74)

Improvement of the serviceability

Fan unit (impeller and motor) can be pulled out from the right side of the unit. Maintenance can be available from the right side or the bottom side. (Common for FDUM22~160KXE6F & FDU45~160KXE6F)



Specifications

Item	Model	FDU45KXE6F	FDU56KXE6F	FDU71KXE6F	FDU90KXE6F	FDU112KXE6F	FDU140KXE6F	FDU160KXE6F
Nominal cooling capacity	kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity	kW	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power source		1 Phase 220-240V, 50Hz						
Power consumption	Cooling	0.10-0.10		0.24-0.25		0.31-0.32	0.35-0.36	0.42-0.43
	Heating	0.10-0.10		0.24-0.25		0.31-0.32	0.35-0.36	0.42-0.43
Sound power level	dB(A)	60		65		—		
Sound pressure level	dB(A)	P-Hi:37 Hi:32 Me:29 Lo:26		P-Hi:38 Hi:33 Me:29 Lo:25		P-Hi:44 Hi:38 Me:36 Lo:30	P-Hi:45 Hi:40 Me:34 Lo:29	P-Hi:47 Hi:40 Me:35 Lo:30
Exterior dimensions H x W x D	mm	280x750x635		280x950x635		280x1370x740		
Net weight	kg	29		34		54		
Air flow	m ³ /min	P-Hi:13 Hi:10 Me:9 Lo:8		P-Hi:24 Hi:19 Me:15 Lo:10		P-Hi:36 Hi:28 Me:25 Lo:19	P-Hi:39 Hi:32 Me:26 Lo:20	P-Hi:48 Hi:35 Me:28 Lo:22
Maximum external static pressure	Pa	200						
Outside air intake		Possible						
Air filter		Procure locally						
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2						
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")			

1. The data are measured under the following conditions(SO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 60Pa.

2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Item	Model	FDU224KXZE1	FDU280KXZE1
Nominal cooling capacity	kW	22.4	28.0
Nominal heating capacity	kW	25.0	31.5
Power source		1 Phase 220-240V, 50Hz	
Power consumption	Cooling	1.16-1.20	
	Heating	1.16-1.20	
Sound pressure level	dB(A)	P-Hi:52 Hi:50 Me:47 Lo:45	
Exterior dimensions H x W x D	mm	379x1600x893	
Net weight	kg	89	
Air flow	m ³ /min	P-Hi:80 Hi:72 Me:64 Lo:56	
Maximum external static pressure	Pa	200	
Outside air intake		Possible(on return duct)	
Air filter		Procure locally	
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2	
Installation data Refrigerant piping size	mm(in)	Liquid line:ø9.52(3/8") Gas line:ø19.05(3/4")	Liquid line:ø9.52(3/8") Gas line:ø22.22(7/8")

1. The data are measured under the following conditions(SO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 72Pa.

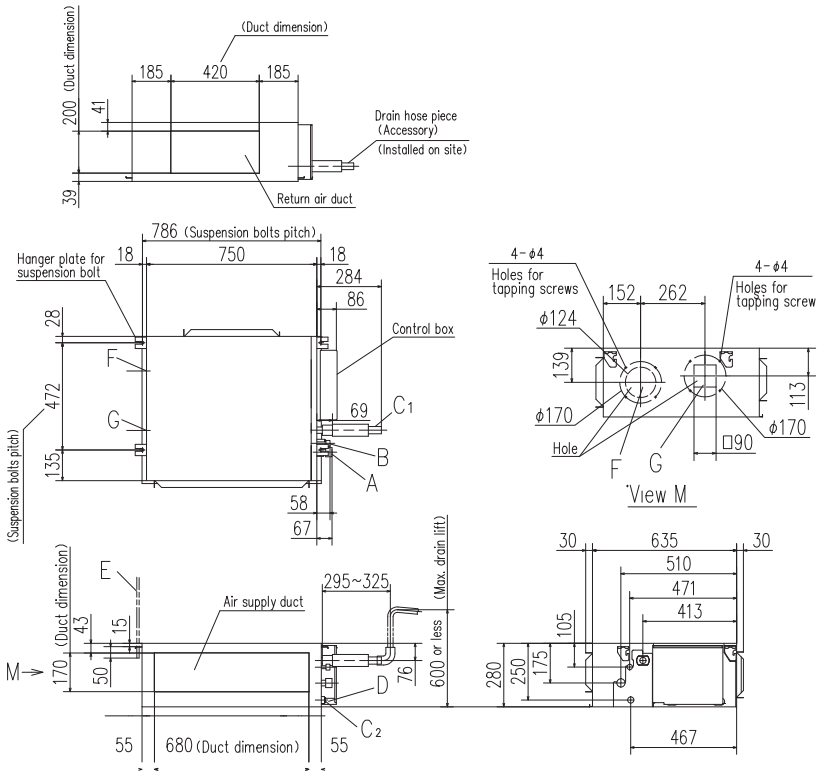
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.



Dimensions

All measurements in mm.

FDU45KXE6F, 56KXE6F

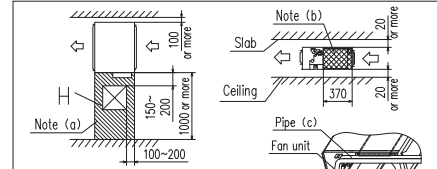


Symbol	Content
A	Gas piping φ12.7 (1/2") (Flare)
B	Liquid piping φ6.35 (1/4") (Flare)
C1	Drain piping VP25 (O.D.32)
C2	Drain piping (Gravity drainage) VP20
D	Hole for wiring
E	Suspension bolts M10
F	Outside air opening for ducting (Knock out)
G	Air outlet opening for ducting (Knock out)
H	Inspection opening (450X450)

Space for installation and service

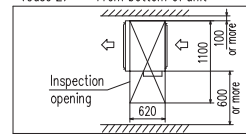
Select either of two cases to keep space for installation and services.

(Case 1) From side of unit



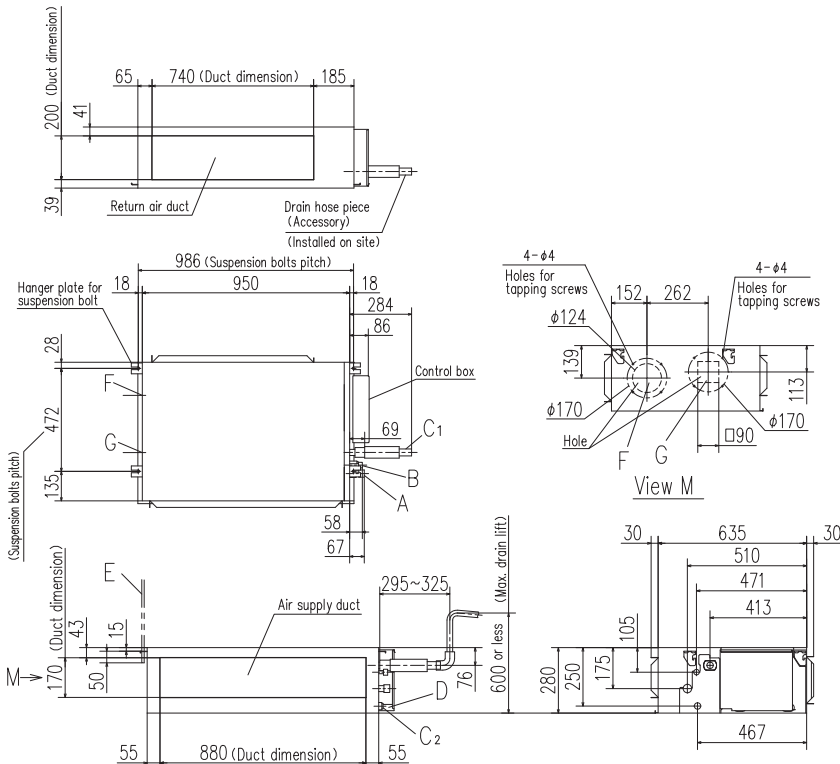
- Notes
- (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to the service manual.
 - (b) Install refrigerant pipes, drain pipe, and wiring so as not to cross marked area.
 - (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



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

FDU71KXE6F, 90KXE6F

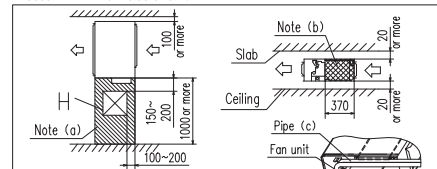


Symbol	Content
A	Gas piping φ15.88 (5/8") (Flare)
B	Liquid piping φ9.52 (3/8") (Flare)
C1	Drain piping VP25 (O.D.32)
C2	Drain piping (Gravity drainage) VP20
D	Hole for wiring
E	Suspension bolts M10
F	Outside air opening for ducting (Knock out)
G	Air outlet opening for ducting (Knock out)
H	Inspection opening (450X450)

Space for installation and service

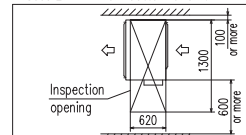
Select either of two cases to keep space for installation and services.

(Case 1) From side of unit



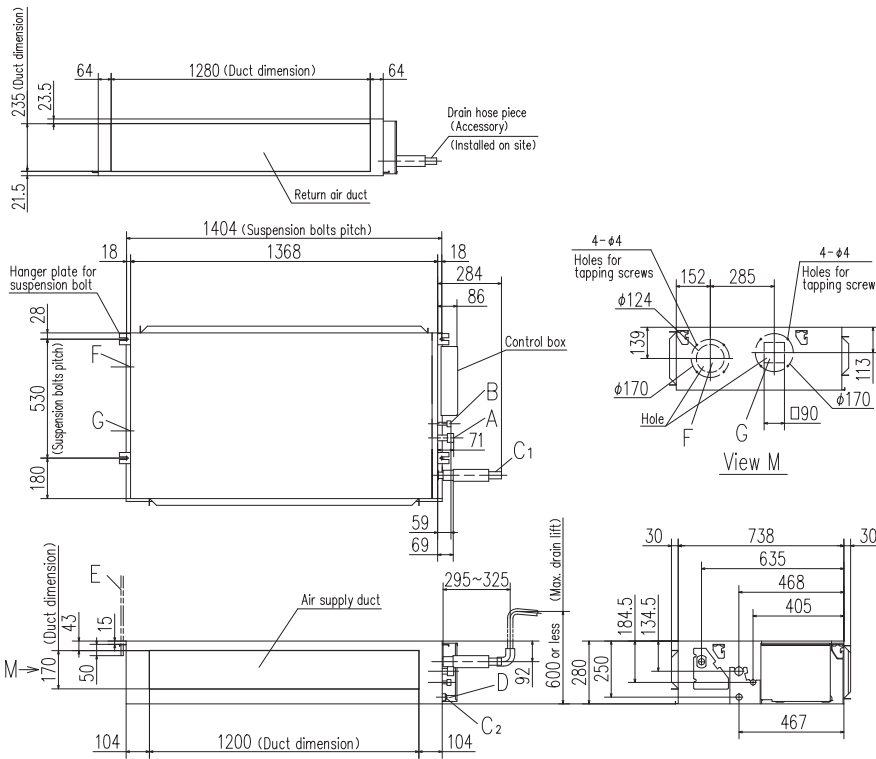
- Notes
- (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to the service manual.
 - (b) Install refrigerant pipes, drain pipe, and wiring so as not to cross marked area.
 - (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



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

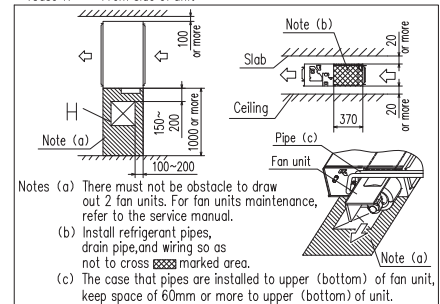
FDU112KXE6F, 140KXE6F, 160KXE6F



Symbol	Content	
A	Gas piping	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450X450)

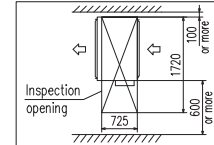
Space for installation and service

Select either of two cases to keep space for installation and services.
(Case 1) From side of unit



- Notes (a) There must not be obstacle to draw out 2 fan units. For fan units maintenance, refer to the service manual.
(b) Install refrigerant pipes, drain pipe, and wiring so as not to cross marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

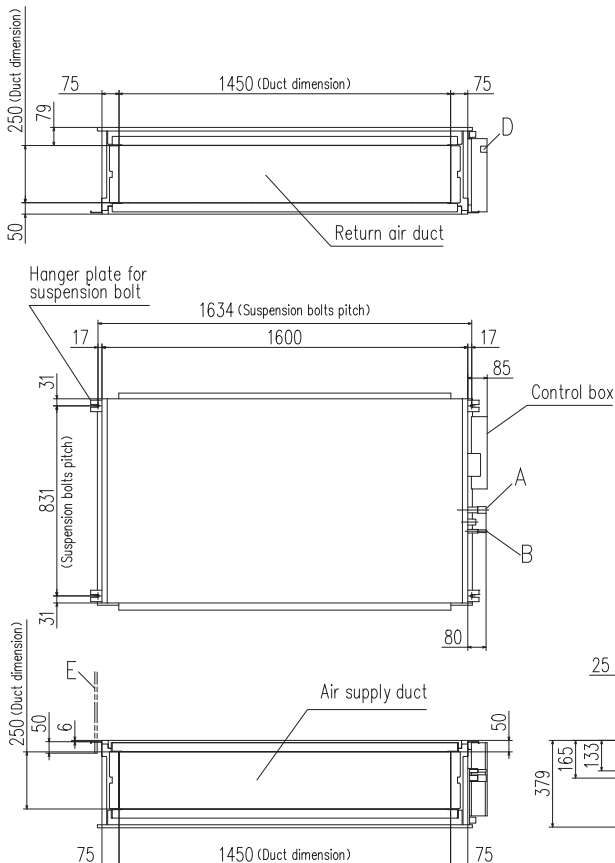
(Case 2) From bottom of unit



Note

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

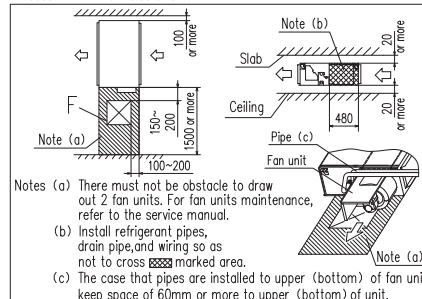
FDU224KXZE1, 280KXZE1



Symbol	Content		
	MODEL	224	280
A	Gas piping	φ19.05 (3/4") (Brazing)	φ22.22 (7/8") (Brazing)
B	Liquid piping	φ9.52 (3/8") (Brazing)	
C	Drain piping (Gravity drainage)	VP25 (O.D.32)	
D	Hole for wiring		
E	Suspension bolts	M10	
F	Inspection hole	(450X450)	

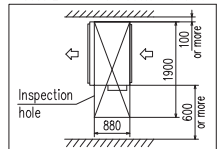
Space for installation and service

Select either of two cases to keep space for installation and services.
(Case 1) From side of unit

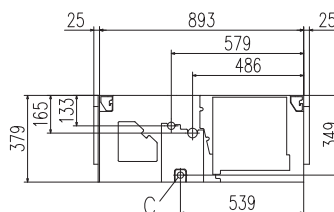


- Notes (a) There must not be obstacle to draw out 2 fan units. For fan units maintenance, refer to the service manual.
(b) Install refrigerant pipes, drain pipe, and wiring so as not to cross marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



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





Duct Connected -Low/Middle Static Pressure- FDUM

Model No.

FDUM22KXE6F	FDUM71KXE6F
FDUM28KXE6F	FDUM90KXE6F
FDUM36KXE6F	FDUM112KXE6F
FDUM45KXE6F	FDUM140KXE6F
FDUM56KXE6F	FDUM160KXE6F



Filter kit (option)

UM-FL1EF : for 22~56
UM-FL2EF : for 71, 90
UM-FL3EF : for 112, 140, 160



* Filter pressure loss:5pa

Remote control (option)

Wired



RC-EX3A **RC-E5** **RCH-E3**

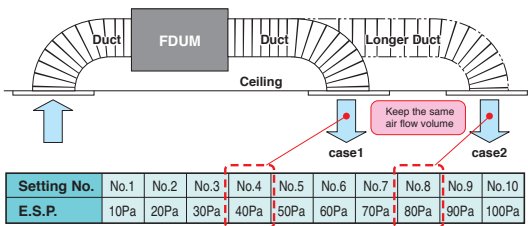
Wireless



RCN-KIT4-E2

Automatic external static pressure (E.S.P.) control

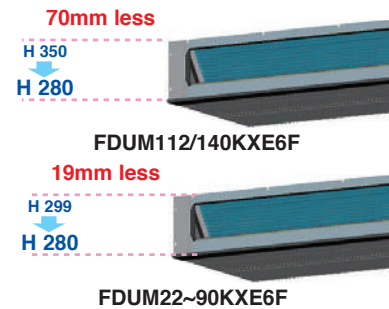
Duct design was simplified. Using DC motor, the most optimum air flow volume can be achieved by this automatic control. Indoor unit will recognize external static pressure by itself automatically and keep rated air flow volume.



E.S.P. button **RC-E5**
 External static pressure (E.S.P.) can be set by E.S.P. button.

Thin design

The height of all FDUM models is only 280mm.



Motion Sensor

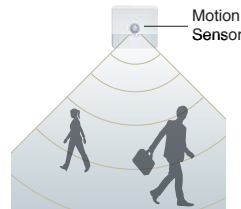
NEW

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-KIT

(Option)



Transparent inspection window

Dirt condition of the bottom of a drain pan can be checked through this transparent inspection window without removing drain pan. (Please refer to P74)

Specifications

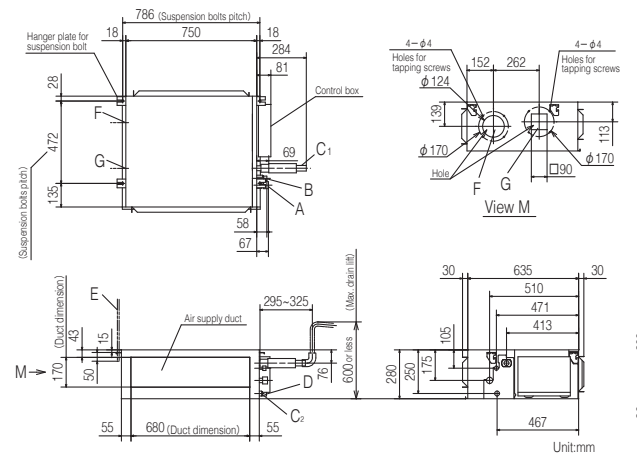
Item	Model	FDUM22KXE6F	FDUM28KXE6F	FDUM36KXE6F	FDUM45KXE6F	FDUM56KXE6F	FDUM71KXE6F	FDUM90KXE6F	FDUM112KXE6F	FDUM140KXE6F	FDUM160KXE6F	
Nominal cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0	
Nominal heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0	
Power source		1 Phase 220-240V, 50Hz										
Power consumption	Cooling	0.10-0.10					0.20-0.20			0.29-0.29	0.33-0.33	0.45-0.45
	Heating	0.10-0.10					0.20-0.20			0.29-0.29	0.33-0.33	0.45-0.45
Sound power level	dB(A)	60					65			—		
Sound pressure level	dB(A)	P-Hi:37 Hi:32 Me:29 Lo:26					P-Hi:38 Hi:33 Me:29 Lo:25			P-Hi:44 Hi:38 Me:36 Lo:30	P-Hi:45 Hi:40 Me:34 Lo:29	P-Hi:47 Hi:40 Me:35 Lo:30
Exterior dimensions H x W x D	mm	280 x 750 x 635					280 x 950 x 635			280 x 1370 x 740		
Net weight	kg	29					34			54		
Air flow	m ³ /min	P-Hi:13 Hi:10 Me:9 Lo:8					P-Hi:24 Hi:19 Me:15 Lo:10			P-Hi:36 Hi:28 Me:25 Lo:19	P-Hi:39 Hi:32 Me:26 Lo:20	P-Hi:48 Hi:35 Me:28 Lo:22
Maximum external static pressure	Pa	100										
Outside air intake		Possible										
Air filter		Filter kit:UM-FL1EF/UM-FL2EF/UM-FL3EF(option)										
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2										
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")				

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 35Pa(22/28/36/45/56/71/90), 60Pa(112/140/160).
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

All measurements in mm.

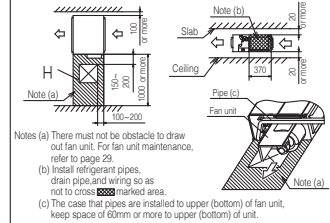
FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F



Space for installation and service

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

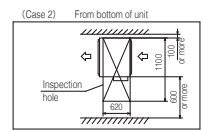
(Case 1) From side of unit



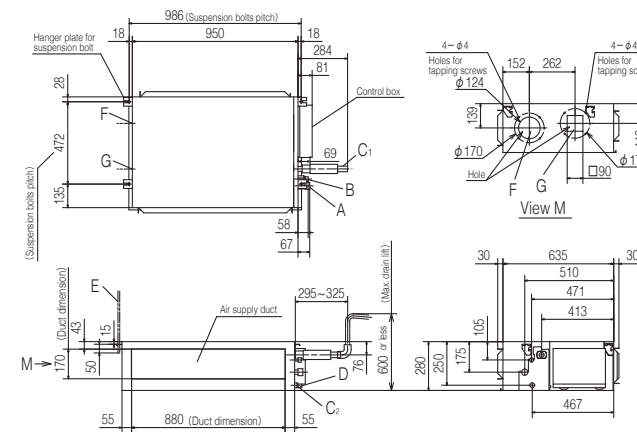
Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 29.
 (b) Install refrigerant pipes, drain pipe and wiring so as not to cross \square marked area.
 (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

Symbol	Model	Content
A	Gas piping	$\phi 3.52$ (3/8") (Flare) $\phi 12.71$ (1/2") (Flare)
B	Liquid piping	$\phi 6.35$ (1/4") (Flare)
C1	Drain piping	VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket) Note (2)
C2	Drain piping (Gravily drainage)	VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	($\phi 150$) (Knock out)
G	Air outlet opening for ducting	($\phi 125$) (Knock out)
H	Inspection hole	(450X450)

Notes (1) The model name label is attached on the lid of the control box.
 (2) Prepare the connecting socket (VP20 or VP25) on site.



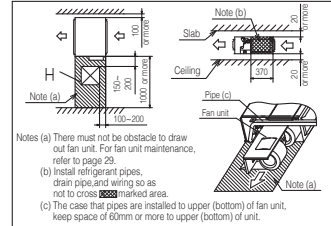
FDUM71KXE6F, 90KXE6F



Space for installation and service

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

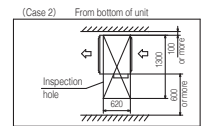
(Case 1) From side of unit



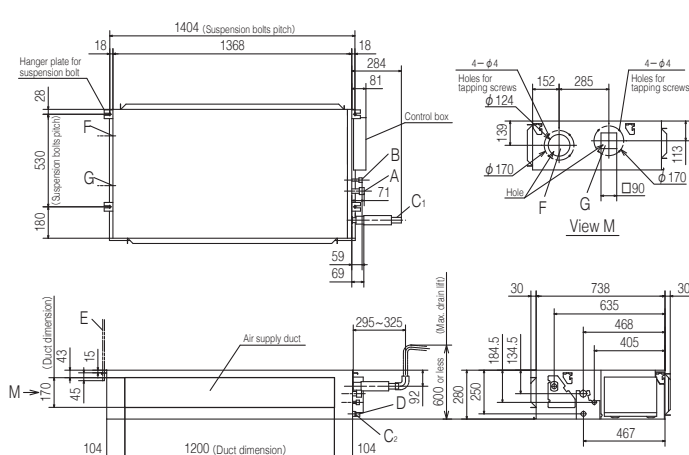
Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 29.
 (b) Install refrigerant pipes, drain pipe and wiring so as not to cross \square marked area.
 (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

Symbol	Content
A	Gas piping $\phi 15.88$ (5/8") (Flare)
B	Liquid piping $\phi 9.52$ (3/8") (Flare)
C1	Drain piping VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket) Note (2)
C2	Drain piping (Gravily drainage) VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket)
D	Hole for wiring
E	Suspension bolts (M10)
F	Outside air opening for ducting ($\phi 150$) (Knock out)
G	Air outlet opening for ducting ($\phi 125$) (Knock out)
H	Inspection hole (450X450)

Notes (1) The model name label is attached on the lid of the control box.
 (2) Prepare the connecting socket (VP20 or VP25) on site.



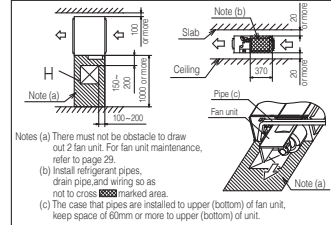
FDUM112KXE6F, 140KXE6F, 160KXE6F



Space for installation and service

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

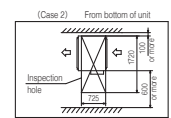
(Case 1) From side of unit



Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 29.
 (b) Install refrigerant pipes, drain pipe and wiring so as not to cross \square marked area.
 (c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

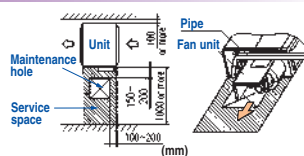
Symbol	Content
A	Gas piping $\phi 15.88$ (5/8") (Flare)
B	Liquid piping $\phi 9.52$ (3/8") (Flare)
C1	Drain piping VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket) Note (2)
C2	Drain piping (Gravily drainage) VP20 (I.D. 20, O.D. 26) (Standard) or VP25 (I.D. 25, O.D. 32) (Used with attached socket)
D	Hole for wiring
E	Suspension bolts (M10)
F	Outside air opening for ducting ($\phi 150$) (Knock out)
G	Air outlet opening for ducting ($\phi 125$) (Knock out)
H	Inspection hole (450X450)

Notes (1) The model name label is attached on the lid of the control box.
 (2) Prepare the connecting socket (VP20 or VP25) on site.



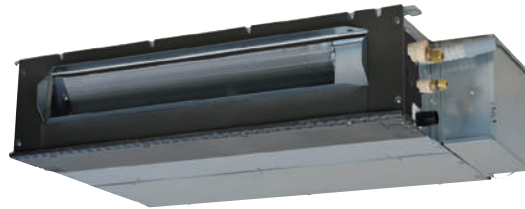
Improvement of the serviceability

Fan unit (impeller and motor) can be pulled out from the right side or the bottom side of the unit. Maintenance can be available from the right side or the bottom side.



Duct Connected (thin) -Low Static Pressure- FDUT

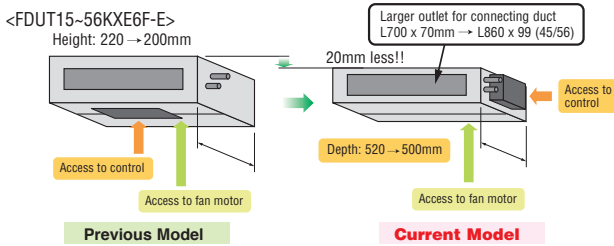
Model No.
 FDUT15KXE6F-E
 FDUT22KXE6F-E
 FDUT28KXE6F-E
 FDUT36KXE6F-E
 FDUT45KXE6F-E
 FDUT56KXE6F-E
 FDUT71KXE6F-E



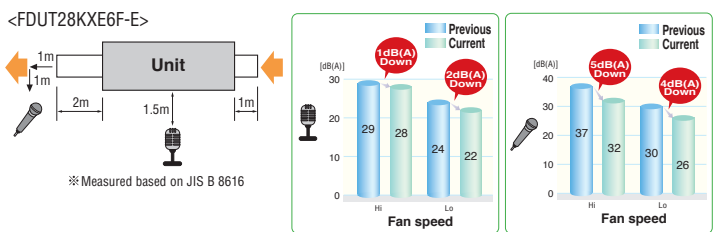
Remote control (option)



Compact design

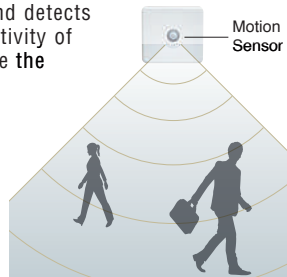


Lower noise



Motion Sensor **NEW** (Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.

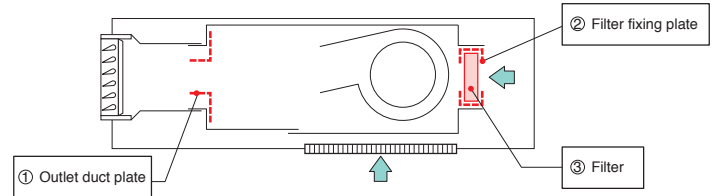


LB-KIT ※ Applied for 71 only

Duct kit and filter options

Item	Contents	for FDUT15/22/28/36KXE6F-E	for FDUT45/56KXE6F-E	for FDUT71KXE6F-E
Outlet duct plate	①	UT-SAT1EF	UT-SAT2EF	UT-SAT3EF
Filter set	②+③	UT-FL1EF	UT-FL2EF	UT-FL3EF

Filter pressure loss : 5 Pa



Specifications

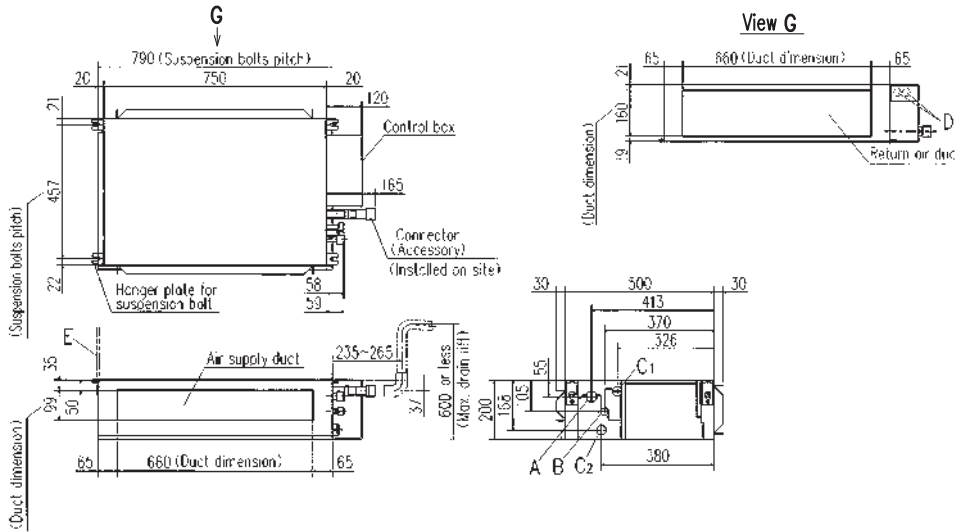
Item	Model	FDUT15KXE6F-E	FDUT22KXE6F-E	FDUT28KXE6F-E	FDUT36KXE6F-E	FDUT45KXE6F-E	FDUT56KXE6F-E	FDUT71KXE6F-E	
Nominal cooling capacity	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	
Nominal heating capacity	kW	1.7	2.5	3.2	4.0	5.0	6.0	8.0	
Power source		1 Phase 220-240V, 50Hz							
Power consumption	Cooling	0.06-0.06		0.07-0.07		0.08-0.08		0.08-0.08	
	Heating	0.06-0.06		0.07-0.07		0.08-0.08		0.07-0.07	
Sound power level	dB(A)	52			57	58	59		
Sound pressure level ①	dB(A)	Hi:28 Me:26 Lo:22	Hi:28 Me:26 Lo:22		Hi:33 Me:30 Lo:26	Hi:34 Me:32 Lo:28	Hi:35 Me:33 Lo:30	Hi:35 Me:31 Lo:28	
Sound pressure level ②	dB(A)	Hi:32 Me:29 Lo:25	Hi:32 Me:29 Lo:26		Hi:37 Me:34 Lo:28	Hi:36 Me:33 Lo:27	Hi:38 Me:33 Lo:29	Hi:41 Me:37 Lo:32	
Exterior dimensions H x W x D	mm	200x750x500				200x950x500		220x1150x565	
Net weight	kg	21			22	25		31	
Air flow (Standard)	m ³ /min	Hi:6 Me:5 Lo:4	Hi:7.5 Me:6 Lo:5		Hi:8.5 Me:7 Lo:5.5	Hi:11.5 Me:9 Lo:7	Hi:12.5 Me:9 Lo:7.2	Hi:16 Me:13 Lo:9.5	
External Static pressure	Pa	Standard:10, Max:35					Standard:10, Max:50		
Outside air intake		Possible from return duct							
Air filter		Filter set:UT-FL1EF/UT-FL2EF/UT-FL3EF(option)							
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2							
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")	

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB. External static pressure of indoor unit is 10Pa.
 2. The data of nominal cooling and heating capacity and sound pressure level are measured with 10Pa of external static pressure.
 3. The sound level indicates the value of rear-intake type with duct in anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
 4. Sound pressure levels are values when 2m supply duct and 1m return duct are connected.
 ①: Mike position is 1.5m below unit, ②: Mike position is 1m in front and 1m below the air supply duct.

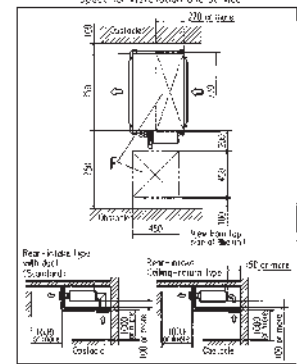
Dimensions

All measurements in mm.

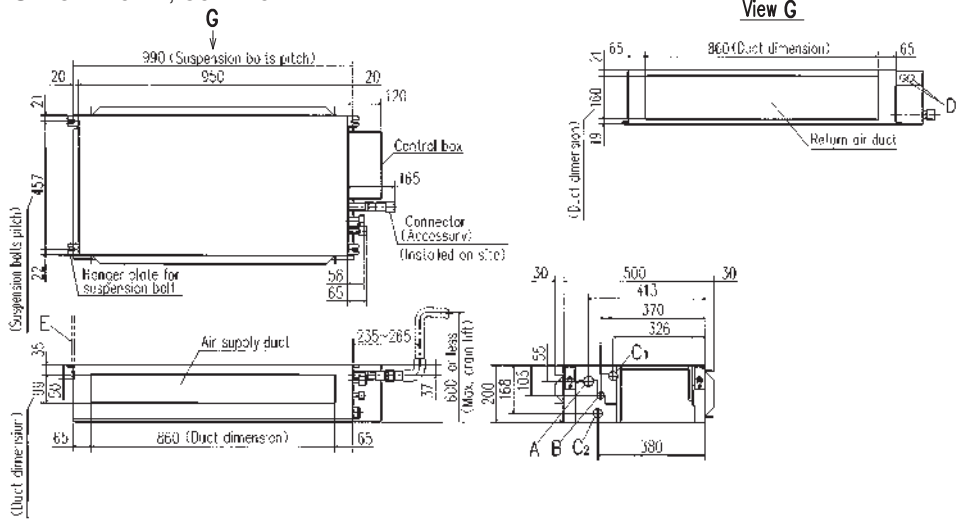
FDUT15KXE6F-E, 22KXE6F-E, 28KXE6F-E, 36KXE6F-E



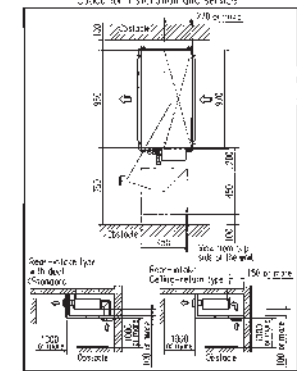
Symbol	Model	Control
A	22KXE6F	1500/1500
B	28KXE6F	1800/1800
C1	28KXE6F	1800/1800
C2	36KXE6F	2100/2100
D	36KXE6F	2100/2100
E	36KXE6F	2100/2100
F	36KXE6F	2100/2100



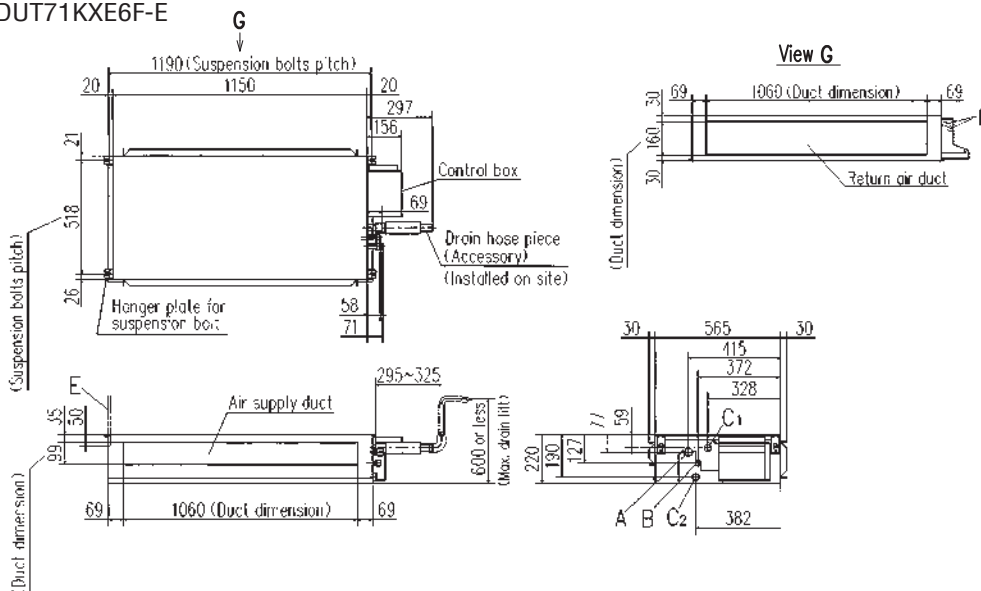
FDUT45KXE6F-E, 56KXE6F-E



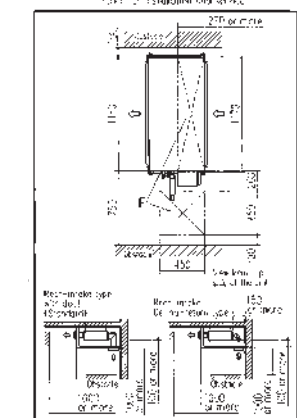
Symbol	Model	Control
A	56KXE6F	2550
B	56KXE6F	2550
C1	56KXE6F	2550
C2	56KXE6F	2550
D	56KXE6F	2550
E	56KXE6F	2550
F	56KXE6F	2550



FDUT71KXE6F-E



Symbol	Model	Control
A	71KXE6F	3000
B	71KXE6F	3000
C1	71KXE6F	3000
C2	71KXE6F	3000
D	71KXE6F	3000
E	71KXE6F	3000
F	71KXE6F	3000





Duct Connected (Compact & Flexible) FDUH

Model No.
FDUH22KXE6F
FDUH28KXE6F
FDUH36KXE6F



Drain up kit (option)
(600mm)
UH-DU-E

Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



RCN-KIT4-E2

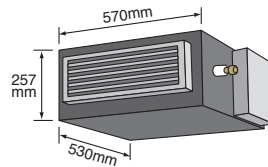
Filter kit (option)
UH-FL1E



*Filter pressure loss:5pa

Compact and thin size, light weight

Our leading high technology has realized the best solution for air conditioning in hotels with compact and thin size units and high energy efficiency. In addition, weight is only 20kg.

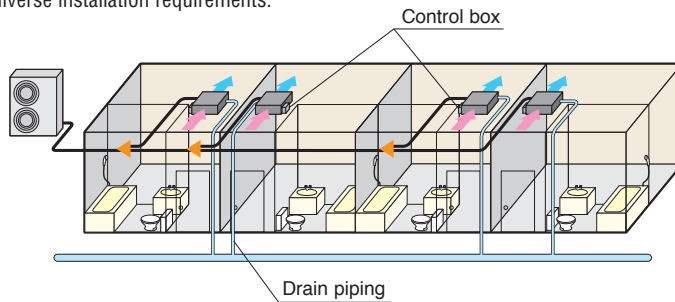


Quiet operation

The lowest sound level in the industry can ensure comfortable stay and rest in hotels.

Installation Flexibility

Control box and drain piping can be installed on both side of the unit and air intake to the unit is available from bottom or back side. Our highest technology can satisfy diverse installation requirements.



Wired remote control



RCH-E3 (option)

Simple remote control

Designed specially for hotel rooms, control buttons are limited only to the minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

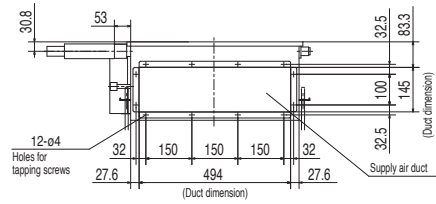
Specifications

Item	Model	FDUH22KXE6F	FDUH28KXE6F	FDUH36KXE6F
Nominal cooling capacity	kW	2.2	2.8	3.6
Nominal heating capacity	kW	2.5	3.2	4.0
Power source		1 Phase 220-240V, 50Hz		
Power consumption	Cooling	0.05-0.07		
	Heating	0.05-0.07		
Sound power level	dB(A)	60		
Sound pressure level	dB(A)	P-Hi:39 Hi: 33 Me: 30 Lo: 27		
Exterior dimensions HxWxD	mm	257x570x530		
Net weight	kg	22		
Air flow	m ³ /min	P-Hi:8.5 Hi: 7 Me: 6.5 Lo: 6		
External static pressure	Pa	30		
Outside air intake		Possible from return duct		
Air filter		Filter kit:UH-FL1E(option)		
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2		
Installation data	mm(m)	Liquid line:ø6.35(1/4")		Liquid line:ø6.35(1/4")
	Refrigerant piping size	Gas line:ø9.52(3/8")		Gas line:ø12.7(1/2")

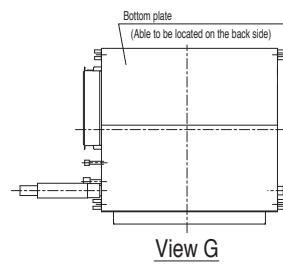
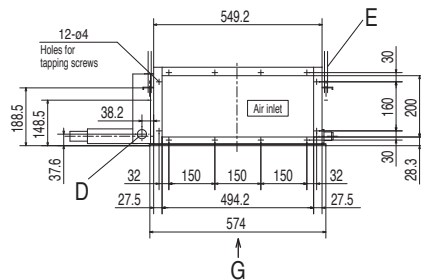
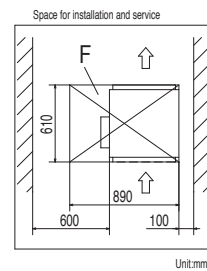
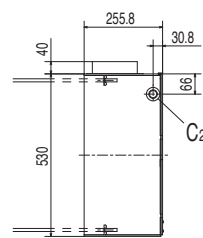
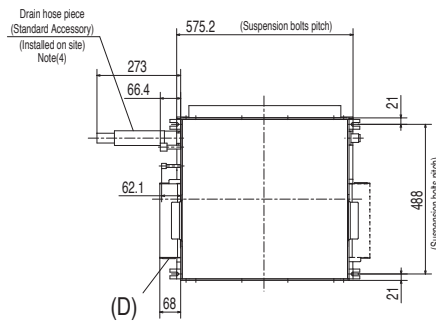
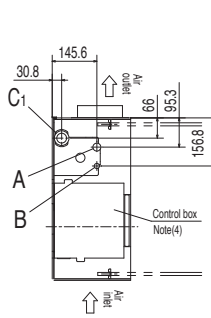
1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

All measurements in mm.



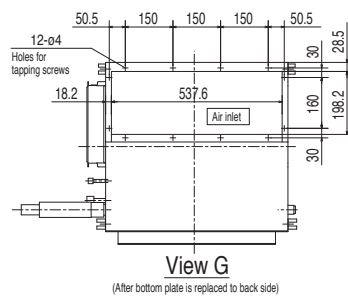
Symbol	Content		
	Model	FDUH22XE6F/28XE6F	FDUH38XE6F
A	Gas piping	ø9.52 (3/8") (Flare)	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	
C ₁ , C ₂	Drain piping	VP20(I, D.20, O.D.26) Note (2)	
D	Hole for wiring	ø30	
E	Suspension bolts	(M10)	
F	Inspection hole	(635X890) Note (3)	



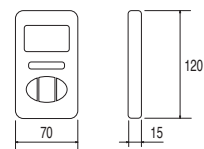
Notes

- (1) The model name label is attached on the fan case inside the air return grille.
- (2) Prepare the connecting socket (VP20) on site. (As for drain piping, it is possible to choose C₁ or C₂)
- (3) When control box is located on the reverse side, installation space should be modified to new location.
- (4) Control box and Drain hose piece are able to be relocated on the reverse side.

In case of Bottom air intake



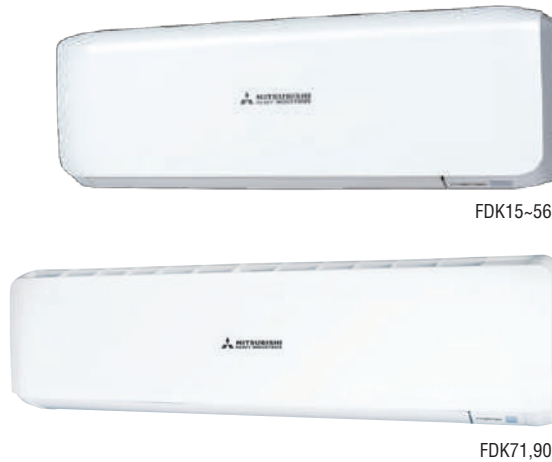
Simple remote control





Wall Mounted FDK

- Model No.**
 FDK15KXZE1
 FDK22KXZE1
 FDK28KXZE1
 FDK36KXZE1
 FDK45KXZE1
 FDK56KXZE1
 FDK71KXZE1
 FDK90KXZE1



Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



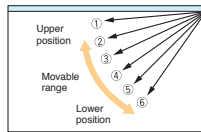
RCN-K-E2: FDK15~56
 RCN-K71-E2: FDK71,90

Elegant Timeless Design

The FDK series air-conditioners have been stylishly designed with rounded contours that fit beautifully into any of Europe's diverse interior settings. The design was created by the Italian industrial design studio Tensa srl, based in Milan, to respond to a broad spectrum of local user needs. (15-56KXZE1)

Flap control system

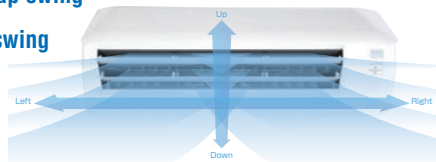
Selection of flap position is possible. A flap can be set at different angles.



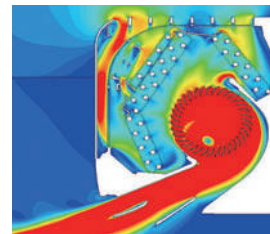
* The wireless remote control is not applicable to the flap control system.

Lateral Swing ▶ flap swings from right to left automatically

Up/Down Flap swing + Lateral swing



Jet Technology



Fast ← Slow
 Colours in the figure show the air speed.

FDK models adopt the air flow design that's proven to minimise resistance in a CFD analysis to achieve uniform air conditioning to the furthest corners of the room.

Motion Sensor

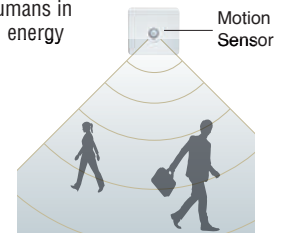
NEW

(Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-KIT



Specifications

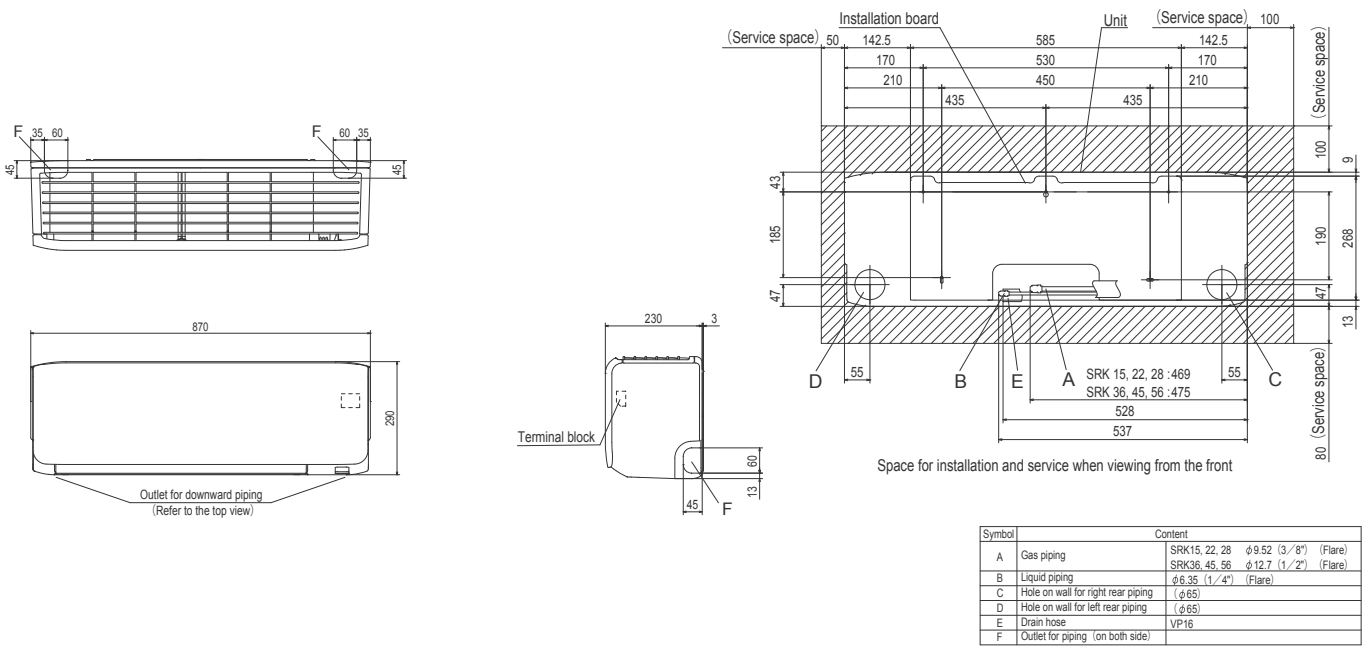
Item	Model	FDK15KXZE1	FDK22KXZE1	FDK28KXZE1	FDK36KXZE1	FDK45KXZE1	FDK56KXZE1	FDK71KXZE1	FDK90KXZE1	
Nominal cooling capacity	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0	
Nominal heating capacity	kW	1.7	2.5	3.2	4.0	5.0	6.3	8.0	10.0	
Power source		1 Phase 220-240V, 50Hz								
Power consumption	Cooling	0.02-0.02			0.03-0.03			0.04-0.04	0.05-0.05	
	Heating	0.02-0.02			0.03-0.03			0.04-0.04	0.05-0.05	
Sound power level	dB(A)	54	55	58			Cooling:58 Heating:61	59	61	
Sound pressure level	Cooling	P-Hi:38 Hi:34 Me:31 Lo:28	P-Hi:38 Hi:36 Me:32 Lo:28	P-Hi:40 Hi:38 Me:33 Lo:28		P-Hi:43 Hi:41 Me:36 Lo:33	P-Hi:43 Hi:41 Me:36 Lo:33	P-Hi:42 Hi:40 Me:37 Lo:35	P-Hi:44 Hi:42 Me:39 Lo:35	
	Heating	P-Hi:38 Hi:34 Me:31 Lo:28	P-Hi:38 Hi:36 Me:32 Lo:28	P-Hi:40 Hi:38 Me:33 Lo:28		P-Hi:43 Hi:41 Me:36 Lo:33	P-Hi:44 Hi:42 Me:37 Lo:33	P-Hi:42 Hi:40 Me:37 Lo:35	P-Hi:44 Hi:42 Me:39 Lo:35	
Exterior dimensions H x W x D	mm	290 x 870 x 230						339 x 1197 x 262		
Net weight	kg	11.5	11			11.5		17		
Air flow	Cooling	P-Hi:5.7 Hi:5 Me:4.5 Lo:3.6	P-Hi:8.5 Hi:8 Me:6 Lo:5		P-Hi:11 Hi:10 Me:8 Lo:7	P-Hi:12 Hi:11 Me:9 Lo:8	P-Hi:12 Hi:11 Me:9 Lo:8	P-Hi:13 Hi:12 Me:10 Lo:8	P-Hi:21 Hi:19 Me:16 Lo:14	P-Hi:23 Hi:21 Me:19 Lo:16
	Heating									
Outside air intake		Not possible								
Air filter, Q'ty		Polypropylene net x2 (Washable)								
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-K-E2, RCN-K71-E2								
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")			Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")		

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

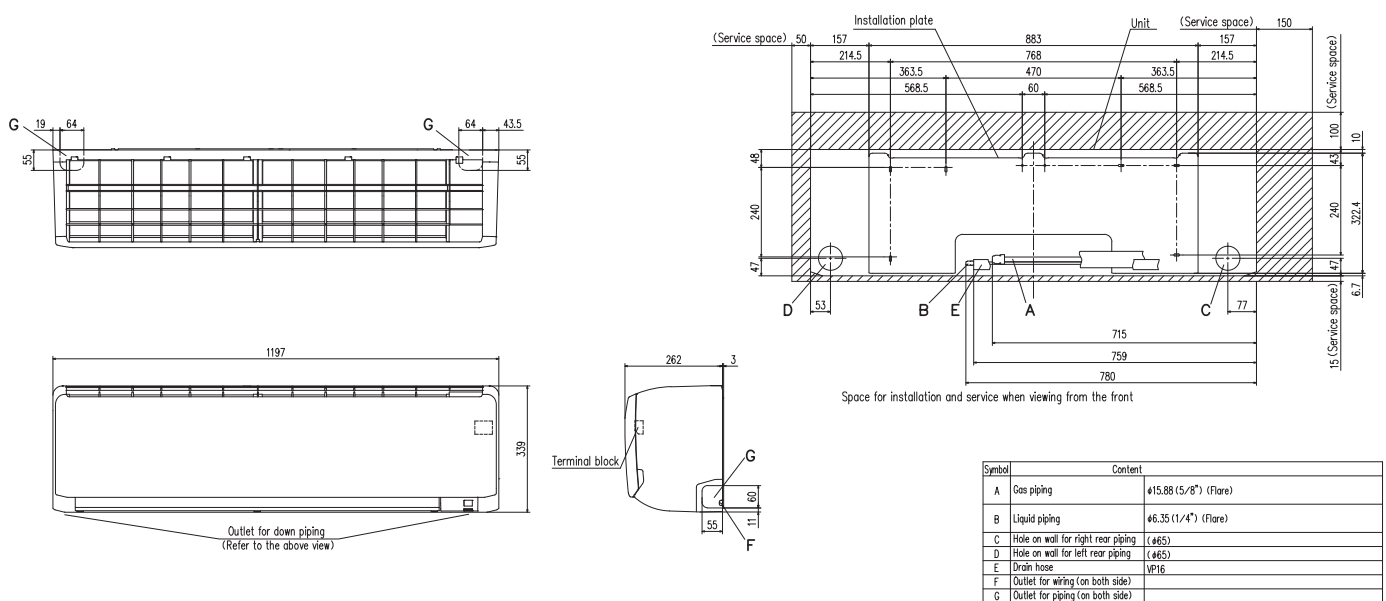
Dimensions

All measurements in mm.

FDK15KXE1, 22KXE1, 28KXE1, 36KXE1, 45KXE1, 56KXE1



FDK71KXE1, 90KXE1





Ceiling Suspended FDE

- Model No.**
 FDE36KXZE1
 FDE45KXZE1
 FDE56KXZE1
 FDE71KXZE1
 FDE112KXZE1
 FDE140KXZE1



Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

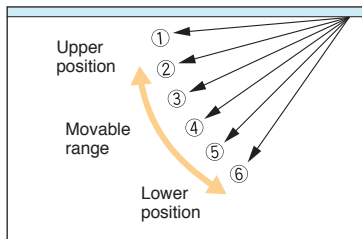
Wireless



RCN-E-E2

Flap control system

Selection of flap position is possible. A flap can be set at different angles.



*The wireless remote control is not applicable to the flap control system.

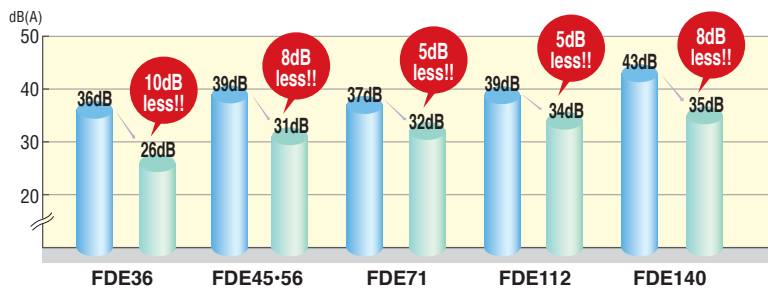
Reduction of weight

Thanks to decreasing the numbers of fan motor from two to one, reduction of weight was achieved.

	Previous		Current	
FDE71	37	➔	33	4kg less!!
FDE112	49	➔	43	6kg less!!
FDE140	49	➔	43	6kg less!!

Reduction of sound pressure level (Lo mode)

The industry's lowest sound pressure levels were achieved by decreasing air flow volume, decreasing pressure loss with employment of one fan motor and optimizing casing and distributor shape. (comparison of previous model)



Motion Sensor

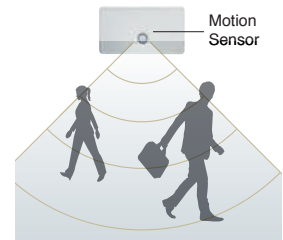
NEW

(Option)

Motion sensor is equipped in the panel and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-E



Specifications

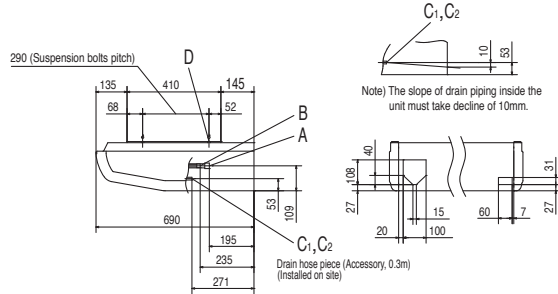
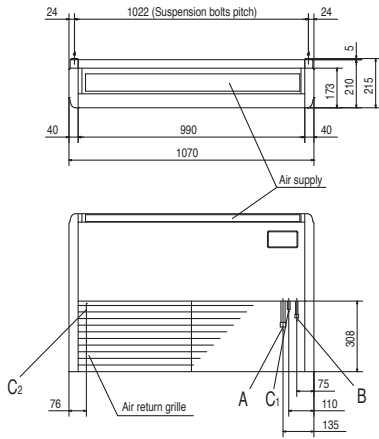
Item	Model	FDE36KXZE1	FDE45KXZE1	FDE56KXZE1	FDE71KXZE1	FDE112KXZE1	FDE140KXZE1
Nominal cooling capacity	kW	3.6	4.5	5.6	7.1	11.2	14.0
Nominal heating capacity	kW	4.0	5.0	6.3	8.0	12.5	16.0
Power source		1 Phase 220-240V, 50Hz					
Power consumption	Cooling	0.05-0.05			0.07-0.07	0.10-0.10	0.13-0.13
	Heating	0.05-0.05			0.07-0.07	0.10-0.10	0.13-0.13
Sound power level	dB(A)	60					
Sound pressure level	dB(A)	P-Hi:46 Hi:38 Me:31 Lo:26	P-Hi:46 Hi:38 Me:36 Lo:31	P-Hi:46 Hi:38 Me:36 Lo:31	P-Hi:47 Hi:39 Me:37 Lo:32	P-Hi:45 Hi:42 Me:38 Lo:34	P-Hi:48 Hi:43 Me:40 Lo:35
Exterior dimensions H x W x D	mm	210 x 1070 x 690			210 x 1320 x 690	250 x 1620 x 690	
Net weight	kg	28			33	43	
Air flow	m ³ /min	P-Hi:13 Hi:10 Me:7 Lo:5.5	P-Hi:13 Hi:10 Me:9 Lo:7		P-Hi:20 Hi:15 Me:13 Lo:10	P-Hi:28 Hi:25 Me:21 Lo:16.5	P-Hi:32 Hi:26 Me:23 Lo:17
Outside air intake		Not possible					
Air filter, Q'ty		Pocket Plastic net x2 (Washable)					
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-E-E3					
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")			Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")		

1. The data are measured under the following conditions (ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
 2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

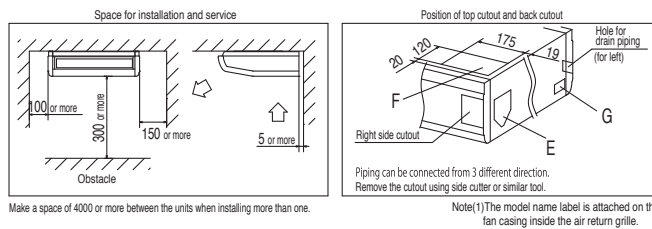
Dimensions

All measurements in mm.

FDE36KXZE1, 45KXZE1, 56KXZE1



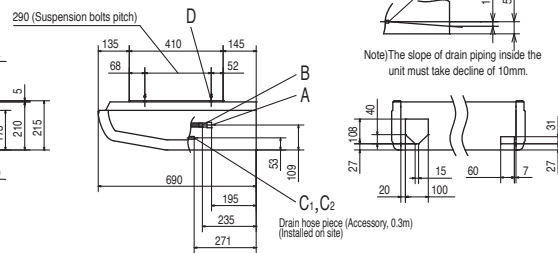
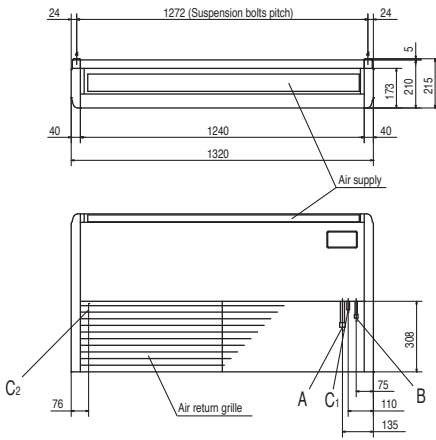
Symbol	Content
A	Gas piping ø12.7 (1/2") (Flare)
B	Liquid piping ø6.35 (1/4") (Flare)
C 1,2	Drain piping VP20 (I.D.20)
D	Hole for suspension bolt (M10 or M8)
E	Back cutout PE cover
F	Top cutout Plate cover
G	Hole for drain piping (for left back) (Knock out)



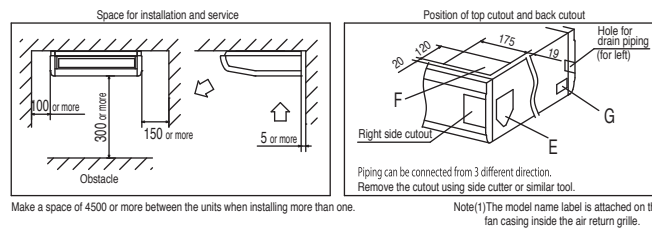
Make a space of 4000 or more between the units when installing more than one.

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

FDE71KXZE1



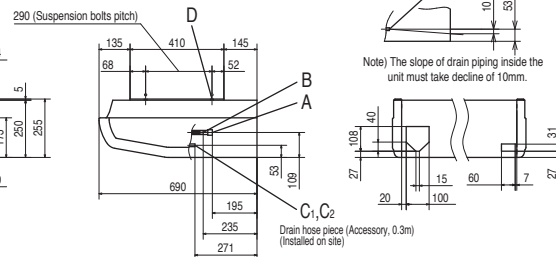
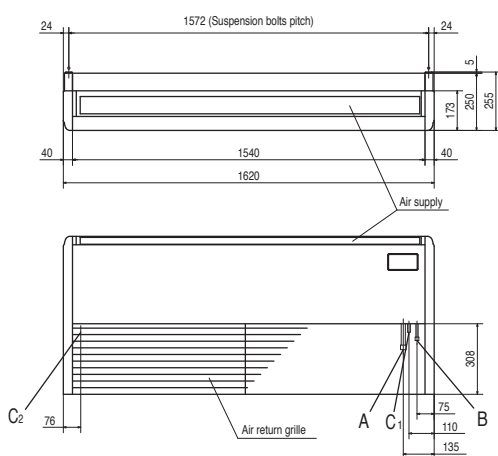
Symbol	Content
A	Gas piping ø15.88 (5/8") (Flare)
B	Liquid piping ø9.52 (3/8") (Flare)
C 1,2	Drain piping VP20 (I.D.20)
D	Hole for suspension bolt (M10 or M8)
E	Back cutout PE cover
F	Top cutout Plate cover
G	Hole for drain piping (for left back) (Knock out)



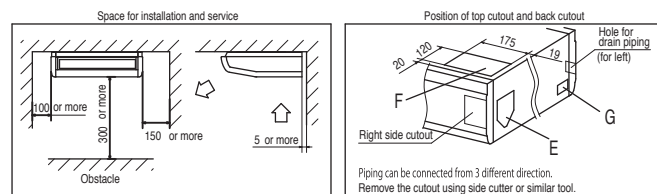
Make a space of 4500 or more between the units when installing more than one.

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

FDE112KXZE1, 140KXZE1



Symbol	Content
A	Gas piping ø15.88 (5/8") (Flare)
B	Liquid piping ø9.52 (3/8") (Flare)
C 1,2	Drain piping VP20 (I.D.20)
D	Hole for suspension bolt (M10 or M8)
E	Back cutout PE cover
F	Top cutout Plate cover
G	Hole for drain piping (for left back) (Knock out)



Make a space of 5000 or more between the units when installing more than one.

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



Floor Standing -2way- FDFW

Model No.

FDFW28KXE6F
FDFW45KXE6F
FDFW56KXE6F



Auto air outlet selection



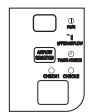
Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

Wireless



RCN-FW-E2

Sophisticated Design

With an elegant semi flat front panel in stylish white, the new series fit in various kinds of rooms and create relaxing atmosphere. Choice of wall hanging, floor standing or behind gallery installation is available.

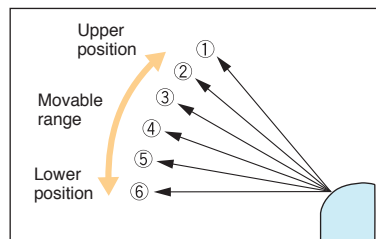
Quiet Operation

Thanks to optimum balance of air outlet direction and sufficient air flow volume, the sound level has been minimized. The level of FDFW28KXE6F in the cooling lo mode is 30dB(A) only.

Flap control system

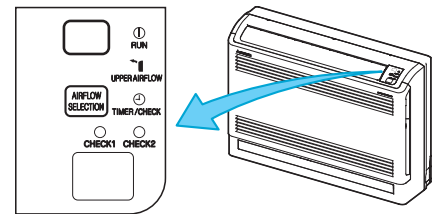
Selection of flap position is possible. A flap can be set at different angles.

*The wireless remote control is not applicable to the flap control system.



Convenient to use operation

Simultaneous lower and upper air outlets or upper outlet can be selected by air flow direction button. Further control can be arranged by a remote control.



(In case of use of wireless remote control)

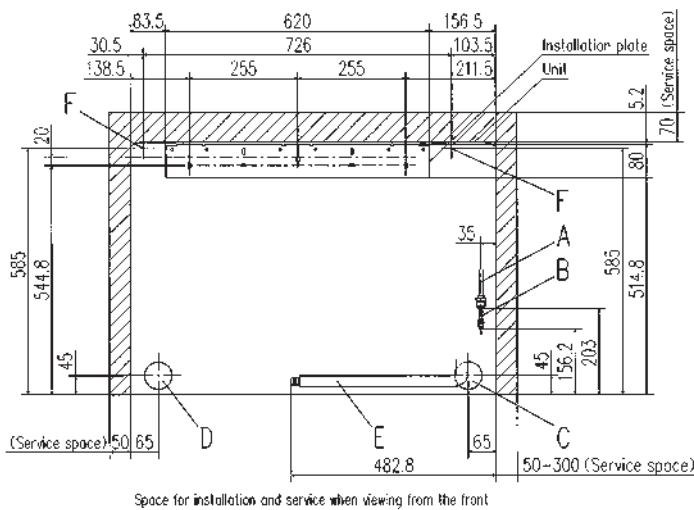
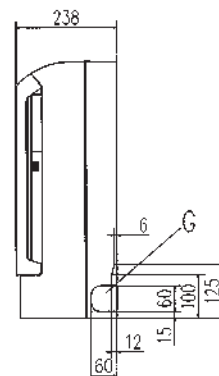
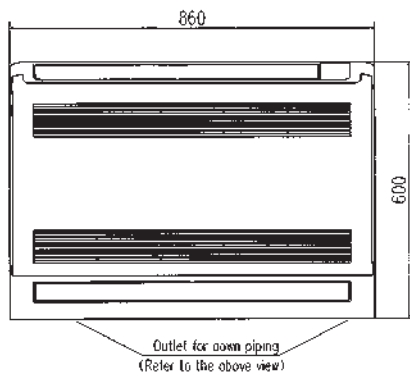
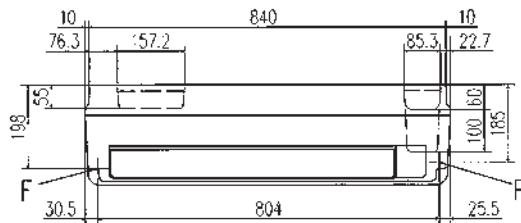
Specifications

Item	Model	FDFW28KXE6F	FDFW45KXE6F	FDFW56KXE6F
Nominal cooling capacity	kW	2.8	4.5	5.6
Nominal heating capacity	kW	3.2	5.0	6.3
Power source		1 Phase 220-240V, 50Hz		
Power consumption	Cooling	0.02-0.02	0.02-0.02	0.03-0.03
	Heating	0.02-0.02	0.02-0.02	0.03-0.03
Sound power level	dB(A)	55	57	60
Sound pressure level	dB(A)	Hi:36 Me:34 Lo:30	Hi:38 Me:36 Lo:33	Hi:44 Me:37 Lo:33
Exterior dimensions H x W x D	mm	600x860x238		
Net weight	kg	19	20	20
Air flow (Standard)	m ³ /min	Hi:9 Me:8 Lo:7		Hi:11 Me:9 Lo:8
Air filter, Q'ty		Polypropylene net x1 (Washable)		
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-FW-E2		
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

Dimensions

All measurements in mm.



Symbol	Model	Content	
A	Gas piping	FDFW28KXE6F ø9.52 (3/8") (Flare)	FDFW45KXE6F, 56KXE6F ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	
C	Hole on wall for right rear piping	ø65	
D	Hole on wall for left rear piping	ø65	
E	Drain hose	VP16 (I.D.16)	
F	Screw point, fasten the indoor unit	ø5	
G	Outlet for piping (on both side)		

- Notes
- (1) The model name label is attached on the right side of the unit.
 - (2) In case of wall installation, leave the unit 150mm or less from the floor.



Floor Standing (with casing) FDFL

Floor Standing (without casing) FDFU

Remote control (option)

Wired



RC-EX3A



RC-E5



RCH-E3

Wireless



RCN-KIT4-E2

Model No.

FDFL71KXE6F

FDFU28KXE6F

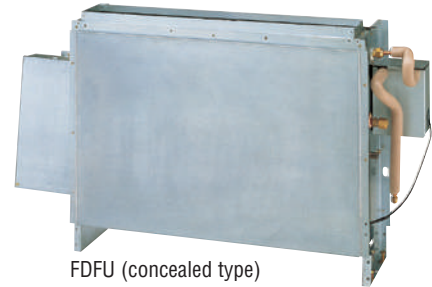
FDFU45KXE6F

FDFU56KXE6F

FDFU71KXE6F



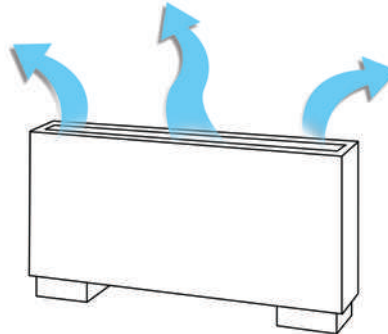
FDFL



FDFU (concealed type)



Compact design at 630mm height



Wider airflow for optimum comfort

Specifications

Item	Model	FDFL71KXE6F	FDFU28KXE6F	FDFU45KXE6F	FDFU56KXE6F	FDFU71KXE6F
Nominal cooling capacity	kW	7.1	2.8	4.5	5.6	7.1
Nominal heating capacity	kW	8.0	3.2	5.0	6.3	8.0
Power source		1 Phase 220-240V, 50Hz				
Power consumption	Cooling	0.09-0.10		0.09-0.10		
	Heating	0.09-0.10		0.09-0.10		
Sound power level	dB(A)	62	58	60		
Sound pressure level	dB(A)	Hi:43 Me:41 Lo:40	Hi:41 Me:38 Lo:36	Hi:43 Me:41 Lo:40		
Exterior dimensions H x W x D	mm	630x1481x225	630x1077x225			630x1362x225
Net weight	kg	40	25			32
Air flow (Standard)	m ³ /min	Hi:18 Me:15 Lo:12	Hi:12 Me:11 Lo:10	Hi:14 Me:12 Lo:10		Hi:18 Me:15 Lo:12
Air filter, Q'ty		Polypropylene net x1 (Washable)				
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2				
Installation data Refrigerant piping size	mm(in)	Liquid line:ø9.52(3/8")	Liquid line:ø6.35(1/4")	Liquid line:ø6.35(1/4")		Liquid line:ø9.52(3/8")
		Gas line:ø15.88(5/8")	Gas line:ø9.52(3/8")	Gas line:ø12.7(1/2")		Gas line:ø15.88(5/8")

1. The data are measured under the following conditions(ISO-T1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
2. Sound pressure level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.



Outdoor Air Processing unit FDU-F

Model No.
 FDU650FKXZE1
 FDU1100FKXZE1
 FDU1800FKXZE1
 FDU2400FKXZE1



Remote control (option)

Wired



RC-EX3A RC-E5 RCH-E3

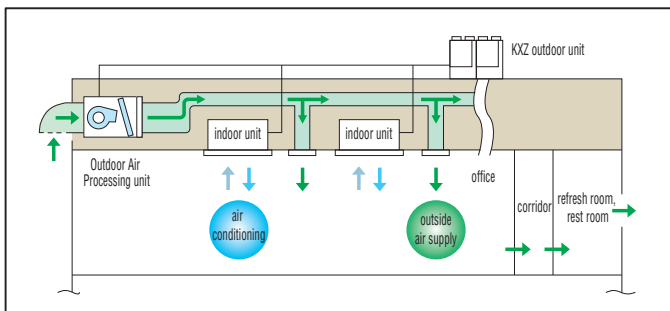
Wireless



RCN-KIT4-E2

Air conditioning and intake of outdoor air are in the same system

Outdoor Air processing unit can be connected in a KXZ system as one of the indoor unit series and can create fresh and comfortable air supply together from our high advanced technology.

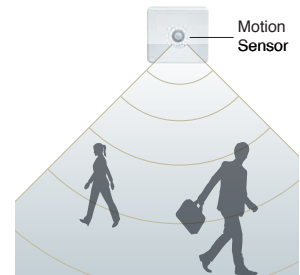


Motion Sensor **NEW** (Option)

Motion sensor is equipped in the ceiling plane or wall plane and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.

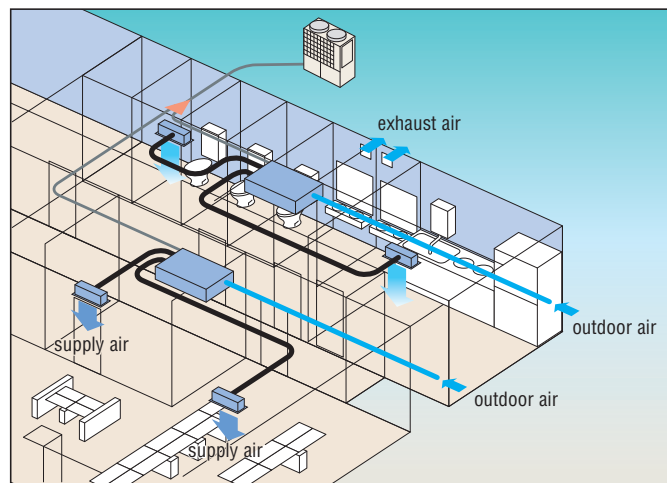


LB-KIT



Compact design

Compact design at just 280(650, 1100), 379(1800, 2400)mm in height, high static pressure of 200Pa and the industry's lowest noise level can meet various kind of installation location for office, refresh room, restroom and kitchen of restaurant etc.



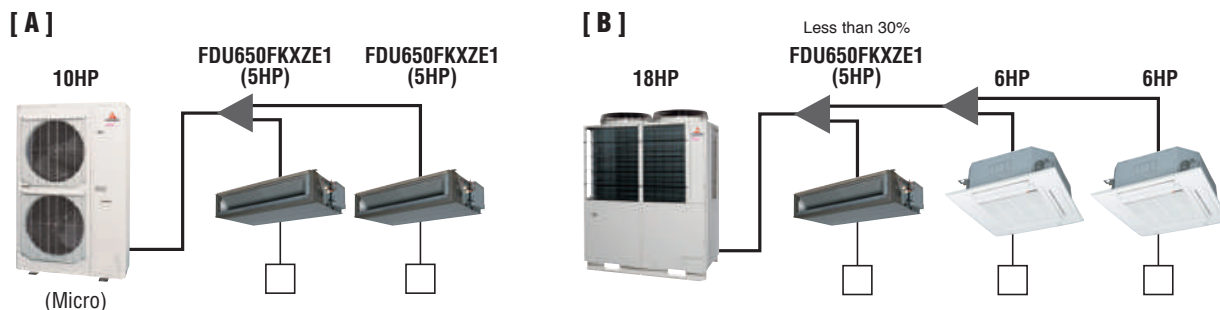
- (1) This unit is the specific unit for processing the outdoor air temperature closer to the room temperature. For conditioning the room temperature a dedicated air-conditioner is required additionally.
- (2) This unit monitors the outdoor air temperature and controls thermostat ON/OFF at the setting temperature by the remote controller, which indicates the outdoor air temperature for controlling thermostat ON/OFF. When thermostat is turned OFF, the operation is changed to the fan mode so that unprocessed outdoor air will be blown into the room directly. Therefore place the air outlet port or orient the air outlet direction not to blow air directly to persons in the room, especially in the small room such as a restroom and/or sanitary hot water supplying room.
- (3) It is strictly prohibited to monitor the room temperature by switching to the thermistor at remote controller side and/or the optional remote thermistor. Otherwise dew formation at air outlet port and/or dew dripping may occur during cooling operation due to the lower outdoor air temperature. Therefore keep the remote controller of this unit in place closer to the administrator so as not to be touched it freely by the end user.
- (4) Dehumidifying operation with this unit is prohibited.
- (5) When handing over this unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place and usage of remote control for this unit and the location of the air outlet.

Connectivity with Outdoor units

FDU-F series are connectable to 8~60HP outdoor units, not connectable to 4~6HP, KXZ Lite.

Combination with Outdoor units

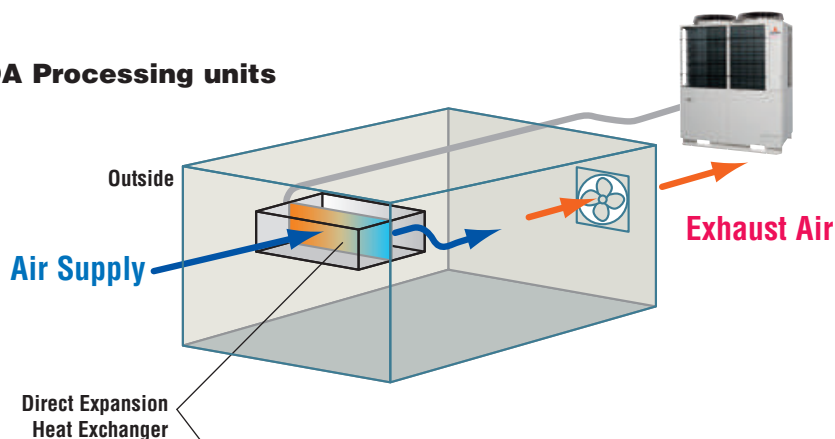
	case	Combination
A	In case OA processing units only are connected with outdoor units.	The total capacity of FDU-F is 50~100% of outdoor capacity and max quantity of FDU-F is 2 units.
B	In case both of OA processing units and dedicated air-conditioner are connected with outdoor units.	The total capacity of FDU-F and dedicated air-conditioners is 50~100% of outdoor capacity and max quantity of FDU-F should be below 30% of outdoor unit capacity.



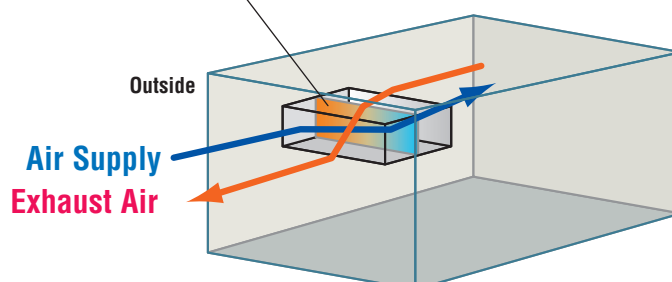
Concept (Difference between FDU-F and SAF)

SAF is the energy recovery ventilation unit which can recover heat energy from exhaust air to supply air and "has no air processing function, but FDU-F is air processing unit which can treat the supply air closer to room temperature by cooling or heating in connection with KXZ refrigerant system and exhaust air is discharged to outside of the room.

FDU-F OA Processing units



SAF





Specifications

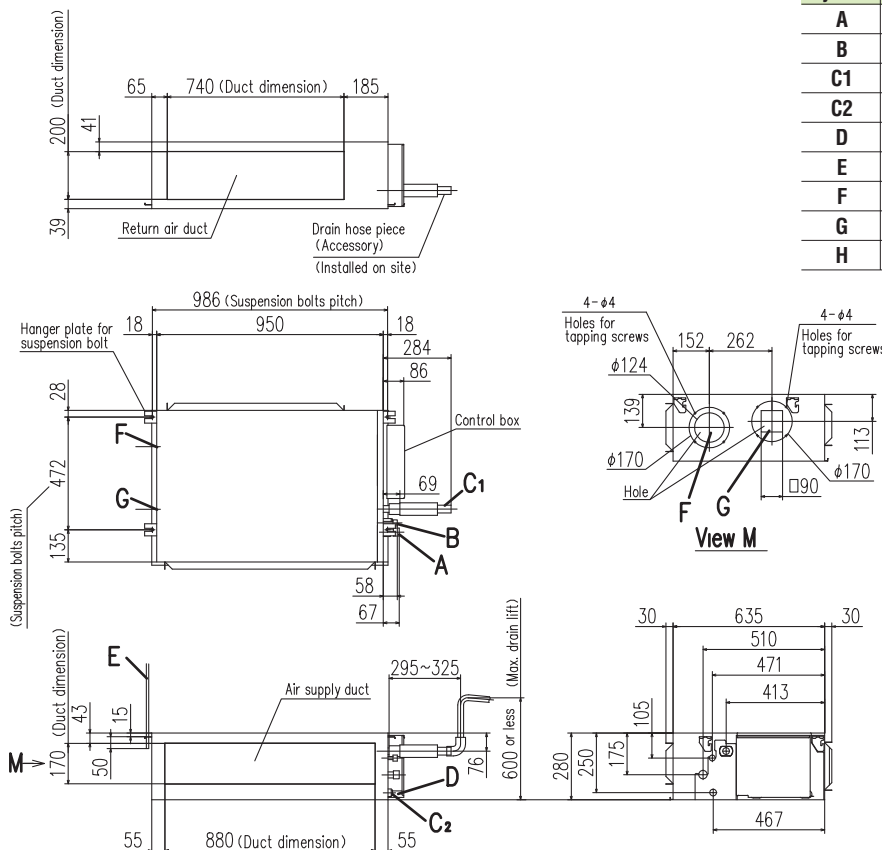
Item	Model	FDU650FKXZE1	FDU1100FKXZE1	FDU1800FKXZE1	FDU2400FKXZE1
Nominal cooling capacity	kW	9.0	14.0	22.4	28.0
Nominal heating capacity	kW	6.5	10.5	16.0	21.5
Power source		1 Phase 220-240V, 50Hz			
Power consumption	Cooling	0.24-0.25	0.35-0.36	1.16-1.20	1.16-1.20
	Heating	0.24-0.25	0.35-0.36	1.16-1.20	1.16-1.20
Sound pressure level	dB(A)	Hi:31	Hi:37	Hi:42	Hi:45
Exterior dimension HxWxD	mm	280x950x635	280x1370x740	379x1600x893	
Net weight	kg	34	54	89	89
Air flow (Standard)	m ³ /min	Hi:11	Hi:18	Hi:30	Hi:40
External static pressure	Pa	200 (at Hi Air flow)			
Air filter, Q'ty		Procure locally			
Remote control(option)		wired:RC-EX3A, RC-E5, RCH-E3 wireless:RCN-KIT4-E2			
Installation data	mm	Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")		Liquid line:ø9.52(3/8") Gas line:ø19.05(3/4")	
Refrigerating piping size	(in)			Liquid line:ø9.52(3/8") Gas line:ø22.22(7/8")	

- The data are measured at 33°CDB 28°CWB (68%RH) during cooling and 0°CDB-2.9°CWB (50%RH) during heating (no frost).
- Temperature range of outdoor air must be 20~40°CDB (32°CWB) during cooling and 0~24°CDB during heating.
- Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
- The factory E.S.P. setting is set within the range of 10 - 120Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa. (with RC-EX3A and RC-E5 only)

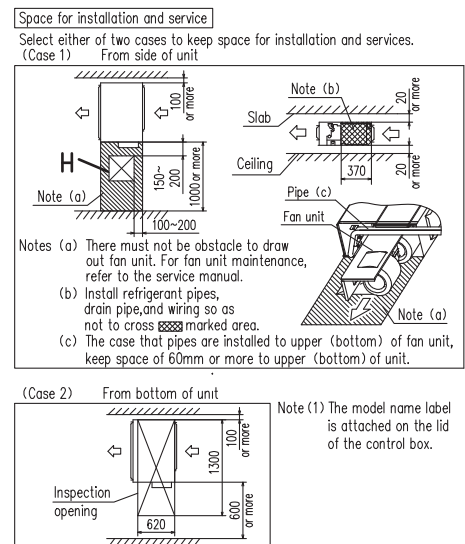
Dimensions

All measurements in mm.

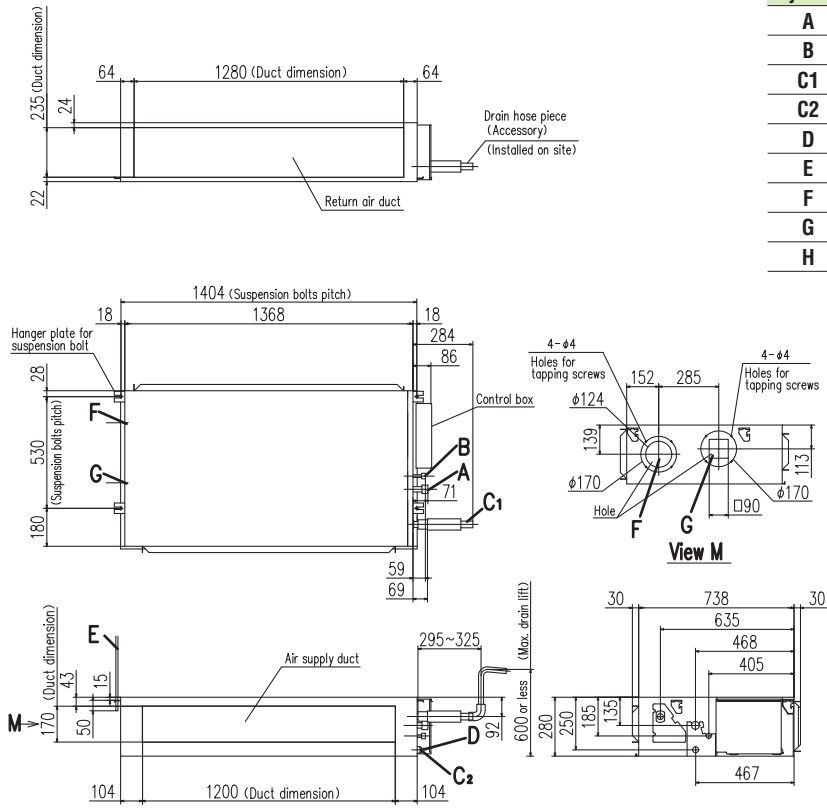
FDU650FKXZE1



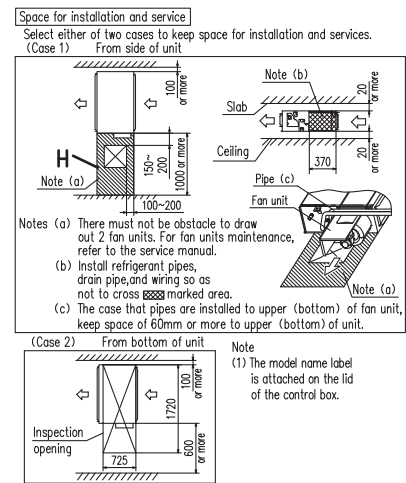
Symbol	Content	
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C1	Drain piping	VP25(O.D.32)
C2	Drain piping(Gravity drainage)	V20(O.D.26)
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450X450)



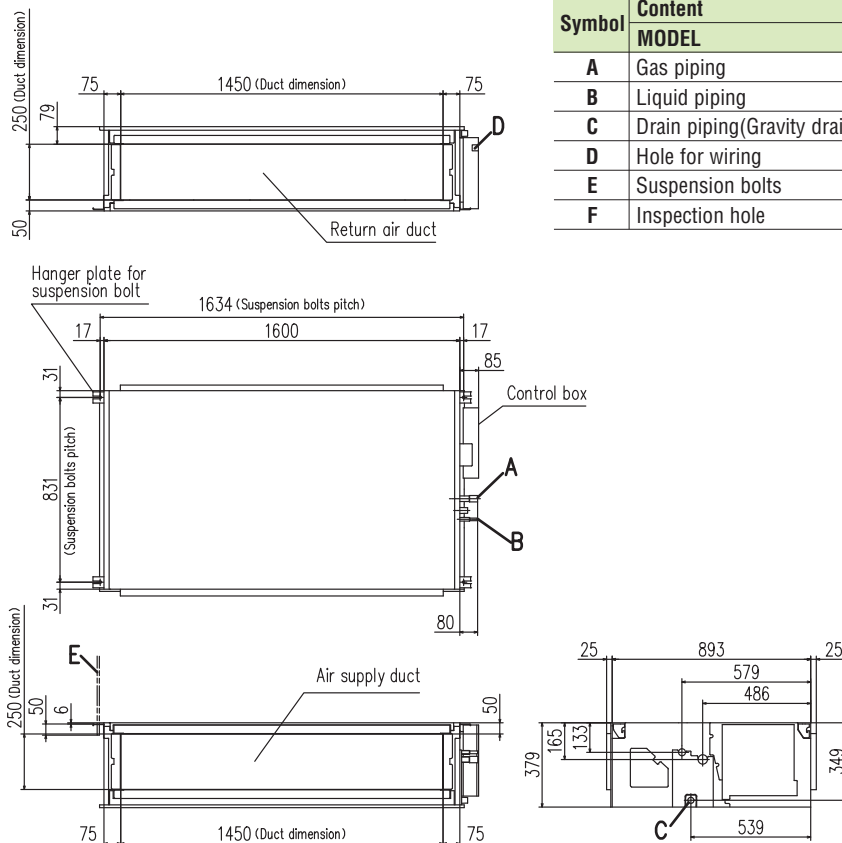
FDU1100FKXZE1



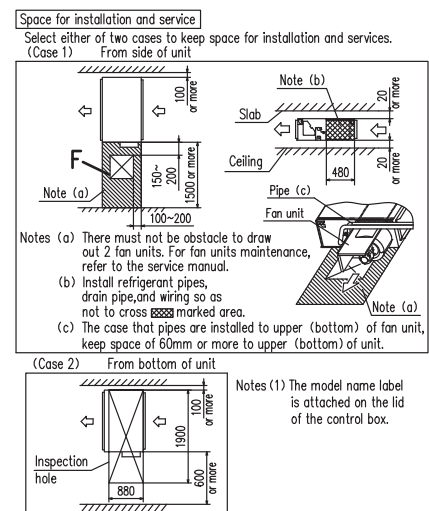
Symbol	Content	
A	Gas piping	ø15.88 (5/8") (Flare)
B	Liquid piping	ø9.52 (3/8") (Flare)
C1	Drain piping	VP25(O.D.32)
C2	Drain piping(Gravity drainage)	V20(O.D.26)
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450X450)



FDU1800FKXZE1, FDU2400FKXZE1



Symbol	Content	1800	2400
A	Gas piping	ø19.05 (3/4")	ø22.22 (7/8")
B	Liquid piping	ø9.52 (3/8") (Brazing)	
C	Drain piping(Gravity drainage)	VP25(O.D.32)	
D	Hole for wiring		
E	Suspension bolts	M10	
F	Inspection hole	(450X450)	



Fresh Air Ventilation and Heat Exchange unit SAF-E7

- Model No.**
 SAF150E7
 SAF250E7
 SAF350E7
 SAF500E7
 SAF800E7
 SAF1000E7



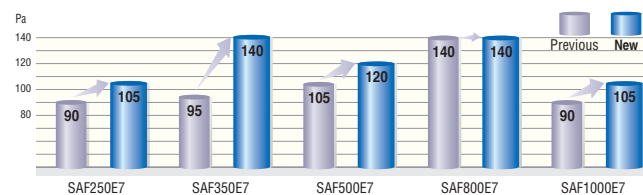
Energy Performance of Building Directive - EPBD

EPBD limit the amount of electrical/gas power to be used to provide heating or cooling in commercial buildings. Therefore the building designer needs to select energy efficient heating/cooling equipment, and to minimise energy losses through ventilation systems.

The SAF recovers heat energy which would otherwise be exhausted to atmosphere, and uses this energy to warm the air entering the building. The reverse happens in warmer climates, where the exhausted cool air is used to partially cool the incoming air.

Capturing this waste energy, means the heating/ cooling requirements of the building are reduced, so smaller size plant can be selected, savings can be made in long term energy consumption, and carbon emissions are reduced.

Increased external static pressure at UHi air flow



Switch box (option)



Remote control

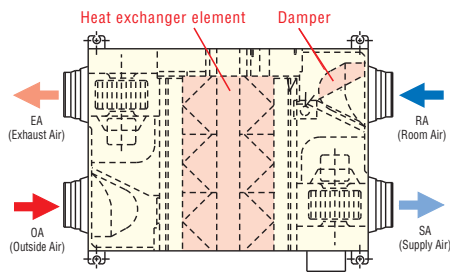
The following functions are newly available.

- ON/OFF Timer – The hour and minute of timer on/off can be set.
- Filter Sign – Announces the due time for cleaning the air filter.

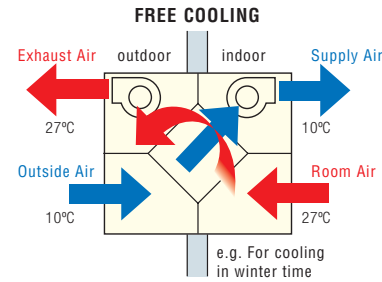
Specifications

Item	Model	SAF150E7	SAF250E7	SAF350E7	SAF500E7	SAF800E7	SAF1000E7		
Power source		1 Phase 220-240V, 50Hz							
Exterior dimensions Height x Width x Depth	mm	270x970x467	270x882x599	317x1050x804	317x1090x904	388x1322x884	388x1322x1134		
Exterior appearance		Galvanized steel sheet							
Power input	W	92-107	108-123	178-185	204-225	360-378	416-432		
Running current	A	0.42-0.45	0.49-0.51	0.81-0.77	0.93-0.94	1.64-1.58	1.89-1.80		
Capacity	UHi	Enthalpy exchange efficiency	Cooling	63	63	66	62	65	65
		Enthalpy exchange efficiency	Heating	70	70	69	67	71	71
		Temperature exchange efficiency		75					
	Hi	Enthalpy exchange efficiency	Cooling	63	63	66	62	65	65
		Enthalpy exchange efficiency	Heating	70	70	69	67	71	71
		Temperature exchange efficiency		75					
	Lo	Enthalpy exchange efficiency	Cooling	66	65	71	64	68	70
		Enthalpy exchange efficiency	Heating	73	72	73	69	74	76
		Temperature exchange efficiency		77	77	78	76	76	79
Motor & Q'ty	W	10 x 2	20 x 2	40 x 2	70 x 2	180 x 2	180 x 2		
Air handling equipment Fan type & Q'ty		Sirocco fan x 2							
Air flow	UHi	150	250	350	500	800	1000		
	Hi	150	250	350	500	800	1000		
	Lo	120	190	240	440	630	700		
External static pressure	UHi	80	105	140	120	140	105		
	Hi	70	95	60	60	110	80		
	Lo	25	45	45	35	55	75		
Net weight	kg	25	29	49	57	71	83		
Remote control		Included							
Air filter	Supply air Exhaust air	Protection for element (Washable) PS400							

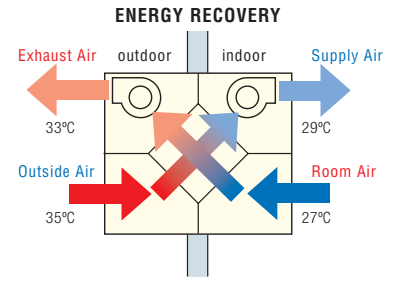
Structure (SAF800E7)



Principle of operation (simple ventilation)



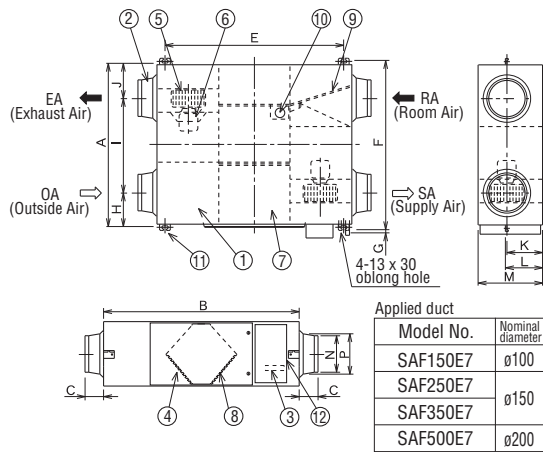
Principle of operation (heat exchanging)



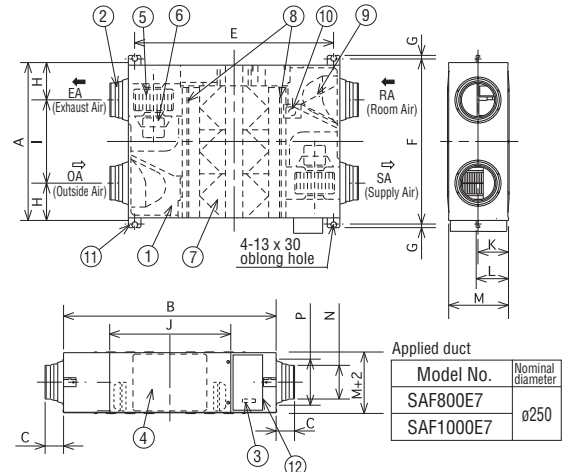
Dimensions

All measurements in mm.

SAF150E7, SAF250E7, SAF350E7, SAF500E7



SAF800E7, SAF1000E7



Dimension table

Model	A	B	C	E	F	G	H	I	J	K	L	M	N	P
SAF150E7	467	970	49	810	525	19	82	303	82	135	159	270	ø98	ø110
SAF250E7	599	882	95	655	142		315	142	159	270	ø144	ø164		
SAF350E7	804	1050	70	978	860		112	580	112	159	182	317	ø164	
SAF500E7	904	1090	1018	960	132		640	132	ø194	ø210				

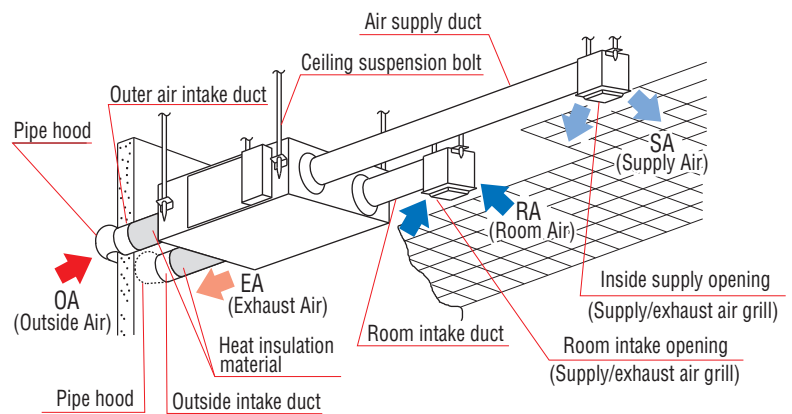
Dimension table

Model	A	B	C	E	F	G	H	I	J	K	L	M	N	P
SAF800E7	884	1322	85	1250	940	19	428	612	194	218	388	ø242	ø258	
SAF1000E7	1134	1190	228	678	612		194	218	388	ø242	ø258			

NO.	Name	Qt'y
①	Frame	1
②	Adaptor	4
③	Terminal board	1
④	Inspection Cover	1
⑤	Fan	2 ※
⑥	Motor	2 ※
⑦	Heat Exchange Element	
	SAF150E7	1
	SAF250E7	1
	SAF350E7	2
	SAF500E7	2
SAF800E7	3	
SAF1000E7	4	
⑧	Filter	2
⑨	Damper	1
⑩	Damper Motor	1
⑪	Suspension fitting	4
⑫	Electrical components box	1

※Model SAF350E7, SAF500E7 have different fan and motor locations.

Installation reference



Note: An inspection port is needed for cleaning the heat exchanger and filter 1 or 2 times a year.



Fresh Air DX Assembly

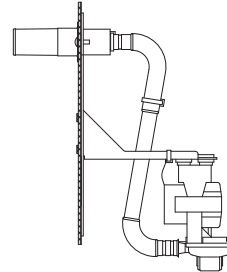
Model No.

- SAF-DX250E6
- SAF-DX350E6
- SAF-DX500E6
- SAF-DX800E6
- SAF-DX1000E6



**Drain up kit
(option, built-in type)**
(600mm)

DXA-DU-E



**Remote control
(option)**

Wired



RC-E5

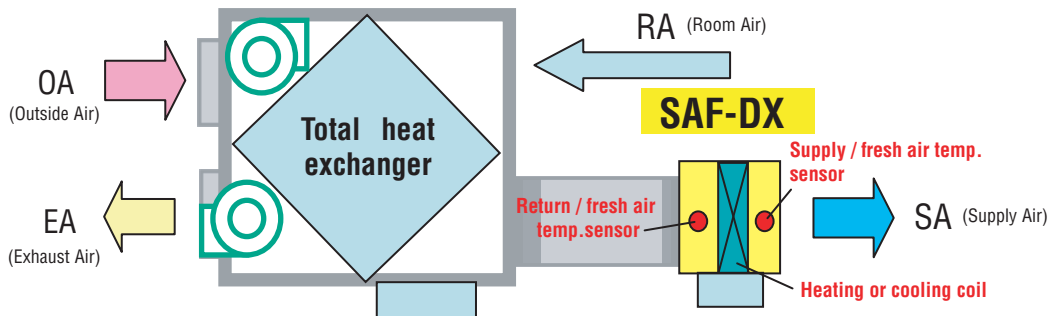
RCH-E3

Wireless



RCN-KIT4-E2

- SAF-DX is a heating or cooling coil incorporating KXZ series controls. It can be used in combination with our SAF series of total heat exchanger.
- Combination of SAF-DX together with other indoor units is possible. The capacity code index of each model is shown below and must be used when making the system selection. Total capacity code index must be within 100% of outdoor unit capacity code index.
- Remote control option is the same as with other indoor units (see above). Connection to all Superlink controls is also possible.
- Optional condensate lift mechanism is also available (600mm height).
- Return air temp. control or supply air temp. control can be selectable.



SAF-DX can provide heating or cooling to the fresh air supplied through a 3rd party air handling unit or total heat exchanger such as our SAF series.

Specifications

Item	Model	SAF-DX250E6	SAF-DX350E6	SAF-DX500E6	SAF-DX800E6	SAF-DX1000E6
Nominal cooling capacity *1	kW	2.0	2.8	3.6	5.6	6.3
Nominal heating capacity *2	kW	1.8	2.2	2.8	4.5	5.6
Capacity code		22	28	36	56	71
Power source		1 Phase 220-240V, 50Hz				
Power consumption	Cooling	7.2-7.2				
	Heating	7.2-7.2				
Running current	Cooling	0.05-0.05				
	Heating	0.05-0.05				
Exterior dimensions H x W x D	mm	315 x 452 x 422		315 x 537 x 422	315 x 682 x 422	315 x 822 x 422
Net weight	kg	12.3		13.6	16.1	18.4
Air flow (Standard)	m ³ /h	250	350	500	800	1000
Internal resistance	Pa	38		66		
Remote control(option)		wired: RC-E5, RCH-E3 wireless: RCN-KIT4-E2				
Installation data Refrigerant piping size	mm(in)	Liquid line:ø6.35(1/4") Gas line:ø9.52(3/8")		Liquid line:ø6.35(1/4") Gas line:ø12.7(1/2")		Liquid line:ø9.52(3/8") Gas line:ø15.88(5/8")

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

Item	Return/fresh air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Cooling *1	27°C	19°C	35°C	24°C	ISO-T1
Heating *2	20°C		7°C	6°C	

(2) This air-conditioner is manufactured and tested in conformity with ISO-T1 "UNITARY AIR-CONDITIONERS".

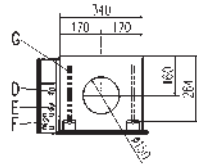
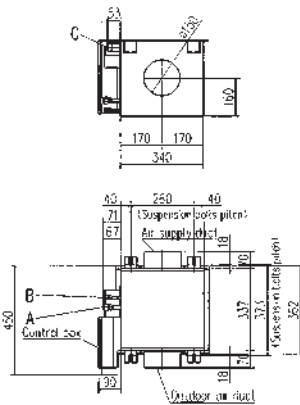
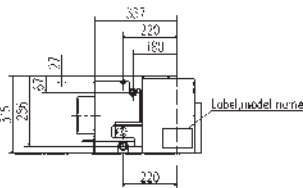
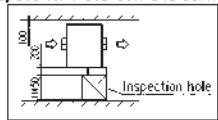
Dimensions

All measurements in mm.

SAF-DX250E6,350E6

Symbol	Content
A	Gas piping (ø9.52 (3/8") (Rope))
B	Liquid piping (ø6.35 (1/4") (Rope))
C	Drain piping (ø1)
D	Use for power source line
E	Use for cold supply heat exchanger
F	Use for communication line
G	Suspension bolts (M10)

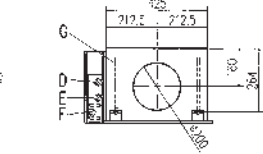
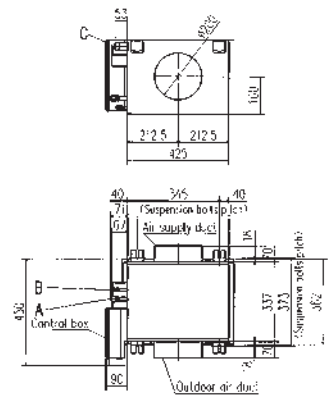
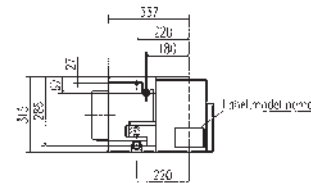
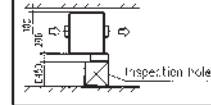
Space for installatin and service



SAF-DX500E6

Symbol	Content
A	Gas piping (ø12.7 (1/2") (Rope))
B	Liquid piping (ø6.35 (1/4") (Rope))
C	Drain piping (ø1)
D	Use for power source line
E	Use for cold supply heat exchanger
F	Use for communication line
G	Suspension bolts (M10)

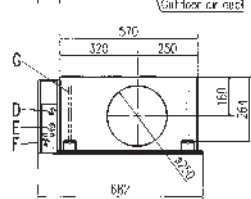
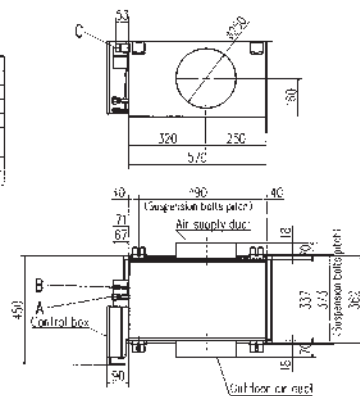
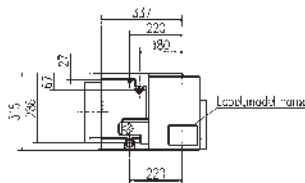
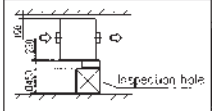
Space for installatin and service



SAF-DX800E6

Symbol	Content
A	Gas piping (ø12.7 (1/2") (Rope))
B	Liquid piping (ø6.35 (1/4") (Rope))
C	Drain piping (ø1)
D	Use for power source line
E	Use for cold supply heat exchanger
F	Use for communication line
G	Suspension bolts (M10)

Space for installatin and service



SAF-DX1000E6

Symbol	Content
A	Gas piping (ø12.7 (1/2") (Rope))
B	Liquid piping (ø6.35 (1/4") (Rope))
C	Drain piping (ø1)
D	Use for power source line
E	Use for cold supply heat exchanger
F	Use for communication line
G	Suspension bolts (M10)

Space for installatin and service

