



Air Conditioners

Technical Data

SkyAir®

Ceiling Mounted Cassette Unit



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FFQ-B



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FFQ-B

TABLE OF CONTENTS

FFQ-B8V1B

1	Features	2
2	Specifications	3
	For indoor units only	3
	Technical Specifications	3
	Electrical Specifications	4
3	Safety device settings	5
4	Options	6
5	Control systems	7
6	Dimensional drawing & centre of gravity	8
	Dimensional drawing	8
7	Piping diagram	9
8	Wiring diagram	10
	Wiring diagram	10
	External connection diagram	11
9	Sound data	12
	Sound level data	12
	Sound pressure spectrum	13
10	Air flow pattern	14
11	Installation	22
	Installation method	22

1 Features

- Slim design for flexible installation
- Ideal for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- New and extremely compact casing (575mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles
- Modern style decoration panel in white (RAL9010)
- Extremely quiet in operation
- Possibility to shut 1 or 2 flaps for easy installation in corners
- Auto-swing function ensures efficient air and temperature distribution and prevents ceiling soiling.
- Excellent low draught characteristics
- Easy installation and maintenance
- The switch box can be reached by simply removing the suction grille; therefore maintenance can be done very easily.
- Up to 4 indoor units can be connected to 1 Multi outdoor unit. All indoor units are individually controllable with remote control and do not need to be installed in the same room or at the same time. They operate simultaneously within the same cooling operation
- Daikin remote controls give you easy control at your fingertips.
- The wired remote control provides you with a schedule timer, enabling to program the air conditioning daily or weekly.
- The optional remote ON/OFF enables you to start/stop the air conditioning from a mobile phone via a telephone remote control (field supply).
- The optional forced OFF enables you to switch off the unit automatically. E.g. when a window is opened, the unit switches off.
- The 'home leave' operation button prevents large temperature differences by continuously operating at a minimum (heating mode) or maximum (cooling mode) preset level while you're out or sleeping. It also allows the indoor temperature to return quickly to your favourite comfort level.



2 Specifications

2-1 FOR INDOOR UNITS ONLY			FFQ25B8V1B	FFQ35B8V1B	FFQ50B8V1B	FFQ60B8V1B
Nominal Input	Cooling	kW	0.073	0.084	0.097	0.120
	Heating	kW	0.064	0.076	0.089	0.111

2-2 TECHNICAL SPECIFICATIONS				FFQ25B8V1B	FFQ35B8V1B	FFQ50B8V1B	FFQ60B8V1B
Dimensions	Packing	Height	mm	370	370	370	370
		Width	mm	687	687	687	687
		Depth	mm	674	674	674	674
	Unit	Height	mm	286	286	286	286
		Width	mm	575	575	575	575
		Depth	mm	575	575	575	575
Weight	Unit		kg	17.5	17.5	17.5	17.5
	Packed Unit		kg	21.0	21.0	21.0	21.0
Heat Exchanger	Dimensions	Length	mm	1281	1281	1281	1281
		Nr of Rows		2	2	2	2
		Fin Pitch	mm	1.50	1.50	1.50	1.50
		Nr of Stages		10	10	10	10
	Tube type			Hi-XSS (7)			
	Fin	Type		ML fin (Multi louver)			
Fan	Type			Turbo fan			
	Quantity			1	1	1	1
Air Flow Rate	Cooling	High	m³/min	9.0	10.0	12.0	15.0
		Low	m³/min	6.5	6.5	8.0	10.0
	Heating	High	m³/min	9.0	10.0	12.0	15.0
		Low	m³/min	6.5	6.5	8.0	10.0
Fan	Motor	Quantity		1	1	1	1
		Model		D16P52A23			
		Number of steps		2	2	2	2
Motor	Speed (cooling)	High	rpm	556	624	725	866
		Low	rpm	414	414	471	612
	Speed (heating)	High	rpm	556	624	725	866
		Low	rpm	414	414	471	612
Fan	Motor	Output (high)	W	55	55	55	55
Cooling	Sound Power	High	dBA	46.5	49.0	53.0	58.0
	Sound Pressure	High	dBA	29.5	32.0	36.0	41.0
		Low	dBA	24.5	25.0	27.0	32.0
Heating	Sound Pressure	High	dBA	29.5	32.0	36.0	41.0
		Low	dBA	24.5	25.0	27.0	32.0
Refrigerant	Type			R-410A			
Piping connections	Liquid (OD)	Diameter (OD)	mm	6.4	6.4	6.4	6.4
	Gas	Diameter (OD)	mm	9.5	9.5	12.7	12.7
	Drain	Diameter (OD)	mm	VP20 (I.D. 20/O.D. 26)			
	Heat Insulation			Both liquid and gas pipes			
Decoration Panel	Model			BYFQ60BAW1			
	Colour			White(RAL 9010)			
	Dimensions	H	mm	55	55	55	55
		W	mm	700	700	700	700
		D	mm	700	700	700	700
	Weight		kg	2.7	2.7	2.7	2.7
Air Filter			Removable / washable / Mildew proof / Long life				
Air direction control			Horizontal and downward				
Temperature control			Microcomputer control				
Safety Devices			Fuse				
			Fan motor thermal protector				

2 Specifications

2-2 TECHNICAL SPECIFICATIONS		FFQ25B8V1B	FFQ35B8V1B	FFQ50B8V1B	FFQ60B8V1B
Standard Accessories	Item	Installation and operation manual			
	Quantity	1	1	1	1
	Item	Drain hose			
	Quantity	1	1	1	1
	Item	Clamp for drain hose			
	Quantity	1	1	1	1
	Item	Washer for hanger bracket			
	Quantity	8	8	8	8
	Item	Big clamp			
	Quantity	6	6	6	6
	Item	Small clamp			
	Quantity	1	1	1	1
	Item	Paper pattern for installation			
	Quantity	1	1	1	1
	Item	Screws			
	Quantity	4	4	4	4
	Item	Washer fixing plate			
	Quantity	4	4	4	4
	Item	Insulation for fitting for gas pipe			
	Quantity	1	1	1	1
	Item	Insulation for fitting for liquid pipe			
	Quantity	1	1	1	1
	Item	Sealing pad (large)			
	Quantity	1	1	1	1
Item	Sealing pad (small)				
Quantity	1	1	1	1	
Item	Sealing material				
Quantity	2	2	2	2	
Notes		Sound values are measured in an anechoic room.			
		Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings of this chapter.			
		The sound power level is an absolute value indicating the power which a sound source generates.			

2-3 ELECTRICAL SPECIFICATIONS				FFQ25B8V1B	FFQ35B8V1B	FFQ50B8V1B	FFQ60B8V1B
Power Supply	Name			V1			
	Phase			1	1	1	1
	Frequency		Hz	50	50	50	50
	Voltage		V	230	230	230	230
Current	Nominal running current (RLA)	Cooling	A	0.37	0.40	0.49	0.61
		Heating	A	0.32	0.36	0.45	0.56
Wiring connections	For Power Supply	Quantity		3	3	3	3
		Remark		4 for interunit wiring (earth wiring included)			
Power Supply Intake				Outdoor unit only			

3 Safety device settings

FFQ25~60B

	Safety devices		25	35	40 • 50	60
FFQ~BV1B	Fuse		250V 5A	250V 5A	250V 5A	250V 5A
	Fan motor thermal protector	°C	OFF: 130 ± 5 ON: 83 ± 20	OFF: 130 ± 5 ON: 83 ± 20	OFF: 130 ± 5 ON: 83 ± 20	OFF: 130 ± 5 ON: 83 ± 20

3D006611Q

4 Options

Options

	Item	Model	FFQ25	FFQ35	FFQ50	FFQ60
1	Decoration panel				BYFQ60B	
2	Sealing member of air discharge outlet				KDBHQ44BA60	
3	Panel spacer				KDBQ44B60	
4	Long-life filter				KAFAQ41BA60	
5	Fresh air intake kit	Direct installation type			KDDQ44XA60	

Operation Control

	Item	Model	FFQ25	FFQ35	FFQ50	FFQ60
1	Remote control	Infrared	H/P		BRC7E530W	
			C/O		BRC7E531W	
		Wired	For Europe		BRC1D51	
					BRC1E51A7 *3	
			For Australia		BRC1C61	
2	Central remote control				DCS302B51	
3	Unified on/off control	For Europe			DCS301B51	
		For Australia			DCS301B61	
4	Schedule timer				DST301B51	
5	Wiring adapter for electrical appendices *2				KRP1B57	
7	Wiring adapter for electrical appendices *2				KRP4A53	
8	Wiring adapter (hour meter)				EKRP1B2	
9	Installation box for adapter PCB				KRP1B101	
10	Remote sensor				KRCS01-1	
11	Interface adapter for sky-air series				DTA112B51	
12	Remote "On/Off" and "Forced Off" kit				EKRORO	

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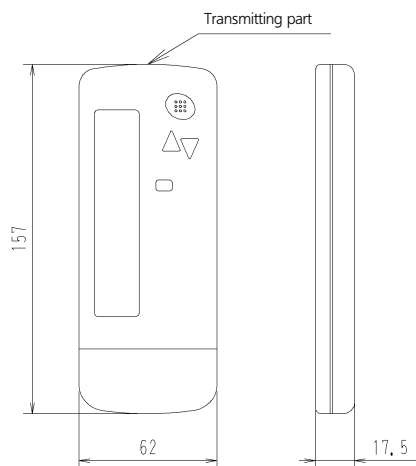
NOTES

- 1 All options are supplied as kit.
- *2 The 'installation box for adapter PCB' is required.
- *3 Included languages are English, German, French, Dutch, Spanish, Italian, Greek, Portuguese, Russian and Turkish.

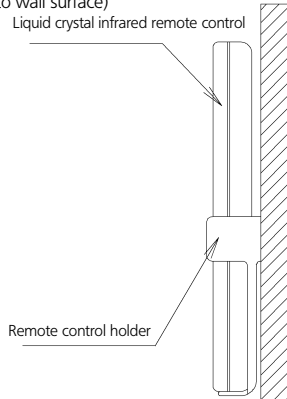
5 Control systems

FFQ-B

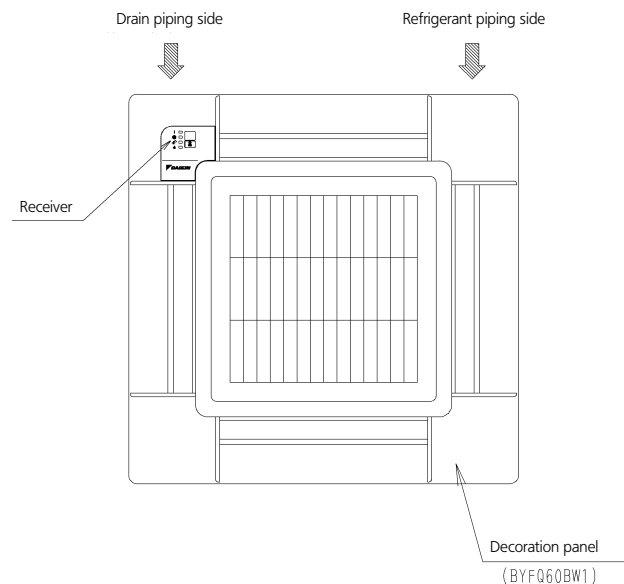
Remote control dimensions



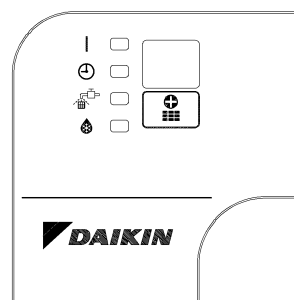
Remote control holder Installation procedure (Installation to wall surface)



Receiver installation procedure



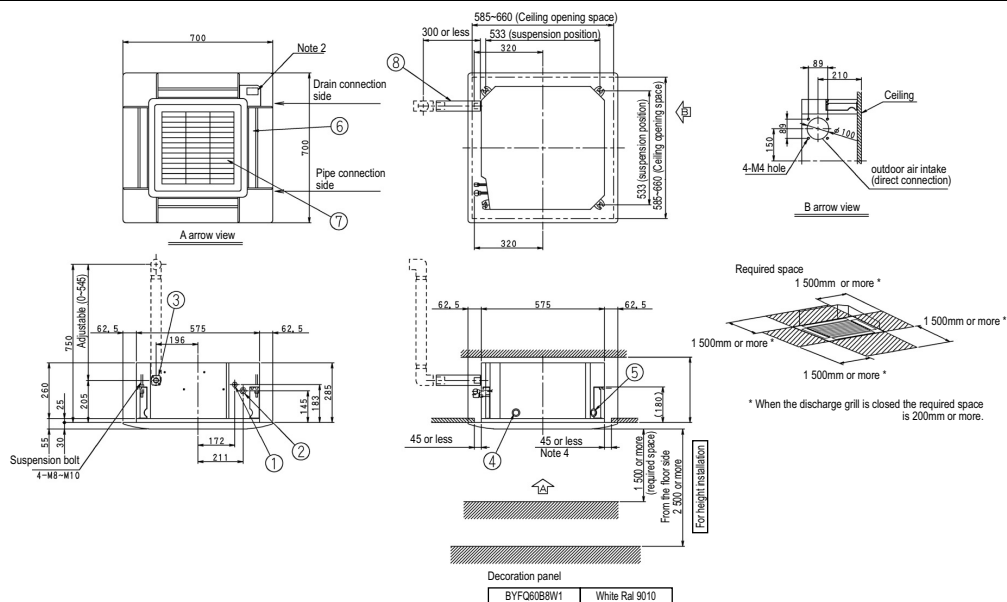
Receiver detail



6 Dimensional drawing & centre of gravity

6 - 1 Dimensional drawing

FFQ25-35B

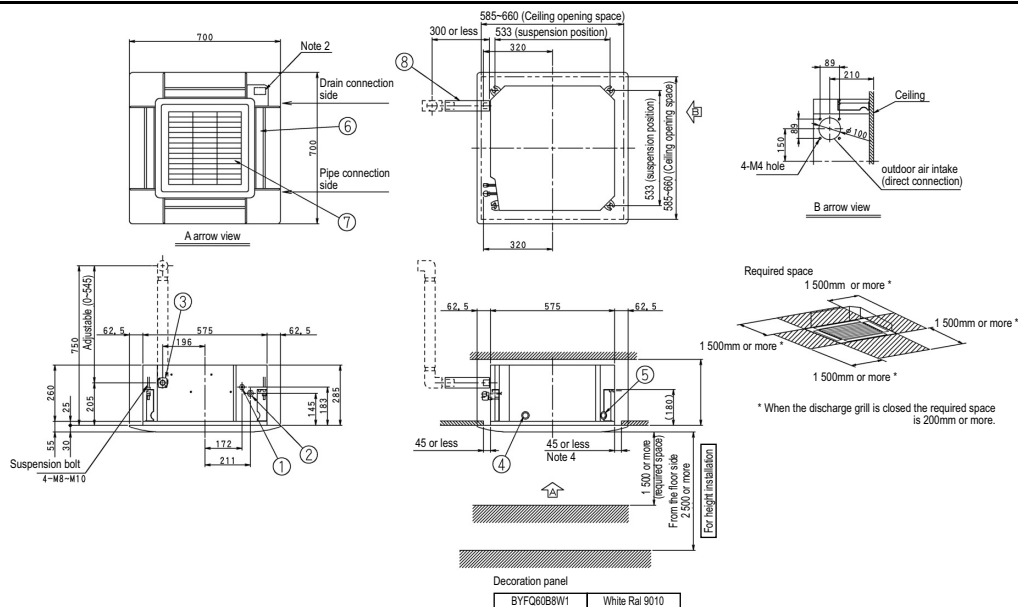


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NOTES

- 1 Sticking location for manufacture's label
Manufacture's label for indoor unit: on the bell mouth inside suction grille
Manufacture's label for decoration panel: on the inner frame inside suction grille
- 2 In case of using wireless remote control, this position will be a signal receiver, refer to the drawing or wireless remote control in detail
- 3 When the temperature and humidity in the ceiling exceed 30°C and RH 80% or the fresh air is inducted into the ceiling or the unit continues 24 hour operation, an additional insulation (thickness 10 mm or more of glasswool or polyethylene form) is required
- 4 Though the installation is acceptable up to maximum of 660mm square ceiling opening, keep the clearance of 45mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

FFQ50-60B

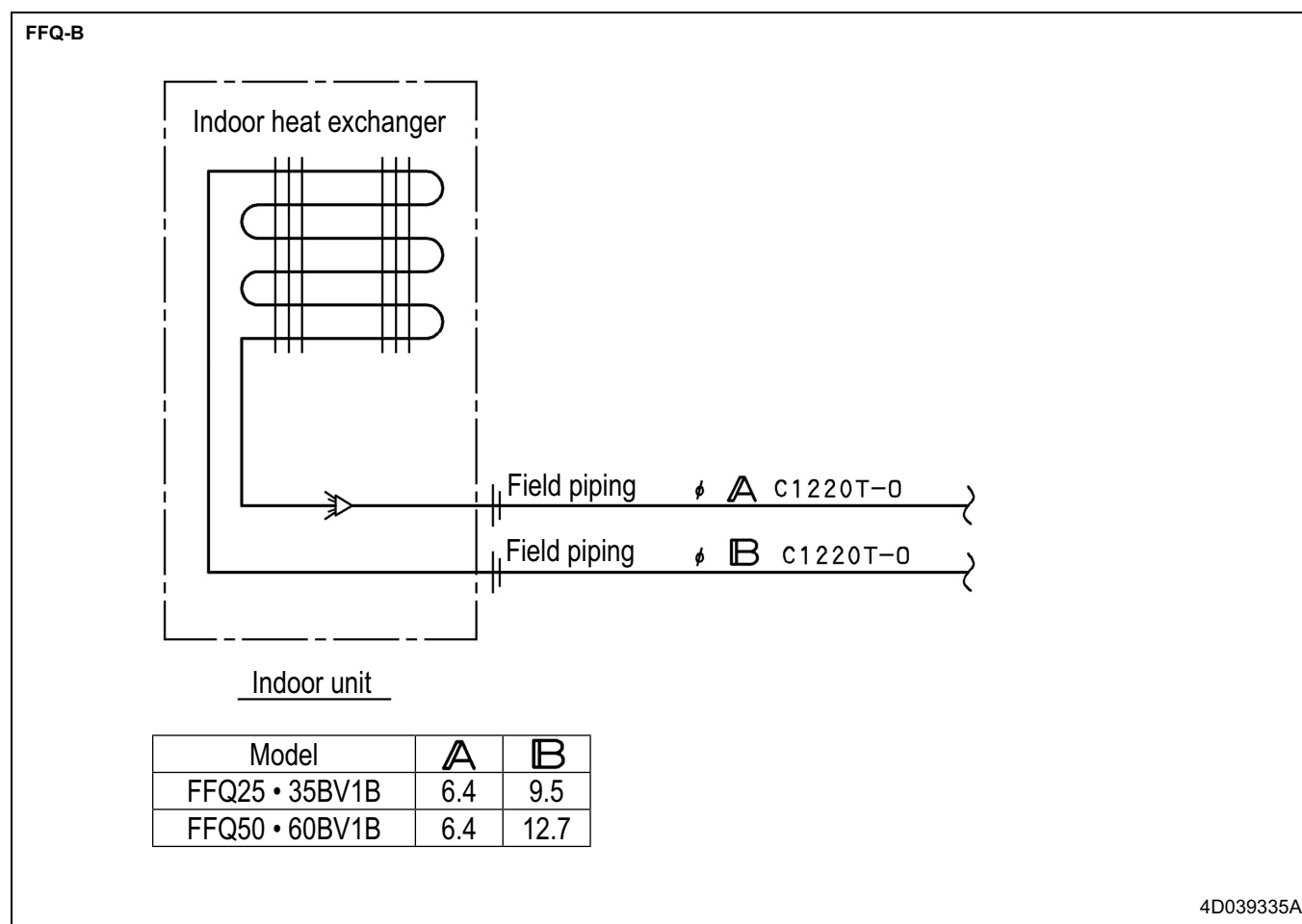


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NOTES

- 1 Sticking location for manufacture's label
Manufacture's label for indoor unit: on the bell mouth inside suction grille
Manufacture's label for decoration panel: on the inner frame inside suction grille
- 2 In case of using wireless remote control, this position will be a signal receiver, refer to the drawing or wireless remote control in detail
- 3 When the temperature and humidity in the ceiling exceed 30°C and RH 80% or the fresh air is inducted into the ceiling or the unit continues 24 hour operation, an additional insulation (thickness 10 mm or more of glasswool or polyethylene form) is required
- 4 Though the installation is acceptable up to maximum of 660mm square ceiling opening, keep the clearance of 45mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

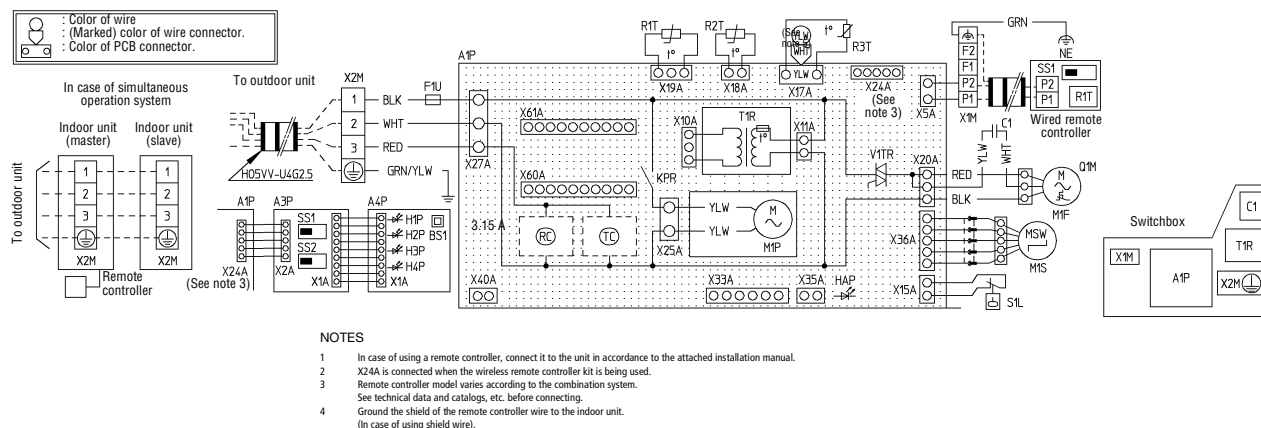
7 Piping diagram



8 Wiring diagram

8 - 1 Wiring diagram

FFQ-B



LEGEND

	Terminal
	Connector
	Wire clamp
	Field wiring
RED	Red
BLK	Black
WHT	White
YLW	Yellow
GRN	Green
A1P	Printed circuit board
C1	Capacitor (M1F)
F1U	Fuse (F5A, 250V)
H4P	Light emitting diode (service monitor green)
KPR	Magnetic relay (M1P)
M1F	Motor (indoor fan)

M1P	Motor (drain pump)
M1S	Motor (swing flap)
Q1M	Thermo switch (M1F embedded)
R1T	Thermistor (air)
R2T	Thermistor (coil -1)
R3T	Thermistor (coil -2)
RC	Signal receiver unit
S1L	Float switch
TC	Signal transmission unit
T1R	Transformer (220-240V/224V)
V1TR	Phase control circuit
X1M	Terminal strip
X2M	Terminal strip

Wired remote controller

R1T	Thermistor (air)
SS1	Select switch (main/sub)

Wireless remote controller (receiver/display unit)

A3P	Printed circuit board
A4P	Printed circuit board
BS1	Push button (on/off)
H1P	Light emitting diode (on - red)
H2P	Light emitting diode (timer - green)
H3P	Light emitting diode (filter sign - red)
H4P	Light emitting diode (defrost - orange)
SS1	?Selector switch (main/sub)
SS2	Select switch (wireless address set)

Connector for optional parts

X33A	Connector (adaptor for wiring)
X35A	Connector (grou control adaptor)
X40A	Connector (on/off input from outside)
X60A, X61A	Connector (interface adaptor for sky-air series)

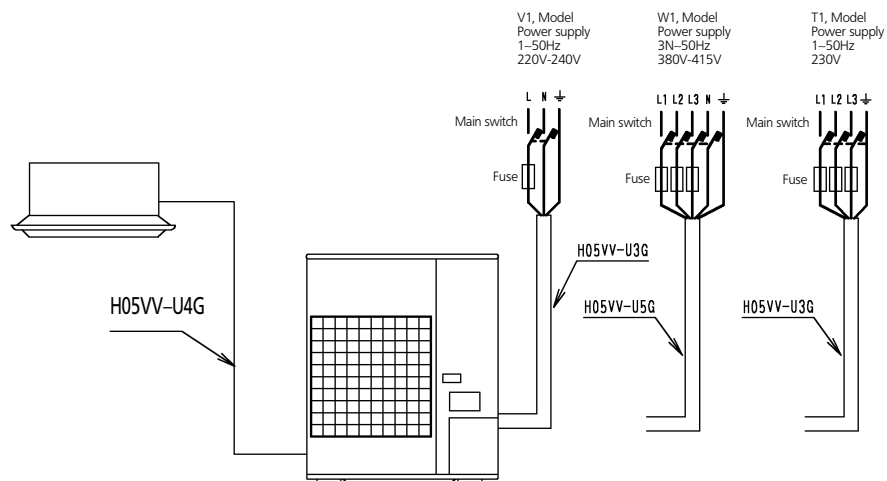
3TW26476-1

8 Wiring diagram

8 - 2 External connection diagram

NOTES

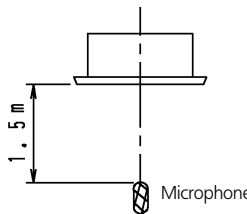
- 1  Line voltage wiring
 Control circuit wiring
- 2 All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
- 3 Use copper conductors only.
- 4 See wiring diagrams for details.
- 5 Install fuse and main switch for safety.
- 6 All field wiring and components must be provided by a licensed electrician.
- 7 The unit shall be grounded in compliance with the applicable local and national codes.
- 8 Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- 9 Never share a common power supply with other equipment.



4D010992C

9 Sound data

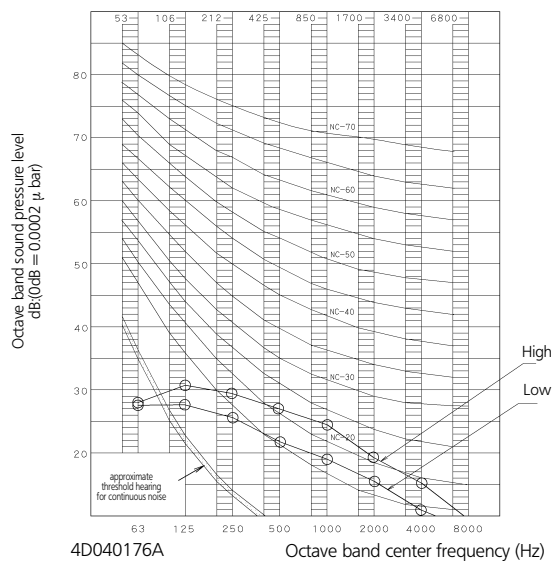
9 - 1 Sound level data

Model	Sound pressure level		Measuring location	Sound power level (H)
	230V, 50Hz			
	H	L		
FFQ25B	29.5	24.5	Location of microphone 	46.5
FFQ35B	32	25		49
FFQ50B	36	27		53
FFQ60B	41	32		58

9 Sound data

9 - 2 Sound pressure spectrum

FFQ25B



4D040176A

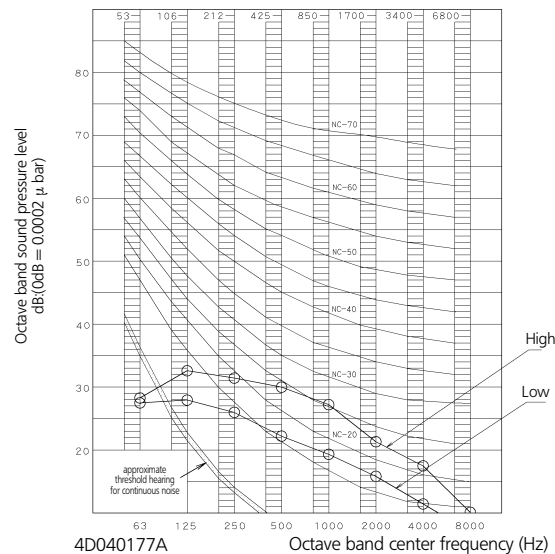
NOTES

- 1 Operation noise differs with operation and ambient conditions.
- 2 Measuring place: anechoic room

Legend

- 50Hz 230V (H)
- -○ 50Hz 230V (L)

FFQ35B



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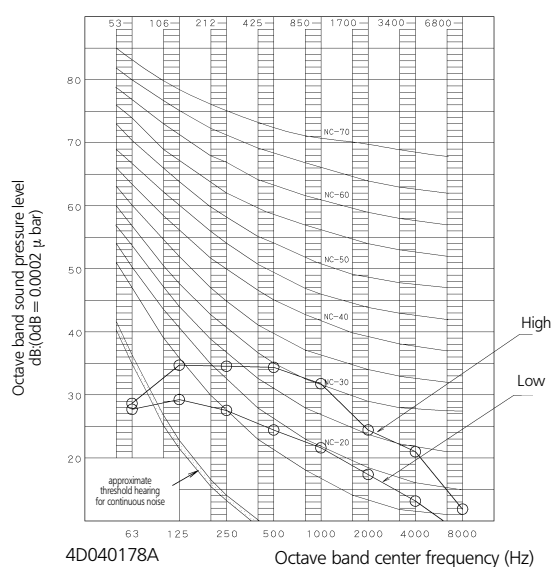
NOTES

- 1 Operation noise differs with operation and ambient conditions.
- 2 Measuring place: anechoic room

Legend

- 50Hz 230V (H)
- -○ 50Hz 230V (L)

FFQ50B



4D040178A

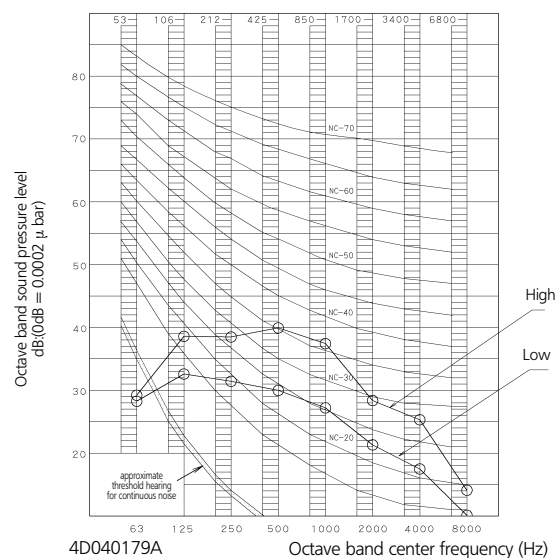
NOTES

- 1 Operation noise differs with operation and ambient conditions.
- 2 Measuring place: anechoic room

Legend

- 50Hz 230V (H)
- -○ 50Hz 230V (L)

FFQ60B



4D040179A

NOTES

- 1 Operation noise differs with operation and ambient conditions.
- 2 Measuring place: anechoic room

Legend

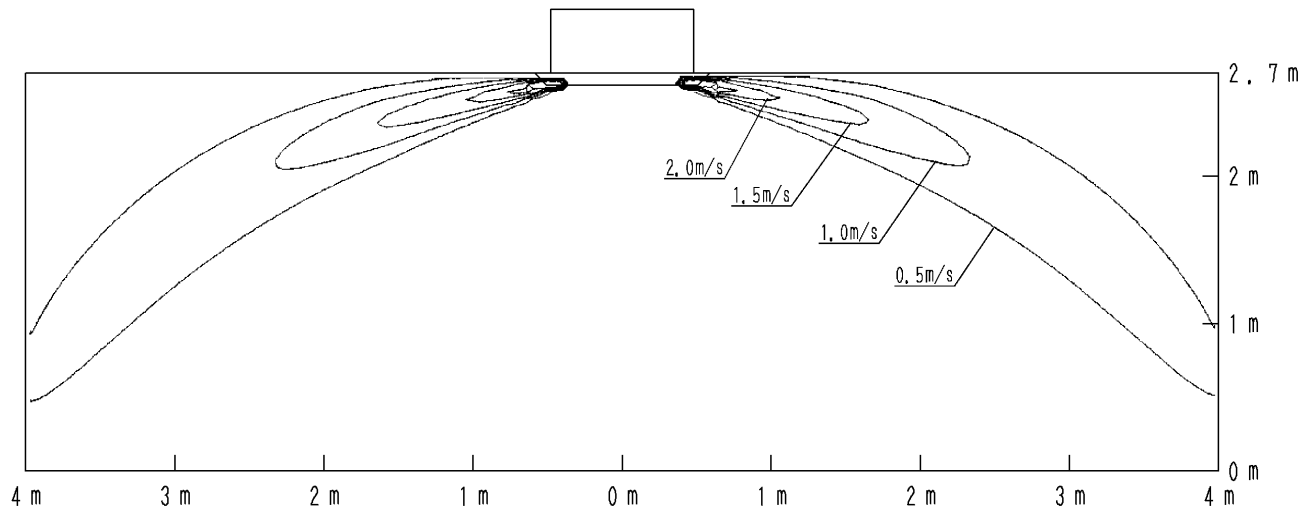
- 50Hz 230V (H)
- -○ 50Hz 230V (L)

10 Air flow pattern

FFQ25B

Cooling - air velocity distribution

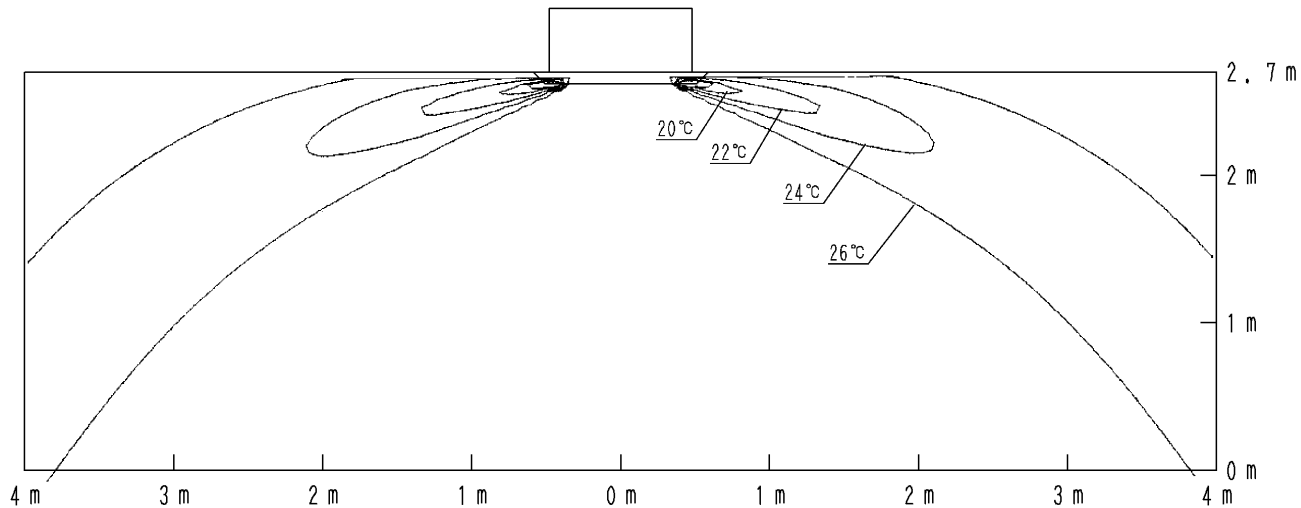
4-way discharge air flow direction: horizontal



FFQ25B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



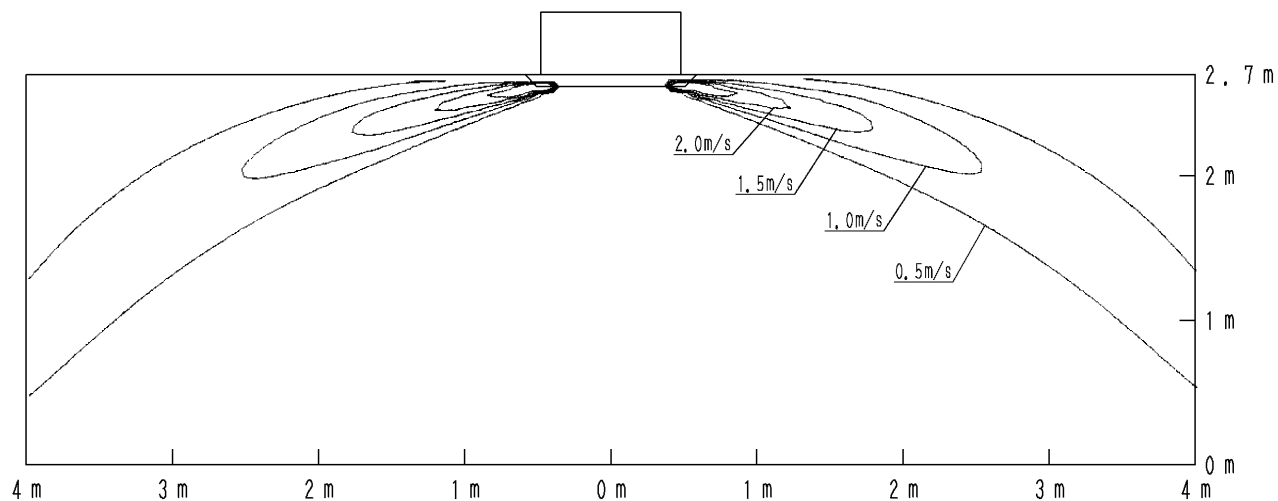
4D039738B

10 Air flow pattern

FFQ35B

Cooling - air velocity distribution

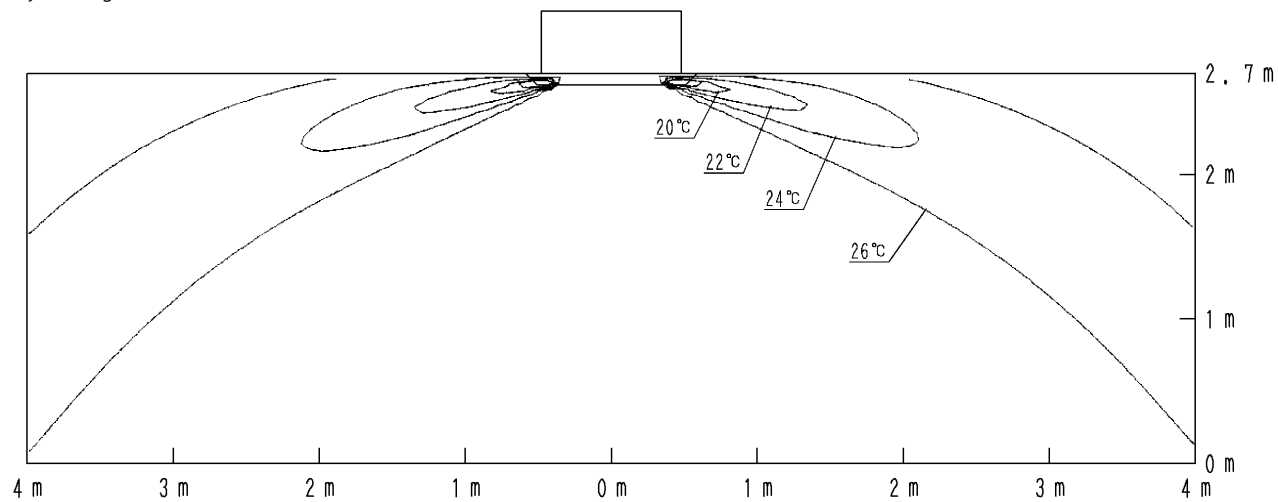
4-way discharge air flow direction: horizontal



FFQ35B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



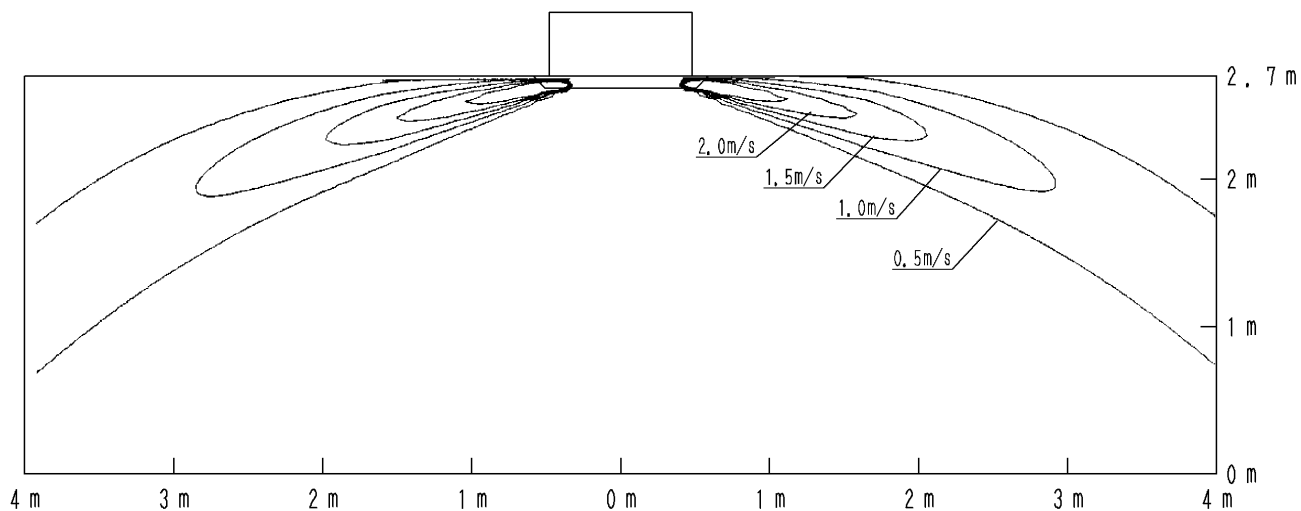
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10 Air flow pattern

FFQ50B

Cooling - air velocity distribution

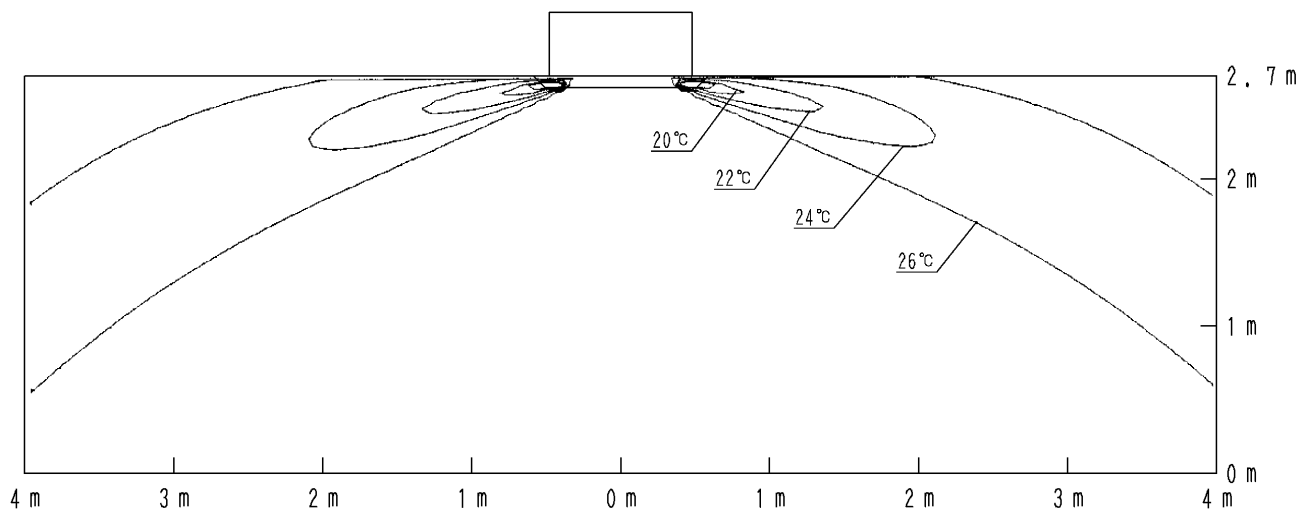
4-way discharge air flow direction: horizontal



FFQ50B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



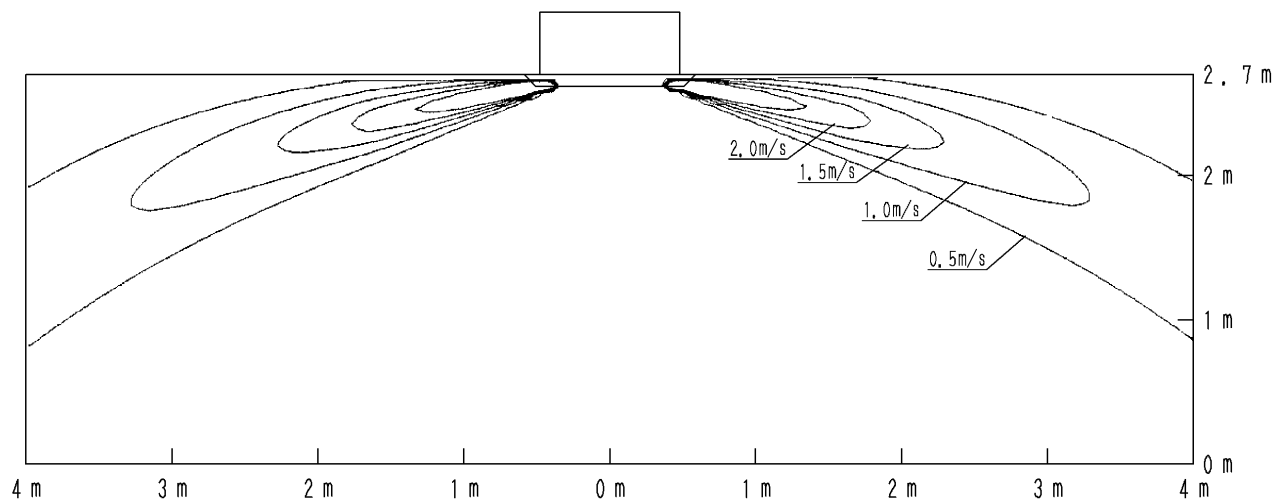
4D039815A

10 Air flow pattern

FFQ60B

Cooling - air velocity distribution

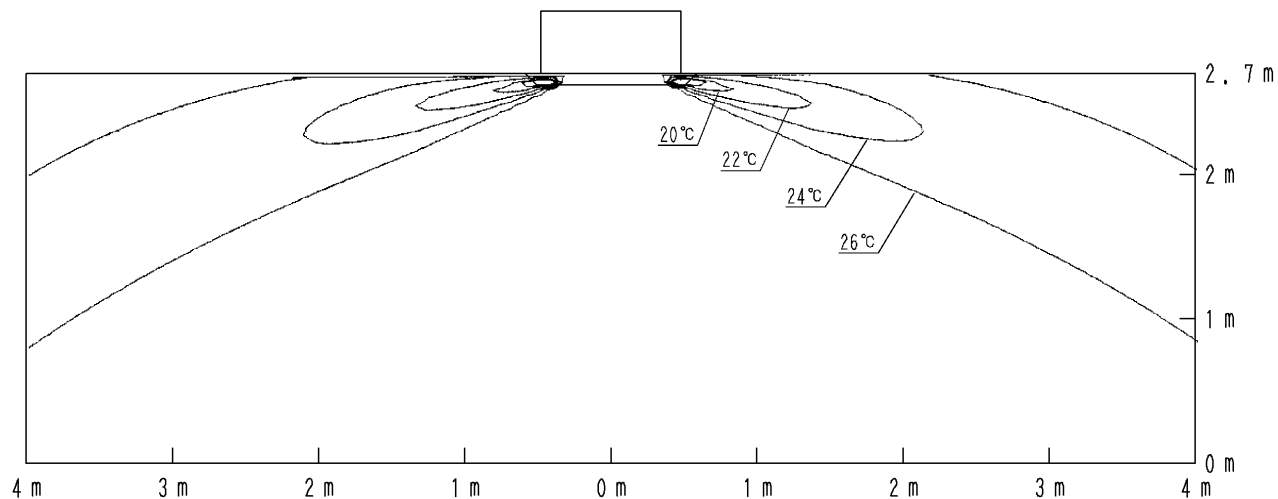
4-way discharge air flow direction: horizontal



FFQ60B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



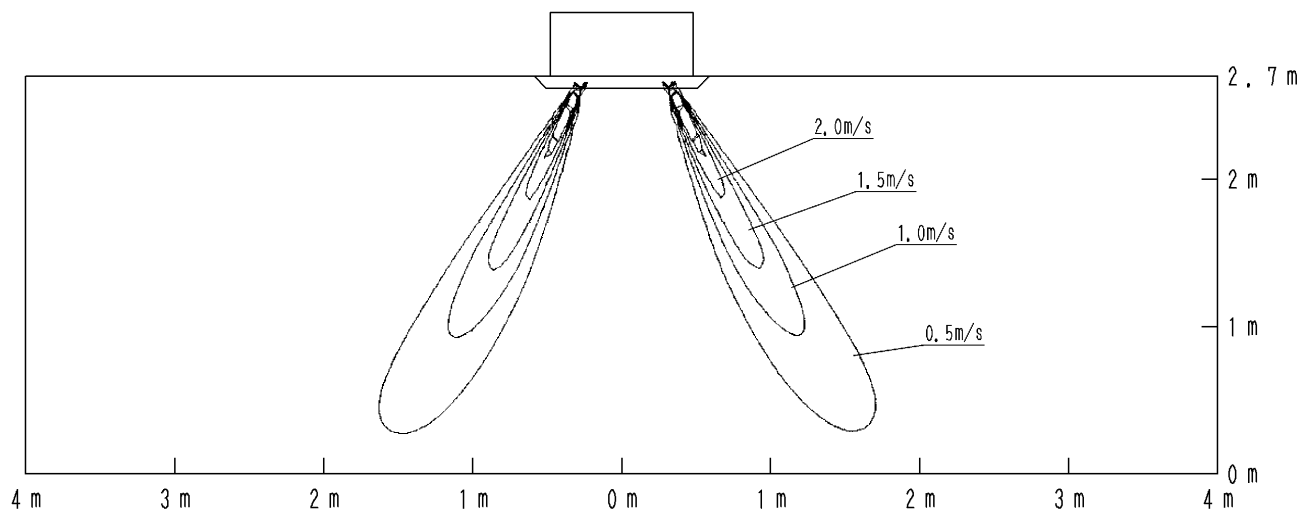
4D039733A

10 Air flow pattern

FFQ25B

Heating - air velocity distribution

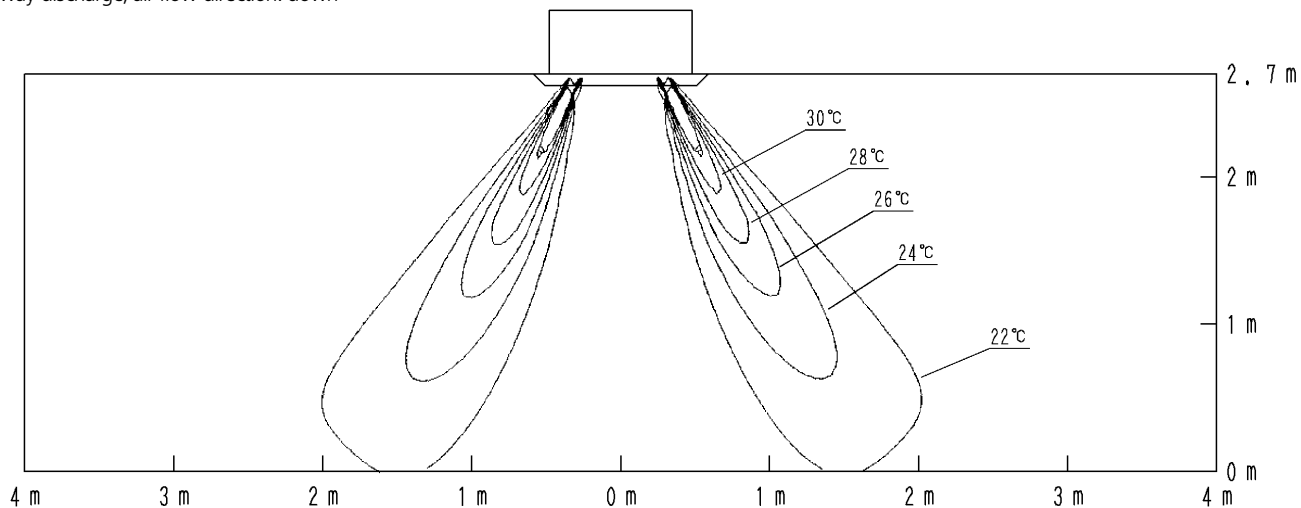
4-way discharge, air flow direction: down



FFQ25B

Heating - air temperature distribution

4-way discharge, air flow direction: down



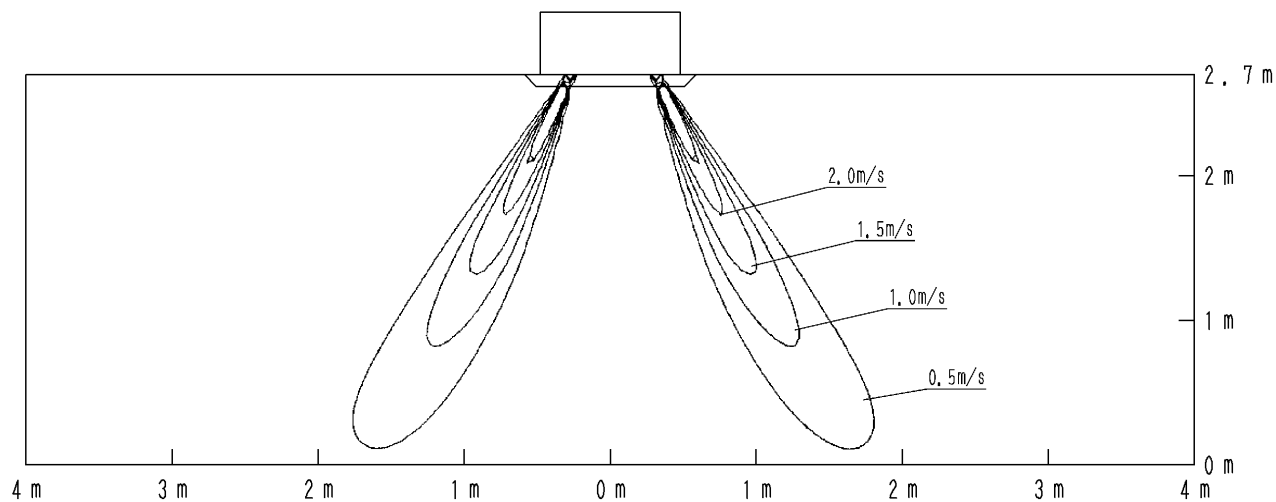
4D039820B

10 Air flow pattern

FFQ35B

Heating - air velocity distribution

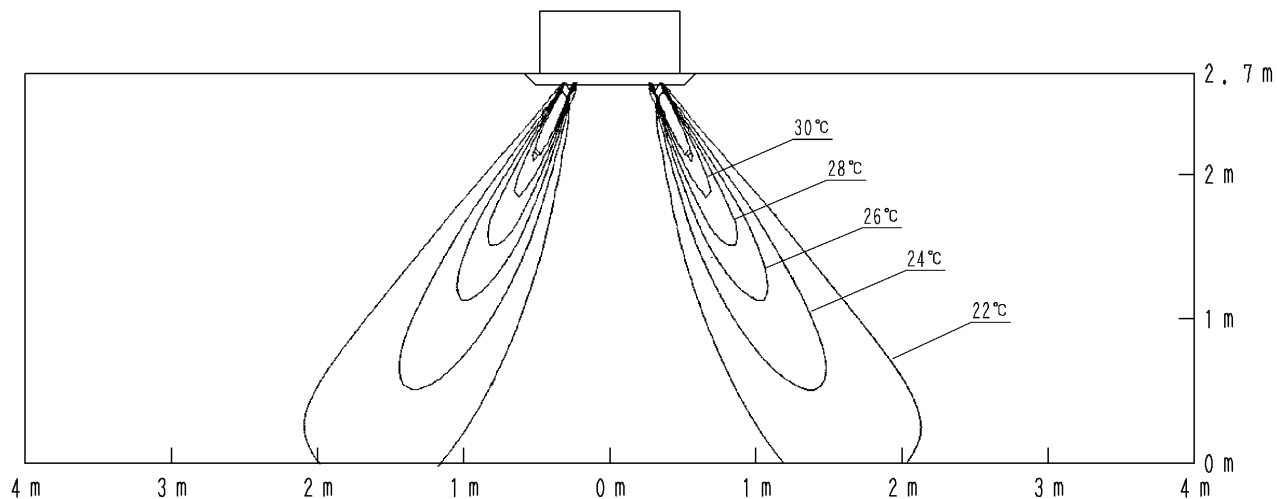
4-way discharge, air flow direction: down



FFQ35B

Heating - air temperature distribution

4-way discharge, air flow direction: down



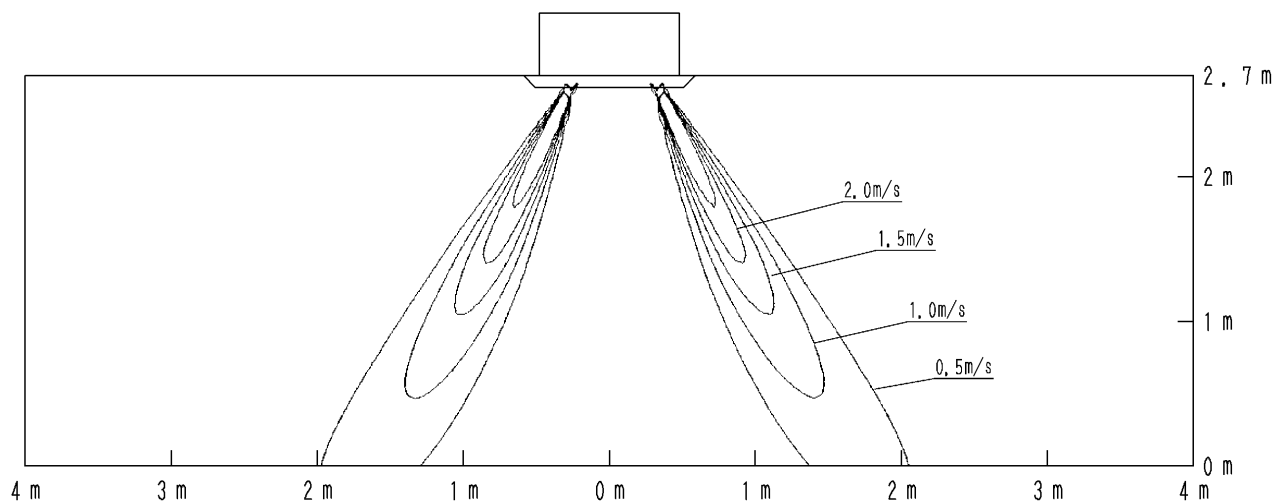
4D039846A

10 Air flow pattern

FFQ50B

Heating - air velocity distribution

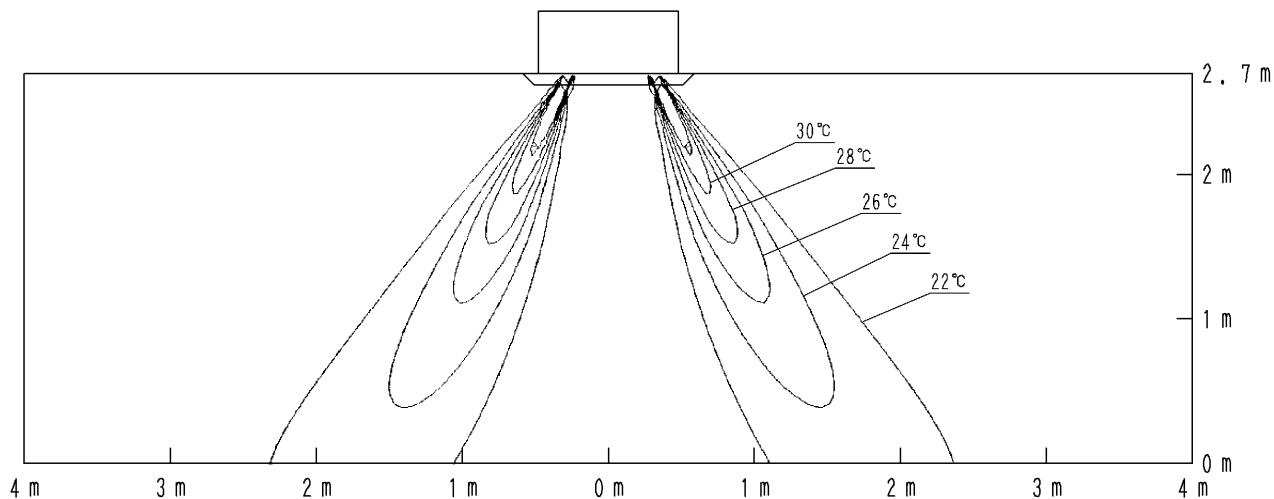
4-way discharge, air flow direction: down



FFQ50B

Heating - air temperature distribution

4-way discharge, air flow direction: down



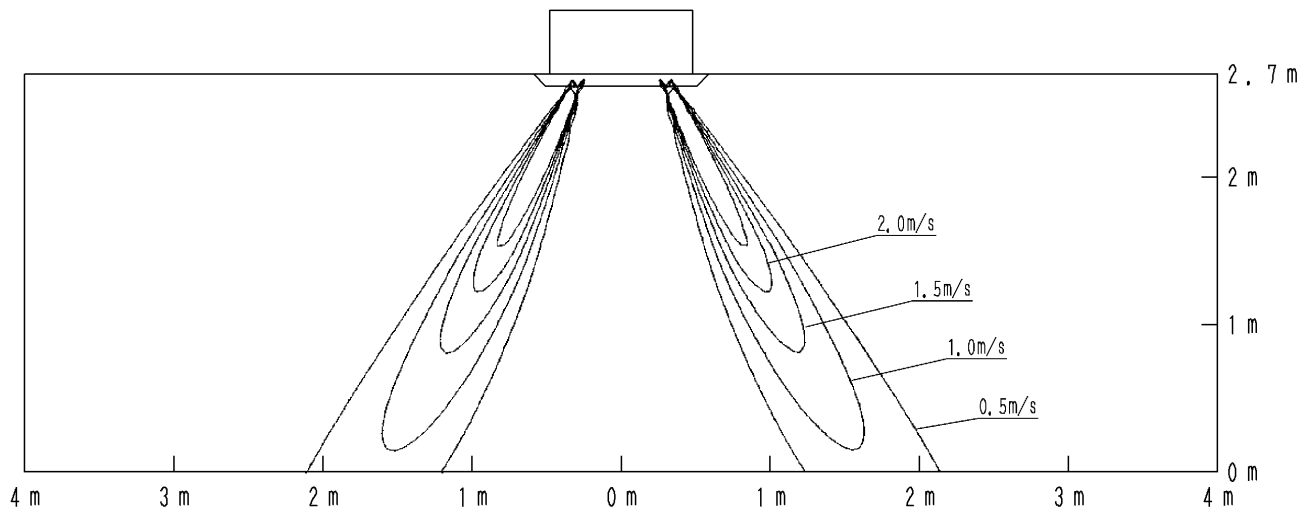
4D039848A

10 Air flow pattern

FFQ60B

Heating - air velocity distribution

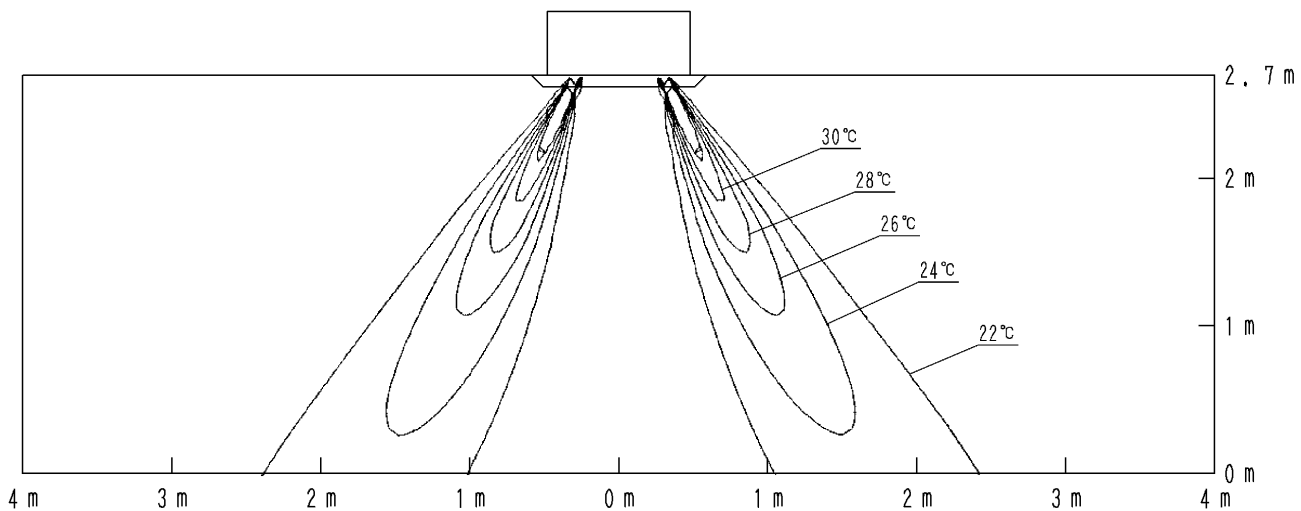
4-way discharge, air flow direction: down



FFQ60B

Heating - air temperature distribution

4-way discharge, air flow direction: down

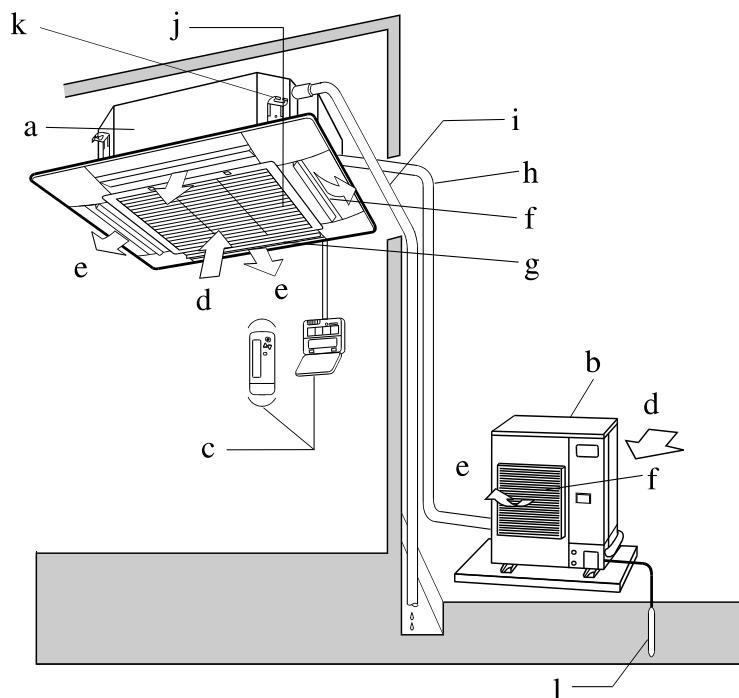


4D039849A

11 Installation

11 - 1 Installation method

FFQ-B



Names and functions of parts

- Ⓐ Indoor unit
- Ⓑ Outdoor unit
The external appearance of the outdoor unit varies depending on its capacity class.
The outdoor unit shown in the figure is for reference to indicate features.
Contact your Daikin Dealer and verify which outdoor unit you have.
- Ⓒ Remote control
- Ⓓ Inlet air
- Ⓔ Discharged air
- Ⓕ Air outlet
- Ⓖ Air flow flap (at air outlet)
- Ⓗ Refrigerant piping, connection electric wire
- Ⓘ Drain pipe
- Ⓛ Air inlet
The built-in air filter removes dust and dirt.
- Ⓚ Drain pumping out device (built-in)
Drains water removed from the room during cooling
- Ⓛ Ground wire
Wire to ground from the outdoor unit to prevent electrical shocks.



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



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