

# technical data



**FFQ-B8V1B**

**4-Way Blow Ceiling Mounted  
Cassette (600x600mm)**

air conditioning systems

Split  
Sky Air

# 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 .....	9
	Dimensional drawing .....	9
7	Piping diagram .....	10
8	Wiring diagram .....	11
	Wiring diagram .....	11
	External connection diagram .....	12
9	Sound data .....	13
	Sound level data .....	13
	Sound pressure spectrum .....	14
10	Air flow pattern .....	15
11	Installation .....	23
	Installation method .....	23

# 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.



	heat pump			optional	standard			
2 steps	optional						optional	

## 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	
		Low	dBA	29.5	32.0	36.0	41.0	
	Pressure	High	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

2-2 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				
		Remark	4 for interunit wiring (earth wiring included)				
Power Supply Intake			Outdoor unit only				

### 3 Safety device settings

Model	Safety devices	25	35	50	60
FFQ-B	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

3D006611F

## 4 Options

4

### OPTIONS

Item	Model	FFQ25B	FFQ35B	FFQ50B	FFQ60B
Decoration panel				BYFQ60B	
Sealing member of air discharge outlet			KDBH44BA60		
Panel spacer			KDBQ44B60		
Long-life filter			KAFQ441BA60		
Fresh air intake kit	Direct installation type		KDDQ44XA60		

### CONTROL SYSTEM

Item	Model	FFQ25B	FFQ35B	FFQ50B	FFQ60B
Remote control	Infrared	Heat pump		BRC7E530	
		Cooling only		BRC7E531	
	Wired		BRC1D52		
Central remote control			DCS302C51		
Unified ON/OFF control			DCS301B51		
Schedule timer			DST301B51		
Adaptor for wiring (interlock for fresh air intake) *			KRP1B57		
Wiring adapter for electrical appendices (2) *			KRP4A53		
Installation box for adapter PCB			KRP1BA101		
Remote sensor			KRCS01-1		
Interface adapter for Sky Air series			DTA112B51		

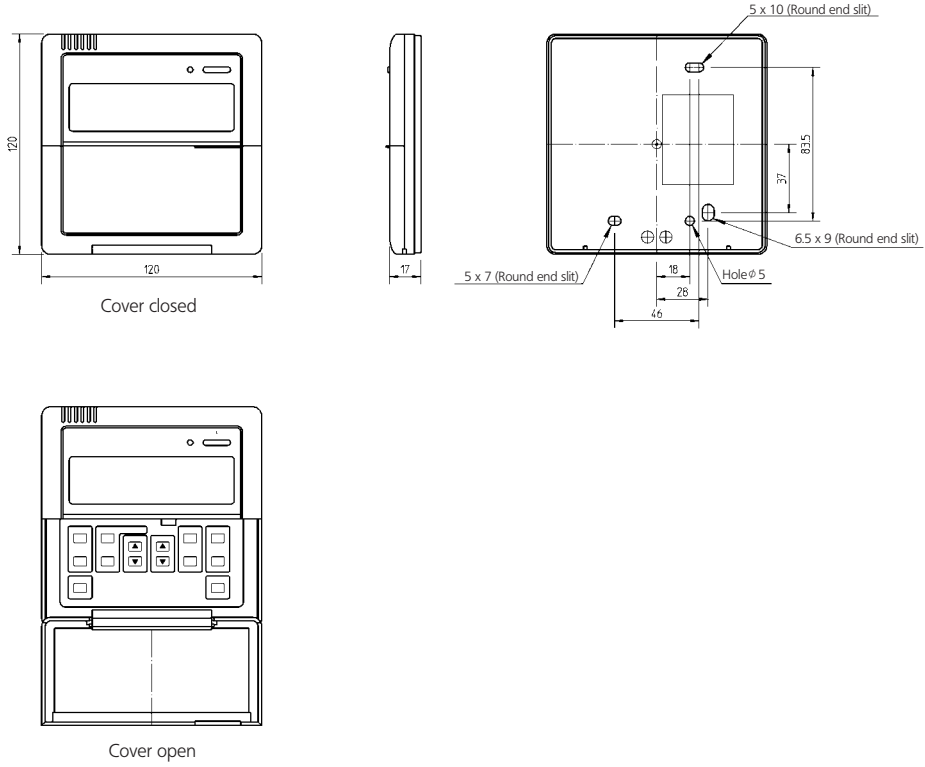
3TW26479-1C

All options are supplied as kit.

\*The "Installation box for adapter PCB" is required.

# 5 Control systems

BRC1D52



3TW23651-2

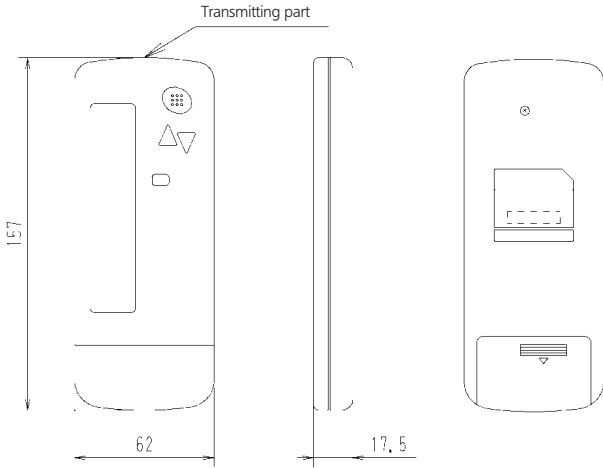


# 5 Control systems

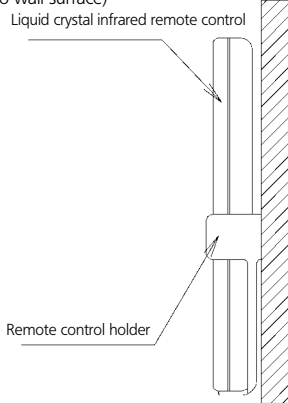
5

## FFQ-B

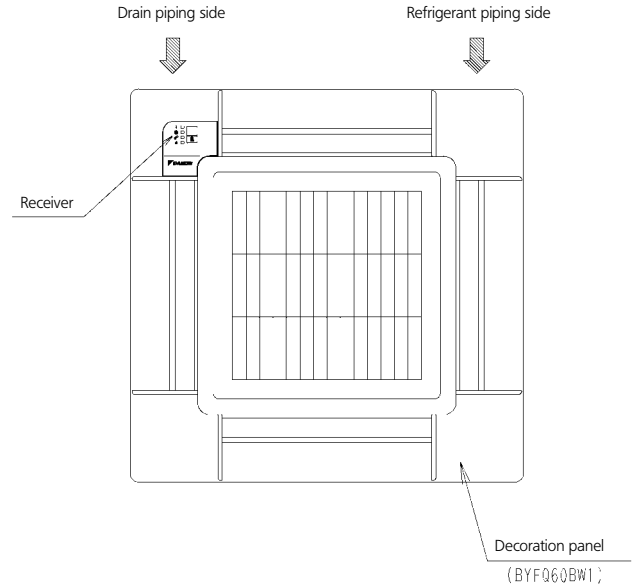
Remote control dimensions



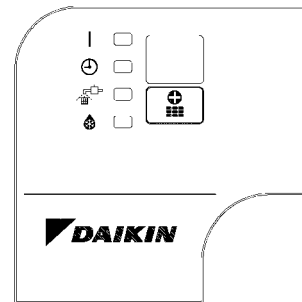
Remote control holder  
Installation procedure  
(Installation to wall surface)



Receiver installation procedure



Receiver detail



# 6 Dimensional drawing & centre of gravity

## 6 - 1 Dimensional drawing

**FFQ25-35B**  
BYFQ60BW1 White Ral 9010

For fresh air intake kit connection (direct installation type)

**A Arrow view**

**B Arrow view**

Required installation space  
When the discharge grille is closed, the required space is 200mm or more

- Liquid pipe connection  $\phi$  6.4 Flare connection
- Gas pipe connection  $\phi$  9.5 Flare connection
- Drain pipe connection VP20 (O.D.  $\phi$  26)
- Power supply connection
- Remote control code and control wiring connection
- Air discharge grille
- Air suction grille
- Drain hose I.D.  $\phi$  25

3D039003B

**FFQ50-60B**  
BYFQ60BW1 White Ral 9010

For fresh air intake kit connection (direct installation type)

**A Arrow view**

**B Arrow view**

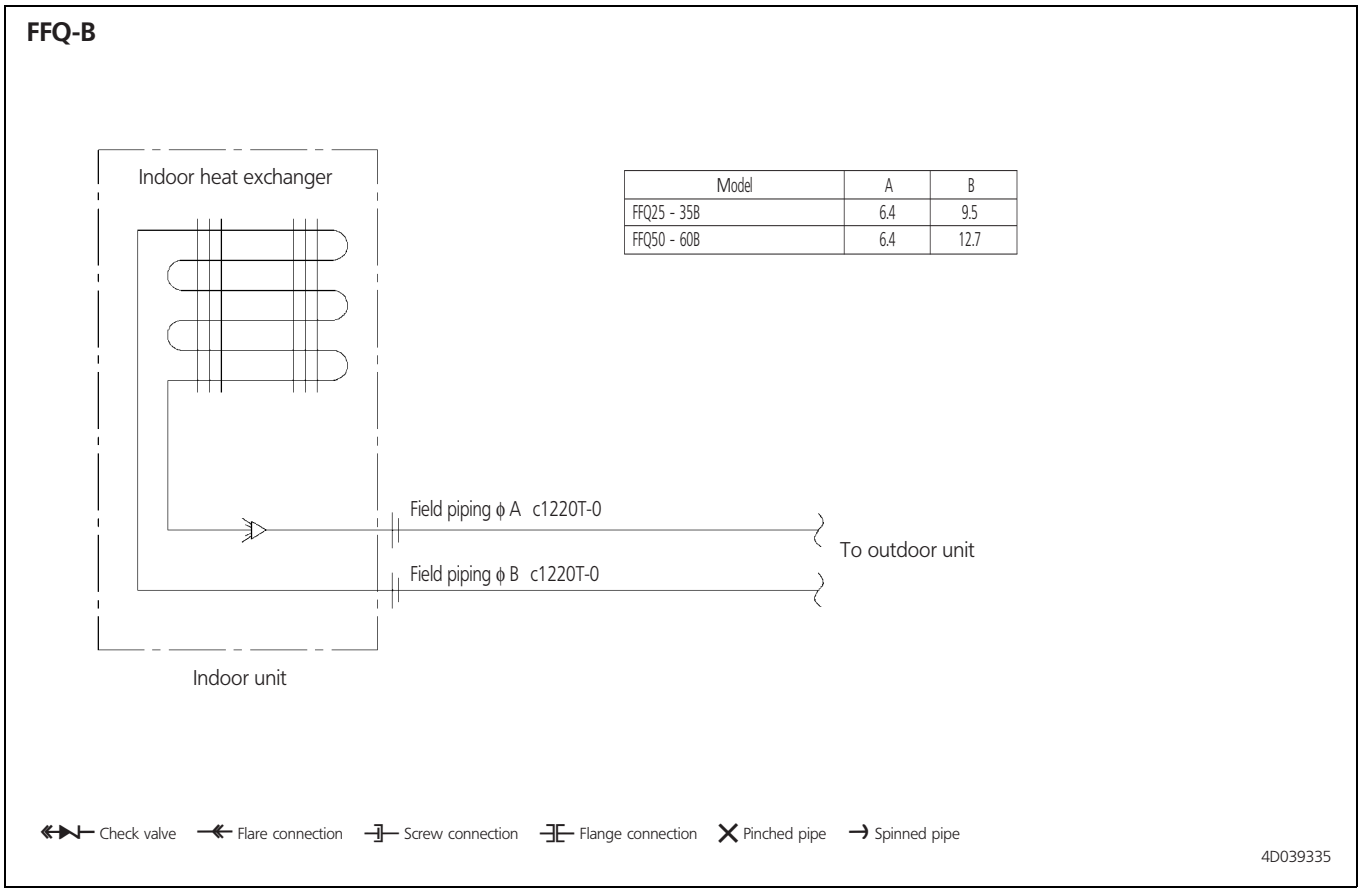
Required installation space  
When the discharge grille is closed, the required space is 200mm or more

- Liquid pipe connection  $\phi$  6.4 Flare connection
- Gas pipe connection  $\phi$  12.7 Flare connection
- Drain pipe connection VP20 (O.D.  $\phi$  26)
- Power supply connection
- Remote control code and control wiring connection
- Air discharge grille
- Air suction grille
- Drain hose I.D.  $\phi$  25

3D039005B

# 7 Piping diagram

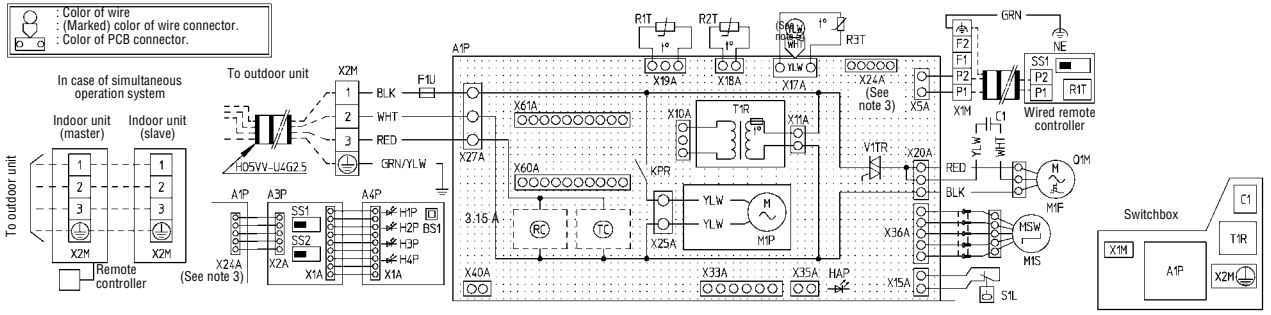
7



# 8 Wiring diagram

## 8 - 1 Wiring diagram

### FFQ-B



- NOTES**
- 1 In case of using a remote controller, connect it to the unit in accordance to the attached installation manual.
  - 2 X24A is connected when the wireless remote controller kit is being used.
  - 3 Remote controller model varies according to the combination system.  
See technical data and catalogs, etc. before connecting.
  - 4 Ground the shield of the remote controller wire to the indoor unit.  
(In case of using shield wire).

### LEGEND

	Terminal	M1P	Motor (drain pump)	<b>Wireless remote controller (receiver/display unit)</b>	
	Connector	M1S	Motor (swing flap)	A3P	Printed circuit board
	Wire clamp	Q1M	Thermo switch (M1F embedded)	A4P	Printed circuit board
	Field wiring	R1T	Thermistor (air)	BS1	Push button (on/off)
RED	Red	R2T	Thermistor (coil -1)	H1P	Light emitting diode (on - red)
BLK	Black	R3T	Thermistor (coil -2)	H2P	Light emitting diode (timer - green)
WHT	White	RC	Signal receiver unit	H3P	Light emitting diode (filter sign - red)
YLW	Yellow	S1L	Float switch	H4P	Light emitting diode (defrost - orange)
GRN	Green	TC	Signal transmission unit	SS1	Selector switch (main/sub)
A1P	Printed circuit board	T1R	Transformer (220-240V/224V)	SS2	Selector switch (wireless address set)
C1	Capacitor (M1F)	V1TR	Phase control circuit	<b>Connector for optional parts</b>	
F1U	Fuse (F5A, 250V)	X1M	Terminal strip	X33A	Connector (adaptor for wiring)
HAP	Light emitting diode (service monitor green)	X2M	Terminal strip	X35A	Connector (grou control adaptor)
KPR	Magnetic relay (M1P)	<b>Wired remote controller</b>		X40A	Connector (on/off input from outside)
M1F	Motor (indoor fan)	R1T	Thermistor (air)	X60A, X61A	Connector (interface adaptor for sky-air series)
		SS1	Selector switch (main/sub)		



3TW26476-1

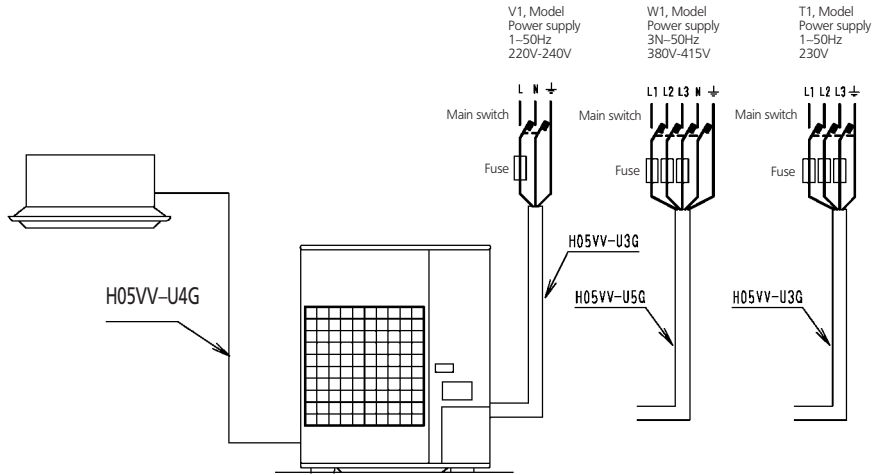
# 8 Wiring diagram

## 8 - 2 External connection diagram

8

### NOTES

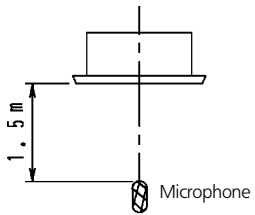
- 1  Line voltage wiring  
 Control circuit wiring
- 2 All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
- 3 Use copper conductors only.
- 4 See wiring diagrams for details.
- 5 Install fuse and mainswitch for safety.
- 6 All field 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.



4D010992A

## 9 Sound data

### 9 - 1 Sound level data

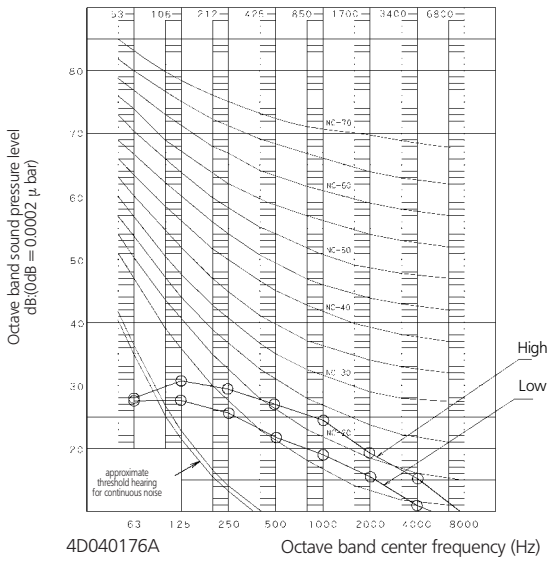
Model	Sound pressure level		Measuring location  Location of microphone 	Sound power level (H)
	230V, 50Hz			
	H	L		
FFQ25B	29.5	24.5		46.5
FFQ35B	32	25		49
FFQ50B	36	27		53
FFQ60B	41	32		58

# 9 Sound data

## 9 - 2 Sound pressure spectrum

9

**FFQ25B**



4D040176A

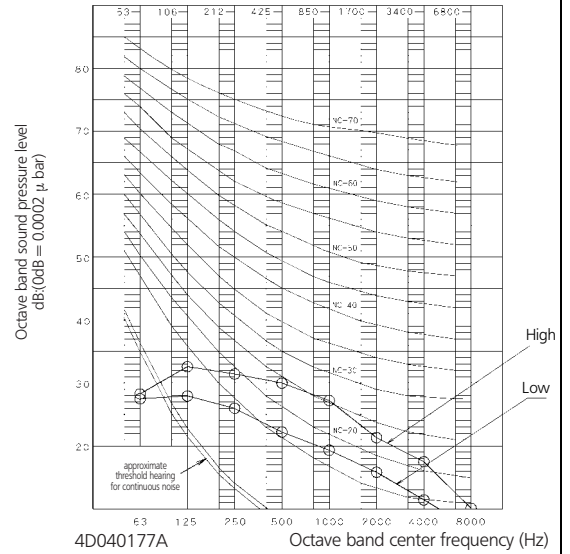
**NOTES**

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

Legend

- 50Hz 230V (H)
- -○ 50Hz 230V (L)

**FFQ35B**



4D040177A

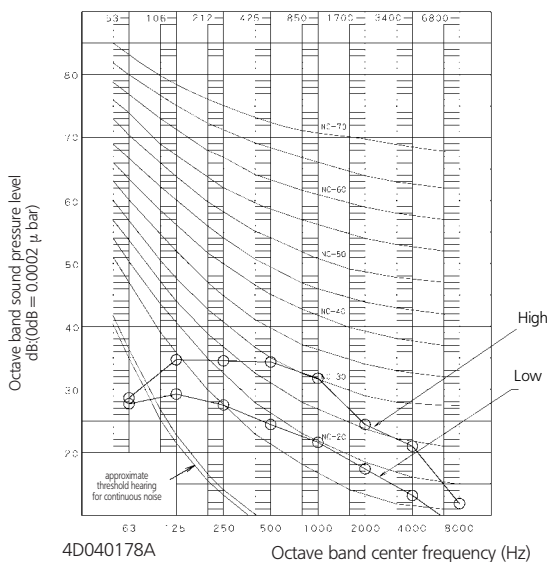
**NOTES**

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

Legend

- 50Hz 230V (H)
- -○ 50Hz 230V (L)

**FFQ50B**



4D040178A

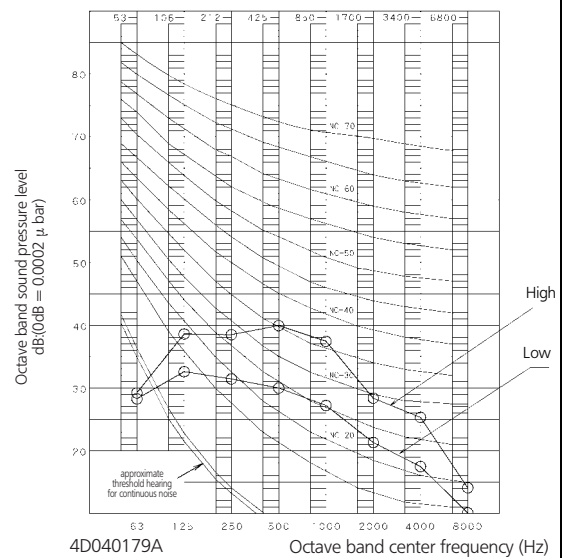
**NOTES**

- 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

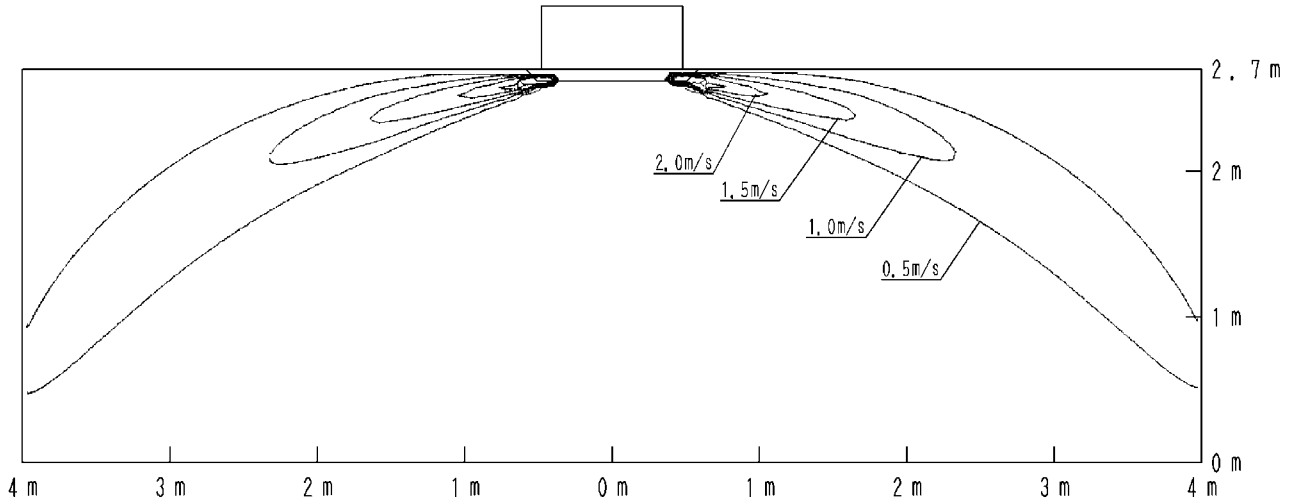
- 50Hz 230V (H)
- -○ 50Hz 230V (L)

# 10 Air flow pattern

FFQ25B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal

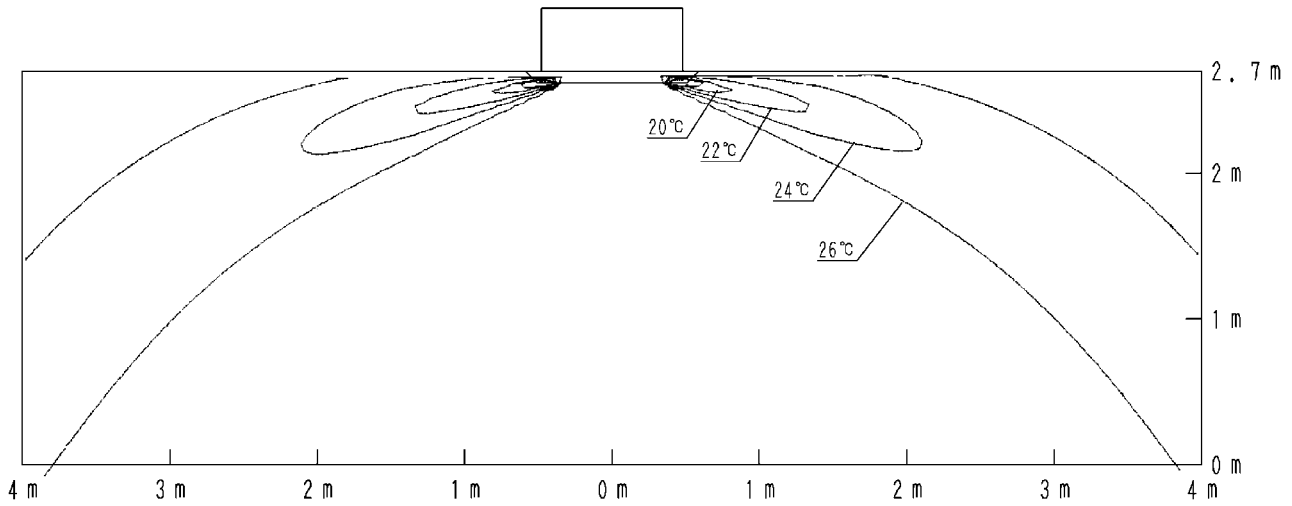


10

FFQ25B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



4D039738A



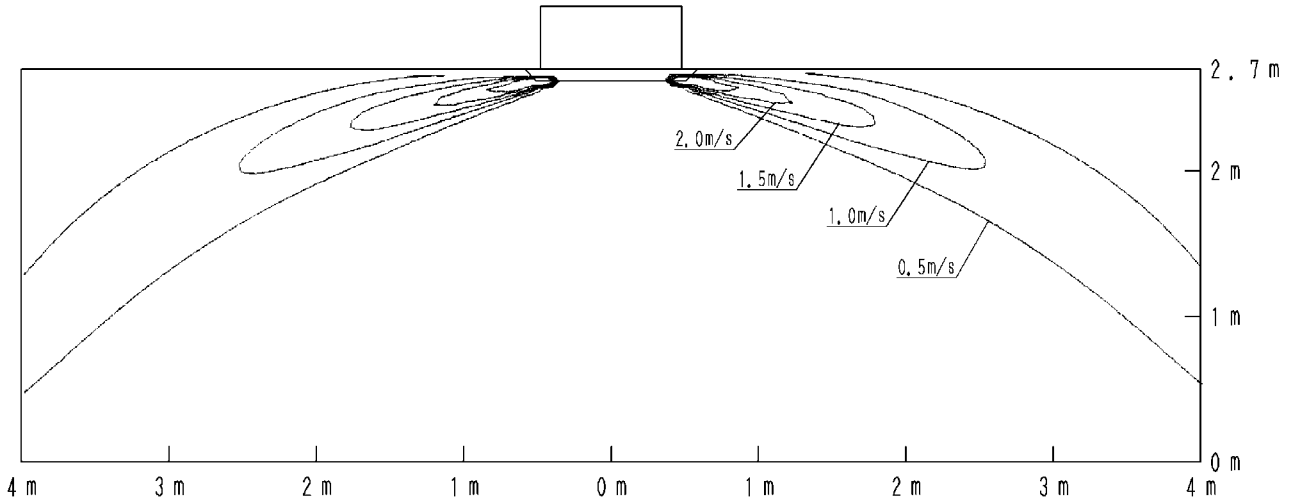
# 10 Air flow pattern

10

FFQ35B

Cooling - air velocity distribution

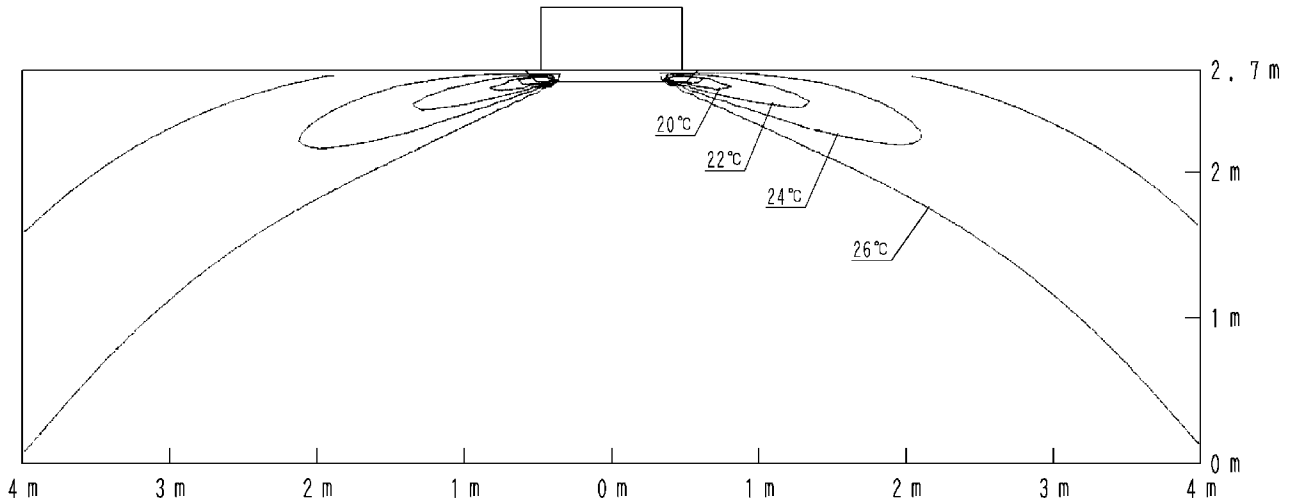
4-way discharge air flow direction: horizontal



FFQ35B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



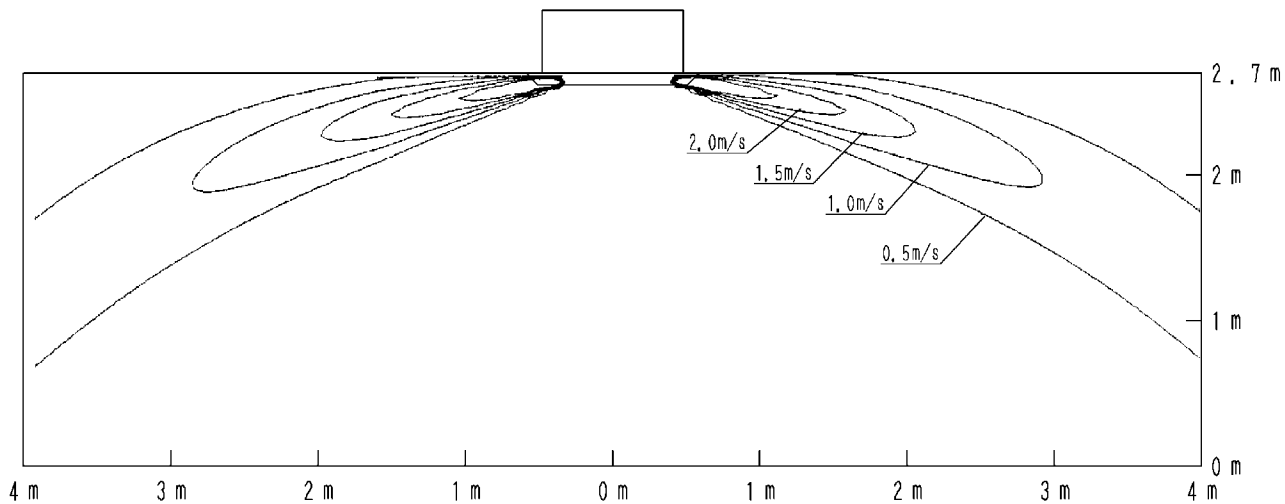
4D039816

# 10 Air flow pattern

FFQ50B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal

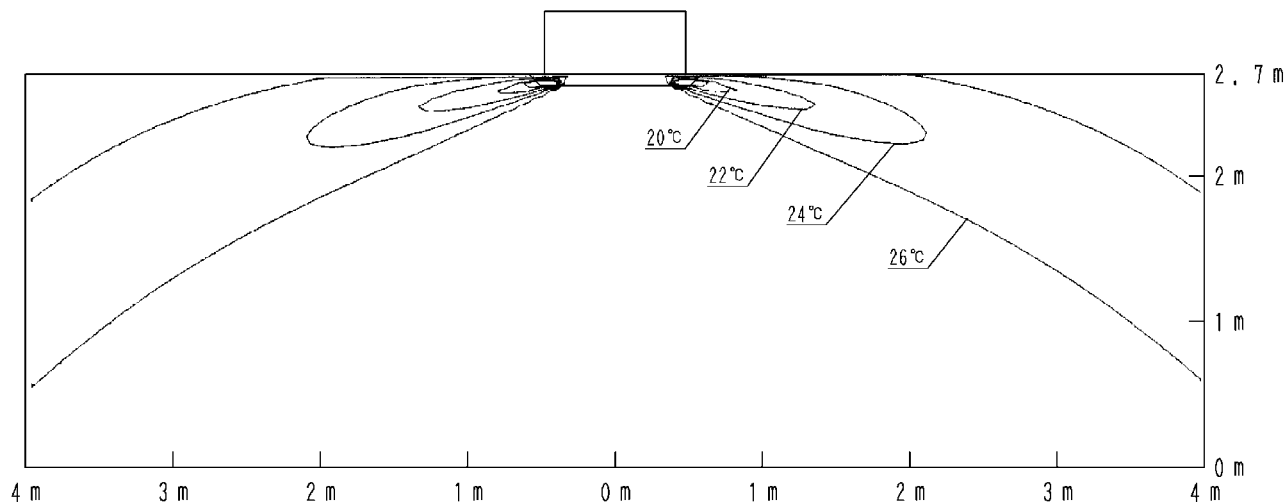


10

FFQ50B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



4D039815

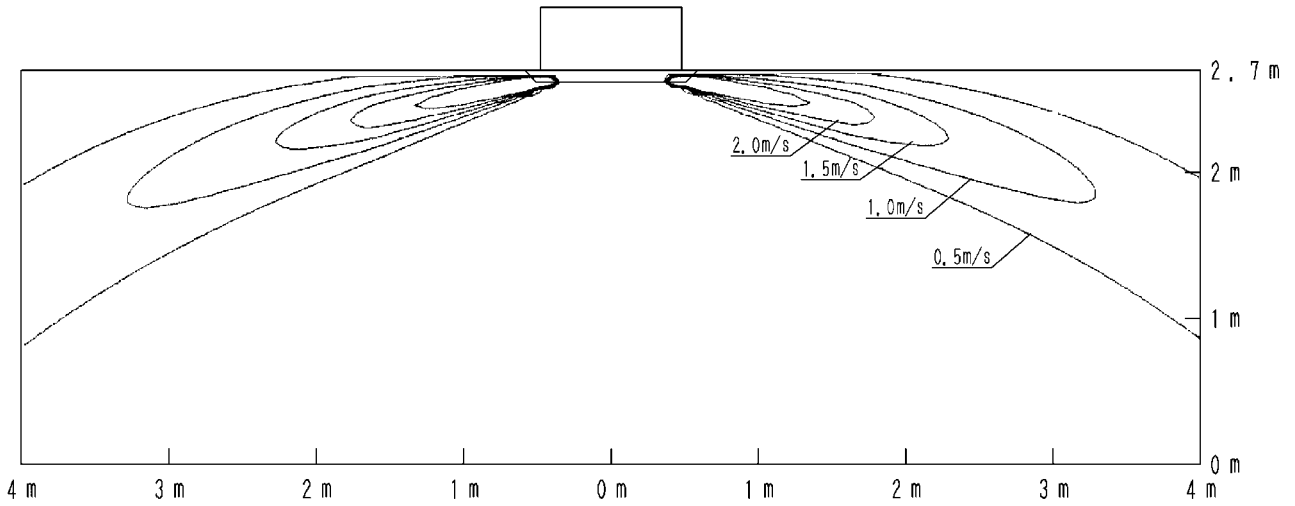
# 10 Air flow pattern

10

## FFQ60B

Cooling - air velocity distribution

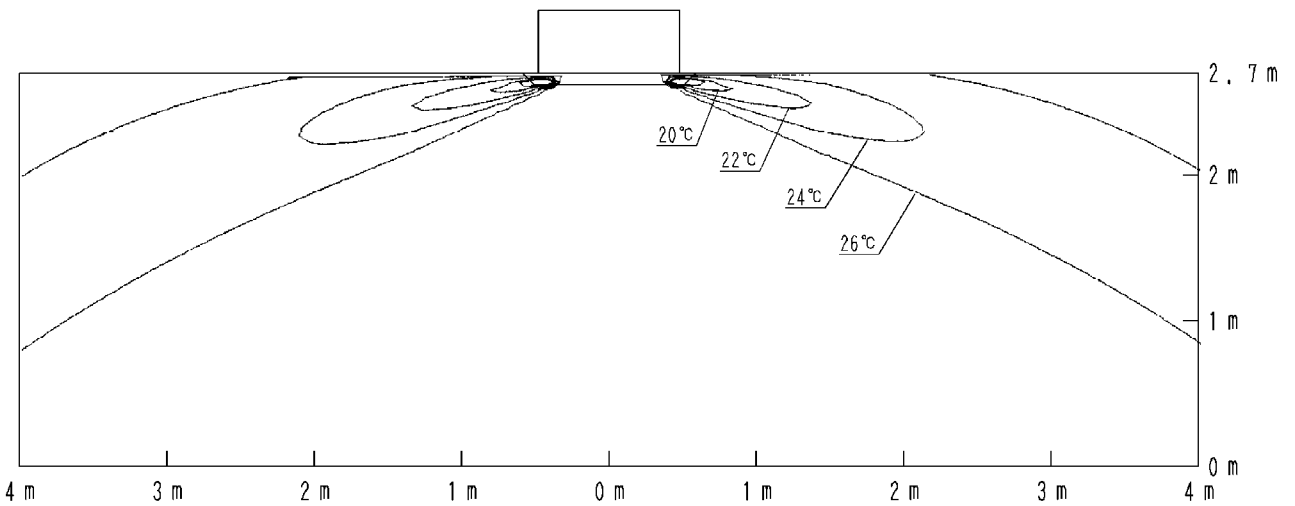
4-way discharge air flow direction: horizontal



## FFQ60B

Cooling - air velocity distribution

4-way discharge air flow direction: horizontal



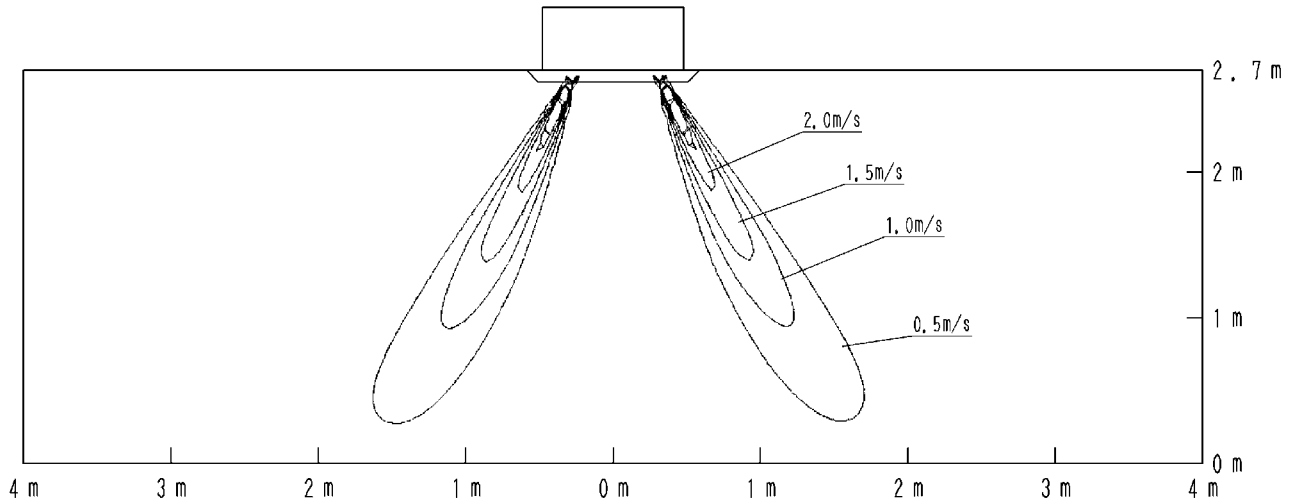
4D039733

# 10 Air flow pattern

FFQ25B

Heating - air velocity distribution

4-way discharge, air flow direction: down

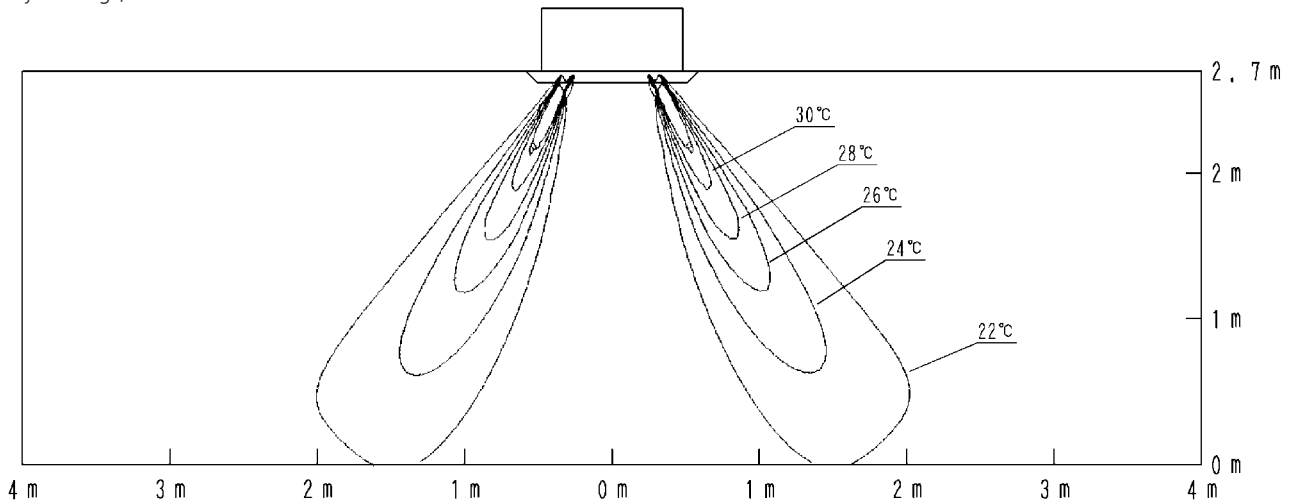


10

FFQ25B

Heating - air temperature distribution

4-way discharge, air flow direction: down



4D039820A

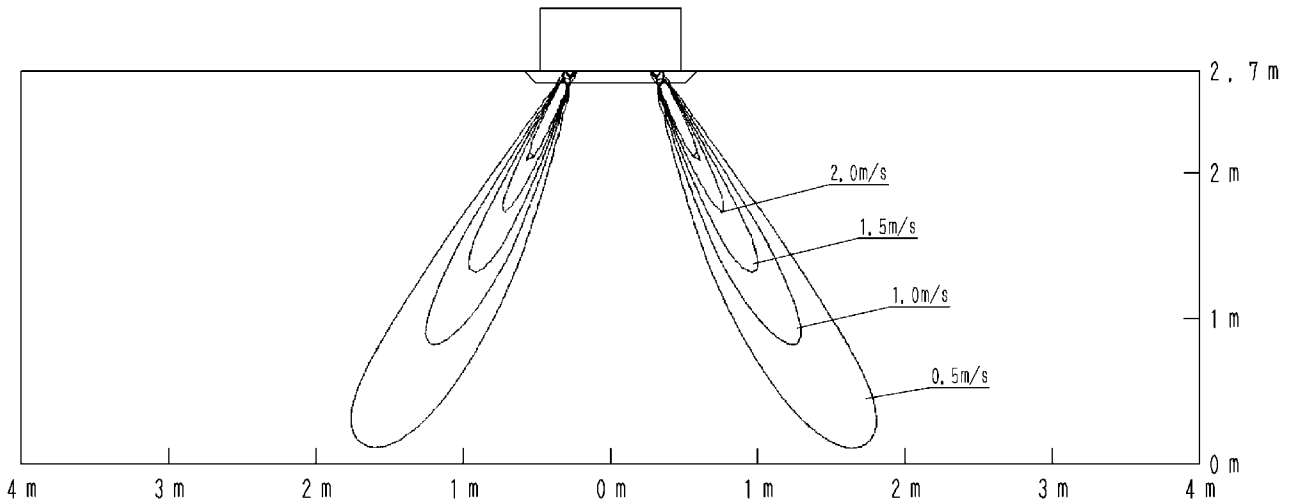
# 10 Air flow pattern

10

## FFQ35B

Heating - air velocity distribution

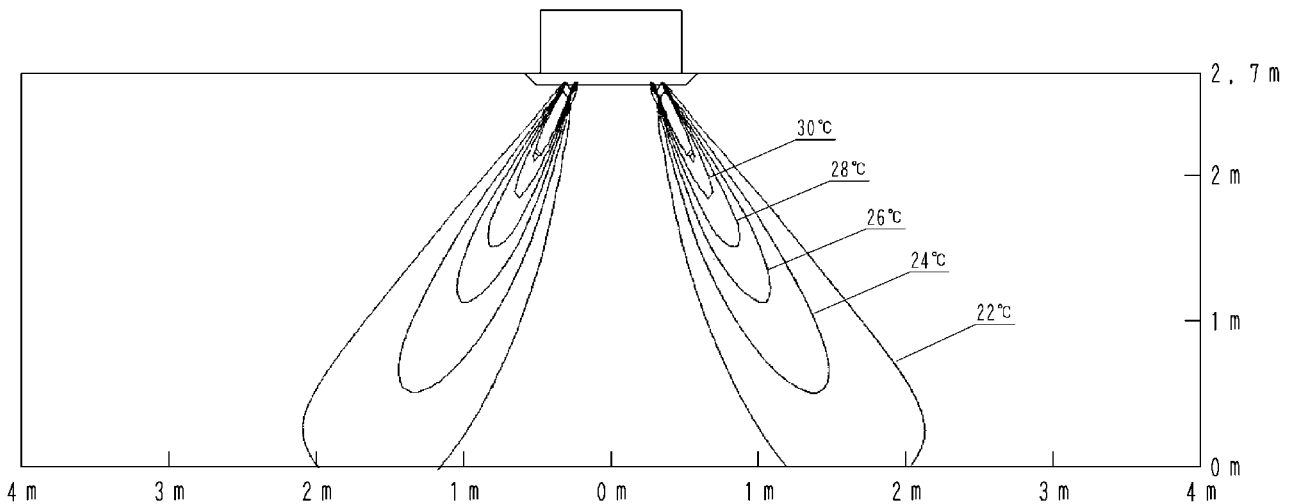
4-way discharge, air flow direction: down



## FFQ35B

Heating - air temperature distribution

4-way discharge, air flow direction: down



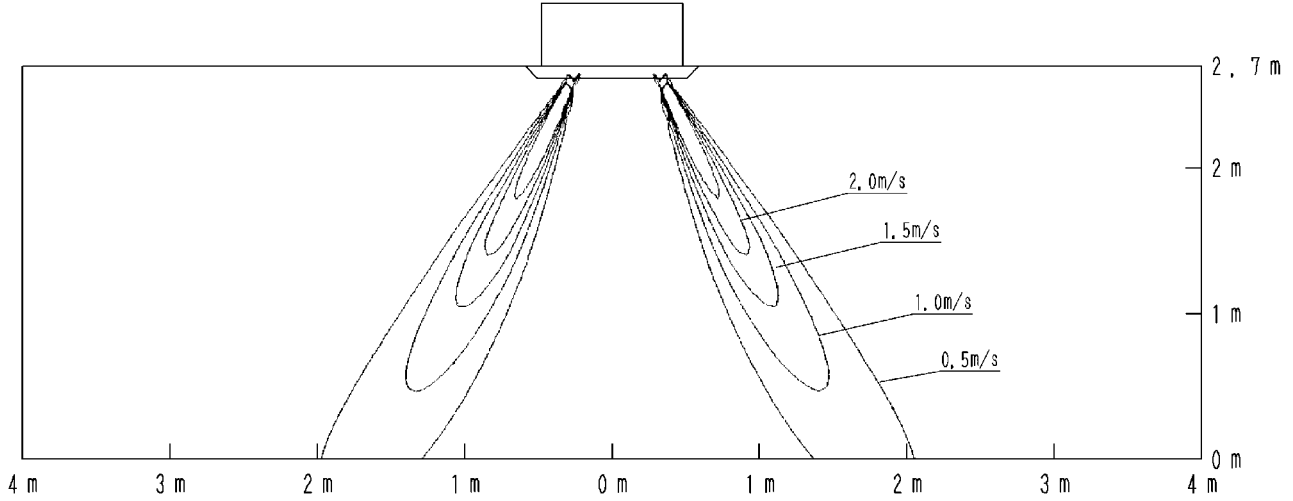
4D039846

# 10 Air flow pattern

FFQ50B

Heating - air velocity distribution

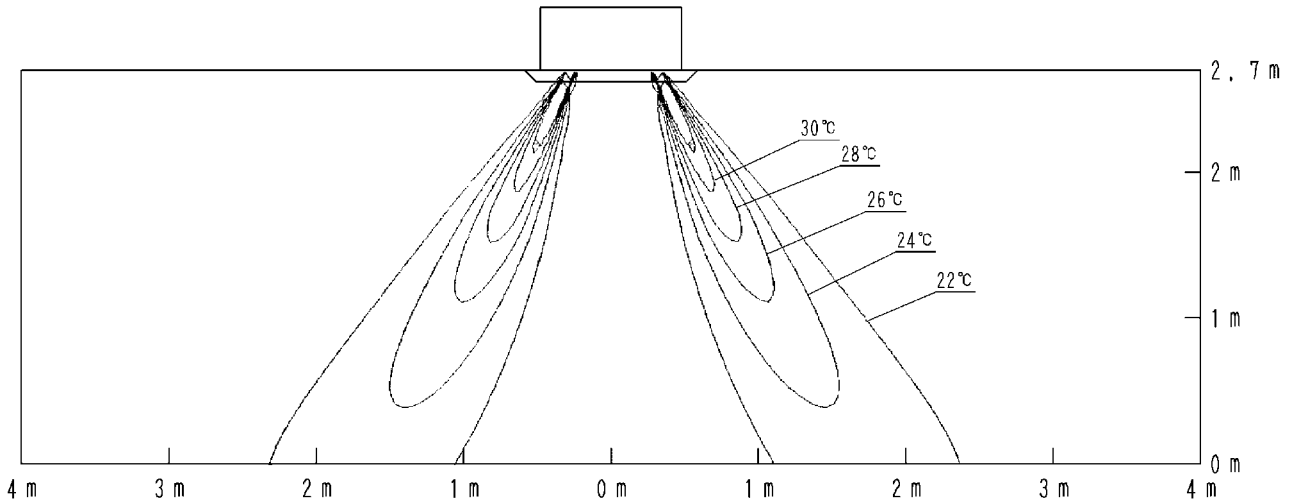
4-way discharge, air flow direction: down



FFQ50B

Heating - air temperature distribution

4-way discharge, air flow direction: down



4D039848

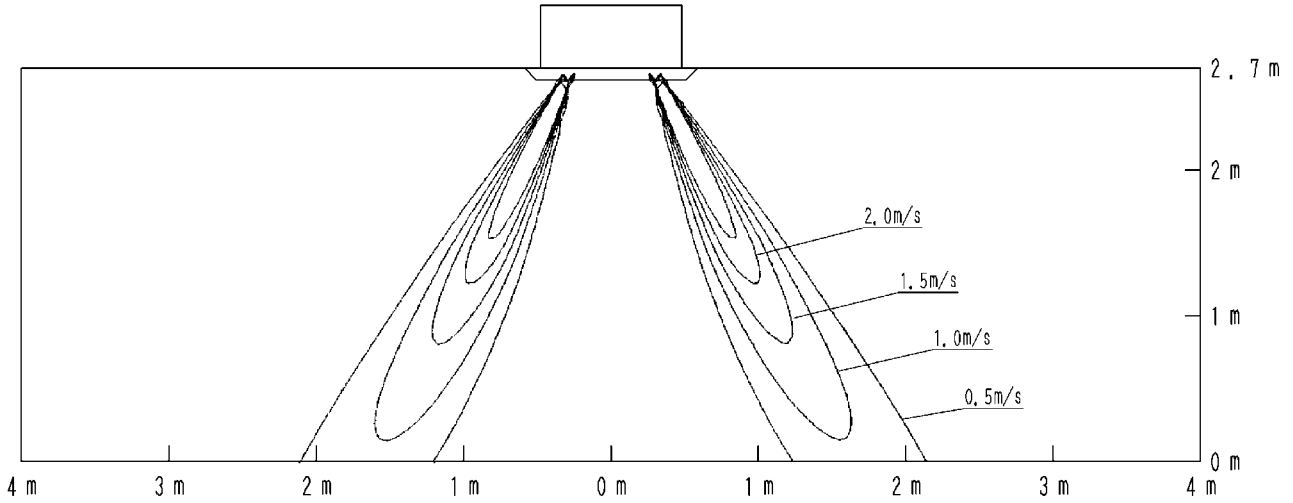
# 10 Air flow pattern

10

## FFQ60B

Heating - air velocity distribution

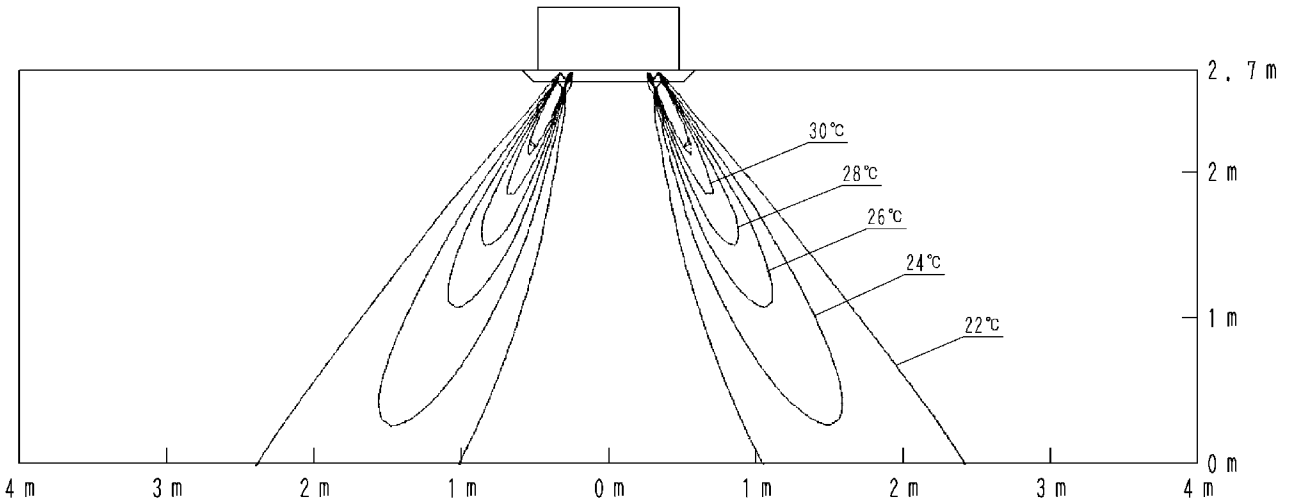
4-way discharge, air flow direction: down



## FFQ60B

Heating - air temperature distribution

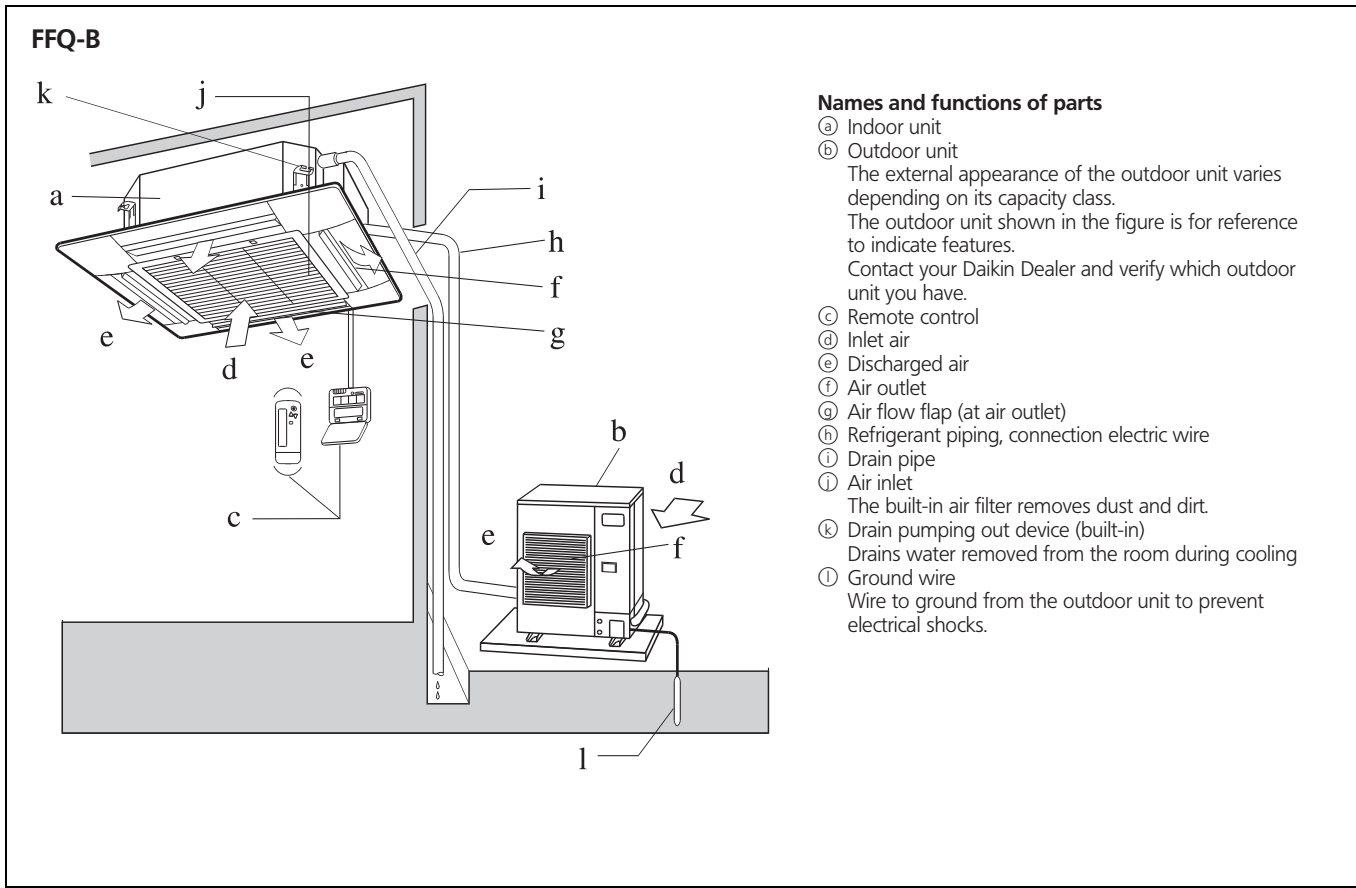
4-way discharge, air flow direction: down



4D039849

# 11 Installation

## 11 - 1 Installation method





# Split - Sky Air

The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V.. Daikin Europe N.V. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Europe N.V..



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



Daikin Europe N.V. is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

## **DAIKIN EUROPE N.V.**

Zandvoordestraat 300  
B-8400 Ostend - Belgium  
[www.daikineurope.com](http://www.daikineurope.com)

