



Air Conditioners

Technical Data

High COP, round flow cassette



EEDEN12-100

FCQHG-F

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FCQHG-F

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1 Features

- User friendly remote control with contemporary design
- Easy to use: all main functions directly accessible
- Seasonal efficiency gives an indication on how efficient an air conditioner operates over an entire heating or cooling season.
- Easy setup: clear graphical user interface for advanced menu settings
- High COP ensures top performance



3 steps



optional



2 Specifications

2-1 Technical Specifications					FCQHG71FEVB		FCQHG100FEVB		FCQHG125FEVB		FCQHG140FEVB	
Casing	Material				Galvanised steel plate							
Dimensions	Unit	Height/Width/Depth		mm	288/840/840							
	Packed unit	Height/Width/Depth		mm	300/880/880							
Weight	Unit			kg	25		26					
	Packed unit			kg	29		30					
Decoration panel	Model				BYCQ140D7W1							
	Colour				Pure White (RAL 9010)							
	Dimensions	Height/Width/Depth		mm	60/950/950							
	Weight			kg	5.4							
Decoration panel 2	Model				BYCQ140D7W1W							
	Colour				Pure White (RAL 9010)							
	Dimensions	Height/Width/Depth		mm	60/950/950							
	Weight			kg	5.4							
Decoration panel 3	Model				BYCQ140D7GW1							
	Colour				Pure White (RAL 9010)							
	Dimensions	Height/Width/Depth		mm	145/950/950							
	Weight			kg	10						10.3	
Heat exchanger	Inside length			mm	2,090							
	Outside length			mm	2,184							
	Rows	Quantity			3							
	Fin pitch			mm	1.2							
	Passes	Quantity			17							
	Face area			m²	0.556							
	Stages	Quantity			18							
	Empty tubeplate hole	Quantity			0							
	Fin	Type			Cross fin coil (multi slit fins and hi-XA tubes)							
Fan	Type				Turbo fan							
	Quantity				1							
	Air flow rate	Cooling	High	m³/min	21.2	32.3	33.5					
			Nom.	m³/min	16.7	25.7	26.7	27.3				
			Low	m³/min	12.2	19.0	19.9	21.1				
		Heating	High	m³/min	21.2	32.3	33.5					
			Nom.	m³/min	16.7	25.7	26.7	27.3				
Low			m³/min	12.2	19.0	19.9	21.1					
Fan motor	Model				QTS48C15M							
	Speed	Steps			3							
	Output	High	W		48	106						
Sound power level	Cooling	High		dBA	53	61						
	Heating	High		dBA	53	61						
Sound pressure level	Cooling	High/Nom./Low		dBA	36/33/29	44/39/33	45/40/35		45/41/37			
	Heating	Super high/High/ Nom./Low		dBA	-/36/33/29	-/44/39/33	-/45/40/35		-/45/41/37			
Refrigerant	Type				R-410A							
Piping connections	Sound absorbing insulation				Foamed Polyurethane							
	Liquid	Type/OD		mm	Flare connection/9.52							
	Gas	Type/OD		mm	Flare connection/15.9							
	Drain				VP25 (I.D. 25/O.D. 32)							
	Heat insulation				Foamed polystyrene / Foamed polyethylene							
Air filter	Type				Resin net with mold resistance							

Standard Accessories : Clamps;

Standard Accessories : Drain sealing pad;

Standard Accessories : Sealing pads; Quantity : 4;

Standard Accessories : Insulation for fitting; Quantity : 2;

2 Specifications

Standard Accessories : Installation guide;

Standard Accessories : Screws;

Standard Accessories : Washer for hanger bracket;

Standard Accessories : Clamp for drain hose;

Standard Accessories : Drain hose;

Standard Accessories : Installation manual;

Standard Accessories : Operation manual;

2

2-2 Electrical Specifications			FCQHG71FEVB	FCQHG100FEVB	FCQHG125FEVB	FCQHG140FEVB
Power supply	Name		VE			
	Phase		1~			
	Frequency	Hz	50			
	Voltage	V	220-240			
Current - 60Hz	Nominal running current	A	-			

Notes

(1) The sound power level is an absolute value indicating the power which a sound source generates.

(2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt.

3 Safety device settings

3 - 1 Safety Device Settings

FCQHG71-125F

Safety devices		FCQHG71FVEB	FCQHG100FVEB	FCQHG125FVEB
Fuse		---	---	---
Fan motor thermal fuse	°C	---	---	---
Fan motor thermal protector	°C	---	---	---
Drain pump fuse	°C	---	---	---

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4 Options

4 - 1 Options

FCQHG71-100F

OPTIONS

	Item	Model	FCQHG71FVEB	FCQHG100FVEB
1	Decoration panel	Standard		BYCQ140D7W1
		White		BYCQ140D7W1W *3
		Self clean		BYCQ140D7GW1 *5, *6
2	Long life replacement filter	Non-woven type		KAFP551K160
3	Fresh air intake kit (20% fresh air)	Chamber type		KDD055B140 *7
4	Sealing member of air discharge outlet			KDBHQ55B140 *7
5	Sensor kit			BRYQ140A7

CONTROL SYSTEM

	Item	Model	FCQHG71FVEB	FCQHG100FVEB
1	Remote controller	Infrared	H/P	BRC7FA532F *7
		Wired		BRC1D528 *4
				BRC1E51A *4
				BRC1E52A / BRC1E52B
2-1	Wiring adapter for electrical appendices (1)			KRP1BA57 *2 *7
2-2	Wiring adapter for electrical appendices (2)			KRP4AA53 *2 *7
2-3	Wiring adapter (hour meter)			EKRP1C11 *2 *7
3	Remote sensor			KRCS01-4B
4	Installation box for adapter PCB			KRP1H98 *7
5	Central remote controller			DCS302CA51
6	Unified ON/OFF controller			DCS301BA51
7	Electrical box with earth terminal (2 blocks)			KJB212AA
8	Electrical box with earth terminal (3 blocks)			KJB311AA
9	Schedule timer			DST301BA51
10	Remote On/Off			EKRORO2

Notes:

*1 All options are supplied as kit.

*2 Installation box is necessary for these adapters.

*3 The BYCQ140D7W1W has white insulations.

Be informed that formation of dirt on white insulations is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt.

*4 Not recommended because of the limitation of the functions.

5 To be able to control the BYCQ140D7GW1 the controller BRC1E is needed.

*6 The BYCQ140D7GW1 is not compatible with Mini-VRV, Multi and Split Non-Inverter Outdoor units.

*7 Option not available in combination with BYCQ140D7GW1.

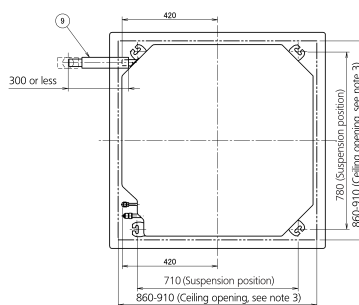
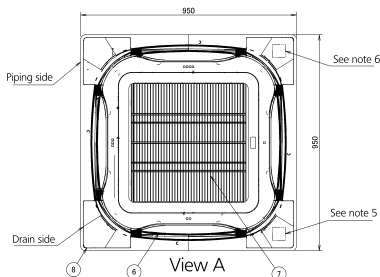
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5 Dimensional drawings

5 - 1 Dimensional Drawings

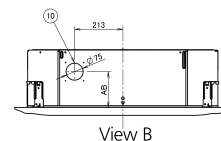
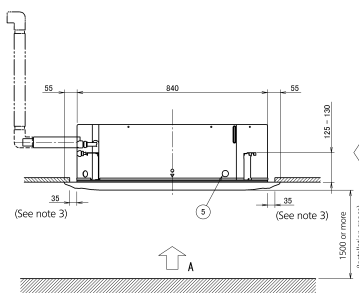
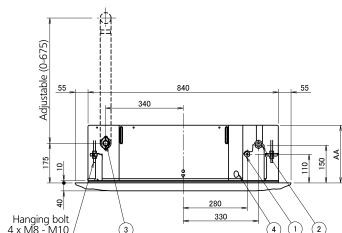
FCQHG-F

Standard panel



- 1 Liquid pipe connection
- 2 Gas pipe connection
- 3 Drain pipe connection
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose
- 10 Knock out hole

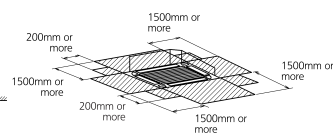
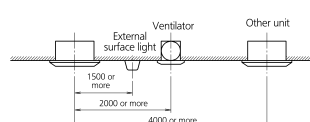
AA	AB	Model
288	180	FCQHG71-140FV8



Notes:

1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the piping side under the corner cover.
2. When installing an optional accessory, refer to the installation drawings.
- For fresh air intake kit an inspection port is necessary.
3. Make sure the spacing between the ceiling and the cassette is no more than 35mm.
MAX ceiling opening: 910mm.
4. When the conditions exceed 30°C and RH 80% in the ceiling or fresh air is inducted into the ceiling, an additional insulation is required (polyethylene foam, thickness 10 mm or more).
5. In case of using a sensor kit, this position will be a sensor, refer to the drawing of the sensor kit for more detail.
6. In case of using an infrared controller, this position will be a receiver, refer to the drawing of the infrared controller for more detail.

5. Please respect the distances as shown on figure.



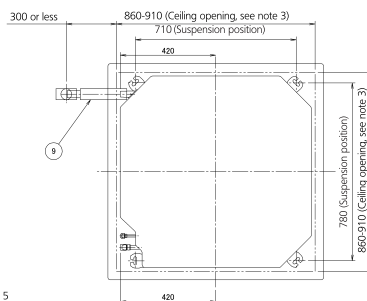
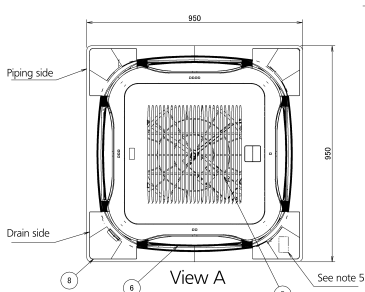
Required space

In case a discharge opening is closed with the 'sealing member' option, the distance of 1500mm can be reduced to 500mm on the closed side.

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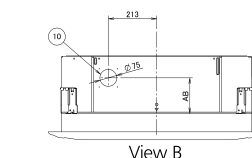
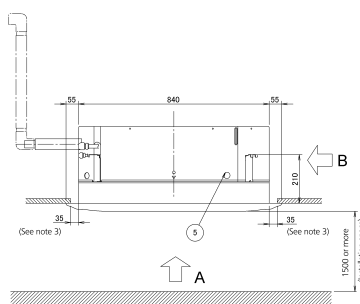
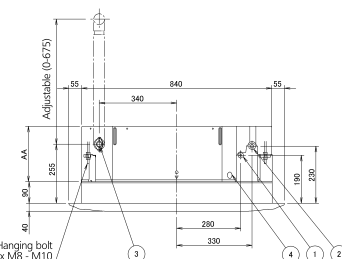
FCQHG-F

Auto cleaning panel

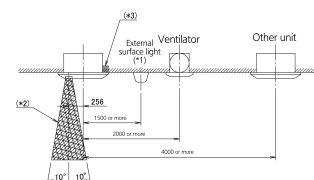


AA	AB	Model
288	180	FCQHG71-140FV8

- 1 Liquid pipe connection
- 2 Gas pipe connection
- 3 Drain pipe connection
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose
- 10 Knock out hole



6. Please respect the distances as shown on figure below.

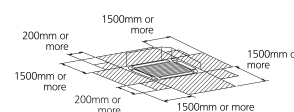
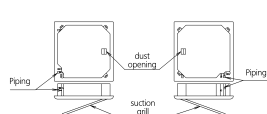


- (1*) Does not count for build in light.
- (2*) Space needed to enter with vacuum-cleaner tube.
- (3*) Keep the exhaust of decoration panel free.

Notes:

1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the piping side under the corner cover.
2. When installing an optional accessory, refer to the installation drawings.
- For fresh air intake kit an inspection port is necessary.
3. Make sure the spacing between the ceiling and the cassette is no more than 35mm.
MAX ceiling opening: 910mm.
4. When the conditions exceed 30°C and RH 80% in the ceiling or fresh air is inducted into the ceiling, an additional insulation is required (polyethylene foam, thickness 10 mm or more).
5. In case of using a sensor kit, this position will be a sensor, refer to the drawing of the sensor kit for more detail.

5. Installation direction



Required space

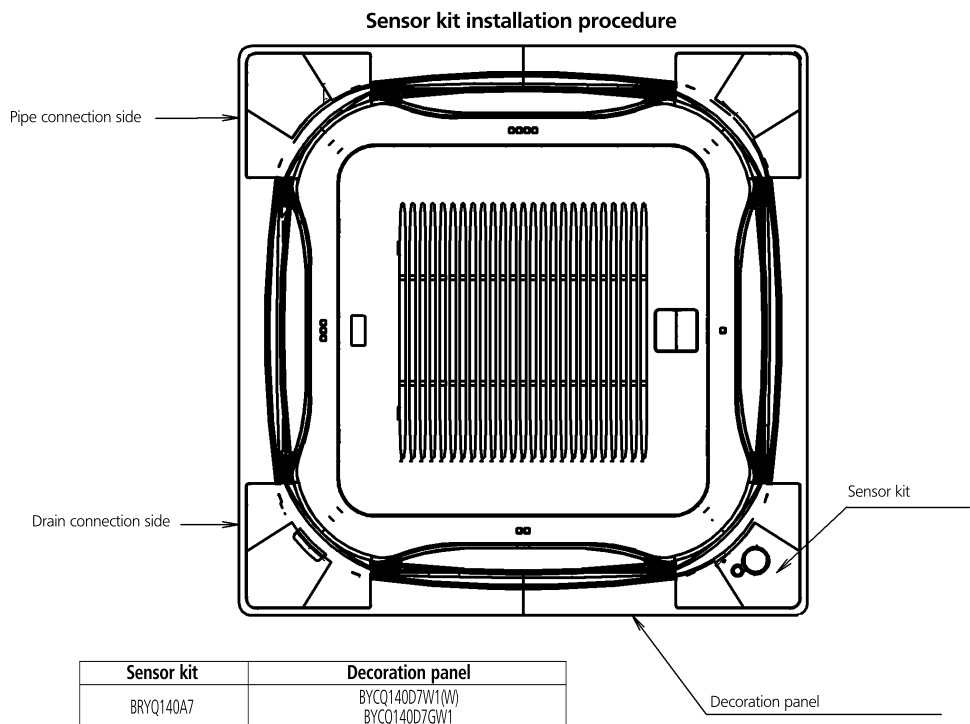
In case a discharge opening is closed with the 'sealing member' option, the distance of 1500mm can be reduced to 500mm on the closed side.

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5 Dimensional drawings

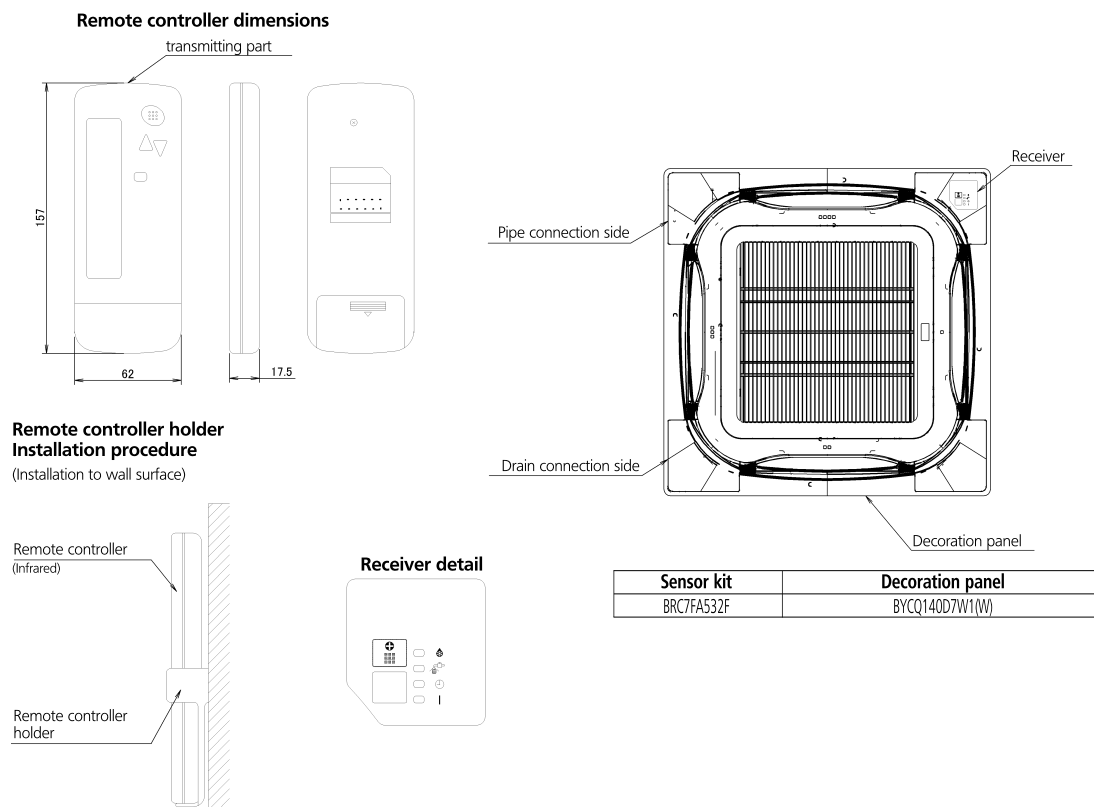
5 - 2 Dimensional Drawings with Accessories

FCQHG-F



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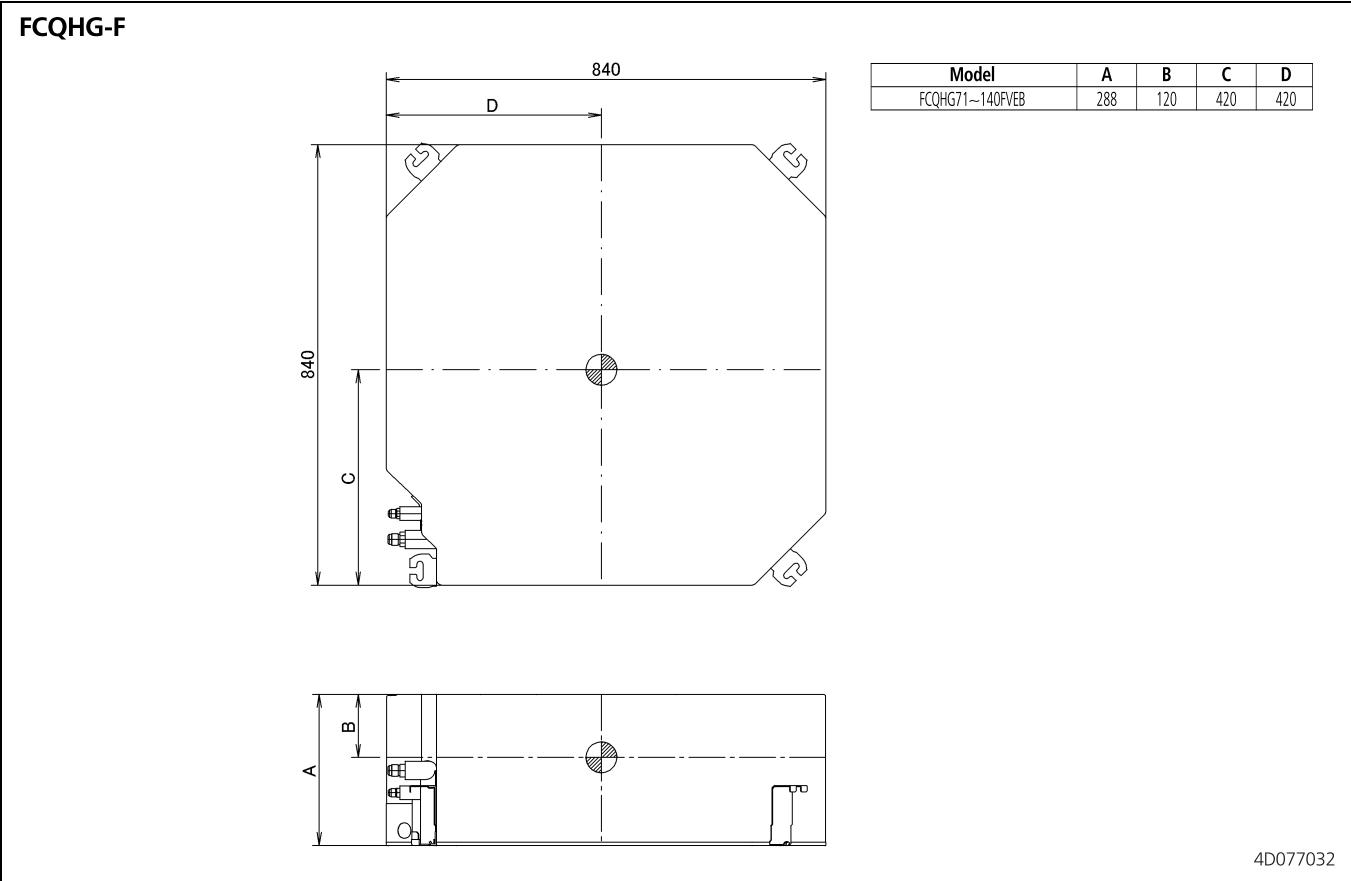
FCQHG71F



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6 Centre of gravity

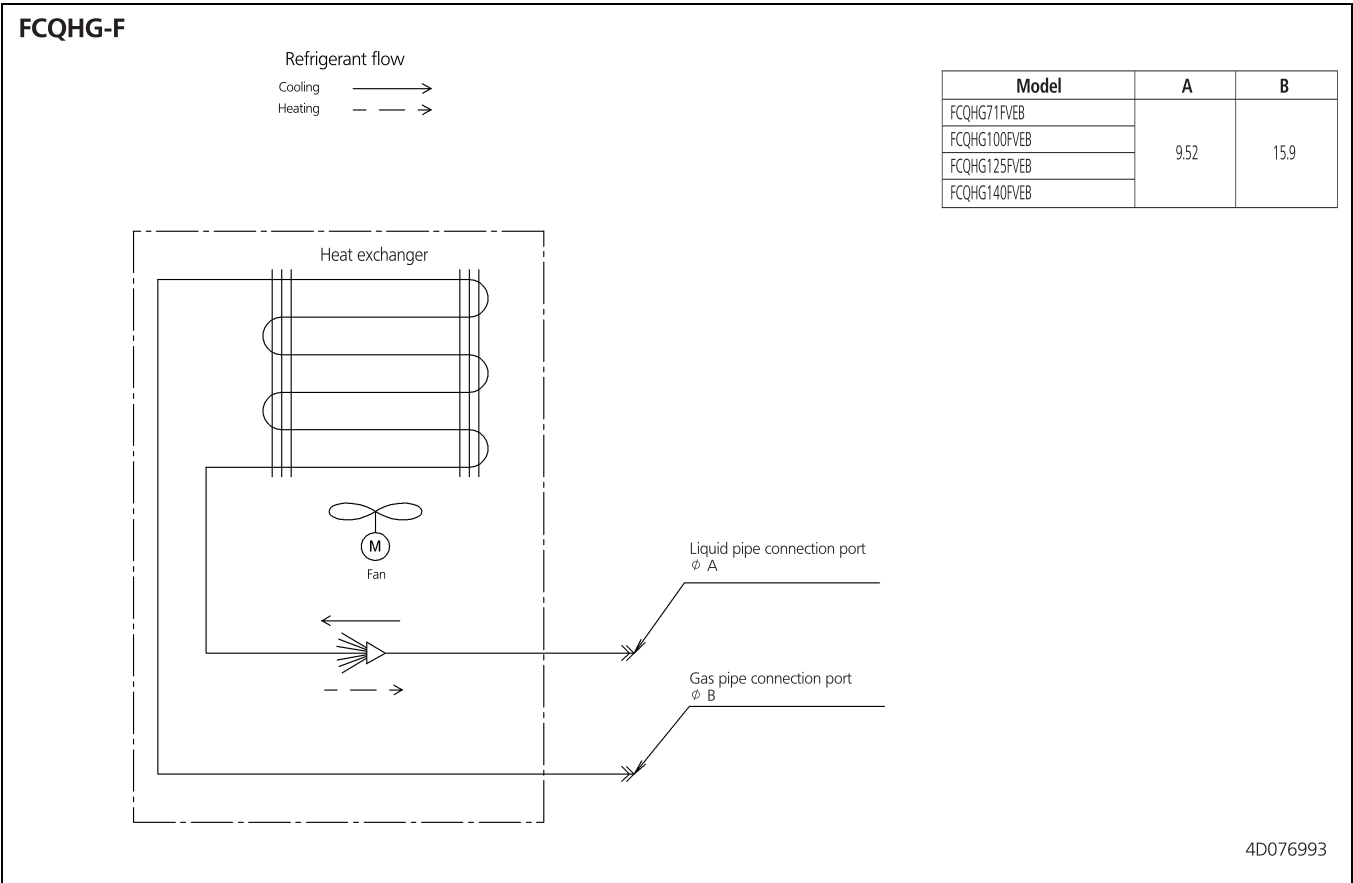
6 - 1 Centre of Gravity



7 Piping diagrams

7 - 1 Piping Diagrams

7

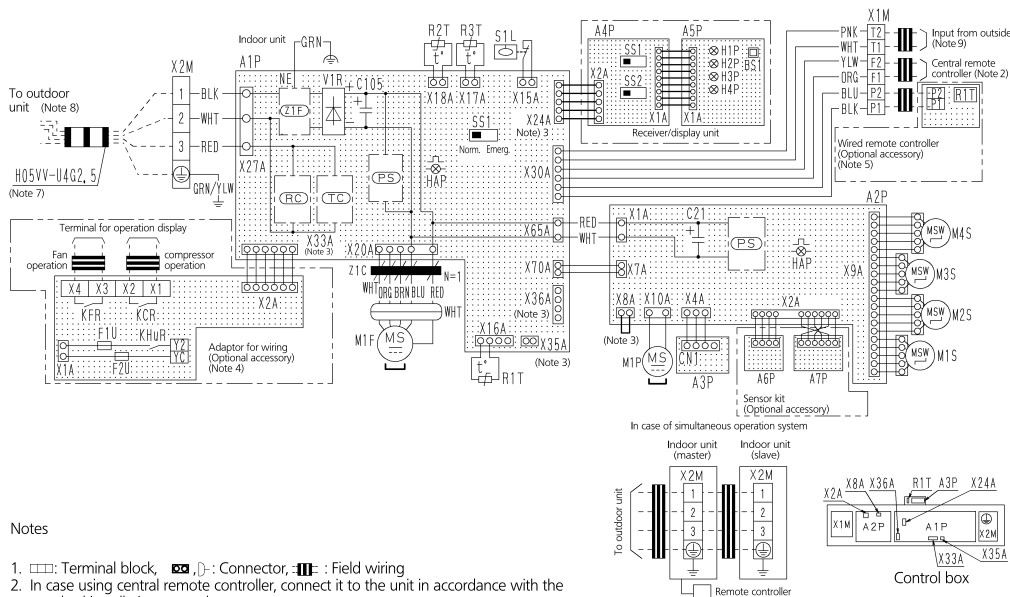


8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

FCQHG-F

Indoor unit	
A1P	Printed circuit board
A2P	Printed circuit board
A3P	Printed circuit board
A3P	(Humidity sensor unit)
C21	Capacitor
C105	Capacitor
HAP	Light emitting diode (service monitor green)
M1P	Motor (indoor fan)
M1P	Motor (drain pump)
M1S-MAS	Motor (swing flap)
R1T	Thermistor (air)
R2T-R3T	Thermistor (coil)
S1L	Blow switch
S1	Selector switch (emergency)
V1R	Diode bridge
X1M	Terminal block
X2M	Terminal block
Z1C	Ferrite core (noise filter)
Z1B	Noise filter
(PS)	Power supply circuit
(RC)	Signal receiver circuit
(TC)	Signal transmission circuit
Wired remote controller	
R1T	Thermistor (air)
Receiver/display unit (Attached to infrared remote controller)	
A4P	Printed circuit board
A5P	Printed circuit board
B51	Push button (on/off)
H1P	Light emitting diode (on-red)
H2P	Light emitting diode (time-green)
H3P	Light emitting diode (filter sign-red)
H4P	Light emitting diode (defrost-orange)
S1	Selector switch (main/sub)
S2	Selector switch (infrared address set)
Adaptor for wiring	
F1U	Fuse ((0.5A, 250V)
F2U	Fuse ((0.5A, 250V)
KCR	Magnetic relay
KPR	Magnetic relay
KUR	Magnetic relay (H)
Connector for optional parts	
X2A	Connector (Sensor kit)
X8A	Connector (Auto clean panel)
X24A	Connector (Infrared remote controller)
X33A	Connector (adaptor for wiring)
X35A	Connector (group control adaptor)
X36A	Connector (Auto clean panel)



Notes

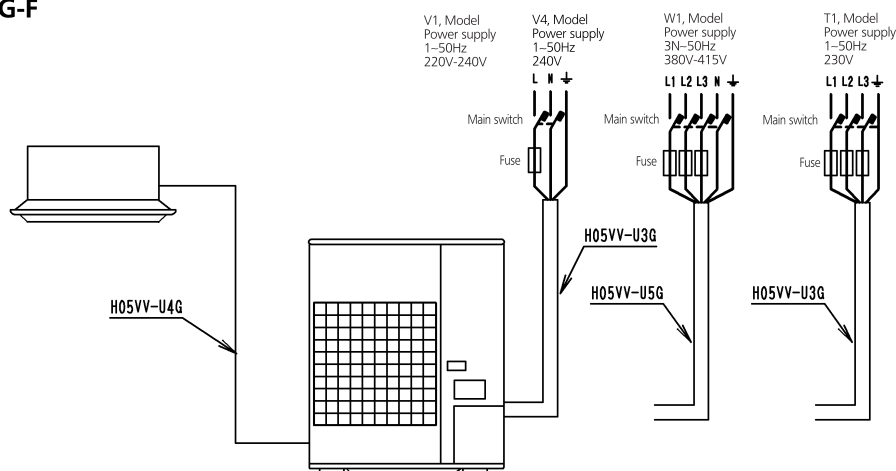
- : Terminal block, □: Connector, □: Field wiring
- In case using central remote controller, connect it to the unit in accordance with the attached installation manual.
- X2A, X8A, X33A, X35A, X36A are connected when the optional accessories are being used. In case of using an auto clean panel, see the wiring diagram of it.
- Connect power of adaptor for wiring to terminal block (X2M) of indoor unit directly.
- In case of main/sub overcharge, see the installation manual attached to remote controller.
- Symbols show as follows: RED:Red BLK:Black WHT:White YLW:Yellow GRN:Green ORG:Orange BRN:Brown PNK:Pink GRY:Grey BLU:Blue.
- Shows only in case of protected pipes, use HO7RN-F in case of no protection.
- For the detail, see wiring diagram attached to outdoor unit.
- When connecting the input wires from outside, forced OFF or ON/OFF control operation can be selected by the remote controller. See installation manual for more details.

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9 External connection diagrams

9 - 1 External Connection Diagrams

FCQHG-F



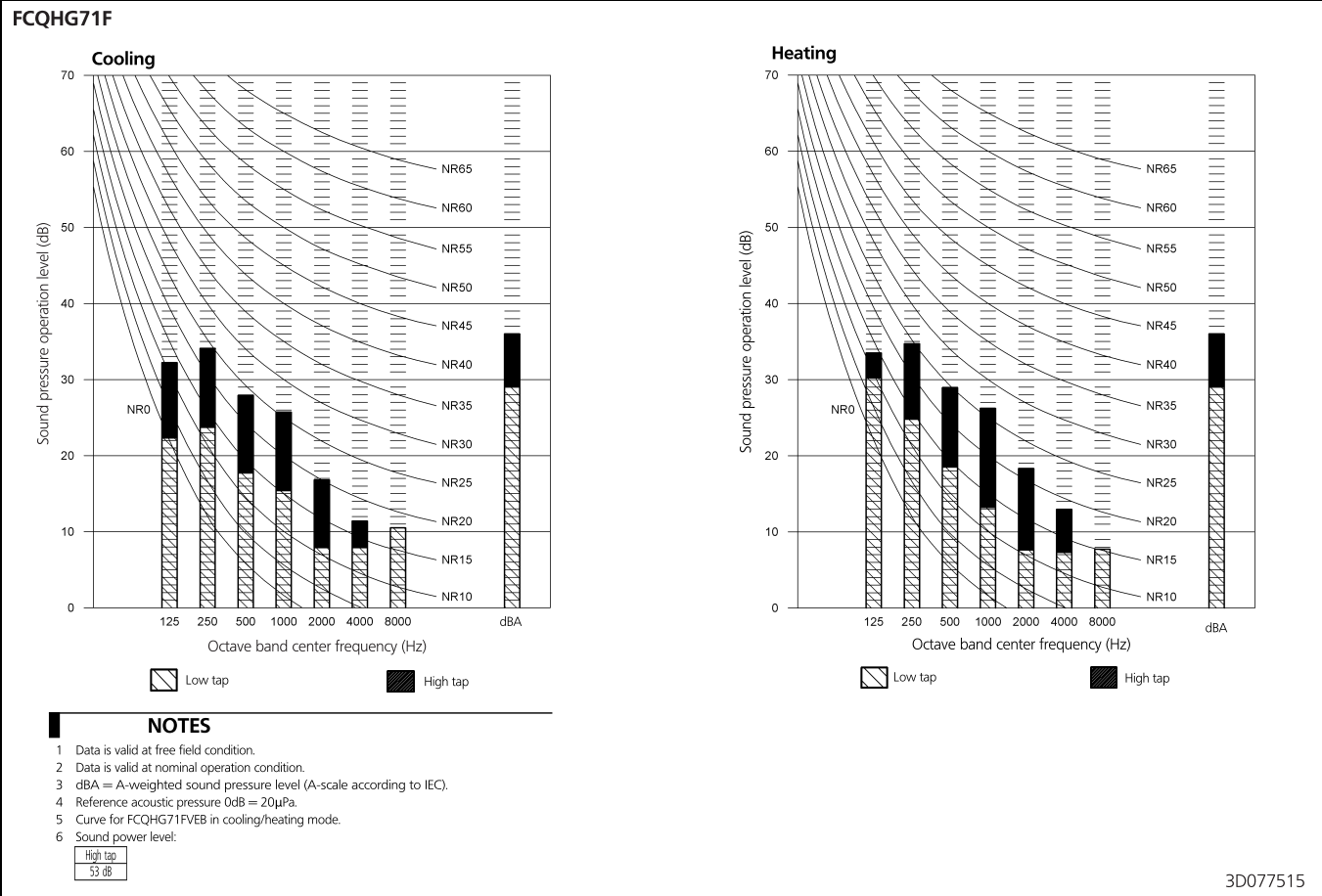
NOTES

- 1 Line voltage wiring
 Control circuit wiring
- 2 All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- 3 Use copper conductors only.
- 4 As for details, see wiring diagram.
- 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.

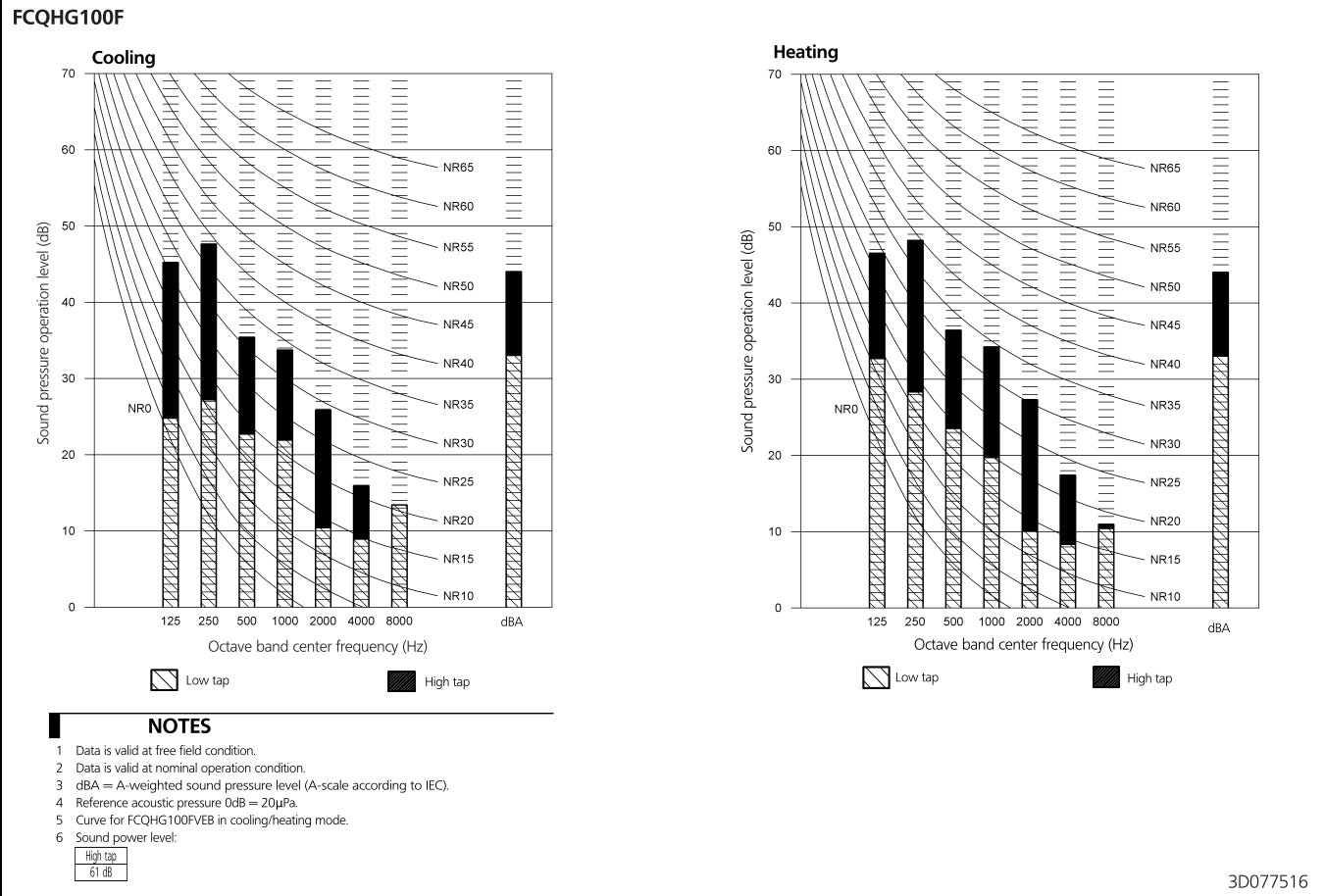
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10 Sound data

10 - 1 Sound Pressure Spectrum



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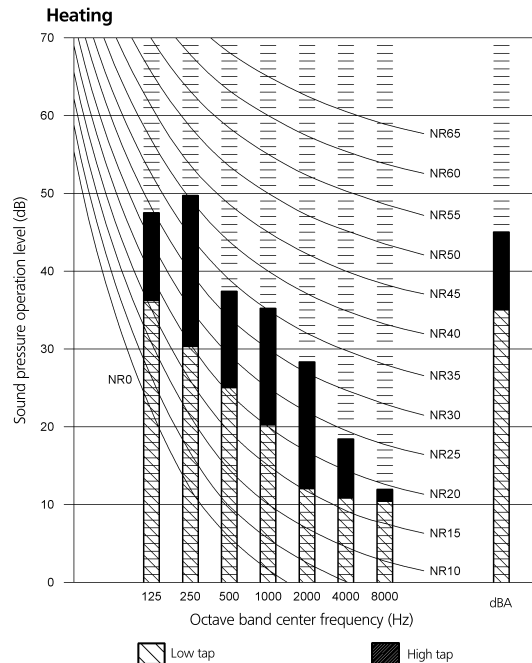
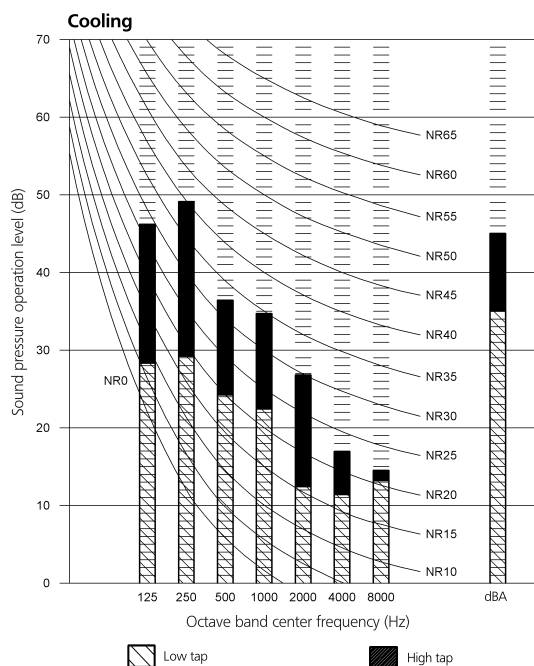
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10 Sound data

10 - 1 Sound Pressure Spectrum

10

FCQHG125F



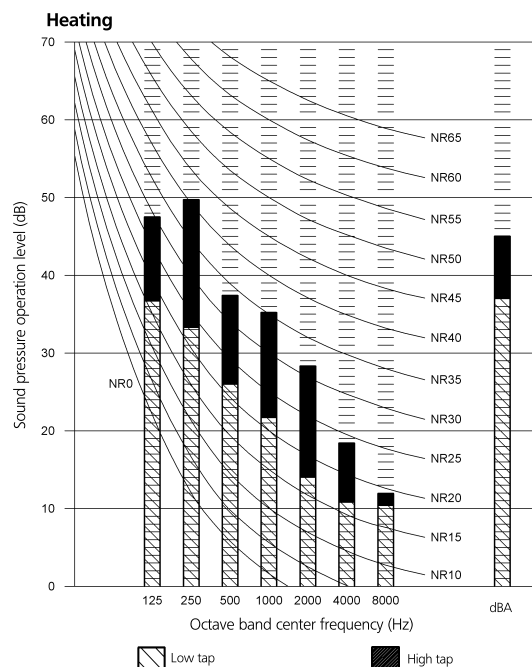
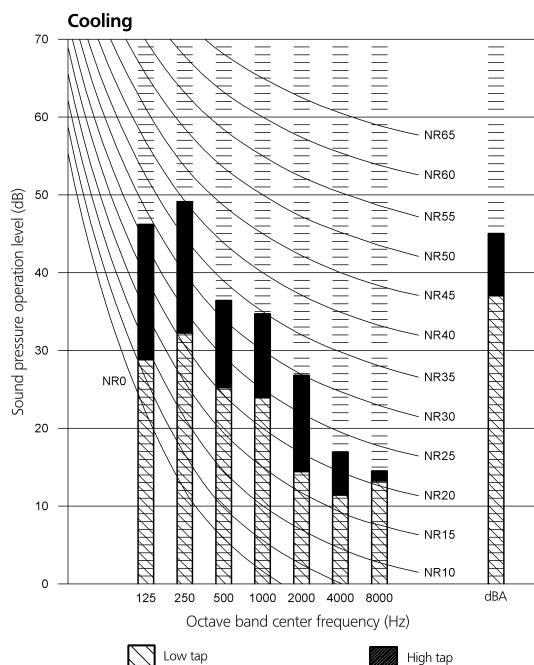
NOTES

- 1 Data is valid at free field condition.
- 2 Data is valid at nominal operation level condition.
- 3 dBA = A-weighted sound pressure level (A-scale according to IEC).
- 4 Reference acoustic pressure 0dB = 20μPa.
- 5 Curve for FCQHG125FVEB in cooling/heating mode.
- 6 Sound power level:

High tap
61 dB

3D077517

FCQHG140F



NOTES

- 1 Data is valid at free field condition.
- 2 Data is valid at nominal operation level condition.
- 3 dBA = A-weighted sound pressure level (A-scale according to IEC).
- 4 Reference acoustic pressure 0dB = 20μPa.
- 5 Curve for FCQHG140FVEB in cooling/heating mode.
- 6 Sound power level:

High tap
61 dB

3D077518

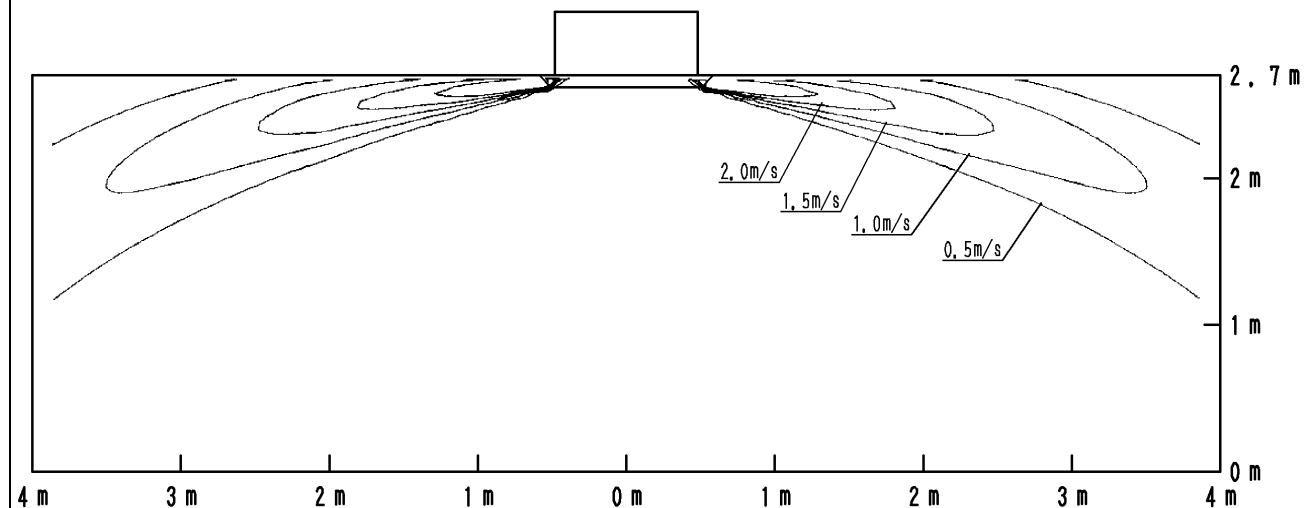
11 Air flow patterns

11 - 1 Air Flow Pattern - Cooling

FCQHG71F

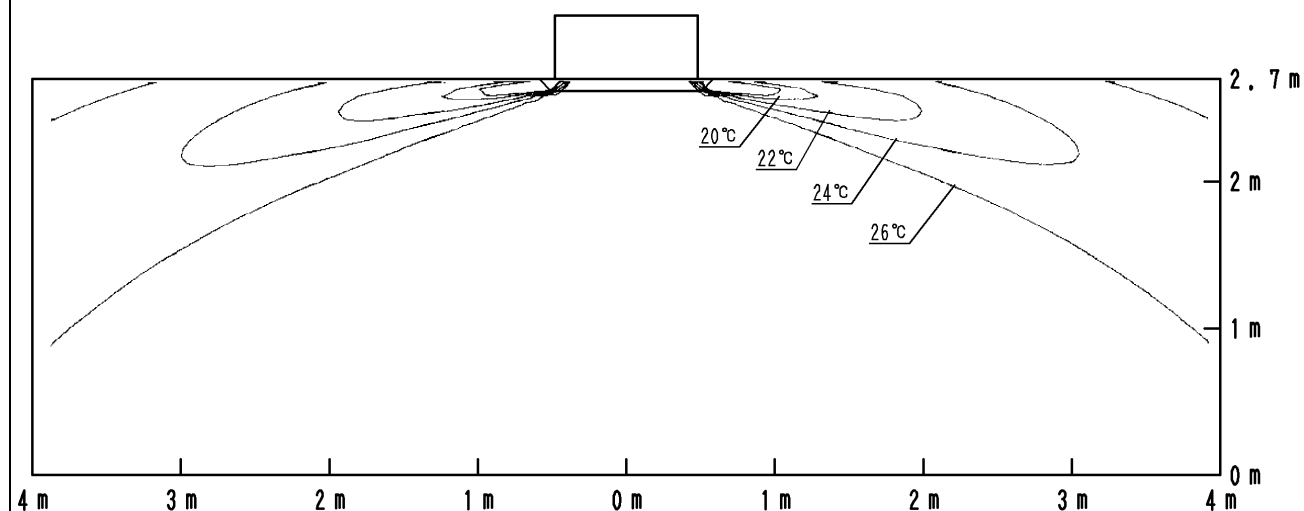
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



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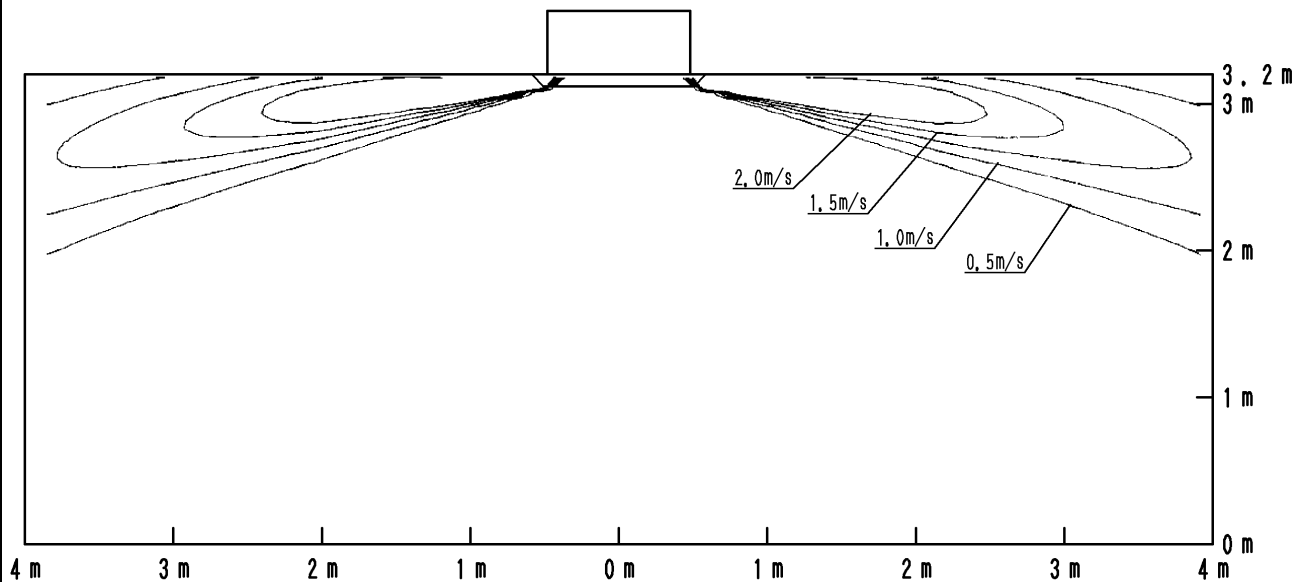
11 Air flow patterns

11 - 1 Air Flow Pattern - Cooling

FCQHG100F

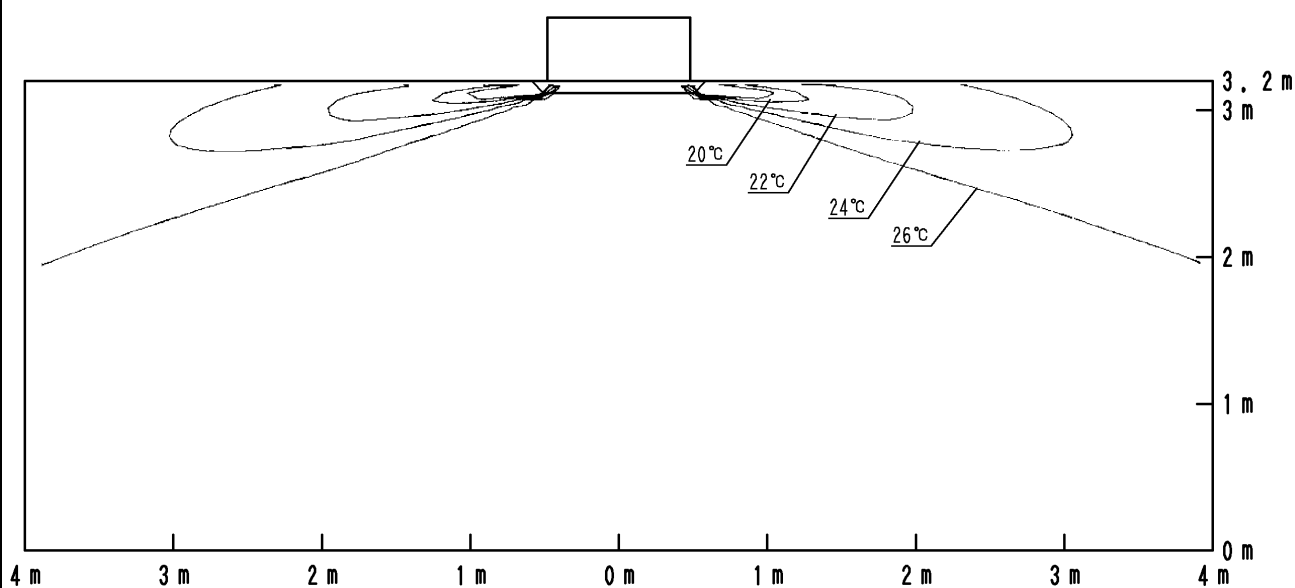
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



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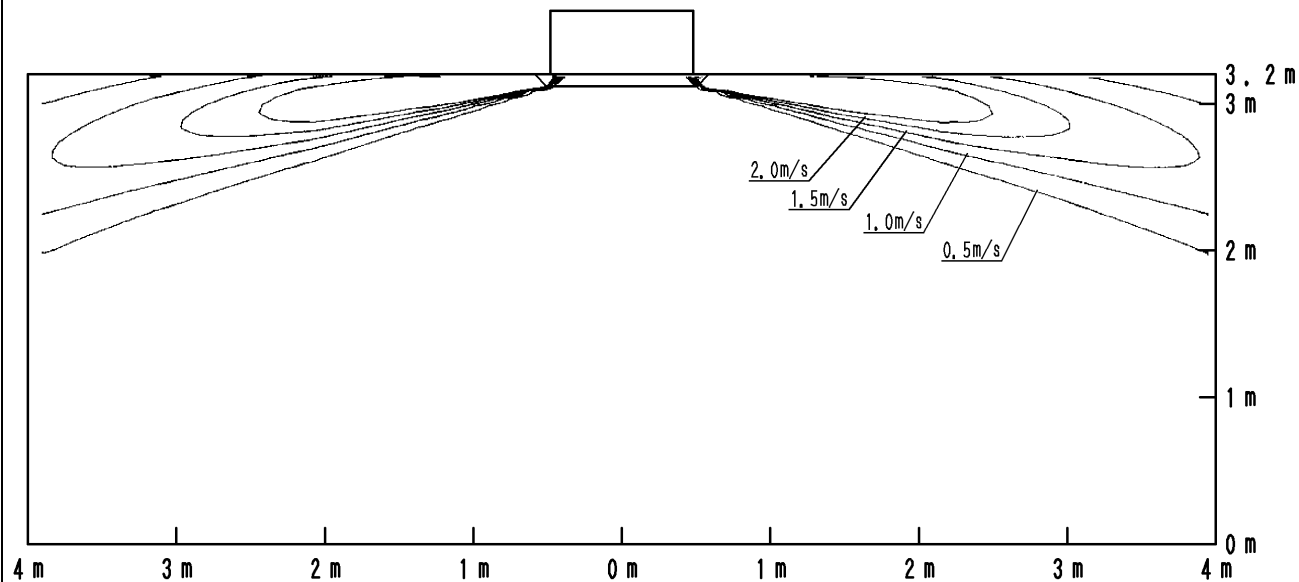
11 Air flow patterns

11 - 1 Air Flow Pattern - Cooling

FCQHG125F

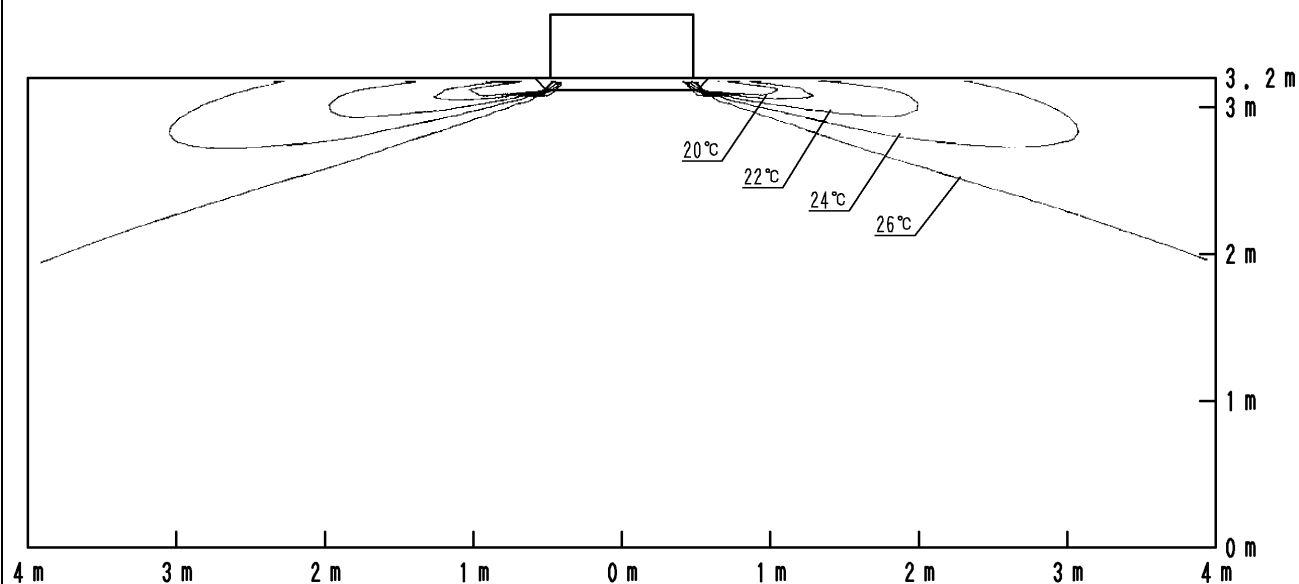
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



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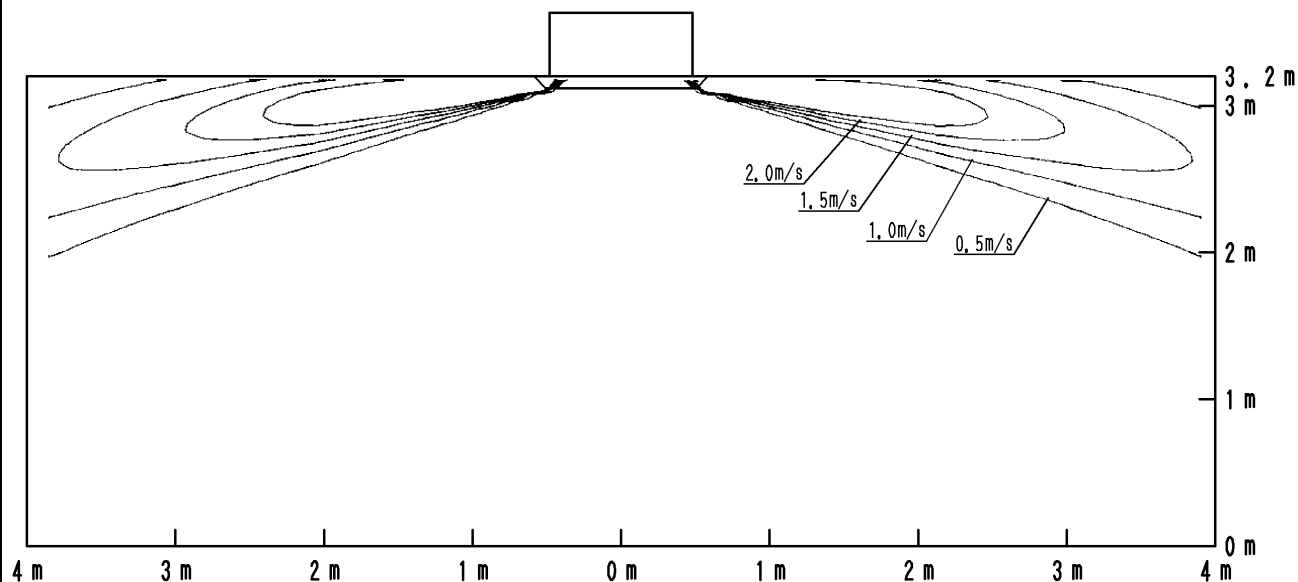
11 Air flow patterns

11 - 1 Air Flow Pattern - Cooling

FCQHG140F

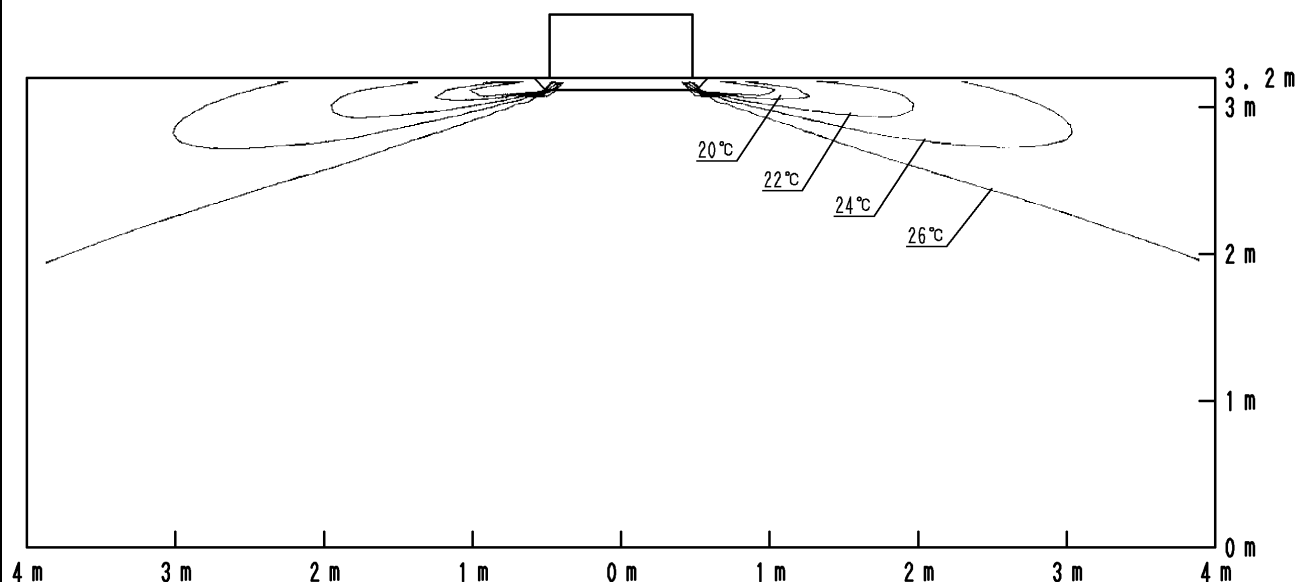
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



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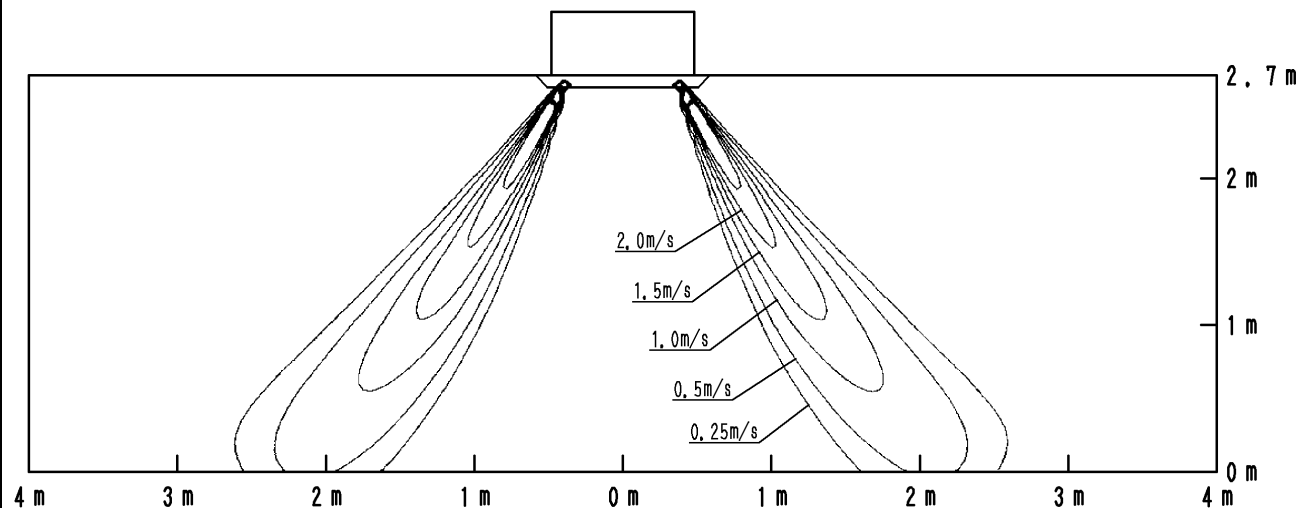
11 Air flow patterns

11 - 2 Air Flow Pattern - Heating

FCQHG71F

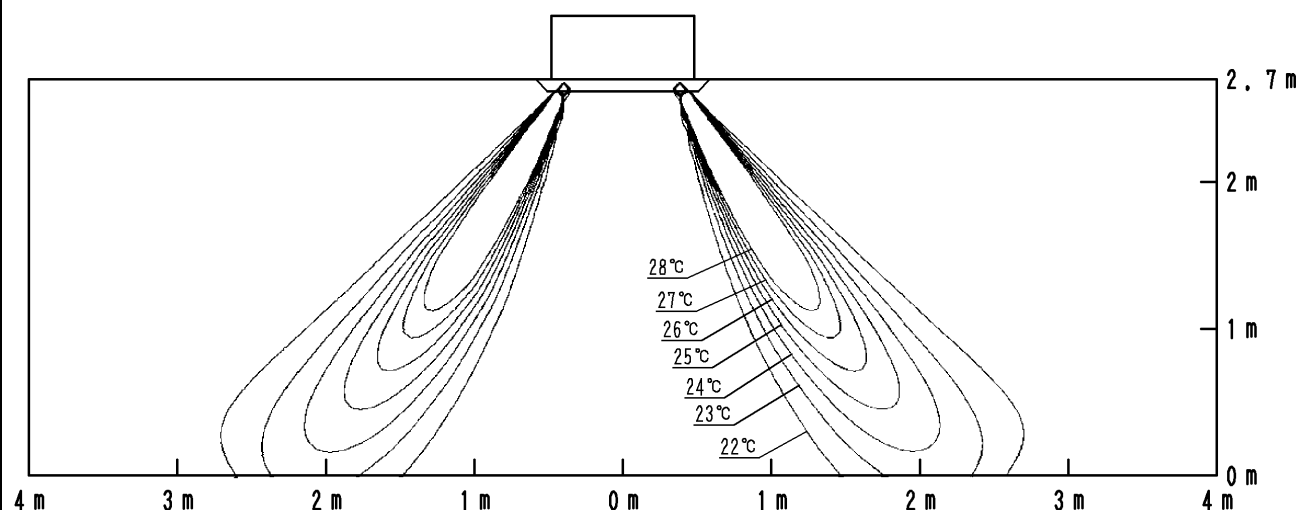
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D077049

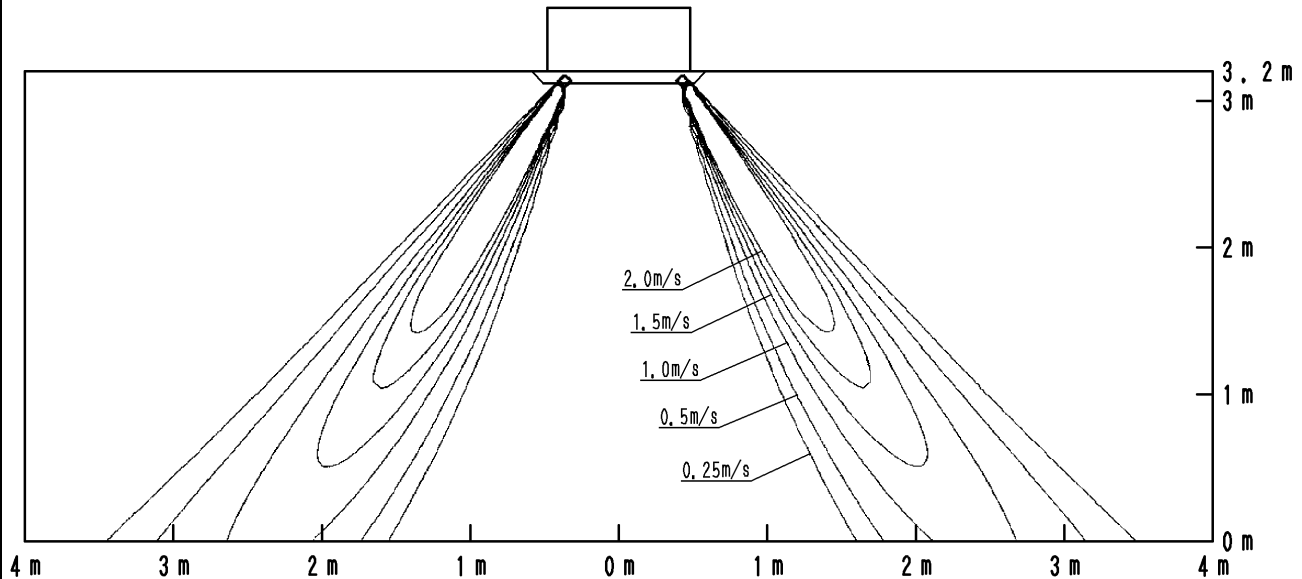
11 Air flow patterns

11 - 2 Air Flow Pattern - Heating

FCQHG100F

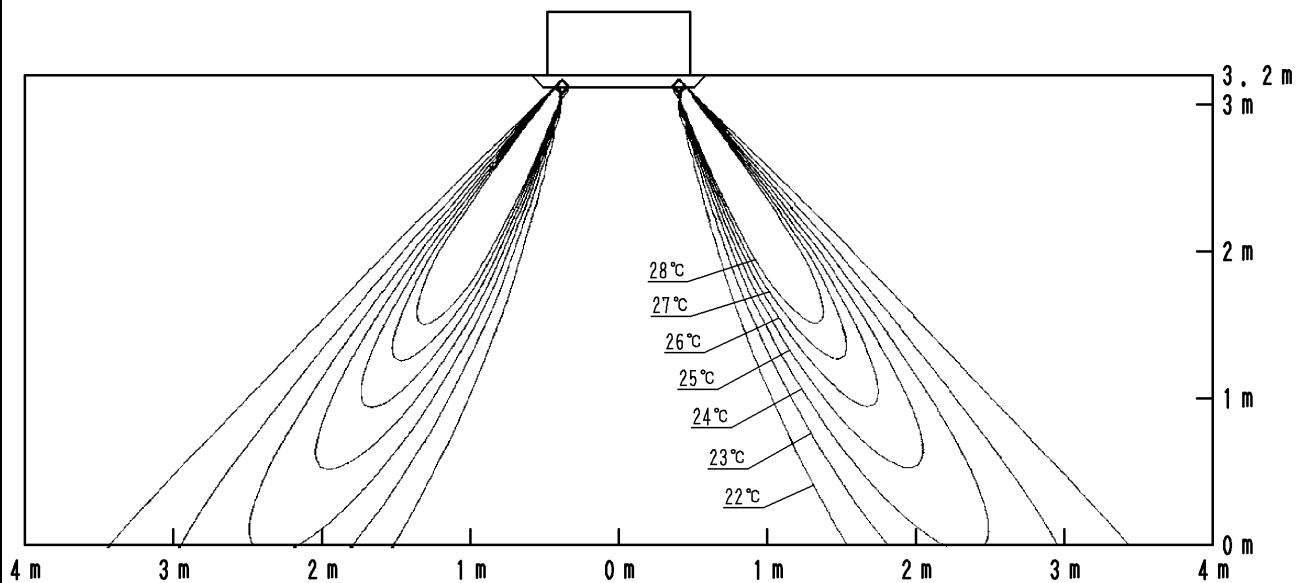
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D077050

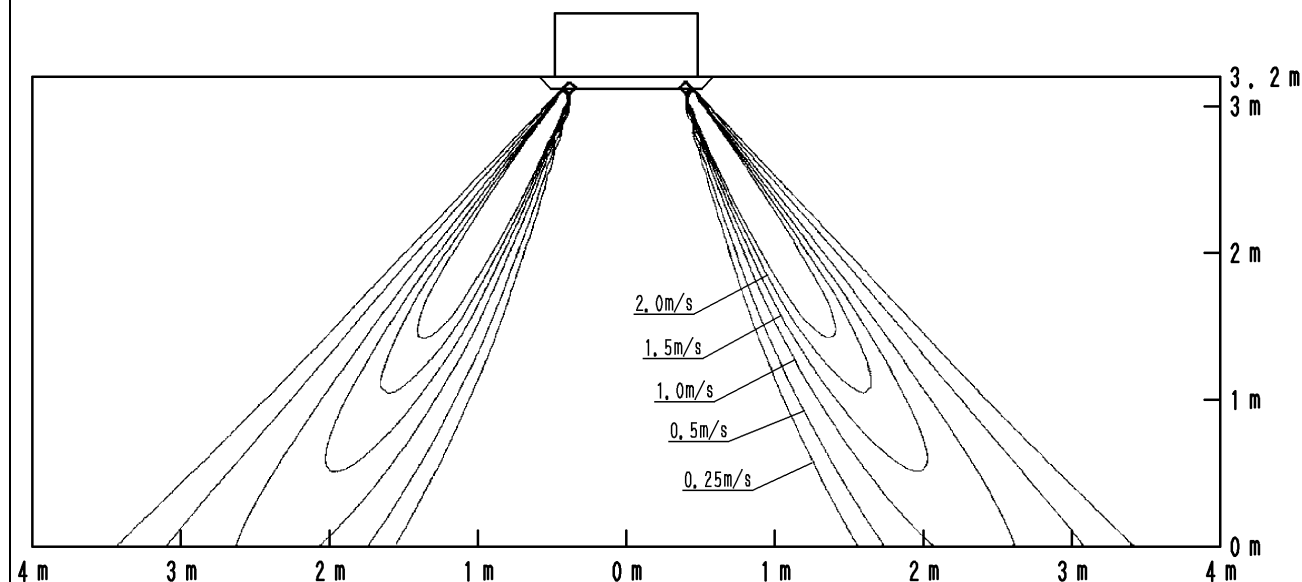
11 Air flow patterns

11 - 2 Air Flow Pattern - Heating

FCQHG125F

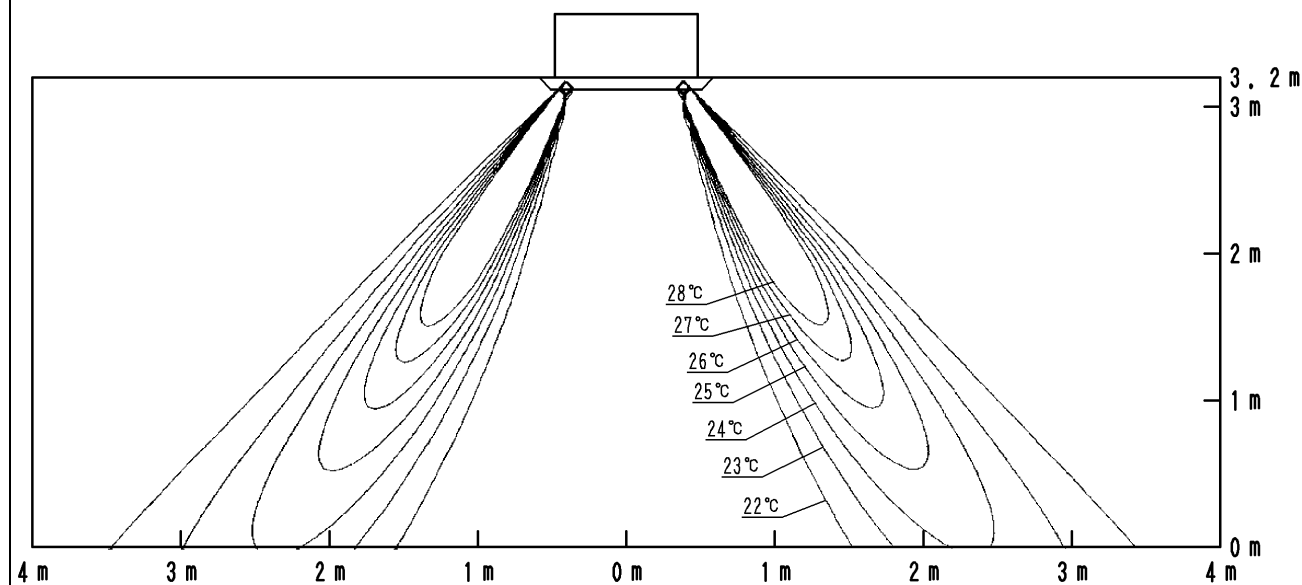
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D077051

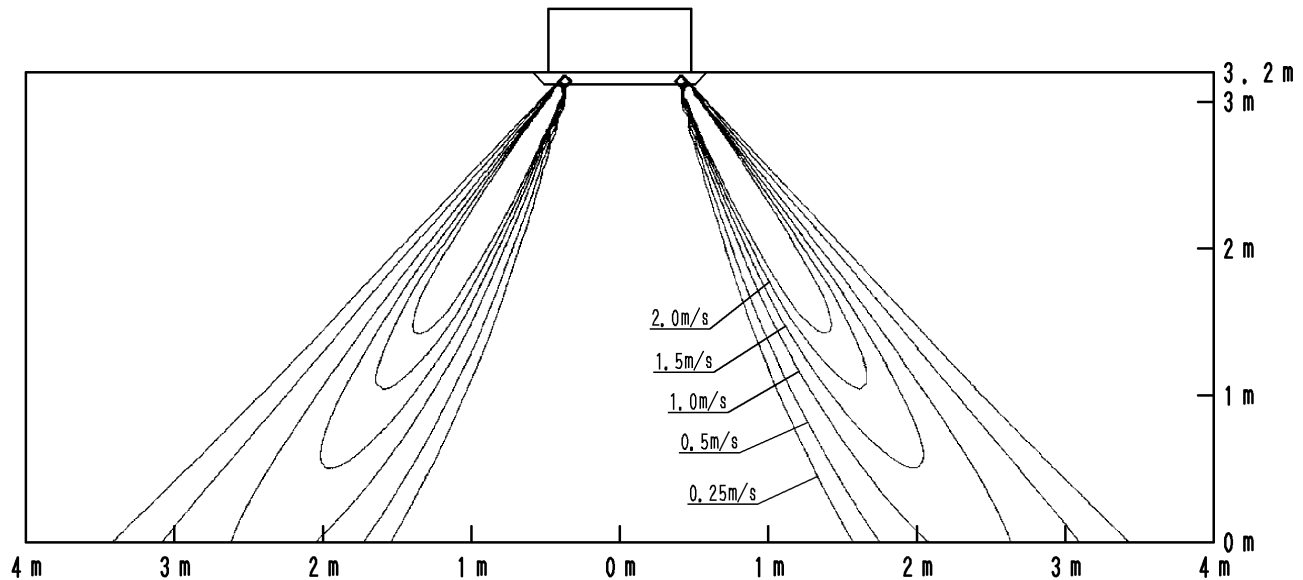
11 Air flow patterns

11 - 2 Air Flow Pattern - Heating

FCQHG140F

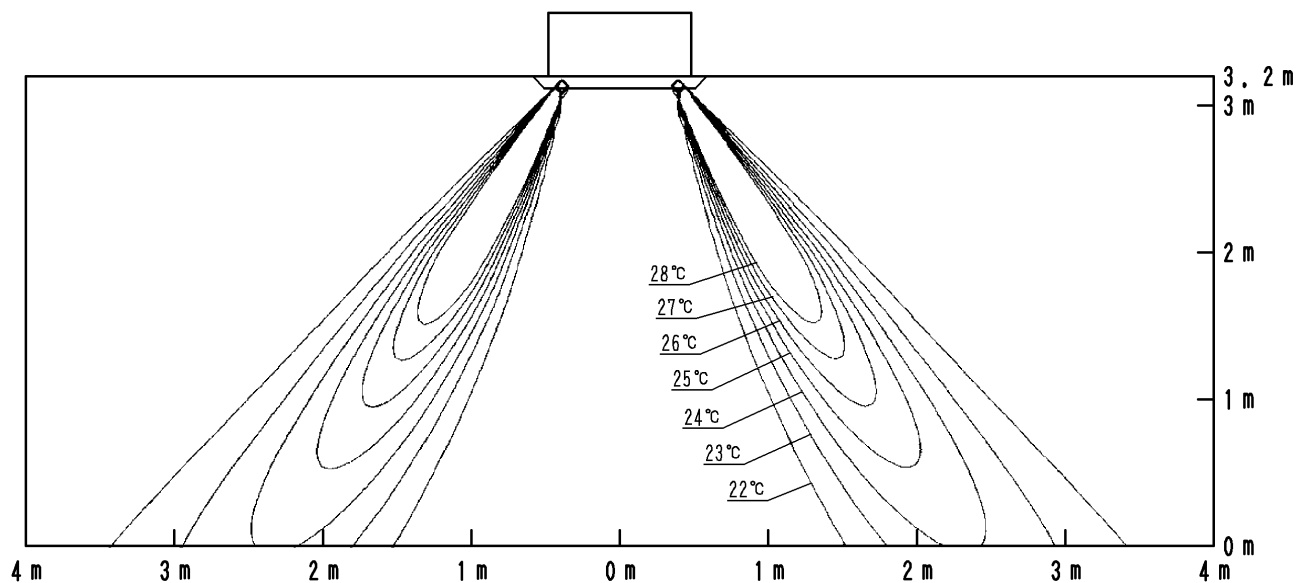
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D077052



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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