DAIKIN

technical data

air conditioning systems

Cooling Only/Heat Pump

FCQH-D7VEB

R-410A

DAIKIN

technical data

air conditioning systems

Cooling Only/Heat Pump

FCQH-D7VEB

R-410A

TABLE OF CONTENTS

FCQH-D7VEB

1 Features

- High COP round flow cassette: up to class A energy labels
- 360° air discharge ensures uniform air flow and temperature distribution
- Air discharge from the corners avoids dead zones that may be subject to temperature differences
- Modern style decoration panel is available in 2 different variations: white (RAL9010) with grey louvers and full white (RAL9010) including white louvers
- Home leave operation saves energy during absence
- Fresh air intake: up to 20 %
- Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- 23 different air flow patterns possible
- Drain-up pump with 850mm lift fitted as standard

heat pump | optional | 2 steps

via wired remote control | optional | optional

2 Specifications

2-1 Technical Specifications				FCQH71D7VEB	FCQH100D7VEB	FCQH125D7VEB	FCQH140D7VEB
Casing	Material			Galvanised steel plate			
Dimensions	Packing	Height	mm	262	304	304	304
		Width	mm	882	882	882	882
		Depth	mm	882	882	882	882
	Unit	Height	mm	246	288	288	288
		Width	mm	840	840	840	840
		Depth	mm	840	840	840	840
Weight	Unit		kg	23	25	25	25
	Packed Unit		kg	28	30	30	30
Heat Exchanger	Dimensions	Length	mm	inside: 2096, outside: 2152			
		Nr of Rows		2	2	2	2
		Fin Pitch	mm	1.2	1.2	1.2	1.2
		Nr of Passes		5	11	11	11
		Face Area	m²	0.446	0.535	0.535	0.535
		Nr of Stages		10	12	12	12
	Fin	Type		Cross fin coil (Multi louver fins and Hi-XSS tubes)			
Fan	Type			Turbo fan			
	Quantity			1	1	1	1
Air Flow Rate	Cooling	High	m³/min	21.9	34.2	34.2	34.2
		Low	m³/min	12.1	17.6	21.2	23.8
	Heating	High	m³/min	21.9	34.2	34.2	34.2
		Low	m³/min	12.1	17.6	21.3	23.9
Fan	Motor	Model		QTS48C15M			
		Number of steps		3	3	3	3
		Output (high)	W	120	120	120	120
Cooling	Sound Power	High	dBA	54	62	62	62
	Sound Pressure	High	dBA	36	45	45	45
		Low	dBA	28	32	36	38
Heating	Sound Pressure	High	dBA	36	45	45	45
		Low	dBA	28	32	36	38
Sound level	Sound Absorbing Insulation			foamed polyurethane			
Refrigerant	Type			R-410A			
Piping connections	Liquid (OD)	Type		Flare connection			
		Diameter (OD)	mm	9.52	9.52	9.52	9.52
	Gas	Type		Flare connection			
		Diameter (OD)	mm	15.9	15.9	15.9	15.9
	Drain	Diameter (OD)	mm	VP25 (I.D. 25/O.D. 32)			
	Heat Insulation			Foamed polystyrene/foamed polyethylene			
Decoration Panel	Model			BYCQ140CW1 / BYCQ140CW1W			
	Colour			Pure White(RAL 9010)			
	Dimensions	H	mm	50	50	50	50
		W	mm	950	950	950	950
		D	mm	950	950	950	950
	Weight		kg	5.5	5.5	5.5	5.5
Air Filter				Resin net with mold resistance			
Standard Accessories	Item			Installation and operation manual			
				Drain hose			
				Clamp for drain hose			
				Washer for hanging bracket			
				Screws			
				Installation guide			
				Insulation for fitting			
				Sealing pad			
				Drain sealing pad			
Notes				The sound power level is an absolute volume indicating the ''power'' which a sound source generates.			
				The BYCQ140CW1W 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 BYCQ140W1W decoration panel in environments exposed to concentrations of dirt.			

2 Specifications

2-2 Electrical Specifications			FCQH71D7VEB	FCQH100D7VEB	FCQH125D7VEB	FCQH140D7VEB
Power Supply	Name		VE			
	Phase		1~			
	Frequency	Hz	50/60			
	Voltage	V	220-240/220			

2

3 Safety device settings

FCQH71-140D

	Safety devices		71	100	125	140
FCQH	PC board fuse		250V 5A	250V 5A	250V 5A	250V 5A
	Fan motor thermal fuse	°C	---	---	---	---
	Fan motor thermal protector	°C	Off: 108 $^{\pm 5}$ (On: 96 $^{\pm 15}$)	Off: 108 $^{\pm 5}$ (On: 96 $^{\pm 15}$)	Off: 108 $^{\pm 5}$ (On: 96 $^{\pm 15}$)	Off: 108 $^{\pm 5}$ (On: 96 $^{\pm 15}$)
	Drain pump fuse	°C	145	145	145	145

3TW28921-3

4 Options

FCQH71-140D

Options

	Item	Model		FCQH71	FCQH100	FCQH125	FCQH140
1	Decoration panel			BYCQ140CW1/BYCQ140CW1W *3			
2	Long life filter		Non-woven type	KAFP551K160			
3	Fresh air intake kit (20% fresh air)		Chamber type	KDDQ55C140			
4	Sealing member of air discharge outlet			KDBHQ55C140			

Control System

	Item	Model		FCQH71	FCQH100	FCQH125	FCQH140
1	Remote control	Wireless	H/P	BRC7F532F			
			C/O	BRC7F533F			
		Wired		BRC1D528			
2-1	Wiring adapter for electrical appendices (2) *			KRP1BA57 *1			
2-2	Wiring adapter for electrical appendices (2) *			KRP4AA53 *1			
2-3	Wiring adapter (hour meter)			EKRP1C11 *1			
3	Remote sensor			KRCS101-4			
4	Installation box for adapter PCB			KRP1H98			
5	Central remote control			DCS302CA51			
6	Unified ON/OFF control			DCS301BA51			
7	Electrical box with earth terminal (2blocks)			KJB212AA			
8	Schedule timer			DST301BA51			
9	Remote on/off			EKRORO2			

3TW28929-1B

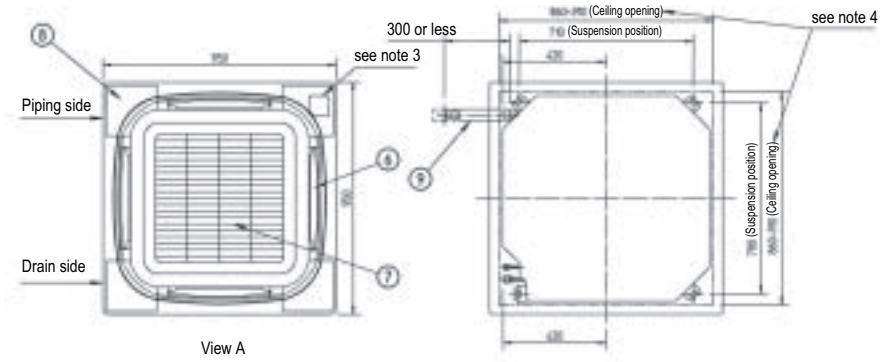
NOTES

1 Installation box is necessary for these adapters.
2 All options are supplied as kit
3 The BYCQ140CW1W 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 BYCQ140CW1W decoration panel in environments exposed to concentrations of dirt.

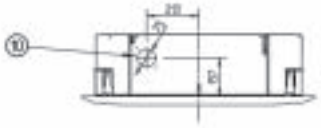
5 Dimensional drawing & centre of gravity

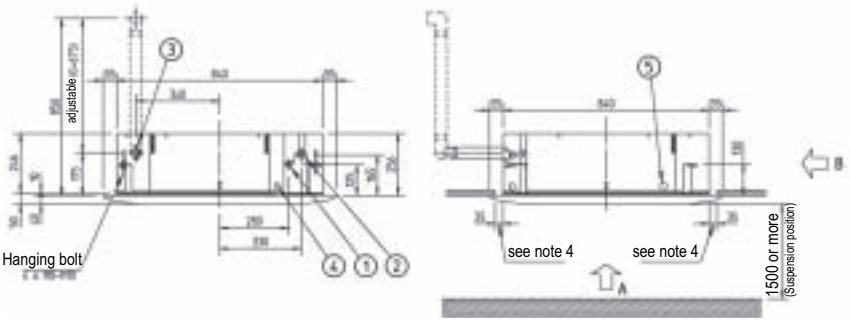
5 - 1 Dimensional drawing

FCQH71D

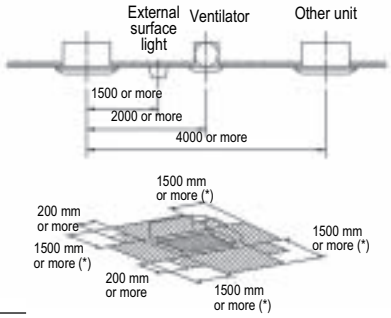


Item	Name	Remark
1	Liquid pipe connection	ø9.52 (Flare connection)
2	Gas pipe connection	ø15.90 (Flare connection)
3	Drain pipe connection	VP25 (ODø32, IDø25)
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air discharge opening	
7	Air suction grille	
8	Corner decoration cover	
9	Drain hose	ODø32, IDø26
10	Knock out hole	





Please respect the distances as shown on figure below



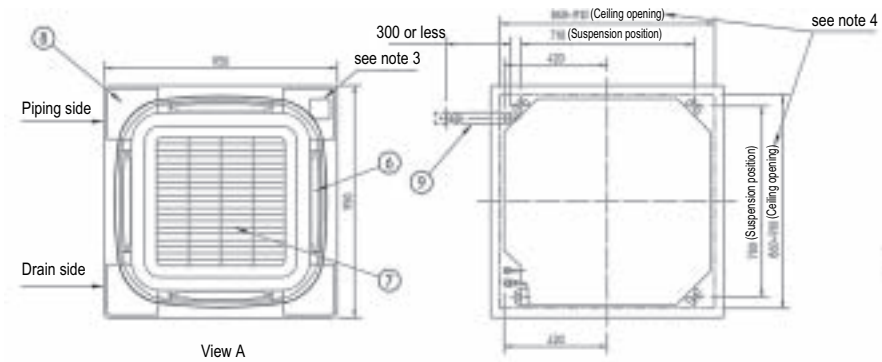
(*) In case a discharge opening is closed with the "sealing member" option, the distance of 1500 mm can be reduced to 500 mm on the closed side.

NOTE

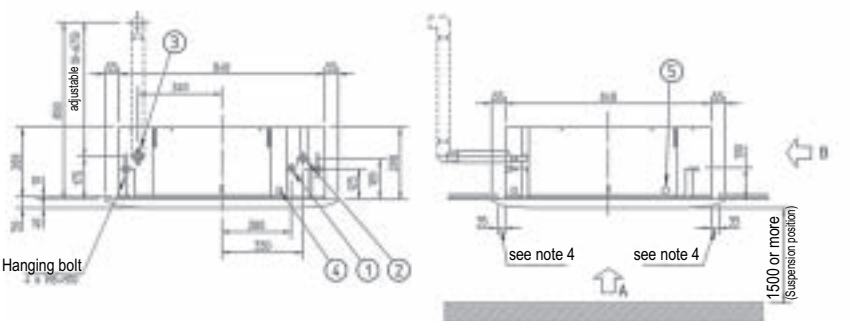
1 Location of the nameplates - Unit body: on the control box - Decoration panel: on the panel frame at the motor side under the corner cover
2 When installing an optional accessory, refer to the installation drawings
For the fresh air intake kit an inspection port is necessary
3 In case of using a wireles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

3TW28894-1C

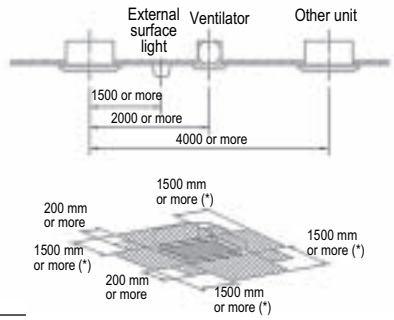
FCQH100-140D



Item	Name	Remark
1	Liquid pipe connection	ø9.52 (Flare connection)
2	Gas pipe connection	ø15.90 (Flare connection)
3	Drain pipe connection	VP25 (ODø32, IDø25)
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	ODø32, IDø25
10	Knock out hole	



Please respect the distances as shown on figure below



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

NOTE

1 Location of the nameplates - Unit body: on the control box - Decoration panel: on the panel frame at the motor side under the corner cover
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4 Make sure the spacing between the ceiling and the cassette is no more than 35mm. Max cailing opening: 910mm.
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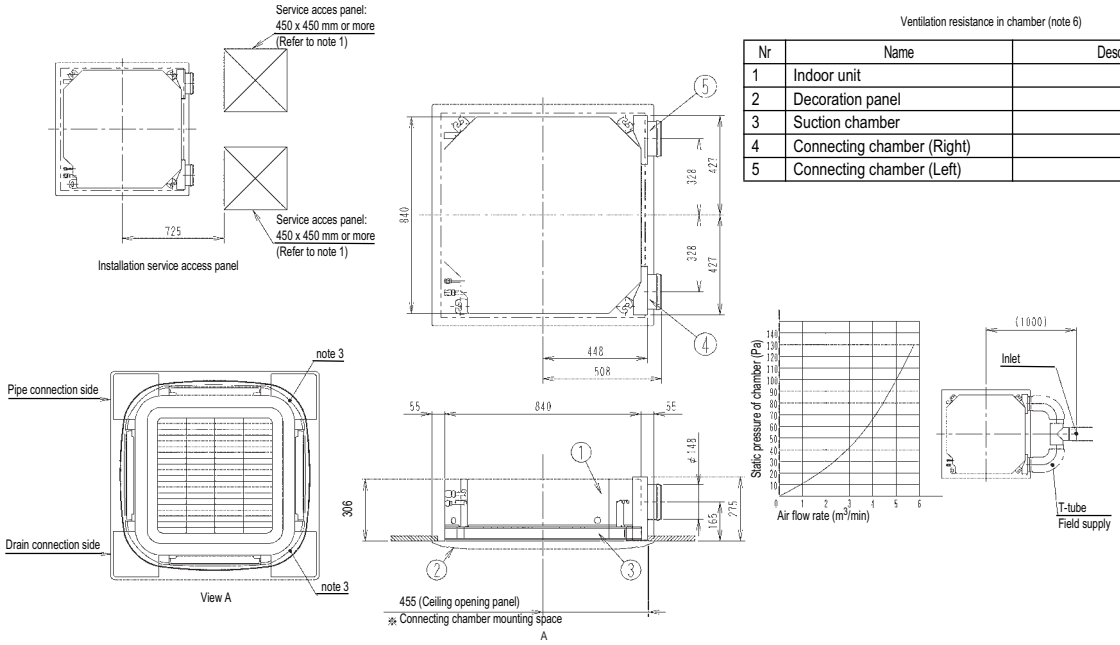
3TW28914-1C

5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing

FCQH71D



Ventilation resistance in chamber (note 6)

Nr	Name	Description
1	Indoor unit	
2	Decoration panel	
3	Suction chamber	
4	Connecting chamber (Right)	
5	Connecting chamber (Left)	

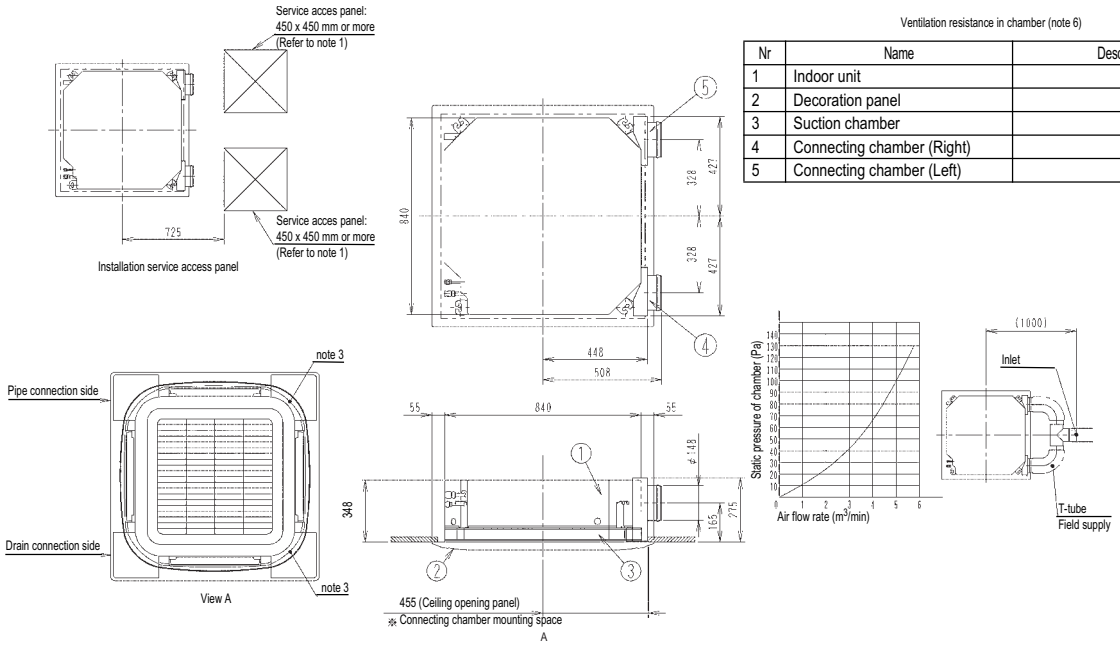
NOTES

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

1 When installing this kit, inspection hatch is necessary. (It is necessary when servicing.) Either one of inspection hatches must be installed.
2 Field construction.
3 The corner air outlet of this part must be shut.
4 In case of mounting a duct fan, make sure to use a wiring adapter for electrical appendices and link with the indoor unit fan.
5 The intake air flow rate is recommended to be 20% or less of the H speed air flow rate. If the intake air flow rate is too large, the operating sound may rise or detection of the indoor unit suction temperature may be affected.
6 It indicates the distance between the T-tube inlet and the indoor unit inlet when the T-tube is connected.

3D057034

FCQH100,125,140D



Ventilation resistance in chamber (note 6)

Nr	Name	Description
1	Indoor unit	
2	Decoration panel	
3	Suction chamber	
4	Connecting chamber (Right)	
5	Connecting chamber (Left)	

NOTES

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6 It indicates the distance between the T-tube inlet and the indoor unit inlet when the T-tube is connected.

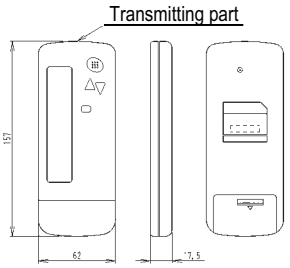
3D057032

5 Dimensional drawing & centre of gravity

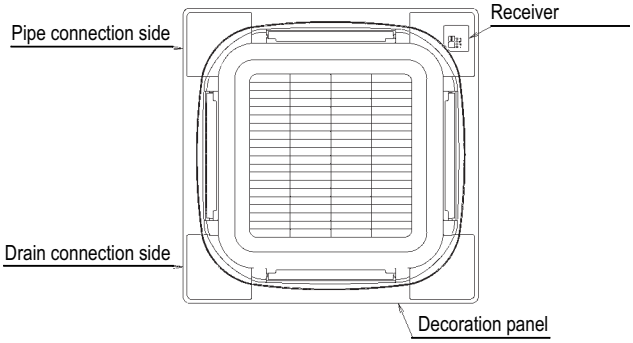
5 - 1 Dimensional drawing

FCQH71-140D

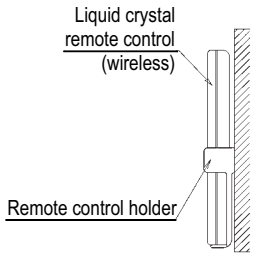
Remote control dimensions



Receiver installation procedure



Remote controller holder installation procedure (installation to wall surface)



Receiver detail

Wireless remote control kit for each decoration panel

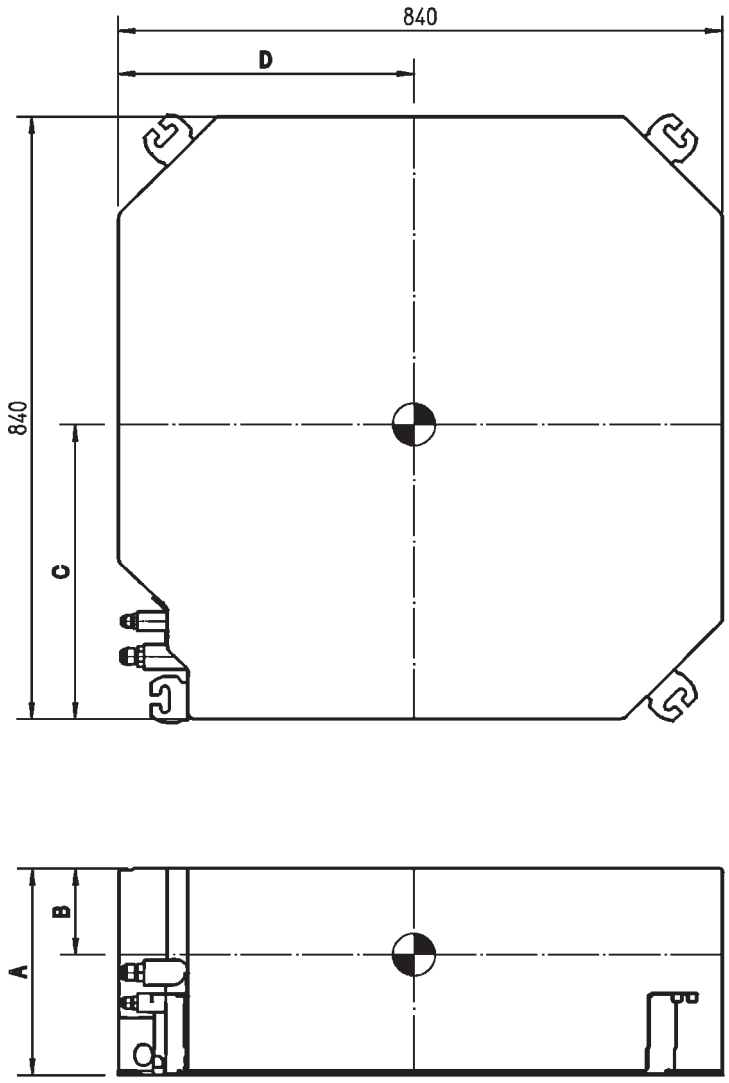
Wireless remote control kit	Decoration panel
BRC7F532F BRC7F533F	BYCQ140CW1

3D056851

5 Dimensional drawing & centre of gravity

5 - 2 Centre of gravity

FCQH71-140D

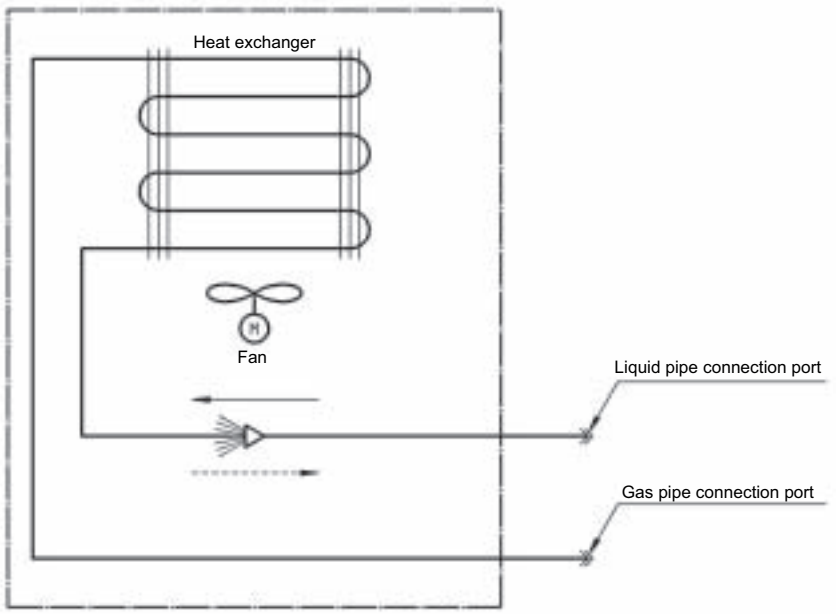


Models	A	B	C	D
FCQH71	246	90	411	411
FCQH100~140	288	120	420	420

4TW28839-2

6 Piping diagram

FCQH71-140D



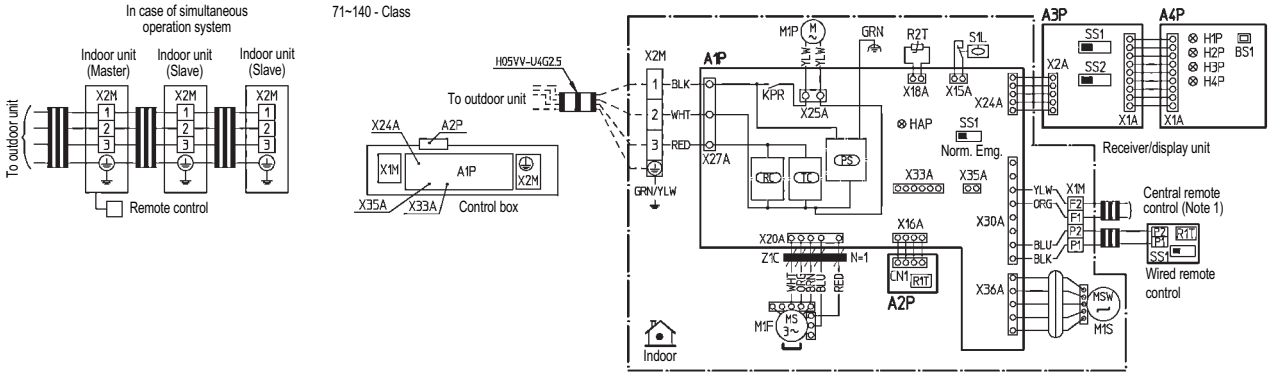
Model	Gas	Liquid
FCQH71	Ø15.90	Ø9.52
FCQH100		
FCQH125		
FCQH140		

3TW28925-1A

7 Wiring diagram

7 - 1 Wiring diagram

FCQH71-140D



INDOOR UNIT		SS1	Selector switch (emergency)	H4P	Light emitting diode (defrost-orange)
A1P	Printed circuit board	TC	Signal transmission circuit	SS1	Selector switch (main/sub)
A2P	Printed circuit board (humidity sensor unit)	X1M	Terminal strip	SS2	Selector switch (wireless address set)
HAP	Light emitting diode (service monitor green)	X2M	Terminal strip	**CONNECTOR FOR OPTIONAL PARTS**	
KPR	Magnetic relay (M1P)	Z1C	Ferrite core	X24A	Connector (infrared remote control)
M1F	Motor (indoor fan)	**RECEIVER/DISPLAY UNIT (ATTACHED TO INFRARED REMOTE CONTROL)**		X33A	Connector (adapter for wiring)
M1P	Motor (drain pump)			X35A	Connector (group control adapter)
M1S	Motor (swing flap)	A3P	Printed circuit board	**INFRARED REMOTE CONTROL**	
PS	Power supply circuit	A4P	Printed circuit board	R1T	Thermistor (air)
R1T	Thermistor (air)	BS1	Push button (on/off)	SS1	Selector switch (main/sub)
R2T	Thermistor (coil)	H1P	Light emitting diode (on-red)		
RC	Signal receiver circuit	H2P	Light emitting diode (timer-green)		
S1L	Float switch	H3P	Light emitting diode (filter sign-red)		

: Terminal block
: Connector
: Field wiring

Colors:
RED: Red
BLK: Black
WHT: White
YLW: Yellow
GRN: Green
ORG: Orange
BRN: Brown
GRY: Grey
BLU: Blue

3TW28956-1

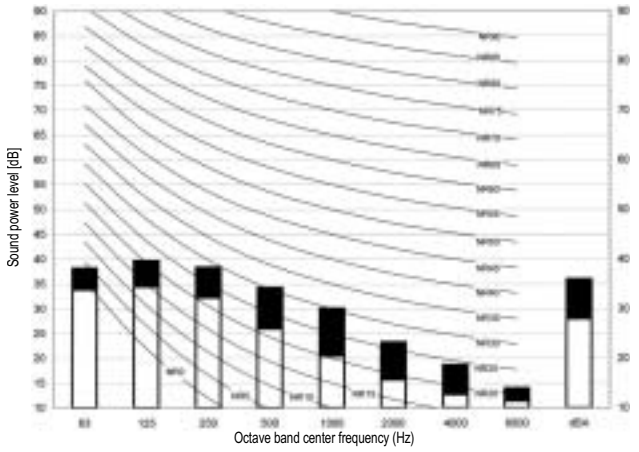
NOTES

1 In case of using central remote control, connect it to the unit in accordance with the attached installation manual.
2 X24A, X33A, and X35A are connected when the optional accessories are being used.
3 Remote control model varies according to the combination system, confirm engineering data and catalogs, etc. before connecting.
4 Confirm the method of setting the selector switch (SS1, SS2) by installation manual and engineering data, etc.

8 Sound data

8 - 1 Sound pressure spectrum

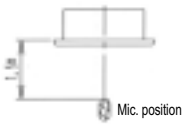
FCQH71D



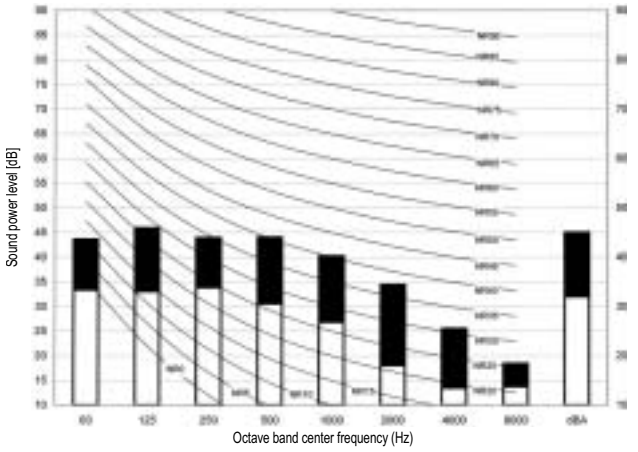
3TW31757-3

NOTES

1 ■ High-tap
□ Low-tap
2 Data is valid at free field condition
3 Data is valid at nominal operation condition
4 dBA = A-weighted sound power level. (A-scale according to IEC)
5 Reference acoustic intensity 0dB = 20µPa



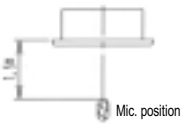
FCQH100D



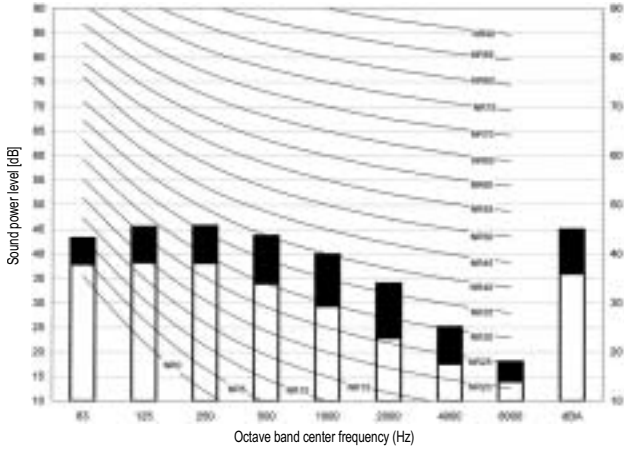
3TW31767-3

NOTES

1 ■ High-tap
□ Low-tap
2 Data is valid at free field condition
3 Data is valid at nominal operation condition
4 dBA = A-weighted sound power level. (A-scale according to IEC)
5 Reference acoustic intensity 0dB = 20µPa



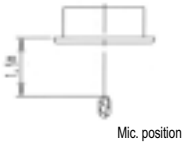
FCQH125D



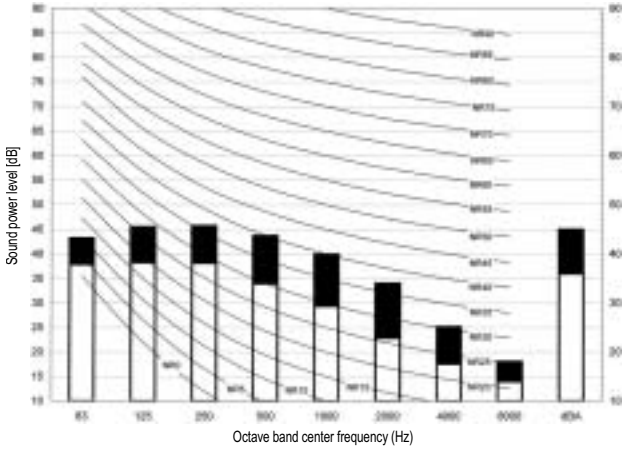
3TW31777-3

NOTES

1 ■ High-tap
□ Low-tap
2 Data is valid at free field condition
3 Data is valid at nominal operation condition
4 dBA = A-weighted sound power level. (A-scale according to IEC)
5 Reference acoustic intensity 0dB = 20µPa



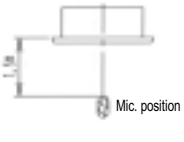
FCQH140D



3TW31787-3

NOTES

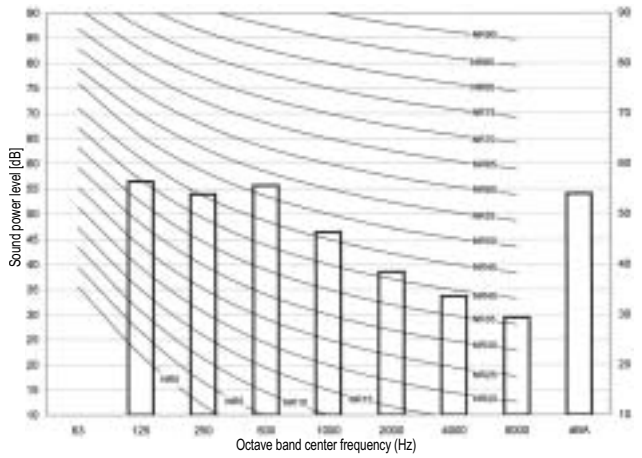
1 ■ High-tap
□ Low-tap
2 Data is valid at free field condition
3 Data is valid at nominal operation condition
4 dBA = A-weighted sound power level. (A-scale according to IEC)
5 Reference acoustic intensity 0dB = 20µPa



8 Sound data

8 - 2 Sound power spectrum

FCQH71D

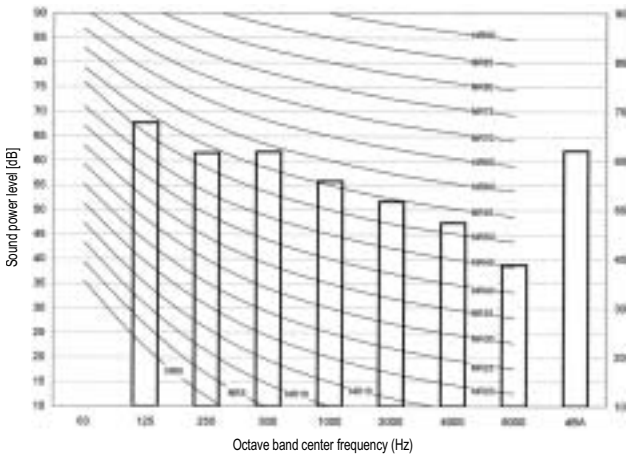


3TW31757-1

NOTES

1 ☐ High-tap
2 dBA = A-weighted sound power level. (A-scale according to IEC)
3 Reference acoustic intensity 0dB = 10E-6μW/m^2
4 Measured according to ISO 3744

FCQH100~140D



3TW31767-1

NOTES

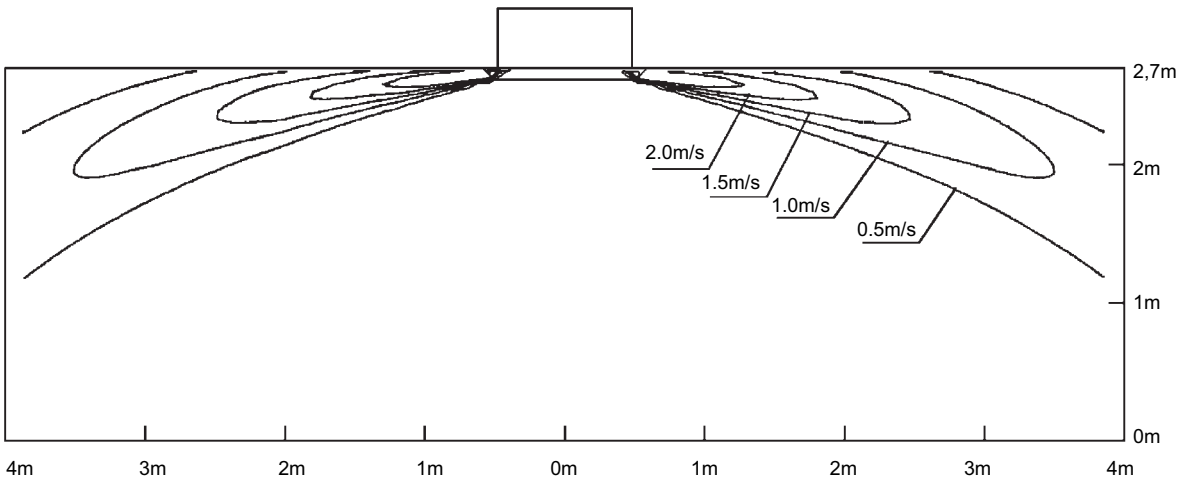
1 ☐ High-tap
2 dBA = A-weighted sound power level. (A-scale according to IEC)
3 Reference acoustic intensity 0dB = 10E-6μW/m^2
4 Measured according to ISO 3744

9 Air flow pattern

FCQH71D

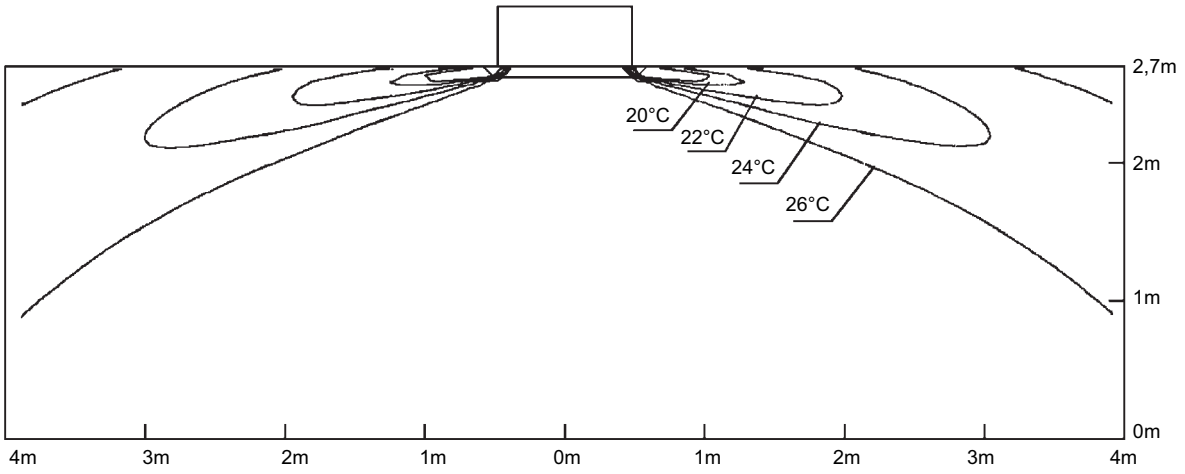
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



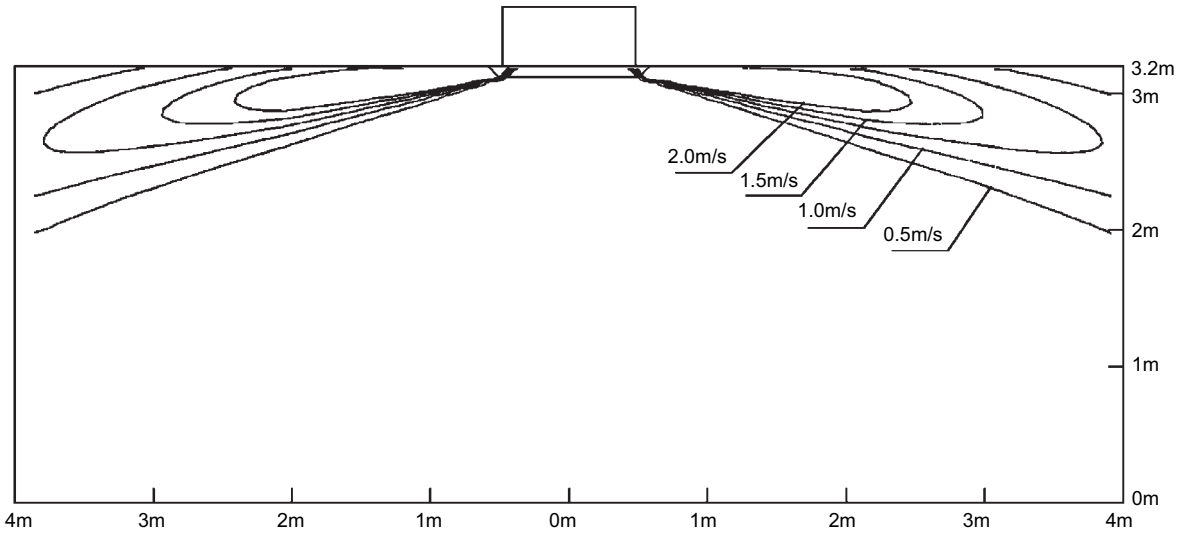
4D057213

9 Air flow pattern

FCQH100D

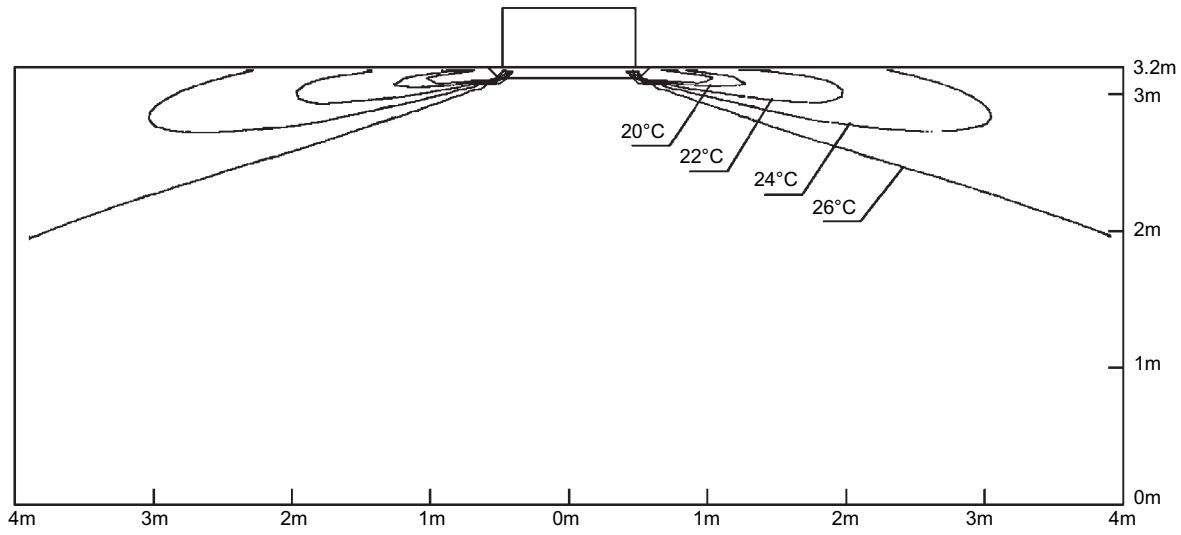
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



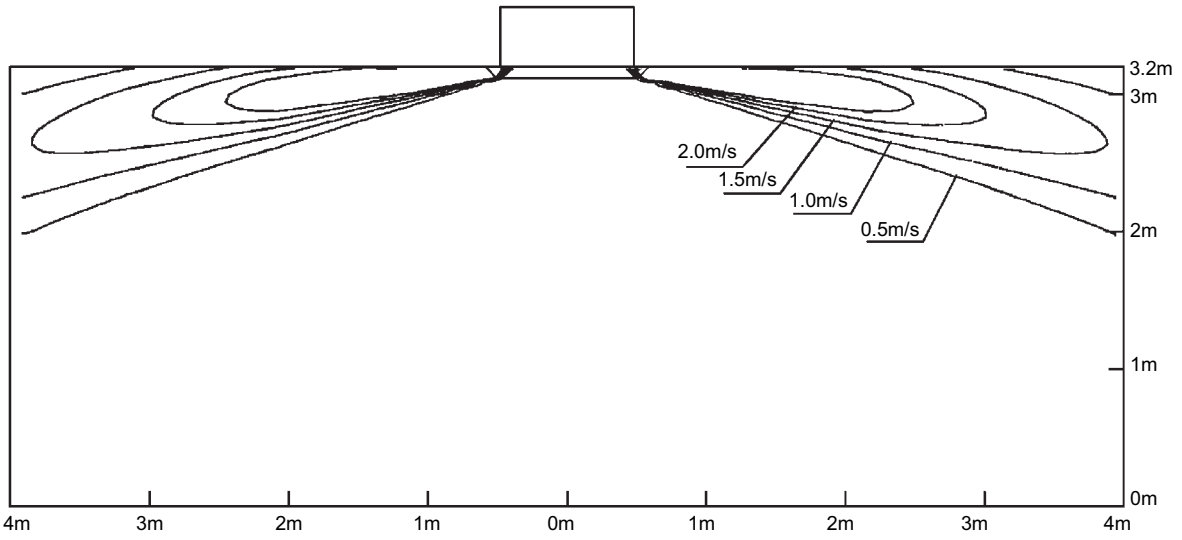
4D057215

9 Air flow pattern

FCQH125D

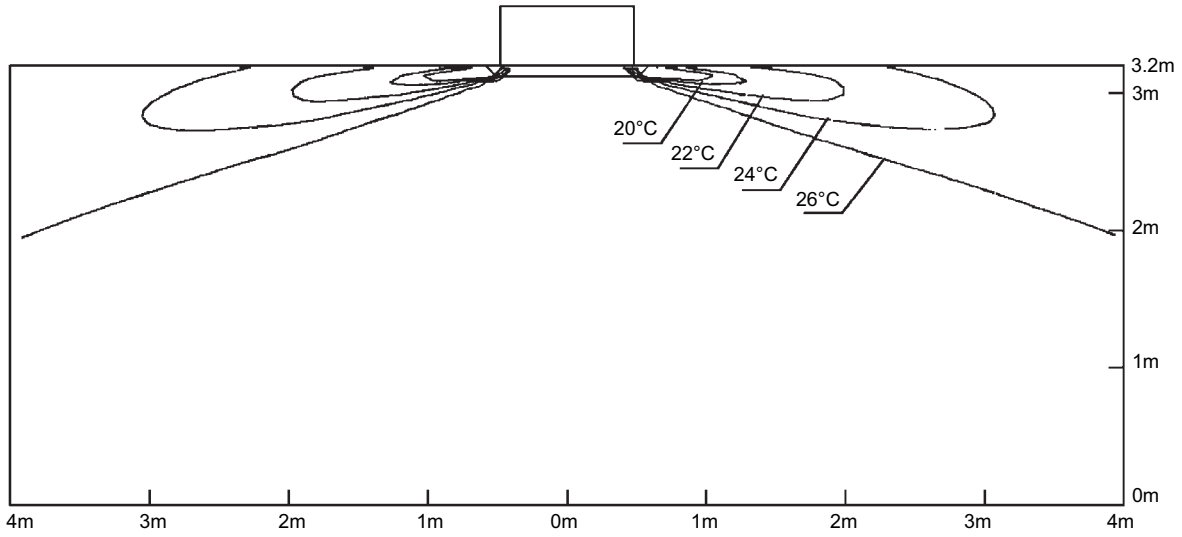
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



4D057217

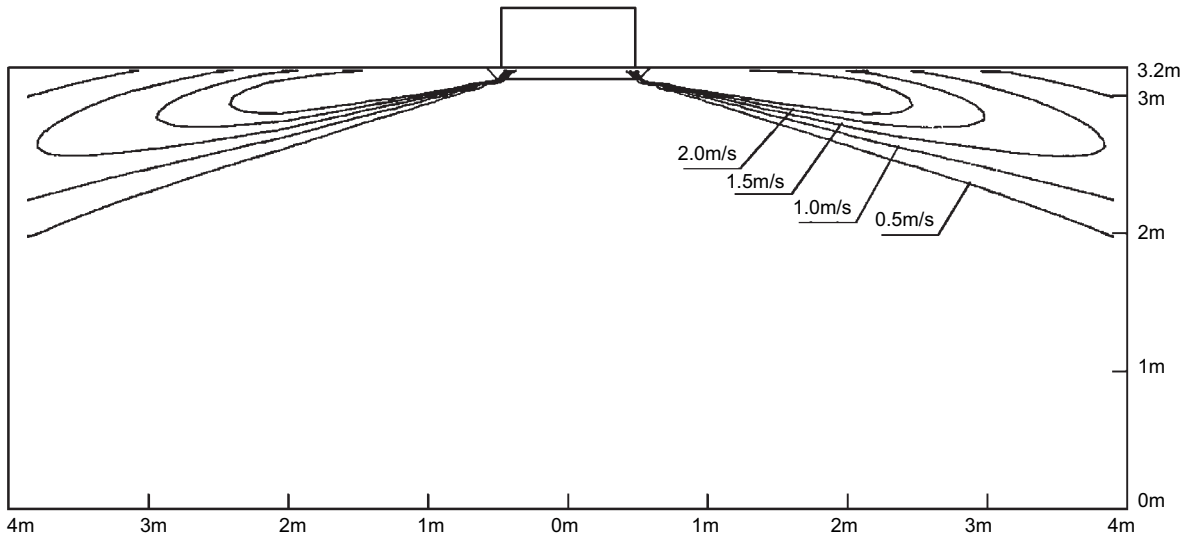
9 Air flow pattern

FCQH140D

9

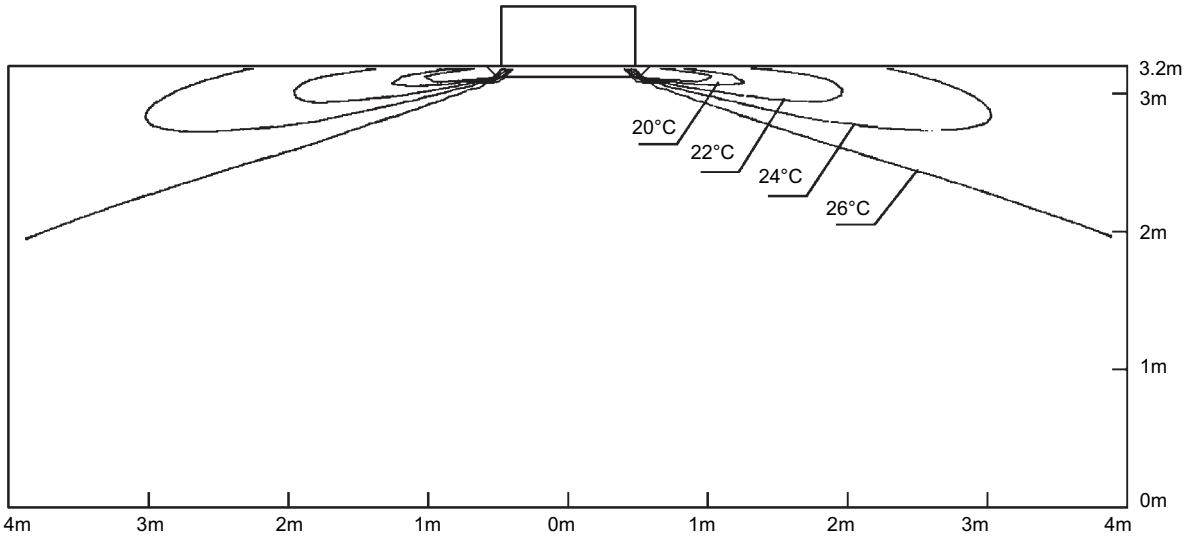
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



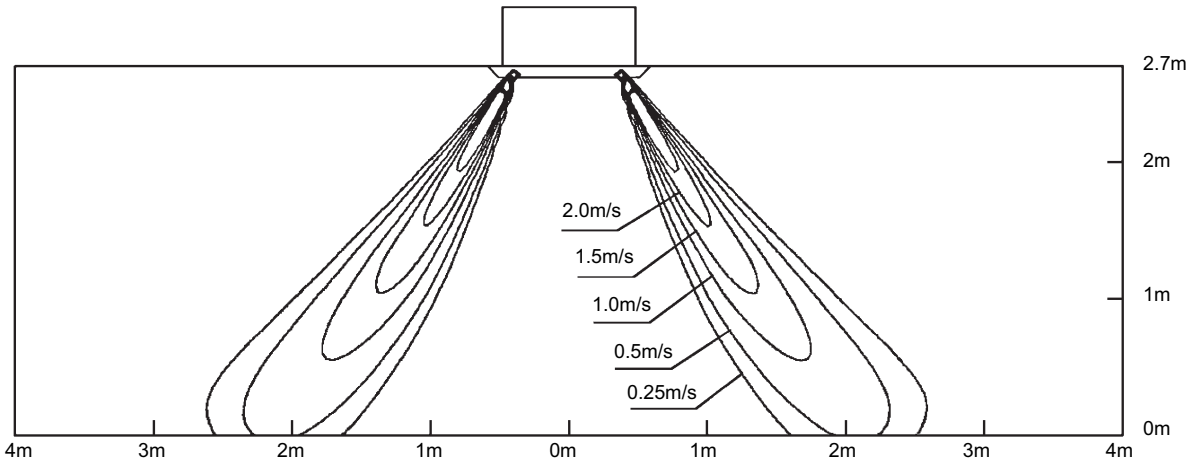
4D057219

9 Air flow pattern

FCQH71D

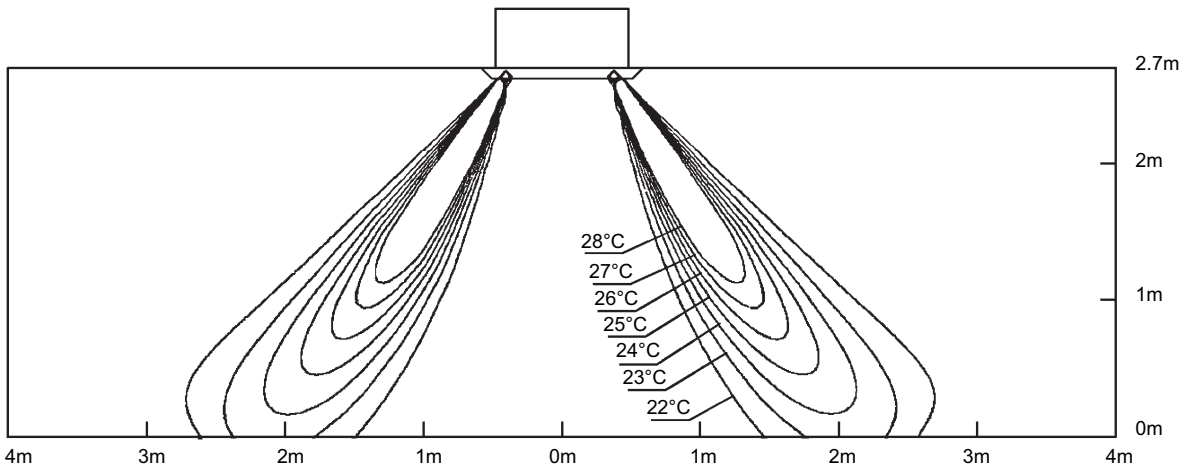
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



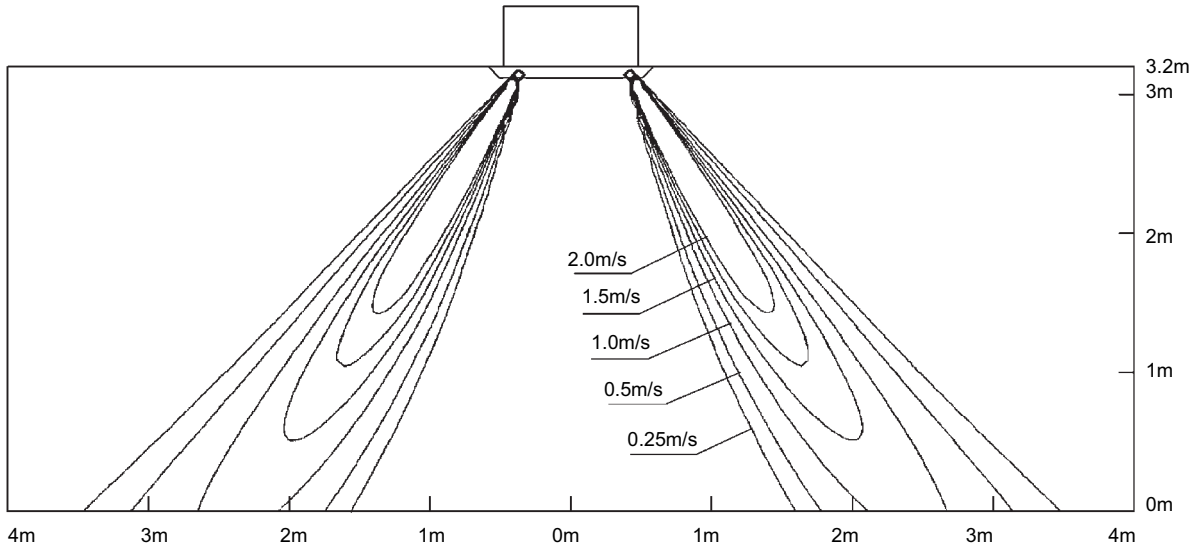
4D057212

9 Air flow pattern

FCQH100D

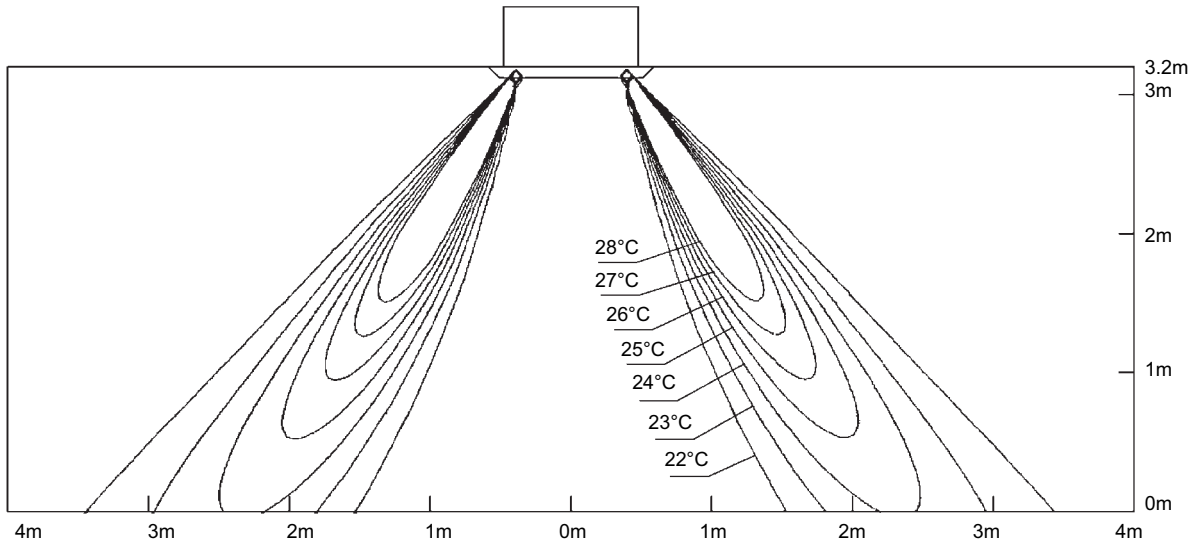
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



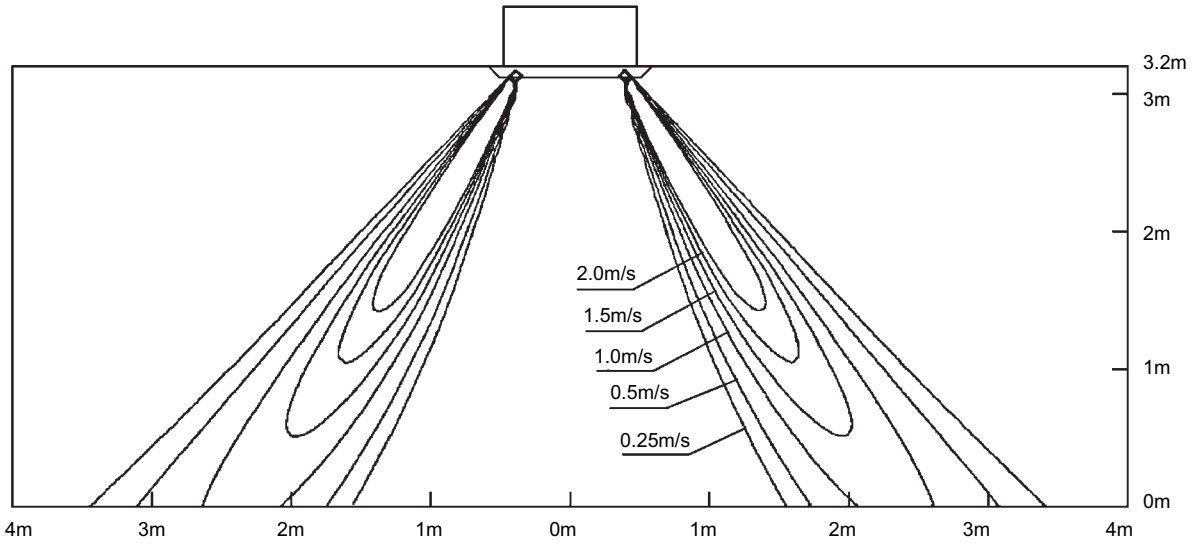
4D057214

9 Air flow pattern

FCQH125D

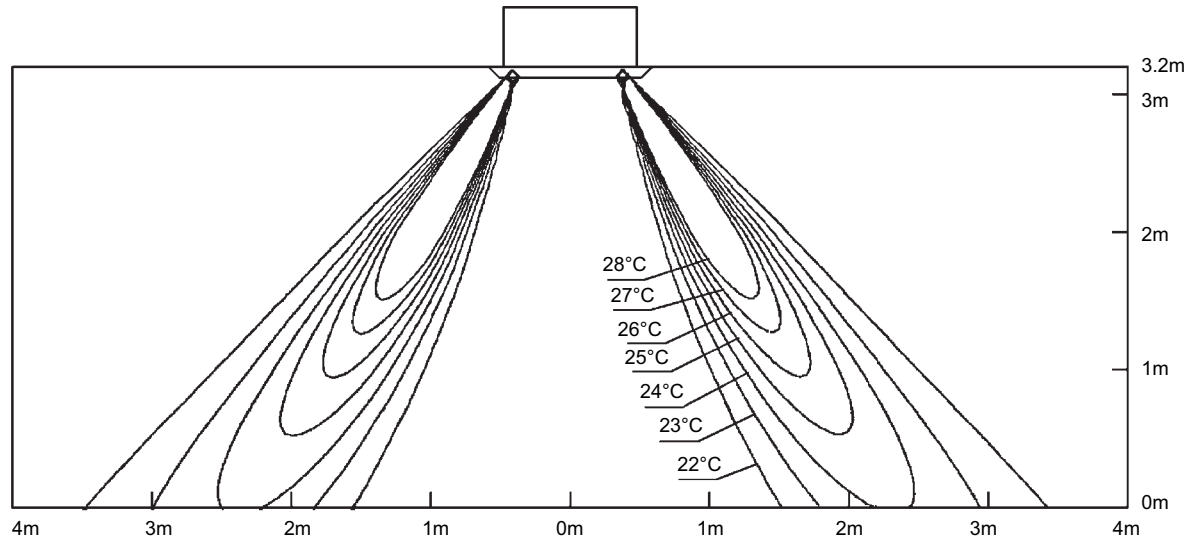
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D057216

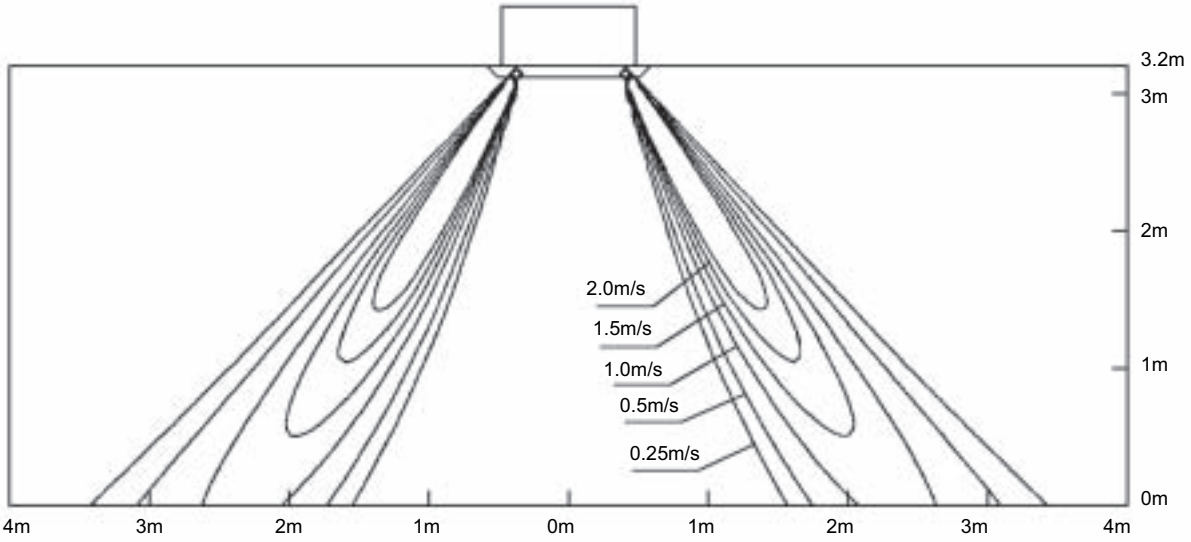
9 Air flow pattern

FCQH140D

9

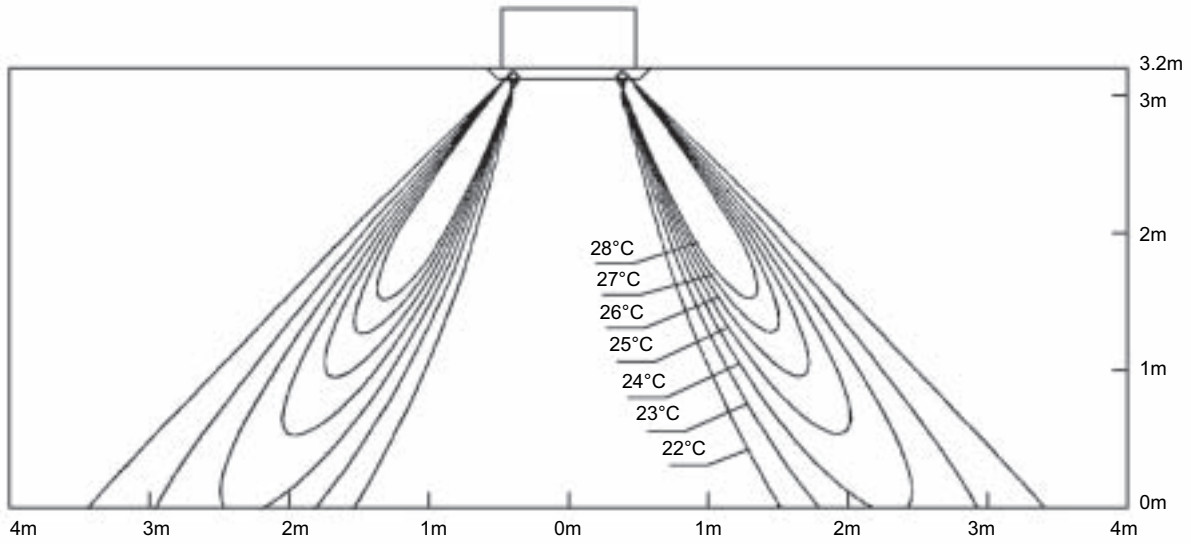
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D057218

In all of us, a green heart

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 intension 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.

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.

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 participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

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