



technical data

Cooling Only/Heat Pump
FCQH-D8VEB

air conditioning systems

R-410A



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air conditioning systems

R-410A

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FCQH-D8VEB

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1 Features

- High COP round flow cassette: up to class A energy labels (Preliminary)
- 360° air discharge ensures uniform air flow and temperature distribution
- Modern style decoration panel is available in 3 different variations: Standard panel in white (RAL9010) with grey louvers and standard panel in full white (RAL9010) including white louvers, auto cleaning panel
- 23 different air flow patterns possible
- Drain-up pump with 850mm lift fitted as standard
- For auto cleaning panel:
 - Daikin introduces first auto cleaning cassette to European market¹
 - Higher efficiency and comfort from daily auto cleaning of the filter¹
 - Lower maintenance costs thanks to auto cleaning function¹
 - Easy removal of dust with a vacuum cleaner without opening the unit¹
- Fresh air intake: up to 20 % (optional kit required)
- Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling

¹ Only for auto cleaning panel BYCQ140CG



2 Specifications

2-1 Technical Specifications				FCQH71D8VEB	FCQH100D8VEB	FCQH125D8VEB	FCQH140D8VEB
Casing	Material			Galvanised steel plate			
Dimensions	Packing	Height	mm	262	304	304	304
		Width	mm	882			
		Depth	mm	882			
	Unit	Height	mm	246	288	288	288
		Width	mm	840			
		Depth	mm	840			
Weight	Unit		kg	23	25	25	25
	Packed Unit		kg	28	30	30	30
Heat Exchanger	Dimensions	Length	mm	inside: 2,096, outside: 2,152			
		Nr of Rows		2			
		Fin Pitch	mm	1.2			
		Nr of Passes		5	11	11	11
		Face Area	m ²	0.446	0.535	0.535	0.535
		Nr of Stages		10	12	12	12
	Empty tubeplate hole	Quantity		0			
	Fin	Type		Cross fin coil (Multi louver fins and Hi-XSS tubes)			
Fan	Type		Turbo fan				
	Quantity		1				
Air Flow Rate	Cooling	High	m ³ /min	21.9	34.2	34.2	34.2
		Low	m ³ /min	12.1	17.6	21.2	23.8
	Heating	High	m ³ /min	21.9	34.2	34.2	34.2
		Low	m ³ /min	12.1	17.6	21.3	23.9
Fan	Motor	Model		QTS48C15M			
		Number of steps		3			
		Output (high)	W	120			
Cooling	Sound Power	High	dBA	54	62	62	62
		Low	dBA	28	32	36	38
	Sound Pressure	High	dBA	36	45	45	45
Heating	Sound Pressure	High	dBA	36	45	45	45
		Low	dBA	28	32	36	38
Piping connections	Sound Absorbing Insulation			Foamed polyurethane			
Refrigerant	Type			R-410A			
Piping connections	Liquid (OD)	Type		Flare connection			
		Diameter (OD)	mm	9.52			
	Gas	Type		Flare connection			
		Diameter (OD)	mm	15.9			
	Drain	Diameter (OD)		VP25 (I.D. 25/O.D. 32)			
Heat Insulation			Foamed polystyrene/foamed polyethylene				
Decoration Panel	Model			BYCQ140CGW1			
	Colour			Pure White(RAL 9010)			
	Dimensions	H	mm	130			
		W	mm	950			
		D	mm	950			
	Weight		kg	5.5			
Decoration Panel 2/3	Model			BYCQ140CW1W/BYCQ140CW1			
	Colour			Pure White(RAL 9010)			
	Dimensions	H	mm	50			
		W	mm	950			
		D	mm	950			
	Weight		kg	5.5			
Air Filter				Resin net with mold resistance			

2 Specifications

2-1 Technical Specifications		FCQH71D8VEB	FCQH100D8VEB	FCQH125D8VEB	FCQH140D8VEB
Safety devices	Item	Installation and operation manual			
		Drain hose			
		Clamp for drain hose			
		Washer for hanger bracket			
		Screws			
		Installation guide			
		Insulation for fitting			
		Sealing pad			
		Drain sealing pad			
Notes		The sound power level is an absolute value indicating the power which a sound source generates. The BYCQ140CW1W has white insulations. Be informed that formation of dirt on white insulations is more visible and that it is consequently not advised to install the BYCQ140W1W decoration panel in environments exposed to concentrations of dirt.			

2-2 Electrical Specifications		FCQH71D8VEB	FCQH100D8VEB	FCQH125D8VEB	FCQH140D8VEB
Power Supply	Name	VE			
	Phase	1~			
	Frequency	Hz	50/60		
	Voltage	V	220-240/220		

3 Safety device settings

FCQH71-140D8						
	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 ±5 (On: 96 ±15)	Off: 108 ±5 (On: 96 ±15)	Off: 108 ±5 (On: 96 ±15)	Off: 108 ±5 (On: 96 ±15)
	Drain pump fuse	°C	145	145	145	145
3TW28921-3						

4 Options

FCQH71-140D8VEB

OPTIONS

Item	Model	FCQ35	FCQ50	FCQ60	FCQ71	FCQ100	FCQ125	FCQ140	FCQH71	FCQH100	FCQH125	FCQH140
1	Decoration panel	BYCQ140CW1 / BYCQ140CW1W *3 / BYCQ140CGW1 *5,*6										
2	Long life replacement 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	FCQ35	FCQ50	FCQ60	FCQ71	FCQ100	FCQ125	FCQ140	FCQH71	FCQH100	FCQH125	FCQH140
1	Remote control	Wireless	H/P	BRC7F532F								
			C/O	BRC7F533F								
	Wired	BRC1D528										
		BRC1E51A7 *4										
2-1	Wiring adaptor for electrical appendices (1)		KRP1BA57 *1									
2-2	Wiring adaptor for electrical appendices (2)		KRP4AA53 *1									
2-3	Wiring adaptor (hour meter)		EKRP1C11 *1									
3	Remote sensor		KRCS01-4									
4	Installation box for adapter PCB		KRP1H98									
5	Central remote control		DCS302CA51									
6	Unified ON/OFF control		DCS301BA51									
7	Electrical box with earth terminal (2 blocks)		KJB212AA									
8	Schedule timer		DST301BA51									
9	Remote on/off		EKRORO2									

3TW23259-1B

NOTES

- *1. Installation box is necessary for these adaptors.
- *2. All options are supplied as kit.
- *3. The BYCQ140CW1W 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.
- *4. Included languages are: English, German, French, Dutch, Spanish, Italian, Greek, Portuguese, Russian and Turkish.
- *5. To be able to control the BYCQ140CGW1 the controller BRC1E* is needed.
- *6. The BYCQ140CGW1 is not compatible with Mini-VRV, Multi and Split Non-Inverter Outdoor units.

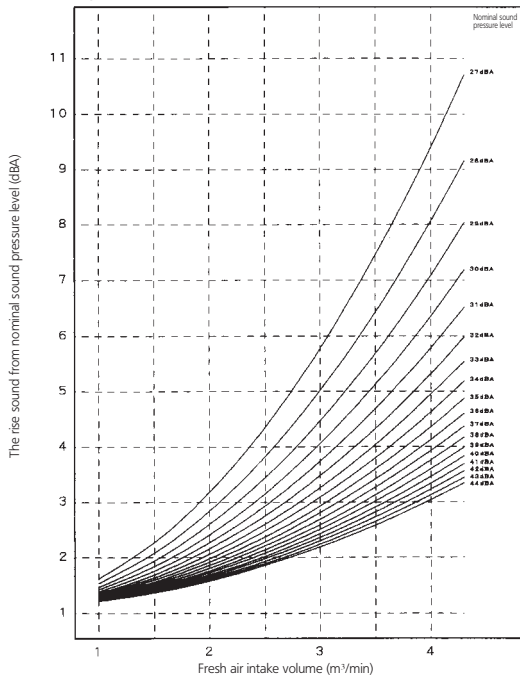
FCQH71-140D8

Max fresh air intake volume table

The maximum intake air flow volume is following table.
If the intake air flow volume is too large, the operating sound may rise or detection of the indoor unit suction temperature may be affected.

FCQH--D8VEB	71	100	125	140
Max fresh air intake volume (m ³ /min)	3.2	4.3	4.3	4.3

The rise of operating sound at with fresh air intake kit

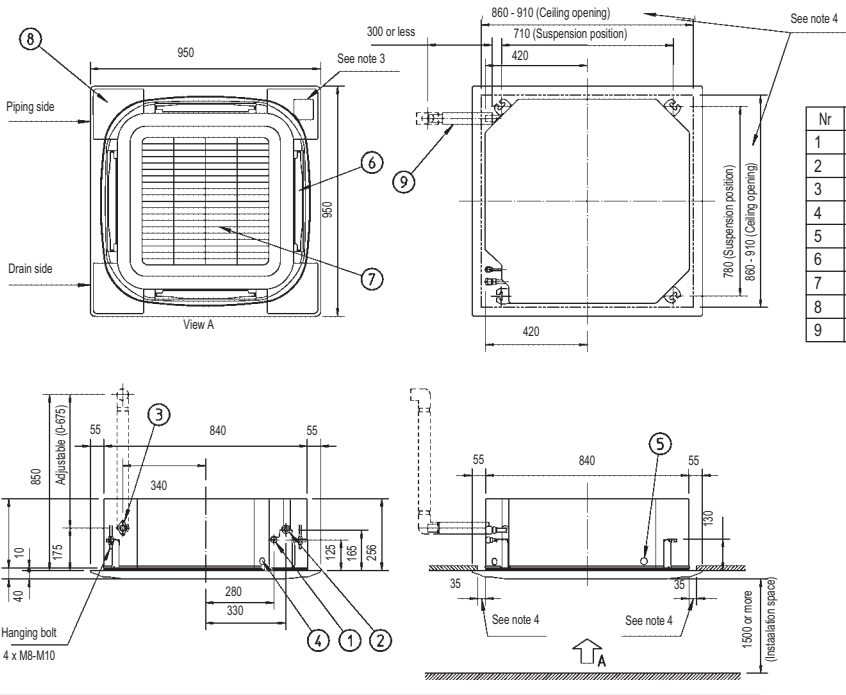


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5 Dimensional drawing & centre of gravity

5 - 1 Dimensional drawing with standard panel

FCQH71D8



Nr	Name	Description
1	Liquid pipe connection	ø 9.52 flare connection
2	Gas pipe connection	ø 15.90 flare connection
3	Drain pipe connection	VP25 (O.D. ø32, I.D. ø25)
4	Power supply connection	
5	Transmission wiring connection	
6	Air discharge opening	
7	Air suction grill	
8	Corner decoration cover	
9	Drain house	O.D. ø32 I.D. ø26

NOTES

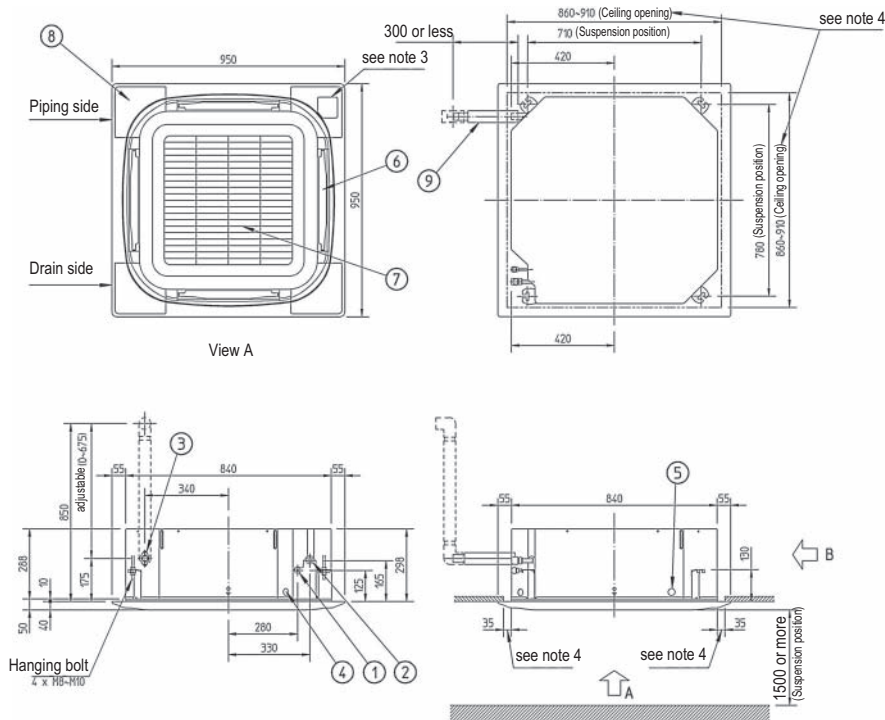
- Location of the nameplates:
 - Unit body: on the control box cover.
 - Decoration panel: on the panel frame at the motor side under the cover
- When installing an optional accessory, refer to the installation
 - For the fresh air intake kit ... an inspection port is necessary

- In case of using a Infrared remote control, this position will be a signal receiver. Refer to the drawing of the infrared remote control for more detail
- Make sure the spacing between the ceiling and the cassette is no more than 35 mm. Max ceiling opening: 910 mm.
- 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.)

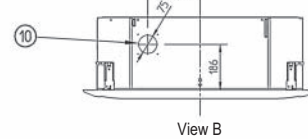
(*) In case a discharge opening is closed with the 'sealing member' option, the distance of 1500 mm can be reduced to 500 mm on the closed side.

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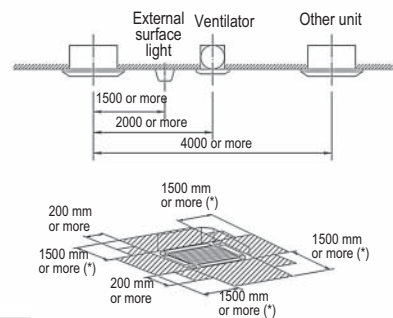
FCQH100-140D8



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

- Location of the nameplates - Unit body: on the control box - Decoration panel: on the panel frame at the motor side under the corner cover
- When installing an optional accessory, refer to the installation drawings
 For the fresh air intake kit an inspection port is necessary
- In case of using a wireless remote control, this position will be a signal receiver. Refer to the drawing of the wireless remote control for more detail.
- Make sure the spacing between the ceiling and the cassette is no more than 35mm. Max ceiling opening: 910mm.
- 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 10mm or more).

3TW28914-1C

5 Dimensional drawing & centre of gravity

5 - 2 Dimensional drawing with auto cleaning panel

FCQH71D8VEB

VIEW A

VIEW B

Nr	Name	Description
1	Liquid pipe connection	Ø9.5 flare connection
2	Gas pipe connection	Ø15.90 flare connection
3	Drain pipe connection	VP25 (O.D.Ø32, I.D. Ø25)
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	O.D.Ø32, I.D. Ø26
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.

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

NOTES

- Location of the nameplates:
 - Unit body: on the control box.
 - Decoration panel: on the panel frame at the motor side under the corner cover
- When installing an optional accessory, refer to the installation drawings.
 - For the fresh air intake kit an inspection part is necessary
- Make sure the spacing between the ceiling and the cassette is no more than 35mm. Max. ceiling opening: 910mm
- When the conditions exceed 30°C and RH 80% in de ceiling or fresh air is included into the ceiling, an additional insulation is required (polyethylene foam, thickness 10mm or more).

3TW32524-1

FCQH100-140D8VEB

VIEW A

VIEW B

Nr	Name	Description
1	Liquid pipe connection	Ø9.52 flare connection
2	Gas pipe connection	Ø15.90 flare connection
3	Drain pipe connection	VP25 (O.D.Ø32, I.D. Ø25)
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	O.D.Ø32, I.D. Ø26
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.

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

NOTES

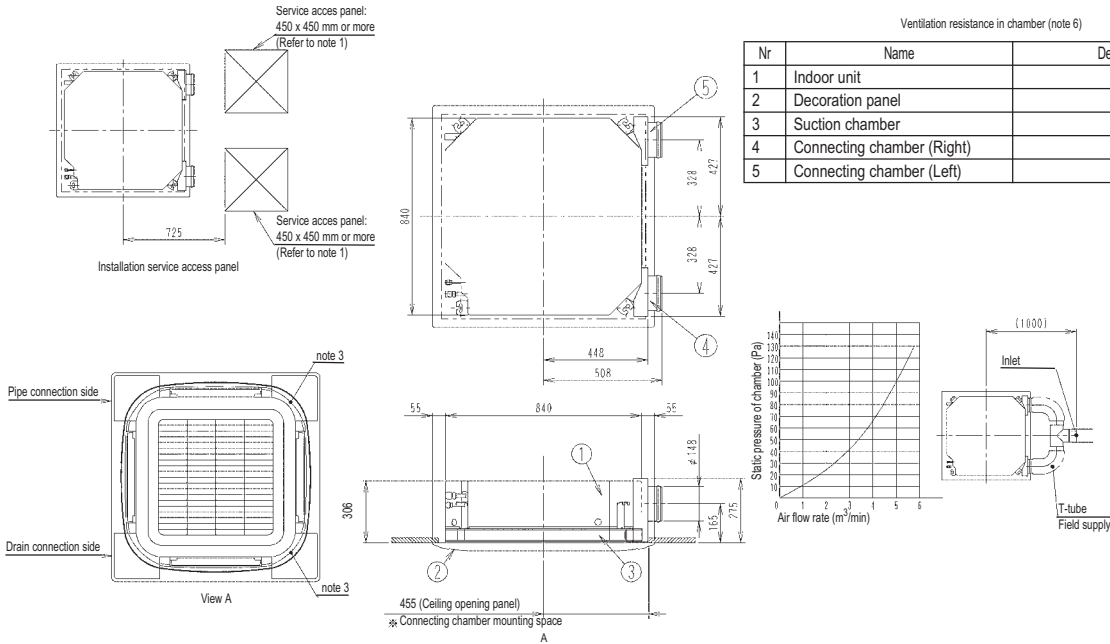
- Location of the nameplates:
 - Unit body: on the control box.
 - Decoration panel: on the panel frame at the motor side under the corner cover
- When installing an optional accessory, refer to the installation drawings.
 - For the fresh air intake kit an inspection part is necessary
- Make sure the spacing between the ceiling and the cassette is no more than 35mm. Max. ceiling opening: 910mm
- When the conditions exceed 30°C and RH 80% in de ceiling or fresh air is included into the ceiling, an additional insulation is required (polyethylene foam, thickness 10mm or more).

3TW32544-1

5 Dimensional drawing & centre of gravity

5 - 3 Dimensional drawing with accessoires

FCQH71D8



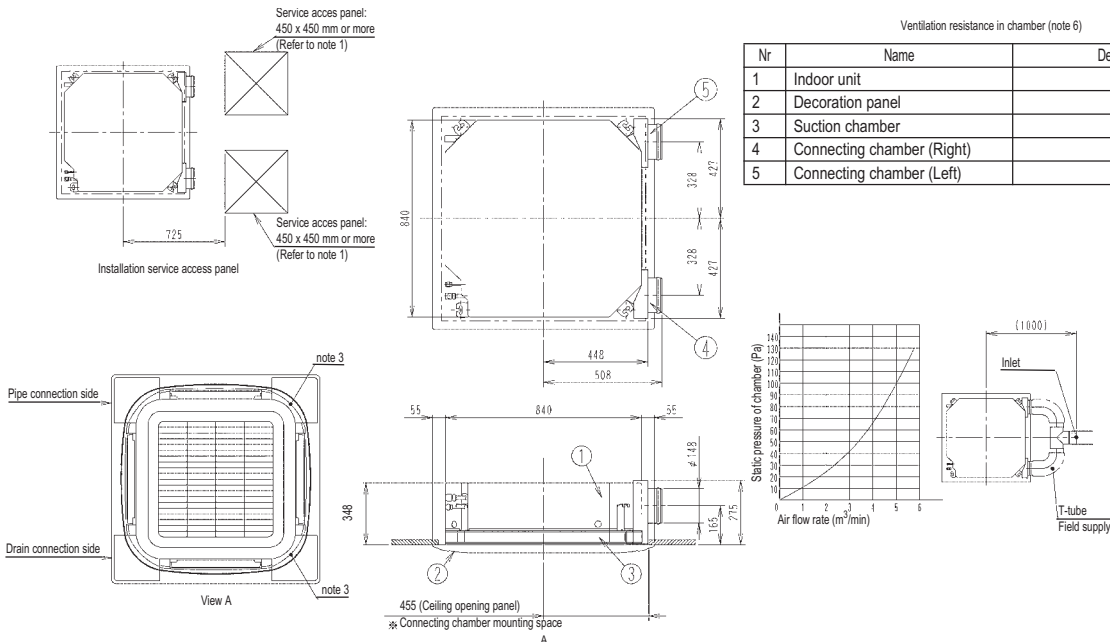
NOTES

(*) 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

FCQH100,125,140D8



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.

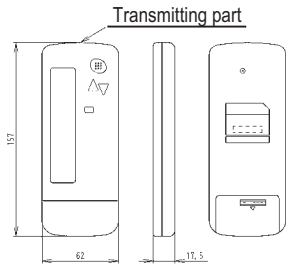
3D057032

5 Dimensional drawing & centre of gravity

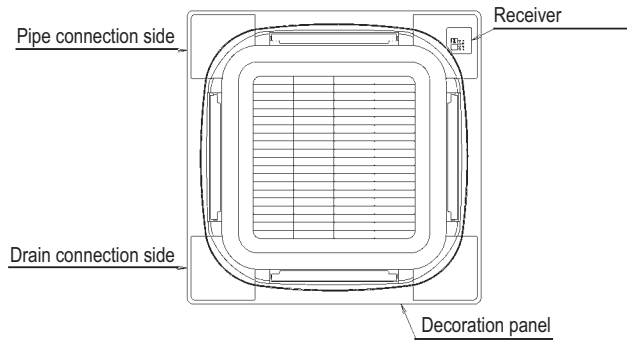
5 - 4 Dimensional Drawing

FCQH71-140D8

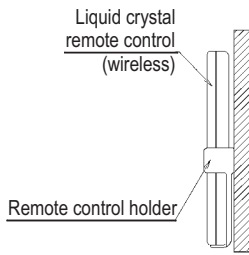
Remote control dimensions



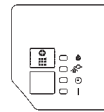
Receiver installation procedure



Remote controller holder installation procedure (installation to wall surface)



Receiver detail



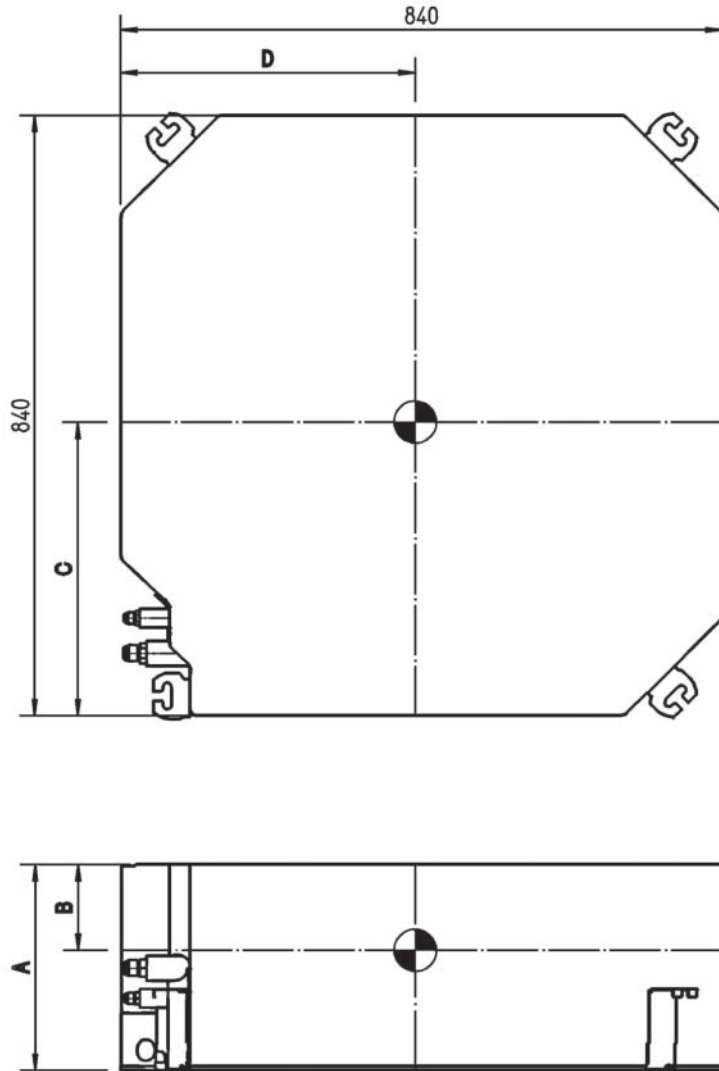
Wireless remote control kit for each decoration panel

Wireless remote control kit	Decoration panel
BRC7F532F BRC7F533F	BYCQ140CW1

5 Dimensional drawing & centre of gravity

5 - 5 Centre of gravity

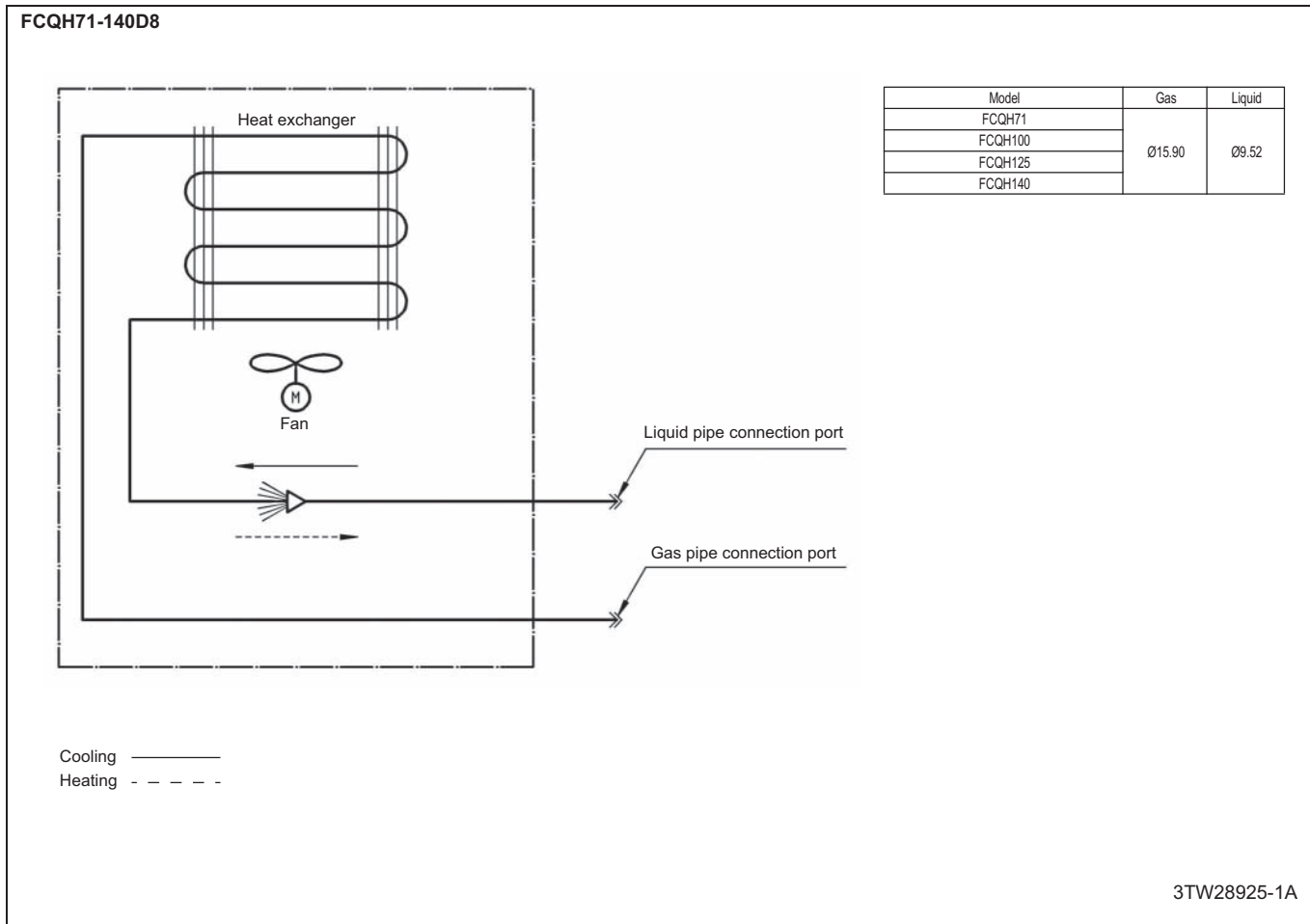
FCQH71-140D8



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

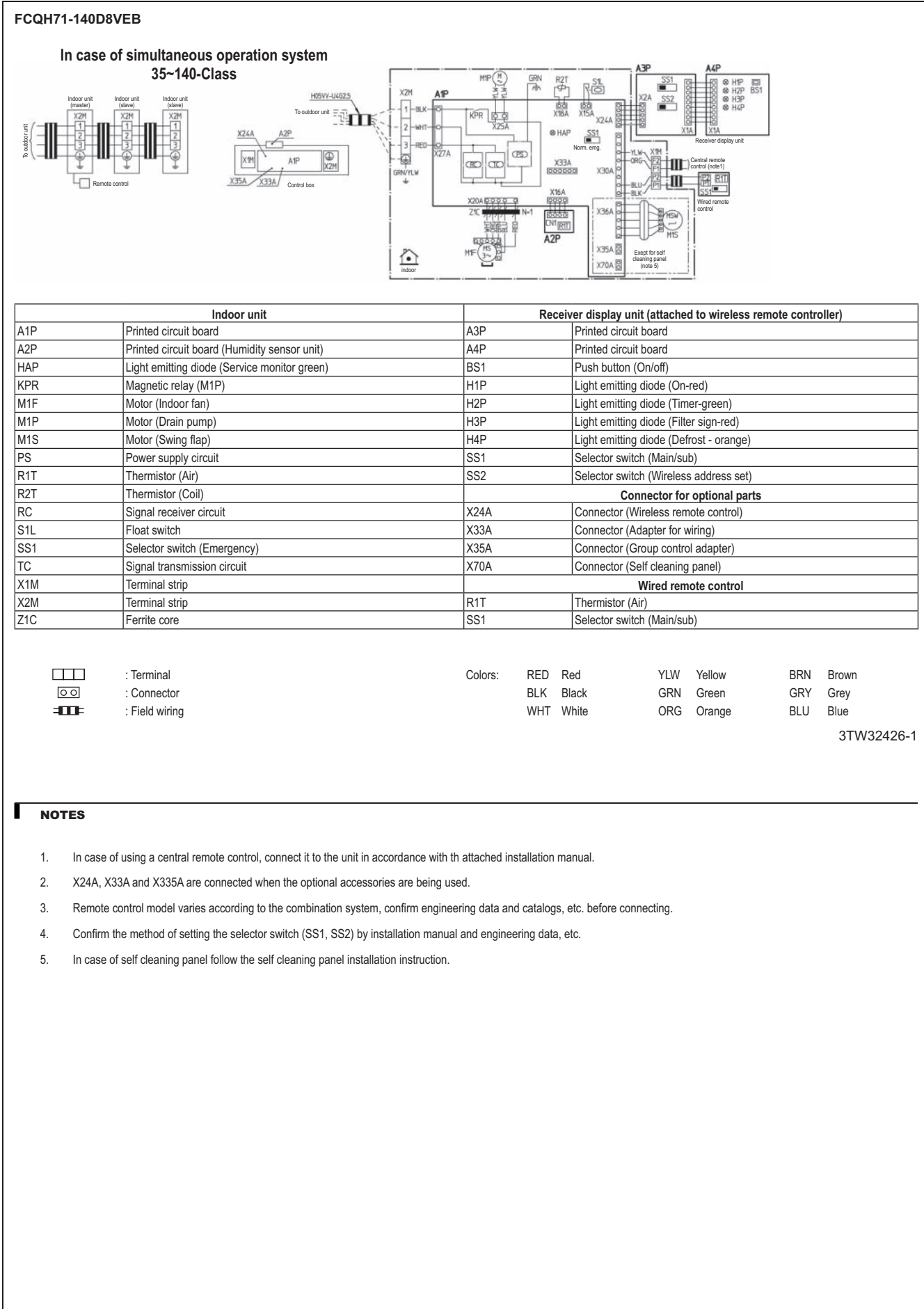
4TW28839-2

6 Piping diagram



7 Wiring diagram

7 - 1 Wiring diagram

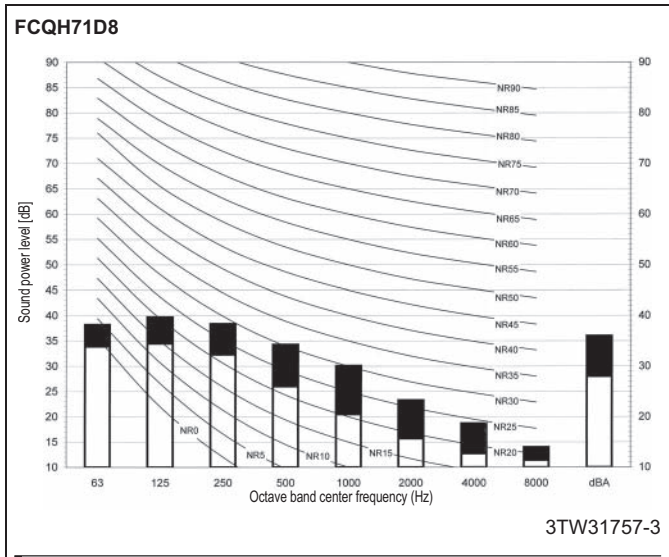


NOTES

1. In case of using a central remote control, connect it to the unit in accordance with the attached installation manual.
2. X24A, X33A and X335A 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.
5. In case of self cleaning panel follow the self cleaning panel installation instruction.

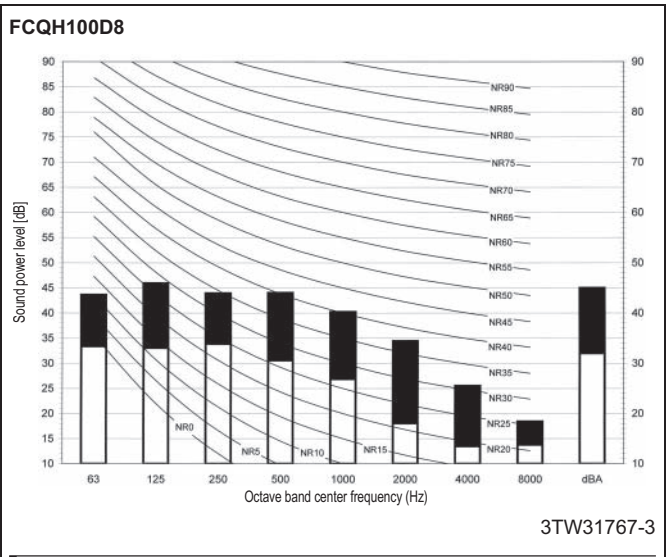
8 Sound data

8 - 1 Sound pressure spectrum



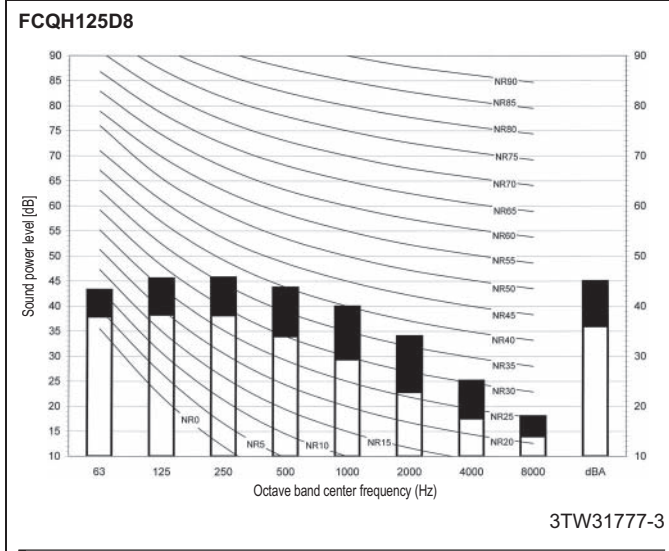
NOTES

- 1 High-tap (black bar), Low-tap (white bar)
- 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



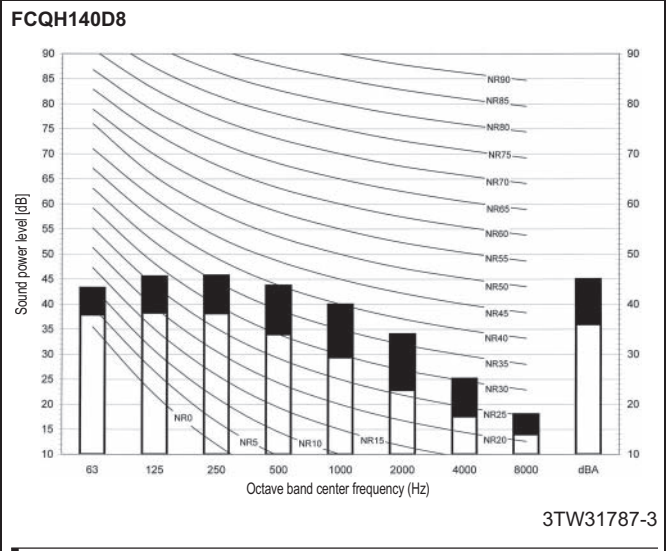
NOTES

- 1 High-tap (black bar), Low-tap (white bar)
- 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



NOTES

- 1 High-tap (black bar), Low-tap (white bar)
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- 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

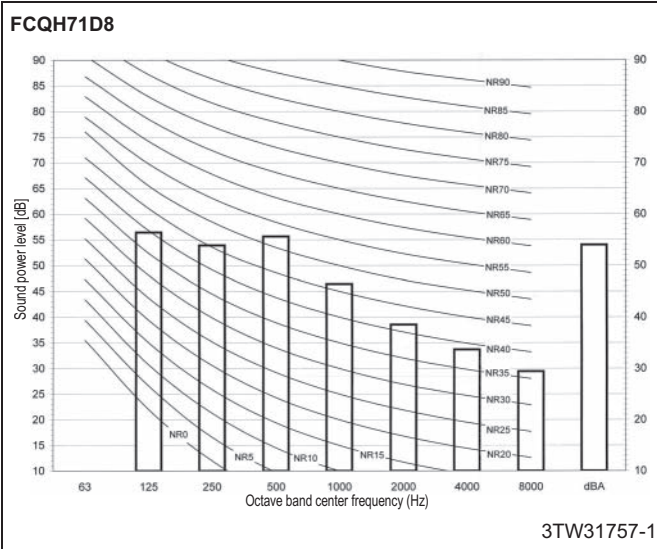


NOTES

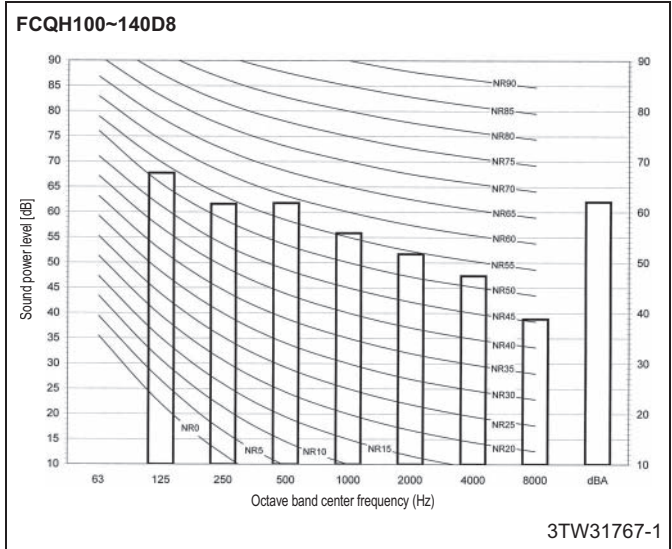
- 1 High-tap (black bar), Low-tap (white bar)
- 2 Data is valid at free field condition
- 3 Data is valid at nominal operation condition
- 4 dBA = A-weighted sound power level. (A-scale according to IEC)
- 5 Reference acoustic intensity 0dB = 20μPa

8 Sound data

8 - 2 Sound power spectrum



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



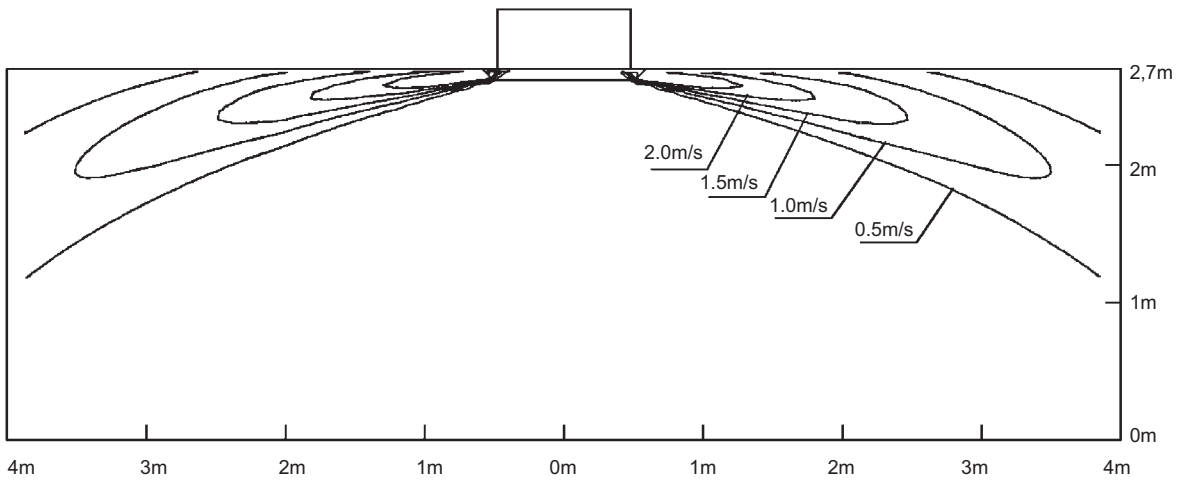
- NOTES**
- 1 High-tap
 - 2 dBA = A-weighted sound power level. (A-scale according to IEC)
 - 3 Reference acoustic intensity 0dB = $10E-6\mu W/m^2$
 - 4 Measured according to ISO 3744

9 Air flow pattern

FCQH71D8

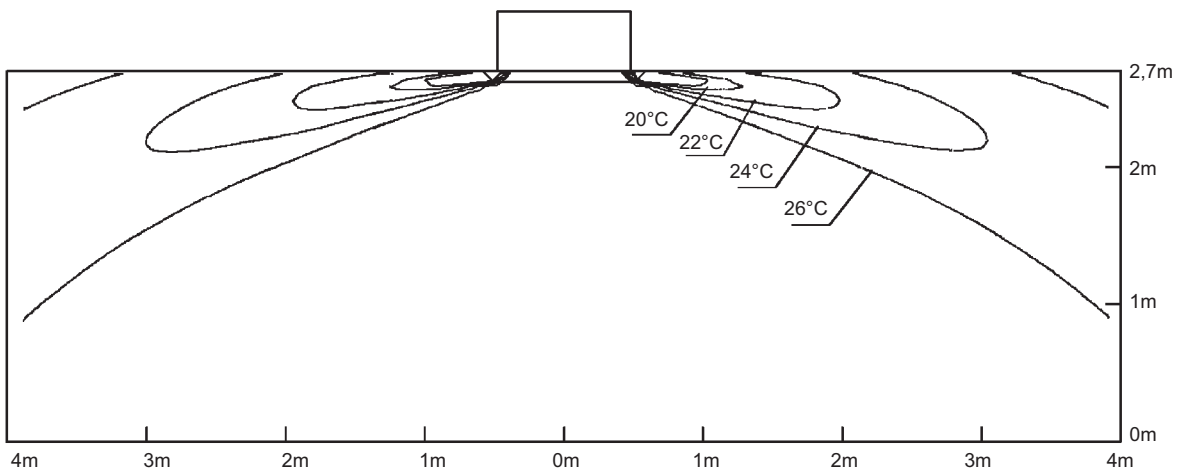
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

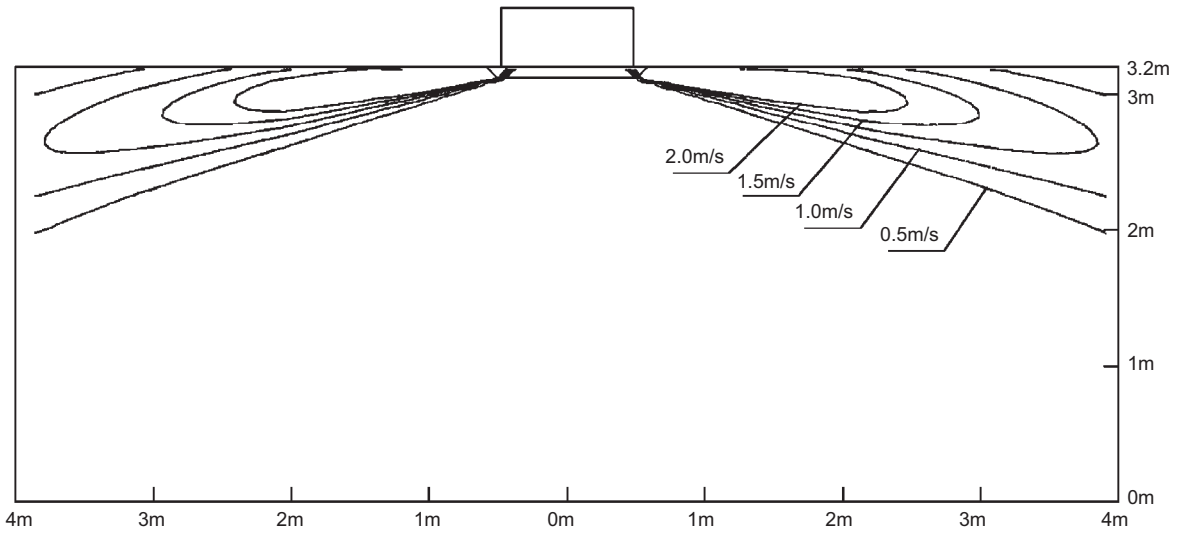


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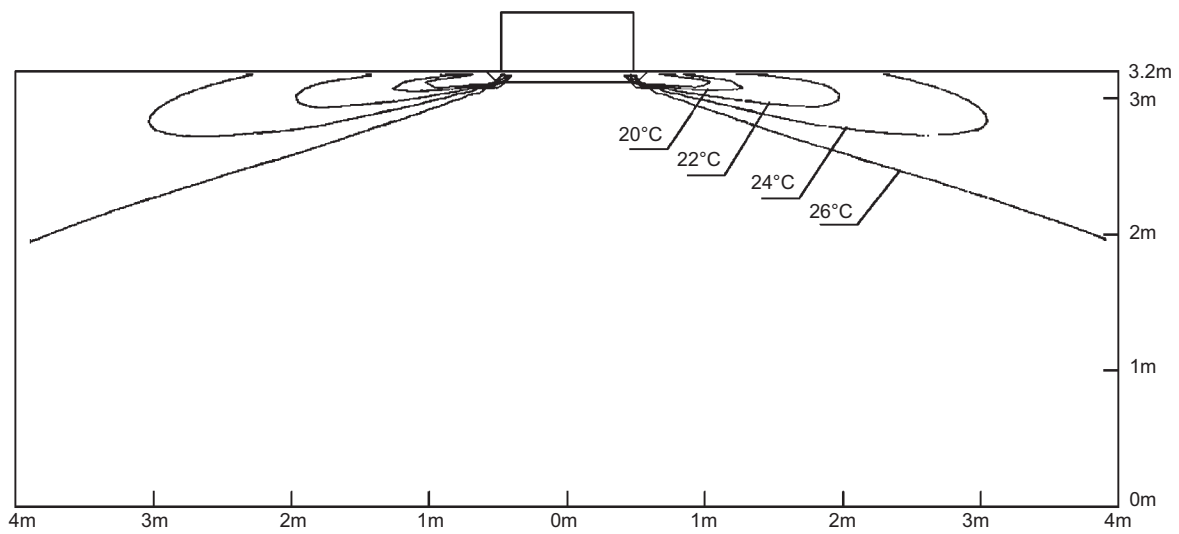
9 Air flow pattern

FCQH100D8

Cooling air velocity distribution
 All round air discharge, air flow direction: horizontal



Cooling air temperature distribution
 All round air discharge, air flow direction: horizontal



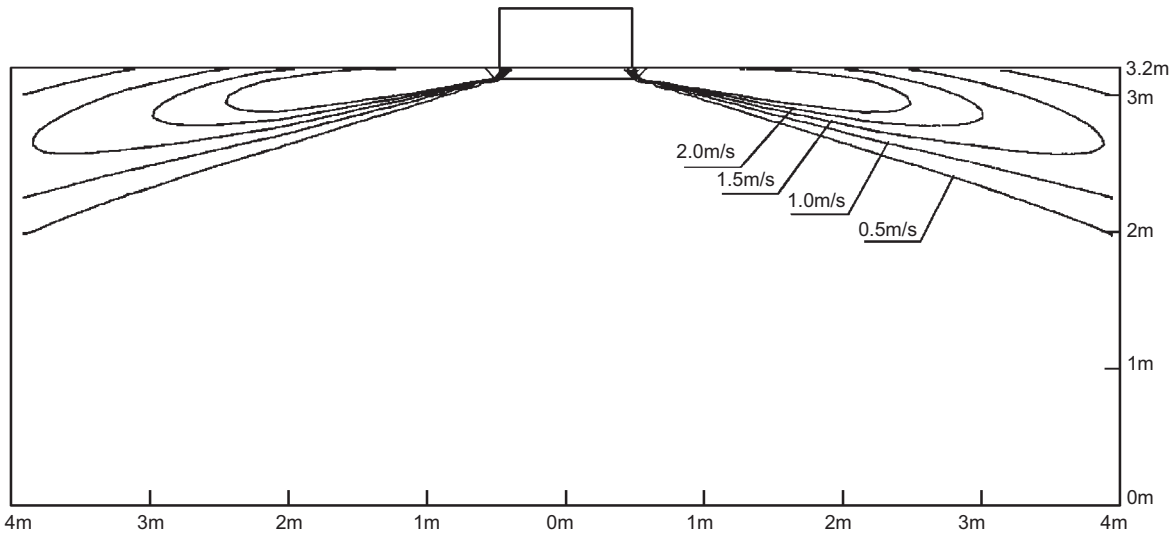
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9 Air flow pattern

FCQH125D8

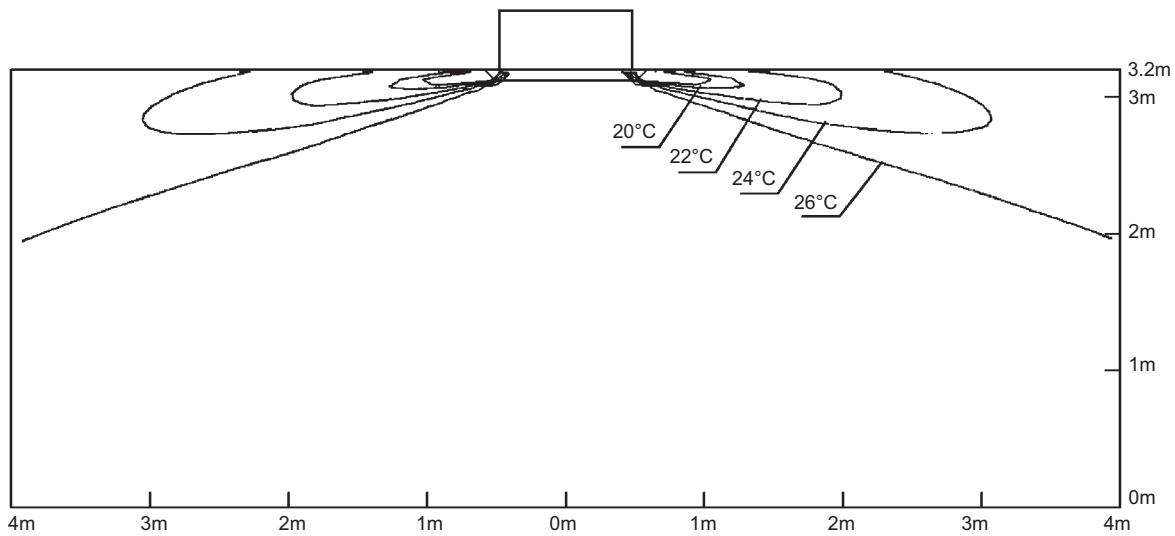
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



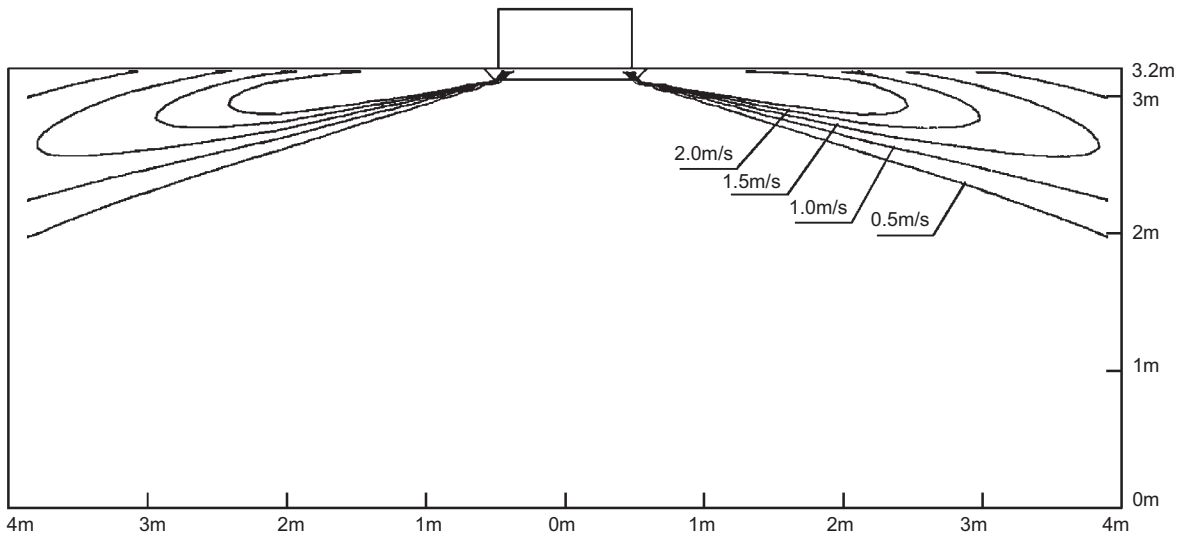
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9 Air flow pattern

FCQH140D8

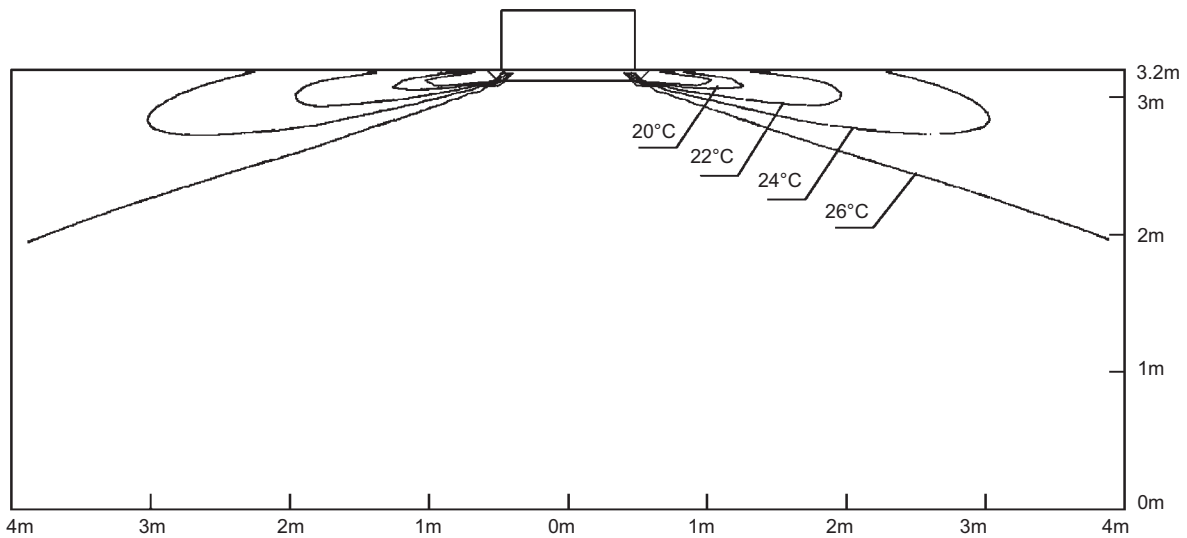
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



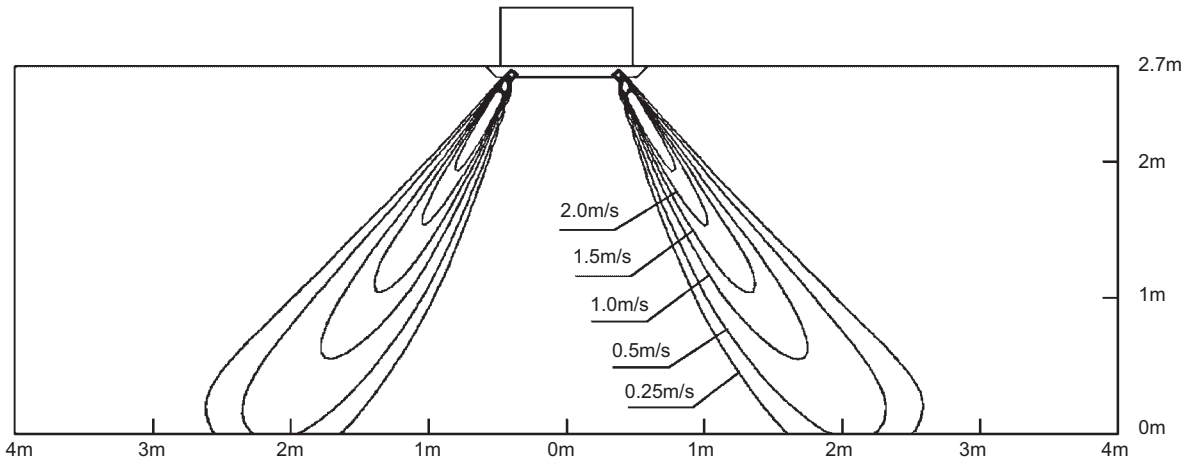
4D057219

9 Air flow pattern

FCQH71D8

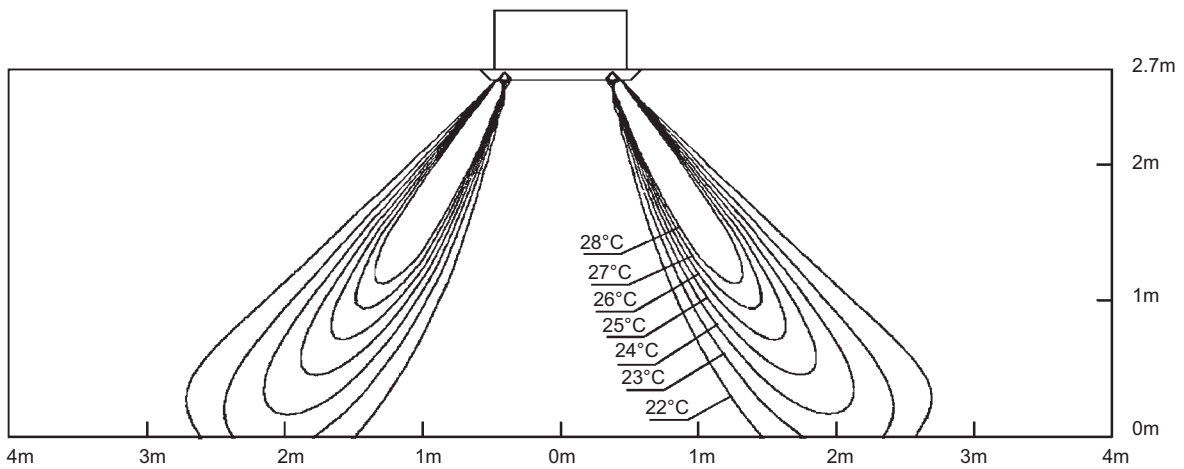
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal

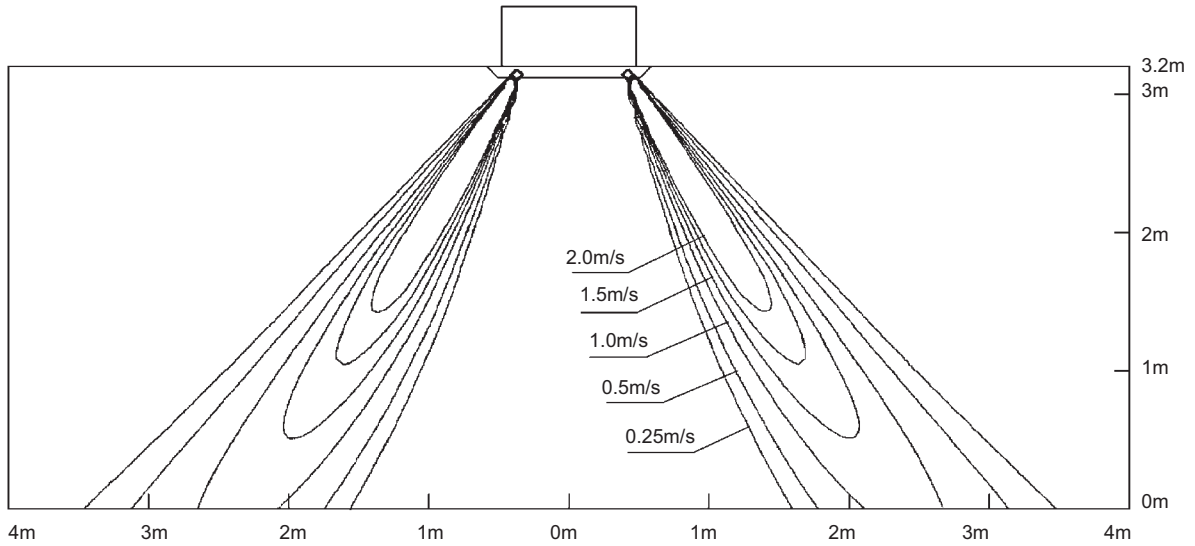


4D057212

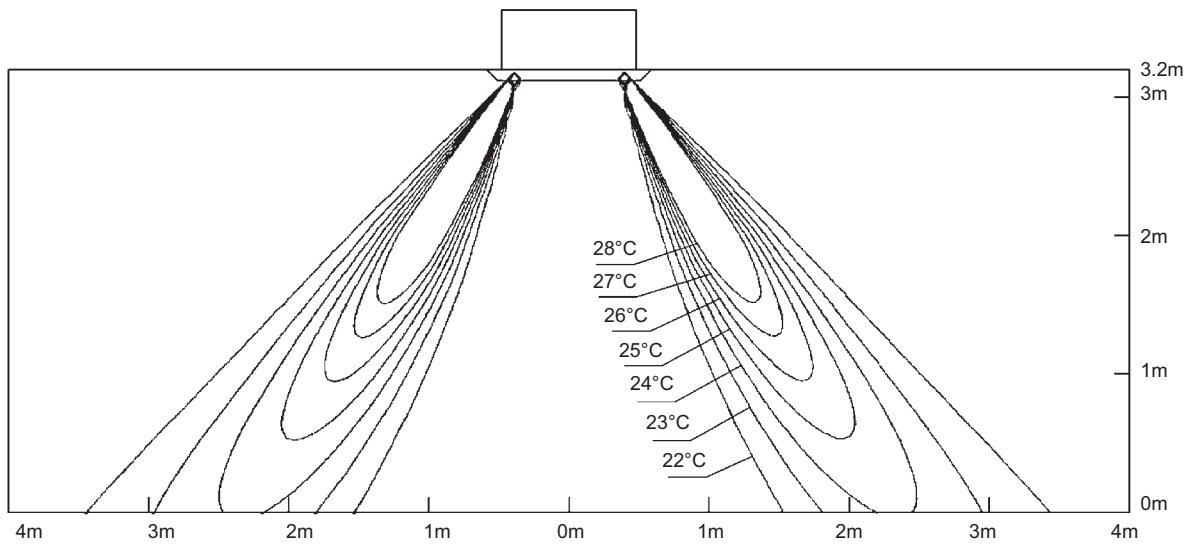
9 Air flow pattern

FCQH100D8

Heating air velocity distribution
 All round air discharge, air flow direction: horizontal



Heating air temperature distribution
 All round air discharge, air flow direction: horizontal



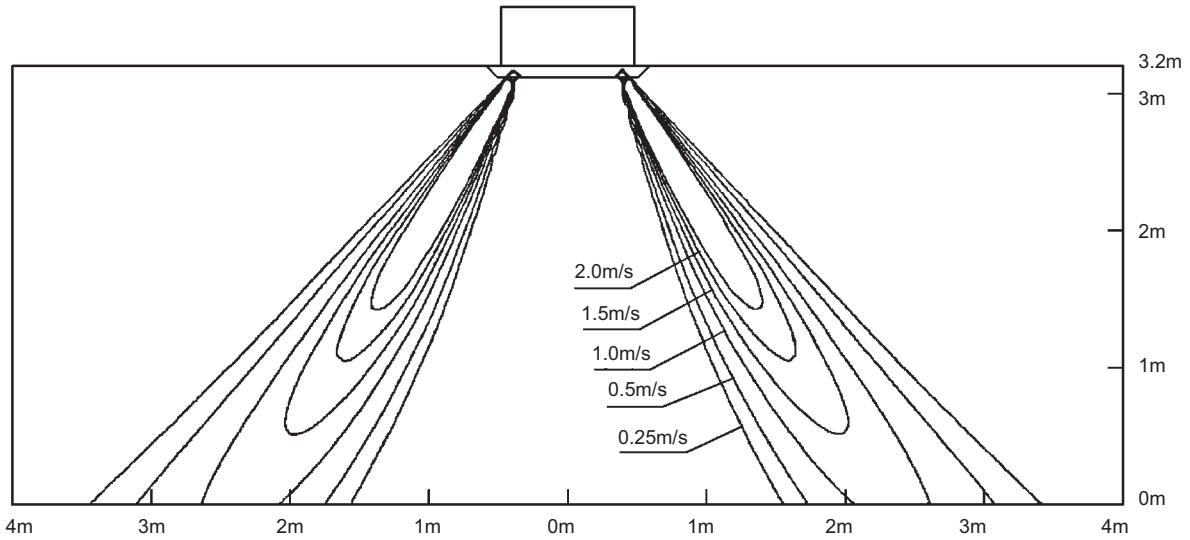
4D057214

9 Air flow pattern

FCQH125D8

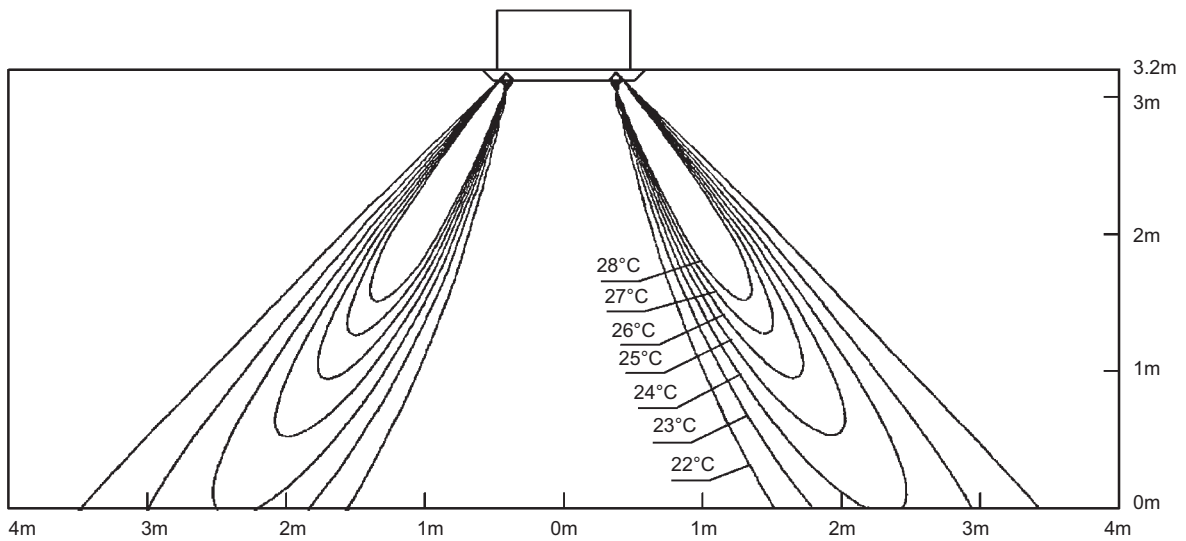
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal

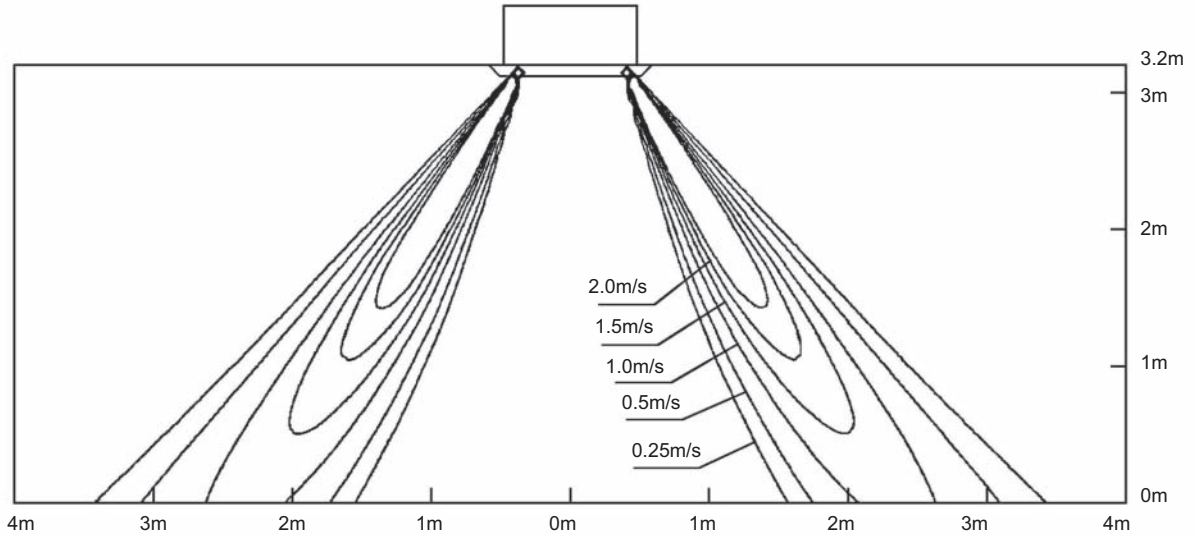


4D057216

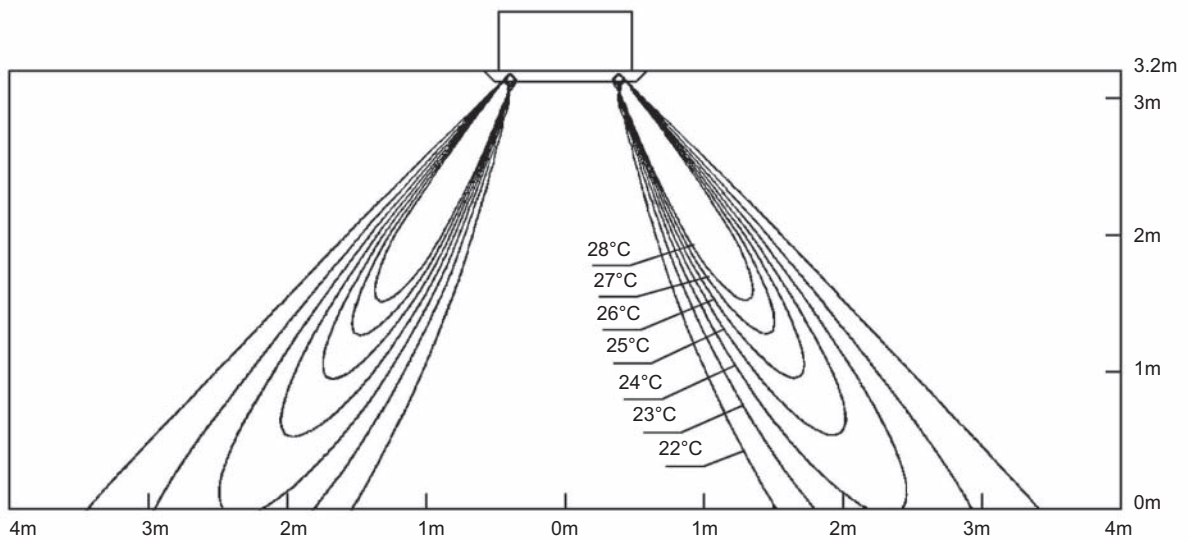
9 Air flow pattern

FCQH140D8

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.

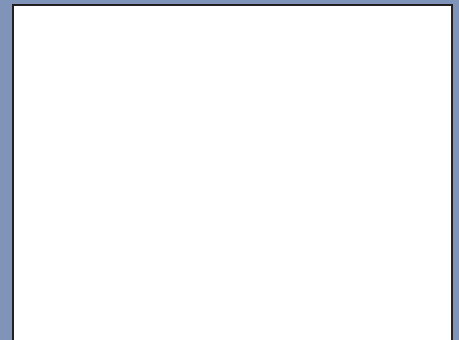


Daikin units comply with the European regulations that guarantee the safety of the product.



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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