



technical data

FMCQ-A7VEB

air conditioning systems

R-410A



technical data

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R-410A

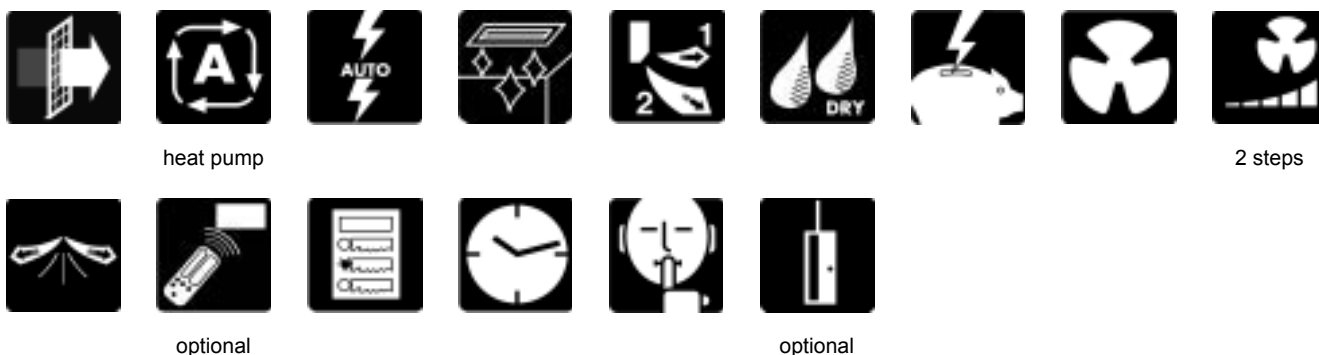
TABLE OF CONTENTS

FMCQ-A7VEB

1	Features	2
2	Specifications	3
	For indoor units only	3
	Technical Specifications	3
	Electrical Specifications	4
3	Electrical data	5
4	Safety device settings	6
5	Options	7
6	Control systems	8
7	Dimensional drawing & centre of gravity	9
	Dimensional drawing	9
	Centre of gravity	11
8	Piping diagram	12
9	Wiring diagram	13
	Wiring diagram	13
10	Sound data	14
	Sound pressure spectrum	14
	Sound power spectrum	16
11	Air flow pattern	18

1 Features

- Modern style decoration panel is available in 2 different variations: white (RAL9010) with grey louvers and full white (RAL9010) including white louvers
- 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
- Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- 23 different air flow patterns possible
- Fresh air intake: up to 20 %
- Easy visible drain check thanks to clear drain socket
- Drain-up pump with 850mm lift fitted as standard



2 Specifications

2-1 FOR INDOOR UNITS ONLY				FMCQ50A7VEB	FMCQ60A7VEB	FMCQ71A7VEB	FMCQ100A7VEB	FMCQ125A7VEB
Nominal input (Indoor only)	Cooling		kW	5.0	6.0	7.1	10.0	12.5
	Heating		kW	5.6	6.7	8.0	11.2	14.0

2-2 TECHNICAL SPECIFICATIONS				FMCQ50A7VEB	FMCQ60A7VEB	FMCQ71A7VEB	FMCQ100A7VEB	FMCQ125A7VEB
Casing	Material			Galvanised steel plate				
Dimensions	Packing	Height	mm	220	220	262	262	304
		Width	mm	882	882	882	882	882
		Depth	mm	882	882	882	882	882
	Unit	Height	mm	204	204	246	246	288
		Width	mm	840	840	840	840	840
		Depth	mm	840	840	840	840	840
Weight	Unit		kg	21	21	24	24	26
	Packed Unit		kg	26	26	28	28	31
Heat Exchanger	Dimensions	Length	mm	inside: 2096, outside: 2152				
		Nr of Rows		2	2	2	2	2
		Fin Pitch	mm	1.2	1.2	1.2	1.2	1.2
		Nr of Passes		7	7	9	9	11
		Face Area	m²	0.357	0.357	0.446	0.446	0.535
		Nr of Stages		8	8	10	10	12
	Tube type			Cross fin coil (multi louver fins and Hi-XSS tubes)				
	Fan	Type			Turbo fan			
Quantity			1	1	1	1	1	
Air Flow Rate	Cooling	High	m³/min	15.5	16.5	23.5	26.5	33.0
		Low	m³/min	10.0	11.0	14.5	17.0	20.0
	Heating	High	m³/min	15.0	17.5	23.5	28.0	33.0
		Low	m³/min	9.5	12.0	14.5	17.5	20.0
Fan	Motor	Model		QTS48D11M	QTS48D11M	QTS48C15M	QTS48C15M	QTS48C15M
		Number of steps		2	2	2	2	2
		Output (high)	W	56	56	120	120	120
Cooling	Sound Power	High	dBA	51	52	55	58	61
	Sound Pressure	High	dBA	33	34	38	41	44
		Low	dBA	28	29	32	33	34
Heating	Sound Pressure	High	dBA	33	36	38	42	44
		Low	dBA	28	30	32	34	34
Sound level	Sound Absorbing Insulation			foamed polyurethane				
Refrigerant	Type			R-410A				
Piping connections	Liquid (OD)	Type		Flare connection				
		Diameter (OD)	mm	6.4	9.52	9.52	9.52	9.52
	Gas	Type		Flare connection				
		Diameter (OD)	mm	12.7	15.9	15.9	15.9	15.9
	Drain	Diameter (OD)		VP25 (O.D. 32 / I.D. 25)				
	Heat Insulation			Foamed polystyrene/foamed polyethylene				
Decoration Panel	Model			BYCQ140CW1 / BYCQ140CW1W				
	Colour			Pure White(RAL 9010)				
	Dimensions	H	mm	50	50	50	50	50
		W	mm	950	950	950	950	950
		D	mm	950	950	950	950	950
	Weight		kg	5.5	5.5	5.5	5.5	5.5
Air Filter			Resin net with mold resistance					

2 Specifications

2-2 TECHNICAL SPECIFICATIONS		FMCQ50A7VEB	FMCQ60A7VEB	FMCQ71A7VEB	FMCQ100A7VEB	FMCQ125A7VEB
Standard Accessories	Item	Operation manual				
	Quantity	1	1	1	1	1
	Item	Installation manual				
	Quantity	1	1	1	1	1
	Item	Drain hose				
		Clamp for drain hose				
		Washer for hanging bracket				
		Screws				
		Installation guide				
		Insulation for fitting				
		Sealing pads				
		Drain sealing pad				
Notes	The sound pressure values are mentioned for a unit installed with rear suction					
	The sound power level is an absolute value indicating the power which a sound source generates.					
	Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 5m, level difference : 0m.					
	Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 5m, level difference : 0m					
	Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.					
	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.					

2-3 ELECTRICAL SPECIFICATIONS			FMCQ50A7VEB	FMCQ60A7VEB	FMCQ71A7VEB	FMCQ100A7VEB	FMCQ125A7VEB
Power Supply	Name	VE					
	Phase	1~					
	Frequency	Hz	50/60				
	Voltage	V	220-240/220				

3 Electrical data

FMCQ-A

Units					Power supply		IFM		Input	
Model	Type	Hz	Voltage range	Voltage limits	MCA	MFA	kW	FLA	Cooling	Heating
FMCQ50A7VEB	VE	50	220-240	Max. 264 Min. 198	0.6	16	0.056	0.5	83	67
FMCQ60A7VEB					0.9	16	0.056	0.7	95	114
FMCQ71A7VEB					0.9	16	0.120	0.7	120	108
FMCQ100A7VEB					1.4	16	0.120	1.1	173	176
FMCQ125A7VEB					1.9	16	0.120	1.5	258	246
FMCQ50A7VEB	VE	50	220-240	Max. 264 Min. 198	0.6	16	0.056	0.5	82	67
FMCQ60A7VEB					0.9	16	0.056	0.7	94	114
FMCQ71A7VEB					0.9	16	0.12	0.7	119	108
FMCQ100A7VEB					1.4	16	0.12	1.1	172	176
FMCQ125A7VEB					1.9	16	0.12	1.5	257	246

Symbols:

MCA: Min. Circuit Amps (A);
MFA: Max. Fuse Amps (A) (see note 5);
kW: Fan Motor Rated Output (kW);
FLA: Full Load Amps (A);
IFM: Indoor Fan Motor

NOTES

- 1 Voltage limits
The units are suitable for use on electrical systems where the voltage supplied to the unit terminals is not below or above listed range limits.
- 2 The maximum allowable voltage variation between phases is 2%.
- 3 MCA/MFA
 $MCA = 12.5 \times FLA$
 $MFA < 4 \times FLA$
(next lower standard fuse rating min 16A)
- 4 Select a wire size based on the MCA.
- 5 Instead of a fuse, use a circuit breaker.

4TW313161-2

4 Safety device settings

FMCQ-A

SAFETY DEVICES		50	60	71	100	125
PC board fuse		250V 5A	250V 5A	250V 5A	250V 5A	250V 5A
FMCQ	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

3TW313161-2

5 Options

FMCQ50-125A

Options

	Item	Model	FMCQ50	FMCQ60	FMCQ71	FMCQ100	FMCQ125
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	FMCQ50	FMCQ60	FMCQ71	FMCQ100	FMCQ125
1	Remote control	Wireless			BRC7F532F		
					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		

3TW31369-1A

NOTES

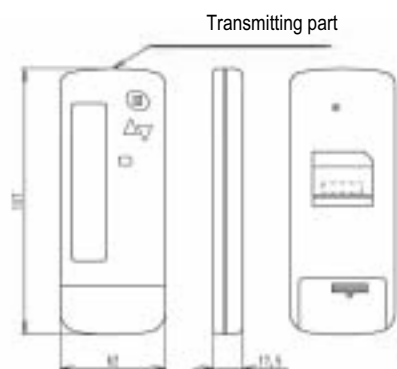
- 1 Installation box is necessary for these adapters.
- 2 All options are supplied as kit
- 3 The BYCQ140CW1W has white insulations.

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.

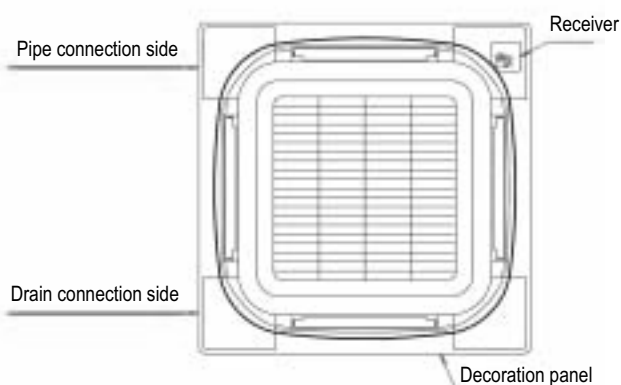
6 Control systems

FMCQ50-125A

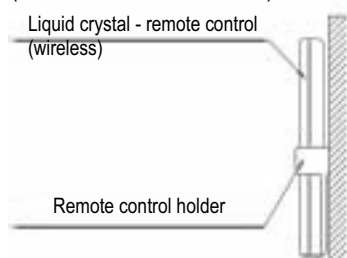
Remote control dimensions



Receiver installation procedure



Remote control holder installation procedure (installation to wall surface)



Receiver detail



Wireless remote control kit for each decoration panel

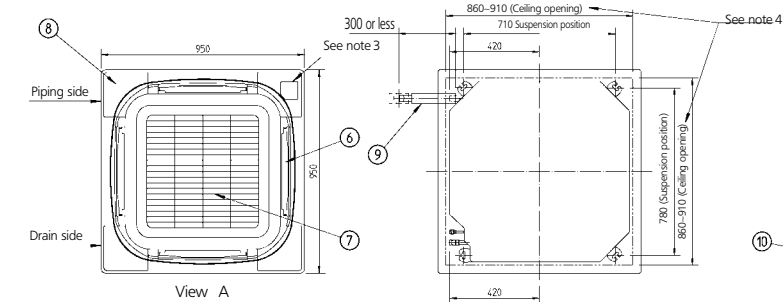
Wireless remote control kit	Decoration panel
BRC7F532F BRC7F533F	BYCQ140CW1

3D056851

7 Dimensional drawing & centre of gravity

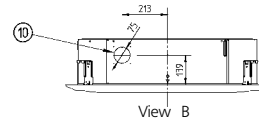
7 - 1 Dimensional drawing

FMCQ50-60

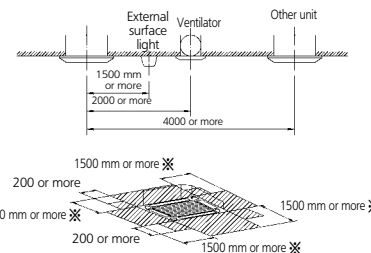


- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose I.D. ϕ 25, I.D. ϕ 26
- 10 Knock out hole

Model	A	B
FMCQ50	6.35	12.7
FMCQ60	9.52	15.9



6. Please respect the distances as shown on figure below

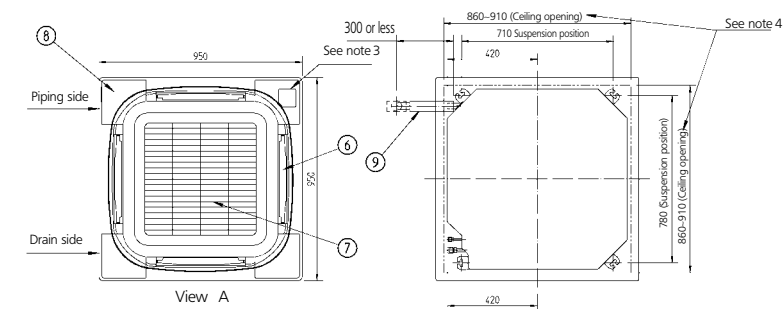


※ In case a discharge opening is closed with the 'sealing member' option, the distance of 1500 mm can be reduced to 500mm on the closed side.

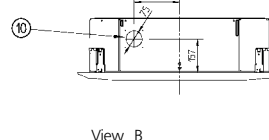
- Notes:**
1. Location of the nameplates:
- Unit body: on the control box cover
- Decoration panel: on the panel frame at the motor side under the corner cover
 2. When installing an optional accessory, refer to the installation drawings
- For fresh air intake kit an inspection port is necessary
 3.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

3TW31364-1

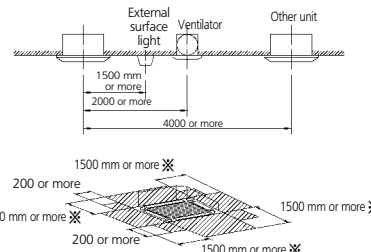
FMCQ71-100



- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 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 I.D. ϕ 25, I.D. ϕ 26
- 10 Knock out hole



6. 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 500mm on the closed side.

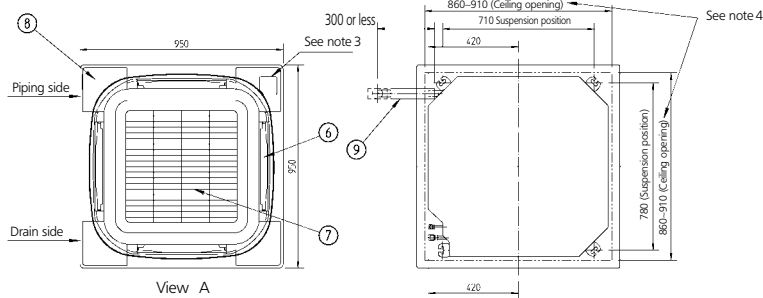
- Notes:**
1. Location of the nameplates:
- Unit body: on the control box cover
- Decoration panel: on the panel frame at the motor side under the corner cover
 2. When installing an optional accessory, refer to the installation drawings
- For fresh air intake kit an inspection port is necessary
 3.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

3TW31384-1

7 Dimensional drawing & centre of gravity

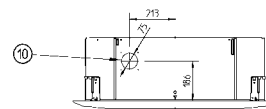
7 - 1 Dimensional drawing

FMCQ125A



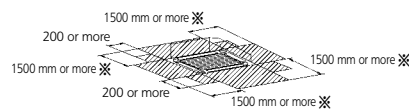
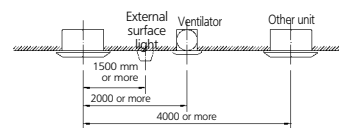
View A

- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 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 I.D. ϕ 25, I.D. ϕ 26
- 10 Knock out hole



View B

6. 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 500mm on the closed side.

Notes:

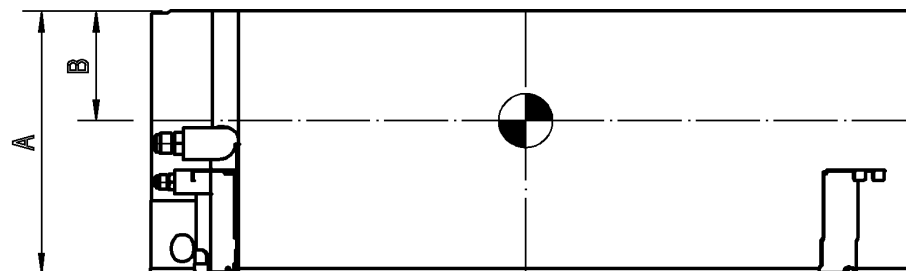
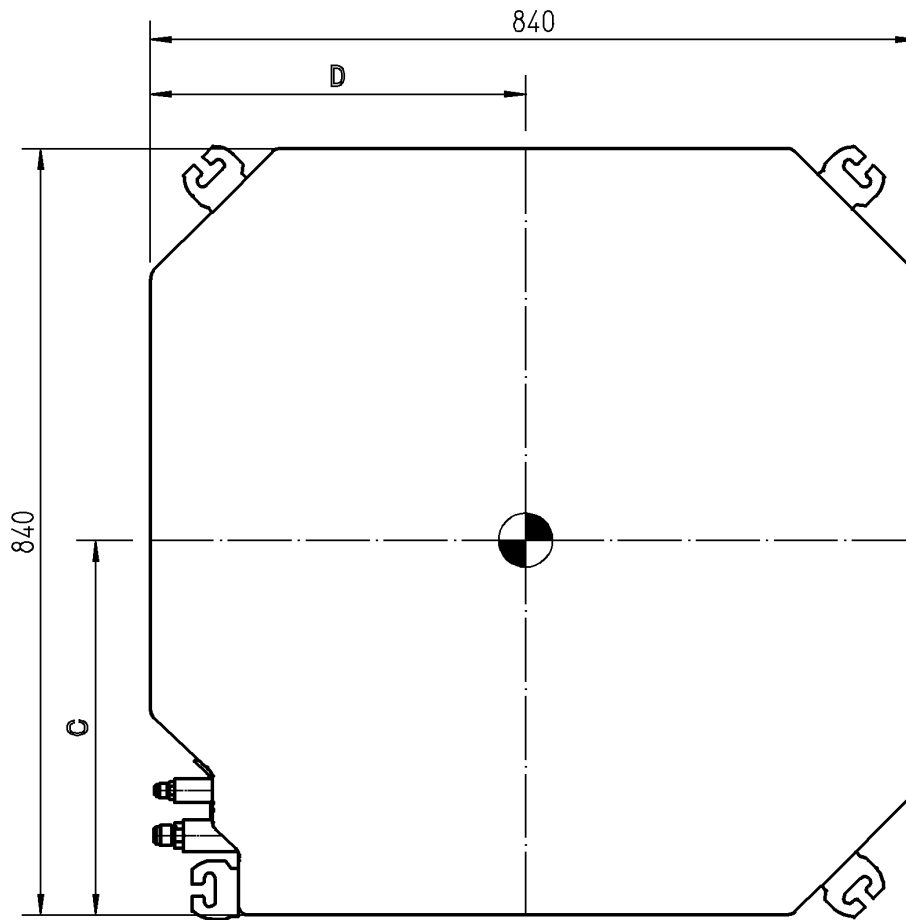
1. Location of the nameplates:
 - Unit body: on the control box cover
 - Decoration panel: on the panel frame at the motor side under the corner cover
2. When installing an optional accessory, refer to the installation drawings
 - For fresh air intake kit an inspection port is necessary
3. In case of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

3TW31404-1

7 Dimensional drawing & centre of gravity

7 - 2 Centre of gravity

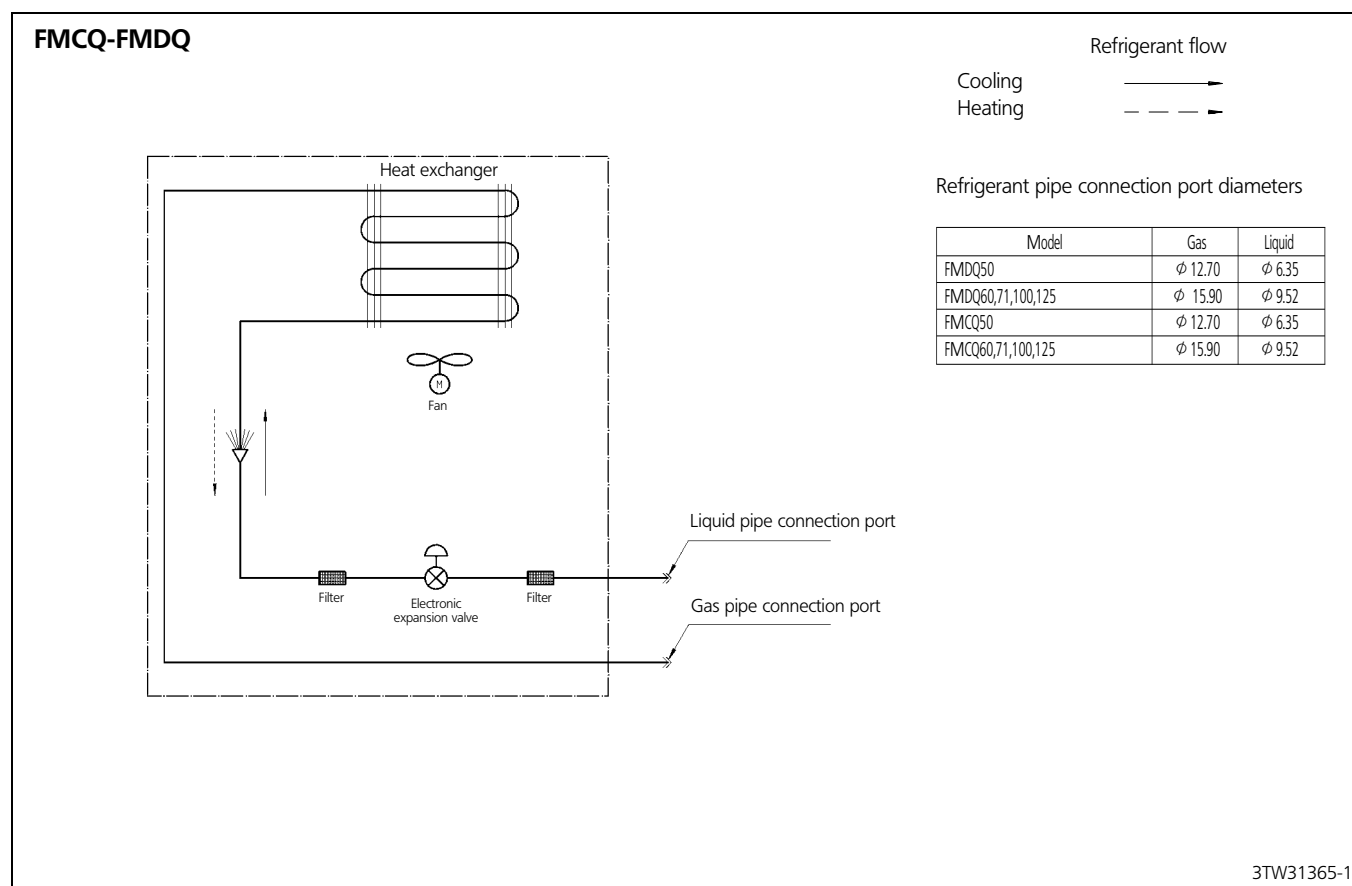
FMCQ-A



Models	A	B	C	D
FMCQ50,60	202	60	409	358
FMCQ71,100	246	90	411	411
FMCQ125	288	120	420	420

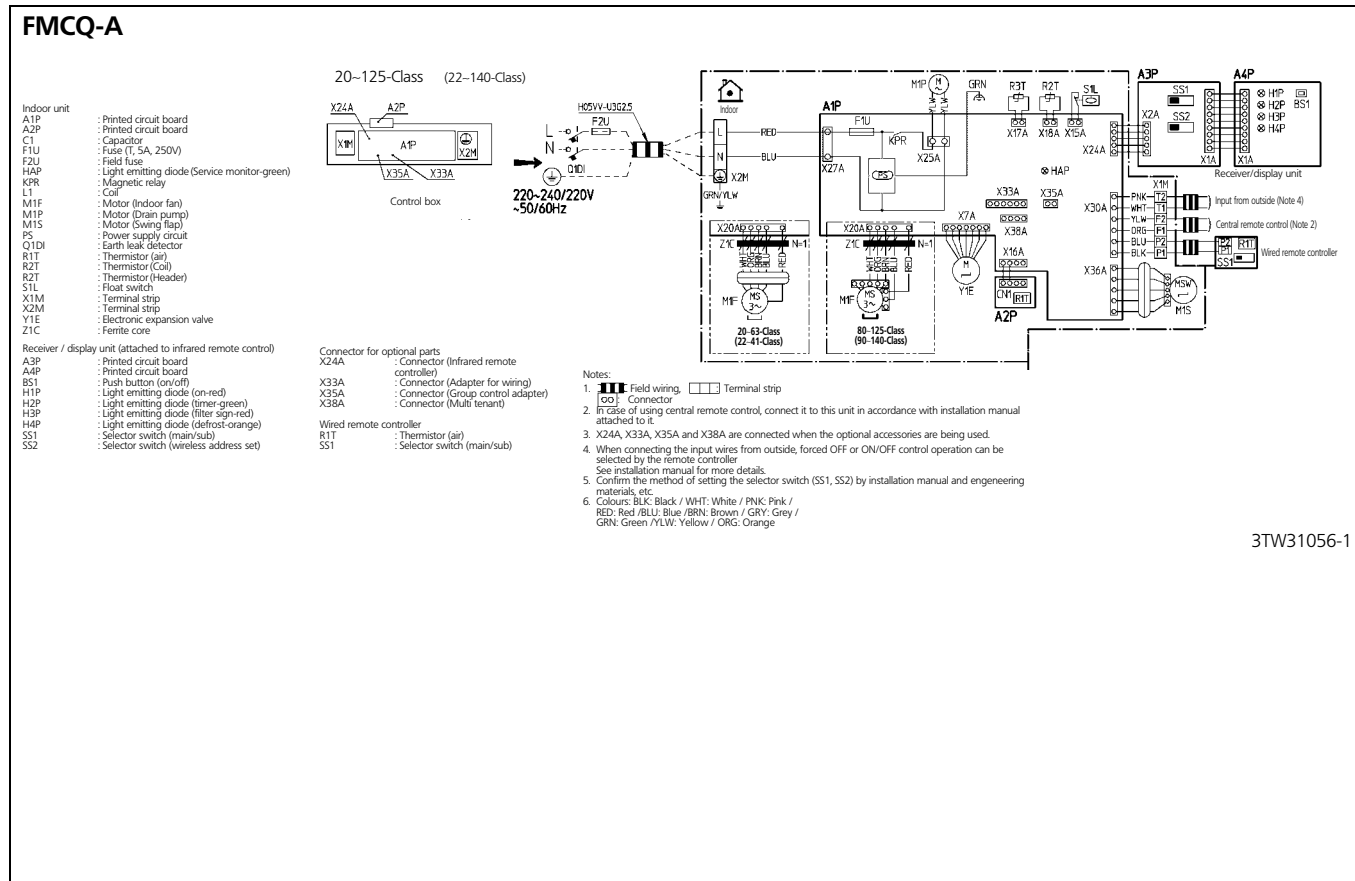
4TW31369-3

8 Piping diagram



9 Wiring diagram

9 - 1 Wiring diagram



10 Sound data

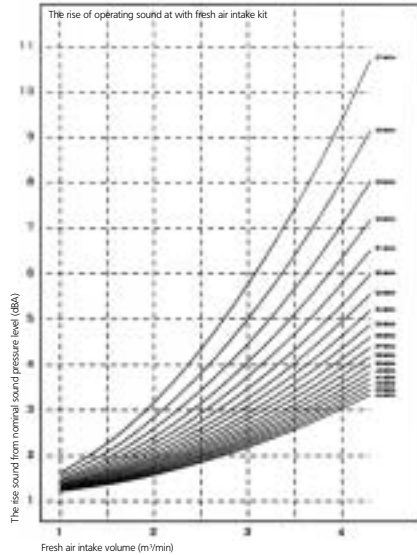
10 - 1 Sound pressure spectrum

FMCQ-A

Maximum fresh air intake volume table

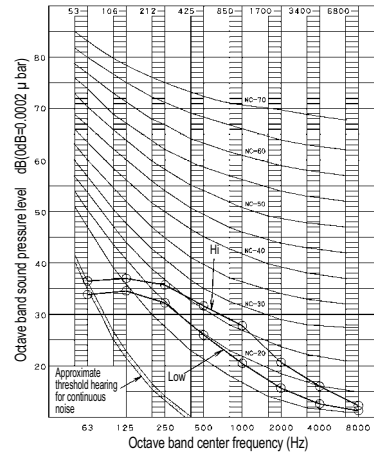
The maximum intake air flow volume is as shown in the table. If the intake air flow volume is too large, the operating sound may rise or detection of the indoor unit suction temperature may be affected.

FMCQ-A7VEB	50	60	71	100	125
Max fresh air intake volume (m ³ /min)	3.1	3.5		4.2	



4TW31367-3

FMCQ50A



4D056871

Over All (dB):

(B, G, N is already rectified)

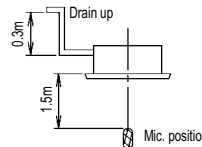
Operating conditions:

- Power source: 220-240V 50Hz/220V 60Hz
- Cooling: return air temperature: 27°C DB, 19°C WB - outdoor temperature: 35°C DB, 24°C WB
- Heating: return air temperature: 20°C DB, 15°C WB - outdoor temperature: 7°C DB, 6°C WB
- 4 direction discharge

Power level (dB): Hi 51

Measuring place: Anechoic chamber

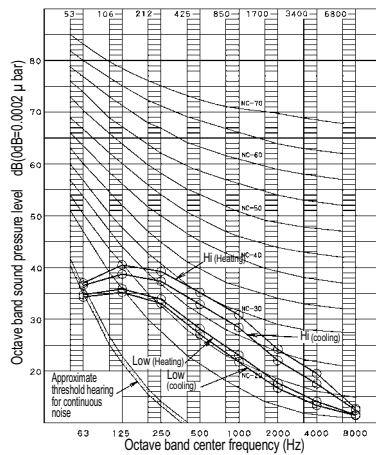
Location of microphone



Note: Operation noise differs with operation and ambient conditions.

Scale	Mode	
	Hi	Low
A	33.0	28.0
C	39.0	34.0

FMCQ60A



4D056872

Over All (dB):

(B, G, N is already rectified)

Operating conditions:

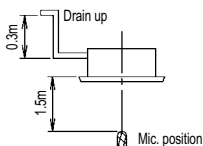
- Power source: 220-240V 50Hz/220V 60Hz
- Cooling: return air temperature: 27°C DB, 19°C WB - outdoor temperature: 35°C DB, 24°C WB
- Heating: return air temperature: 20°C DB, 15°C WB - outdoor temperature: 7°C DB, 6°C WB
- 4 direction discharge

Power level (dB):

	Hi	
	Cooling	Heating
	52	54

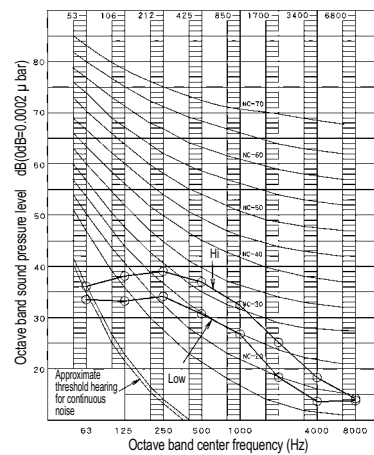
Measuring place: Anechoic chamber

Location of microphone



Note: Operation noise differs with operation and ambient conditions.

FMCQ71A



4D056873

Over All (dB):

(B, G, N is already rectified)

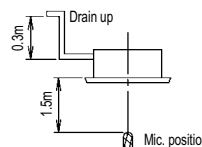
Operating conditions:

- Power source: 220-240V 50Hz/220V 60Hz
- Cooling: return air temperature: 27°C DB, 19°C WB - outdoor temperature: 35°C DB, 24°C WB
- Heating: return air temperature: 20°C DB, 15°C WB - outdoor temperature: 7°C DB, 6°C WB
- 4 direction discharge

Power level (dB): Hi 55

Measuring place: Anechoic chamber

Location of microphone



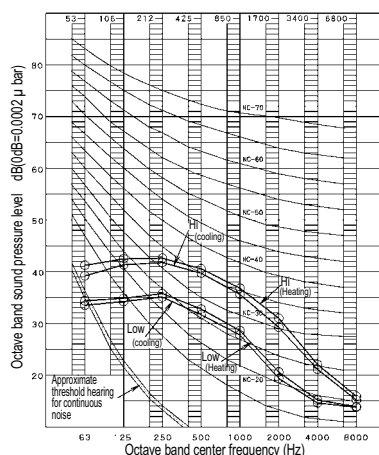
Note: Operation noise differs with operation and ambient conditions.

Scale	Mode	
	Hi	Low
A	38.0	32.0
C	44.0	38.0

10 Sound data

10 - 1 Sound pressure spectrum

FMCQ100A



4D056874

Over All (dB):
(B, G, N is already rectified)

Scale	Mode			
	Hi		Low	
A	41.0	42.0	33.0	34.0
C	47.0	48.0	39.0	40.0

Operating conditions:

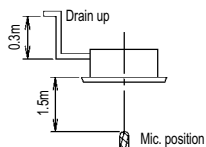
- Power source: 220~240V 50Hz/220V 60Hz
- Cooling: return air temperature: 27°C DB, 19°C WB - outdoor temperature: 35°C DB, 24°C WB
- Heating: return air temperature: 20°C DB, 15°C WB - outdoor temperature: 7°C DB, 6°C WB
- 4 direction discharge

Power level (dB):

Hi	
Cooling	Heating
58	59

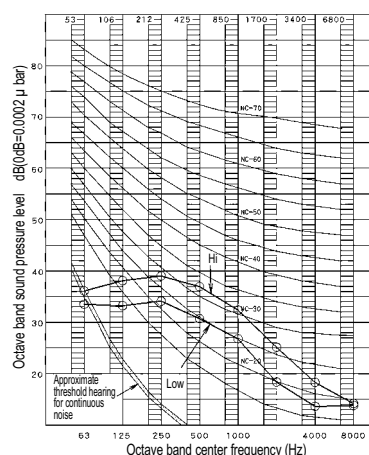
Measuring place: Anechoic chamber

Location of microphone



Note: Operation noise differs with operation and ambient conditions.

FMCQ125A



4D056875

Over All (dB):
(B, G, N is already rectified)

Scale	Mode	
	Hi	Low
A	44.0	34.0
C	50.0	40.0

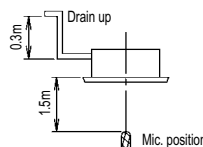
Operating conditions:

- Power source: 220~240V 50Hz/220V 60Hz
- Cooling: return air temperature: 27°C DB, 19°C WB - outdoor temperature: 35°C DB, 24°C WB
- Heating: return air temperature: 20°C DB, 15°C WB - outdoor temperature: 7°C DB, 6°C WB
- 4 direction discharge

Power level (dB): Hi 61

Measuring place: Anechoic chamber

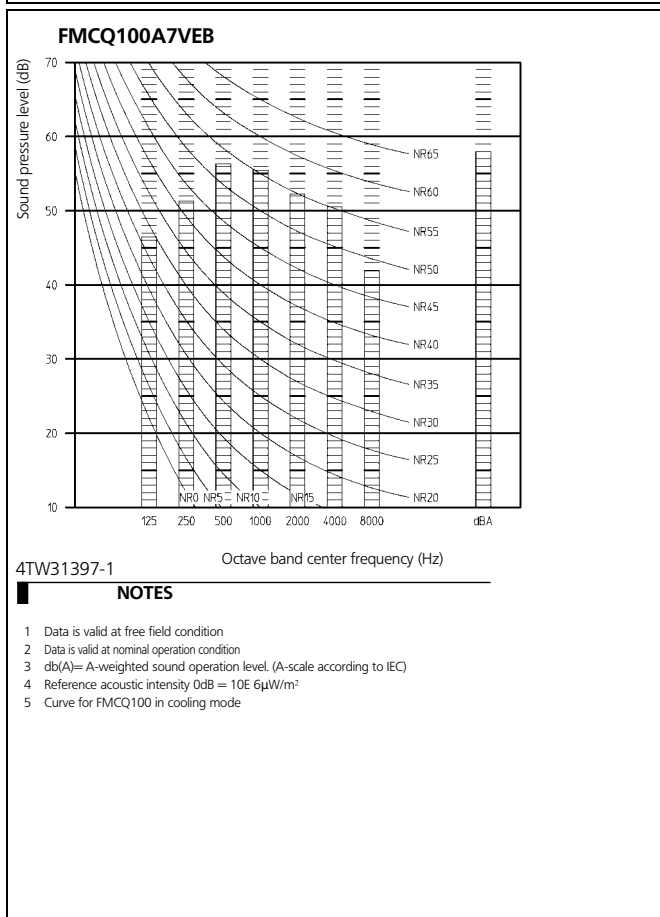
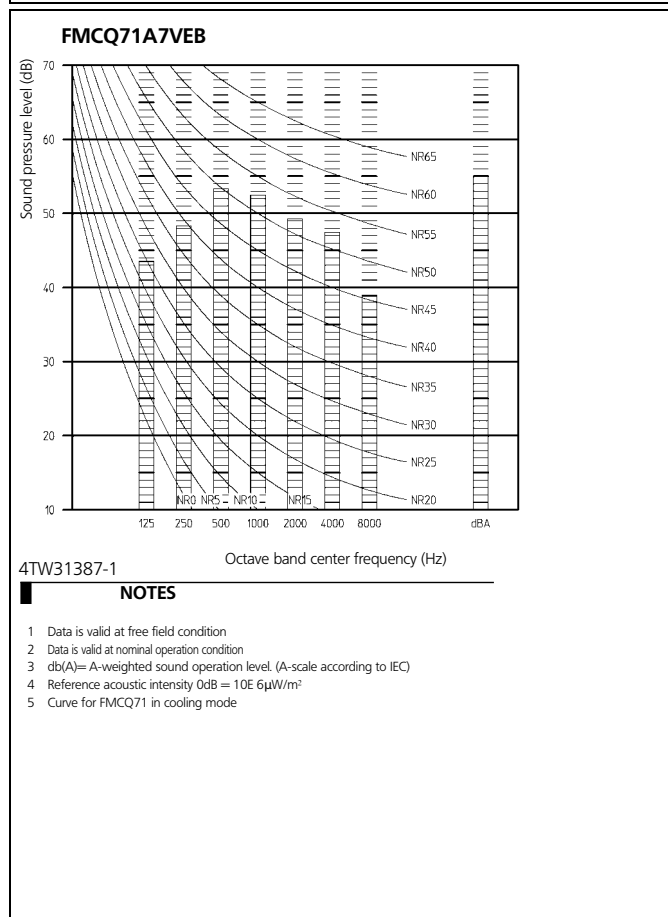
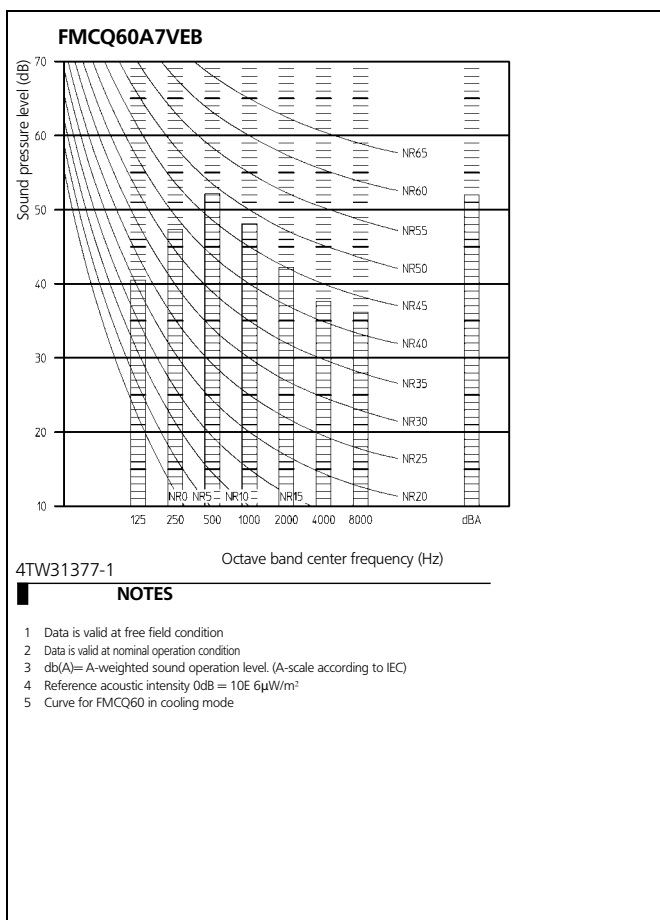
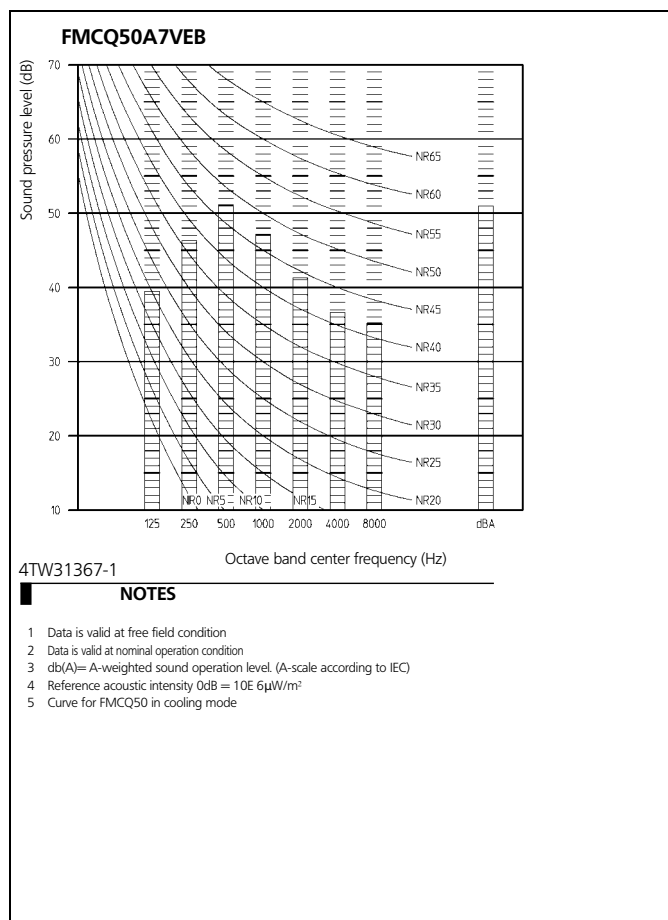
Location of microphone



Note: Operation noise differs with operation and ambient conditions.

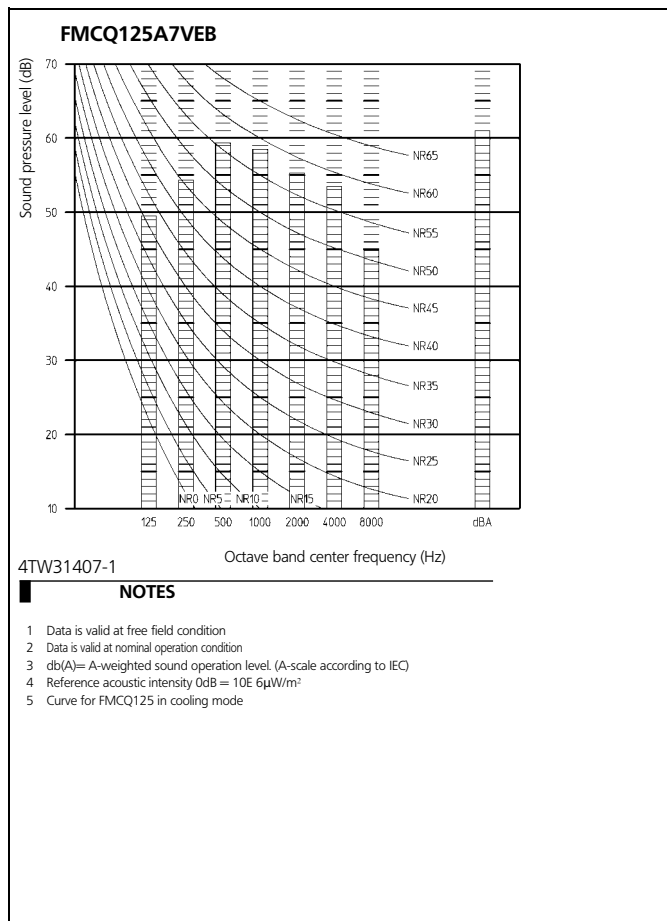
10 Sound data

10 - 2 Sound power spectrum



10 Sound data

10 - 2 Sound power spectrum

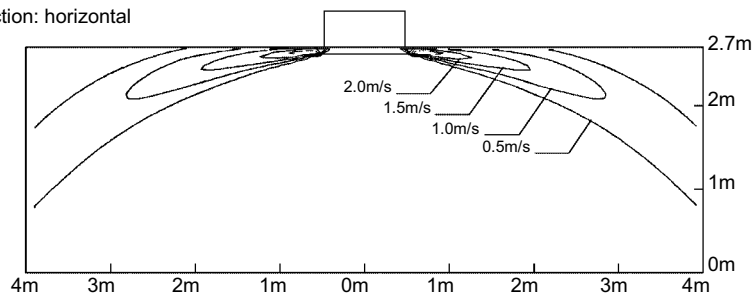


11 Air flow pattern

FMCQ50A

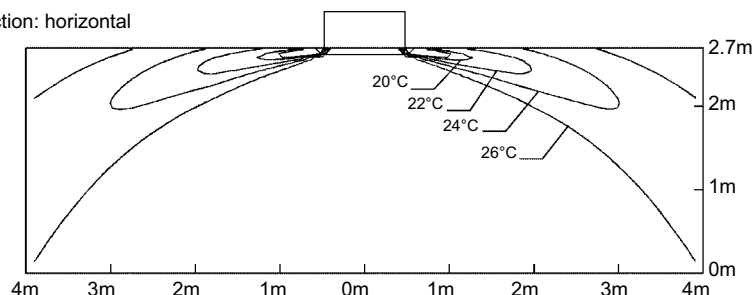
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

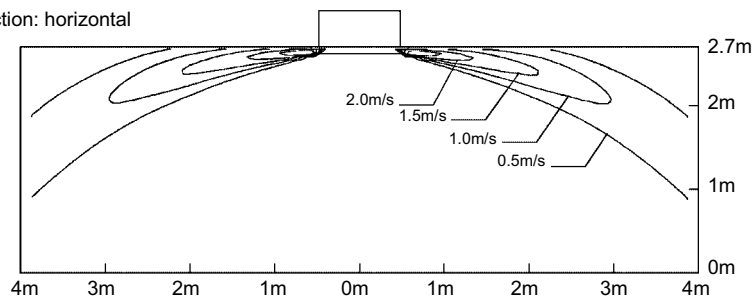


4D057229

FMCQ60A

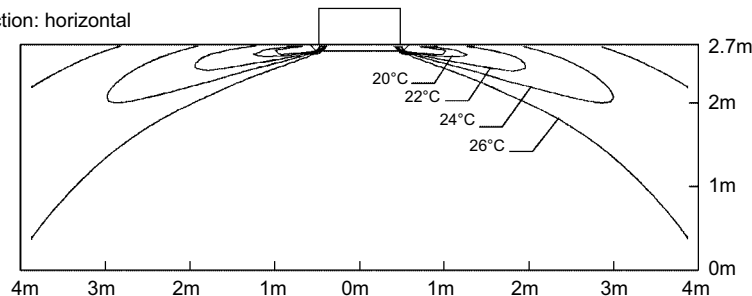
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



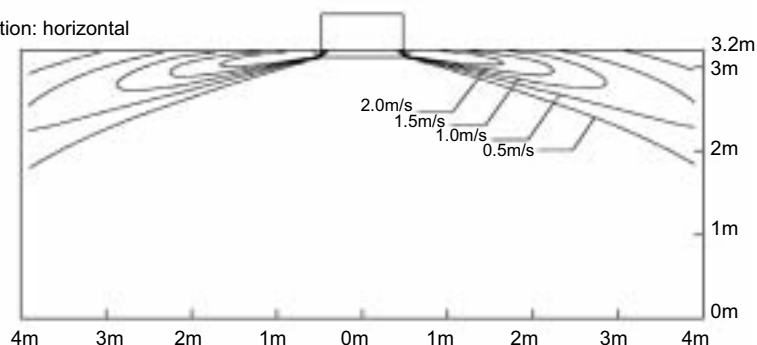
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11 Air flow pattern

FMCQ71A

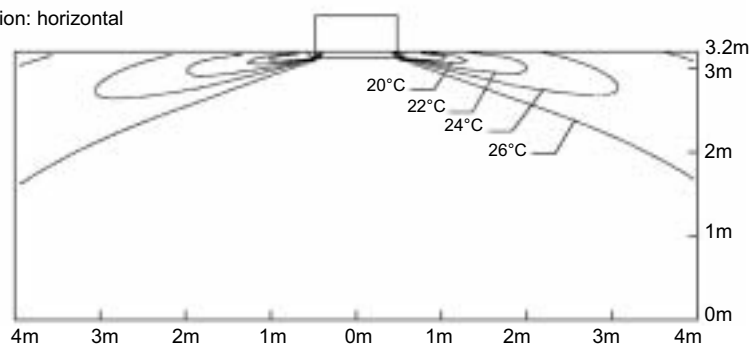
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

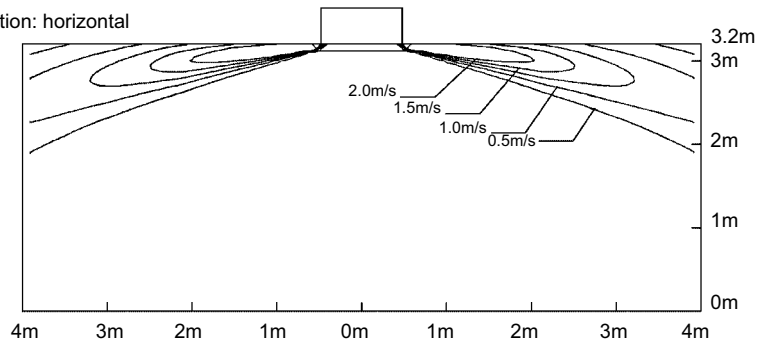


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FMCQ100A

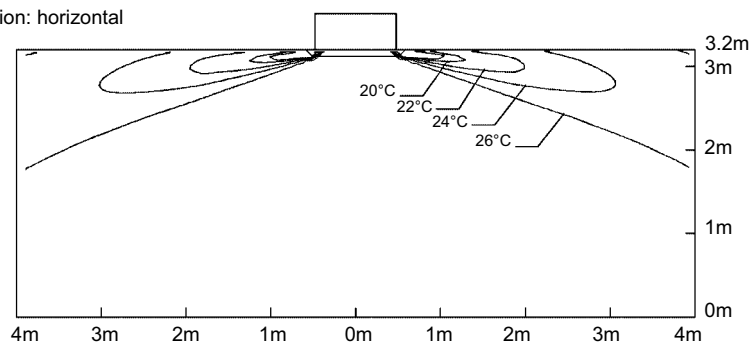
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



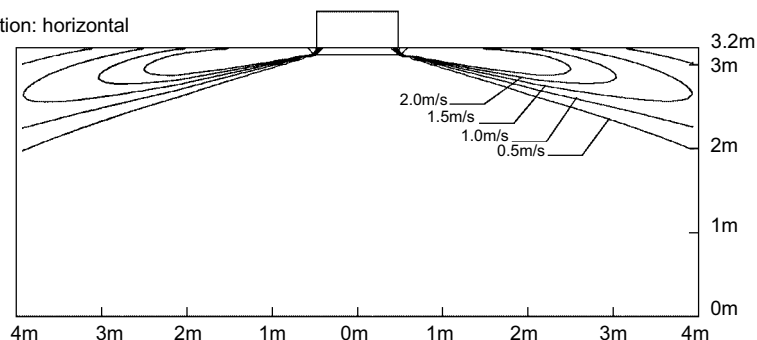
4D057235

11 Air flow pattern

FMCQ125A

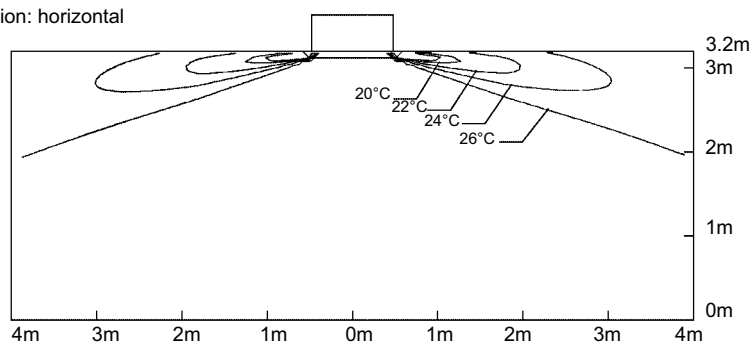
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

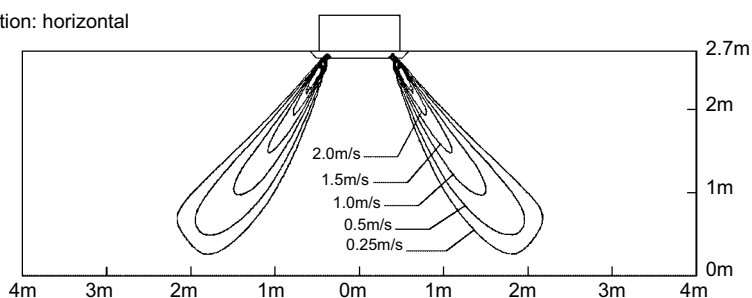


4D057237

FMCQ50A

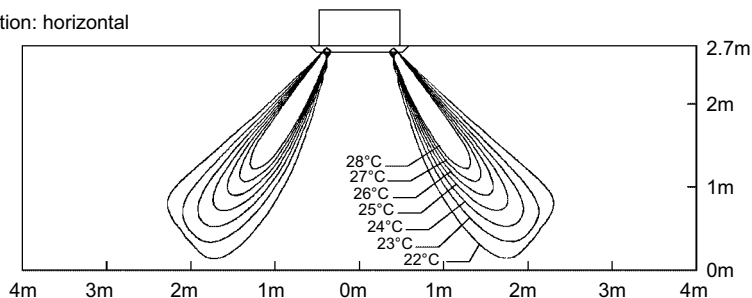
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



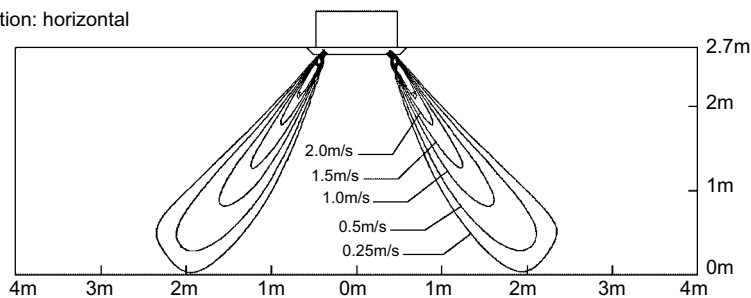
4D057228

11 Air flow pattern

FMCQ60A

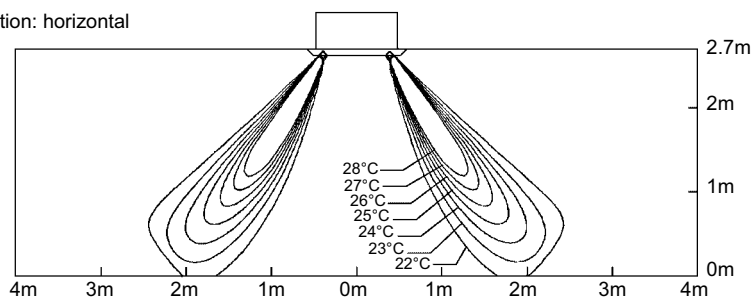
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal

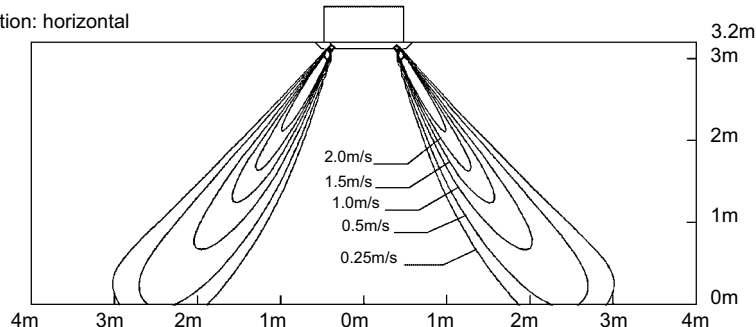


4D057230

FMCQ71A

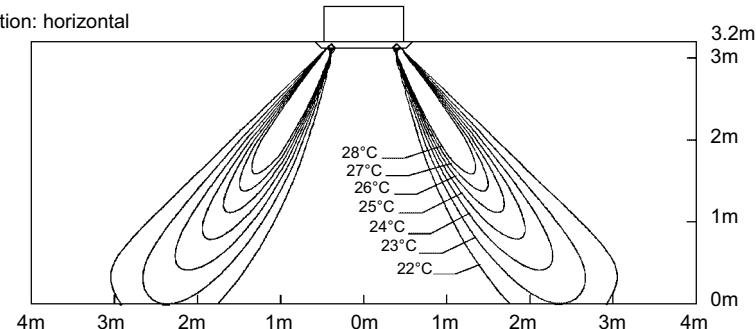
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



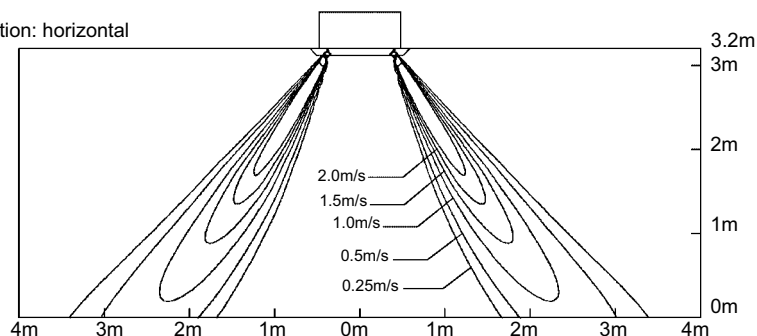
4D057232

11 Air flow pattern

FMCQ100A

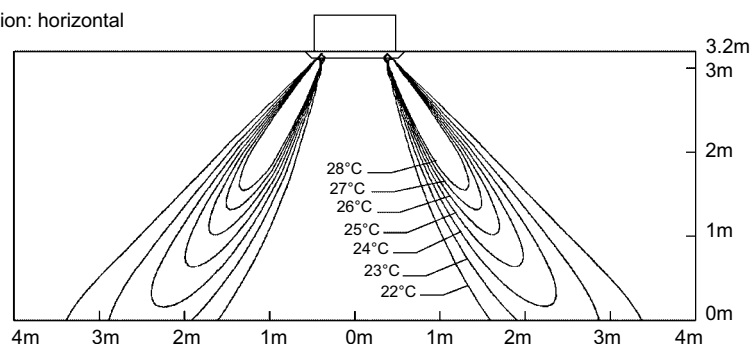
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air velocity distribution

All round air discharge, air flow direction: horizontal

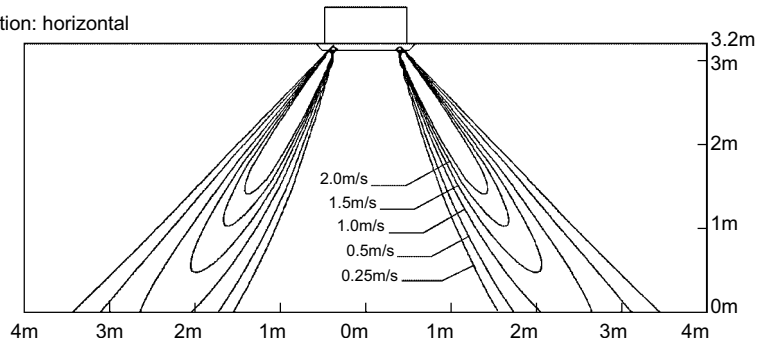


4D057234

FMCQ125A

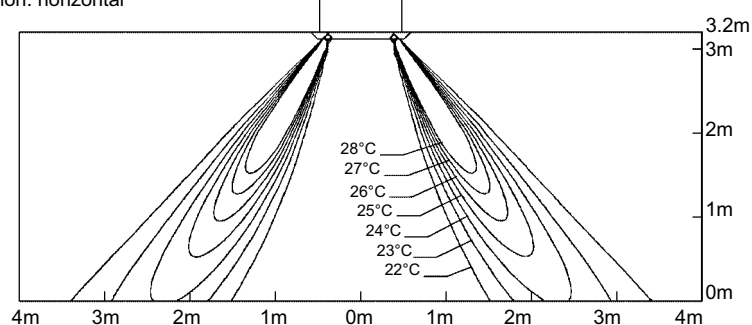
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air velocity distribution

All round air discharge, air flow direction: horizontal



4D057236



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.



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.

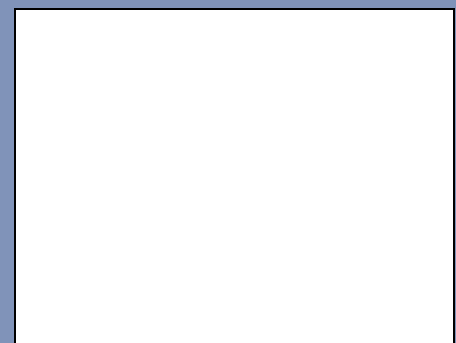


Daikin units comply with the European regulations that guarantee the safety of the product.



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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