



technical data

Cooling Only/Heat Pump
FMCQ-A7VEB

air conditioning systems

R-410A



technical data

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air conditioning systems

R-410A

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FMCQ-A7VEB

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1 Features

- 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
- Energy efficient: up to class A energy labels
- 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



					optional	standard	
		2 steps	via wired remote control		optional		optional

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	m ²	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	m ³ /min	15.5	16.5	23.5	26.5	33.0	
		Low	m ³ /min	10.0	11.0	14.5	17.0	20.0	
	Heating	High	m ³ /min	15.0	17.5	23.5	28.0	33.0	
		Low	m ³ /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	6.35	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						
Notes	Drain sealing pad					
	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 BYCQ140W1W 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

- 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.
- The maximum allowable voltage variation between phases is 2%.
- MCA/MFA
 $MCA = 12.5 \times FLA$
 $MFA < 4 \times FLA$
(next lower standard fuse rating min 16A)
- Select a wire size based on the MCA.
- Instead of a fuse, use a circuit breaker.

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4 Safety device settings

FMCQ-A

SAFETY DEVICES		50	60	71	100	125	
FMCQ	PC board fuse	250V 5A	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)	OFF: 108 ±5 (ON: 96 ±15)
	Drain pump fuse	°C	145	145	145	145	

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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	FCQH71	FCQH100	FCQH125	FCQH140	FMCQ125				
1	Remote control					BRC7F532F				
						Wireless				BRC7F533F
						C/O				BRC1D528
	Wired					KRP1BA57 *1				
2-1	Wiring adapter for electrical appendices (2) *					KRP4AA53 *1				
2-2	Wiring adapter for electrical appendices (2) *					EKRP1C11 *1				
2-3	Wiring adapter (hour meter)					KRCS101-4				
3	Remote sensor					KRP1H98				
4	Installation box for adapter PCB					DCS302CA51				
5	Central remote control					DCS301BA51				
6	Unified ON/OFF control					KJB212AA				
7	Electrical box with earth terminal (2blocks)					DST301BA51				
8	Schedule timer									

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NOTES

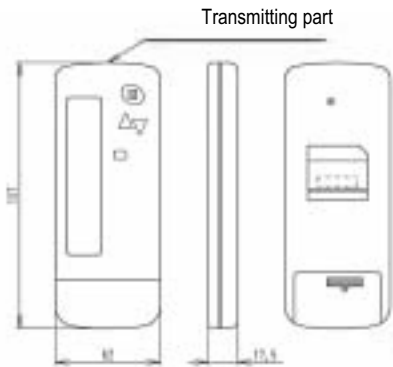
- 1 Installation box is necessary for these adapters.
- 2 All options are supplied as kit
- 3 The BYCQ140CW1W has white insulations.

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.

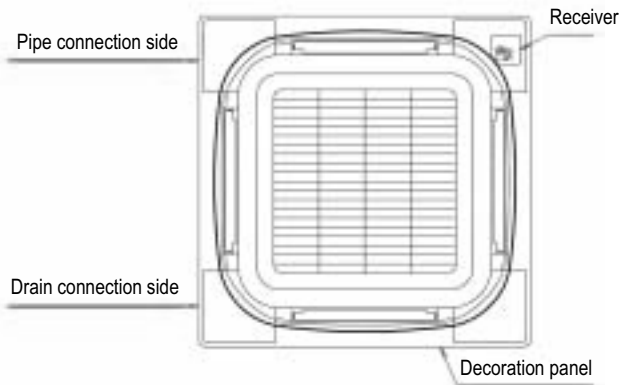
6 Control systems

FMCQ50-125A

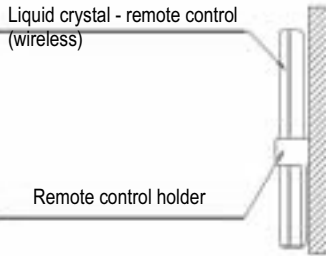
Remote control dimensions



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 Capacity tables

7 - 1 Cooling capacity tables

7

FMCQ-A

Unit size	Out door °CDB	Indoor air temp.													
		14.0WB 20.0DB		16.0WB 23.0DB		18.0WB 26.0DB		19.0WB 27.0DB		20.0WB 28.0DB		22.0WB 30.0DB		24.0WB 32.0DB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
50	10.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.6	3.9
	12.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.5	3.8
	14.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.4	3.8
	16.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.3	3.8
	18.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.2	3.7
	20.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.1	3.7
	21.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	6.0	3.5	6.1	3.7
	23.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.9	3.5	6.0	3.7
	25.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.8	3.5	5.9	3.6
	27.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.7	3.4	5.9	3.6
	29.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.6	3.4	5.8	3.5
	31.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.6	3.4	5.7	3.5
	33.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.5	3.3	5.6	3.5
	35.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.3	3.8	5.4	3.3	5.5	3.4
	37.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.2	3.7	5.3	3.3	5.4	3.4
	39.0	3.4	2.9	4.0	3.2	4.7	3.6	5.0	3.7	5.1	3.7	5.2	3.2	5.3	3.3
60	10.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.9	4.7
	12.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.8	4.6
	14.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.7	4.5
	16.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.6	4.5
	18.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.5	4.4
	20.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.4	4.4
	21.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.2	4.6	7.3	4.3
	23.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.1	4.5	7.2	4.3
	25.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	7.0	4.5	7.1	4.2
	27.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	6.9	4.4	7.0	4.2
	29.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	6.8	4.3	6.9	4.2
	31.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	6.7	4.3	6.8	4.1
	33.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.4	4.5	6.6	4.3	6.7	4.1
	35.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.3	4.4	6.5	4.2	6.6	4.0
	37.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.2	4.4	6.4	4.2	6.5	4.0
	39.0	4.1	3.5	4.8	3.9	5.6	4.2	6.0	4.4	6.1	4.3	6.3	4.1	6.4	4.0
71	10.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	9.3	5.6
	12.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	9.2	5.5
	14.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	9.1	5.5
	16.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	9.0	5.4
	18.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	8.9	5.3
	20.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	8.7	5.2
	21.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.5	5.5	8.7	5.2
	23.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.4	5.4	8.5	5.1
	25.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.3	5.3	8.4	5.0
	27.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.1	5.2	8.3	5.0
	29.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	8.0	5.2	8.2	4.9
	31.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	7.9	5.1	8.1	4.9
	33.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.6	5.3	7.8	5.1	7.9	4.9
	35.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.5	5.2	7.7	5.0	7.8	4.8
	37.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.4	5.2	7.5	5.0	7.7	4.8
	39.0	4.8	4.1	5.7	4.6	6.6	5.1	7.1	5.2	7.2	5.1	7.4	4.9	7.6	4.7
100	10.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	13.1	7.6
	12.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	13.0	7.5
	14.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	12.8	7.4
	16.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	12.6	7.3
	18.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	12.5	7.2
	20.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	12.3	7.1
	21.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	12.0	7.4	12.2	7.0
	23.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	11.8	7.3	12.0	6.9
	25.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	11.6	7.2	11.9	6.9
	27.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	11.5	7.1	11.7	6.8
	29.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	11.3	7.0	11.5	6.7
	31.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	11.1	7.0	11.4	6.6
	33.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.6	7.1	10.9	6.9	11.2	6.6
	35.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.5	7.1	10.8	6.8	11.0	6.5
	37.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.4	7.0	10.6	6.7	10.9	6.4
	39.0	6.8	5.5	8.0	6.1	9.4	6.8	10.0	7.0	10.2	6.9	10.4	6.7	10.7	6.4
125	10.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	16.4	9.7
	12.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	16.2	9.6
	14.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	16.0	9.5
	16.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	15.8	9.3
	18.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	15.6	9.2
	20.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	15.4	9.1
	21.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	15.0	9.3	15.3	9.0
	23.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	14.7	9.2	15.0	8.9
	25.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	14.6	9.1	14.8	8.7
	27.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	14.3	9.0	14.6	8.6
	29.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	14.1	8.8	14.4	8.5
	31.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	13.9	8.7	14.2	8.4
	33.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.3	8.9	13.7	8.6	14.0	8.3
	35.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	13.2	8.7	13.5	8.5	13.8	8.1
	37.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	12.9	8.6	13.3	8.4	13.6	8.0
	39.0	8.4	6.8	10.0	7.6	11.7	8.6	12.5	8.8	12.7	8.4	13.0	8.2	13.3	8.0

3TW31362-1

8

7 Capacity tables

7 - 2 Heating capacity tables

FMCQ-A									
Unit size	Outdoor air temp		Indoor air temp. °CDB						
			16.0	18.0	20.0	21.0	22.0	24.0	
	°CDB	°CDB	KW	KW	KW	KW	KW	KW	
50	-19.8	-20.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	-18.8	-19.0	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	-16.7	-17.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	-14.7	-15.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	-12.6	-13.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	-10.5	-11.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2
	-9.5	-10.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	-8.5	-9.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4
	-7.0	-7.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	-5.0	-5.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	-3.0	-3.7	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	0.0	-0.7	5.2	5.2	5.2	5.2	5.2	5.2	4.9
	3.0	2.2	5.5	5.5	5.5	5.4	5.2	4.9	4.9
	5.0	4.1	5.7	5.7	5.6	5.4	5.2	4.9	4.9
	7.0	6.0	5.9	5.9	5.6	5.4	5.2	4.9	4.9
	9.0	7.9	6.1	6.0	5.6	5.4	5.2	4.9	4.9
	11.0	9.8	6.3	6.0	5.6	5.4	5.2	4.9	4.9
13.0	11.8	6.3	6.0	5.6	5.4	5.2	4.9	4.9	
15.0	13.7	6.3	6.0	5.6	5.4	5.2	4.9	4.9	
60	-19.8	-20.0	4.0	3.9	3.9	3.9	3.9	3.9	3.9
	-18.8	-19.0	4.1	4.1	4.1	4.0	4.0	4.0	4.0
	-16.7	-17.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	-14.7	-15.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	-12.6	-13.0	4.8	4.8	4.8	4.8	4.8	4.7	4.7
	-10.5	-11.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	-9.5	-10.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	-8.5	-9.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	-7.0	-7.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	-5.0	-5.6	5.7	5.7	5.6	5.6	5.6	5.6	5.6
	-3.0	-3.7	5.9	5.9	5.9	5.9	5.9	5.8	5.8
	0.0	-0.7	6.2	6.2	6.2	6.2	6.2	6.2	5.8
	3.0	2.2	6.6	6.6	6.6	6.5	6.3	5.8	5.8
	5.0	4.1	6.8	6.8	6.7	6.5	6.3	5.8	5.8
	7.0	6.0	7.0	7.0	6.7	6.5	6.3	5.8	5.8
	9.0	7.9	7.3	7.1	6.7	6.5	6.3	5.8	5.8
	11.0	9.8	7.5	7.1	6.7	6.5	6.3	5.8	5.8
13.0	11.8	7.6	7.1	6.7	6.5	6.3	5.8	5.8	
15.0	13.7	7.6	7.1	6.7	6.5	6.3	5.8	5.8	
71	-19.8	-20.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	-18.8	-19.0	4.9	4.9	4.8	4.8	4.8	4.8	4.8
	-16.7	-17.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	-14.7	-15.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	-12.6	-13.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7
	-10.5	-11.0	6.0	6.0	6.0	6.0	6.0	6.0	5.9
	-9.5	-10.0	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	-8.5	-9.1	6.3	6.3	6.2	6.2	6.2	6.2	6.2
	-7.0	-7.6	6.5	6.5	6.4	6.4	6.4	6.4	6.4
	-5.0	-5.6	6.8	6.7	6.7	6.7	6.7	6.7	6.7
	-3.0	-3.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0
	0.0	-0.7	7.5	7.4	7.4	7.4	7.4	7.0	7.0
	3.0	2.2	7.9	7.8	7.8	7.7	7.5	7.0	7.0
	5.0	4.1	8.1	8.1	8.0	7.7	7.5	7.0	7.0
	7.0	6.0	8.4	8.4	8.0	7.7	7.5	7.0	7.0
	9.0	7.9	8.7	8.5	8.0	7.7	7.5	7.0	7.0
	11.0	9.8	8.9	8.5	8.0	7.7	7.5	7.0	7.0
13.0	11.8	9.0	8.5	8.0	7.7	7.5	7.0	7.0	
15.0	13.7	9.0	8.5	8.0	7.7	7.5	7.0	7.0	
100	-19.8	-20.0	6.6	6.6	6.6	6.6	6.6	6.6	6.5
	-18.8	-19.0	6.8	6.8	6.8	6.8	6.8	6.8	6.7
	-16.7	-17.0	7.2	7.2	7.2	7.2	7.1	7.1	7.1
	-14.7	-15.0	7.6	7.6	7.6	7.6	7.5	7.5	7.5
	-12.6	-13.0	8.0	8.0	8.0	8.0	7.9	7.9	7.9
	-10.5	-11.0	8.4	8.4	8.4	8.4	8.3	8.3	8.3
	-9.5	-10.0	8.6	8.6	8.6	8.5	8.5	8.5	8.5
	-8.5	-9.1	8.8	8.8	8.7	8.7	8.7	8.7	8.7
	-7.0	-7.6	9.1	9.0	9.0	9.0	9.0	9.0	9.0
	-5.0	-5.6	9.5	9.4	9.4	9.4	9.4	9.4	9.4
	-3.0	-3.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8
	0.0	-0.7	10.4	10.4	10.4	10.4	10.4	10.4	9.8
	3.0	2.2	11.0	11.0	11.0	10.8	10.5	9.8	9.8
	5.0	4.1	11.4	11.4	11.2	10.8	10.5	9.8	9.8
	7.0	6.0	11.8	11.7	11.2	10.8	10.5	9.8	9.8
	9.0	7.9	12.1	11.9	11.2	10.8	10.5	9.8	9.8
	11.0	9.8	12.5	11.9	11.2	10.8	10.5	9.8	9.8
13.0	11.8	12.6	11.9	11.2	10.8	10.5	9.8	9.8	
15.0	13.7	12.6	11.9	11.2	10.8	10.5	9.8	9.8	
125	-19.8	-20.0	8.3	8.2	8.2	8.2	8.2	8.2	8.2
	-18.8	-19.0	8.5	8.5	8.5	8.5	8.4	8.4	8.4
	-16.7	-17.0	9.0	9.0	9.0	8.9	8.9	8.9	8.9
	-14.7	-15.0	9.5	9.5	9.5	9.4	9.4	9.4	9.4
	-12.6	-13.0	10.0	10.0	10.0	9.9	9.9	9.9	9.9
	-10.5	-11.0	10.5	10.5	10.4	10.4	10.4	10.4	10.4
	-9.5	-10.0	10.7	10.7	10.7	10.7	10.7	10.6	10.6
	-8.5	-9.1	11.0	10.9	10.9	10.9	10.9	10.9	10.9
	-7.0	-7.6	11.3	11.3	11.3	11.3	11.3	11.2	11.2
	-5.0	-5.6	11.8	11.8	11.8	11.8	11.8	11.7	11.7
	-3.0	-3.7	12.3	12.3	12.3	12.2	12.2	12.2	12.2
	0.0	-0.7	13.0	13.0	13.0	13.0	13.0	13.0	12.2
	3.0	2.2	13.8	13.7	13.7	13.6	13.1	12.2	12.2
	5.0	4.1	14.2	14.2	14.0	13.6	13.1	12.2	12.2
	7.0	6.0	14.7	14.7	14.0	13.6	13.1	12.2	12.2
	9.0	7.9	15.2	14.9	14.0	13.6	13.1	12.2	12.2
	11.0	9.8	15.6	14.9	14.0	13.6	13.1	12.2	12.2
13.0	11.8	15.8	14.9	14.0	13.6	13.1	12.2	12.2	
15.0	13.7	15.8	14.9	14.0	13.6	13.1	12.2	12.2	

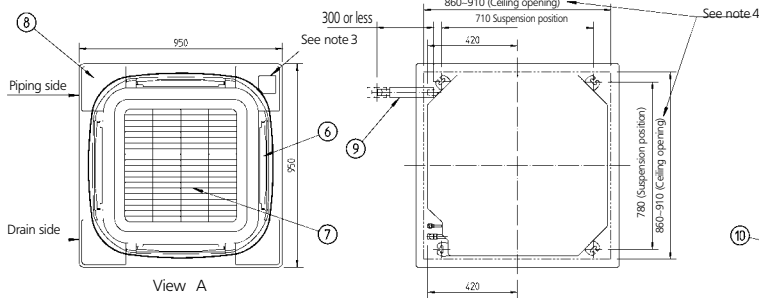
3TW31412-1

8 Dimensional drawing & centre of gravity

8 - 1 Dimensional drawing

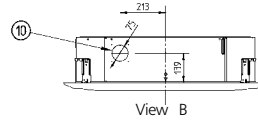
8

FMCQ50-60



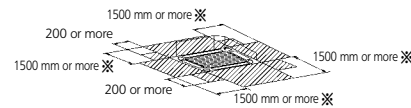
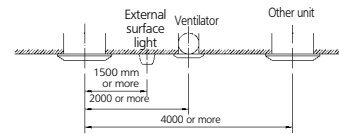
- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose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



View B

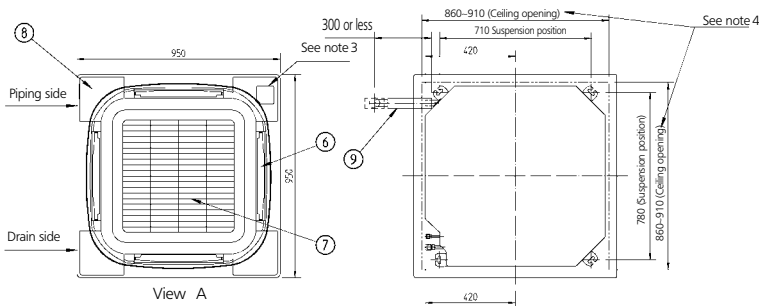
6. Please respect the distances as shown on figure below



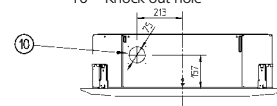
※ In case a discharge opening is closed with the 'sealing member' option, the distance of 1500 mm can be reduced to 500mm on the closed side.

3TW31364-1

FMCQ71-100

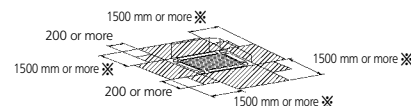
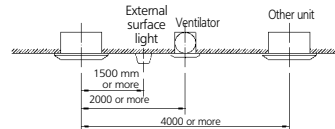


- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose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



View B

6. Please respect the distances as shown on figure below



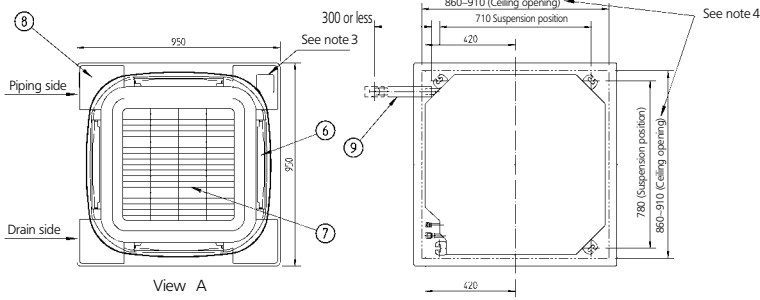
※ In case a discharge opening is closed with the 'sealing member' option, the distance of 1500 mm can be reduced to 500mm on the closed side.

3TW31384-1

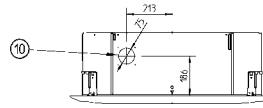
8 Dimensional drawing & centre of gravity

8 - 1 Dimensional drawing

FMCQ125A

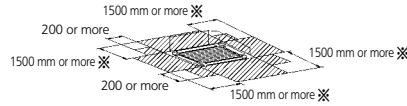
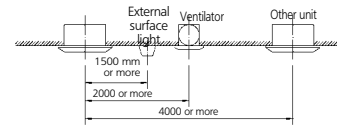


- 1 Liquid pipe connection ϕ A Flare connection
- 2 Gas pipe connection ϕ A Flare connection
- 3 Drain pipe connection VP25 (O.D. ϕ 32, I.D. ϕ 25)
- 4 Power supply entry hole
- 5 Transmission wiring entry hole
- 6 Air discharge opening
- 7 Air suction grille
- 8 Corner decoration cover
- 9 Drain hose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

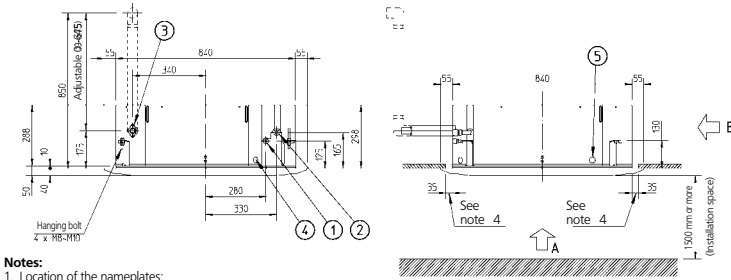


View B

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 mmm can be reduced to 500mm on the closed side.



Notes:

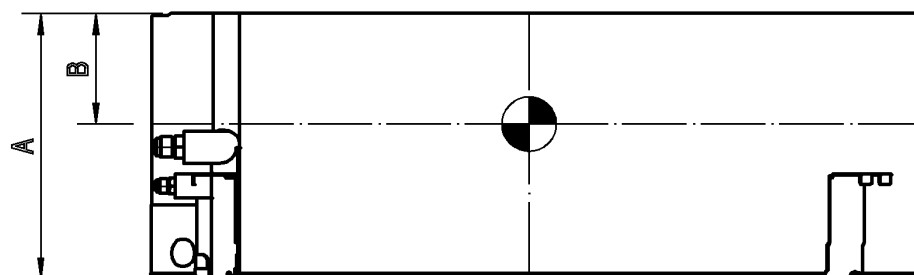
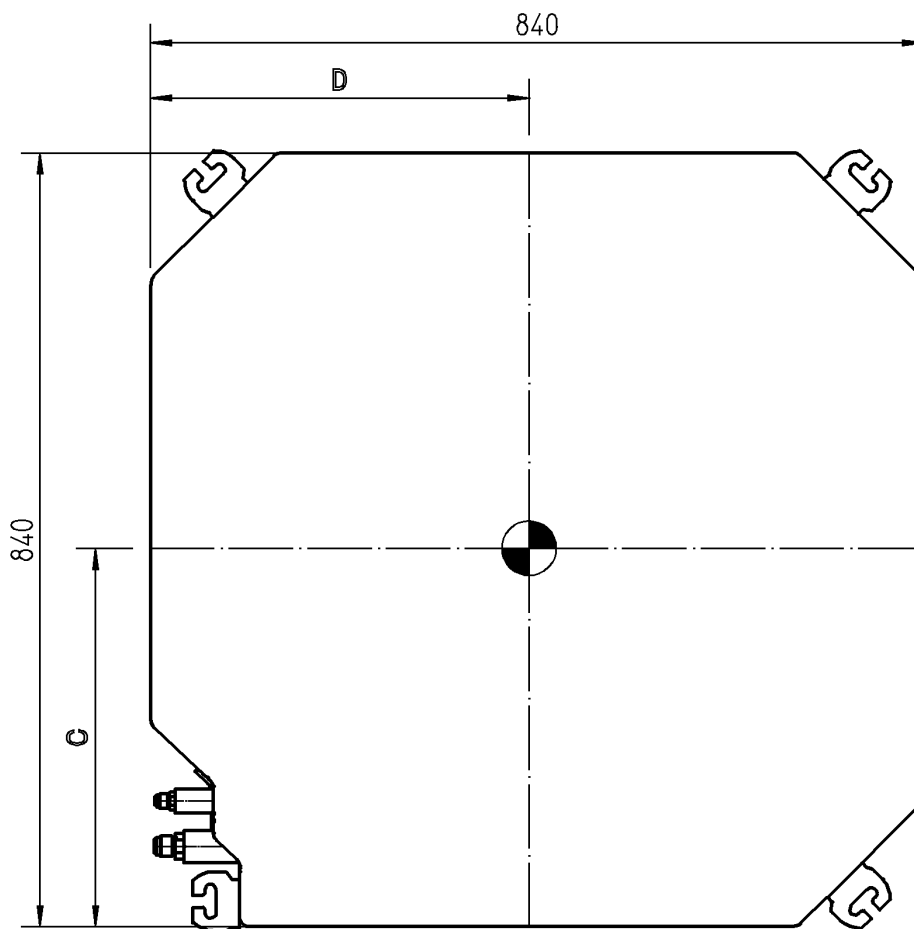
1. Location of the nameplates:
- Unit body: on the control box cover
- Decoration panel: on the panel frame at the motor side under the corner cover
2. When installing an optional accessory, refer to the installation drawings
- For fresh air intake kit: an inspection port is necessary
3. In case of using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

8 Dimensional drawing & centre of gravity

8 - 2 Centre of gravity

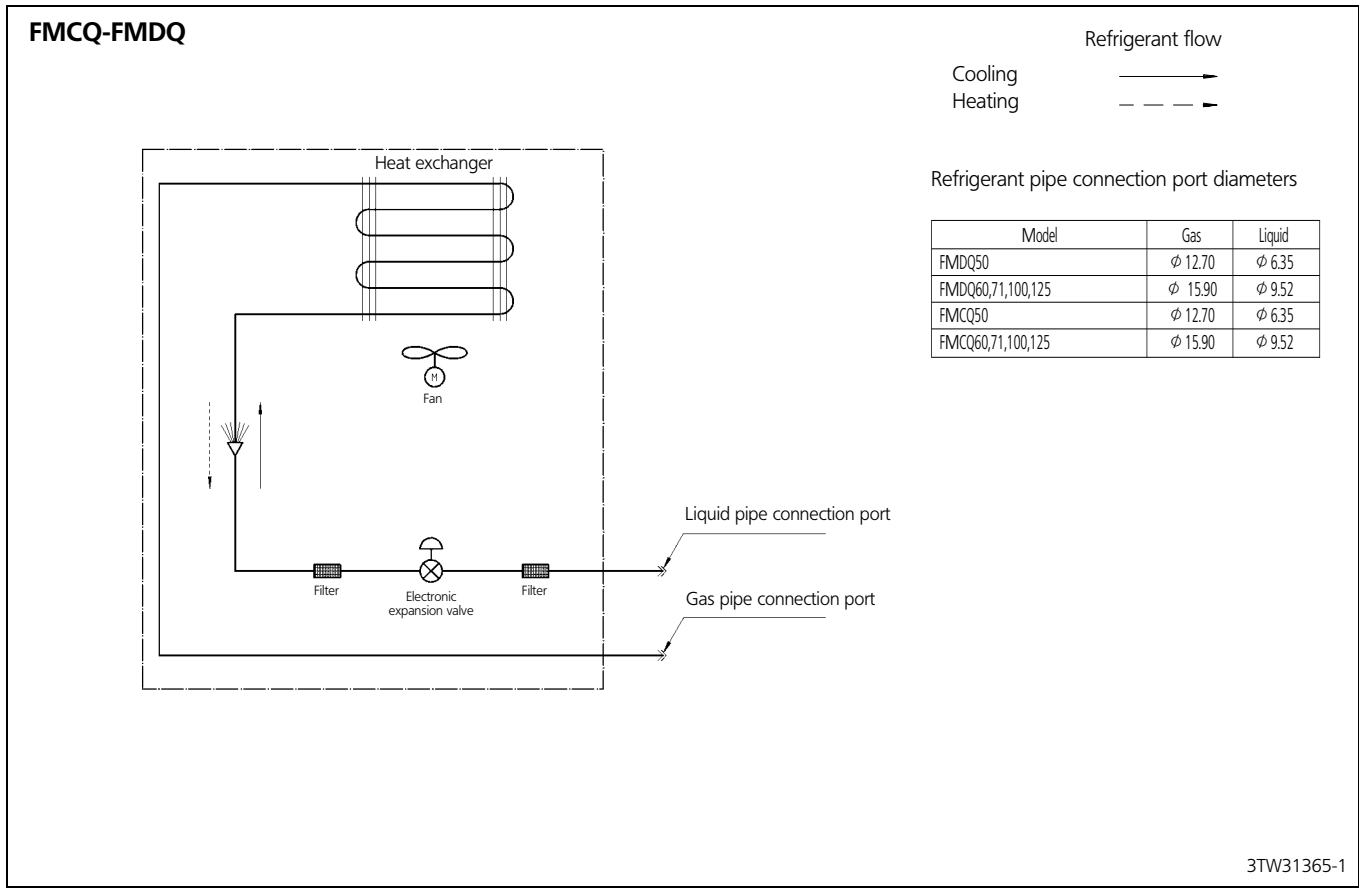
FMCQ-A



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

4TW31369-3

9 Piping diagram



10 Wiring diagram

10 - 1 Wiring diagram

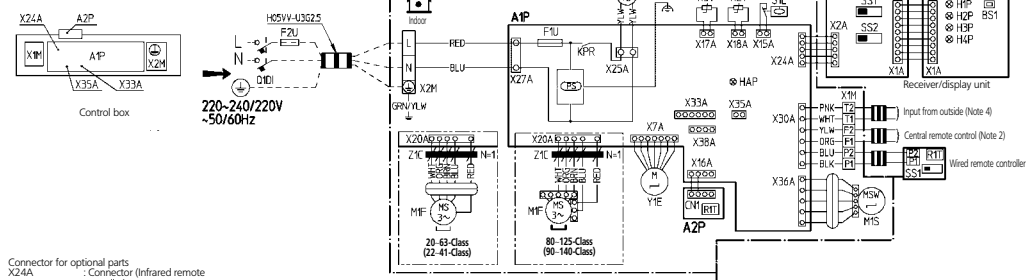
10

FMCQ-A

- Indoor unit**
- A1P : Printed circuit board
 - A2P : Printed circuit board
 - C1 : Capacitor
 - F1U : Fuse (1.5A, 250V)
 - F2U : Field fuse
 - HAP : Light emitting diode (Service monitor-green)
 - KPR : Magnetic relay
 - L1 : Coil
 - M1F : Motor (Indoor fan)
 - M1P : Motor (Drain pump)
 - M1S : Motor (Swing flap)
 - PS : Power supply circuit
 - Q1DI : Earth leak detector
 - R1T : Thermistor (air)
 - R2T : Thermistor (Coil)
 - R2T : Thermistor (Header)
 - STL : Float switch
 - X1M : Terminal strip
 - X2M : Terminal strip
 - Y1E : Electronic expansion valve
 - Z1C : Ferrite core

- Receiver / display unit (attached to infrared remote control)**
- A3P : Printed circuit board
 - A4P : Printed circuit board
 - B51 : Push button (on/off)
 - H1P : Light emitting diode (on-red)
 - H2P : Light emitting diode (flmr-green)
 - H3P : Light emitting diode (filter sign-red)
 - H4P : Light emitting diode (defrost-orange)
 - SS1 : Selector switch (main/sub)
 - SS2 : Selector switch (wireless address set)

20-125-Class (22-140-Class)



- Connector for optional parts**
- X24A : Connector (Infrared remote control)
 - X33A : Connector (Adapter for wiring)
 - X35A : Connector (Group control adapter)
 - X38A : Connector (Multi tenant)
- Wired remote controller**
- R1T : Thermistor (air)
 - SS1 : Selector switch (main/sub)

- Notes:**
1. [Symbol] Field wiring, [Symbol] Terminal strip
 2. In case of using central remote control, connect it to this unit in accordance with installation manual attached to it.
 3. X24A, X33A, X35A and X38A are connected when the optional accessories are being used.
 4. 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.
 5. Confirm the method of setting the selector switch (SS1, SS2) by installation manual and engineering materials, etc.
 6. Colours: BLK: Black / WHT: White / PNK: Pink / RED: Red / BLU: Blue / BRN: Brown / GRY: Grey / GRN: Green / YLW: Yellow / ORG: Orange

3TW31056-1

11 Sound data

11 - 1 Sound pressure spectrum

FMCQ50A

Octave band sound pressure level dB (dB=0.0002 μ bar)

Octave band center frequency (Hz)

4D056871

Scale	Mode	
	Hi	Low
A	33.0	28.0
C	39.0	34.0

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.

FMCQ60A

Octave band sound pressure level dB (dB=0.0002 μ bar)

Octave band center frequency (Hz)

4D056872

Scale	Mode			
	Hi		Low	
	Cooling	Heating	Cooling	Heating
A	34.0	36.0	29.0	30.0
C	40.0	42.0	35.0	36.0

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

Operating conditons:

- 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 52

Measuring place: Anechoic chamber

Location of microphone

Note: Operation noise differs with operation and ambient conditions.

FMCQ71A

Octave band sound pressure level dB (dB=0.0002 μ bar)

Octave band center frequency (Hz)

4D056873

Scale	Mode	
	Hi	Low
A	38.0	32.0
C	44.0	38.0

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.

FMCQ100A

Octave band sound pressure level dB (dB=0.0002 μ bar)

Octave band center frequency (Hz)

4D056874

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

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

Operating conditons:

- 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 58

Measuring place: Anechoic chamber

Location of microphone

Note: Operation noise differs with operation and ambient conditions.

11 Sound data

11 - 1 Sound pressure spectrum

11

FMCQ125A

Octave band sound pressure level dB(0dB=0.0002 μ bar)

Octave band center frequency (Hz)

4D056875

Scale	Mode	
	Hi	Low
A	44.0	34.0
C	50.0	40.0

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 61
 Measuring place: Anechoic chamber
 Location of microphone

0.3m Drain up

1.5m Mic. position

Note: Operation noise differs with operation and ambient conditions.

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	4.3		

The rise of operating sound at with fresh air intake kit

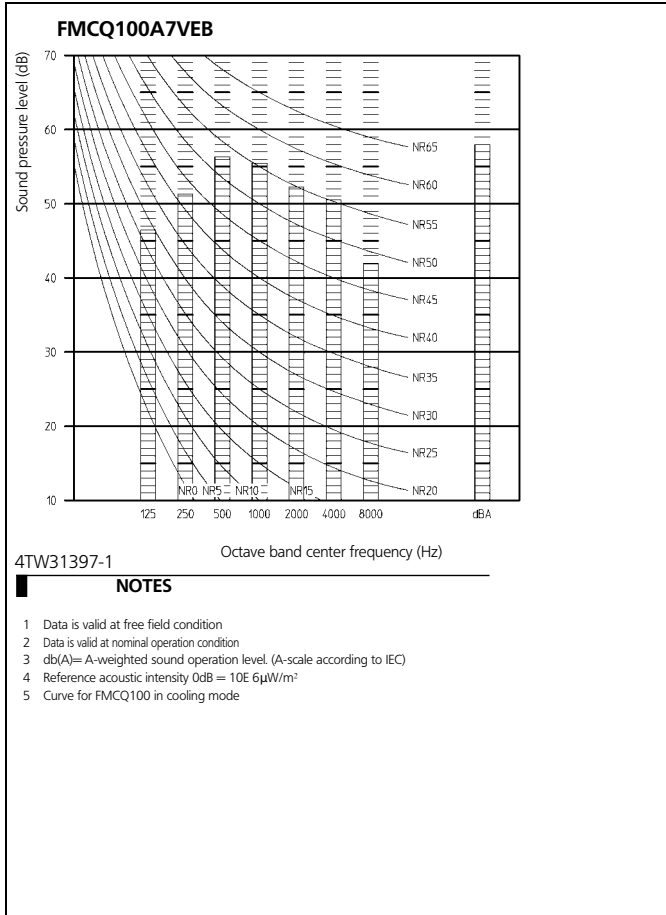
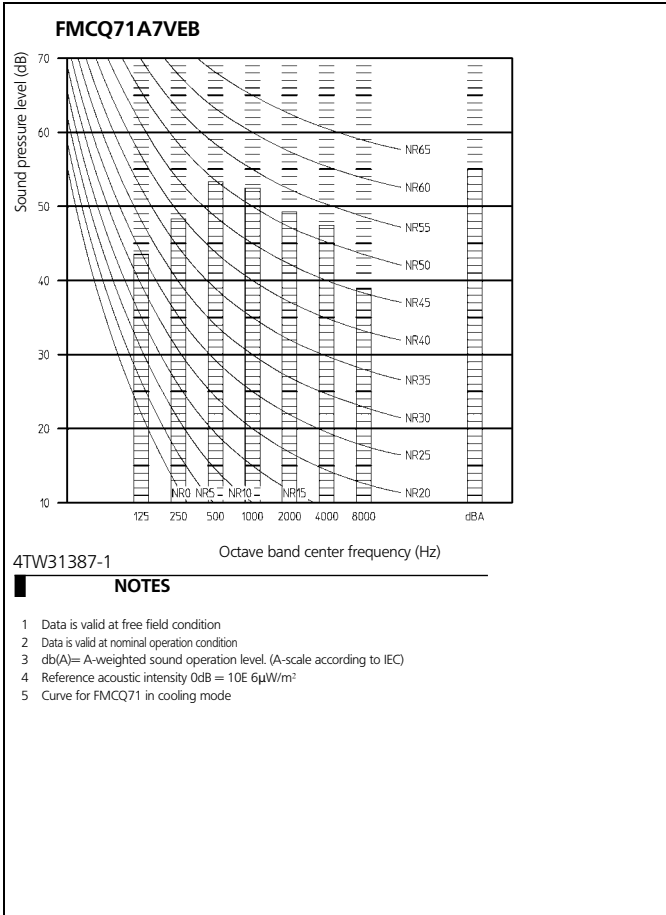
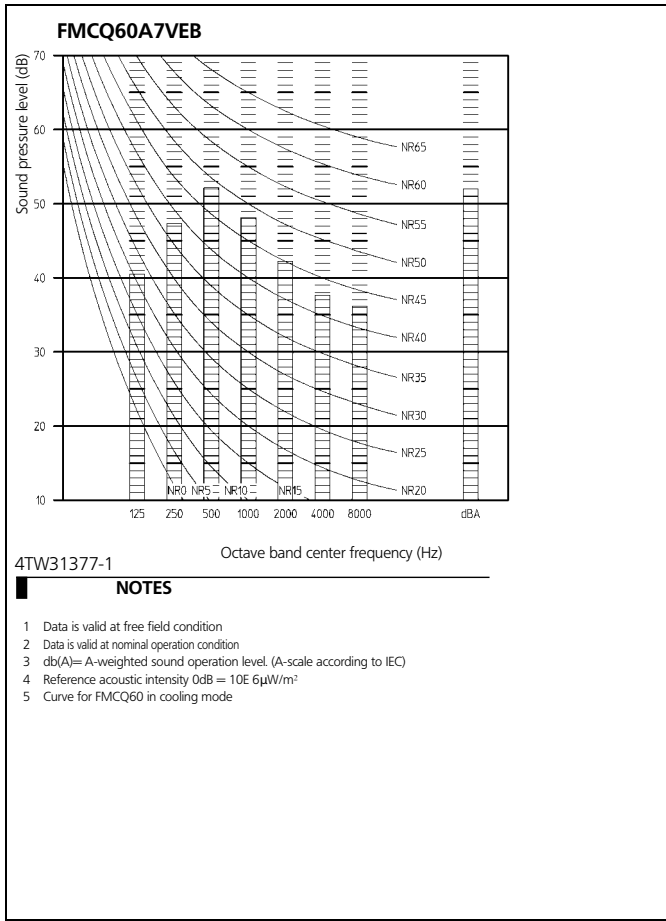
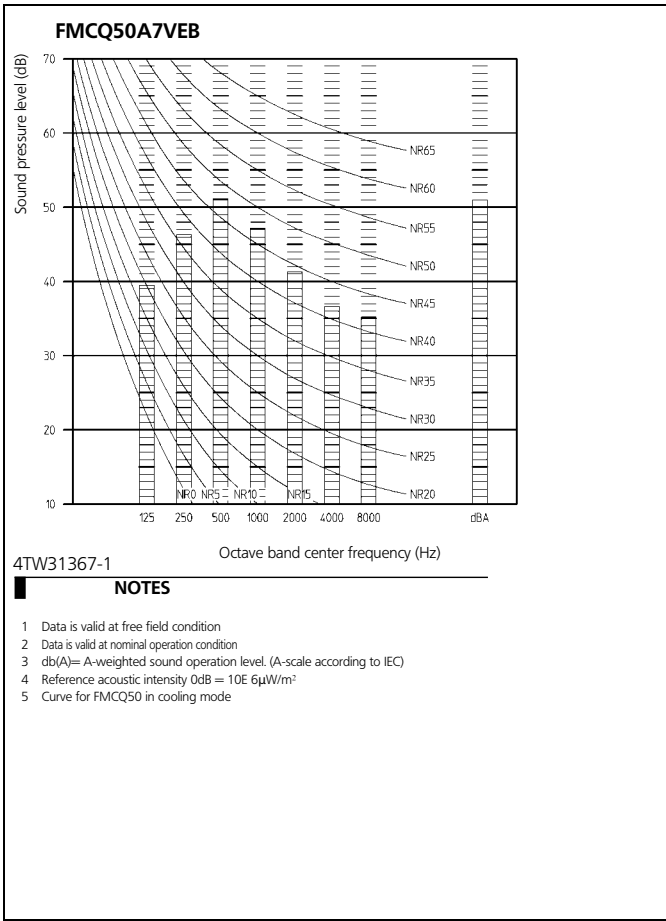
The rise sound from normal sound pressure level (dBA)

Fresh air intake volume (m³/min)

4TW91367-3

11 Sound data

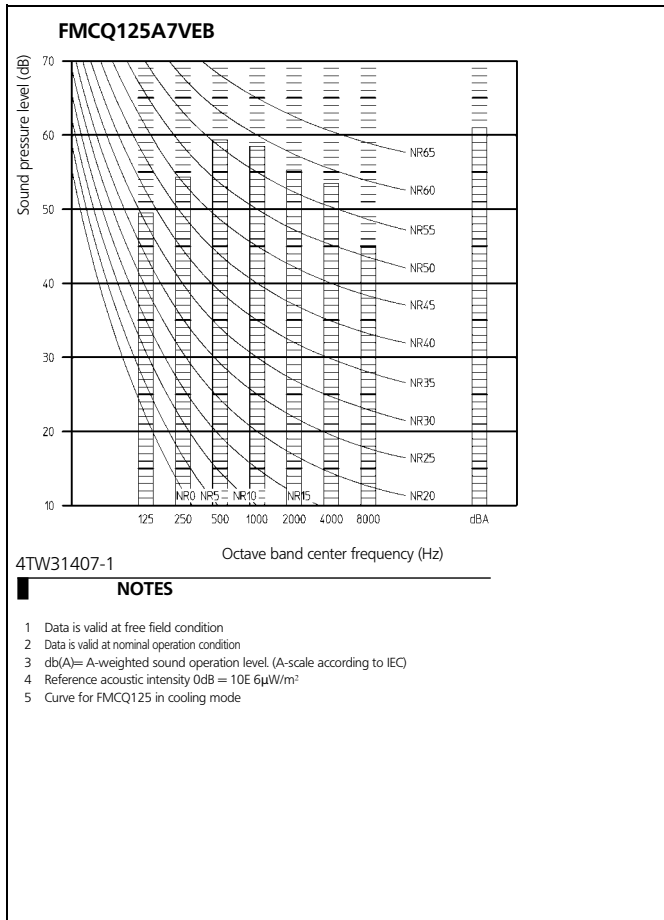
11 - 2 Sound power spectrum



11 Sound data

11 - 2 Sound power spectrum

11

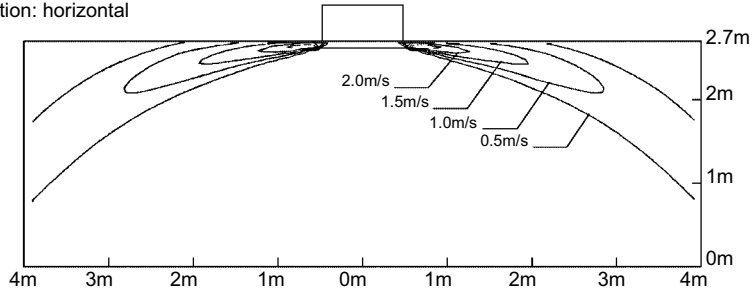


12 Air flow pattern

FMCQ50A

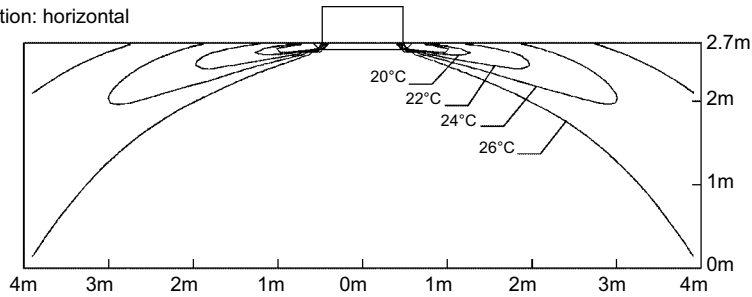
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

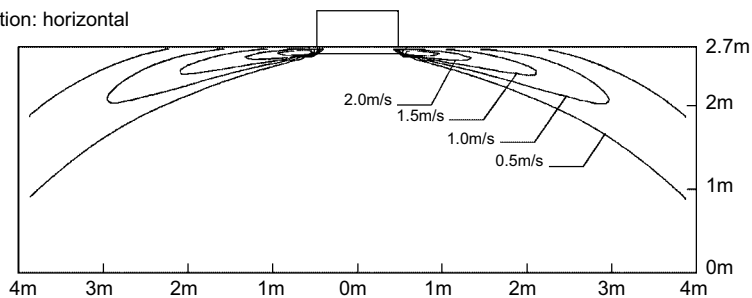


4D057229

FMCQ60A

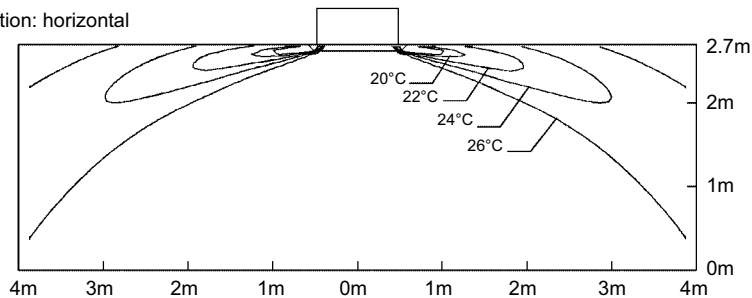
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



4D057231

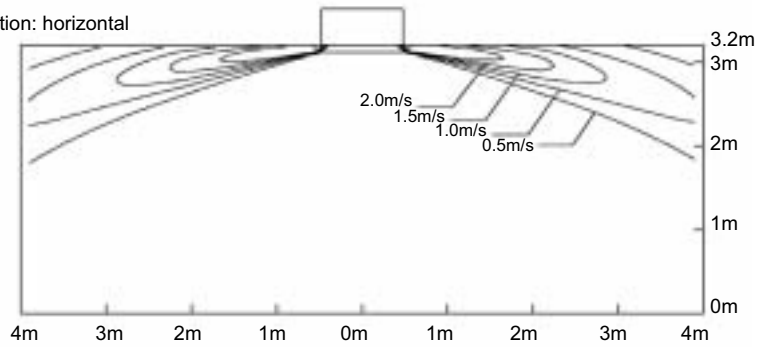
12 Air flow pattern

12

FMCQ71A

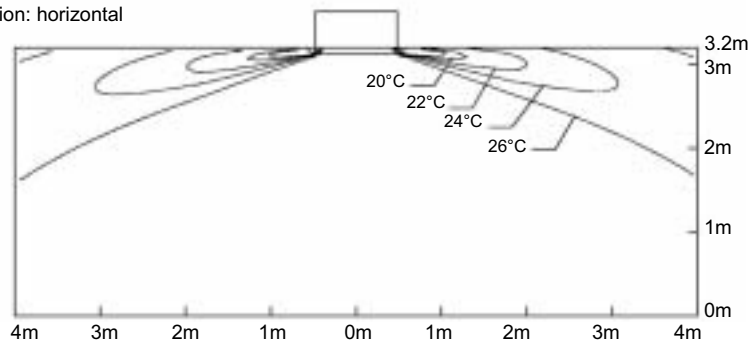
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

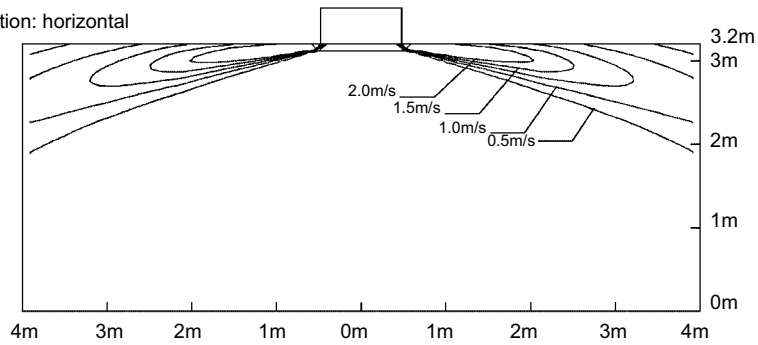


4D057233

FMCQ100A

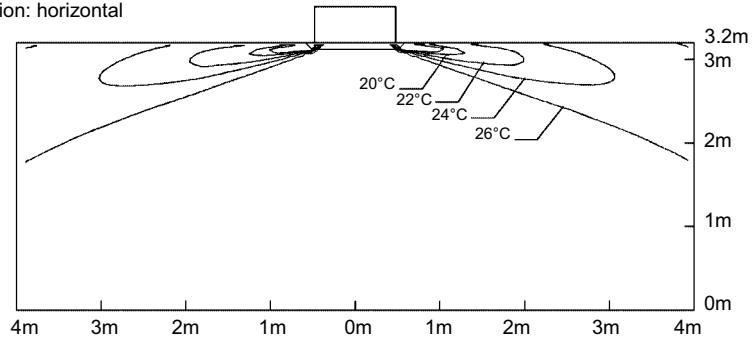
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal



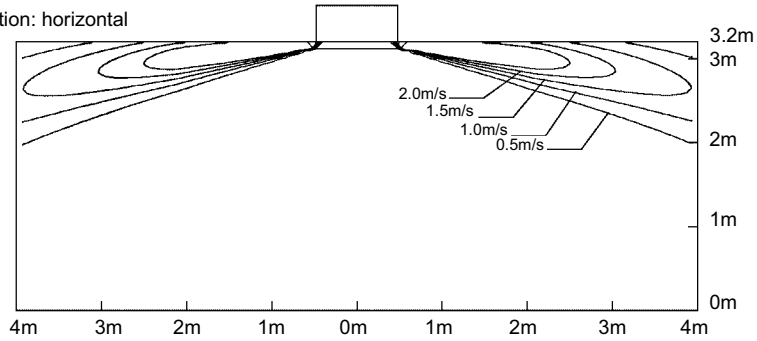
4D057235

12 Air flow pattern

FMCQ125A

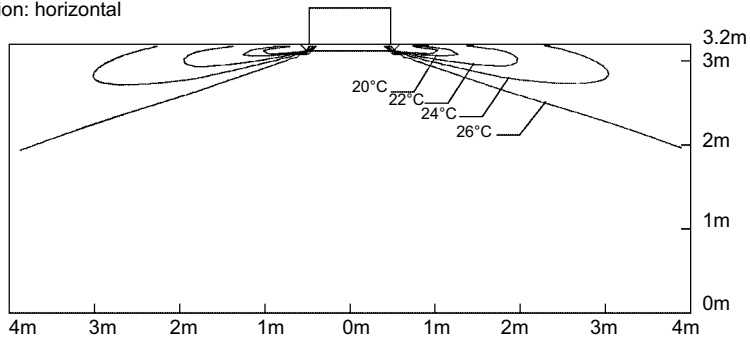
Cooling air velocity distribution

All round air discharge, air flow direction: horizontal



Cooling air temperature distribution

All round air discharge, air flow direction: horizontal

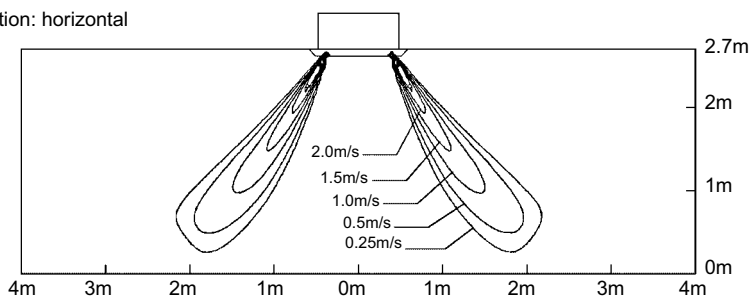


4D057237

FMCQ50A

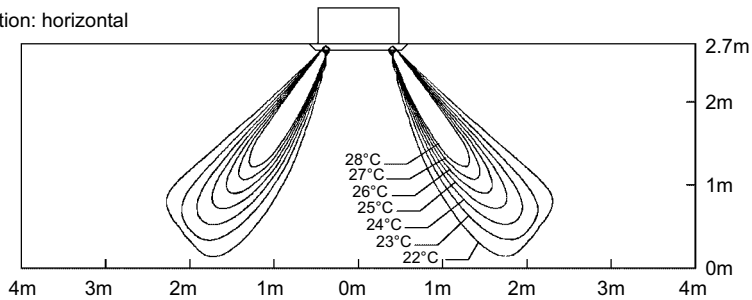
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



4D057228

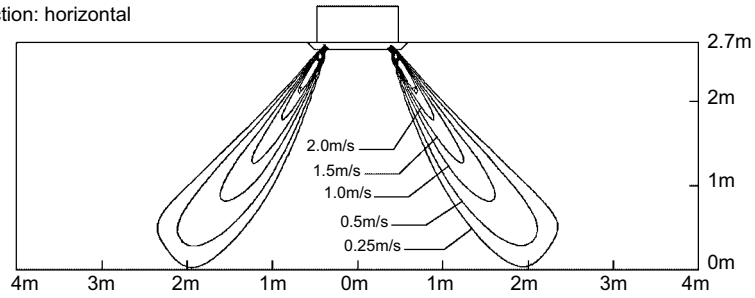
12 Air flow pattern

12

FMCQ60A

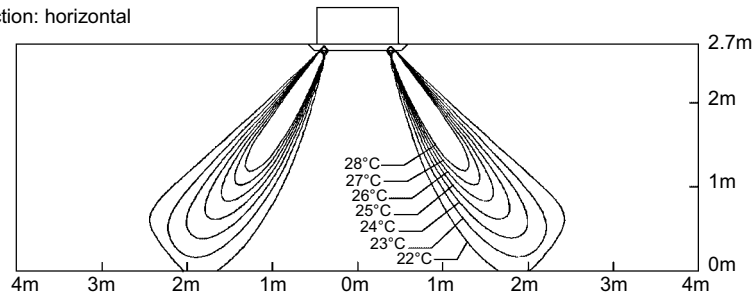
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal

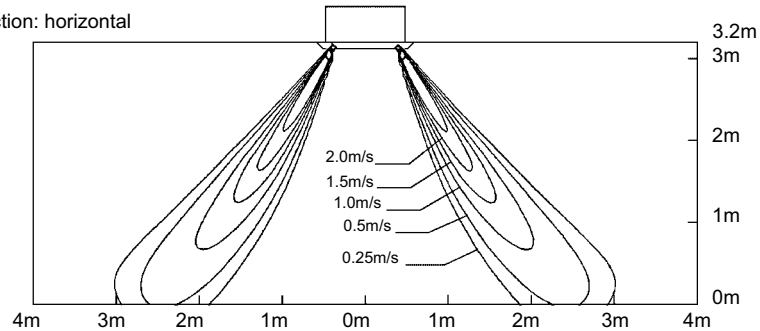


4D057230

FMCQ71A

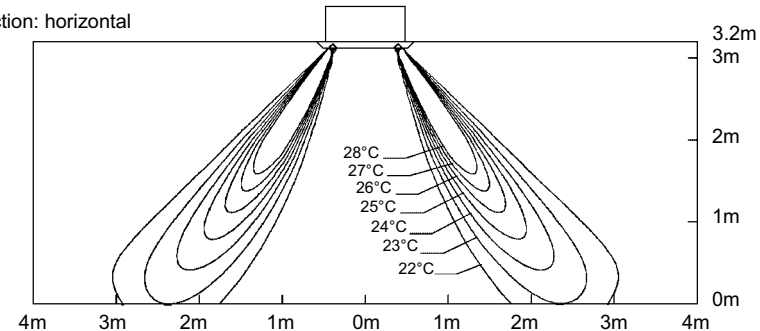
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air temperature distribution

All round air discharge, air flow direction: horizontal



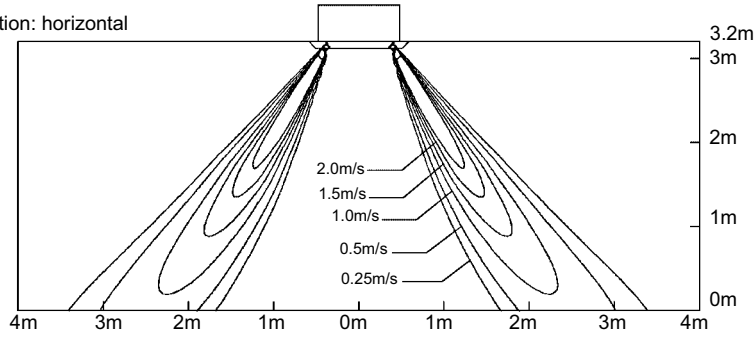
4D057232

12 Air flow pattern

FMCQ100A

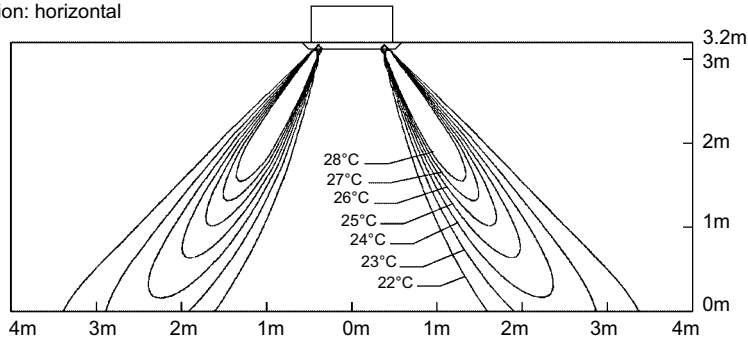
Heating air velocity distribution

All round air discharge, air flow direction: horizontal



Heating air velocity distribution

All round air discharge, air flow direction: horizontal

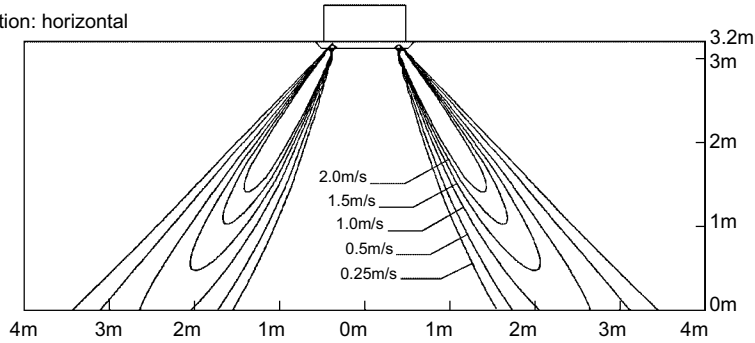


4D057234

FMCQ125A

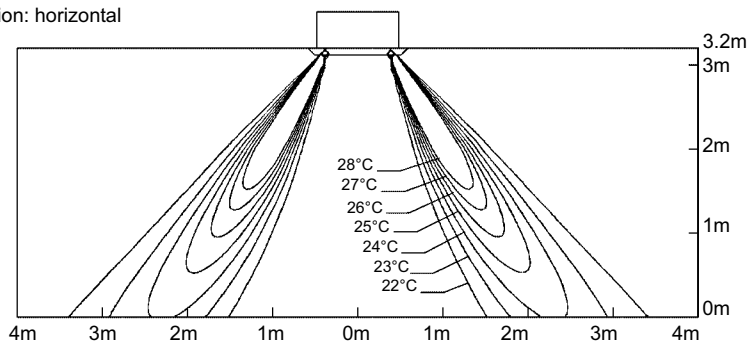
Heating air velocity distribution

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 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.



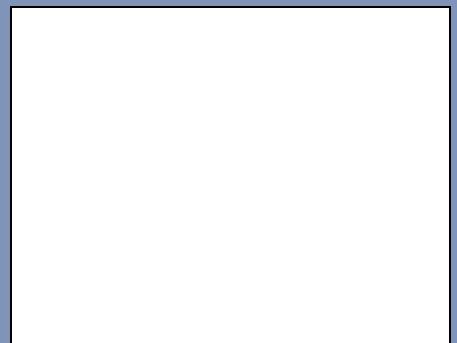
ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



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

VRV® products are not within the scope of the Eurovent certification programme.

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