

Air Conditioners

# Technical Data

**SkyAir®**

Round Flow Cassette



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FCQG-E

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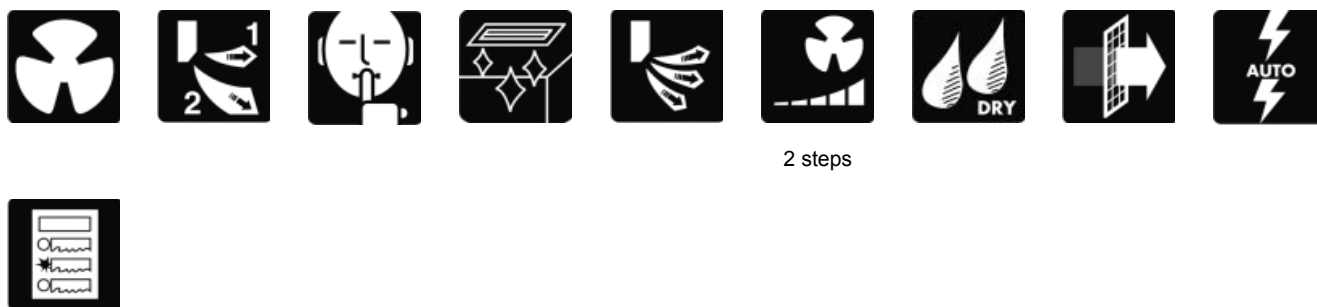
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# 1 Features

- Seasonal efficiency, optimized for all seasons.
- 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
- Vertical auto swing moves the discharge flaps up and down for efficient air and temperature distribution throughout the room
- 23 different air flow patterns possible



## 2 Specifications

2-1 Technical Specifications					FCQG71EVEB		FCQG100EVEB		FCQG125EVEB		FCQG140EVEB	
Casing	Material				Galvanised steel plate							
Dimensions	Unit	Height	mm		288							
		Width	mm		840							
		Depth	mm		840							
Weight	Unit	kg			25							
Heat exchanger	Rows	Quantity			1							
	Fin pitch		mm		1.25							
	Face area		m²		0.550							
	Stages	Quantity			18							
	Fin	Type			Cross fin coil (multi louver fins and N-hix tubes)							
Heat exchanger 2	Rows	Quantity			2							
	Fin pitch		mm		1.2							
	Stages	Quantity			18							
Fan	Type				Turbo fan							
	Air flow rate	Cooling	High	m³/min	21.5	32		33				
			Low	m³/min	12.5	19		21				
		Heating	High	m³/min	21.5	32		33				
			Low	m³/min	12.5	19		21				
Fan motor	Model				QTS48C15M							
Sound power level	Cooling	Nom.		dBA	53	61						
Sound pressure level	Cooling	Nom.		dBA	36	44		45				
	Heating	Nom.		dBA	29	33		35		37		
Piping connections	Liquid	Type			Flare connection							
		OD		mm	9.52							
	Gas	Type			Flare connection							
		OD		mm	15.9							
	Drain					VP25 (I.D. 25/O.D. 32)						

2-2 Electrical Specifications					FCQG71EVEB	FCQG100EVEB	FCQG125EVEB	FCQG140EVEB
Power supply	Phase				1			
	Frequency		Hz		50			
	Voltage		V		220-240			

### 3 Safety device settings

#### 3 - 1 Safety Device Settings

FCQG-EVEB

	Safety devices		71	100	125	140
FCQG-EVEB	Fuse		-	-	-	-
	Fan motor thermal fuse	°C	-	-	-	-
	Fan motor thermal protector	°C	-	-	-	-
	Drain pump thermal fuse	°C	-	-	-	-

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## 4 Options

### 4 - 1 Options

#### FCQG-EVEB

##### Options

Item	Remark	FCQG-EVEB			
		71	100	125	140
Decoration panel		BYCP125B-W1			
Sealing member of air discharge outlet		KDBHQ55B140 (AS3804758)			
Long-life filter		KAFP551K160 (AS3603283)			
Fresh air intake kit	Without T-shape duct *1	KDDQ55D140 (AS3804761)			

##### Control systems

Item	Remark	FCQG-EVEB			
		71	100	125	140
Remote control	Wired	BRC1E51A7/BRC1D528			
Wiring adapter for electrical appendices *2		KRP1BA57			
Wiring adapter for electrical appendices *2		KRP4AA53			
Wiring adapter (hour meter) *2		EKRP1C11			
Installation box for adapter PCB		KRP1H98			
Remote sensor		KRCS01-4B			
Central remote control		DCS302CA51			
Unified on/off controller		DCS301BA51			
Schedule timer		DST301BA51			
Electrical box with earth terminal (2 blocks)		KJB212AA			
Electrical box with earth terminal (3 blocks)		KJB311AA			
Remote on/off		EKRORO2			

\*1 Two of four corner air outlets are closed.  
Fresh air intake volume is 10% or less of air flow rate.

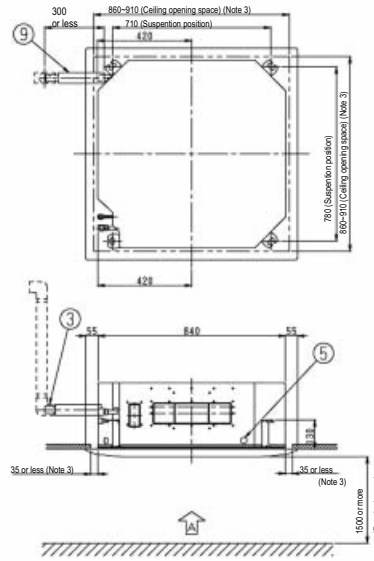
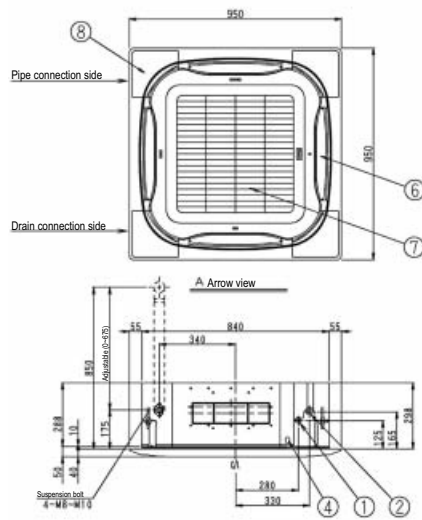
\*2 Installation box for adapter PCB (KRP1H98) is necessary.

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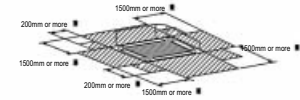
## 5 Dimensional drawings

### 5 - 1 Dimensional Drawings

#### FCQG-EVEB



#### Required space



■ When the blow-off grill is closing, the required space is 500mm or more.  
When uniting and closing a corner part (both right and left of the blow-off grill to close), it is 200mm or more.

#### Decoration panel

BYCP125B-W1	Fresh white 6, 5Y 9, 5/0, 5
-------------	-----------------------------

Nr	Name	Description
1	Liquid pipe connection	Ø 9.5 (Flare connection)
2	Gas pipe connection	Ø 15.9 (Flare connection)
3	Drain pipe connection	VP25 (OD Ø 32)
4	Power-source wiring and a unit wiring connection	
5	Connection wiring / Remote control wiring connection	
6	Air-outlet	
7	Suction grille	
8	Corner decoration cover	
9	Drain hose (accessory)	Local connection OD Ø 32 (outlet) (Unit connection OD Ø 26)

#### NOTES

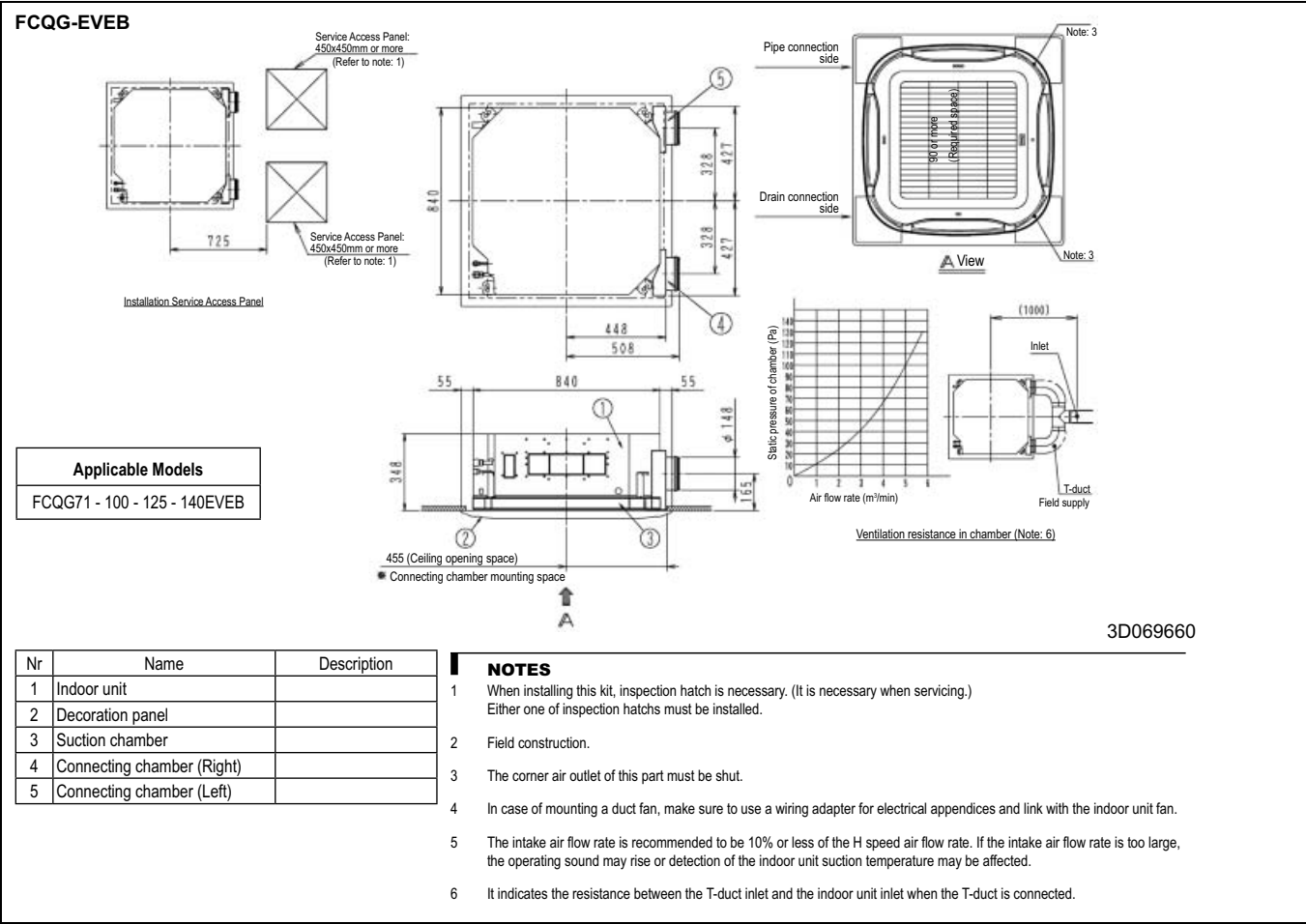
- 1 Sticking location for manufacture's label  
Manufacture's label for indoor unit: Suction grill inner side's electric components box's lid surface  
Manufacture's label for decoration panel: Decoration panel's corner decoration cover inner surface
- 2 When the temperature and humidity in the ceiling exceeds 30°C and RH 80% or the fresh air is inducted into the ceiling or the unit continues 24 hour operation, an additional insulation (thickness 10mm or more of glasswool or polyethylene form) is required.
- 3 Though the installation is acceptable up to maximum of 910mm square ceiling opening, keep the clearance of 35mm or less between the indoor unit and the ceiling opening so that the panel overlap allowance can be ensured.
- 4 Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity is 80% or more, and the drain outlet are choked up and the air filters are dirty, dew may fall.

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# 5 Dimensional drawings

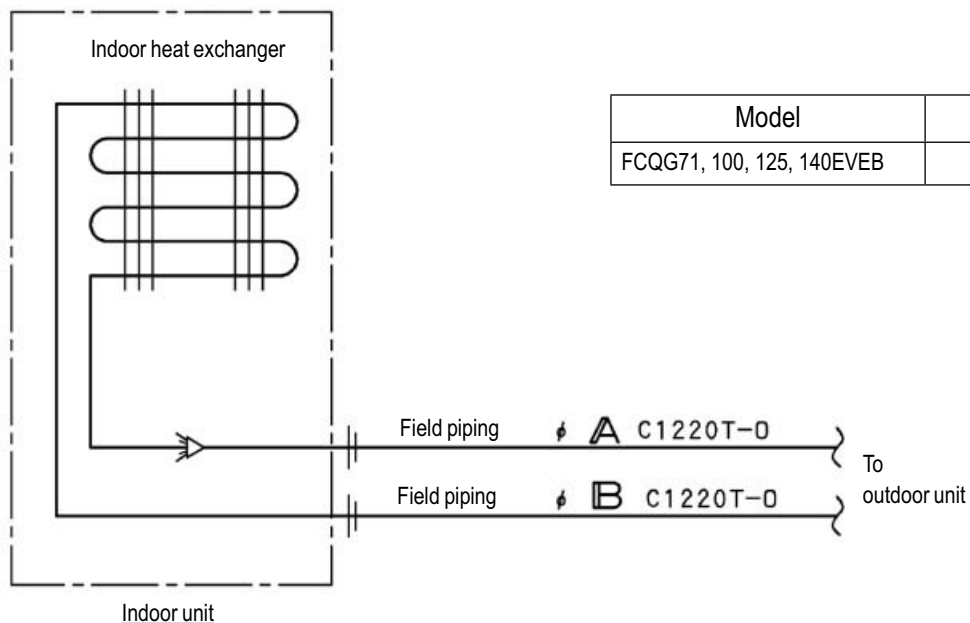
## 5 - 2 Dimensional Drawings with Fresh Air Intake



## 6 Piping diagrams

### 6 - 1 Piping Diagrams

FCQG-EVEB

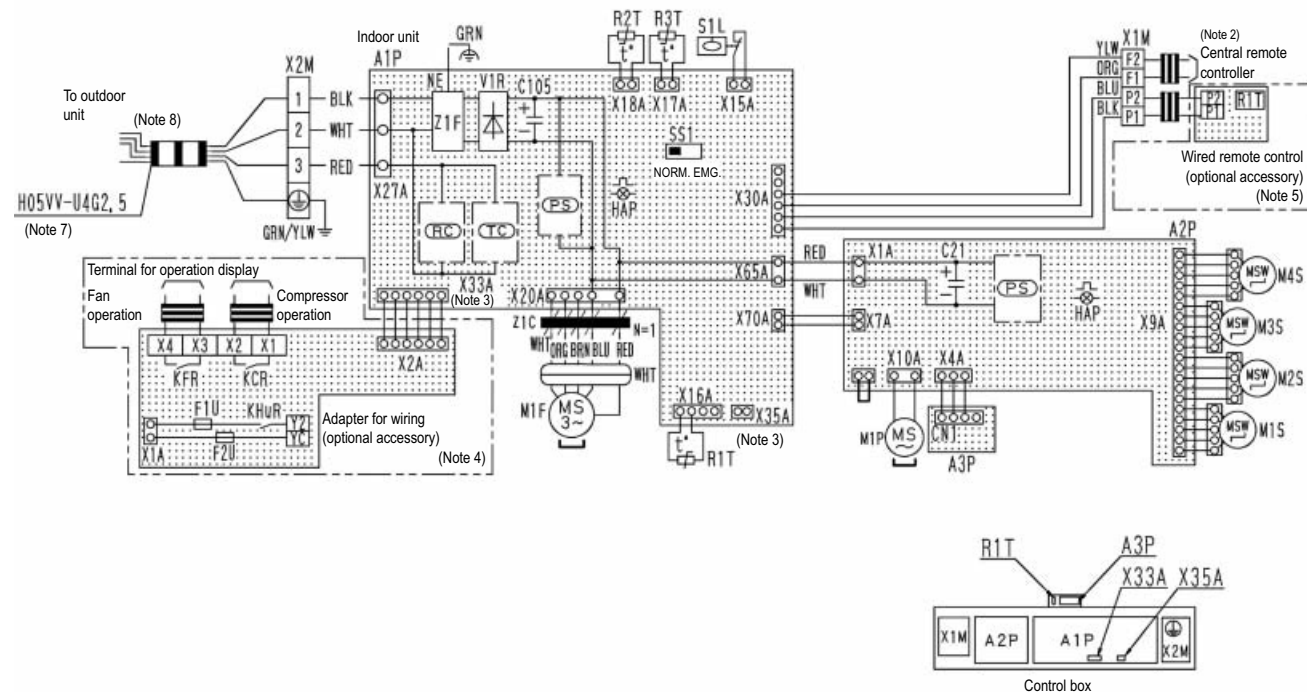


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## 7 Wiring diagrams

### 7 - 1 Wiring Diagrams - Single Phase

#### FCQG-EVEB



Indoor unit		X2M	Terminal strip
A1P	Printed circuit board	Z1C	Ferrite core (noise filter)
A2P	Printed circuit board	Z1F	Noise filter
A3P	Printed circuit board (Humidity sensor unit)	(PS)	Power supply circuit
C21	Capacitor	(RC)	Signal receiver circuit
C105	Capacitor	(TC)	Signal transmission circuit
HAP	Light emitting diode (service monitor green)	Wired remote control	
M1F	Motor (indoor fan)	R1T	Thermistor (air)
M1P	Motor (drain pump)	Adapter for wiring	
M1S ~ M4S	Motor (swing flap)	F1U	Fuse (Ⓕ, 5A, 250V)
		F2U	
R1T	Thermistor (air)	KCR	Magnetic relay
R2T - R3T	Thermistor (coil)	KFR	Magnetic relay
S1L	Float switch	KHuR	Magnetic relay (Hu)
SS1	Selector switch (emergency)	Connector for optional parts	
V1R	Diode bridge	X33A	Connector (adapter for wiring)
X1M	Terminal strip	X35A	Connector (group control adapter)

RED: red WHT: white  
 BLK: black YLW: yellow  
 GRN: green ORG: orange  
 BRN: brown PNK: pink  
 GRY: gray BLU: blue

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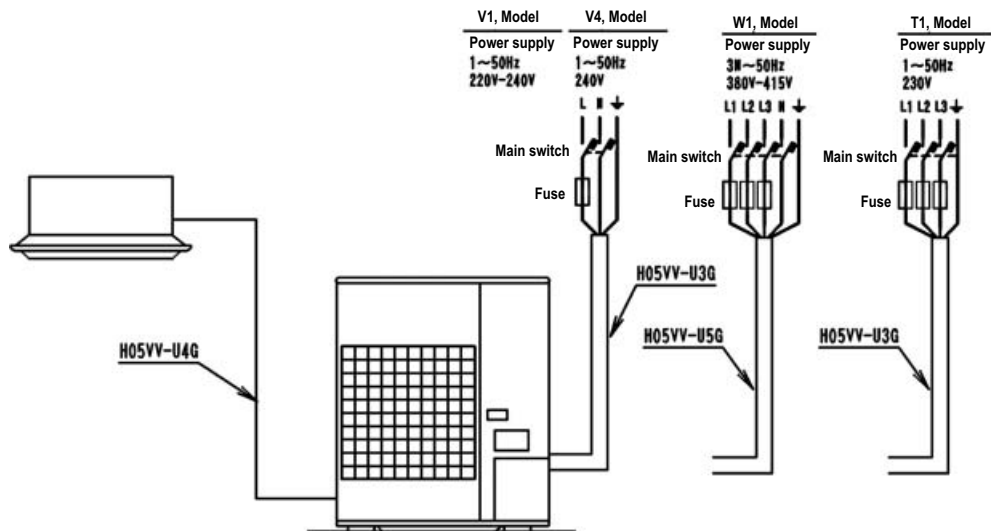
#### NOTES

- □ □ : Terminal □ □ □ : connector □ □ □ : Field wiring
- In case using central remote control, connect it to the unit in accordance with the attached installation manual
- X33A, X35A are connected when the optional accessories are being used.
- Connect power of adapter for wiring to terminal block (X2M) of indoor unit directly.
- In case of main/sub overcharge, see the installation manual attached to remote control.
- Symbols shows as follows: RED: red BLK: black WHT: white YLW: yellow GRN: green ORG: orange BRN: brown PNK: pink GRY: gray BLU: blue
- Shown only in case of protected pipes. Use HO7RN-F in case of no protection.
- Model outdoor unit shown in this diagram shows the outline of product. For the detail, see wiring diagram attached to outdoor unit.

## 8 External connection diagrams

### 8 - 1 External Connection Diagrams

FCQG-EVEB



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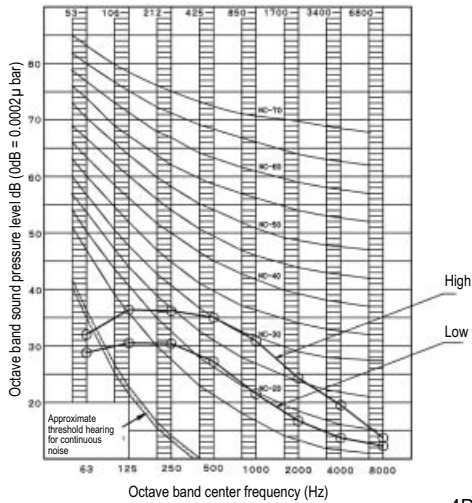
#### NOTES

1. — Line voltage wiring  
— Control circuit wiring
2. All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
3. Use copper conductor only.
4. As for details, see wiring diagrams.
5. Install fuse and main switch for safety.
6. All field wiring and components must be provided by a licensed electrician.
7. Unit shall be grounded in compliance with the applicable local and national codes.
8. Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
9. Never share a common power source with other equipment.

## 9 Sound data

### 9 - 1 Sound Pressure Spectrum

FCQG71EVEB

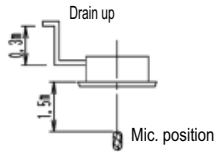


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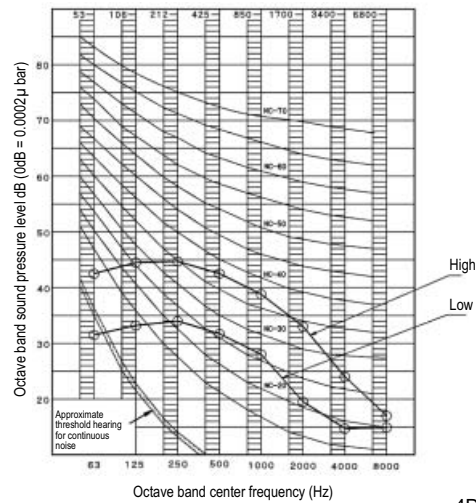
#### NOTES

- 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
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Location of microphone.

Scale	High	Low
A	36	29
C	42	35



FCQG100EVEB

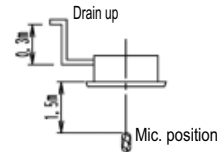


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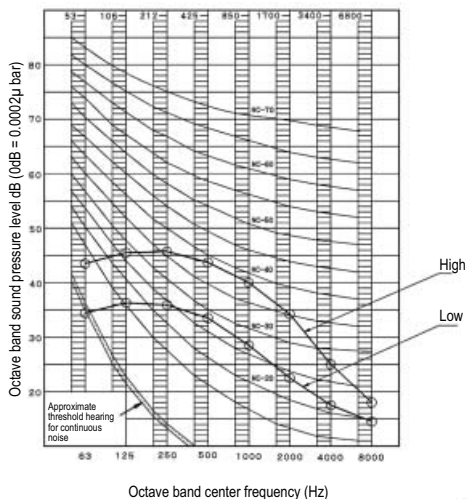
#### NOTES

- 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
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Location of microphone.

Scale	High	Low
A	44	33
C	50	39



FCQG125EVEB

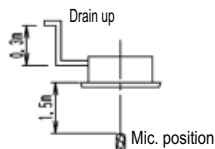


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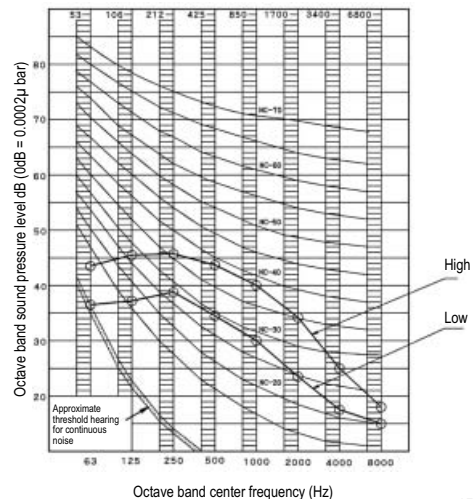
#### NOTES

- 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
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Location of microphone.

Scale	High	Low
A	45	35
C	51	41



FCQG140EVEB

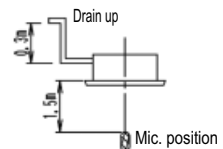


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#### NOTES

- 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
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Location of microphone.

Scale	High	Low
A	45	37
C	51	43





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 intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



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