



# Air Conditioning Technical Data

Ceiling suspended unit



EEEN13-100

FHQ-C



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## FHQ-C

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# 1 Features

- User friendly remote control with contemporary design
- Ideal solution for commercial spaces with narrow or no false ceilings
- Easy to use: all main functions directly accessible
- The unit can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space
- Easy setup: clear graphical user interface for advanced menu settings
- Low energy consumption thanks to DC fan motor and drain pump
- Optimise your air conditioning system by activating a series of energy saving functions (temperature range limit, setback function, off timer, ...)
- Stylish unit blends easily with any interior, as the flaps close entirely when not in operation
- Keep track of your energy consumption with the kWh indication showing an indicative electricity consumption
- Can be installed in both new and existing buildings
- Setup to 3 independent schedules, so the user can easily change the schedule himself throughout the year (e.g. summer, winter, mid-season)
- Wider air discharge thanks to Coanda effect: up to 100°
- Real time clock with auto update to daylight saving time
- Air flow distribution for ceiling heights up to 3.8m without capacity loss
- Supports multiple languages (English, German, Dutch, Spanish, Italian, Portuguese, French, Greek, Russian, Turkish and Polish)
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.
- Possibility to individually restrict menu functions
- When a power failure occurs all settings remain stored up to 48 hours thanks to the built-in backup power
- Home leave operation maintains the indoor temperature at your specified comfort level during absence, thus saving energy



3 steps



optional

## 2 Specifications

2-1 Technical Specifications				FHQ35C		FHQ50C		FHQ60C		FHQ71C		FHQ100C		FHQ125C		FHQ140C			
Power input - 50Hz	Cooling		Nom.	kW		0.090				0.091		0.110		0.172		0.217		0.251	
	Heating		Nom.	kW		0.072		0.090						0.172		0.217		0.251	
Casing	Colour			Fresh White															
	Material			Resin, sheet metal															
Dimensions	Unit		Height/Width/Depth	mm		235/960/690				235/1,270/690				235/1,590/690					
	Packed unit		Height/Width/Depth	mm		340/1,116/858				349/1,426/878				349/1,746/878					
Weight	Unit			kg		24		25		31		32		38					
	Packed unit			kg		38		39		52		54		61					
Packing	Material					-		Carton / Plywood		Carton / Plywood		Carton / Plywood		Carton / Plywood		Carton / Plywood		Carton / Plywood	
	Weight			kg		8.5				13.9				15.0					
Heat exchanger	Length			mm		722				1,032				1,352					
	Rows		Quantity		2		3		2		3								
	Fin pitch			mm		1.5													
	Face area			m²		0.2130				0.3030				0.3980					
	Stages		Quantity		14														
	Empty tubeplate hole		Quantity		0														
	Tube type			ø7 Hi-XSL															
	Tube material			Copper															
	Tube diameter			mm		7.0													
	Fin		Type		ML fin (Multi louver)														
			Treatment		Anti Corrosion Hydrophilic														
Fan	Type			Sirocco fan															
	Quantity			2								4							
	Air flowrate	Cooling	High	m³/min	14	15	19.5	20.5	28	31	34								
				cfm	494	530	689	724	989	1,095	1,201								
			Nom.	m³/min	11.5	12	15	17	24	27	29								
				cfm	406	424	530	600	848	953	1,024								
			Low	m³/min	10		11.5	14	20	23	24								
				cfm	353		406	494	706	812	848								
		Heating	High	m³/min	14	15	19.5	20.5	28	31	34								
				cfm	494	530	689	724	989	1,095	1,201								
			Nom.	m³/min	11.5	12	15	17	24	27	29								
				cfm	406	424	530	600	848	953	1,024								
	Low	m³/min	10		11.5	14	20	23	24										
		cfm	353		406	494	706	812	848										
Fan motor	Quantity			1															
	Model			KFD-280-87-8A				KFD-280-117-8A				EQDW01EDK							
	Index of Protection			20															
	Insulation grade			Class "E"															
	Poles			8															
	Drive			Direct drive															
	Speed	Steps			3														
		Cooling	High/Medium/Low	rpm	864/787/710	960/856/711	875/792/709	936/825/714	1,090/935/780	1,170/1,017/864	1,254/1,076/898								
					864/787/710	960/856/711	875/792/709	936/825/714	1,090/935/780	1,170/1,017/864	1,254/1,076/898								
	Heating	High/Medium/Low	rpm	864/787/710	960/856/711	875/792/709	936/825/714	1,090/935/780	1,170/1,017/864	1,254/1,076/898									
	Output		High	W	60				91				150						
Phase x Voltage			V		DC280V								DC192V-380V						
Full load amps (FLA)	Cooling		A	0.6				0.8		1.2		1.6		1.8					
	Heating		A	0.6				0.8		1.2		1.6		1.8					
Sound power level	Cooling		High/Nom./Low	dBA	53/51/48	54/52/49	54/52/50	55/53/51	60/56/52	62/59/55	64/60/56								
	Heating		High/Nom./Low	dBA	53/51/48	54/52/49	54/52/50	55/53/51	60/56/52	62/59/55	64/60/56								

## 2 Specifications

2-1 Technical Specifications				FHQ35C	FHQ50C	FHQ60C	FHQ71C	FHQ100C	FHQ125C	FHQ140C
Sound pressure level	Cooling	High/Nom./Low	dBA	36/34/31	37/35/32	37/35/33	38/36/34	42/38/34	44/41/37	46/42/38
	Heating	Super high/High/ Nom./Low	dBA	-/36/34/31	-/37/35/32	-/37/35/33	-/38/36/34	-/42/38/34	-/44/41/37	-/46/42/38
Refrigerant	Type			R-410A						
Piping connections	Sound absorbing insulation			Not needed						
	Liquid	Type/OD	mm	C1220T (Flare connection)/6.35			C1220T (Flare connection)/9.52			
	Gas	Type/OD	mm	C1220T (Flare connection)/ 9.5	C1220T (Flare connection)/ 12.7		C1220T (Flare connection)/15.9			
	Drain			VP20						
	Heat insulation			Needed						
	Air direction control			Up and downwards						
Air filter	Type			Resin net with mold resistance						
	Quantity		pc	2						
Safety devices	Item	01		Fuse (F, 5A, 250V)			-			

Standard Accessories : Screw for wiring fixture;

Standard Accessories : Wiring fixture;

Standard Accessories : Resin bushing;

Standard Accessories : Sealing material;

Standard Accessories : Joint insulating material;

Standard Accessories : Installation pattern;

Standard Accessories : Clamps;

Standard Accessories : Washer for hanger bracket;

Standard Accessories : Clamp metal;

Standard Accessories : Drain hose;

Standard Accessories : Declaration of conformity;

Standard Accessories : Operation manual;

Standard Accessories : Installation manual;

2-2 Electrical Specifications				FHQ35C	FHQ50C	FHQ60C	FHQ71C	FHQ100C	FHQ125C	FHQ140C
Power supply	Name			VE						
	Phase			1~						
	Frequency		Hz	50/60						
	Voltage		V	220-240/220						
Current - 50Hz	Maximum running current		A	0.6			0.8	1.3	1.5	1.8
Current - 60Hz	Nominal running current		A	-						

3 Safety device settings

3 - 1 Safety Device Settings

FHQ-C									
	Safety devices		35	50	60	71	100	125	140
FHQ~C	Fuse		250V 5A	250V 5A	250V 5A	---	---	---	---
	Fan motor thermal fuse	°C	---	---	---	---	---	---	---
	Fan motor thermal protector	°C	---	---	---	---	---	---	---

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## 4 Options

### 4 - 1 Options

#### FHQ-C

Name of option	Remark		FHQ-C						
			35	50	60	71	100	125	140
Long-life filter			KAFP501A56		KAFP501A80		KAFP501A160		
Fresh air intake kit			KDDQ50A140						
L-type piping kit (for upward direction)			KHFP5N63			KHFP5N160			
Remote controller	Wired type	BRC1D528, BRC1E51A7, BRC1E52A7, BRC1E52B7							
	Infrared type	Heat pump use	BRC7GA53						
		Cooling only use	BRC7GA56						
Central remote controller			DCS302CA51						
Unified ON/OFF controller			DCS301BA51						
Schedule timer			DST301BA51						
Wiring adapter for electrical appendices			KRP1BA54						
Wiring adapter for electrical appendices			KRP4AA52						
Wiring adapter for electrical appendices			---						
External adaptor for outdoor unit (installation on indoor unit)			---						
Installation box for adapter PCB			KRP1D93A						
Remote sensor			KRC501-4B						
Remote On/Off (Connector for forced on, forced off)			EKRORO4						
Noise filter (for electromagnetic use only)			---						
Electrical box with earth terminal (3 blocks)			KJB311AA						
Electrical box with earth terminal (2 blocks)			KJB212AA						

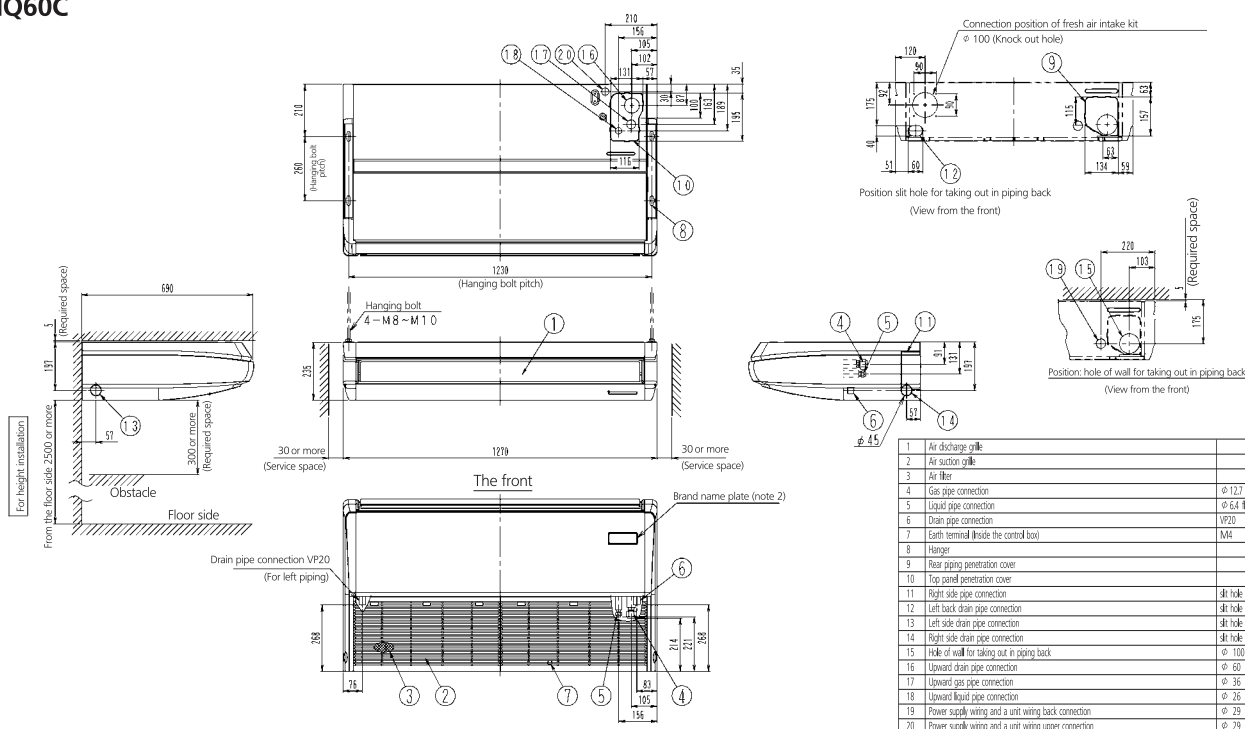
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## 5 - 1 Dimensional Drawings

## FHQ60C

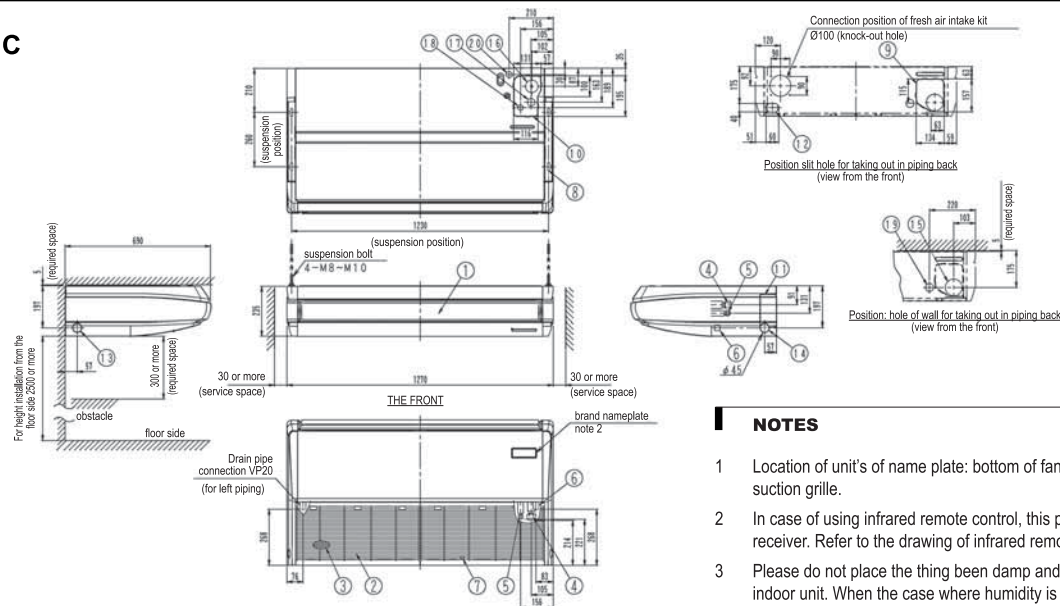


Note:

1. Location of unit's name plate: bottom of fan housing inside the suction grille.
2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote controller in detail.
3. 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 filter are dirty, dew may fall.

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## FHQ71C



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## NOTES

- 1 Location of unit's of name plate: bottom of fan housing inside the suction grille.
- 2 In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
- 3 Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity is 80% or more, the drain outlet are choked up and the air filter are dirty, dew may fall.

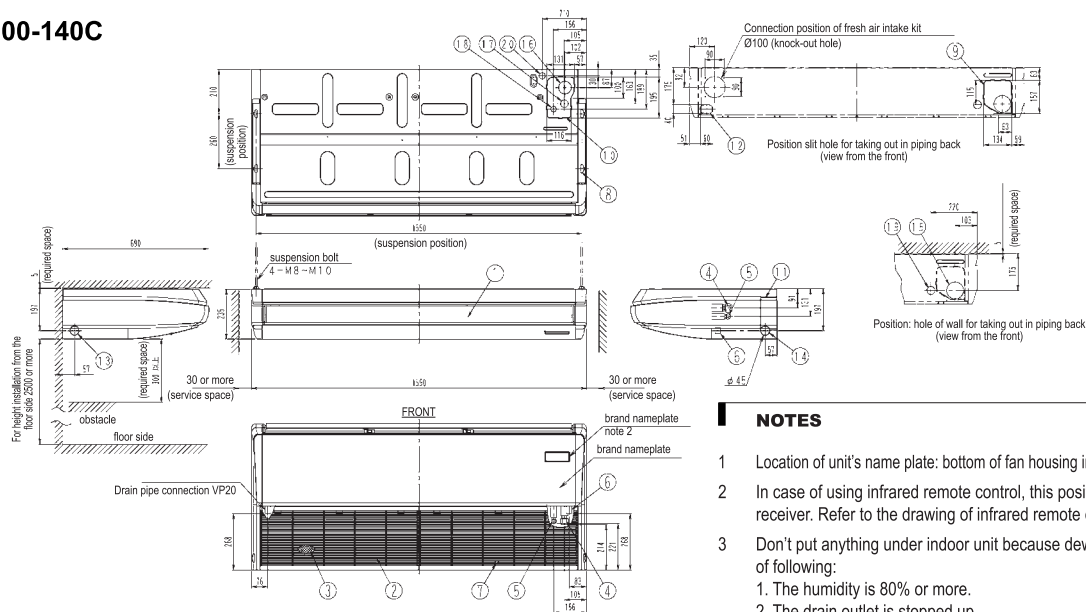
Nr	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	Ø15.9 flare
5	Liquid pipe connection	Ø9.5 flare
6	Drain pipe connection	VP20
7	Earth terminal (inside electric components box)	M4
8	Hanger bracket	
9	Backward piping and wiring connection opening lid	
10	Upward piping and wiring connection opening lid	

11	Right side pipe connection	slit hole
12	Left back drain pipe connection	slit hole
13	Left side drain pipe connection	slit hole
14	Right side drain pipe connection	slit hole
15	Hole of wall for taking out in piping back	Ø100
16	Upward drain pipe connection	Ø60
17	Upward gas pipe connection	Ø36
18	Upward liquid pipe connection	Ø26
19	Power source wiring and a unit wiring back connection	Ø29
20	Power source wiring and a unit wiring upper connection	Ø29

## 5 Dimensional drawings

### 5 - 1 Dimensional Drawings

#### FHQ100-140C



#### NOTES

- 1 Location of unit's name plate: bottom of fan housing inside the suction grille.
- 2 In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
- 3 Don't put anything under indoor unit because dew may fall by reason of following:
  1. The humidity is 80% or more.
  2. The drain outlet is stopped up.
  3. The air filter is dirty.

Nr	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	Ø15.9 flare
5	Liquid pipe connection	Ø9.5 flare
6	Drain pipe connection	VP20
7	Earth terminal (inside electric components box)	M4
8	Hanger bracket	
9	Backward piping and wiring connection opening lid	
10	Upward piping and wiring connection opening lid	

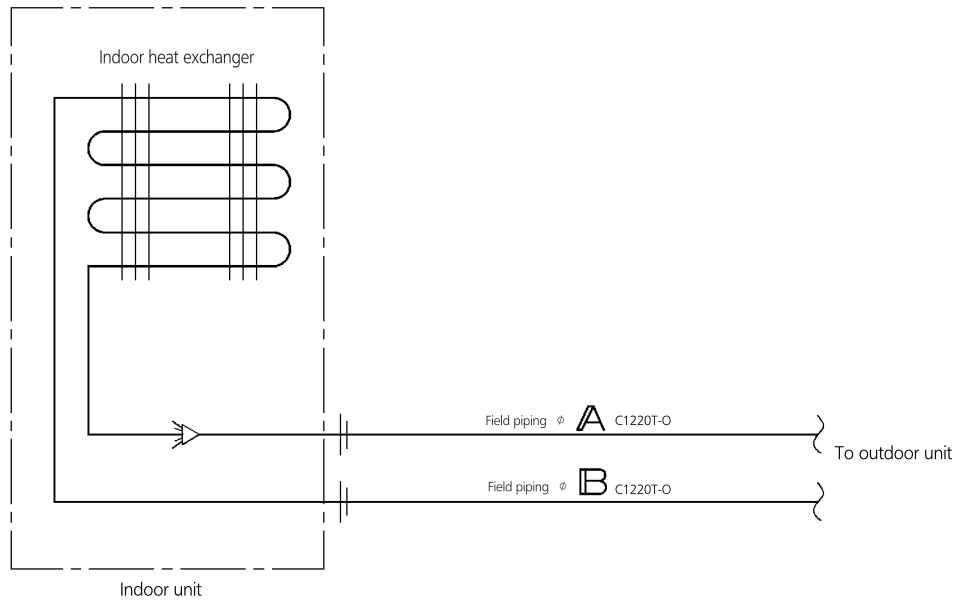
11	Right side pipe connection	slit hole
12	Left back drain pipe connection	slit hole
13	Left side drain pipe connection	slit hole
14	Right side drain pipe connection	slit hole
15	Hole of wall for taking out in piping back	Ø100
16	Upward drain pipe connection	Ø60
17	Upward gas pipe connection	Ø36
18	Upward liquid pipe connection	Ø26
19	Power source wiring and a unit wiring back connection	Ø29
20	Power source wiring and a unit wiring upper connection	Ø29

# 6     Piping diagrams

## 6 - 1   Piping Diagrams

6

FHQ-C



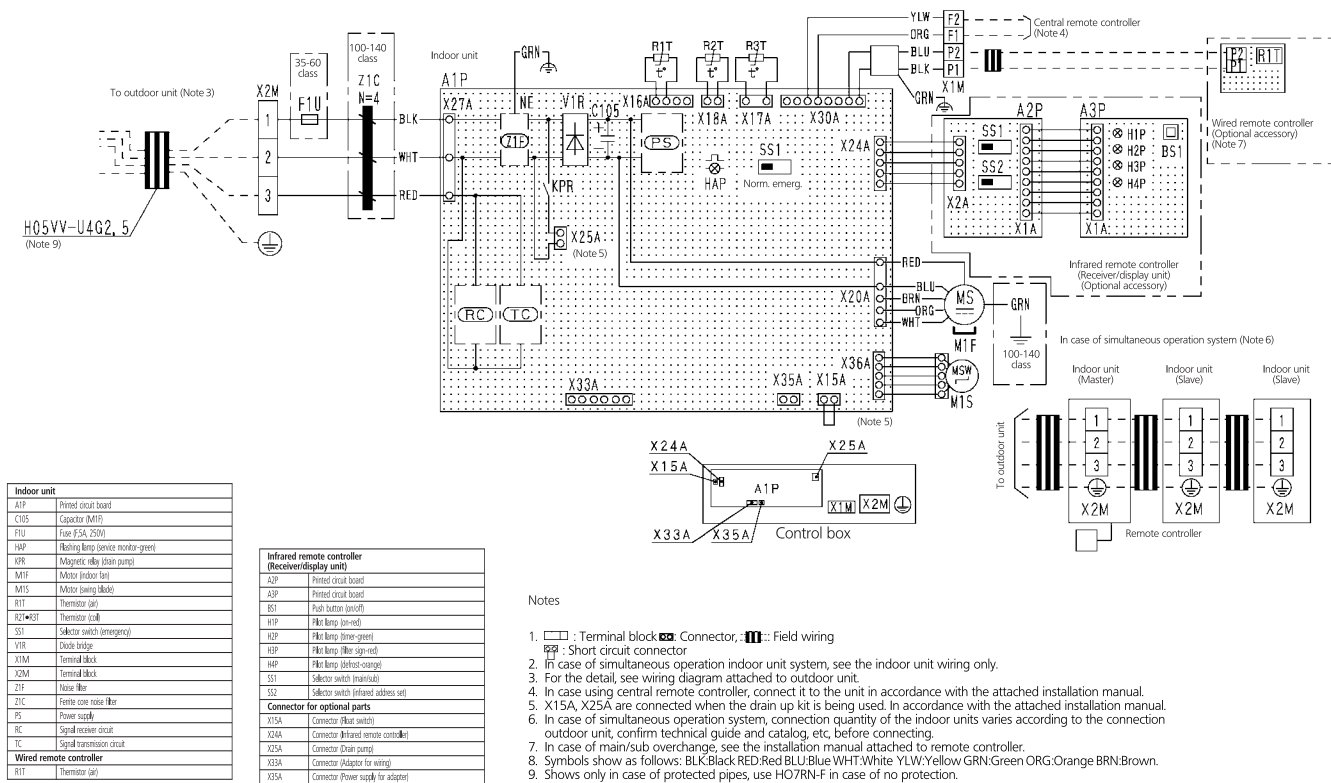
Model	A	B
FHQ35C	6.4	9.5
FHQ50, 60C	6.4	12.7
FHQ71, 100, 125C	9.5	15.9

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## 7 Wiring diagrams

### 7 - 1 Wiring Diagrams - Single Phase

#### FHQ-C

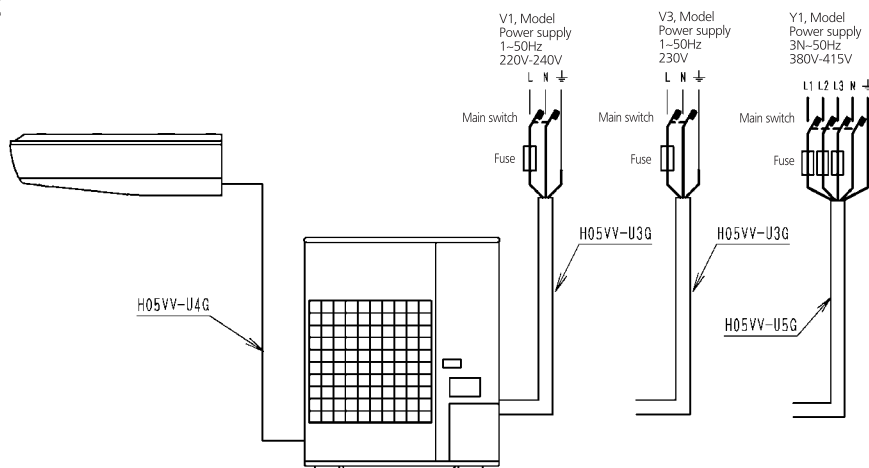


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## 8 External connection diagrams

### 8 - 1 External Connection Diagrams

FHQ-C



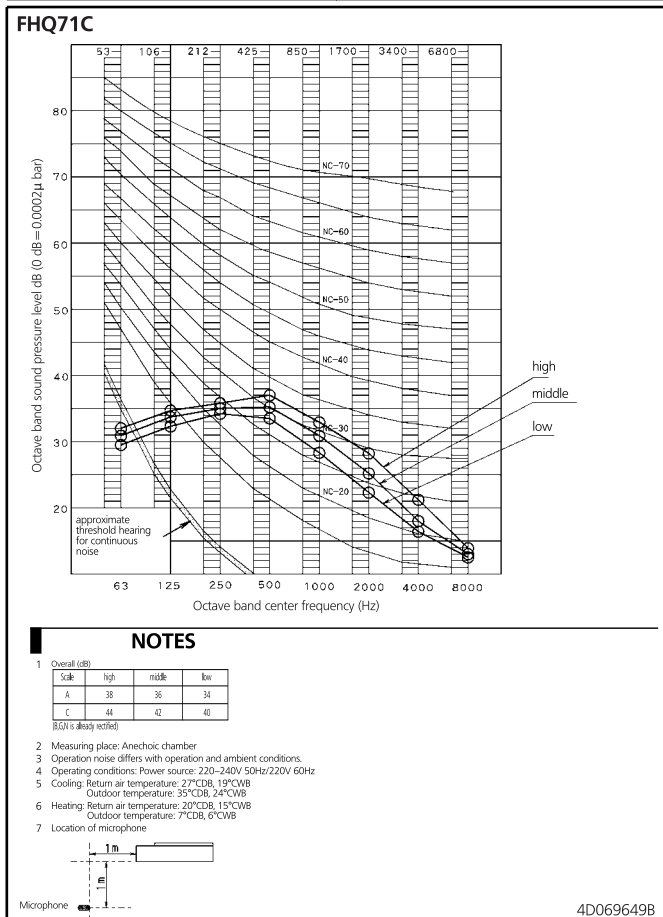
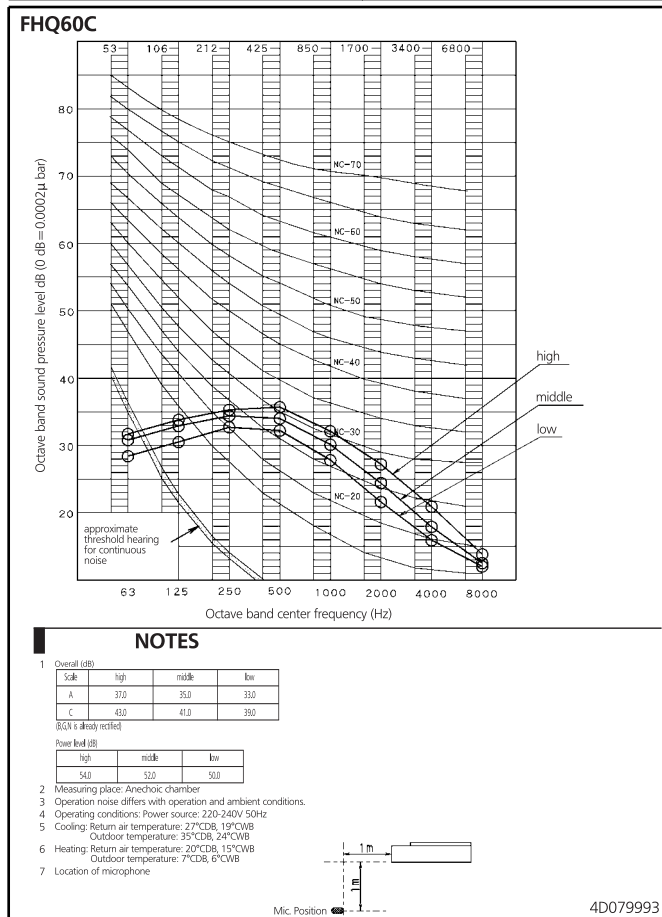
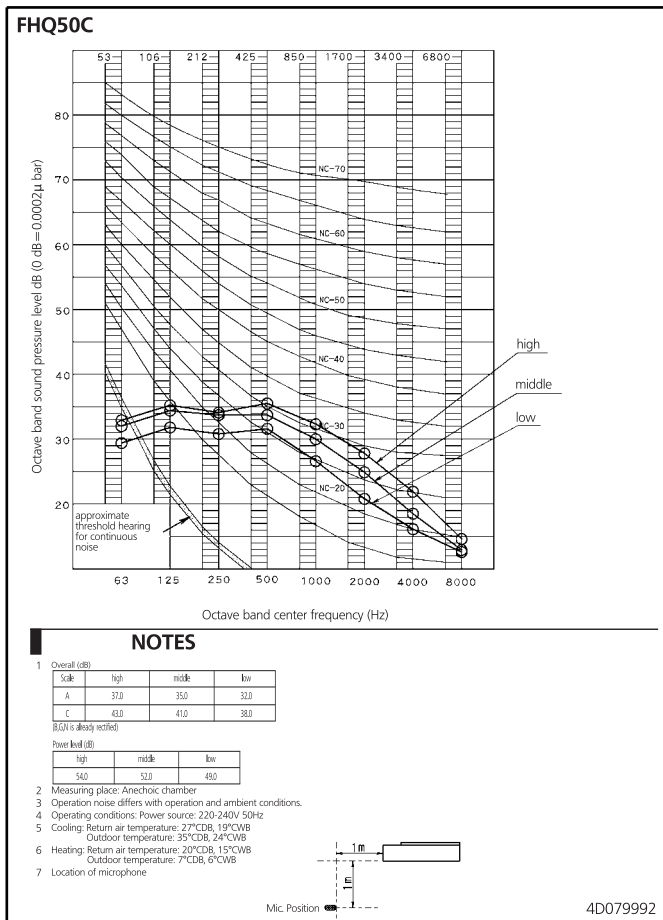
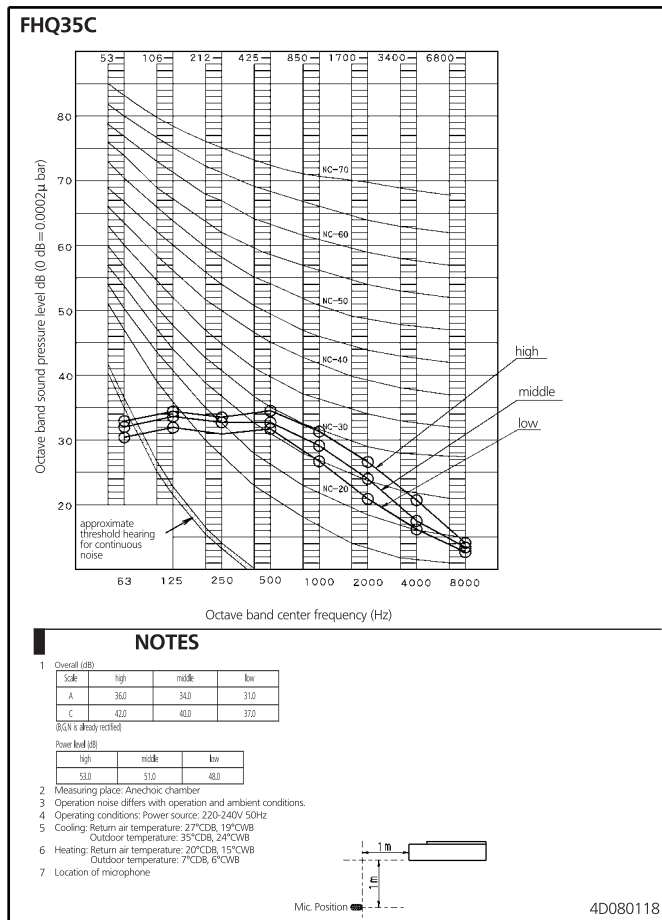
#### NOTES

- 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 conductors only.
- 4 As for details, see wiring diagram.
- 5 Install fuse and main switch for safety.
- 6 All field wiring and components must be provided by a licensed electrician.
- 7 The 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 supply with other equipment.

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## 9 Sound data

### 9 - 1 Sound Pressure Spectrum

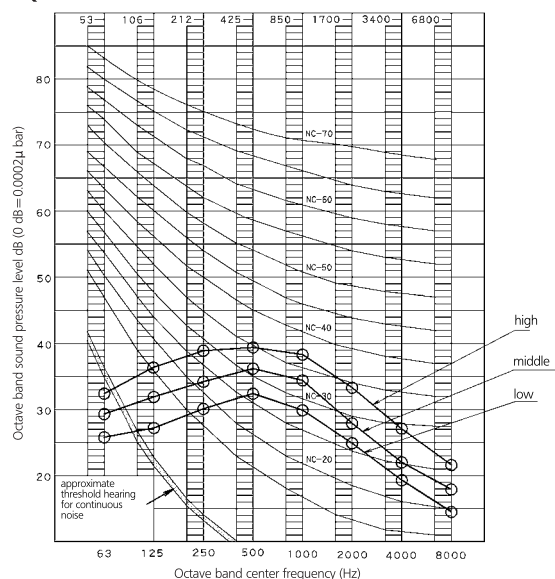


## 9 Sound data

### 9 - 1 Sound Pressure Spectrum

9

FHQ100C

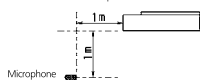


#### NOTES

- Overall (dB)
 

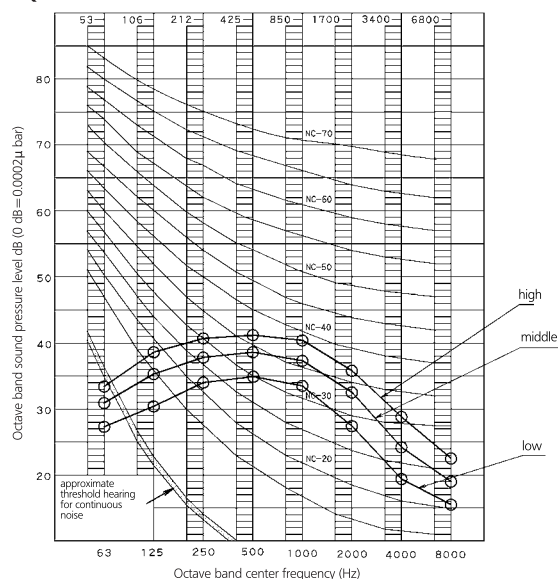
Scale	high	middle	low
A	42	38	34
C	45	41	37

 (B.G.) is already rectified
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Operating conditions: Power source: 220-240V 50Hz/220V 60Hz
- Cooling: Return air temperature: 27°CDB, 19°CWB  
Outdoor temperature: 35°CDB, 24°CWB
- Heating: Return air temperature: 20°CDB, 15°CWB  
Outdoor temperature: 7°CDB, 6°CWB
- Location of microphone



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FHQ125C

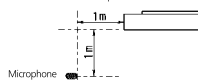


#### NOTES

- Overall (dB)
 

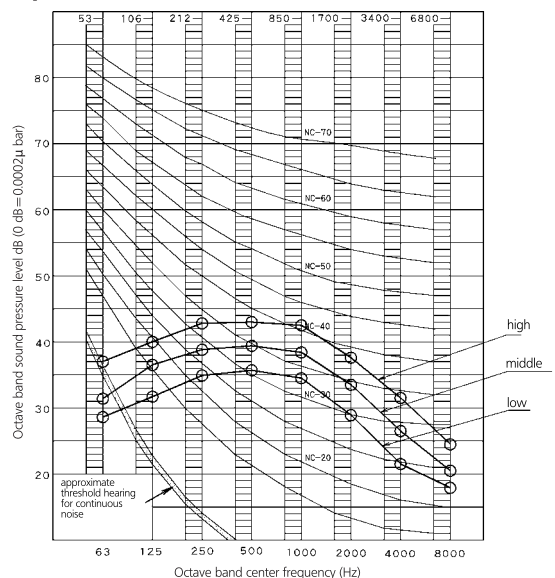
Scale	high	middle	low
A	44	41	37
C	47	44	40

 (B.G.) is already rectified
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Operating conditions: Power source: 220-240V 50Hz/220V 60Hz
- Cooling: Return air temperature: 27°CDB, 19°CWB  
Outdoor temperature: 35°CDB, 24°CWB
- Heating: Return air temperature: 20°CDB, 15°CWB  
Outdoor temperature: 7°CDB, 6°CWB
- Location of microphone



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FHQ140C

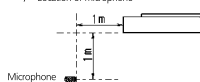


#### NOTES

- Overall (dB)
 

Scale	high	middle	low
A	46	42	38
C	49	45	41

 (B.G.) is already rectified
- Measuring place: Anechoic chamber
- Operation noise differs with operation and ambient conditions.
- Operating conditions: Power source: 220-240V 50Hz/220V 60Hz
- Cooling: Return air temperature: 27°CDB, 19°CWB  
Outdoor temperature: 35°CDB, 24°CWB
- Heating: Return air temperature: 20°CDB, 15°CWB  
Outdoor temperature: 7°CDB, 6°CWB
- Location of microphone



4D069651B





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 wider range of products and an energy management system, resulting in energy conservation and a reduction of waste.



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