

Air Conditioning
Technical Data

FHA-A



> FHA35AVEB
> FHA50AVEB
> FHA60AVEB
> FHA71AVEB
> FHA100AVEB
> FHA125AVEB

> FHA140AVEB

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FHA-A

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1 Features

For wide rooms with no false ceilings nor free floor space

- Ideal for comfortable air flow in wide rooms thanks to Coanda effect: up to 100° discharge angle
- Even rooms with ceilings up to 3.8m can be heated up or cooled down very easily without capacity loss
- Can easily be installed in both new and refurbishment projects
- Unified indoor unit can be combined with R-32 and R-410A outdoor units, simplifying stock
- Combining with R-32 Bluevolution technology, reduces environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has up to lower 16% refrigerant charge
- Can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space
- 5 different fan speeds available for maximum comfort
- Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible



Infrastructure cooling



Home leave operation



Fan only



Auto cooling-heating changeover



Vertical auto swing



Fan speed steps



Dry programme



Air filter



Weekly timer



Infrared remote control



Wired remote control



Centralised control



Auto-restart



Self diagnosis



Drain pump kit



Twin/triple/double twin application



Multi model application

2 Specifications

2-1 Technical Specifications					FHA35A	FHA50A	FHA60A	FHA71A	FHA100A	FHA125A	FHA140A
Power input - 50Hz	Cooling	Nom.	kW		0.090		0.091	0.110	0.344	0.360	0.380
	Heating	Nom.	kW		0.090		0.091	0.110	0.344	0.360	0.380
Casing	Colour				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		24.0	25.0	31.0	32.0	38.0		
	Packed unit		kg		38	39	52	54	61		
Heat exchanger	Fin	Type			ML fin (Anti Corrosion Hydrophilic)						
Air filter	Type				Resin net						
Fan	Type				Sirocco fan						
	Quantity				2		3		4		
	Air flow rate	Cooling	High	m³/min	14.0	15.0	19.5	20.5	28.0	31.0	34.0
				cfm	494	530	689	724	989	1,095	1,201
			Medium	m³/min	11.5 (1)	12.0 (1)	15.0 (1)	17.0 (1)	24.0 (1)	27.0 (1)	29.0 (1)
				cfm	406	424	530	600	848	953	1,024
			Low	m³/min	10.0		11.5	14.0	20.0	23.0	24.0
				cfm	353		406	494	706	812	848
		Heating	High	m³/min	14.0	15.0	19.5	20.5	28.0	31.0	34.0
				cfm	494	530	689	724	989	1,095	1,201
			Medium	m³/min	11.5 (1)	12.0 (1)	15.0 (1)	17.0 (1)	24.0 (1)	27.0 (1)	29.0 (1)
				cfm	406	424	530	600	848	953	1,024
			Low	m³/min	10.0		11.5	14.0	20.0	23.0	24.0
				cfm	353		406	494	706	812	848
Fan motor	Quantity				1						
	Model				KFD-280-87-8A		KFD-280-117-8A		EQDW01EDK		
	Speed		Steps		5						
	Output		High	W	60		91		150		
	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		dBA		53	54		55	60	62	64
	Heating		dBA		-						
Sound pressure level	Cooling	High/Medium/Low	dBA		36/34 (1)/31	37/35 (1)/32	37/35 (1)/33	38/36 (1)/34	42/38 (1)/34	44/41 (1)/37	46/42 (1)/38
	Heating	High/Nom./Medium	dBA		36/34/31	37/35/32	37/35/33	38/36/34	42/38/34	44/41/37	46/42/38
Control systems	Infrared remote control				BRC7GA53 / BRC7GA56						
	Wired remote control				BRC1E53A7 / BRC1E53B7 / BRC1E53C7 / BRC1D528 / BRC1E51A7						
Refrigerant	Type				R-32 / R-410A						
Piping connections	Sound absorbing insulation				Not needed						
	Liquid	Type/OD	mm		Flare connection/6,4			Flare connection/9,52			
	Gas	Type/OD	mm		Flare connection/9.50	Flare connection/12.7		Flare connection/15.9			
	Drain				VP20						
	Heat insulation				Needed						
Safety devices	Item	01/02			Fuse (F, 5A, 250V)/Fan motor fuse (F,4A,500V)				Fuse (F, 5A, 250V)/-		

Standard Accessories : Thermal insulation tube; Quantity : 2;

Standard Accessories : Wire clamp material; Quantity : 7;

Standard Accessories : Hose band; Quantity : 1;

Standard Accessories : Drain hose; Quantity : 1;

Standard Accessories : Washer; Quantity : 8;

Standard Accessories : Sealing pad (large); Quantity : 1;

Standard Accessories : Sealing pad (small); Quantity : 1;

2 Specifications

Standard Accessories : Resin bushing; Quantity : 1;

Standard Accessories : Screws; Quantity : 2;

Standard Accessories : Wiring fixture; Quantity : 2;

2

2-2 Electrical Specifications			FHA35A	FHA50A	FHA60A	FHA71A	FHA100A	FHA125A	FHA140A
Power supply	Phase		1~						
	Frequency	Hz	50						
	Voltage	V	220-240						

Notes

(1) See separate drawing for electrical data

3 Safety device settings

3 - 1 Safety Device Settings

FHA-A

Safety devices	FHA35-50AVEB	FHA60-71AVEB
Printed circuit board fuse (main)	250V, 3.15A	250V, 3.15A
Fuse (fan motor)	500V, 4A (on wire)	500V, 4A (on wire)
Fan motor overcurrent protection (nom.)	1.65A	1.65A
Fan motor overheat protection (max.)	125°C	125°C

Safety devices	FHA100-140AVEB
Printed circuit board fuse (main)	250V, 3.15A
Fuse (fan motor)	---
Fan motor overcurrent protection (nom.)	2.3A
Fan motor overheat protection (max.)	125°C

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4 Options

4 - 1 Options

4

FHA-A

				Capacity class						
Option kit				35	50	60	71	100	125	140
Long-life replacement filter				KAFP501A56		KAFP501A80		KAFP501A160		
Fresh air intake kit				KDDQ50A140						
Drain pump kit				KDUP50Q63			KDUP50Q160			
L-type piping kit (upward direction)				KHFP5MA35		KHFP5N63		KHFP5N160		
Remote control	Wired remote control			BRC1E53A7 ⁽¹⁾⁽⁴⁾ , BRC1E53B7 ⁽²⁾⁽⁴⁾ , BRC1E53C7 ⁽³⁾⁽⁴⁾ , BRC1E51A7, BRC1D528						
	Wireless remote control			BRC7GA53						
	Heat pump			BRC7GA56						
	Cooling only			BRC2E52C7 ⁽⁵⁾						
Simplified remote control (with operation mode selector button)				BRC3E52C7 ⁽⁵⁾						
Simplified remote control (without operation mode selector button)				DCS302CA51						
Central remote control				DCS301BA51						
Unified ON/OFF controller				DST301BA51						
Schedule timer				KRP1BA54 ⁽⁶⁾						
Wiring adaptor for electrical appendices				KRP4AA52 ⁽⁶⁾						
Wiring adaptor for electrical appendices				KRP1D93A						
Installation box for adaptor PCB				KKSAP50A56						
Mounting plate for adaptor PCB installation box				KRCS01-4B						
Remote sensor				EKRORO4						
Remote "ON/OFF" and "forced OFF" kit				KJB311AA						
Electrical box with earth terminal (3 blocks)				KJB212AA						
Electrical box with earth terminal (2 blocks)				BRP7A52 ⁽⁶⁾⁽⁷⁾						
Digital input adaptor										

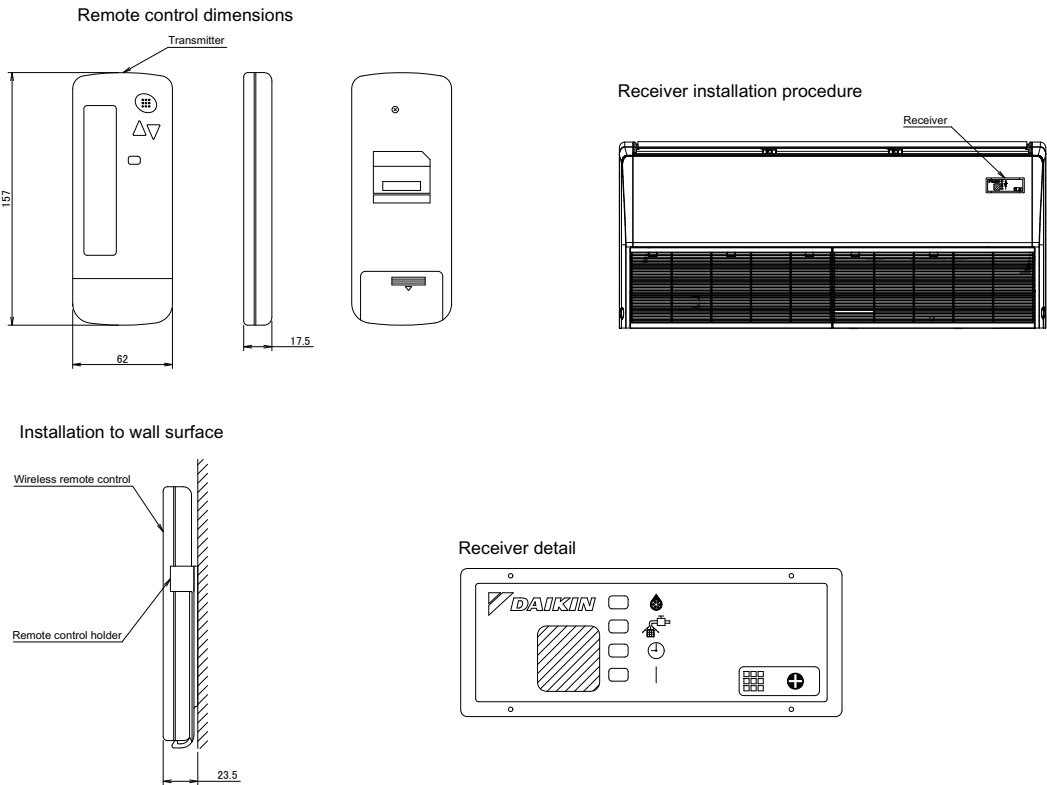
- ① Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.
- ② Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.
- ③ Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.
- ④ Includes duty rotation functionality
- ⑤ Included languages are:
Language pack 1: English, German, French, Dutch, Spanish, Italian, and Portuguese.
With PC cable EKPCAB3 in combination with the Updater PC software, you can additionally change the language to:
Language pack 2: English, Bulgarian, Croatian, Czech, Hungarian, Romanian, and Slovenian.
Language pack 3: English, Greek, Polish, Russian, Serbian, Slovak, and Turkish.
- ⑥ Requires installation box 6.
- ⑦ Only possible in combination with simplified remote control BRC2/3E52C7.

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5 Dimensional drawings

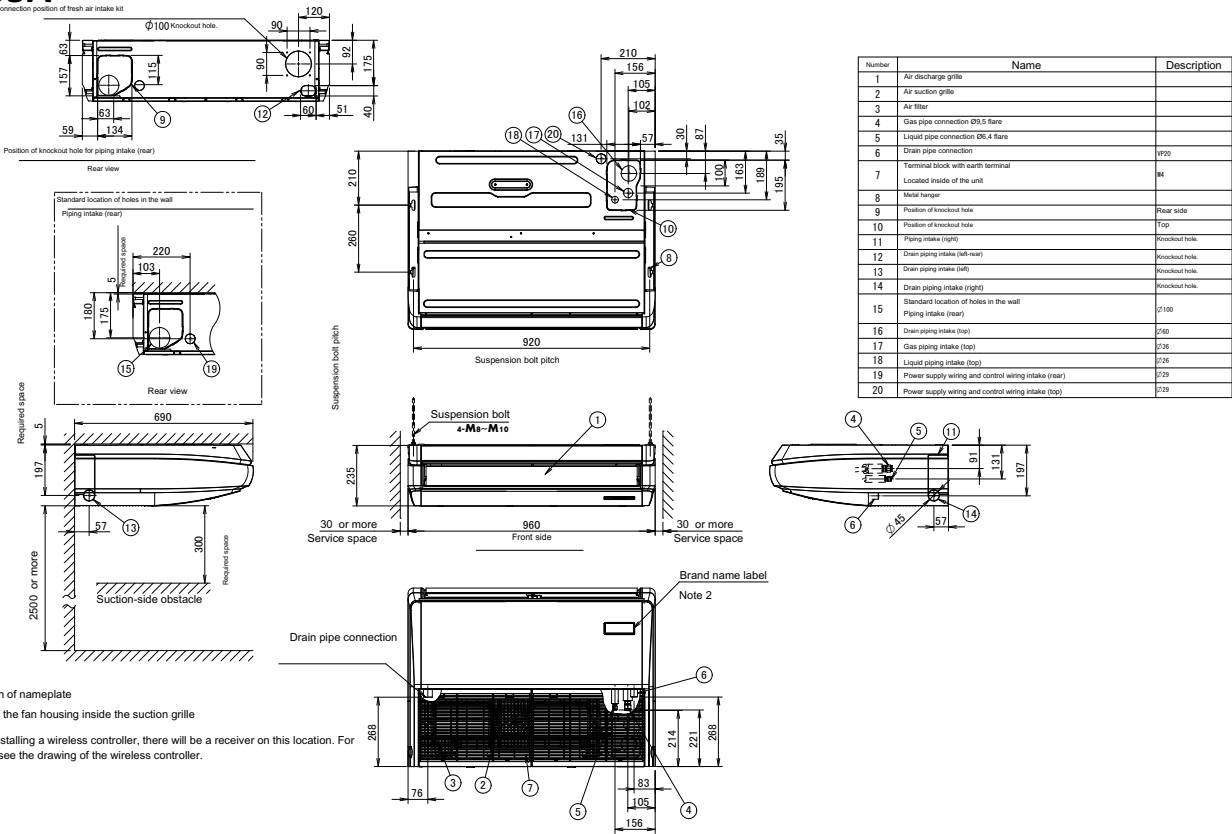
5 - 1 Dimensional Drawings

FHA-A



5

FHA35A

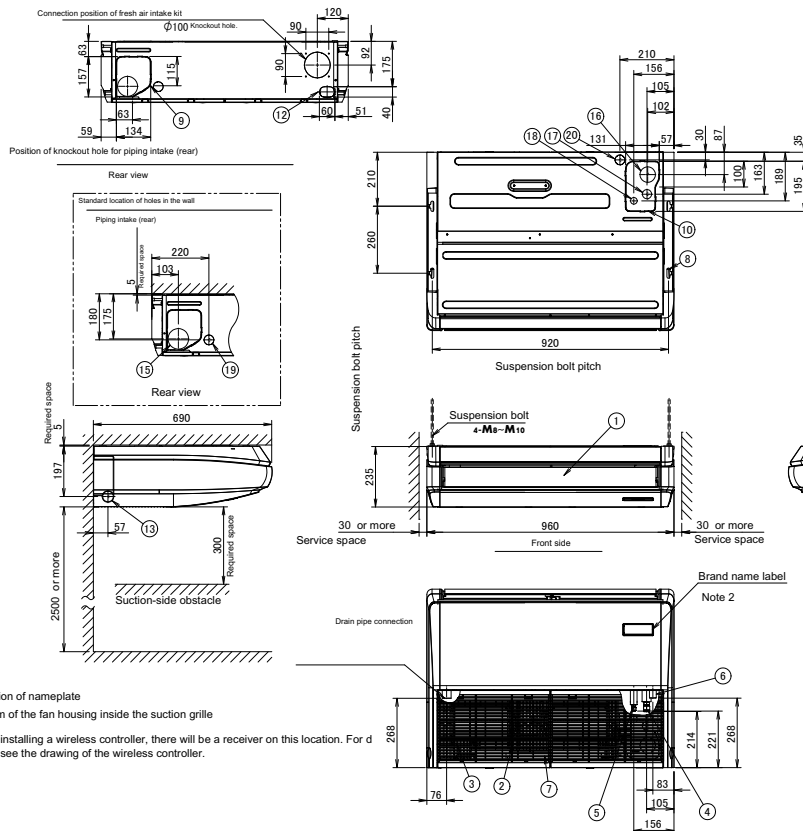


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5 Dimensional drawings

5 - 1 Dimensional Drawings

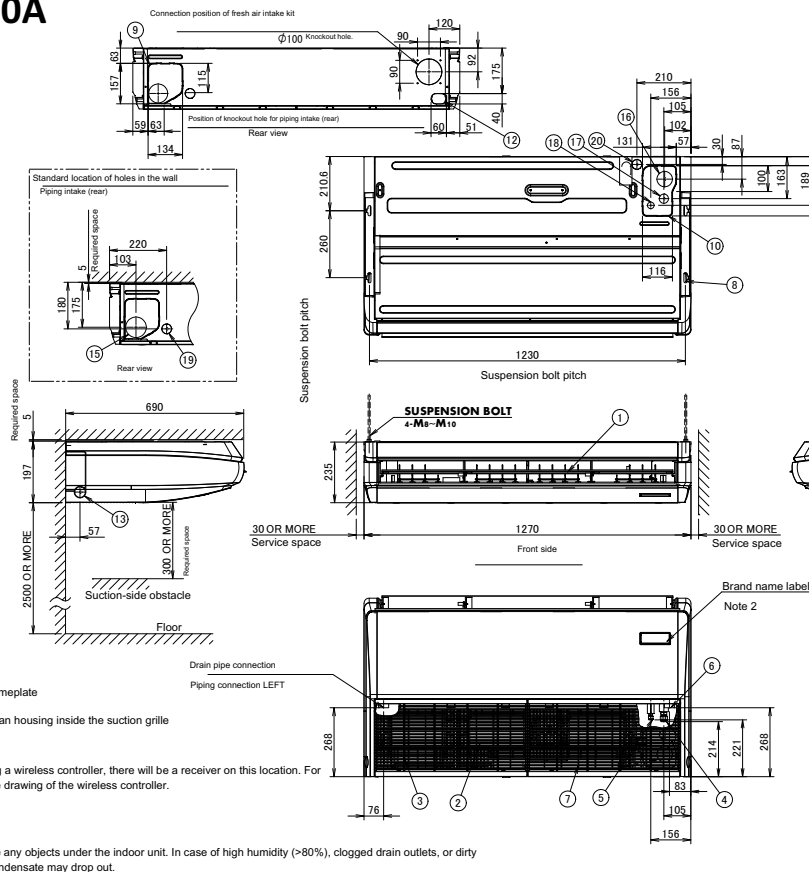
FHA50A



Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection Ø12.7 flare	
5	Liquid pipe connection Ø6.4 flare	
6	Drain pipe connection	VP20
7	Terminal block with earth terminal Located inside of the unit	#4
8	Metal hanger	
9	Position of knockout hole	Rear side
10	Position of knockout hole	Top
11	Piping intake (right)	Knockout hole
12	Drain piping intake (left-rear)	Knockout hole
13	Drain piping intake (left)	Knockout hole
14	Drain piping intake (right)	Knockout hole
15	Standard location of holes in the wall Piping intake (rear)	Ø100
16	Drain piping intake (top)	Ø40
17	Gas piping intake (top)	Ø26
18	Liquid piping intake (top)	Ø26
19	Power supply wiring and control wiring intake (rear)	Ø29
20	Power supply wiring and control wiring intake (top)	Ø29

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FHA60A



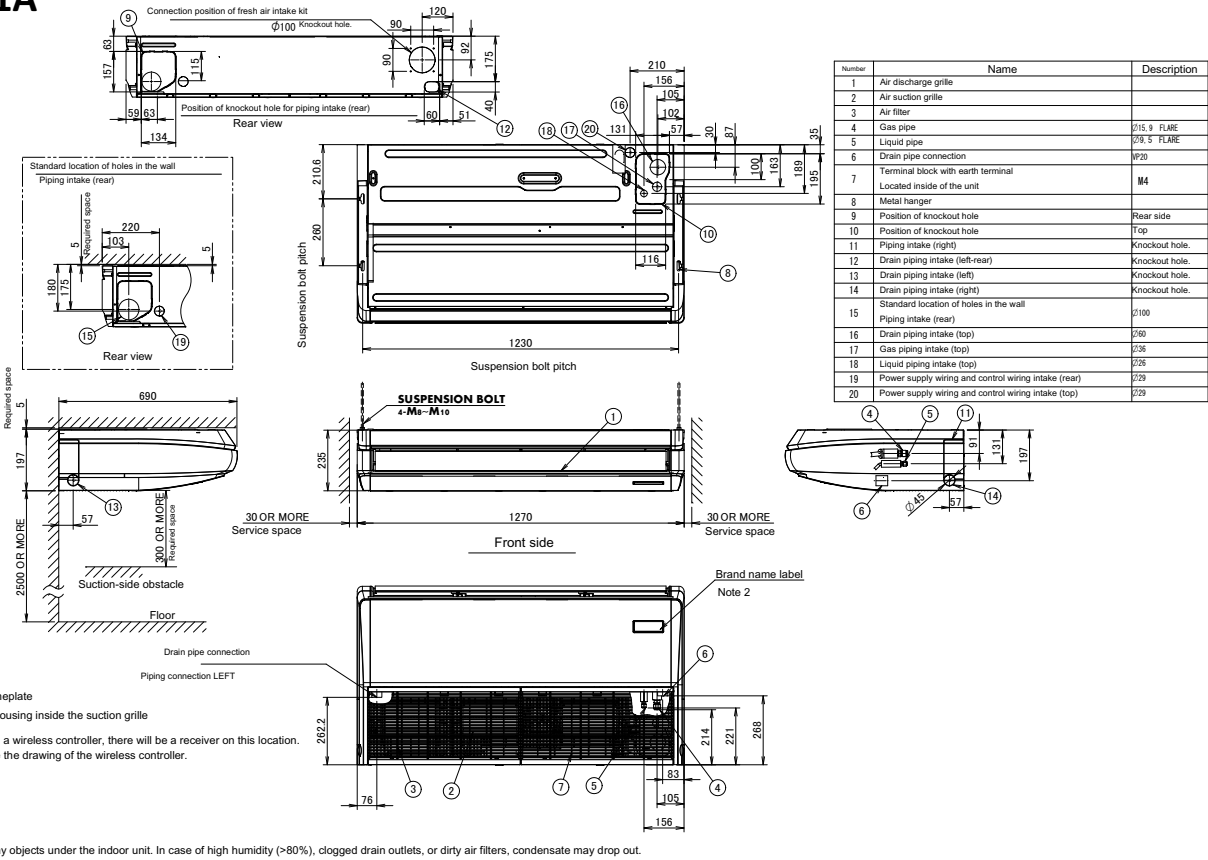
Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe	Ø12.7 FLARE
5	Liquid pipe	Ø6.4 FLARE
6	Drain pipe connection	VP20
7	Terminal block with earth terminal Located inside of the unit	#4
8	Metal hanger	
9	Position of knockout hole	Rear side
10	Position of knockout hole	Top
11	Piping intake (right)	Knockout hole
12	Drain piping intake (left-rear)	Knockout hole
13	Drain piping intake (left)	Knockout hole
14	Drain piping intake (right)	Knockout hole
15	Standard location of holes in the wall Piping intake (rear)	Ø100
16	Drain piping intake (top)	Ø40
17	Gas piping intake (top)	Ø26
18	Liquid piping intake (top)	Ø26
19	Power supply wiring and control wiring intake (rear)	Ø29
20	Power supply wiring and control wiring intake (top)	Ø29

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5 Dimensional drawings

5 - 1 Dimensional Drawings

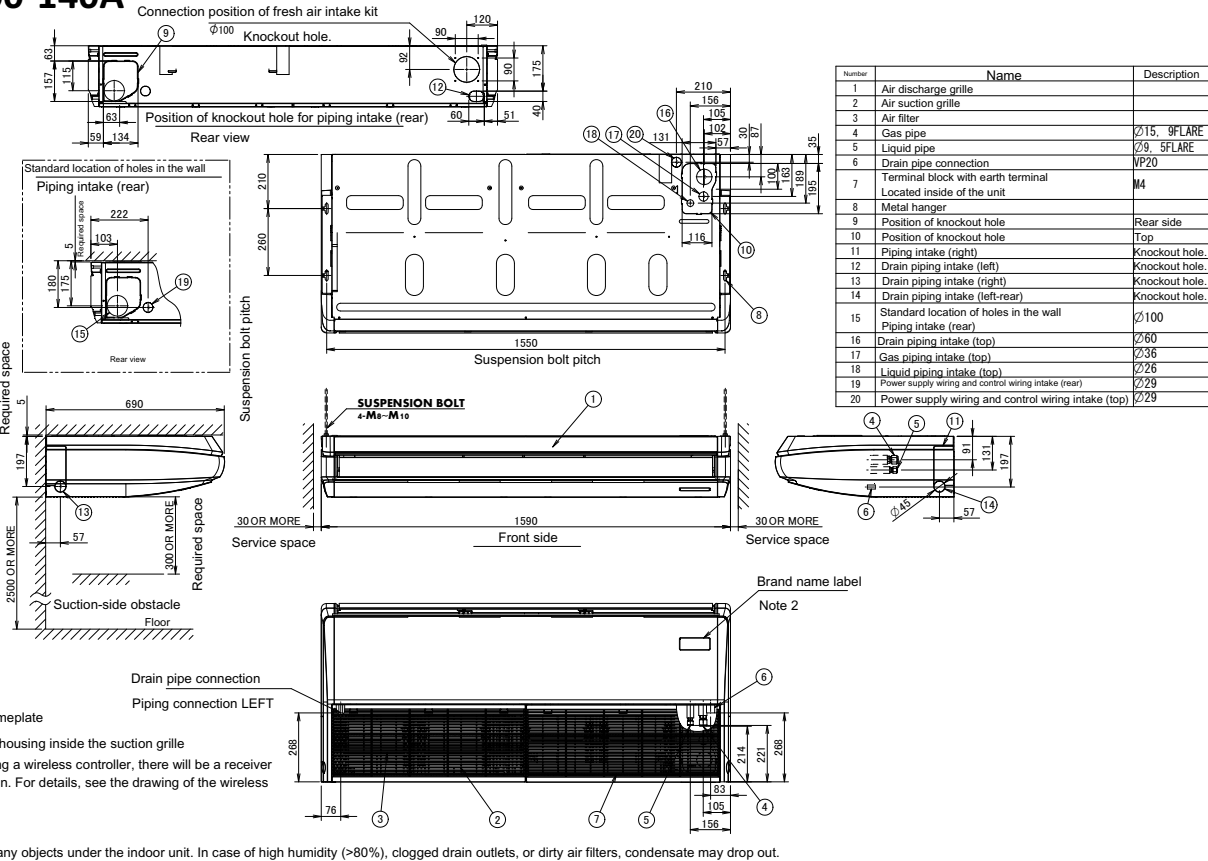
FHA71A



- Notes
- 1) Location of nameplate
Bottom of the fan housing inside the suction grille
 - 2) When installing a wireless controller, there will be a receiver on this location. For details, see the drawing of the wireless controller.
 - 3) Do not place any objects under the indoor unit. In case of high humidity (>80%), clogged drain outlets, or dirty air filters, condensate may drop out.

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FHA100-140A



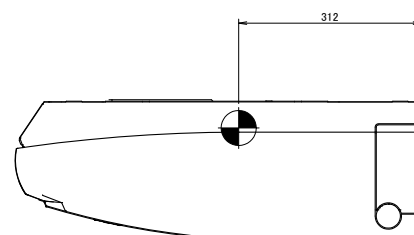
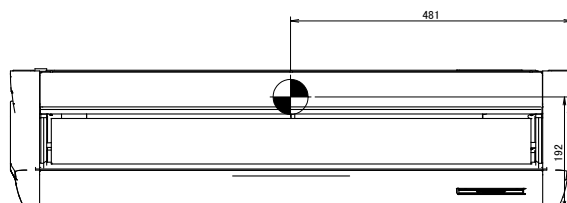
- Notes
- 1) Location of nameplate
Bottom of the fan housing inside the suction grille
 - 2) When installing a wireless controller, there will be a receiver on this location. For details, see the drawing of the wireless controller.
 - 3) Do not place any objects under the indoor unit. In case of high humidity (>80%), clogged drain outlets, or dirty air filters, condensate may drop out.

3D106530A

6 Centre of gravity

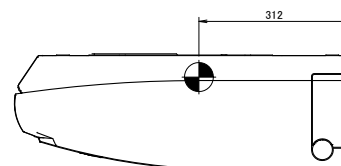
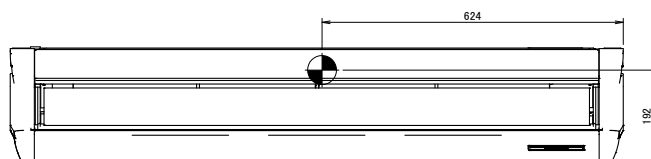
6 - 1 Centre of Gravity

FHA35-50A



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FHA60-71A

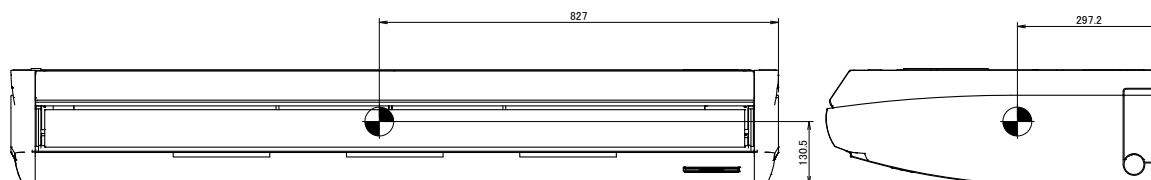


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6 Centre of gravity

6 - 1 Centre of Gravity

FHA100-140A



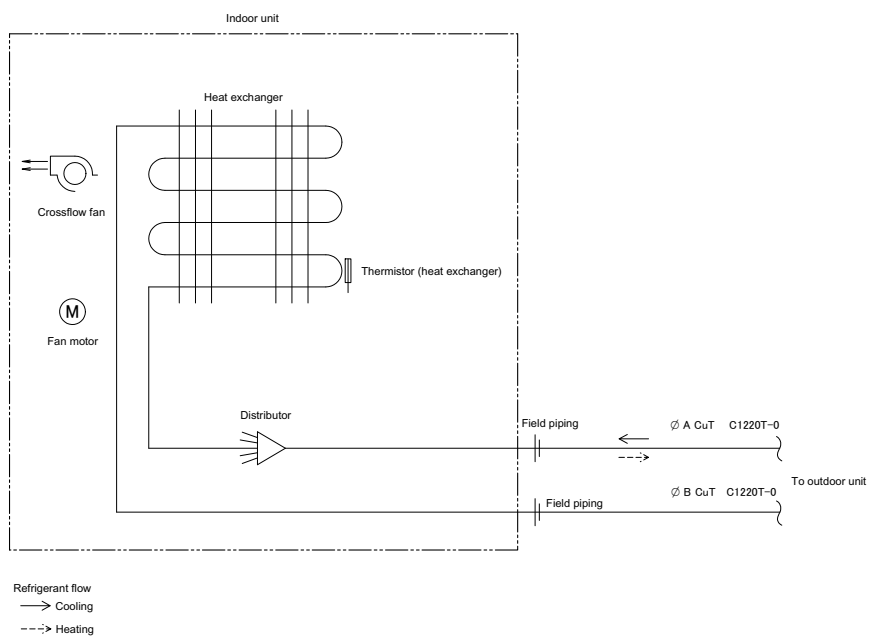
3D109249

7 Piping diagrams

7 - 1 Piping Diagrams

FHA-A

Model	A (mm)	B (mm)
FHA35AVEB	6.4	9.5
FHA50, 60AVEB		12.7
FHA71, 100, 125, 140AVEB	9.5	15.9

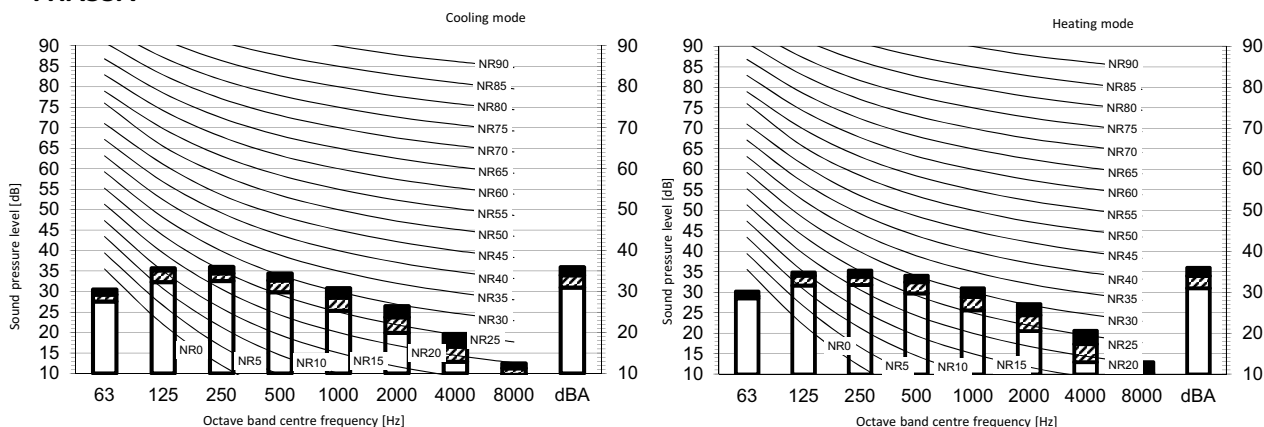


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9 Sound data

9 - 1 Sound Pressure Spectrum

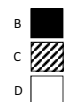
FHA35A



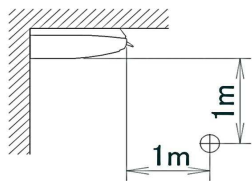
Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale Fan speed



Location of microphone



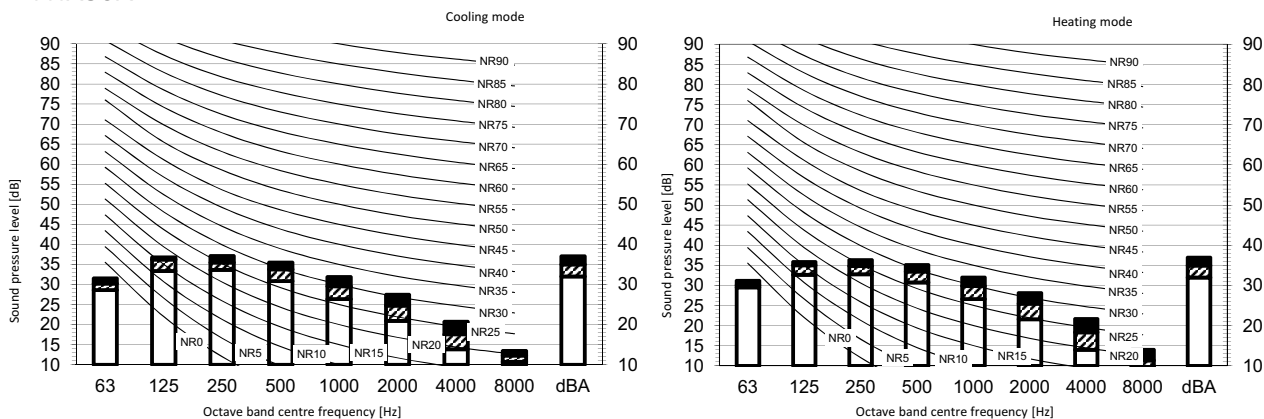
Cooling				Heating			
Total dB				Total dB			
A	B	C	D	A	B	C	D
dBA	36	34	31	dBA	36	34	31

Notes

- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- Background noise already taken into account.
- Operating noise varies depending on operation and ambient conditions.
- The operation noise measuring method is in accordance with JISC9612.
- Measuring location: anechoic chamber

3D109743

FHA50A



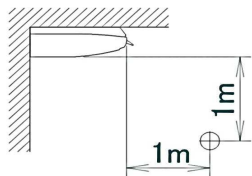
Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale Fan speed



Location of microphone



Cooling				Heating			
Total dB				Total dB			
A	B	C	D	A	B	C	D
dBA	37	35	32	dBA	37	35	32

Notes

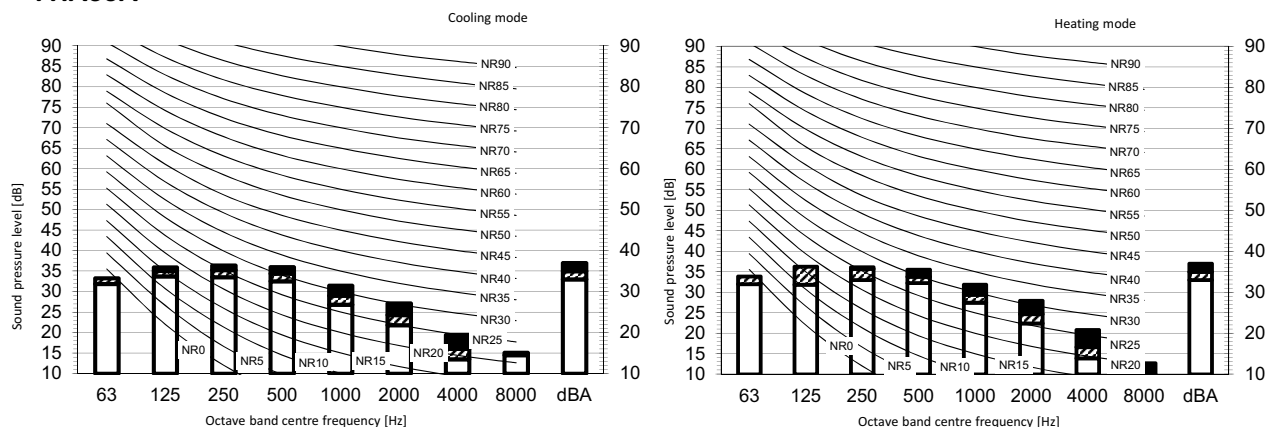
- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- Background noise already taken into account.
- Operating noise varies depending on operation and ambient conditions.
- The operation noise measuring method is in accordance with JISC9612.
- Measuring location: anechoic chamber

3D109742

9 Sound data

9 - 1 Sound Pressure Spectrum

FHA60A



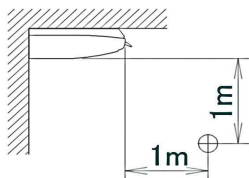
Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale Fan speed

B High
C Medium
D Low

Location of microphone



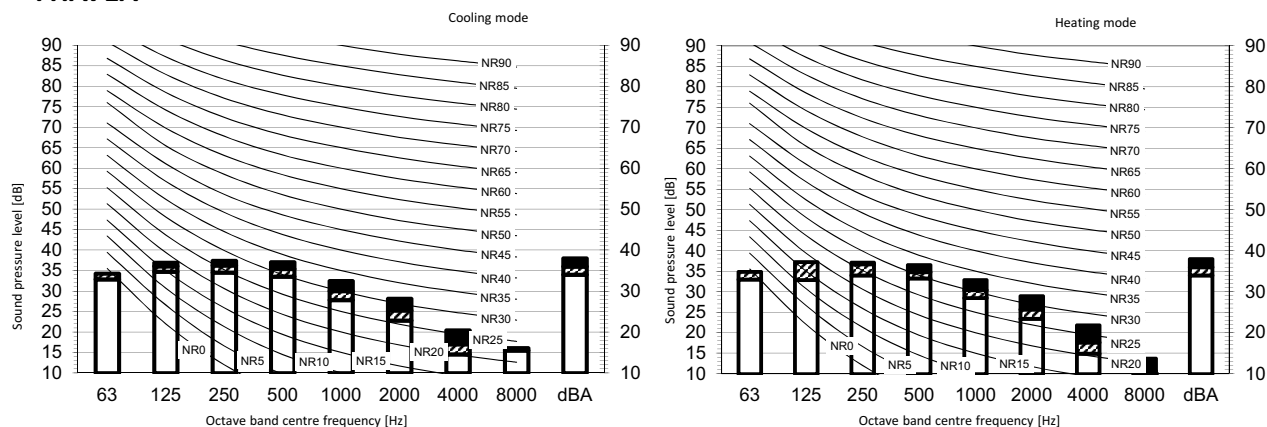
Cooling Total dB				Heating Total dB			
A	B	C	D	A	B	C	D
dBA	37	35	33	dBA	37	35	33

Notes

- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- Background noise already taken into account.
- Operating noise varies depending on operation and ambient conditions.
- The operation noise measuring method is in accordance with JISC9612.
- Measuring location: anechoic chamber

3D109741

FHA71A



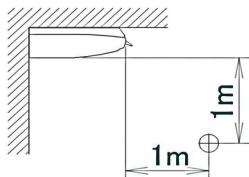
Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale Fan speed

B High
C Medium
D Low

Location of microphone



Cooling Total dB				Heating Total dB			
A	B	C	D	A	B	C	D
dBA	38	36	34	dBA	38	36	34

Notes

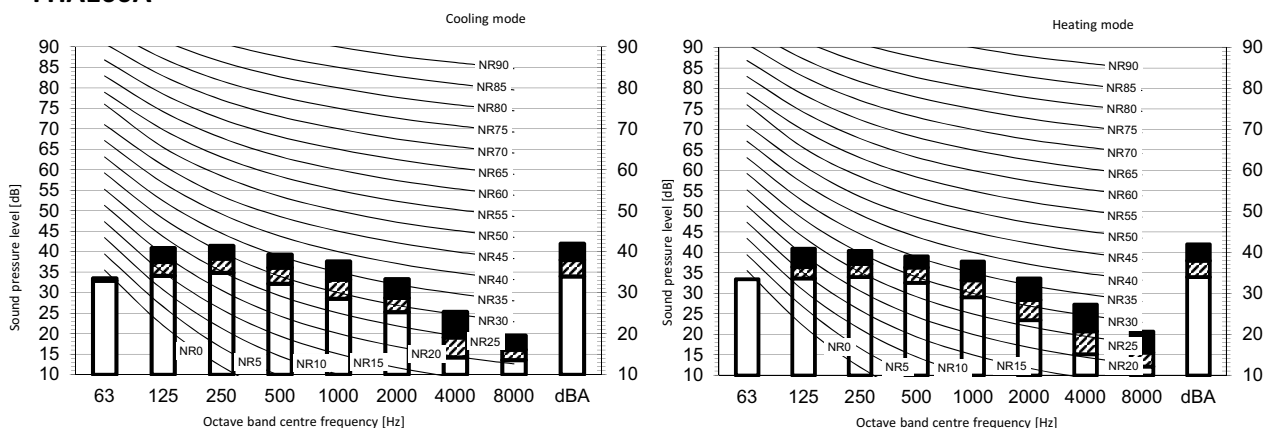
- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- Background noise already taken into account.
- Operating noise varies depending on operation and ambient conditions.
- The operation noise measuring method is in accordance with JISC9612.
- Measuring location: anechoic chamber

3D109736

9 Sound data

9 - 1 Sound Pressure Spectrum

FHA100A

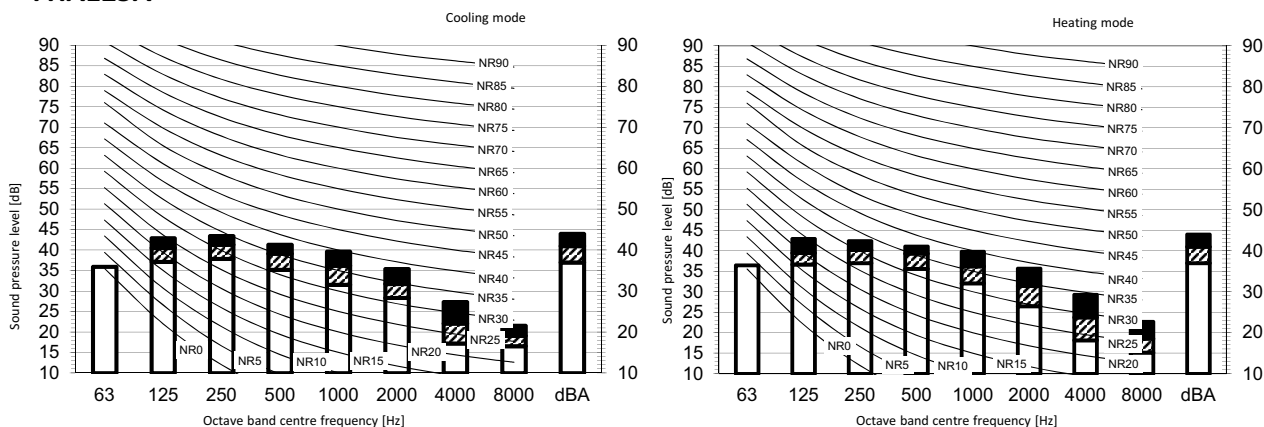


Cooling				Heating			
Total dB				Total dB			
A	B	C	D	A	B	C	D
dBA	42	38	34	dBA	42	38	34

- Notes
- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
 - Background noise already taken into account.
 - Operating noise varies depending on operation and ambient conditions.
 - The operation noise measuring method is in accordance with JISC9612.
 - Measuring location: anechoic chamber

3D109737

FHA125A



Cooling				Heating			
Total dB				Total dB			
A	B	C	D	A	B	C	D
dBA	44	41	37	dBA	44	41	37

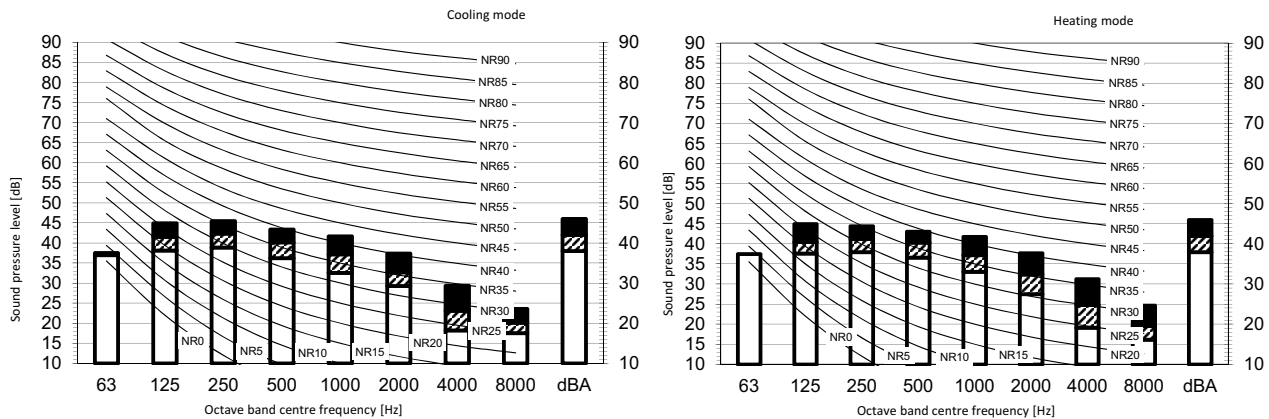
- Notes
- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
 - Background noise already taken into account.
 - Operating noise varies depending on operation and ambient conditions.
 - The operation noise measuring method is in accordance with JISC9612.
 - Measuring location: anechoic chamber

3D109738

9 Sound data

9 - 1 Sound Pressure Spectrum

FHA140A



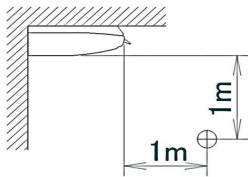
Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale Fan speed

B High
C Medium
D Low

Location of microphone



Cooling				Heating			
Total dB				Total dB			
A	B	C	D	A	B	C	D
dBA	46	42	38	dBA	46	42	38

Notes

- Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
- Background noise already taken into account.
- Operating noise varies depending on operation and ambient conditions.
- The operation noise measuring method is in accordance with JISC9612.
- Measuring location: anechoic chamber

3D109740

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