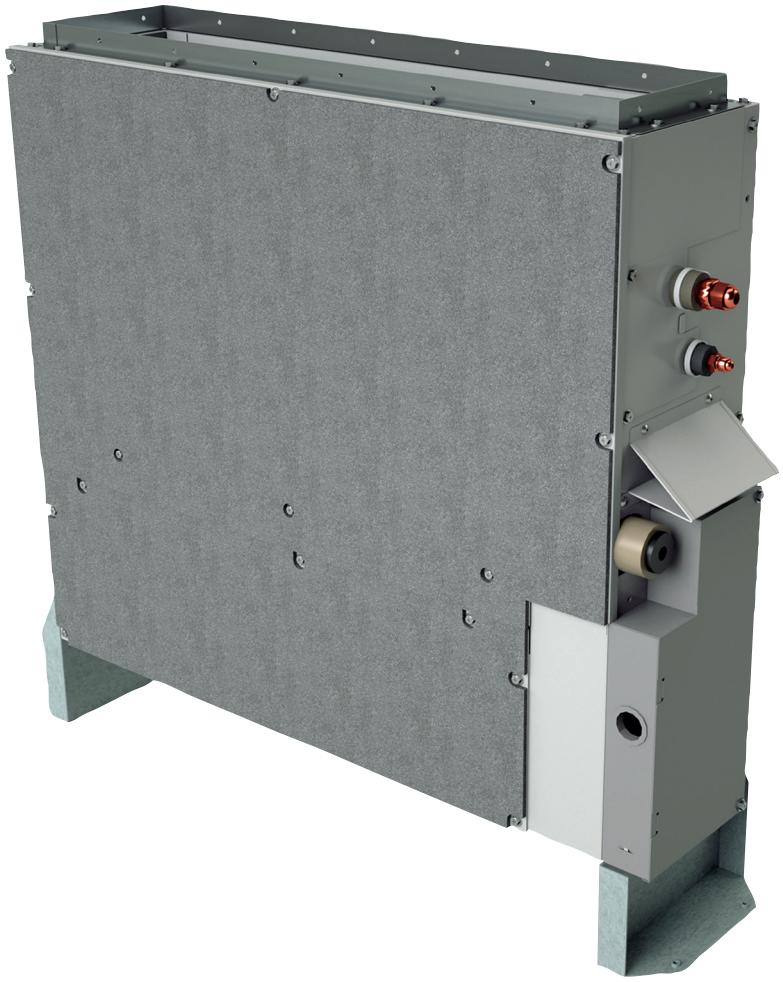
Concealed floor standing unit Air Conditioning Technical Data

FNA-A9



FNA25A2VEB9
FNA35A2VEB9
FNA50A2VEB9
FNA60A2VEB9

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FNA-A9

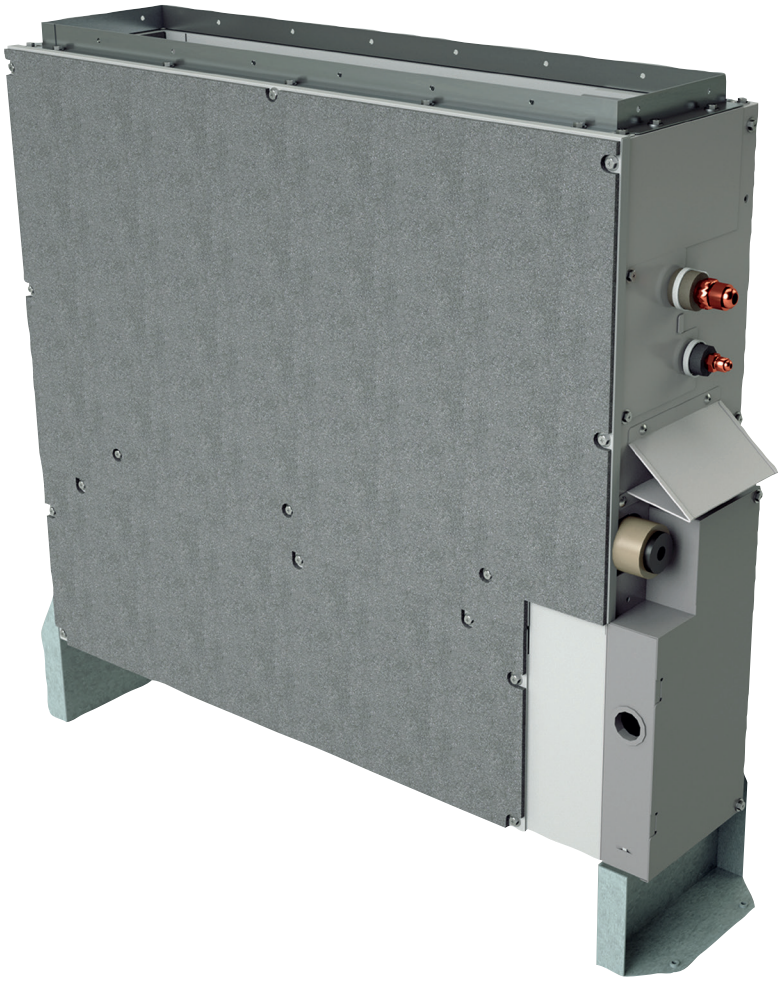
1 Features

1 - 1 FNA-A9

Designed to be concealed in walls

1

- › Discretely concealed in the wall: only the suction and discharge grilles are visible
- › Unified indoor unit range for R-32 and R-410A
- › 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
- › Requires very little installation space as the depth is only 200mm
- › Its low height (620 mm) enables the unit to fit perfectly beneath a window
- › High ESP allows flexible installation



Infrastructure cooling

Onecta app (optional)


Home leave operation


Fan only

Auto cooling-heating changeover


Fan speed steps (3 steps + auto)

Dry programme


Air filter

Weekly timer (optional)


Infrared remote control (optional)


Wired remote control (optional)


Centralised control (optional)

Auto-restart


Self diagnosis


Twin/triple/ double twin application


Multi model application


VRV for residential application

2 Specifications

2 - 1 Specifications

Technical specifications					FNA25A9	FNA35A9	FNA50A9	FNA60A9
Casing	Colour				Unpainted			
	Material				Galvanised steel plate			
Dimensions	Unit	Height		mm	620 (1) / 720			
		Width		mm	790		1,190	
		Depth		mm	200			
	Packed unit	Height		mm	265			
		Width		mm	925		1,325	
		Depth		mm	885			
Weight	Unit			kg	23.0		30.0	
	Packed unit			kg	27		35	
Heat exchanger	Inside length			mm	500		900	
	Rows	Quantity			3		2	
	Fin pitch			mm	1.50			
	Passes	Quantity			2		5	
	Face area			m^2	0.126		0.227	
	Stages	Quantity			12			
	Empty tubeplate hole	Quantity			8		0	
	Tube type				7.0 Hi-XD			
	Fin	Type			Cross fin coil			
Fan	Model				QD13A1AH/QD13A1BH			
	Type				Sirocco fan			
	Quantity				2		4	
	Air flow rate	Cooling	High	m^3/min	8.7		16.0	
			Nom.	m^3/min	8.0		14.8	
			Low	m^3/min	7.3		13.5	
		Heating	High	m^3/min	8.7		16.0	
			Nom.	m^3/min	8.0		14.8	
			Low	m^3/min	7.3		13.5	
	External static pressure	High		Pa	48		49	
		Nom.		Pa	30		40	
Fan motor	Quantity				1			
	Model				KFD-280-44-8A		KFD-280-65-8A	
	Speed	Steps			3			
		Cooling	High	rpm	1,270		1,280	
		Heating	High	rpm	1,270		1,280	
	Output	Rated		W	44		65	
Sound power level	Cooling			dBA	53.0		56.0	
Sound pressure level	Cooling	High		dBA	33.0		36.0	
		Medium		dBA	31.0		33.0	
		Low		dBA	28.0		30.0	
	Heating	High		dBA	33.0		36.0	
		Nom.		dBA	31.0		33.0	
		Low		dBA	28.0		30.0	
Refrigerant	Type				R-410A / R-32			
Piping connections	Sound absorbing insulation				Butyl Rubber			
	Liquid	Type			Flare connection			
		OD		mm	6.35			
	Gas	Type			Flare connection			
		OD		mm	9.52		12.7	
	Drain				VP20 (I.D. 20/O.D. 26)			
	Heat insulation				Foamed polystyrene / Foamed polyethylene			
Air filter	Type				Resin net			
Control systems	Infrared remote control				BRC4C65			
	Wired remote control				BRC1H52W/S/K / BRC1E53A / BRC1E53B / BRC1E53C / BRC1D52			

Electrical specifications			FNA25A9	FNA35A9	FNA50A9	FNA60A9
Power supply	Name		VE			
	Phase		1~			
	Frequency	Hz	50/60			
	Voltage	V	220-240/220			

(1)Including installation legs |
The sound power level is an absolute value indicating the power which a sound source generates.

3 Safety device settings

3 - 1 Safety Device Settings

FNA25-60A9

Safety devices		**FNA25-60A2VEB(9)**
PCB fuse		250V, 3.15A
PCB fuse (fan driver)		---
Fan motor overcurrent protection	Nominal	1.3A
Fan motor thermal protector	Maximum	125°C

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4 Options

4 - 1 Options

FNA-A9

	Optional equipment	Part name	Availability: FNA25A2VEB(9) FNA35A2VEB(9) FNA50A2VEB(9) FNA60A2VEB(9)
Individual control systems	Wired remote control	BRC1D52	X
		BRC1E53A7 (4)	X
		BRC1E53B7 (5)	X
		BRC1E53C7 (6)(7), BRC1H51(9)W/S/K	X
		BRC1H52W/S/K (9)	X
	Simplified remote control for hotel use	BRC2E52C7 (3) (7)	X
	Stylish remote control	BRC1E52A, BRC1E52B	X
	Remote control for hotel use	BRC3E52C7 (3)	X
	Wireless remote control	BRC4C65	X
	Wi-Fi adaptor for smartphones	BRP069A81 (8)	X
Centralised control systems	Central remote control	DCS302CA51 DCS302CA61 (1)	X
	Unified ON/OFF controller	DCS301BA51 DCS301BA61 (1)	X
	Schedule timer	DST301BA51 DST301BA61 (1)	X
	Residential central remote control	DCS303A51 (1) (2)	X
Other options	Adaptor for wiring	KRP1B56	X
	Wiring adaptor for electrical appendices	KRP4A54	X
	Remote sensor	KRCS01-4B	X
	Electrical box with earth terminal (·2· blocks)	KJB212AA	X
	Electrical box with earth terminal (·3· blocks)	KJB311AA	X
	Noise filter (for electromagnetic interface only)	KEK26-1A	X

Notes
(1) :For Daikin Middle East only.
(2) :For residential use only. Cannot be used with other centralised control equipment.
(3) :Included languages are:
Language pack ·1·: English, German, French, Dutch, Spanish, Italian, and Portuguese.
With PC cable ·EKPCCAB3· 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.
(4) :Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.
(5) :Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.
(6) :Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.
(7) :Language pack ·3· of controller ·BRC1E53C7· is different from that of controller ·BRC2/3E52C7·.
(8) :Only possible in combination with wired or wireless remote control (e.g. ·BRC1E*, BRC1H*, BRC7FA*·)
(9) :Mandatory in case of using R32 refrigerant and decreased floor area.

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5 Dimensional drawings

5 - 1 Dimensional Drawings

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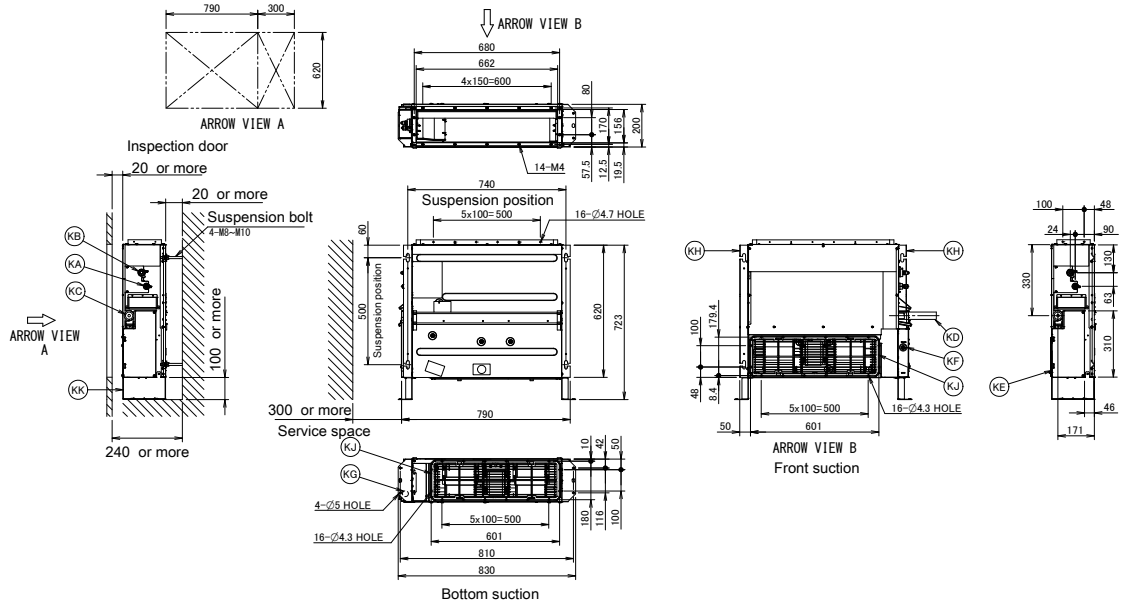

Item	Name	Description
KA	Liquid pipe connection port	Ø6.40 flared connection
KB	Gas pipe connection port	Ø9.50 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Drain hose	ID Ø25
KE	Control box	/
KF	Transmission line	/
KG	Power supply connection	/
KH	Suspension bracket	/
KJ	Air filter	/
KK	Mounting foot	/

Notes

1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

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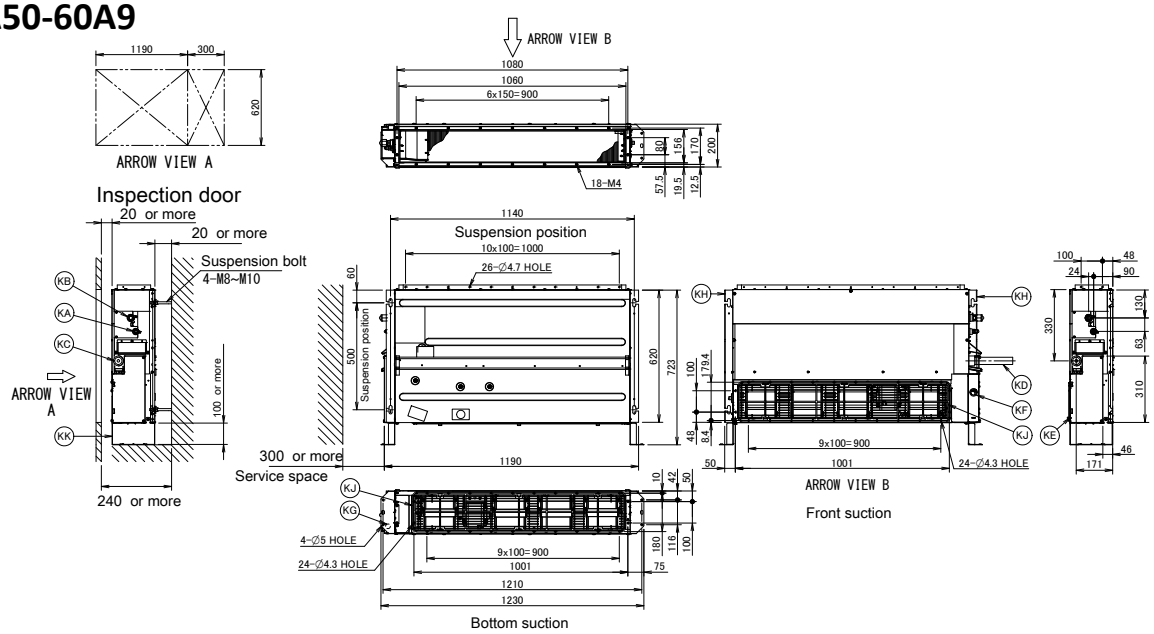

Item	Name	Description
KA	Liquid pipe connection port	Ø6.4 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Drain hose	ID Ø25
KE	Control box	/
KF	Transmission line	/
KG	Power supply connection	/
KH	Suspension bracket	/
KJ	Air filter	/
KK	Mounting foot	/

Notes

1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

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6 Centre of gravity

6 - 1 Centre of Gravity

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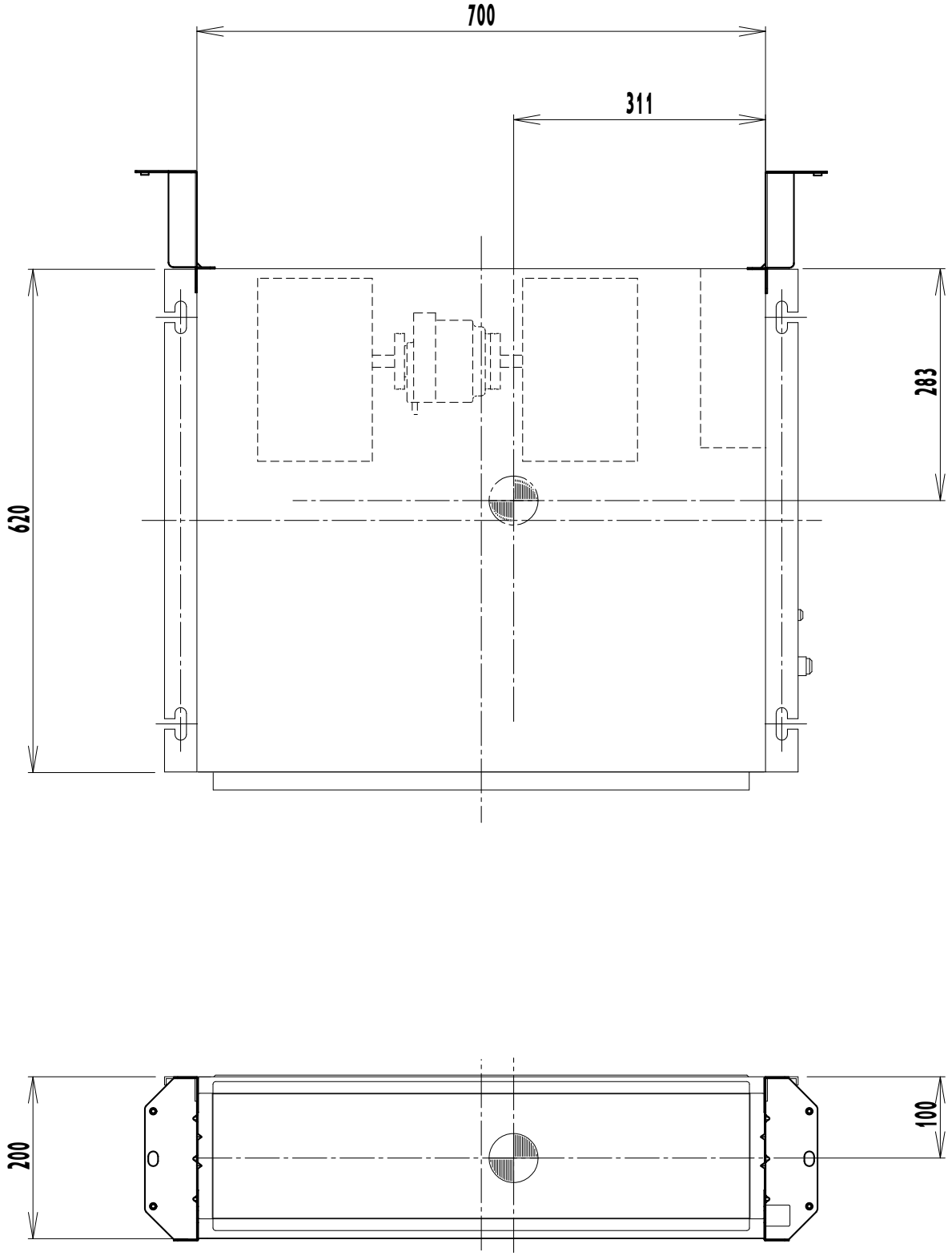

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6 Centre of gravity

6 - 1 Centre of Gravity

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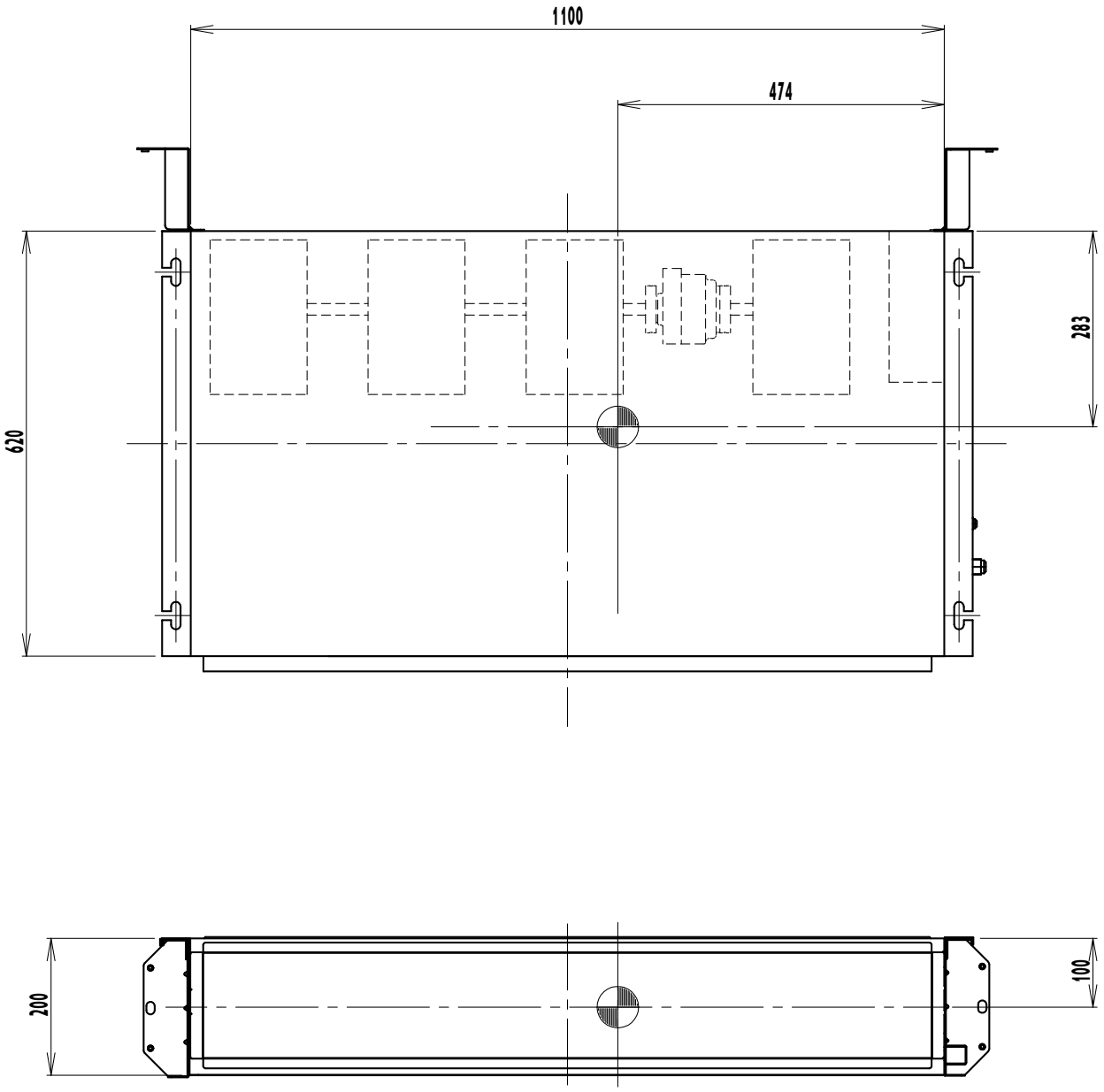

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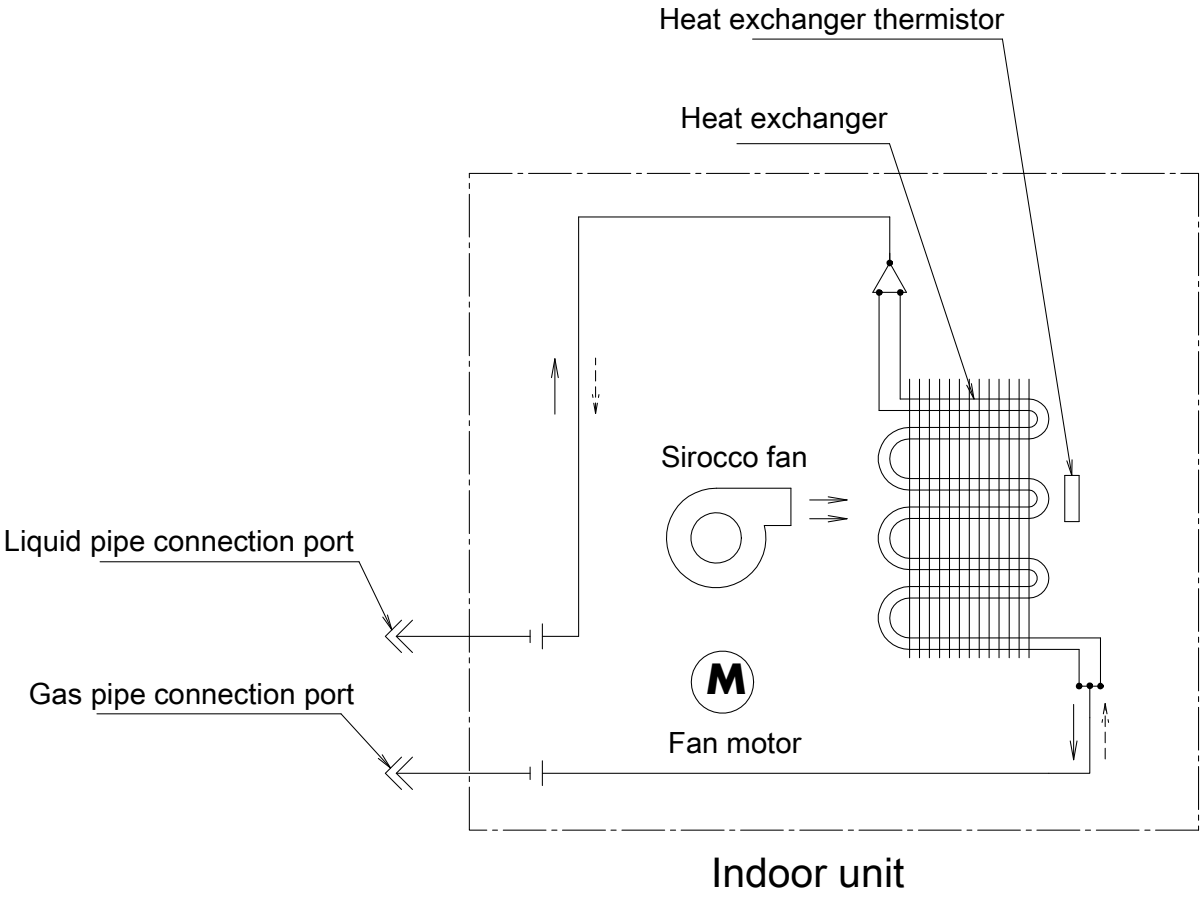
7 Piping diagrams

7 - 1 Piping Diagrams

FNA25-60A9

Piping connections Ø

Model	Gas pipe	Liquid pipe
FNA25A2VEB9	Ø 9.5	Ø 6.4
FNA35A2VEB9	Ø 9.5	Ø 6.4
FNA50A2VEB9	Ø 12.7	Ø 6.4
FNA60A2VEB9	Ø 12.7	Ø 6.4



Refrigerant flow

Cooling ——→

Heating - - - -→

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8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

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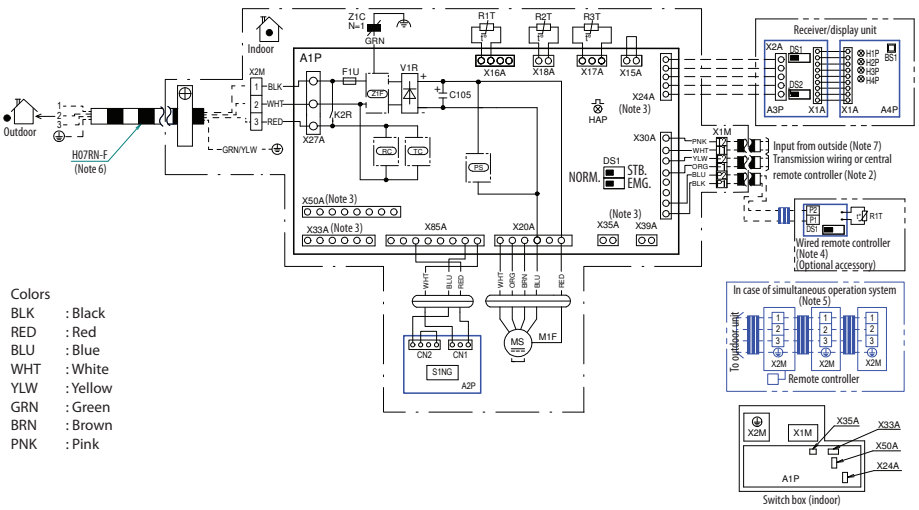
Indoor unit	
A1P	Printed circuit board
A2P	Gas sensor board
C105	Capacitor
F1U	Fuse (F, 3,15A, 250V)
K2R	Magnetic relay
PS	Power supply circuit
RC	Receiving circuit
TC	Transmission circuit
HAP	Light emitting diode (service monitor-green)
M1F	Motor (fan)
R1T	Thermistor (air)
R2T, R3T	Thermistor (coil)
DS1	Selector switch (emergency)
V1R	Diode bridge
X1M	Terminal strip (control)
X2M	Terminal strip (power supply)
Z1C	Ferrite core (noise filter)
Z1F	Noise filter
Receiver/display unit	
A3P	Printed circuit board
A4P	Printed circuit board
H1P	Light emitting diode (on-red)
H2P	Light emitting diode (filter sign-red)
H3P	Light emitting diode (timer-green)
H4P	Light emitting diode (defrost-orange)
DS1	Selector switch (main/sub)
DS2	Selector switch (wireless address set)
BS1	Push button (on/off)
Connector for optional parts	
X24A	Connector (wireless remote controller)
X33A	Connector (adaptor for wiring)
X35A	Connector (power supply for adaptor)
X50A	Connector (wireless adaptor)
Wired remote controller	
R1T	Thermistor (air)
DS1	Select switch (emergency)

Wiring diagram



Colors

BLK	: Black
RED	: Red
BLU	: Blue
WHT	: White
YLW	: Yellow
GRN	: Green
BRN	: Brown
PNK	: Pink

NOTES

1. : Terminal block
   : Connector
   : Field wiring
   • : Wire clamp
   ⏚ : Protective earth (screw)
2. In case of using central remote controller, connect it to the unit in accordance with the attached installation manual.
3. X24A, X33A, X35A, X39A, X50A Are connected when the optional accessories are being used.
4. For change over of brc1e type main/sub refer to manual attached to remote controller.
5. Show only in case of protected pipes. Use H07RN-F in case of no protection.
6. For detail, see wiring diagram attached to outdoor unit.
7. When connecting the input wires from outside, forced off or on/off control operation can be selected by the remote controller, see manual for detail.

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9 Sound data

9 - 1 Sound Power Spectrum

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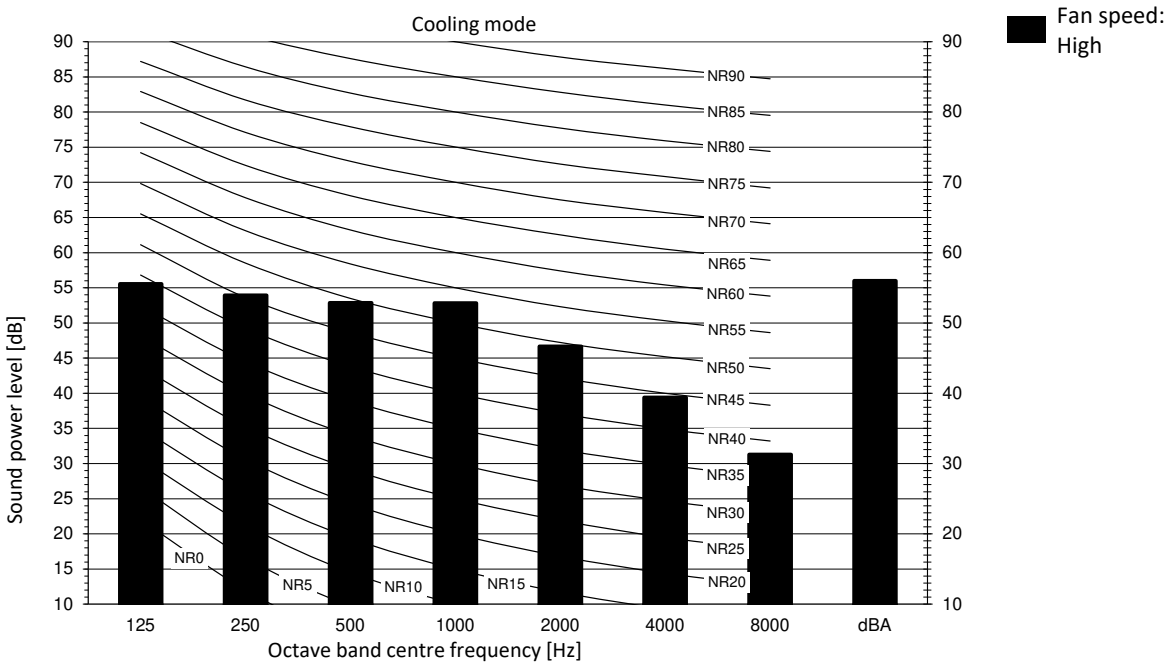

Notes

1) dBA = A-weighted sound power level (A scale according to IEC).
2) Reference acoustic intensity 0dB = ·10E-6µW/m2·
3) Measured according to ISO 3744

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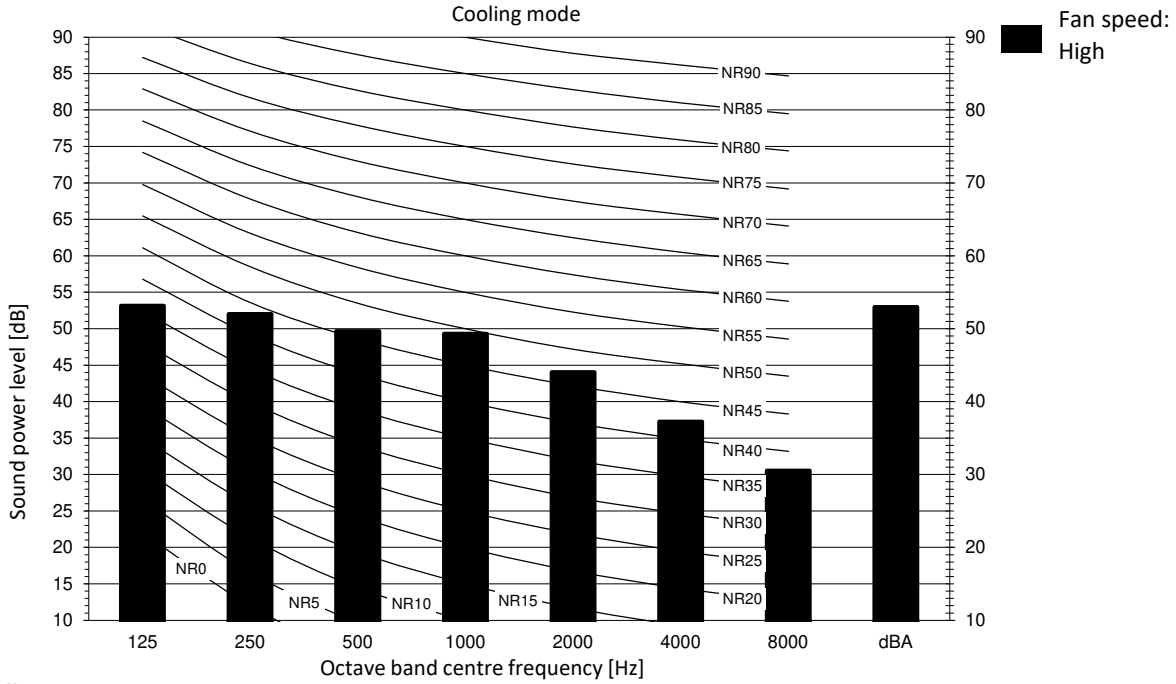
FNA25-35A9



Notes

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2) Reference acoustic intensity 0dB = ·10E-6µW/m2·
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9 Sound data

9 - 2 Sound Pressure Spectrum

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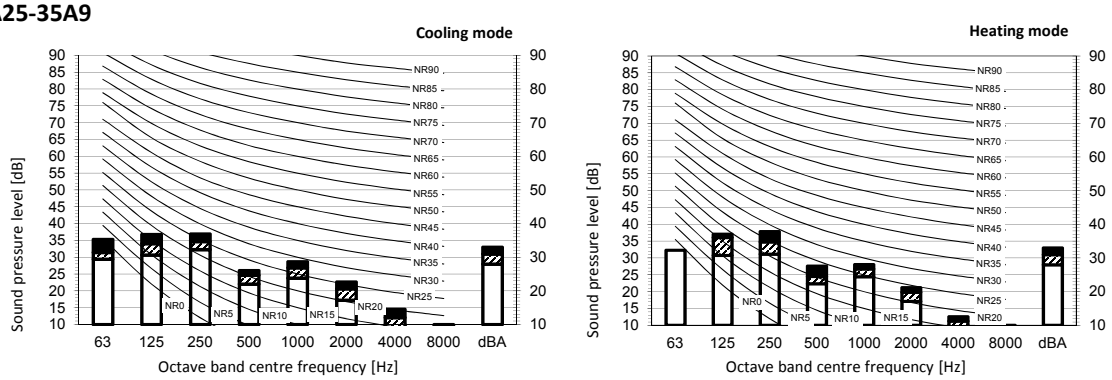


Legend

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

A Scale Fan speed

B High

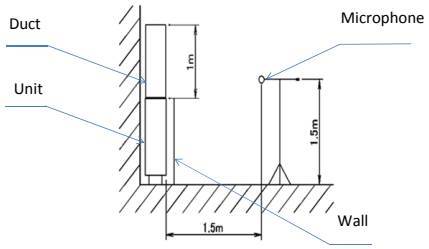
C Medium

D Low

Cooling	Total dB		
A	B	C	D
dBA	33	31	28

Heating	Total dB		
A	B	C	D
dBA	33	31	28

Location of microphone



Notes

1 Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard

2 Background noise already taken into account.

3 Operating noise varies depending on operation and ambient conditions.

4 The operation noise measuring method is in accordance with JISC9612.

5 Measuring location: anechoic chamber

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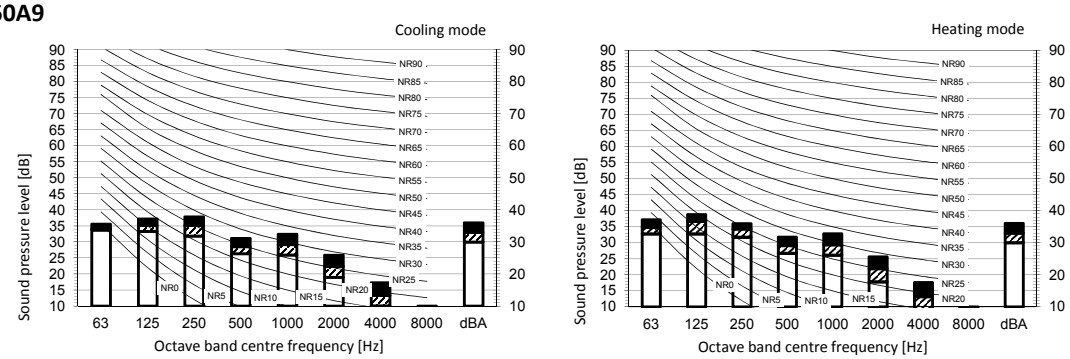


Legend

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

A Scale Fan speed

B High

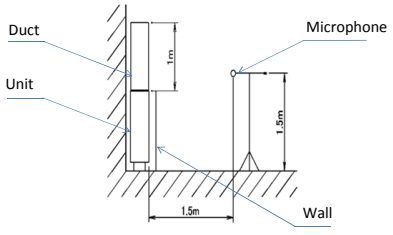
C Medium

D Low

Cooling	Total dB		
A	B	C	D
dBA	36	33	30

Heating	Total dB		
A	B	C	D
dBA	36	33	30

Location of microphone



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5 Measuring location: anechoic chamber

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10 Fan characteristics

10 - 1 Fan Characteristics

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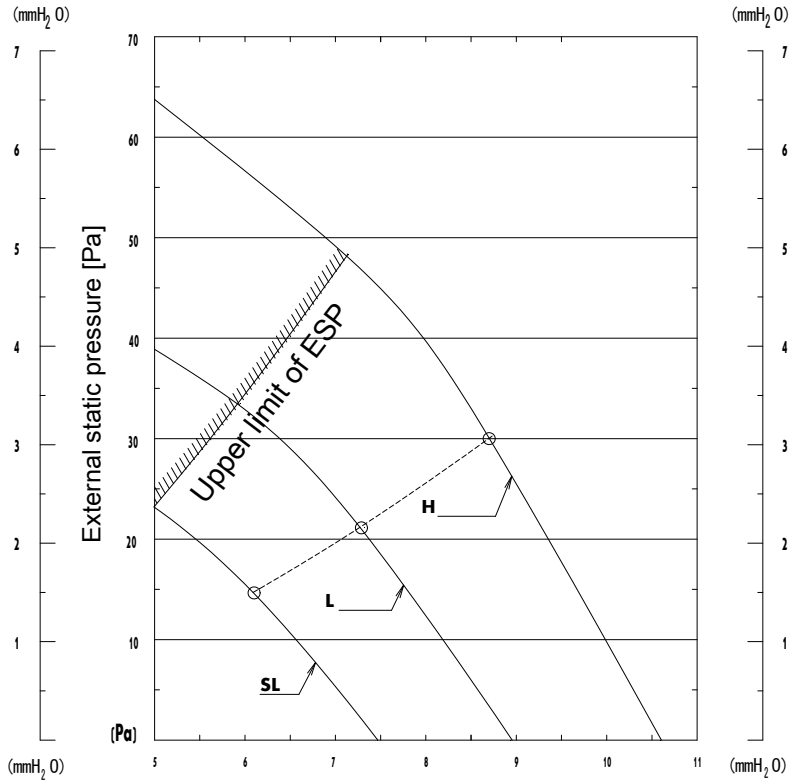

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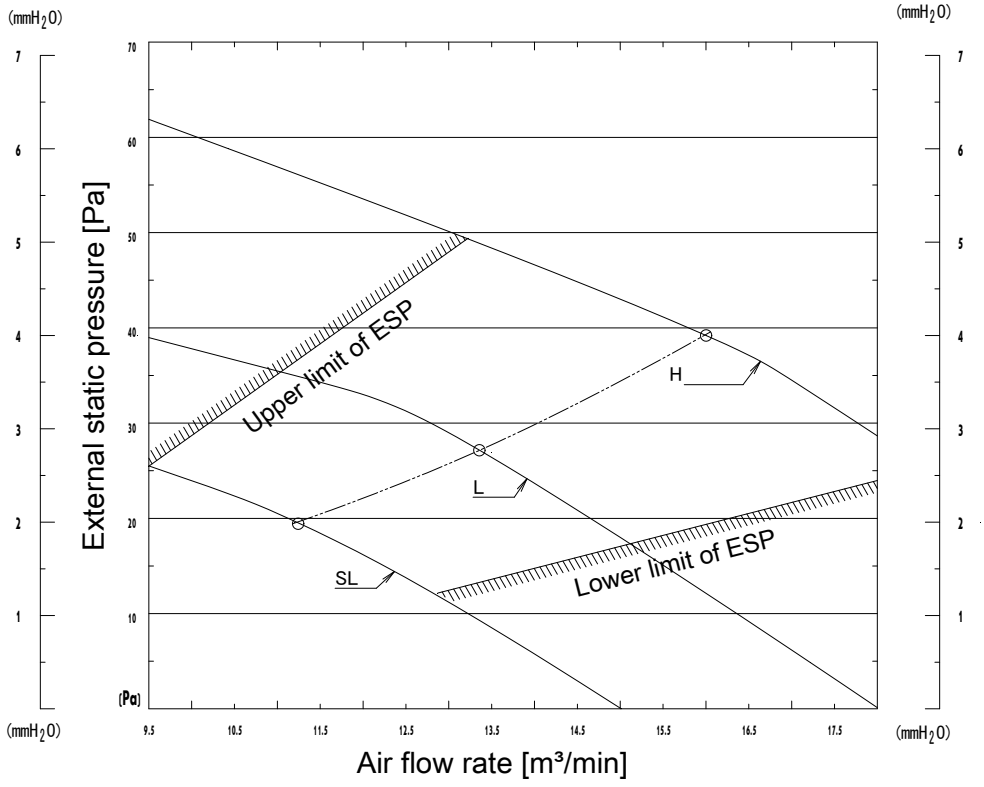

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10 Fan characteristics

10 - 1 Fan Characteristics

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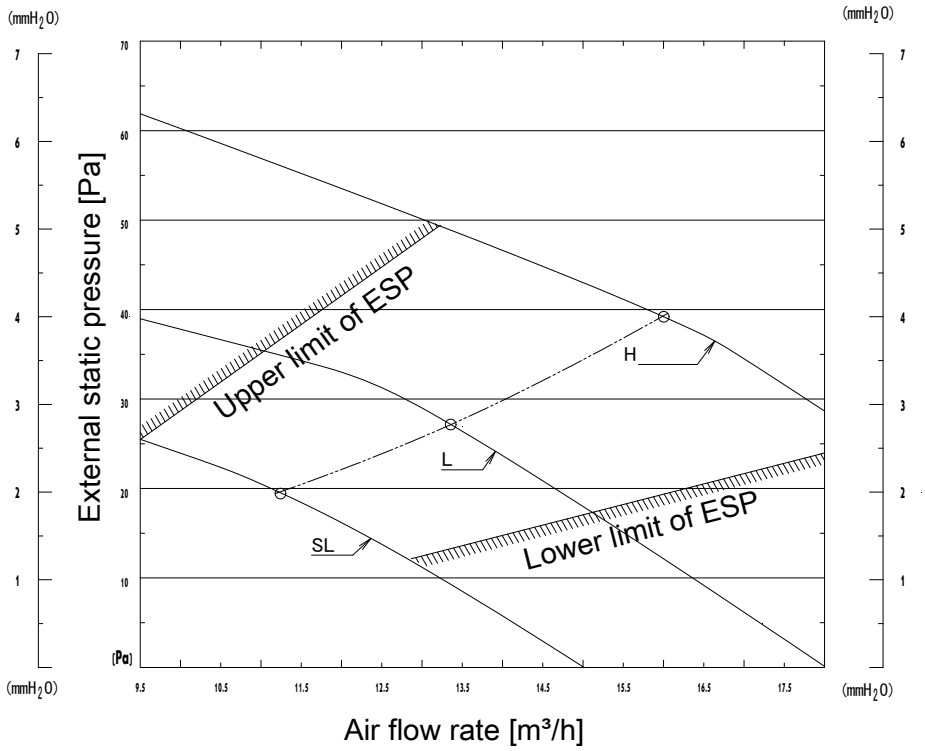

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Daikin Europe N.V. Naamloze Vennootschap · Zandvoordestraat 300 · 8400 Oostende · Belgium · www.daikin.eu · BE 0412 120 336 · RPR Oostende (Responsible Editor)

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