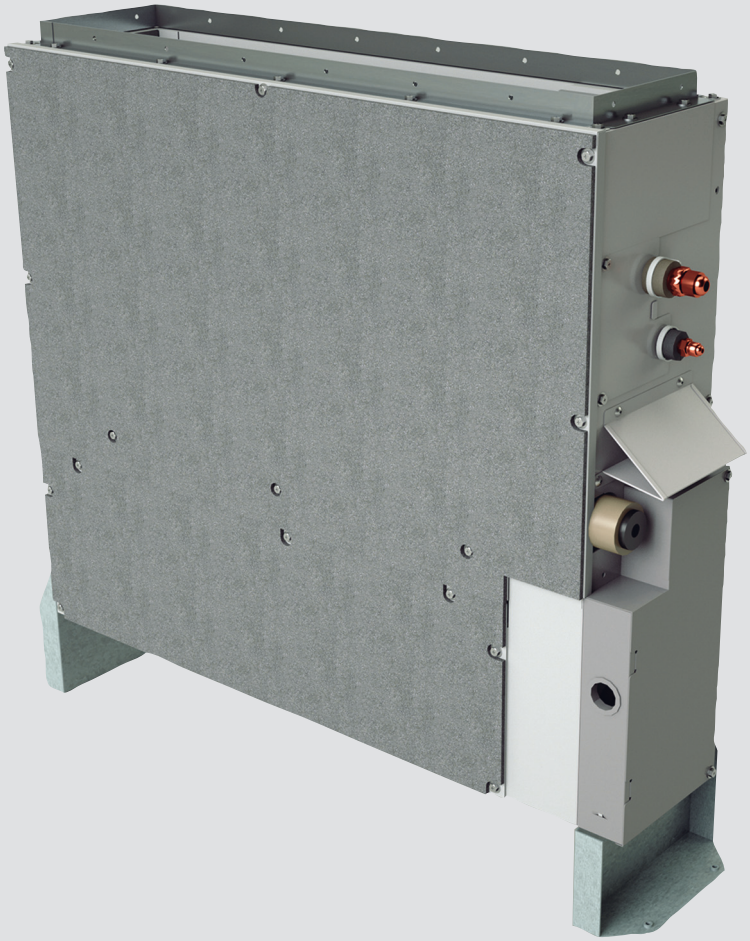
DAIKIN

Sky Air

Air Conditioning Technical Data

FNA-A9



> FNA25A2VEB9
> FNA35A2VEB9
> FNA50A2VEB9
> FNA60A2VEB9

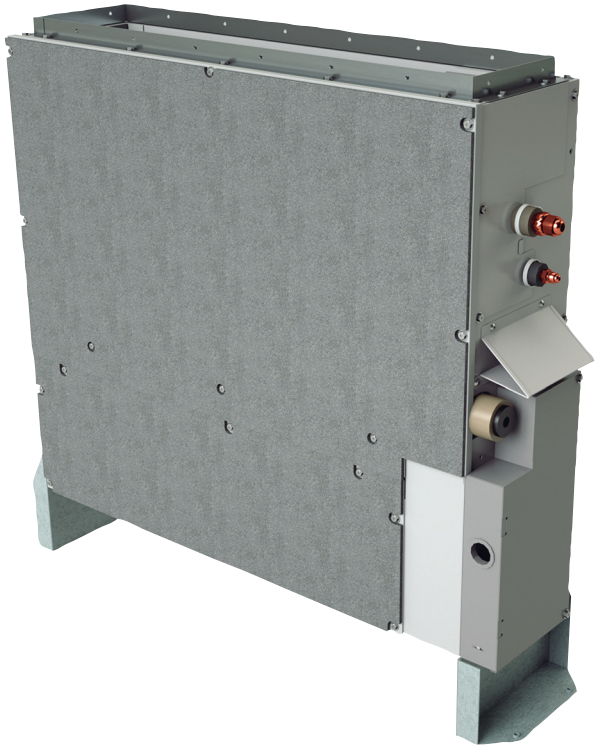
TABLE OF CONTENTS

FNA-A9

1 Features

Designed to be concealed in walls

- 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




Home leave operation


Fan only

Auto cooling-heating changeover


Fan speed steps

Dry programme


Air filter

Weekly timer


Infrared remote control


Wired remote control


Centralised control

Auto-restart


Self diagnosis


Twin/triple/ double twin application


Multi model application


VRV for residential application

2 Specifications

2-1 Technical Specifications					FNA25A9	FNA35A9	FNA50A9	FNA60A9
Casing	Colour				Unpainted			
	Material				Galvanised steel plate			
Dimensions	Unit	Height/Width/Depth		mm	620 / 720 (1)/790/200		620 / 720 (1)/1,190/200	
	Packed unit	Height/Width/Depth		mm	265/925/885		265/1,325/885	
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			m²	0.126		0.227	
	Stages	Quantity			12			
	Empty tubeplate hole	Quantity			8		0	
	Tube type				7.0 Hi-XD			
	Fin	Type			Cross fin coil			
Air filter	Type				Resin net			
Fan	Model				QD 13A 1AH/QD 13A1BH			
	Type				Sirocco fan			
	Quantity				2		4	
	Air flow rate	Cooling	High	m³/min	8.7		16.0	
			Nom.	m³/min	8.0		14.8	
			Low	m³/min	7.3		13.5	
		Heating	High	m³/min	8.7		16.0	
			Nom.	m³/min	8.0		14.8	
			Low	m³/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/Medium/Low		dBA	33.0/31.0 (2)/28.0		36.0/33.0 (2)/30.0	
	Heating	High/Nom./Low		dBA	33.0/31.0/28.0		36.0/33.0/30.0	
Control systems	Infrared remote control				BRC4C65			
	Wired remote control				BRC1D52 / BRC1E52A/B			
Refrigerant	Type				R-410A / R-32			
Piping connections	Sound absorbing insulation				Butyl Rubber			
	Liquid	Type/OD		mm	Flare connection/6,35			
	Gas	Type/OD		mm	Flare connection/9.52		Flare connection/12.7	
	Drain				VP20 (I.D. 20/O.D. 26)			
	Heat insulation				Foamed polystyrene / Foamed polyethylene			

2-2 Electrical Specifications			FNA25A9	FNA35A9	FNA50A9	FNA60A9
Power supply	Name		VE			
	Phase		1~			
	Frequency	Hz	50/60			
	Voltage	V	220-240/220			

Notes

(1) Including installation legs

(2) 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

FNA25-60A9

	Optional equipment	Availability: Part name	SA: FNA25A2VEB(9) FNA35A2VEB(9) FNA50A2VEB(9) FNA60A2VEB(9)
Individual control systems	Wired remote control	BRC1D528	X
		BRC1E53A7 (6)	X
		BRC1E53B7 (7)	X
		BRC1E53C7 (8)(9), BRC1H51(9)W/S/K, BRC1H81W/S	X
	Simplified remote control for hotel use	BRC2E52C7 (3) (9)	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(10)	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
	Installation box for adaptor PCB	KRP1BA101	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
	Digital input adaptor	BRP7A51 (4) (5)	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) : This option needs to be installed together with installation box ···.
(5) : Only possible in combination with simplified remote control ·BRC2/3E52C7 / BRC1E53A/B/C7·.
(6) : Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.
(7) : Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.
(8) : Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.
(9) : Language pack ·3· of controller ·BRC1E53C7· is different from that of controller ·BRC2/3E52C7·.
(10): Only possible in combination with wired or wireless remote control (e.g. ·BRC1E*, BRC1H*, BRC7FA*·)

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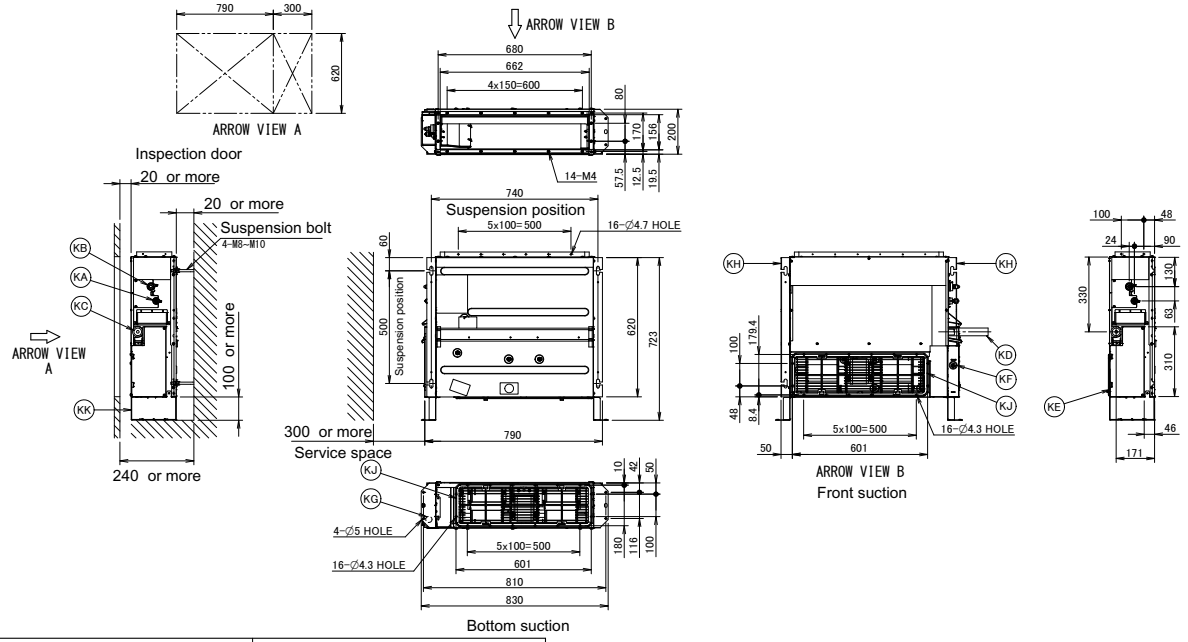
5 Dimensional drawings

5 - 1 Dimensional Drawings

FNA25-35A9



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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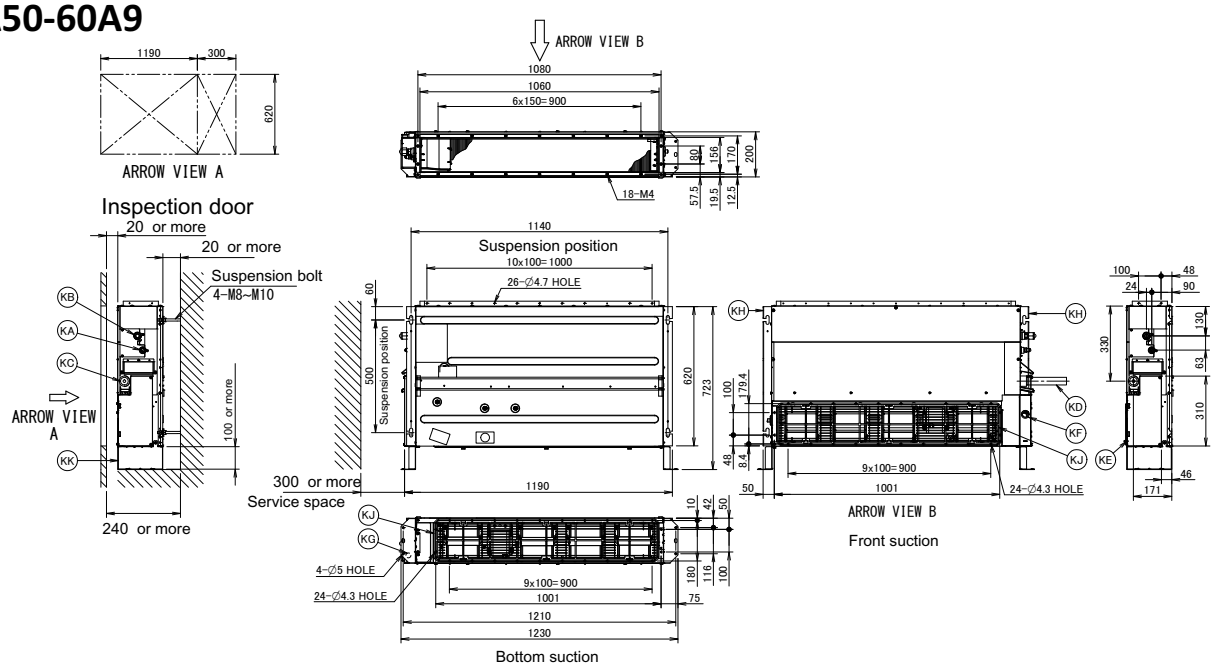
FNA50-60A9



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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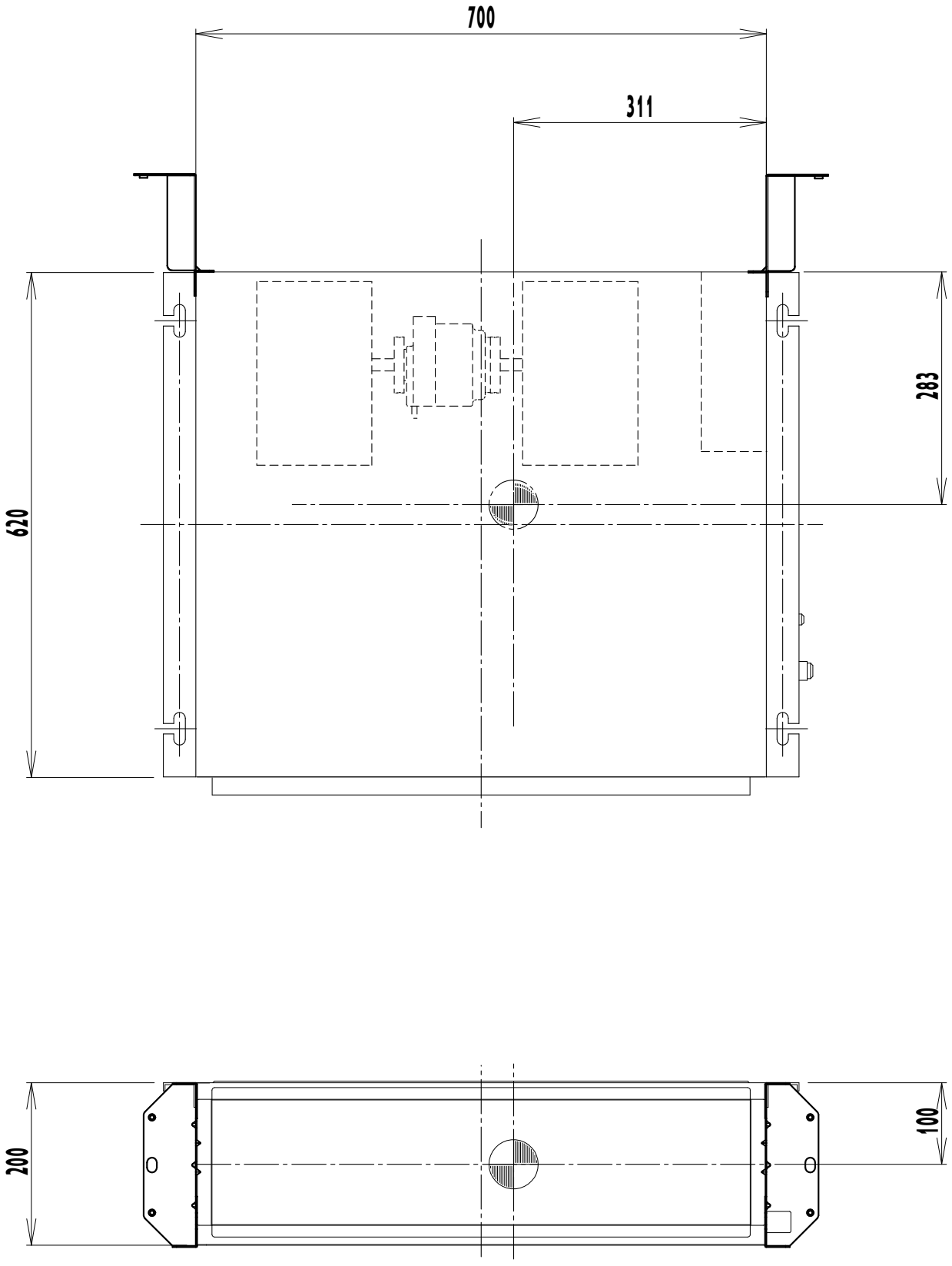
6 Centre of gravity

6 - 1 Centre of Gravity

FNA25-35A9



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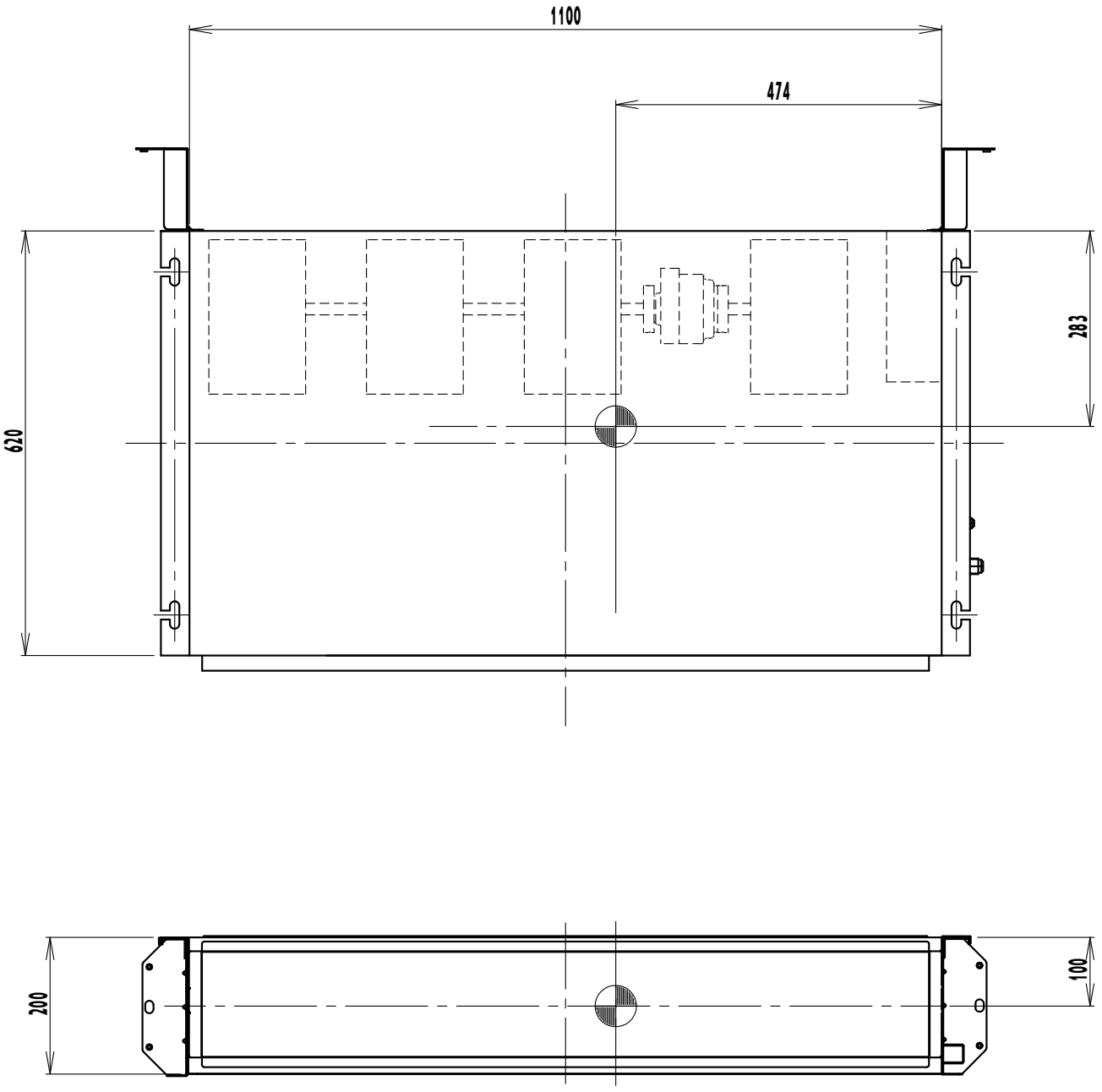
6 Centre of gravity

6 - 1 Centre of Gravity

FNA50-60A9



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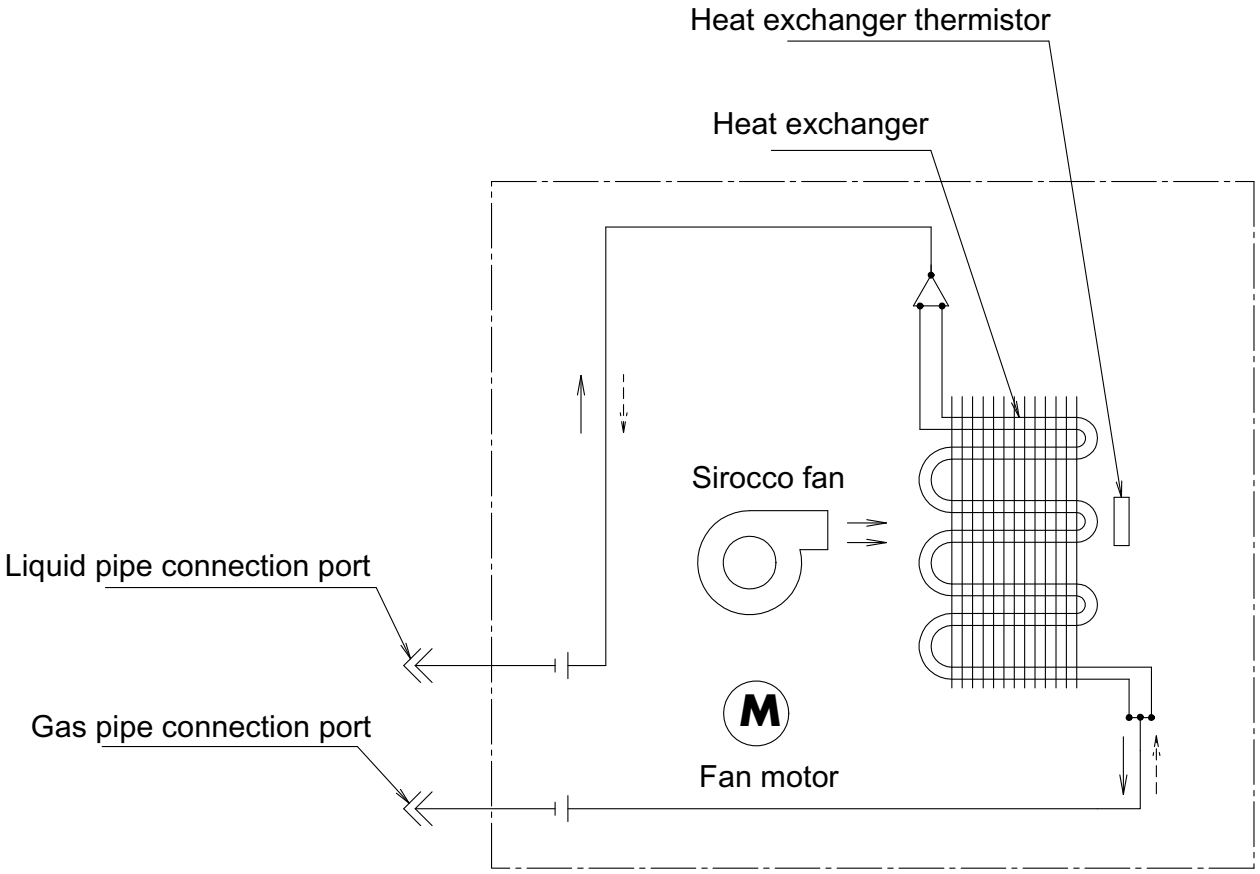
7 Piping diagrams

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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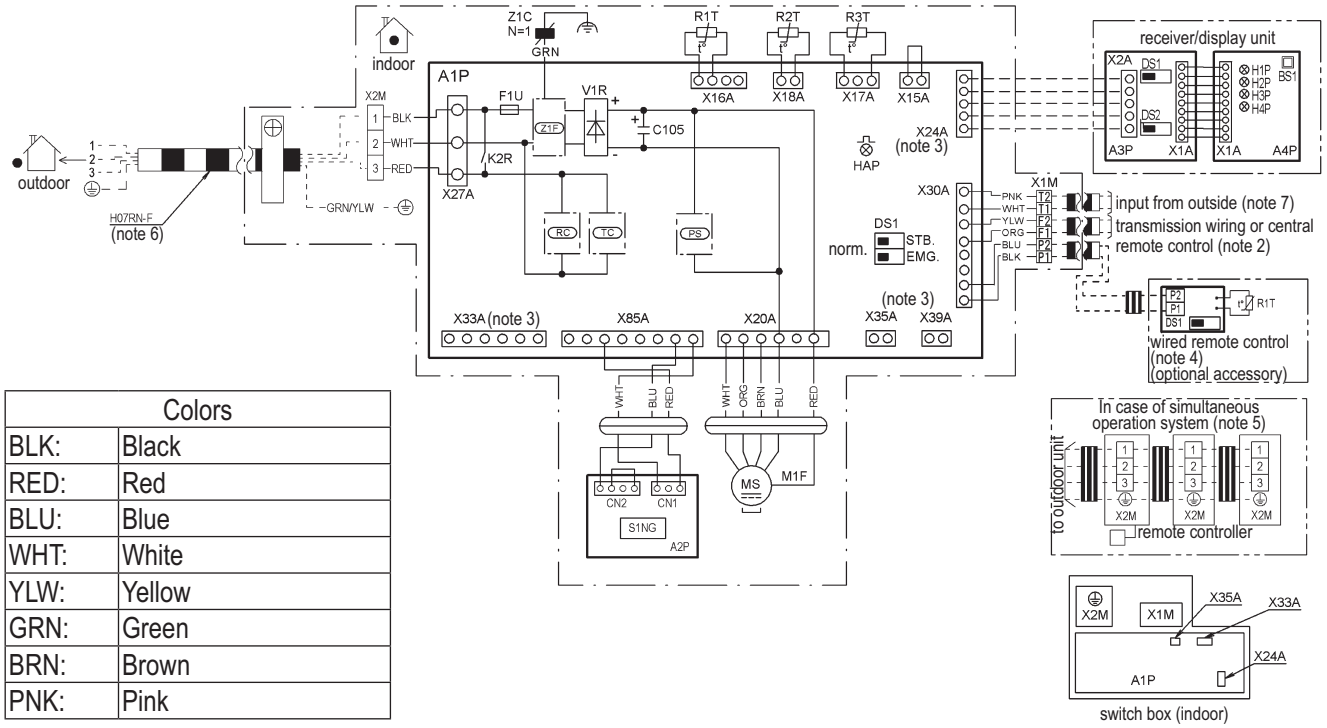

Colors	
BLK:	Black
RED:	Red
BLU:	Blue
WHT:	White
YLW:	Yellow
GRN:	Green
BRN:	Brown
PNK:	Pink

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 unit
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 (infrared remote control)
X33A	Connector (adapter for wiring)
X35A	Connector (adapter power supply)
Wired remote control	
R1T	Thermistor (air)
SS1	Selector switch (emergency)

NOTES

1. ☐☐☐☐: terminal block, ⊙⊙: connector, ▬▬▬: field wiring, •: wire clamp, ⏚: protective earth (screw)
2. In case of using central remote control, connect it to the unit in accordance with the attached installation manual.
3. X24A, X33A, X35A, X39 are connected when the optional accessories are being used.
4. For change over of BRC1E type main/sub refer to manual attached to remote control.
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 control, see manual for detail.

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9 Sound data

9 - 1 Sound Pressure Spectrum

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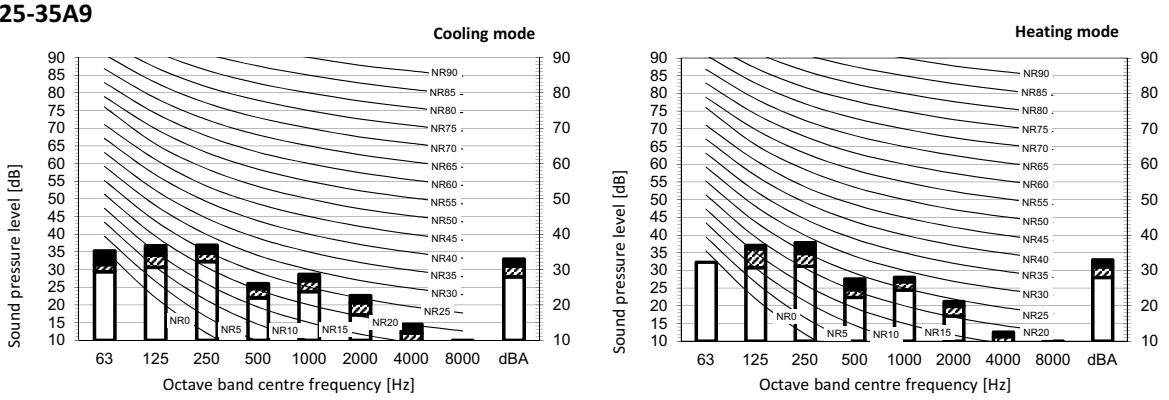


Legend

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

A Scale — Fan speed

B High

C Medium

D Low

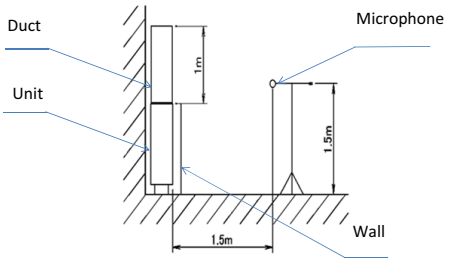
Cooling — Total dB

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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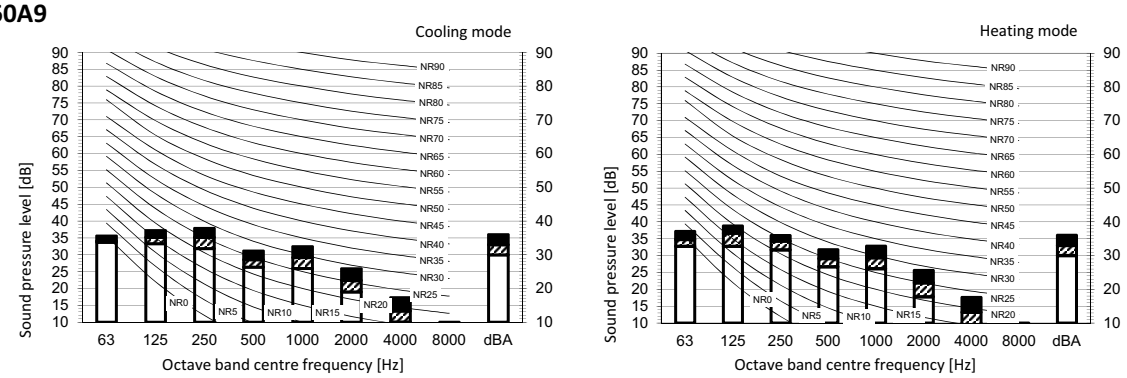


Legend

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

A Scale — Fan speed

B High

C Medium

D Low

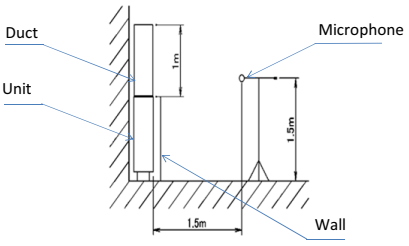
Cooling — Total dB

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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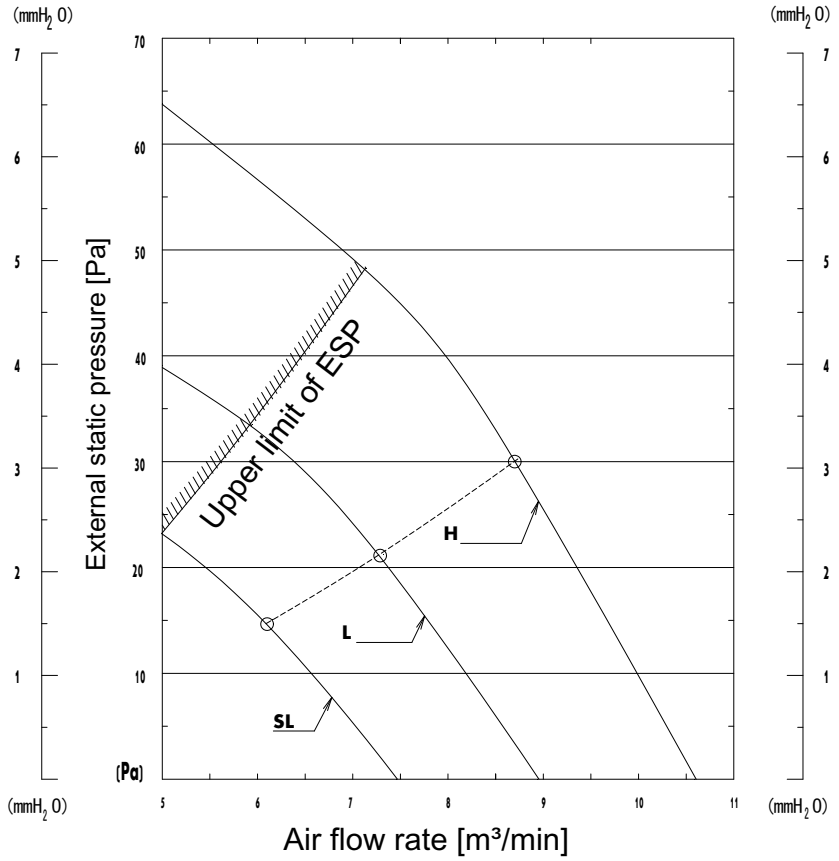

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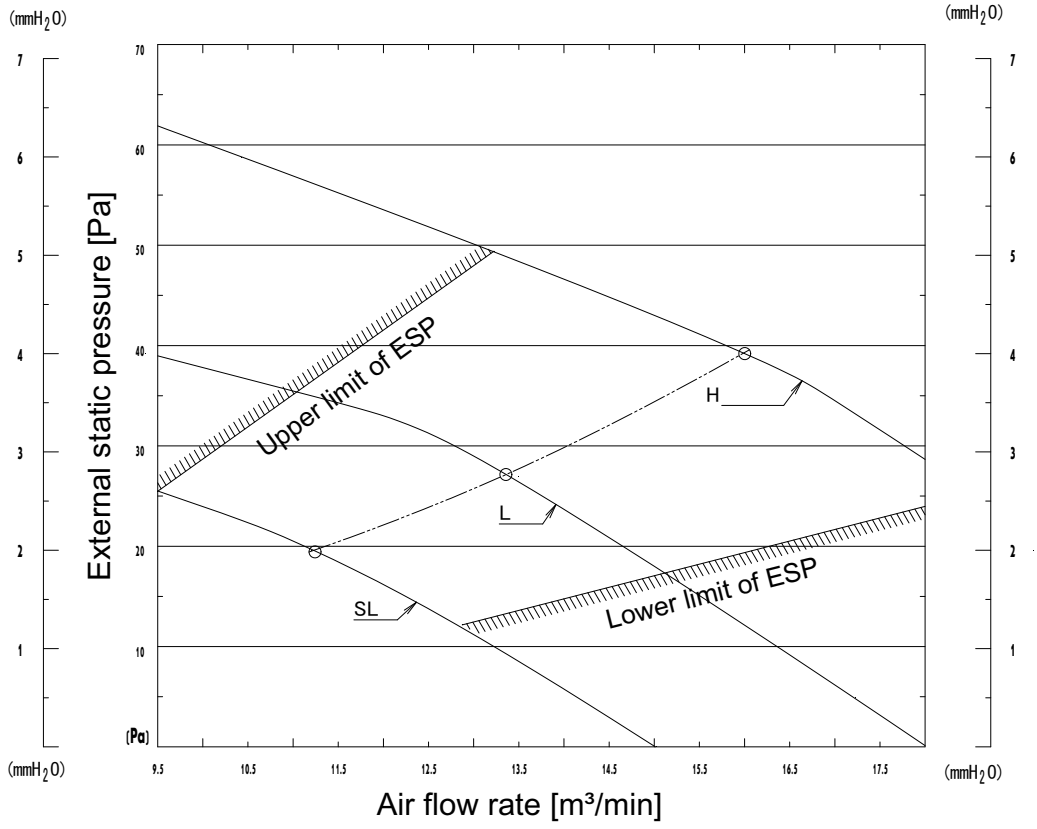

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10 Fan characteristics

10 - 1 Fan Characteristics

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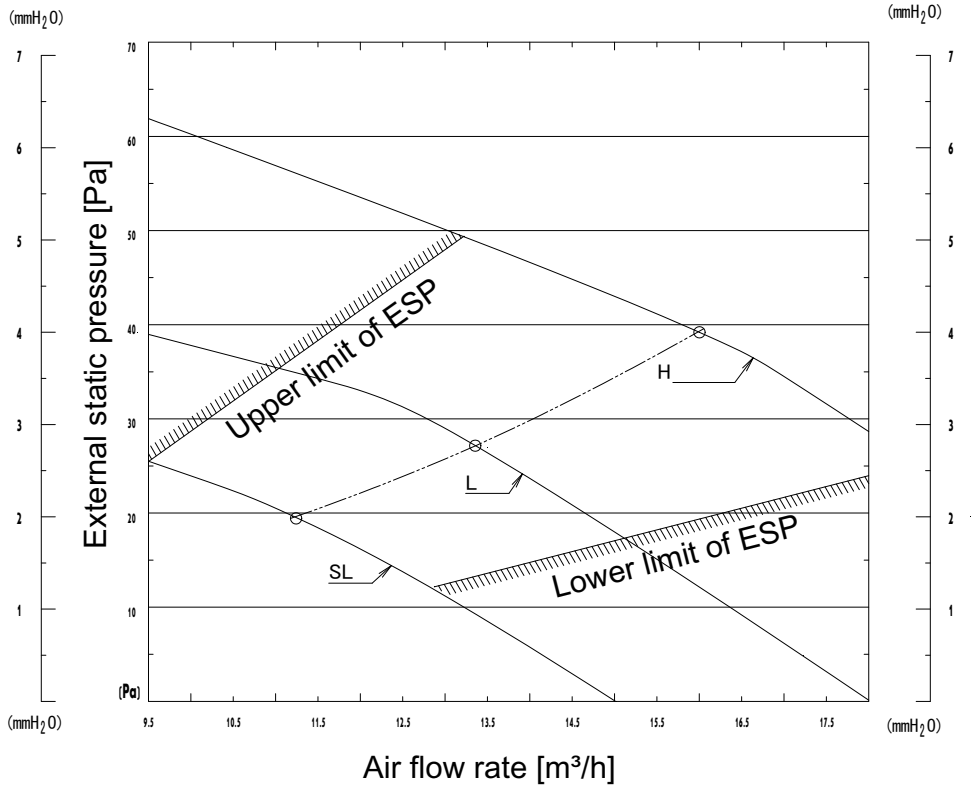

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