NEW 2021

nanoe™ X as a standard.

NEW F3 Type variable static pressure adaptive duct • R32/R410A

New design adaptive ducted F3 range.
2 installation possibilities (horizontal / vertical) with high ESP 150 Pa allows flexible installation.

COMPATIBLE WITH ALL PANASONIC CONNECTIVITY SOLUTIONS. FOR DETAILED INFORMATION GO TO THE CONTROL SYSTEMS SECTION

R32 model*		S . .MF3E5B	15	22	28	36	45	56	60	73	90	106	140	160
R410A model		**S . .MF3E5A**	**15**	**22**	**28**	**36**	**45**	**56**	**60**	**73**	**90**	**106**	**140**	**160**
Cooling capacity		kW	1,5	2,2	2,8	3,6	4,5	5,6	6,0	7,3	9,0	10,6	14,0	16,0
Input power cooling		W	60,00	60,00	60,00	60,00	60,00	89,00	79,00	79,00	136,00	146,00	265,00	330,00
Current (cool)		A	0,45	0,45	0,45	0,45	0,45	0,63	0,52	0,52	0,90	1,00	1,76	2,14
Heating capacity		kW	1,7	2,5	3,2	4,2	5,0	6,3	7,1	8,0	10,0	11,4	16,0	18,0
Input power heating		W	60,00	60,00	60,00	60,00	60,00	89,00	79,00	79,00	136,00	146,00	265,00	330,00
Current (heat)		A	0,45	0,45	0,45	0,45	0,45	0,63	0,52	0,52	0,90	1,00	1,76	2,14
R32 leakage sensors			2	2	2	2	2	2	2	2	2	2	2	2
Fan type			Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan	Sirocco fan
nanoe X Generator			Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2	Mark 2
Air flow [1]	Hi/Med/Lo	m³/min	14/12/8	14/12/8	14/12/8	14/12/8	14/12/8	16/14/10	21/18/15	21/18/15	25/23/16	32/26/21	37/32/26	40/34/28
External static pressure		Pa	30 (10-150)	30 (10-150)	30 (10-150)	30 (10-150)	30 (10-150)	30 (10-150)	30 (10-150)	30 (10-150)	40 (10-150)	40 (10-150)	50 (10-150)	50 (10-150)
Sound pressure	Hi/Med/Lo	dB(A)	31/28/20	31/28/20	31/28/20	31/28/20	31/28/20	35/32/24	31/28/23	31/28/23	35/33/25	36/32/27	41/36/32	43/37/33
Sound power	Hi/Med/Lo	dB(A)	54/51/43	54/51/43	54/51/43	54/51/43	54/51/43	58/55/47	54/51/46	54/51/46	58/56/48	59/55/50	64/59/55	66/60/56
Dimension	H x W x D	mm	250 x 800 x 730	250 x 800 x 730	250 x 800 x 730	250 x 800 x 730	250 x 800 x 730	250 x 800 x 730	250 x 1000 x 730	250 x 1000 x 730	250 x 1000 x 730	250 x 1400 x 730	250 x 1400 x 730	250 x 1400 x 730
Net weight		kg	26	26	26	26	26	26	31	31	31	40	40	40
Pipe diameter R32 model	Liquid	Inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)
	Gas	Inch (mm)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)
Pipe diameter R410A model	Liquid	Inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)
	Gas	Inch (mm)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)

Accessories	
CZ-RTC6	CONEX wired remote controller (non-wireless)
CZ-RTC6BL	CONEX wired remote controller with Bluetooth®
CZ-RTC5B	Wired remote controller with Econavi function

Accessories	
CZ-RWS3 + CZ-RWRC3	Infrared remote controller
PAW-RE2C4	Wired remote controller for hotel application
CZ-CENSC1	Econavi energy savings sensor

1) Value referred to standard settings at shipment (H curve 8, M curve 5, L curve 1). * Available in summer 2021.

Technical focus

- 4 installation possibilities with horizontal and vertical mounting and selectable rear or bottom air inlet
- Industry leading low noise with super quiet operation, minimum 22 dB(A)
- Only 250 mm height and lightweight unit from 26 to 42 kg
- Integrated R32 refrigerant leak detectors
- Improved drain pan suitable for both horizontal / vertical installation
- Drain pump included [1]
- nanoe™ X (Generator Mark 2= 9,6 trillion hydroxyl radicals/sec) as standard, effective even at duct connections up to 10 m and 3 bends [2]

1) For use with horizontal installation only
2) Panasonic internal survey.

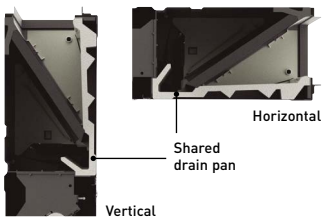
Vertical Installation

New vertical installation option. Variable external static pressure to support ducted installations with bends.

* Vertical installation requires additional settings on field, please check the installation manual.

Improved drain pan design

Drain pan is shared in both cases horizontal and vertical installation.
No need to alternate anymore.



28% ECONAVI | nanoe X | FILTER INCLUDED | SELF-DIAGNOSING | AUTOMATIC FAN | HUMIDITY CONTROL DRY | AUTOMATIC RESTART | BUILT-IN DRAIN PUMP | OPTIONAL WI-FI | BMS CONNECTIVITY

ECONAVI and INTERNET CONTROL: Optional.

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb).
Specifications subject to change without notice. For detailed information about ErP / Energy Labelling, please visit our websites www.aircon.panasonic.eu or www.ptc.panasonic.eu.

5. Middle Static Pressure Duct (Type F3)

5-1. Specifications

Unit Specifications (A)

INDOOR		MODEL		S-15MF3E5B			S-22MF3E5B			S-28MF3E5B		
PANEL		MODEL		-								
Performance test condition				ISO15042 /EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		1.5	1.5	1.5	2.2	2.2	2.2	2.8	2.8	2.8
		BTU/h		5100	5100	5100	7500	7500	7500	9600	9600	9600
		Sensible	kW	1.4	1.4	1.4	2.1	2.1	2.1	2.4	2.4	2.4
		Latent	kW	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.46	0.45	0.44
	Input power	W		60			60			60		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			31/28/20		
		Power Level dB		54/51/43			54/51/43			54/51/43		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		1.7	1.7	1.7	2.5	2.5	2.5	3.2	3.2	3.2
		BTU/h		5800	5800	5800	8500	8500	8500	10900	10900	10900
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.46	0.45	0.44
	Input power	W		60			60			60		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			31/28/20		
		Power Level dB		54/51/43			54/51/43			54/51/43		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Heating	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				107	/	-	107	/	-	107	/	-
Moisture removal volume			L/h	0.1			0.2			0.6		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			30 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			14.0/12.0/8.0		
	Heating	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			14.0/12.0/8.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R32			R32			R32		
Product dimension	Height		mm	250			250			250		
	Width		mm	800			800			800		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1065			1065			1065		
		Depth	mm	340			340			340		
Weight		(NET)	kg	26			26			26		
		(GROSS)	kg	31			31			31		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Pipe diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (B)

INDOOR		MODEL		S-36MF3E5B			S-45MF3E5B			S-56MF3E5B		
PANEL		MODEL		-								
Performance test condition				ISO15042 /EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		3.6	3.6	3.6	4.5	4.5	4.5	5.6	5.6	5.6
		BTU/h		12300	12300	12300	15400	15400	15400	19100	19100	19100
		Sensible	kW	2.8	2.8	2.8	3.4	3.4	3.4	4.1	4.1	4.1
		Latent	kW	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.65	0.63	0.61
	Input power	W		60			60			89		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			35/32/24		
		Power Level dB		54/51/43			54/51/43			58/55/47		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		4.2	4.2	4.2	5.0	5.0	5.0	6.3	6.3	6.3
		BTU/h		14300	14300	14300	17100	17100	17100	21500	21500	21500
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.65	0.63	0.61
	Input power	W		60			60			89		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			35/32/24		
		Power Level dB		54/51/43			54/51/43			58/55/47		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Heating	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				107	/	-	107	/	-	107	/	-
Moisture removal volume			L/h	1.1			1.6			2.3		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			30 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			16.0/14.0/10.0		
	Heating	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			16.0/14.0/10.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R32			R32			R32		
Product dimension	Height		mm	250			250			250		
	Width		mm	800			800			800		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1065			1065			1065		
		Depth	mm	340			340			340		
Weight		(NET)	kg	26			26			26		
		(GROSS)	kg	31			31			31		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Pipe diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (C)

INDOOR		MODEL		S-60MF3E5B			S-73MF3E5B			S-90MF3E5B		
PANEL		MODEL		-								
Performance test condition				ISO15042 /EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		6.0	6.0	6.0	7.3	7.3	7.3	9.0	9.0	9.0
		BTU/h		20500	20500	20500	24900	24900	24900	30700	30700	30700
		Sensible	kW	4.6	4.6	4.6	5.3	5.3	5.3	6.6	6.6	6.6
		Latent	kW	1.4	1.4	1.4	2.0	2.0	2.0	2.4	2.4	2.4
	Current	A		0.53	0.52	0.51	0.53	0.52	0.51	0.92	0.90	0.88
	Input power	W		79			79			136		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/23			31/28/23			35/33/25		
		Power Level dB		54/51/46			54/51/46			58/56/48		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		7.1	7.1	7.1	8.0	8.0	8.0	10.0	10.0	10.0
		BTU/h		24200	24200	24200	27300	27300	27300	34100	34100	34100
	Current	A		0.53	0.52	0.51	0.53	0.52	0.51	0.92	0.90	0.88
	Input power	W		79			79			136		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/23			31/28/23			35/33/25		
		Power Level dB		54/51/46			54/51/46			58/56/48		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348
Heating	Max Current(A)/Max Input power(W)			2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				165	/	-	165	/	-	165	/	-
Moisture removal volume			L/h	2.1			3.0			3.7		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			40 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		21.0/18.0/15.0			21.0/18.0/15.0			25.0/23.0/16.0		
	Heating	m^3/min (H/M/L)		21.0/18.0/15.0			21.0/18.0/15.0			25.0/23.0/16.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R32			R32			R32		
Product dimension	Height		mm	250			250			250		
	Width		mm	1000			1000			1000		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1265			1265			1265		
		Depth	mm	340			340			340		
Weight		(NET)	kg	31			31			31		
		(GROSS)	kg	37			37			37		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Pipe diameter mm (inch)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35 (1/4) (Gas) ø12.7 (1/2)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (D)

INDOOR		MODEL		S-106MF3E5B			S-140MF3E5B			S-160MF3E5B		
PANEL		MODEL		-								
Performance test condition				ISO15042 /EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		10.6	10.6	10.6	14.0	14.0	14.0	16.0	16.0	16.0
		BTU/h		36200	36200	36200	47800	47800	47800	54600	54600	54600
		Sensible	kW	8.2	8.2	8.2	9.9	9.9	9.9	11.0	11.0	11.0
		Latent	kW	2.4	2.4	2.4	4.1	4.1	4.1	5.0	5.0	5.0
	Current	A		1.03	1.00	0.97	1.80	1.76	1.72	2.22	2.14	2.09
	Input power	W		146			265			330		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		36/32/27			41/36/32			43/37/33		
		Power Level dB		59/55/50			64/59/55			66/60/56		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		11.4	11.4	11.4	16.0	16.0	16.0	18.0	18.0	18.0
		BTU/h		38900	38900	38900	54600	54600	54600	61400	61400	61400
	Current	A		1.03	1.00	0.97	1.80	1.76	1.72	2.22	2.14	2.09
	Input power	W		146			265			330		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		36/32/27			41/36/32			43/37/33		
		Power Level dB		59/55/50			64/59/55			66/60/56		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410
Heating	Max Current(A)/Max Input power(W)			2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				259	/	-	259	/	-	259	/	-
Moisture removal volume			L/h	3.7			6.1			7.5		
External static pressure			Pa	40 (MIN10 - MAX150)			50 (MIN10 - MAX150)			50 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m³/min (H/M/L)		32.0/26.0/21.0			37.0/32.0/26.0			40.0/34.0/28.0		
	Heating	m³/min (H/M/L)		32.0/26.0/21.0			37.0/32.0/26.0			40.0/34.0/28.0		
Outdoor air flow	Cooling	m³/min		-			-			-		
	Heating	m³/min		-			-			-		
Refrigerant type				R32			R32			R32		
Product dimension	Height		mm	250			250			250		
	Width		mm	1400			1400			1400		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1665			1665			1665		
		Depth	mm	340			340			340		
Weight		(NET)	kg	40			40			40		
		(GROSS)	kg	46			46			46		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Pipe diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m³/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (E)

INDOOR		MODEL		S-15MF3E5A			S-22MF3E5A			S-28MF3E5A		
PANEL		MODEL		-								
Performance test condition				ISO15042 / AS/NZS3823.1 / EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		1.5	1.5	1.5	2.2	2.2	2.2	2.8	2.8	2.8
		BTU/h		5100	5100	5100	7500	7500	7500	9600	9600	9600
		Sensible	kW	1.4	1.4	1.4	2.1	2.1	2.1	2.4	2.4	2.4
		Latent	kW	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.46	0.45	0.44
	Input power	W		60			60			60		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			31/28/20		
		Power Level dB		54/51/43			54/51/43			54/51/43		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		1.7	1.7	1.7	2.5	2.5	2.5	3.2	3.2	3.2
		BTU/h		5800	5800	5800	8500	8500	8500	10900	10900	10900
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.46	0.45	0.44
	Input power	W		60			60			60		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			31/28/20		
		Power Level dB		54/51/43			54/51/43			54/51/43		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Heating	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				107	/	-	107	/	-	107	/	-
Moisture removal volume			L/h	0.1			0.2			0.6		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			30 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			14.0/12.0/8.0		
	Heating	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			14.0/12.0/8.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R410A			R410A			R410A		
Product dimension	Height		mm	250			250			250		
	Width		mm	800			800			800		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1065			1065			1065		
		Depth	mm	340			340			340		
Weight		(NET)	kg	26			26			26		
		(GROSS)	kg	31			31			31		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)		
	Pipe diameter mm (inch)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (F)

INDOOR		MODEL		S-36MF3E5A			S-45MF3E5A			S-56MF3E5A		
PANEL		MODEL		-								
Performance test condition				ISO15042 / AS/NZS3823.1 / EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		3.6	3.6	3.6	4.5	4.5	4.5	5.6	5.6	5.6
		BTU/h		12300	12300	12300	15400	15400	15400	19100	19100	19100
		Sensible	kW	2.8	2.8	2.8	3.4	3.4	3.4	4.1	4.1	4.1
		Latent	kW	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.65	0.63	0.61
	Input power	W		60			60			89		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			35/32/24		
		Power Level dB		54/51/43			54/51/43			58/55/47		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		4.2	4.2	4.2	5.0	5.0	5.0	6.3	6.3	6.3
		BTU/h		14300	14300	14300	17100	17100	17100	21500	21500	21500
	Current	A		0.46	0.45	0.44	0.46	0.45	0.44	0.65	0.63	0.61
	Input power	W		60			60			89		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/20			31/28/20			35/32/24		
		Power Level dB		54/51/43			54/51/43			58/55/47		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Heating	Max Current(A)/Max Input power(W)			1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212	1.46/212
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				107	/	-	107	/	-	107	/	-
Moisture removal volume			L/h	1.1			1.6			2.3		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			30 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			16.0/14.0/10.0		
	Heating	m^3/min (H/M/L)		14.0/12.0/8.0			14.0/12.0/8.0			16.0/14.0/10.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R410A			R410A			R410A		
Product dimension	Height		mm	250			250			250		
	Width		mm	800			800			800		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1065			1065			1065		
		Depth	mm	340			340			340		
Weight		(NET)	kg	26			26			26		
		(GROSS)	kg	31			31			31		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)		
	Pipe diameter mm (inch)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)			(Liquid) ø6.35(1/4) (Gas) ø12.7 (1/2)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (G)

INDOOR		MODEL		S-60MF3E5A			S-73MF3E5A			S-90MF3E5A		
PANEL		MODEL		-								
Performance test condition				ISO15042 / AS/NZS3823.1 / EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		6.0	6.0	6.0	7.3	7.3	7.3	9.0	9.0	9.0
		BTU/h		20500	20500	20500	24900	24900	24900	30700	30700	30700
		Sensible	kW	4.6	4.6	4.6	5.3	5.3	5.3	6.6	6.6	6.6
		Latent	kW	1.4	1.4	1.4	2.0	2.0	2.0	2.4	2.4	2.4
	Current	A		0.53	0.52	0.51	0.53	0.52	0.51	0.92	0.90	0.88
	Input power	W		79			79			136		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/23			31/28/23			35/33/25		
		Power Level dB		54/51/46			54/51/46			58/56/48		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		7.1	7.1	7.1	8.0	8.0	8.0	10.0	10.0	10.0
		BTU/h		24200	24200	24200	27300	27300	27300	34100	34100	34100
	Current	A		0.53	0.52	0.51	0.53	0.52	0.51	0.92	0.90	0.88
	Input power	W		79			79			136		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		31/28/23			31/28/23			35/33/25		
		Power Level dB		54/51/46			54/51/46			58/56/48		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348
Heating	Max Current(A)/Max Input power(W)			2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348	2.19/348
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				165	/	-	165	/	-	165	/	-
Moisture removal volume			L/h	2.1			3.0			3.7		
External static pressure			Pa	30 (MIN10 - MAX150)			30 (MIN10 - MAX150)			40 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m^3/min (H/M/L)		21.0/18.0/15.0			21.0/18.0/15.0			25.0/23.0/16.0		
	Heating	m^3/min (H/M/L)		21.0/18.0/15.0			21.0/18.0/15.0			25.0/23.0/16.0		
Outdoor air flow	Cooling	m^3/min		-			-			-		
	Heating	m^3/min		-			-			-		
Refrigerant type				R410A			R410A			R410A		
Product dimension	Height		mm	250			250			250		
	Width		mm	1000			1000			1000		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1265			1265			1265		
		Depth	mm	340			340			340		
Weight		(NET)	kg	31			31			31		
		(GROSS)	kg	37			37			37		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Pipe diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

Unit Specifications (H)

INDOOR		MODEL		S-106MF3E5A			S-140MF3E5A			S-160MF3E5A		
PANEL		MODEL		-								
Performance test condition				ISO15042 / AS/NZS3823.1 / EN14511 / EN12102								
Power supply		ø, Hz		1ø 50/60Hz			1ø 50/60Hz			1ø 50/60Hz		
		V		220V	230V	240V	220V	230V	240V	220V	230V	240V
COOLING	Capacity	kW		10.6	10.6	10.6	14.0	14.0	14.0	16.0	16.0	16.0
		BTU/h		36200	36200	36200	47800	47800	47800	54600	54600	54600
		Sensible	kW	8.2	8.2	8.2	9.9	9.9	9.9	11.0	11.0	11.0
		Latent	kW	2.4	2.4	2.4	4.1	4.1	4.1	5.0	5.0	5.0
	Current	A		1.03	1.00	0.97	1.80	1.76	1.72	2.22	2.14	2.09
	Input power	W		146			265			330		
	Annual consumption	W *4		-	-	-	-	-	-	-	-	-
	EER/EER CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	EER	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		36/32/27			41/36/32			43/37/33		
		Power Level dB		59/55/50			64/59/55			66/60/56		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
HEATING	Capacity	kW		11.4	11.4	11.4	16.0	16.0	16.0	18.0	18.0	18.0
		BTU/h		38900	38900	38900	54600	54600	54600	61400	61400	61400
	Current	A		1.03	1.00	0.97	1.80	1.76	1.72	2.22	2.14	2.09
	Input power	W		146			265			330		
	COP/COP CLASS	TOTAL(W/W)*5/("A"~"G")		-	-	-	-	-	-	-	-	-
	COP	BTU/hW		-	-	-	-	-	-	-	-	-
	Power factor	%		-	-	-	-	-	-	-	-	-
	Noise indoor*6	dB-A (H/M/L)		36/32/27			41/36/32			43/37/33		
		Power Level dB		59/55/50			64/59/55			66/60/56		
	Noise outdoor	dB-A (H/L)		-			-			-		
		Power Level dB		-			-			-		
EXTRA LOW TEMP	Capacity(kW)/Input power(W)/COP			-			-			-		
Cooling	Max Current(A)/Max Input power(W)			2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410
Heating	Max Current(A)/Max Input power(W)			2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410	2.87/410
Starting current(A)/Comp output(W)				-	-	-	-	-	-	-	-	-
Network Impedance(ΩMAX.)				-			-			-		
Fan motor output (Indoor/Outdoor) W				259	/	-	259	/	-	259	/	-
Moisture removal volume			L/h	3.7			6.1			7.5		
External static pressure			Pa	40 (MIN10 - MAX150)			50 (MIN10 - MAX150)			50 (MIN10 - MAX150)		
Indoor air flow*6	Cooling	m³/min (H/M/L)		32.0/26.0/21.0			37.0/32.0/26.0			40.0/34.0/28.0		
	Heating	m³/min (H/M/L)		32.0/26.0/21.0			37.0/32.0/26.0			40.0/34.0/28.0		
Outdoor air flow	Cooling	m³/min		-			-			-		
	Heating	m³/min		-			-			-		
Refrigerant type				R410A			R410A			R410A		
Product dimension	Height		mm	250			250			250		
	Width		mm	1400			1400			1400		
	Depth		mm	730			730			730		
Product dimension(PANEL)		H×W×D	mm	-								
Packing dimension		Height	mm	805			805			805		
		Width	mm	1665			1665			1665		
		Depth	mm	340			340			340		
Weight		(NET)	kg	40			40			40		
		(GROSS)	kg	46			46			46		
		Panel (NET)	kg	-								
Layers limit (actually)				3(4)			3(4)			3(4)		
Operation condition		Cool (DBT)		-			-			-		
		Heat (DBT)		-			-			-		
PIPING	Pipe port diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Pipe diameter mm (inch)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)			(Liquid) ø9.52(3/8) (Gas) ø15.88 (5/8)		
	Connect method, Standard length m			flared type			flared type			flared type		
	Pipe length range m			~		(~)	~		(~)	~		(~)
	Indoor unit & Outdoor unit height difference m			-		-	-		-	-		-
	Add gas amount g/m			-		-	-		-	-		-
	Pipe length for additional gas m			-		-	-		-	-		-

*1:In case it is necessary to indicate the air flow volume in (l/s), the value in (m^3/min.) shall be multiplied by 16.7 and rounded down the decimal point.
*2:If the EUROVENT Certified models can be operated under the "extra-low" temperature condition, -7°C dry bulb and -8°C wet-bulb temperatures with rated voltage 230V shall be used.
*3:Network Impedance shall be applicable for EUROPE and CHINA models.
*4:The annual consumption is calculated by multiplying the input power at 230V(400V) by an average of 500 hours per year in cooling mode.
*5:EER and COP classification is at 230V(400V) only in accordance with EU directive 2002/31/EC.
*6: H:High at setting 5 stage (Level 5), M:Middle at setting 5 stage (Level 3), L:Low at setting 5 stage (Level 1) Noise of L is indicated by the values at FAN mode
* In the case of standard installation (Horizontal installation in the ceiling, rear side air intake)
* In the case of nanoe X OFF

5. Middle Static Pressure Duct (Type F3)

5-2. Major Component Specifications

Indoor unit (A)

MODEL No.			**S-15MF3E5B, S-15MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS1018-077-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (B)

MODEL No.			**S-22MF3E5B, S-22MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS1018-077-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (C)

MODEL No.			**S-28MF3E5B, S-28MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS1018-077-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (D)

MODEL No.			**S-36MF3E5B, S-36MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS1018-077-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (E)

MODEL No.			**S-45MF3E5B, S-45MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11025-003-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (F)

MODEL No.			**S-56MF3E5B, S-56MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (1...ø185)
Fan motor			
	Model...Nominal output	W	ZWB278D93A...107 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	8P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11025-003-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.202
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (G)

MODEL No.			**S-60MF3E5B, S-60MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (2...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D11A...165 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1440
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11025-003-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.269
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (H)

MODEL No.			**S-73MF3E5B, S-73MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (2...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D11A...165 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1440
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11025-003-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.269
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (I)

MODEL No.			**S-90MF3E5B, S-90MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (2...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D11A...165 W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1440
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11030-002-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.269
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (J)

MODEL No.			**S-106MF3E5B, S-106MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (3...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D10A…259W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11030-002-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.403
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (K)

MODEL No.			**S-140MF3E5B, S-140MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (3...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D10A…259W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11030-002-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.403
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

5. Middle Static Pressure Duct (Type F3)

Indoor unit (L)

MODEL No.			**S-160MF3E5B, S-160MF3E5A**
Power source			220 - 230 - 240 V, single-phase, 50/60 Hz
Controller P.C.B. Ass'y			ACXA73-3806* (Microprocessor)
Fan (Number...diameter)		mm	Sirocco Fan (3...ø185)
Fan motor			
	Model...Nominal output	W	ZWB3710D10A…259W
	Power source		280 VDC
	No. of pole...r.p.m. (230V)	rpm	10P... 1420
	Run capacitor	VAC, μF	–
Electronic expansion valve			
	Coil		PQ-M10012-001026
	Coil resistance (at 20°C)	Ω	ORG – BLU : 46 YEL – BLU : 46 RED – BLU : 46 BLK – BLU : 46
	Valve body		DPF-TS11030-002-RK1
Heat exchanger			
	Coil		Aluminium plate fin / Copper tube
	Rows...fin pitch	mm	2...1.34
	Face area	m^2	0.403
Drain pump			PMD-12D13ST-10
	Rated	V,W	DC 13 V, 4.2 W
	Drain piping rise height from unit bottom, capacity		785 mm, 400 cc/min

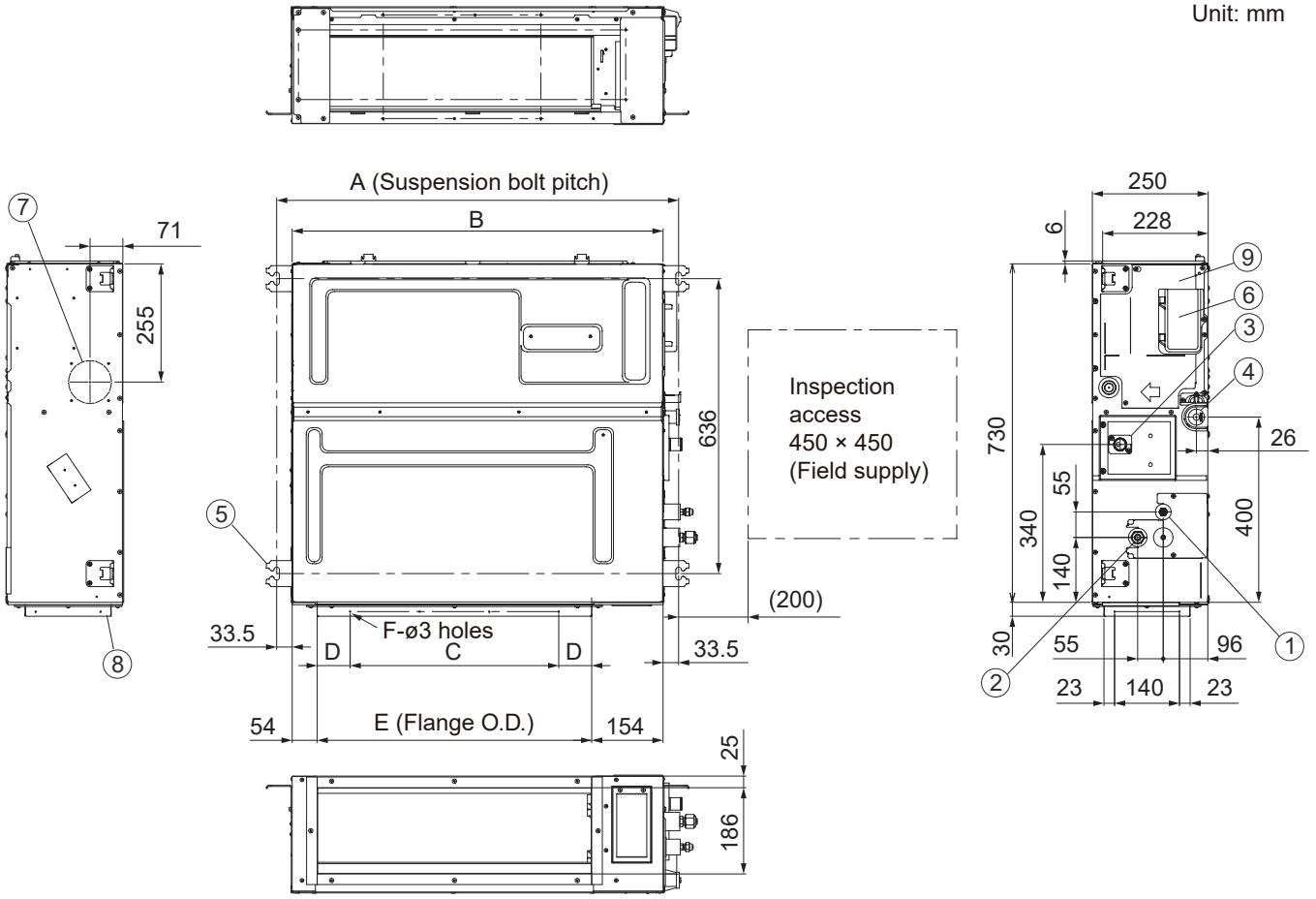
5. Middle Static Pressure Duct (Type F3)

5-3. Dimensional Data

Indoor unit : S-15MF3E5B, S-22MF3E5B, S-28MF3E5B, S-36MF3E5B, S-45MF3E5B, S-56MF3E5B, S-60MF3E5B, S-73MF3E5B, S-90MF3E5B, S-106MF3E5B, S-140MF3E5B, S-160MF3E5B

Type	A	B	C	D	E	F
	mm	mm	mm	mm	mm	Q'ty
S-15MF3E5B, S-22MF3E5B, S-28MF3E5B, S-36MF3E5B, S-45MF3E5B, S-56MF3E5B	867	800	450 (Pitch 150 × 3)	71	592	12
S-60MF3E5B, S-73MF3E5B, S-90MF3E5B	1,067	1,000	750 (Pitch 150 × 5)	21	792	16
S-106MF3E5B, S-140MF3E5B, S-160MF3E5B	1,467	1,400	1,050 (Pitch 150 × 7)	71	1,192	20

Unit: mm



①	Refrigerant tubing joint (liquid tube)	
	ø6.35 (flared)	S-15MF3E5B, S-22MF3E5B, S-28MF3E5B, S-36MF3E5B, S-45MF3E5B, S-56MF3E5B, S-60MF3E5B, S-73MF3E5B, S-90MF3E5B
	ø9.52 (flared)	S-106MF3E5B, S-140MF3E5B, S-160MF3E5B
②	Refrigerant tubing joint (gas tube)	
	ø12.7 (flared)	S-15MF3E5B, S-22MF3E5B, S-28MF3E5B, S-36MF3E5B, S-45MF3E5B, S-56MF3E5B, S-60MF3E5B, S-73MF3E5B, S-90MF3E5B
	ø15.88 (flared)	S-106MF3E5B, S-140MF3E5B, S-160MF3E5B
③	Upper drain port VP20 (ø26 mm) 200 mm flexible hose supplied	
④	Bottom drain port VP20 (ø26 mm)	
⑤	Suspension lug (4 – 12 × 30 mm)	
⑥	Power supply outlet	
⑦	Fresh air intake port (ø100 mm) *	
⑧	Flange for flexible air outlet duct	
⑨	Electrical component box	

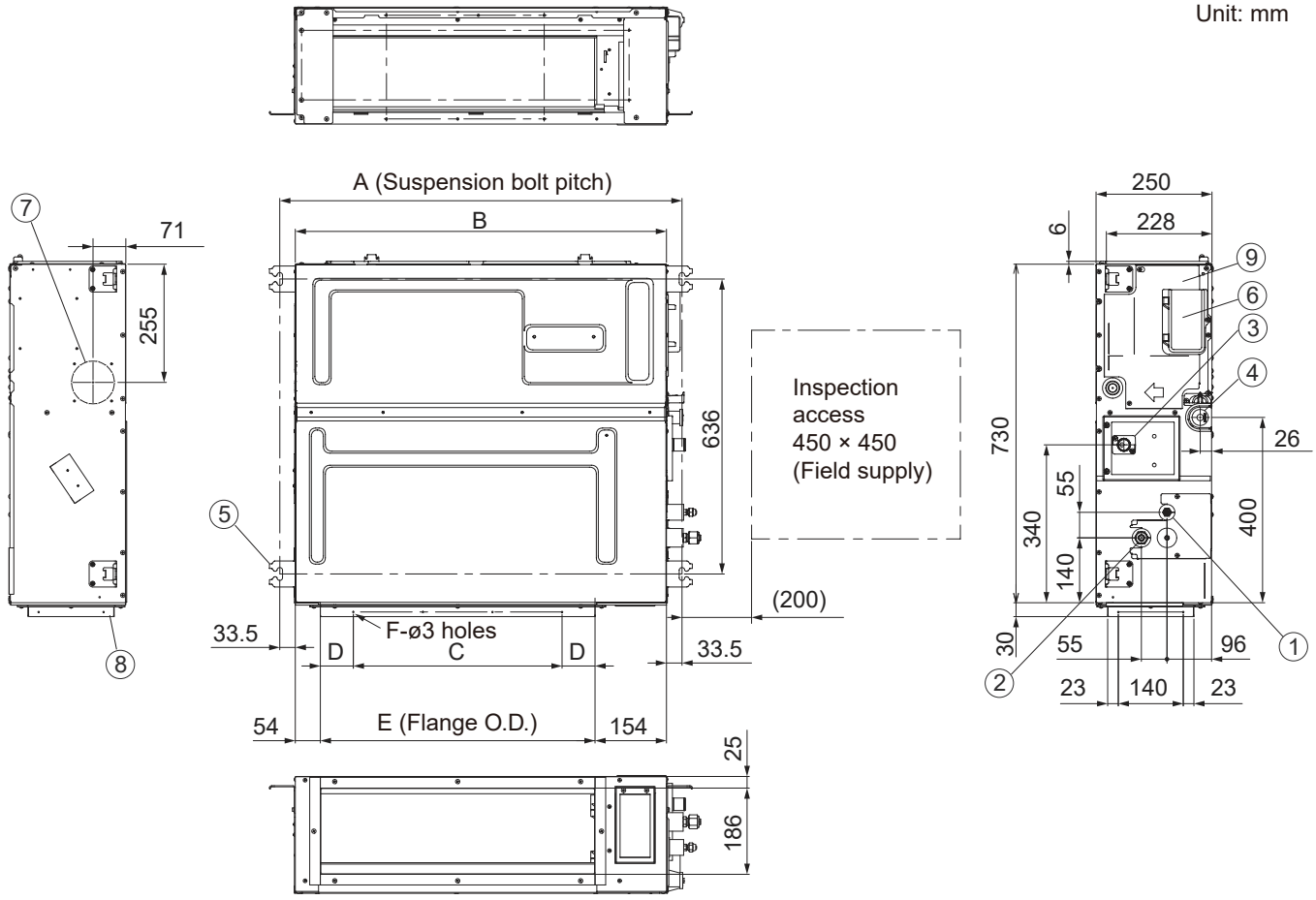
* Necessary to attach duct connecting flange (field supply).

5. Middle Static Pressure Duct (Type F3)

Indoor unit : S-15MF3E5A, S-22MF3E5A, S-28MF3E5A, S-36MF3E5A, S-45MF3E5A, S-56MF3E5A, S-60MF3E5A, S-73MF3E5A, S-90MF3E5A, S-106MF3E5A, S-140MF3E5A, S-160MF3E5A

Type	A	B	C	D	E	F
	mm	mm	mm	mm	mm	Q'ty
S-15MF3E5A, S-22MF3E5A, S-28MF3E5A, S-36MF3E5A, S-45MF3E5A, S-56MF3E5A	867	800	450 (Pitch 150 × 3)	71	592	12
S-60MF3E5A, S-73MF3E5A, S-90MF3E5A	1,067	1,000	750 (Pitch 150 × 5)	21	792	16
S-106MF3E5A, S-140MF3E5A, S-160MF3E5A	1,467	1,400	1,050 (Pitch 150 × 7)	71	1,192	20

Unit: mm



①	Refrigerant tubing joint (liquid tube)	
	ø6.35 (flared)	S-15MF3E5A, S-22MF3E5A, S-28MF3E5A, S-36MF3E5A, S-45MF3E5A, S-56MF3E5A
	ø9.52 (flared)	S-60MF3E5A, S-73MF3E5A, S-90MF3E5A, S-106MF3E5A, S-140MF3E5A, S-160MF3E5A
②	Refrigerant tubing joint (gas tube)	
	ø12.7 (flared)	S-15MF3E5A, S-22MF3E5A, S-28MF3E5A, S-36MF3E5A, S-45MF3E5A, S-56MF3E5A
	ø15.88 (flared)	S-60MF3E5A, S-73MF3E5A, S-90MF3E5A, S-106MF3E5A, S-140MF3E5A, S-160MF3E5A
③	Upper drain port VP20 (ø26 mm) 200 mm flexible hose supplied	
④	Bottom drain port VP20 (ø26 mm)	
⑤	Suspension lug (4 – 12 × 30 mm)	
⑥	Power supply outlet	
⑦	Fresh air intake port (ø100 mm) *	
⑧	Flange for flexible air outlet duct	
⑨	Electrical component box	

* Necessary to attach duct connecting flange (field supply).

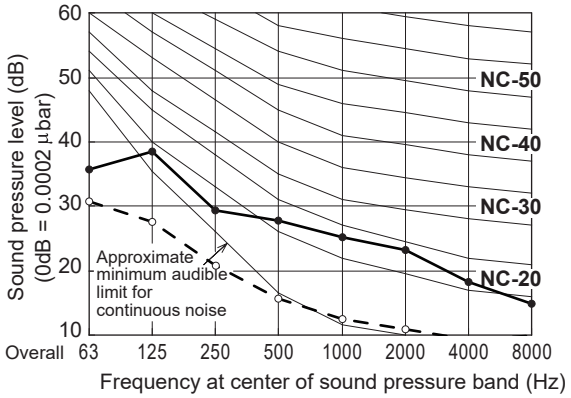
5. Middle Static Pressure Duct (Type F3)

5-4. Noise Criterion Curves

Both 50Hz and 60Hz
High
Low

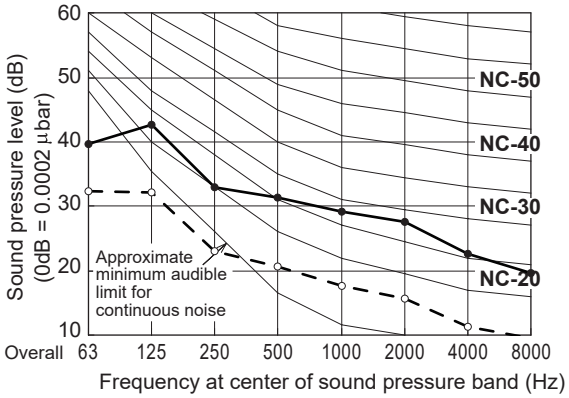
MODEL : S-15MF3E5B, S-22MF3E5B, S-28MF3E5B
S-36MF3E5B, S-45MF3E5B
S-15MF3E5A, S-22MF3E5A, S-28MF3E5A
S-36MF3E5A, S-45MF3E5A

SOUND LEVEL :	HIGH	31 dB(A)
	LOW	20 dB(A)
CONDITION :	Under the unit 1.5m	



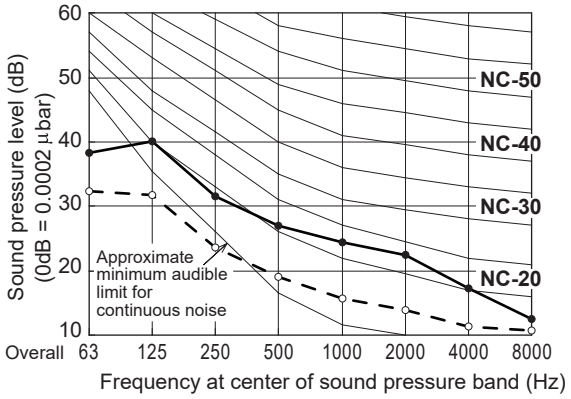
MODEL : S-56MF3E5B
S-56MF3E5A

SOUND LEVEL :	HIGH	35 dB(A)
	LOW	24 dB(A)
CONDITION :	Under the unit 1.5m	



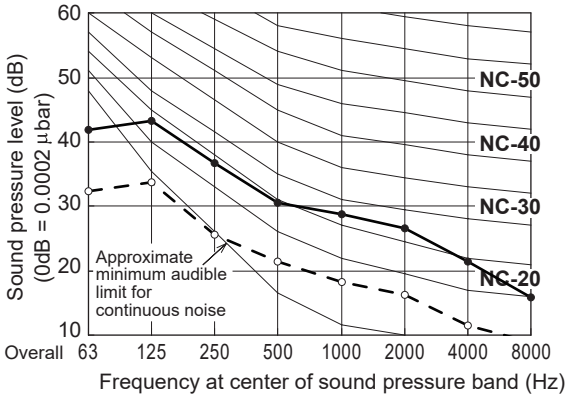
MODEL : S-60MF3E5B, S-73MF3E5B
S-60MF3E5A, S-73MF3E5A

SOUND LEVEL :	HIGH	31 dB(A)
	LOW	23 dB(A)
CONDITION :	Under the unit 1.5m	



MODEL : S-90MF3E5B
S-90MF3E5A

SOUND LEVEL :	HIGH	35 dB(A)
	LOW	25 dB(A)
CONDITION :	Under the unit 1.5m	



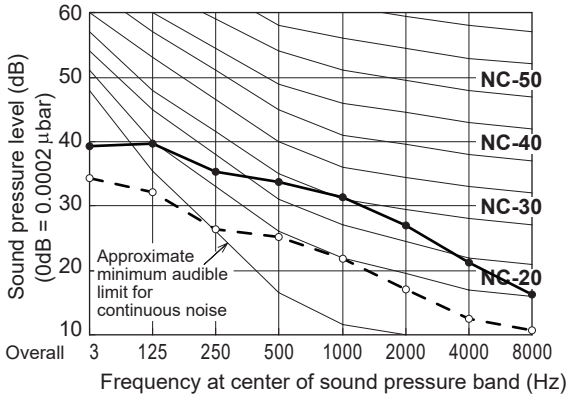
5. Middle Static Pressure Duct (Type F3)

Both 50Hz and 60Hz

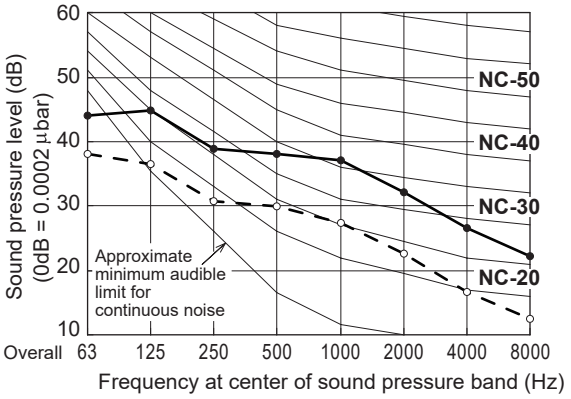
High

Low

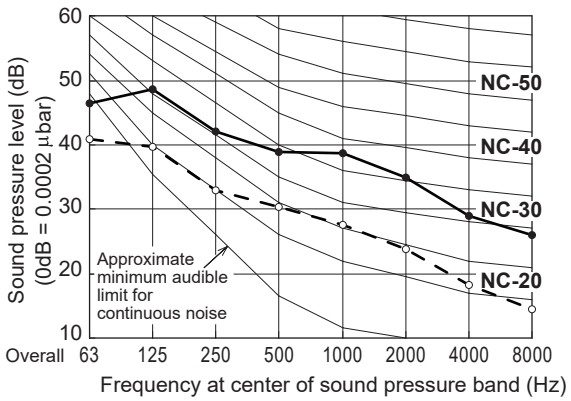
MODEL	:	S-106MF3E5B S-106MF3E5A
SOUND LEVEL	:	HIGH 36 dB(A)
		LOW 27 dB(A)
CONDITION	:	Under the unit 1.5m



MODEL	:	S-140MF3E5B S-140MF3E5A
SOUND LEVEL	:	HIGH 41 dB(A)
		LOW 32 dB(A)
CONDITION	:	Under the unit 1.5m



MODEL	:	S-160MF3E5B S-160MF3E5A
SOUND LEVEL	:	HIGH 43 dB(A)
		LOW 33 dB(A)
CONDITION	:	Under the unit 1.5m



4

5. Middle Static Pressure Duct (Type F3)

5-5. EXTERNAL STATIC PRESSURE SETTING

For middle static pressure duct type indoor units, the ventilating resistance so-called “external static pressure” becomes greatly different depending on the connected duct length, shape, number of air outlet ports and types of filters.

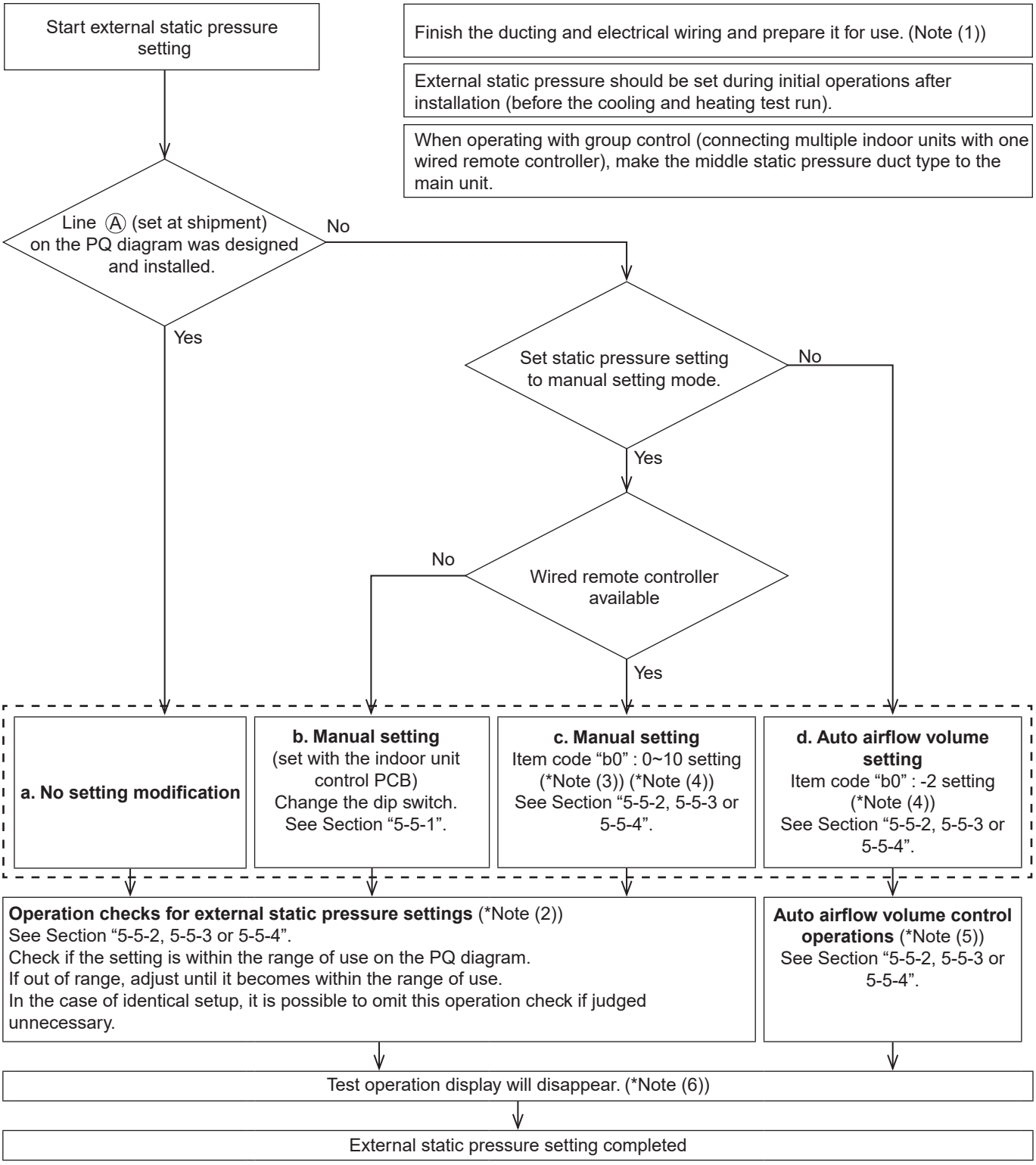
When installing this unit, be sure to carry out the external static pressure setting in order to operate in the rated airflow volume.

Choose one of the following methods from “a”, “b”, “c” or “d” as shown in the flow chart (within the dotted lines) and then make the setting accordingly.

a. No setting modification:
   Use-as-is at shipment (there are cases in which the setting may differ from the shipment setting when reset after once setting the external static pressure.)
b. Manual setting (set with the indoor unit control PCB):
   For high static pressure. Switching method with the short-circuit connector.
c. Manual setting (set with the wired remote controller):
   Low static pressure ~ high static pressure
d. Auto airflow volume setting (set on the wired remote controller):
   Air outlet volume is automatically adjusted to the rated airflow volume with the auto airflow volume control operation.

5. Middle Static Pressure Duct (Type F3)

Flow of External Static Pressure



NOTE

(1) Check the following items before performing the setting-check operations or auto airflow volume operations.
1) Check to make sure that the electrical wiring and ducting have been completed. Activate the stand-by mode. In particular, make sure that the closed damper located in the middle of the duct is open, if installed. Also, make sure that air filters have been installed inside the air inlet duct.Check to make sure air is not leaking from the joints.

5. Middle Static Pressure Duct (Type F3)

2) If multiple air outlets and air inlets are included, adjust the airflow volume ratio of all of them until they meet the design airflow ratio.
3) Make sure the address setting has been completed.

(2) The operation check will be completed in approximately three minutes if the settings have been made correctly. The settings will be modified if they are out of the range of use (maximum 30 minutes). If this is not completed within 31 minutes, check whether the air speed is set to “H” or not.
(3) See Table 5-5-2, 5-5-3 or 5-5-4 and Fig. 5-5-2 for details on the relationship between the value of item code “b0” and the external static pressure.
(4) When set in group control (connecting multiple indoor units with one wired remote controller), set each indoor unit to item code “b0”.
When amending the setting after selecting [b. Manual setting] (due to airflow path changes, etc.), it is necessary to cancel [b. Manual setting] (change the dip switch). When [b. Manual setting] has not been cancelled, [c. Manual setting] and [d. Auto airflow volume setting] will be activated if selected, but [b. Manual setting] takes precedence when the power is switched back on after power outages, etc.
(5) If this is not completed within 8 minutes, check the operation mode, air speed and air inlet temperature.
(6) When set in group control (connecting multiple indoor units with one wired remote controller), the test run operations display will disappear once the external static pressure setting check or auto airflow volume control operation check have been completed for the main unit. However, it is not possible to determine whether sub-units have completed. The test run operation display will disappear after one hour even if the external static pressure setting check or auto airflow volume control operation check have not been completed.

CAUTION

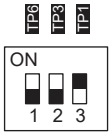
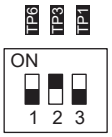
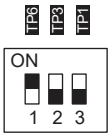
- **Be sure to check that the external static pressure is within the range for use and then make the setting. Failure to observe this may result in insufficient airflow or water leakages. See Fig. 5-5-2 for the external static pressure setting range.**
- **There are cases in which automatic variable dampers and other mounted items may trigger the P12 alarm on systems that modify the external static pressure when the auto airflow volume control operations or setting check operations are carried out if high external static pressure is lowered. In this event, lower the dampers, etc., so that the external static pressure reaches its lowest level, and then carry out the auto airflow volume control operations or setting check operations.**
- **Be sure to set the [External Static Pressure Setting] once again after amending the airflow path for the duct or air outlet after setting the external static pressure.**
- **Set the air inlet temperature within the range for use. The auto airflow volume control will not function if the air inlet temperature is over 45°C or if operation is other than fan mode.**

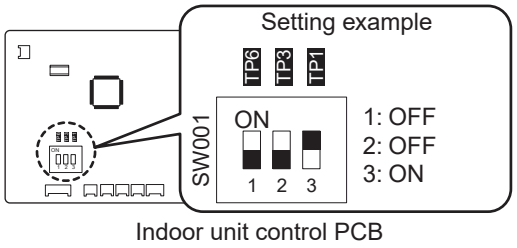
5. Middle Static Pressure Duct (Type F3)

5-5-1. How to Set on Indoor Unit Control PCB

1. Turn off the power breaker to halt the supply of electricity to the indoor unit control PCB.
2. Open the electrical component box cover, then check the indoor unit control PCB. (Fig. 5-5-1)
3. Change the dip switch (SW001) of the indoor unit control PCB according to the setting selected in Table 5-5-1.

Table 5-5-1

External static pressure of the rated airflow volume	DIP switch
10 Pa	
40 Pa (Type 90,106) 50 Pa (Type 15,22,28,36,45,56,60, 73,140,160)	
110 Pa	



Indoor unit control PCB

Fig. 5-5-1

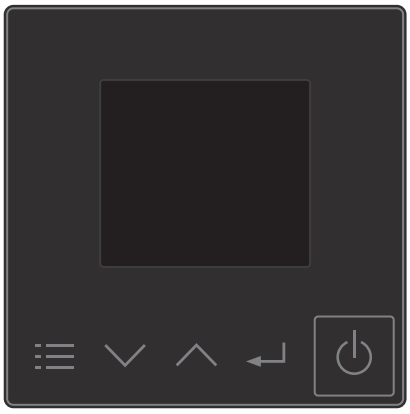
4

5. Middle Static Pressure Duct (Type F3)

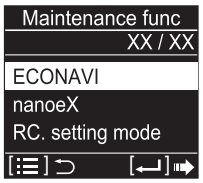
5-5-2. Operating the Wired Remote Controller (CZ-RTC6 series)

Stop the system before performing these steps.

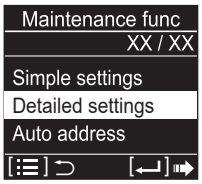
How to set the external static pressure



1. Keep pressing the ☰, ∧ and ↵ buttons simultaneously for 4 or more seconds.
   The “Maintenance func” screen appears on the LCD display.

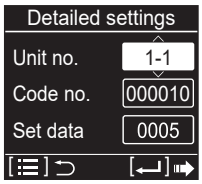


2. Press the ∨ or ∧ button to see each menu.
   Select “Detailed settings” on the LCD display and press the ↵ button.

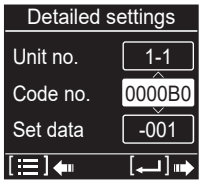


The “Detailed settings” screen appears on the LCD display.

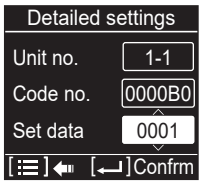
3. Select the “Unit no.” by pressing the ∨ or ∧ button.
   After selecting “Unit no.”, press the ↵ button and proceed to Step 4.

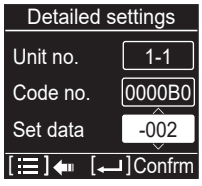


4. Select the “Code no.” by pressing the ∨ or ∧ button.
   Change the “Code no.” to “0000B0” by pressing the ∨ or ∧ button (or keeping it pressed).
   After selecting “Code no.”, press the ↵ button and proceed to Step 5.



5. Select the “Set data” by pressing the ∨ or ∧ button.
   Select one of the “Set data” among “0001” – “0010” according to the desired external static pressure setting by pressing the ∨ or ∧ button.
   After selecting “Set data”, press the ↵ button. (If setting continuously, follow the procedures from Step 3.)
   (See Table 5-5-2.)
   When setting to auto airflow volume control:
   Select the setting data to “-002”.
   After selecting “Set data”, press the ↵ button. (If setting continuously, follow the procedures from Step 3.)





4

5. Middle Static Pressure Duct (Type F3)

Table 5-5-2 Setting the external static pressure

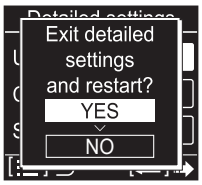
Indoor unit type			Item code
15, 22, 28, 36, 45, 56, 60, 73	90, 106	140, 160	B0
External static pressure of the rated airflow volume (Pa)			
150	150	150	0010
140	140	140	0009
130	130	130	0008
120	120	120	0007
110	110	110	0006
90	90	90	0005
70	70	70	0004
50	40 *	50 *	0003
30 *	30	30	0002
10	10	10	0001
No auto airflow volume setting			-001
Auto airflow volume setting			-002

* Airflow volume setting at shipment

NOTE:

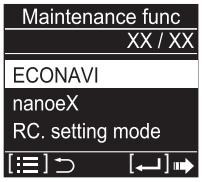
Failure to set this parameter may result in decreased airflow and condensation.

6. If the button is pressed under the display Step 3, the following display (Detailed setting-end screen) appears. Then select “YES” by pressing the or button and press the button.

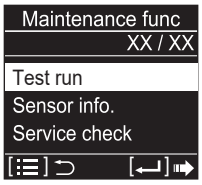


Auto External Static Pressure Setting Operation

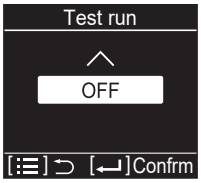
7. Keep pressing the , and buttons simultaneously for 4 or more seconds.
The “Maintenance func” screen appears on the LCD display.



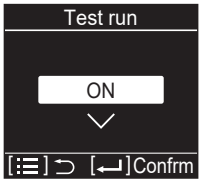
8. Press the or button to see each menu.
Select “Test run” on the LCD display and press the button.



The “Test run” screen appears on the LCD display.



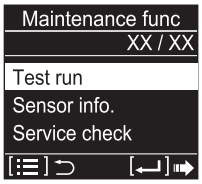
Change the display from “OFF” to “ON” by pressing the or button.
Then press the button.



4

5. Middle Static Pressure Duct (Type F3)

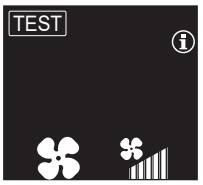
The “Maintenance func” screen appears on the LCD display.



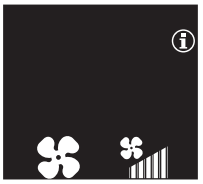
9. Press the button.
“TEST” will be displayed on the LCD display.

10. Press the button. Test run will be started.
Test run setting mode screen appears on the LCD display.
Current fan speed can be checked by pressing the button.

11. Set the operation mode to “ (MODE FAN)” and fan speed mode to “ (FAN SPEED)” by pressing the and or buttons.
Then press the button.



The fan motor will be activated, the auto external static pressure setting operation and setting-check operation will be performed for about 3 to 30 minutes.
The fan speed will change automatically while these operations are in progress.
When these operations completed, “TEST” will be disappeared from the LCD display.

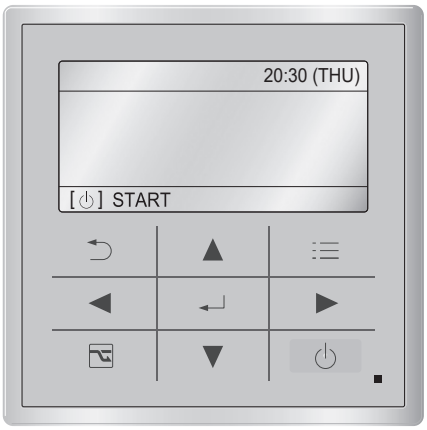


NOTE:
Failure to set this parameter may result in decreased airflow and condensation.

5. Middle Static Pressure Duct (Type F3)

5-5-3. Operating the High-spec Wired Remote Controller (CZ-RTC5B)

How to set the external static pressure



1. Keep pressing the ⮌ , ↵ and ▶ buttons simultaneously for 4 or more seconds.
   The “Maintenance func” screen appears on the LCD display.

Maintenance func 20:30 (THU)
1. Outdoor unit error data
2. Service contact
3. RC setting mode
4. Test run
Sel. ◀ ▶ Page [↵] Confirm

2. Press the ▼ or ▲ button to see each menu.
   If you wish to see the next screen instantly, press the ◀ or ▶ button.
   Select “8. Detailed settings” on the LCD display and press the ↵ button.
   The “Detailed settings” screen appears on the LCD display.

Maintenance func 20:30 (THU)
5. Sensor info.
6. Servicing check
7. Simple settings
8. Detailed settings
Sel. ◀ ▶ Page [↵] Confirm

3. Select the “Unit no.” by pressing the ▼ or ▲ button for changes.

Detailed settings	20:30 (THU)	
Unit no.	Code no.	Set data
1-1	10	0005
Sel. ▶ Next		

4. Select the “Code no.” by pressing the ◀ or ▶ button.
   Change the “Code no.” to “B0” by pressing the ▼ or ▲ button (or keeping it pressed).

Detailed settings	20:30 (THU)	
Unit no.	Code no.	Set data
1-1	B0	-001
Sel. ▶ Next		

5. Select the “Set data” by pressing the ◀ or ▶ button.
   Select one of the “Set data” among “0001” – “0010” according to the desired external static pressure setting by pressing the ▼ or ▲ button.
   Then press the ↵ button.
   (See Table 5-5-3.)
   When setting to auto airflow volume control:
   Select the setting data to “-002”.
   Then press the ↵ button.

Detailed settings	20:30 (THU)	
Unit no.	Code no.	Set data
1-1	B0	0001
Sel. [↵] Confirm		

Detailed settings	20:30 (THU)	
Unit no.	Code no.	Set data
1-1	B0	-002
Sel. [↵] Confirm		

5. Middle Static Pressure Duct (Type F3)

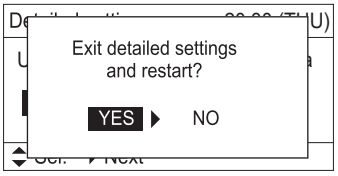
Table 5-5-3 Setting the external static pressure

Indoor unit type			Item code
15, 22, 28, 36, 45, 56, 60, 73	90, 106	140, 160	B0
External static pressure of the rated airflow volume (Pa)			
150	150	150	0010
140	140	140	0009
130	130	130	0008
120	120	120	0007
110	110	110	0006
90	90	90	0005
70	70	70	0004
50	40 *	50 *	0003
30 *	30	30	0002
10	10	10	0001
No auto airflow volume setting			-001
Auto airflow volume setting			-002

* Airflow volume setting at shipment

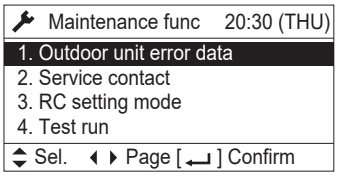
NOTE:
Failure to set this parameter may result in decreased airflow and condensation.

6. Select the “Unit no.” by pressing the ◀ or ▶ button and press the ⮌ button.
The “Exit detailed settings and restart?” (Detailed setting-end) screen appears on the LCD display.
Select “YES” and press the ↵ button.
When the setting is completed, perform the test run for the external static pressure setting described in “Auto External Static Pressure Setting Operation”.

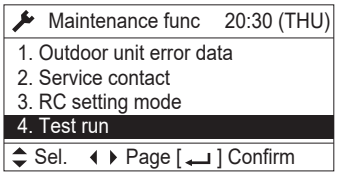


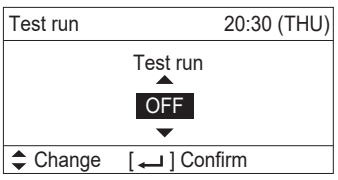
Auto External Static Pressure Setting Operation

7. Keep pressing the ⮌, ↵ and ▶ buttons simultaneously for 4 or more seconds.
The “Maintenance func” screen appears on the LCD display.



8. Press the ▼ or ▲ button to see each menu.
If you wish to see the next screen instantly, press the ◀ or ▶ button.
Select “4. Test run” on the LCD display and press the ↵ button.
The “Test run” screen appears on the LCD display.

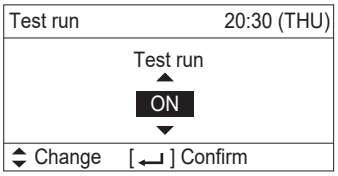




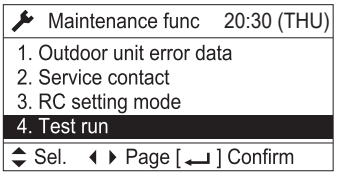
4

5. Middle Static Pressure Duct (Type F3)

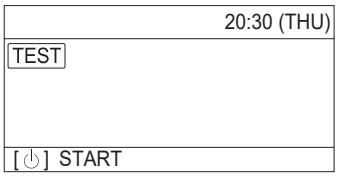
Change the display from “OFF” to “ON” by pressing the ▼ or ▲ button.
Then press the ↵ button.



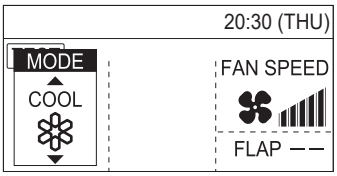
The “Maintenance func” screen appears on the LCD display.



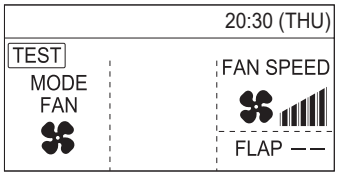
9. Press the ⮌ button. “TEST” will be displayed on the LCD display.



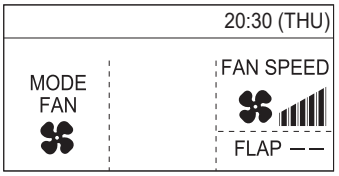
10. Press the ⏻ button. Test run will be started.
Test run setting mode screen appears on the LCD display.



11. Set the operation mode to “ (MODE FAN)” and fan speed mode to “ (FAN SPEED)” by pressing the ◄ or ► button or ▼ or ▲ button.
Then press the ↵ button.

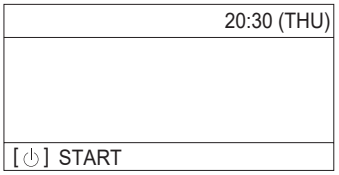


The fan motor will be activated, the auto external static pressure setting operation and setting-check operation will be performed for about 3 to 30 minutes.
The fan speed will change automatically while these operations are in progress. When these operations completed, “TEST” will be disappeared from the LCD display.



NOTE:
The auto external static pressure setting operation and setting-check operation will not be performed unless “ (MODE FAN)” and “ (FAN SPEED)” have been selected.

12. Press the ⏻ button.
The LCD display will be returned to the initial screen.



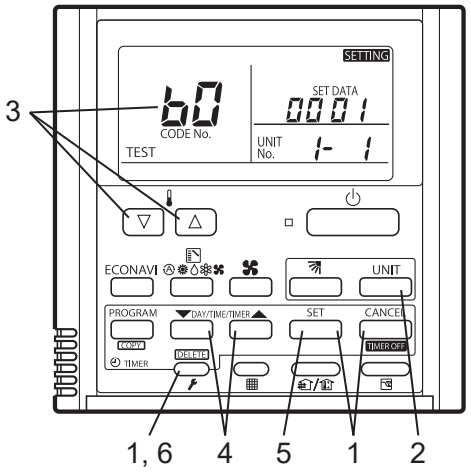
NOTE:
Failure to set this parameter may result in decreased airflow and condensation.

4

5. Middle Static Pressure Duct (Type F3)

5-5-4. Operating the Timer Remote Controller (CZ-RTC4)

5-5-4-1. Setting Item Code "bO"



1. Press and hold down the ⏻, CANCEL and SET buttons simultaneously for 4 or more seconds.
   (SETTING the unit no., item code and detailed data will blink on the LCD display.)
2. The indoor unit numbers in the group control will be sequentially displayed whenever the Unit Select button is pressed UNIT.
   Only the fan motor for the selected indoor unit will operate during this time.
3. Specify the "bO" item code by pressing the ▽ / △ buttons for the temperature setting buttons and confirm the values.
   ("-001" set at shipment)
4. Press the DAY/ / /TIMER▲ buttons for the time to amend the values for the set data.
   See Table 5-5-4 and Fig. 5-5-2 and select a value between "0001" and "0010".
   Select "-002" if the auto airflow volume setting is activated.
5. Press the SET button.
   The display will stop blinking and remain illuminated.
6. Press the ⏻ button. The fan motor will stop operating and the LCD display will return to the normal stop mode.

Table 5-5-4 Setting the external static pressure

Indoor unit type			Item code
15, 22, 28, 36, 45, 56, 60, 73	90, 106	140, 160	bO
External static pressure of the rated airflow volume (Pa)			
150	150	150	0010
140	140	140	0009
130	130	130	0008
120	120	120	0007
110	110	110	0006
90	90	90	0005
70	70	70	0004
50	40 *	50 *	0003
30 *	30	30	0002
10	10	10	0001
No auto airflow volume setting			-001
Auto airflow volume setting			-002

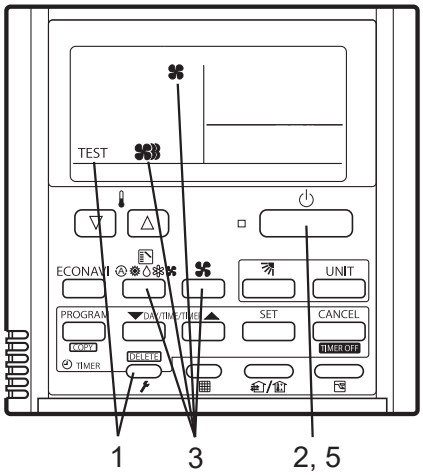
* Airflow volume setting at shipment

NOTE:

Failure to set this parameter may result in decreased airflow and condensation.

5. Middle Static Pressure Duct (Type F3)

5-5-4-2. Auto Airflow Volume Control Operations and External Static Pressure Setting-Check Operation



1. Press and hold down the ⏷ button for 4 or more seconds.
   "TEST" will be displayed on the LCD display.
2. Press the ⏻ button to start the test run.
3. Select the operation mode (Fan) by pressing the (Mode select) button.
   Then select the fan speed by pressing the (Fan speed) button.

NOTE

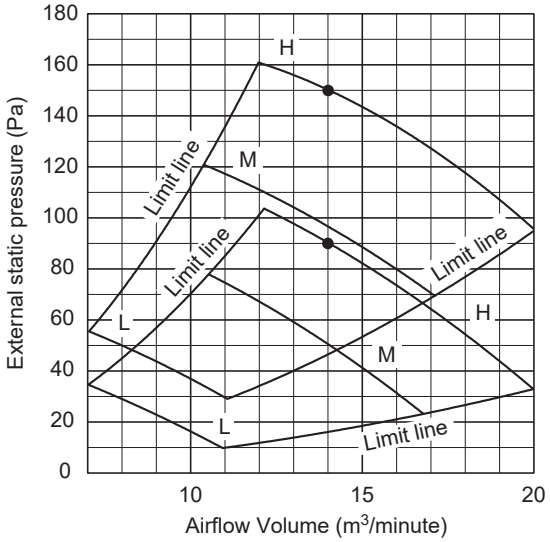
Auto airflow volume control operations and external static pressure setting-check operations will not be performed unless the above settings are made.

4. The fan motor will be activated and auto airflow volume control operations or external static pressure setting-check operations will be started.
   The power of the airflow will change while these operations are in progress.
   The external static pressure setting-check operations and auto airflow volume control operations will be completed in about 3 to 30 minutes.
   "TEST" display will be disappeared from the LCD display.
5. Press the ⏻ button to halt the test run.

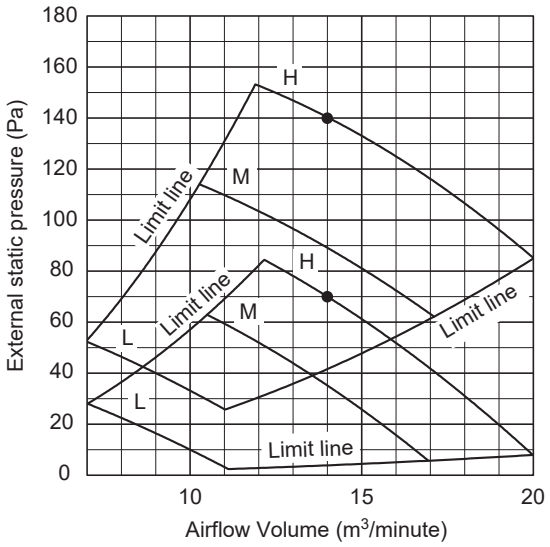
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 15, 22, 28, 36, 45
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

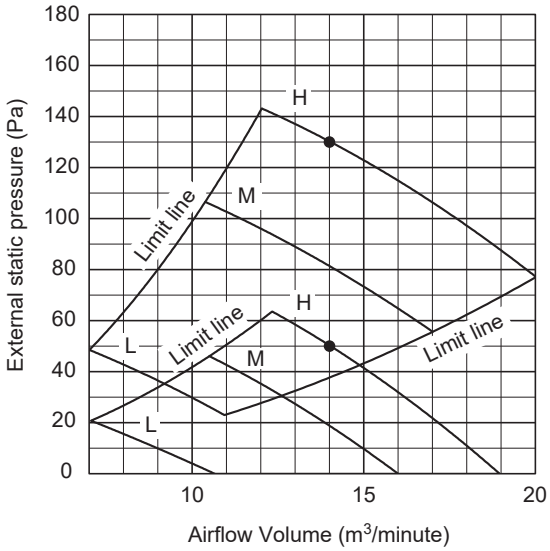
External static pressure 150Pa, 90Pa



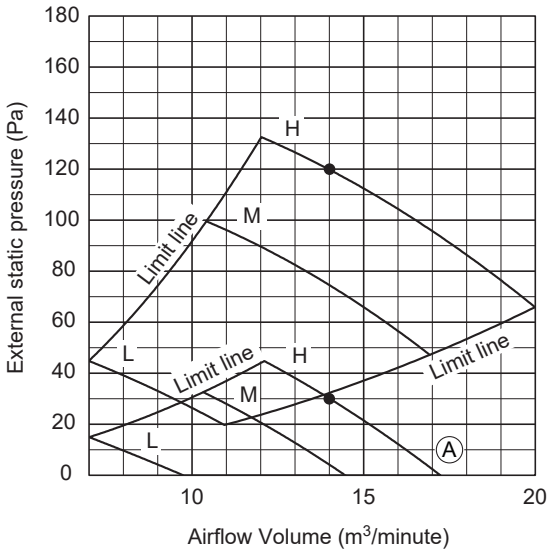
External static pressure 140Pa, 70Pa



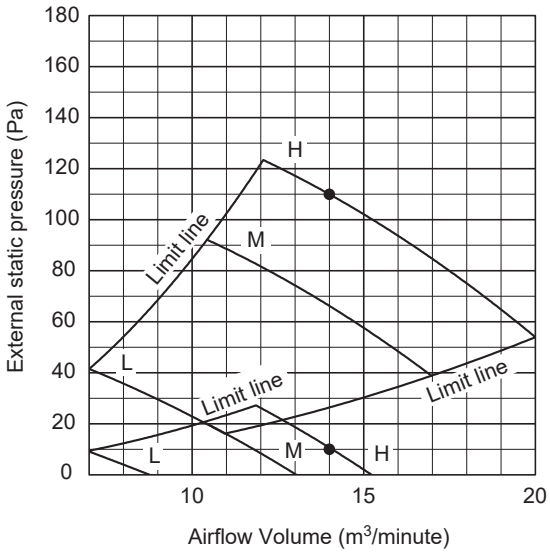
External static pressure 130Pa, 50Pa



External static pressure 120Pa, 30Pa



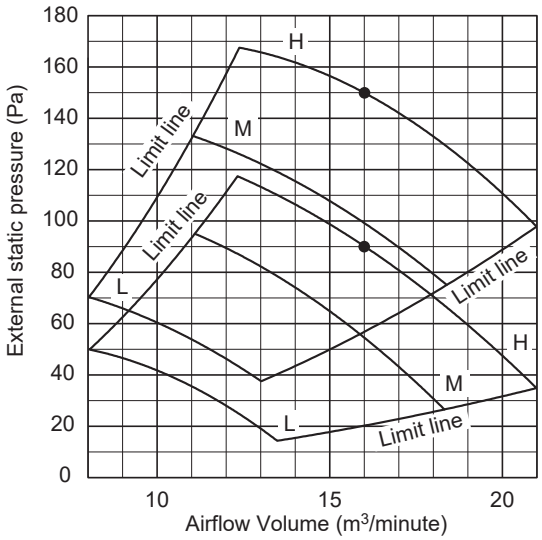
External static pressure 110Pa, 10Pa



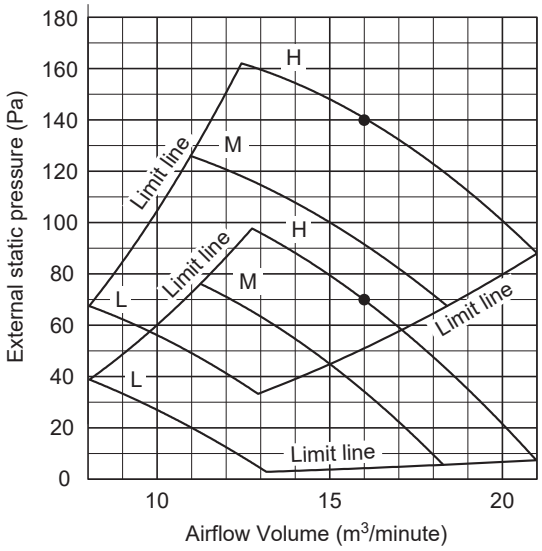
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 56
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

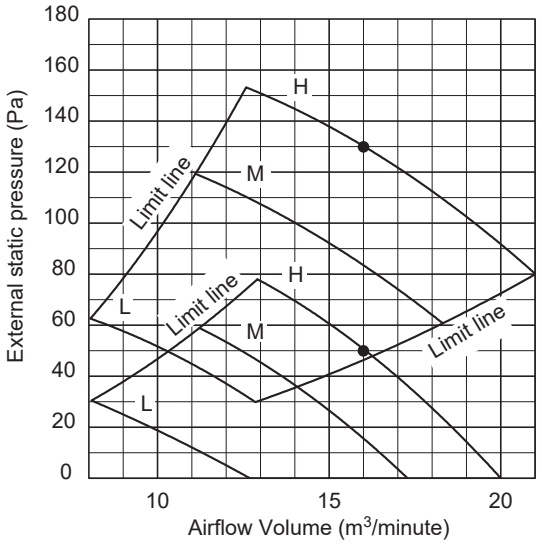
External static pressure 150Pa, 90Pa



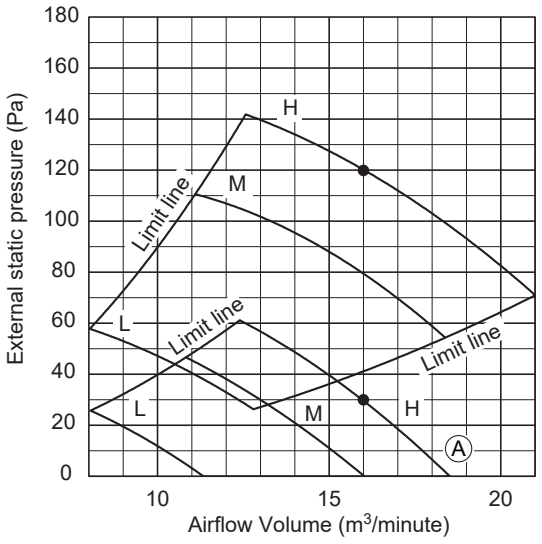
External static pressure 140Pa, 70Pa



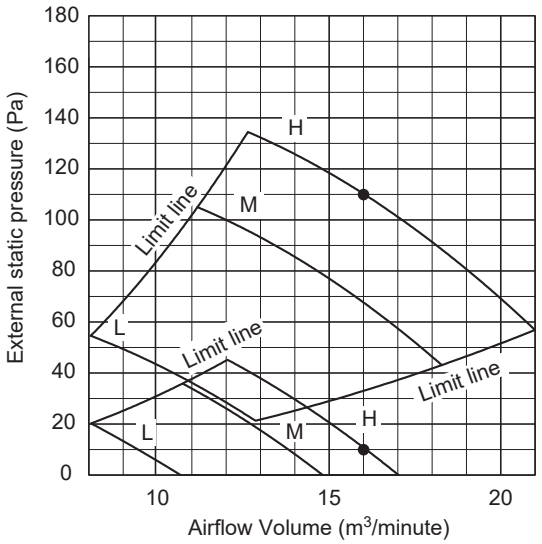
External static pressure 130Pa, 50Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa

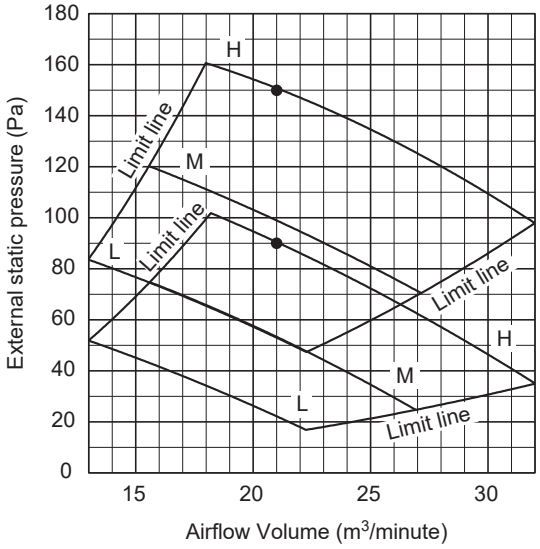


4

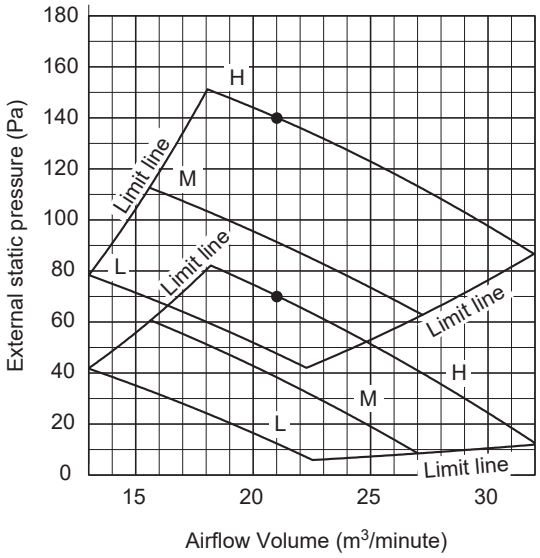
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 60, 73
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

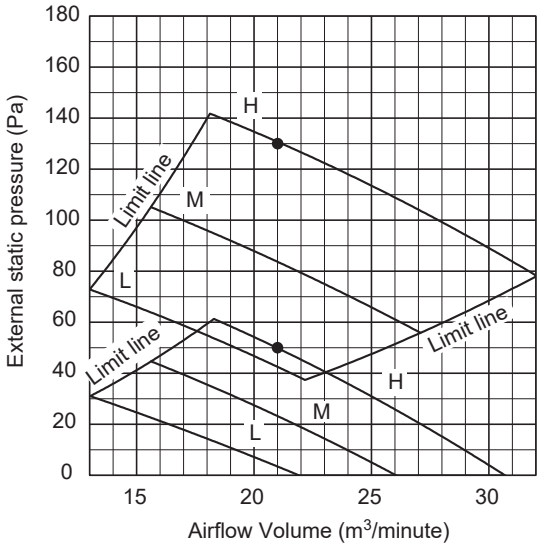
External static pressure 150Pa, 90Pa



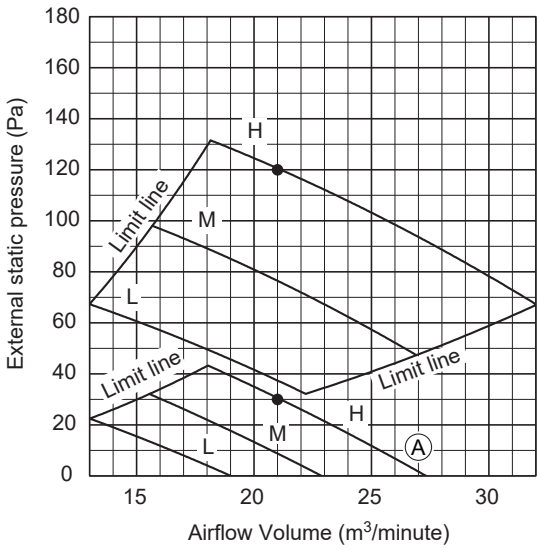
External static pressure 140Pa, 70Pa



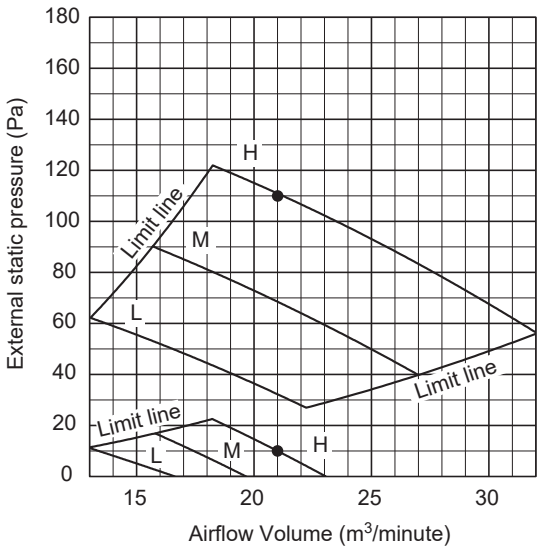
External static pressure 130Pa, 50Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa

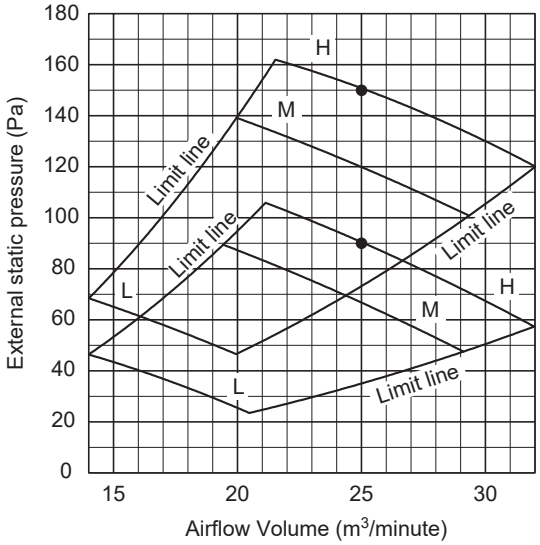


4

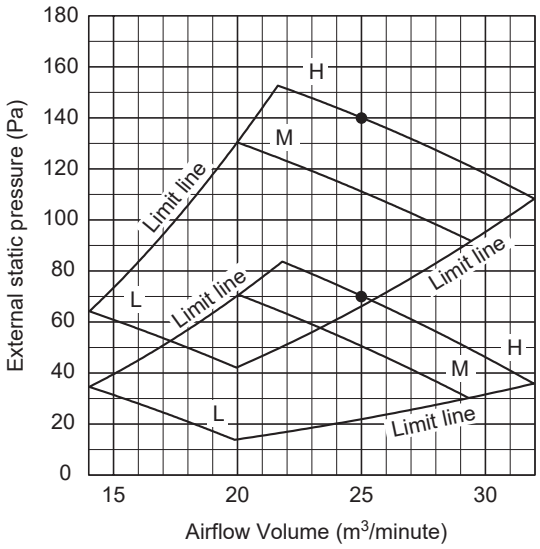
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 90
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

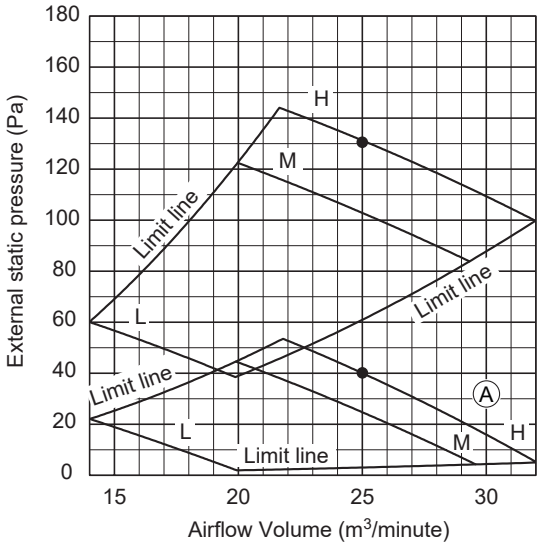
External static pressure 150Pa, 90Pa



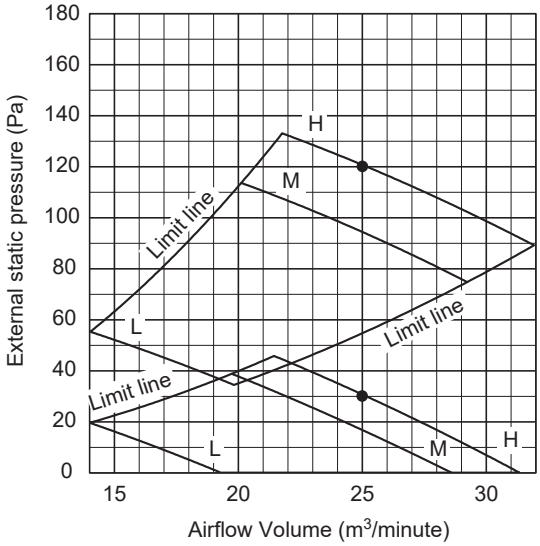
External static pressure 140Pa, 70Pa



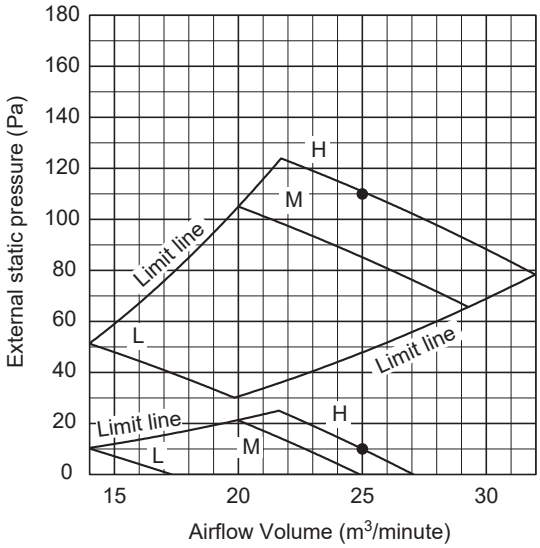
External static pressure 130Pa, 40Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa

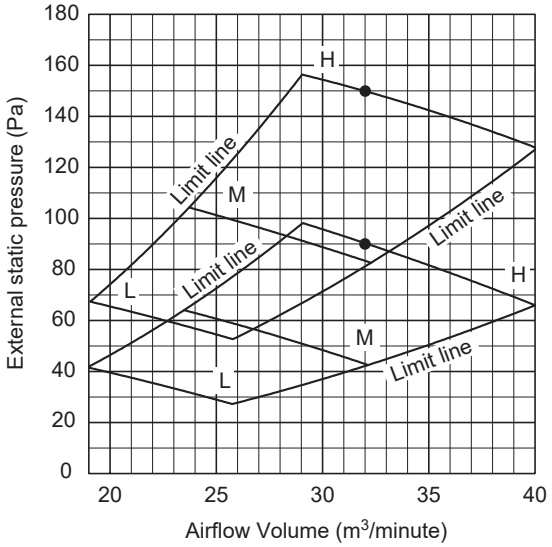


4

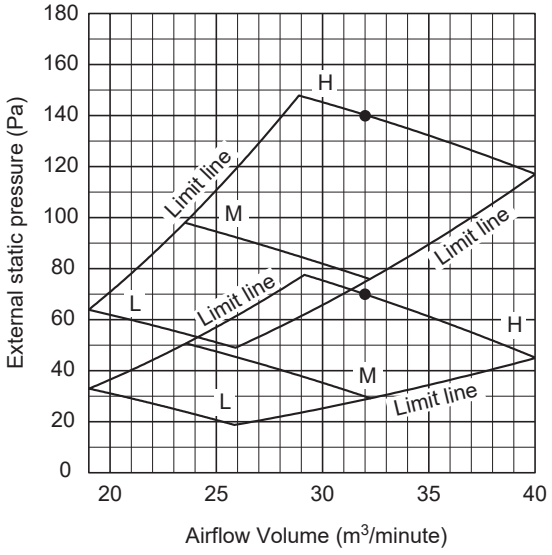
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 106
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

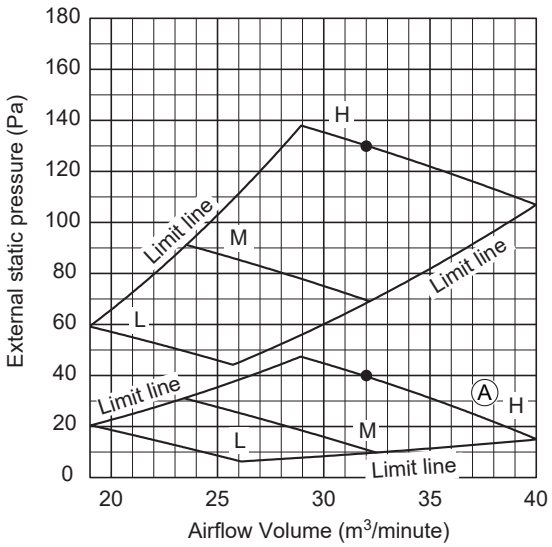
External static pressure 150Pa, 90Pa



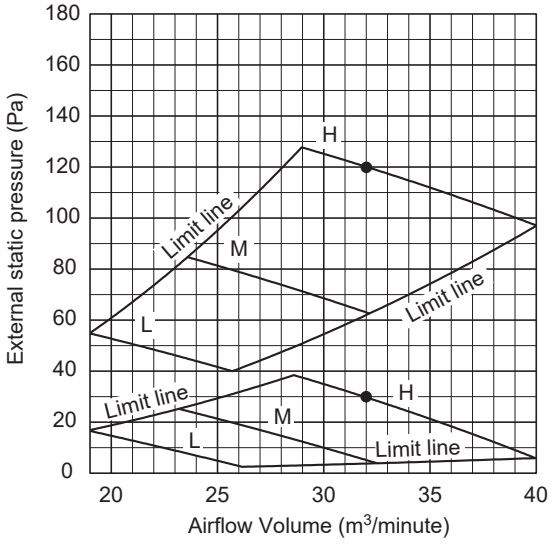
External static pressure 140Pa, 70Pa



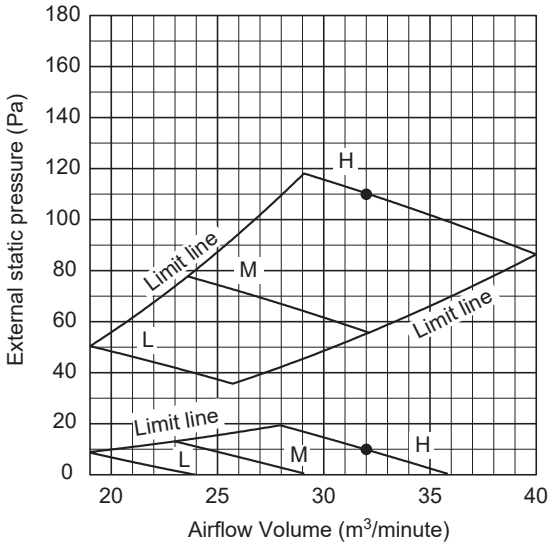
External static pressure 130Pa, 40Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa

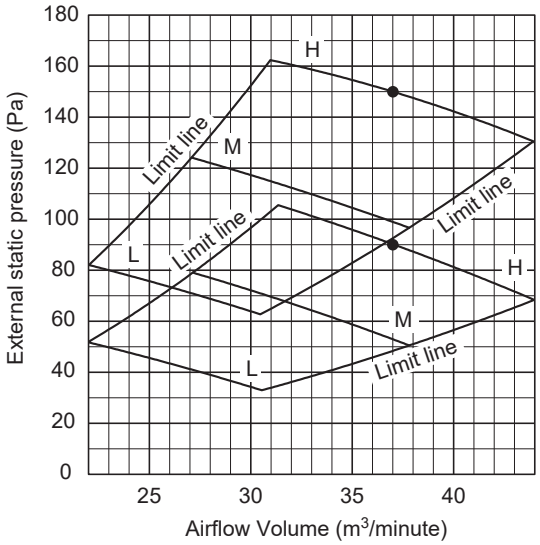


4

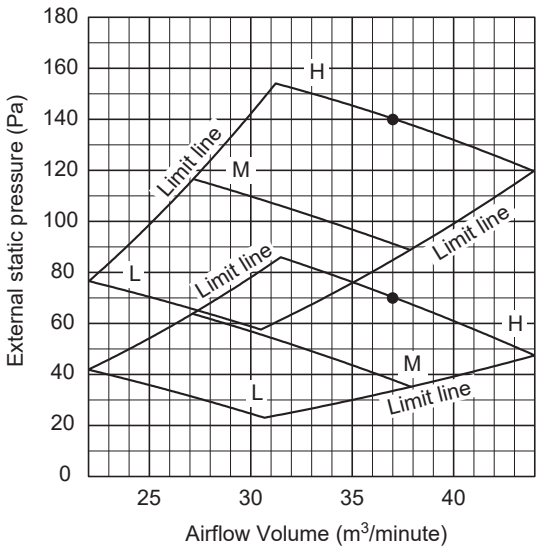
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 140
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

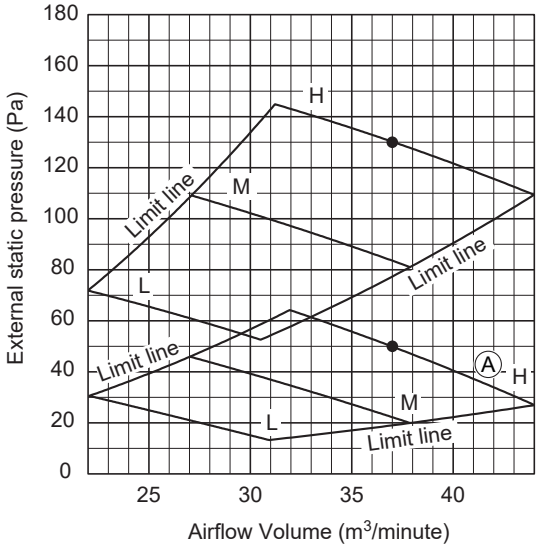
External static pressure 150Pa, 90Pa



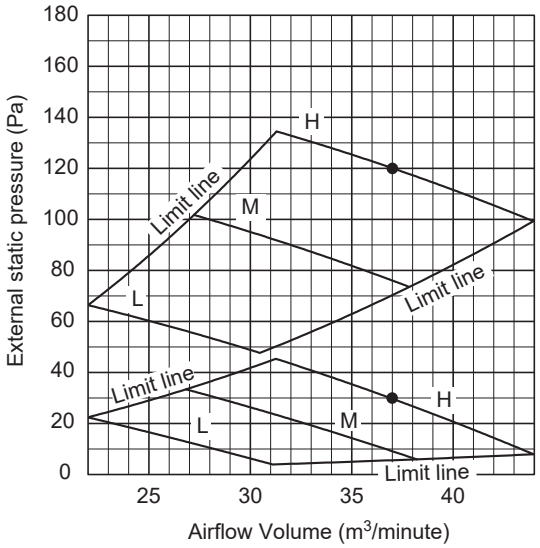
External static pressure 140Pa, 70Pa



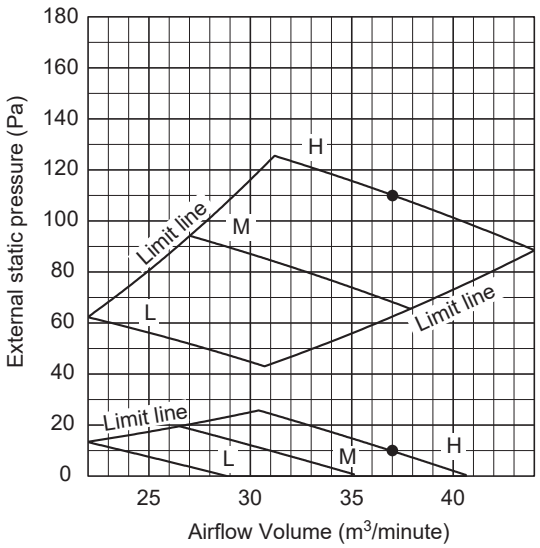
External static pressure 130Pa, 50Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa

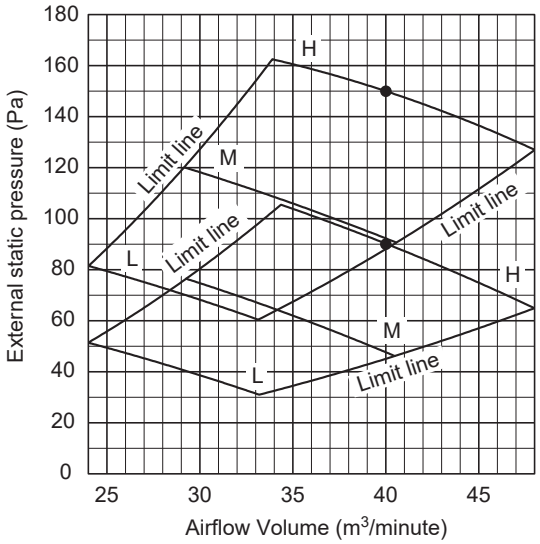


4

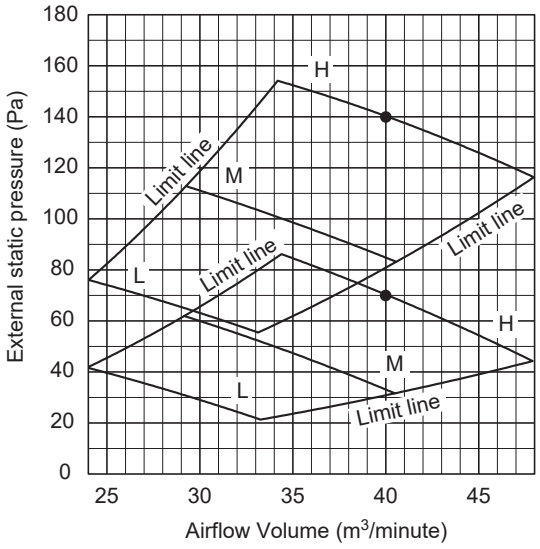
5. Middle Static Pressure Duct (Type F3)

Indoor Units Type 160
Indoor Fan Performance
PQ diagram (Fig. 5-5-2)

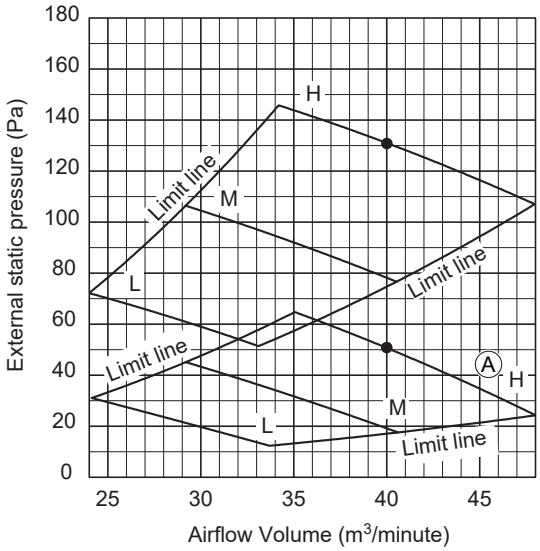
External static pressure 150Pa, 90Pa



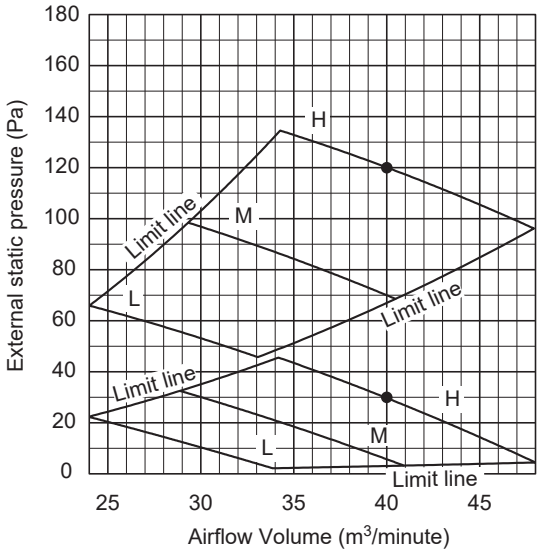
External static pressure 140Pa, 70Pa



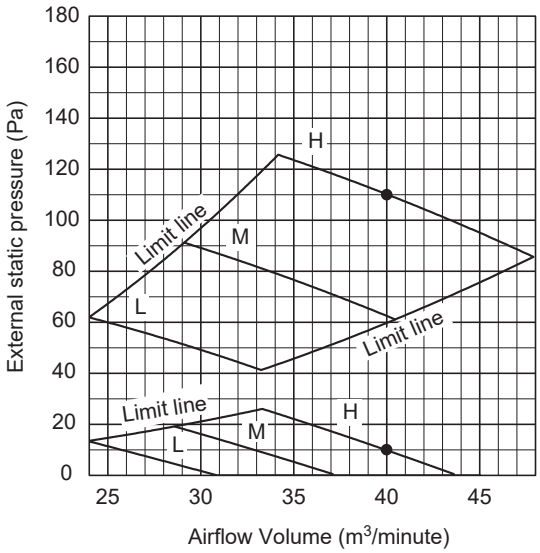
External static pressure 130Pa, 50Pa



External static pressure 120Pa, 30Pa



External static pressure 110Pa, 10Pa



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