

Low Silhouette Duct MVD DC

Service manual



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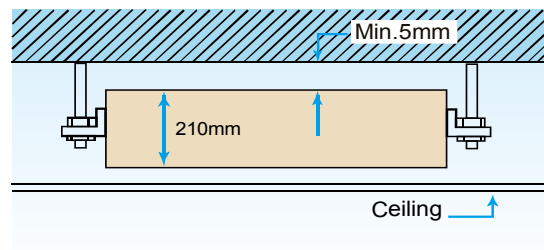
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1. Features

1.1 Compact design



Only 210 mm (15~71models) or 270mm (80 to 112 models) or 300mm (140 model) in height, these models can be installed in rooms with as little as 240mm~300 mm height between the drop ceiling and ceiling slab.



1.2 Capacity range

The capacity ranges from 1.5kW to 14kW, totally eleven models available.

1.3 Convenient installation

1.3.1 The EXV is fixed inside the indoor unit, which makes the main body without an extra throttle kit box.

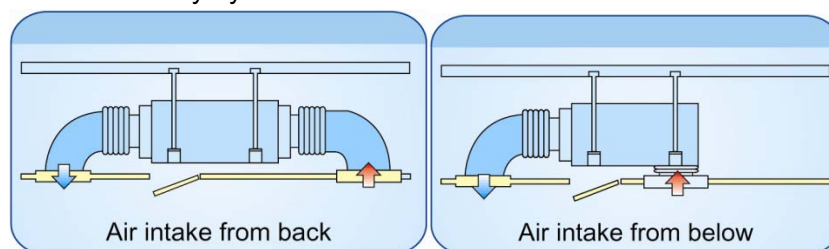
1.3.2 Standard filter with aluminum frame, which is removable downward from the bottom.

1.3.3 Suction chamber is included as standard equipment.

1.3.4 Flange for air in/outlet duct connection is standard.

1.3.5 Air inlet from back standard and from bottom optional.

Size of the plate from bottom and flange from back is the same, which makes it possible to convert the air return from back to bottom easily by installer.

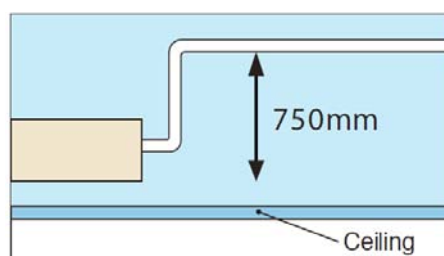


1.3.6 Standard built-in drain pump

Drain pump is equipped as standard accessory with 750 mm pump head.

1.4 Flexible control and convenient for maintenance

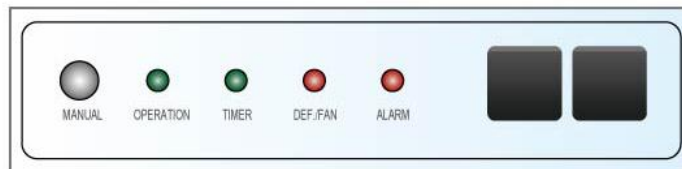
1.4.1 Standard wired controller KJR-29B1/BK-E, and wireless remote controller RM05/BG(T)E-A is optional.



1.4.2 The display board is connected with the E-box in factory, which makes troubleshooting easier by LED display.



15~71 models

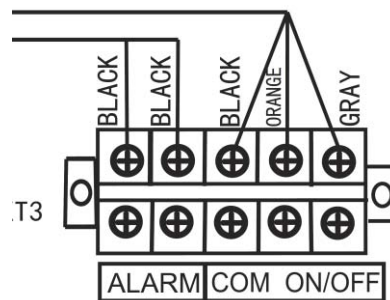


80~140 models

1.4.3 The electrical control box is possible to remove 1m far away from the main unit, which is suitable for the small space hard to maintain.

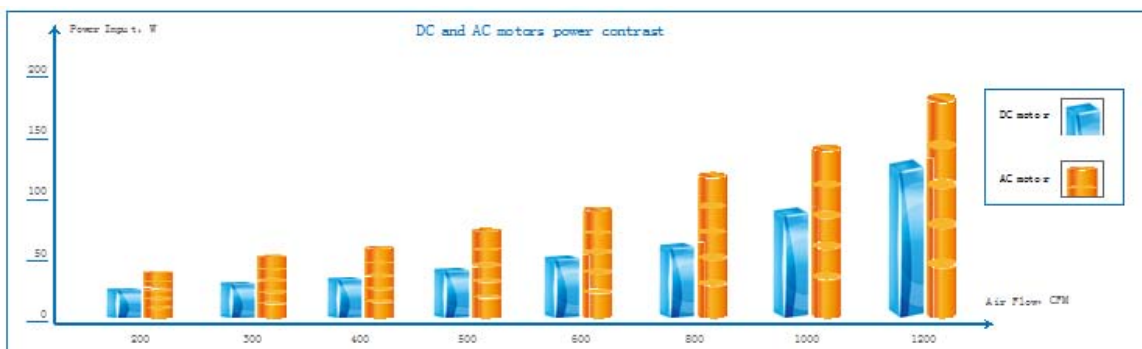
1.4.4 The EXV is fixed inside the indoor unit, which is weld connection and convenient for installation.

1.4.5 Standard functional port such as Remote On/Off Dry contact switch, and Alarm signal output (220V).



1.5 Adopting DC fan motor

Efficiency can be up to 90%. Contrast with the AC fan motor, the power consumption of DC fan motor can reduce up to 30%.



1.6 Meet CE certification requirements

Thanks to the DC fan motor, this concealed duct (A5 type) indoor unit can meet the latest CE certification requirements.

2. Specifications

Model			MVD-15T2/DHN1-DA5	MVD-22T2/DHN1-DA5	MVD-28T2/DHN1-DA5
Power supply		V-Hz-Ph	220-240V~50/60Hz		
Cooling	Capacity	kW	1.5	2.2	2.8
		Btu/h	5100	7500	9600
	Input	W	39	39	39
	Rated current	A	0.31	0.31	0.31
Heating	Capacity	kW	1.7	2.6	3.2
		Btu/h	5800	8900	10900
	Input	W	39	39	39
	Rated current	A	0.31	0.31	0.31
Indoor fan motor	Model		WZDK100-38GS	WZDK100-38GS	WZDK100-38GS
	Type		DC motor	DC motor	DC motor
	Brand		Panasonic/Nidec/Welling	Panasonic/Nidec/Welling	Panasonic/Nidec/Welling
	Input	W	20	22	22
	Speed (H/M/L)	r/min	950/820/750	980/850/750	980/850/750
Indoor coil	Number of rows		2	2	2
	Tube pitch(a) × row pitch(b)	in(mm)	13/16×17/32 (21×13.37)	13/16×17/32 (21×13.37)	13/16×17/32 (21×13.37)
	Fin spacing	in(mm)	1/16 (1.5)	1/16 (1.5)	1/16 (1.5)
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter and type	in(mm)	9/32 (Φ7) Inner groove tube	9/32(Φ7) Inner groove tube	9/32(Φ7) Inner groove tube
	Coil length x height	in(mm)	20-9/32×5-25/32 (515×147)	20-9/32×5-25/32 (515×147)	20-9/32×5-25/32 (515×147)
	Number of circuits		2	3	4
Indoor air flow (H/M/L)		m ³ /h	509/420/370	521/450/380	521/450/380
		CFM	300/247/218	307/265/224	307/265/224
Indoor external static pressure (H)		Pa	10(10~30)	10(10~30)	10(10~30)
Indoor noise level (H/M/L)		dB(A)	35/33/31	35/34/31	36/34/31
Indoor unit	Dimension (W×H×D)	mm	740x210x500	740x210x500	740x210x500
	Packing (W×H×D)	mm	870×285×525	870×285×525	870×285×525
	Net/Gross weight	kg	17.5/20.5	17.5/20	17.5/20
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92	Φ92
Refrigerant type			R410A	R410A	R410A
Throttle		Type	EXV	EXV	EXV
		Model	BD20FKS(L)	BD20FKS(L)	BD20FKS(L)
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid / Gas	mm	Φ6.35/ Φ12.7	Φ6.35/ Φ12.7	Φ6.35/ Φ12.7
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)
	Signal wiring	mm ²	3×0.75	3×0.75	3×0.75
Drainage water pipe diameter		mm	OD Φ25	OD Φ25	OD Φ25
Controller			Wired controller KJR-29B1/BK-E (6 meters connection wire)		

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB/19°CWB, outdoor temperature:35°CDB, equivalent piping: 8m(horizontal).

2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature:7°CDB/6°CWB, equivalent piping: 8m(horizontal).

3. 1.5kW model is only available for V4 Plus system and MINI VRF system.

Model			MVD-36T2/DHN1-DA5	MVD-45T2/DHN1-DA5
Power supply		V-Hz-Ph	220-240V~50/60Hz	
Cooling	Capacity	kW	3.6	4.5
		Btu/h	12300	15400
	Input	W	45	58
	Rated current	A	0.33	0.36
Heating	Capacity	kW	4.0	5
		Btu/h	13600	17100
	Input	W	45	58
	Rated current	A	0.33	0.36
Indoor fan motor	Model		WZDK100-38GS	WZDK100-38GS-2
	Type		DC motor	DC motor
	Brand		Panasonic/Nidec/Welling	Panasonic/Nidec/Welling
	Input	W	26	35
	Speed (H/M/L)	r/min	1060/960/820	1060/900/830
Indoor coil	Number of rows		2	2
	Tube pitch(a) × row pitch(b)	in(mm)	13/16×17/32 (21×13.37)	13/16×17/32 (21×13.37)
	Fin spacing	in(mm)	1/16 (1.5)	(3/64)1.3
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter and type	in(mm)	9/32 (Φ7) Inner groove tube	9/32(Φ7) Inner groove tube
	Coil length x height	in(mm)	20-9/32×5-25/32 (515×147)	28-57/64×5-25/32 (735×147)
	Number of circuits		4	6
Indoor air flow (H/M/L)		m ³ /h	592/541/426	748/640/550
		CFM	348/318/251	440/377/324
Indoor external static pressure (H)		Pa	10(10~30)	10(10~30)
Indoor noise level (H/M/L)		dB(A)	37/36/33	38/37/33
Indoor unit	Dimension (W×H×D)	mm	740x210x500	960x210x500
	Packing (W×H×D)	mm	870×285×525	1115x285x525
	Net/Gross weight	kg	17.5/20	22.5/26
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92
Refrigerant type			R410A	R410A
Throttle		Type	EXV	EXV
		Model	BD20FKS(L)	BD20FKS(L)
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid / Gas	mm	Φ 6.35/ Φ12.7	Φ 6.35/ Φ12.7
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)
	Signal wiring	mm ²	3×0.75	3×0.75
Drainage water pipe diameter		mm	OD Φ25	OD Φ25
Controller			Wired controller KJR-29B1/BK-E (6 meters connection wire)	

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB/ 19°CWB, outdoor temperature:35°CDB, equivalent piping: 8m(horizontal).

2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature:7°CDB/6°CWB, equivalent piping: 8m(horizontal).

3. 1.5kW model is only available for V4 Plus system and MINI VRF system.

Model			MVD-56T2/DHN1-DA5	MVD-71T2/DHN1-DA5
Power supply		V-Hz-Ph	220-240V~50/60Hz	
Cooling	Capacity	kW	5.6	7.1
		Btu/h	19100	24200
	Input	W	89	68
	Rated current	A	0.36	0.47
Heating	Capacity	kW	6.3	8
		Btu/h	21500	27300
	Input	W	89	68
	Rated current	A	0.36	0.47
Indoor fan motor	Model		WZDK100-38GS-2	WZDK100-38GS-1
	Type		DC motor	DC motor
	Brand		Panasonic/Nidec/Welling	Panasonic/Nidec/Welling
	Input	W	43	43
	Speed (H/M/L)	r/min	1120/900/830	1070/980/840
Indoor coil	Number of rows		2	2
	Tube pitch(a) × row pitch(b)	in(mm)	13/16×17/32 (21×13.37)	13/16×17/32 (21×13.37)
	Fin spacing	in(mm)	(3/64)1.3	(3/64)1.3
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter and type	in(mm)	9/32(Φ7) Inner groove tube	9/32(Φ7) Inner groove tube
	Coil length x height	in(mm)	28-57/64×5-25/32 (735×147)	37-31/64x5-25/32 (952x147)
	Number of circuits		6	6
Indoor air flow (H/M/L)		m³/h	821/640/566	1021/940/778
		CFM	483/377/333	601/553/458
Indoor external static pressure (H)		Pa	10(10~30)	10(10~30)
Indoor noise level (H/M/L)		dB(A)	38/37/33	40/38/34
Indoor unit	Dimension (W×H×D)	mm	960x210x500	1180x210x500
	Packing (W×H×D)	mm	1115x285x525	1335x285x525
	Net/Gross weight	kg	22.5/26	28/31.5
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92
Refrigerant type			R410A	R410A
Throttle		Type	EXV	EXV
		Model	BD20FKS(L)	BD20FKS(L)
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid / Gas	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)
	Signal wiring	mm ²	3×0.75	3×0.75
Drainage water pipe diameter		mm	OD Φ25	OD Φ25
Controller			Wired controller KJR-29B1/BK-E (6 meters connection wire)	

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB/ 19°CWB, outdoor temperature:35°CDB, equivalent piping: 8m(horizontal).

2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature:7°CDB/6°CWB, equivalent piping: 8m(horizontal).

3. 1.5kW model is only available for V4 Plus system and MINI VRF system.

Model			MVD-80T2/DHN1-BA5	MVD-90T2/DHN1-BA5
Power supply		V- Ph-Hz	220-240V~50/60Hz	
Cooling	Capacity	kW	8	9
		Btu/h	27300	30700
	Input	W	98	108
	Rated current	A	1.0	1.0
Heating	Capacity	kW	9	10
		Btu/h	30700	34100
	Input	W	98	108
	Rated current	A	1.0	1.0
Indoor fan motor	Model		WZDK150-38GS	WZDK150-38GS
	Type		DC motor	DC motor
	Brand		Panasonic/Nidec/Welling	Panasonic/Nidec/Welling
	Input	W	61	62
	Speed (H/M/L)	r/min	820/720/620	820/720/620
Indoor coil	Number of rows		4	4
	Tube pitch(a) ×row pitch(b)	in(mm)	13/16×17/32 (21×13.37)	13/16×17/32 (21×13.37)
	Fin spacing	in(mm)	1/16 (1.5)	1/16 (1.5)
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter and type	in(mm)	9/32(Φ7)	9/32(Φ7)
			inner groove tube	inner groove tube
	Coil length x height	in(mm)	37-19/32×13-7/32 (955×336)	37-19/32×13-7/32(955×336)
	Number of circuits		5	8
Indoor air flow (H/M/L)		m ³ /h	1290/1090/940	1290/1090/940
		CFM	759/642/553	759/642/553
Indoor external static pressure (H)		Pa	20(10~50)	20(10~50)
Indoor noise level (H/M/L)		dB(A)	44/38/37	44/38/37
Indoor unit	Dimension (W×H×D)	mm	1180×270×775	1180×270×775
	Packing (W×H×D)	mm	1355×350×795	1355×350×795
	Net/Gross weight	kg	38/46.5	40/48
Fresh Air intake hole diameter (round)		mm	Φ125	Φ125
Refrigerant type			R410A	R410A
Throttle		Type	EXV	EXV
		Model	BD24FKS(L)	BD24FKS(L)
Design pressure (H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid / Gas	mm	Φ9.53/Φ15.9	9.53/Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)
	Signal wiring	mm ²	3×0.75	3×0.75
Drainage water pipe diameter			OD Φ25	OD Φ25
Controller			Wired controller KJR-29B1/BK-E(6 meters connection wire)	

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB/ 19°CWB, outdoor temperature:35°CDB, equivalent piping: 8m(horizontal).

2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature:7°CDB/6°CWB, equivalent piping: 8m(horizontal).

3. 1.5kW model is only available for V4 Plus system and MINI VRF system.

Model			MVD-112T2/DHN1-BA5	MVD-140T2/DHN1-BA5
Power supply		V- Ph-Hz	220-240V~50/60Hz	
Cooling	Capacity	kW	11.2	14
		Btu/h	38200	47800
	Input	W	178	204
	Rated current	A	1.8	1.55
Heating	Capacity	kW	12.5	15.5
		Btu/h	42700	13300
	Input	W	178	204
	Rated current	A	1.8	1.55
Indoor fan motor	Model		WZDK150-38GS	WZDK240-38GS
	Type		DC motor	DC motor
	Brand		Panasonic/Nidec/Welling	Panasonic/Nidec/Welling
	Input	W	170	142
	Speed (H/M/L)	r/min	1030/860/760	1030/860/760
Indoor coil	Number of rows		4	4
	Tube pitch(a) ×row pitch(b)	in(mm)	13/16×17/32 (21×13.37)	1×55/64(25.4×22)
	Fin spacing	in(mm)	1/16 (1.5)	1/16 (1.5)
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter and type	in(mm)	9/32(Φ7)	9/32(Φ7)
			inner groove tube	inner groove tube
	Coil length x height	in(mm)	37-19/32×13-7/32(955×336)	40-9/16×18 (1030×457.2)
Number of circuits		8	8	
Indoor air flow (H/M/L)		m³/h	1780/1550/1352	1950/1600/1400
		CFM	1048/912/796	1148/942/824
Indoor external static pressure (H)		Pa	40(10~80)	40(10~100)
Indoor noise level (H/M/L)		dB(A)	47/41/37	47/42/38
Indoor unit	Dimension (W×H×D)	mm	1180×270×775	1240×300×865
	Packing (W×H×D)	mm	1355×350×795	1400×375×925
	Net/Gross weight	kg	40/48	49/58
Fresh Air intake hole diameter (round)		mm	Φ125	Φ125
Refrigerant type			R410A	R410A
Throttle		Type	EXV	EXV
		Model	BD24FKS(L)	BD24FKS(L)
Design pressure (H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid / Gas	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)	3×2.5(L≤20m); 3×3.5(L≤50m)
	Signal wiring	mm ²	3×0.75	3×0.75
Drainage water pipe diameter			OD Φ25	OD Φ25
Controller			Wired controller KJR-29B1/BK-E(6 meters connection wire)	

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB/ 19°CWB, outdoor temperature:35°CDB, equivalent piping: 8m(horizontal).

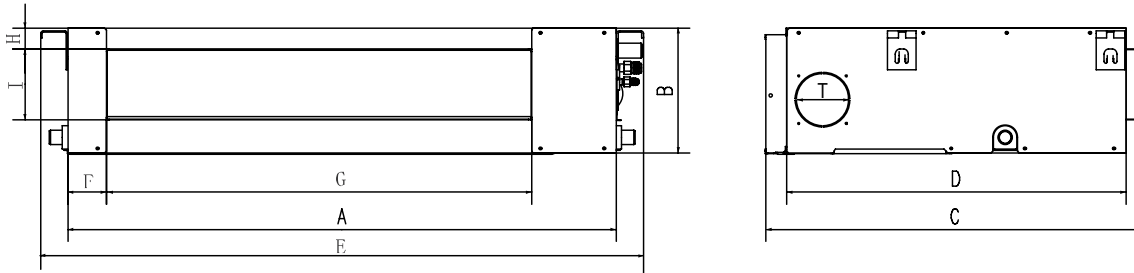
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature:7°CDB/6°CWB, equivalent piping: 8m(horizontal).

3. 1.5kW model is only available for V4 Plus system and MINI VRF system.

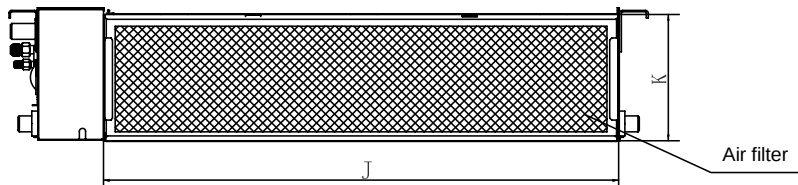
3. Dimensions

Outline dimension and air outlet opening size:

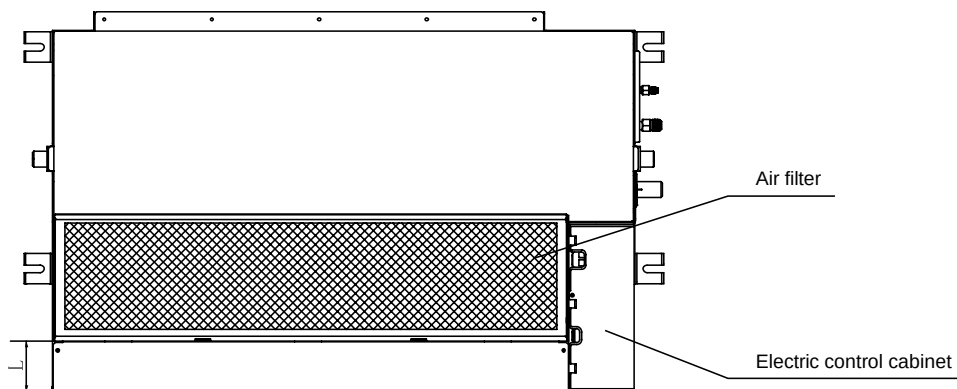
(Unit: mm)



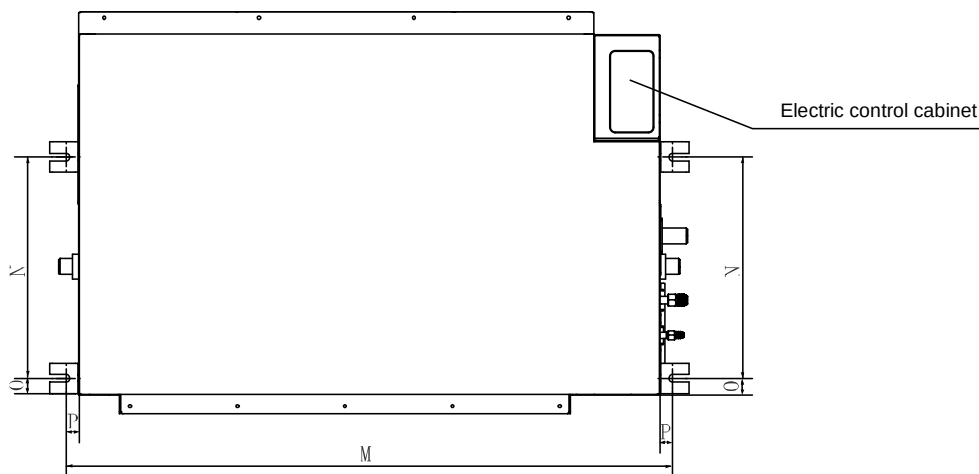
Air return opening size:



Position size of declensional ventilation opening:



Size of mounted lug:

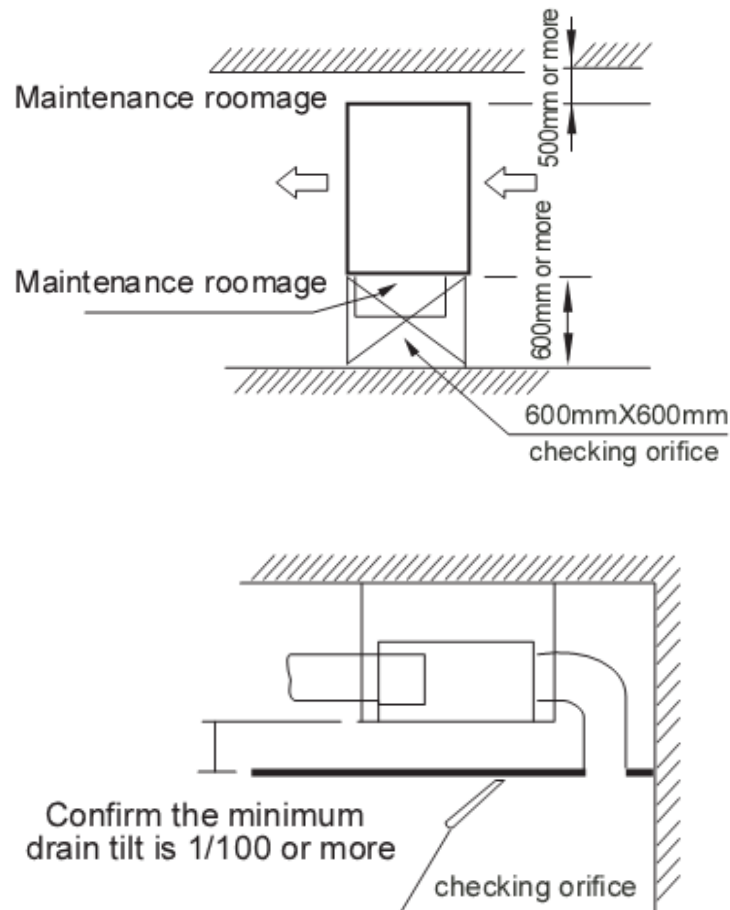


Model	Outline dimension					air outlet opening size				air return opening size			Size of mounted lug				New air inlet
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	T
15~36	700	210	500	450	780	45	512	17	145	600	196	—	740	350	50	20	Φ92
45~56	920	210	500	450	1000	45	732	17	145	820	200	—	960	350	50	20	Φ92
71	1140	210	500	450	1220	45	732	17	145	1040	200	—	1180	350	50	20	Φ92
80~112	1140	270	775	710	1230	65	933	35	179	1035	260	20	1180	490	26	20	Φ125
140	1200	300	865	800	1290	80	969	40	204	1094	288	45	1240	500	26	20	Φ125

4. Service Spaces

- Ensure the needed spaces for installation and maintenance.
- The ceiling is horizontal and its structure can endure the weight of the indoor unit.
- The outlet and the inlet are not impeded, and the influence of external air is the least.
- The air flow can reach throughout the room.
- The connecting pipe and drainpipe could be extracted out easily.
- There is no direct radiation from heaters.

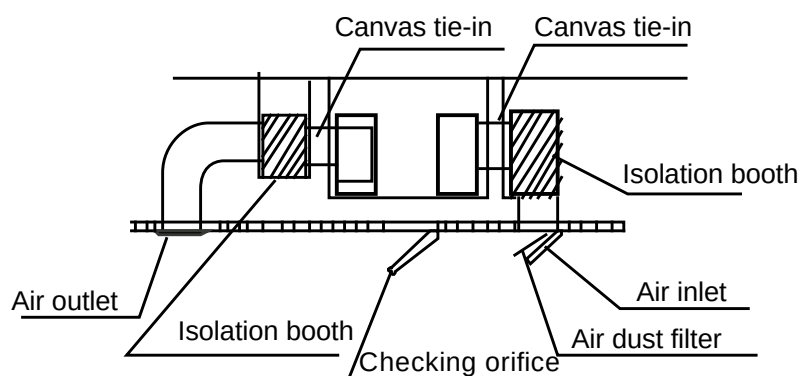
Confirm that there is enough room for installation and maintenance:



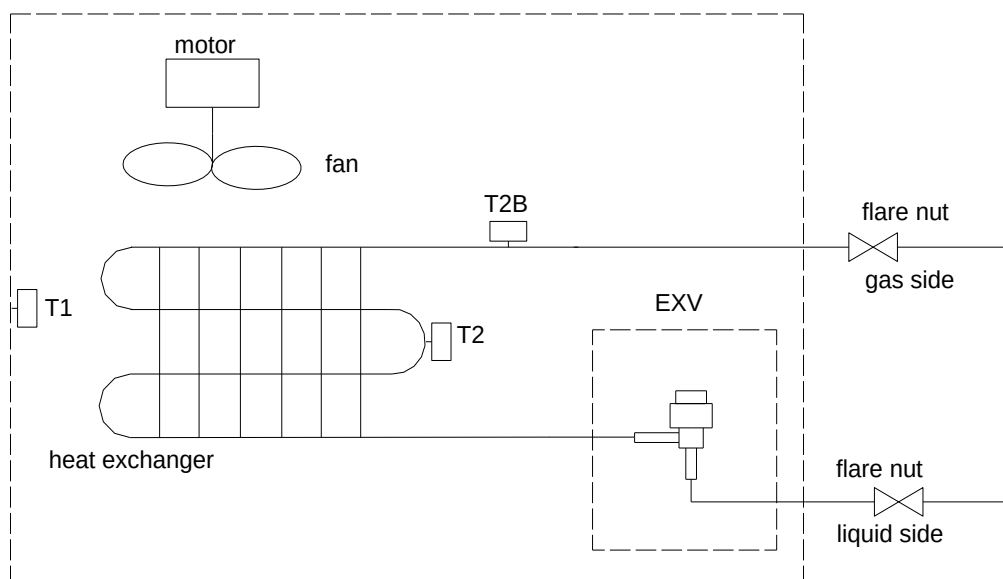
(1) Air inlet and air outlet duct should be apart far enough to prevent air outlet entering air inlet.

(2) There is dust filter on the indoor unit.

Recommended duct connection:



5. Piping Diagrams



6. Wiring Diagrams

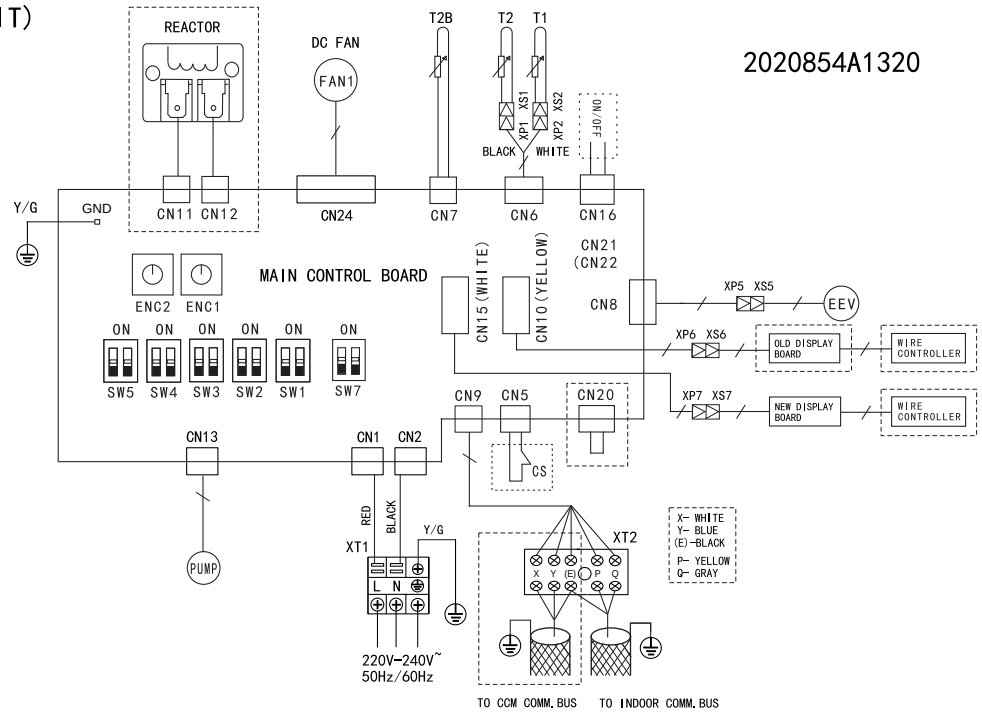
WIRING DIAGRAM (INDOOR UNIT)

CODE	TITLE
FAN1	DC FAN MOTOR
FAN2	AC FAN MOTOR
T1	ROOM TEMP.
T2	MIDDLE PIPE TEMP.
T2B	OUTER PIPE TEMP.
M1 M2	SWING MOTOR
EEV	ELECTRONIC EXPANSION VALVE
XP1-XP9	CONNECTOR
XS1-SX9	CONNECTOR
CS	WATER LEVEL SWITCH
XT1	TERMINAL
XT2	TERMINAL
F	FUSE
H	AUXILIARY HEATER
PUMP	PUMP MOTOR
CAP	FAN CAPACITANCE

ENC1	Toggle switch	For set horsepower
ENC1	Code	Capacity
	0	1800W
		2200W
	1	2800W
	2	3600W
	3	4500W
	4	5600W
	5	7100W
	6	8000W
	7	9000W
	8	11200W
	9	14000W
	F	1500W

NOTE:

- The functions in the dashed rectangle are available for particular Air-conditioner.
- SW1-SW5, SW7 ENC2 must be set as this diagram.



ENC2 Definition

ENC2	Definition
0	DC fan static pressure is 1
1	DC fan static pressure is 2
2	DC fan static pressure is 3
3	DC fan static pressure is 4 (default setting)
4	DC fan static pressure is 5

SW1 Definition

SW1	Definition
●1	means factory test mode
●0	means auto addressing mode (default setting)
●1	means DC fan is chosen (default setting)
●0	means AC fan is chosen

SW2 Definition

SW2	Definition
●00	means shutting down the unit to "stop cold air" at 15°C
●01	means shutting down the unit to "stop cold air" at 20°C
●10	means shutting down the unit to "stop cold air" at 24°C (default setting)
●11	means shutting down the unit to "stop cold air" at 26°C

SW3 Definition

SW3	Definition
●00	means the time of stopping THERMAL fan is 4 minutes (default setting)
●01	means the time of stopping THERMAL fan is 8 minutes
●10	means the time of stopping THERMAL fan is 12 minutes
●11	means the time of stopping THERMAL fan is 16 minutes

SW4 Definition

SW4	Definition
●00	means temp.compensation value is 6°C under heat mode (default setting)
●01	means temp.compensation value is 2°C under heat mode
●10	means temp.compensation value is 4°C under heat mode
●11	means temp.compensation value is 8°C under heat mode

SW5 Definition

SW5	Definition
●1	means old display panel
●0	means new display panel (default setting)
●1	means auto air blow under auto mode
●0	means auto air blow under non-auto mode (default setting)

J1J2 Definition

	● without jumper "J1" for auto restart function
	● with jumper "J1" for non-auto restart function
	● reserved

SW7 Definition 0/1 Definition

ON		● standard configuration
ON		● last unit of the network

ON		● means C
ON		● means

Error code & indication

Error Code	Indication
●No address when first time power on	Timer LED and run LED flash together, or show "FE"
●M_Home non-matching	4 LED flash together or show "H0"
●Mode conflict	Defrost LED flash or show "E0"
●Communication error between indoor and outdoor unit	Timer LED flash or show "E1"
●Temp.sensor (T1) error	Run LED flash or show "E2"
●Temp.sensor (T2) error	Run LED flash or show "E3"
●Temp.sensor (T2B) error	Run LED flash or show "E4"
●DC FAN error	Timer LED flash slowly or show "E6"
●EEPROM error	Defrost LED flash slowly or show "E7"
●Outdoor unit error	Alarm LED flash slowly or show "Ed"
●Water level alarm	Alarm LED flash or show "EE"

7. Fan Performance

For static pressure dial code, please see the following Table:

ENC2	Code 0	Code 1	Code 2	Code 3	Code 4
Model					
22~71	0Pa	10Pa	30Pa	50Pa	/
80~112	0Pa	25Pa	50Pa	75Pa	100Pa
140	25Pa	50Pa	75Pa	100Pa	150Pa



NOTE

1. The noise will be growing with the increase of static pressure.
2. Factory default pressure: Model 22-71: 50Pa, Model 80-140: 75 Pa.
3. H: high fan speed, M: medium fan speed, L: low fan speed.

Model: 22-28 (0 / 10 Pa)

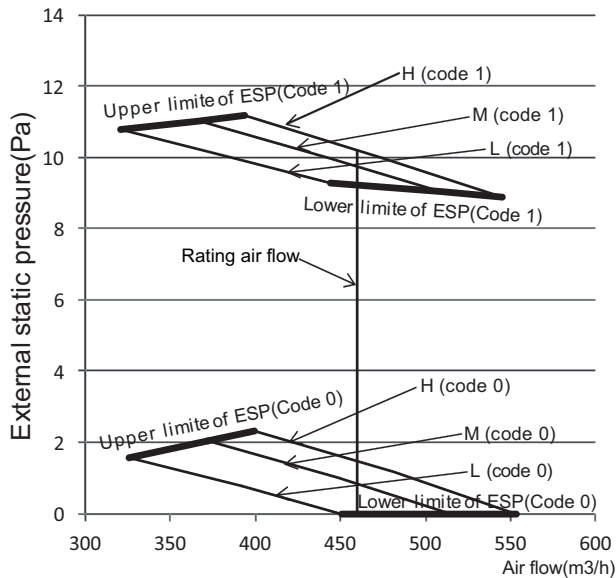


Fig.5-12

Model: 22-28 (30 / 50 Pa)

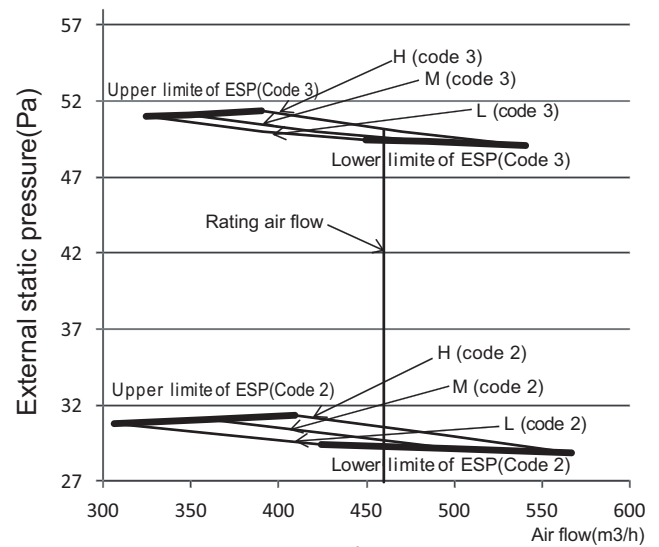


Fig.5-13

Model: 36 (0 / 10 Pa)

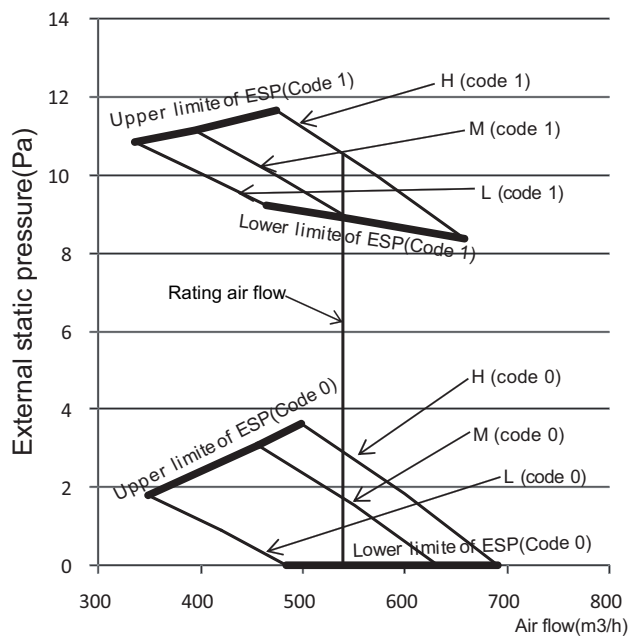


Fig.5-14

Model: 36 (30 / 50 Pa)

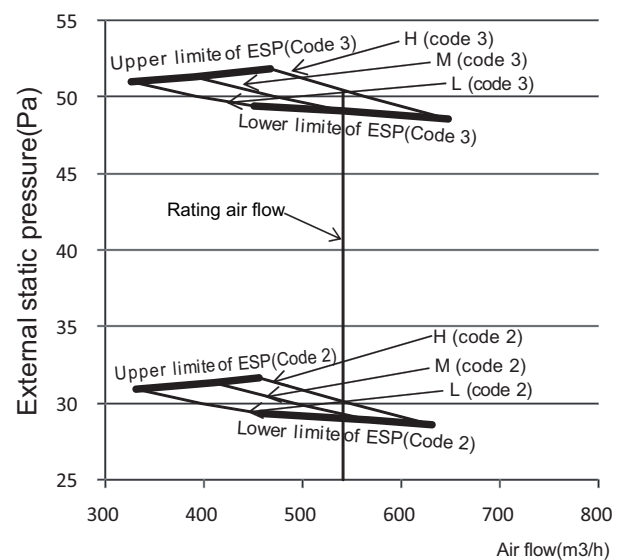


Fig.5-15

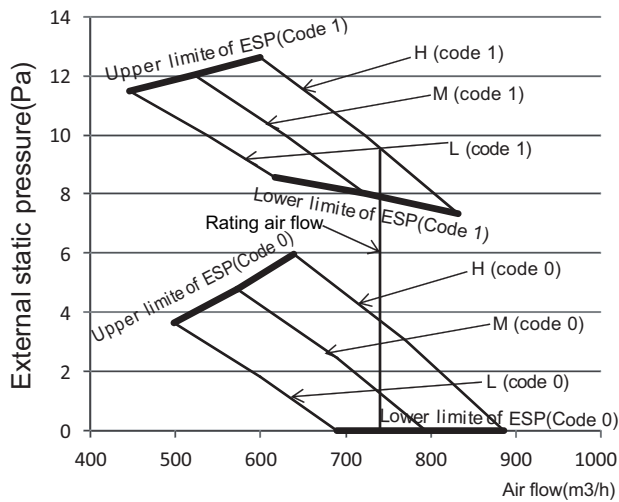
Model: 45 (0 / 10 Pa)

Fig.5-16

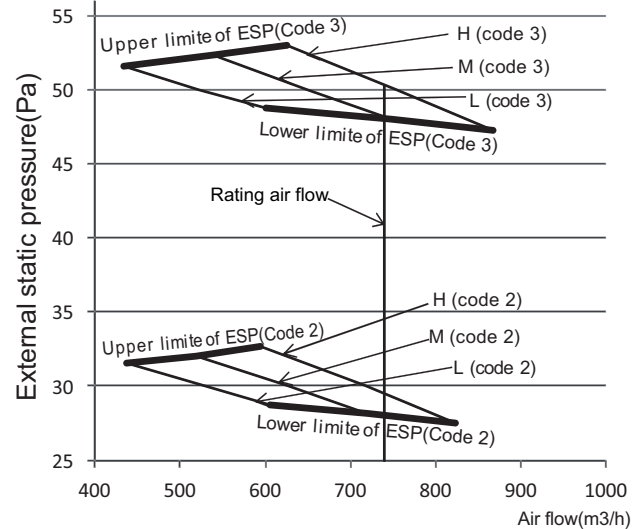
Model: 45 (30 / 50 Pa)

Fig.5-17

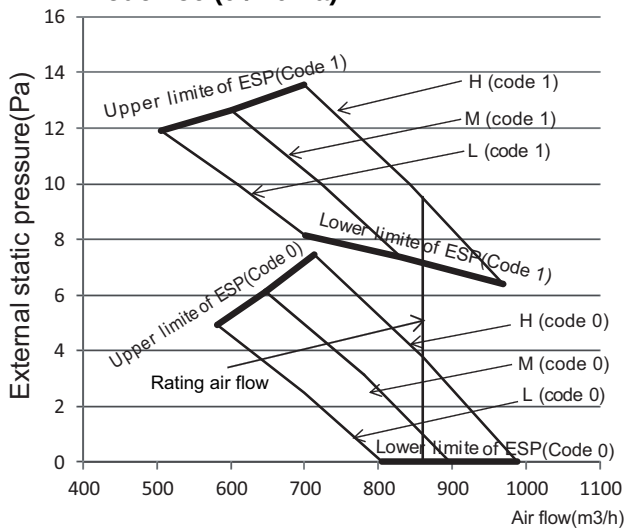
Model: 56 (0 / 10 Pa)

Fig.5-18

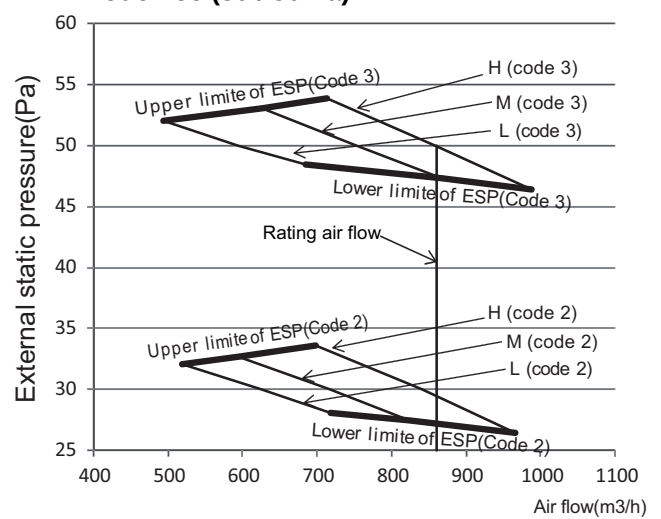
Model: 56 (30 / 50 Pa)

Fig.5-19

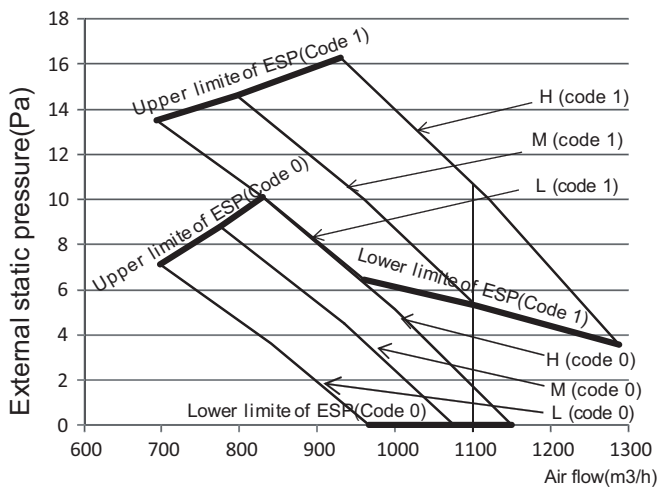
Model: 71 (0 / 10 Pa)

Fig.5-20

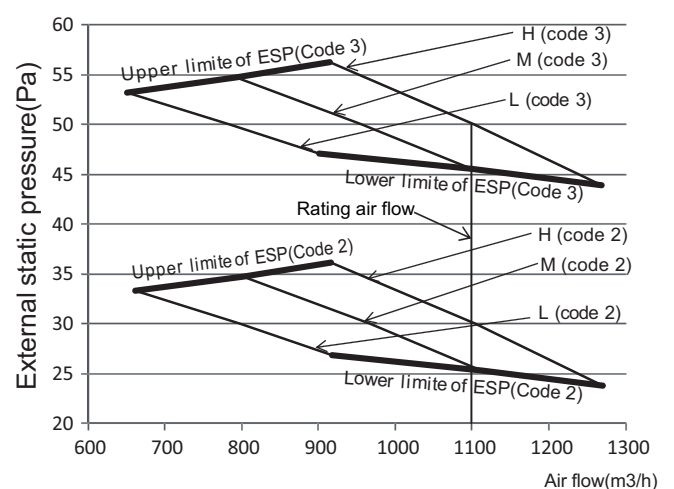
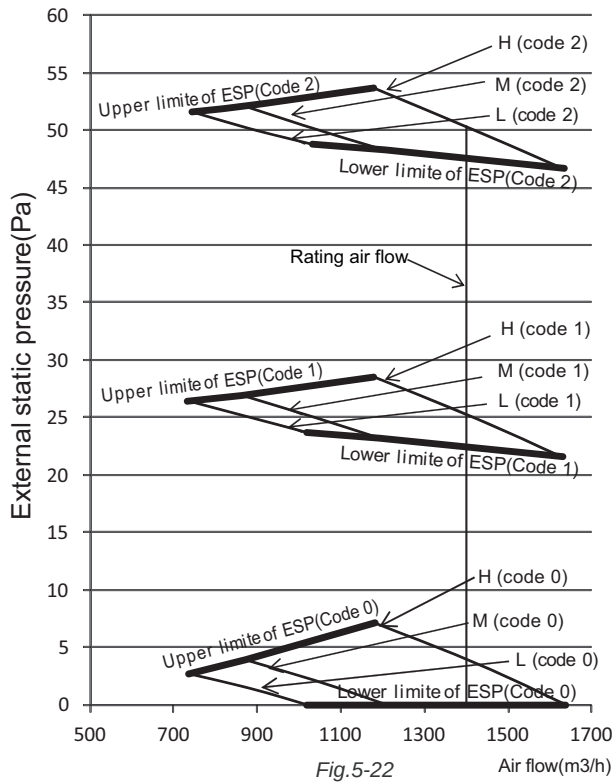
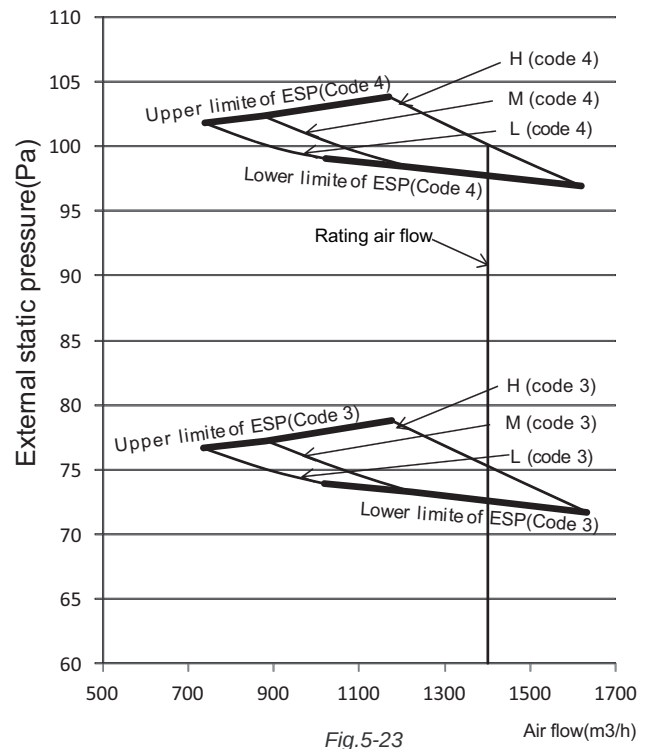
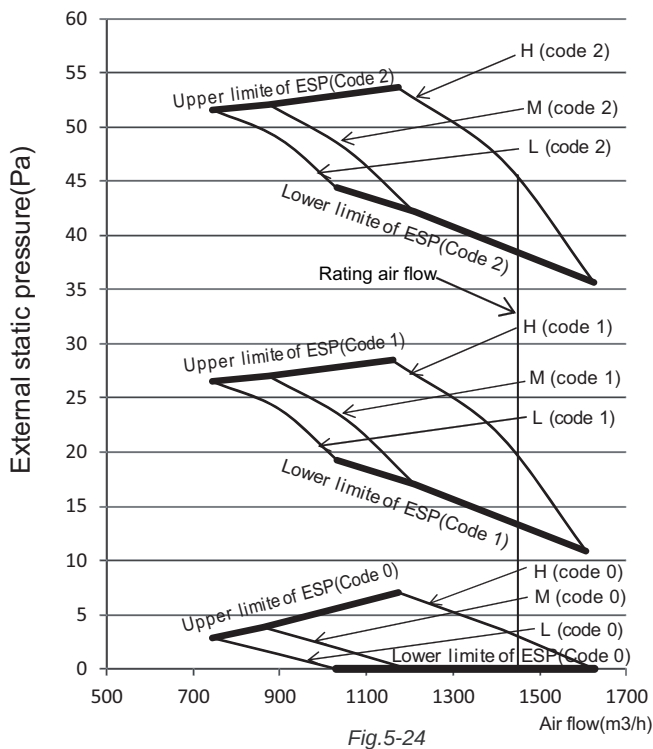
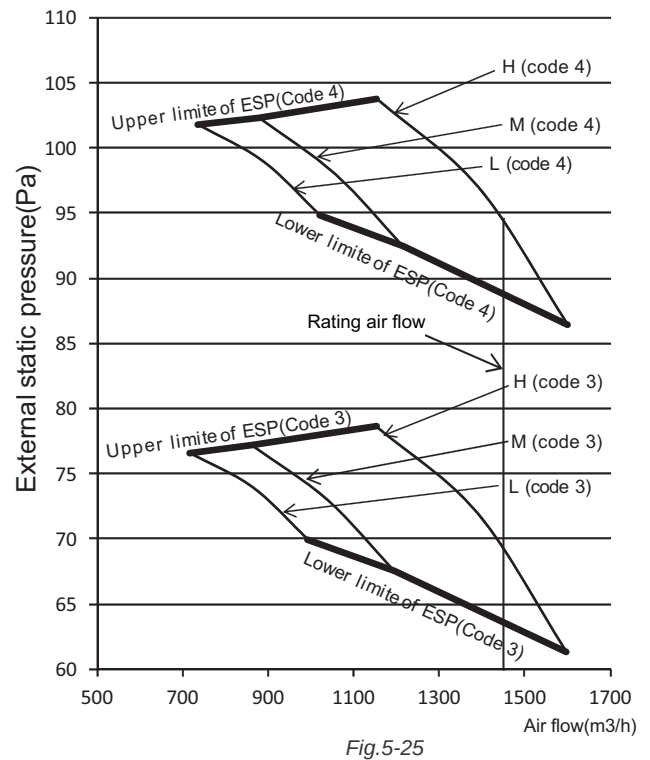
Model: 71 (30 / 50 Pa)

Fig.5-21

Model: 80 (0 / 25 / 50 Pa)**Model: 80 (75 / 100 Pa)****Model: 90 (0 / 25 / 50 Pa)****Model: 90 (75 / 100 Pa)**

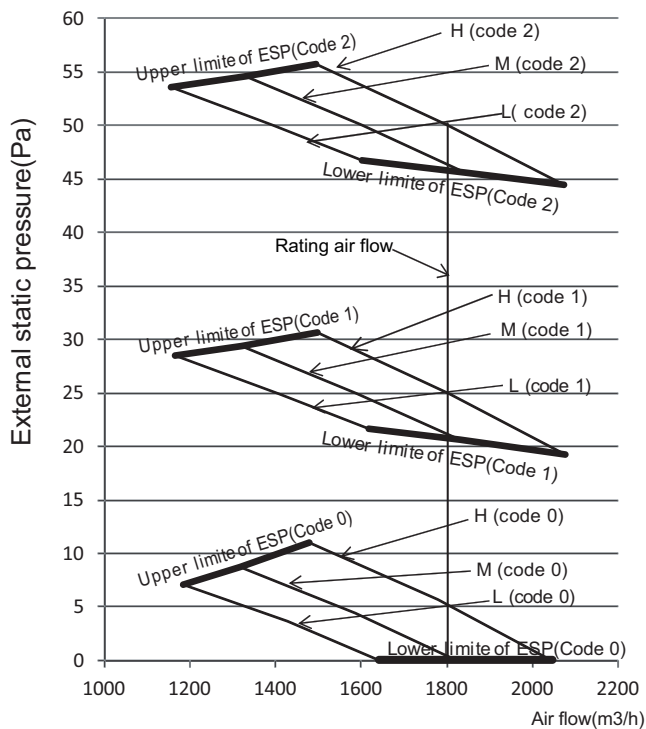
Model: 112 (0 / 25 / 50 Pa)

Fig.5-26

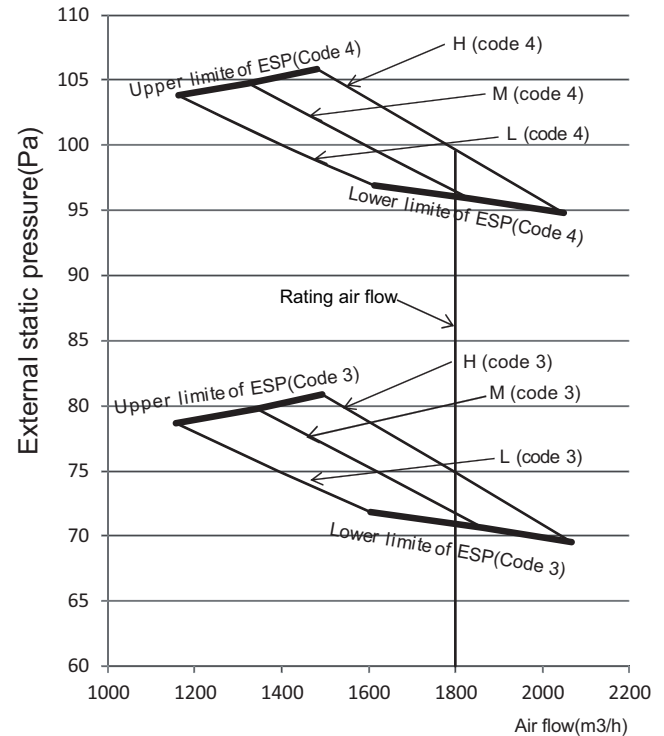
Model: 112 (75 / 100 Pa)

Fig.5-27

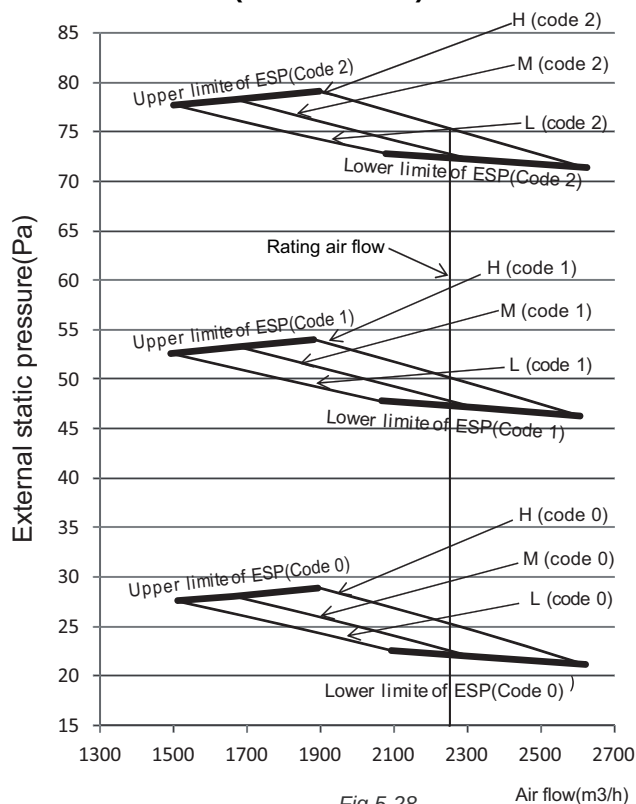
Model: 140 (25 / 50 / 75 Pa)

Fig.5-28

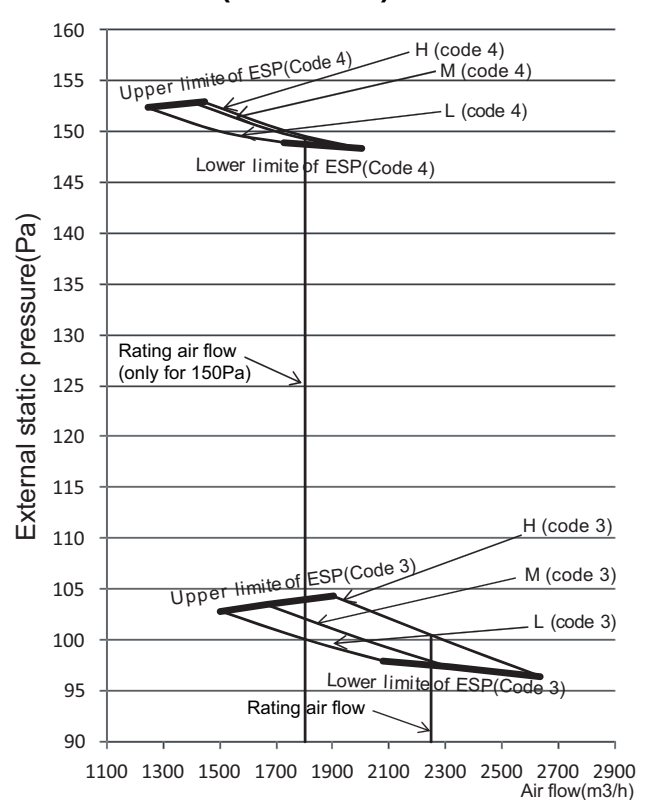
Model: 140 (100 / 150 Pa)

Fig.5-29

- If the external static pressure is too great (due to long extension of duct, for example), the air flow volume may drop too low at each air outlet.
- So there's a limit air flow volume line for each speed and it is the min. airflow of this duct unit. At this flow volume, the fan achieves the max. ESP and indoor evaporator may be protected by low temperature.
- As well, there's a limit airflow volume, which is the max. value at each speed. It requests the unit to connect ducts for air inlet and outlet to prevent damage from the high temperature of motor/evaporator.

8. Capacity Tables

8.1 Cooling

TC: Total capacity **SC:** Sensible capacity **WB:** Wet-bulb temperature **DB:** Dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°CDB)	Indoor temperature (°CWB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
1.5	10.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	2.0	1.1
	12.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.9	1.0
	14.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.9	1.0
	16.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.9	1.0
	18.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.9	1.0
	20.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.8	1.0
	21.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.8	1.1	1.8	1.0
	23.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.8	1.0
	25.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.8	0.9
	27.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.8	0.9
	29.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.7	0.9
	31.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.7	0.9
	33.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.7	1.0	1.7	1.0
	35.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.6	0.9	1.7	1.0
	37.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.6	1.1	1.6	0.9	1.6	0.9
	39.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.5	1.0	1.6	0.9	1.6	0.9
	42.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.5	1.0	1.6	0.9	1.6	0.9
	44.0	1.0	0.9	1.2	0.9	1.4	1.0	1.5	1.0	1.5	1.0	1.6	0.9	1.6	0.9
2.2	10.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.9	1.7
	12.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.8	1.6
	14.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.8	1.6
	16.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.8	1.6
	18.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.8	1.6
	20.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.7	1.5
	21.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.6	1.7	2.7	1.5
	23.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.5	1.6	2.7	1.5
	25.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.5	1.6	2.6	1.5
	27.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.5	1.6	2.6	1.5
	29.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.4	1.5	2.5	1.5
	31.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.4	1.5	2.5	1.5
	33.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.4	1.5	2.4	1.5
	35.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.3	1.5	2.4	1.5
	37.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.3	1.5	2.3	1.5
	39.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.2	1.6	2.3	1.5	2.3	1.5
	42.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.2	1.6	2.3	1.5	2.3	1.5
	44.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.2	1.6	2.3	1.5	2.3	1.5
	46.0	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.2	1.6	2.3	1.5	2.3	1.5
2.8	10.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.7	2.2
	12.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.6	2.1
	14.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.6	2.1
	16.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.5	2.1
	18.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.5	2.1
	20.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.4	2.1
	21.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.2	3.4	2.1
	23.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.3	2.1	3.4	2.1
	25.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.2	2.1	3.3	2.0
	27.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.2	2.1	3.3	2.0
	29.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.1	2.0	3.2	1.9
	31.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.1	2.0	3.2	1.9
	33.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.1	2.0	3.1	1.9
	35.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.0	3.1	1.9
	37.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.0	3.0	1.8
	39.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.1	3.0	1.9
	42.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.1	3.0	1.9
	44.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.1	3.0	1.9
	46.0	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	2.9	2.0	3.0	2.1	3.0	1.9

3.6	10.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.7	2.7
	12.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.7	2.7
	14.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.6	2.6
	16.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.5	2.6
	18.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.5	2.6
	20.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.4	2.5
	21.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.3	2.6	4.4	2.5
	23.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.1	2.5	4.3	2.4
	25.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.1	2.5	4.2	2.4
	27.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.0	2.4	4.2	2.4
	29.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.0	2.4	4.1	2.4
	31.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.2	2.8	4.1	2.4
	33.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.2	2.8	3.9	2.3
	35.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.2	2.8	3.9	2.3
	37.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.7	2.6	3.8	2.5	3.9	2.3
	39.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.7	2.6	3.8	2.5	3.8	2.3
	42.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.7	2.6	3.8	2.5	3.8	2.3
	44.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.7	2.6	3.8	2.5	3.8	2.3
	46.0	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.7	2.6	3.8	2.5	3.8	2.3
4.5	10.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.9	3.3
	12.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.9	3.3
	14.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.8	3.3
	16.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.6	3.2
	18.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.7	3.3
	20.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.7	3.3
	21.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.6	3.3
	23.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.3	3.7	5.5	3.2
	25.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.2	3.3	5.4	3.2
	27.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.1	3.2	5.2	3.0
	29.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.1	3.2	5.2	3.0
	31.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	5.0	3.1	5.1	2.9
	33.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	4.9	3.1	5.1	2.9
	35.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	4.8	3.0	5.0	2.9
	37.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	4.8	3.1	4.9	2.8
	39.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.6	3.1	4.7	3.1	4.8	2.8
	41.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.6	3.1	4.7	3.1	4.8	2.8
	43.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.6	3.1	4.7	3.1	4.8	2.8
	45.0	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.6	3.1	4.7	3.1	4.8	2.8
5.6	10.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	7.3	3.9
	12.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	7.2	3.8
	14.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	7.1	3.8
	16.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	7.0	3.7
	18.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	6.8	3.7
	20.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	6.7	3.6
	21.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	6.6	3.6
	23.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	6.6	3.5
	25.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.6	3.9	6.5	3.5
	27.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.4	3.8	6.4	3.5
	29.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.3	3.8	6.4	3.6
	31.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.2	3.7	6.2	3.4
	33.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.2	3.7	6.2	3.4
	35.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.0	3.6	6.0	3.4
	37.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	5.9	3.5	6.0	3.4
	39.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.7	3.7	5.8	3.5	6.0	3.4
	41.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.7	3.7	5.8	3.5	6.0	3.4
	43.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.7	3.7	5.8	3.5	6.0	3.4
	45.0	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.7	3.7	5.8	3.5	6.0	3.4
7.1	10.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	9.2	5.0
	12.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	9.1	4.9
	14.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	9.0	4.9
	16.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.9	4.8
	18.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.7	4.7
	20.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.5	4.6
	21.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.4	4.5
	23.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.3	4.5

	25.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.4	4.9	8.2	4.4
	27.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.1	4.7	8.2	4.5
	29.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	8.0	4.7	8.1	4.5
	31.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	7.9	4.6	7.8	4.3
	33.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	7.8	4.6	7.8	4.3
	35.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	7.6	4.5	7.7	4.2
	37.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.4	4.8	7.5	4.5	7.6	4.3
	39.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.2	4.7	7.4	4.4	7.6	4.3
	42.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.2	4.7	7.4	4.4	7.6	4.3
	44.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.2	4.7	7.4	4.4	7.6	4.3
8.0	46.0	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.2	4.7	7.4	4.4	7.6	4.3
	10.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	10.4	5.6
	12.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	10.2	5.5
	14.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	10.2	5.5
	16.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	10.0	5.4
	18.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	9.8	5.3
	20.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	9.6	5.2
	21.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	9.4	5.1
	23.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	9.4	5.1
	25.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.4	4.6	9.3	5.0
	27.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.1	9.1	4.6	9.2	5.1
	29.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.2	9.0	4.7	9.1	5.0
	31.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.2	8.9	4.7	8.8	4.8
	33.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.2	8.8	4.7	8.8	4.8
	35.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.4	5.2	8.6	4.7	8.6	4.8
	37.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.3	5.2	8.4	4.8	8.6	4.9
	39.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.1	5.2	8.3	4.8	8.6	4.9
9.0	42.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.1	5.2	8.3	4.8	8.6	4.9
	44.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.1	5.2	8.3	4.8	8.6	4.9
	46.0	5.5	6.4	6.6	5.9	7.5	5.6	8.0	5.5	8.1	5.2	8.3	4.8	8.6	4.9
	10.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	11.7	6.6
	12.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	11.5	6.5
	14.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	11.4	6.4
	16.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	11.3	6.3
	18.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	11.0	6.3
	20.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	10.8	6.2
	21.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	10.6	6.1
	23.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	10.5	6.0
	25.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.6	6.6	10.4	6.0
	27.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.3	6.4	10.4	5.9
	29.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.1	6.2	10.3	5.8
	31.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	10.0	6.2	9.9	5.7
	33.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	9.9	6.1	9.9	5.7
	35.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.5	6.5	9.6	6.0	9.7	5.7
11.2	37.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.3	6.3	9.5	5.9	9.6	5.8
	39.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.2	6.2	9.4	5.8	9.6	5.8
	42.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.2	6.2	9.4	5.8	9.6	5.8
	44.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.2	6.2	9.4	5.8	9.6	5.8
	46.0	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.2	6.2	9.4	5.8	9.6	5.8
	10.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	15.5	9.0
	12.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	14.4	8.4
	14.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	14.2	8.2
	16.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	14.1	8.2
	18.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	14.0	8.1
	20.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	13.9	8.1
	21.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.3	8.3	13.8	8.0
	23.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.1	8.1	13.7	7.9
	25.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	13.0	8.1	13.6	7.9
	27.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	12.9	8.0	13.4	7.8
	29.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	12.8	7.9	13.3	7.9
	31.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	12.7	7.8	12.8	7.5
	33.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	12.5	7.8	12.5	7.4
	35.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.8	8.0	12.4	7.7	12.3	7.3
	37.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.6	7.9	12.3	7.6	12.1	7.1
	39.0	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.4	7.8	12.2	7.6	11.9	7.1

14.0	42.0	7.7	6.6	9.1	7.2	10.4	7.8	11.2	8.0	11.4	7.8	11.6	7.2	12.0	7.2
	44.0	7.7	6.6	9.1	7.2	10.4	7.8	11.2	8.0	11.4	7.8	11.6	7.2	12.0	7.2
	46.0	7.7	6.6	9.1	7.2	10.4	7.8	11.2	8.0	11.4	7.8	11.6	7.2	12.0	7.2
	10.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	18.2	10.2
	12.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	17.9	10.0
	14.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	17.8	10.0
	16.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	17.5	9.8
	18.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	17.1	9.6
	20.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	16.8	9.4
	21.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.7	10.2	16.5	9.3
	23.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.4	10.2	16.4	9.2
	25.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.2	10.1	16.2	9.1
	27.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.1	10.0	16.1	9.2
	29.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	16.0	9.9	16.0	9.1
	31.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	15.8	9.8	15.4	8.8
	33.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	15.7	9.7	15.4	8.8
	35.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.7	9.7	15.1	9.4	15.1	8.8
	37.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.6	9.6	15.1	9.4	15.0	8.7
	39.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.3	9.4	14.6	9.2	15.0	8.8
	42.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.3	9.4	14.6	9.2	15.0	8.8
	44.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.3	9.4	14.6	9.2	15.0	8.8
	46.0	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.3	9.4	14.6	9.2	15.0	8.8

8.2 Heating

TC: Total capacity WB: Wet-bulb temperature DB: Dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
1.5	-20	-20	0.95	0.95	0.95	0.95	0.95	0.95
	-19	-19	1.02	1.02	1.02	1.02	1.02	1.02
	-17	-17	1.07	1.07	1.07	1.07	1.07	1.07
	-15	-15	1.11	1.11	1.11	1.11	1.11	1.11
	-13	-13	1.17	1.17	1.17	1.17	1.17	1.17
	-11	-11	1.19	1.21	1.21	1.21	1.21	1.21
	-10	-10	1.24	1.24	1.24	1.24	1.24	1.24
	-9.1	-9.1	1.28	1.28	1.28	1.28	1.28	1.28
	-7.6	-7.6	1.29	1.29	1.29	1.29	1.29	1.29
	-5.6	-5.6	1.34	1.34	1.34	1.34	1.34	1.34
	-3.7	-3.7	1.41	1.41	1.41	1.41	1.41	1.41
	-0.7	-0.7	1.51	1.51	1.51	1.51	1.51	1.43
	2.2	2.2	1.60	1.60	1.60	1.60	1.56	1.43
	4.1	4.1	1.65	1.65	1.65	1.65	1.56	1.43
	6	6	1.70	1.70	1.70	1.65	1.56	1.43
	7.9	7.9	1.75	1.75	1.70	1.65	1.56	1.43
2.2	9.8	9.8	1.80	1.80	1.70	1.65	1.56	1.43
	11.8	11.8	1.87	1.84	1.70	1.65	1.56	1.43
	13.7	13.7	1.92	1.84	1.70	1.65	1.56	1.43
	-20.00	-19.80	1.46	1.46	1.46	1.46	1.46	1.46
	-19.00	-18.80	1.56	1.56	1.56	1.56	1.56	1.56
	-17.00	-16.70	1.64	1.64	1.64	1.64	1.64	1.64
	-15.00	-14.70	1.69	1.69	1.69	1.69	1.69	1.69
	-13.00	-12.60	1.79	1.79	1.79	1.79	1.79	1.79
	-11.00	-10.50	1.82	1.85	1.85	1.85	1.85	1.85
	-10.00	-9.50	1.90	1.90	1.90	1.90	1.90	1.90
	-9.10	-8.50	1.95	1.95	1.95	1.95	1.95	1.95
	-7.60	-7.00	1.98	1.98	1.98	1.98	1.98	1.98
	-5.60	-5.00	2.05	2.05	2.05	2.05	2.05	2.05
	-3.70	-3.00	2.16	2.16	2.16	2.16	2.16	2.16
	-0.70	0.00	2.31	2.31	2.31	2.31	2.31	2.18
	2.20	3.00	2.44	2.44	2.44	2.44	2.39	2.18
	4.10	5.00	2.52	2.52	2.52	2.52	2.39	2.18
	6.00	7.00	2.60	2.60	2.60	2.52	2.39	2.18
	7.90	9.00	2.68	2.68	2.60	2.52	2.39	2.18
	9.80	11.00	2.76	2.76	2.60	2.52	2.39	2.18
	11.80	13.00	2.86	2.81	2.60	2.52	2.39	2.18

	13.70	15.00	2.94	2.81	2.60	2.52	2.39	2.18
2.8	-20.00	-19.80	1.79	1.79	1.79	1.79	1.79	1.79
	-19.00	-18.80	1.92	1.92	1.92	1.92	1.92	1.92
	-17.00	-16.70	2.02	2.02	2.02	2.02	2.02	2.02
	-15.00	-14.70	2.02	2.02	2.02	2.02	2.02	2.02
	-13.00	-12.60	2.14	2.14	2.14	2.14	2.14	2.14
	-11.00	-10.50	2.24	2.24	2.24	2.24	2.24	2.24
	-10.00	-9.50	2.34	2.34	2.34	2.34	2.34	2.34
	-9.10	-8.50	2.40	2.40	2.40	2.40	2.40	2.40
	-7.60	-7.00	2.43	2.43	2.43	2.43	2.43	2.43
	-5.60	-5.00	2.53	2.53	2.53	2.53	2.53	2.53
	-3.70	-3.00	2.66	2.66	2.66	2.66	2.66	2.66
	-0.70	0.00	2.85	2.85	2.85	2.85	2.85	2.69
	2.20	3.00	3.01	3.01	3.01	3.01	2.94	2.69
	4.10	5.00	3.10	3.10	3.10	3.10	2.94	2.69
	6.00	7.00	3.20	3.20	3.20	3.10	2.94	2.69
	7.90	9.00	3.30	3.30	3.20	3.10	2.94	2.69
	9.80	11.00	3.39	3.39	3.20	3.10	2.94	2.69
	11.80	13.00	3.52	3.46	3.20	3.10	2.94	2.69
	13.70	15.00	3.62	3.46	3.20	3.10	2.94	2.69
3.6	-20.00	-19.80	2.24	2.24	2.24	2.24	2.24	2.24
	-19.00	-18.80	2.40	2.40	2.40	2.40	2.40	2.4
	-17.00	-16.70	2.52	2.52	2.52	2.52	2.52	2.52
	-15.00	-14.70	2.60	2.60	2.60	2.60	2.60	2.60
	-13.00	-12.60	2.68	2.68	2.68	2.68	2.68	2.68
	-11.00	-10.50	2.80	2.80	2.80	2.80	2.80	2.80
	-10.00	-9.50	2.92	2.92	2.92	2.92	2.92	2.92
	-9.10	-8.50	3.00	3.00	3.00	3.00	3.00	3.00
	-7.60	-7.00	3.04	3.04	3.04	3.04	3.04	3.04
	-5.60	-5.00	3.16	3.16	3.16	3.16	3.16	3.16
	-3.70	-3.00	3.32	3.32	3.32	3.32	3.32	3.32
	-0.70	0.00	3.56	3.56	3.56	3.56	3.56	3.36
	2.20	3.00	3.76	3.76	3.76	3.76	3.68	3.36
	4.10	5.00	3.88	3.88	3.88	3.88	3.68	3.36
	6.00	7.00	4.00	4.00	4.00	3.88	3.68	3.36
	7.90	9.00	4.12	4.12	4.00	3.88	3.68	3.36
	9.80	11.00	4.24	4.24	4.00	3.88	3.68	3.36
	11.80	13.00	4.4	4.32	4.00	3.88	3.68	3.36
	13.70	15.00	4.52	4.32	4.00	3.88	3.68	3.36
4.5	-20.00	-19.80	2.80	2.80	2.80	2.80	2.80	2.80
	-19.00	-18.80	3.00	3.00	3.00	3.00	3.00	3.00
	-17.00	-16.70	3.15	3.15	3.15	3.15	3.15	3.15
	-15.00	-14.70	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.45	3.45	3.45	3.45	3.45	3.45
	-11.00	-10.50	3.50	3.55	3.55	3.55	3.55	3.55
	-10.00	-9.50	3.65	3.65	3.65	3.65	3.65	3.65
	-9.10	-8.50	3.75	3.75	3.75	3.75	3.75	3.75
	-7.60	-7.00	3.80	3.80	3.80	3.80	3.80	3.80
	-5.60	-5.00	3.95	3.95	3.95	3.95	3.95	3.95
	-3.70	-3.00	4.15	4.15	4.15	4.15	4.15	4.15
	-0.70	0.00	4.45	4.45	4.45	4.45	4.45	4.20
	2.20	3.00	4.70	4.70	4.70	4.70	4.60	4.20
	4.10	5.00	4.85	4.85	4.85	4.85	4.60	4.20
	6.00	7.00	5.00	5.00	5.00	4.85	4.60	4.20
	7.90	9.00	5.15	5.15	5.00	4.85	4.60	4.20
	9.80	11.00	5.30	5.30	5.00	4.85	4.60	4.20
	11.80	13.00	5.50	5.40	5.00	4.85	4.60	4.20
	13.70	15.00	5.65	5.40	5.00	4.85	4.60	4.20
5.6	-20.00	-19.80	3.53	3.53	3.53	3.53	3.53	3.53
	-19.00	-18.80	3.78	3.78	3.78	3.78	3.78	3.78
	-17.00	-16.70	3.97	3.97	3.97	3.97	3.97	3.97
	-15.00	-14.70	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.35	4.35	4.35	4.35	4.35	4.35
	-11.00	-10.50	4.41	4.47	4.47	4.47	4.47	4.47
	-10.00	-9.50	4.60	4.60	4.60	4.60	4.60	4.60

	-9.10	-8.50	4.73	4.73	4.73	4.73	4.73	4.73
	-7.60	-7.00	4.79	4.79	4.79	4.79	4.79	4.79
	-5.60	-5.00	4.98	4.98	4.98	4.98	4.98	4.98
	-3.70	-3.00	5.23	5.23	5.23	5.23	5.23	5.23
	-0.70	0.00	5.61	5.61	5.61	5.61	5.61	5.29
	2.20	3.00	5.92	5.92	5.92	5.92	5.80	5.29
	4.10	5.00	6.11	6.11	6.11	6.11	5.80	5.29
	6.00	7.00	6.30	6.30	6.30	6.11	5.80	5.29
	7.90	9.00	6.49	6.49	6.30	6.11	5.80	5.29
	9.80	11.00	6.68	6.68	6.30	6.11	5.80	5.29
	11.80	13.00	6.93	6.80	6.30	6.11	5.80	5.29
	13.70	15.00	7.12	6.80	6.30	6.11	5.80	5.29
7.1	-20.00	-19.80	4.48	4.48	4.48	4.48	4.48	4.48
	-19.00	-18.80	4.80	4.80	4.80	4.80	4.80	4.80
	-17.00	-16.70	5.04	5.04	5.04	5.04	5.04	5.04
	-15.00	-14.70	5.20	5.20	5.20	5.20	5.20	5.20
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.60	5.60	5.60	5.60	5.60	5.60
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6.00	6.00	6.00	6.00	6.00	6.00
	-7.60	-7.00	6.08	6.08	6.08	6.08	6.08	6.08
	-5.60	-5.00	6.32	6.32	6.32	6.32	6.32	6.32
	-3.70	-3.00	6.64	6.64	6.64	6.64	6.64	6.64
	-0.70	0.00	7.12	7.12	7.12	7.12	7.12	6.72
	2.20	3.00	7.52	7.52	7.52	7.52	7.36	6.72
	4.10	5.00	7.76	7.76	7.76	7.76	7.36	6.72
	6.00	7.00	8.00	8.00	8.00	7.76	7.36	6.72
	7.90	9.00	8.24	8.24	8.00	7.76	7.36	6.72
	9.80	11.00	8.48	8.48	8.00	7.76	7.36	6.72
	11.80	13.00	8.8	8.64	8.00	7.76	7.36	6.72
	13.70	15.00	9.04	8.64	8.00	7.76	7.36	6.72
8.0	-20	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19	-18.8	5.40	5.40	5.40	5.40	5.40	5.40
	-17	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13.00	-12.60	6.21	6.21	6.21	6.21	6.21	6.21
	-11.00	-10.50	6.30	6.39	6.39	6.39	6.39	6.39
	-10.00	-9.50	6.57	6.57	6.57	6.57	6.57	6.57
	-9.10	-8.50	6.75	6.75	6.75	6.75	6.75	6.75
	-7.60	-7.00	6.84	6.84	6.84	6.84	6.84	6.84
	-5.60	-5.00	7.11	7.11	7.11	7.11	7.11	7.11
	-3.70	-3.00	7.47	7.47	7.47	7.47	7.47	7.47
	-0.70	0.00	8.01	8.01	8.01	8.01	8.01	7.56
	2.20	3.00	8.46	8.46	8.46	8.46	8.28	7.56
	4.10	5.00	8.73	8.73	8.73	8.73	8.28	7.56
	6.00	7.00	9.00	9.00	9.00	8.73	8.28	7.56
	7.90	9.00	9.27	9.27	9.00	8.73	8.28	7.56
	9.80	11.00	9.54	9.54	9.00	8.73	8.28	7.56
	11.80	13.00	9.90	9.72	9.00	8.73	8.28	7.56
	13.70	15.00	10.17	9.72	9.00	8.73	8.28	7.56
9.0	-20	-19.8	5.60	5.60	5.60	5.60	5.60	5.60
	-19	-18.8	6.00	6.00	6.00	6.00	6.00	6.00
	-17	-16.7	6.30	6.30	6.30	6.30	6.30	6.30
	-15	-14.7	6.50	6.50	6.50	6.50	6.50	6.50
	-13.00	-12.60	6.90	6.90	6.90	6.90	6.90	6.90
	-11.00	-10.50	7.00	7.10	7.10	7.10	7.10	7.10
	-10.00	-9.50	7.30	7.30	7.30	7.30	7.30	7.30
	-9.10	-8.50	7.50	7.50	7.50	7.50	7.50	7.50
	-7.60	-7.00	7.60	7.60	7.60	7.60	7.60	7.60
	-5.60	-5.00	7.90	7.90	7.90	7.90	7.90	7.90
	-3.70	-3.00	8.30	8.30	8.30	8.30	8.30	8.30
	-0.70	0.00	8.90	8.90	8.90	8.90	8.90	8.40
	2.20	3.00	9.40	9.40	9.40	9.40	9.20	8.40
	4.10	5.00	9.70	9.70	9.70	9.70	9.20	8.40
	6.00	7.00	10.00	10.00	10.00	9.70	9.20	8.40

	7.90	9.00	10.30	10.30	10.00	9.70	9.20	8.40
	9.80	11.00	10.60	10.60	10.00	9.70	9.20	8.40
	11.80	13.00	11.00	10.80	10.00	9.70	9.20	8.40
	13.70	15.00	11.30	10.80	10.00	9.70	9.20	8.40
11.2	-20	-19.8	7.00	7.00	7.00	7.00	7.00	7.00
	-19	-18.8	7.50	7.50	7.50	7.50	7.50	7.50
	-17	-16.7	7.88	7.88	7.88	7.88	7.88	7.88
	-15	-14.7	8.13	8.13	8.13	8.13	8.13	8.13
	-13.00	-12.60	8.63	8.63	8.63	8.63	8.63	8.63
	-11.00	-10.50	8.75	8.88	8.88	8.88	8.88	8.88
	-10.00	-9.50	9.13	9.13	9.13	9.13	9.13	9.13
	-9.10	-8.50	9.38	9.38	9.38	9.38	9.38	9.38
	-7.60	-7.00	9.50	9.50	9.50	9.50	9.50	9.50
	-5.60	-5.00	9.88	9.88	9.88	9.88	9.88	9.88
	-3.70	-3.00	10.38	10.38	10.38	10.38	10.38	10.38
	-0.70	0.00	11.13	11.13	11.13	11.13	11.13	10.50
	2.20	3.00	11.75	11.75	11.75	11.75	11.50	10.50
	4.10	5.00	12.13	12.13	12.13	12.13	11.50	10.50
	6.00	7.00	12.50	12.50	12.50	12.13	11.50	10.50
	7.90	9.00	12.88	12.88	12.50	12.13	11.50	10.50
	9.80	11.00	13.25	13.25	12.50	12.13	11.50	10.50
	11.80	13.00	13.75	13.50	12.50	12.13	11.50	10.50
	13.70	15.00	14.13	13.50	12.50	12.13	11.50	10.50
14.0	-20	-19.8	8.68	8.68	8.68	8.68	8.68	8.68
	-19	-18.8	9.30	9.30	9.30	9.30	9.30	9.30
	-17	-16.7	9.77	9.77	9.77	9.77	9.77	9.77
	-15	-14.7	10.08	10.08	10.08	10.08	10.08	10.08
	-13.00	-12.60	10.70	10.70	10.70	10.70	10.70	10.70
	-11.00	-10.50	10.85	11.01	11.01	11.01	11.01	11.01
	-10.00	-9.50	11.32	11.32	11.32	11.32	11.32	11.32
	-9.10	-8.50	11.63	11.63	11.63	11.63	11.63	11.63
	-7.60	-7.00	11.78	11.78	11.78	11.78	11.78	11.78
	-5.60	-5.00	12.25	12.25	12.25	12.25	12.25	12.25
	-3.70	-3.00	12.87	12.87	12.87	12.87	12.87	12.87
	-0.70	0.00	13.80	13.80	13.80	13.80	13.80	13.02
	2.20	3.00	14.57	14.57	14.57	14.57	14.26	13.02
	4.10	5.00	15.04	15.04	15.04	15.04	14.26	13.02
	6.00	7.00	15.50	15.50	15.50	15.04	14.26	13.02
	7.90	9.00	15.97	15.97	15.50	15.04	14.26	13.02
	9.80	11.00	16.43	16.43	15.50	15.04	14.26	13.02
	11.80	13.00	17.05	16.74	15.50	15.04	14.26	13.02
	13.70	15.00	17.52	16.74	15.50	15.04	14.26	13.02

9. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MVD-15T2/DHN1-DA5	50/60	220-240	187	264	0.25	15	0.016	0.2
MVD-22T2/DHN1-DA5	50/60	220-240	187	264	0.375	15	0.017	0.3
MVD-28T2/DHN1-DA5	50/60	220-240	187	264	0.375	15	0.017	0.3
MVD-36T2/DHN1-DA5	50/60	220-240	187	264	0.375	15	0.02	0.3
MVD-45T2/DHN1-DA5	50/60	220-240	187	264	0.5	15	0.028	0.4
MVD-56T2/DHN1-DA5	50/60	220-240	187	264	0.5	15	0.034	0.4
MVD-71T2/DHN1-DA5	50/60	220-240	187	264	0.5	15	0.034	0.4
MVD-80T2/DHN1-BA5	50/60	220-240	187	264	0.75	15	0.048	0.6
MVD-90T2/DHN1-BA5	50/60	220-240	187	264	0.75	15	0.048	0.6
MVD-112T2/DHN1-BA5	50/60	220-240	187	264	1.75	15	0.135	1.4
MVD-140T2/DHN1-BA5	50/60	220-240	187	264	1.125	15	0.113	0.9

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

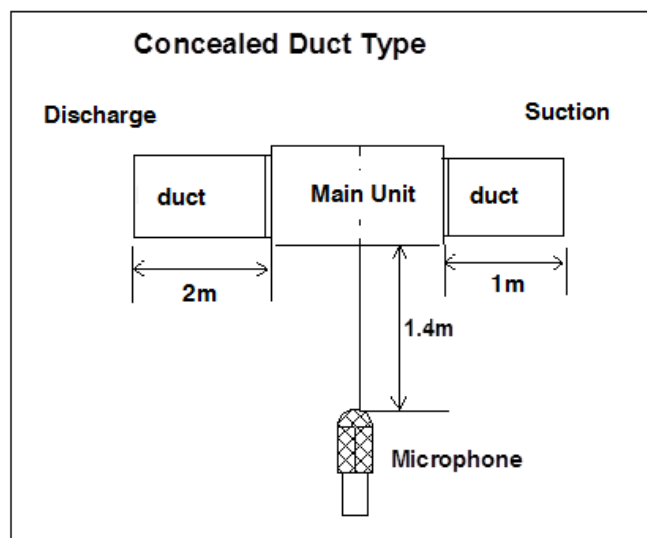
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

10. Sound Levels

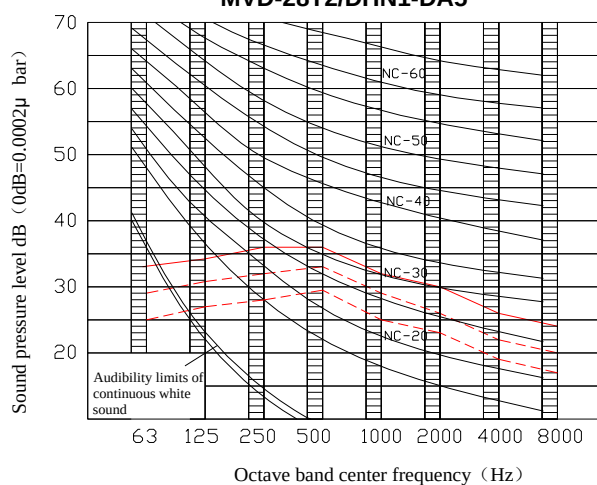
10.1 Test condition



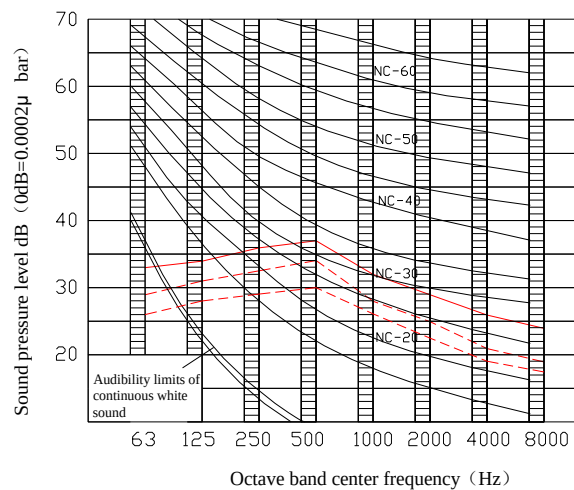
10.2 Test value

Model	Sound test value dB(A)		
	H	M	L
MVD-15T2/DHN1-DA5	35	33	31
MVD-22T2/DHN1-DA5	35	34	31
MVD-28T2/DHN1-DA5	36	34	31
MVD-36T2/DHN1-DA5	37	36	33
MVD-45T2/DHN1-DA5	38	37	33
MVD-56T2/DHN1-DA5	38	37	33
MVD-71T2/DHN1-DA5	40	38	34
MVD-80T2/DHN1-BA5	44	38	37
MVD-90T2/DHN1-BA5	44	38	37
MVD-112T2/DHN1-BA5	47	41	37
MVD-140T2/DHN1-BA5	47	42	38

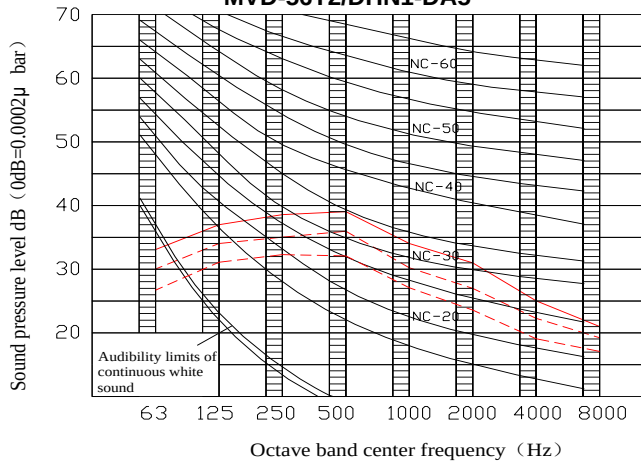
MVD-15T2/DHN1-DA5
MVD-22T2/DHN1-DA5
MVD-28T2/DHN1-DA5



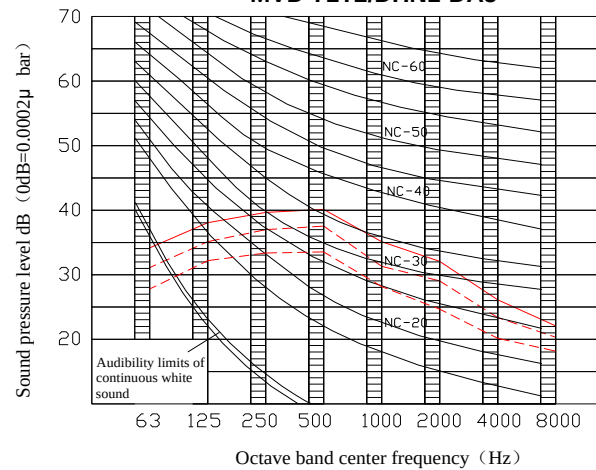
MVD-36T2/DHN1-DA5



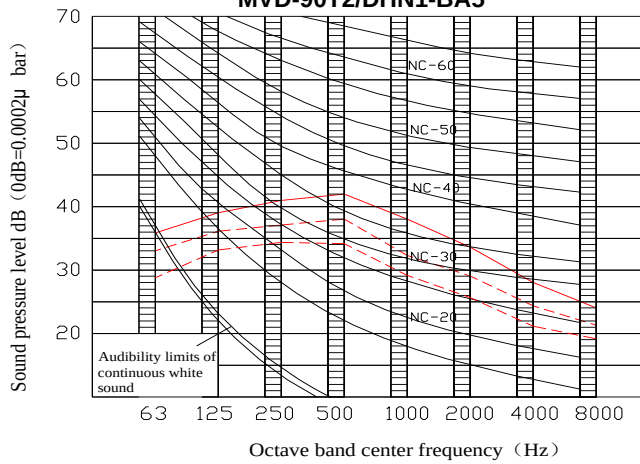
MVD-45T2/DHN1-DA5
MVD-56T2/DHN1-DA5



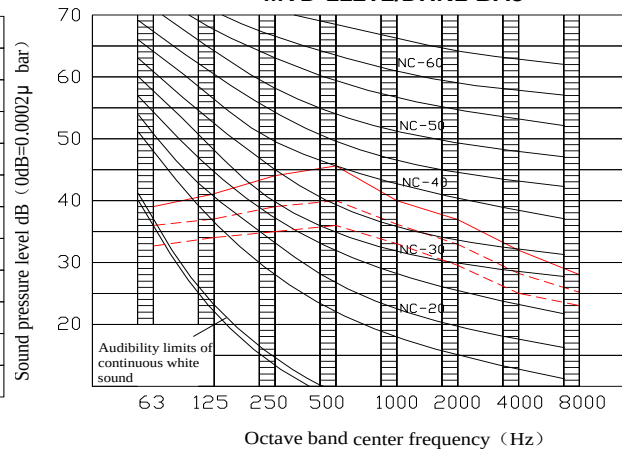
MVD-71T2/DHN1-DA5



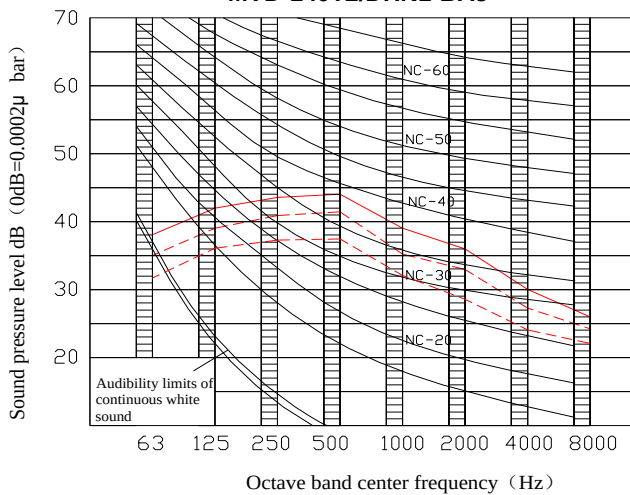
MVD-80T2/DHN1-BA5
MVD-90T2/DHN1-BA5



MVD-112T2/DHN1-BA5



MVD-140T2/DHN1-BA5



11. Accessories

11.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	This manual	/
Wire controller	1		Wire control the air-conditioner
Pipe insulation material	2		Heat insulation
Water outlet joint	1		For drainage
Clasp	1		Chuckling the joint which connect the drain hose and the outlet of indoor unit
Network matching wire	1		The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q
Copper nut	1		Use for pipe connection of engineering installation
Sponge	1	/	Sponge seal strip



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ASK FOR MORE INFORMATION

Phone: (+34) 93 446 27 81

eMail: info@mundoclima.com

TECHNICAL ASSISTANCE

Phone: (+34) 93 652 53 57

www.mundoclima.com