

High static pressure duct unit

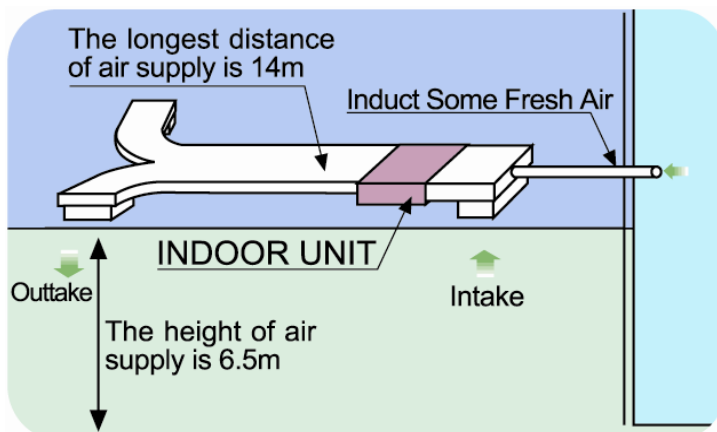
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1. Features

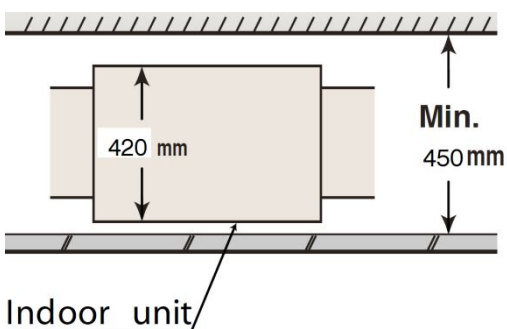
1.1 High static pressure allows flexible duct design



1.1.1 External static pressure of Indoor Unit can be up to 250 Pa, which allows extensive duct work for flexible applications. So the cool air can be delivered to each corner even in a super-high ceiling.



1.1.2 With 420mm (71~160 model) thickness body, the minimum distance above the ceiling is 450mm.



1.2 Wide capacity range

—The capacity ranges from 7.1KW to 56.0KW, totally 12 models.

1.3 Four speeds fan motor(Medium Hi speed as an option) * (for 71~160 model).

Three speeds fan motor (for 400~560 model).

1.4 Two external static pressure settings for added flexibility

Just exchange the wiring connection of 'MH' and 'Me'. P2 and P3 as the right side diagram. *(for 71~160 model)

1.5 Convenient installation

1.5.1 The EXV is fixed inside the indoor unit ((for 71~160 model), no need extra connection.

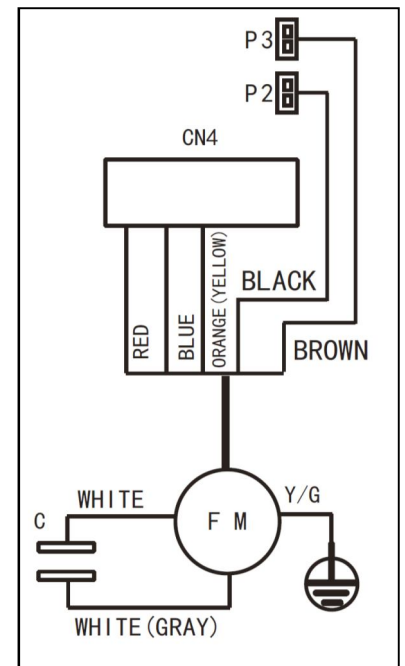
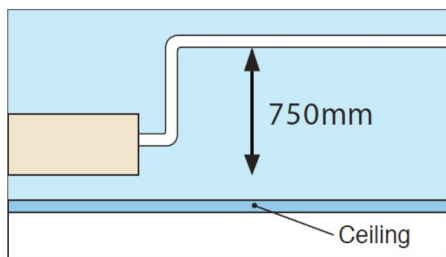
1.5.2 Standard filter with aluminum frame, which is removable downward from bottom.

1.5.3. Air plenum is included as standard equipment.

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

1.5.5 Optional drain pump * (for 71~160 model).

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



1.5.6 Easy to access the motor and do the maintenance. Possible to replace the motor without removing the whole unit.

1.5.7 Integrated electrical control box structure which is convenient for maintenance and installation.

1.6 Flexible control and convenient for maintenance

1.6.1 Standard wired remote controller KJR-29B1/BK-E, and wireless remote controller RM05/BG(T)E-A is as an option.

1.6.2 For 71~160 model, the display board is connected with the E-box in factory, which makes

trouble-shooting easier by LED display. For 400~560 model, it owns new display transfer board. It is used in the indoor unit to collect the information of the control boards. The malfunction code and running state will display on the board.

1.6.3 Standard functional port such as remote On/Off dry contact.

2. Specifications

Model			MDV-D71T1/N1-B	MDV-D80T1/N1-B	MDV-D90T1/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	7.1	8.0	9.0
	Input	W	263	263	423
	Rated current	A	1.1	1.1	1.8
Heating	Capacity	kW	8.0	9.0	10.0
	Input	W	263	263	423
	Rated current	A	1.1	1.1	1.8
Max. input consumption		W	269	269	437
Max. current		A	1.23	1.23	1.87
Indoor fan motor	Model		YDK100-4X-2	YDK100-4X-2	YDK160-4C
	Type		AC Motor		
	Brand		Yong An	Yong An	WELLING
	Input	W	240	240	375
	Capacitor	μF	12	12	10
	Speed (h/m/l)	r/min	990/940/900	990/940/900	1335/1290/1235
Indoor coil	Number of rows		2	2	3
	Tube pitch(a) × row pitch(b)	mm	25.4×22	25.4×22	25.4×22
	Fin spacing	mm	1.5	1.5	1.6
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ9.52 inner groove tube		
	length× height× width	mm	700×356×44	700×356×44	700×356×66
	Number of circuits		3	3	7
Indoor air flow (H/M/L)		m ³ /h	1400/1330/1210	1400/1330/1210	1940/1830/1515
Indoor external static pressure (H)		Pa	40(30~ 196)	40(30~ 196)	40(30~ 196)
Indoor noise level (H/M/L)		dB(A)	48/46/44	48/46/44.5	52/49/47
Indoor unit	Dimension (W×H×D)		952×420×690	952×420×690	952×420×690
	Packing (W×H×D)		1090×440×768	1090×440×768	1090×440×768
	Net/Gross weight		45/50	45/50	46.5/52.4
Refrigerant type			R410A		
Throttle	Type		EXV		
	Model		BD20FKS (Winding: DZF20XQ-1000-XHP-6)		
Design pressure (H/L)		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.53/ Φ15.9	Φ9.53/ Φ15.9	Φ9.53/ Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	mm ²	3×0.75		
Drainage water pipe diameter			OD Φ32		
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 air temperature: 35°CDB, equivalent ref. Piping: 8m(horizontal)

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

Model			MDV-D112T1/N1-B	MDV-D140T1/N1-B	MDV-D160T1/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	11.2	14	16
	Input	W	524	724	940
	Rated current	A	2.3	2.7	3.6
Heating	Capacity	kW	12.5	16	17
	Input	W	524	724	940
	Rated current	A	2.3	2.7	3.6
Max. input consumption		W	528	728	945
Max. current		A	2.3	2.85	4.77
Indoor fan motor	Model		YSK200-4F-1	YSK300-4C-1	YSK400-4C-2
	Type		AC MOTOR		
	Brand		WELLING	YongAn	YongAn
	Input	W	490	720	930
	Capacitor	μF	15	12	15
	Speed (h/m/l)	r/min	1000/930/774	860/760/670	1080/920/850
Indoor coil	Number of rows		3	4	4
	Tube pitch(a) ×row pitch(b)	mm	25.4×22	25.4×22	25.4×22
	Fin spacing	mm	1.6	1.6	1.6
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ9.52 inner groove tube		
	length× height× width	mm	700×356×66	996×355.6×88	996×355.6×88
	Number of circuits		7	7	7
Indoor air flow (H/M/L)		m ³ /h	2115/1940/1520	3000/2615/2230	3620/3060/2740
Indoor external static pressure (H)		Pa	50(30~ 196)	50(30~ 196)	50(30~ 196)
Indoor noise level (H/M/L)		dB(A)	52/49/47	53/50/48	54/52/50
Indoor unit	Dimension (W×H×D)	mm	952×420×690	1200×400×600	1200×400×600
	Packing (W×H×D)	mm	1090×440×768	1436×450×768	1436×450×768
	Net/Gross weight	kg	50.6/56	68/70	70/77.5
Refrigerant type		R410A			
Throttle	Type	EXV			
	Model	BD20FKS, (Winding: DZF20XQ-1000-XHP-6)			
Design pressure(H/L)		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.53/ Φ15.9	Φ9.53/ Φ15.9	Φ9.53/ Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	mm ²	3×0.75		
Drainage water pipe diameter		OD Φ32			
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 air temperature:35°CDB,equivalent ref. Piping: 8m(horizontal)

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

Model			MDV-D200T1/N1-B	MDV-D250T1/N1-B	MDV-D280T1/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	20.0	25.0	28.0
	Input	W	1516	1516	1516
	Rated current	A	6.6	6.6	6.6
Heating	Capacity	kW	22.5	26.0	31.5
	Input	W	1516	1516	1516
	Rated current	A	6.6	6.6	6.6
Max. input consumption		W	1978	1978	1978
Max. current		A	8.6	8.6	8.6
Indoor fan motor	Model		YDK550-4X (×2)	YDK550-4X (×2)	YDK550-4X (×2)
	Type		AC Motor		
	Brand		Man Qi Wei	Man Qi Wei	Man Qi Wei
	Input	W	916/800/675(×2)	916/800/675(×2)	916/800/675(×2)
	Capacitor	μF	15(×2)	15(×2)	15(×2)
	Speed (h/m/l)	r/min	1200/1065/925(×2)	1200/1065/925(×2)	1200/1065/925(×2)
Indoor coil	Number of rows		4	4	4
	Tube pitch(a) ×row	mm	25.4×22	25.4×22	25.4×22
	Fin spacing	mm	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ9.52 inner groove tube		
	length× height × width	mm	1125×508×88	1125×508×88	1125×512×88
	Number of circuits		20	20	20
Indoor air flow (H/M/L)		m ³ /h	4665/4320/3625	4665/4320/3625	4665/4320/3625
Indoor external static pressure (H)		Pa	140(50~250)	140(50~250)	140(50~250)
Indoor noise level (H/M/L)		dB(A)	59/55/52	59/55/52	59/55/52
Indoor unit	Dimension (W×H×D)		1443×470×810	1443×470×810	1443×470×810
	Packing (W×H×D)		1509×550×990	1509×550×990	1509×550×990
	Net/Gross weight		115/129	115/129	115/129
Refrigerant type			R410A		
Throttle	Type		EXV (2 sets throttle boxes each unit)		
	Model		BD24FKS(L) (Winding: PXR-6-L400-XHP6R/AMP6BL-P)		
Design pressure(H/L)		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.53/ Φ19.1 (×2)	Φ9.53/ Φ22.2(×2)	Φ9.53/ Φ22.2(×2)
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	mm ²	3×0.75		
Drainage water pipe diameter			OD Φ32		
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 air temperature:35°CDB,equivalent ref. Piping: 8m(horizontal).

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

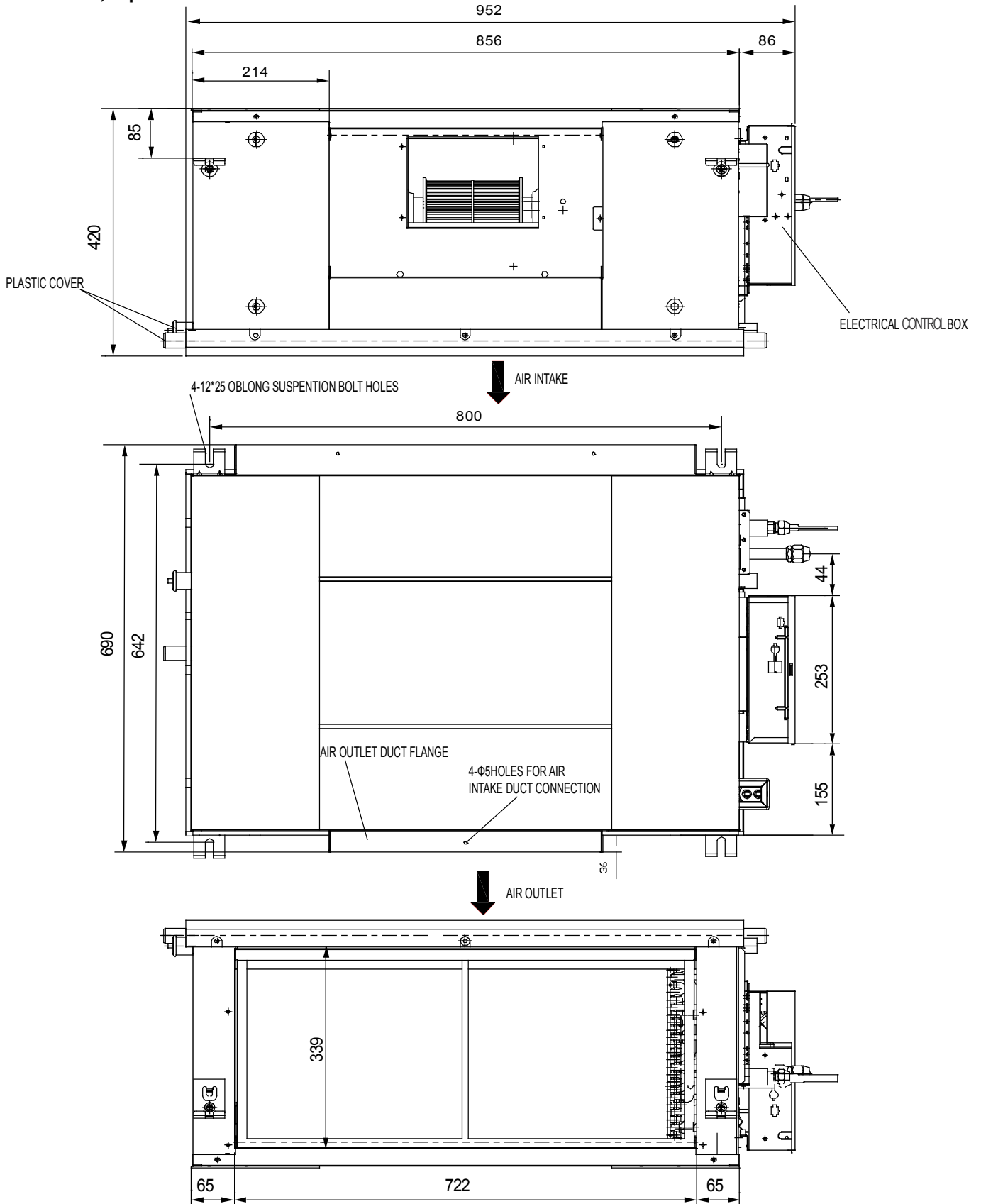
Model			MDV-D400T1/N1	MDV-D450T1/N1	MDV-D560T1/N1
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	40.0	45.0	56.0
	Input	W	2700	2700	3400
	Rated current	A	12.5	12.5	15.5
Heating	Capacity	kW	45	50.0	63.0
	Input	W	2700	2700	3400
	Rated current	A	12.5	12.5	15.5
Max. input consumption		W	2700	2700	3400
Max. current		A	13.5	13.5	15.5
Indoor fan motor	Model		YDK550-4X (×3)	YDK550-4X (×3)	YDK550-4X (×3)
	Type		AC Motor		
	Brand		Yong An		
	Input	W	916/800/675(×3)	916/800/675(×3)	1130/990/850(×3)
	Capacitor	μF	15(×3)	15(×3)	15(×3)
	Speed (h/m/l)	r/min	1200/1065/935(×3)	1200/1065/935(×3)	1280/1135/975(×3)
Indoor coil	Number of rows		5	5	5
	Tube pitch(a) × row	mm	21×13.37	21×13.37	21×13.37
	Fin spacing	mm	1.5	1.5	1.5
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ7 Inner groove tube		
	length× height× width	mm	1602×588×67	1602×588×67	1602×588×67
	Number of circuits		28	28	28
Indoor air flow (H/M/L)		m ³ /h	7490/6120/5050	7490/6120/5050	9625/8050/6630
Indoor external static pressure (H)		Pa	196(50~250)	196(50~250)	196(50~250)
Indoor noise level (H/M/L)		dB(A)	61/59/56	61/59/56	63/60/57
Indoor unit	Dimension (W×H×D)	mm	1970×668×858.5	1970×668×858.5	1970×668×858.5
	Packing (W×H×D)	mm	2095×800×964	2095×800×964	2095×800×964
	Net/Gross weight	kg	232/245	232/245	232/245
Refrigerant type			R410A		
Throttle	Type	EXV (4 sets throttle boxes each unit)			
	Model	BD24FKS(L)			
Design pressure(H/L)		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ12.7/ Φ28.6(×2)	Φ12.7/ Φ28.6(×2)	Φ15.9/ Φ28.6(×2)
Connecting wiring	Power wiring	mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	mm ²	3×0.75		
Drainage water pipe diameter			OD Φ32		
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 air temperature:35°CDB,equivalent ref. Piping: 8m(horizontal).

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

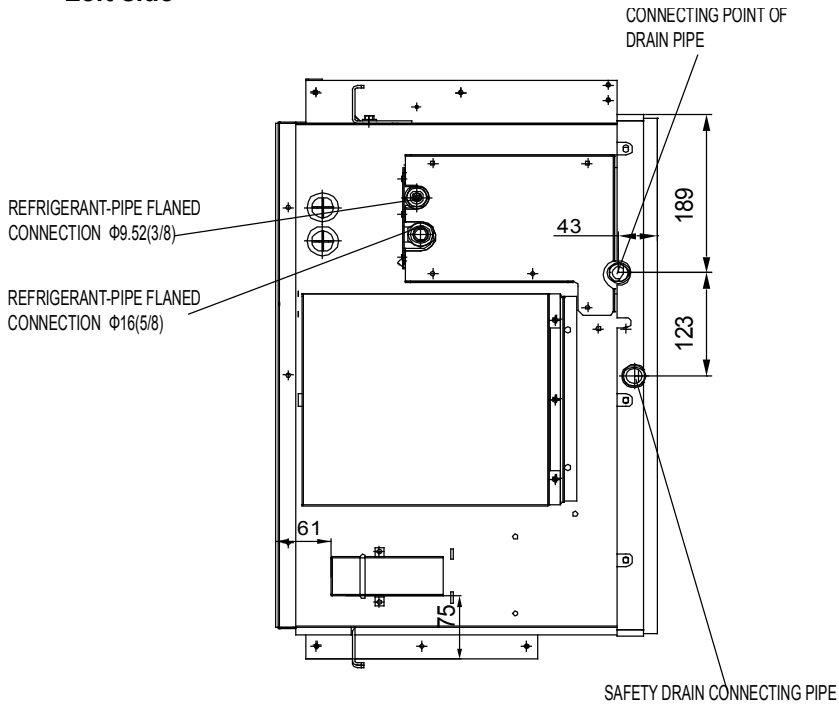
3. Dimensions

MDV-D71T1/N1-B MDV-D80T1/N1-B MDV-D90T1/N1-B MDV-D112T1/N1-B
Front view, top view and rear view:

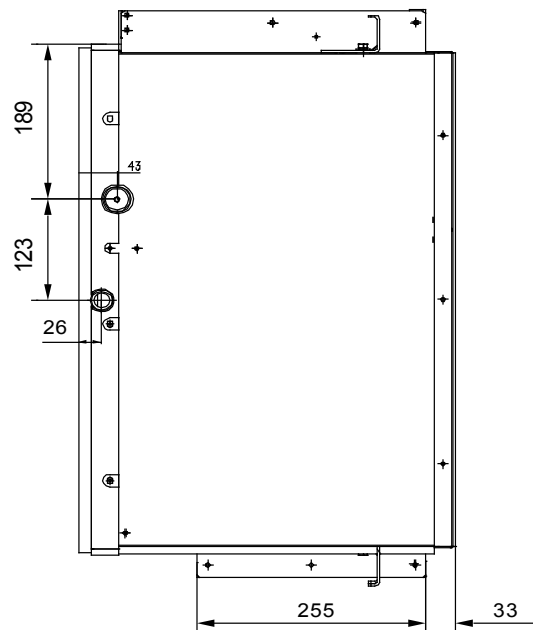


Side view:

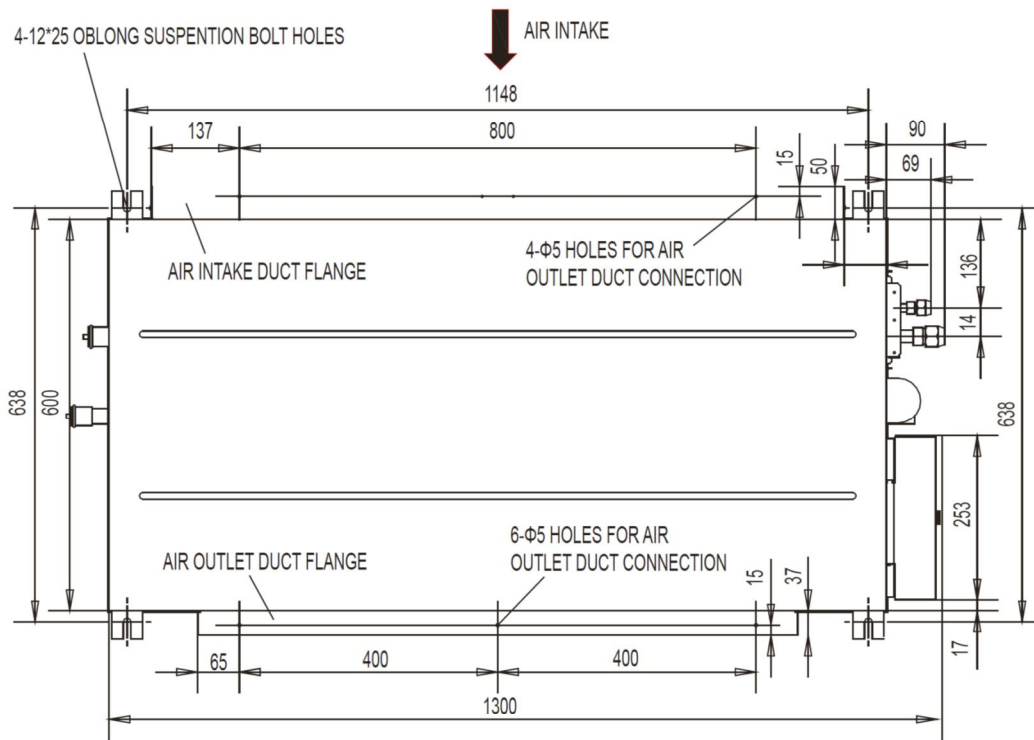
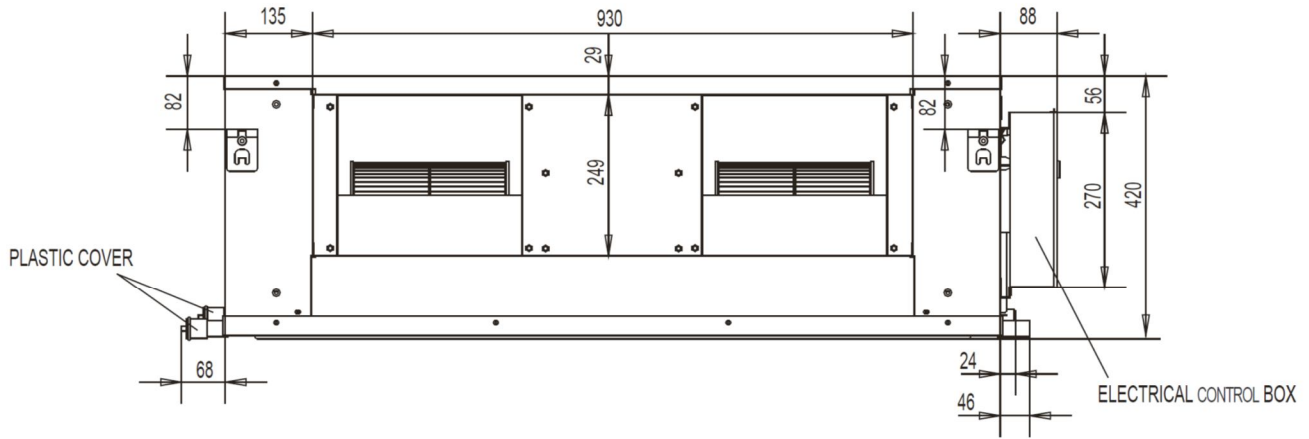
• **Left side**



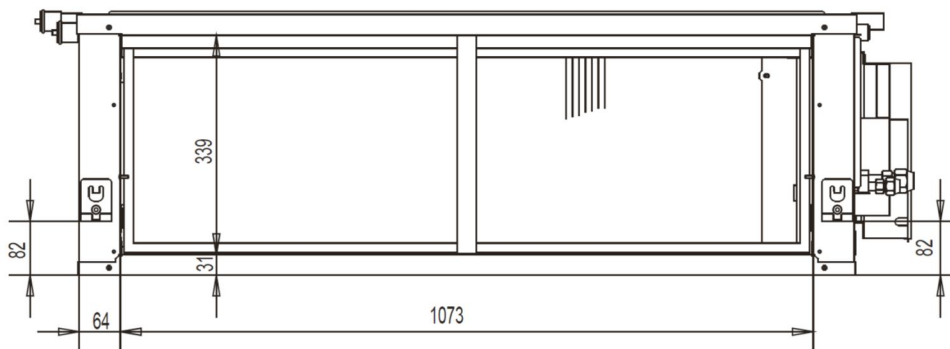
• **Right side**



MDV-D140T1/N1-B MDV-D160T1/N1-B
Front view, top view and rear view:

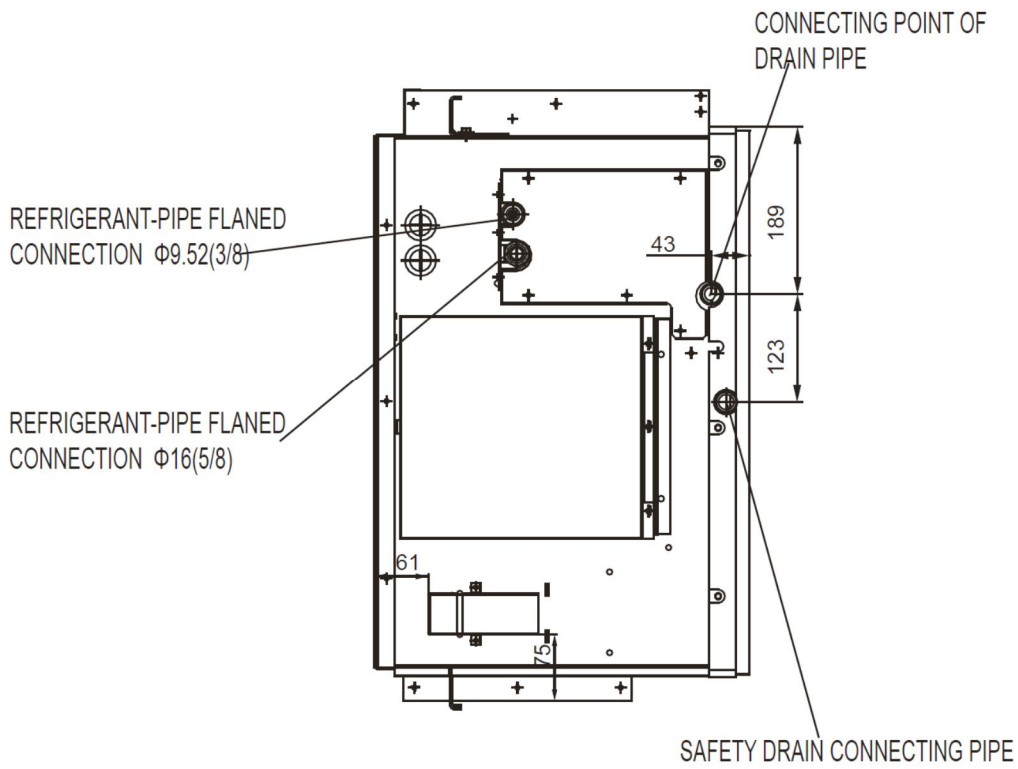


↓ AIR OUTLET

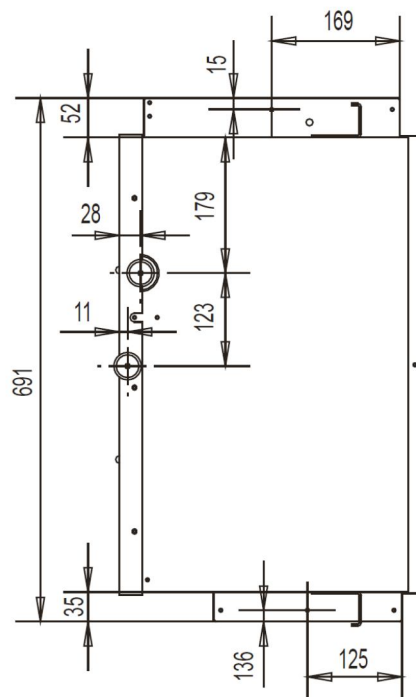


Side view:

- **Left side**

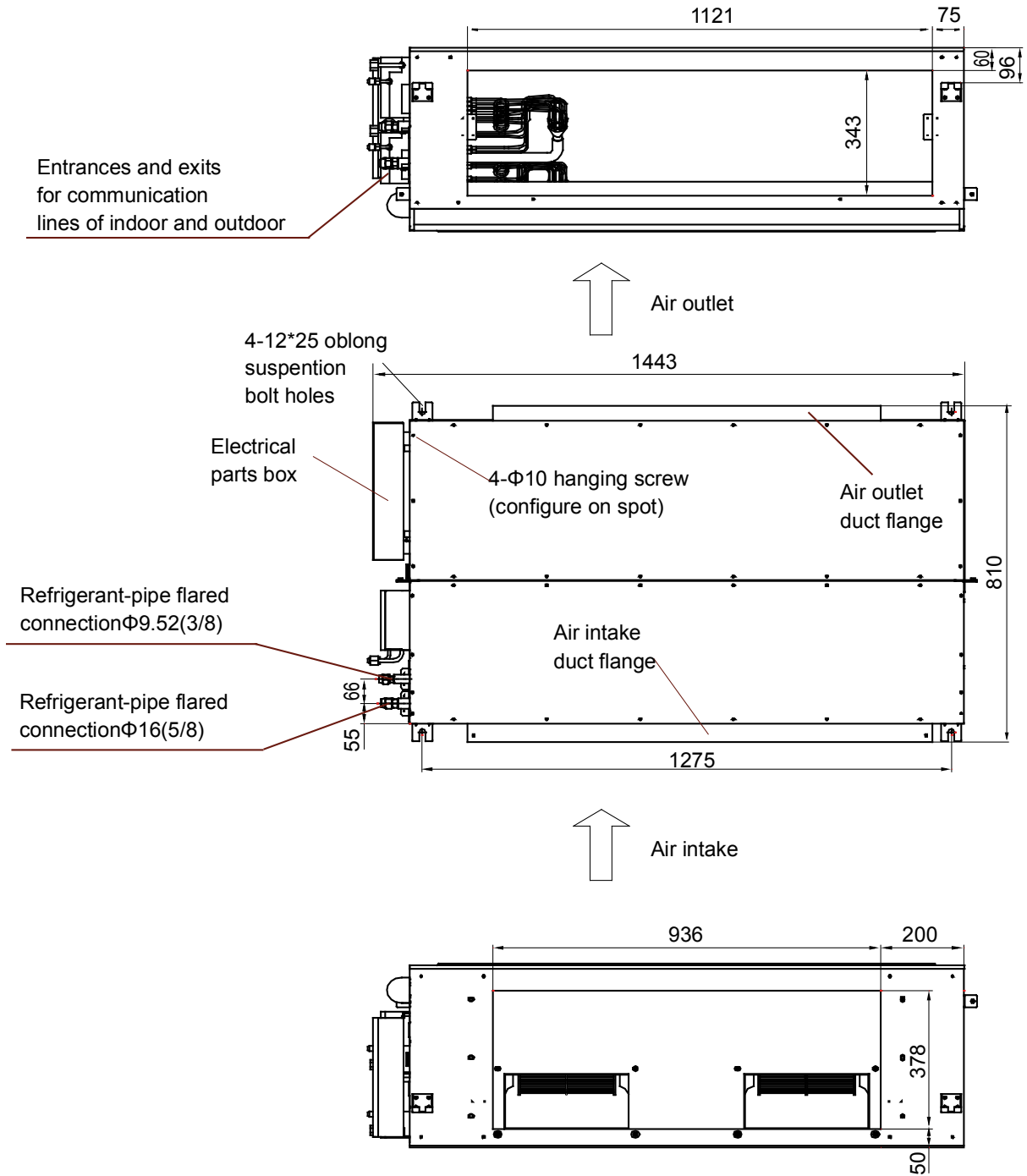


- **Right side**

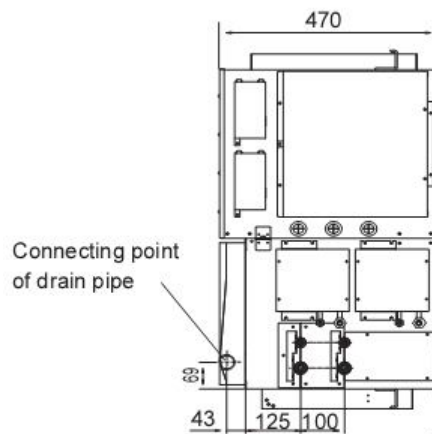


MDV-D200T1/N1-B MDV-D250T1/N1-B MDV-D280T1/N1-B

Front view, top view and rear view:

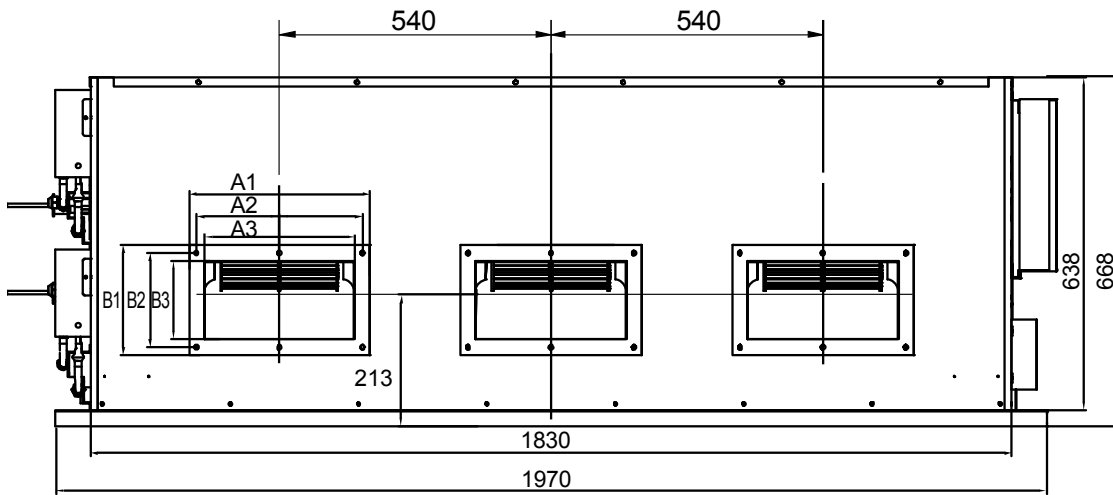


Side view:



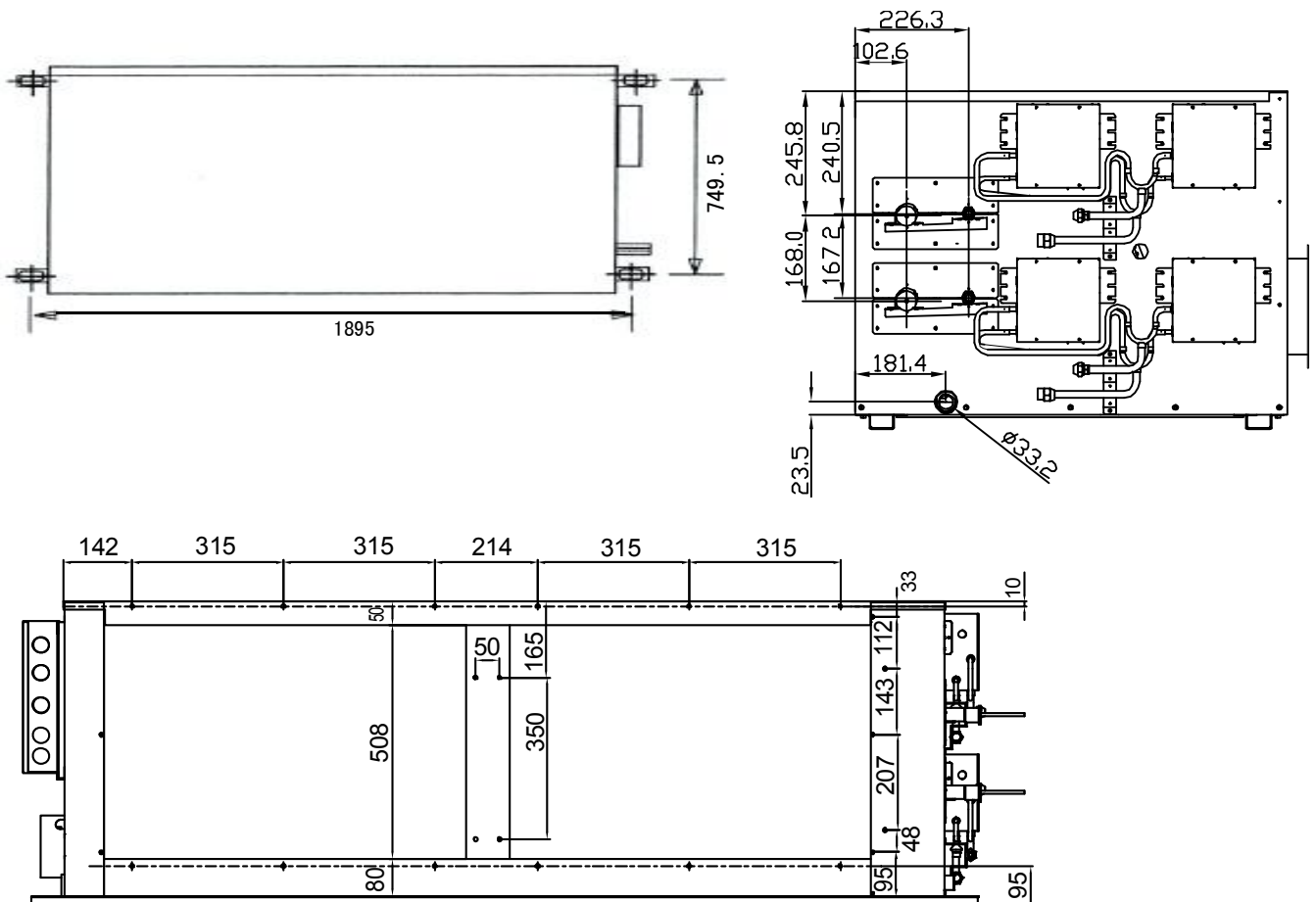
MDV-D400T1/N1 MDV-D450T1/N1 MDV-D560T1/N1

Unit: mm



Front View (Air supply outlet)

	MDV-D400T1/N1 (50Hz)	MDV-D450T1/N1 (50Hz)	MDV-D560T1/N1 (50Hz)
A1	360	360	394
A2	330	330	364
A3	300	300	334
B1	210	210	247
B2	180	180	217
B3	150	150	187



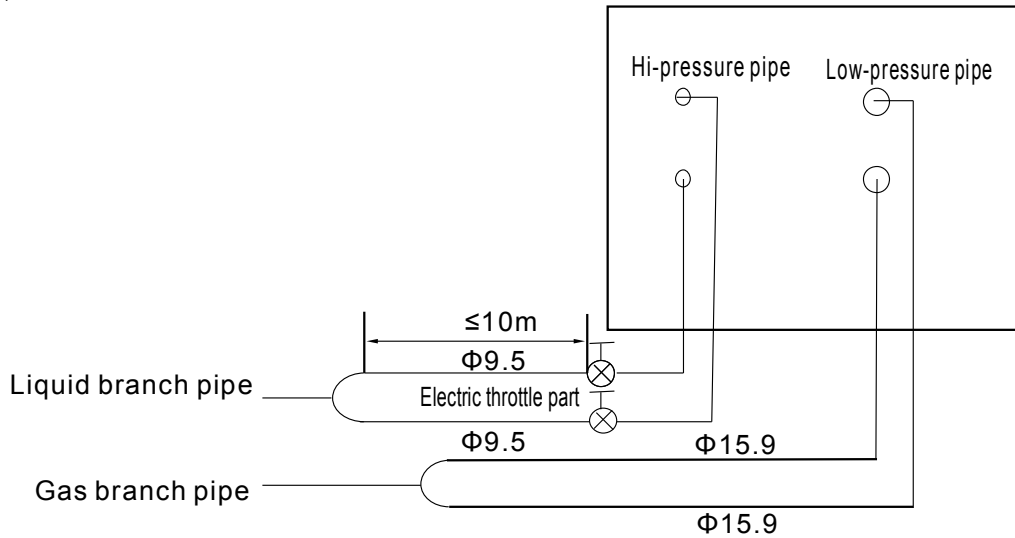
Rear view (Air return vent)

Key points about the 200, 250, 280,400,450,560 model installation:

There're two sets of EXV boxes in 200,250 & 280 model and four sets of EXV boxes in 400,450 & 560 model , as well two groups of pipes (Gas/Liquid), it's necessary to connect the two gas pipes together with the attached branch header BY101N1, as well the liquid pipes.

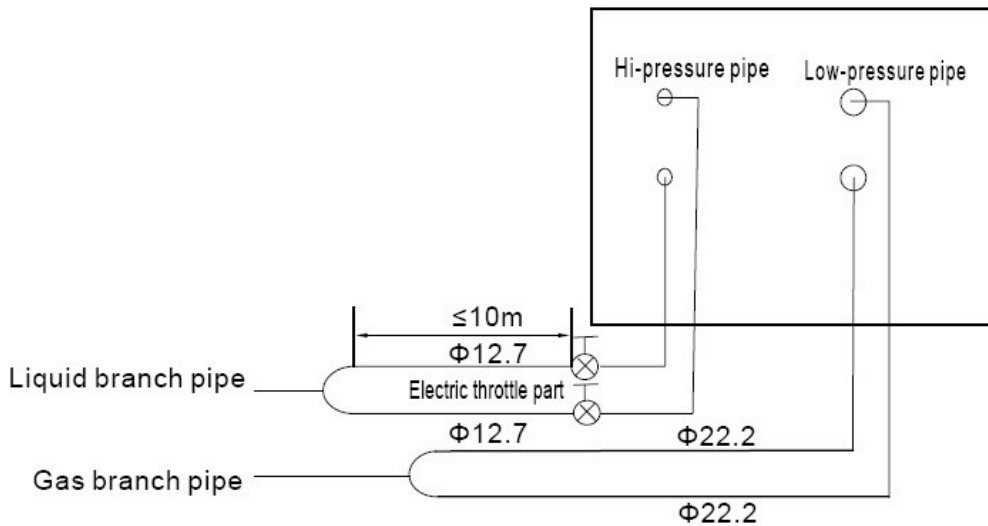
The branch header (1 set) already includes 1 gas and 1 liquid branch joint. Please kindly check the accessory and follow the instructions while install the indoor units and piping.

For 200,250,280 model:



Model	Gas branch pipe	Liquid branch pipe
MDV-D200T1/N1-B	Φ19.1	Φ9.5
MDV-D250T1/N1-B	Φ22.2	Φ9.5
MDV-D280T1/N1-B	Φ22.2	Φ9.5

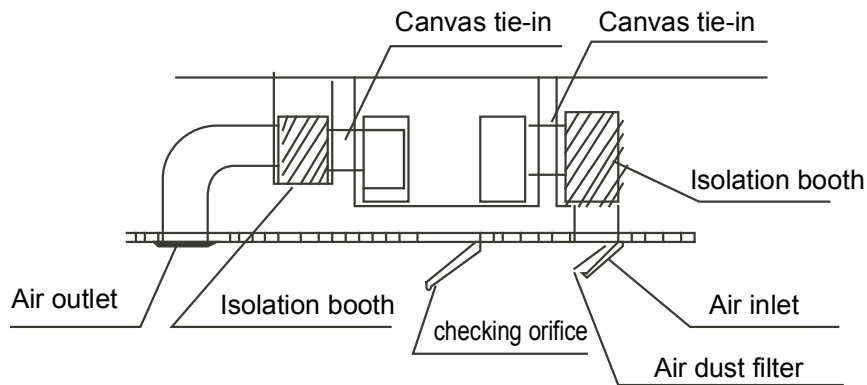
For 400,450 & 560 model



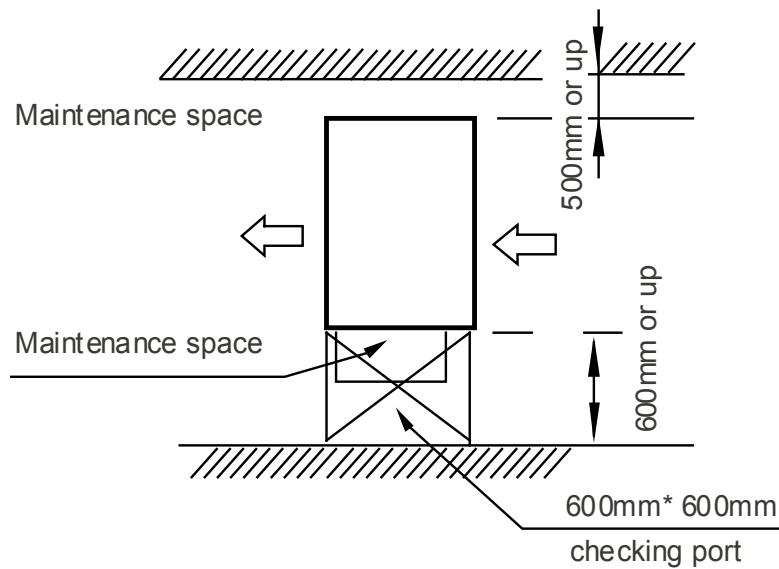
Model	Gas branch pipe	Liquid branch pipe
MDV-D400T1/N1	Φ28.6	Φ12.7
MDV-D450T1/N1	Φ28.6	Φ12.7
MDV-D560T1/N1	Φ28.6	Φ15.9

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.
- **Below is the recommended duct installation method:**

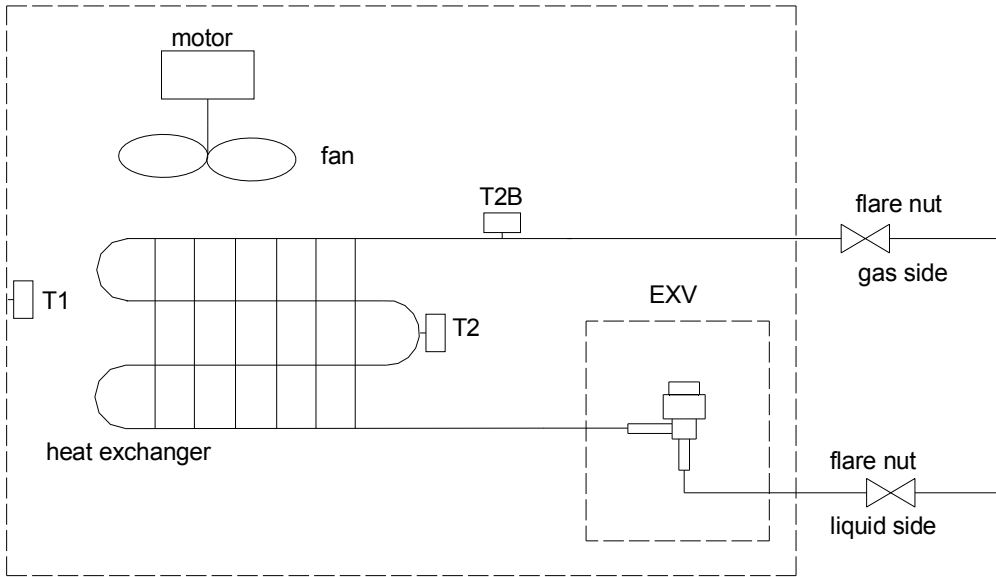


- **Keep min. 600*600 space for checking & maintenance:**

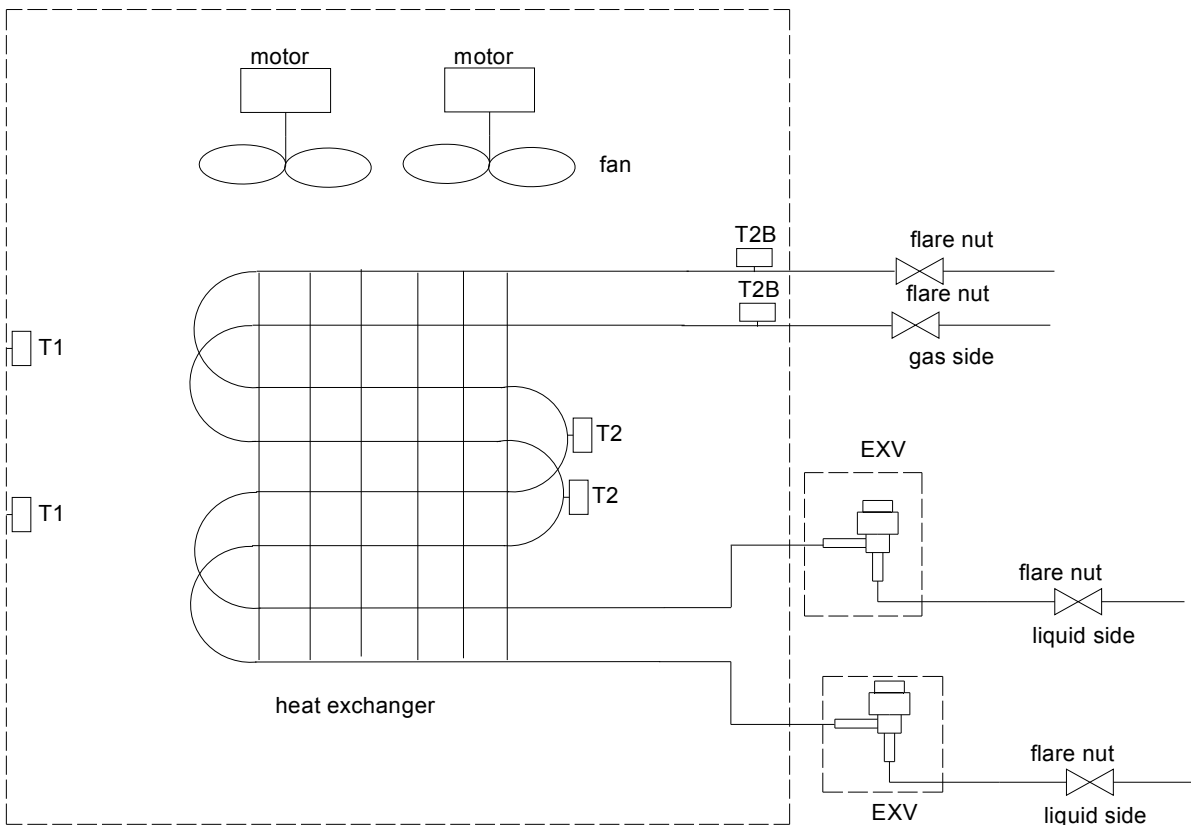


5. Piping Diagrams

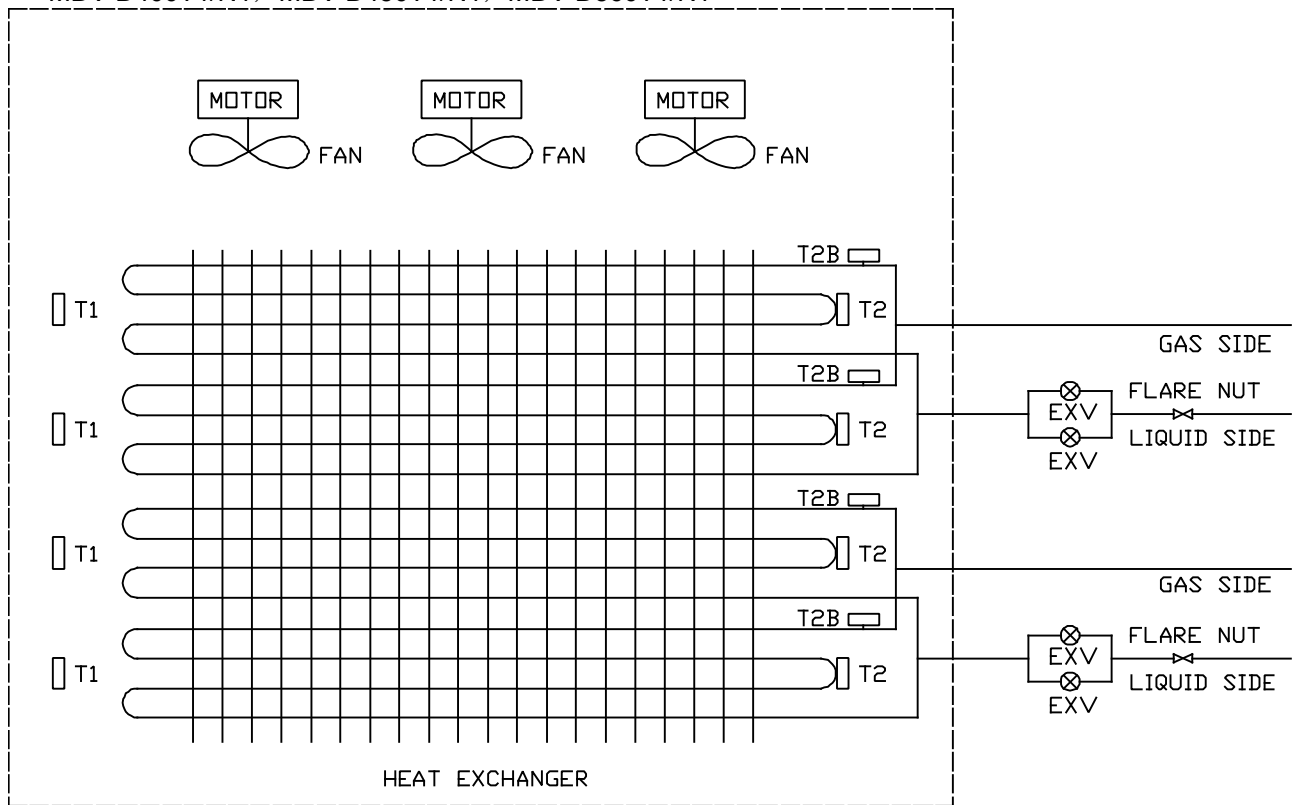
MDV-D71T1/N1-B , MDV-D80T1/N1-B , MDV-D90T1/N1-B , MDV-D112T1/N1-B , MDV-D140T1/N1-B , MDV-D160T1/N1-B



MDV-D200T1/N1-B, MDV-D250T1/N1-B, MDV-D280T1/N1-B



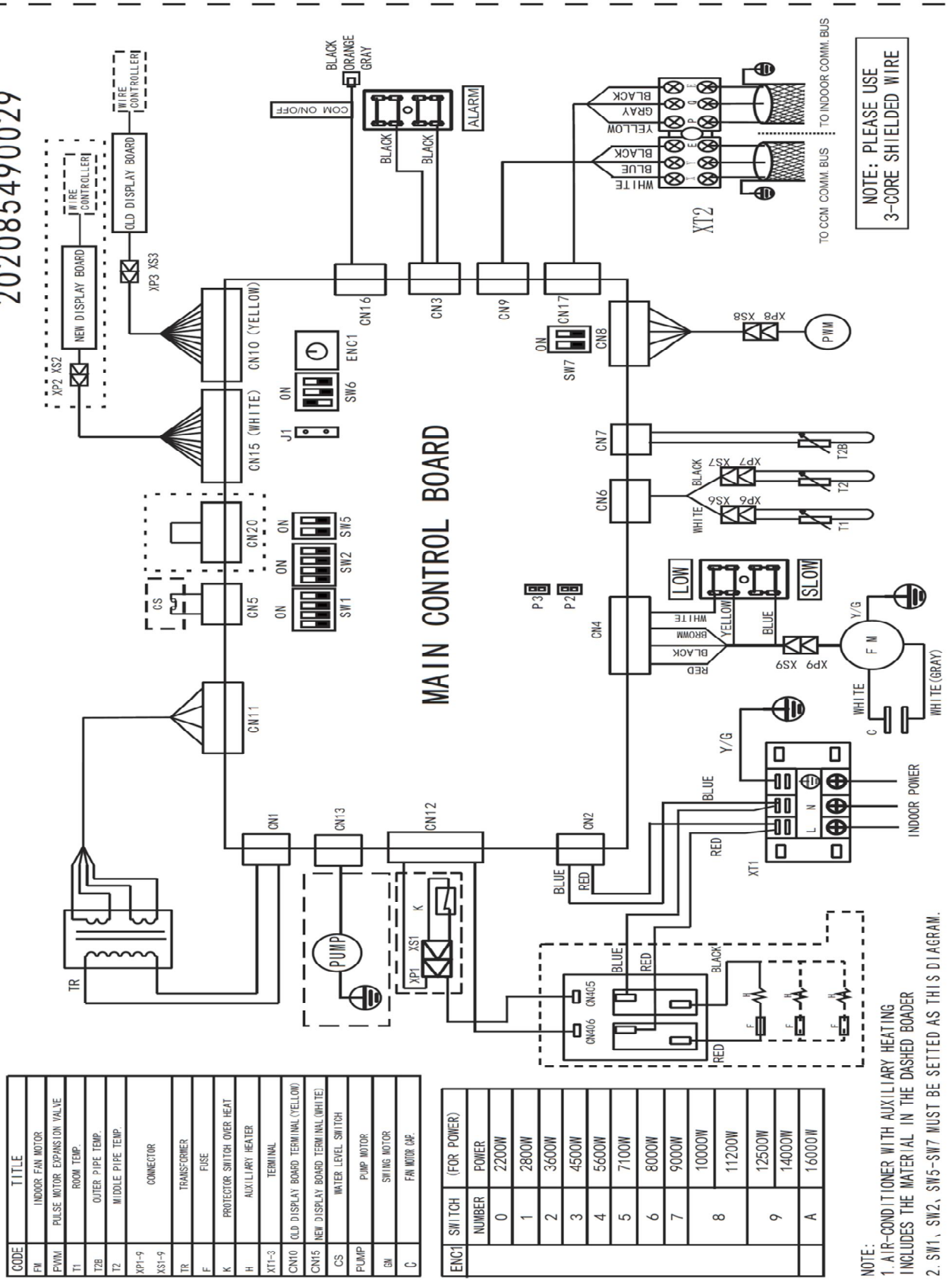
MDV-D400T1/N1, MDV-D450T1/N1, MDV-D560T1/N1



6. Wiring Diagrams

MDV-D71T1/N1-B, MDV-D80T1/N1-B, MDV-D90T1/N1-B

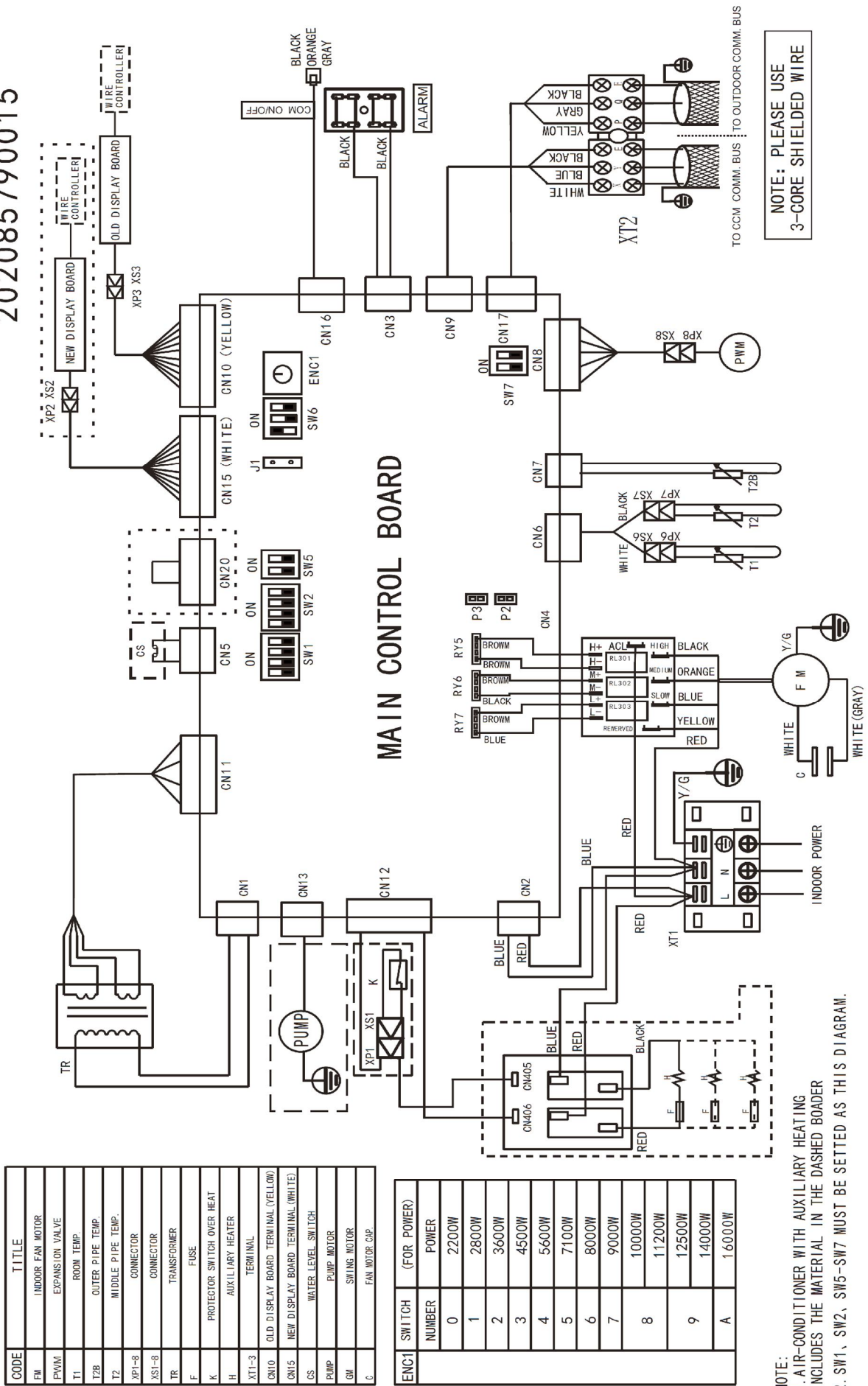
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NOTE: PLEASE USE 3-CORE SHIELDED WIRE

MDV-D112T1/N1-B, MDV-D140T1/N1-B, MDV-D160T1/N1-B,

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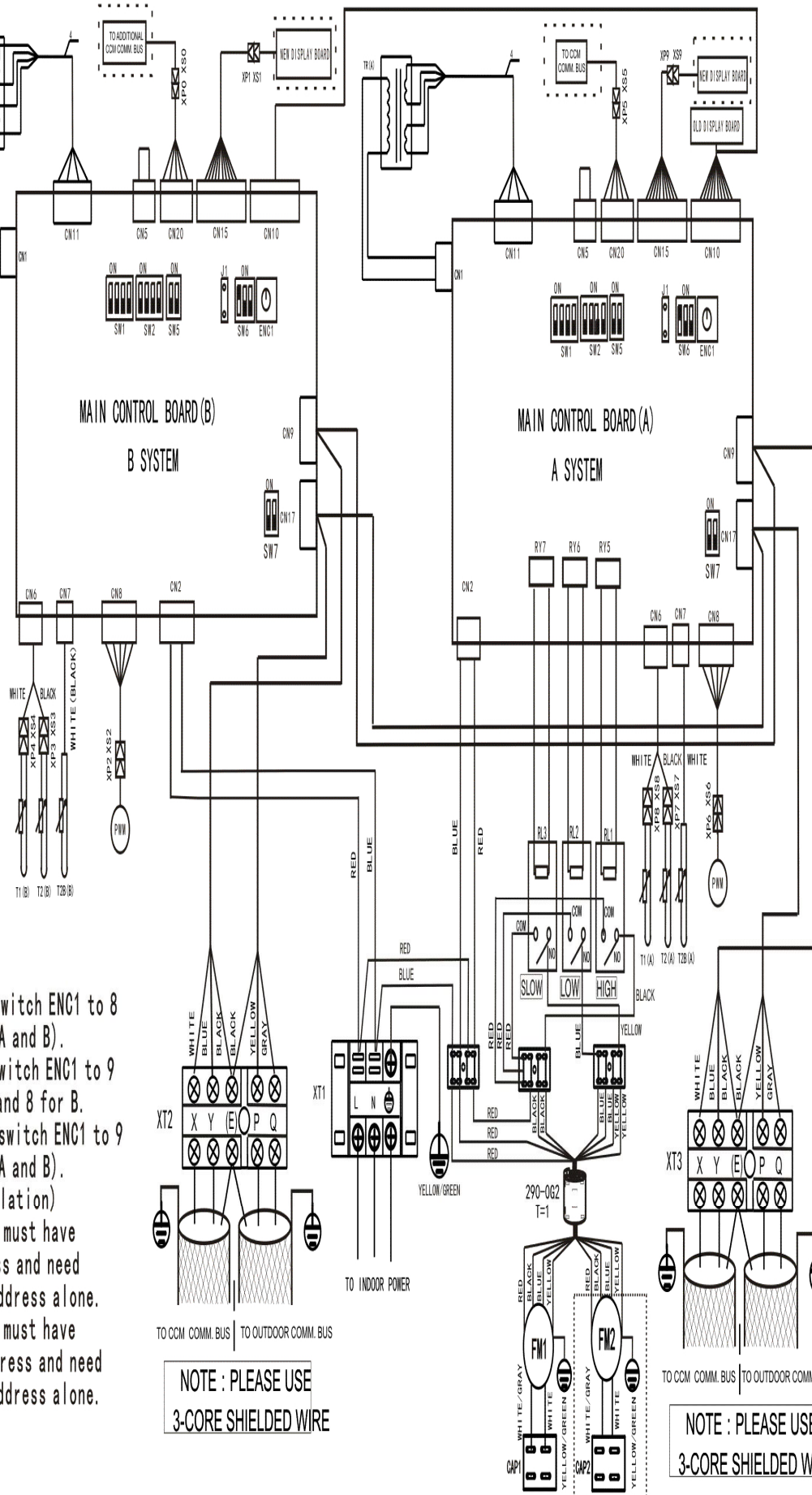


MDV-D200T1/N1-B MDV-D250T1/N1-B MDV-D280T1/N1-B

202085890069

ENCL SWITCH (FOR POWER)	
NUMBER	POWER
0	2200W (0.8HP)
1	2800W (1.0HP)
2	3600W (1.2HP)
3	4500W (1.5HP)
4	5600W (2.0HP)
5	7100W (2.5HP)
6	8000W (3.0HP)
7	9000W (3.2HP)
8	11200W (4.0HP)
9	14000W (5.0HP)

CODE	PART NAME
FM1 (FM2)	INDOOR FAN
PWM	PULSE MOTOR EXPANSION VALVE
T1(A), T1(B)	ROOM TEMP
T2B(A), T2B(B)	OUTER PIPE TEMP
T2(A), T2(B)	MIDDLE PIPE TEMP
XP0-9 XS0-9	CONNECTOR
XT1	3-WAY TERMINAL
TR(A), TR(B)	TRANSFORMER
XT2, XT3	5-WAY TERMINAL
RL1-3	RELAY
CAP1 (CAP2)	FAN CAP
290-0G2	FERRITE BEAD



NOTICE: (for factory)

1. For 8HP: Please dial switch ENC1 to 8 (both system A and B).
For 9HP: Please dial switch ENC1 to 9 for system A and 8 for B.
For 10HP: Please dial switch ENC1 to 9 (both system A and B).

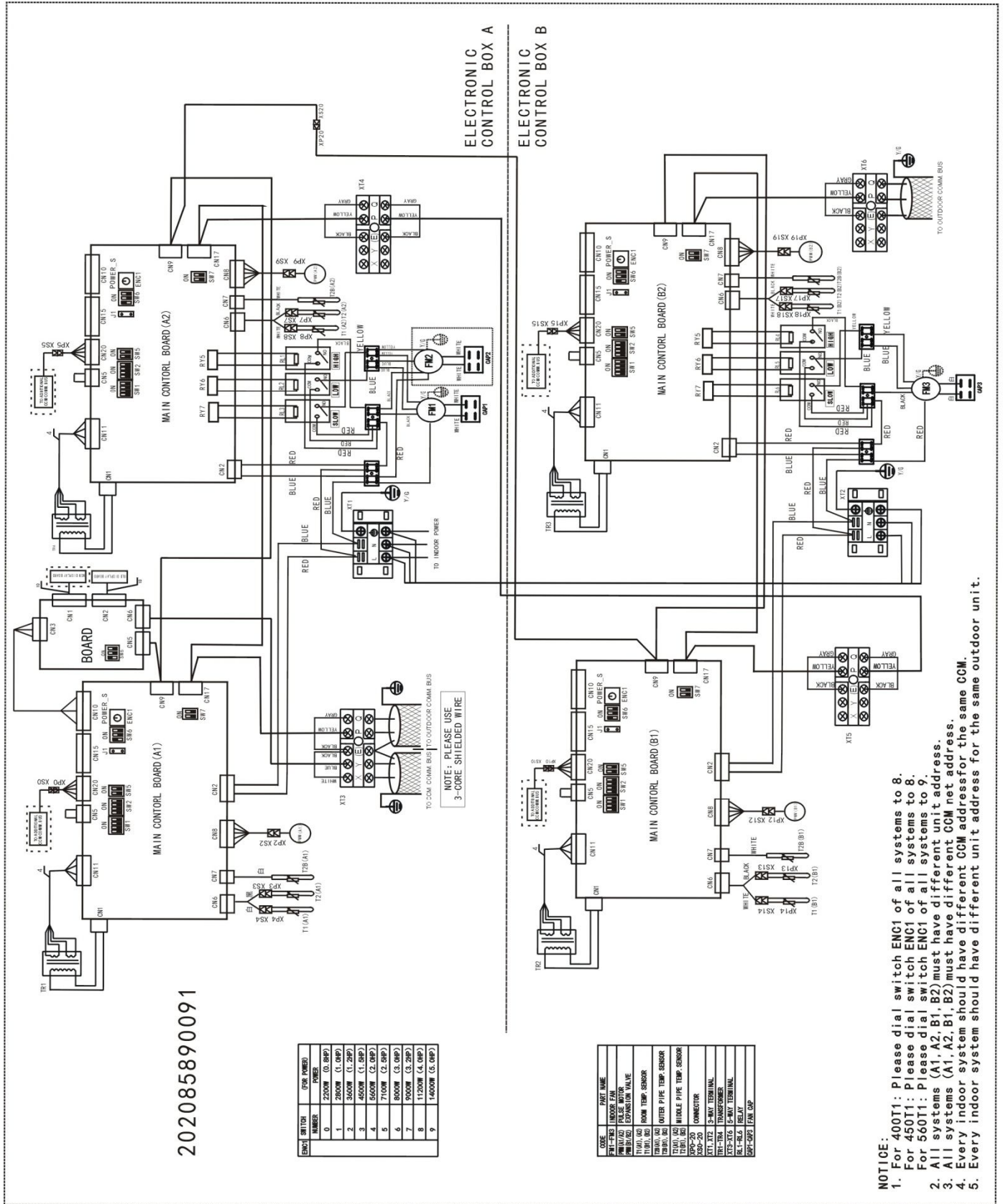
IMPORTANCE: (for installation)

2. System A and system B must have different unit address and need to be set different address alone.
3. System A and system B must have different CCM net address and need to be set different address alone.

NOTE : PLEASE USE
3-CORE SHIELDED WIRE

NOTE : PLEASE USE
3-CORE SHIELDED WIRE

MDV-D400T1/N1 MDV-D450T1/N1 MDV-D560T1/N1

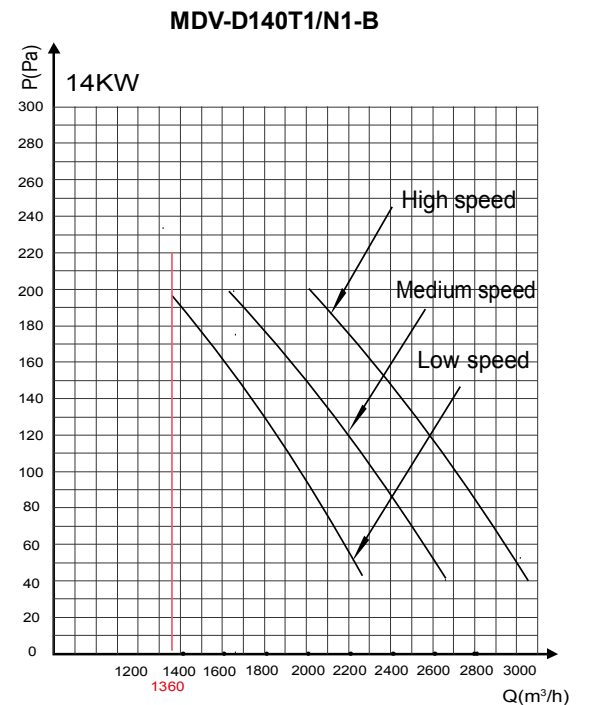
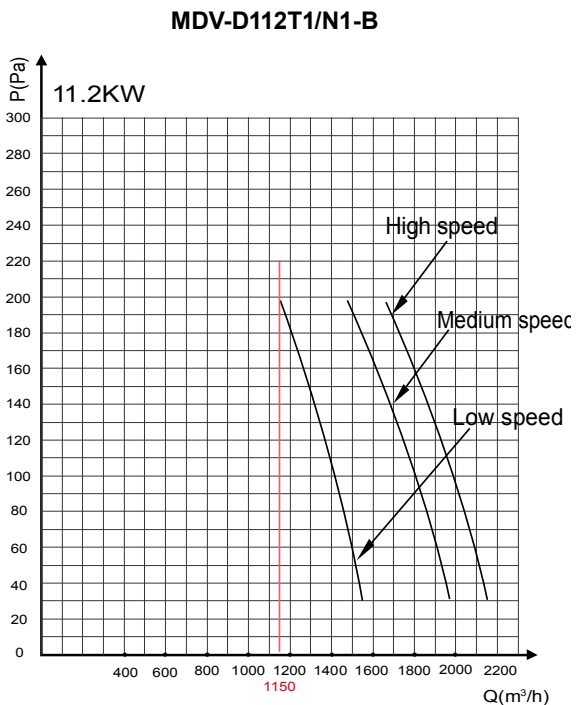
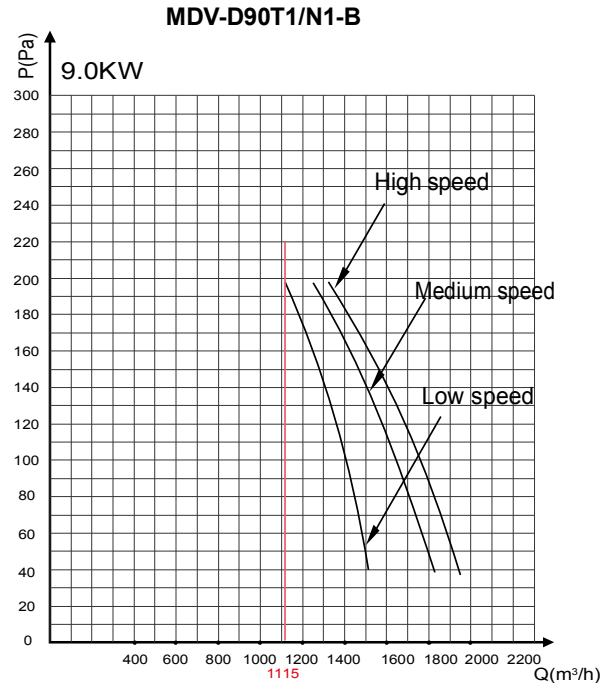
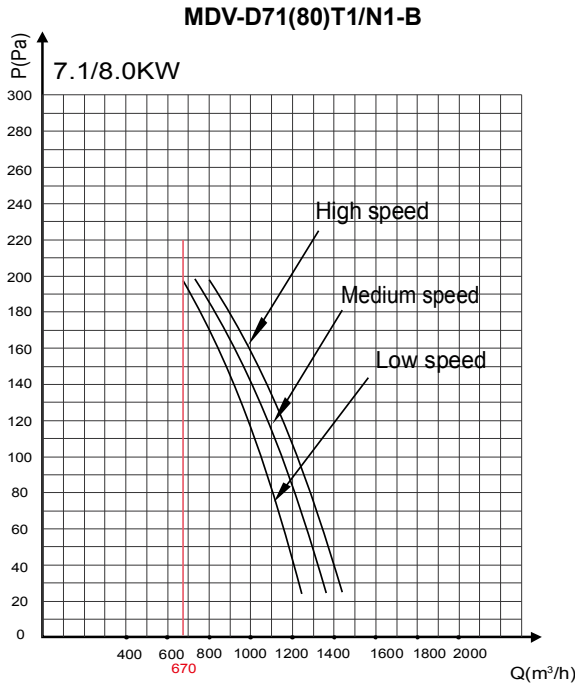


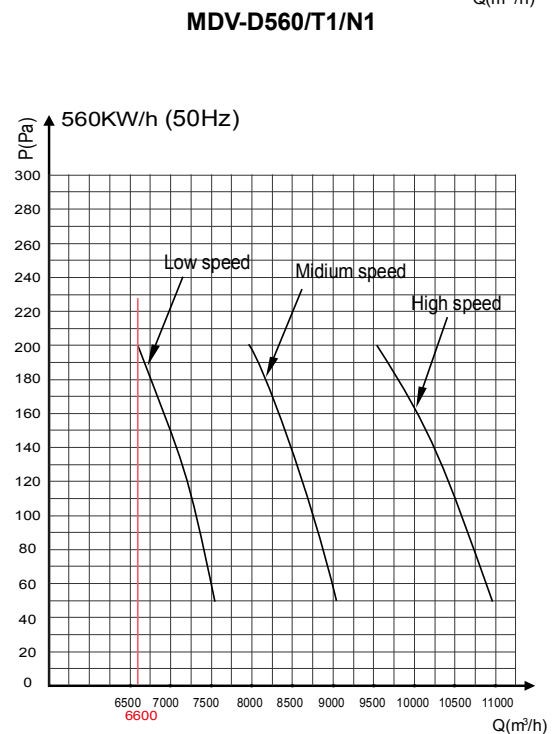
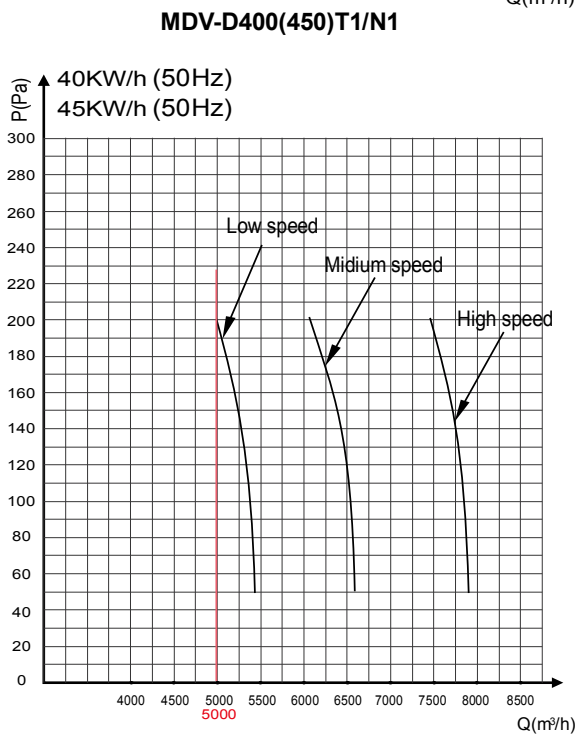
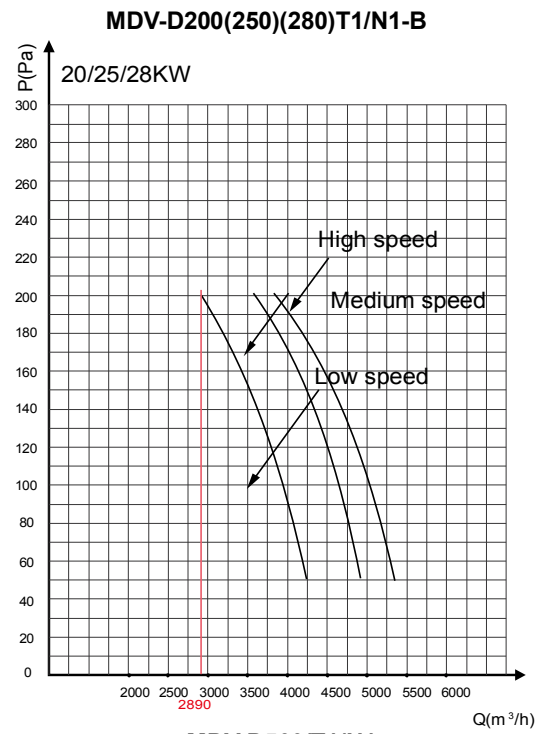
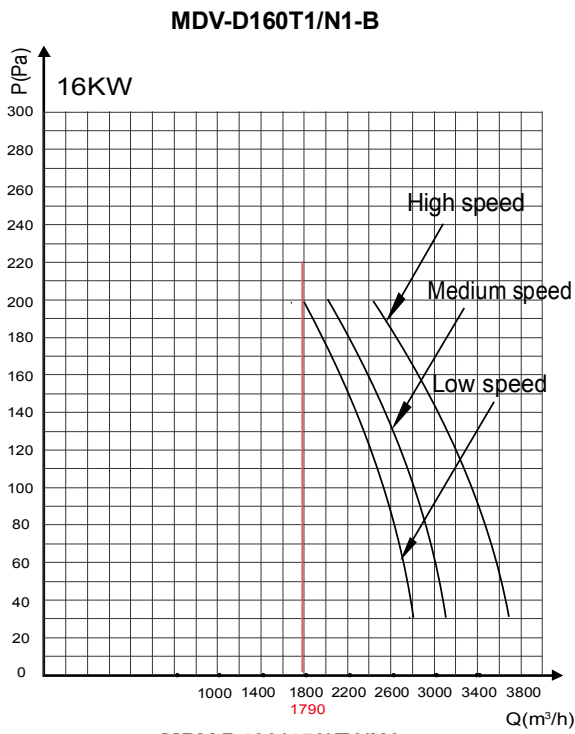
7. Fan Performance

How to Read the Diagram

The vertical axis is the External Static Pressure (**Pa**) while the horizontal axis represents the Air Flow (**m³/h**). The characteristic curve for the “H,” “M,” and “L” fan speed control, The nameplate values are shown based on the “H” air flow.

Therefore in the case of **112T1** Type, the air flow is **1520 m³/h** , while the External Static Pressure is **50Pa** at “L” position. And **2115 m³/h @ 50Pa**, at ‘L’ position.





- 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, which is the min. airflow of this duct unit. At this flow volume, the fan achieve the max. ESP, and indoor evaporator may protect by low temperature.
- As well, there's a limit airflow volume, which is the max. Value at each speed. It request the unit to connect duct 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 kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
7.1	10.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	9.2	5.6
	12.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	9.1	5.5
	14.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	9.0	5.5
	16.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	8.9	5.4
	18.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	8.7	5.2
	20.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	8.5	5.2
	21.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.4	5.6	8.4	5.1
	23.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.3	5.6	8.3	5.0
	25.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.2	5.5	8.2	5.0
	27.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.2	5.5	8.2	5.0
	29.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.1	5.4	8.1	5.0
	31.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.0	5.4	7.8	4.8
	33.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.4	8.0	5.3	7.8	4.8
	35.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.5	5.3	7.7	5.1	7.7	4.8
	37.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.4	5.3	7.7	5.1	7.6	4.8
	39.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.2	5.2	7.4	5.0	7.6	4.8
42.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.2	5.2	7.4	5.0	7.6	4.8	
44.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.2	5.2	7.4	5.0	7.6	4.8	
46.0	4.9	4.3	5.8	4.7	6.7	5.3	7.1	5.4	7.2	5.2	7.4	5.0	7.6	4.8	
8.0	10.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	10.4	6.3
	12.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	10.2	6.2
	14.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	10.2	6.1
	16.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	10.0	6.0
	18.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	9.8	5.9
	20.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	9.6	5.8
	21.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.5	6.3	9.4	5.7
	23.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.4	6.3	9.4	5.7
	25.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.3	6.2	9.3	5.6
	27.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.2	6.2	9.2	5.7
	29.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.1	6.1	9.1	5.6
	31.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.0	6.1	8.8	5.4
	33.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.5	6.0	9.0	6.0	8.8	5.4
	35.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.4	6.0	8.6	5.8	8.6	5.4
	37.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.3	5.9	8.6	5.8	8.6	5.4
	39.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.2	5.8	8.3	5.7	8.6	5.5
42.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.2	5.8	8.3	5.7	8.6	5.5	
44.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.2	5.8	8.3	5.7	8.6	5.5	
46.0	5.5	4.8	6.5	5.3	7.5	5.9	8.0	6.0	8.2	5.8	8.3	5.7	8.6	5.5	
9.0	10.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	11.7	7.1
	12.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	11.5	7.0
	14.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	11.4	6.9
	16.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	11.3	6.8
	18.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	11.0	6.6
	20.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	10.8	6.5
	21.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.7	7.1	10.6	6.4
	23.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.5	7.1	10.5	6.4
	25.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.4	7.0	10.4	6.3
	27.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.4	6.9	10.4	6.4
	29.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.3	6.9	10.3	6.3
	31.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.2	6.8	9.9	6.1
	33.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.8	10.1	6.7	9.9	6.1
	35.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.5	6.7	9.7	6.5	9.7	6.1
	37.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.4	6.7	9.7	6.5	9.6	6.0
	39.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.2	6.5	9.4	6.4	9.6	6.1
42.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.2	6.5	9.4	6.4	9.6	6.1	
44.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.2	6.5	9.4	6.4	9.6	6.1	
46.0	6.2	5.4	7.3	6.0	8.5	6.7	9.0	6.8	9.2	6.5	9.4	6.4	9.6	6.1	
11.2	10.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	14.6	8.8

	12.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	14.3	8.7
	14.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	14.2	8.6
	16.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	14.0	8.5
	18.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	13.7	8.3
	20.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	13.4	8.1
	21.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.3	8.8	13.2	8.0
	23.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.1	8.8	13.1	7.9
	25.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	13.0	8.7	13.0	7.9
	27.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	12.9	8.6	12.9	7.9
	29.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	12.8	8.5	12.8	7.9
	31.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	12.7	8.5	12.3	7.6
	33.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.9	8.5	12.5	8.4	12.3	7.6
	35.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.8	8.4	12.1	8.1	12.1	7.6
	37.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.6	8.3	12.1	8.1	12.0	7.5
	39.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.4	8.1	11.6	7.9	12.0	7.6
	42.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.4	8.1	11.6	7.9	12.0	7.6
44.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.4	8.1	11.6	7.9	12.0	7.6	
46.0	7.7	6.8	9.1	7.4	10.5	8.3	11.2	8.5	11.4	8.1	11.6	7.9	12.0	7.6	
14.0	10.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	18.2	11.0
	12.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	17.9	10.8
	14.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	17.8	10.8
	16.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	17.5	10.6
	18.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	17.1	10.3
	20.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	16.8	10.2
	21.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.7	11.0	16.5	10.0
	23.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.4	11.0	16.4	9.9
	25.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.2	10.9	16.2	9.8
	27.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.1	10.8	16.1	9.9
	29.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	16.0	10.7	16.0	9.8
	31.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	15.8	10.6	15.4	9.5
	33.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.8	10.6	15.7	10.5	15.4	9.5
	35.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.7	10.5	15.1	10.1	15.1	9.5
	37.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.6	10.4	15.1	10.1	15.0	9.4
	39.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.3	10.2	14.6	9.9	15.0	9.5
42.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.3	10.2	14.6	9.9	15.0	9.5	
44.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.3	10.2	14.6	9.9	15.0	9.5	
46.0	9.7	8.5	11.3	9.3	13.2	10.4	14.0	10.6	14.3	10.2	14.6	9.9	15.0	9.5	
16.0	10.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	20.8	12.6
	12.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	20.5	12.4
	14.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	20.3	12.3
	16.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	20.0	12.1
	18.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	19.5	11.8
	20.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	19.2	11.6
	21.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	19.0	12.5	18.9	11.4
	23.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	18.7	12.5	18.7	11.3
	25.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	18.6	12.4	18.6	11.2
	27.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	18.4	12.3	18.4	11.3
	29.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	18.2	12.2	18.2	11.2
	31.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	18.1	12.1	17.6	10.8
	33.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	17.0	12.1	17.9	12.0	17.6	10.8
	35.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.8	12.0	17.3	11.6	17.3	10.8
	37.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.6	11.9	17.3	11.6	17.1	10.7
	39.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.3	11.6	16.6	11.3	17.1	10.9
42.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.3	11.6	16.6	11.3	17.1	10.9	
44.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.3	11.6	16.6	11.3	17.1	10.9	
46.0	11.0	9.7	13.0	10.6	15.0	11.9	16.0	12.1	16.3	11.6	16.6	11.3	17.1	10.9	
20.0	10.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	26.0	15.7
	12.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	25.6	15.5
	14.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	25.4	15.4
	16.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	25.0	15.1
	18.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	24.4	14.8
	20.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	24.0	14.5
	21.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.8	15.7	23.6	14.3
	23.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.4	15.7	23.4	14.2
25.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.2	15.5	23.2	14.0	

	27.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	23.0	15.4	23.0	14.2
	29.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	22.8	15.3	22.8	14.0
	31.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	22.6	15.1	22.0	13.5
	33.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.2	15.1	22.4	15.0	22.0	13.5
	35.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	21.0	15.0	21.6	14.5	21.6	13.5
	37.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	20.8	14.8	21.6	14.5	21.4	13.4
	39.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	20.4	14.5	20.8	14.2	21.4	13.6
	42.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	20.4	14.5	20.8	14.2	21.4	13.6
	44.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	20.4	14.5	20.8	14.2	21.4	13.6
	46.0	13.8	12.1	16.2	13.3	18.8	14.8	20.0	15.1	20.4	14.5	20.8	14.2	21.4	13.6
25.0	10.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	32.5	19.7
	12.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	32.0	19.4
	14.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	31.8	19.2
	16.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	31.3	18.9
	18.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	30.5	18.4
	20.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	30.0	18.1
	21.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.8	19.6	29.5	17.8
	23.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.3	19.6	29.3	17.7
	25.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	29.0	19.4	29.0	17.5
	27.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	28.8	19.3	28.8	17.7
	29.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	28.5	19.1	28.5	17.5
	31.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	28.3	18.9	27.5	16.9
	33.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.5	18.9	28.0	18.7	27.5	16.9
	35.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.3	18.7	27.0	18.1	27.0	16.9
	37.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	26.0	18.5	27.0	18.1	26.8	16.8
	39.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	25.5	18.2	26.0	17.7	26.8	17.0
42.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	25.5	18.2	26.0	17.7	26.8	17.0	
44.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	25.5	18.2	26.0	17.7	26.8	17.0	
46.0	17.3	15.1	20.3	16.6	23.5	18.5	25.0	18.9	25.5	18.2	26.0	17.7	26.8	17.0	
28.0	10.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	36.4	22.0
	12.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	35.8	21.7
	14.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	35.6	21.5
	16.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	35.0	21.2
	18.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	34.2	20.7
	20.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	33.6	20.3
	21.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	33.3	22.0	33.0	20.0
	23.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	32.8	21.9	32.8	19.8
	25.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	32.5	21.7	32.5	19.6
	27.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	32.2	21.6	32.2	19.8
	29.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	31.9	21.4	31.9	19.6
	31.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	31.6	21.2	30.8	19.0
	33.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.7	21.2	31.4	21.0	30.8	19.0
	35.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.4	21.0	30.2	20.2	30.2	18.9
	37.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	29.1	20.8	30.2	20.2	30.0	18.8
	39.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	28.6	20.4	29.1	19.8	30.0	19.1
42.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	28.6	20.4	29.1	19.8	30.0	19.1	
44.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	28.6	20.4	29.1	19.8	30.0	19.1	
46.0	19.3	16.9	22.7	18.6	26.3	20.8	28.0	21.2	28.6	20.4	29.1	19.8	30.0	19.1	
40.0	10.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	52.0	31.4
	12.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	51.2	31.0
	14.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	50.8	30.7
	16.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	50.0	30.2
	18.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	48.8	29.5
	20.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	48.0	29.0
	21.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	47.2	28.5
	23.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	46.8	31.3	46.8	28.3
	25.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	46.4	31.1	46.4	28.1
	27.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	46.0	30.8	46.0	28.3
	29.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	45.6	30.5	45.6	28.1
	31.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	45.2	30.3	44.0	27.1
	33.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	44.8	30.0	44.0	27.1
	35.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.0	29.9	43.2	28.9	43.2	27.1
	37.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	41.6	29.7	43.2	28.9	42.8	26.8
	39.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	40.8	29.1	41.6	28.3	42.8	27.3
41.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	40.8	29.1	41.6	28.3	42.8	27.3	

	43.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	52.0	31.4
	45.0	27.6	24.1	32.4	26.6	37.6	29.6	40.0	30.2	42.4	30.2	47.6	31.4	51.2	31.0
45.0	10.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	58.5	35.4
	12.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	57.6	34.8
	14.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	57.2	34.6
	16.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	56.3	34.0
	18.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	54.9	33.2
	20.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	54.0	32.7
	21.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	53.6	35.3	53.1	32.1
	23.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	52.7	35.3	52.7	31.8
	25.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	52.2	35.0	52.2	31.6
	27.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	51.8	34.7	51.8	31.9
	29.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	51.3	34.4	51.3	31.6
	31.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	50.9	34.0	49.5	30.5
	33.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.7	34.0	50.4	33.7	49.5	30.5
	35.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	47.3	33.7	48.6	32.5	48.6	30.4
	37.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	46.8	33.4	48.6	32.5	48.2	30.2
	39.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	45.9	32.7	46.8	31.8	48.2	30.7
	42.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	45.9	32.7	46.8	31.8	48.2	30.7
44.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	45.9	32.7	46.8	31.8	48.2	30.7	
46.0	31.1	27.2	36.5	29.9	42.3	33.3	45.0	34.0	45.9	32.7	46.8	31.8	48.2	30.7	
56.0	10.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	72.8	44.0
	12.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	71.7	43.4
	14.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	71.1	43.0
	16.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	70.0	42.3
	18.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	68.3	41.3
	20.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	67.2	40.6
	21.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	66.6	43.9	66.1	40.0
	23.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	65.5	43.9	65.5	39.6
	25.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	65.0	43.5	65.0	39.3
	27.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	64.4	43.1	64.4	39.6
	29.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	63.8	42.7	63.8	39.3
	31.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	63.3	42.4	61.6	37.9
	33.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	59.4	42.3	62.7	42.0	61.6	37.9
	35.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	58.8	41.9	60.5	40.5	60.5	37.9
	37.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	58.2	41.5	60.5	40.5	59.9	37.5
	39.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	57.1	40.7	58.2	39.6	59.9	38.2
	42.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	57.1	40.7	58.2	39.6	59.9	38.2
44.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	57.1	40.7	58.2	39.6	59.9	38.2	
46.0	38.6	33.8	45.4	37.2	52.6	41.5	56.0	42.3	57.1	40.7	58.2	39.6	59.9	38.2	

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
7.1	-20	-19.8	11.20	11.20	11.20	11.20	11.20	11.20
	-19	-18.8	12.00	12.00	12.00	12.00	12.00	12.00
	-17	-16.7	12.60	12.60	12.60	12.60	12.60	12.60
	-15	-14.7	13.00	13.00	13.00	13.00	13.00	13.00
	-13.00	-12.60	13.80	13.80	13.80	13.80	13.80	13.80
	-11.00	-10.50	14.00	14.20	14.20	14.20	14.20	14.20
	-10.00	-9.50	14.60	14.60	14.60	14.60	14.60	14.60
	-9.10	-8.50	15.00	15.00	15.00	15.00	15.00	15.00
	-7.60	-7.00	15.20	15.20	15.20	15.20	15.20	15.20
	-5.60	-5.00	15.80	15.80	15.80	15.80	15.80	15.80
	-3.70	-3.00	16.60	16.60	16.60	16.60	16.60	16.60
	-0.70	0.00	17.80	17.80	17.80	17.80	17.80	16.80
	2.20	3.00	18.80	18.80	18.80	18.80	18.40	16.80
	4.10	5.00	19.40	19.40	19.40	19.40	18.40	16.80
	6.00	7.00	20.00	20.00	20.00	19.40	18.40	16.80
	7.90	9.00	20.60	20.60	20.00	19.40	18.40	16.80
9.80	11.00	21.20	21.20	20.00	19.40	18.40	16.80	
11.80	13.00	22.00	21.60	20.00	19.40	18.40	16.80	
13.70	15.00	22.60	21.60	20.00	19.40	18.40	16.80	
8.0	-20	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.80	4.80	4.80	4.80	4.80	4.80
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.20	5.20	5.20	5.20	5.20	5.20
	-13.00	-12.60	5.52	5.52	5.52	5.52	5.52	5.52
	-11.00	-10.50	5.60	5.68	5.68	5.68	5.68	5.68
	-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	8.80	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	
9.0	-20	5.04	5.04	5.04	5.04	5.04	5.04	5.04
	-19	5.40	5.40	5.40	5.40	5.40	5.40	5.40
	-17	5.67	5.67	5.67	5.67	5.67	5.67	5.67
	-15	5.85	5.85	5.85	5.85	5.85	5.85	5.85
	-13.00	6.21	6.21	6.21	6.21	6.21	6.21	6.21
	-11.00	6.30	6.39	6.39	6.39	6.39	6.39	6.30
	-10.00	6.57	6.57	6.57	6.57	6.57	6.57	6.57
	-9.10	6.75	6.75	6.75	6.75	6.75	6.75	6.75
	-7.60	6.84	6.84	6.84	6.84	6.84	6.84	6.84
	-5.60	7.11	7.11	7.11	7.11	7.11	7.11	7.11
	-3.70	7.47	7.47	7.47	7.47	7.47	7.47	7.47
	-0.70	8.01	8.01	8.01	8.01	8.01	7.56	8.01
	2.20	8.46	8.46	8.46	8.46	8.28	7.56	8.46
	4.10	8.73	8.73	8.73	8.73	8.28	7.56	8.73
	6.00	9.00	9.00	9.00	8.73	8.28	7.56	9.00
	7.90	9.27	9.27	9.00	8.73	8.28	7.56	9.27
9.80	9.54	9.54	9.00	8.73	8.28	7.56	9.54	
11.80	9.90	9.72	9.00	8.73	8.28	7.56	9.90	
13.70	10.17	9.72	9.00	8.73	8.28	7.56	10.17	
11.2	-20	-19.8	6.27	6.27	6.27	6.27	6.27	6.27
	-19	-18.8	6.72	6.72	6.72	6.72	6.72	6.72

	-17	-16.7	7.06	7.06	7.06	7.06	7.06	7.06
	-15	-14.7	7.28	7.28	7.28	7.28	7.28	7.28
	-13.00	-12.60	7.73	7.73	7.73	7.73	7.73	7.73
	-11.00	-10.50	7.84	7.95	7.95	7.95	7.95	7.95
	-10.00	-9.50	8.18	8.18	8.18	8.18	8.18	8.18
	-9.10	-8.50	8.40	8.40	8.40	8.40	8.40	8.40
	-7.60	-7.00	8.51	8.51	8.51	8.51	8.51	8.51
	-5.60	-5.00	8.85	8.85	8.85	8.85	8.85	8.85
	-3.70	-3.00	9.30	9.30	9.30	9.30	9.30	9.30
	-0.70	0.00	9.97	9.97	9.97	9.97	9.97	9.41
	2.20	3.00	10.53	10.53	10.53	10.53	10.30	9.41
	4.10	5.00	10.86	10.86	10.86	10.86	10.30	9.41
	6.00	7.00	11.20	11.20	11.20	10.86	10.30	9.41
	7.90	9.00	11.54	11.54	11.20	10.86	10.30	9.41
	9.80	11.00	11.87	11.87	11.20	10.86	10.30	9.41
	11.80	13.00	12.32	12.10	11.20	10.86	10.30	9.41
	13.70	15.00	12.66	12.10	11.20	10.86	10.30	9.41
14.0	-20	7.84	7.84	7.84	7.84	7.84	7.84	7.84
	-19	8.40	8.40	8.40	8.40	8.40	8.40	8.40
	-17	8.82	8.82	8.82	8.82	8.82	8.82	8.82
	-15	9.10	9.10	9.10	9.10	9.10	9.10	9.10
	-13.00	9.66	9.66	9.66	9.66	9.66	9.66	9.66
	-11.00	9.80	9.94	9.94	9.94	9.94	9.94	9.80
	-10.00	10.22	10.22	10.22	10.22	10.22	10.22	10.22
	-9.10	10.50	10.50	10.50	10.50	10.50	10.50	10.50
	-7.60	10.64	10.64	10.64	10.64	10.64	10.64	10.64
	-5.60	11.06	11.06	11.06	11.06	11.06	11.06	11.06
	-3.70	11.62	11.62	11.62	11.62	11.62	11.62	11.62
	-0.70	12.46	12.46	12.46	12.46	12.46	11.76	12.46
	2.20	13.16	13.16	13.16	13.16	12.88	11.76	13.16
	4.10	13.58	13.58	13.58	13.58	12.88	11.76	13.58
	6.00	14.00	14.00	14.00	13.58	12.88	11.76	14.00
	7.90	14.42	14.42	14.00	13.58	12.88	11.76	14.42
	9.80	14.84	14.84	14.00	13.58	12.88	11.76	14.84
	11.80	15.40	15.12	14.00	13.58	12.88	11.76	15.40
	13.70	15.82	15.12	14.00	13.58	12.88	11.76	15.82
16.0	-20	-19.8	8.96	8.96	8.96	8.96	8.96	8.96
	-19	-18.8	9.60	9.60	9.60	9.60	9.60	9.60
	-17	-16.7	10.08	10.08	10.08	10.08	10.08	10.08
	-15	-14.7	10.40	10.40	10.40	10.40	10.40	10.40
	-13.00	-12.6	11.04	11.04	11.04	11.04	11.04	11.04
	-11.00	-10.5	11.20	11.36	11.36	11.36	11.36	11.36
	-10.00	-9.5	11.68	11.68	11.68	11.68	11.68	11.68
	-9.10	-8.5	12.00	12.00	12.00	12.00	12.00	12.00
	-7.60	-7	12.16	12.16	12.16	12.16	12.16	12.16
	-5.60	-5	12.64	12.64	12.64	12.64	12.64	12.64
	-3.70	-3	13.28	13.28	13.28	13.28	13.28	13.28
	-0.70	0	14.24	14.24	14.24	14.24	14.24	13.44
	2.20	3	15.04	15.04	15.04	15.04	14.72	13.44
	4.10	5	15.52	15.52	15.52	15.52	14.72	13.44
	6.00	7	16.00	16.00	16.00	15.52	14.72	13.44
	7.90	9	16.48	16.48	16.00	15.52	14.72	13.44
	9.80	11	16.96	16.96	16.00	15.52	14.72	13.44
	11.80	13	17.60	17.28	16.00	15.52	14.72	13.44
	13.70	15	18.08	17.28	16.00	15.52	14.72	13.44
20.0	-20	-19.8	11.20	11.20	11.20	11.20	11.20	11.20
	-19	-18.8	12.00	12.00	12.00	12.00	12.00	12.00
	-17	-16.7	12.60	12.60	12.60	12.60	12.60	12.60
	-15	-14.7	13.00	13.00	13.00	13.00	13.00	13.00
	-13.00	-12.6	13.80	13.80	13.80	13.80	13.80	13.80
	-11.00	-10.5	14.00	14.20	14.20	14.20	14.20	14.20
	-10.00	-9.5	14.60	14.60	14.60	14.60	14.60	14.60
	-9.10	-8.5	15.00	15.00	15.00	15.00	15.00	15.00
	-7.60	-7	15.20	15.20	15.20	15.20	15.20	15.20
	-5.60	-5	15.80	15.80	15.80	15.80	15.80	15.80

	-3.70	-3	16.60	16.60	16.60	16.60	16.60	16.60
	-0.70	0	17.80	17.80	17.80	17.80	17.80	16.80
	2.20	3	18.80	18.80	18.80	18.80	18.40	16.80
	4.10	5	19.40	19.40	19.40	19.40	18.40	16.80
	6.00	7	20.00	20.00	20.00	19.40	18.40	16.80
	7.90	9	20.60	20.60	20.00	19.40	18.40	16.80
	9.80	11	21.20	21.20	20.00	19.40	18.40	16.80
	11.80	13	22.00	21.60	20.00	19.40	18.40	16.80
	13.70	15	22.60	21.60	20.00	19.40	18.40	16.80
25.0	-20	-19.8	14.00	14.00	14.00	14.00	14.00	14.00
	-19	-18.8	15.00	15.00	15.00	15.00	15.00	15.00
	-17	-16.7	15.75	15.75	15.75	15.75	15.75	15.75
	-15	-14.7	16.25	16.25	16.25	16.25	16.25	16.25
	-13.00	-12.6	17.25	17.25	17.25	17.25	17.25	17.25
	-11.00	-10.5	17.50	17.75	17.75	17.75	17.75	17.75
	-10.00	-9.5	18.25	18.25	18.25	18.25	18.25	18.25
	-9.10	-8.5	18.75	18.75	18.75	18.75	18.75	18.75
	-7.60	-7	19.00	19.00	19.00	19.00	19.00	19.00
	-5.60	-5	19.75	19.75	19.75	19.75	19.75	19.75
	-3.70	-3	20.75	20.75	20.75	20.75	20.75	20.75
	-0.70	0	22.25	22.25	22.25	22.25	22.25	21.00
	2.20	3	23.50	23.50	23.50	23.50	23.00	21.00
	4.10	5	24.25	24.25	24.25	24.25	23.00	21.00
	6.00	7	25.00	25.00	25.00	24.25	23.00	21.00
7.90	9	25.75	25.75	25.00	24.25	23.00	21.00	
9.80	11	26.50	26.50	25.00	24.25	23.00	21.00	
11.80	13	27.50	27.00	25.00	24.25	23.00	21.00	
13.70	15	28.25	27.00	25.00	24.25	23.00	21.00	
28.0	-20	-19.8	15.68	15.68	15.68	15.68	15.68	15.68
	-19	-18.8	16.80	16.80	16.80	16.80	16.80	16.80
	-17	-16.7	17.64	17.64	17.64	17.64	17.64	17.64
	-15	-14.7	18.20	18.20	18.20	18.20	18.20	18.20
	-13.00	-12.6	19.32	19.32	19.32	19.32	19.32	19.32
	-11.00	-10.5	19.60	19.88	19.88	19.88	19.88	19.88
	-10.00	-9.5	20.44	20.44	20.44	20.44	20.44	20.44
	-9.10	-8.5	21.00	21.00	21.00	21.00	21.00	21.00
	-7.60	-7	21.28	21.28	21.28	21.28	21.28	21.28
	-5.60	-5	22.12	22.12	22.12	22.12	22.12	22.12
	-3.70	-3	23.24	23.24	23.24	23.24	23.24	23.24
	-0.70	0	24.92	24.92	24.92	24.92	24.92	23.52
	2.20	3	26.32	26.32	26.32	26.32	25.76	23.52
	4.10	5	27.16	27.16	27.16	27.16	25.76	23.52
	6.00	7	28.00	28.00	28.00	27.16	25.76	23.52
7.90	9	28.84	28.84	28.00	27.16	25.76	23.52	
9.80	11	29.68	29.68	28.00	27.16	25.76	23.52	
11.80	13	30.80	30.24	28.00	27.16	25.76	23.52	
13.70	15	31.64	30.24	28.00	27.16	25.76	23.52	
40.0	-20	-19.8	22.40	22.40	22.40	22.40	22.40	22.40
	-19	-18.8	24.00	24.00	24.00	24.00	24.00	24.00
	-17	-16.7	25.20	25.20	25.20	25.20	25.20	25.20
	-15	-14.7	26.00	26.00	26.00	26.00	26.00	26.00
	-13.00	-12.6	27.60	27.60	27.60	27.60	27.60	27.60
	-11.00	-10.5	28.00	28.40	28.40	28.40	28.40	28.40
	-10.00	-9.5	29.20	29.20	29.20	29.20	29.20	29.20
	-9.10	-8.5	30.00	30.00	30.00	30.00	30.00	30.00
	-7.60	-7	30.40	30.40	30.40	30.40	30.40	30.40
	-5.60	-5	31.60	31.60	31.60	31.60	31.60	31.60
	-3.70	-3	33.20	33.20	33.20	33.20	33.20	33.20
	-0.70	0	35.60	35.60	35.60	35.60	35.60	33.60
	2.20	3	37.60	37.60	37.60	37.60	36.80	33.60
	4.10	5	38.80	38.80	38.80	38.80	36.80	33.60
	6.00	7	40.00	40.00	40.00	38.80	36.80	33.60
7.90	9	41.20	41.20	40.00	38.80	36.80	33.60	
9.80	11	42.40	42.40	40.00	38.80	36.80	33.60	
11.80	13	44.00	43.20	40.00	38.80	36.80	33.60	

	13.70	15	45.20	43.20	40.00	38.80	36.80	33.60
45.0	-20	-19.8	25.20	25.20	25.20	25.20	25.20	25.20
	-19	-18.8	27.00	27.00	27.00	27.00	27.00	27.00
	-17	-16.7	28.35	28.35	28.35	28.35	28.35	28.35
	-15	-14.7	29.25	29.25	29.25	29.25	29.25	29.25
	-13.00	-12.6	31.05	31.05	31.05	31.05	31.05	31.05
	-11.00	-10.5	31.50	31.95	31.95	31.95	31.95	31.95
	-10.00	-9.5	32.85	32.85	32.85	32.85	32.85	32.85
	-9.10	-8.5	33.75	33.75	33.75	33.75	33.75	33.75
	-7.60	-7	34.20	34.20	34.20	34.20	34.20	34.20
	-5.60	-5	35.55	35.55	35.55	35.55	35.55	35.55
	-3.70	-3	37.35	37.35	37.35	37.35	37.35	37.35
	-0.70	0	40.05	40.05	40.05	40.05	40.05	37.80
	2.20	3	42.30	42.30	42.30	42.30	41.40	37.80
	4.10	5	43.65	43.65	43.65	43.65	41.40	37.80
	6.00	7	45.00	45.00	45.00	43.65	41.40	37.80
	7.90	9	46.35	46.35	45.00	43.65	41.40	37.80
	9.80	11	47.70	47.70	45.00	43.65	41.40	37.80
11.80	13	49.50	48.60	45.00	43.65	41.40	37.80	
13.70	15	50.85	48.60	45.00	43.65	41.40	37.80	
56.0	-20	-19.8	31.36	31.36	31.36	31.36	31.36	31.36
	-19	-18.8	33.60	33.60	33.60	33.60	33.60	33.60
	-17	-16.7	35.28	35.28	35.28	35.28	35.28	35.28
	-15	-14.7	36.40	36.40	36.40	36.40	36.40	36.40
	-13.00	-12.6	38.64	38.64	38.64	38.64	38.64	38.64
	-11.00	-10.5	39.20	39.76	39.76	39.76	39.76	39.76
	-10.00	-9.5	40.88	40.88	40.88	40.88	40.88	40.88
	-9.10	-8.5	42.00	42.00	42.00	42.00	42.00	42.00
	-7.60	-7	42.56	42.56	42.56	42.56	42.56	42.56
	-5.60	-5	44.24	44.24	44.24	44.24	44.24	44.24
	-3.70	-3	46.48	46.48	46.48	46.48	46.48	46.48
	-0.70	0	49.84	49.84	49.84	49.84	49.84	47.04
	2.20	3	52.64	52.64	52.64	52.64	51.52	47.04
	4.10	5	54.32	54.32	54.32	54.32	51.52	47.04
	6.00	7	56.00	56.00	56.00	54.32	51.52	47.04
	7.90	9	57.68	57.68	56.00	54.32	51.52	47.04
	9.80	11	59.36	59.36	56.00	54.32	51.52	47.04
11.80	13	61.60	60.48	56.00	54.32	51.52	47.04	
13.70	15	63.28	60.48	56.00	54.32	51.52	47.04	

9. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D71T1/N1-B	50	220-240	198	254	1.23	5	0.1	1.17
MDV-D80T1/N1-B	50	220-240	198	254	1.23	5	0.1	1.17
MDV-D90T1/N1-B	50	220-240	198	254	1.87	5	0.16	1.71
MDV-D112T1/N1-B	50	220-240	198	254	2.3	5	0.2	2.18
MDV-D140T1/N1-B	50	220-240	198	254	2.85	5	0.3	2.56
MDV-D160T1/N1-B	50	220-240	198	254	4.77	6	0.4	3.52
MDV-D200T1/N1-B	50	220-240	198	254	8.6	10	0.55(*2)	3.1(*2)
MDV-D250T1/N1-B	50	220-240	198	254	8.6	10	0.55(*2)	3.1(*2)
MDV-D280T1/N1-B	50	220-240	198	254	8.6	10	0.55(*2)	3.25(*2)
MDV-D400T1/N1	50	220-240	198	254	18.75	25	0.55(*3)	5(*3)
MDV-D450T1/N1	50	220-240	198	254	18.75	25	0.55(*3)	5(*3)
MDV-D560T1/N1	50	220-240	198	254	23.1	30	0.6(*3)	6.2(*3)

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

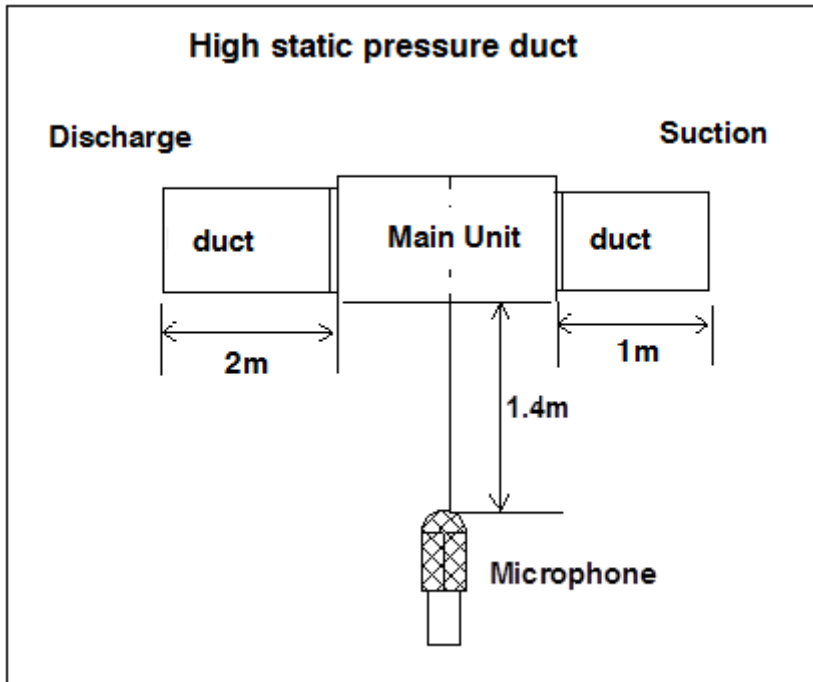
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

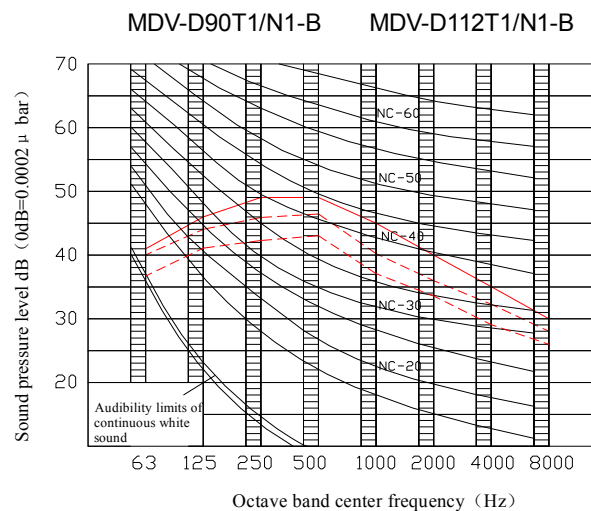
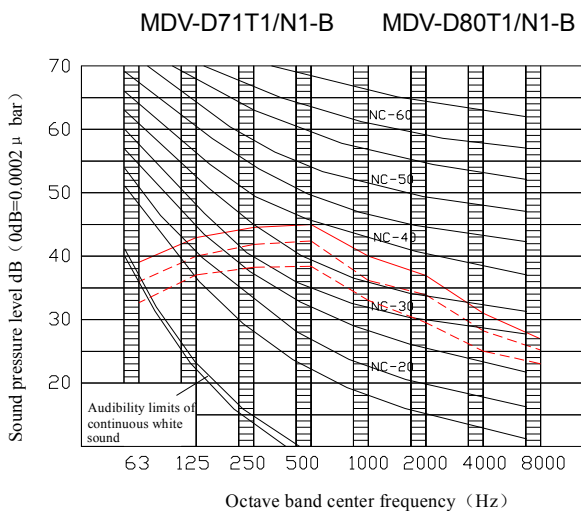
10. Sound Levels

10.1 Test condition

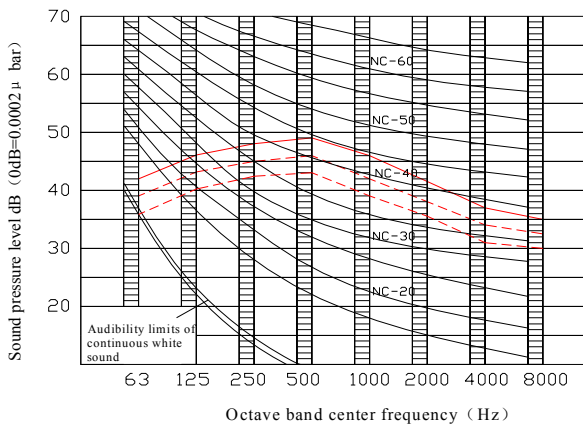


10.2 Test value

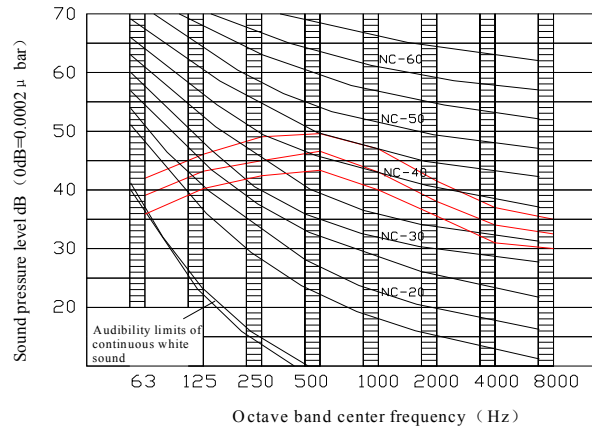
Model	Sound test value dB(A)		
	H	M	L
MDV-D71T1/N1-B	48	46	44.5
MDV-D80T1/N1-B	48	46	44.5
MDV-D90T1/N1-B	52	49	47
MDV-D112T1/N1-B	52	49	47
MDV-D140T1/N1-B	53	50	48
MDV-D160T1/N1-B	54	52	50
MDV-D200T1/N1-B	58	55	52
MDV-D250T1/N1-B	58	55	52
MDV-D280T1/N1-B	58	55	52
MDV-D400T1/N1	61	59	56
MDV-D450T1/N1	61	59	56
MDV-D560T1/N1	63	60	57



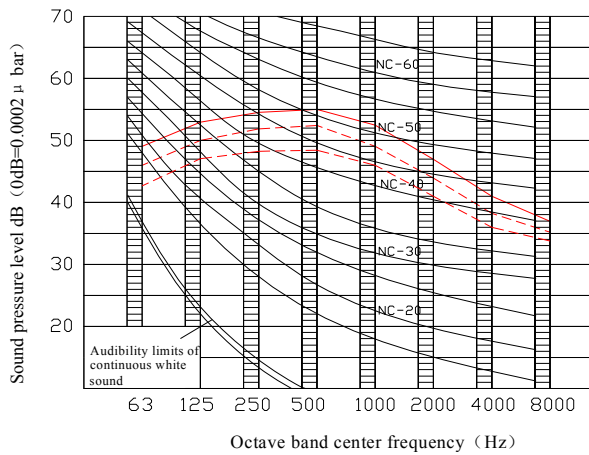
MDV-D140T1/N1-B



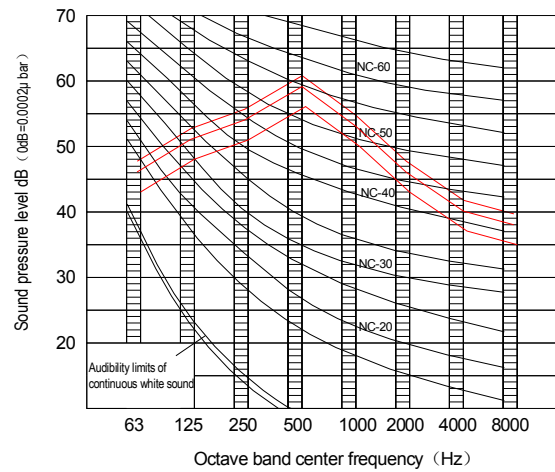
MDV-D160T1/N1-B



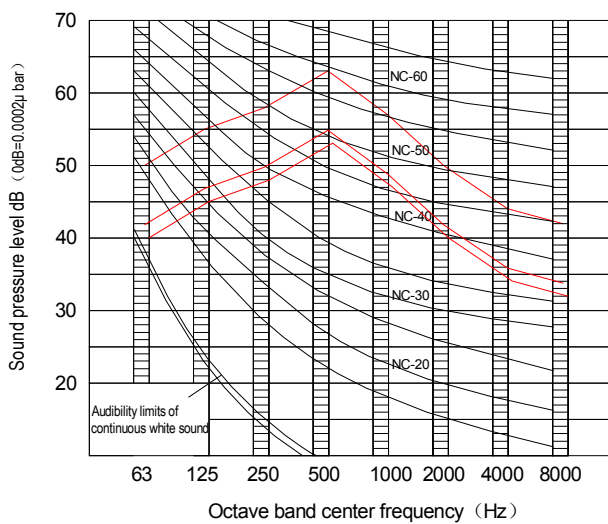
MDV-D200T1/N1-B, MDV-D250T1/N1-B, MDV-D280T1/N1-B



MDV-D400T1/N1, MDV-D450T1/N1



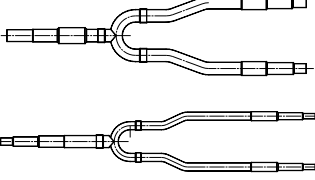
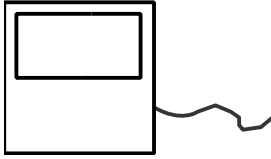








MDV-D560T1/N1



11. Accessories

11.1 Standard accessories

Name	Qty.	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	71~160		Heat insulation
	200 and up		
Adhesive tape for seal (except 400,450,560 model)	2		To connect drain pipe
Branch header (for 200 and up model) package Code: 201609891015 Model:CE-MDV-BY101N1(MDV-BY101N1)	2		1 liquid and 1 gas branch To connect the two circuits of indoor unit as one system.
Wired controller (KJR-29B1/BK-E)	1		Control the air conditioner.
Network matching wire	1		The indoor unit witch at the terminal of communication system should connect a impedance between port p and port Q
Water outlet joint (except 400,450,560 model)	1		For drainage
Clasp	1		Chucking the joint which connect the drain hose and the outlet of indoor unit
Water connecting pipe (only for 400,450,560 model)	1		To connect drain pipe
EXV connecting pipe ass'y (only for 400,450,560 model)	2		To connect the throttle components.
Signal receiver display board (already fixed inside control box)	1		Receive signal

11.2 Optional accessories

Name	Model	Code	Usage
Wireless remote controller	RM05/BG(T)E-A	203355091418	Which can be used to set the indoor unit's address
Drain pump kit	SBH-04	210095700140	To lift the drain water up