

Midea Commercial Air Conditioner

R410A Full DC Inverter V4 Plus

Indoor Unit

Technical Service Manual

(50Hz)

2011.09



R-410A

HEAT PUMP TYPE DC INVERTER VRF

Indoor Units

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One-way Cassette Type

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1. Feature

1.1 Lower noise level

1.2 Smoother air flow with less turbulence

1.3 Single-flow type allows effective air discharge from corner or from drop-ceiling.

---Quick cooling

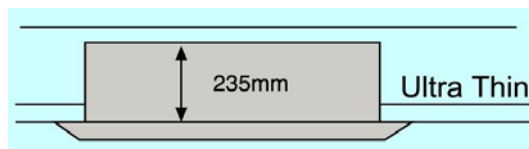


1.4 Stylish design

---Be harmonious with any interior decoration and creates an elegant environment

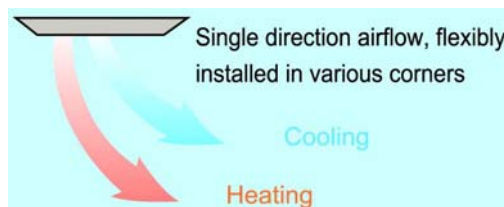
1.5 Ultra-thin main body

Slim body needs only 235 mm space above the ceiling.



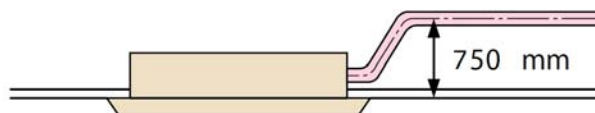
1.6 Convenient installation

----One direction air flow guarantee quick cooling, flexible installation position.



---Standardized sectional module

1.7 Built-in water pumping with 750mm pumping head.



1.8 Easier to do cleaning and maintenance

---Flat type suction grille of easy cleaning

2. Specifications

Model			MDV-D28Q1/N1-C	MDV-D36Q1/N1-C
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz	
Cooling	Capacity	kW	2.8	3.6
	Input	W	53	53
	Rated current	A	0.3	0.3
Heating	Capacity	kW	3.2	4.0
	Input	W	53	53
	Rated current	A	0.3	0.3
Indoor fan motor	Model		YSK20-4	
	Type		Centrifugal fan	
	Brand		Welling	
	Input	W	44/42/40	44/42/40
	Capacitor	μF	1.2/450v	1.2/450v
	Speed (hi/mid/lo)	r/min	970/900/820	
Indoor coil	Number of rows		3	3
	Tube pitch(a)x row pitch(b)	mm	25.4x22	25.4x22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside dia. and type	mm	Φ9.52 Inner groove tube	
	Coil length x height x width	mm	600x208x66	
	Number of circuits		2	2
Indoor air flow (H/M/L)		m ³ /h	500/450/410	
Indoor noise level (Hi/Mid/Lo)		dB(A)	36/34/30	
Indoor unit	Dimension (W×H×D)	mm	850×235×400	
	Packing (W×H×D)	mm	1080X320X460	
	Net/Gross weight	kg	23/27	23/27
panel	Dimension (W×H×D)	mm	1050x18x470	
	Packing (W×H×D)	mm	1100x40x520	
	Net/Gross weight	Kg	4/6	4/6
Refrigerant type			R410A	
Throttle	Type		Electrical expand valve	
	Model		IPF-24D24 (EXV beside)	
Design pressure		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	Φ6.35/ Φ12.7
Connecting wiring	Power wiring	mm ²	2.0	2.0
	Signal wiring	mm ²	0.75	0.75
Drainage water pipe dia.		mm	ODΦ16	
Controller			Wireless remote controller (RM05/BG(T)E-A) to set address	
Operation temp		°C	17-30	17-30

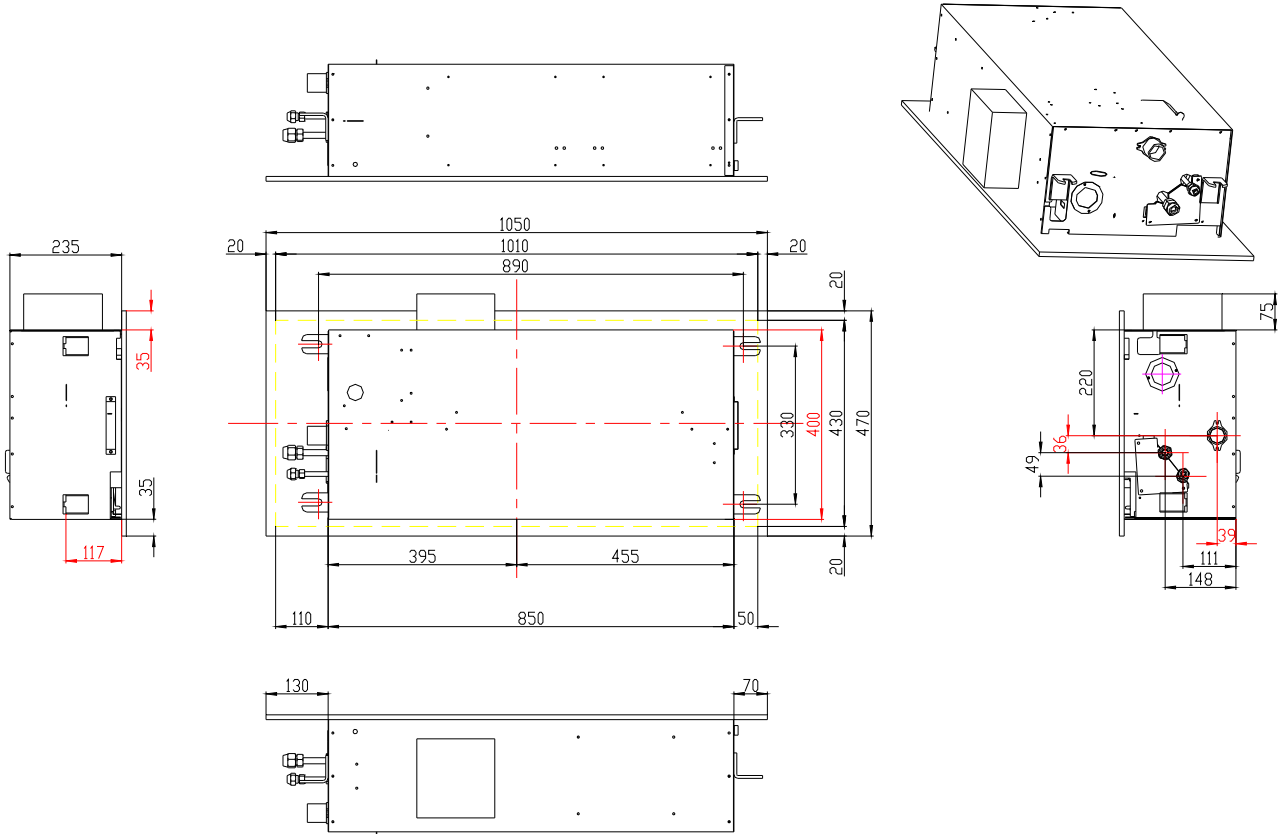
- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.: 35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, equivalent ref. Piping: 8m(horizontal)

Model			MDV-D45Q1/N1-C	MDV-D56Q1/N1-C	MDV-D71Q1/N1-C
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	4.5	5.6	7.1
	Input	W	86	86	86
	Rated current	A	0.4	0.41	0.45
Heating	Capacity	kW	5.0	6.3	8.0
	Input	W	86	86	86
	Rated current	A	0.42	0.42	0.45
Indoor motor fan	Model		YSK55-4		
	Type		Centrifugal fan		
	Brand		Welling		
	Input	W	82/80/73	82/80/73	82/80/73
	Capacitor	μF	2.5/450v	2.5/450v	2.5/450v
	Speed (hi/mid/lo)	r/min	1180/1120/990		
Indoor coil	Number of rows		3	3	3
	Tube pitch(a)x row pitch(b)	mm	25.4X14.4	25.4X14.4	25.4X14.4
	Fin spacing	mm	1.6	1.6	1.6
	Fin type		Hydrophilic aluminum		
	Tube outside dia. and type	mm	Φ7.94 Inner groove tube		
	Coil length x height x width	mm	1040X200X43.2		
	Number of circuits		6	6	6
Indoor air flow (H/M/L)		m ³ /h	894/800/750	919/850/760	1080/980/900
Indoor noise level (Hi/Mid/Lo)		dB(A)	41/38/35	41/38/35	41/38/35
Indoor unit	Dimension (W×H×D)	mm	1200×198×655		
	Packing (W×H×D)	mm	1380X265X775		
	Net/Gross weight	kg	31/38	31/38	31/38
panel	Dimension (W×H×D)	mm	1420×10×755		
	Packing (W×H×D)	mm	1470×50×805		
	Net/Gross weight	Kg	9/11	9/11	9/11
Refrigerant type			R410A		
Throttle	Type		Electrical expand valve		
	Model		IPF-24D24 (EXV beside)		
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	Φ9.52/ Φ15.9	Φ9.52/ Φ15.9
Connecting wiring	Power wiring	mm ²	2.0	2.0	2.0
	Signal wiring	mm ²	0.75	0.75	0.75
Drainage water pipe dia.		mm	ODΦ16		
Standard Controller			Wireless remote controller (RM05/BG(T)E-A) to set address		
Operation temp		°C	17-30	17-30	17-30

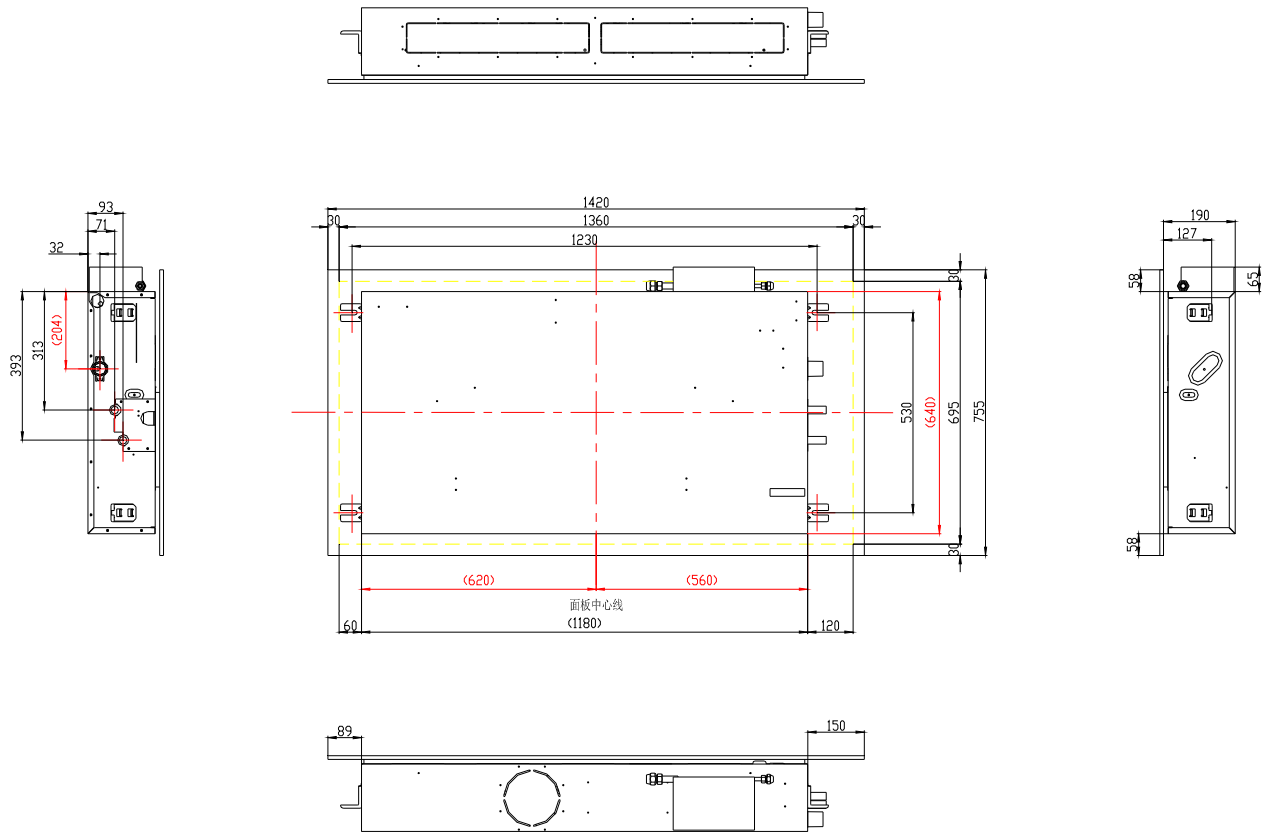
- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.: 35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, equivalent ref. Piping: 8m(horizontal)

3. Dimensions

3.1 MDV-D28Q1/N1-C MDV-D36Q1/N1-C

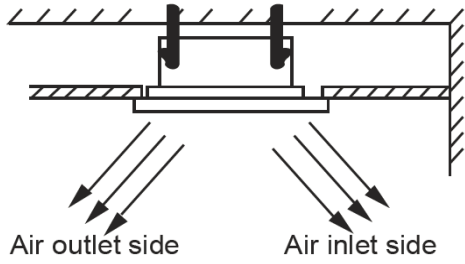
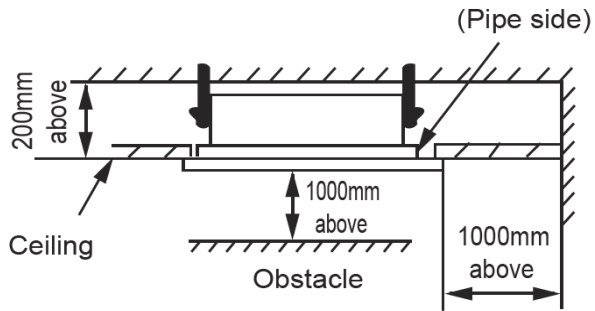


3.2 MDV-D45Q1/N1-C MDV-D56Q1/N1-C MDV-D71Q1/N1-C

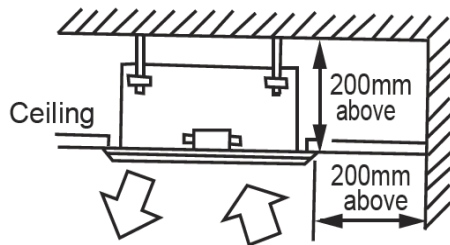
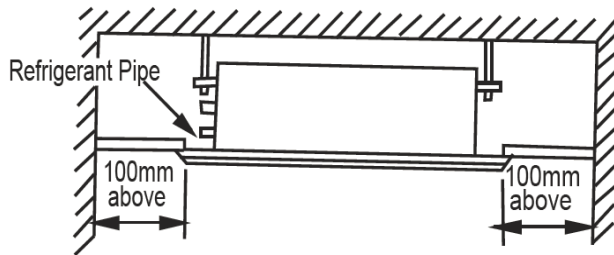


4. Service Space

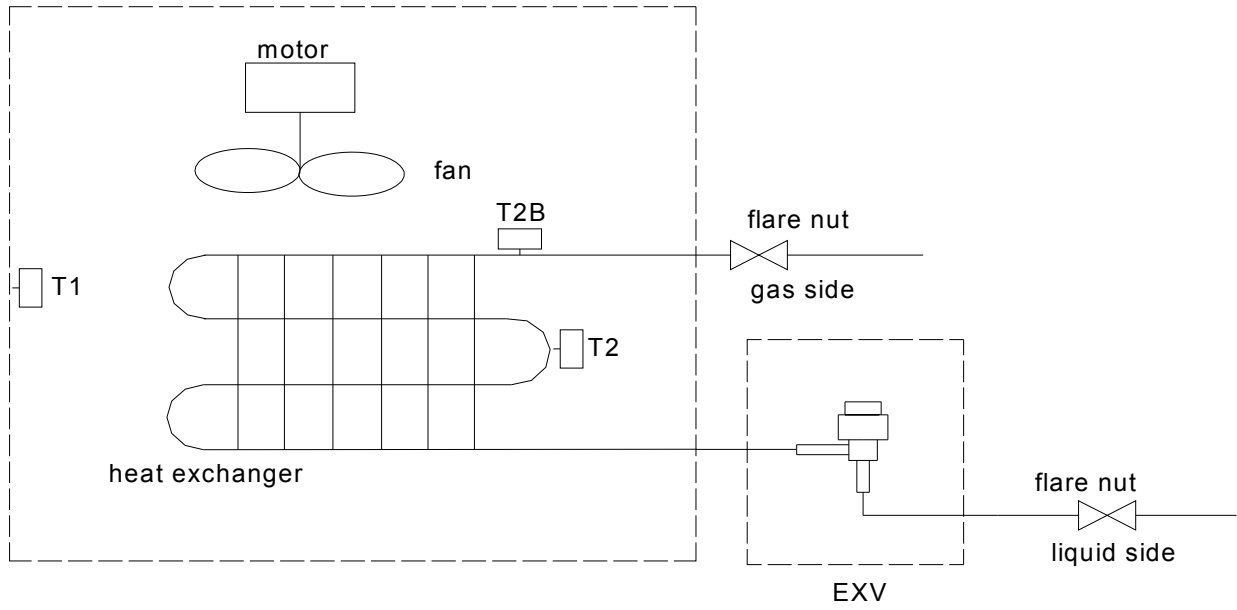
MDV-D28Q1/N1-C MDV-D36Q1/N1-C



MDV-D45Q1/N1-C MDV-D56Q1/N1-C MDV-D71Q1/N1-C

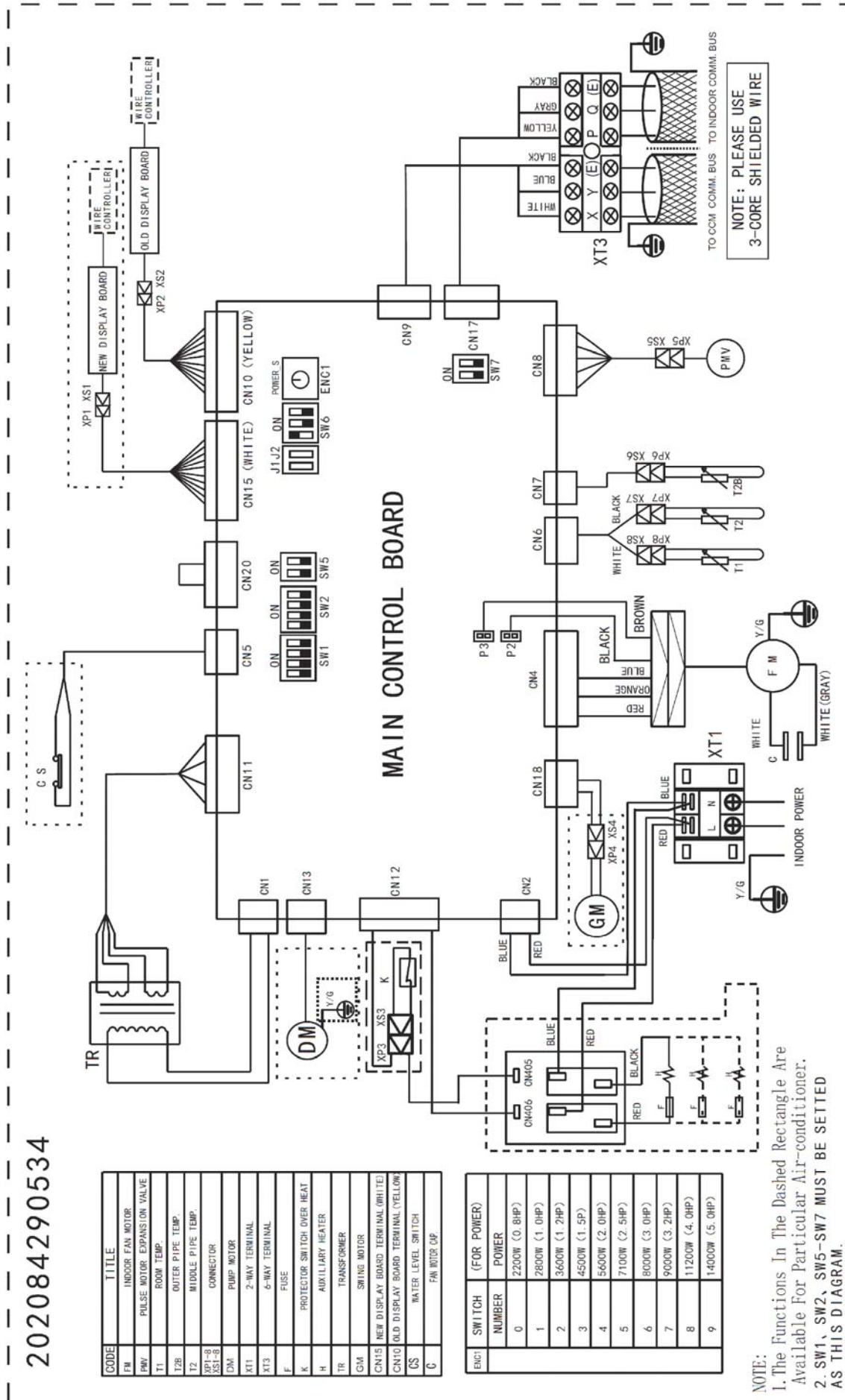


5. Piping Diagram



6. Wiring Diagram

MDV-D28Q1/N1-C MDV-D36Q1/N1-C MDV-D45Q1/N1-C MDV-D56Q1/N1-C MDV-D71Q1/N1-C



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CODE	TITLE
FM	INDOOR FAN MOTOR
EMV	PULSE MOTOR EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XS1-3	CONNECTOR
DM	PUMP MOTOR
XT1	2-WAY TERMINAL
XT3	6-WAY TERMINAL
F	FUSE
K	PROTECTOR SWITCH OVER HEAT
H	AUXILIARY HEATER
TR	TRANSFORMER
GM	SWING MOTOR
CN15	NEW DISPLAY BOARD TERMINAL (WHITE)
CN10	OLD DISPLAY BOARD TERMINAL (YELLOW)
CS	WATER LEVEL SWITCH
C	FAN MOTOR COP.

ENC1 SWITCH NUMBER	(FOR POWER) POWER
0	2200W (0.8HP)
1	2800W (1.0HP)
2	3600W (1.2HP)
3	4500W (1.5P)
4	5600W (2.0HP)
5	7100W (2.5HP)
6	8000W (3.0HP)
7	9000W (3.2HP)
8	11200W (4.0HP)
9	14000W (5.0HP)

NOTE:
 1. The Functions In The Dashed Rectangle Are Available For Particular Air-conditioner.
 2. SW1, SW2, SW5-SW7 MUST BE SETTED AS THIS DIAGRAM.

7. Capacity Tables

7.1 Cooling

TC: total capacity

SC: sensible capacity

WB: wet-bulb temperature

DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/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
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
	42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
	42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0

	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
7.1	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	

7.2 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
2.80	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	
3.60	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	
4.50	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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
5.60	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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
7.10	-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	5.36	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	8.80	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

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D28Q1/N1-C	50	220-240V	198V	254V	0.2675	5	0.020	0.214
MDV-D36Q1/N1-C	50	220-240V	198V	254V	0.2675	5	0.020	0.214
MDV-D45Q1/N1-C	50	220-240V	198V	254V	0.5025	5	0.055	0.402
MDV-D56Q1/N1-C	50	220-240V	198V	254V	0.5025	5	0.055	0.402
MDV-D71Q1/N1-C	50	220-240V	198V	254V	0.5025	5	0.055	0.402

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

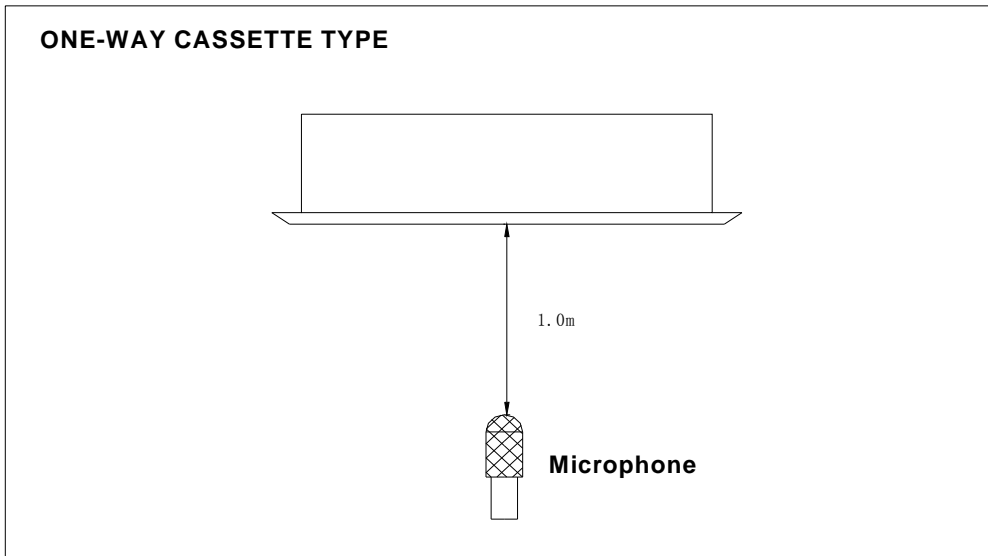
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

9. Sound Levels

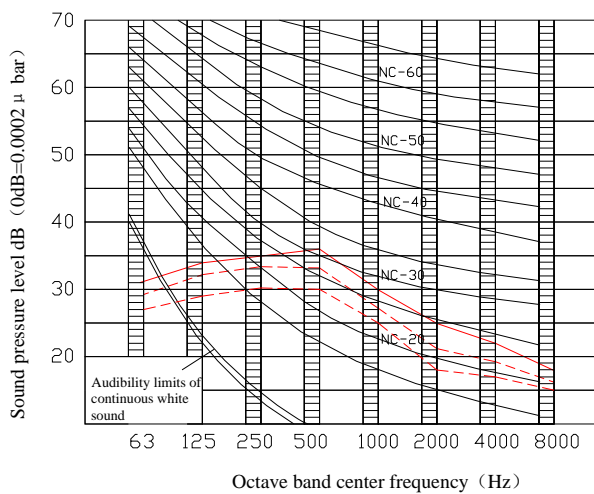
9.1 Test condition



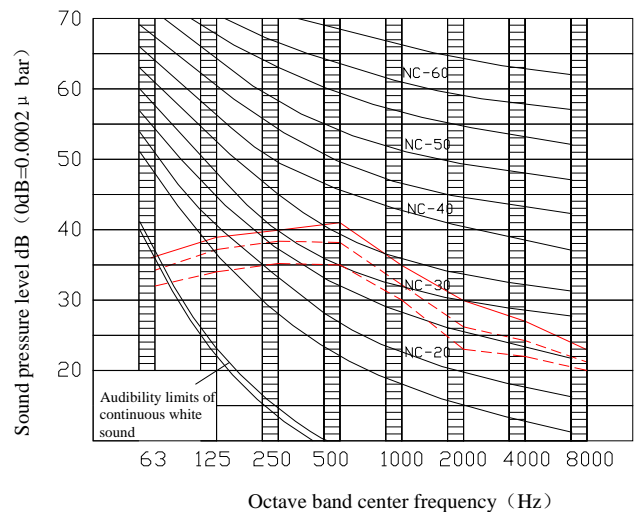
9.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D28Q1/N1-C	36	34	30
MDV-D36Q1/N1-C	36	34	30
MDV-D45Q1/N1-C	36	34	30
MDV-D56Q1/N1-C	41	38	35
MDV-D71Q1/N1-C	41	38	35





MDV-D28Q1/N1-C MDV-D36Q1/N1-C MDV-D45Q1/N1-C



MDV-D56Q1/N1-C MDV-D71Q1/N1-C



10. Accessories**Standard accessories**

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Remote controller	1		/
7# alkaline battery	2		/
Installation pattern paper	1	/	Adjust ceiling hole and position of indoor unit (only for 2800-3600W type)
Installation indicator	1		Adjust main unit position(only for 4500-7100W type)
Holder for remote controller	1		Hold the remote controller
Mounting screw(ST2.9x10-C-H)	2		Insulation Holder for remote controller
Screw M4×16(including flat spring gasket)	5		For fixing the installation pattern paper and panel(only for 2800-3600W type)
Fixing belt	10		Fixing and tightening
Straight pipe	2		Drainage
Elbow	2		Connect drain pipe and straight pipe
Big gasket	8		Hang the indoor unit

Four-way Cassette Type

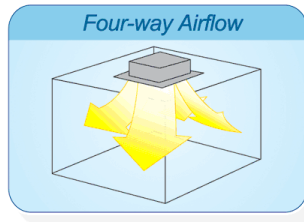
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1. Features

(1) Low operation noise

- Streamline plate ensures quietness
- Creates natural and comfortable environment

(2) Efficient cooling—Equal, fast and wide range cooling



(3) Excellent performance. Higher heat-exchanging efficiency and lower noise.

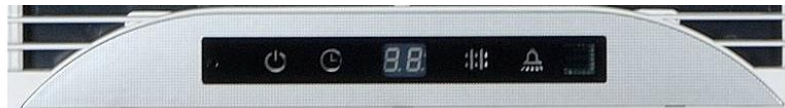
The optimal evaporator & sufficient airflow volume guarantees the excellent capacity

(4) The adoption of the most advanced 3- Dimensional Screw fan

- Reduces the air resistance passing through
- Smooths the air flow
- Makes air speed distribution to the heat exchange uniform



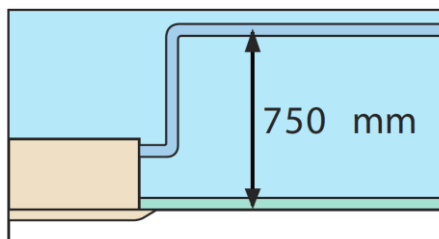
(5) Adding digital tube displaying on the display board. LED can display the Error Code to make the malfunction checking easier.



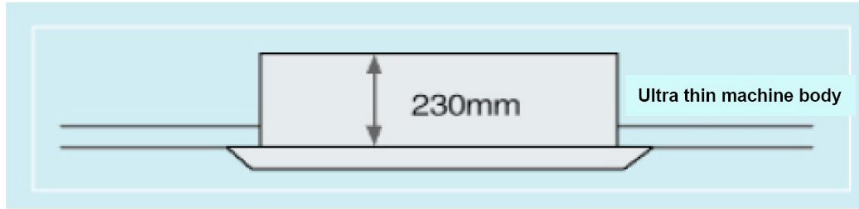
(6) Fresh air makes life healthier and more comfortable.



(7) Drainage pump can take up the condenser water to 750mm.



(8) Ultra-thin machine body to easy installation and maintenance: 2.8kW~8.0kW:230mm, 9.0kW~14kW:300mm.



(9) Different color panels for choose: White, Gray, Blue, Black



(White) Standard



(Black) Optional



(Gray) Optional

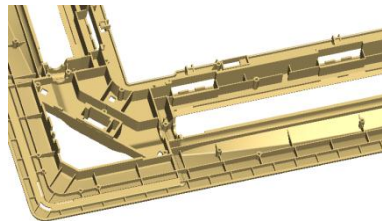


(Blue) Optional

(10) Swing angle of louver

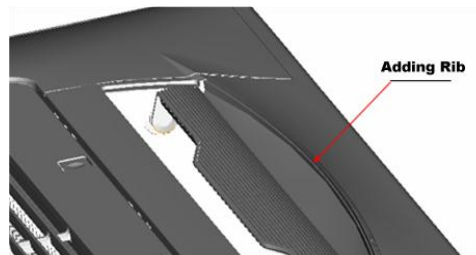
- 1) Add one more swing motor, one motor driving two louvers. Controlling the interspace of each part, minimizing the angle loss.
- 2) The swing angle of the first louver are 40~42 degrees and the second louver are 37~38 degrees. New evaporator and inner configuration designed can acquire high heat-exchanger effect.

(11) More strengthening rib design around the panel, preventing the distortion for the panel.

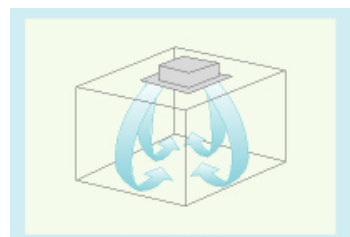


(12) New outlet frame design to make the phenomena of coagulation great improvement: prevent the condensing water from damaging the air guide strip.

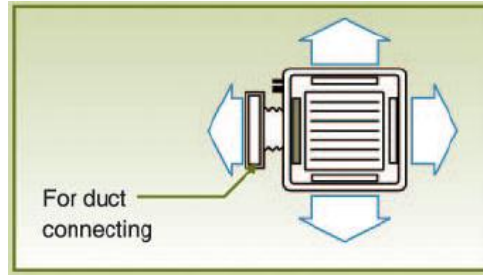
(13) Adding rib on the panel of fan outlet, which can avoid the air outlet direct flow to people.



(14) 4 speeds available, optional super high fan speed design suitable for the large building over 3m high.



(15) Reserve spaces for air side-outlet, it is available to connect duct pipe hence Air supplying from the four sides to nearby small room.



(16) Optimal design, smaller Control Box, Space saving and convenient for wiring,

Using fire resistance galvanized steel for E-box material. Metal box make the control part more stable and prevent damaging

2. Specifications

Model			MDV-D28Q4/N1-D	MDV-D36Q4/N1-D	MDV-D45Q4/N1-D
Power supply		V-Ph-Hz	220-240V, 1Ph, 50Hz		
Cooling	Capacity	kW	2.8	3.6	4.5
	Input	W	80	80	90
	Rated current	A	0.4	0.4	0.4
Heating	Capacity	kW	3.2	4.0	5.0
	Input	W	80	80	90
	Rated current	A	0.4	0.4	0.4
Indoor fan motor	Model		YDK60-6F-3	YDK60-6F-3	YDK60-6F-3
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	98/85/75/70	98/85/75/70	98/85/75/70
	Capacitor	uF	2.5	2.5	3
	Speed (hi/mid/lo)	r/min	(782)/600/509/422	(782)/600/509/422	(808)/652/547/467
Indoor coil	Number of rows		1	1	2
	Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37	21x13.37
	Fin spacing	mm	1.5	1.5	1.5
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube outside dia. and type	mm	Φ7,Innergroove Tube		
	Coil length x height x width	mm	1930x168x13.37	1930x168x13.37	1961x168x26.74
	Number of circuits		4	4	8
Indoor air flow (H/M/L)		m ³ /h	847/766/640	847/766/640	864/755/658
Indoor noise level (Hi/Mid/Lo)		dB(A)	42/38/35	42/38/35	42/38/35
Indoor unit	Dimension (WxHxD)	mm	840x230x840	840x230x840	840x230x840
	Packing (WxHxD)	mm	955X247X955	955X247X955	955X247X955
	Net/Gross weight	kg	24/28	24/28	26/30
Panel	Dimension (WxHxD)	mm	950x46x950	950x46x950	950x46x950
	Packing (WxHxD)	mm	1000x60x1000	1000x60x1000	1000x60x1000
	Net/Gross weight	kg	6/8	6/8	6/8
Refrigerant type			R410A	R410A	R410A
Throttle			Electric expansive valve		
Design pressure		MPa	4.2/2.0	4.2/2.0	4.2/2.0
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.4/Φ12.7	Φ6.4/Φ12.7	Φ6.4/Φ12.7
Connecting wiring	Power wiring	Nb×mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	Nb×mm ²	3×0.75	3×0.75	3×0.75
Drainage water pipe dia.		mm	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32
Standard Controller			Wireless remote controller (RM05/BG(T)E-A) , to set address		
Operation temp		℃	17~30		

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

Model			MDV-D56Q4/N1-D	MDV-D71Q4/N1-D	MDV-D80Q4/N1-D
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz		
Cooling	Capacity	kW	5.6	7.1	8.0
	Input	W	75	82	97
	Rated current	A	0.4	0.5	0.5
Heating	Capacity	kW	6.3	8.0	9.0
	Input	W	75	82	97
	Rated current	A	0.4	0.5	0.5
Indoor fan motor	Model		YDK60-6F-3	YDK80-6E-2	YDK80-6E-2
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	98/85/75/70	120/110/100/90	120/110/100/90
	Capacitor	uF	3	3	3
	Speed (hi/mid/lo)	r/min	(808)/652/547/467	(877)/755/627/490	(800)/777/662/525
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37	21x13.37
	Fin spacing	mm	1.5	1.5	1.5
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube outside dia. and type	mm	Φ7, Innergroove Tube		
	Coil length x height x width	mm	1961x168x26.74	1961x168x26.74	1961x168x26.74
	Number of circuits		8	8	8
Indoor air flow (H/M/L)		m ³ /h	864/755/658	1157/955/749	1236/973/729
Indoor noise level (Hi/Mid/Lo)		dB(A)	42/38/35	45/42/39	45/42/39
Indoor unit	Dimension (WxHxD)	mm	840x230x840	840x230x840	840x230x840
	Packing (WxHxD)	mm	955X247X955	955X247X955	955X247X955
	Net/Gross weight	kg	26/30	26/30	26/30
Panel	Dimension (WxHxD)	mm	950x46x950	950x46x950	950x46x950
	Packing (WxHxD)	mm	1000x60x1000	1000x60x1000	1000x60x1000
	Net/Gross weight	kg	6/8	6/8	6/8
Refrigerant type			R410A	R410A	R410A
Throttle			Electric expansive valve		
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.5/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9
Connecting wiring	Power wiring	Nb×mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	Nb×mm ²	3×0.75	3×0.75	3×0.75
Drainage water pipe dia.		mm	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32
Standard Controller			Wireless remote controller (RM05/BG(T)E-A) , to set address		
Operation temp		℃	17~30		

Notes:

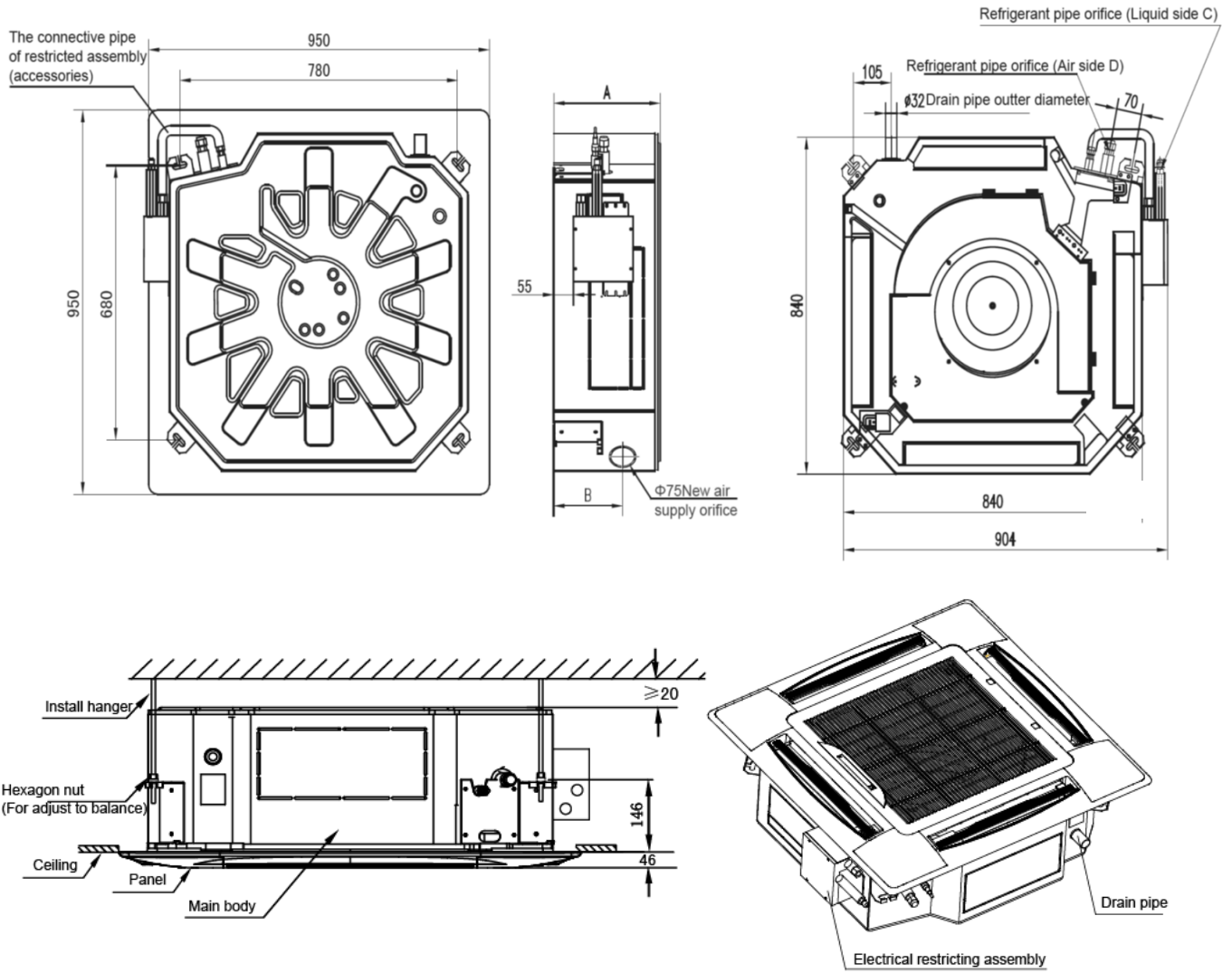
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

Model			MDV-D90Q4/N1-D	MDV-D100Q4/N1-D	MDV-D112Q4/N1-D	MDV-D140Q4/N1-D
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz			
Cooling	Capacity	kW	9.0	10.0	11.2	14.0
	Input	W	160	160	160	170
	Rated current	A	0.7	0.7	0.7	0.8
Heating	Capacity	kW	10.0	11.0	12.5	15.0
	Input	W	160	160	160	170
	Rated current	A	0.7	0.7	0.7	0.8
Indoor fan motor	Model		YDK90-6E-1	YDK90-6E-1	YDK90-6E-1	YDK90-6E-1
	Type		AC motor	AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling	Welling
	Input	W	165/143/114/93	165/143/114/93	165/143/114/93	204/175/140/120
	Capacitor	uF	3.5	3.5	3.5	4
	Speed (hi/mid/lo)	r/min	770/640/550	770/640/550	770/640/550	820/750/620
Indoor coil	Number of rows		2	2	2	2
	Tube pitch(a)x row pitch(b)	mm	21x13.37	21x13.37	21x13.37	21x13.37
	Fin spacing	mm	1.5	1.5	1.5	1.5
	Fin type		Hydrophilic Aluminum			
	Tube outside dia. and type	mm	Φ7, Innergroove Tube			
	Coil length x height x width	mm	1955x252x26.74	1955x252x26.74	1955x252x26.74	1955x252x26.74
	Number of circuits		8	8	8	12
Indoor air flow (H/M/L)		m ³ /h	1540/1300/1120	1540/1300/1120	1540/1300/1120	1800/1500/1280
Indoor noise level (Hi/Mid/Lo)		dB(A)	48/45/43	48/45/43	48/45/43	50/47/44
Indoor unit	Dimension (WxHxD)	mm	840x300x840	840x300x840	840x300x840	840x300x840
	Packing (WxHxD)	mm	955X317X955	955X317X955	955X317X955	955X317X955
	Net/Gross weight	kg	32/37	32/37	32/37	32/37
Panel	Dimension (WxHxD)	mm	950x46x950	950x46x950	950x46x950	950x46x950
	Packing (WxHxD)	mm	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000
	Net/Gross weight	kg	6/8	6/8	6/8	6/8
Refrigerant type			R410A			
Throttle			Electronical expansive valve			
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9
Connecting wiring	Power wiring	Nb×mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)			
	Signal wiring	Nb×mm ²	3×0.75	3×0.75	3×0.75	3×0.75
Drainage water pipe dia.		mm	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32	IDΦ28.5 ODΦ32
Standard Controller			Wireless remote controller (RM05/BG(T)E-A) , to set address			
Operation temp		℃	17~30			

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

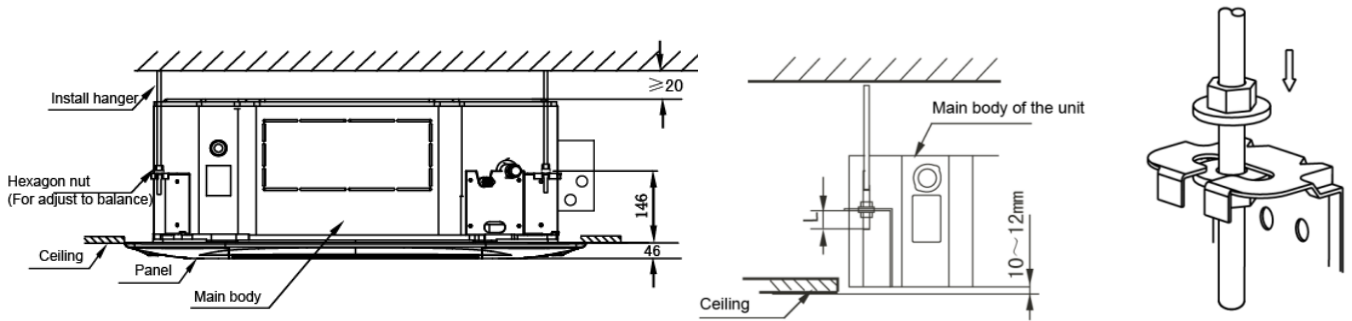
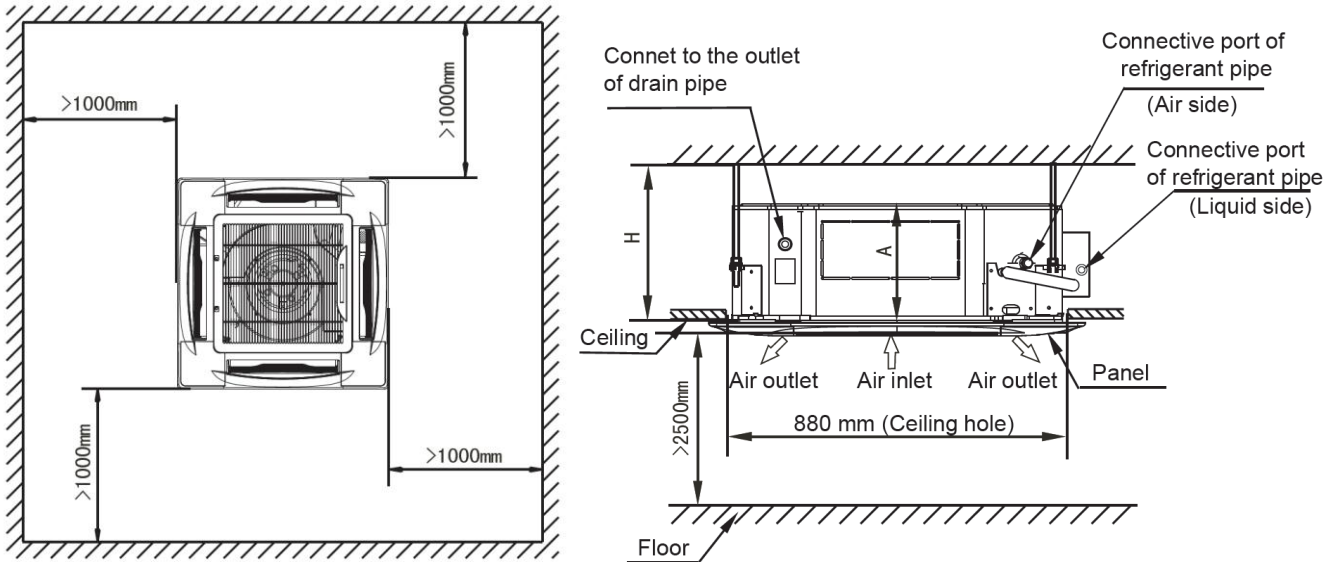
3. Dimensions



Indoor unit model	A(mm)	B(mm)	C(mm)	D(mm)
MDV-D28Q4/N1-D ~ MDV-D45Q4/N1-D	230	170	Φ6.35	Φ12.7
MDV-D56Q4/N1-D ~ MDV-D80Q4/N1-D	230	170	Φ9.52	Φ15.9
MDV-D90Q4/N1-D ~ MDV-D140Q4/N1-D	300	190	Φ9.52	Φ15.9

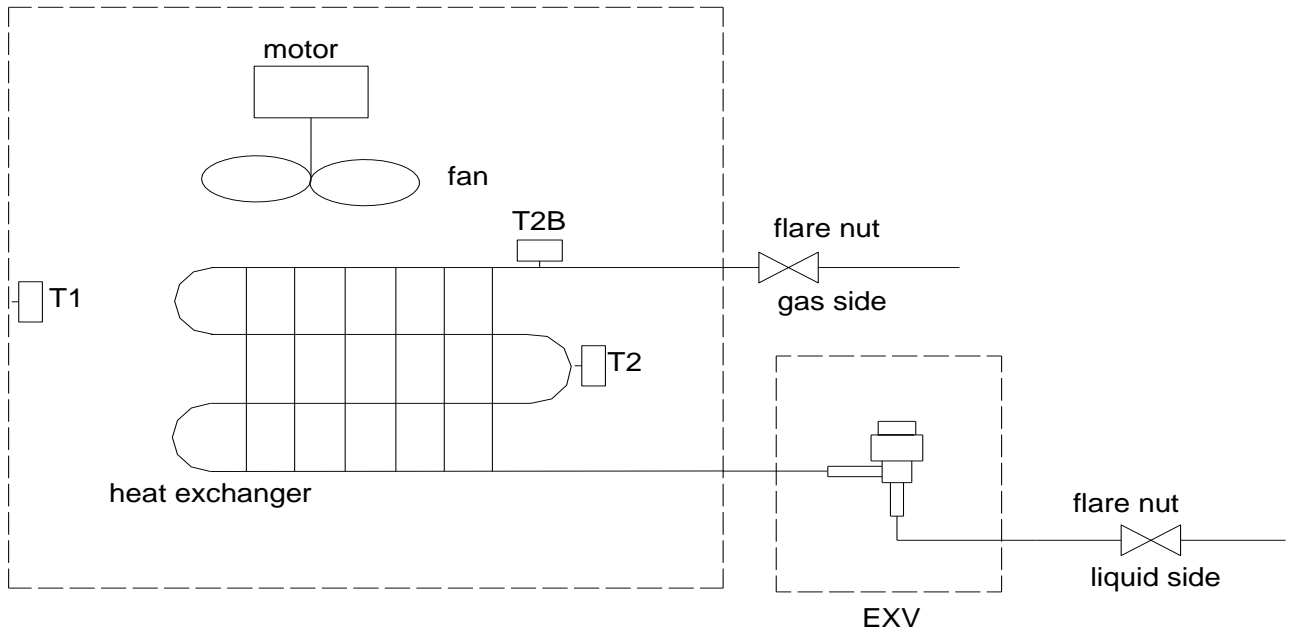
4. Service Space

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



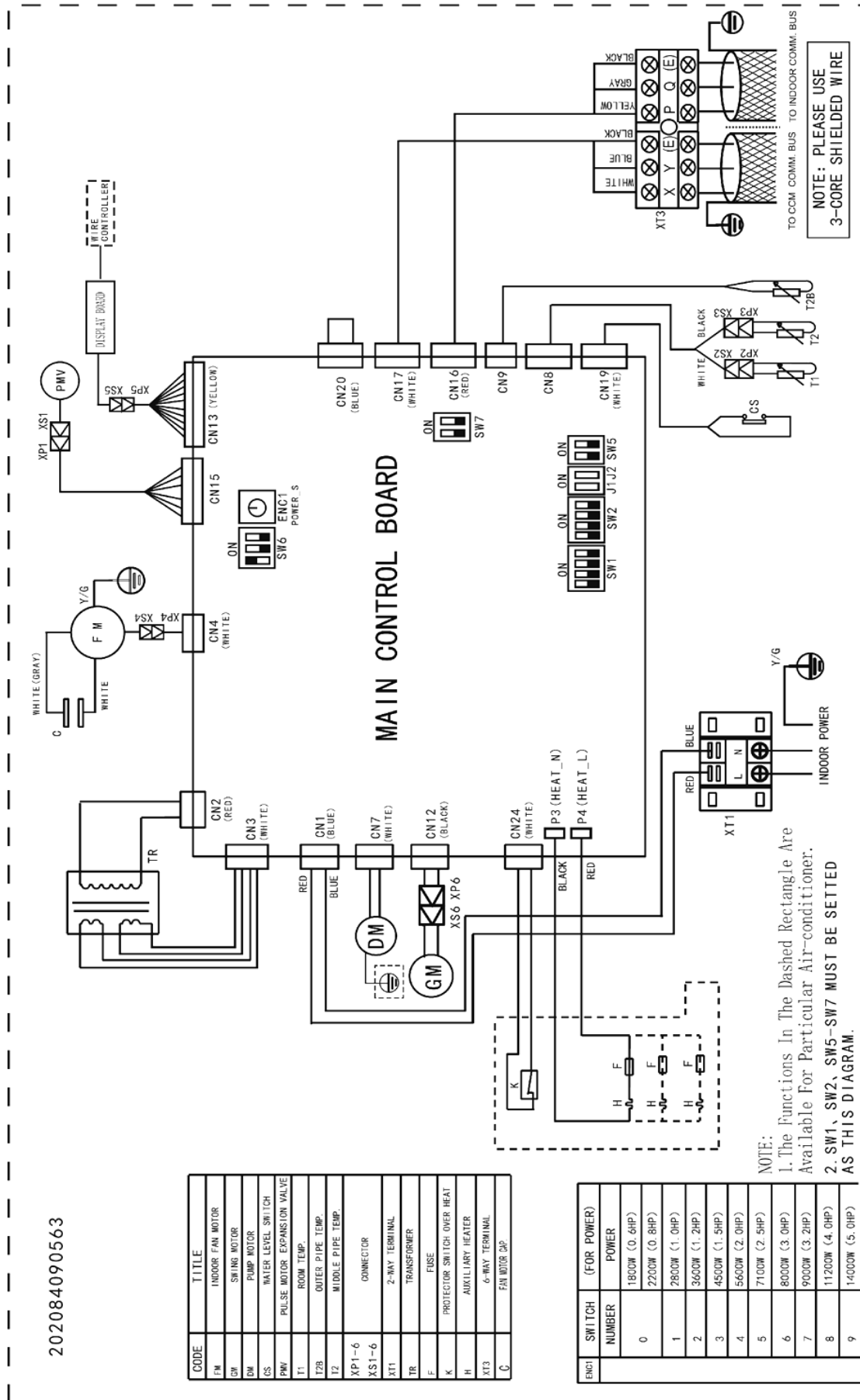
Indoor unit	A(mm)	H(mm)
MDV-D28Q4/N1-D ~ MDV-D80Q4/N1-D	230	≥260
MDV-D90Q4/N1-D ~ MDV-D140Q4/N1-D	300	≥330

5. Piping Diagram



6. Wiring Diagram

MDV-D28Q4/N1-D MDV-D36Q4/N1-D MDV-D45Q4/N1-D MDV-D56Q4/N1-D MDV-D71Q4/N1-D
 MDV-D80Q4/N1-D MDV-D90Q4/N1-D MDV-D100Q4/N1-D MDV-D112Q4/N1-D MDV-D140Q4/N1-D



202084090563

CODE	TITLE
FM	INDOOR FAN MOTOR
SM	SWING MOTOR
GM	PUMP MOTOR
GS	WATER LEVEL SWITCH
PMV	PULSE MOTOR EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XP1-6	CONNECTOR
XS1-6	2-WAY TERMINAL
XT1	TRANSFORMER
F	FUSE
K	PROTECTOR SWITCH OVER HEAT
H	AUXILIARY HEATER
XT3	6-WAY TERMINAL
C	FAN MOTOR DP

SWITCH NUMBER	(FOR POWER)
0	1800W (0.6HP)
	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)

7. Capacity Tables

7.1 Cooling

TC: total capacity SC: sensible capacity WB: wet-bulb temperature DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/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
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	

	44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
7.1	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
8.0	10.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.4	5.6
	12.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	14.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	16.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.0	5.4
	18.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.8	5.3
	20.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.6	5.2
	21.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	23.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	25.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.3	5.0
	27.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.1	5.3	9.2	5.1
	29.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	9.0	5.3	9.1	5.0
	31.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.9	5.2	8.8	4.8
	33.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
	35.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.6	5.1	8.6	4.8
	37.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.3	5.4	8.4	5.0	8.6	4.9
	39.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
42.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
44.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
46.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
9.0	10.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.7	6.0
	12.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.5	5.9
	14.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.4	5.9
	16.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.3	5.8
	18.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.0	5.8
	20.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.8	5.7

	21.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.6	5.6
	23.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.5	5.5
	25.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.4	5.5
	27.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.3	5.9	10.4	5.4
	29.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.1	5.7	10.3	5.4
	31.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.0	5.7	9.9	5.3
	33.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	9.9	5.6	9.9	5.3
	35.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.5	6.0	9.6	5.5	9.7	5.3
	37.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.3	5.8	9.5	5.4	9.6	5.3
	39.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3
	42.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3
	44.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3
46.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3	
10.0	10.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	13.0	7.3
	12.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.8	7.2
	14.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.7	7.1
	16.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.5	7.0
	18.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.2	6.8
	20.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.0	6.7
	21.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	11.8	6.6
	23.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.7	7.3	11.7	6.6
	25.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.6	7.2	11.6	6.5
	27.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.5	7.1	11.5	6.6
	29.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.4	7.1	11.4	6.5
	31.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.3	7.0	11.0	6.3
	33.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.2	6.9	11.0	6.3
	35.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.5	6.9	10.8	6.7	10.8	6.3
	37.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.4	6.9	10.8	6.7	10.7	6.2
	39.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3
42.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3	
44.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3	
46.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3	
11.2	10.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	15.5	8.2
	12.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.4	7.7
	14.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.2	7.6
	16.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.1	7.5
	18.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.0	7.5
	20.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	13.9	7.4
	21.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	13.8	7.4
	23.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.1	7.5	13.7	7.3
	25.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.0	7.4	13.6	7.2
	27.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.9	7.3	13.4	7.2
	29.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.8	7.3	13.3	7.2
	31.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.7	7.2	12.8	6.9
	33.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.5	7.2	12.5	6.8
	35.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.8	7.4	12.4	7.1	12.3	6.7
	37.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.6	7.3	12.3	7.0	12.1	6.6
	39.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.4	7.1	12.2	7.0	11.9	6.6
42.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
44.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
46.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
14.0	10.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	18.2	9.4
	12.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.9	9.2
	14.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.8	9.2
	16.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.5	9.0
	18.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.1	8.8
	20.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	16.8	8.7
	21.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	16.5	8.5
	23.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.4	9.3	16.4	8.4
	25.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.2	9.3	16.2	8.4
	27.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.1	9.2	16.1	8.4
	29.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.0	9.1	16.0	8.4
	31.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	15.8	9.0	15.4	8.1
33.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	15.7	8.9	15.4	8.1	
35.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.7	8.9	15.1	8.6	15.1	8.1	

	37.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.6	8.8	15.1	8.6	15.0	8.0
	39.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1
	42.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1
	44.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1
	46.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1

7.2 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	TC	TC	TC	TC	TC
2.80	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	
3.60	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	
4.50	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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
5.60	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	
7.10	-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	5.36	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	8.80	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	
8.00	-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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-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	
9.00	-20	-19.8	5.60	5.04	5.60	5.60	5.60	5.60
	-19	-18.8	6.00	5.40	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	6.70	6.70	6.70	6.70	6.70	6.70
	-11.00	-10.50	7.00	7.00	7.00	7.00	7.00	7.00
	-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	
10.00	-20	-19.8	6.16	6.16	6.16	6.16	6.16	6.16
	-19	-18.8	6.60	6.60	6.60	6.60	6.60	6.60
	-17	-16.7	6.93	6.93	6.93	6.93	6.93	6.93
	-15	-14.7	7.15	7.15	7.15	7.15	7.15	7.15
	-13.00	-12.60	7.37	7.37	7.37	7.37	7.37	7.37
	-11.00	-10.50	7.70	7.70	7.70	7.70	7.70	7.70
	-10.00	-9.50	8.03	8.03	8.03	8.03	8.03	8.03
	-9.10	-8.50	8.25	8.25	8.25	8.25	8.25	8.25
	-7.60	-7.00	8.36	8.36	8.36	8.36	8.36	8.36
	-5.60	-5.00	8.69	8.69	8.69	8.69	8.69	8.69
	-3.70	-3.00	9.13	9.13	9.13	9.13	9.13	9.13
	-0.70	0.00	9.79	9.79	9.79	9.79	9.79	9.24
	2.20	3.00	10.34	10.34	10.34	10.34	10.12	9.24
	4.10	5.00	10.67	10.67	10.67	10.67	10.12	9.24
6.00	7.00	11.00	11.00	11.00	10.67	10.12	9.24	
7.90	9.00	11.33	11.33	11.00	10.67	10.12	9.24	
9.80	11.00	11.66	11.66	11.00	10.67	10.12	9.24	
11.80	13.00	12.10	11.88	11.00	10.67	10.12	9.24	
13.70	15.00	12.43	11.88	11.00	10.67	10.12	9.24	
11.20	-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	8.38	8.38	8.38	8.38	8.38	8.38
	-11.00	-10.50	8.75	8.75	8.75	8.75	8.75	8.75
	-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
	-13.0	-12.6	10.4	10.4	10.4	10.4	10.4	10.4
	-11.0	-10.5	10.9	10.9	10.9	10.9	10.9	10.9
	-10.0	-9.5	11.3	11.3	11.3	11.3	11.3	11.3
	-9.1	-8.5	11.6	11.6	11.6	11.6	11.6	11.6
	-7.6	-7.0	11.8	11.8	11.8	11.8	11.8	11.8
-5.6	-5.0	12.3	12.3	12.3	12.3	12.3	12.3	
-3.7	-3.0	12.9	12.9	12.9	12.9	12.9	12.9	

	-0.7	0.0	13.8	13.8	13.8	13.8	13.8	13.0
	2.2	3.0	14.6	14.6	14.6	14.6	14.3	13.0
	4.1	5.0	15.0	15.0	15.0	15.0	14.3	13.0
	6.0	7.0	15.5	15.5	15.5	15.0	14.3	13.0
	7.9	9.0	16.0	16.0	15.5	15.0	14.3	13.0
	9.8	11.0	16.4	16.4	15.5	15.0	14.3	13.0
	11.8	13.0	17.1	16.7	15.5	15.0	14.3	13.0
	13.7	15.0	17.5	16.7	15.5	15.0	14.3	13.0

9. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	kW	FLA
MDV-D28Q4/N1-D	50Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D36Q4/N1-D	50Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D45Q4/N1-D	50Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D56Q4/N1-D	50Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D71Q4/N1-D	50Hz	220-240V	198V	254V	0.65	15A	0.080	0.5
MDV-D80Q4/N1-D	50Hz	220-240V	198V	254V	0.65	15A	0.080	0.5
MDV-D90Q4/N1-D	50Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D100Q4/N1-D	50Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D112Q4/N1-D	50Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D140Q4/N1-D	50Hz	220-240V	198V	254V	0.85	15A	0.09	0.67

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

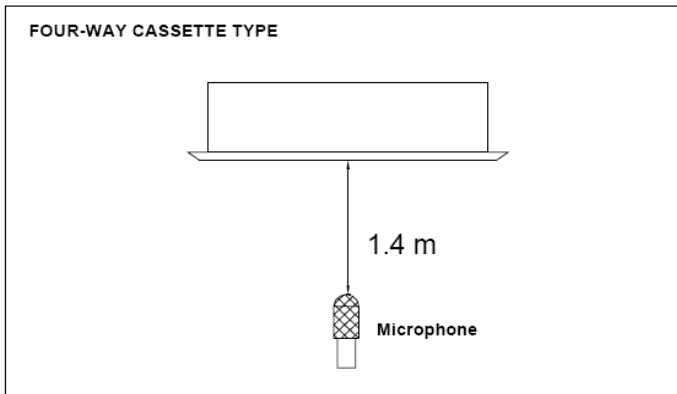
kW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

10. Sound Levels

10.1 Test condition



Note:

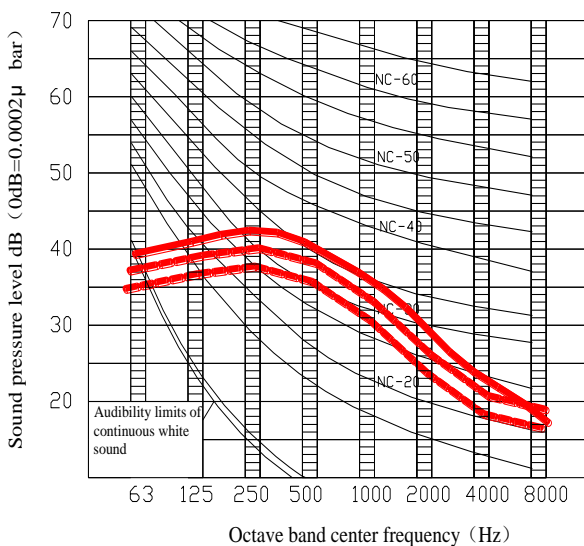
- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1m in front of the unit at a height of 1.4m

10.2 Test data (Sound Pressure Levels)

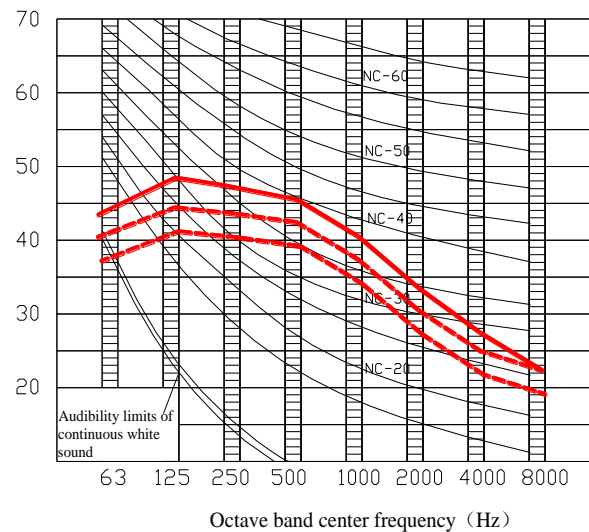
Model	Noise level under three speeds of fan (dB(A))		
	H	M	L
MDV-D28Q4/N1-D	42	38	35
MDV-D36Q4/N1-D	42	38	35
MDV-D45Q4/N1-D	42	38	35
MDV-D56Q4/N1-D	42	38	35
MDV-D71Q4/N1-D	45	42	39
MDV-D80Q4/N1-D	45	42	39
MDV-D90Q4/N1-D	48	45	43
MDV-D100Q4/N1-D	48	45	43
MDV-D112Q4/N1-D	48	45	43
MDV-D140Q4/N1-D	50	47	44

10.3 Octave Band Level

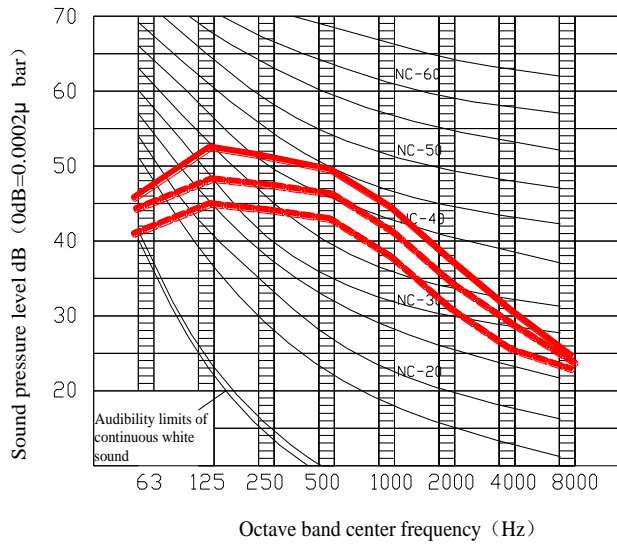
MDV-D28(36,45,56) Q4/N1-D



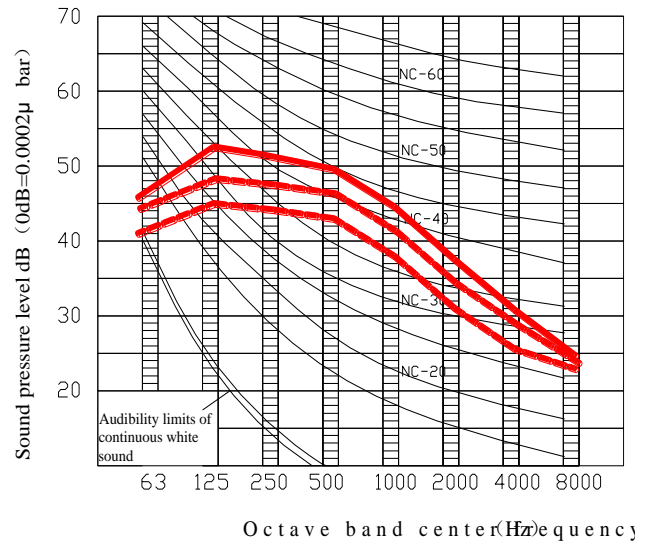
MDV-D71(80) Q4/N1-D












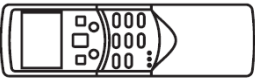





MDV-D90(100,112) Q4/N1-D



MDV-D140 Q4/N1-D



11. Accessories

Name	Quantity	Shape	Purpose
Installation manual for indoor unit	1		Must deliver to customer
Insulation sheath	2		Thermal insulation for the jointing part of piping
Installation paper board	1		For confirming the ceiling site and unit location
Installation gauge	1		For confirming the ceiling site (Integrated on installation paper board)
Installation screw for paper board	4		For installing paper board
Thermal insulated material	1		Thermal insulation for the jointing part of drain pipe
Bushing	8		Hanger assembly
Flexible hose tube	1		For drain pipe
Thermal insulation material	1		For sealing the jointing part of piping
Remote controller	1		For remote controlling the air conditioner
Mounting screw	4		For installing defrosting tray
Drain pipe clasp	1		For installing drain pipe
Connective pipe for restriction assembly	1		/
Tightening band	5		/
Electric throttle (That have been installed at the unit)	1		/

Compact Four-way Cassette Type

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1. Features

(1) Low operation noise, quiet design for user comfort

- Streamline plate ensures quietness
- Creates natural and comfortable environment

(2) Efficient cooling

- Equal, fast and wide—range cooling

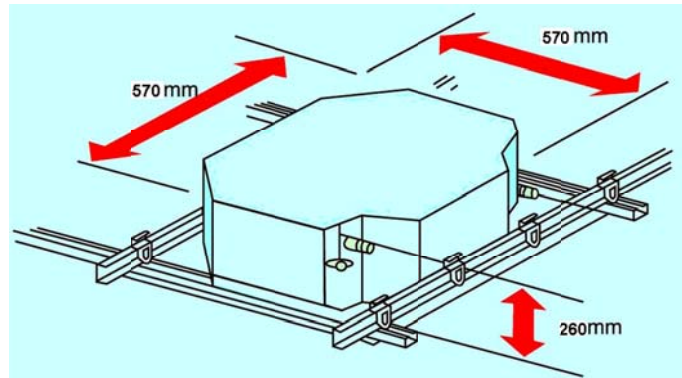


(3) The adoption of the most advanced 3- Dimensional Screw fan

- Reduces the air resistance passing through
- Smoothes air flow
- Makes air speed distribution to the heat exchange uniform

(4) Improvement for easy installation and maintenance

- Little space is required for installation into a shallow ceiling,
- Extremely compact casing (**570mm in width and depth**) enables unit to fit flush into ceilings and match standard architectural modules
- Because of the compactness and weight reduction of the main unit and panel, all models can be installed without a hoist



(5) 360° Air Flow Panel

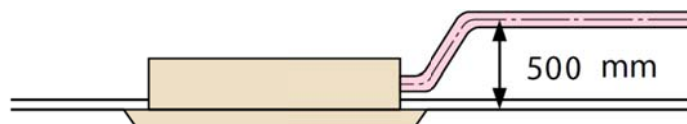
- 360° air outlet makes equal, fast and wide range cooling



(6) Optimal design, smaller Control Box, Space saving and convenient for wiring,

Using fire resistance galvanized steel for E-box material. Metal box make the control part more stable and prevent damaging

(7) Drain up pump with 500mm pumphead fitted as standard, max. up to 600mm head.



2. Specifications

Model			MDV-D22Q4/N1-A3	MDV-D28Q4/N1-A3
Power supply		V-ph-Hz	220~240-1-50	220~240-1-50
Cooling	Capacity	kW	2.2	2.8
	Input	W	51	52
	Rated current	A	0.175	0.175
Heating	Capacity	kW	2.4	3.2
	Input	W	43	44
	Rated current	A	0.175	0.175
Indoor fan motor	Model		YDK15-6M	YDK15-6M
	Type		AC Motor	AC Motor
	Input	W	34.3	34.3
	Capacitor	uF	1.2uF/450V	1.2uF/450V
	Speed(hi/mi/lo)	r/min	658/586/485	658/586/485
Indoor coil	Number of rows		1	1
	Tube pitch(a)x row pitch(b)	Mm	21*13.37	21*13.37
	Fin spacing	Mm	1.3	1.3
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type	Mm	Φ7	Φ7
	Coil length x height x width	Mm	Inner groove tube	
	Number of circuits		1310×210×13.37	1310×210×13.37
Indoor air flow (Hi/Me/Lo)	m3/h	2	2	
Sound level (sound pressure)	dB(A)	522/414/313	522/414/313	
Indoor unit	Dimension (W x H x D)	Mm	630*265*575	630*265*575
	Packing (W x H x D)	Mm	675*285*675	675*285*675
	Net/Gross weight	Kg	17.5/22	17.5/22
Panel	Dimension (W x H x D)	Mm	647*50*647	647*50*647
	Packing (W x H x D)	Mm	705*113*705	705*113*705
	Net/Gross weight	Kg	3/5	3/5
Refrigerant	Type		R410a	R410a
Throttle			Electric expansive valve	
Design pressure	MPa		4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	Mm	6.35/12.7	6.35/12.7
Connection wiring	Power wiring	mm2	3*2.0	
	Signal wiring	mm2	3*0.75 (3-core shielded wire)	
Drainage water pipe dia.	Mm	ID Φ20 ODΦ25	ID Φ20 ODΦ25	
Wireless remote controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)	
Operation temp	℃		17~32	

Notes:

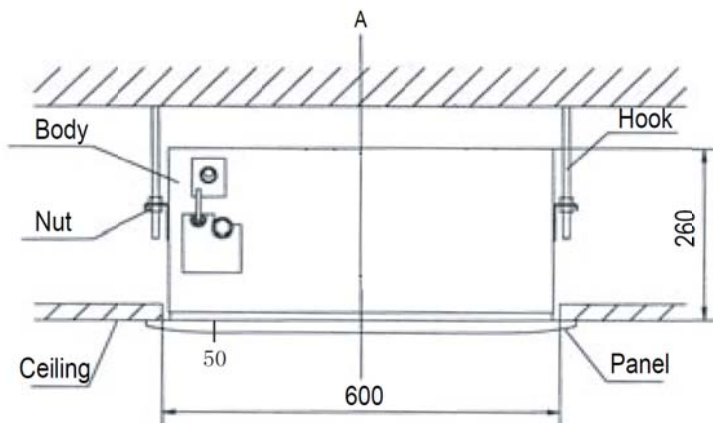
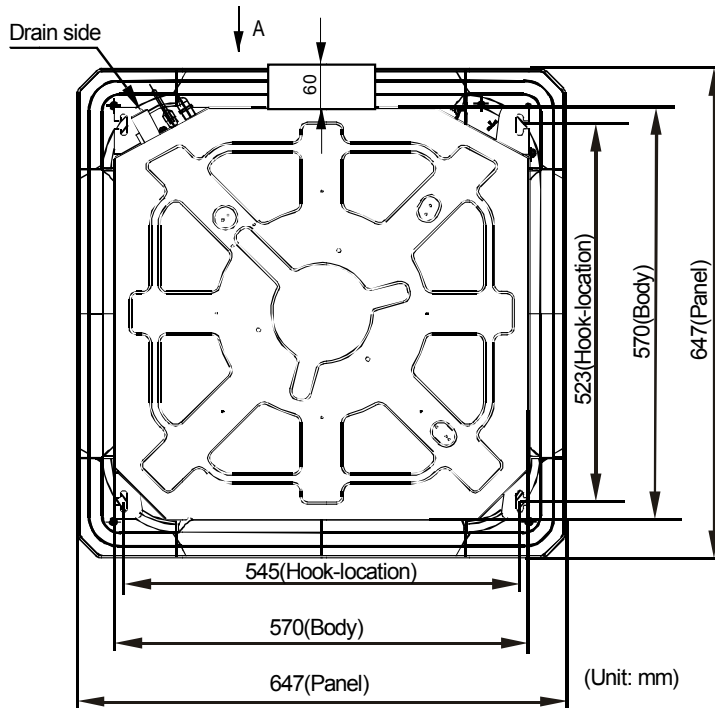
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

Model			MDV-D36Q4/N1-A3	MDV-D45Q4/N1-A3
Power supply		V-ph-Hz	220~240-1-50	220~240-1-50
Cooling	Capacity	kW	3.6	4.5
	Input	W	58	58
	Rated current	A	0.21	0.21
Heating	Capacity	kW	4.0	5.0
	Input	W	50	51
	Rated current	A	0.21	0.21
Indoor fan motor	Model		YDK15-6P	YDK15-6P
	Type		AC MOTOR	AC MOTOR
	Input	W	47.1	47.1
	Capacitor	uF	1.5uF/450V	1.5uF/450V
	Speed(hi/mi/lo)	r/min	780/670/540	780/670/540
Indoor coil	Number of rows		2	2
	Tube pitch(a)x row pitch(b)	Mm	21*13.37	21*13.37
	Fin spacing	Mm	1.3	1.3
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type	Mm	Φ7	Φ7
			Inner groove tube	
	Coil length x height x width	Mm	1310×210×26.74	1310×210×26.74
Number of circuits		4	4	
Indoor air flow (Hi/Me/Lo)		m3/h	610/521/409	610/521/409
Sound level (sound pressure)		dB(A)	41.5/35.6/28.8	41.5/35.6/28.8
Indoor unit	Dimension (W x H x D)	Mm	630*265*575	630*265*575
	Packing (W x H x D)	Mm	675*285*675	675*285*675
	Net/Gross weight	Kg	19/23.5	19/23.5
Panel	Dimension (W x H x D)	Mm	647*50*647	647*50*647
	Packing (W x H x D)	Mm	705*113*705	705*113*705
	Net/Gross weight	Kg	3/5	3/5
Refrigerant	Type		R410a	R410a
Throttle			Electric expansive valve	
Design pressure		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	Mm	6.35/12.7	6.35/12.7
Connection wiring	Power wiring	mm2	3*2.0	3*2.0
	Signal wiring	mm2	3*0.75 (3-core shielded wire)	
Drainage water pipe dia.		Mm	ID Φ20 ODΦ25	ID Φ20 ODΦ25
Wireless remote controller			Wireless remote controller (R05/BGE) (Standard)	
Operation temp		℃	17~32	

Notes:

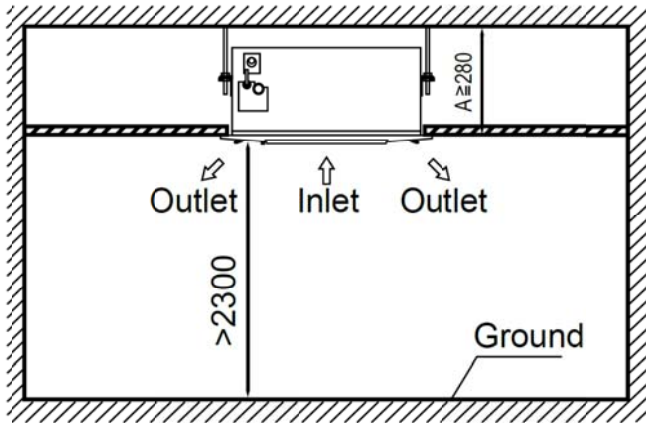
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)

3. Dimensions

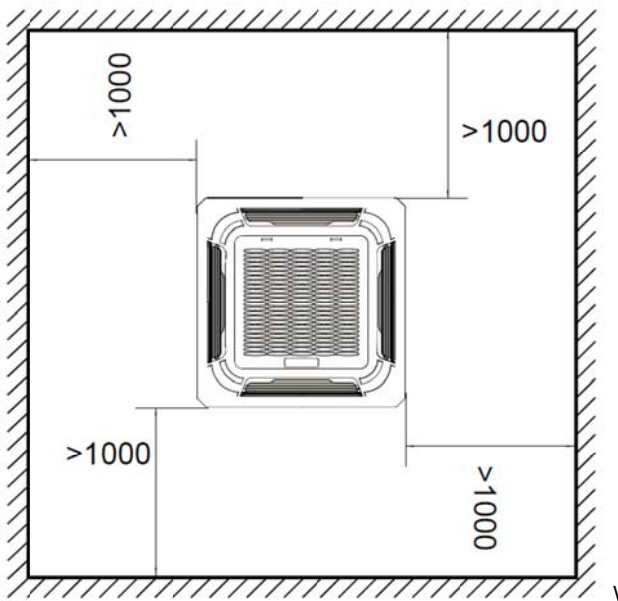


4. Service Space

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

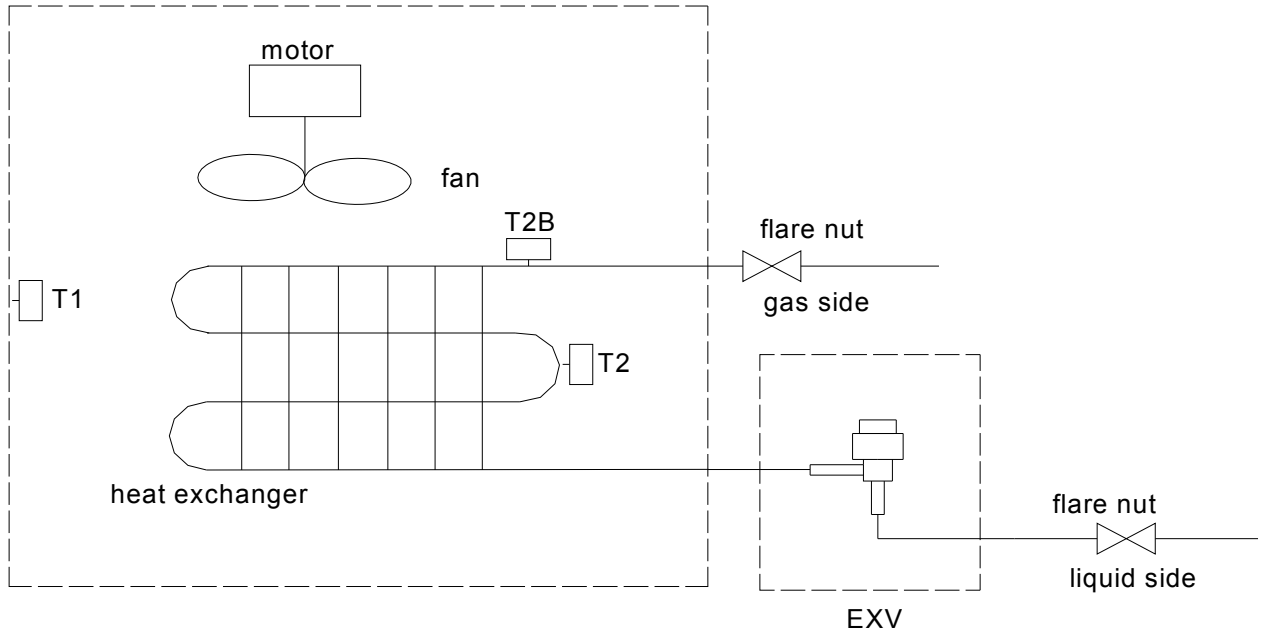


- Keep more than 2.3m distance between the panel and ground of the room.



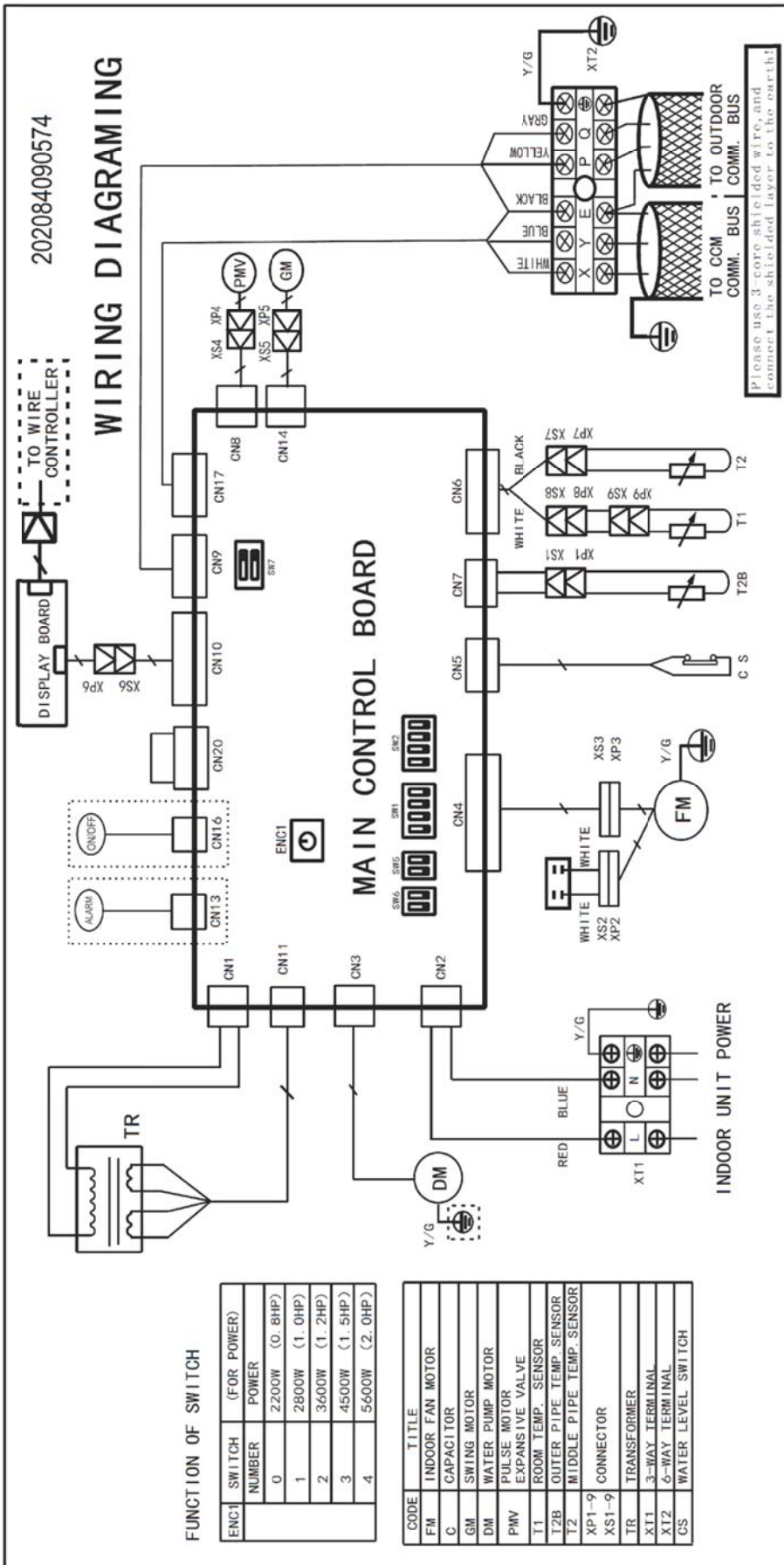
- Keep at least 1m to the wall of each side.

5. Piping Diagram (EXV beside)



6. Wiring Diagram

MDV-D22Q4/N1-A3 MDV-D28Q4/N1-A3 MDV-D36Q4/N1-A3 MDV-D45Q4/N1-A3



7. Capacity Tables

7.1 Cooling

TC: total capacity SC: sensible capacity WB: wet-bulb temperature DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/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
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	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1	
39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	

	42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
	44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
	46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	

7.2 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
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
2.20	-20	-19.8	1.34	1.34	1.34	1.34	1.34	1.34
	-19	-18.8	1.44	1.44	1.44	1.44	1.44	1.44
	-17	-16.7	1.51	1.51	1.51	1.51	1.51	1.51
	-15	-14.7	1.56	1.56	1.56	1.56	1.56	1.56
	-13.00	-12.60	1.66	1.66	1.66	1.66	1.66	1.66
	-11.00	-10.50	1.68	1.70	1.70	1.70	1.70	1.70
	-10.00	-9.50	1.75	1.75	1.75	1.75	1.75	1.75
	-9.10	-8.50	1.80	1.80	1.80	1.80	1.80	1.80
	-7.60	-7.00	1.82	1.82	1.82	1.82	1.82	1.82
	-5.60	-5.00	1.90	1.90	1.90	1.90	1.90	1.90
	-3.70	-3.00	1.99	1.99	1.99	1.99	1.99	1.99
	-0.70	0.00	2.14	2.14	2.14	2.14	2.14	2.02
	2.20	3.00	2.26	2.26	2.26	2.26	2.21	2.02
	4.10	5.00	2.33	2.33	2.33	2.33	2.21	2.02
	6.00	7.00	2.40	2.40	2.40	2.33	2.21	2.02
7.90	9.00	2.47	2.47	2.40	2.33	2.21	2.02	
9.80	11.00	2.54	2.54	2.40	2.33	2.21	2.02	
11.80	13.00	2.64	2.59	2.40	2.33	2.21	2.02	
13.70	15.00	2.71	2.59	2.40	2.33	2.21	2.02	
2.80	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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
3.60	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	
4.50	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	

8. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM	
	Hz	Voltage	Min.	Max.	MFA	kW	FLA
MDV-D22Q4/N1-A3	50	220-240	198	254	15	0.039	0.175
MDV-D28Q4/N1-A3	50	220-240	198	254	15	0.039	0.175
MDV-D36Q4/N1-A3	50	220-240	198	254	15	0.049	0.21
MDV-D45Q4/N1-A3	50	220-240	198	254	15	0.049	0.21

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

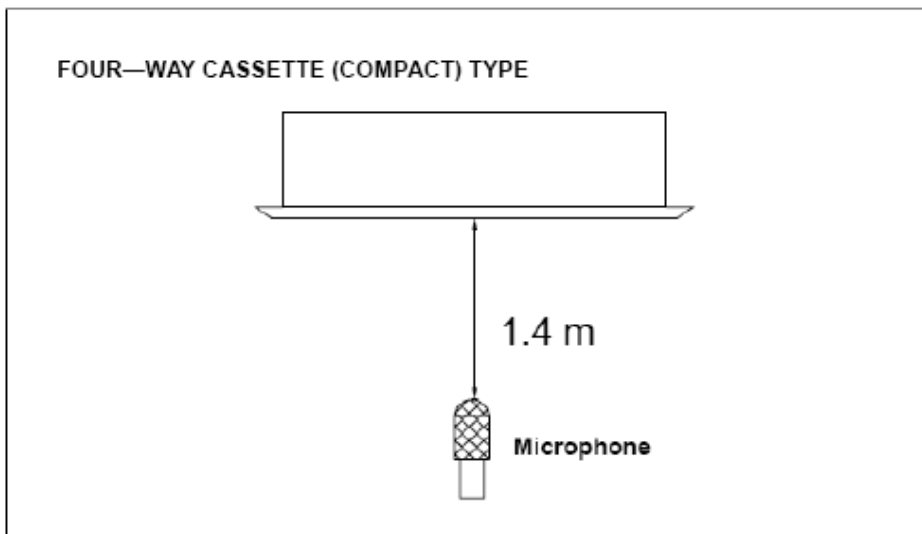
kW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

9. Sound Levels

9.1 Test condition



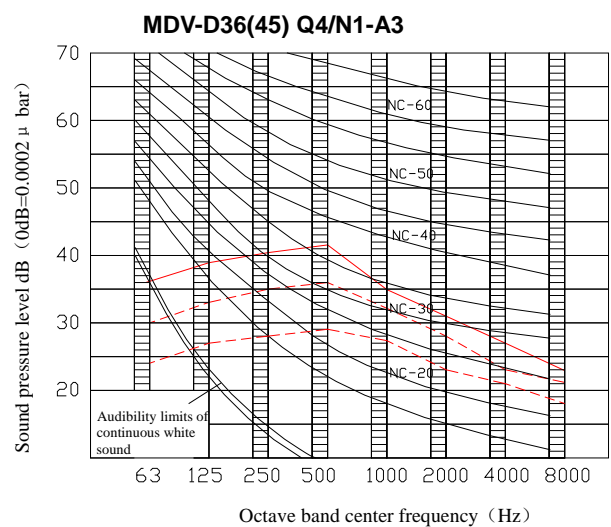
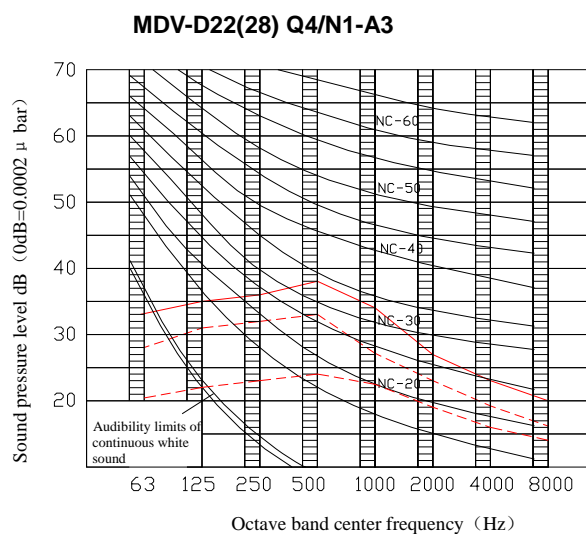
Note:

- 1, During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1m in front of the unit at a height of 1.4m.












9.2 Test value

Model	Noise level dB(A)		
	H	M	L
MDV-D22Q4/N1-A3	38.1	33.4	23.4
MDV-D28Q4/N1-A3	38.1	33.4	23.4
MDV-D36Q4/N1-A3	41.5	35.6	28.8
MDV-D45Q4/N1-A3	41.5	35.6	28.8

9.3 Octave Band Level



10. Accessories

Name	Quantity	Outline
1.Nut M10	10	
2.Washer Φ 10	10	
3. Installation paper board	1	
4. Bolt M6	-	
5. Soundproof / insulation sheath	1	
6. Out-let pipe pipe	1	
7. Out-let pipe sheath	-	
8. Out-let pipe clasp	1	
9. Tightening band	5	
10. Remote controller	1	
11. Frame	1	
12. Mounting screw (ST2.9×10-C-H)	2	
13. Alkaline dry batteries (AM4)	2	
14. Installation manual	1	
15. Signal line	1	
16. Connective pipe for restriction assembly	1	

Two-ways Cassette Type

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1. Feature

1.1 Lower noise level

1.2 Smoother air flow with less turbulence

1.3 Double-flow type allows effective air discharge from corner or from drop-ceiling.

---Quick cooling



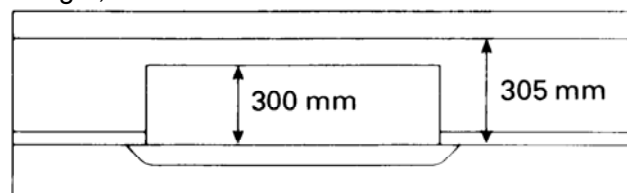
1.4 Stylish design

---Be harmonious with any interior decoration and creates an elegant environment

1.5 Thin main body

Slim body needs 300 mm space above the ceiling, reduces the suspended ceiling space.

Installation is free of floor height, which is flexible to room decoration



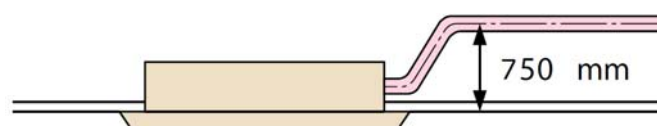
1.6 Convenient installation

---double direction air flow guarantee quick cooling, flexible installation position.

---Standardized sectional module

---Matching the center of main unit and panel

1.7 Built-in water pumping with 750mm pumphead.



1.8 Easier to do cleaning and maintenance

---Flat type suction grille of easy cleaning

2. Specifications

Model			MDV-D22Q2/N1	MDV-D28Q2/N1	MDV-D36Q2/N1
Power supply		V-Ph-Hz	220-240V-1ph-50Hz		
Cooling	Capacity	kW	2.2	2.8	3.6
	Input	W	57	57	60
	Rated current	A	0.35	0.45	0.45
Heating	Capacity	kW	2.6	3.2	4
	Input	W	57	57	60
	Rated current	A	0.35	0.45	0.45
Indoor fan & motor	Model		YSK31-6-1	YSK31-6-1	YSK31-6
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	60	60	67
	Capacitor	uF	2	2	2.5
	Fan blower material		ABS-GF15	ABS-GF15	ABS-GF15
	Speed (hi/mid/lo)	r/min	670/550/450	670/550/450	730/590/470
Indoor coil	Number of rows		1	1	1
	Tube pitch(a)x row pitch(b)	mm	21*3.37	21*3.37	21*3.37
	Fin spacing	mm	1.5	1.5	1.5
	Fin type		Hydrophilic Aluminum		
	Tube outside dia. and type	mm	Φ7, Inner-groove Tube		
	Number of circuits		4	4	4
Indoor air flow (H/M/L)		m ³ /h	654/530/410	654/530/410	725/591/458
Indoor noise level (Hi/Mid/Lo)		dB(A)	33/29/24	36/32/29	36/32/29
Indoor unit	Dimension (WxHxD)	mm	1172×300×592	1172×300×592	1172×300×592
	Packing (WxHxD)	mm	1355×400×675	1355×400×675	1355×400×675
	Net/Gross weight	kg	34/42.5	34/42.5	34/42.5
Panel	Model		CE-MBQ2-01(MBQ2-01)		
	Dimension (WxHxD)	mm	1430×90×680	1430×90×680	1430×90×680
	Packing (WxHxD)	mm	1525×130×765	1525×130×765	1525×130×765
	Net/Gross weight	kg	10.5/15	10.5/15	10.5/15
Throttle			Electric expansive valve		
Design pressure		MPa	4.4/2.6		
Refrigerant	Liquid side/ Gas side	mm	Φ6.4/Φ12.7		
Connecting wiring	Power wiring	Nb×mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	Nb×mm ²	3×0.75		
Drainage water pipe dia.		mm	ID Φ25, OU Φ32		
Controller			Wireless remote controller (RM05/BG(T)-A) (Standard)		
Operation temp		℃	Cooling: 17~32; Heating:10~28		

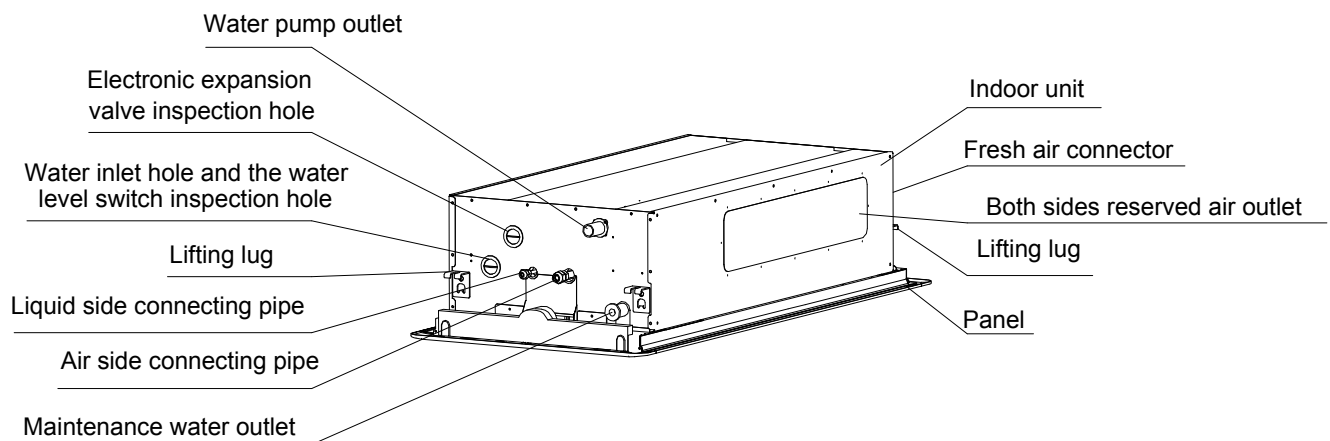
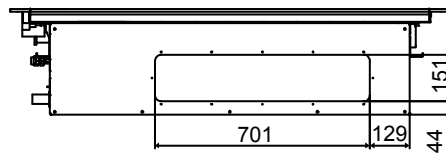
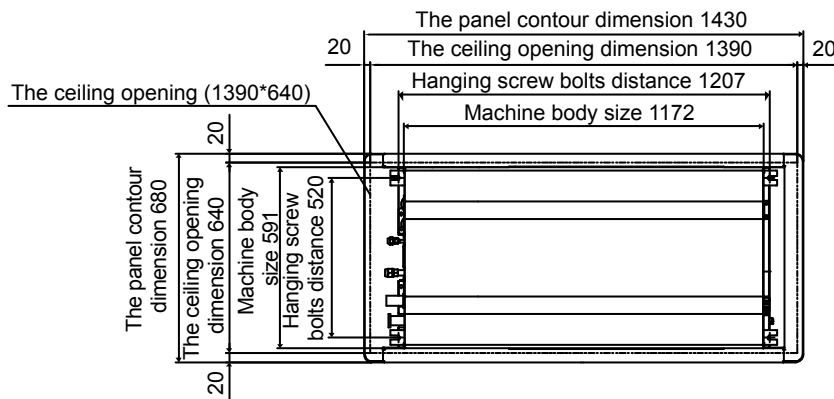
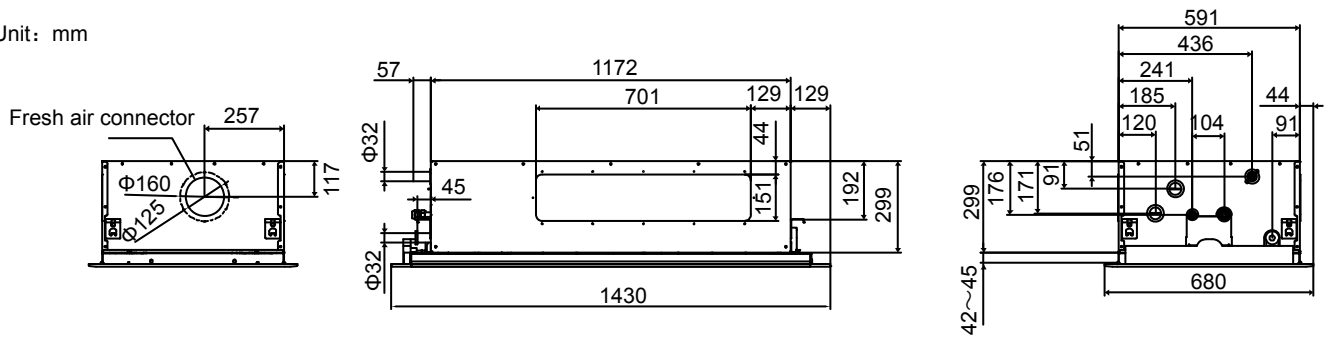
- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB,19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D45Q2/N1	MDV-D56Q2/N1	MDV-D71Q2/N1
Power supply		V-Ph-Hz	220-240V-1ph-50Hz		
Cooling	Capacity	kW	4.5	5.6	7.1
	Input	W	92	108	154
	Rated current	A	0.55	0.55	0.75
Heating	Capacity	kW	5	6.3	8
	Input	W	92	108	154
	Rated current	A	0.55	0.55	0.75
Indoor fan & motor	Model		YSK58-4-1	YSK58-4	YSK91-4
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	106	128	162
	Capacitor	uF	2	3.5	3.5
	Fan Blower type		ABS-GF15	ABS-GF15	ABS-GF15
	Speed (hi/mid/lo)	r/min	801/645/542	910/755/642	1159/1032/795
Indoor coil	Number of rows		2	2	2
	Tube pitch(a) x row pitch(b)	mm	21*3.37	21*3.37	21*3.37
	Fin spacing	mm	1.5	1.5	1.5
	Fin type		Hydrophilic Aluminum		
	Tube outside dia. and type	mm	Φ7, Inner-groove Tube		
	Number of circuits		6	6	6
Indoor air flow (H/M/L)		m ³ /h	850/670/550	980/800/670	1200/1000/770
Indoor noise level (Hi/Mid/Lo)		dB(A)	39/35/30	39/35/30	44/40/34
Indoor unit	Dimension (WxHxD)	mm	1172×300×592	1172×300×592	1172×300×592
	Packing (WxHxD)	mm	1355×400×675	1355×400×675	1355×400×675
	Net/Gross weight	kg	36.5/45	36.5/45	36.5/45
Panel	Model		CE-MBQ2-01(MBQ2-01)		
	Dimension (WxHxD)	mm	1430×90×680	1430×90×680	1430×90×680
	Packing (WxHxD)	mm	1525×130×765	1525×130×765	1525×130×765
	Net/Gross weight	kg	10.5/15	10.5/15	10.5/15
Throttle			Electric expansive valve		
Design pressure		MPa	4.4/2.6		
Refrigerant	Liquid side/ Gas side	mm	Φ6.4/Φ12.7	Φ9.52/Φ15.9	Φ9.52/Φ15.9
Connecting wiring	Power wiring	Nb×mm ²	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	Nb×mm ²	3×0.75		
Drainage water pipe dia.		mm	ID Φ25, OU Φ32		
Controller			Wireless remote controller (RM05/BG(T)-A) (Standard)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.: 35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, equivalent ref. Piping: 8m(horizontal)

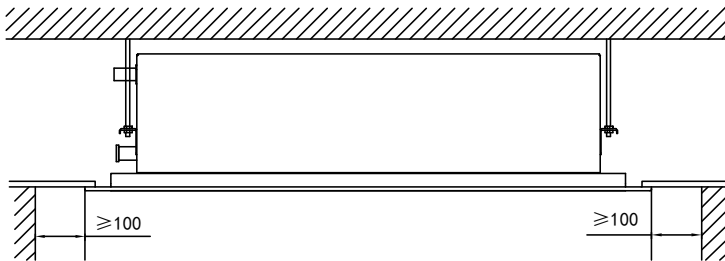
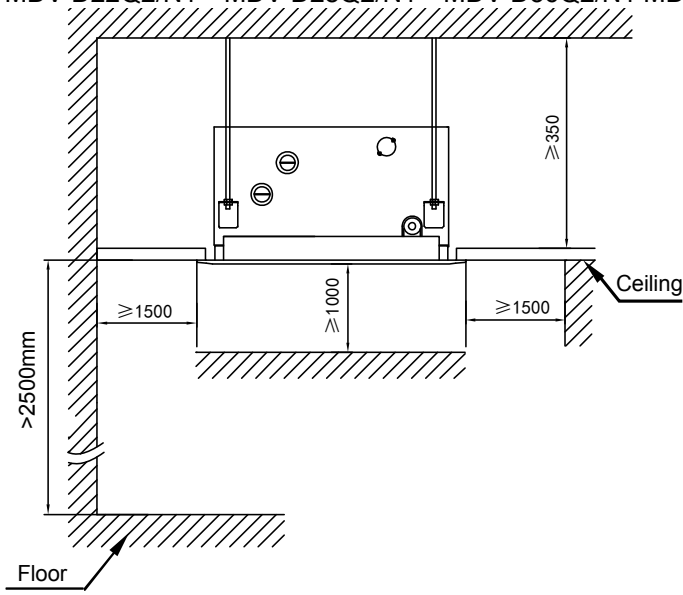
3. Dimensions

Unit: mm

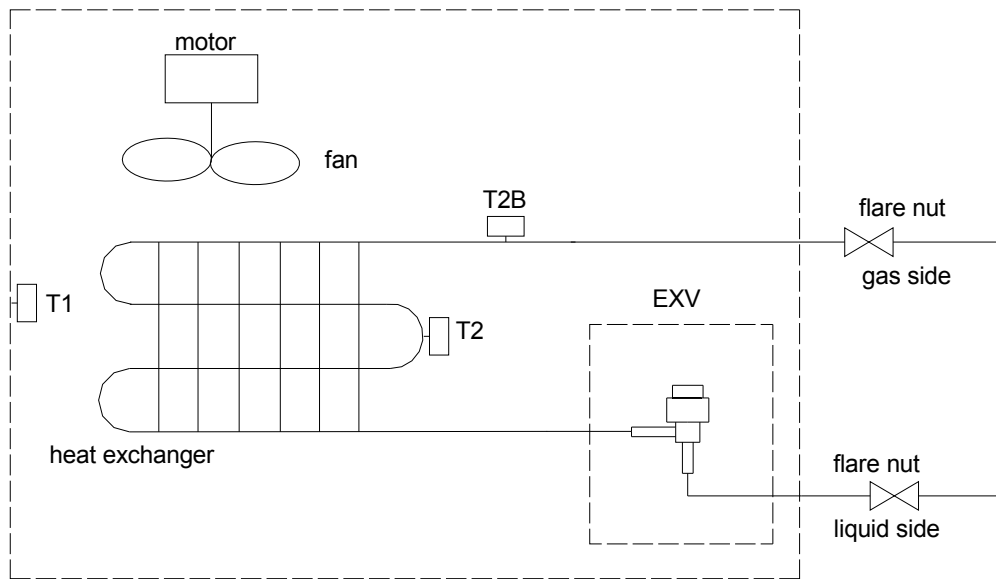


4. Service Space

MDV-D22Q2/N1 MDV-D28Q2/N1 MDV-D36Q2/N1 MDV-D45Q2/N1 MDV-D56Q2/N1 MDV-D71Q2/N1

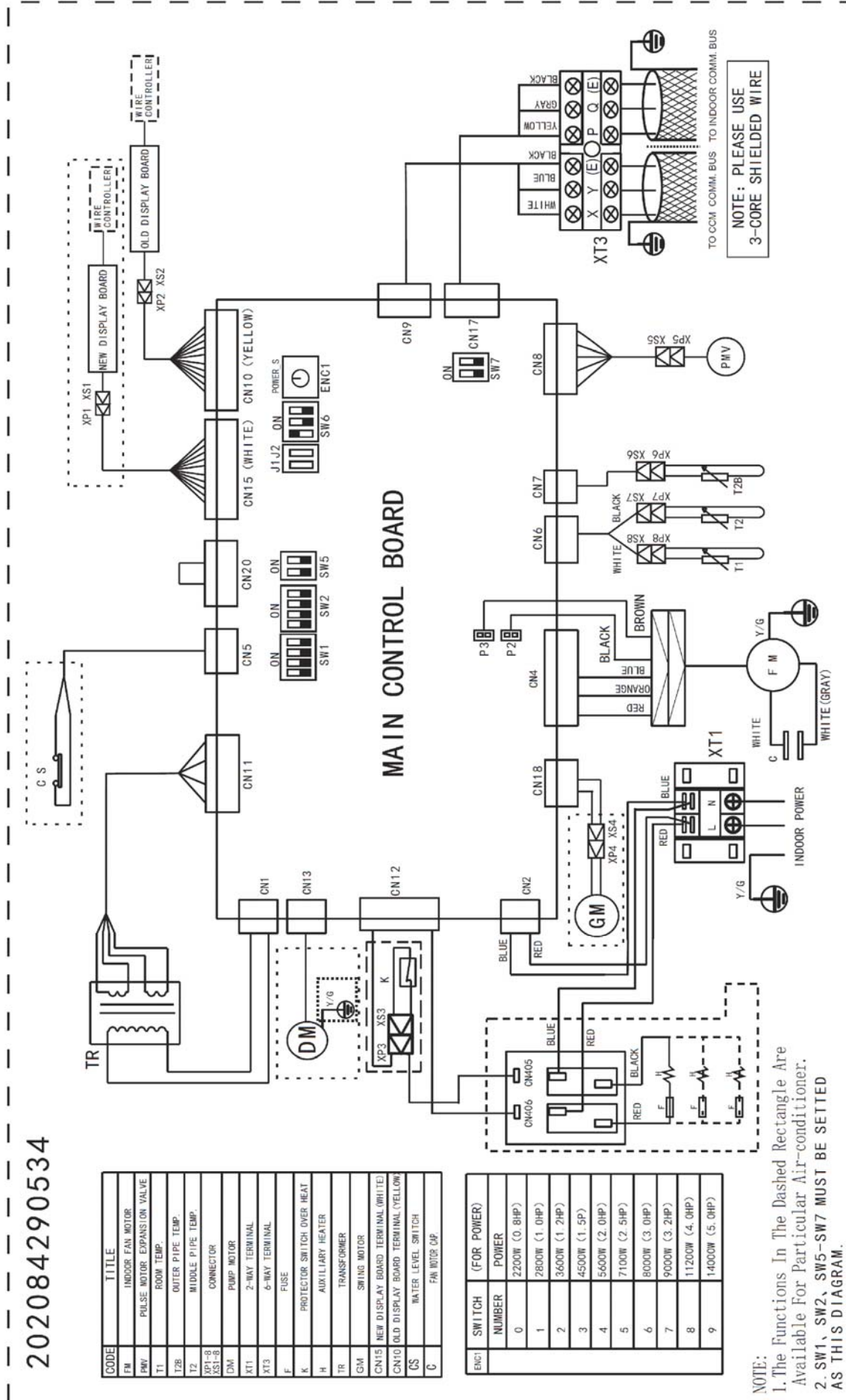


5. Piping Diagram



6. Wiring Diagram

MDV-D22Q2/N1 MDV-D28Q2/N1 MDV-D36Q2/N1 MDV-D45Q2/N1 MDV-D56Q2/N1 MDV-D71Q2/N1



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7. Capacity Tables

7.1 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	

4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
7.1	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	

7.2 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
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00

	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	-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	5.36	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	8.80	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	

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22Q2/N1	50	220-240V	198V	254V	0.28	5A	0.025	0.35
MDV-D28Q2/N1	50	220-240V	198V	254V	0.36	5A	0.025	0.45
MDV-D36Q2/N1	50	220-240V	198V	254V	0.36	5A	0.03	0.45
MDV-D45Q2/N1	50	220-240V	198V	254V	0.44	5A	0.038	0.55
MDV-D56Q2/N1	50	220-240V	198V	254V	0.44	5A	0.058	0.55
MDV-D71Q2/N1	50	220-240V	198V	254V	0.60	5A	0.091	0.75

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

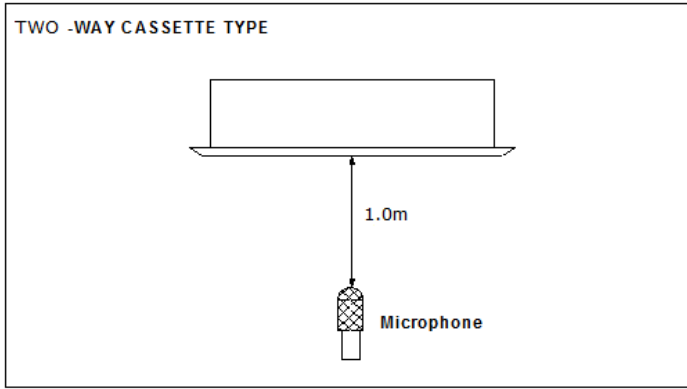
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Sound Levels

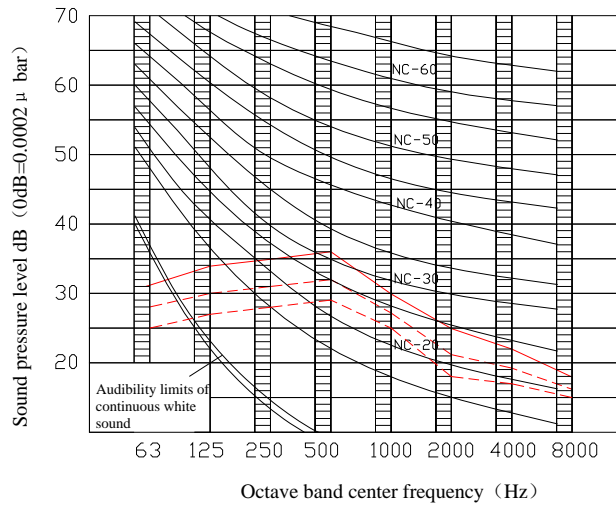
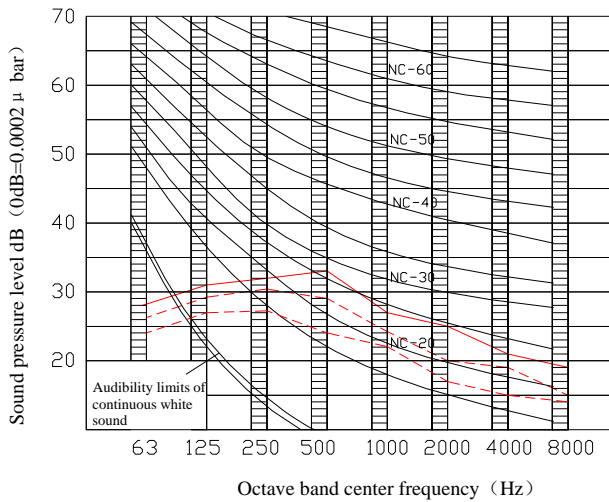
9.1 Test condition



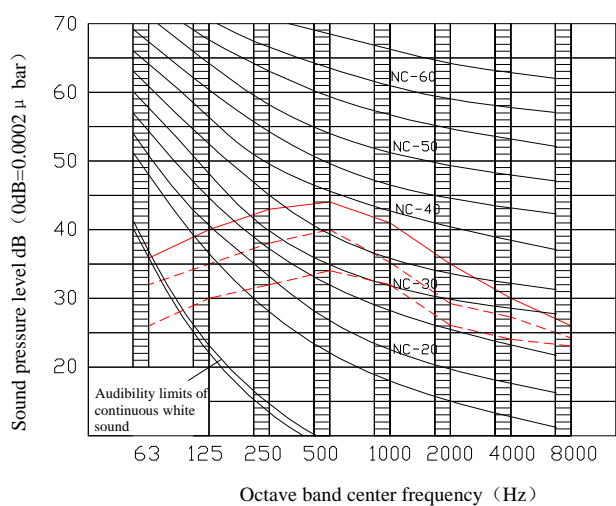
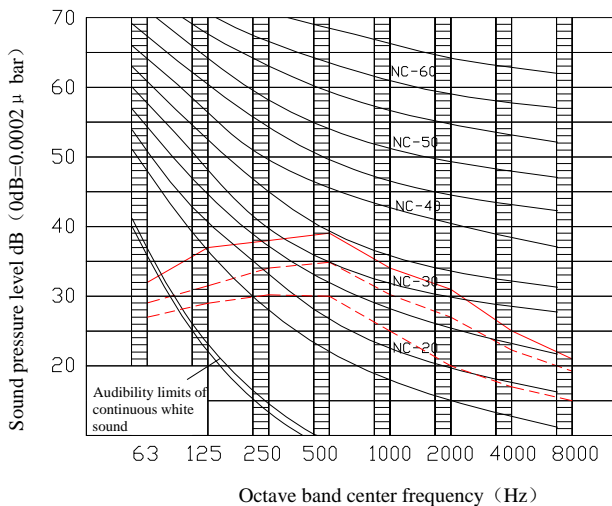
9.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22Q2/N1	33	29	24
MDV-D28Q2/N1	36	32	29
MDV-D36Q2/N1	36	32	29
MDV-D45Q2/N1	39	35	30
MDV-D56Q2/N1	39	35	30
MDV-D71Q2/N1	44	40	34
















MDV-D22Q2/N1 MDV-D28Q2/N1 MDV-D36Q2/N1



MDV-D45Q2/N1 MDV-D56Q2/N1 MDV-D71Q2/N1



10. Accessories**Standard accessories**

Name	Quantity	Shape	Purpose
Installation manual for indoor unit	1		Guidance of installation for indoor unit and Must deliver to customer
Insulation sheath	2		Thermal insulation for the jointing part of piping
Installation paper board	1		For confirming the ceiling site and unit location
Installation gauge	1		For confirming the ceiling site (Integrated on installation paper board)
Installation screw for paper board	4		For installing paper board
Nut	8		Hanging component
Thermal insulated material	1		Thermal insulation for the jointing part of drain pipe
Bushing	8		Hanger assembly
Flexible hose tube	1		For drain pipe
Thermal insulation material	1		For sealing the jointing part of piping
Remote controller	1		For remote controlling the air conditioner
Mounting screw	4		For installing defrosting tray
Drain pipe clasp	1		For installing drain pipe
Connective pipe for restriction assembly	1		/
Tightening belt	5		/

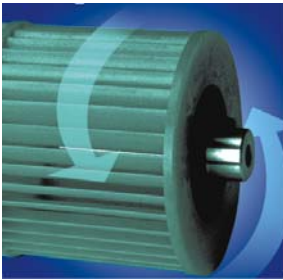
Low Static Pressure Duct

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1. Feature

1.1 Lower noise level

—Utilize the cross blow fan, the lowest noise is 21dB(A).



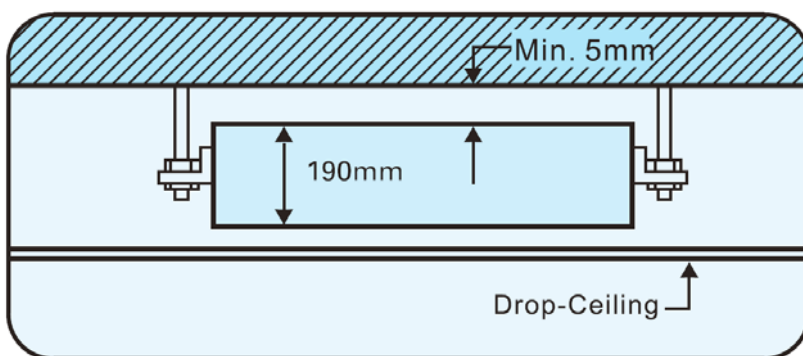
1.2 Smoother airflow with less turbulence

—Owing to the multiple-blade fan rotor and the air guide design, the airflow is getting smoother and more comfortable

1.3 More light weight and super thin

—The whole body adopt fireproof plastic material

—Flat design for easy fit when ceiling overhead space is minimal. Only 190 mm in height, this model can be installed in rooms with as little as 200 mm depth between the drop-ceiling and ceiling slab.



—Great for hotel use!

1.4 wider capacity range

—The capacity range from 1.8KW to 5.6KW, six model.

1.5 Convenient installation

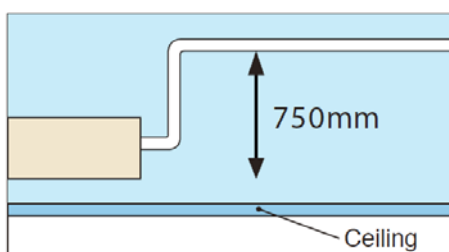
1.5.1 The EXV is fixed beside of the indoor unit

1.5.2 The connection pipe is flexible pipe, so it can change the connection direction conveniently.

1.5.3. Suction chamber is included as standard equipment,

1.5.4 Optional drain pump

with a drain-up pump (750 mm pumphead) as an optional accessory,



2. Specifications

Model			MDV-D18T3/N1-B	MDV-D22T3/N1-B	MDV-D28T3/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	1.8	2.2	2.8
	Input	W	40	40	40
	Rated current	A	0.17	0.17	0.17
Heating	Capacity	kW	2.2	2.6	3.2
	Input	W	40	40	40
	Rated current	A	0.17	0.17	0.17
Indoor fan motor	Model		RPS15D	RPS15D	RPS15D
	Type		Asynchronism motor		
	Brand		Welling		
	Input	W	30.6/29.2/25.8/22.3	30.6/29.2/25.8/22.3	32.8/30.8/26/23
	Capacitor	μF	0.8μF/450V	0.8μF/450V	1.0μF/450V
	Speed (hi/mid/lo)	r/min	885/819/653/545	885/819/653/545	985/890/707/598
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)x row pitch(b)	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		
	Coil length x height x width	mm	635X283.5 X26.74	635X283.5 X26.74	635X283.5 X26.74
	Number of circuits		2	2	4
Indoor air flow (H/M/L)		m ³ /h	446/323/250	446/323/250	527/359/267
Indoor external static pressure (Hi)		Pa	5	5	5
Indoor noise level (Hi/Mid/Lo)		dB(A)	33/27/21	34/29/21	36/34/30
Indoor unit	Dimension (W×H×D)	mm	850×190×405	850×190×405	850×190×405
	Packing (W×H×D)	mm	903*277*445	903*277*445	903*277*445
	Net/Gross weight	kg	11.5/14.5	11.5/14.5	11.5/14.5
Refrigerant type			R410A		
Throttle	Type		Electrical expand valve		
	Model		CE-J20AB1/N1-C		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	Φ6.35/ Φ12.7	Φ6.35/ Φ12.7
	Connecting wiring		3*2		
Signal wiring	Power wiring	mm ²	3*2		
	Signal wiring	mm ²	4*0.75		
Drainage water pipe diameter			ODΦ20 IDΦ15		
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

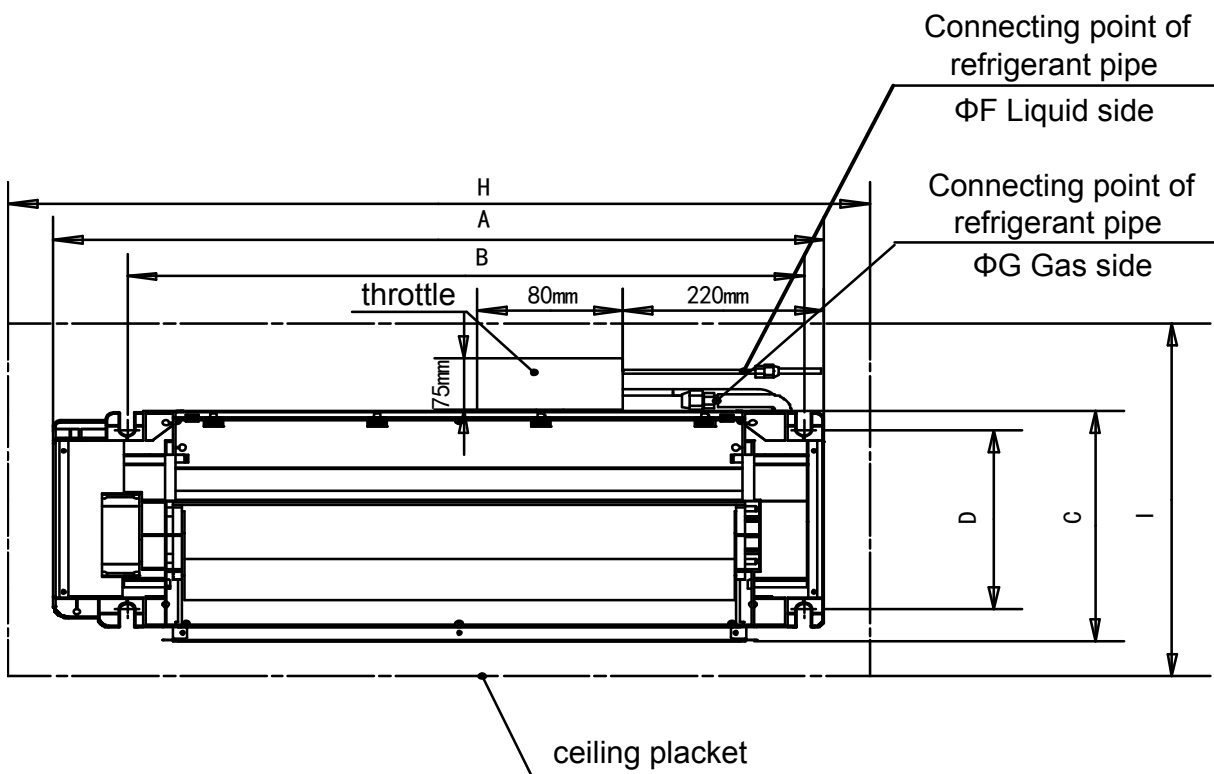
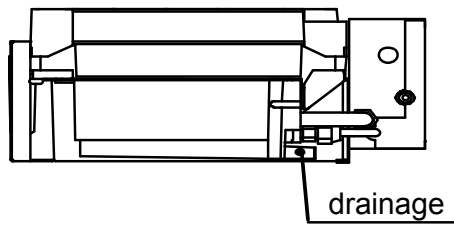
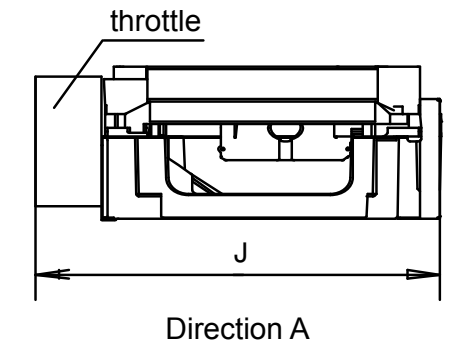
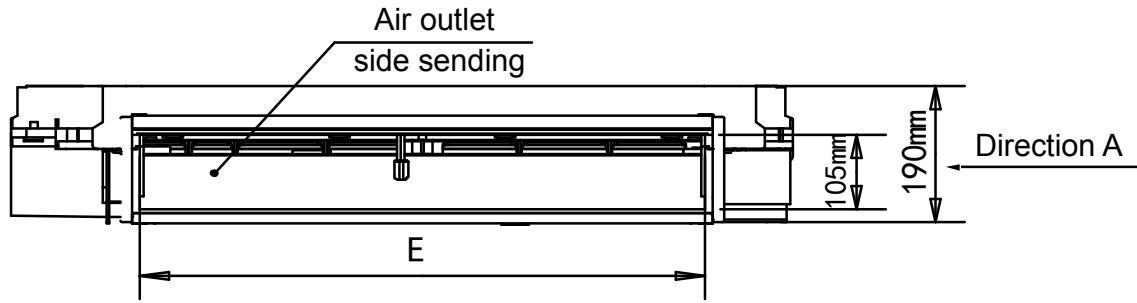
Model			MDV-D36T3/N1-B	MDV-D45T3/N1-B	MDV-D56T3/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	3.6	4.5	5.6
	Input	W	40	40	56
	Rated current	A	0.17	0.17	0.24
Heating	Capacity	kW	4	5	6.3
	Input	W	40	40	56
	Rated current	A	0.17	0.24	0.24
Indoor fan motor	Model		RPS15D	YDK22-4	YDK22-4
	Type		Asynchronism motor		
	Brand		Welling		
	Input	W	32.8/30.8/26/23	50.8/46.7/41.8/36.8	50.8/46.7/41.8/36.8
	Capacitor	μF	1.0μF/450V	1.5μF/450V	1.5μF/450V
	Speed (hi/mid/lo)	r/min	985/890/707/598	1055/930/790/650	1055/930/790/650
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)x row pitch(b)	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 nner groove tube		
	Coil length x height x width	mm	635X283.5 X26.74	785X325.5 X26.74	785X325.5 X26.74
	Number of circuits		4	4	4
Indoor air flow (H/M/L)		m ³ /h	527/359/267	767/634/512	767/634/512
Indoor external static pressure (Hi)		Pa	5	5	5
Indoor noise level (Hi/Mid/Lo)		dB(A)	36/34/30	37/35/31	37/35/31
Indoor unit	Dimension (W×H×D)	mm	850×190×405	1030×190×430	1030×190×430
	Packing (W×H×D)	mm	903*277*445	1084*277*472	1084*277*472
	Net/Gross weight	kg	11.5/14.5	14 /17.5	14/17.5
Refrigerant type			R410A		
Throttle	Type		Electrical expand valve		
	Model		CE-J20BB1/N1-C		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	Φ9.52/ Φ12.7	Φ9.52/ Φ15.9
Connecting wiring	Power wiring	mm ²	3x2		
	Signal wiring	mm ²	4x0.75		
Drainage water pipe diameter			ODΦ20 IDΦ15		
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

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

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

3. Dimension

MDV-D18T3/N1-B MDV-D22T3/N1-BMDV-D28T3/N1-BMDV-D36T3/N1-BMDV-D45T3/N1-BMDV-D56T3/N1-B

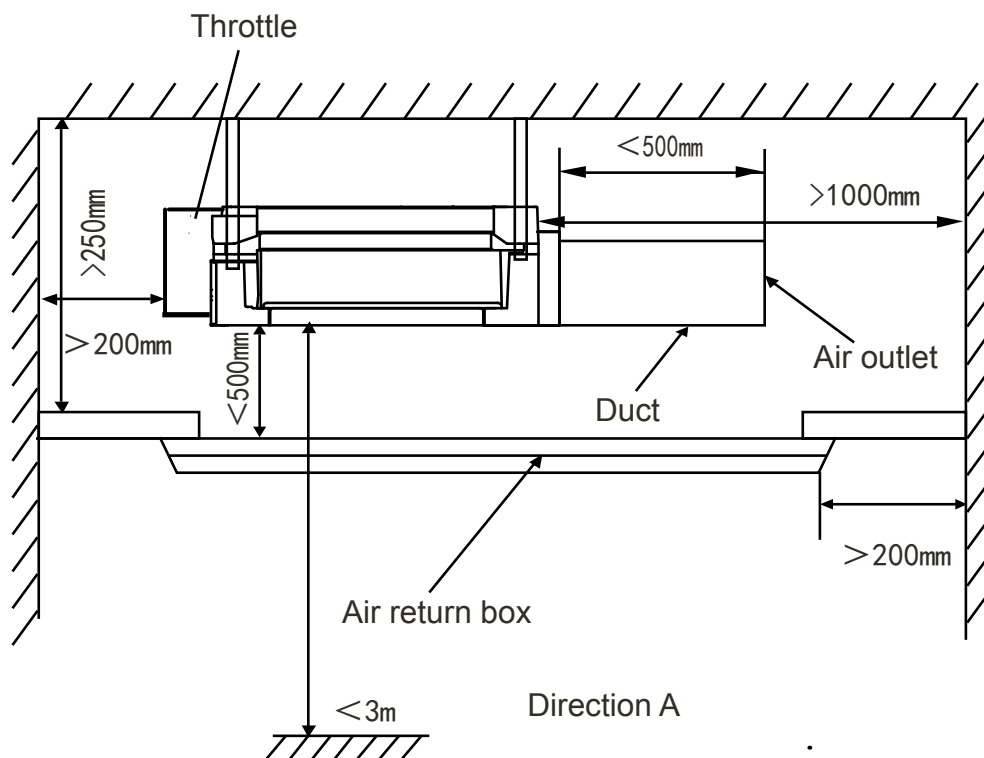
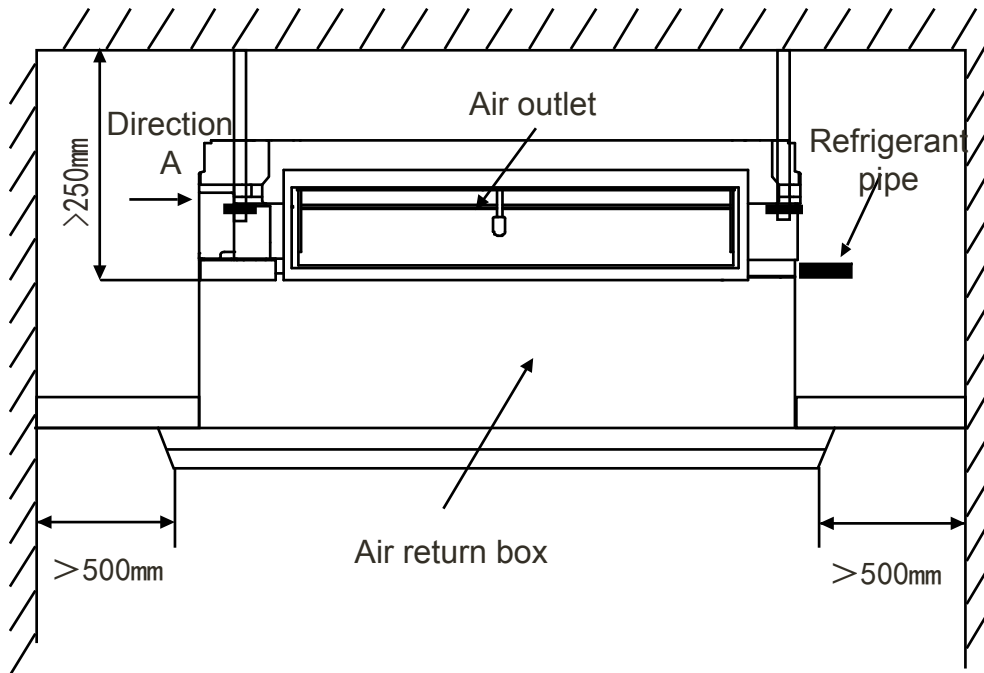


MODEL (MDV-D**T3/N1-B)	A	B	C	D	E
18	850	744	330	260	630
22	850	744	330	260	630
28	850	744	330	260	630
36	850	744	330	260	630
45	1030	894	355	285	780
56	1030	894	355	285	780

MODEL (MDV-D**T3/N1-B)	F	G	H	I	J
18	6.4	12.7	950	505	405
22	6.4	12.7	950	505	405
28	6.4	12.7	950	505	405
36	6.4	12.7	950	505	405
45	9.5	15.9	1150	530	430
56	9.5	15.9	1150	530	430

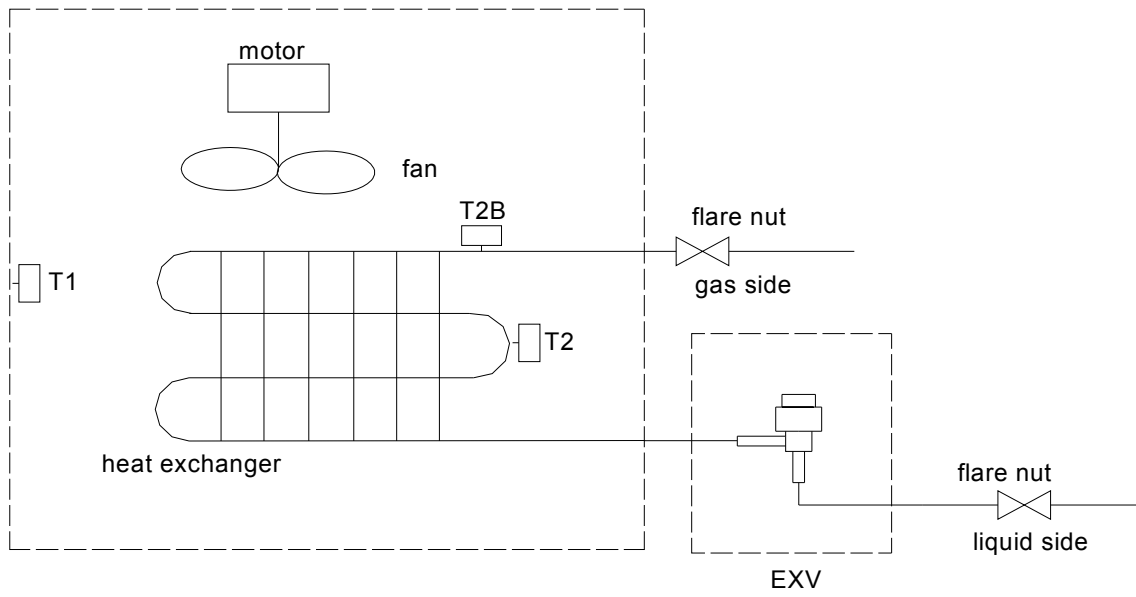
4. Service Space

- 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.



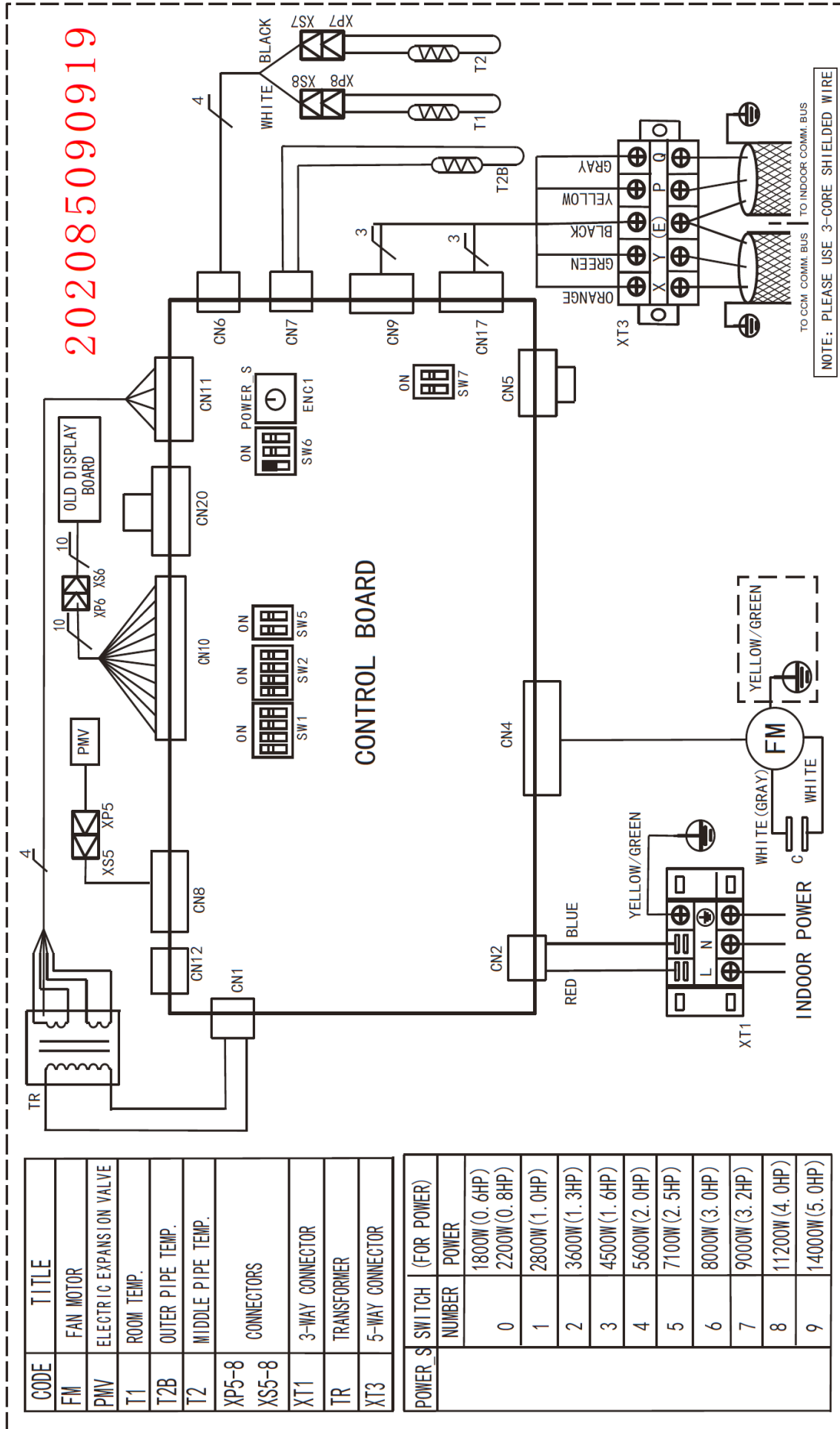
5. PipingDiagrams

MDV-D18T3/N1-B MDV-D22T3/N1-BMDV-D28T3/N1-BMDV-D36T3/N1-BMDV-D45T3/N1-BMDV-D56T3/N1-B



6. Wiring Diagram

202085090919



CODE	TITLE
FM	FAN MOTOR
PMV	ELECTRIC EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XP5-8	CONNECTORS
XS5-8	CONNECTORS
XT1	3-WAY CONNECTOR
TR	TRANSFORMER
XT3	5-WAY CONNECTOR

POWER_S	SWITCH (FOR POWER)
NUMBER	POWER
0	1800W (0.6HP)
	2200W (0.8HP)
1	2800W (1.0HP)
2	3600W (1.3HP)
3	4500W (1.6HP)
4	5600W (2.0HP)
5	7100W (2.5HP)
6	8000W (3.0HP)
7	9000W (3.2HP)
8	11200W (4.0HP)
9	14000W (5.0HP)

7. Capacity Tables

7.1 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
1.8	10.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.4	1.3
	12.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.3	1.2
	14.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.3	1.2
	16.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.3	1.2
	18.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.3	1.2
	20.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.2	1.1
	21.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.3	2.2	1.1
	23.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.2	2.2	1.1
	25.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.2	2.1	1.1
	27.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.1	1.2	2.1	1.1
	29.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.0	1.2	2.1	1.1
	31.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.0	1.2	2.1	1.1
	33.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	2.0	1.2	2.0	1.2
	35.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	1.9	1.1	2.0	1.2
	37.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.9	1.3	1.9	1.1	1.9	1.1
	39.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.8	1.2	1.9	1.1	1.9	1.1
42.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.8	1.2	1.9	1.1	1.9	1.1	
44.0	1.2	1.1	1.5	1.1	1.7	1.2	1.8	1.2	1.8	1.2	1.9	1.1	1.9	1.1	
46.0	1.2	1.1	1.5	1.2	1.7	1.2	1.8	1.2	1.8	1.2	1.9	1.1	1.9	1.1	
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9

	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
	42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
	44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
	46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5

14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1

7.2 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
1.8	-20	-19.8	1.23	1.23	1.23	1.23	1.23	1.23
	-19	-18.8	1.32	1.32	1.32	1.32	1.32	1.32
	-17	-16.7	1.39	1.39	1.39	1.39	1.39	1.39
	-15	-14.7	1.43	1.43	1.43	1.43	1.43	1.43
	-13.00	-12.60	1.52	1.52	1.52	1.52	1.52	1.52
	-11.00	-10.50	1.54	1.56	1.56	1.56	1.56	1.56
	-10.00	-9.50	1.61	1.61	1.61	1.61	1.61	1.61
	-9.10	-8.50	1.65	1.65	1.65	1.65	1.65	1.65
	-7.60	-7.00	1.67	1.67	1.67	1.67	1.67	1.67
	-5.60	-5.00	1.74	1.74	1.74	1.74	1.74	1.74
	-3.70	-3.00	1.83	1.83	1.83	1.83	1.83	1.83
	-0.70	0.00	1.96	1.96	1.96	1.96	1.96	1.85
	2.20	3.00	2.07	2.07	2.07	2.07	2.02	1.85
	4.10	5.00	2.13	2.13	2.13	2.13	2.02	1.85
	6.00	7.00	2.20	2.20	2.20	2.13	2.02	1.85
	7.90	9.00	2.27	2.27	2.20	2.13	2.02	1.85
9.80	11.00	2.33	2.33	2.20	2.13	2.02	1.85	
11.80	13.00	2.42	2.38	2.20	2.13	2.02	1.85	
13.70	15.00	2.49	2.38	2.20	2.13	2.02	1.85	
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40

	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	-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	5.36	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	8.80	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

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D18T3/N1-B	50	230	207	253	0.175	15	0.03	0.14
MDV-D22T3/N1-B	50	230	207	253	0.175	15	0.03	0.14
MDV-D28T3/N1-B	50	230	207	253	0.187	15	0.032	0.15
MDV-D36T3/N1-B	50	230	207	253	0.175	15	0.032	0.15
MDV-D45T3/N1-B	50	230	207	253	0.35	15	0.053	0.28
MDV-D56T3/N1-B	50	230	207	253	0.35	15	0.053	0.28

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

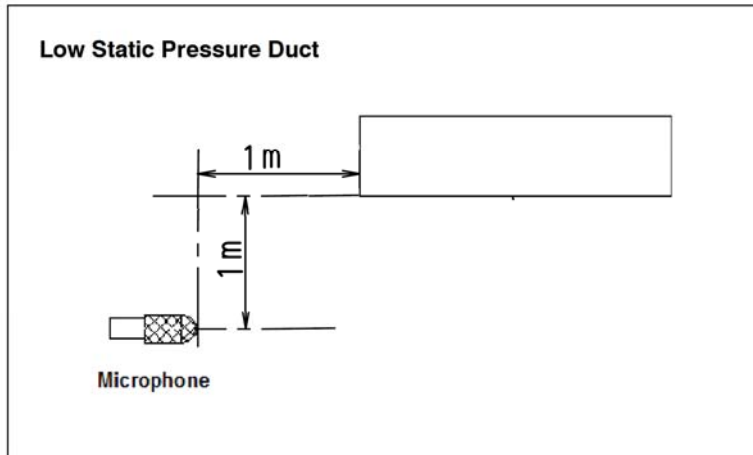
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Noise Levels

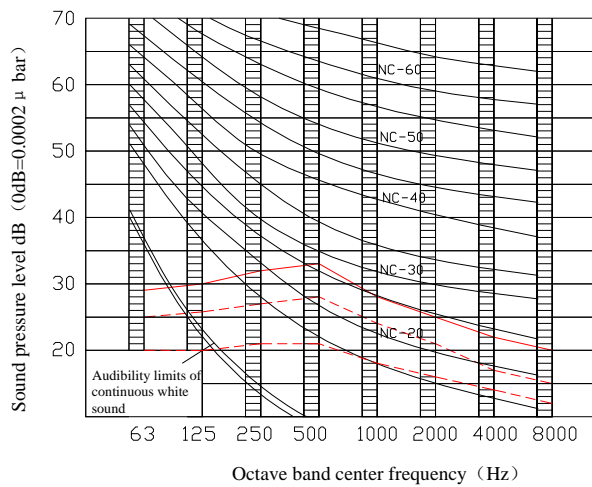
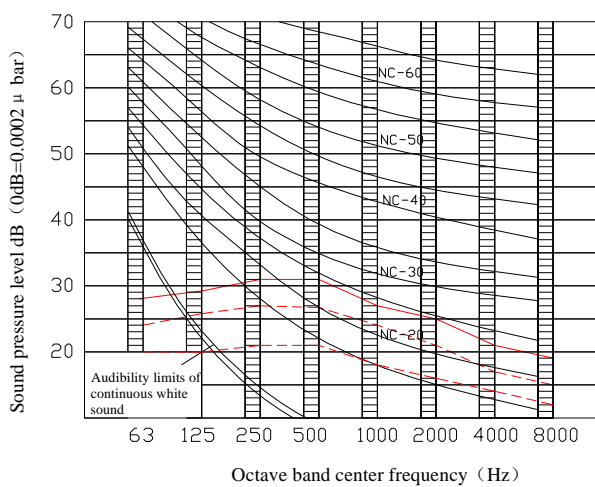
9.1 Test condition



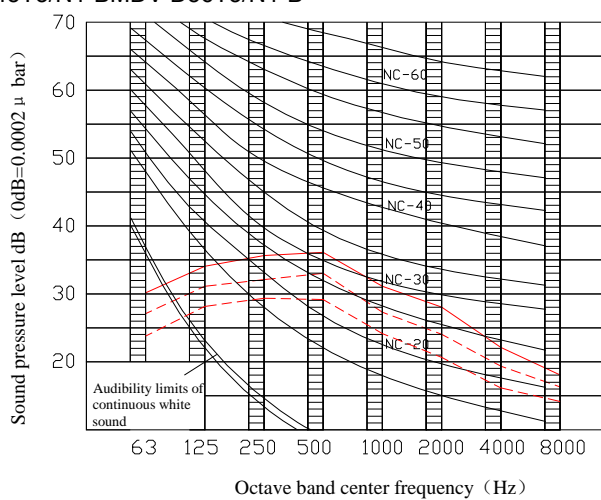
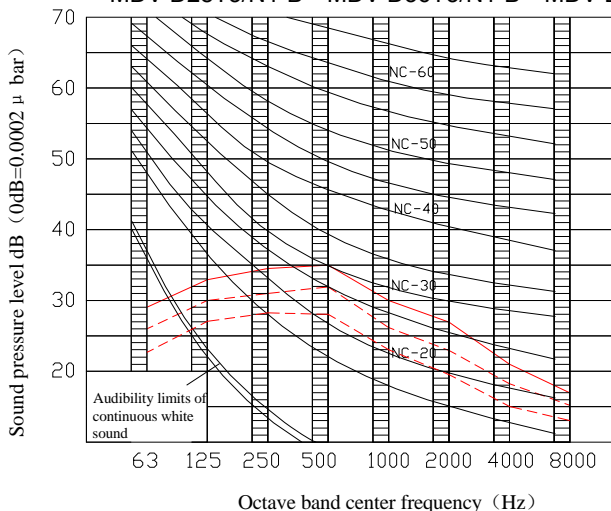
9.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D18T3/N1-B	33	27	21
MDV-D22T3/N1-B	34	29	21
MDV-D28T3/N1-B	36	34	30
MDV-D36T3/N1-B	36	34	30
MDV-D45T3/N1-B	37	35	31
MDV-D56T3/N1-B	37	35	31

MDV-D18T3/N1-B MDV-D22T3/N1-B














MDV-D28T3/N1-B MDV-D36T3/N1-B MDV-D45T3/N1-B MDV-D56T3/N1-B



10. Accessories

10.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
washer	8		Overhang indoor units
Remote controller	1		/
7# alkaline battery	2		/
Holder for remote controller	1		Hold the remote controller
Constriction bandage	10		—
Network matching wire	1		The indoor unit witch at the terminal of communication system should connect a impedance between port p and port Q
Remoter controller manual	1		—
Controlling discreteness installation plot	1	—	—
Installation spring	2		Fix water outlet
Water outlet joint	1		For drainage
Signal receiver display board	1		Receive signal

10.2 Optional accessories

Name	Model	Code	Usage
Drain pump kit	SBH-03	210095700120	To lift the drain water up
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B

Concealed Duct Unit (A5 Type)

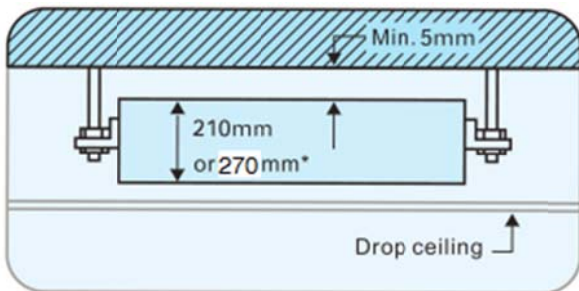
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1. Feature

1.1 Compact size



1.1.1 Only 210 mm (22~56 models) or 270mm (71 to 140 model) in height, this model can be installed in rooms with as little as 240mm~300 mm depth between the drop-ceiling and ceiling slab.



1.1.2 The EXV is built-in design of the indoor unit, makes the main body without an extra throttle kit box.

1.2 Wide capacity range

—The capacity ranges from 2.2KW to 14.0KW, totally ten models.

1.3 Four speed fan motor(Super High ‘SH’ speed as an option)

1.4 Two external static pressure settings for added flexibility

just exchange the wiring connection of ‘SH’ and ‘Hi’. P2 and P3 as the right side diagram.

1.5 Convenient installation

1.5.1 The EXV is fixed inside of the indoor unit

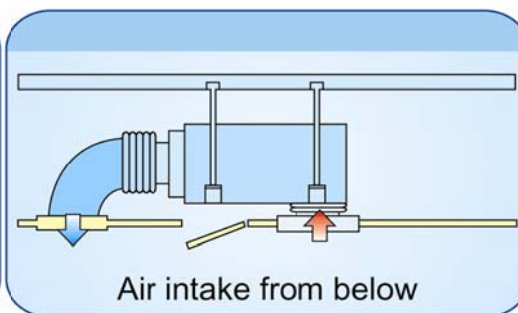
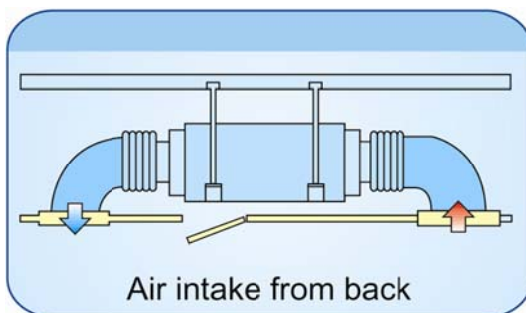
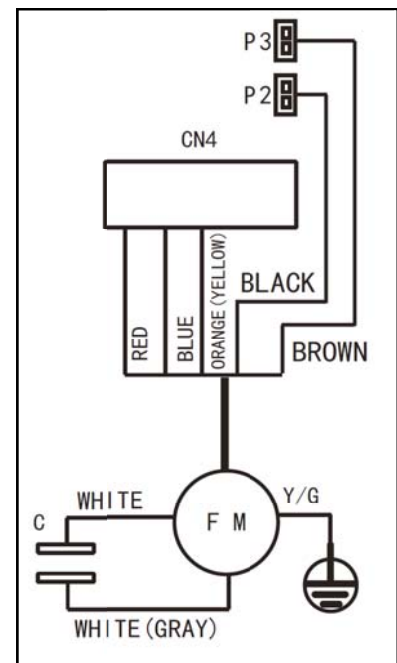
1.5.2 Standard filter with aluminum frame, which is removable downward from bottom.

1.5.3.Suction chamber is included as standard equipment

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

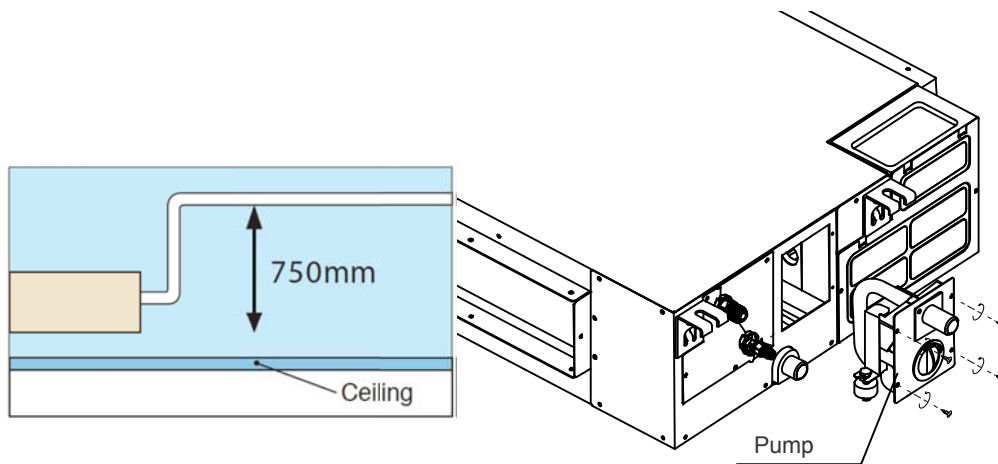
1.5.4 Air inlet from back standard and from bottom optional.

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



1.5.5 Standard built-in drain pump

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



1.6 Flexible control and convenient for maintenance

1.6.1 Standard Wired remote controller KJR-12B (FOLLOW ME)/ KJR-10B, and wireless remote controller R05 is as an option.

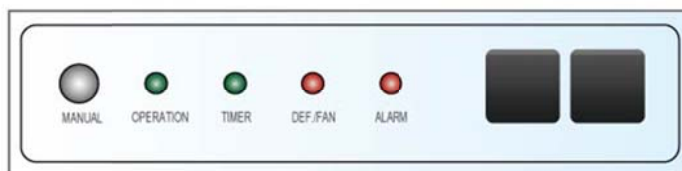
1.6.2 The display board is connected with the E-box in factory, which makes trouble-shooting easier by LED display.



22~56 model(Standard)



22~56 model(Option)

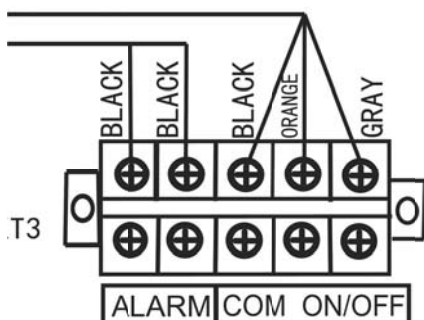


71~140 model

1.6.3 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 *. (should be required by client in advance and done by Midea CAC in factory)

1.6.4 The EXV is fixed inside of the indoor unit, which is **screw connected**, can unscrew from the liquid pipe which is very convenient for maintenance.

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



2. Specifications

Model			MDV-D22T2/N1X-BA5	MDV-D28T2/N1X-BA5	MDV-D36T2/N1X-BA5
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	2.2	2.8	3.6
	Input	W	59	57	61
	Rated current	A	0.28	0.28	0.28
Heating	Capacity	kW	2.6	3.2	4.0
	Input	W	59	57	61
	Rated current	A	0.28	0.28	0.28
Indoor fan motor	Model		YSK27-4C	YSK27-4C	YSK27-4C
	Type		AC Motor		
	Brand		Welling		
	Input	W	50.4	50.4	51.2
	Capacitor	μF	1.5uF/450V	1.5UF/450V	2UF/450V
	Speed (hi/mid/lo)	r/min	1180/960/830/730	1180/960/830/730	1270/1090/960/860
Indoor coil	Number of rows		2	2	3
	Tube pitch(a)* row pitch(b)	mm	21*13.5	21*13.5	21*13.5
	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	515*41*254	515*41*254	735x40.1x252
	Number of circuits		3	3	3
Indoor air flow (H/M/L)		m ³ /h	570/530/410/320	570/530/410/320	570/530/410/320
Indoor external static pressure (Hi)		Pa	10(10~30)		
Indoor noise level (Hi/Mid/Lo)		dB(A)	38/35/32	38/35/32	40/38/36
Indoor unit	Dimension (W×H×D)	mm	700x210x570	700x210x570	700x210x570
	Packing (W×H×D)	mm	915*290*655	915*290*655	915*290*655
	Net/Gross weight	kg	21.5/26	21.5/26	22/27
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92	Φ92
Refrigerant type			R410A		
Throttle	Type		Removable EXV (screw connection)		
	Model		BD20FKS(L)		
Design pressure		MPa	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)		
	Signal wiring	mm ²	3*0.75		
Drainage water pipe diameter			Φ32 (ID Φ25, OD Φ32)		
Controller			Wired controller KJR-12B/DP(T)-E/ KJR-10B/DP(T)-E (6 meters connection wire)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D45T2/N1X-BA5	MDV-D56T2/N1X-BA5	MDV-D71T2/N1X-BA5
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	4.5	5.6	7.1
	Input	W	92	92	149
	Rated current	A	0.5	0.5	0.7
Heating	Capacity	kW	5	6.3	8
	Input	W	92	92	149
	Rated current	A	0.5	0.5	0.7
Indoor fan motor	Model		YSK68-4P	YSK68-4P	YSK74-4P
	Type		AC MOTOR		
	Brand		Welling		
	Input	W	91	91	120
	Capacitor	μF	3.5UF/450V	3.5UF/450V	3.5UF/450V
	Speed (hi/mid/lo)	r/min	1150/1020/800/700	1150/1020/800/700	1000/870/750/680
Indoor coil	Number of rows		3	3	4
	Tube pitch(a)* row pitch(b)	mm	21X13.37	21X13.37	21X13.37
	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	735*40.1*254	735*40.1*254	735*53.5*254
	Number of circuits		4	4	6
Indoor air flow (H/M/L)		m ³ /h	958/850/667/583	958/850/667/583	1207/1050/905/821
Indoor external static pressure (Hi)		Pa	10(10~30)		
Indoor noise level (Hi/Mid/Lo)		dB(A)	41/38.9/36	41/38.9/36	43.4/40/36
Indoor unit	Dimension (W×H×D)	mm	920×210×570	920×210×570	920×210×570
	Packing (W×H×D)	mm	1135×290×655	1135×290×655	1135×350×655
	Net/Gross weight	kg	27/32	27/32	30/34
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92	Φ92
Refrigerant type			R410A		
Throttle	Type		Removable EXV (screw connection)		
	Model		BD20FKS(L)		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ6.35/ Φ12.7	Φ9.52/ Φ15.9	Φ9.52/ 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			Φ32 (ID Φ25, OD Φ32)		
Controller			Wired controller KJR-12B/DP(T)-E/ KJR-10B/DP(T)-E (6 meters connection wire)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

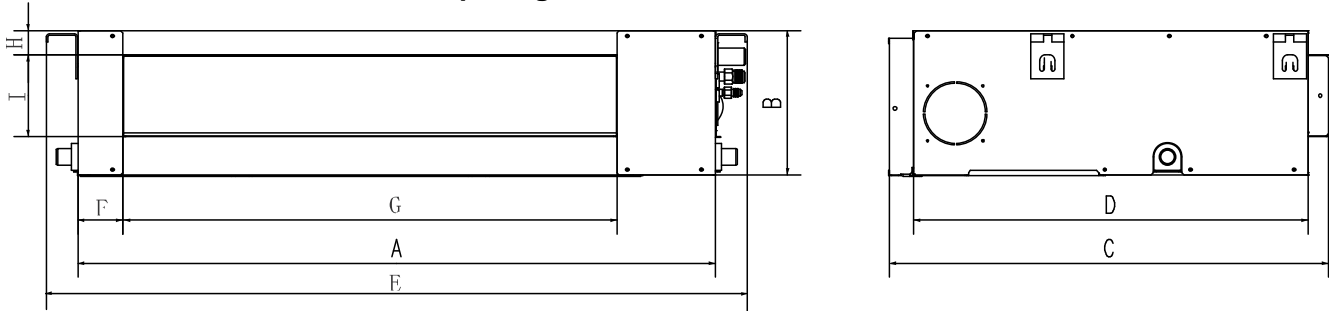
Model			MDV-D80N1X -BA5	MDV-D90N1X -BA5	MDV-D112N1X -BA5	MDV-D140N1X -BA5
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	8	9	11.2	14
	Input	W	198	200	313	274
	Rated current	A	1	1	1.8	1.8
Heating	Capacity	kW	9	10	12.5	15.5
	Input	W	198	200	313	274
	Rated current	A	1.16	1.16	1.65	1.8
Indoor fan motor	Model		YSK100-4P	YSK100-4P	YSK200-4P	YSK180-4P
	Type		AC MOTOR			
	Brand		Welling			
	Input	W	179	179	300	255
	Capacitor	μF	10UF/450V	10UF/450V	10UF/450V	10UF/450V
	Speed (hi/mid/lo)	r/min	935/810/700/620	935/810/700/620	1130/1000/870/770	1080/960/830/710
Indoor coil	Number of rows		4	4	4	4
	Tube pitch(a)*rowpitch(b)	mm	21X13.5	21X13.5	21X13.5	25.4X22
	Fin spacing	mm	1.5	1.5	1.5	1.5
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ7 inner groove tube			
	length * height * width	mm	955*54*336	955*54*336	955*54*336	103088*457.2
	Number of circuits		5	8	8	8
Indoor air flow ((SH)/H/M/L)	m ³ /h	(1400)1226/1018/861	(1400)1226/1018/861	(1750)/1752/1552/1389	(2138)/1918/1539/1250	
Indoor external static pressure (Hi)	Pa	20(10~50))	20(10~50))	40(10~80))	40(10~80)	
Indoor noise level (Hi/Mid/Lo)	dB(A)	45.4/39.8/37	45.4/39.8/37	48.0 /41.9/38	47.7/43.2/39.0	
Indoor unit	Dimension (W×H×D)	mm	1140*270*710	1140*270*710	1140*270*710	1200*300*800
	Packing (W×H×D)	mm	1355*350*795	1355*350*795	1355*350*795	1385*375*920
	Net/Gross weight	kg	38/46.5	40/48	40/48	49/58
Fresh Air intake hole diameter (round)	mm	Φ125	Φ125	Φ125	Φ125	
Refrigerant type		R410A				
Throttle	Type		Removable EXV (screw connection)			
	Model		BD24FKS(L)			
Design pressure	MPa	4.4/2.6				
Refrigerant piping	Liquid / Gas	mm	Φ9.53/Φ15.9	9.53/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		Φ32 (ID Φ25, OU Φ32)				
Controller		Wired controller KJR-12B/DP(T)-E/ KJR-10B/DP(T)-E (6 meters connection wire)				
Operation temp	°C	Cooling: 17~32; Heating:10~28				

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

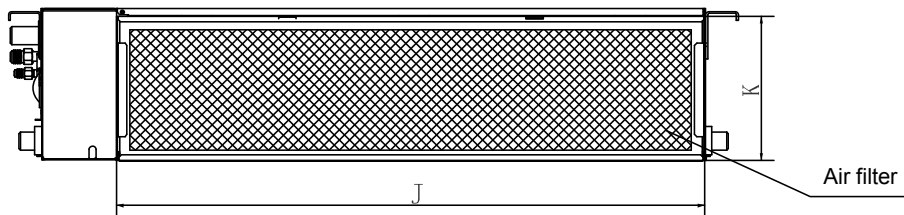
3. Dimension

MDV-D22T2/NX1-BA5 MDV-D28T2/NX1-BA5 MDV-D36T2/NX1-BA5 MDV-D45T2/NX1-BA5
 MDV-D56T2/NX1-BA5 MDV-D71T2/NX1-BA5 MDV-D80T2/NX1-BA5 MDV-D90T2/NX1-BA5
 MDV-D112T2/NX1-BA5 MDV-D140T2/NX1-BA5

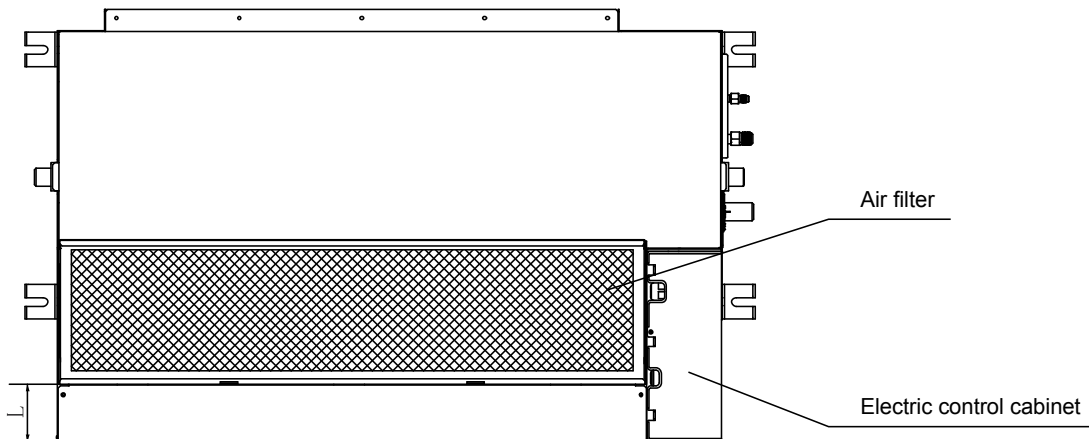
Outline dimension and air outlet opening size



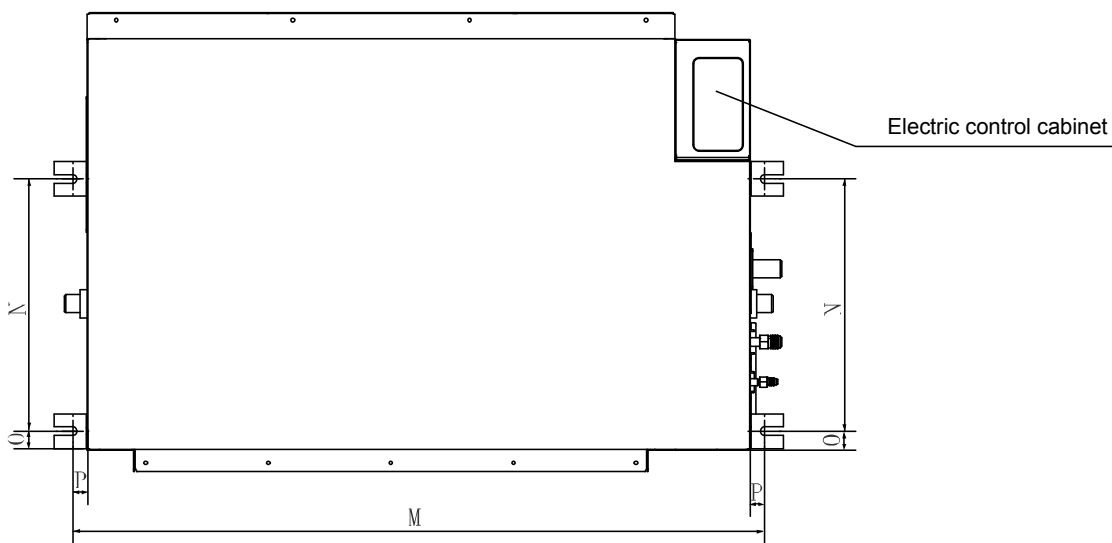
Air return opening size:



Position size of declensional ventilation opening



Size of mounted lug



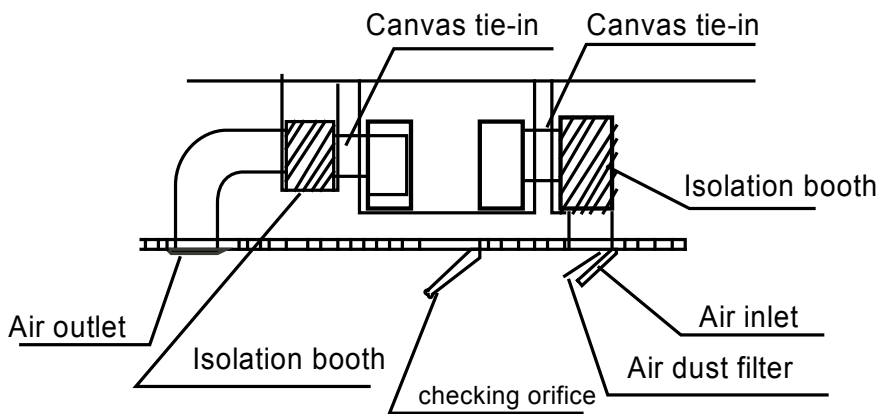
MODEL (MDV-D**T2/N1-B)	Outline dimension					Air outlet opening size		
	A	B	C	D	E	F	G	H
22~36	700	210	635	570	790	65	493	35
45~56	920	210	635	570	1010	65	713	35
71	920	210	635	570	1010	65	713	35
80~112	1140	270	775	710	1230	65	933	35
140	1200	300	865	800	1290	80	968	40

MODEL (MDV-D**T2/N1-B)	Air return opening size				Size of mounted lug			
	I	J	K	L	M	N	O	P
22~36	119	595	200	80	740	350	26	20
45~56	119	815	200	80	960	350	26	20
71	179	815	260	20	960	350	26	20
80~112	179	1035	260	20	1180	490	26	20
140	204	1094	288	45	1240	500	26	20

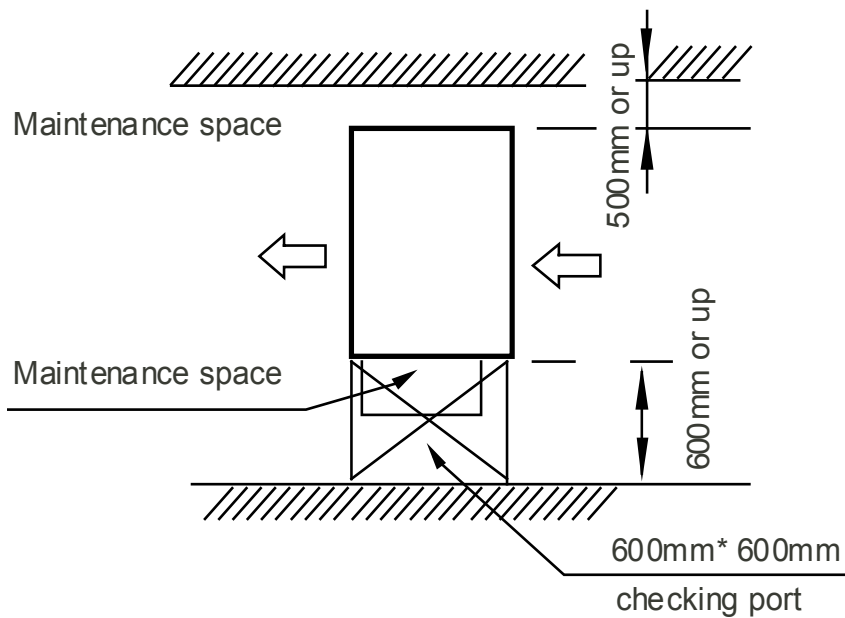
Note: Fresh air intake connection size is $\Phi 125$ mm.

4. Service Space

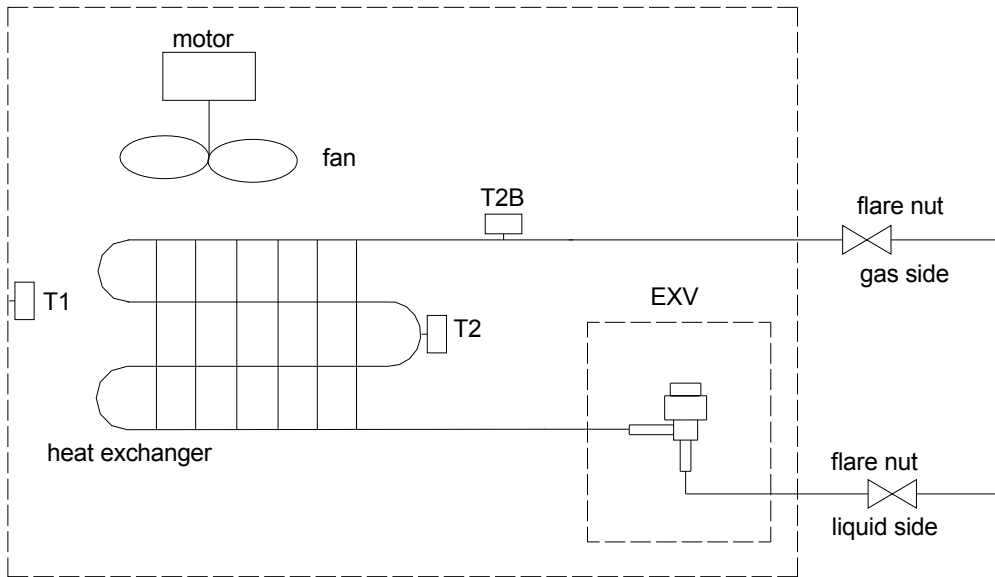
- Ensure the needed spaces for installation and maintenance.
- The ceiling is horizontal, and its structure can endure the weight of the indoor unit.
- The outlet and the inlet are not impeded, and the influence of external air is the least.
- The air flow can reach throughout the room.
- The connecting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



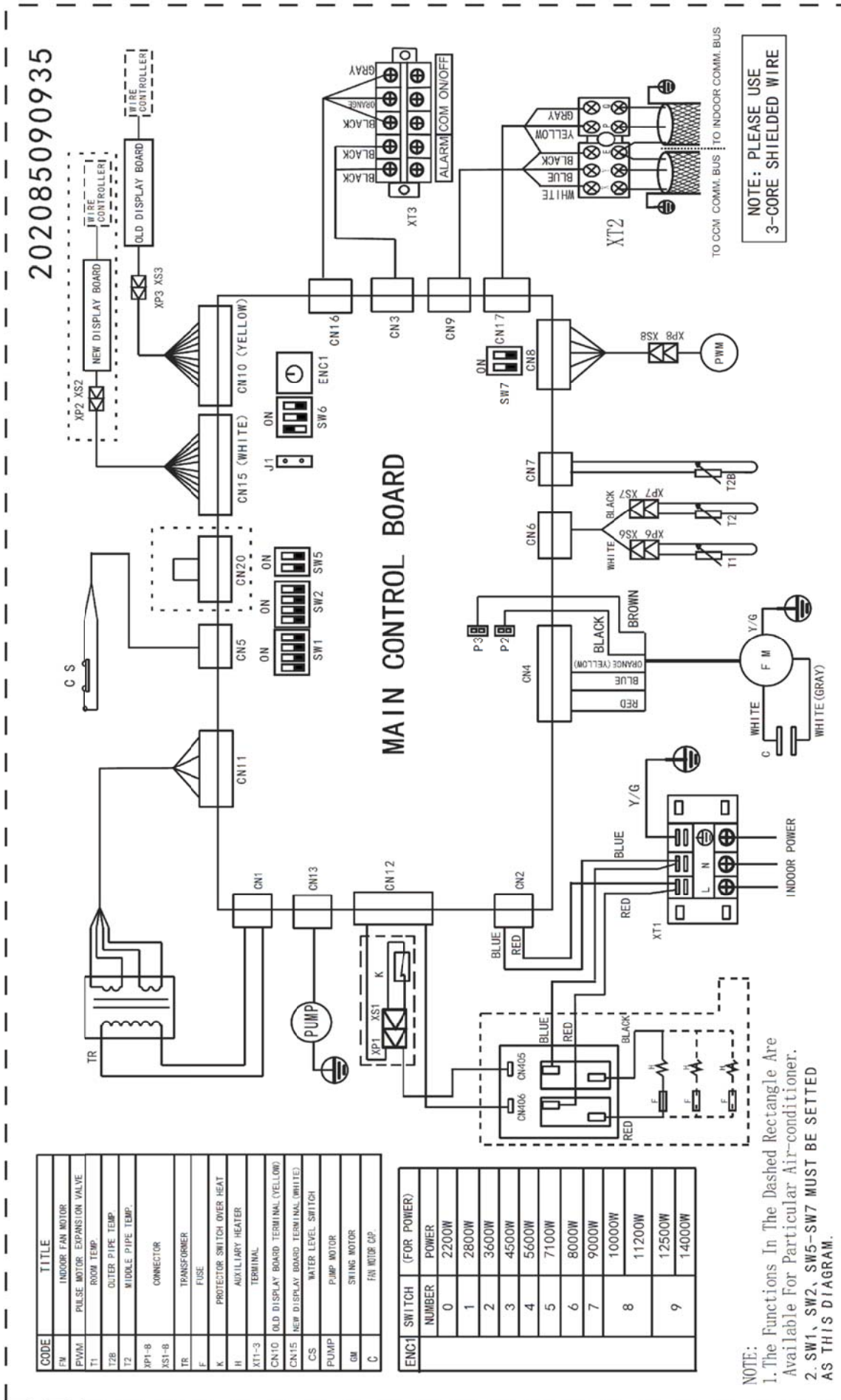
- **Keep min. 600*600 space for checking & maintenance:**



5. PipingDiagram



6. Wiring Diagram



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 (**CMH**).

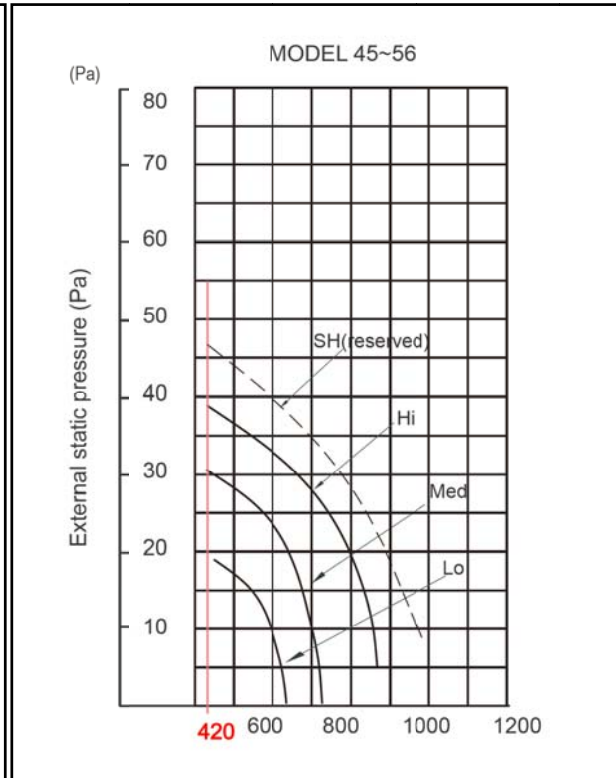
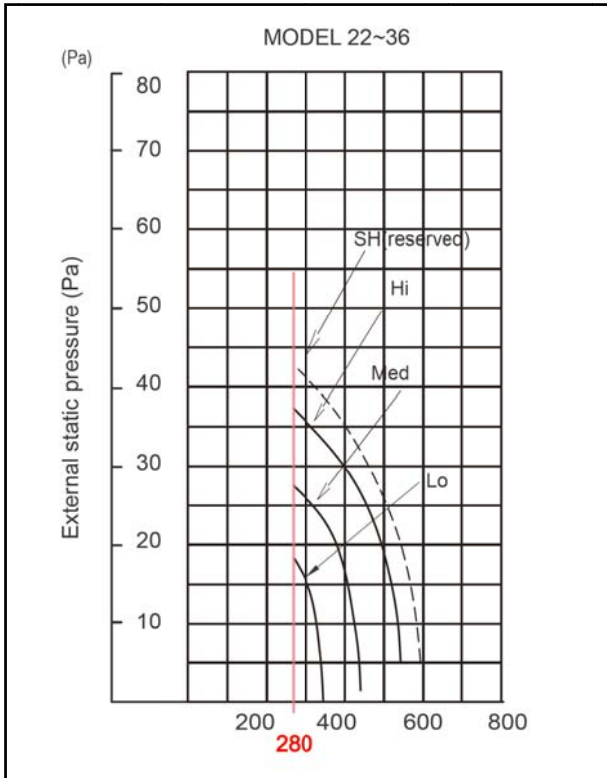
The characteristic curve for the “Hi,” “Med,” and “Lo” fan speed control, as well the reserved “SH” speed.

The nameplate values are shown based on the “Hi” air flow.

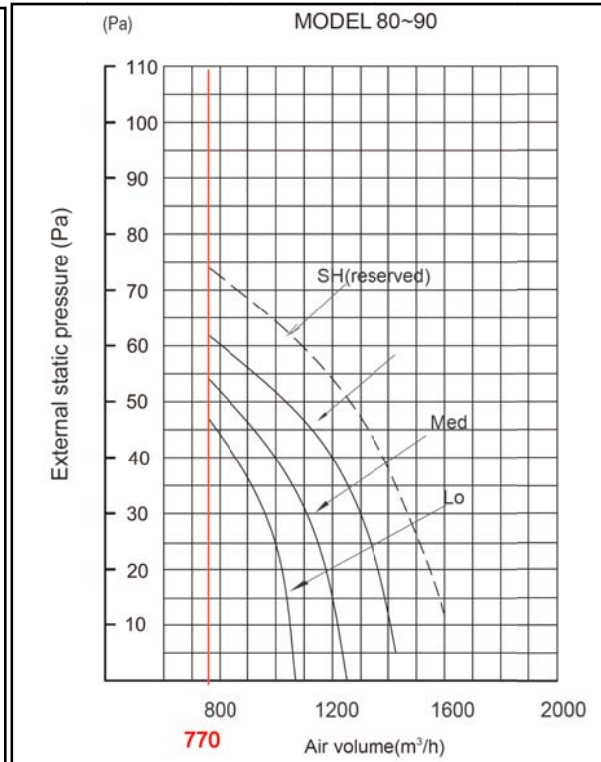
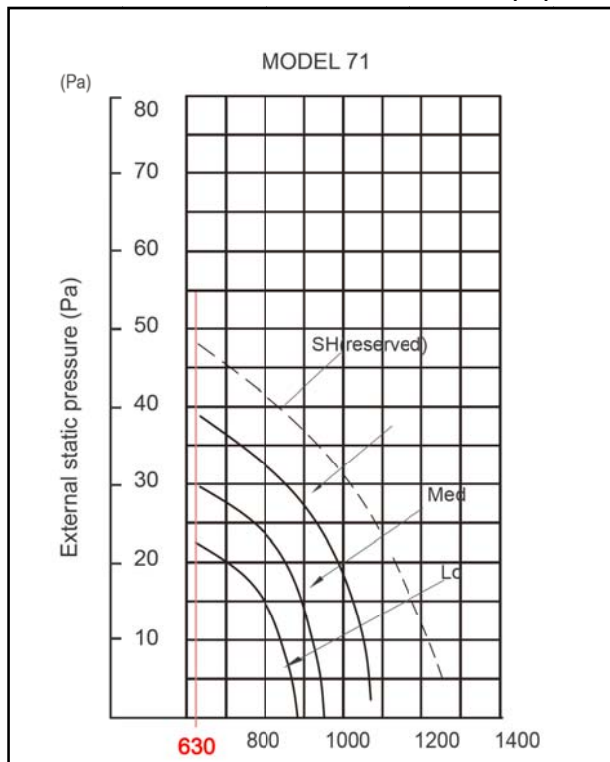
Therefore in the case of **22T2** Type, the air flow is **530 CMH**, while the External Static Pressure is **10Pa** at “Hi” position. If **30Pa** needed, the airflow is at ‘SH’

MDV-D22(28)(36)T2/N1X-BA5

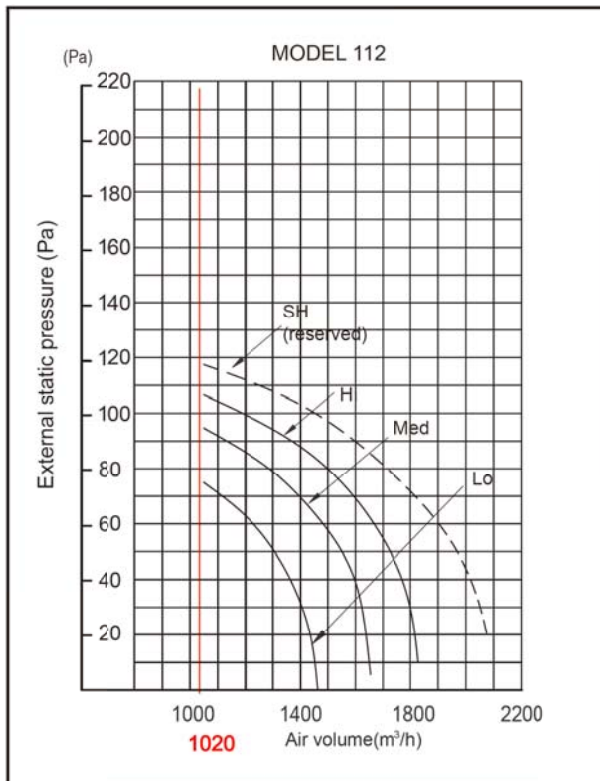
MDV-D45(56)T2/N1X-BA5



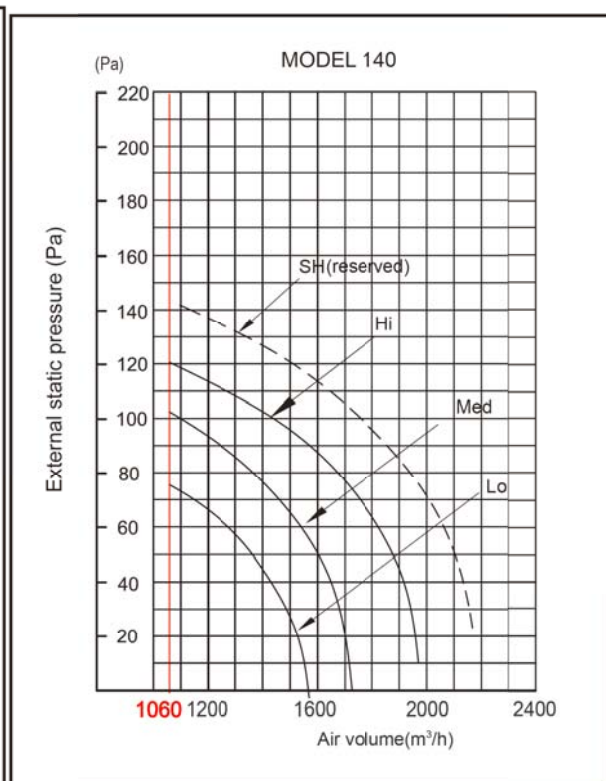
MDV-D71T2/N1X-BA5 MDV-D80(90)T2/N1X-BA5



MDV-D112T2/N1X-BA5



MDV-D140T2/N1X-BA5



- 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 temp.
- 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 temp. of motor/evaporator.
- **E.g.**for MDV-D140T2/NX1-BA5 model, if at high speed, it is required to connect duct with min. 10Pa resistance.If set to SH, it should be at least 20Pa duct.Similarly , it only allow max. 100Pa duct resistance @ Hi speed. If need 120Pa, should set to SH.

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
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
	42.0	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
44.0	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	
46.0	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
42.0	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	
44.0	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	
46.0	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	
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	
8.0	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
	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	
9.0	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
	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	
11.2	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
	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	
14.0	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	TC	TC	TC	TC	TC
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	2.4	2.4	2.4	2.4	2.4	2.4
	-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	3.1	3.1	3.1	3.1	2.94	2.69
	6.00	7.00	3.2	3.2	3.2	3.1	2.94	2.69
7.90	9.00	3.3	3.3	3.2	3.1	2.94	2.69	
9.80	11.00	3.39	3.39	3.2	3.1	2.94	2.69	
11.80	13.00	3.52	3.46	3.2	3.1	2.94	2.69	
13.70	15.00	3.62	3.46	3.2	3.1	2.94	2.69	
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.4	2.4	2.4	2.4	2.4	2.4
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	2.6	2.6	2.6	2.6	2.6	2.6
	-13.00	-12.60	2.68	2.68	2.68	2.68	2.68	2.68
	-11.00	-10.50	2.8	2.8	2.8	2.8	2.8	2.8
	-10.00	-9.50	2.92	2.92	2.92	2.92	2.92	2.92
	-9.10	-8.50	3	3	3	3	3	3
	-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	4	4	3.88	3.68	3.36
7.90	9.00	4.12	4.12	4	3.88	3.68	3.36	
9.80	11.00	4.24	4.24	4	3.88	3.68	3.36	
11.80	13.00	4.4	4.32	4	3.88	3.68	3.36	

4.5	13.70	15.00	4.52	4.32	4	3.88	3.68	3.36
	-20	-19.8	2.8	2.8	2.8	2.8	2.8	2.8
	-19	-18.8	3	3	3	3	3	3
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.5	3.5	3.5	3.5	3.5	3.5
	-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	3.8	3.8	3.8	3.8	3.8	3.8
	-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	4.2
	2.20	3.00	4.7	4.7	4.7	4.7	4.6	4.2
	4.10	5.00	4.85	4.85	4.85	4.85	4.6	4.2
	6.00	7.00	5	5	5	4.85	4.6	4.2
	7.90	9.00	5.15	5.15	5	4.85	4.6	4.2
9.80	11.00	5.3	5.3	5	4.85	4.6	4.2	
11.80	13.00	5.5	5.4	5	4.85	4.6	4.2	
13.70	15.00	5.65	5.4	5	4.85	4.6	4.2	
5.6	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.1	4.1	4.1	4.1	4.1	4.1
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-10.00	-9.50	4.6	4.6	4.6	4.6	4.6	4.6
	-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	5.8	5.29
	4.10	5.00	6.11	6.11	6.11	6.11	5.8	5.29
	6.00	7.00	6.3	6.3	6.3	6.11	5.8	5.29
	7.90	9.00	6.49	6.49	6.3	6.11	5.8	5.29
	9.80	11.00	6.68	6.68	6.3	6.11	5.8	5.29
11.80	13.00	6.93	6.8	6.3	6.11	5.8	5.29	
13.70	15.00	7.12	6.8	6.3	6.11	5.8	5.29	
7.1	-20	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.8	4.8	4.8	4.8	4.8	4.8
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.2	5.2	5.2	5.2	5.2	5.2
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.6	5.6	5.6	5.6	5.6	5.6
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6	6	6	6	6	6
	-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	8	8	7.76	7.36	6.72
	7.90	9.00	8.24	8.24	8	7.76	7.36	6.72
	9.80	11.00	8.48	8.48	8	7.76	7.36	6.72
11.80	13.00	8.8	8.64	8	7.76	7.36	6.72	
13.70	15.00	9.04	8.64	8	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	5.4	5.4	5.4	5.4	5.4	5.4
	-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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.3	6.3	6.3	6.3	6.3	6.3
	-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	9	9	8.73	8.28	7.56
	7.90	9.00	9.27	9.27	9	8.73	8.28	7.56
	9.80	11.00	9.54	9.54	9	8.73	8.28	7.56
	11.80	13.00	9.9	9.72	9	8.73	8.28	7.56
13.70	15.00	10.17	9.72	9	8.73	8.28	7.56	
9.0	-20	-19.8	5.6	5.04	5.6	5.6	5.6	5.6
	-19	-18.8	6	5.4	6	6	6	6
	-17	-16.7	6.3	6.3	6.3	6.3	6.3	6.3
	-15	-14.7	6.5	6.5	6.5	6.5	6.5	6.5
	-13.00	-12.60	6.7	6.7	6.7	6.7	6.7	6.7
	-11.00	-10.50	7	7	7	7	7	7
	-10.00	-9.50	7.3	7.3	7.3	7.3	7.3	7.3
	-9.10	-8.50	7.5	7.5	7.5	7.5	7.5	7.5
	-7.60	-7.00	7.6	7.6	7.6	7.6	7.6	7.6
	-5.60	-5.00	7.9	7.9	7.9	7.9	7.9	7.9
	-3.70	-3.00	8.3	8.3	8.3	8.3	8.3	8.3
	-0.70	0.00	8.9	8.9	8.9	8.9	8.9	8.4
	2.20	3.00	9.4	9.4	9.4	9.4	9.2	8.4
	4.10	5.00	9.7	9.7	9.7	9.7	9.2	8.4
6.00	7.00	10	10	10	9.7	9.2	8.4	
7.90	9.00	10.3	10.3	10	9.7	9.2	8.4	
9.80	11.00	10.6	10.6	10	9.7	9.2	8.4	
11.80	13.00	11	10.8	10	9.7	9.2	8.4	
13.70	15.00	11.3	10.8	10	9.7	9.2	8.4	
11.2	-20	-19.8	7	7	7	7	7	7
	-19	-18.8	7.5	7.5	7.5	7.5	7.5	7.5
	-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	8.38	8.38	8.38	8.38	8.38	8.38
	-11.00	-10.50	8.75	8.75	8.75	8.75	8.75	8.75
	-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	9.5	9.5	9.5	9.5	9.5	9.5
	-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	10.5
	2.20	3.00	11.75	11.75	11.75	11.75	11.5	10.5
	4.10	5.00	12.13	12.13	12.13	12.13	11.5	10.5
6.00	7.00	12.5	12.5	12.5	12.13	11.5	10.5	
7.90	9.00	12.88	12.88	12.5	12.13	11.5	10.5	
9.80	11.00	13.25	13.25	12.5	12.13	11.5	10.5	
11.80	13.00	13.75	13.5	12.5	12.13	11.5	10.5	
13.70	15.00	14.13	13.5	12.5	12.13	11.5	10.5	
14.0	-20	-19.8	8.68	8.68	8.68	8.68	8.68	8.68
	-19	-18.8	9.3	9.3	9.3	9.3	9.3	9.3
	-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	10.4	10.4	10.4	10.4	10.4	10.4
	-11.00	-10.50	10.9	10.9	10.9	10.9	10.9	10.9
	-10.00	-9.50	11.3	11.3	11.3	11.3	11.3	11.3
	-9.10	-8.50	11.6	11.6	11.6	11.6	11.6	11.6
	-7.60	-7.00	11.8	11.8	11.8	11.8	11.8	11.8
	-5.60	-5.00	12.3	12.3	12.3	12.3	12.3	12.3
	-3.70	-3.00	12.9	12.9	12.9	12.9	12.9	12.9
	-0.70	0.00	13.8	13.8	13.8	13.8	13.8	13
	2.20	3.00	14.6	14.6	14.6	14.6	14.3	13
	4.10	5.00	15	15	15	15	14.3	13
6.00	7.00	15.5	15.5	15.5	15	14.3	13	

	7.90	9.00	16	16	15.5	15	14.3	13
	9.80	11.00	16.4	16.4	15.5	15	14.3	13
	11.80	13.00	17.1	16.7	15.5	15	14.3	13
	13.70	15.00	17.5	16.7	15.5	15	14.3	13

9. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22T2/N1X-BA5	50	220-240	198	264	0.28	15	0.027	0.28
MDV-D28T2/N1X-BA5	50	220-240	198	264	0.28	15	0.027	0.28
MDV-D36T2/N1X-BA5	50	220-240	198	264	0.28	15	0.027	0.28
MDV-D45T2/N1X-BA5	50	220-240	198	264	0.6	15	0.107	0.48
MDV-D56T2/N1X-BA5	50	220-240	198	264	0.6	15	0.107	0.48
MDV-D71T2/N1X-BA5	50	220-240	198	264	0.92	15	0.163	0.73
MDV-D80T2/N1X-BA5	50	220-240	198	264	1.25	15	0.227	1
MDV-D90T2/N1X-BA5	50	220-240	198	264	1.25	15	0.227	1
MDV-D112T2/N1X-BA5	50	220-240	198	264	1.9	15	0.393	1.51
MDV-D140T2/N1X-BA5	50	220-240	198	264	2	15	0.355	1.55

Electric Characteristics

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

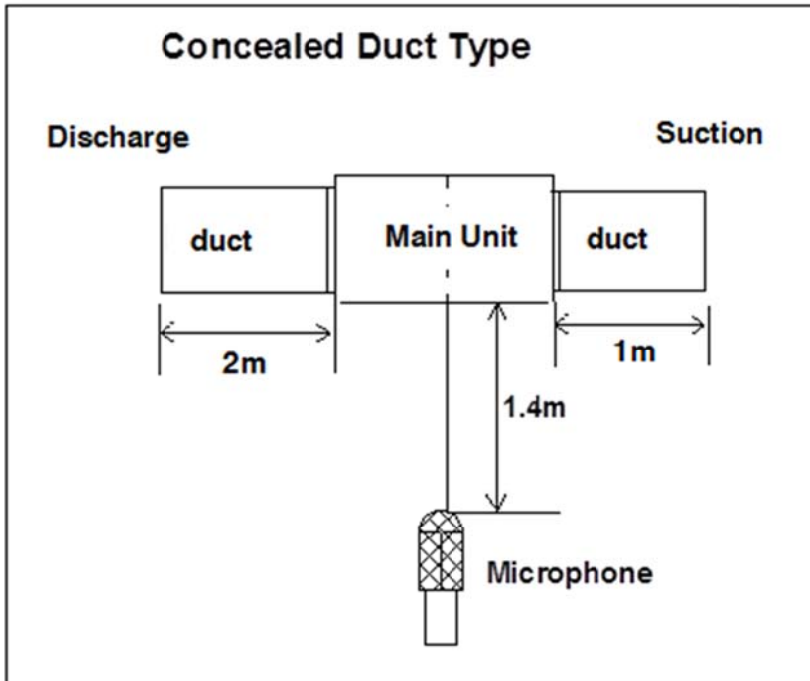
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

10. Noise Levels

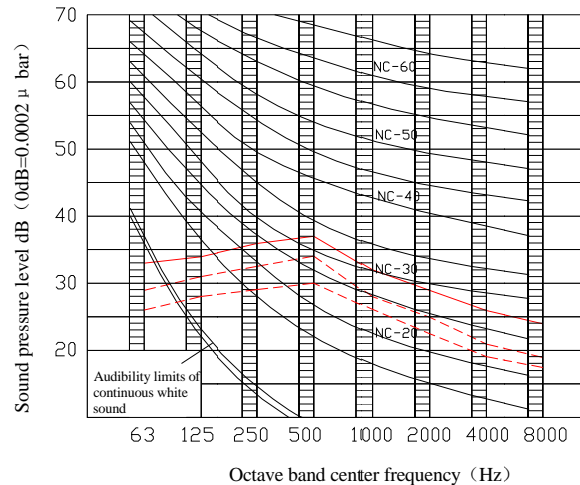
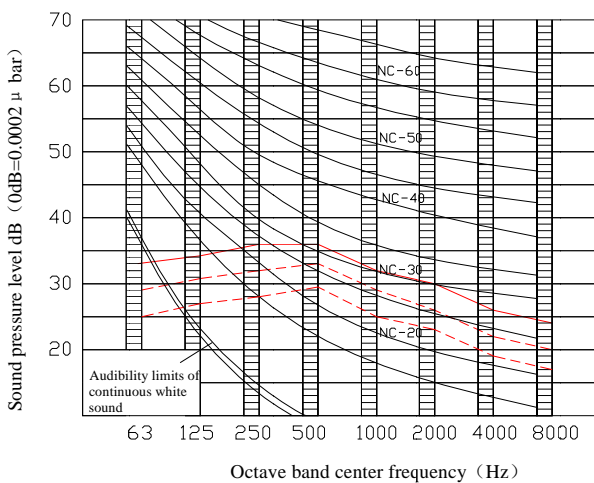
10.1 Test condition



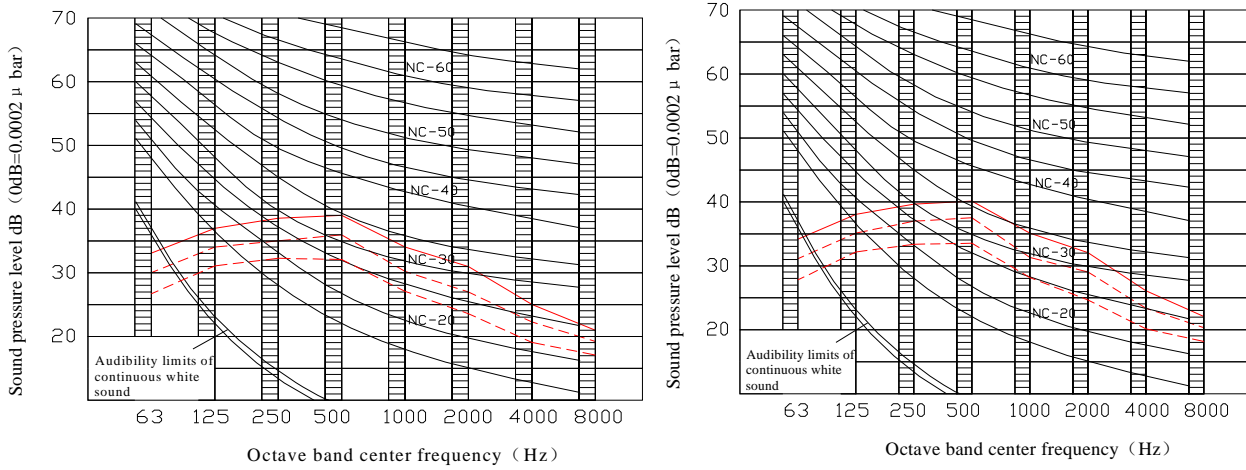
10.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22T2/N1X-BA5	38	35	32
MDV-D28T2/N1X-BA5	38	35	32
MDV-D36T2/N1X-BA5	40	38	36
MDV-D45T2/N1X-BA5	41	38.9	36
MDV-D56T2/N1X-BA5	41	38.9	36
MDV-D71T2/N1X-BA5	43.4	40	36
MDV-D80T2/N1X-BA5	45.4	39.8	37
MDV-D90T2/N1X-BA5	45.4	39.8	37
MDV-D112T2/N1X-BA5	48.0	41.9	38
MDV-D140T2/N1X-BA5	47.7	43.2	39

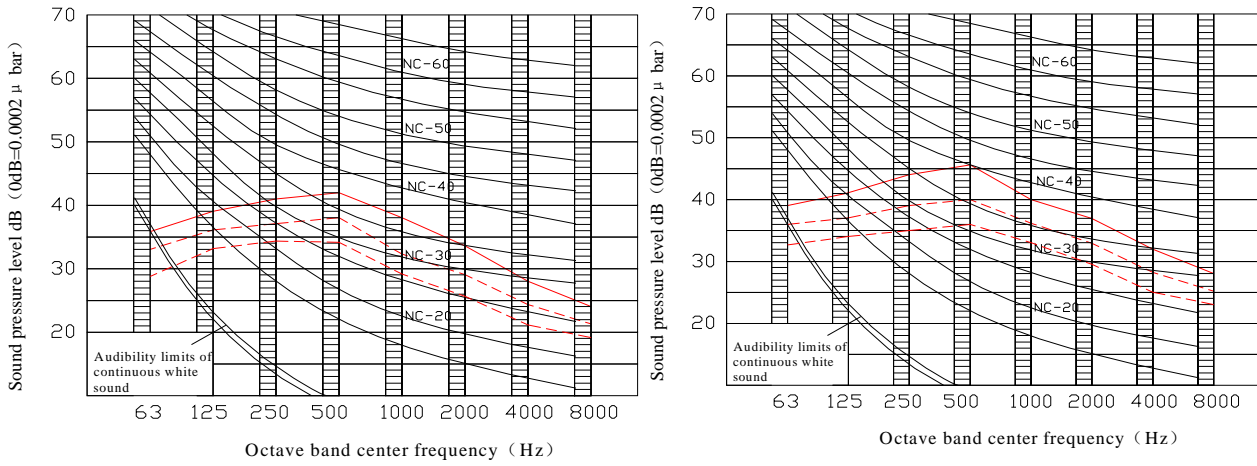
MDV-D22(28)T2/N1X-BA5 MDV-D36T2/N1X-BA5



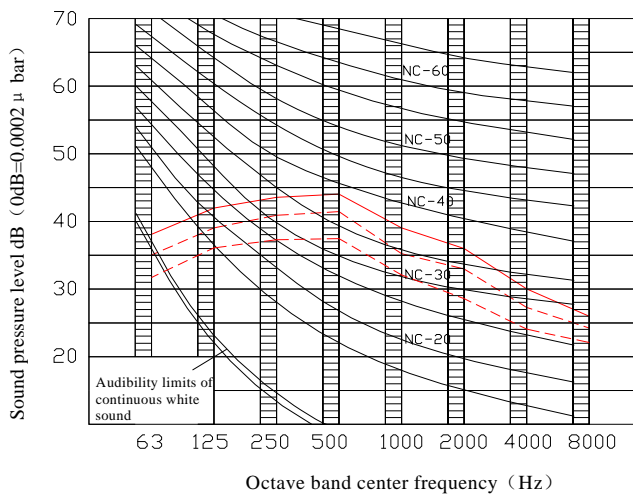
MDV-D45(56)T2/N1X-BA5MDV-D71T2/N1X-BA5



MDV-D80(90)T2/N1X-BA5MDV-D112T2/N1X-BA5



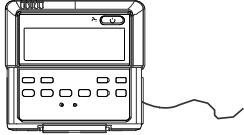






MDV-D140T2/N1X-BA5



11. Accessories

11.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Adhesive tape for seal	2		To connect drain pipe
Wired controller	1		/
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	1		For drainage
Clasp	1		Chucking the joint which connect the drain hose and the outlet of indoor unit
Signal receiver display board (already fixed inside control box)	1		Receive signal

11.2 Optional accessories

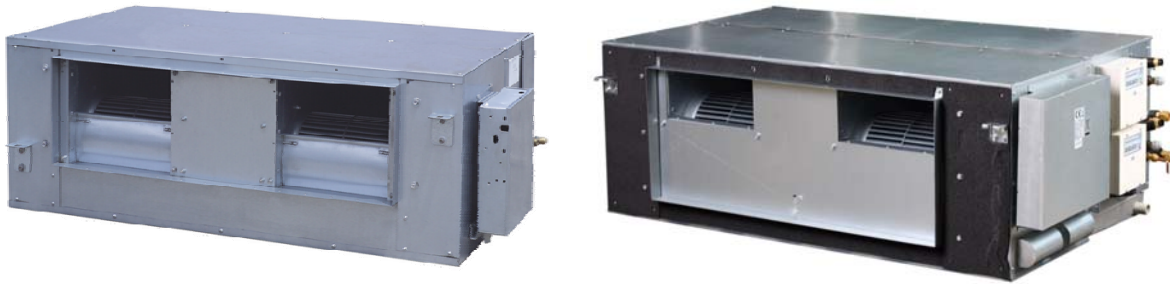
Name	Model	Code	Usage
Wireless remote controller	RM05/BG(T)E-A	203355091418	Which can be used to set the indoor unit's address

High static pressure duct unit

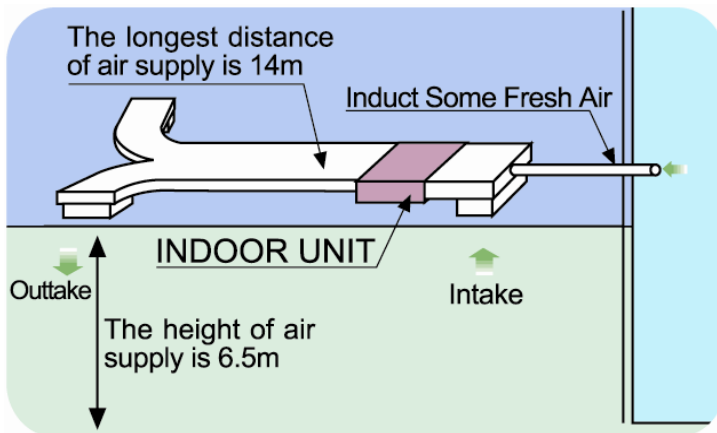
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1. Feature

1.1 High static pressure allows flexible duct design

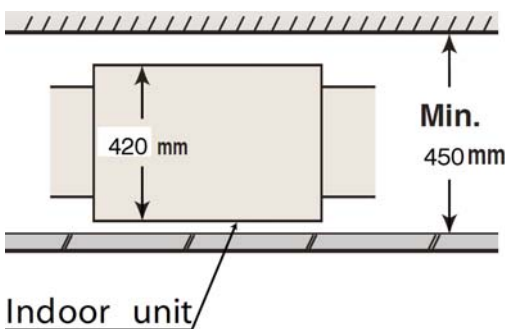


1.1.1 External static pressure of Indoor Unit can be up to 196 Pa(71~160 model) (220Pa for 20kW and up), which allows extensive duct work for flexible applications. so the cool air can be delivered to every indoor corner even in a super-high ceiling.



1.1.2 The max. distance of air supply is about 14m, the height of air supply is about 6.5m.

1.1.3 With 420mm (71~160 model) thickness body, not occupied much ceiling space which is 450mm only.



1.2 Wide capacity range

—The capacity ranges from 7.1KW to28.0KW, totally nine models.

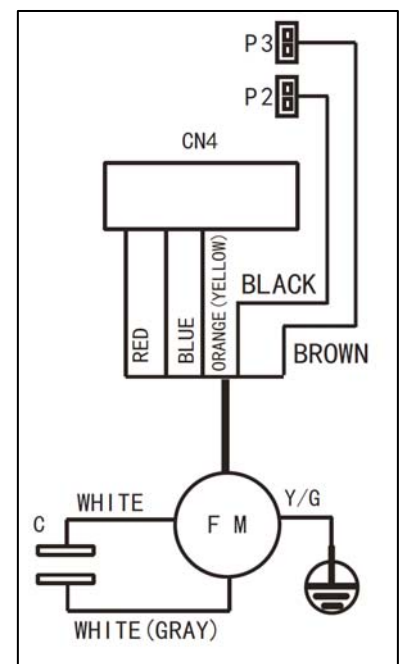
1.3 Four speed fan motor(MediumHi speed as an option) * (for 71~160 model)

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.

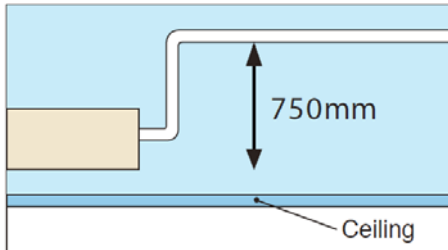
1.5.2 Standard filter with aluminum frame, which is removable downward from bottom.

1.5.3 Suction chamber 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 pumphead.



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

1.6 Flexible control and convenient for maintenance

1.6.1 Standard Wired remote controller KJR-10B, and wireless remote controller R05 is as an option.

1.6.2 The display board is connected with the E-box in factory, which makes trouble-shooting easier by LED display.

1.6.4 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	9
	Input	W	263	263	423
	Rated current	A	1.1	1.1	1.8
Heating	Capacity	kW	8	9	10
	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	1.8
Indoor fan motor	Model		YDK100-4X-2	YDK100-4X-2	YDK160-4C
	Type		AC Motor		
	Brand		YongAn	YongAn	WELLING
	Input	W	247	247	391
	Capacitor	μF	12	12	10
	Speed (hi/mid/lo)	r/min	975/923//847	975/923//847	1282/1213/1035
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	3
Indoor air flow (H/M/L)		m ³ /h	1510/1399/1236	1500/1396/1221	1936/1721/1511
Indoor external static pressure (Hi)		Pa	40(30~ 196)	40(30~ 196)	40(30~ 196)
Indoor noise level (Hi/Mid/Lo)		dB(A)	48/46/44	48/46/44.5	52/49/47
Indoor unit	Dimension (W×H×D)	mm	952*420*690	952*420*690	952*420*690
	Packing (W×H×D)	mm	1102*450*768	1102*450*768	1102*450*768
	Net/Gross weight	kg	45/50	45/50	46.5/52.4
Refrigerant type			R410A		
Throttle	Type		EXV		
	Model		BD20FKS, (Winding: DZF20XQ-1000-XHP-6)		
Design pressure (Hi/Lo)		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.52/ Φ15.9	Φ9.52/ Φ15.9	Φ9.52/ 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			Φ32 (ID Φ25, OU Φ32)		
Controller			Wired controller KJR-10B/DP(T)-E(6 meters connection wire)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

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

2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 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	627	832
	Rated current	A	2.3	2.7	3.6
Heating	Capacity	kW	12.5	16	18
	Input	W	524	627	832
	Rated current	A	2.3	2.7	3.6
Max. input consumption		W	528	660	891
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	588	798
	Capacitor	μF	15	12	15
	Speed (hi/mid/lo)	r/min	1000/930/774	956/853/697	1087/953/836
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	2117/1950/1644	2988/2670/2229	3890/3200/2700
Indoor external static pressure (Hi)		Pa	50(30~ 196)	50(30~ 196)	50(30~ 196)
Indoor noise level (Hi/Mid/Lo)		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	1102*450*768	1430*450*768	1430*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		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.52/ Φ15.9	Φ9.52/ Φ15.9	Φ9.52/ 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			Φ32 (ID Φ25, OU Φ32)		
Controller			Wired controller KJR-12B/DP(T)-E(6 meters connection wire)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

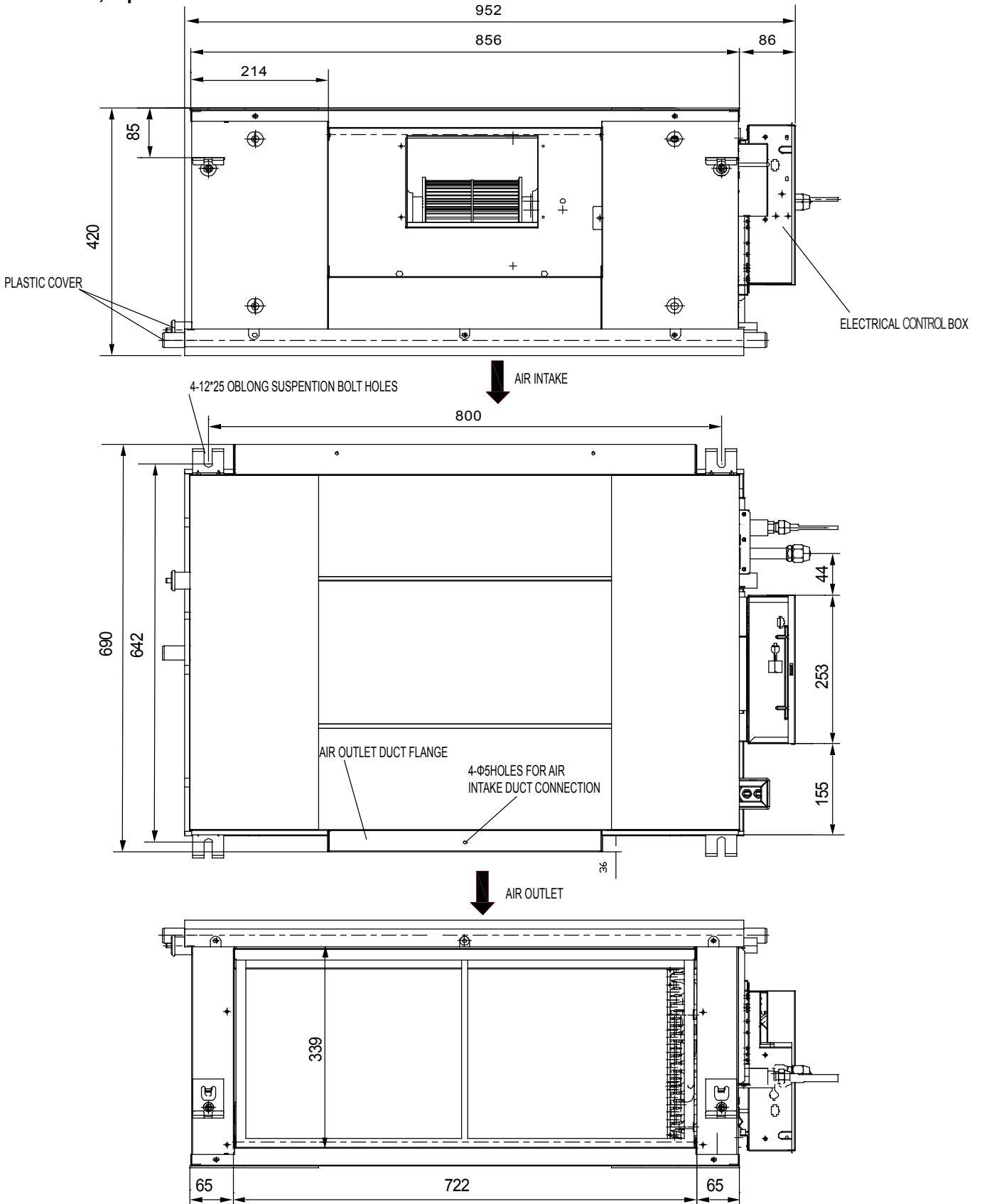
Model			MDV-D200T1/N1-B	MDV-D250T1/N1-B	MDV-D280T1/N1-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	20.0	25.0	28.0
	Input	W	1516	1516	1516
	Rated current	A	6.6	6.6	6.6
Heating	Capacity	kW	22.5	26.0	31.5
	Input	W	1516	1516	1516
	Rated current	A	6.6	6.6	6.6
Max. input consumption		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		YongAn		
	Input	W	900/820/630(×2)	900/820/630(×2)	900/820/630(×2)
	Capacitor	μF	12(×2)	12(×2)	15(×2)
	Speed (hi/mid/lo)	r/min	1300/1100/900(×2)	1300/1100/900(×2)	1300/1100/900(×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	1125×512×88	1125×512×88	1125×512×88
	Number of circuits		20	20	20
Indoor air flow (H/M/L)		m ³ /h	4268/3780/3200	4280/3820/3200	4400/3708/3200
Indoor external static pressure (Hi)		Pa	140(50~250)	140(50~250)	140(50~250)
Indoor noise level (Hi/Mid/Lo)		dB(A)	59/55/52	59/55/52	59/55/52
Indoor unit	Dimension (W×H×D)	mm	1425×500×928	1425×500×928	1425×500×928
	Packing (W×H×D)	mm	1509×522×964	1509×522×964	1509×522×964
	Net/Gross weight	kg	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		MPa	4.4/2.6		
Refrigerant piping	Liquid / Gas	mm	Φ9.52/ Φ15.9 *2	Φ9.52/ Φ15.9 *2	Φ9.52/ Φ15.9 *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			Φ32 (ID Φ25, OU Φ32)		
Controller			Wired controller KJR-12B/DP(T)-E(6 meters connection wire)		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

3. Dimension

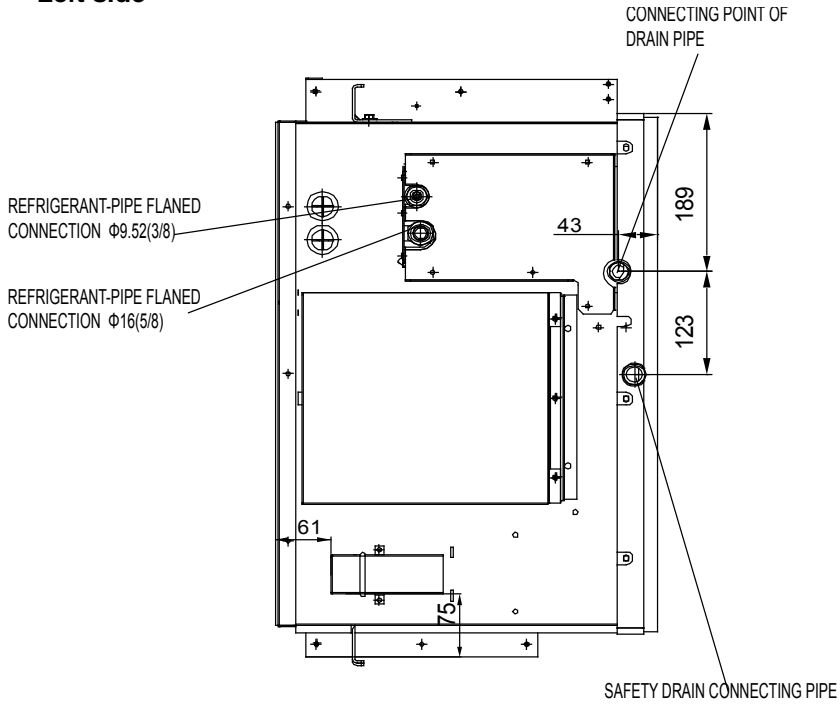
MDV-D71T1/N1-B MDV-D80T1/N1-B MDV-D90T1/N1-B MDV-D112T1/N1-B

Front view, top view and rear view:

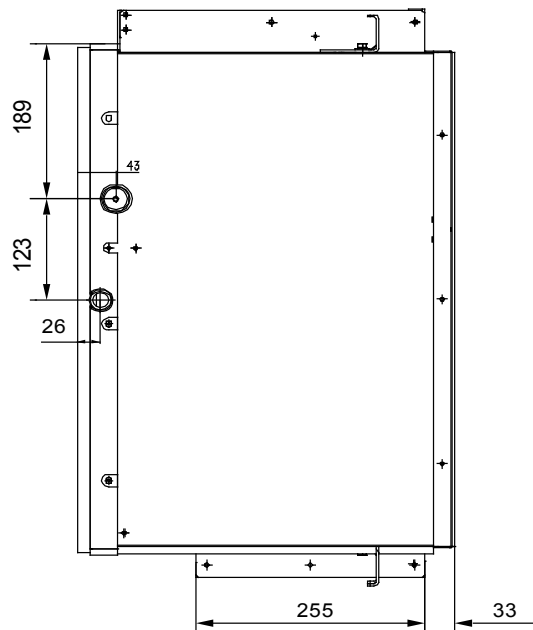


Side view:

• **Left side**

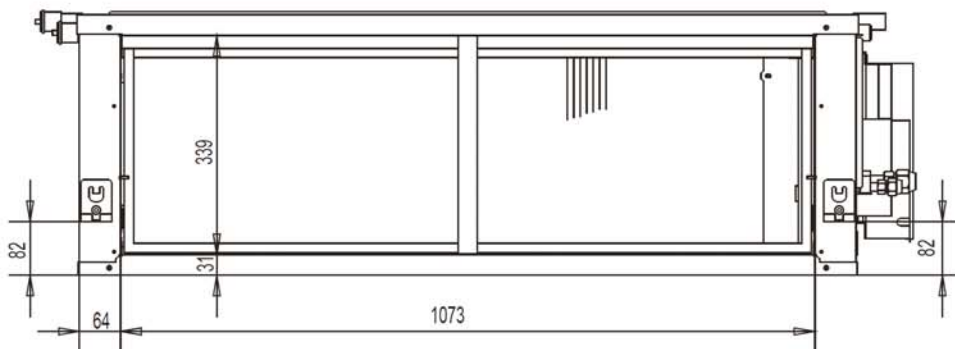
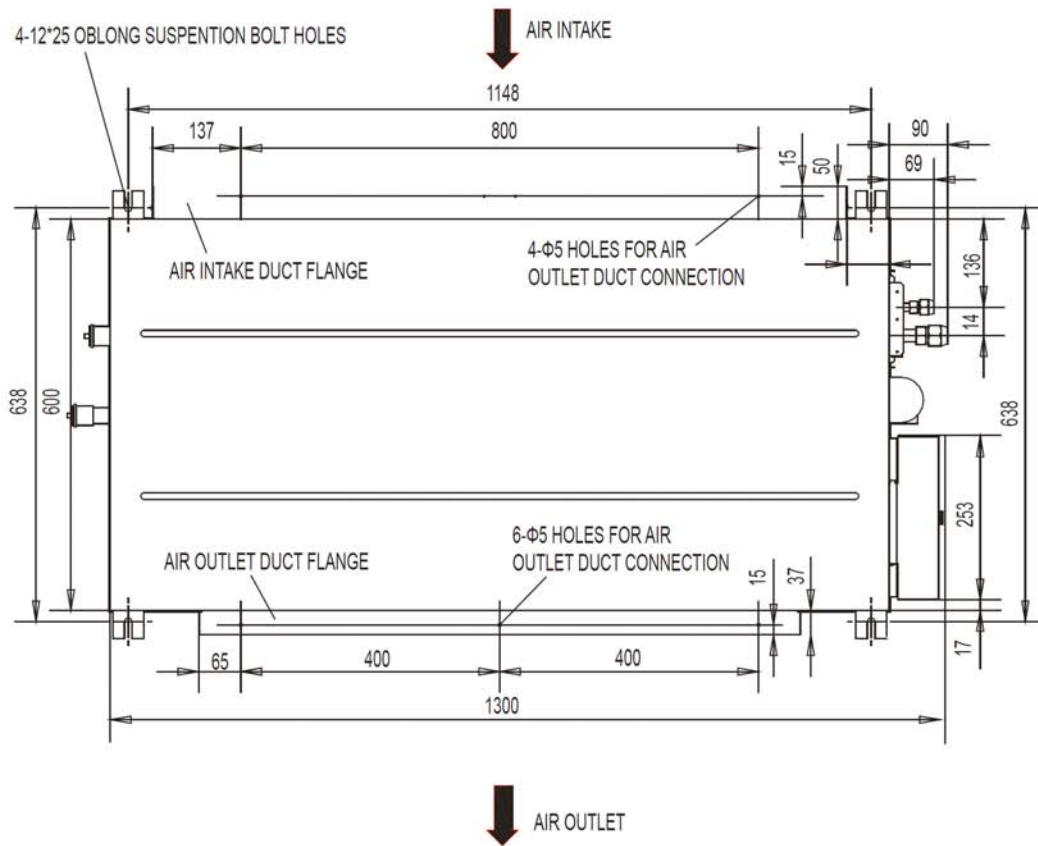
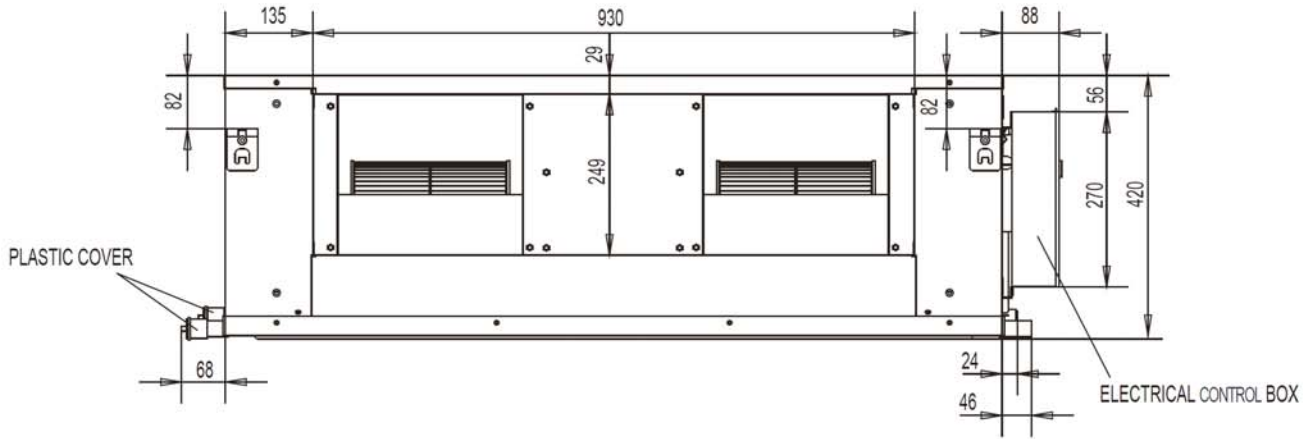


• **Right side**



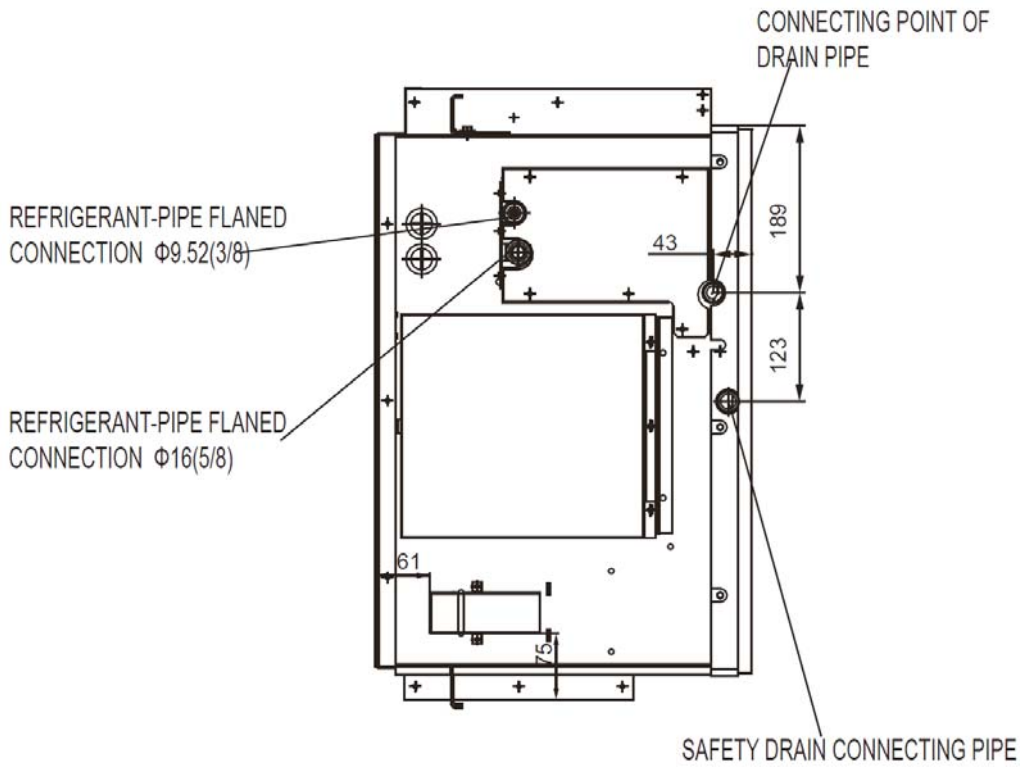
MDV-D140T1/N1-BMDV-D160T1/N1-B

Front view, top view and rear view:

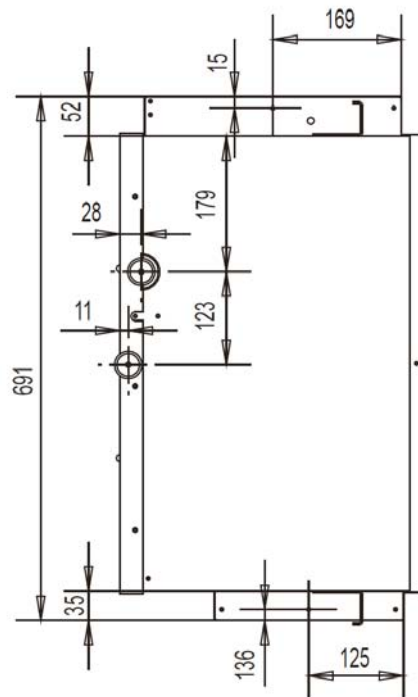


Side view:

- **Left side**

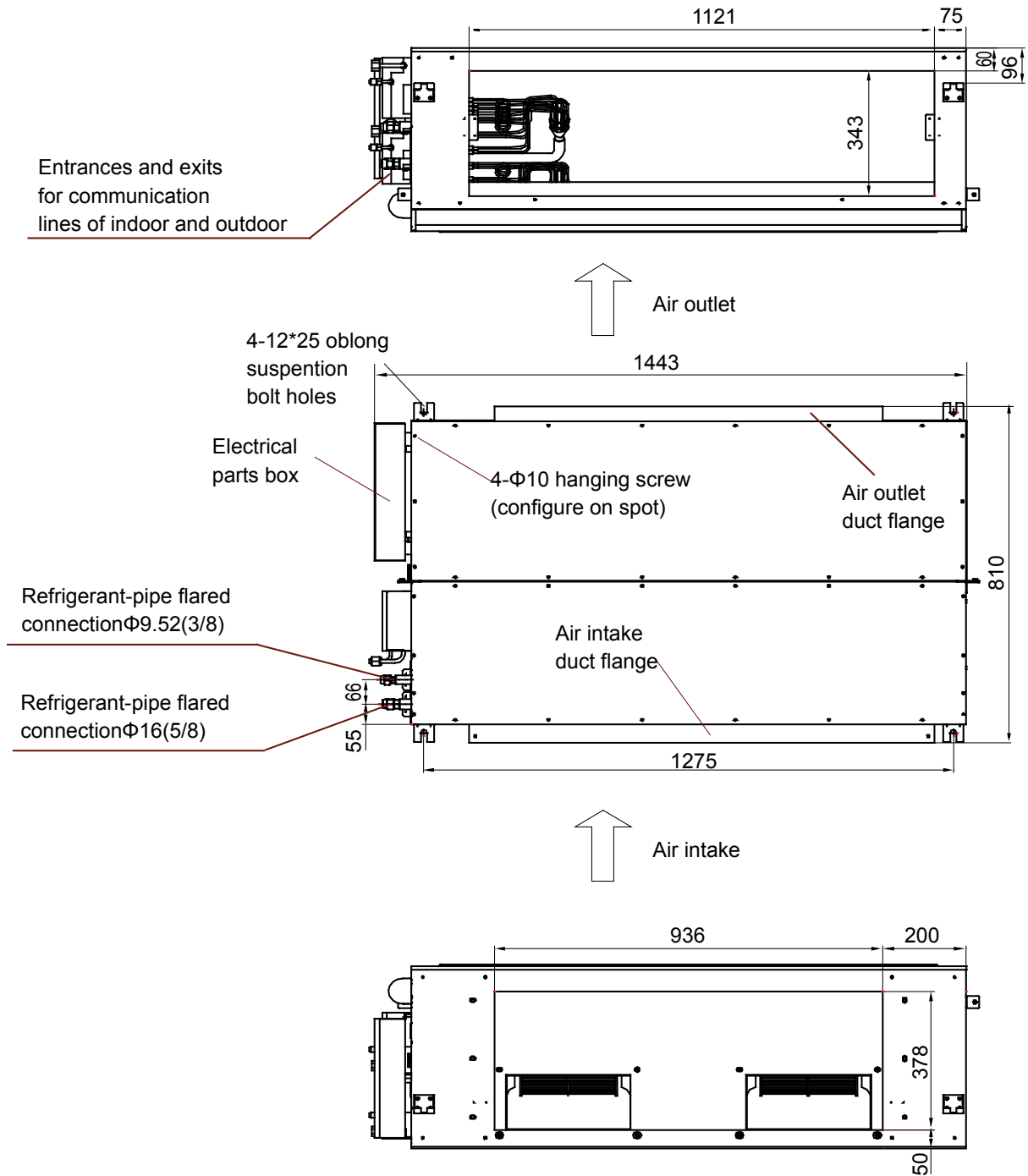


- **Right side**

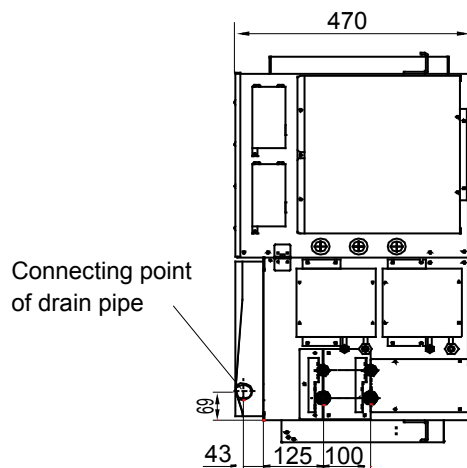


MDV-D200T1/N1-BMDV-D250T1/N1-BMDV-D280T1/N1-B

Front view, top view and rear view:



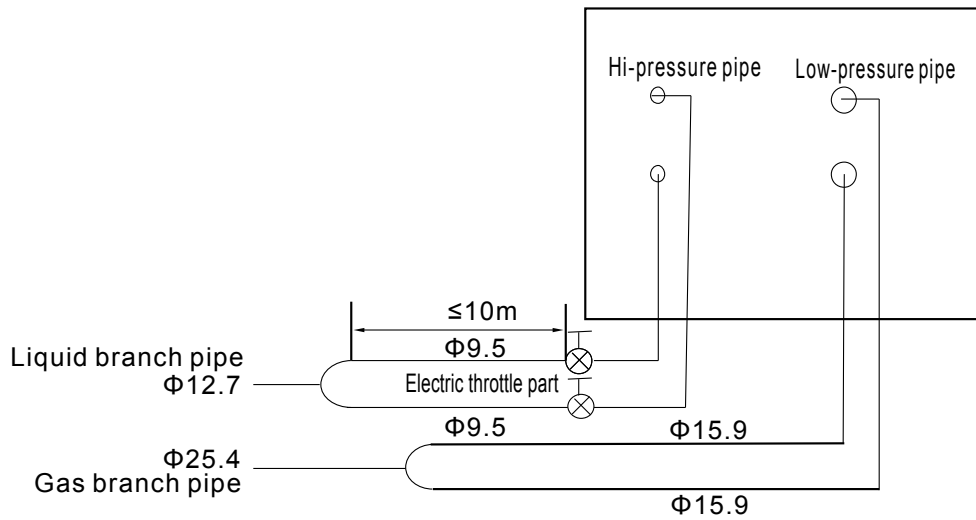
Side view:



Key points about the 200, 250, 280 model installation:

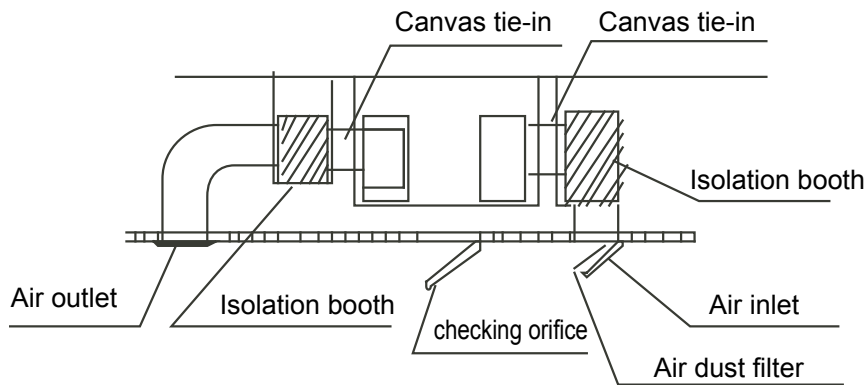
There're two sets of EXV boxes, as well two groups of pipes (Gas/Liquid), it's necessary to connect the two gas pipes together with the attached branch header BY101N1, as well the liquid pipes.

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.

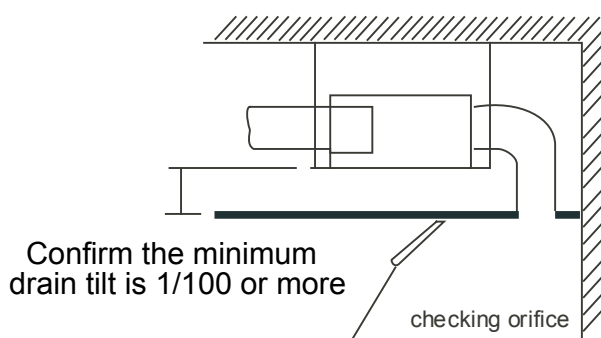
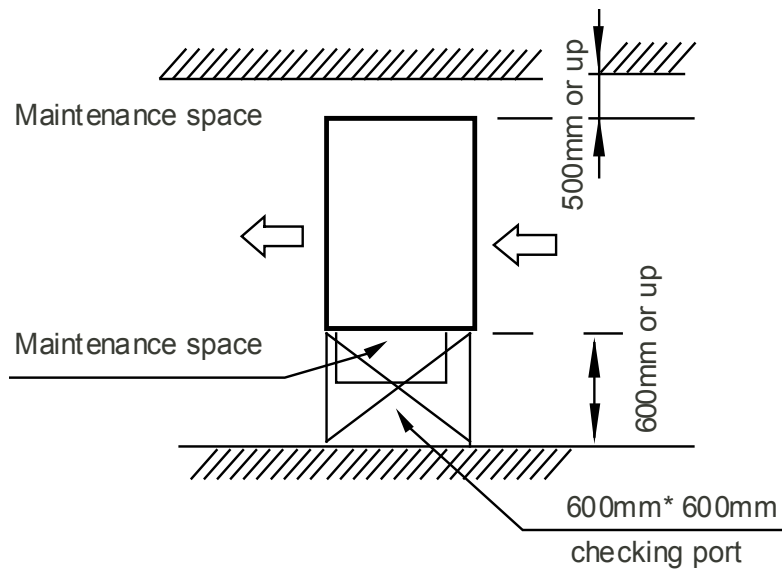


4. Service Space

- 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:**

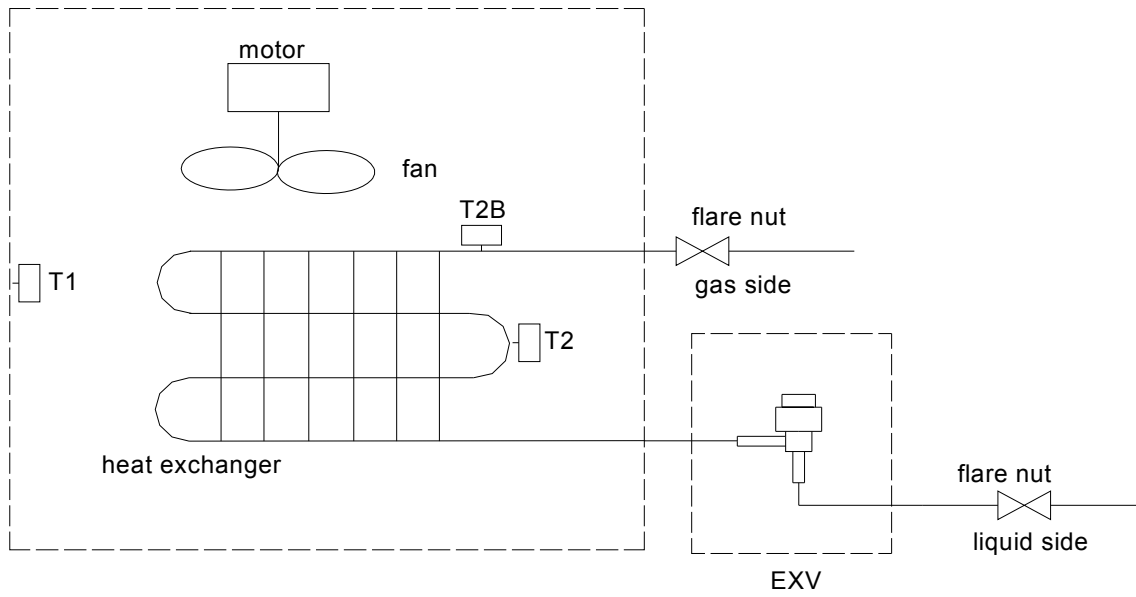


- **Keep min. 600*600 space for checking & maintenance:**

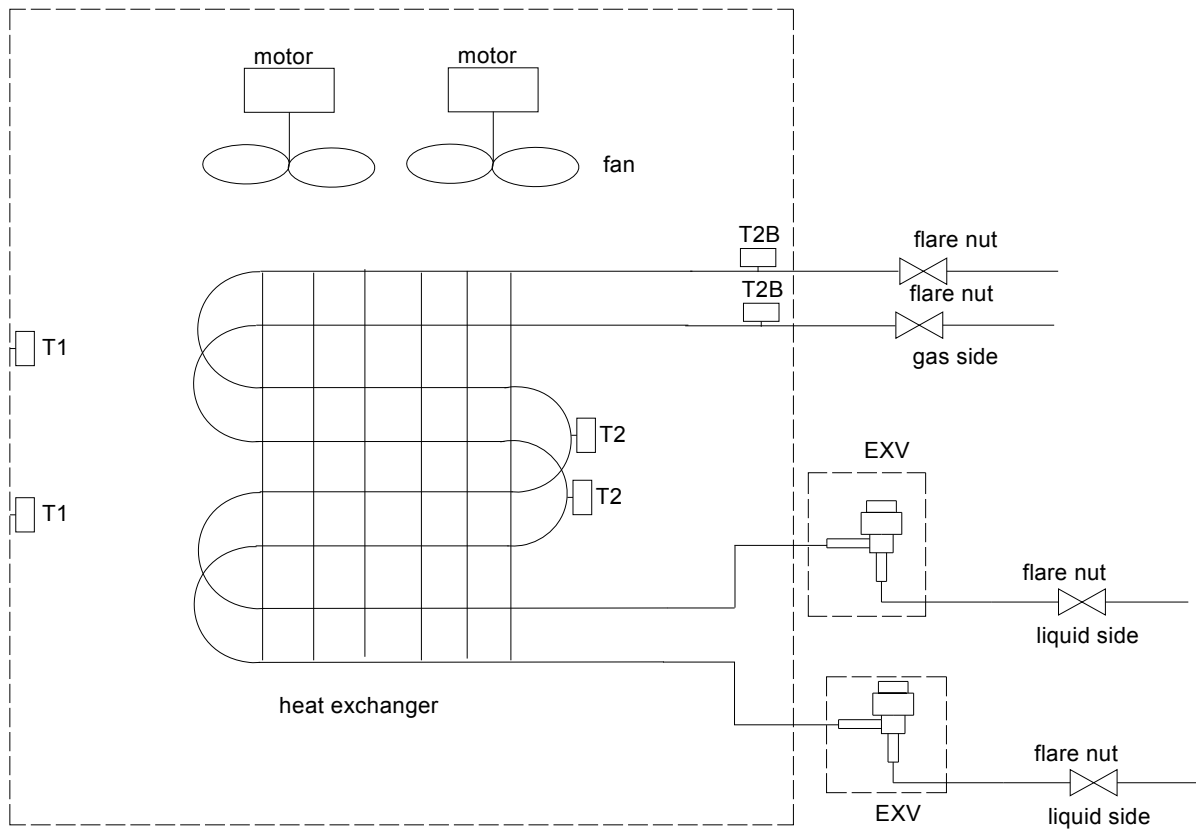


5. PipingDiagram

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

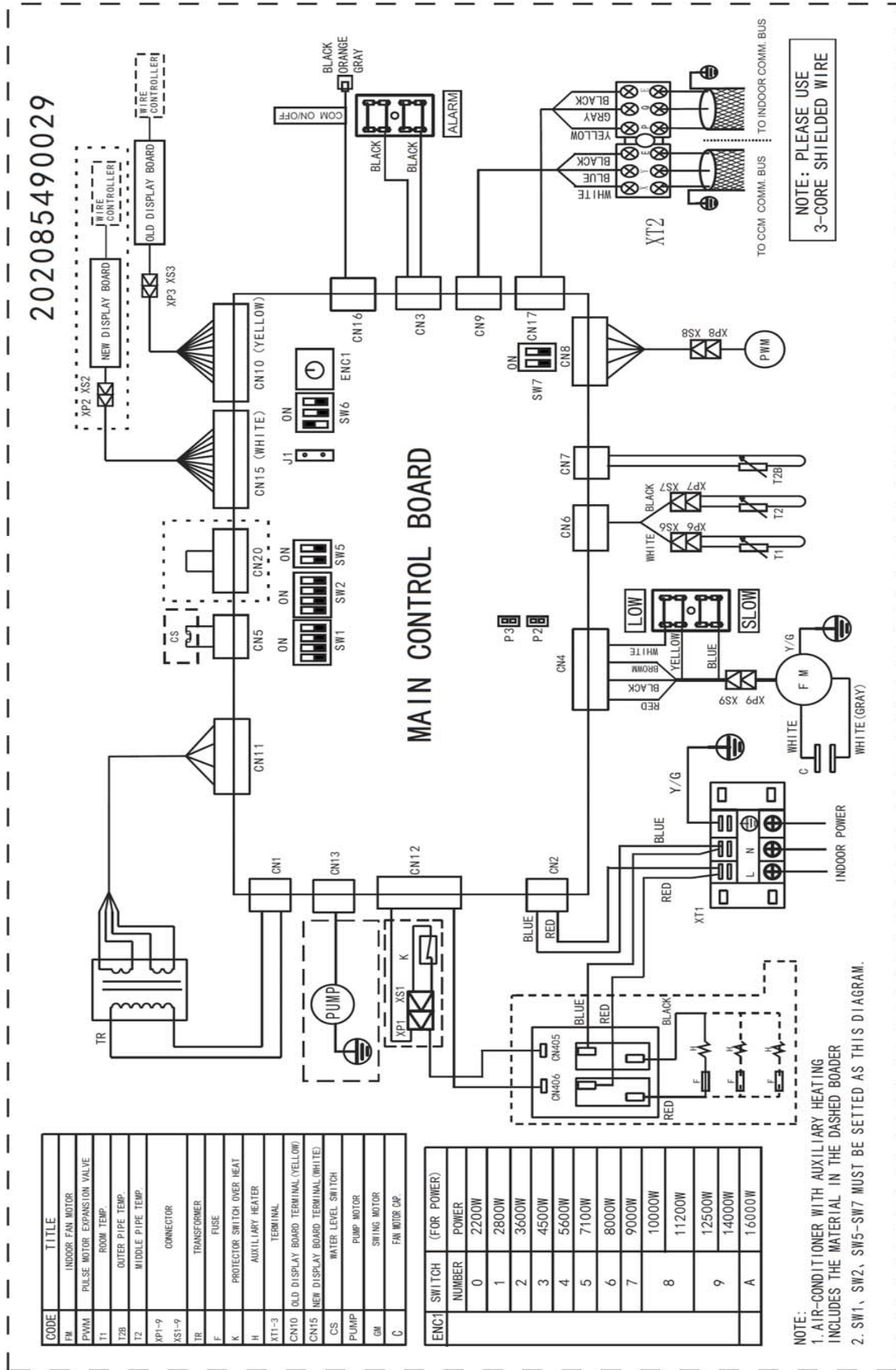


MDV-D200T1/N1-B, MDV-D250T1/N1-B, MDV-D280T1/N1-B,



6. Wiring Diagram

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

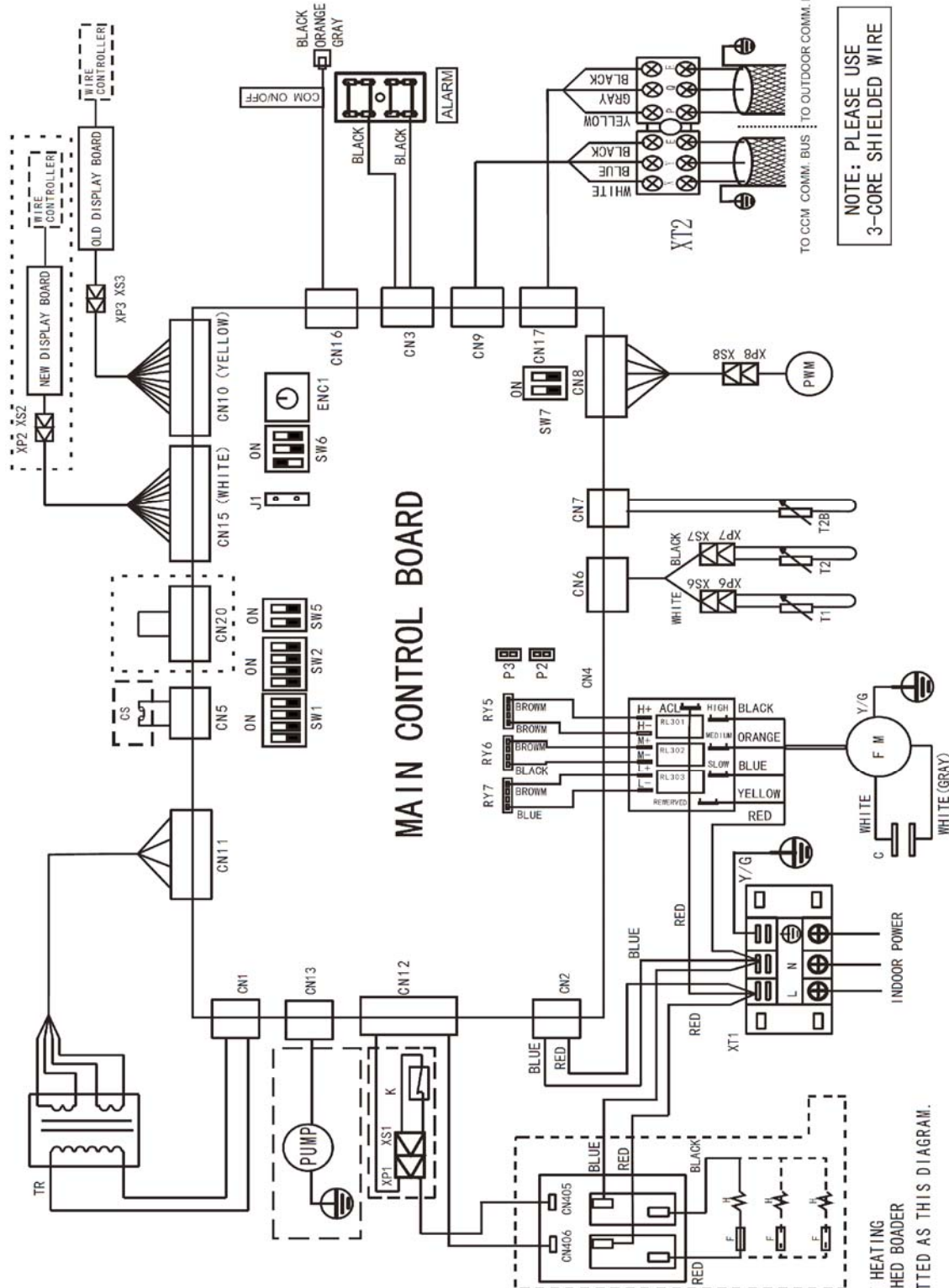


MDV-D112T1/N1-B, MDV-D140T1/N1-B, MDV-D160T1/N1-B,

202085790015

CODE	TITLE
FM	INDOOR FAN MOTOR
PWM	EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XP1-8	CONNECTOR
XS1-8	CONNECTOR
TR	TRANSFORMER
F	FUSE
K	PROTECTOR SWITCH OVER HEAT
H	AUXILIARY HEATER
XT1-3	TERMINAL
CN10	OLD DISPLAY BOARD TERMINAL (YELLOW)
CN15	NEW DISPLAY BOARD TERMINAL (WHITE)
CS	WATER LEVEL SWITCH
PUMP	PUMP MOTOR
GM	SWING MOTOR
C	FAN MOTOR CAP

ENC1 SWITCH NUMBER	(FOR POWER)
0	POWER
1	2200W
2	2800W
3	3600W
4	4500W
5	5600W
6	7100W
7	8000W
8	9000W
9	10000W
10	11200W
11	12500W
12	14000W
13	16000W
A	

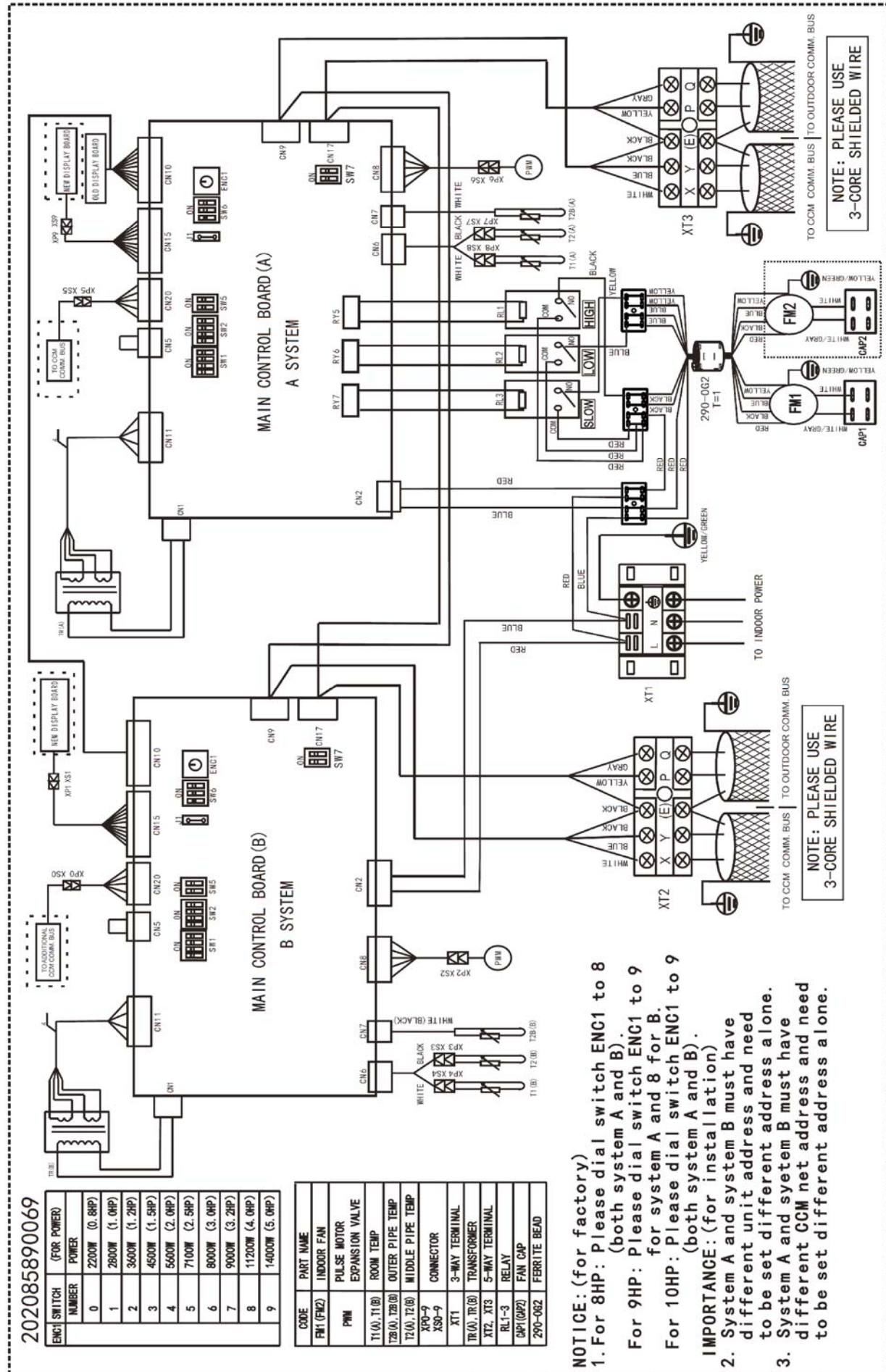


MAIN CONTROL BOARD

NOTE: PLEASE USE 3-CORE SHIELDED WIRE

NOTE:
 1. AIR-CONDITIONER WITH AUXILIARY HEATING INCLUDES THE MATERIAL IN THE DASHED BORDER
 2. SW1, SW2, SW5-SW7 MUST BE SETTED AS THIS DIAGRAM.

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



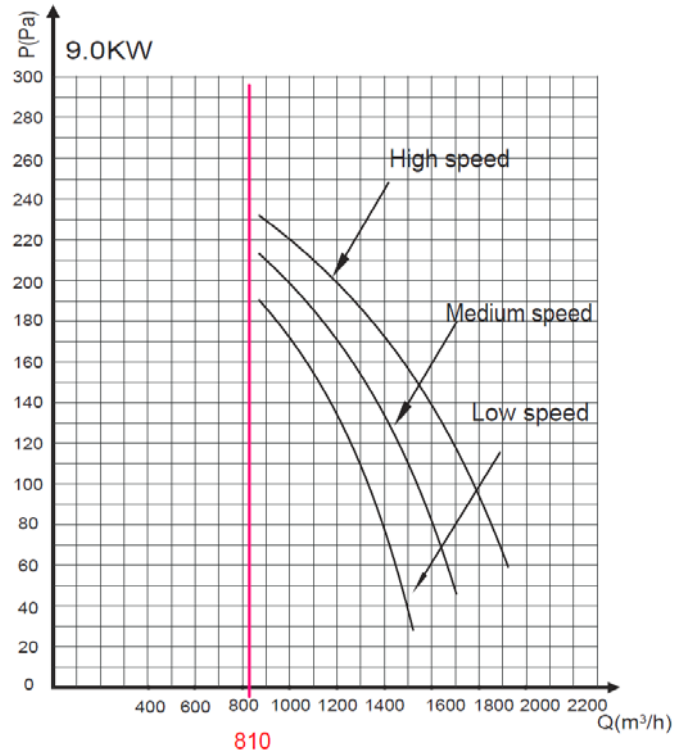
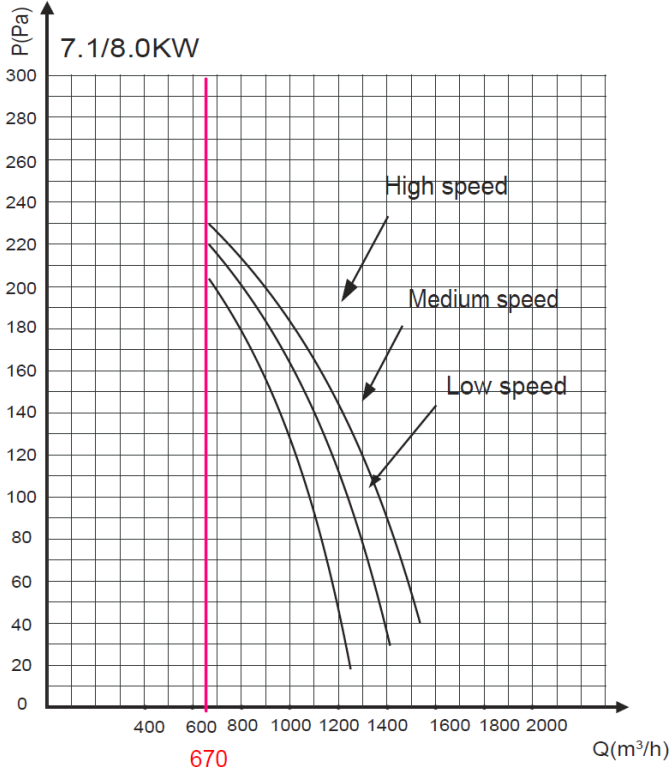
7. Fan Performance

How to Read the Diagram

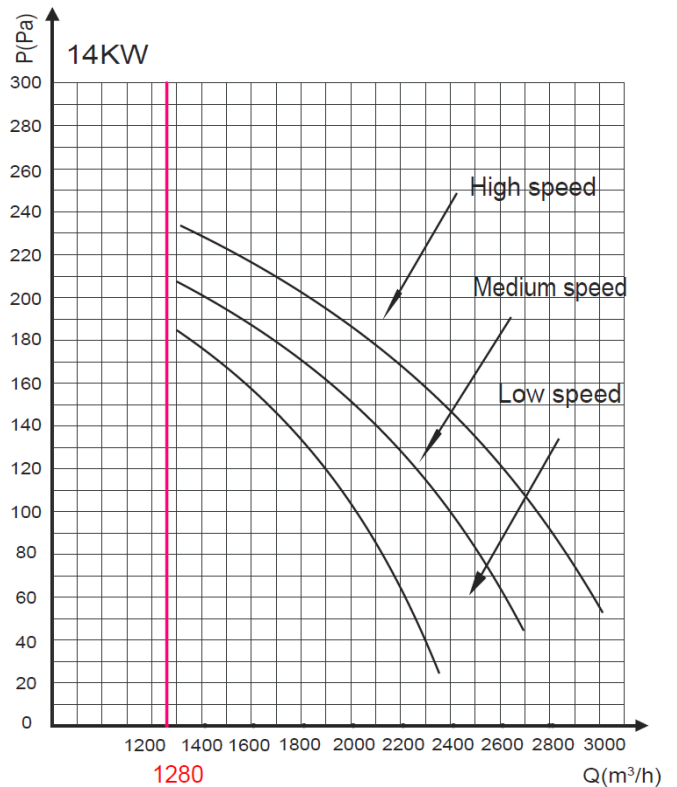
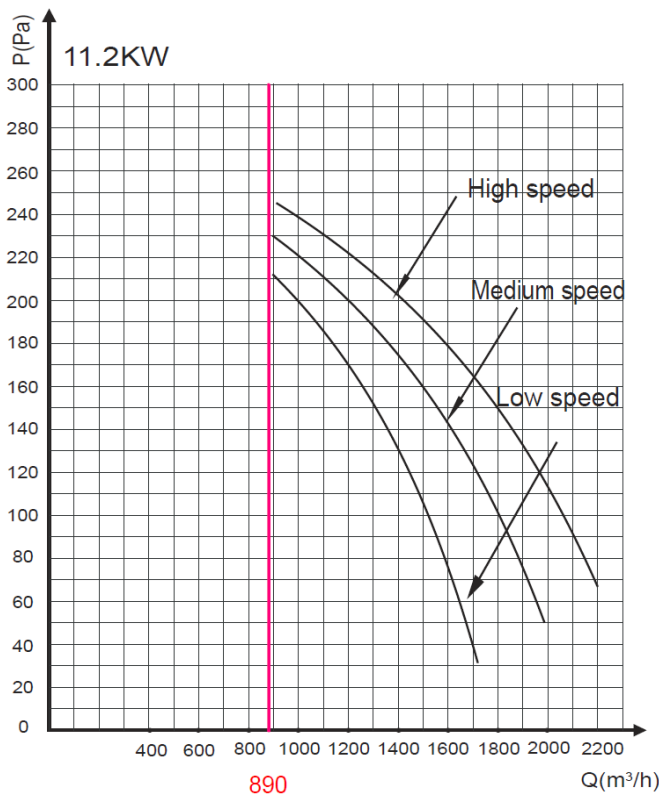
The vertical axis is the External Static Pressure (**Pa**) while the horizontal axis represents the Air Flow (**CMH**). The characteristic curve for the “Hi,” “Med,” and “Lo” fan speed control, The nameplate values are shown based on the “Hi” air flow.

Therefore in the case of **112T1** Type, the air flow is **1544 CMH**, while the External Static Pressure is **90Pa** at “Lo” position. And **2117 CMH @ 90Pa**, at ‘Hi’ position.

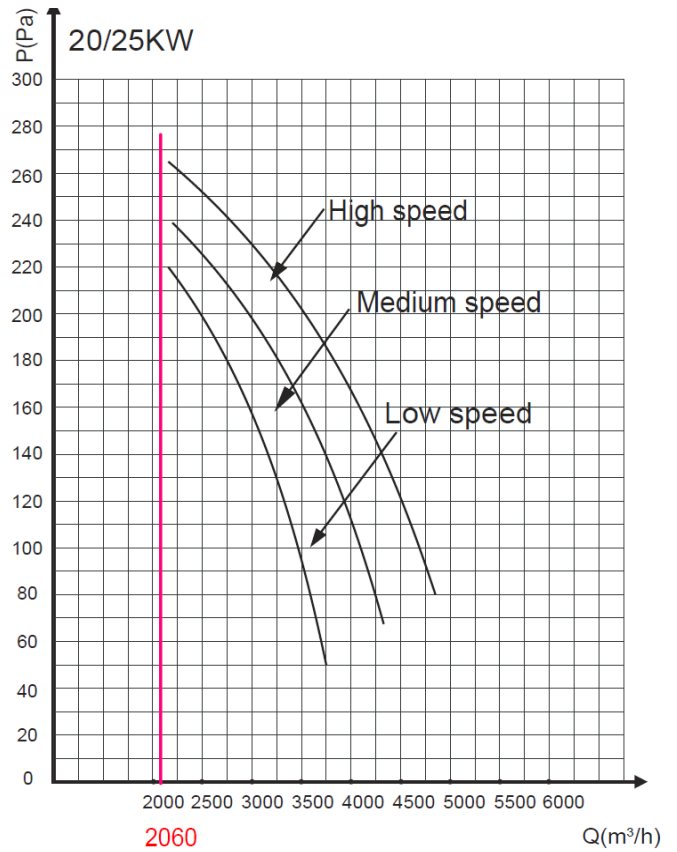
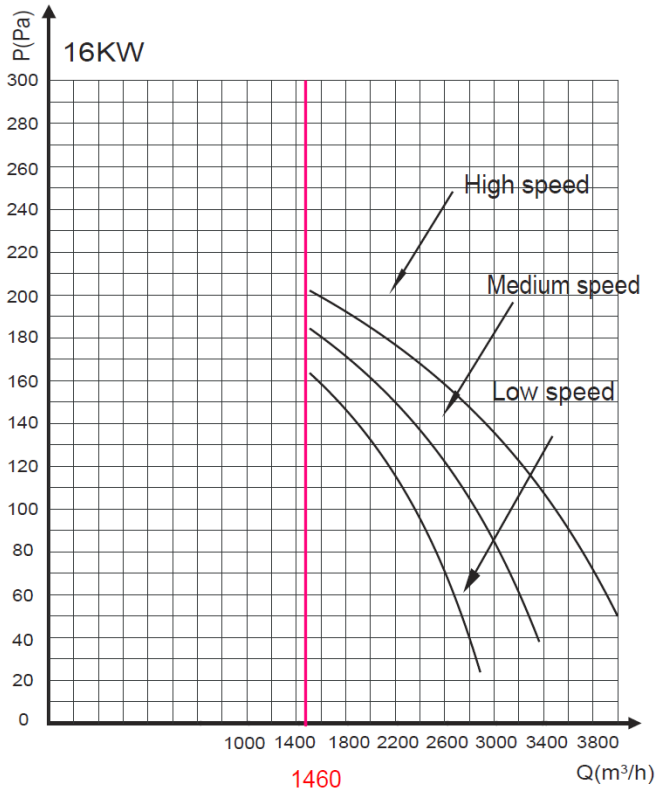
MDV-D71(80)T1/N1-BMDV-D90T1/N1-B



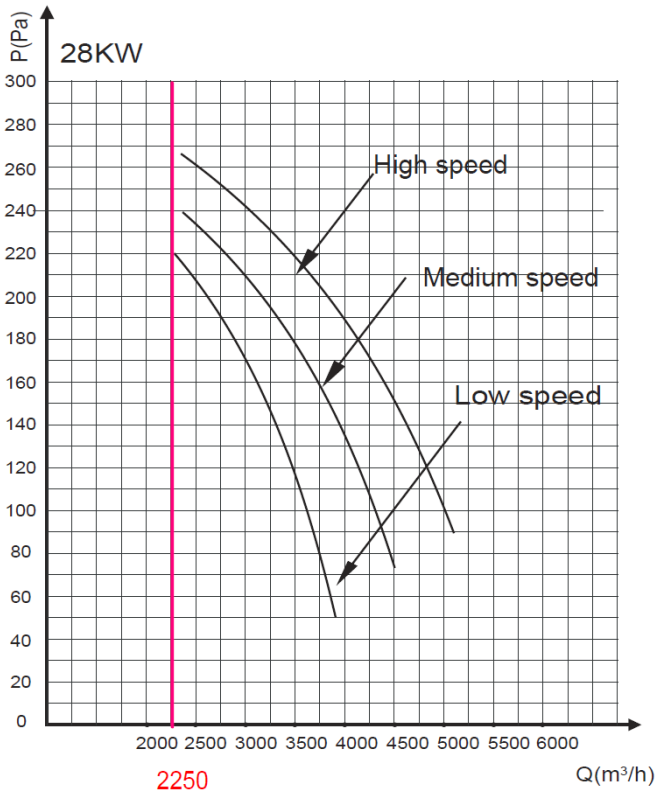
MDV-D112T1/N1-BMDV-D140T1/N1-B



MDV-D160T1/N1-BMDV-D200(250)T1/N1-B



MDV-D280T1/N1-B



- 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 temp.
- 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 temp. 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
7.1	10.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	9.2	5.4
	12.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	9.1	5.3
	14.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	9.0	5.3
	16.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.9	5.2
	18.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.7	5.1
	20.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.5	5.0
	21.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.4	4.9
	23.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.3	4.8
	25.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.4	5.2	8.2	4.8
	27.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.1	5.1	8.2	4.9
	29.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	8.0	5.1	8.1	4.8
	31.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	7.9	5.0	7.8	4.6
	33.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	7.8	5.0	7.8	4.6
	35.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.5	5.2	7.6	4.8	7.7	4.6
	37.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.4	5.2	7.5	4.8	7.6	4.7
	39.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.2	5.0	7.4	4.8	7.6	4.7
42.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.2	5.0	7.4	4.8	7.6	4.7	
44.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.2	5.0	7.4	4.8	7.6	4.7	
46.0	4.9	4.2	5.8	4.7	6.7	5.0	7.1	5.3	7.2	5.0	7.4	4.8	7.6	4.7	
8.0	10.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	10.4	4.5
	12.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	10.2	4.5
	14.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	10.2	4.5
	16.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	10.0	4.5
	18.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	9.8	4.6
	20.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	9.6	4.6
	21.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	9.4	4.6
	23.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	9.4	4.6
	25.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.4	5.0	9.3	4.6
	27.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.1	5.0	9.2	4.6
	29.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	9.0	5.0	9.1	4.6
	31.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	8.9	5.0	8.8	4.6
	33.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.6	5.4	8.8	5.0	8.8	4.6
	35.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.5	5.4	8.6	5.0	8.6	4.7
	37.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.2	5.4	8.4	5.0	8.6	4.8
	39.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.2	5.4	8.3	5.0	8.6	4.8
42.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.2	5.4	8.3	5.0	8.6	4.8	
44.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.2	5.4	8.3	5.0	8.6	4.8	
46.0	5.5	6.8	6.5	6.3	7.4	6.0	8.0	5.7	8.2	5.4	8.3	5.0	8.6	4.8	
9.0	10.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	11.7	7.1
	12.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	11.5	7.0
	14.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	11.4	6.9
	16.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	11.3	6.8
	18.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	11.0	6.8
	20.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	10.8	6.6
	21.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	10.6	6.5
	23.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	10.5	6.5
	25.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.6	7.1	10.4	6.4
	27.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.3	6.9	10.4	6.4
	29.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.1	6.7	10.3	6.3
	31.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	10.0	6.7	9.9	6.2
	33.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.6	7.1	9.9	6.6	9.9	6.2
	35.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.5	7.0	9.6	6.4	9.7	6.2
	37.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.3	6.8	9.5	6.3	9.6	6.2
	39.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.2	6.7	9.4	6.3	9.6	6.2
42.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.2	6.7	9.4	6.3	9.6	6.2	
44.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.2	6.7	9.4	6.3	9.6	6.2	
46.0	6.2	5.7	7.3	6.2	8.4	6.8	9.0	6.9	9.2	6.7	9.4	6.3	9.6	6.2	
11.2	10.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	15.5	9.7

	12.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	14.4	9.1
	14.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	14.2	8.9
	16.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	14.1	8.8
	18.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	14.0	8.8
	20.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	13.9	8.7
	21.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.3	8.9	13.8	8.6
	23.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.1	8.8	13.7	8.6
	25.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	13.0	8.7	13.6	8.5
	27.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	12.9	8.6	13.4	8.4
	29.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	12.8	8.5	13.3	8.5
	31.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	12.7	8.5	12.8	8.1
	33.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.9	8.7	12.5	8.4	12.5	8.0
	35.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.8	8.6	12.4	8.3	12.3	7.9
	37.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.6	8.6	12.3	8.2	12.1	7.7
	39.0	7.7	6.9	9.1	7.6	10.5	8.3	11.2	8.5	11.4	8.4	12.2	8.2	11.9	7.7
	42.0	7.7	7.1	9.1	7.7	10.4	8.4	11.2	8.6	11.4	8.4	11.6	7.8	12.0	7.8
44.0	7.7	7.1	9.1	7.7	10.4	8.4	11.2	8.6	11.4	8.4	11.6	7.8	12.0	7.8	
46.0	7.7	7.1	9.1	7.7	10.4	8.4	11.2	8.6	11.4	8.4	11.6	7.8	12.0	7.8	
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	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	20.8	9.0
	12.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	20.5	9.0
	14.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	20.3	9.0
	16.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	20.0	9.0
	18.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	19.5	9.0
	20.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	19.2	9.0
	21.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	19.0	9.8	18.9	9.0
	23.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	18.7	9.9	18.7	9.0
	25.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	18.6	9.9	18.6	9.0
	27.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	18.4	9.9	18.4	9.1
	29.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	18.2	9.9	18.2	9.1
	31.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	18.1	9.9	17.6	9.1
	33.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	17.0	10.6	17.9	9.9	17.6	9.1
	35.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.8	10.6	17.3	9.9	17.3	9.3
	37.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.6	10.6	17.3	9.9	17.1	9.3
	39.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.3	10.6	16.6	10.1	17.1	9.4
42.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.3	10.6	16.6	10.1	17.1	9.4	
44.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.3	10.6	16.6	10.1	17.1	9.4	
46.0	11.0	13.0	13.0	12.2	15.0	11.7	16.0	11.2	16.3	10.6	16.6	10.1	17.1	9.4	
20.0	10.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	26.0	11.2
	12.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	25.6	11.2
	14.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	25.4	11.2
	16.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	25.0	11.2
	18.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	24.4	11.2
	20.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	24.0	11.2
	21.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.8	12.2	23.6	11.2
	23.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.4	12.4	23.4	11.2
25.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.2	12.4	23.2	11.2	

	27.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	23.0	12.4	23.0	11.4
	29.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	22.8	12.4	22.8	11.4
	31.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	22.6	12.4	22.0	11.4
	33.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.2	13.2	22.4	12.4	22.0	11.4
	35.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	21.0	13.2	21.6	12.4	21.6	11.6
	37.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	20.8	13.2	21.6	12.4	21.4	11.6
	39.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	20.4	13.2	20.8	12.6	21.4	11.8
	42.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	20.4	13.2	20.8	12.6	21.4	11.8
	44.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	20.4	13.2	20.8	12.6	21.4	11.8
	46.0	13.8	16.2	16.2	15.2	18.8	14.6	20.0	14.0	20.4	13.2	20.8	12.6	21.4	11.8
25.0	10.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	32.5	14.0
	12.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	32.0	14.0
	14.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	31.8	14.0
	16.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	31.3	14.0
	18.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	30.5	14.0
	20.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	30.0	14.0
	21.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.8	15.3	29.5	14.0
	23.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.3	15.5	29.3	14.0
	25.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	29.0	15.5	29.0	14.0
	27.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	28.8	15.5	28.8	14.3
	29.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	28.5	15.5	28.5	14.3
	31.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	28.3	15.5	27.5	14.3
	33.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.5	16.5	28.0	15.5	27.5	14.3
	35.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.3	16.5	27.0	15.5	27.0	14.5
	37.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	26.0	16.5	27.0	15.5	26.8	14.5
	39.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	25.5	16.5	26.0	15.8	26.8	14.8
42.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	25.5	16.5	26.0	15.8	26.8	14.8	
44.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	25.5	16.5	26.0	15.8	26.8	14.8	
46.0	17.3	20.3	20.3	19.0	23.5	18.3	25.0	17.5	25.5	16.5	26.0	15.8	26.8	14.8	
28.0	10.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	36.4	15.7
	12.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	35.8	15.7
	14.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	35.6	15.7
	16.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	35.0	15.7
	18.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	34.2	15.7
	20.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	33.6	15.7
	21.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	33.3	17.1	33.0	15.7
	23.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	32.8	17.4	32.8	15.7
	25.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	32.5	17.4	32.5	15.7
	27.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	32.2	17.4	32.2	16.0
	29.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	31.9	17.4	31.9	16.0
	31.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	31.6	17.4	30.8	16.0
	33.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.7	18.5	31.4	17.4	30.8	16.0
	35.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.4	18.5	30.2	17.4	30.2	16.2
	37.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	29.1	18.5	30.2	17.4	30.0	16.2
	39.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	28.6	18.5	29.1	17.6	30.0	16.5
42.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	28.6	18.5	29.1	17.6	30.0	16.5	
44.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	28.6	18.5	29.1	17.6	30.0	16.5	
46.0	19.3	22.7	22.7	21.3	26.3	20.4	28.0	19.6	28.6	18.5	29.1	17.6	30.0	16.5	

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	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.8	4.8	4.8	4.8	4.8	4.8
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.2	5.2	5.2	5.2	5.2	5.2
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.6	5.6	5.6	5.6	5.6	5.6
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6	6	6	6	6	6
	-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	8	8	7.76	7.36	6.72
7.90	9.00	8.24	8.24	8	7.76	7.36	6.72	
9.80	11.00	8.48	8.48	8	7.76	7.36	6.72	
11.80	13.00	8.8	8.64	8	7.76	7.36	6.72	
13.70	15.00	9.04	8.64	8	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	5.4	5.4	5.4	5.4	5.4	5.4
	-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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.3	6.3	6.3	6.3	6.3	6.3
	-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	9	9	8.73	8.28	7.56
7.90	9.00	9.27	9.27	9	8.73	8.28	7.56	
9.80	11.00	9.54	9.54	9	8.73	8.28	7.56	
11.80	13.00	9.9	9.72	9	8.73	8.28	7.56	
13.70	15.00	10.17	9.72	9	8.73	8.28	7.56	
9.0	-20	-19.8	5.6	5.04	5.6	5.6	5.6	5.6
	-19	-18.8	6	5.4	6	6	6	6
	-17	-16.7	6.3	6.3	6.3	6.3	6.3	6.3
	-15	-14.7	6.5	6.5	6.5	6.5	6.5	6.5
	-13.00	-12.60	6.7	6.7	6.7	6.7	6.7	6.7
	-11.00	-10.50	7	7	7	7	7	7
	-10.00	-9.50	7.3	7.3	7.3	7.3	7.3	7.3
	-9.10	-8.50	7.5	7.5	7.5	7.5	7.5	7.5
	-7.60	-7.00	7.6	7.6	7.6	7.6	7.6	7.6
	-5.60	-5.00	7.9	7.9	7.9	7.9	7.9	7.9
	-3.70	-3.00	8.3	8.3	8.3	8.3	8.3	8.3
	-0.70	0.00	8.9	8.9	8.9	8.9	8.9	8.4
	2.20	3.00	9.4	9.4	9.4	9.4	9.2	8.4
	4.10	5.00	9.7	9.7	9.7	9.7	9.2	8.4
	6.00	7.00	10	10	10	9.7	9.2	8.4
7.90	9.00	10.3	10.3	10	9.7	9.2	8.4	
9.80	11.00	10.6	10.6	10	9.7	9.2	8.4	
11.80	13.00	11	10.8	10	9.7	9.2	8.4	
13.70	15.00	11.3	10.8	10	9.7	9.2	8.4	
11.2	-20	-19.8	7	7	7	7	7	7
	-19	-18.8	7.5	7.5	7.5	7.5	7.5	7.5

	-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	8.38	8.38	8.38	8.38	8.38	8.38
	-11.00	-10.50	8.75	8.75	8.75	8.75	8.75	8.75
	-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	9.5	9.5	9.5	9.5	9.5	9.5
	-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	10.5
	2.20	3.00	11.75	11.75	11.75	11.75	11.5	10.5
	4.10	5.00	12.13	12.13	12.13	12.13	11.5	10.5
	6.00	7.00	12.5	12.5	12.5	12.13	11.5	10.5
	7.90	9.00	12.88	12.88	12.5	12.13	11.5	10.5
	9.80	11.00	13.25	13.25	12.5	12.13	11.5	10.5
	11.80	13.00	13.75	13.5	12.5	12.13	11.5	10.5
13.70	15.00	14.13	13.5	12.5	12.13	11.5	10.5	
14.0	-20	-19.8	8.68	8.68	8.68	8.68	8.68	8.68
	-19	-18.8	9.3	9.3	9.3	9.3	9.3	9.3
	-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	10.4	10.4	10.4	10.4	10.4	10.4
	-11.00	-10.50	10.9	10.9	10.9	10.9	10.9	10.9
	-10.00	-9.50	11.3	11.3	11.3	11.3	11.3	11.3
	-9.10	-8.50	11.6	11.6	11.6	11.6	11.6	11.6
	-7.60	-7.00	11.8	11.8	11.8	11.8	11.8	11.8
	-5.60	-5.00	12.3	12.3	12.3	12.3	12.3	12.3
	-3.70	-3.00	12.9	12.9	12.9	12.9	12.9	12.9
	-0.70	0.00	13.8	13.8	13.8	13.8	13.8	13
	2.20	3.00	14.6	14.6	14.6	14.6	14.3	13
	4.10	5.00	15	15	15	15	14.3	13
	6.00	7.00	15.5	15.5	15.5	15	14.3	13
	7.90	9.00	16	16	15.5	15	14.3	13
9.80	11.00	16.4	16.4	15.5	15	14.3	13	
11.80	13.00	17.1	16.7	15.5	15	14.3	13	
13.70	15.00	17.5	16.7	15.5	15	14.3	13	
16.0	-20	-19.8	9.2	9.2	9.2	9.2	9.2	9.2
	-19	-18.8	9.9	9.9	9.9	9.9	9.9	9.9
	-17	-16.7	10.4	10.4	10.4	10.4	10.4	10.4
	-15	-14.7	10.7	10.7	10.7	10.7	10.7	10.7
	-13.00	-12.6	11.4	11.4	11.4	11.4	11.4	11.4
	-11.00	-10.5	11.6	11.7	11.7	11.7	11.7	11.7
	-10.00	-9.5	12.0	12.0	12.0	12.0	12.0	12.0
	-9.10	-8.5	12.4	12.4	12.4	12.4	12.4	12.4
	-7.60	-7	12.5	12.5	12.5	12.5	12.5	12.5
	-5.60	-5	13.0	13.0	13.0	13.0	13.0	13.0
	-3.70	-3	13.7	13.7	13.7	13.7	13.7	13.7
	-0.70	0	14.7	14.7	14.7	14.7	14.7	13.9
	2.20	3	15.5	15.5	15.5	15.5	15.2	13.9
	4.10	5	16.0	16.0	16.0	16.0	15.2	13.9
	6.00	7	16.5	16.5	16.5	16.0	15.2	13.9
	7.90	9	17.0	17.0	16.5	16.0	15.2	13.9
9.80	11	17.5	17.5	16.5	16.0	15.2	13.9	
11.80	13	18.2	17.8	16.5	16.0	15.2	13.9	
13.70	15	18.6	17.8	16.5	16.0	15.2	13.9	
20.0	-20	-19.8	12.6	12.6	12.6	12.6	12.6	12.6
	-19	-18.8	13.5	13.5	13.5	13.5	13.5	13.5
	-17	-16.7	14.2	14.2	14.2	14.2	14.2	14.2
	-15	-14.7	14.6	14.6	14.6	14.6	14.6	14.6
	-13.00	-12.6	15.5	15.5	15.5	15.5	15.5	15.5
	-11.00	-10.5	15.8	16.0	16.0	16.0	16.0	16.0
	-10.00	-9.5	16.4	16.4	16.4	16.4	16.4	16.4
	-9.10	-8.5	16.9	16.9	16.9	16.9	16.9	16.9
	-7.60	-7	17.1	17.1	17.1	17.1	17.1	17.1
-5.60	-5	17.8	17.8	17.8	17.8	17.8	17.8	

	-3.70	-3	18.7	18.7	18.7	18.7	18.7	18.7
	-0.70	0	20.0	20.0	20.0	20.0	20.0	18.9
	2.20	3	21.2	21.2	21.2	21.2	20.7	18.9
	4.10	5	21.8	21.8	21.8	21.8	20.7	18.9
	6.00	7	22.5	22.5	22.5	21.8	20.7	18.9
	7.90	9	23.2	23.2	22.5	21.8	20.7	18.9
	9.80	11	23.9	23.9	22.5	21.8	20.7	18.9
	11.80	13	24.8	24.3	22.5	21.8	20.7	18.9
	13.70	15	25.4	24.3	22.5	21.8	20.7	18.9
25.0	-20	-19.8	14.56	14.56	14.56	14.56	14.56	14.56
	-19	-18.8	15.6	15.6	15.6	15.6	15.6	15.6
	-17	-16.7	16.38	16.38	16.38	16.38	16.38	16.38
	-15	-14.7	16.9	16.9	16.9	16.9	16.9	16.9
	-13.00	-12.6	17.94	17.94	17.94	17.94	17.94	17.94
	-11.00	-10.5	18.2	18.46	18.46	18.46	18.46	18.46
	-10.00	-9.5	18.98	18.98	18.98	18.98	18.98	18.98
	-9.10	-8.5	19.5	19.5	19.5	19.5	19.5	19.5
	-7.60	-7	19.76	19.76	19.76	19.76	19.76	19.76
	-5.60	-5	20.54	20.54	20.54	20.54	20.54	20.54
	-3.70	-3	21.58	21.58	21.58	21.58	21.58	21.58
	-0.70	0	23.14	23.14	23.14	23.14	23.14	21.84
	2.20	3	24.44	24.44	24.44	24.44	23.92	21.84
	4.10	5	25.22	25.22	25.22	25.22	23.92	21.84
	6.00	7	26	26	26	25.22	23.92	21.84
	7.90	9	26.78	26.78	26	25.22	23.92	21.84
9.80	11	27.56	27.56	26	25.22	23.92	21.84	
11.80	13	28.6	28.08	26	25.22	23.92	21.84	
13.70	15	29.38	28.08	26	25.22	23.92	21.84	
28.0	-20	-19.8	17.6	17.6	17.6	17.6	17.6	17.6
	-19	-18.8	18.9	18.9	18.9	18.9	18.9	18.9
	-17	-16.7	19.8	19.8	19.8	19.8	19.8	19.8
	-15	-14.7	20.5	20.5	20.5	20.5	20.5	20.5
	-13.00	-12.6	21.7	21.7	21.7	21.7	21.7	21.7
	-11.00	-10.5	22.1	22.4	22.4	22.4	22.4	22.4
	-10.00	-9.5	23.0	23.0	23.0	23.0	23.0	23.0
	-9.10	-8.5	23.6	23.6	23.6	23.6	23.6	23.6
	-7.60	-7	23.9	23.9	23.9	23.9	23.9	23.9
	-5.60	-5	24.9	24.9	24.9	24.9	24.9	24.9
	-3.70	-3	26.1	26.1	26.1	26.1	26.1	26.1
	-0.70	0	28.0	28.0	28.0	28.0	28.0	26.5
	2.20	3	29.6	29.6	29.6	29.6	29.0	26.5
	4.10	5	30.6	30.6	30.6	30.6	29.0	26.5
	6.00	7	31.5	31.5	31.5	30.6	29.0	26.5
	7.90	9	32.4	32.4	31.5	30.6	29.0	26.5
9.80	11	33.4	33.4	31.5	30.6	29.0	26.5	
11.80	13	34.7	34.0	31.5	30.6	29.0	26.5	
13.70	15	35.6	34.0	31.5	30.6	29.0	26.5	

9. Electric Characteristics

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

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

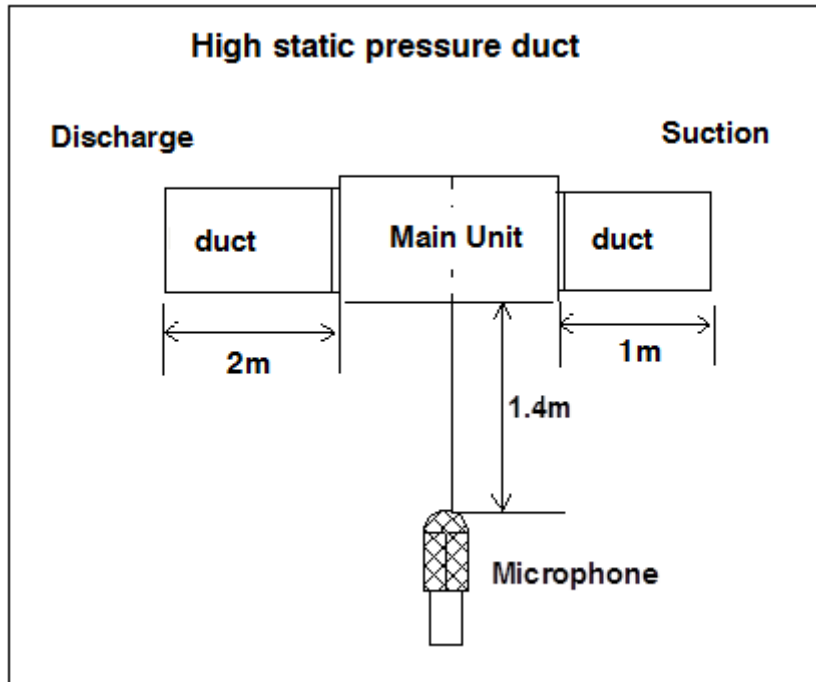
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

10. Noise Levels

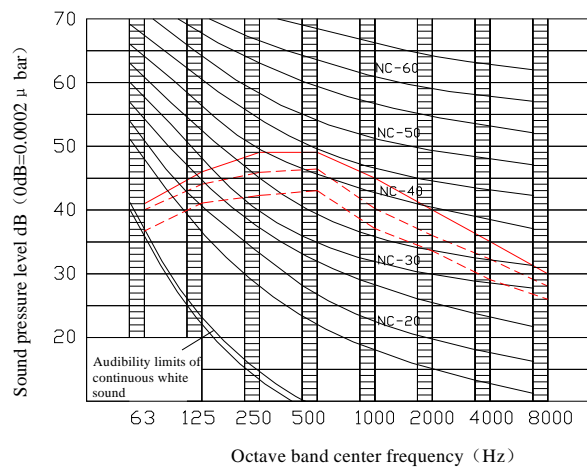
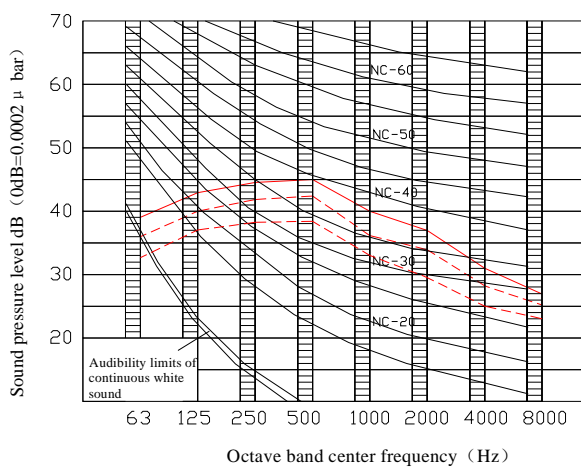
10.1 Test condition



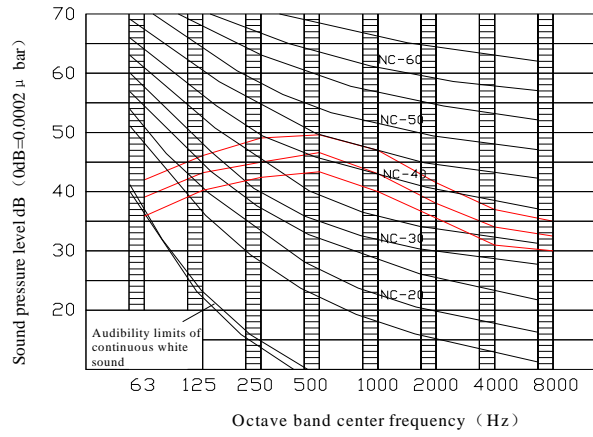
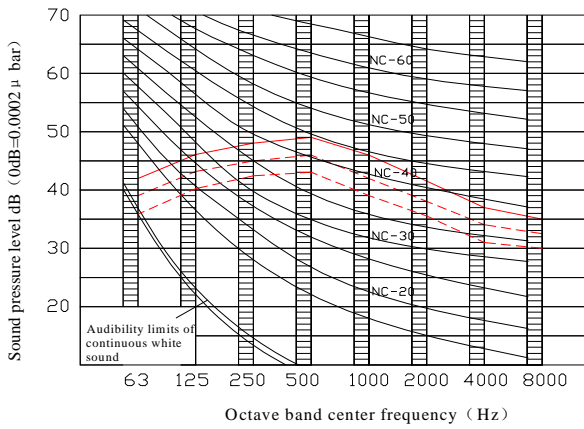
10.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
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

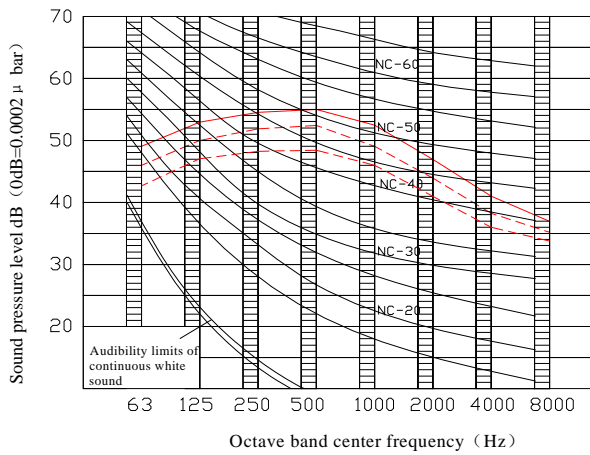
MDV-D71T1/N1-BMDV-D80T1/N1-BMDV-D90T1/N1-BMDV-D112T1/N1-B



MDV-D140T1/N1-BMDV-D160T1/N1-B



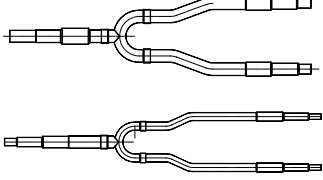
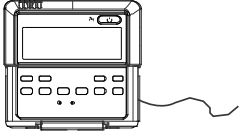






MDV-D200T1/N1-BMDV-D250T1/N1-BMDV-D280T1/N1-B



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	2		To connect drain pipe
Branch header (for 200 and up model) package Code: 201609891015 Model:CE-MDV-BY101N1(MDV-BY101N1)	1		1 liquid and 1 gas branch To connect the two circuits of indoor unit as one system.
Wired controller	1		/
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	1		For drainage
Clasp	1		Chucking the joint which connect the drain hose and the outlet of indoor unit
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

Wall Mounted Type (S Type)

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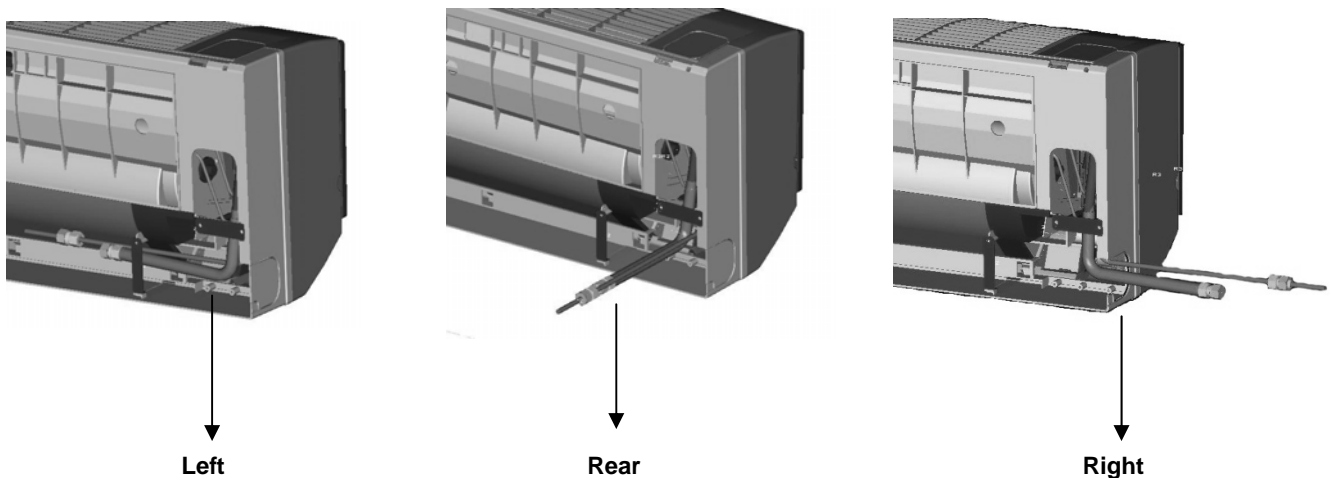
1. Feature

1.1 New panels design, with LED display.



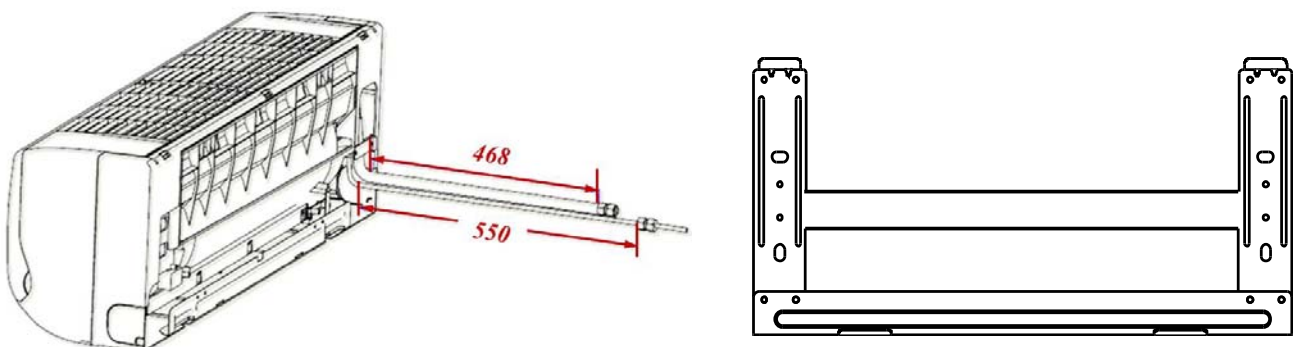
1.2 Convenient for installation

1.2.1 Multi-refrigerant outlet pipe method: left/right/rear, more flexible for installation.



1.2.2 Longer the connection pipe, Gas pipe: 468mm/Liquid pipe: 550mm, more flexible for the installation

1.2.3 Adopts new type fixing plate, easy for installation and stable.



1.2.4 The EXV is built-in the indoor unit, compact size, and convenient for the installation.

1.2.5 The Panel assembly of S type indoor unit can be exchanged with C type indoor unit, alternative panel.

1.2.6 Reserved the socket on main control board for water pump and PCB can be customized if you need water pump function.

1.2.7 The front panel can be lifted up to max. 65 degree and maintain, or be removed, Easy access for wiring and service.

1.3 Auxiliary electrical heating type is available.

1.4 Three air flow speed: high/middle/low, double air guides.

1.5 Low noise, creates quiet and comfortable environment.

1.5.1 Adoption of the Fujikoki brand mechanical expansion valve which has 2000 stages element positioning, ensure precise flow control, as well lower modulation noise when EXV operating.

1.5.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable

1.5.3 Louver's air swing angle can be up to 90°

1.6 Wired control compatible. RM05 remote wireless controller which can set the indoor unit address is standard, and wired controller is optional.

2. Specifications

Model			MDV-D22G/N1-S	MDV-D22G/DN1-S	MDV-D28G/N1-S	MDV-D28G/DN1-S
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	2.2	2.2	2.8	2.8
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Heating	Capacity	kW	2.6	2.6	3.2	3.2
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Electrical heating capacity		kW	-	0.75	-	0.75
Indoor fan motor	Model		YDK15-6	YDK15-6	YDK15-6	YDK15-6
	Type		AC motor			
	Brand		Welling			
	Input	W	30/24/22	30/24/22	30/24/22	30/24/22
	Capacitor	μF	1.2	1.2	1.2	1.2
	Speed (hi/mid/lo)	r/min	810/760/700	810/760/700	810/760/700	810/760/700
Indoor coil	Number of rows		2	2	2	2
	Tube pitch*row pitch	mm	21*13.37	21*13.37	21*13.37	21*13.37
	Fin spacing	mm	1.5	1.5	1.5	1.5
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ7			
			Inner groove tube			
	length *height *width	mm	635*283.5*26.74			
Number of circuits		3	3	3	3	
Indoor air flow (H/M/L)		m ³ /h	525/480/430	525/480/4300	525/480/430	525/480/430
Indoor noise level (Hi/Mid/Lo)		dB(A)	35/32/29	35/32/29	35/32/29	35/32/29
Indoor unit	Dimension (W×H×D)	mm	915×290×230	915×290×230	915×290×230	915×290×230
	Packing (W×H×D)	mm	1020×390×315	1020×390×315	1020×390×315	1020×390×315
	Net/Gross weight	kg	13/16.5	13/16.5	13/16.5	13/16.5
Refrigerant type			R410A			
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)			
	Model		EFM-25YGMISZ-6M-A			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7			
Connecting wiring	Power wiring	mm ²	3*2			
	Signal wiring	mm ²	3*0.75			
Drainage water pipe diameter			ODΦ16.5			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D36G/N1-S	MDV-D36G/DN1-S	MDV-D45G/N1-S	MDV-D45G/DN1-S	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz				
Cooling	Capacity	kW	3.6	3.6	4.5	4.5	
	Input	W	28	28	45	45	
	Rated current	A	0.14	0.14	0.2	0.2	
Heating	Capacity	kW	4	4	5	5	
	Input	W	28	28	45	45	
	Rated current	A	0.14	0.14	0.2	0.2	
Electrical heating capacity		kW	-	0.75	-	0.9	
Indoor fan motor	Model		YDK15-6	YDK15-6	YDK18-4	YDK18-4	
	Type		AC motor				
	Brand		Welling				
	Input	W	30/24/22	30/24/22	44/42/39	44/42/39	
	Capacitor	μF	1.2	1.2	1.2	1.2	
	Speed (hi/mid/lo)	r/min	810/760/700	810/760/700	980/880/760	980/880/760	
Indoor coil	Number of rows		2	2	2	2	
	Tube pitch*row pitch	mm	21*13.37	21*13.37	21 x13.37	21*13.37	
	Fin spacing	mm	1.5	1.5	1.5	1.5	
	Fin type		Hydrophilic aluminum				
	Tube outside diameter and type	mm	Φ7 Inner groove tube				
	length *height *width	mm	635*283.5*26.74			785*357*26.74	
	Number of circuits		3	3	6	6	
Indoor air flow (H/M/L)		m ³ /h	590/520/480	590/520/480	860/755/630	860/755/630	
Indoor noise level (Hi/Mid/Lo)		dB(A)	35/32/29	35/32/29	40/38/34	40/38/34	
Indoor unit	Dimension (W×H×D)	mm	915 ×290×230	915 ×290×230	1072×315×230	1072×315×230	
	Packing (W×H×D)	mm	1020×390×315	1020×390×315	1180×415×315	1180×415×315	
	Net/Gross weight	kg	13/16.5	13/16.5	15.1/18.8	15.1/18.8	
Refrigerant type			R410A				
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)				
	Model		EFM-25YGMISZ-6M-A				
Design pressure		MPa	4.4/2.6				
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7				
Connecting wiring	Power wiring	mm ²	3*2				
	Signal wiring	mm ²	3*0.75				
Drainage water pipe diameter			ODΦ16.5				
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address				
Operation temp		°C	Cooling: 17~32; Heating:10~28				

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D56G/N1-S	MDV-D56G/DN1-S	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	5.6	5.6	
	Input	W	45	45	
	Rated current	A	0.2	0.2	
Heating	Capacity	kW	6.3	6.3	
	Input	W	45	45	
	Rated current	A	0.2	0.2	
Electrical heating capacity		kW	-	0.9	
Indoor fan motor	Model		YDK18-4	YDK18-4	
	Type		AC motor		
	Brand		Welling		
	Input	W	44/42/39	44/42/39	
	Capacitor	μF	1.2	1.2	
	Speed (hi/mid/lo)	r/min	980/880/760	980/880/760	
Indoor coil	Number of rows		2	2	
	Tube pitch*row pitch	mm	21 x13.37	21*13.37	
	Fin spacing	mm	1.5	1.5	
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ7		
			Inner groove tube		
	length *height *width	mm	785*357*26.74		
Number of circuits		6	6		
Indoor air flow (H/M/L)		m ³ /h	925/860/755	925/860/755	
Indoor noise level (Hi/Mid/Lo)		dB(A)	40/38/34	40/38/34	
Indoor unit	Dimension (W×H×D)	mm	1072×315×230	1072×315×230	
	Packing (W×H×D)	mm	1180×415×315	1180×415×315	
	Net/Gross weight	kg	15.1/18.8	15.1/18.8	
Refrigerant type			R410A		
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)		
	Model		EFM-25YGMISZ-6M-A		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/Φ16		
Connecting wiring	Power wiring	mm ²	3*2		
	Signal wiring	mm ²	3*0.75		
Drainage water pipe diameter			ODΦ16.5		
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

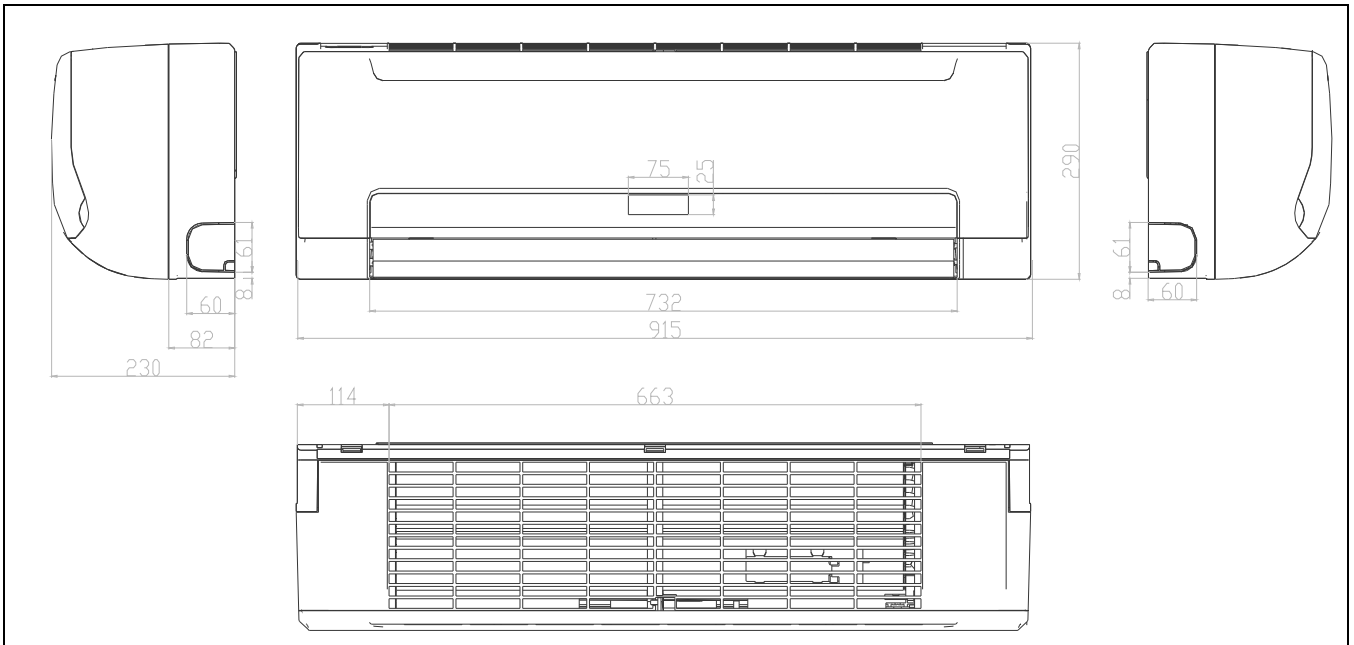
- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

3. Dimension

Outline dimension and air outlet opening size

MDV-D22G/N1-S MDV-D28G/N1-S MDV-D36G/N1-S

MDV-D22G/DN1-S MDV-D28G/DN1-S MDV-D36G/DN1-S



Main dimension:

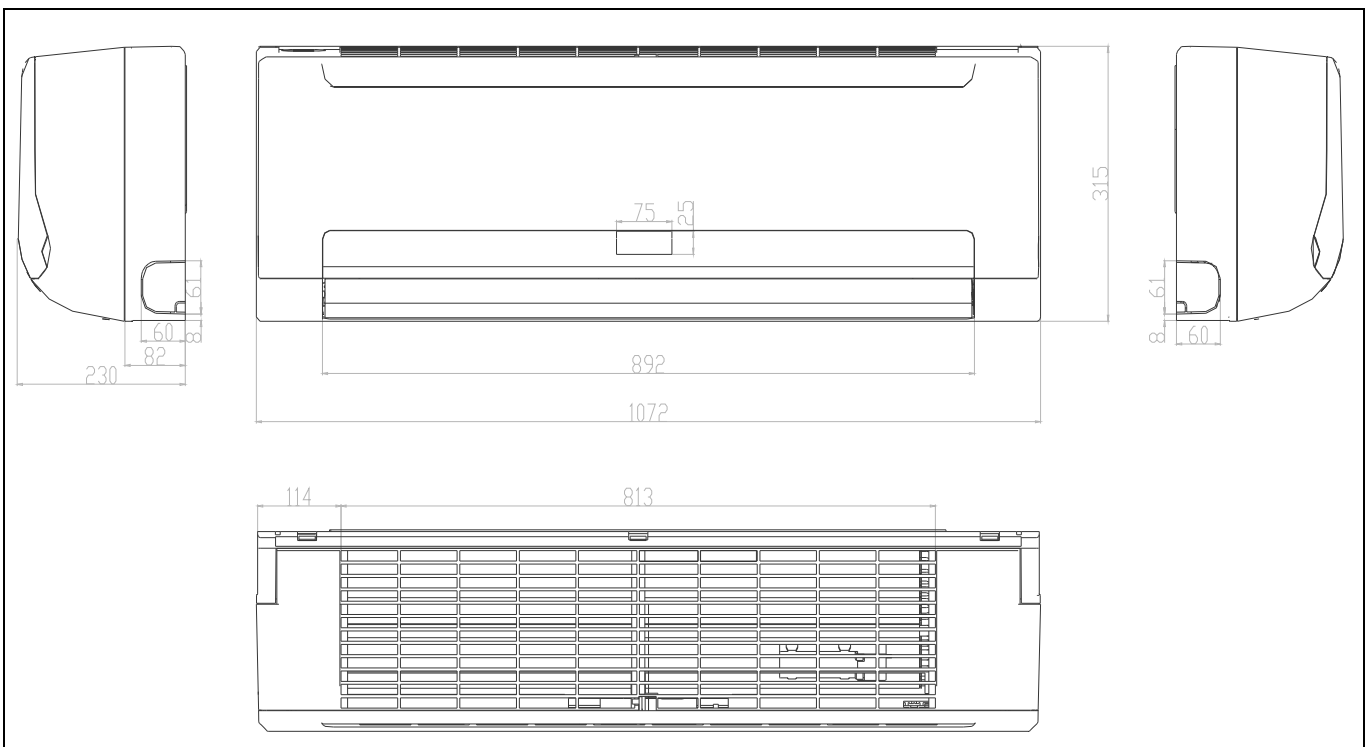
Outer Length: 915mm, Height: 290mm, Depth: 230mm

Filter length: 663mm

Gas tube: $\phi 12.7$ mm, length: Approx. 468mm

Liquid tube: $\phi 6.35$ mm, length: Approx. 550mm,

MDV-D45G/N1-S MDV-D56G/N1-S MDV-D45G/DN1-S MDV-D56G/DN1-S



Outer Length: 1072mm, Height: 315mm, Depth: 230mm

Filter length: 813mm

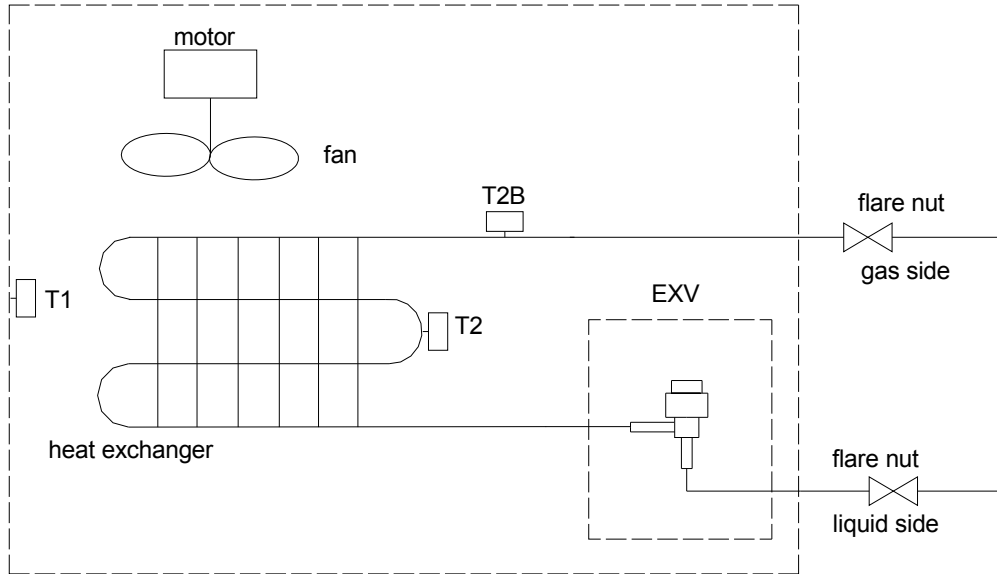
Gas tube: $\phi 12.7$ mm, length: Approx. 468mm

Liquid tube: $\phi 9.53$ length: Approx. 550mm

4. Piping Diagrams

MDV-D22G/N1-SMDV-D28G/N1-SMDV-D36G/N1-SMDV-D45G/N1-SMDV-D56G/N1-S

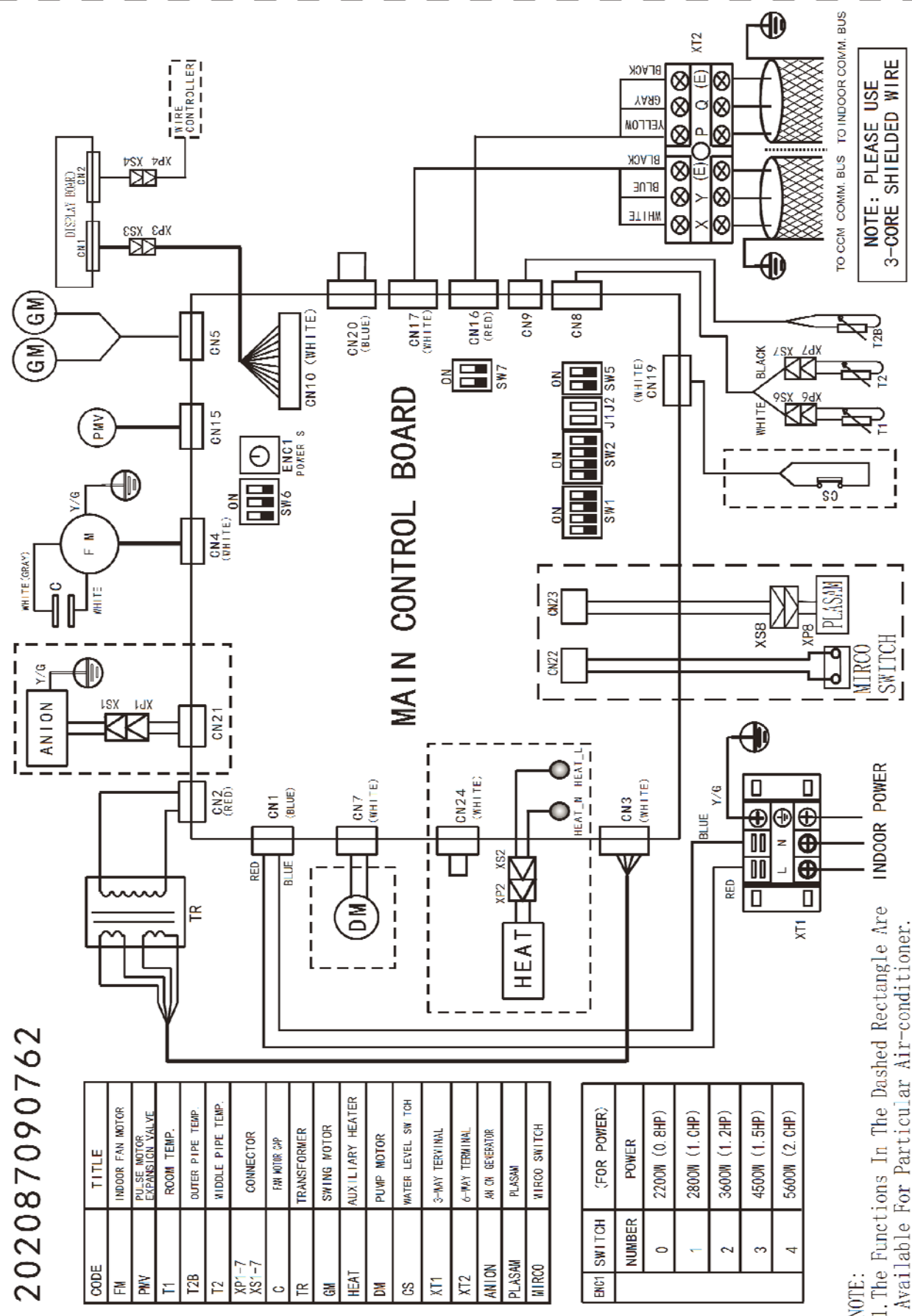
MDV-D22G/DN1-SMDV-D28G/DN1-SMDV-D36G/DN1-SMDV-D45G/DN1-SMDV-D56G/DN1-S



5. Wiring Diagram

MDV-D22G/N1-SMDV-D28G/N1-SMDV-D36G/N1-SMDV-D45G/N1-SMDV-D56G/N1-S

MDV-D22G/DN1-SMDV-D28G/DN1-SMDV-D36G/DN1-SMDV-D45G/DN1-SMDV-D56G/DN1-S



202087090762

CODE	TITLE
FM	INDOOR FAN MOTOR
PMV	PULSE MOTOR EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XP1-7 XS1-7	CONNECTOR
C	FAN MOTOR CAP
TR	TRANSFORMER
GM	SWING MOTOR
HEAT	AUXILIARY HEATER
DM	PUMP MOTOR
CS	WATER LEVEL SWITCH
XT1	3-WAY TERMINAL
XT2	6-WAY TERMINAL
ANION	ANION GENERATOR
PLASAM	PLASAM
MIRCO	MIRCO SWITCH

ENG1 SWITCH NUMBER	(FOR POWER) POWER
0	2200W (0.8HP)
1	2800W (1.1HP)
2	3600W (1.2HP)
3	4500W (1.5HP)
4	5600W (2.1HP)

NOTE:
 1. The Functions In The Dashed Rectangle Are Available For Particular Air-conditioner.
 2. SW1, SW2, SW5-SW7 MUST BE SETTED AS THIS DIAGRAM.

6. Capacity Tables

6.1 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	

6.2 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
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00

	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	

Note: The above table is only the heat pump heating capacity, for the type with Electrical heater, the total capacity should plus the additional electrical heating capacity, which is a constant data.

7. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22G/N1-S	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D28G/N1-S	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D36G/N1-S	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D45G/N1-S	50	220-240V	198	254	0.3	15	0.028	0.24
MDV-D56G/N1-S	50	220-240V	198	254	0.3	15	0.028	0.24
MDV-D22G/DN1-S	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D28G/DN1-S	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D36G/DN1-S	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D45G/DN1-S	50	220-240V	198	254	4.3	15	0.028	0.24
MDV-D56G/DN1-S	50	220-240V	198	254	4.3	15	0.028	0.24

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

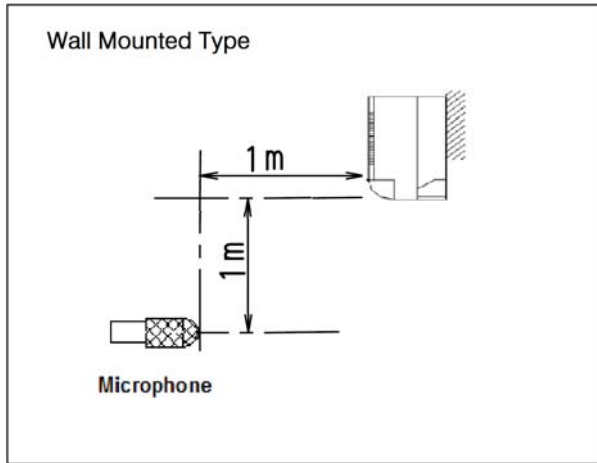
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

8. Noise Levels

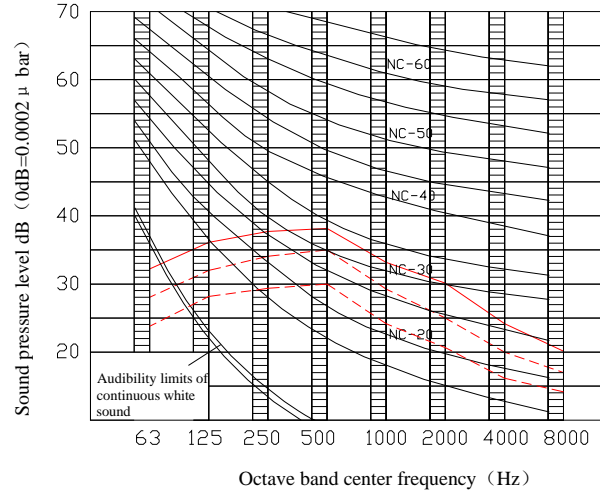
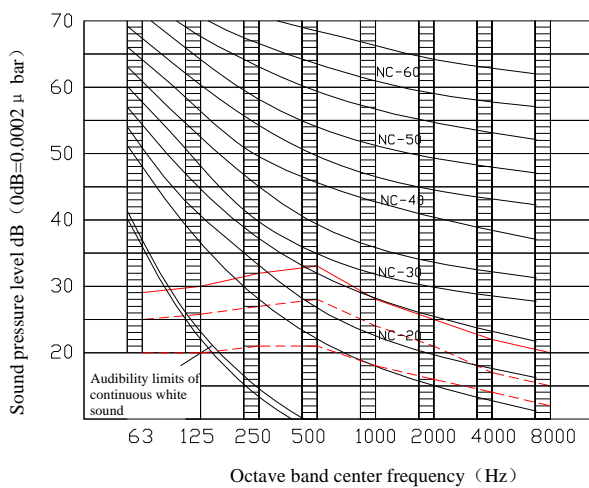
8.1 Test condition



8.2 Test value












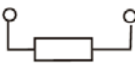
Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22G/(D)N1-S	35	32	29
MDV-D28G/(D)N1-S	35	32	29
MDV-D36G/(D)N1-S	35	32	29
MDV-D45G/(D)N1-S	40	38	34
MDV-D56G/(D)N1-S	40	38	34

MDV-D22G/(D)N1-SMDV-D28G/(D)N1-SMDV-D36G/(D)N1-SMDV-D45G/(D)N1-SMDV-D56G/(D)N1-S



9. Accessories

9.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Remote controller	1		/
7# alkaline battery	2		/
Holder for remote controller	1		Hold the remote controller
Remoter controller manual	1		—
Mounting screw(ST2.9 10-C-H)	2		Installation Holder for remote controller
Controlling discreteness installation plot	1	—	—
Installation spring	2		Fix water outlet
Water outlet joint	1		For drainage
Wrapping tape	1		
Plastic expanded tube	3		
Screw ST3.9x25 for installation board	3		Secure the installation board
Network matching wire	1		The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q.

9.2 Optional accessories

Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B

Wall Mounted Type (C Type)

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1. Feature

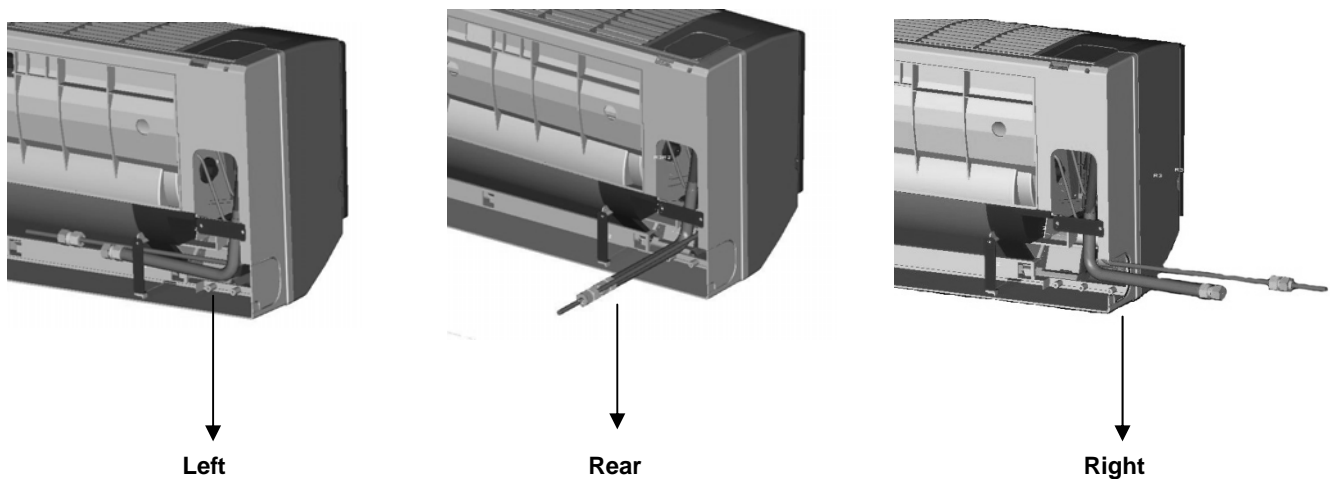
1.1 Panel with LED display.



The front panel and display panel have different colors for choose: white and brown for big panel, blue and brown for small panel, and the other colors can be customized according to the customers' demands.

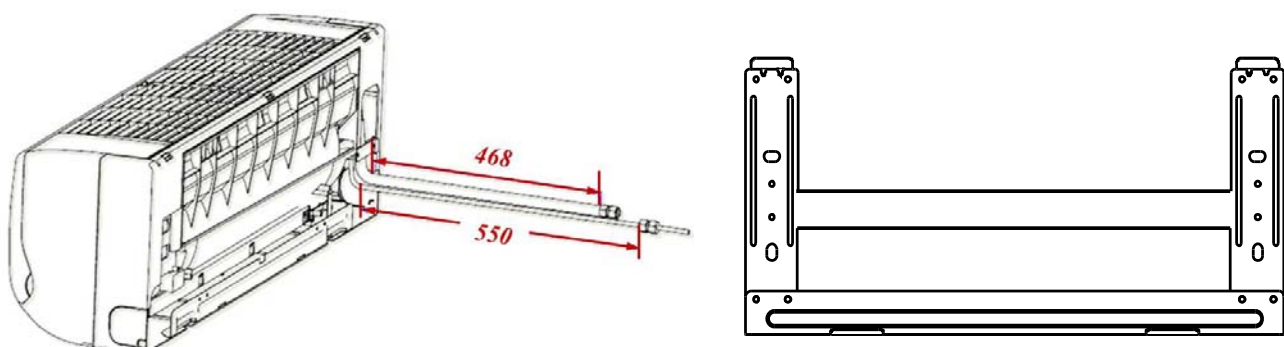
1.2 Convenient for installation

1.2.1 Multi-refrigerant outlet pipe method: left/right/rear, more flexible for installation.



1.2.2 Longer the connection pipe, Gas pipe: 468mm/Liquid pipe: 550mm, more flexible for the installation

1.2.3 Adopts new type fixing plate, easy for installation and stable.



1.2.4 The EXV is built-in the indoor unit, compact size, and convenient for the installation.

1.2.5 The Panel assembly of C type indoor unit can be exchanged with S type indoor unit, alternative panel.

1.2.6 Reserved the socket on main control board for water pump and PCB can be customized if you need water pump function.

1.3 Auxiliary electrical heating type is available.

1.4 Three air flow speed: high/middle/low, double air guides.

1.5 Low noise, creates quiet and comfortable environment.

1.5.1 Adoption of the Fujikoki brand mechanical expansion valve which has 2000 stages element positioning, ensure precise flow control, as well lower modulation noise when EXV operating.

1.5.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable

1.6 Wired control compatible. RM05 remote wireless controller which can set the indoor unit address is standard, and wired controller is optional.

2. Specifications

Model			MDV-D22G/N1YB	MDV-D22G/DN1YB	MDV-D28G/N1YB	MDV-D28G/DN1YB
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	2.2	2.2	2.8	2.8
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Heating	Capacity	kW	2.6	2.6	3.2	3.2
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Electrical heating capacity		kW	-	0.75	-	0.75
Indoor fan motor	Model		YDK15-6	YDK15-6	YDK15-6	YDK15-6
	Type		AC motor			
	Brand		Welling			
	Input	W	30/24/22	30/24/22	30/24/22	30/24/22
	Capacitor	μF	1.2	1.2	1.2	1.2
	Speed (hi/mid/lo)	r/min	810/760/700	810/760/700	810/760/700	810/760/700
Indoor coil	Number of rows		2	2	2	2
	Tube pitch*row pitch	mm	21 *13.37	21 *13.37	21*13.37	21 *13.37
	Fin spacing	mm	1.5	1.5	1.5	1.5
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ7			
			Inner groove tube			
	length *height *width	mm	635*283.5*26.74			
Number of circuits		3	3	3	3	
Indoor air flow (H/M/L)		m ³ /h	520/480/430	520/480/430	520/480/430	520/480/430
Indoor noise level (Hi/Mid/Lo)		dB(A)	35/32/29	35/32/29	35/32/29	35/32/29
Indoor unit	Dimension (W×H×D)	mm	915 ×290×210	915×290×210	915×290×210	915×290×210
	Packing (W×H×D)	mm	1020×385×300	1020×385×300	1020×385×300	1020×385×300
	Net/Gross weight	kg	12/16	12/16	12/16	12/16
Refrigerant type			R410A			
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)			
	Model		EFM-25YGMISZ-6M-A			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7			
Connecting wiring	Power wiring	mm ²	3*2.5			
	Signal wiring	mm ²	3*0.75			
Drainage water pipe diameter			ODΦ16.5			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D36G/N1YB	MDV-D36G/DN1YB	MDV-D45G/N1YB	MDV-D45G/DN1YB	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz				
Cooling	Capacity	kW	3.6	3.6	4.5	4.5	
	Input	W	28	28	45	45	
	Rated current	A	0.14	0.14	0.2	0.2	
Heating	Capacity	kW	4	4	5	5	
	Input	W	28	28	45	45	
	Rated current	A	0.14	0.14	0.2	0.2	
Electrical heating capacity		kW	-	0.75	-	0.9	
Indoor fan motor	Model		YDK15-6	YDK15-6	YDK18-4	YDK18-4	
	Type		AC motor				
	Brand		Welling				
	Input	W	30/24/22	30/24/22	44/42/39	44/42/39	
	Capacitor	μF	1.2	1.2	1.2	1.2	
	Speed (hi/mid/lo)	r/min	810/760/700	810/760/700	980/880/760	980/880/760	
Indoor coil	Number of rows		2	2	2	2	
	Tube pitch*row pitch	mm	21 *13.37	21 *13.37	21 x13.37	21 *13.37	
	Fin spacing	mm	1.5	1.5	1.5	1.5	
	Fin type		Hydrophilic aluminum				
	Tube outside diameter and type	mm	Φ7				
	length *height *width	mm	635*283.5*26.74			785*357*26.74	
	Number of circuits		3	3	6	6	
Indoor air flow (H/M/L)		m ³ /h	520/480/430	520/480/430	860/755/630	860/755/630	
Indoor noise level (Hi/Mid/Lo)		dB(A)	35/32/29	35/32/29	40/38/34	40/38/34	
Indoor unit	Dimension (W×H×D)	mm	915×290×210	915×290×210	1070×315×210	1070×315×210	
	Packing (W×H×D)	mm	1020X385X300	1020X385X300	1165×395×285	1165×395×285	
	Net/Gross weight	kg	12/16	12/16	16/19	16/19	
Refrigerant type			R410A				
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)				
	Model		EFM-25YGMISZ-6M-A				
Design pressure		MPa	4.4/2.6				
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7				
Connecting wiring	Power wiring	mm ²	3*2.5				
	Signal wiring	mm ²	3*0.75				
Drainage water pipe diameter			ODΦ16.5				
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address				
Operation temp		°C	Cooling: 17~32; Heating:10~28				

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

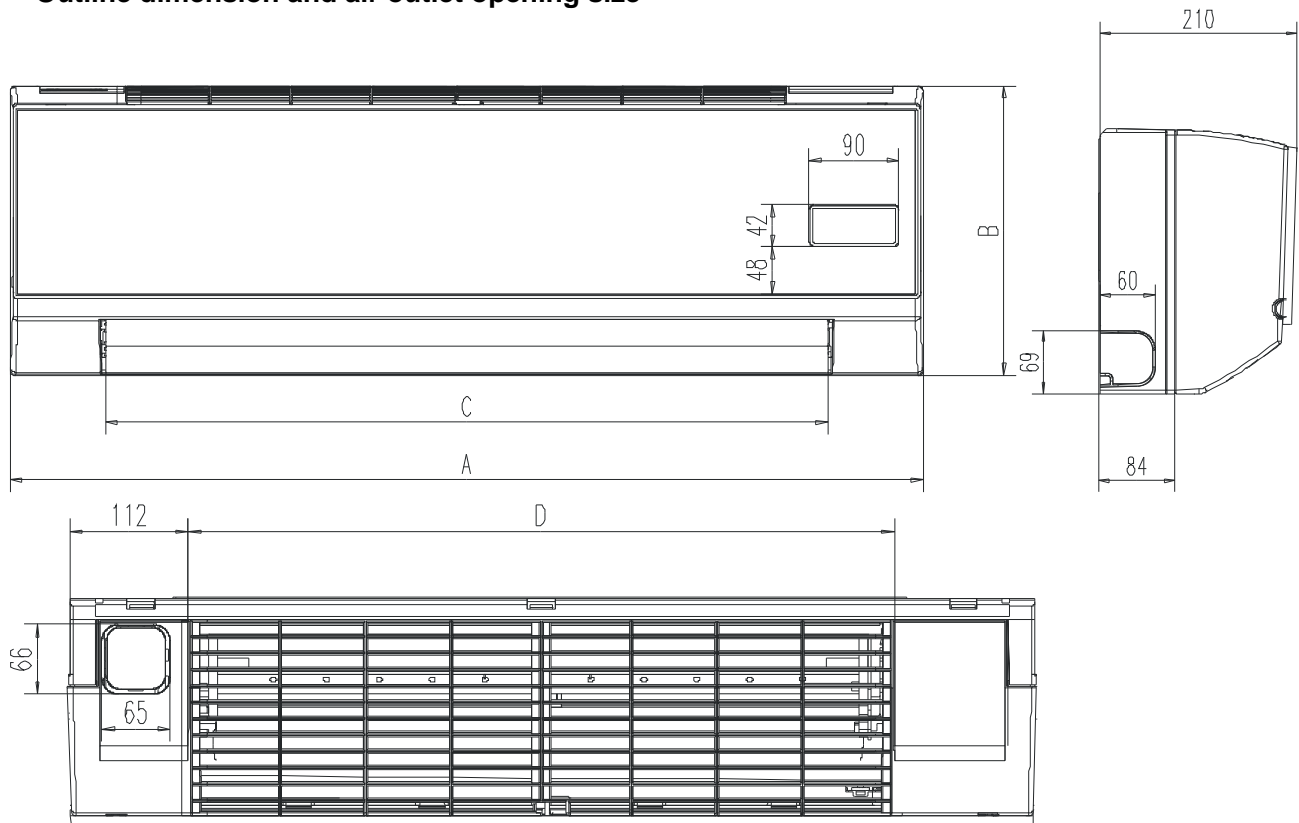
Model			MDV-D56G/N1YB	MDV-D56G/DN1YB	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	5.6	5.6	
	Input	W	45	45	
	Rated current	A	0.2	0.2	
Heating	Capacity	kW	6.3	6.3	
	Input	W	45	45	
	Rated current	A	0.2	0.2	
Electrical heating capacity		kW	-	0.9	
Indoor fan motor	Model		YDK18-4	YDK18-4	
	Type		AC motor		
	Brand		Welling		
	Input	W	44/42/39	44/42/39	
	Capacitor	μF	1.2	1.2	
	Speed (hi/mid/lo)	r/min	980/880/760	980/880/760	
Indoor coil	Number of rows		2	2	
	Tube pitch*row pitch	mm	21 x13.37	21 *13.37	
	Fin spacing	mm	1.5	1.5	
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ7		
			Inner groove tube		
	length *height *width	mm	785*357*26.74		
Number of circuits		6	6		
Indoor air flow (H/M/L)		m ³ /h	925/860/755	925/860/755	
Indoor noise level (Hi/Mid/Lo)		dB(A)	40/38/34	40/38/34	
Indoor unit	Dimension (W×H×D)	mm	1070×315×210	1070×315×210	
	Packing (W×H×D)	mm	1165×395×285	1165×395×285	
	Net/Gross weight	kg	16/19	16/19	
Refrigerant type			R410A		
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)		
	Model		EFM-25YGMISZ-6M-A		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/Φ16		
Connecting wiring	Power wiring	mm ²	3*2.5		
	Signal wiring	mm ²	3*0.75		
Drainage water pipe diameter			ODΦ16.5		
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address		
Operation temp		°C	Cooling: 17~32; Heating:10~28		

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

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

3. Dimension

Outline dimension and air outlet opening size



Model	2.2kW	2.8 kW	3.6 kW	4.5 kW	5.6 kW
A	915	915	915	1070	1070
B	290	290	290	315	315
C	725	725	725	885	885
D	670	670	670	815	815

Main dimension:

MDV-D22G/N1YB MDV-D28G/N1YB MDV-D36G/N1YB MDV-D22G/DN1YB

MDV-D28G/DN1YB MDV-D36G/DN1YB

Outer Length: 915mm, Height: 290mm, Depth: 210mm

Filter length: 670mm

Gas tube: Φ 12.7mm, length: Approx. 468mm

Liquid tube: Φ 6.35mm length: Approx.550mm

MDV-D45G/N1YB MDV-D56G/N1YB MDV-D45G/DN1YB MDV-D56G/DN1YB

Outer Length: 1072mm, Height: 315mm, Depth: 230mm

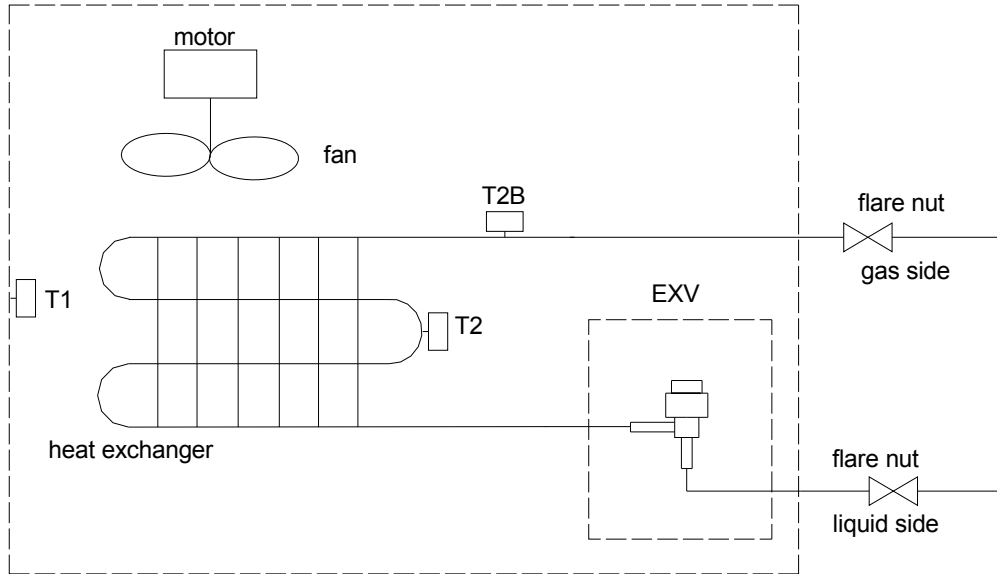
Filter length: 815mm

Gas tube: Φ 12.7mm, length: Approx. 468mm

Liquid tube: Φ 9.53, length: Approx.550mm

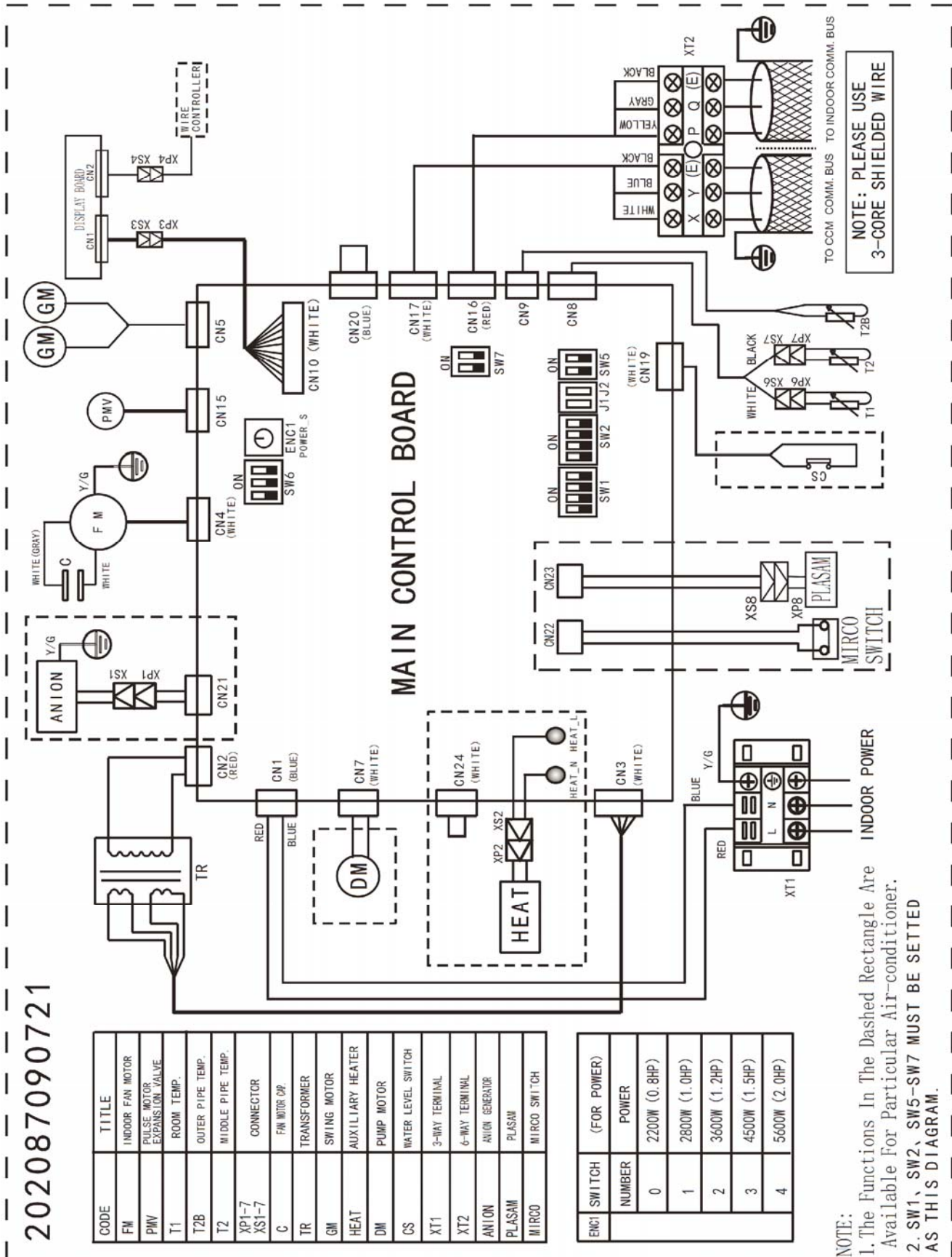
4. Piping Diagrams

MDV-D22G/N1YB MDV-D28G/N1YB MDV-D36G/N1YB MDV-D45G/N1YB MDV-D56G/N1YB
MDV-D22G/DN1YB MDV-D28G/DN1YB MDV-D36G/DN1YB MDV-D45G/DN1YB MDV-D56G/DN1YB



5. Wiring Diagram

MDV-D22G/N1YB MDV-D28G/N1YB MDV-D36G/N1YB MDV-D45G/N1YB MDV-D56G/N1YB
 MDV-D22G/DN1YB MDV-D28G/DN1YB MDV-D36G/DN1YB MDV-D45G/DN1YB MDV-D56G/DN1YB



202087090721

NOTE: PLEASE USE 3-CORE SHIELDED WIRE

TO CCM COMM. BUS TO INDOOR COMM. BUS

INDOOR POWER

6. Capacity Tables

6.1 Cooling

TC: total capacity

SC: sensible capacity

WB: wet-bulb temperature

DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	

6.2 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	TC	TC	TC	TC	TC
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00

	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	

Note: The above table is only the heat pump heating capacity, for the type with Electrical heater, the total capacity should plus the additional electrical heating capacity, which is a constant data.

7. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22G/N1YB	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D28G/N1YB	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D36G/N1YB	50	220-240V	198	254	0.3	15	0.013	0.225
MDV-D45G/N1YB	50	220-240V	198	254	0.3	15	0.028	0.24
MDV-D56G/N1YB	50	220-240V	198	254	0.3	15	0.028	0.24
MDV-D22G/DN1YB	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D28G/DN1YB	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D36G/DN1YB	50	220-240V	198	254	3.6	15	0.013	0.225
MDV-D45G/DN1YB	50	220-240V	198	254	4.3	15	0.028	0.24
MDV-D56G/DN1YB	50	220-240V	198	254	4.3	15	0.028	0.24

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

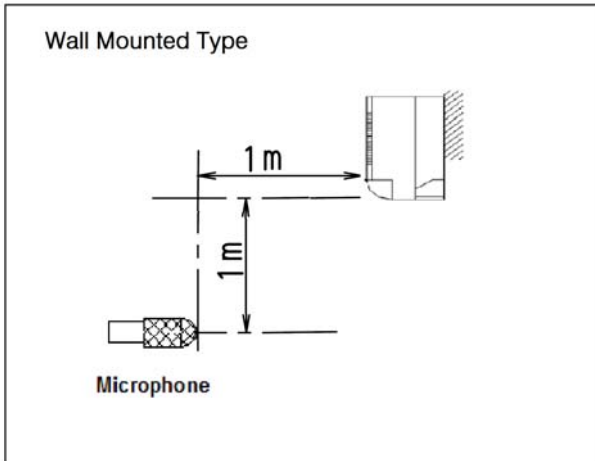
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

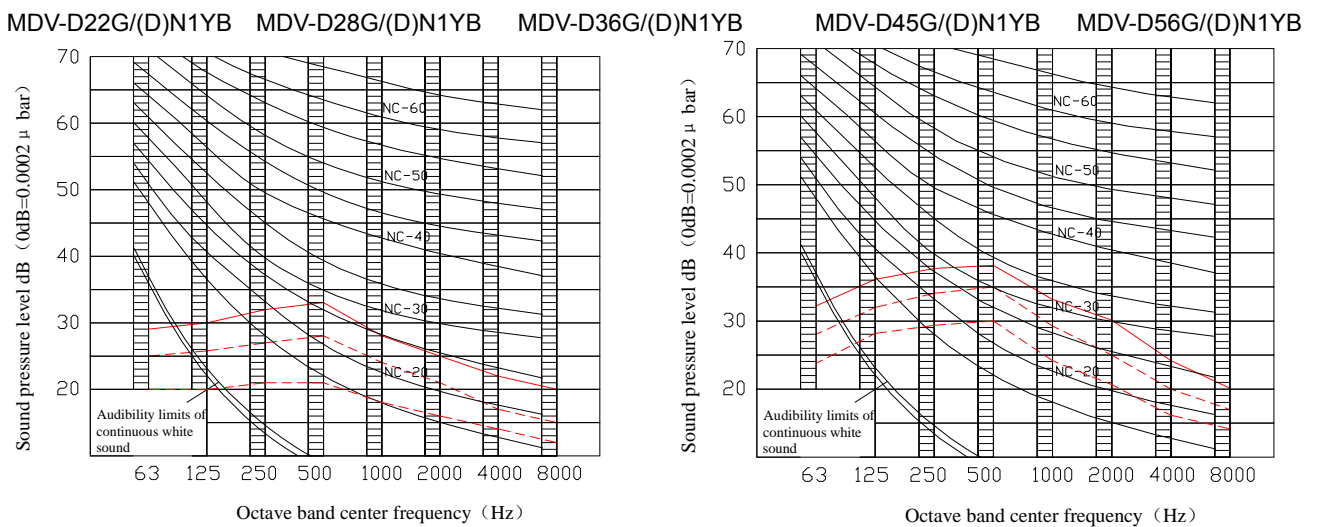
8. Noise Levels

8.1 Test condition















8.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22G/(D)N1YB	35	32	29
MDV-D28G/(D)N1YB	35	32	29
MDV-D36G/(D)N1YB	35	32	29
MDV-D45G/(D)N1YB	40	38	34
MDV-D56G/(D)N1YB	40	38	34



9. Accessories

9.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Remote controller	1		/
7# alkaline battery	2		/
Holder for remote controller	1		Hold the remote controller
Remoter controller manual	1		—
Mounting screw(ST2.9 10-C-H)	2		Installation Holder for remote controller
Controlling discreteness installation plot	1	—	—
Installation spring	2		Fix water outlet
Water outlet joint	1		For drainage
Wrapping tape	1		
Plastic expanded tube	3		
Screw ST3.9x25 for installation board	3		Secure the installation board
Network matching wire	1		The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q.

9.2 Optional accessories

Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B

Ceiling & Floor Type

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1. Feature

1.1 Panel with LED display.



The front panel and display panel have different colors for choose: white and brown for big panel, blue and brown for small panel, and the other colors can be customized according to the customers' demands.

1.2 Convenient for installation

- 1.2.1 The ceiling type can be easily installed into a corner of the ceiling even if the ceiling is very narrow
- 1.2.2 It is especially useful when installation of an air conditioner in the center of the ceiling is impossible due to a structure such as one lighting
- 1.2.3 The EXV is built-in the indoor unit, compact size, and convenient for the installation.
- 1.2.4 Reserved the socket on main control board for water pump and PCB can be customized if you need water pump function.

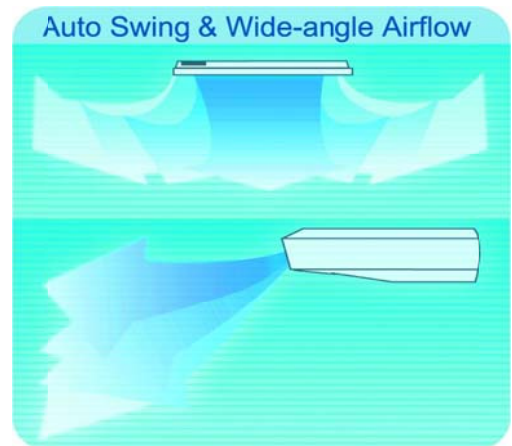
1.3 Three air flow speed: high/middle/low, double air guides.

1.4 Two direction auto swing (vertical & horizontal) and wide angle air flow

1.5 Low noise, creates quiet and comfortable environment.

- 1.5.1 Adoption of the Fujikoki brand electronic expansion valve, ensure precise flow control, as well lower modulation noise when EXV operating.
- 1.5.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable

1.6 Wired control compatible. RM05 remote wireless controller which can set the indoor unit address is standard, and wired controller is optional.



2. Specifications

Model			MDV-D36DL/N1-C	MDV-D45DL/N1-C	MDV-D56DL/N1-C	MDV-D71DL/N1-C
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	3.6	4.5	5.6	7.1
	Input	W	49	120	122	125
	Rated current	A	0.55	0.55	0.55	0.57
Heating	Capacity	kW	4	5	6.3	8
	Input	W	49	120	122	125
	Rated current	A	0.55	0.55	0.55	0.57
Indoor fan motor	Model		YSK25-6L-1	YSK55-4L-1	YSK55-4L-1	YSK55-4L-1
	Type		AC motor			
	Brand		Welling			
	Input	W	33.4/31.1/29.5	125/105/85	125/105/85	125/105/85
	Capacitor	μF	1.2uF/450V	2UF/450V	2.5UF/450V	2.5UF/450V
	Speed (hi/mid/lo)	r/min	756/666/592	1310/1190/1040	1310/1190/1040	1310/1190/1040
Indoor coil	Number of rows		2	3	3	3
	Tube pitch*row pitch	mm	25.4x22	25.4x22	25.4x22	25.4x22
	Fin spacing	mm	1.8	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ9.53			
			Inner groove tube			
	length *height *width	mm	804*254*44	804*254*66	804*254*66	804*254*66
Number of circuits		3	3	3	3	
Indoor air flow (H/M/L)	m ³ /h	650/570/500	800/600/500	800/600/500	800/600/500	
Indoor noise level (Hi/Mid/Lo)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	
Indoor unit	Dimension (W×H×D)	mm	990x660x206	990x660x206	990x660x206	990x660x206
	Packing (W×H×D)	mm	1089x744x296	1089x744x296	1089x744x296	1089x744x296
	Net/Gross weight	kg	26/32	28/34	28/34	28/34
Refrigerant type			R410A			
Throttle	Type		EXV (Built-in)			
	Model		BD20FKS(L)			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7		Φ9.53/ Φ16	
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			ODΦ16			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

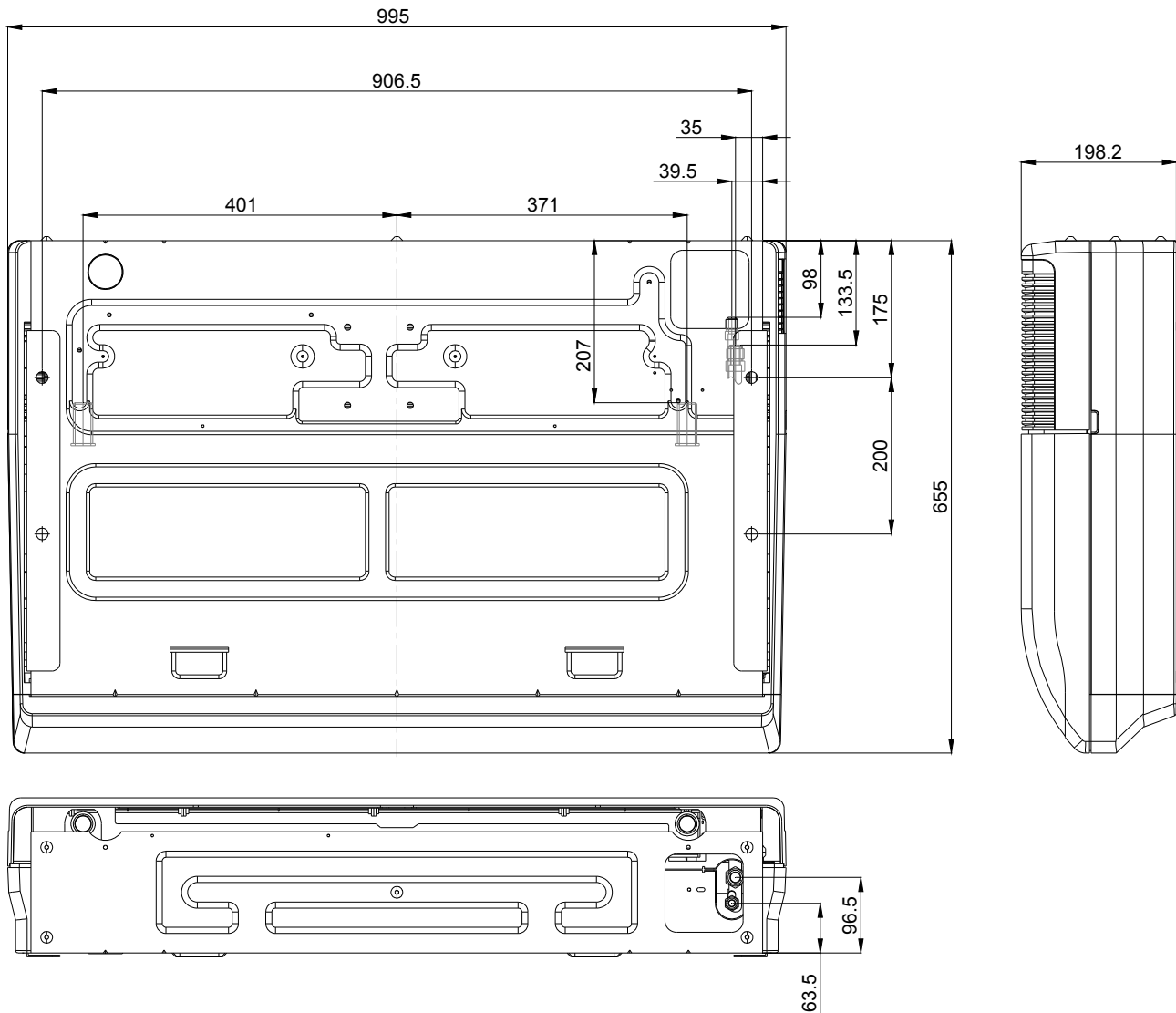
Model			MDV-D80DL/N1-C	MDV-D90DL/N1-C	MDV-D112DL/N1-C	MDV-D140DL/N1-C
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	8	9	11.2	14
	Input	W	130	130	182	182
	Rated current	A	0.6	0.6	0.83	0.83
Heating	Capacity	kW	9	10	12.5	15.5
	Input	W	130	130	182	182
	Rated current	A	0.6	0.6	0.83	0.83
Indoor fan motor	Model		YSK80-4A-1	YSK80-4A-1	YSK59-4D x2	YSK59-4D x2
	Type		AC motor			
	Brand		Welling			
	Input	W	143/122/110	143/122/110	(89.5/81.5/77.5) x 2	(89.5/81.5/77.5) x 2
	Capacitor	μF	3.5UF/450V	3.5UF/450V	2.5UF/450V x2	2.5UF/450V x2
	Speed (hi/mid/lo)	r/min	1310/1210/1115	1310/1210/1115	1170/1070/995	1170/1070/995
Indoor coil	Number of rows		3	3	3	3
	Tube pitch*row pitch	mm	25.4x22	25.4x22	25.4x22	25.4x22
	Fin spacing	mm	1.8	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ9.53 Inner groove tube			
	length *height *width	mm	1094*254*66		1360*254*66	
	Number of circuits		5	5	5	5
Indoor air flow (H/M/L)		m ³ /h	1200/900/700	1200/900/700	1980/1860/1730	1980/1860/1730
Indoor noise level (Hi/Mid/Lo)		dB(A)	45/43/40	45/43/40	47/45/42	47/45/42
Indoor unit	Dimension (W×H×D)	mm	1280 x 660x206	1280 x 660x206	1670x680x244	1670x680x244
	Packing (W×H×D)	mm	1379x744x296	1379x744x296	1764x760x329	1764x760x329
	Net/Gross weight	kg	34.5/41	34.5/41	54/59	54/59
Refrigerant type			R410A			
Throttle	Type		EXV (Built-in)			
	Model		BD20FKS(L)		BD24FKS(L)	
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/ Φ16			
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			ODΦ16			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

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

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

3. Dimension

3.1 Outline dimension of MDV-D36DL/N1-C MDV-D45DL/N1-C MDV-D56DL/N1-C MDV-D71DL/N1-C



3.2 Main dimension:

MDV-D36DL/N1-C MDV-D45DL/N1-C

Outer Length: 995mm, Height: 665mm, Depth: 200mm

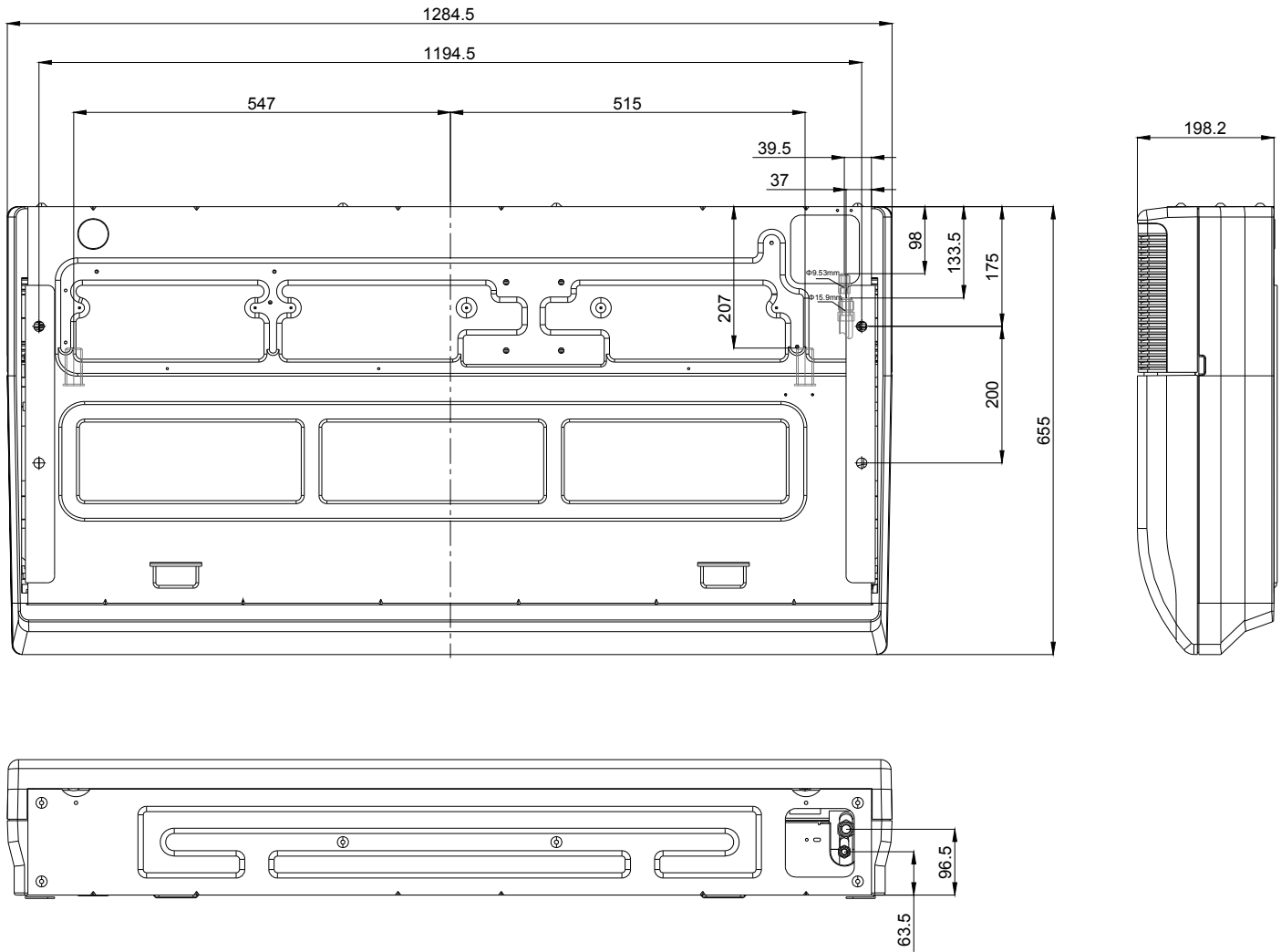
Gas tube: Φ 12.7mm, Liquid tube: Φ 6.35mm

MDV-D56DL/N1-C MDV-D71DL/N1-C

Outer Length: 995mm, Height: 665mm, Depth: 200mm

Gas tube: Φ 15.9mm Liquid tube: Φ 9.53

3.3 Outline dimension of MDV-D80DL/N1-C MDV-D90DL/N1-C



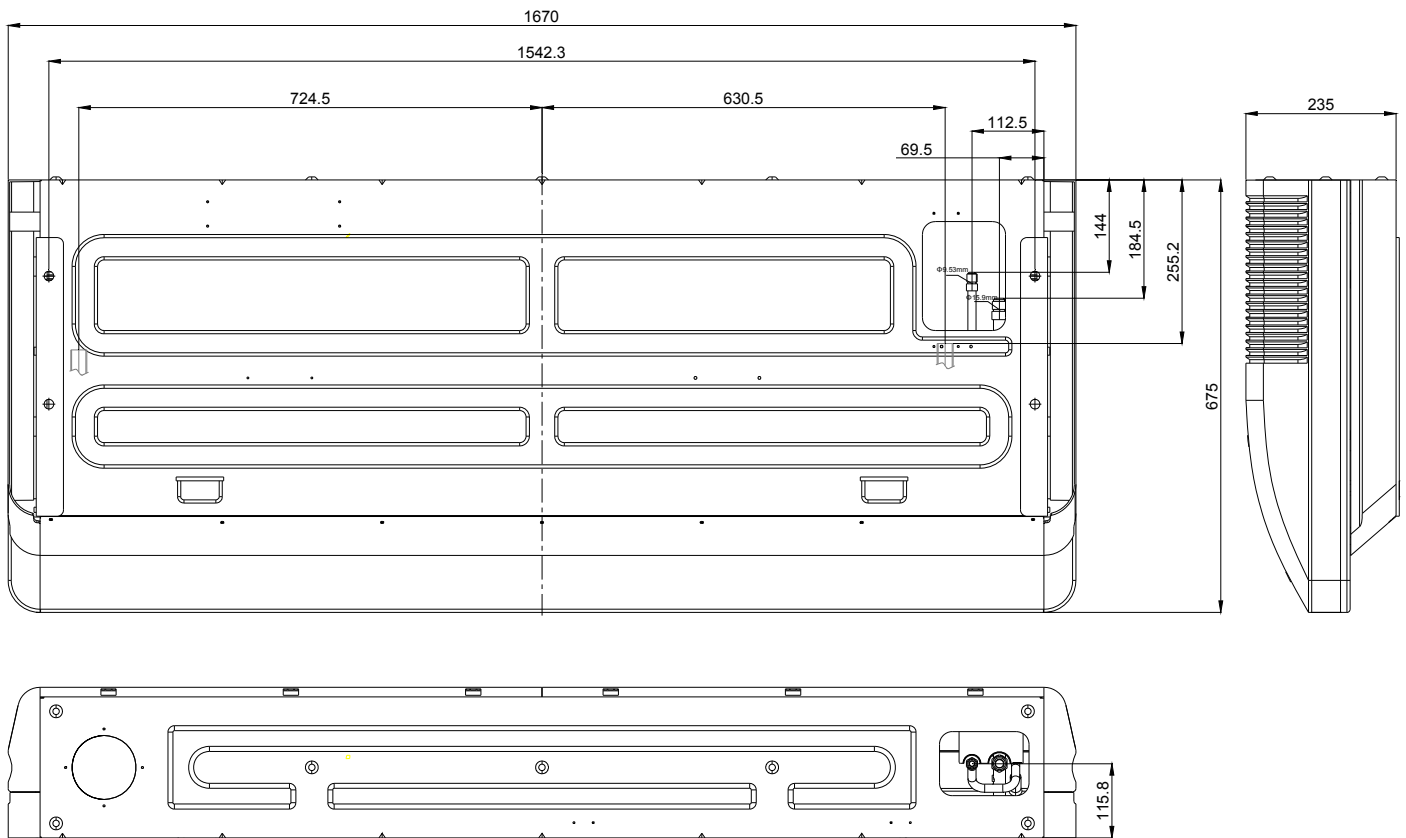
3.4 Main dimension:

MDV-D80DL/N1-C MDV-D90DL/N1-C

Outer Length: 1285mm, Height: 665mm, Depth: 200mm

Gas tube: ϕ 15.9mm Liquid tube: ϕ 9.53

3.5 Outline dimension of MDV-D112DL/N1-C MDV-D140DL/N1-C



3.6 Main dimension:

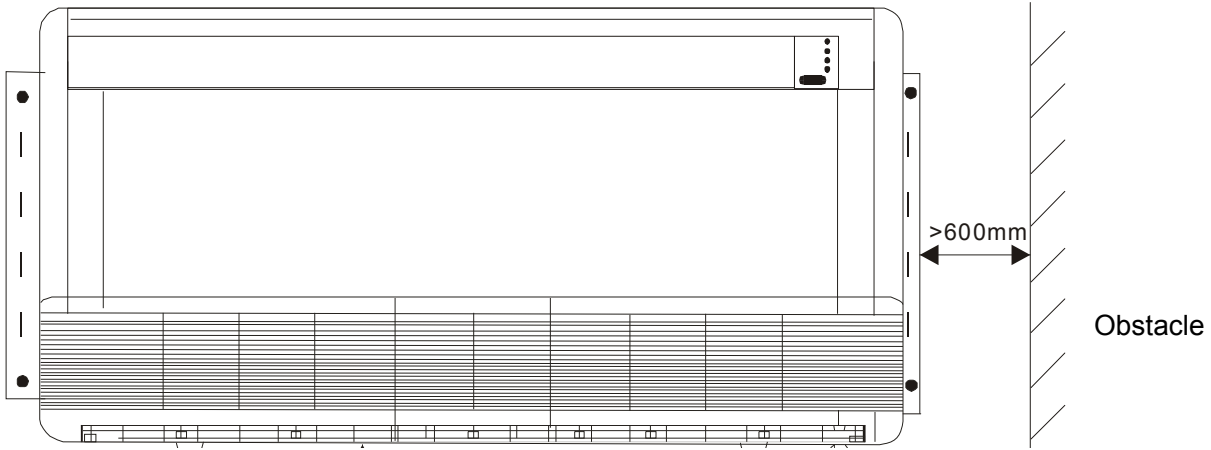
MDV-D112DL/N1-C MDV-D140DL/N1-C

Outer Length: 1670mm, Height: 675mm, Depth: 235mm

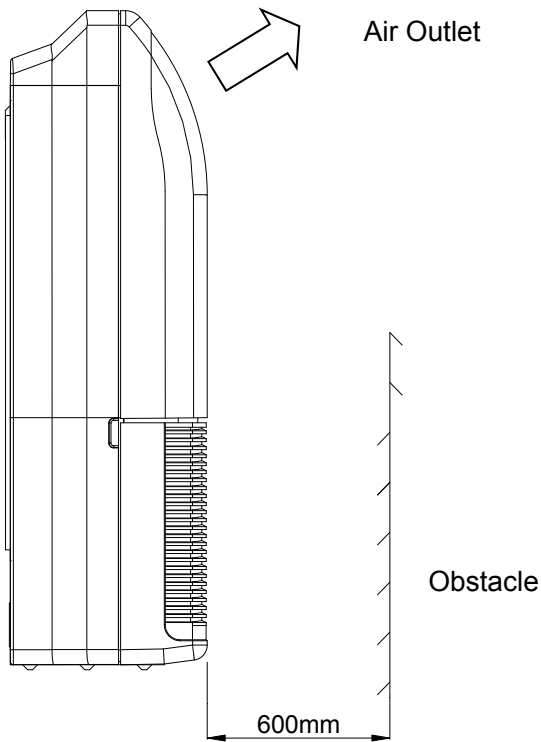
Gas tube: ϕ 15.9mm, Liquid tube: ϕ 9.53

4. Service Space

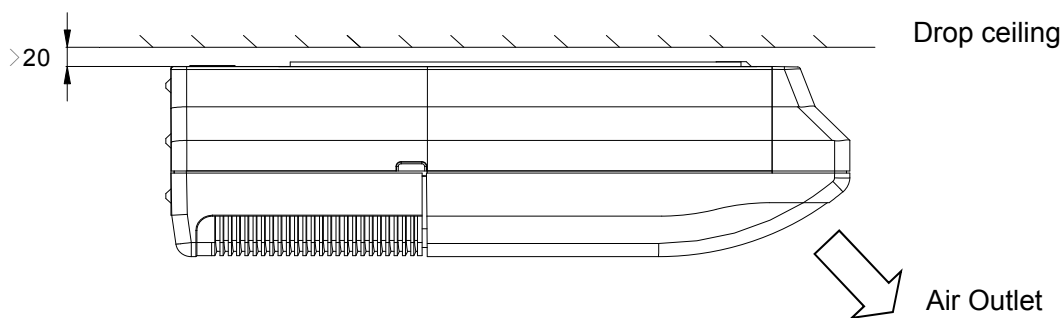
MDV-D36DL/N1-C MDV-D45DL/N1-C MDV-D56DL/N1-C MDV-D71DL/N1-C
 MDV-D80DL/N1-C MDV-D90DL/N1-C MDV-D112DL/N1-C MDV-D140DL/N1-C



Keep more than 600mm clearance between the unit and left/right side wall. Piping connection



As well 600mm and up between the front panel and wall. For well ventilation.



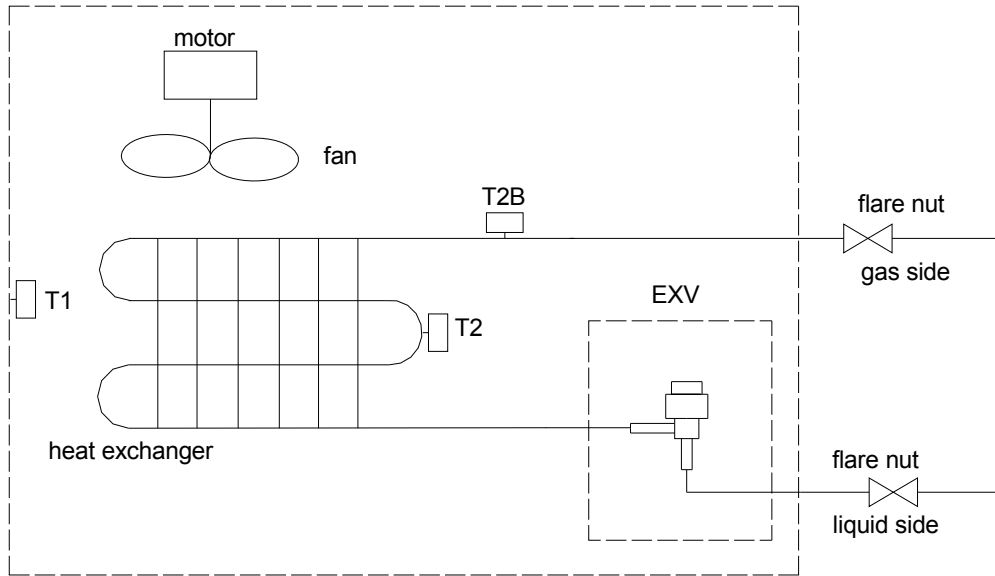
Keep 20mm up between the rear and wall if standing installed. As well 20mm between top and the drop ceiling if under ceiling installed

Note:

This indoor unit may be installed on ceilings up to 3.5 m in height. However, if the ceiling is higher than 2.7m, the remote control will have to be set locally.

5. Piping Diagrams

MDV-D36DL/N1-C MDV-D45DL/N1-C MDV-D56DL/N1-C MDV-D71DL/N1-C
MDV-D80DL/N1-C MDV-D90DL/N1-C MDV-D112DL/N1-C MDV-D140DL/N1-C

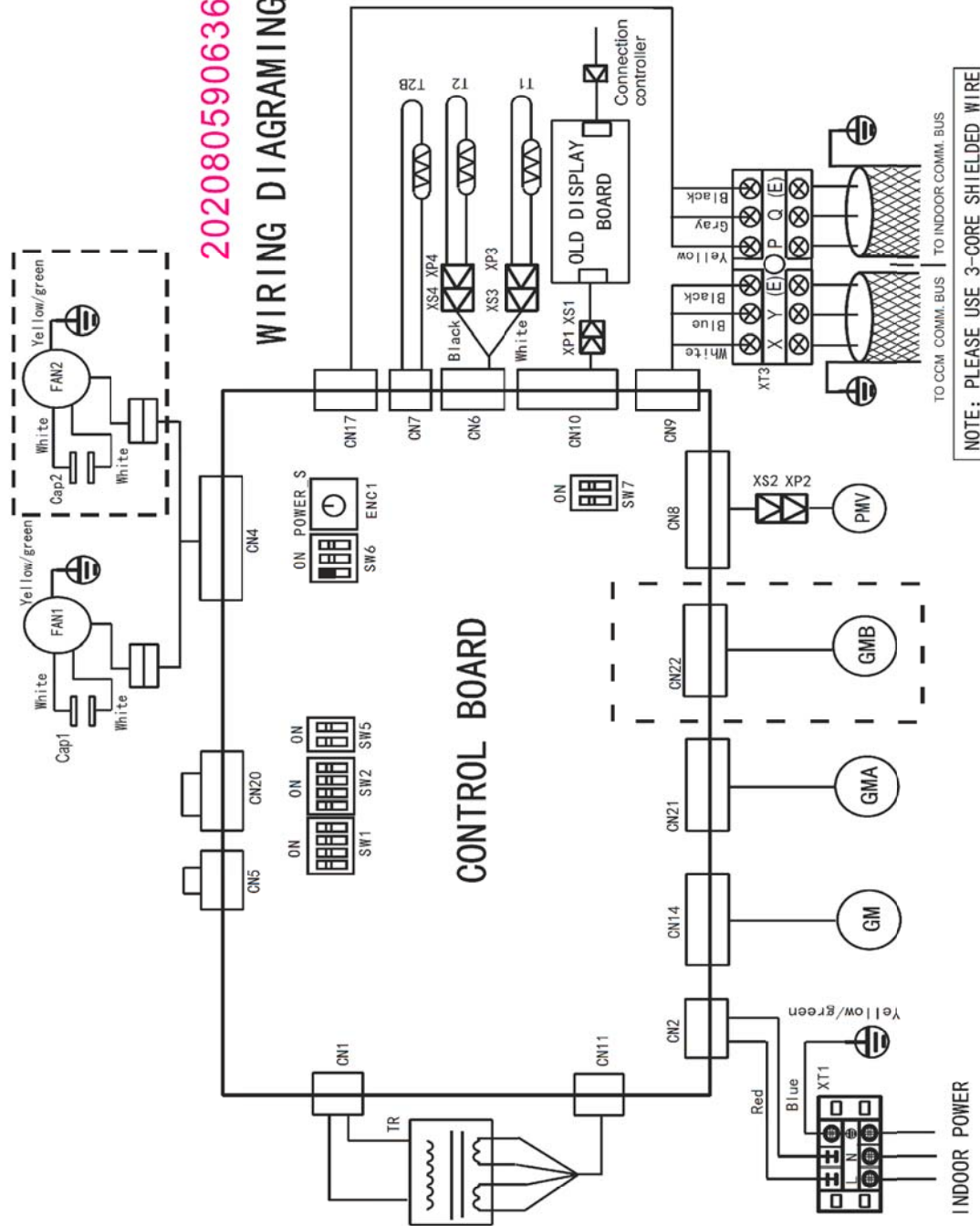


6. Wiring Diagram

MDV-D36DL/N1-C MDV-D45DL/N1-C MDV-D56DL/N1-C MDV-D71DL/N1-C MDV-D80DL/N1-C
 MDV-D90DL/N1-C MDV-D112DL/N1-C MDV-D140DL/N1-C

202080590636

WIRING DIAGRAMING



CONTROL BOARD

CODE	TITLE
GMA, GMB	VERTICAL SWING MOTOR
GM	LEVEL SWING MOTOR
PMV	ELECTRIC EXPANSION VALVE
T1	ROOM TEMP.
T2B	OUTER PIPE TEMP.
T2	MIDDLE PIPE TEMP.
XP1-5	CONNECTORS
XS1-5	
XT1	3-WAY CONNECTOR
TR	TRANSFORMER
XT3	6-WAY CONNECTOR

ENC1 SWITCH NUMBER	(FOR POWER) 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	10000W (3.6HP)
	11200W (4.0HP)
9	12500W (4.5HP)
	14000W (5.0HP)

7. Capacity Tables

7.1 Cooling

TC: total capacity

SC: sensible capacity

WB: wet-bulb temperature

DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C DB)	Indoor temperature (°C WB/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
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6	

7.1	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
	42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
8.0	10.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.4	5.6
	12.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	14.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	16.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.0	5.4
	18.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.8	5.3
	20.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.6	5.2
	21.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	23.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	25.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.3	5.0
	27.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.1	5.3	9.2	5.1
	29.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	9.0	5.3	9.1	5.0
	31.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.9	5.2	8.8	4.8
	33.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
	35.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.6	5.1	8.6	4.8
	37.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.3	5.4	8.4	5.0	8.6	4.9
	39.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
42.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
44.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
46.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9	
9.0	10.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.7	6.0
	12.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.5	5.9
	14.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.4	5.9
	16.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.3	5.8
	18.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	11.0	5.8
	20.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.8	5.7
	21.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.6	5.6
	23.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.5	5.5
	25.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.6	6.1	10.4	5.5
	27.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.3	5.9	10.4	5.4
	29.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.1	5.7	10.3	5.4
	31.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	10.0	5.7	9.9	5.3
	33.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.6	6.0	9.9	5.6	9.9	5.3
	35.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.5	6.0	9.6	5.5	9.7	5.3
	37.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.3	5.8	9.5	5.4	9.6	5.3
	39.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3
42.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3	
44.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3	
46.0	6.2	4.9	7.3	5.3	8.4	5.8	9.0	5.9	9.2	5.7	9.4	5.3	9.6	5.3	
10.0	10.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	13.0	7.3
	12.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.8	7.2
	14.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.7	7.1
	16.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.5	7.0
	18.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.2	6.8
	20.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	12.0	6.7
	21.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.9	7.3	11.8	6.6
	23.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.7	7.3	11.7	6.6
25.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.6	7.2	11.6	6.5	

	27.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.5	7.1	11.5	6.6
	29.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.4	7.1	11.4	6.5
	31.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.3	7.0	11.0	6.3
	33.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.6	7.0	11.2	6.9	11.0	6.3
	35.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.5	6.9	10.8	6.7	10.8	6.3
	37.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.4	6.9	10.8	6.7	10.7	6.2
	39.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3
	42.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3
	44.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3
46.0	6.9	5.6	8.1	6.2	9.4	6.9	10.0	7.0	10.2	6.7	10.4	6.6	10.7	6.3	
11.2	10.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	15.5	8.2
	12.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.4	7.7
	14.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.2	7.6
	16.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.1	7.5
	18.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	14.0	7.5
	20.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	13.9	7.4
	21.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.3	7.6	13.8	7.4
	23.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.1	7.5	13.7	7.3
	25.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	13.0	7.4	13.6	7.2
	27.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.9	7.3	13.4	7.2
	29.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.8	7.3	13.3	7.2
	31.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.7	7.2	12.8	6.9
	33.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.9	7.4	12.5	7.2	12.5	6.8
	35.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.8	7.4	12.4	7.1	12.3	6.7
	37.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.6	7.3	12.3	7.0	12.1	6.6
	39.0	7.7	5.9	9.1	6.5	10.5	7.1	11.2	7.2	11.4	7.1	12.2	7.0	11.9	6.6
42.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
44.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
46.0	7.7	6.0	9.1	6.6	10.4	7.2	11.2	7.3	11.4	7.1	11.6	6.6	12.0	6.6	
14.0	10.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	18.2	9.4
	12.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.9	9.2
	14.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.8	9.2
	16.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.5	9.0
	18.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	17.1	8.8
	20.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	16.8	8.7
	21.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.7	9.3	16.5	8.5
	23.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.4	9.3	16.4	8.4
	25.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.2	9.3	16.2	8.4
	27.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.1	9.2	16.1	8.4
	29.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	16.0	9.1	16.0	8.4
	31.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	15.8	9.0	15.4	8.1
	33.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.8	9.0	15.7	8.9	15.4	8.1
	35.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.7	8.9	15.1	8.6	15.1	8.1
	37.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.6	8.8	15.1	8.6	15.0	8.0
	39.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1
42.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1	
44.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1	
46.0	9.7	7.2	11.3	7.9	13.2	8.8	14.0	9.0	14.3	8.7	14.6	8.4	15.0	8.1	

7.2 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	TC	TC	TC	TC	TC
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	-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	5.36	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	8.80	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	
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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-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	5.04	5.60	5.60	5.60	5.60
	-19	-18.8	6.00	5.40	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	6.70	6.70	6.70	6.70	6.70	6.70
	-11.00	-10.50	7.00	7.00	7.00	7.00	7.00	7.00
	-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	
10.0	-20	-19.8	6.16	6.16	6.16	6.16	6.16	6.16
	-19	-18.8	6.60	6.60	6.60	6.60	6.60	6.60
	-17	-16.7	6.93	6.93	6.93	6.93	6.93	6.93
	-15	-14.7	7.15	7.15	7.15	7.15	7.15	7.15
	-13.00	-12.60	7.37	7.37	7.37	7.37	7.37	7.37
	-11.00	-10.50	7.70	7.70	7.70	7.70	7.70	7.70
	-10.00	-9.50	8.03	8.03	8.03	8.03	8.03	8.03
	-9.10	-8.50	8.25	8.25	8.25	8.25	8.25	8.25
	-7.60	-7.00	8.36	8.36	8.36	8.36	8.36	8.36
-5.60	-5.00	8.69	8.69	8.69	8.69	8.69	8.69	

	-3.70	-3.00	9.13	9.13	9.13	9.13	9.13	9.13
	-0.70	0.00	9.79	9.79	9.79	9.79	9.79	9.24
	2.20	3.00	10.34	10.34	10.34	10.34	10.12	9.24
	4.10	5.00	10.67	10.67	10.67	10.67	10.12	9.24
	6.00	7.00	11.00	11.00	11.00	10.67	10.12	9.24
	7.90	9.00	11.33	11.33	11.00	10.67	10.12	9.24
	9.80	11.00	11.66	11.66	11.00	10.67	10.12	9.24
	11.80	13.00	12.10	11.88	11.00	10.67	10.12	9.24
	13.70	15.00	12.43	11.88	11.00	10.67	10.12	9.24
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	8.38	8.38	8.38	8.38	8.38	8.38
	-11.00	-10.50	8.75	8.75	8.75	8.75	8.75	8.75
	-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
	-13.0	-12.6	10.4	10.4	10.4	10.4	10.4	10.4
	-11.0	-10.5	10.9	10.9	10.9	10.9	10.9	10.9
	-10.0	-9.5	11.3	11.3	11.3	11.3	11.3	11.3
	-9.1	-8.5	11.6	11.6	11.6	11.6	11.6	11.6
	-7.6	-7.0	11.8	11.8	11.8	11.8	11.8	11.8
	-5.6	-5.0	12.3	12.3	12.3	12.3	12.3	12.3
	-3.7	-3.0	12.9	12.9	12.9	12.9	12.9	12.9
	-0.7	0.0	13.8	13.8	13.8	13.8	13.8	13.0
	2.2	3.0	14.6	14.6	14.6	14.6	14.3	13.0
	4.1	5.0	15.0	15.0	15.0	15.0	14.3	13.0
	6.0	7.0	15.5	15.5	15.5	15.0	14.3	13.0
	7.9	9.0	16.0	16.0	15.5	15.0	14.3	13.0
	9.8	11.0	16.4	16.4	15.5	15.0	14.3	13.0
11.8	13.0	17.1	16.7	15.5	15.0	14.3	13.0	
13.7	15.0	17.5	16.7	15.5	15.0	14.3	13.0	

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D36DL/N1-B	50	220-240V	198	254	0.21	15	0.025	0.15
MDV-D45DL/N1-B	50	220-240V	198	254	0.64	15	0.055	0.57
MDV-D56DL/N1-B	50	220-240V	198	254	0.64	15	0.055	0.57
MDV-D71DL/N1-B	50	220-240V	198	254	0.64	15	0.055	0.57
MDV-D80DL/N1-B	50	220-240V	198	254	0.8	15	0.08	0.63
MDV-D90DL/N1-B	50	220-240V	198	254	0.8	15	0.08	0.63
MDV-D112DL/N1-B	50	220-240V	198	254	1.05	15	0.059*2	0.39*2
MDV-D140DL/N1-B	50	220-240V	198	254	1.05	15	0.059*2	0.39*2

Remark:

MCA: Min. CircuitAmps. (A)

MFA: Max. Fuse Amps. (A)

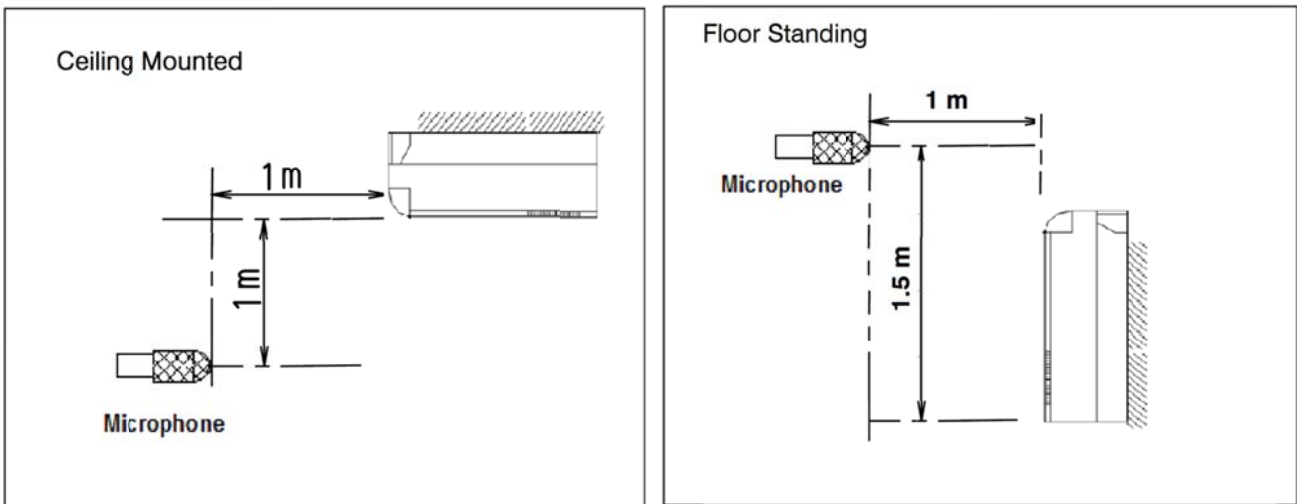
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

9. Noise Levels

9.1 Test condition



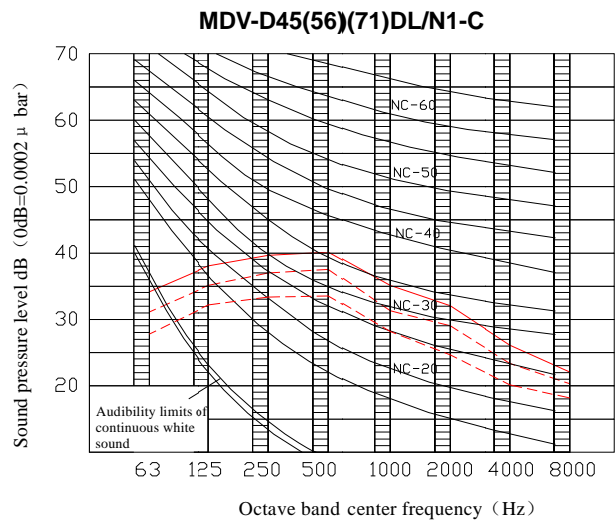
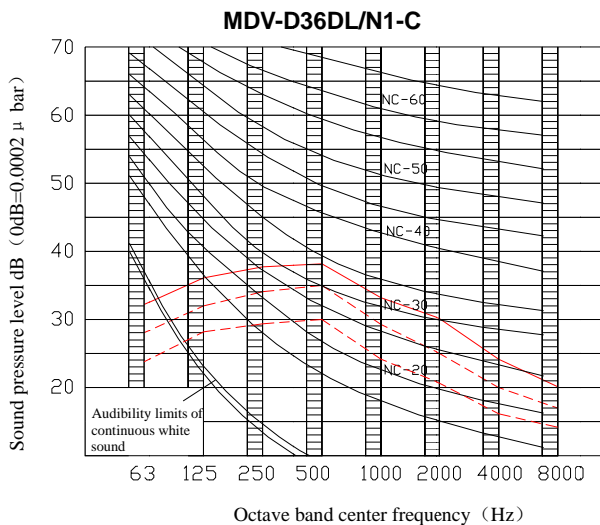
Note:

- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5m

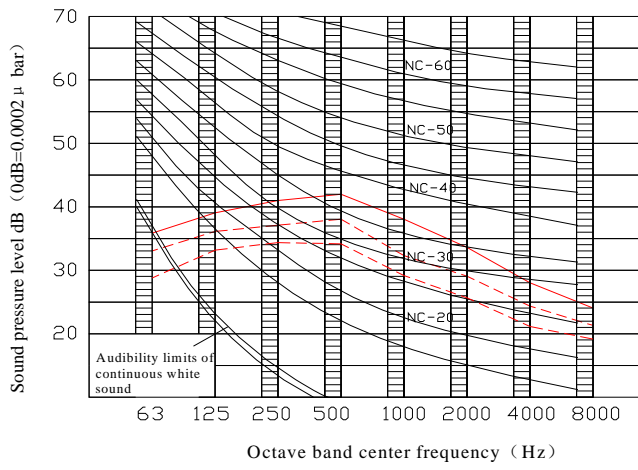
9.2 Test data (Sound Pressure Levels)

Model	Noise level under three speeds of fan (dB(A))		
	H	M	L
MDV-D36DL/N1-C	40	38	36
MDV-D45DL/N1-C	43	41	38
MDV-D56DL/N1-C	43	41	38
MDV-D71DL/N1-C	43	41	38
MDV-D80DL/N1-C	45	43	40
MDV-D90DL/N1-C	45	43	40
MDV-D112DL/N1-C	47	45	42
MDV-D140DL/N1-C	47	45	42

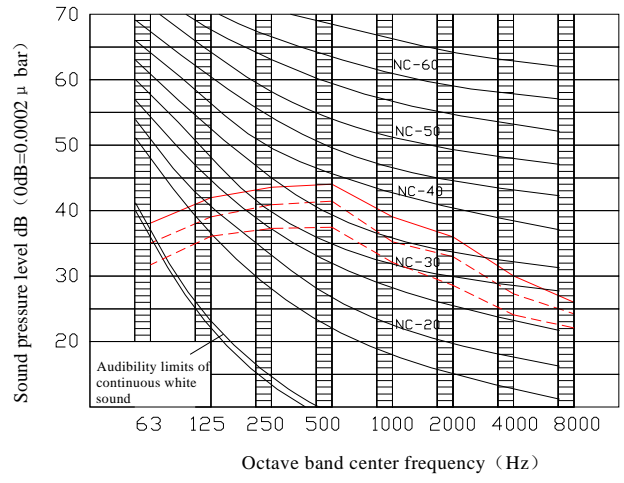
9.3 Octave Band Level



MDV-D80(90)DL/N1-C














MDV-D112(140)DL/N1-C



10. Accessories

10.1 Standard accessories

Name	Quantity	Shape	Usage
Installation manual	1	/	/
Hook	2		
Hanging arm	2		
Pipe insulation material	2		Heat insulation
Remote controller RM05	1		/
7# alkaline battery	2		/
Holder for remote controller	1		Hold the remote controller
Remoter controller manual	1		—
Mounting screw(ST2.9 10-C-H)	2		Installation Holder for remote controller
Water outlet joint	1		For drainage
Wrapping tape	1		
Network matching wire	1		The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q.

10.2 Optional accessories

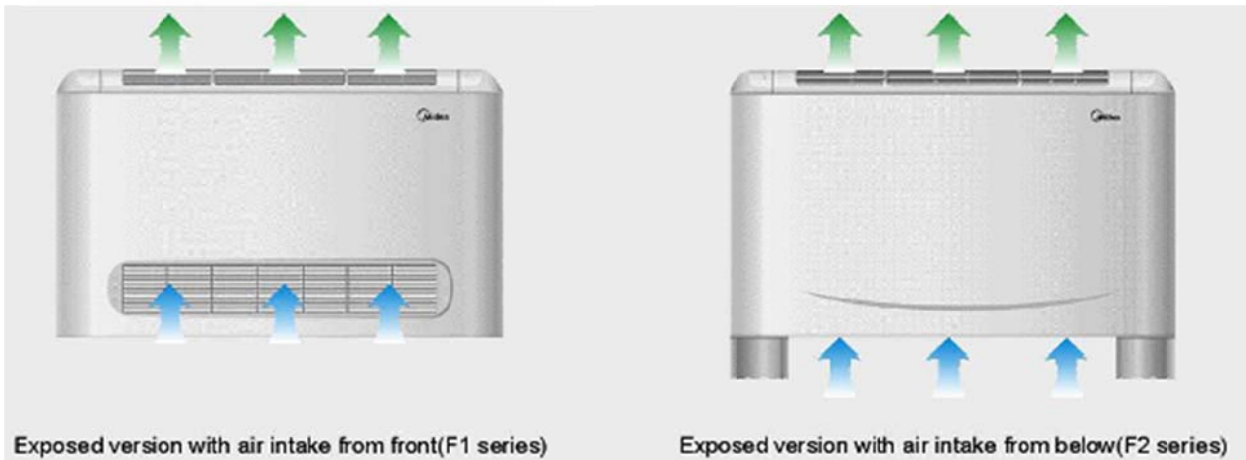
Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B
(Follow me) Wired remote controller	KJR-12B/DPBG(T)-E	203355100503	With Follow Me function, built-in sensor, and Back ground light.

Exposed & Concealed Floor Standing

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1. Feature

1.1 Exposed floor standing type



1.1.1. Easy installation

Floor standing types can be hung on the wall or installed on the floor. The former can make cleaning and maintenance much more easily. Running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

1.1.2. Easy maintenance

Filter is equipped as standard accessory; and it can be removed and cleaned easily due to Midea's sophisticated design as well as the removable blades.

Streamlined appearance makes it much more harmonious with the decoration. All metal parts are made of commercial grade galvanized steel, providing maximum protection against corrosion.

1.2. Concealed floor standing type



1.2.1. So compact that it fits into even a tiny space.

The body is concealed in the skirting-wall to pursue harmony with the interior. With 212mm depth of body dimension, it can be installed in the perimeter zone.

1.2.2. Low noise level due to special installation method for not exposed in the room space.

2. Specifications

Model			MDV-D22Z/N1-F1B	MDV-D28Z/N1-F1B	MDV-D36Z/N1-F1B
			MDV-D22Z/N1-F2B	MDV-D28Z/N1-F2B	MDV-D36Z/N1-F2B
			MDV-D22Z/N1-F3B	MDV-D28Z/N1-F3B	MDV-D36Z/N1-F3B
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz		
Cooling	Capacity	kW	2.2	2.8	3.6
	Input	W	40	46	40
	Rated current	A	0.19	0.2	0.19
Heating	Capacity	kW	2.6	3.2	4.0
	Input	W	40	46	35
	Rated current	A	0.19	0.2	0.15
Indoor fan motor	Model		YSK20-4A	YSK20-4A	YSK20-6
	Type		AC motor		
	Brand		Welling		Yongan
	Input	W	42/37/34	42/37/34	49/40/34
	Capacitor	μF	0.8	1	1.2
	Speed (hi/mid/lo)	r/min	795/753/670	935/810/720	830/750/470
	Indoor coil	Number of rows		2	2
Tube pitch(a)x row pitch(b)		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		mm	Φ9.52 Inner grooved tube		
Coil length×height×width		mm	568×254×44	568×254×44	768×254×66
Number of circuits			3	3	3
Indoor air flow (H/M/L)		m ³ /h	530/456/400	569/485/421	624/522/375
External static pressure		Pa	12	12	12
Indoor noise level (Hi/Mid/Lo)		F1B	36/33/29	36/33/29	37/34/30
		F2B	36/33/29	36/33/29	37/34/30
		F3B	36/33/29	36/33/29	37/34/30
Indoor unit	Dimension (W×H×D)	F1B	1000×625×220	1000×625×220	1200×625×220
		F2B	1000×625×220	1000×625×220	1200×625×220
		F3B	840×545×212	840×545×212	1036×212×545
	Packing (W×H×D)	F1B	1089×722×312	1089×722×312	1289×722×312
		F2B	1182×722×312	1182×722×312	1382×722×312
		F3B	925×639×305	925×639×305	1125×639×305
	Net/Gross weight	F1B	30/35	30/35	37/43
		F2B	30/38	30/38	37/46
		F3B	26/29.5	26/29.5	29.5/34
Refrigerant type			R410A		
Throttle		Type	EXV (Built-in)		
		Model	D20MISZ-1R(L)		
Design pressure		MPa	4.4/2.6		
Refrigerant piping	Liquid side/ Gas side	mm	Φ 6.35/Φ12.7	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)		
	Signal wiring	mm ²	4×0.75		
Drainage water pipe diameter		mm	ODΦ16		
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard)to set address		
Operation temp.		°C	Cooling: 17~32; Heating:10~28		

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D45Z/N1-F1B	MDV-D56Z/N1-F1B
			MDV-D45Z/N1-F2B	MDV-D56Z/N1-F2B
			MDV-D45Z/N1-F3B	MDV-D56Z/N1-F3B
Power supply		V-	220-240V, 1Ph, 50Hz	
Cooling	Capacity	kW	4.5	5.6
	Input	W	49	88
	Rated current	A	0.22	0.38
Heating	Capacity	kW	5.0	6.3
	Input	W	49	88
	Rated current	A	0.22	0.38
Indoor fan motor	Model		YSK20-6	YSK28-4E
	Type		AC motor	
	Brand		Yongan	Welling
	Input	W	49/40/34	95/77/67
	Capacitor	μF	2	2.5
	Speed (hi/mid/lo)	r/min	880/790/555	915/770/660
Indoor coil	Number of rows		3	2
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube	
	Coil length×height×width	mm	768×254×66	1068×254×44
	Number of circuits		3	4
Indoor air flow (H/M/L)		m ³ /h	660/542/440	1150/970/830
External static pressure		Pa	12	12
Indoor noise level (Hi/Mid/Lo)		F1B	37/34/30	41/35/31
		F2B	37/34/30	41/35/31
		F3B	37/34/30	41/35/31
Indoor unit	Dimension (W×H×D)	F1B	1200×625×220	1500×625×220
		F2B	1200×625×220	1500×625×220
		F3B	1036×212×545	1336×212×545
	Packing (W×H×D)	F1B	1289×722×312	1589×722×312
		F2B	1289×722×312	1682×722×312
		F3B	1125×639×305	1425×639×305
	Net/Gross weight	F1B	37/43	44/50
		F2B	37/46	44/53
		F3B	29.5/34	36/40
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ6.35/Φ12.7	Φ9.52/Φ16
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm ²	4×0.75	
Drainage water pipe diameter		mm	ODΦ16	
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard),to set address	
Operation temp.		°C	Cooling: 17~32; Heating:10~28	

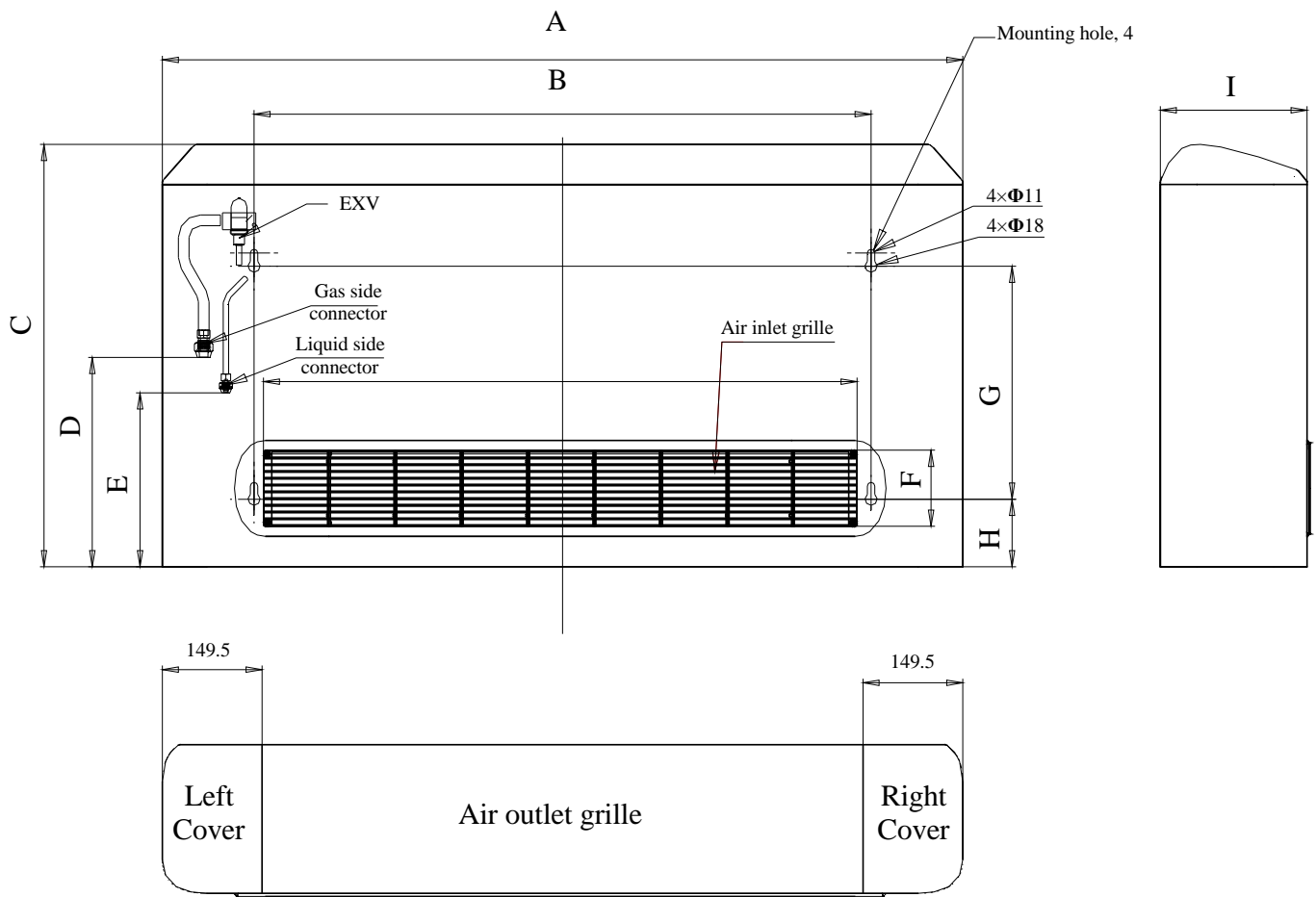
- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D71Z/N1-F1B	MDV-D80Z/N1-F1B
			MDV-D71Z/N1-F2B	MDV-D80Z/N1-F2B
			MDV-D71Z/N1-F3B	MDV-D80Z/N1-F3B
Power supply		V-	220-240V, 1Ph, 50Hz	
Cooling	Capacity	kW	7.1	8.0
	Input	W	130	130
	Rated current	A	0.57	0.57
Heating	Capacity	kW	8.0	9.0
	Input	W	130	130
	Rated current	A	0.57	0.57
Indoor fan motor	Model		YSK74-4E	YSK74-4E
	Type		AC motor	
	Brand		Yongan	Yongan
	Input	W	138.5/119/97	138.5/119/97
	Capacitor	μF	3	3
	Speed (hi/mid/lo)	r/min	1120/1020/880	1120/1020/880
Indoor coil	Number of rows		2	3
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	mm	Φ9.52 inner grooved tube	
	Coil length×height×width	mm	1068×254×44	1068×254×66
	Number of circuits		4	3
Indoor air flow (H/M/L)		m ³ /h	1380/1100/870	1380/1100/870
Indoor external static pressure (Hi)		Pa	12	12
Indoor noise level (Hi/Mid/Lo)		F1B	dB(A)	44/39/33
		F2B		44/39/33
		F3B		44/39/33
Indoor unit	Dimension (W×H×D)	F1B	mm	1500×625×220
		F2B		1500×625×220
		F3B		1336×545×212
	Packing (W×H×D)	F1B	mm	1589×722×312
		F2B		1682×722×312
		F3B		1425×639×305
	Net/Gross weight	F1B	kg	44/50
		F2B		44/53
		F3B		36/40
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ9.52/Φ16	Φ9.52/Φ16
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm ²	4*0.75	
Drainage water pipe diameter		mm	ODΦ16	
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard), to set address	
Operation temp.		°C	Cooling: 17~32; Heating:10~28	

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

3. Dimension

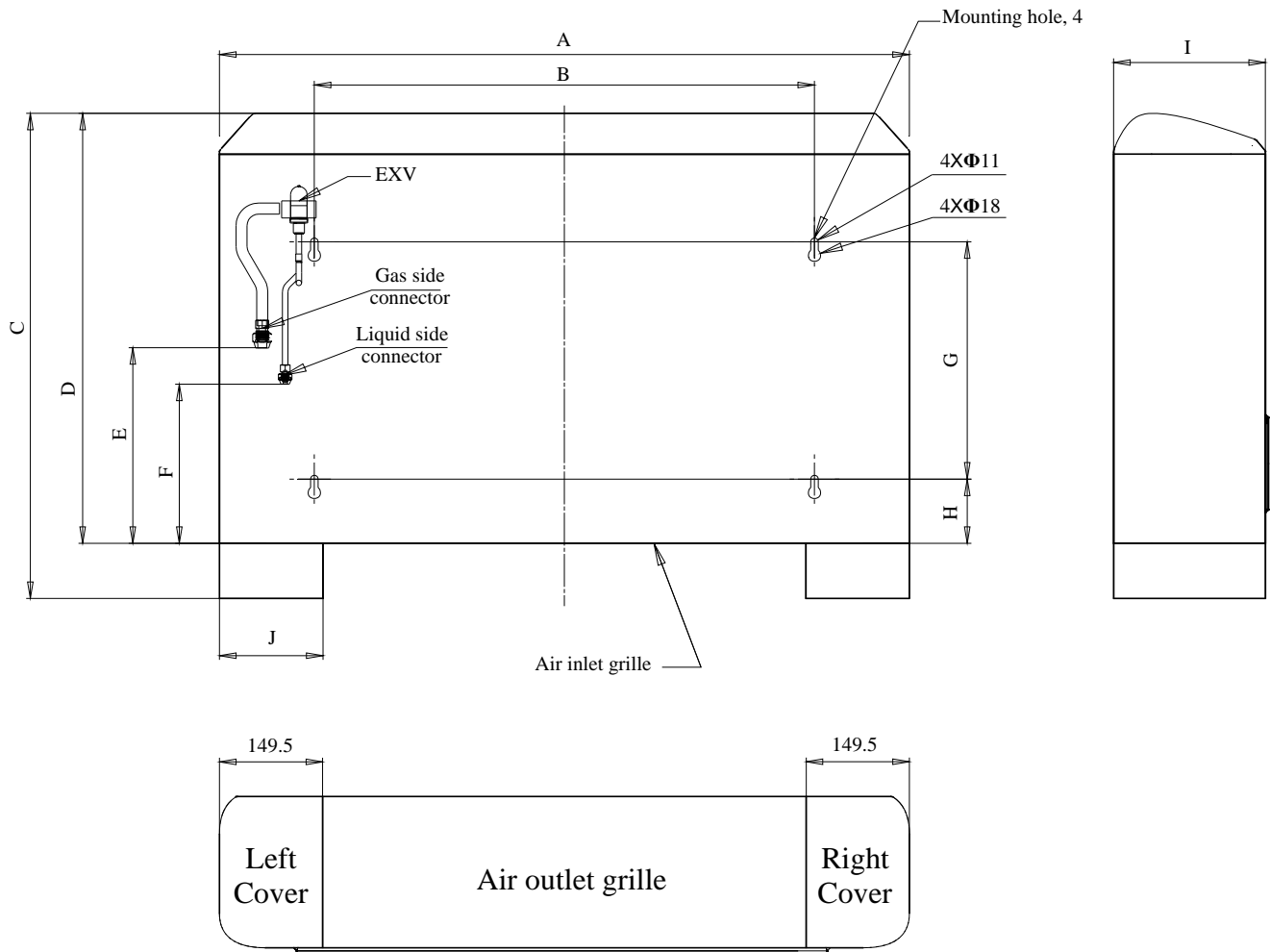
3.1 Exposed Floor-standing (air inlet from front)



Unit: mm

MODEL (MDV-D**Z/N1-F1B)	A	B	C	D	E	F	G	H	I
22	1000	725	625	284	232	112	345	94	224.5
28									
36	1200	925	625	310	258	112	345	100	220.0
45									
56	1500	1225	625	310	258	112	345	100	224.5
71									
80									

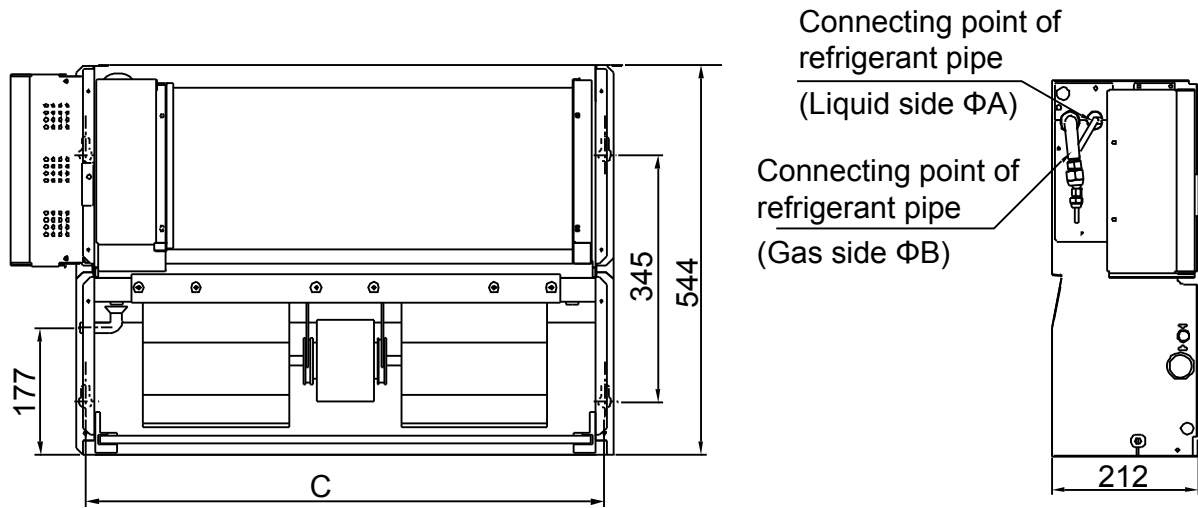
3.2 Exposed Floor-standing (air inlet from bottom)



Unit: mm

MODEL (MDV-D**Z/N1-F2B)	A	B	C	D	E	F	G	H	I	J
22	1000	725	705	625	284	232	345	94	220	150
28										
36	1200	925	705	625	310	258	345	100	220	150
45										
56	1500	1225	625	566	310	258	345	100	220	150
71										
80										

3.3 Concealed Floor-standing

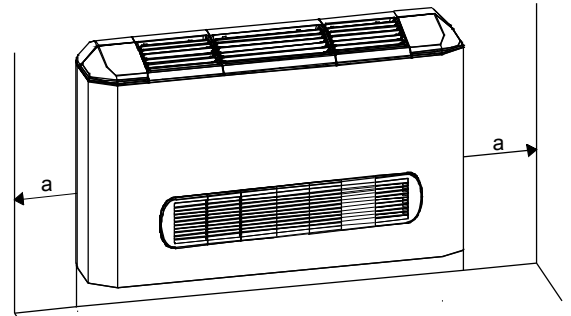


MODEL (MDV-D**Z/N1-F3B)	A	B	C (mm)
22	Φ6.4	Φ12.7	725
28			
36			
45	Φ9.5	Φ15.9	1225
56			
71			
80			

4. Service Space

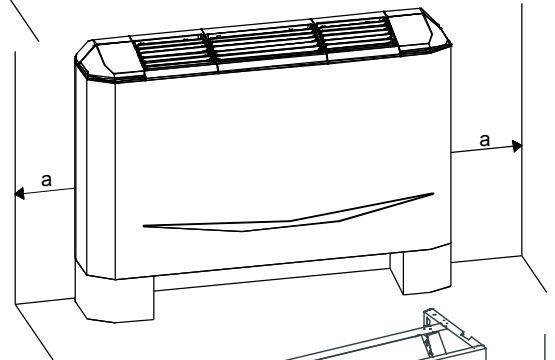
Version I (F1B series)

Vertical unit with casing , with air intake from front and air outlet on top, for installation on a wall or on feet on the floor.



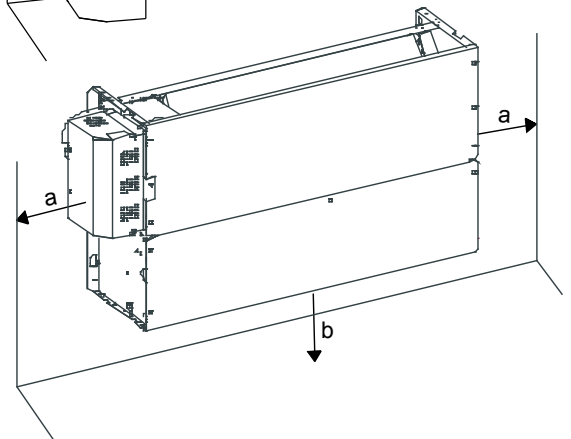
Version II (F2B series)

Vertical unit with casing , with air intake from below and air outlet on top, for installation on a wall or on feet on the floor.



Version III (F3B series)

Vertical unit for building-in, with air intake from below and air delivery at the top, for installation on a wall.

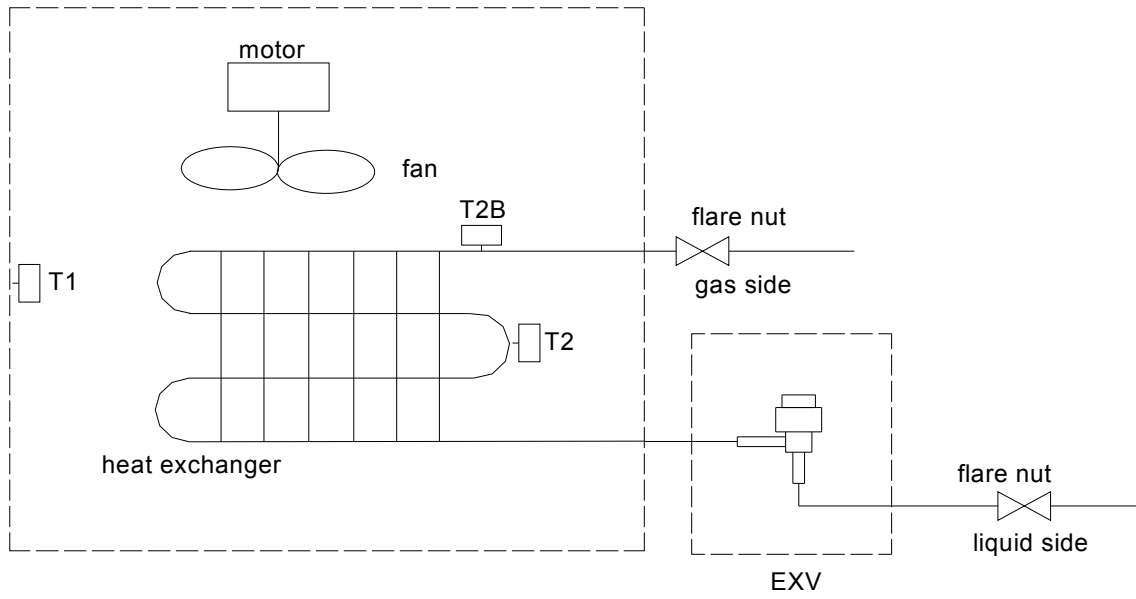


Required clearance for above 3 versions:

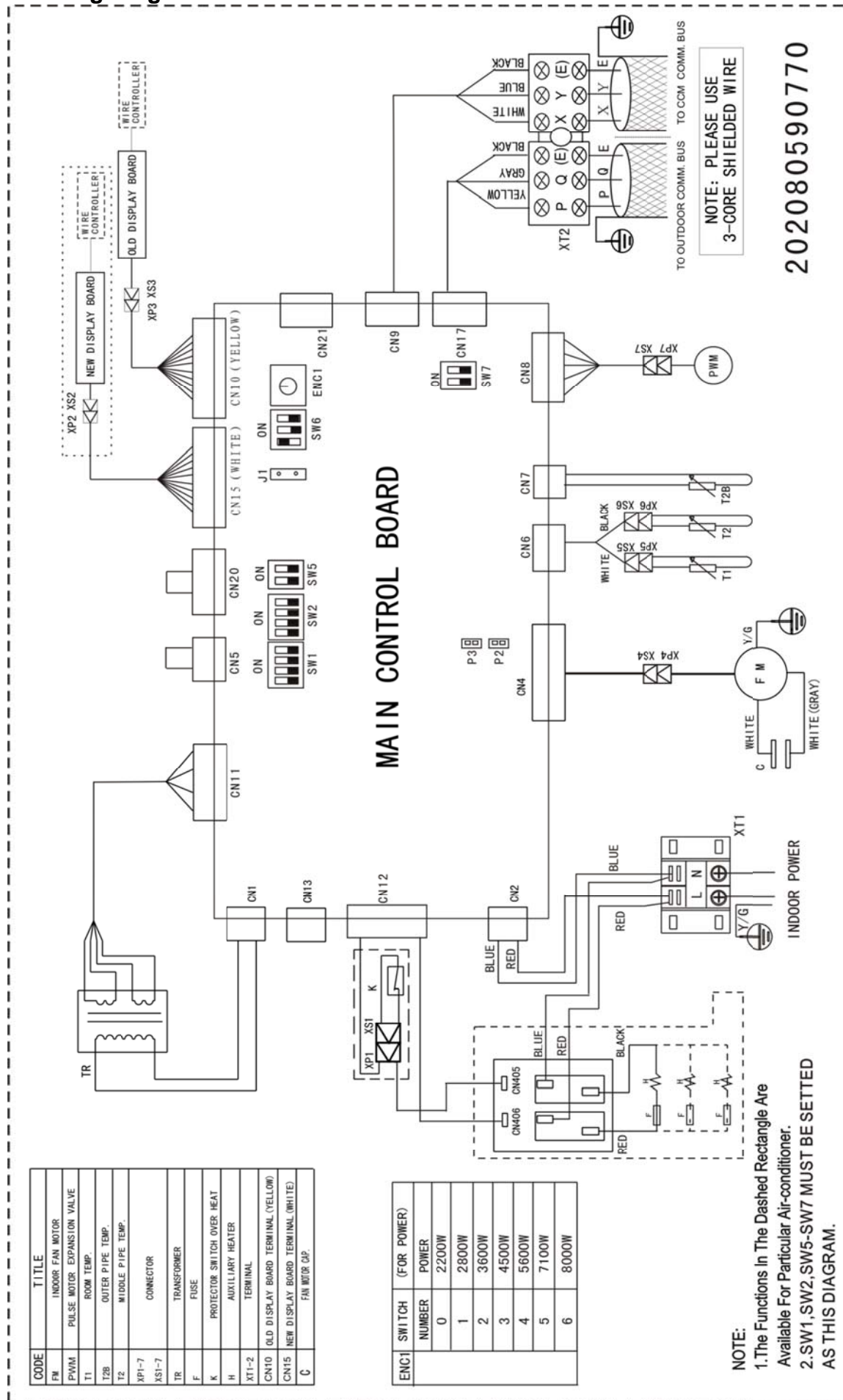
Model	Version I	Version II	Version III
a (mm)	≥150	≥150	≥200
b (mm)	-	(with bottom feet)	≥80

Additionally, it is required to keep 20mm between the rear and wall; 600mm between the front face and the obstacle. 1700mm vertical distance between the top of unit(outlet) and the upper obstacle.

5. Piping Diagrams



6. Wiring Diagram



7. Capacity Tables

7.1 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
7.1	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
8.0	10.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.4	5.6
	12.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	14.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	16.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.0	5.4
	18.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.8	5.3
	20.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.6	5.2
	21.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	23.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
25.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.3	5.0	

	27.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.1	5.3	9.2	5.1
	29.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	9.0	5.3	9.1	5.0
	31.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.9	5.2	8.8	4.8
	33.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
	35.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.6	5.1	8.6	4.8
	37.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.3	5.4	8.4	5.0	8.6	4.9
	39.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	42.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	44.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	46.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9

7.2 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
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	-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	5.36	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	8.80	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
	-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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-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
8.0	-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

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22Z/N1-F1B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D22Z/N1-F2B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D22Z/N1-F3B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D28Z/N1-F1B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D28Z/N1-F2B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D28Z/N1-F3B	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D36Z/N1-F1B	50	220-240V	198	254	0.3	15	0.049	0.24
MDV-D36Z/N1-F2B	50	220-240V	198	254	0.3	15	0.049	0.24
MDV-D36Z/N1-F3B	50	220-240V	198	254	0.3	15	0.049	0.24
MDV-D45Z/N1-F1B	50	220-240V	198	254	0.4	15	0.06	0.3
MDV-D45Z/N1-F2B	50	220-240V	198	254	0.4	15	0.06	0.3
MDV-D45Z/N1-F3B	50	220-240V	198	254	0.4	15	0.06	0.3
MDV-D56Z/N1-F1B	50	220-240V	198	254	0.6	15	0.095	0.48
MDV-D56Z/N1-F2B	50	220-240V	198	254	0.6	15	0.095	0.48
MDV-D56Z/N1-F3B	50	220-240V	198	254	0.6	15	0.095	0.48
MDV-D71Z/N1-F1B	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D71Z/N1-F2B	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D71Z/N1-F3B	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D80Z/N1-F1B	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D80Z/N1-F2B	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D80Z/N1-F3B	50	220-240V	198	254	0.8	15	0.138	0.62

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

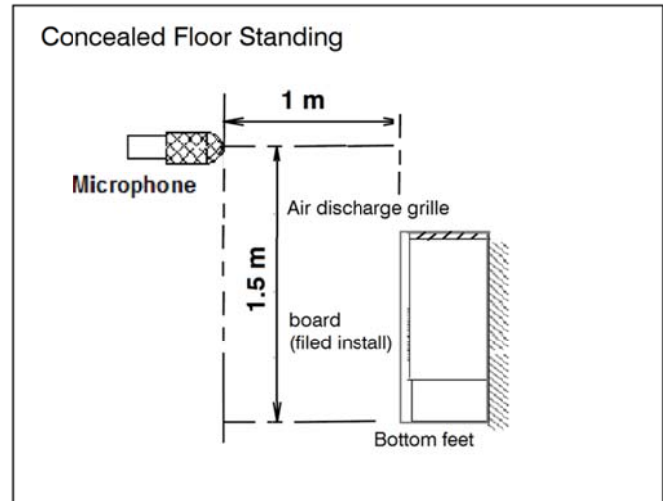
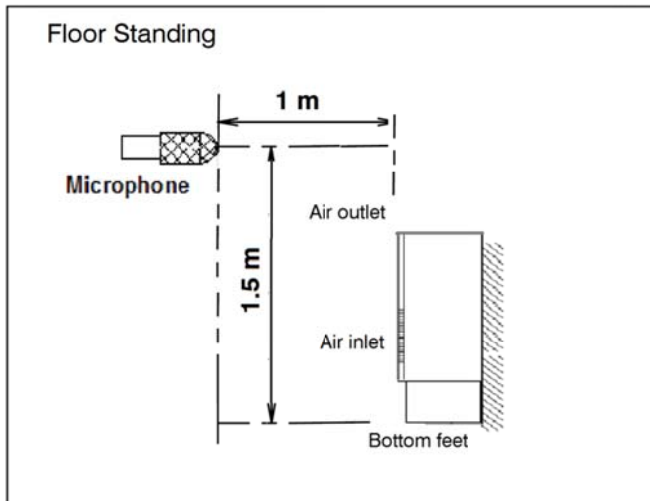
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Noise Levels

9.1 Test condition



Note:

- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5m

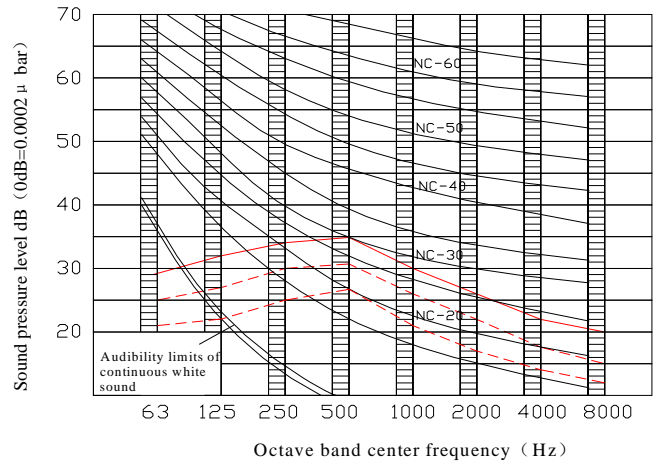
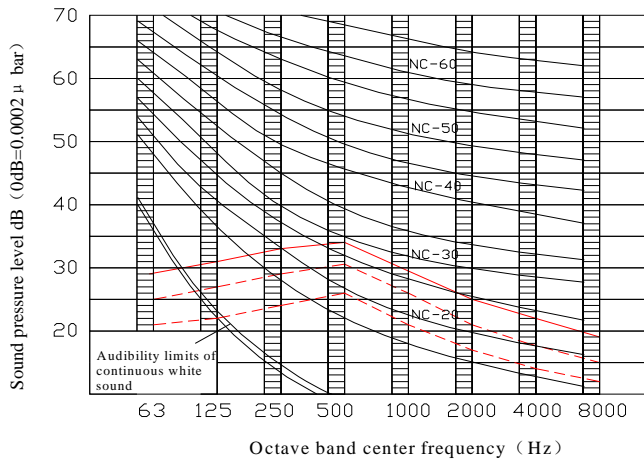
9.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22Z/N1-F1B	36	33	29
MDV-D22Z/N1-F2B	36	33	29
MDV-D22Z/N1-F3B	36	33	29
MDV-D28Z/N1-F1B	36	33	29
MDV-D28Z/N1-F2B	36	33	29
MDV-D28Z/N1-F3B	36	33	29
MDV-D36Z/N1-F1B	37	34	30
MDV-D36Z/N1-F2B	37	34	30
MDV-D36Z/N1-F3B	37	34	30
MDV-D45Z/N1-F1B	37	34	30
MDV-D45Z/N1-F2B	37	34	30
MDV-D45Z/N1-F3B	37	34	30
MDV-D56Z/N1-F1B	41	35	31
MDV-D56Z/N1-F2B	41	35	31
MDV-D56Z/N1-F3B	41	35	31
MDV-D71Z/N1-F1B	44	39	33
MDV-D71Z/N1-F2B	44	39	33
MDV-D71Z/N1-F3B	44	39	33
MDV-D80Z/N1-F1B	44	39	33
MDV-D80Z/N1-F2B	44	39	33
MDV-D80Z/N1-F3B	44	39	33

9.3 Octave Band Level

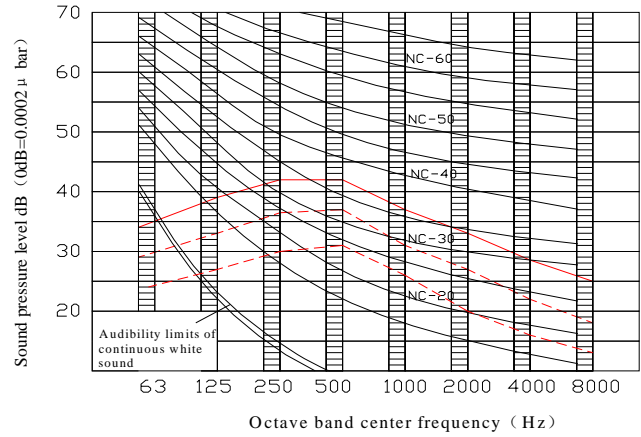
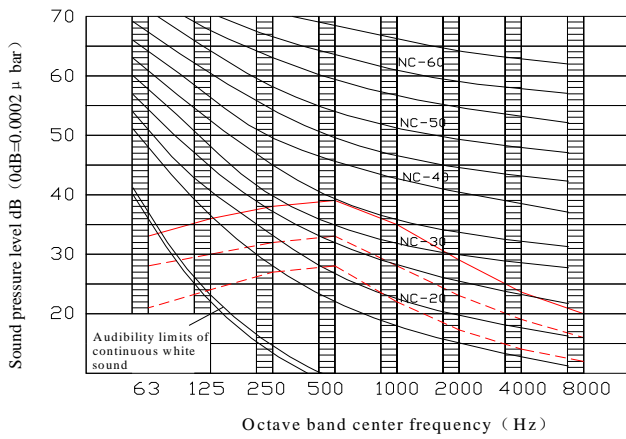
MDV-D22Z/N1-F1B MDV-D22Z/N1-F2B
 MDV-D22Z/N1-F3B MDV-D28Z/N1-F1B
 MDV-D28Z/N1-F2B MDV-D28Z/N1-F3B

MDV-D36Z/N1-F1B MDV-D36Z/N1-F2B
 MDV-D36Z/N1-F3B MDV-D45Z/N1-F1B
 MDV-D45Z/N1-F2B MDV-D45Z/N1-F3B




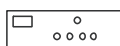





MDV-D56Z/N1-F1B MDV-D56Z/N1-F2B
 MDV-D56Z/N1-F3B

MDV-D71Z/N1-F1B MDV-D71Z/N1-F2B
 MDV-D71Z/N1-F3B MDV-D80Z/N1-F1B
 MDV-D80Z/N1-F2B MDV-D80Z/N1-F3B



10. Accessories

10.1 Standard accessories

Name	Quantity	Shape	Usage
Owner's manual	1	/	/
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Signal receiver display board	1		Receive signals
Mounting screw(ST3.9x12-C-H)	4		/
Remote controller	1		Control the indoor units
Remote controller holder	1		For holding the remote controller
Mounting screw (ST2.9x10-C-H)	2		/
Alkaline dry batteries(AM4)	2		/

10.1 Optional accessories

Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B/DP(T)-E
(Follow me) Wired remote controller (Back ground light)	KJR-12B/DPBG(T)-E	203355100010	With background light, all others are same as KJR-12B/DP(T)-E

New Exposed Floor Standing

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1. Feature

1.1 Exposed floor standing type



New designed exterior casing, Streamlined appearances, flowing lines. More elegant appearance and create more comforts by the flat air outlet.

1.2 Lower noise

Flat shape air outlet, three speeds adjustment. Smoother airflow with less turbulence.

Adoption of the built-in Fujikoki brand electronic expansion valve, ensure precise flow control, as well lower modulation noise when EXV operating.

1.3 Easy Installation

Floor standing types can be hung on the wall or installed on the floor. The former can make cleaning and maintenance much more easily. Running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

1.4 Easy maintenance

Filter is equipped as standard accessory; and it can be removed and cleaned easily due to Midea's sophisticated design as well as the removable blades.

Streamlined appearance makes it much more harmonious with the decoration. All metal parts are made of commercial grade galvanized steel, providing maximum protection against corrosion.

2. Specifications

Model			MDV-D22Z/N1-F4	MDV-D28Z/N1-F4	MDV-D36Z/N1-F4	
			MDV-D22Z/N1-F5	MDV-D28Z/N1-F5	MDV-D36Z/N1-F5	
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz			
Cooling	Capacity	kW	2.2	2.8	3.6	
	Input	W	40	46	55	
	Rated current	A	0.19	0.2	0.19	
Heating	Capacity	kW	2.4	3.2	4.0	
	Input	W	40	46	46	
	Rated current	A	0.19	0.2	0.15	
Indoor fan motor	Model		YSK20-4A	YSK20-4A	YSK20-6	
	Type		AC motor			
	Brand		Welling	Yongan		
	Input	W	40	42	49	
	Capacitor	μF	0.8	1	1.2	
	Speed (hi/mid/lo)	r/min	870/745/660	935/810/720	750/645/500	
Indoor coil	Number of rows		2	2	3	
	Tube pitch(a)x row pitch(b)	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	mm	Φ9.52 Inner grooved tube			
	Coil length×height×width	mm	568×254×44	568×254×44	768×254×66	
	Number of circuits		3	3	3	
Indoor air flow (H/M/L)		m ³ /h	530/456/400	569/485/421	624/522/375	
Indoor external static pressure (Hi)		Pa	12	12	12	
Indoor noise level (Hi/Mid/Lo)	F4	dB(A)	36/33/29	36/33/29	37/34/30	
	F5		36/33/29	36/33/29	37/34/30	
Indoor unit	Dimension (W×H×D)	F4	mm	1000×625×220	1000×625×220	1200×625×220
		F5		1000×625×220	1000×625×220	1200×625×220
	Packing (W×H×D)	F4	mm	1089×722×312	1089×722×312	1289×722×312
		F5		1182×722×312	1182×722×312	1382×722×312
	Net/Gross weight	F4	kg	30/35	30/35	37/43
		F5		30/38	30/38	37/46
Refrigerant type			R410A			
Throttle		Type	EXV (Built-in)			
		Model	D20MISZ-1R(L)			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas	mm	Φ 6.35/Φ12.7	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)			
	Signal wiring	mm ²	3×0.75			
Drainage water pipe diameter		mm	ODΦ16			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard) to set address			
Operation temp.		°C	Cooling: 17~32; Heating:10~28			

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

Model			MDV-D45Z/N1-F4	MDV-D56Z/N1-F4
			MDV-D45Z/N1-F5	MDV-D56Z/N1-F5
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz	
Cooling	Capacity	kW	4.5	5.6
	Input	W	49	88
	Rated current	A	0.22	0.38
Heating	Capacity	kW	5.0	6.3
	Input	W	49	88
	Rated current	A	0.22	0.38
Indoor fan motor	Model		YSK20-6	YSK28-4E
	Type		AC motor	
	Brand		Yongan	Welling
	Input	W	49	95
	Capacitor	μF	2	2.5
	Speed (hi/mid/lo)	r/min	820/745/600	915/770/660
Indoor coil	Number of rows		3	2
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube	
	Coil length×height×width	mm	768×254×66	1068×254×44
	Number of circuits		3	4
Indoor air flow (H/M/L)		m ³ /h	660/542/440	1150/970/830
Indoor external static pressure (Hi)		Pa	12	12
Indoor noise level (Hi/Mid/Lo)		F4	37/34/30	41/35/31
		F5	37/34/30	41/35/31
Indoor unit	Dimension (W×H×D)	F4	1200×625×220	1500×625×220
		F5	1200×625×220	1500×625×220
	Packing (W×H×D)	F4	1289×722×312	1589×722×312
		F5	1382×722×312	1682×312×722
	Net/Gross weight	F4	37/43	44/50
		F5	37/46	44/53
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ6.35/Φ12.7	Φ9.52/Φ16
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		mm	ODΦ16	
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard) to set address	
Operation temp.		°C	Cooling: 17~32; Heating:10~28	

- Notes:**
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
 - Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

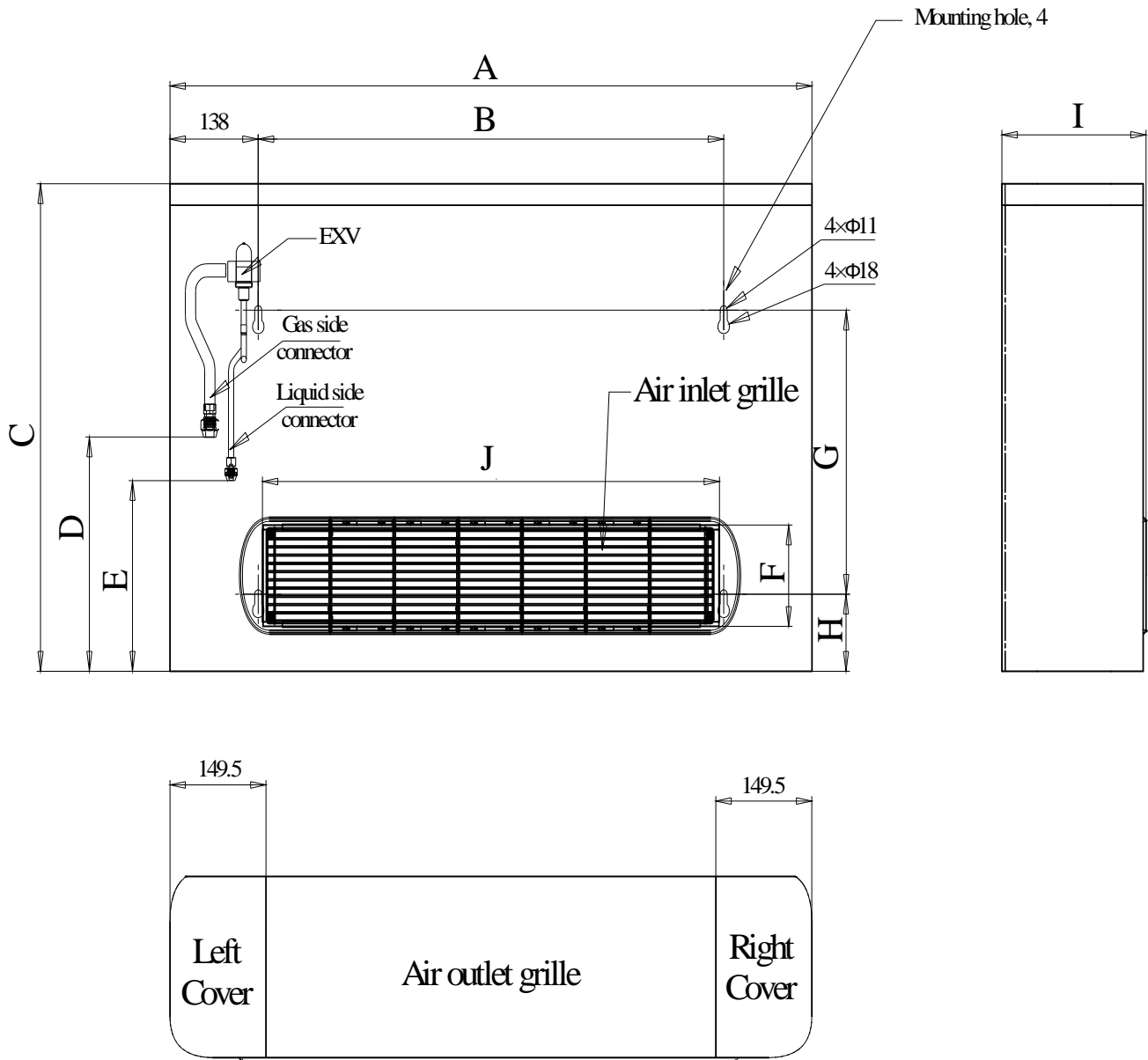
Model			MDV-D71Z/N1-F4	MDV-D80Z/N1-F4
			MDV-D71Z/N1-F5	MDV-D80Z/N1-F5
Power supply		V-	220-240V, 1Ph, 50Hz	
Cooling	Capacity	kW	7.1	8.0
	Input	W	130	130
	Rated current	A	0.57	0.57
Heating	Capacity	kW	8.0	9.0
	Input	W	130	130
	Rated current	A	0.57	0.57
Indoor fan motor	Model		YSK74-4E	YSK74-4E
	Type		AC motor	
	Brand		Yongan	Yongan
	Input	W	138.5	138.5
	Capacitor	μF	3	3
	Speed (hi/mid/lo)	r/min	1120/1020/880	1120/1020/880
Indoor coil	Number of rows		2	3
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	mm	Φ9.52 inner grooved tube	
	Coil length×height×width	mm	1068×254×44	1068×254×66
	Number of circuits		4	3
Indoor air flow (H/M/L)		m ³ /h	1380/1100/870	1380/1100/870
Indoor external static pressure (Hi)		Pa	12	12
Indoor noise level (Hi/Mid/Lo)	F4	dB(A)	44/39/33	44/39/33
	F5		44/39/33	44/39/33
Indoor unit	Dimension (W×H×D)	F4	1500×625×220	1500×625×220
		F5	1500×625×220	1500×625×220
	Packing (W×H×D)	F4	1589×722×312	1589×722×312
		F5	1682×722×312	1682×312×722
	Net/Gross weight	F4	44/50	44/50
		F5	44/53	44/53
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.52/Φ16	Φ9.52/Φ16
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		mm	ODΦ16	
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set	
Operation temp.		°C	Cooling: 17~30; Heating:10~28	

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

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

3. Dimension

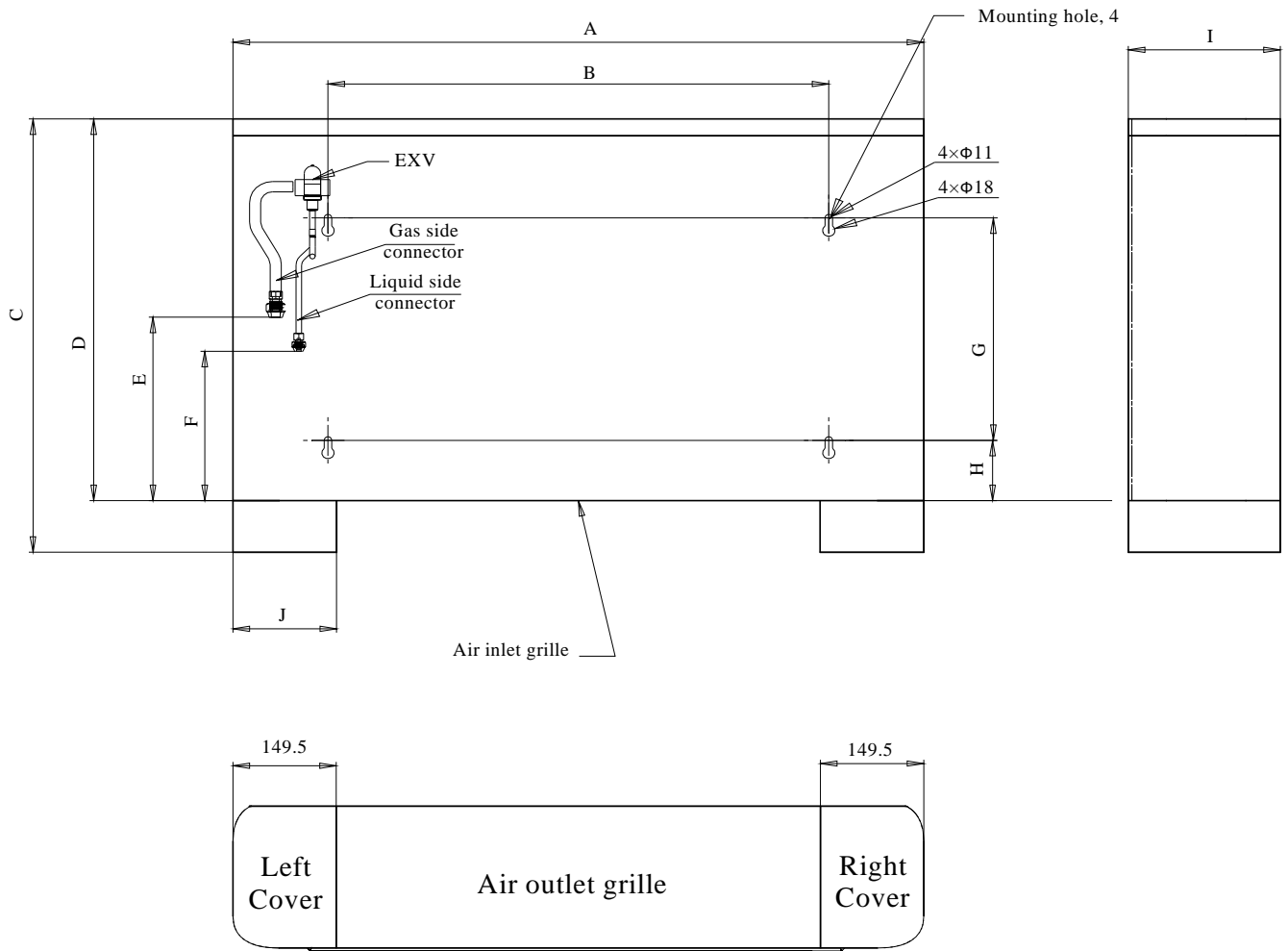
3.1 Exposed Floor-standing (air inlet from front)



Unit: mm

MODEL (MDV-D**Z/N1-F4)	A	B	C	D	E	F	G	H	I
22	1000	725	625	284	232	112	345	94	224.5
28									
36	1200	925	625	310	258	112	345	100	224.5
45									
56	1500	1225	625	310	258	112	345	100	224.5
71									
80									

3.2 Exposed Floor-standing (air inlet from bottom)



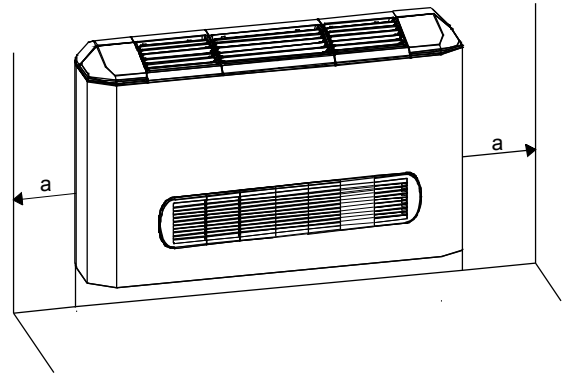
Unit: mm

MODEL (MDV-D**Z/N1-F5)	A	B	C	D	E	F	G	H	I	J
22	1000	725	672	592	284	232	345	94	220	150
28										
36	1200	925	672	592	310	258	345	100	220	150
45										
56	1500	1225	672	592	310	258	345	100	220	150
71										
80										

4. Service Space

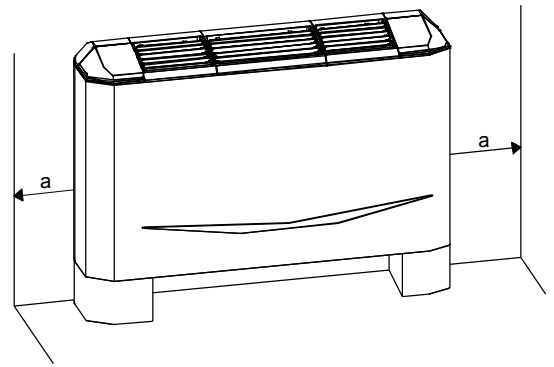
Version I (F4 series)

Vertical unit with casing , with air intake from front and air outlet on top, for installation on a wall or on feet on the floor.



Version II (F5 series)

Vertical unit with casing , with air intake from below and air outlet on top, for installation on a wall or on feet on the floor.

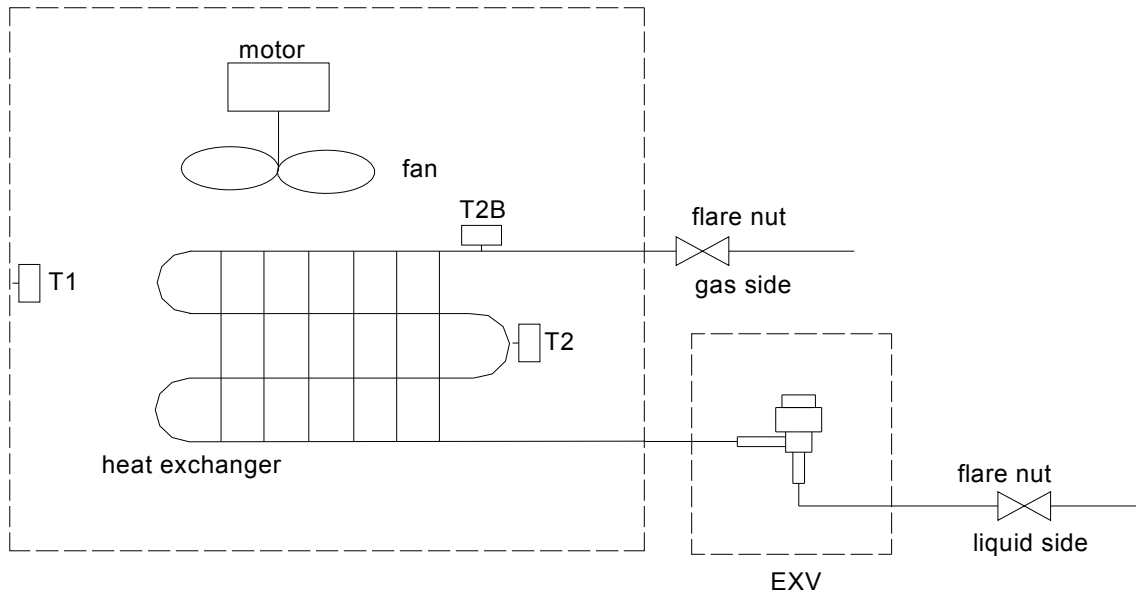


Required clearance for above 3 versions:

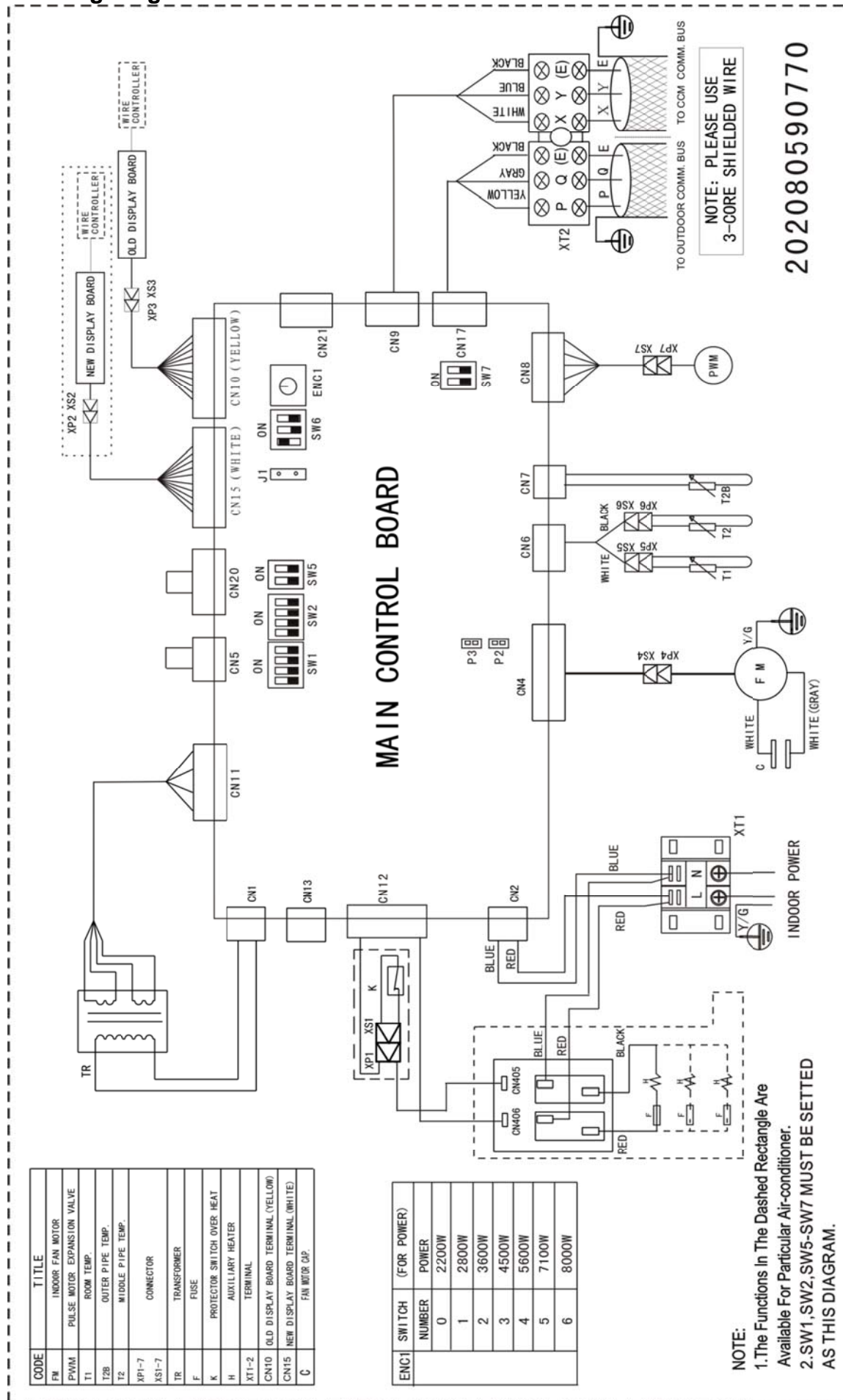
Model	Version I	Version II
a (mm)	≥150	≥150
b (mm)	-	(with bottom feet)

Additionally, it is required to keep 20mm between the rear and wall; 600mm between the front face and the obstacle. 1700mm vertical distance between the top of unit(outlet) and the upper obstacle.

5. Piping Diagrams



6. Wiring Diagram



7. Capacity Tables

7.1 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
7.1	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0	
8.0	10.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.4	5.6
	12.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	14.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	16.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.0	5.4
	18.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.8	5.3
	20.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.6	5.2
	21.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	23.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
25.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.3	5.0	

27.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.1	5.3	9.2	5.1
29.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	9.0	5.3	9.1	5.0
31.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.9	5.2	8.8	4.8
33.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
35.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.6	5.1	8.6	4.8
37.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.3	5.4	8.4	5.0	8.6	4.9
39.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
42.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
44.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
46.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9

7.2 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	TC	TC	TC	TC	TC
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-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	-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	5.36	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	8.80	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	

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	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-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	

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22Z/N1-F4	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D22Z/N1-F5	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D28Z/N1-F4	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D28Z/N1-F5	50	220-240V	198	254	0.25	15	0.042	0.2
MDV-D36Z/N1-F4	50	220-240V	198	254	0.3	15	0.049	0.24
MDV-D36Z/N1-F5	50	220-240V	198	254	0.3	15	0.049	0.24
MDV-D45Z/N1-F4	50	220-240V	198	254	0.4	15	0.06	0.3
MDV-D56Z/N1-F4	50	220-240V	198	254	0.6	15	0.095	0.48
MDV-D56Z/N1-F5	50	220-240V	198	254	0.6	15	0.095	0.48
MDV-D71Z/N1-F4	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D71Z/N1-F5	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D80Z/N1-F4	50	220-240V	198	254	0.8	15	0.138	0.62
MDV-D80Z/N1-F5	50	220-240V	198	254	0.8	15	0.138	0.62

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

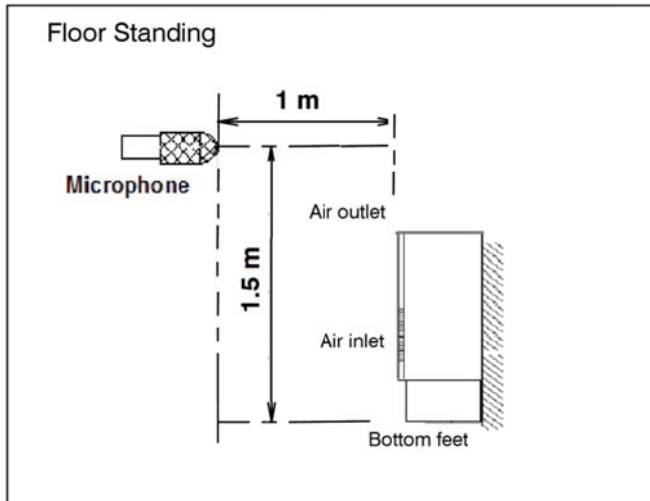
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Noise Levels

9.1 Test condition



Note:

- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5m

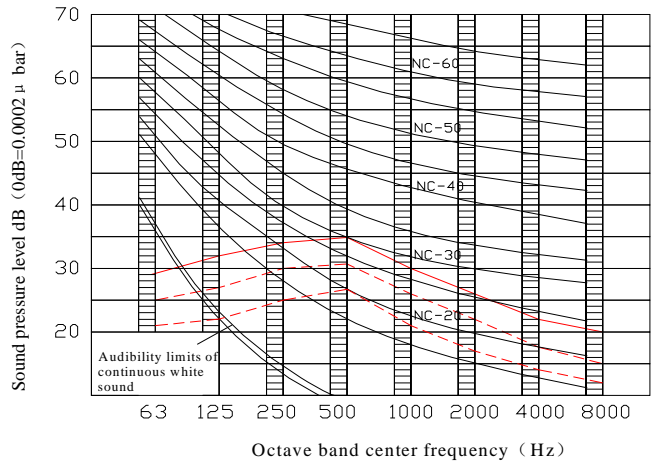
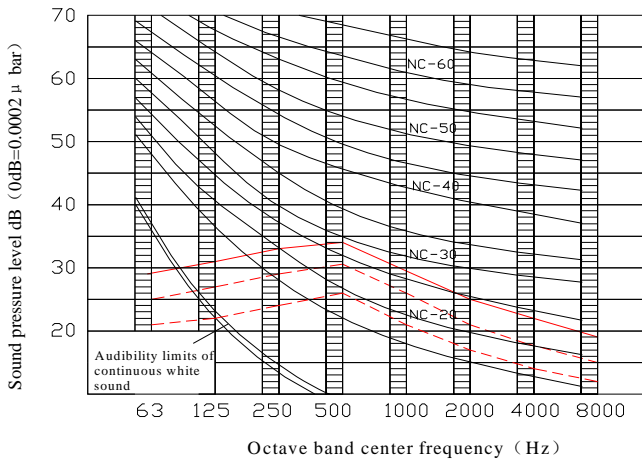
9.2 Test value

Model	Noise test value dB(A)		
	Hi	Mid	Low
MDV-D22Z/N1-F4	36	33	29
MDV-D22Z/N1-F5	36	33	29
MDV-D28Z/N1-F4	36	33	29
MDV-D28Z/N1-F5	36	33	29
MDV-D36Z/N1-F4	37	34	30
MDV-D36Z/N1-F5	37	34	30
MDV-D45Z/N1-F4	37	34	30
MDV-D45Z/N1-F5	37	34	30
MDV-D56Z/N1-F4	41	35	31
MDV-D56Z/N1-F5	41	35	31
MDV-D71Z/N1-F4	44	39	33
MDV-D71Z/N1-F5	44	39	33
MDV-D80Z/N1-F4	44	39	33
MDV-D80Z/N1-F5	44	39	33

9.3 Octave Band Level

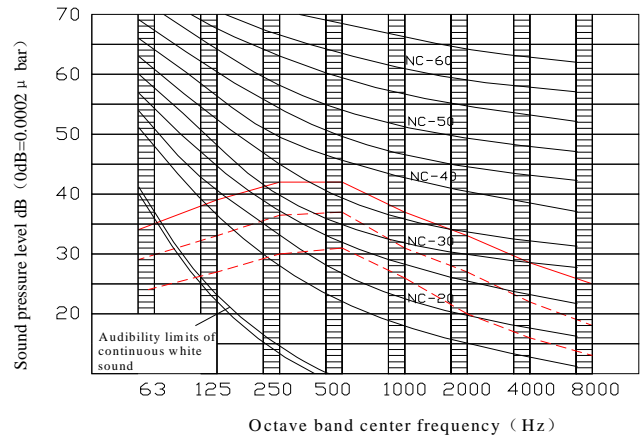
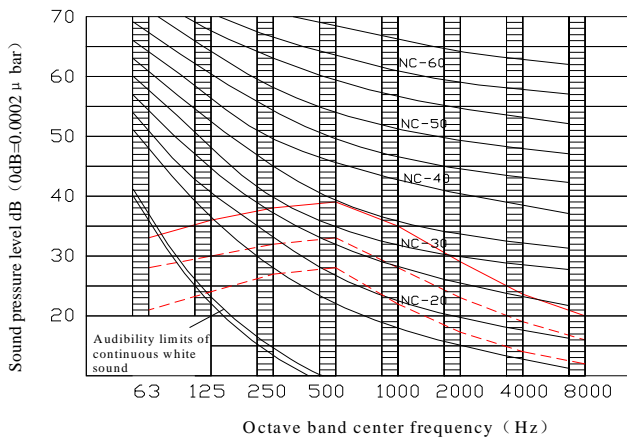
MDV-D22Z/N1-F4 MDV-D22Z/N1-F5
 MDV-D28Z/N1-F4 MDV-D28Z/N1-F5

MDV-D36Z/N1-F4 MDV-D36Z/N1-F5
 MDV-D45Z/N1-F4 MDV-D45Z/N1-F5










MDV-D56Z/N1-F4 MDV-D56Z/N1-F5

MDV-D71Z/N1-F4 MDV-D71Z/N1-F5
 MDV-D80Z/N1-F4 MDV-D80Z/N1-F5



10. Accessories

10.1 Standard accessories

Name	Quantity	Shape	Usage
Owner's manual	1	/	/
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Signal receiver display board	1		Receive signals
Mounting screw(ST3.9x12-C-H)	4		/
Remote controller	1		Control the indoor units
Remote controller holder	1		For holding the remote controller
Mounting screw (ST2.9x10-C-H)	2		/
Alkaline dry batteries(AM4)	2		/

10.1 Optional accessories

Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B
(Follow me) Wired remote controller (Back ground light)	KJR-12B/DPBG(T)-E	203355100010	With background light, all others are same as KJR-12B/DP(T)-E

Console Type

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1. Feature

1.1 Console type



1.2 Compact unit body, space saving, nice-looking appearance

1.2.1. this unit body is very thin and harmonious with room. It is elegant and space saving.

1.2.2. The EXV is fixed inside of the indoor unit, Compact unit body.

1.3 Flexible installation.

1.3.1. Can be used for floor standing or lower wall applications

1.3.2. As a floor standing type, it can be semi or fully recessed without loss of capacity.

1.4 High efficiency filter

1.4.1. Built in Formaldehyde nemesis filter

1.4.2. Active-carbon and biological anti-virus filter is optional.

1.5 High Comfort

1.5.1. Flexible air blow: vertical auto swing and wide angle louvers ensure that warm air reaches the furthest corners of the room and increase the air flow coverage

1.5.2. Indoor unit adopts DC motor which has five level fan speed meet different requirements.

1.5.3. Low noise operation, lowest to 26dB(A)

1.5.4. Adoption of the Fujikoki brand mechanical expansion valve which has 2000 stages element positioning, ensure precise flow control, as well lower modulation noise when EXV operating.

1.6 Powerful mode can be selected for rapid cooling or heating.

COOLING MODE



Quick cooling



to maintain temp.

HEATING MODE



anti-cold air



normal operation

Air outlet from 2 optional directions:

Quick cooling mode: air supplying from both top and bottom

Normal cooling mode: from top only

Normal heating mode: air supplying from both top and bottom

Anti-cold fan mode: from top only

Air inlet from 4 directions:

Bottom, Top, and right/left side, for better ventilation.

1.7 Easy cleaning grille and convenient maintenance

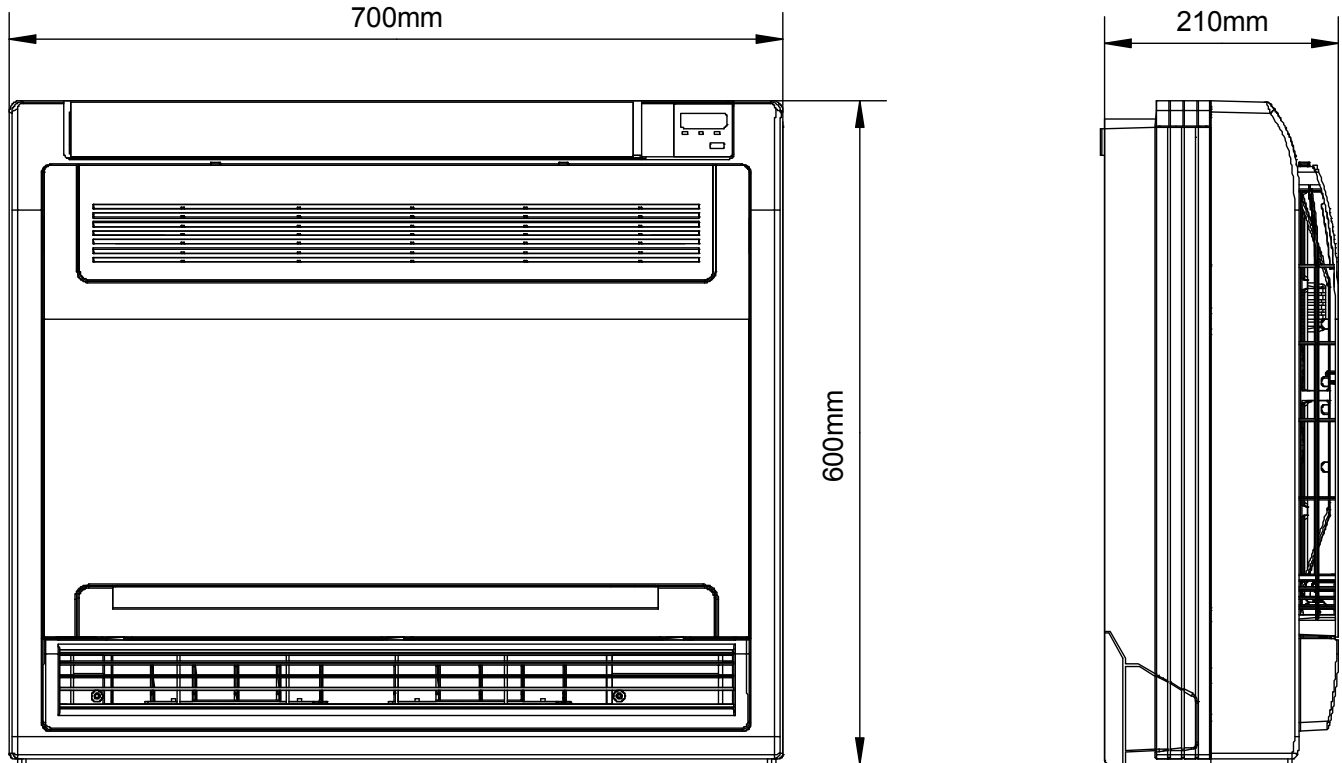
2. Specifications

Model			MDV-D22Z/DN-B	MDV-D28Z/DN-B	MDV-D36Z/DN-B	MDV-D45Z/DN-B
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	2.2	2.8	3.6	4.5
	Input	W	20	25	25	45
	Rated current	A	0.09	0.11	0.11	0.20
Heating	Capacity	kW	2.6	3.2	4.0	5.0
	Input	W	20	25	25	45
	Rated current	A	0.09	0.11	0.11	0.20
Indoor fan motor	Model		RD-280-20-8A	RD-280-20-8A	RD-280-20-8A	RD-280-20-8A
	Type		DC brushless motor			
	Brand		Welling			
	Input	W	16.8	19.5	19.5	30.5
	Speed (hi/mid/lo)	r/min	560/530/460	610/560/460	610/560/460	780/680/530
Indoor coil	Number of rows		1	1.5	2	2
	Tube pitch(a)*row pitch(b)	mm	21*13.37	21*13.37	21*13.37	21*13.37
	Fin spacing	mm	1.3	1.3	1.3	1.3
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ7 Inner groove tube			
	Coil length* height *width	mm	512*318*22	512*318*44	512*318*44	512*318*44
	Number of circuits		1	2	2	2
Indoor air flow (H/M/L)		m ³ /h	430/345/229	510/430/229	510/430/229	660/512/400
Indoor noise level		dB(A)	38/32/26	39/33/27	39/33/27	42/39/36
Indoor unit	Dimension (W×H×D)	mm	700*600*210			
	Packing (W×H×D)	mm	810*710*305			
	Net/Gross weight	kg	14/19	15/20	15/20	15/20
Refrigerant type			R410A			
Throttle	Type		EXV (Mechanical gear modulation, Integrated with the evaporator)			
	Model		EFM-25YGMISZ-6M-A (Fujikoki)			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7
Connecting wiring	Power wiring	mm ²	3*2.5			
	Signal wiring	mm ²	4*0.75			
Drainage water pipe diameter			Φ16 (outer dia.)			
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

- Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.:35°CDB,equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB,outdoor temp.: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

3. Dimension

MDV-D22Z/DN-B MDV-D28Z/DN-B MDV-D36Z/DN-B MDV-D45Z/DN-B



Main dimension:

Outer Length: 700mm, Height: 600mm, Depth: 210mm

Filter length: 550mm

Gas tube: $\Phi 12.7\text{mm}$

Liquid tube: $\Phi 6.35\text{mm}$

4. Service Space

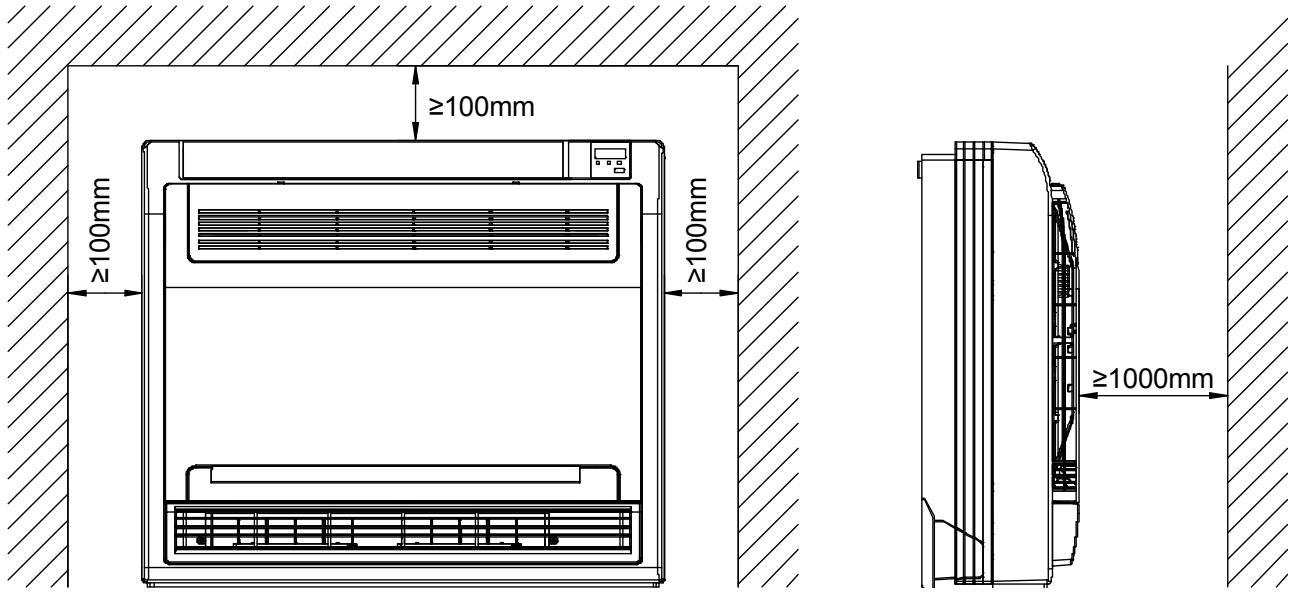
There is enough room for installation and maintenance.

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.

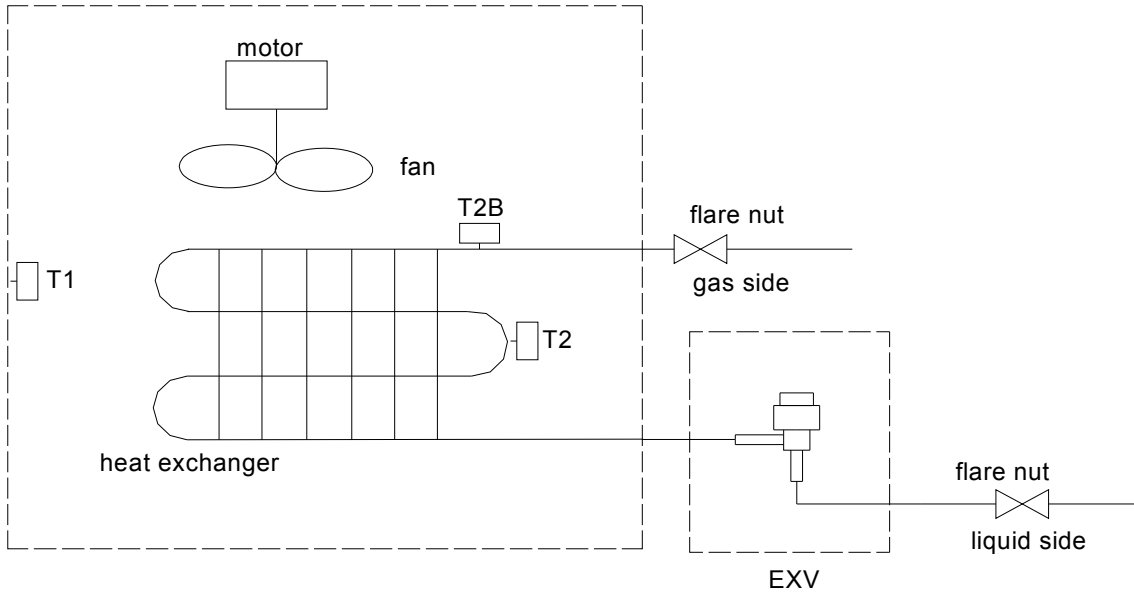
The connecting pipe and drainpipe could be extracted out easily.

There is no direct radiation from heaters.

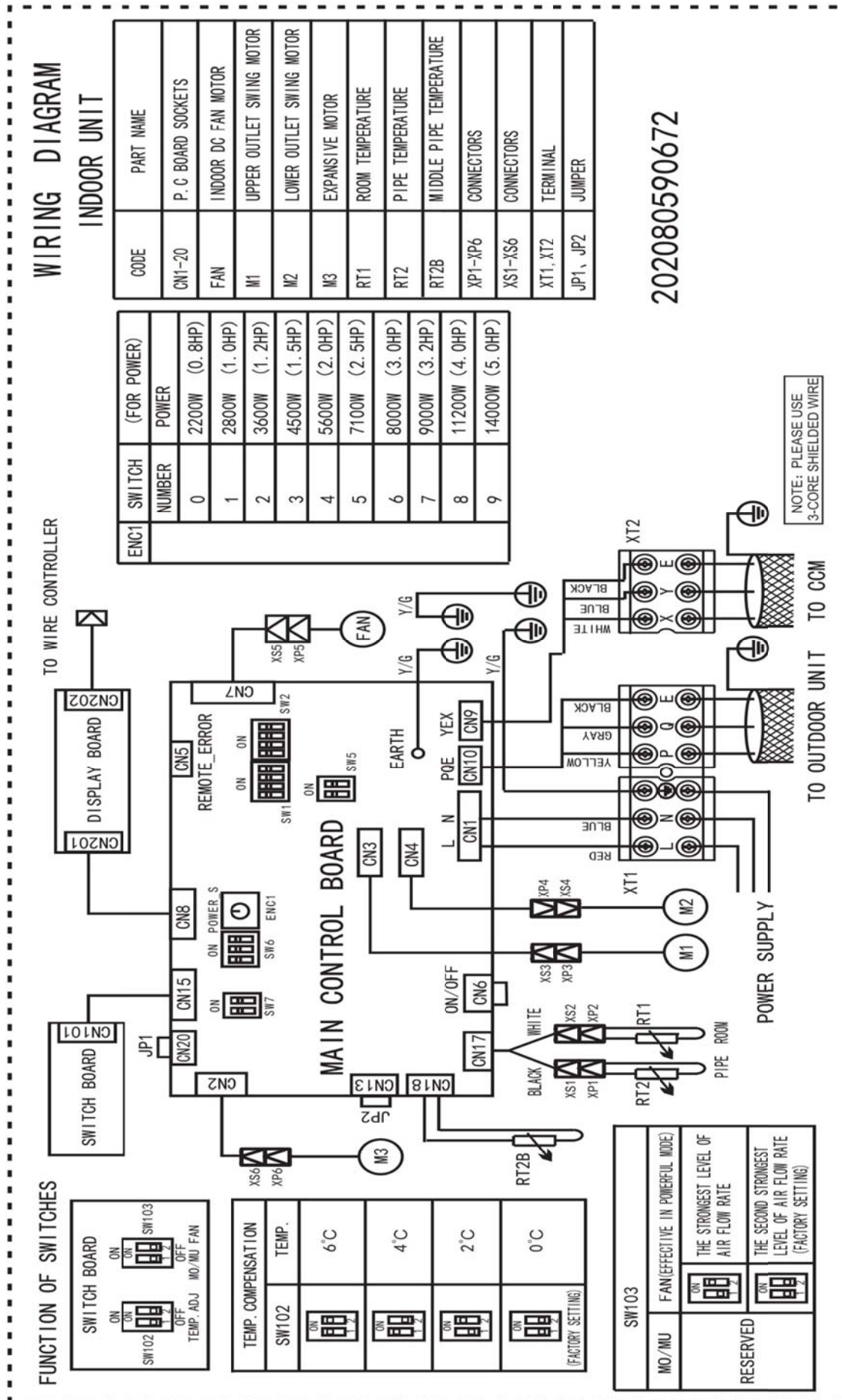


Additionally, it is required to keep 20mm between the rear and wall, 1700mm vertical distance between the top of unit(outlet) and the upper obstacle.

5. Piping Diagrams



6. Wiring Diagram



7. Capacity Tables

7.1 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6

7.2 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
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	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	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	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	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	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	4.40	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	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00

	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-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

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22Z/DN1-B	50	220-240V	198	254	0.25	15	0.012	0.0135
MDV-D38Z/ DN1-B	50	220-240V	198	254	0.25	15	0.015	0.0158
MDV-D36Z/ DN1-B	50	220-240V	198	254	0.25	15	0.015	0.0158
MDV-D45Z/ DN1-B	50	220-240V	198	254	0.25	15	0.030	0.0296

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

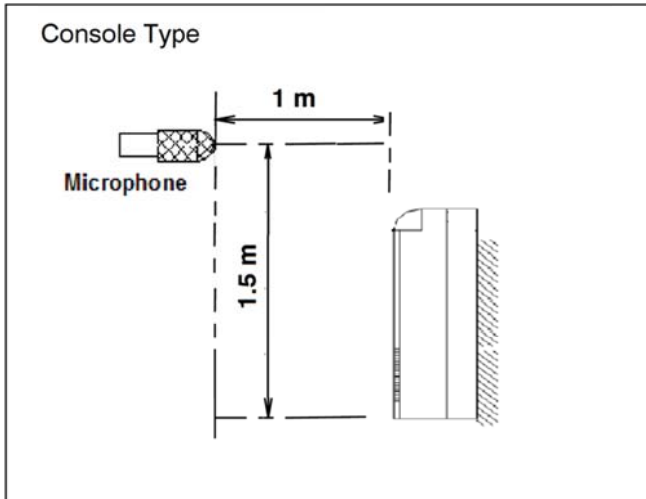
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Noise Levels

9.1 Test condition



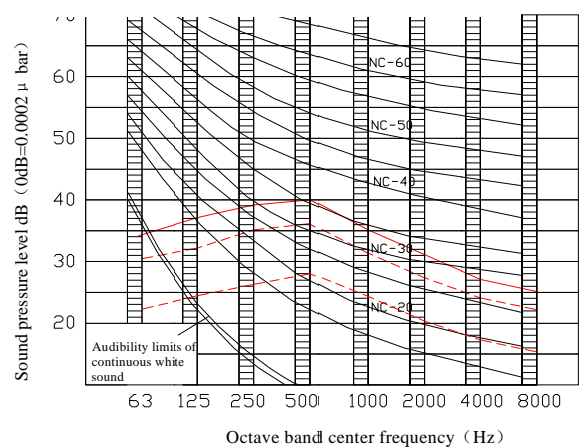
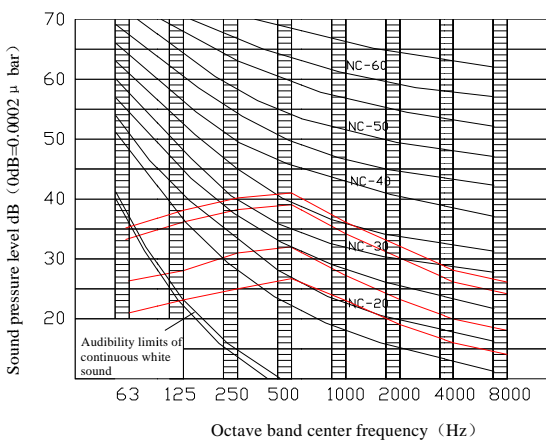
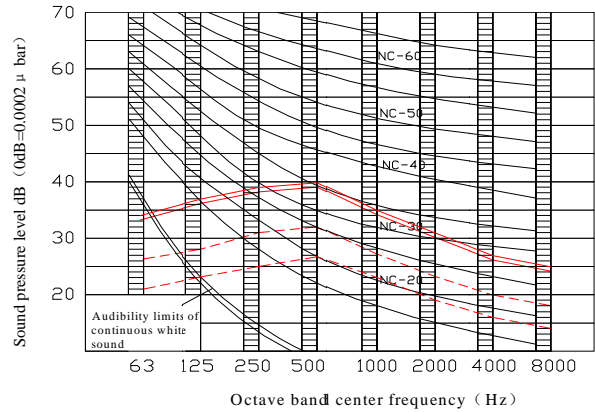
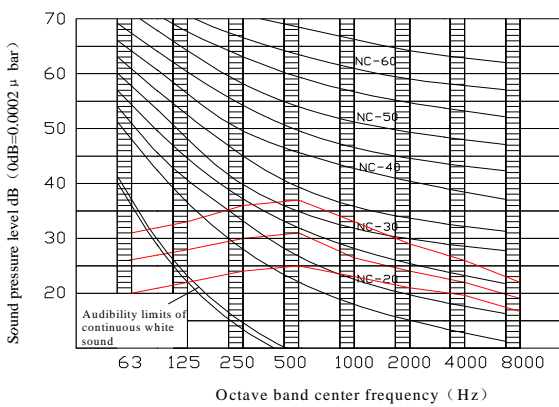
Note:

- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Anechoic chamber conversion value, measured at a point 1m in front of the unit at a height of 1.5m

9.2 Test value





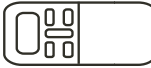



Model	SH	HH	H	M	L
MDV-D22Z/DN1-B	38	38	38	32	26
MDV-D28Z/DN1-B	40	40	39	33	27
MDV-D36Z/DN1-B	41	41	39	33	27
MDV-D45Z/DN1-B	42	42	42	38	30

9.3 Octave Band Level



10. Accessories

10.1 Standard accessories

Name	Quantity	Shape	Usage
Owner's manual	1	/	/
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Flexible hose tube	1		For drain water pipe connection
Hook	2		Fittings for installing the indoor unit
Mounting screw(ST3.9x12-C-H)	4		/
Remote controller	1		Control the indoor units
Remote controller holder	1		For holding the remote controller
Mounting screw (ST2.9x10-C-H)	2		/
Alkaline dry batteries(AM4)	2		/

10.1 Optional accessories

Name	Model	Code	Usage
Wired remote controller	KJR-10B/DP(T)-E	203355190000	With a standard 5m long cable to connect to display board.
(Follow me) Wired remote controller	KJR-12B/DP(T)-E	203355100010	With an extra Built-in room temp. sensor, all others are same as KJR-10B
(Follow me) Wired remote controller (Back ground light)	KJR-12B/DPBG(T)-E	203355100503	With background light, all others are same as KJR-12B/DP(T)-E

Fresh air processing unit

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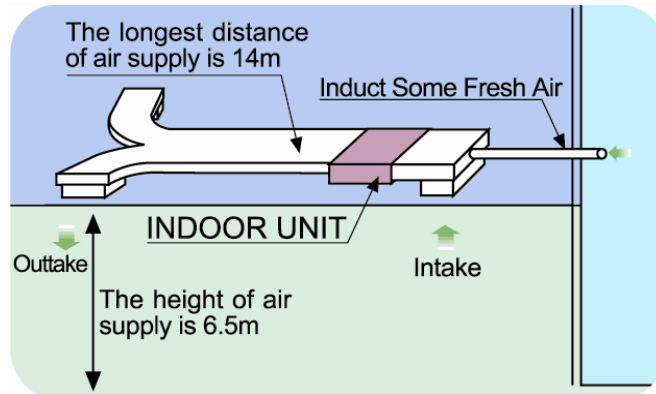
1. Features

(1) 100% Fresh Air Processing Unit

Both fresh air treatment and heating and cooling can be achieved successfully in a single system. Indoor units and fresh air processing unit can be connected to the same refrigerant system, resulting in enhanced design flexibility and a significant reduction in total system costs.

(2) High External Static Pressure

External static pressure of Indoor Unit can be up to 225Pa, which allows extensive duct work for flexible applications. So the cool air can be delivered to every indoor corner even in a super-high ceiling. The maximal distance of air supply is about 14m; the height of air supply is about 6.5m.



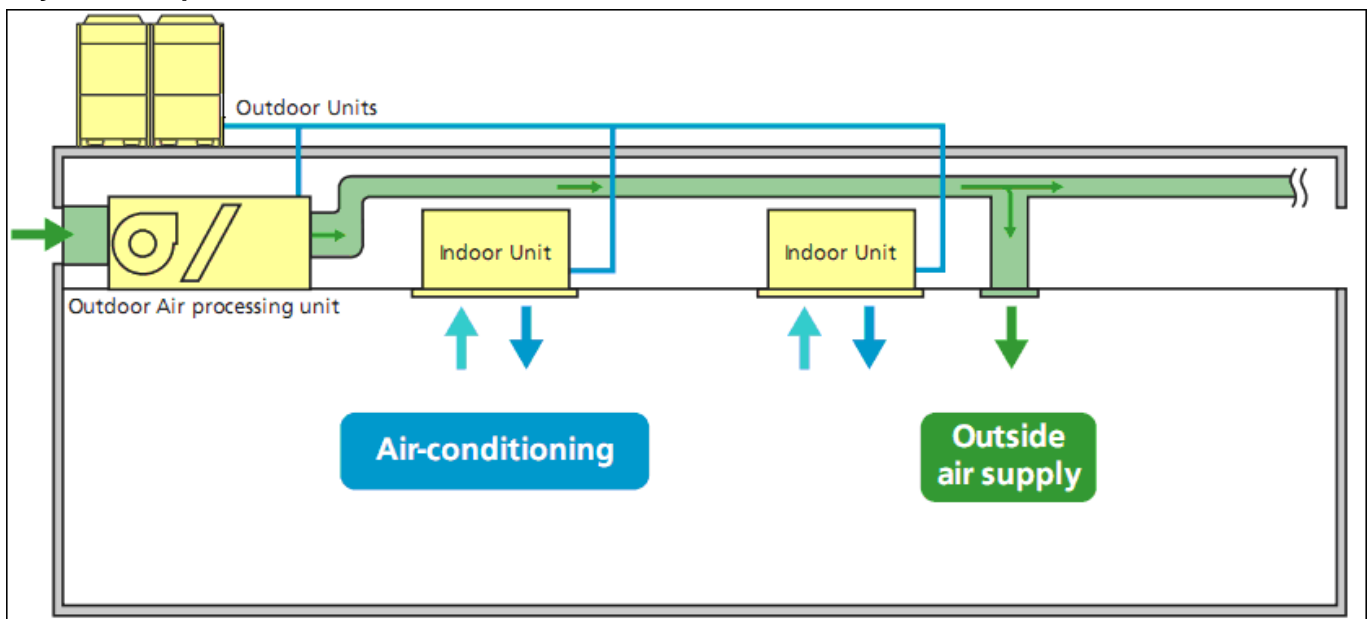
(3) Wired control and group control available.

(4) High capacity of cooling/heating and efficient.

(5) Innovative air supply, which provides homogeneous conditioning of the room temperature.

(6) Can be connected to all Midea VRV systems

Layout Example:



2. Specification

Sale Model			MDV-D125T1/N1-FA	MDV-D140T1/N1-FA
Code			220085600280	220085700250
Power supply		V-Ph-Hz	220-240V-1Ph-50Hz	220-240V-1Ph-50Hz
Cooling Capacity		kW	12.5	14
Heating Capacity		kW	10.5	12
Max. current		A	2.4	2.4
Indoor fan motor	Model		YSK300-4C-1	YSK300-4C-1
	Type		Ac Motor	Ac Motor
	Brand		Yong An	Yong An
	Input	W	430	430
	Capacitor	uF	10	10
	Speed(Hi/mi/lo)	r/min	854/769/695	854/769/695
Indoor coil	Number of rows		4	4
	Tube pitch(a)× row pitch(b)	mm	25.4×22	25.4×22
	Fin spacing	mm	1.6	1.6
	Fin type (code)		hydrophilia arcuate fin aluminum foil	
	Tube outside dia. and type	mm	9.52	9.52
			Inner groove tube	
	Coil length x height x width	mm	996*355.6×88	996*355.6×88
	Number of circuits		7	7
Indoor air flow (Hi/Mid/Lo)		m3/h	1700/1350/1050	1700/1350/1050
Indoor external static pressure (Hi)		Pa	30~220	30~220
Indoor noise level (Sound pressure)(Hi/Mid/Lo)		dB(A)	54/52/50	54/52/50
Indoor unit	Dimension (W×H×D)	mm	1368*420*691	1368*420*691
	Packing (W×H×D)	mm	1436*440*768	1436*440*768
	Net/Gross weight	Kg	69.5/76	69.5/76
Refrigerant type			R410A	R410A
Throttle type			Electric expansive valve	
Design pressure		MPa	4.2/2.0	4.2/2.0
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.52/Φ16	Φ9.52/Φ16
Connection wiring	Power wiring	Nb×mm ²	2*2.5+1*2.0	2*2.5+1*2.0
	Signal wiring	Nb×mm ²	3*0.75	3*0.75
Drainage pipe diameter		mm ²	Φ25	Φ25
Controller			Wire controller KJR-12B	
Operation temp		°C	-5-43	-5-43

Notes:

- Nominal cooling capacities are based on the following conditions: outdoor air temp.: 33°C DB, 24°C WB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: outdoor temp.: 0°CDB, -1°CWB, and equivalent ref. Piping: 8m (horizontal)

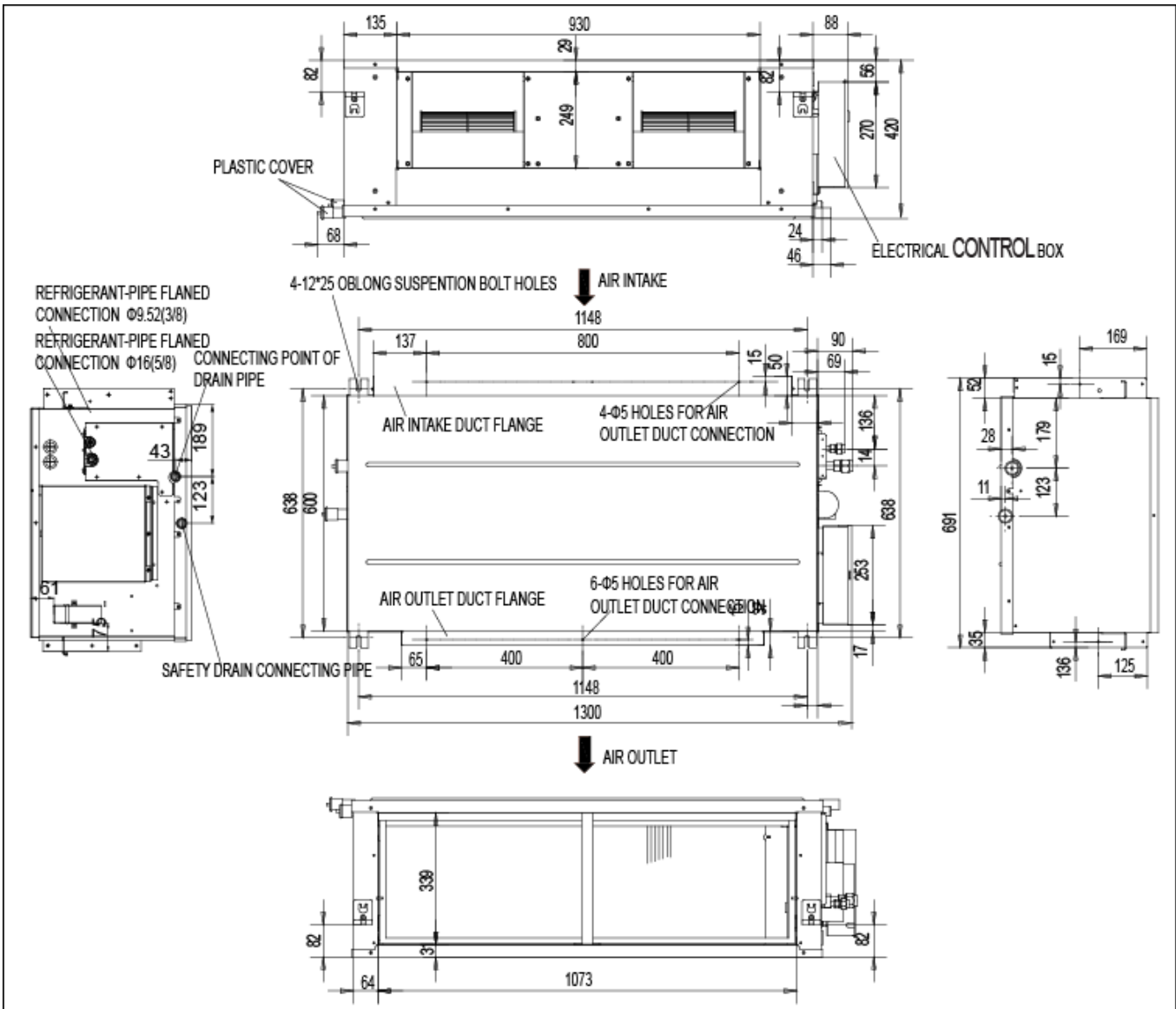
Sale Model			MDV-D200T1/N1-FA	MDV-D250T1/N1-FA	MDV-D280T1/N1-FA	
Code			220085801200	220085801210	220085801220	
Power supply		220V-1Ph-50Hz	220V-1Ph-50Hz	220V-1Ph-50Hz	220V-1Ph-50Hz	
Cooling Capacity		kW	20.0	25.0	28.0	
Heating Capacity		kW	18.0	20.0	22.0	
Max. current		A	5.3	5.6	5.6	
Indoor fan motor	Model		YDK250-4X (×2)	YDK250-4X (×2)	YDK250-4X (×2)	
	Type		Ac Motor	Ac Motor	Ac Motor	
	Brand		Yong An	Yong An	Yong An	
	Input	W	1000(×2)	1063(×2)	1063(×2)	
	Capacitor	uF	10(×2)	12(×2)	12(×2)	
	Speed(Hi/mi/lo)	r/min	855/784/712 (×2)	900/815/747 (×2)	900/815/747 (×2)	
Indoor coil	Number of rows		4	4	4	
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22	25.4×22	
	Fin spacing	mm	1.8	1.8	1.8	
	Fin type (code)		hydrophilia arcuate fin aluminum foil			
	Tube outside dia. and type	mm		9.52	9.52	9.52
				Inner groove tube	Inner groove tube	Inner groove tube
	Coil length x height x width	mm	1125×512×88	1125×512×88	1125×512×88	
Number of circuits		20	20	20		
Indoor air flow (Hi/Mid/Lo)		m3/h	3150/2650/2300	3300/2850/2500	3300/2850/2500	
Indoor external static pressure (Hi)		Pa	50~260	50~260	50~260	
Indoor noise level (Sound pressure)(Hi/Mid/Lo)		dB(A)	54/53/51	55/54/52	55/54/52	
Indoor unit	Dimension (W×H×D)	mm	1443×470×810	1443×470×810	1443×470×810	
	Packing (W×H×D)	mm	1509×522×964	1509×522×964	1509×522×964	
	Net/Gross weight	Kg	115/125	115/125	115/125	
Refrigerant type			R410A	R410A	R410A	
Throttle type			Electric expansive valve			
Design pressure		MPa	4.2/2.0	4.2/2.0	4.2/2.0	
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.52/Φ16	Φ9.52/Φ16	Φ9.52/Φ16	
Connection wiring	Power wiring	Nb×mm ²	3×4.0	3×4.0	3×4.0	
	Signal wiring	Nb×mm ²	3×1.0	3×1.0	3×1.0	
Drainage pipe diameter		mm ²	Φ32	Φ32	Φ32	
Controller			Wire controller KJR-12B			
Operation temp		°C	-5-43	-5-43	-5-43	

Notes:

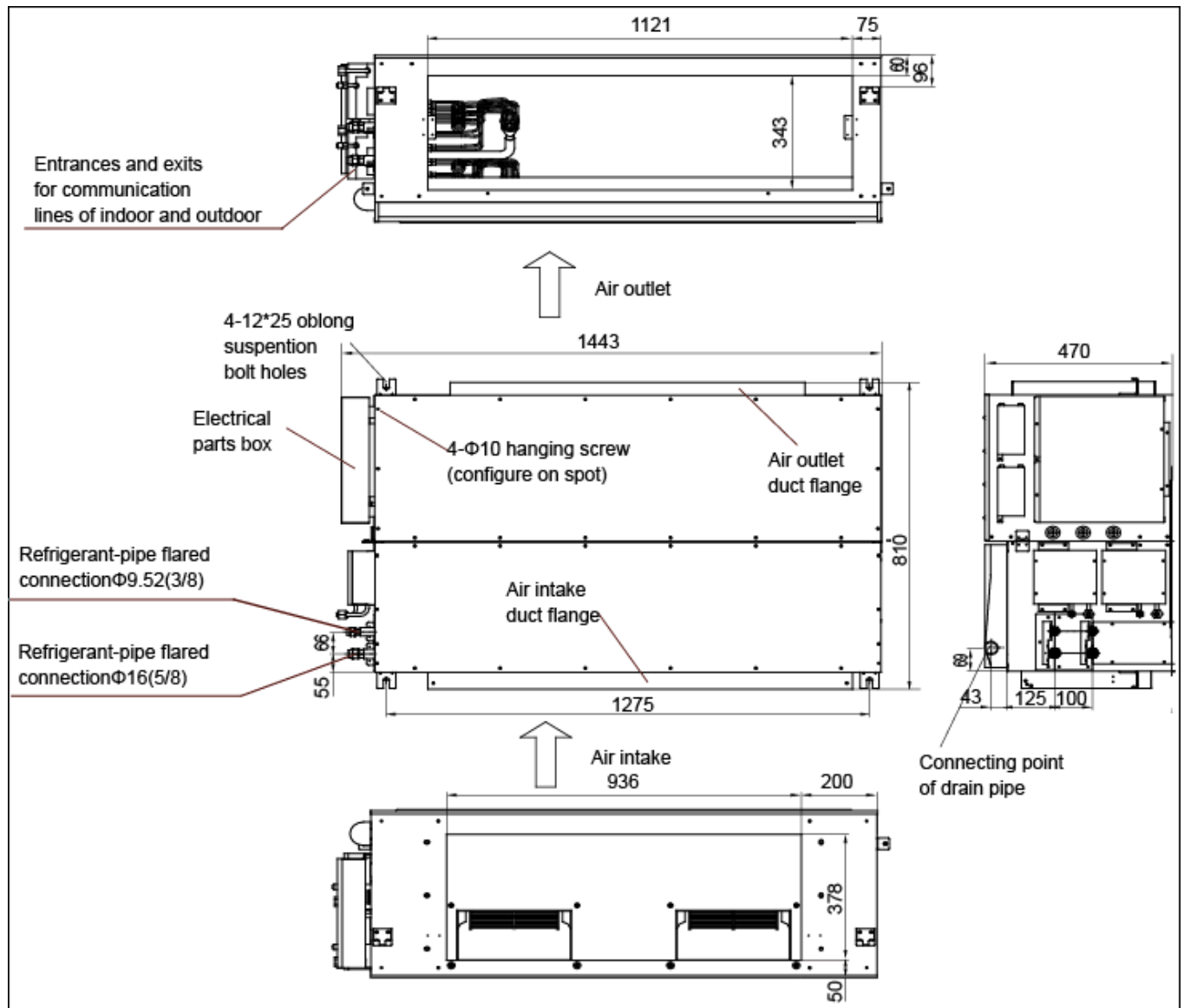
- Nominal cooling capacities are based on the following conditions: outdoor air temp.: 33°C DB, 24°C WB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: outdoor temp.: 0°CDB, -1°CWB, and equivalent ref. Piping: 8m (horizontal)

3. Dimension

MDV-D125T1/N1-FA, MDV-D140T1/N1-FA

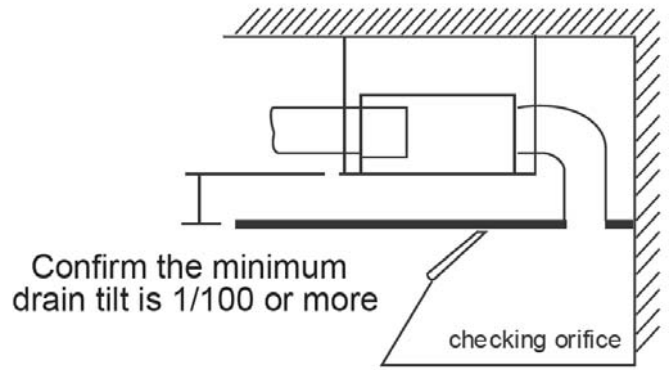
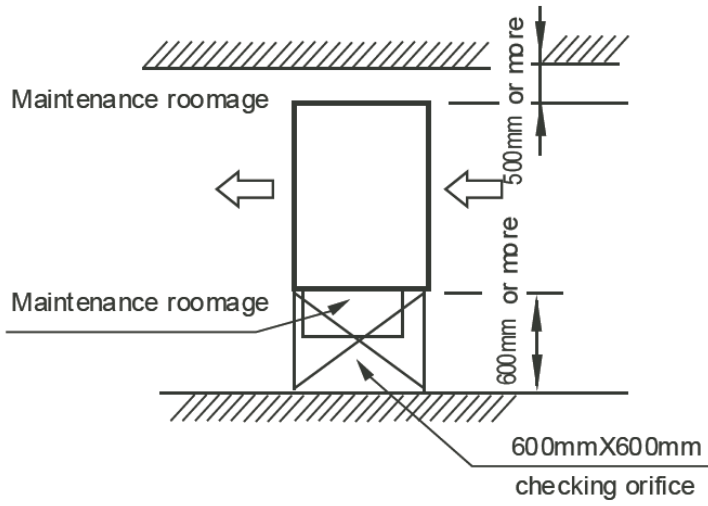


MDV-D200T11/N1-FA, MDV-D250T1/N1-FA, MDV-D280T1/N1-FA

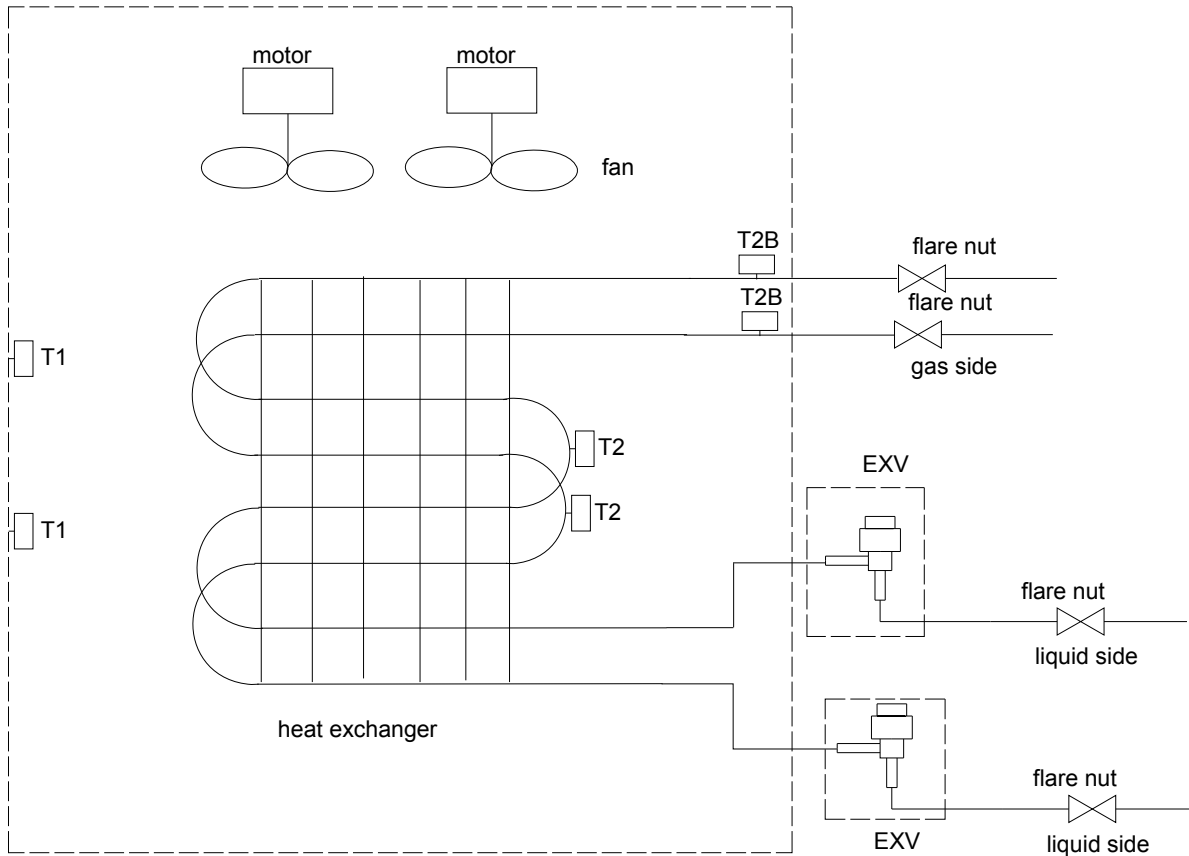


4. Service Space

Ensure enough space required for installation and maintenance.



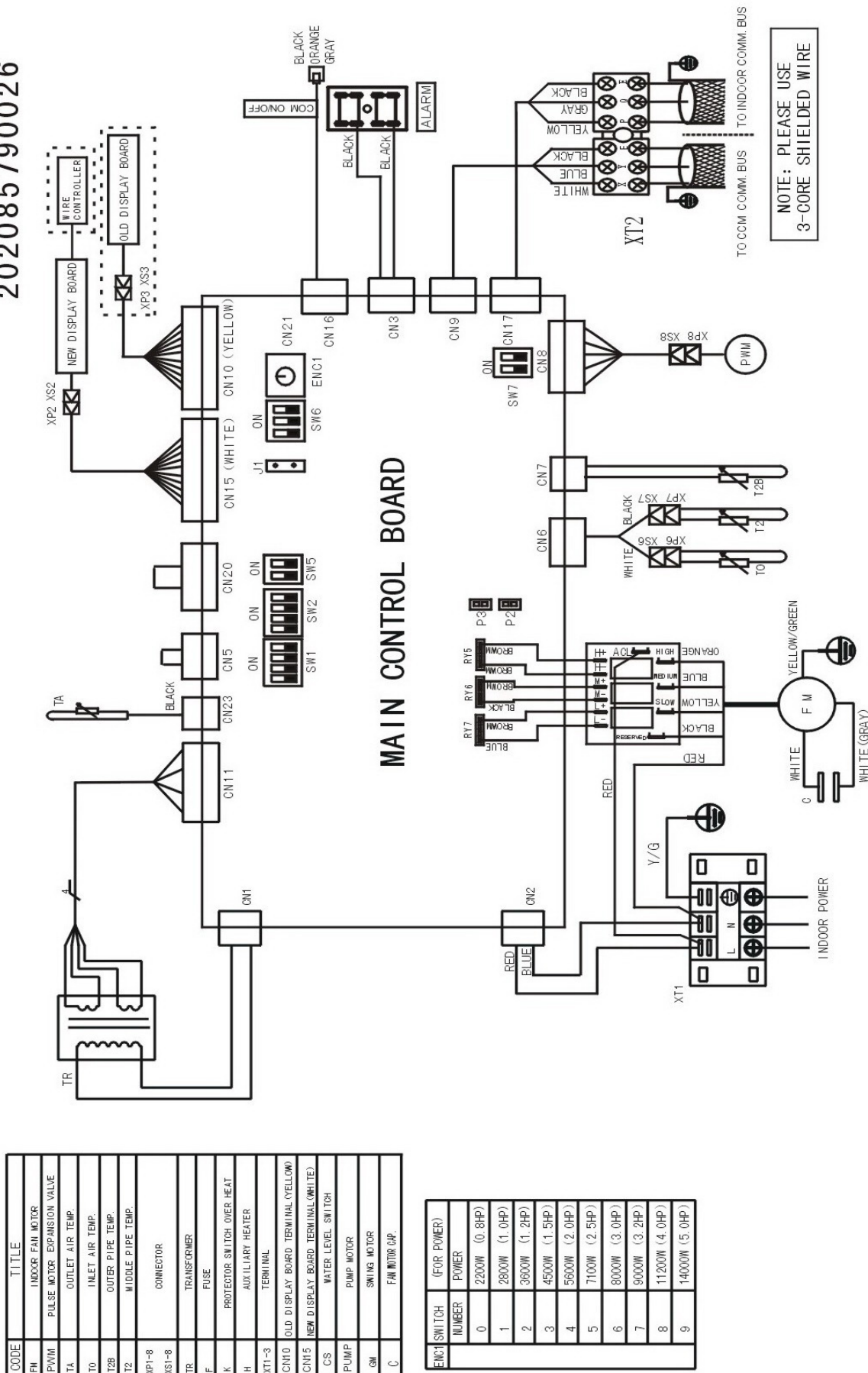
5. Piping Diagram



6. Wiring Diagram

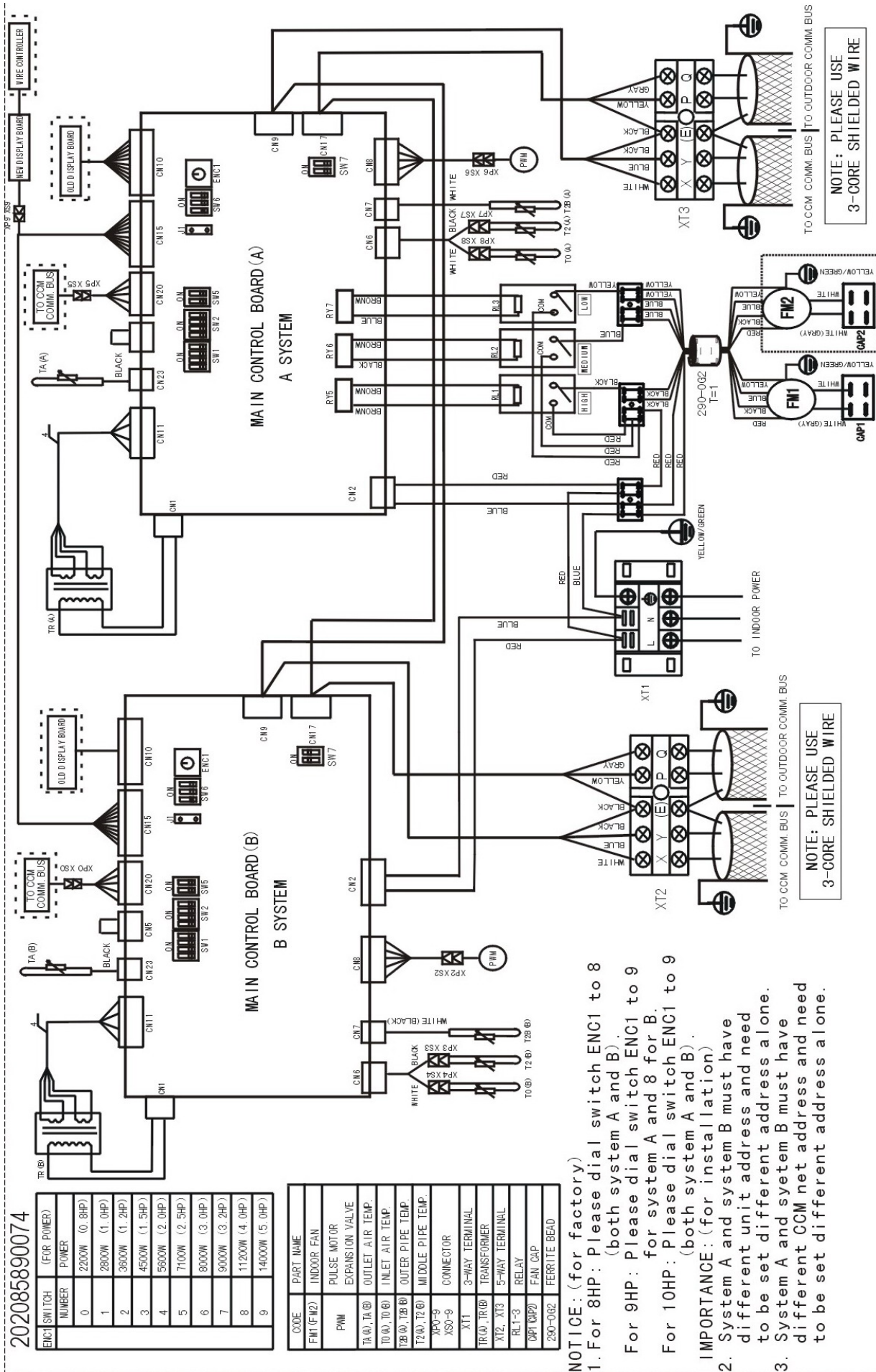
MDV-D125T1/N1-FA, MDV-D140T1/N1-FA

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NOTE: PLEASE USE 3-CORE SHIELDED WIRE

MDV-D200T11/N1-FA, MDV-D250T11/N1-FA, MDV-D280T11/N1-FA



7. Capacity Tables

7.1 MDV-D125T1/N1-FA

TC: total capacity **SC:** sensible capacity **WB:** wet-bulb temperature **DB:** dry-bulb temperature

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		20°C DB 15°C WB	24°C DB 18°C WB	27°C DB 19°C WB	33°C DB 24°C WB	38°C DB 26°C WB	43°C DB 26°C WB
20°C DB 15°C WB	TC kW	14.75					
	SC kW	11.51					
24°C DB 18°C WB	TC kW		14.38				
	SC kW		10.06				
27°C DB 19°C WB	TC kW			13.75			
	SC kW			9.08			
33°C DB 24°C WB	TC kW				12.50		
	SC kW				7.50		
38°C DB 26°C WB	TC kW					10.63	
	SC kW					5.74	
43°C DB 26°C WB	TC kW						9.38
	SC kW						4.50

HEATING		OUTDOOR CONDITIONS					
Indoor Conditions		16°C DB 12°C WB	12°C DB 10°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-5°C DB -6°C WB
16°C DB 12°C WB	Capacity kW	14.18					
12°C DB 10°C WB	Capacity kW		13.13				
7°C DB 6°C WB	Capacity kW			12.08			
4°C DB 3°C WB	Capacity kW				11.34		
0°C DB -1°C WB	Capacity kW					10.50	
-5°C DB -6°C WB	Capacity kW						8.93

7.2 MDV-D140T1/N1-FA

TC: total capacity **SC:** sensible capacity **WB:** wet-bulb temperature **DB:** dry-bulb temperature

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		20°C DB 15°C WB	24°C DB 18°C WB	27°C DB 19°C WB	33°C DB 24°C WB	38°C DB 26°C WB	43°C DB 26°C WB
20°C DB 15°C WB	TC kW	16.52					
	SC kW	12.89					
24°C DB 18°C WB	TC kW		16.10				
	SC kW		11.27				
27°C DB 19°C WB	TC kW			15.40			
	SC kW			10.16			
33°C DB 24°C WB	TC kW				14.00		
	SC kW				8.40		
38°C DB 26°C WB	TC kW					11.90	
	SC kW					6.43	
43°C DB 26°C WB	TC kW						10.50
	SC kW						5.04

HEATING		OUTDOOR CONDITIONS					
Indoor Conditions		16°C DB 12°C WB	12°C DB 10°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-5°C DB -6°C WB
16°C DB 12°C WB	Capacity kW	16.20					
	Capacity kW		15.00				
7°C DB 6°C WB	Capacity kW			13.80			
	Capacity kW				12.96		
0°C DB -1°C WB	Capacity kW					12.00	
	Capacity kW						10.20

7.3 MDV-D200T1/N1-FA

TC: total capacity SC: sensible capacity WB: wet-bulb temperature DB: dry-bulb temperature

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		20°C DB 15°C WB	24°C DB 18°C WB	27°C DB 19°C WB	33°C DB 24°C WB	38°C DB 26°C WB	43°C DB 26°C WB
20°C DB 15°C WB	TC kW	23.60					
	SC kW	18.41					
24°C DB 18°C WB	TC kW		23.00				
	SC kW		16.10				
27°C DB 19°C WB	TC kW			22.00			
	SC kW			14.52			
33°C DB 24°C WB	TC kW				20.00		
	SC kW				12.00		
38°C DB 26°C WB	TC kW					17.00	
	SC kW					9.18	
43°C DB 26°C WB	TC kW						15.00
	SC kW						7.20

HEATING		OUTDOOR CONDITIONS					
Indoor Conditions		16°C DB 12°C WB	12°C DB 10°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-5°C DB -6°C WB
16°C DB 12°C WB	Capacity kW	24.30					
12°C DB 10°C WB	Capacity kW		22.50				
7°C DB 6°C WB	Capacity kW			20.70			
4°C DB 3°C WB	Capacity kW				19.44		
0°C DB -1°C WB	Capacity kW					18.00	
-5°C DB -6°C WB	Capacity kW						15.30

7.4 MDV-D250T1/N1-FA

TC: total capacity **SC:** sensible capacity **WB:** wet-bulb temperature **DB:** dry-bulb temperature

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		20°C DB 15°C WB	24°C DB 18°C WB	27°C DB 19°C WB	33°C DB 24°C WB	38°C DB 26°C WB	43°C DB 26°C WB
20°C DB 15°C WB	TC kW	29.50					
	SC kW	23.01					
24°C DB 18°C WB	TC kW		28.75				
	SC kW		20.13				
27°C DB 19°C WB	TC kW			27.50			
	SC kW			18.15			
33°C DB 24°C WB	TC kW				25.00		
	SC kW				15.00		
38°C DB 26°C WB	TC kW					21.25	
	SC kW					11.48	
43°C DB 26°C WB	TC kW						18.75
	SC kW						9.00

HEATING		OUTDOOR CONDITIONS					
Indoor Conditions		16°C DB 12°C WB	12°C DB 10°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-5°C DB -6°C WB
16°C DB 12°C WB	Capacity kW	27.00					
12°C DB 10°C WB	Capacity kW		25.00				
7°C DB 6°C WB	Capacity kW			23.00			
4°C DB 3°C WB	Capacity kW				21.60		
0°C DB -1°C WB	Capacity kW					20.00	
-5°C DB -6°C WB	Capacity kW						17.00

7.5 MDV-D280T1/N1-FA

TC: total capacity SC: sensible capacity WB: wet-bulb temperature DB: dry-bulb temperature

COOLING		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		20°C DB 15°C WB	24°C DB 18°C WB	27°C DB 19°C WB	33°C DB 24°C WB	38°C DB 26°C WB	43°C DB 26°C WB
20°C DB 15°C WB	TC kW	33.04					
	SC kW	25.77					
24°C DB 18°C WB	TC kW		32.20				
	SC kW		22.54				
27°C DB 19°C WB	TC kW			30.80			
	SC kW			20.33			
33°C DB 24°C WB	TC kW				28.00		
	SC kW				16.80		
38°C DB 26°C WB	TC kW					23.80	
	SC kW					12.85	
43°C DB 26°C WB	TC kW						21.00
	SC kW						10.08

HEATING		OUTDOOR CONDITIONS					
Indoor Conditions		16°C DB 12°C WB	12°C DB 10°C WB	7°C DB 6°C WB	4°C DB 3°C WB	0°C DB -1°C WB	-5°C DB -6°C WB
16°C DB 12°C WB	Capacity kW	29.70					
12°C DB 10°C WB	Capacity kW		27.50				
7°C DB 6°C WB	Capacity kW			25.30			
4°C DB 3°C WB	Capacity kW				23.76		
0°C DB -1°C WB	Capacity kW					22.00	
-5°C DB -6°C WB	Capacity kW						18.70

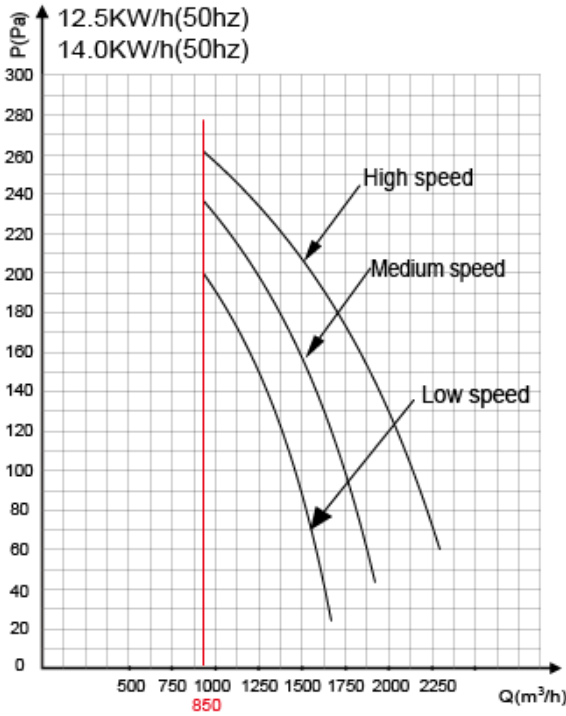
8. Fan Performance

How to Read the Diagram

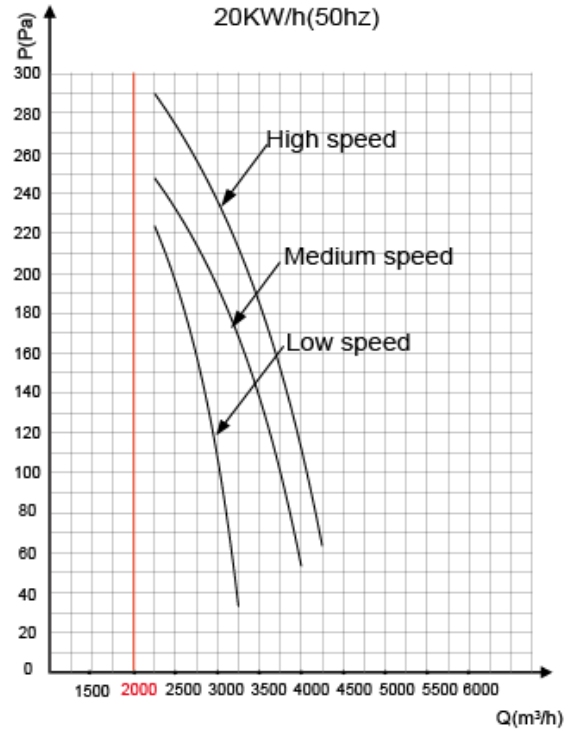
The vertical axis is the External Static Pressure (Pa) while the horizontal axis represents the Air Flow (CMH). The characteristic curve for the "Hi," "Mid," and "Lo" fan speed control, The nameplate values are shown based on the "Hi" air flow.

Therefore in the case of 140T1 Type, the air flow is 1050 CMH , while the External Static Pressure is 185Pa at "Lo" position. And 1700 CMH is 185Pa, at 'Hi' position.

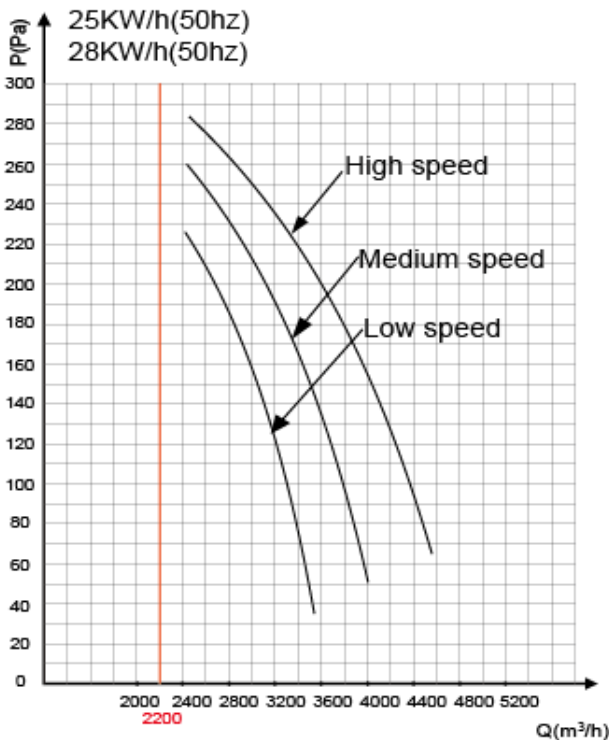
**MDV-D125T1/N1-FA
MDV-D140T1/N1-FA**



MDV-D200T1/N1-FA



**MDV-D250T1/N1-FA
MDV-D280T1/N1-FA**



- 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 temp.
- 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 temp. of motor/evaporator.

9. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D125T1/N1-FA	50	220-240V	198V	254V	2.4	5	0.3	2
MDV-D140T1/N1-FA	50	220-240V	198V	254V	2.4	5	0.3	2
MDV-D200T11/N1-FA	50	220-240V	198V	254V	5.3	10	0.25 (×2)	4.8
MDV-D250T1/N1-FA	50	220-240V	198V	254V	5.6	10	0.25 (×2)	4.8
MDV-D280T1/N1-FA	50	220-240V	198V	254V	5.6	10	0.25 (×2)	4.8

Remark:

MCA: Min. Current Amps. (A)

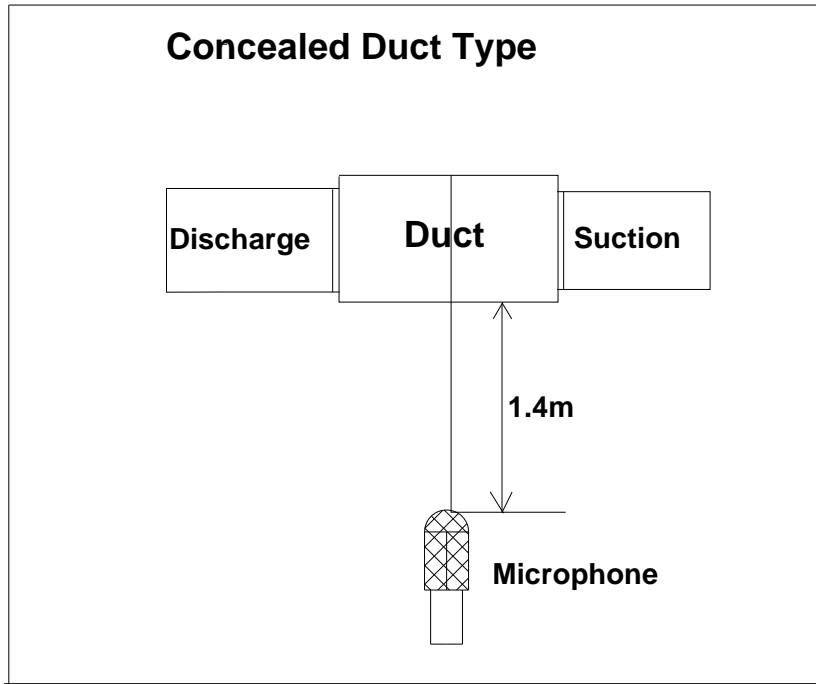
MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (KW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

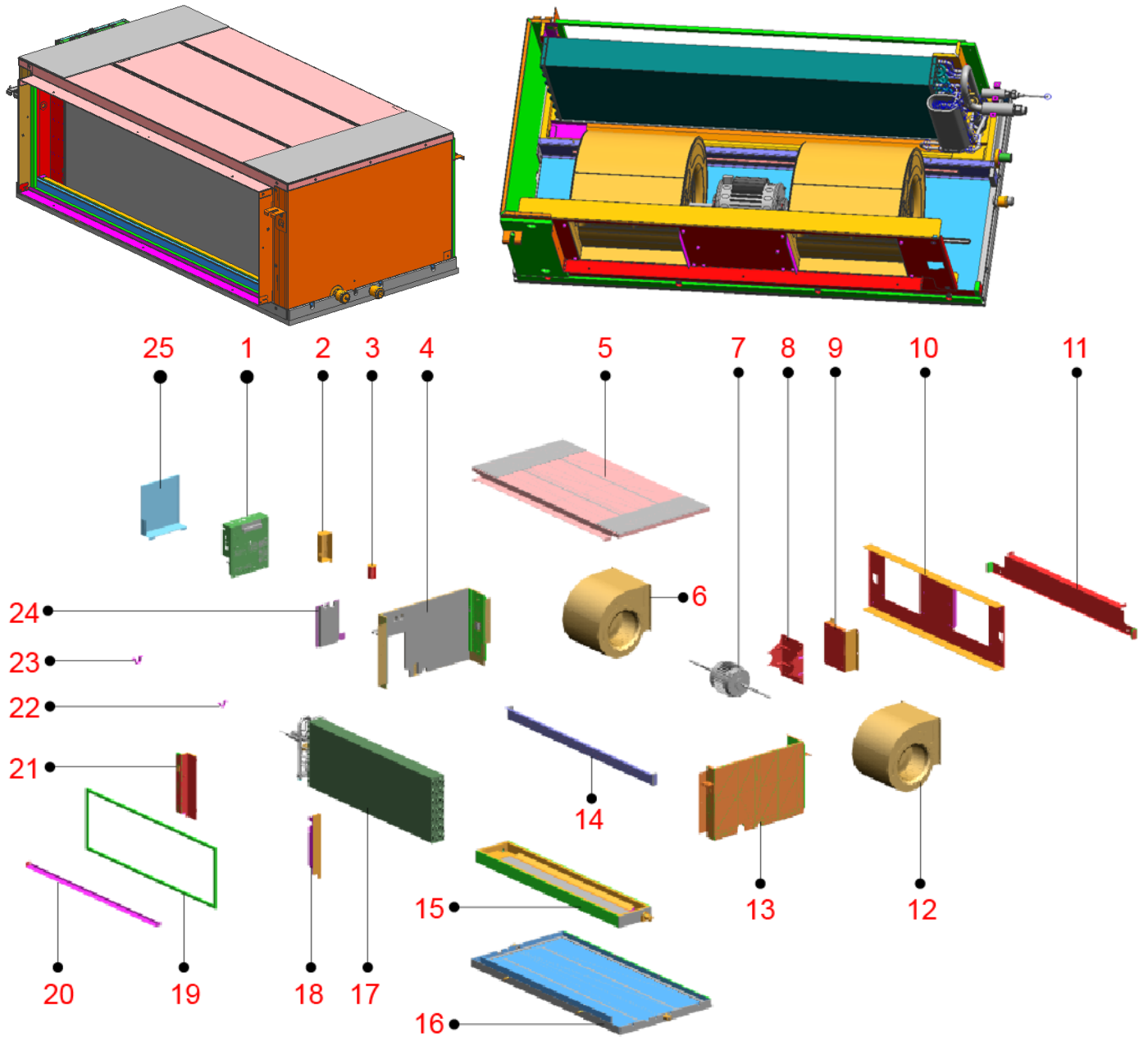
10. Sound Levels



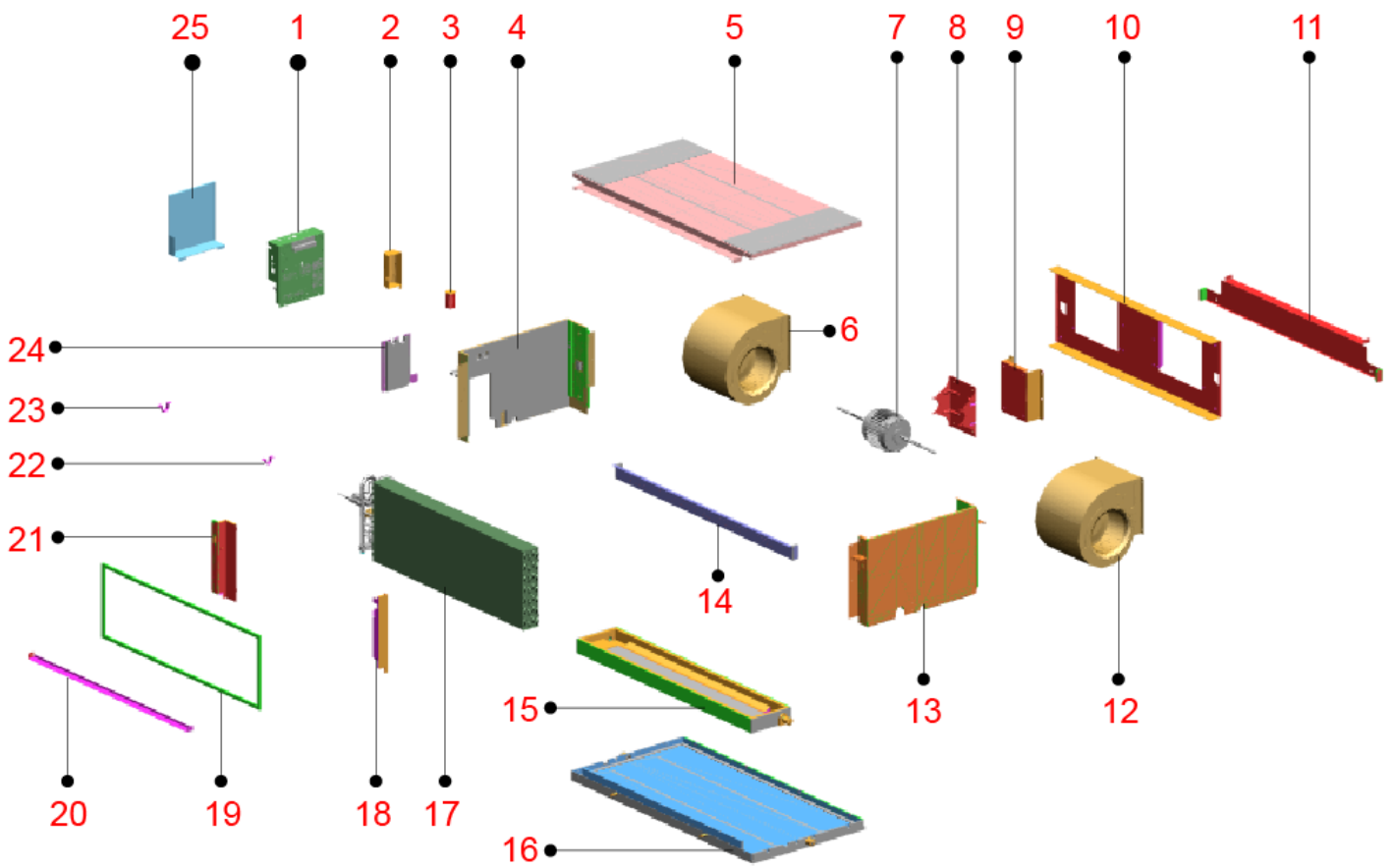
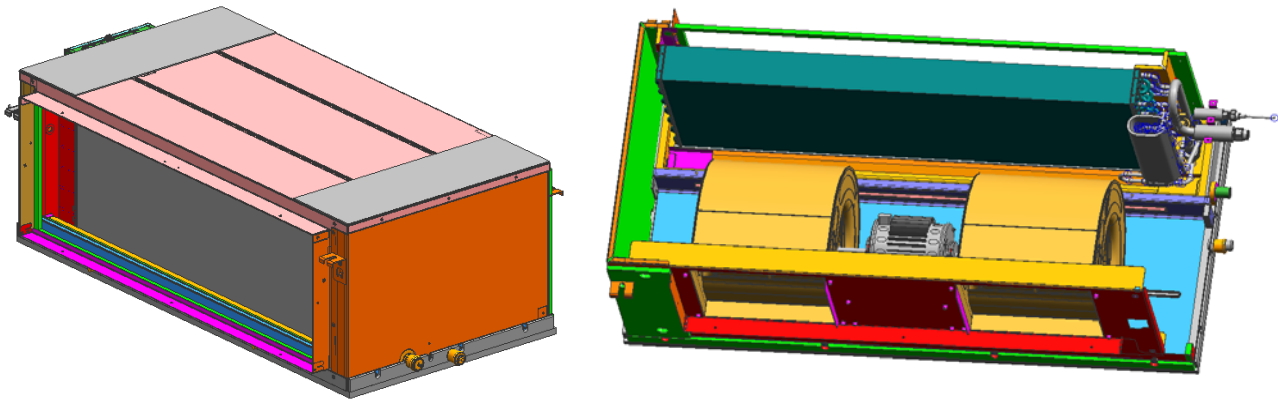
Unit Number	Model	Noise level under three speeds of fan (dB(A))		
		H	M	L
1	MDV-D125T1/N1-FA	54	52	50
2	MDV-D140T1/N1-B	54	52	50
3	MDV-D200T11/N1-FA	54	53	51
4	MDV-D250T1/N1-FA	55	54	52
5	MDV-D280T1/N1-FA	55	54	52

11. Exploded View

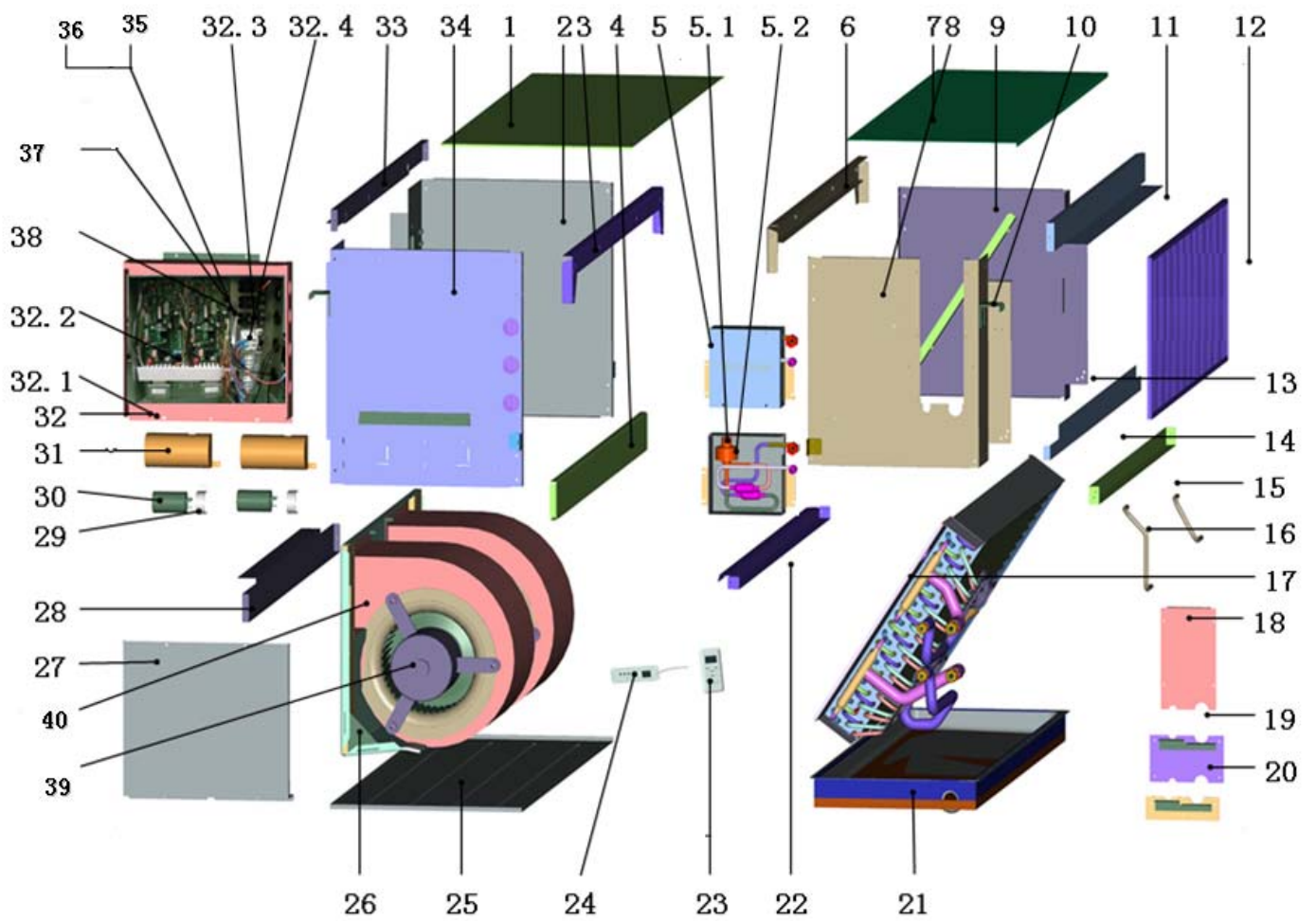
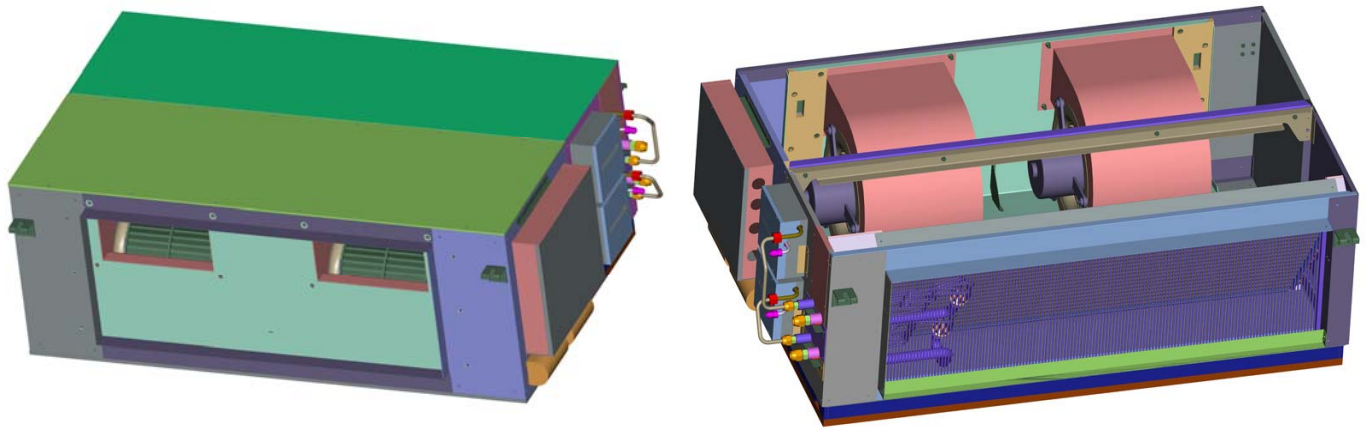
MDV-D125T1/N1-FA



No.	Part Name	Q'ty	BOM code	No.	Part Name	Q'ty	BOM code
1	Indoor electronic control box components	1	203385790002	9	Base	1	201270890061
1.1	Wire joint	1	202301450122	10	Base	1	201270890040
1.2	Display box ass'y	1	203370190008	11	Front clapboard ass'y	1	201270890046
1.3	Power clamp	2	201120700053	12	Right wind wheel ass'y	1	201200300017
1.4	Indoor control board assembly	1	201385890005	13	Left clapboard ass'y	1	201270890051
1.5	Auxiliary relay board assembly	1	201319990018	14	Beam components	1	201285790003
1.6	Transformer	1	202300900109	15	Water tray components	1	202285790001
1.7	Wire joint, 6p	1	202301400219	16	Chassis Parts	1	201285790011
1.8	Wire joint	1	202301450116	17	Evaporator parts	1	201585790004
1.9	Welding together pieces of electronic control box	1	201285600073	18	Evaporator left clapboard	1	201270890044
2	Compressor capacitor box	1	201226190015	19	Air filter	1	201101100044
3	Capacitor	1	202300320025	20	Rear clapboard	1	201270890045
4	Right side of the board assembly	1	201285790006	21	Baffle ass'y	1	201270890038
5	Cover parts	1	201285790009	22	Pipe clamp B	1	201286900309
6	Fan ass'y	1	201200300018	23	Pipe clamp	1	201286900514
7	Fan motor(YSK300-4C-1)	1	202400401125	24	Piping cover parts	1	201285790001
8	Motor bracket	1	201285000306	25	Electronic control box cover	1	201285700031

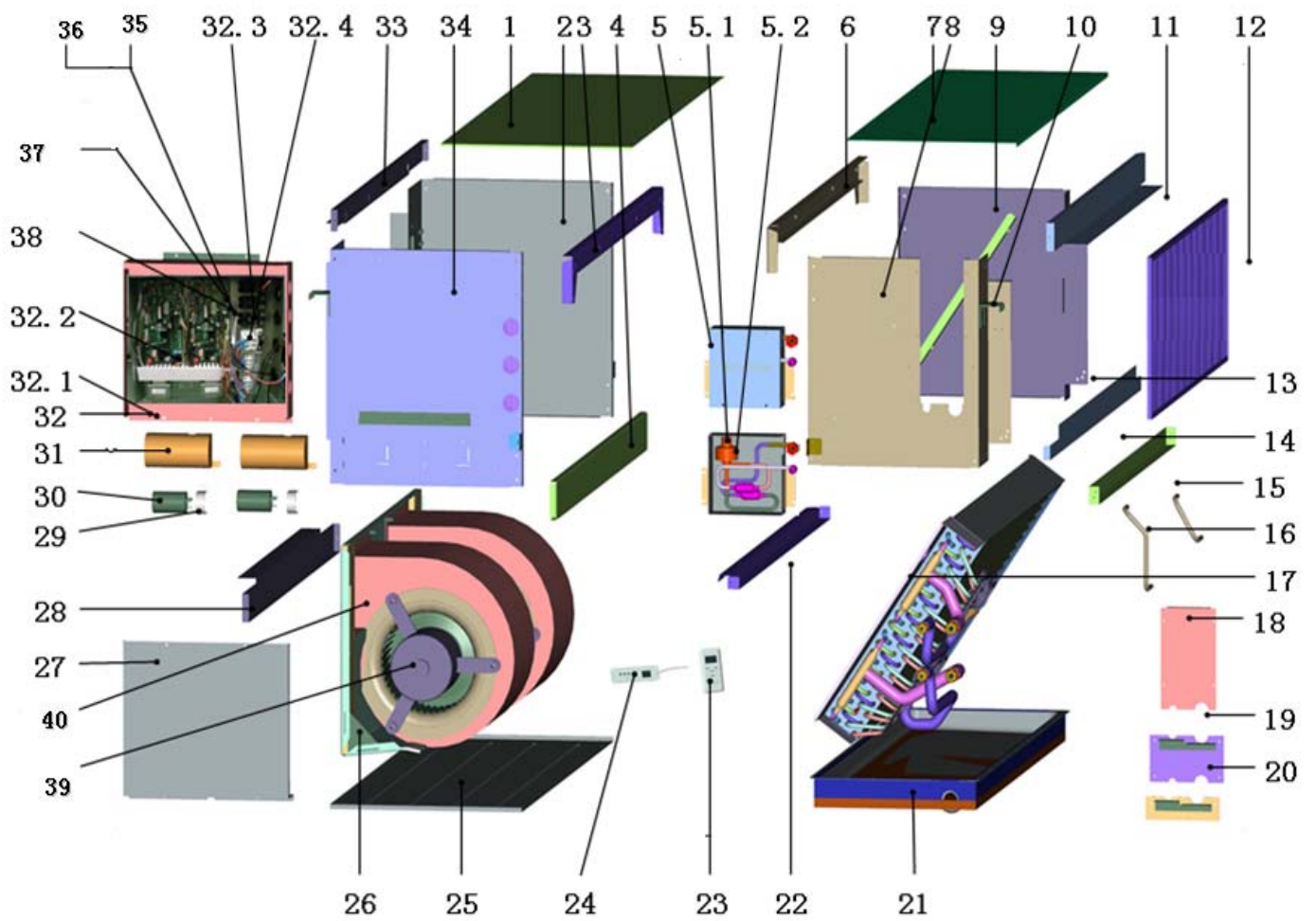
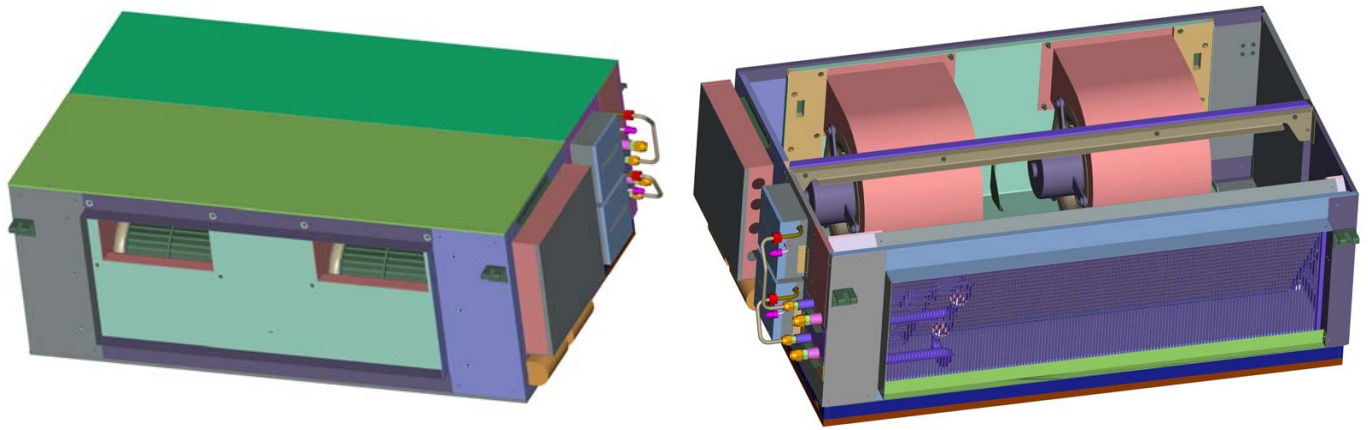


No.	Part Name	Q'ty	BOM code	No.	Part Name	Q'ty	BOM code
1	Indoor electronic control box components	1	203385790002	9	Base	1	201270890061
1.1	Wire joint	1	202301450122	10	Base	1	201270890040
1.2	Control box cover	1	203370190008	11	Front clapboard ass'y	1	201270890046
1.3	Indoor control board assembly	2	201120700053	12	Right wind wheel ass'y	1	201200300017
1.4	Auxiliary relay board assembly	1	201385890005	13	Left clapboard ass'y	1	201270890051
1.5	Transformer	1	201319990018	14	Beam components	1	201285790003
1.6	Wire joint, 6p	1	202300900109	15	Water tray components	1	202285790001
1.7	Wire joint	1	202301400219	16	Chassis Parts	1	201285790011
1.8	Display board ass'y	1	202301450116	17	Evaporator parts	1	201585790004
1.9	Welding together pieces of electronic control box	1	201285600073	18	Evaporator left clapboard	1	201270890044
2	Compressor capacitor box	1	201226190015	19	Air filter	1	201101100044
3	Capacitor	1	202300320025	20	Rear clapboard	1	201270890045
4	Right side of the board assembly	1	201285790006	21	Baffle ass'y	1	201270890038
5	Cover parts	1	201285790009	22	Pipe clamp B	1	201286900309
6	Fan ass'y	1	201200300018	23	Pipe clamp	1	201286900514
7	Fan motor(YSK300-4C-1)	1	202400401125	24	Piping cover parts	1	201285790001
8	Motor bracket	1	201285000306	25	Electronic control box cover	1	201285700031

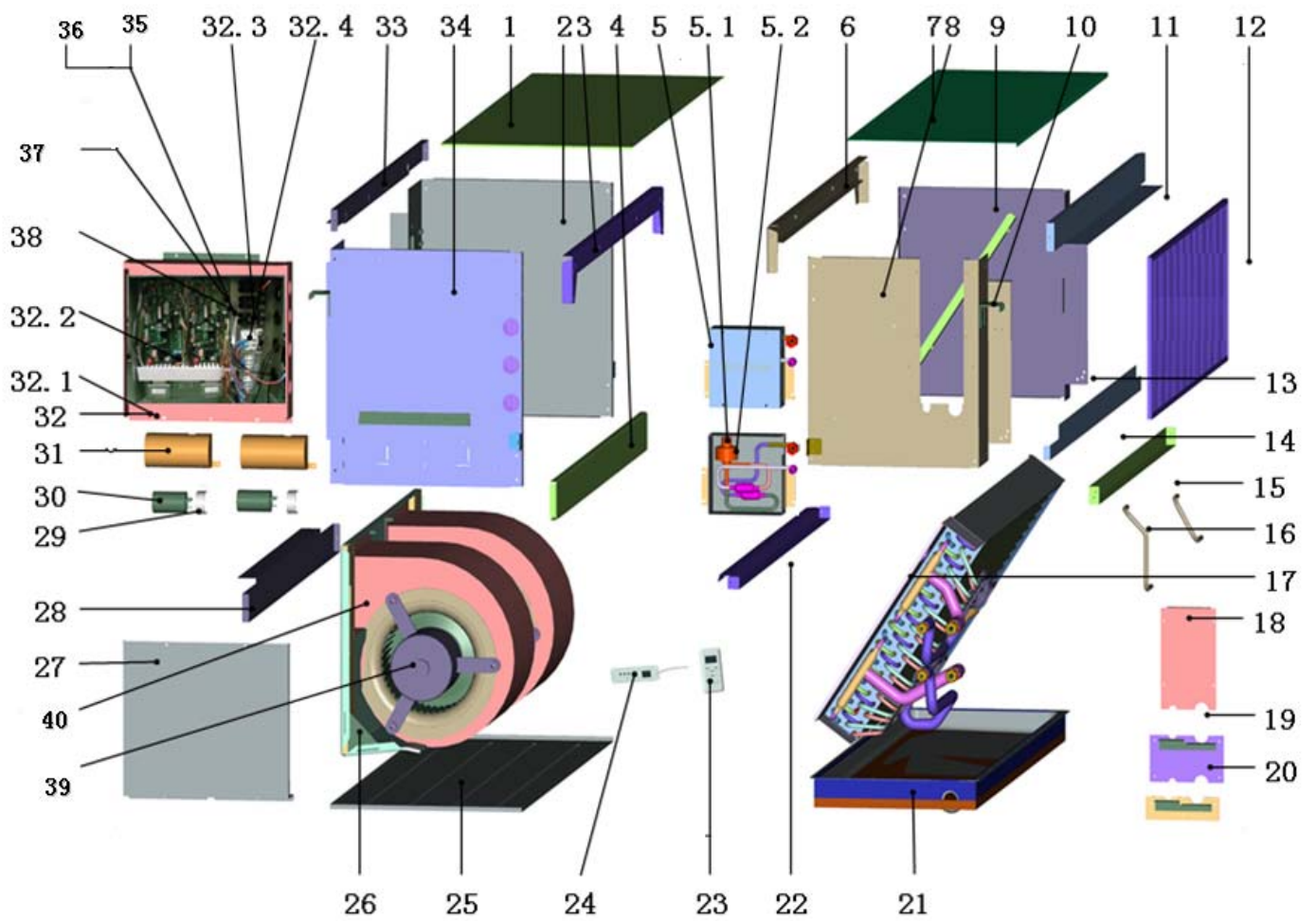
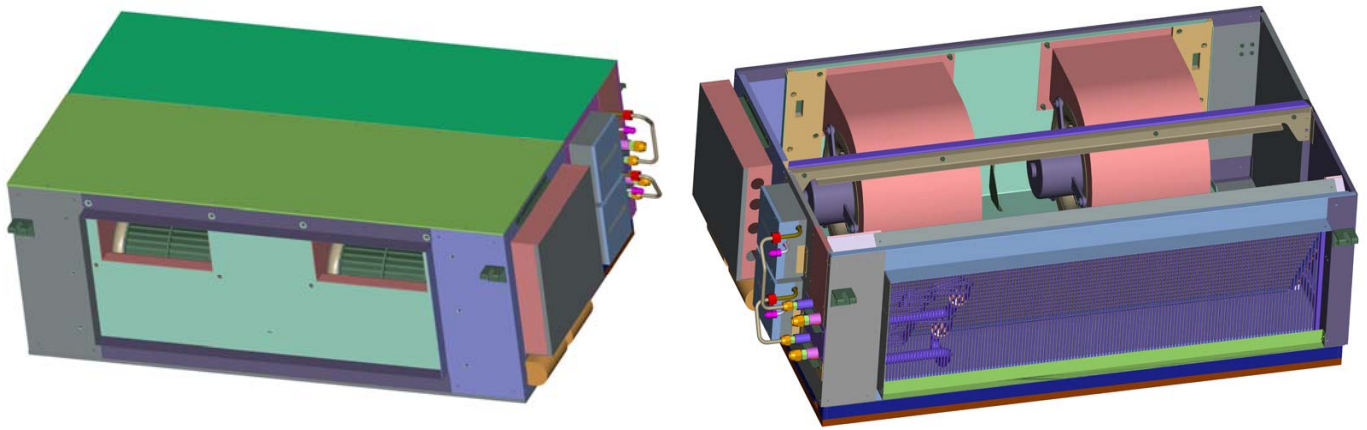


No.	Part Name	Q'ty	BOM code	No.	Part Name	Q'ty	BOM code
1	Top cover ass'y	1	201285890058	26	Installation board ass'y	1	201285890086
2	Left clapboard ass'y	1	201285890098	27	Electronic control box cover	1	201285800018
3	Up connecting board ass'y	1	201285890066	28	Below flange ass'y	1	201285890092
4	Below connecting board ass'y	1	201285890062	29	Capacitor clamp	2	201200100005
5	Electric throttle ass'y	2	201609891569	30	Capacitor	2	202300320025
5.1	Electronic expansion valve ass'y	1	201609891570	31	Compressor capacitor box	2	201226190015
5.2	EEV solenoid	1	201600600231	32	Indoor electronic control box components	1	203385890008
6	Up connecting board ass'y	1	201285890101	32.1	Indoor control board assembly	1	201385890005
7	Top cover ass'y	1	201285890053	32.2	Indoor control board assembly	1	201385890006
8	Right cover ass'y	1	201285890068	32.3	Five Terminal Block	2	202301400247
9	Left clapboard ass'y	1	201285890075	32.4	Wire clamp	1	201219900001
10	Hook	4	201285890104	32.5	Transformer	2	202300900109
11	Up flange ass'y	1	201285890064	32.6	Wire joint, 3p	1	202301400224
12	Air filter	1	201101100012	32.7	Wire joint label,3p	1	202042000804
13	Fixing board ass'y	1	201285890083	32.8	Wire joint	3	202301450122
14	Below flange	1	201285890105	32.9	Relay	3	202300800071
15	Connection pipe ass'y	1	201685890044	32.10	Electronic control box	1	201285800017
16	Connection pipe ass'y	1	201685890045	32.11	Power clamp	2	201120700053
17	Evaporator ass'y	1	201585890002	33	Up flange ass'y	1	201285890060
18	Pipe clamp board ass'y	1	201285890049	34	Right cover ass'y	1	201285890094
19	Pipe clamp board	1	201286900301	35	Cable	2	202470600001
20	Pipe clamp board	1	201286900302	36	Cable	2	202485890003
21	Drainage pan ass'y	1	201285890080	37	Cable	2	202485890002
22	Connection board ass'y	1	201285890051	38	room temp sensor ass'y	2	202301300197
23	Wired controller	1	203355100010	39	Fan motor((YDK250-4X))	2	202400400641
24	Display box ass'y	1	203370190008	40	Volute shell ass'y	2	201200300202
25	Base ass'y	1	201285890055				

MDV-D250T1/N1-FA



No.	Part Name	Q'ty	BOM code	No.	Part Name	Q'ty	BOM code
1	Top cover ass'y	1	201285890058	26	Installation board ass'y	1	201285890086
2	Left clapboard ass'y	1	201285890098	27	Electronic control box cover	1	201285800018
3	Up connecting board ass'y	1	201285890066	28	Below flange ass'y	1	201285890092
4	Below connecting board ass'y	1	201285890062	29	Capacitor clamp	2	201200100005
5	Electric throttle ass'y	2	201609891569	30	Capacitor	2	202300320025
5.1	Electronic expansion valve ass'y	1	201609891570	31	Compressor capacitor box	2	201226190015
5.2	EEV solenoid	1	201600600231	32	Indoor electronic control box components	1	203385890008
6	Up connecting board ass'y	1	201285890101	32.1	Indoor control board assembly	1	201385890005
7	Top cover ass'y	1	201285890053	32.2	Indoor control board assembly	1	201385890006
8	Right cover ass'y	1	201285890068	32.3	Five Terminal Block	2	202301400247
9	Left clapboard ass'y	1	201285890075	32.4	Wire clamp	1	201219900001
10	Hook	4	201285890104	32.5	Transformer	2	202300900109
11	Up flange ass'y	1	201285890064	32.6	Wire joint, 3p	1	202301400224
12	Air filter	1	201101100012	32.7	Wire joint label,3p	1	202042000804
13	Fixing board ass'y	1	201285890083	32.8	Wire joint	3	202301450122
14	Below flange	1	201285890105	32.9	Relay	3	202300800071
15	Connection pipe ass'y	1	201685890044	32.10	Electronic control box	1	201285800017
16	Connection pipe ass'y	1	201685890045	32.11	Power clamp	2	201120700053
17	Evaporator ass'y	1	201585890002	33	Up flange ass'y	1	201285890060
18	Pipe clamp board ass'y	1	201285890049	34	Right cover ass'y	1	201285890094
19	Pipe clamp board	1	201286900301	35	Cable	2	202470600001
20	Pipe clamp board	1	201286900302	36	Cable	2	202485890003
21	Drainage pan ass'y	1	201285890080	37	Cable	2	202485890002
22	Connection board ass'y	1	201285890051	38	room temp sensor ass'y	2	202301300197
23	Wired controller	1	203355100010	39	Fan motor((YDK250-4X))	2	202400400641
24	Display box ass'y	1	203370190008	40	Volute shell ass'y	2	201200300202
25	Base ass'y	1	201285890055				



No.	Part Name	Q'ty	BOM code	No.	Part Name	Q'ty	BOM code
1	Top cover ass'y	1	201285890058	26	Installation board ass'y	1	201285890086
2	Left clapboard ass'y	1	201285890098	27	Electronic control box cover	1	201285800018
3	Up connecting board ass'y	1	201285890066	28	Below flange ass'y	1	201285890092
4	Below connecting board ass'y	1	201285890062	29	Capacitor clamp	2	201200100005
5	Electric throttle ass'y	2	201609891569	30	Capacitor	2	202300320025
5.1	Electronic expansion valve ass'y	1	201609891570	31	Compressor capacitor box	2	201226190015
5.2	EEV solenoid	1	201600600231	32	Indoor electronic control box components	1	203385890008
6	Up connecting board ass'y	1	201285890101	32.1	Indoor control board assembly	1	201385890005
7	Top cover ass'y	1	201285890053	32.2	Indoor control board assembly	1	201385890006
8	Right cover ass'y	1	201285890068	32.3	Five Terminal Block	2	202301400247
9	Left clapboard ass'y	1	201285890075	32.4	Wire clamp	1	201219900001
10	Hook	4	201285890104	32.5	Transformer	2	202300900109
11	Up flange ass'y	1	201285890064	32.6	Wire joint, 3p	1	202301400224
12	Air filter	1	201101100012	32.7	Wire joint label,3p	1	202042000804
13	Fixing board ass'y	1	201285890083	32.8	Wire joint	3	202301450122
14	Below flange	1	201285890105	32.9	Relay	3	202300800071
15	Connection pipe ass'y	1	201685890044	32.10	Electronic control box	1	201285800017
16	Connection pipe ass'y	1	201685890045	32.11	Power clamp	2	201120700053
17	Evaporator ass'y	1	201585890002	33	Up flange ass'y	1	201285890060
18	Pipe clamp board ass'y	1	201285890049	34	Right cover ass'y	1	201285890094
19	Pipe clamp board	1	201286900301	35	Cable	2	202470600001
20	Pipe clamp board	1	201286900302	36	Cable	2	202485890003
21	Drainage pan ass'y	1	201285890080	37	Cable	2	202485890002
22	Connection board ass'y	1	201285890051	38	room temp sensor ass'y	2	202301300197
23	Wired controller	1	203355100010	39	Fan motor((YDK250-4X))	2	202400400641
24	Display box ass'y	1	203370190008	40	Volute shell ass'y	2	201200300202
25	Base ass'y	1	201285890055				

12. Accessories

Name	Quantity	Function
Installation manual	1	/
Pipe insulation material	2	Heat insulation
Accessory drain pipe	1	To connect drain pipe
Adhesive tape for seal	1	To connect drain pipe
Adhesive tape for seal	1	To connect refrigerant pipe
Wire controller(KJR-12B)	1	To control the air-conditioner
Connective pipe	2	To connect electrical restriction assembly
controller manual	1	/



ISO 9001 : 2000

GD Midea Refrigeration Equipment Co., Ltd.
Have received ISO 9001 certification for
quality assurance.
Certificate Registration
NO.01 100 019209



ISO 14001: 2004

GD Midea Refrigeration Equipment Co., Ltd.
Have received environmental management
system
Standard ISO 14001 certification
Certificate NO.CC 1417

The International Division

Midea Air Conditioning and Refrigeration Sector

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