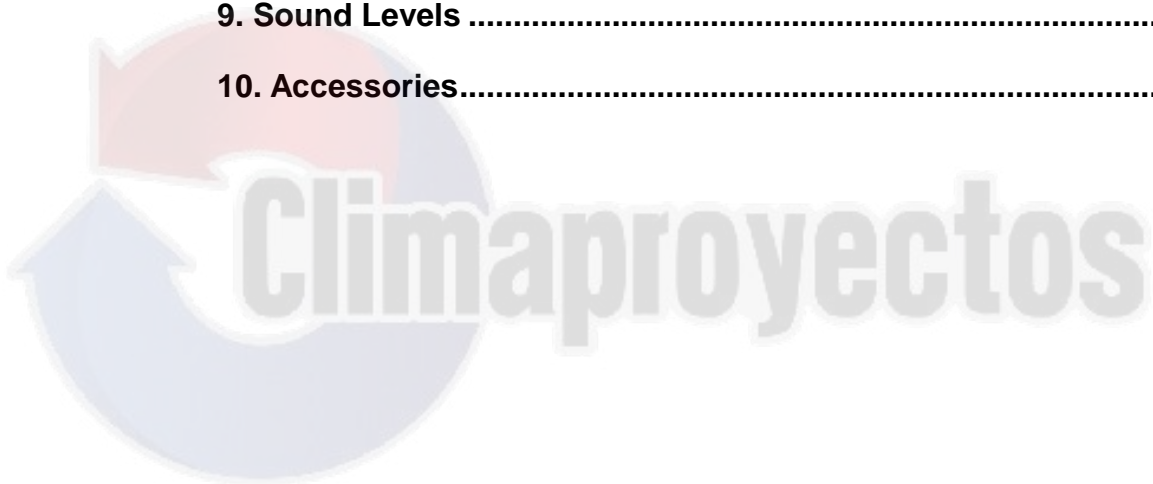


One-way Cassette

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1. Features

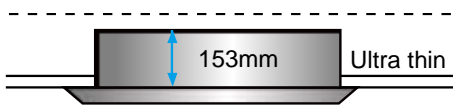
1.1 New panel design

The new panel is equipped with digital display function, which can show temperature, warning message and check running parameters.



1.2 Compact design

For capacity 1.8kW to 3.6kW, needs only 153mm space above the ceiling. And 189mm for 4.5~7.1kW models.



1.3 Parts inside installation

The throttling components and water pump are internally installed which means lower cost, no extra accessories or installation time.

1.4 Large airflow and low noise

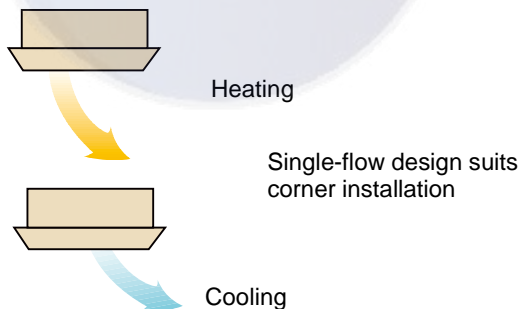
Large airflow, for high ceiling application (installation height can reach up to 3.2m for 1.8~3.6kW models and 4.0m for 4.5~7.1kW models) guarantees comfort in large space.

1.5 Improved air quality

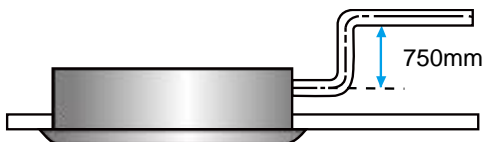
Two folding type air filters and two standard formaldehyde absorption nets improve the air quality greatly. The design of a long air outlet and a wide guide fan blade, which enlarges the range of flow transportation.

1.6 Auto swing

Auto swing mechanism guarantees even airflow distribution and a better room temperature balance.



1.7 Built-in water pump with 750mm pump head



1.8 Prevent condensation in air outlet by the patent of a new structure design

By the adoption of this structure, the guide wing will always wrapped up by dry cold air, cutting off the contact route of moist hot air and the cold guide wing. As a result, the water vapour in moist hot air gets no chance to condense in the surface of guide wing.

1.9 Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the previous state.

2. Specifications

Model			MDV-D18Q1/N1-D	MDV-D22Q1/N1-D
Power supply		V-Hz-Ph	220-240V-50Hz-1Ph	
Cooling	Capacity	kW	1.8	2.2
	Input	W	41	41
	Rated current	A	0.24	0.24
Heating	Capacity	kW	2.2	2.6
	Input	W	41	41
	Rated current	A	0.24	0.24
Indoor fan motor	Model		RPS12N	
	Type		Single-phase AC motor	
	Brand		Welling	
	Input(H/M/L)	W	29.5/26.7/25.0	29.5/26.7/25.0
	Capacitor	μF	0.8	0.8
	Speed (H/M/L)	r/min	1180/955/710	
Indoor coil	Number of rows		2	2
	Tube pitch(a) xrow pitch(b)	mm	21x13.37	21x13.37
	Fin spacing	mm	1.5	1.5
	Fin type		Hydrophilic aluminum	
	Tube outside dia. and type	mm	Φ7 Inner groove tube	
	Coil length x height x width	mm	760x252.4x26.74	
	Number of circuits		2	2
Indoor air flow (H/M/L)		m ³ /h	523/404/275	
Indoor noise level (H/M/L)		dB(A)	37/34/30	38/34/30
Indoor unit	Dimension (WxHxD)	mm	1054x153x425	
	Packing (WxHxD)	mm	1155x245x490	
	Net/Gross weight	kg	12.5/16	
Panel	Dimension (WxHxD)	mm	1180x25x465	
	Packing (WxHxD)	mm	1232x107x517	
	Net/Gross weight	kg	3.5/5.2	
Refrigerant type			R410A	
Throttle	Type		Electronic expansion valve	
	Model		D20MISZ-1R(L)	
Design pressure(H/L)		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	
Connecting wiring	Power wiring	mm ²	3x1.0	
	Signal wiring	mm ²	3x0.75	
Drainage water pipe diameter		mm	OD Φ25	
Standard Controller			Wireless remote controller	

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

Model			MDV-D28Q1/N1-D	MDV-D36Q1/N1-D
Power supply		V-Hz-Ph	220-240V-50Hz-1Ph	
Cooling	Capacity	kW	2.8	3.6
	Input	W	41	41
	Rated current	A	0.25	0.25
Heating	Capacity	kW	3.2	4.0
	Input	W	41	41
	Rated current	A	0.25	0.25
Indoor fan motor	Model		RPS12N	
	Type		Single-phase AC motor	
	Brand		Welling	
	Input	W	31.0/27.2/25.3	31.0/27.2/25.3
	Capacitor	μF	1.0	1.0
	Speed (H/M/L)	r/min	1270/1050/790	
Indoor coil	Number of rows		2	2
	Tube pitch(a) × row pitch(b)	mm	21×13.37	21×13.37
	Fin spacing	mm	1.5	1.5
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	mm	Φ7 Inner groove tube	
	Coil length × height × width	mm	760×252.4×26.74	
	Number of circuits		3	3
Indoor air flow (H/M/L)		m ³ /h	573/456/315	
Indoor noise level (H/M/L)		dB(A)	39/37/34	40/38/34
Indoor unit	Dimension (W×H×D)	mm	1054×153×425	
	Packing (W×H×D)	mm	1155×245×490	
	Net/Gross weight	kg	13/16.5	
Panel	Dimension (W×H×D)	mm	1180×25×465	
	Packing (W×H×D)	mm	1232×107×517	
	Net/Gross weight	kg	3.5/5.2	
Refrigerant type			R410A	
Throttle	Type		Electronic expansion valve	
	Model		D20MISZ-1R(L)	
Design pressure(H/L)		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	
Connecting wiring	Power wiring	mm ²	3×1.0	
	Signal wiring	mm ²	3×0.75	
Drainage water pipe diameter		mm	OD Φ25	
Standard Controller			Wireless remote controller	

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

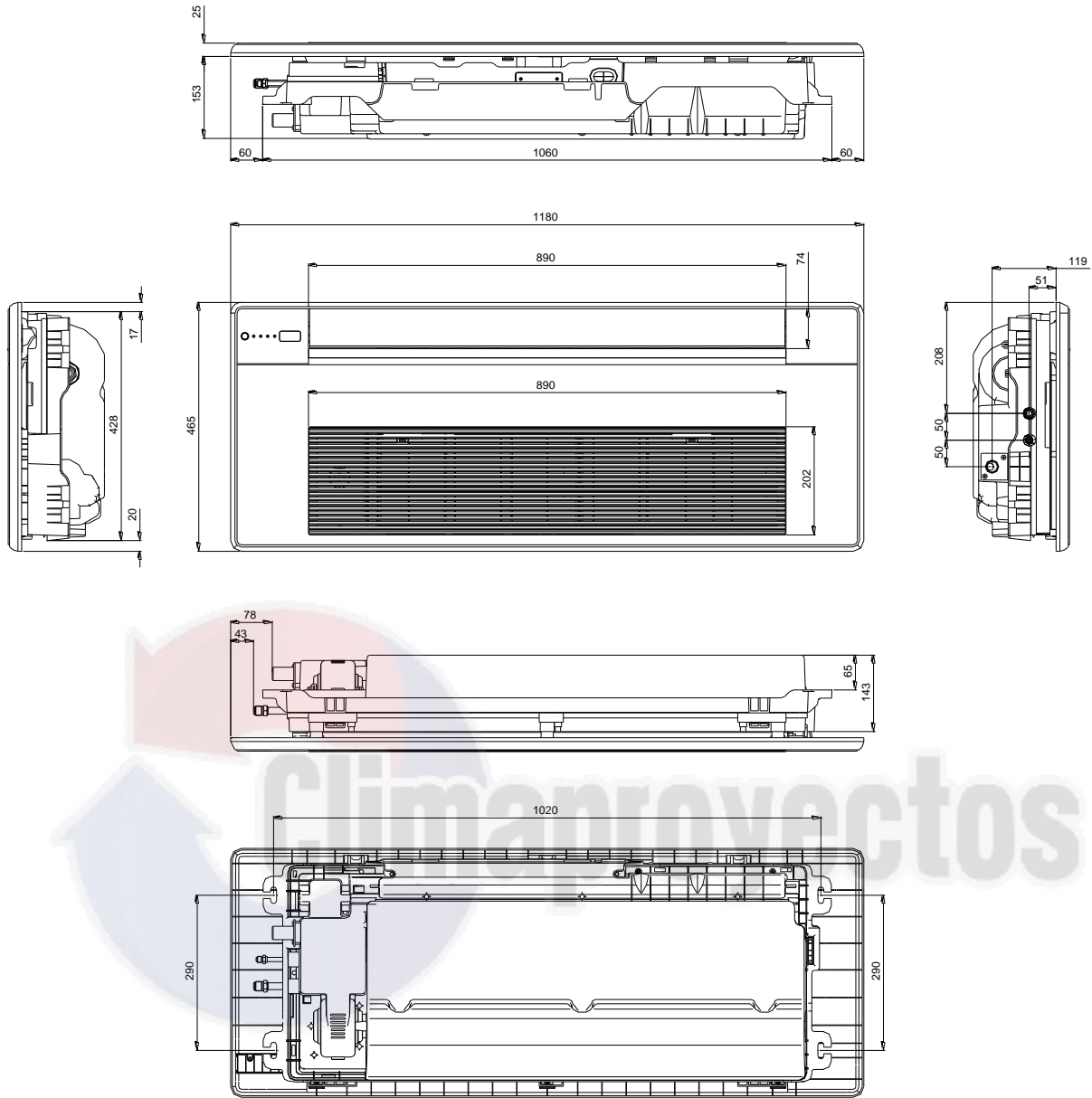
Model			MDV-D45Q1/N1-D	MDV-D56Q1/N1-D	MDV-D71Q1/N1-D
Power supply		V-Hz-Ph	220-240V-50Hz-1Ph		
Cooling	Capacity	kW	4.5	5.6	7.1
	Input	W	48	48	60
	Rated current	A	0.27	0.32	0.36
Heating	Capacity	kW	5.0	6.3	8.0
	Input	W	43	44	55
	Rated current	A	0.27	0.32	0.36
Indoor fan motor	Model		YDK38-4		YDK43-4
	Type		AC motor		AC motor
	Brand		Welling/ Tongde		
	Input	W	39.5/33.5/25.6	41.5/36.0/28.0	56.2/40.2/28.7
	Capacitor	μF	1.5	3.0	3.0
	Speed (h/m/l)	r/min	930/830/710	1080/990/860	1150/1020/850
Indoor coil	Number of rows		2	2	2
	Tube pitch(a) × 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 dia. and type	mm	Φ7 Inner groove tube		
	Coil length × height × width	mm	955×231×26.74		955×336×26.74
	Number of circuits		3	3	5
Indoor air flow (H/M/L)		m ³ /h	693/600/476	792/688/549	933/749/592
Indoor noise level (H/M/L)		dB(A)	41/39/35	42/40/36	44/41/37
Indoor unit	Dimension (W×H×D)	mm	1204×189×443		
	Packing (W×H×D)	mm	1370×295×505		
	Net/Gross weight	kg	18.5/23.2	18.8/23.5	19.5/24.2
Panel	Dimension (W×H×D)	mm	1350×25×505		
	Packing (W×H×D)	mm	1410×95×560		
	Net/Gross weight	kg	4/5.4	4/5.4	4/5.4
Refrigerant type			R410A		
Throttle	Type		Electronic expansion valve		
	Model		D20MISZ-1R(L)		
Design pressure (H/L)		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7	Φ12.7/ Φ15.9	Φ12.7/ Φ15.9
Connecting wiring	Power wiring	mm ²	3×2.5	3×2.5	3×2.5
	Signal wiring	mm ²	3×0.75	3×0.75	3×0.75
Drainage water pipe diameter		mm	ODΦ25		
Controller			Wireless remote controller		

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

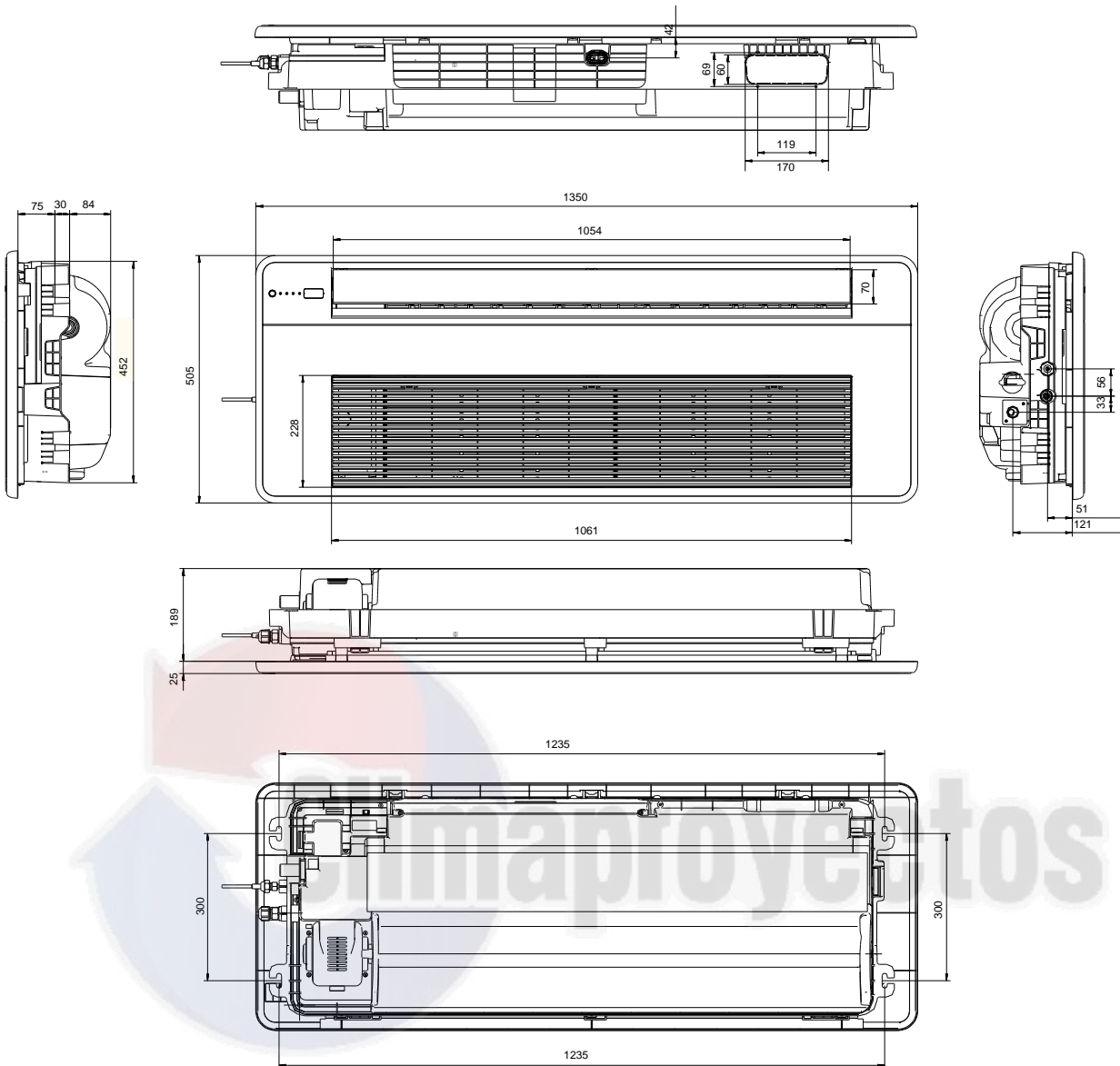
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB,outdoor temperature: 7°CDB,6°CWB,equivalent ref. Piping: 8m(horizontal)

3. Dimensions

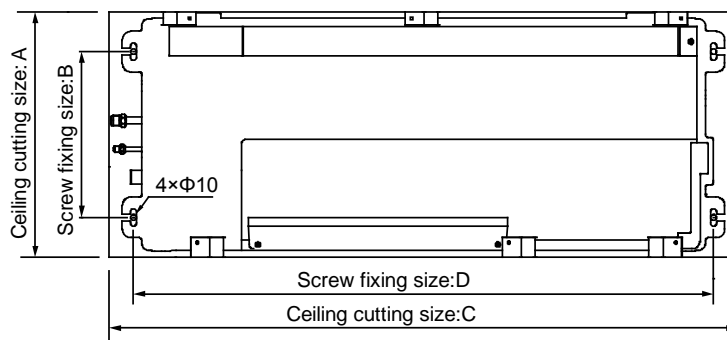
MDV-D18Q1/N1-D MDV-D22Q1/N1-D MDV-D28Q1/N1-D MDV-D36Q1/N1-D



MDV-D45Q1/N1-D MDV-D56Q1/N1-D MDV-D71Q1/N1-D



Please use the installation paper plate to make sure the position of the installation screws.



No.	Model		Unit: mm
	18-36	45-71	
A	430	470	
B	290	300	
C	1100	1290	
D	1015	1235	

4. Service Spaces

Please avoid installing in the following places :

A place with flammable gas or material.

A saline place such as a seashore vicinity.

A place with sulphur gas.

A place with oil gas, such as kitchen.

A place with high-humidity air.

An unbearable place.

A place where high-frequency waves are generated.

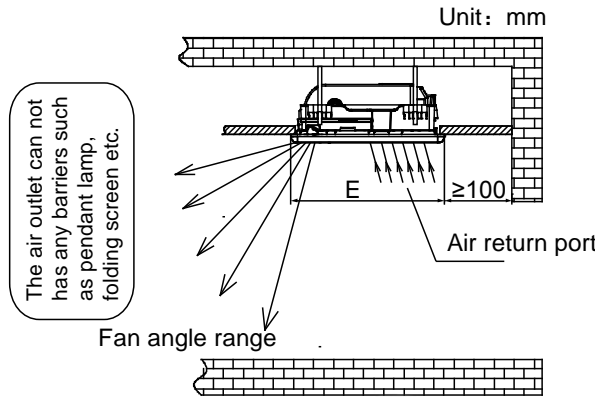
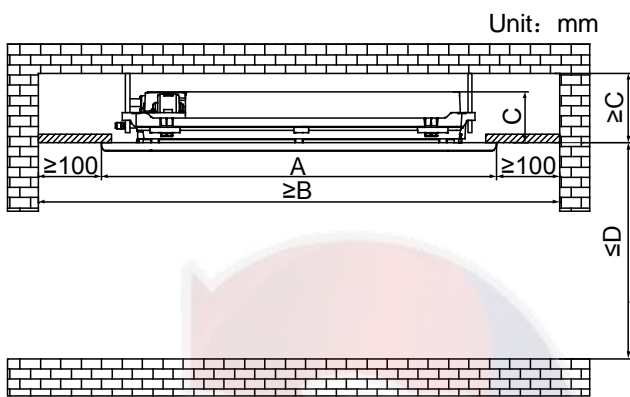
The appliance shall not be installed in the laundry.

Please comply with the related national electric standard to make electric insulation for construction and metal parts of air-conditioner.

Please choose the place where the ventilation is good.

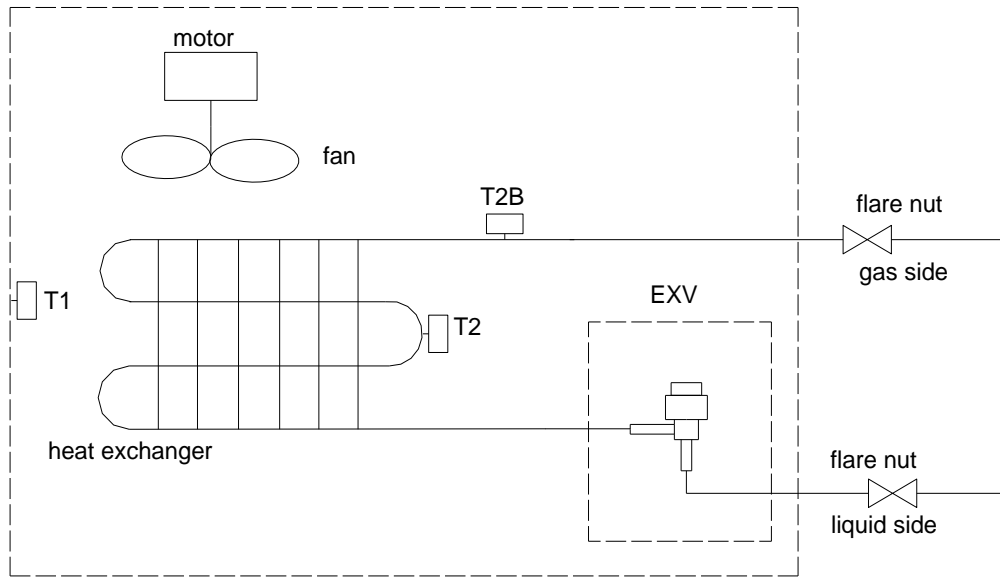
Ceiling space requires ≥ 100 mm.

The installation height of the unit can not be higher than D mm, or it will affect the operation effect.



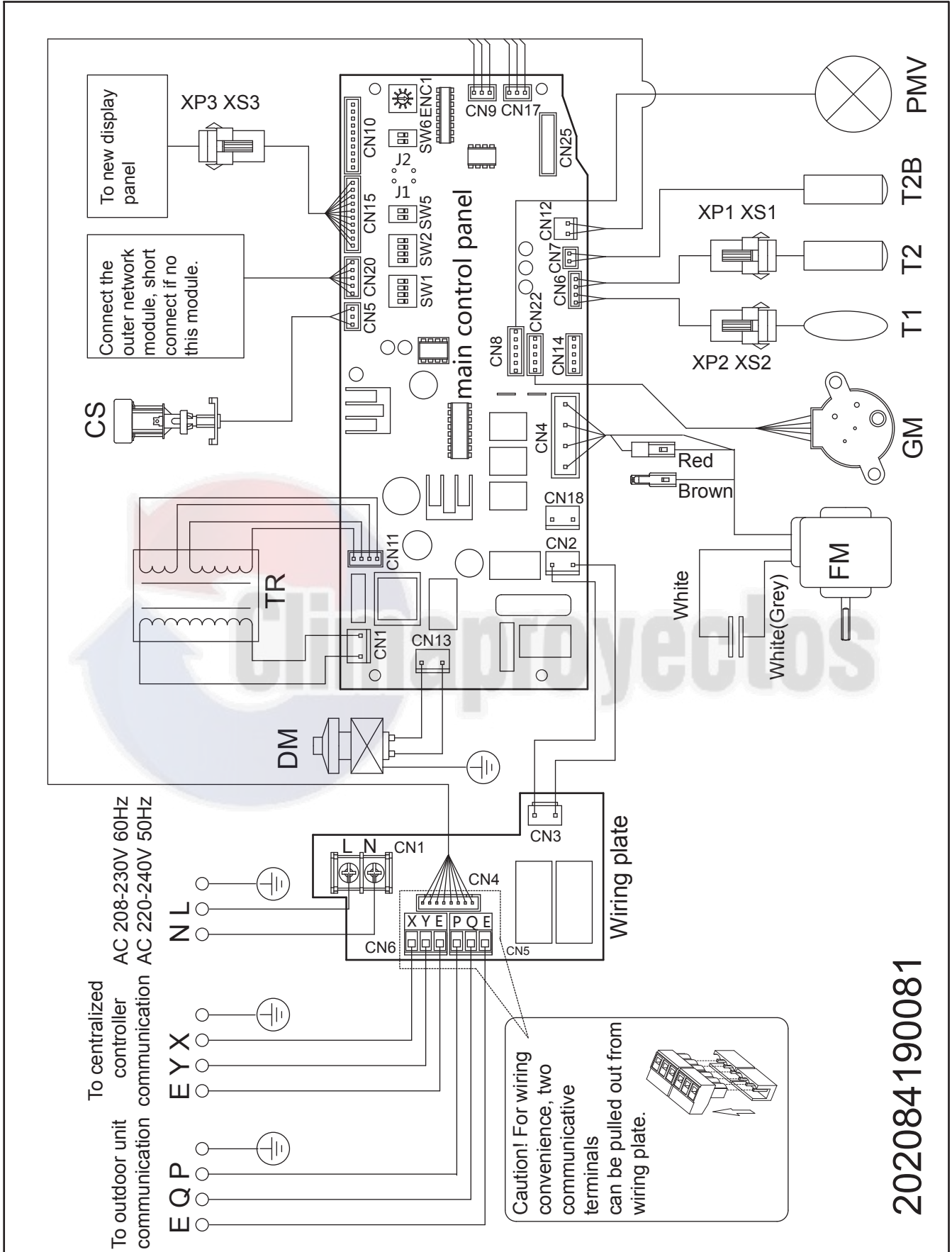
Model No.	Model	
	18-36	45-71
A	1180	1350
B	1380	1550
C	153	189
D	3200	4000
E	465	505

5. Piping Diagrams

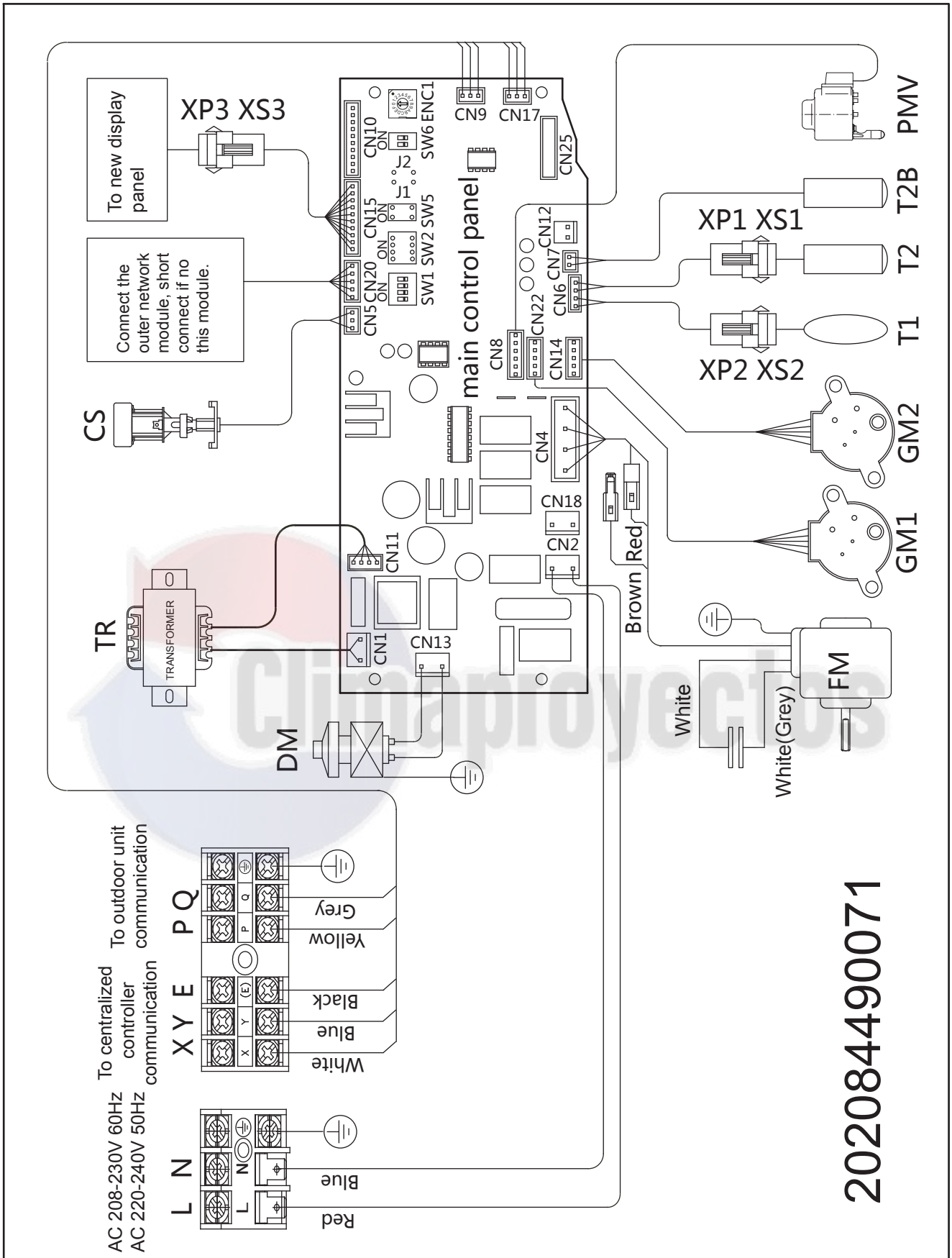


6. Wiring Diagrams

MDV-D18Q1/N1-D MDV-D22Q1/N1-D MDV-D28Q1/N1-D MDV-D36Q1/N1-D



MDV-D45Q1/N1-D MDV-D56Q1/N1-D MDV-D71Q1/N1-D



202084490071

HP set switch ENC1 definition list		Code	Name
Code	Indoor Unit Capacity Value	FM	Fan motor
		GM	Swinging motor
0	1800W(0.6HP)	DM	Water drainage pump
0	2200W(0.8HP)	CS	Water level switch
1	2800W(1.0HP)	PMV	Electronic expansion valve
2	3600W(1.2HP)	T1	Indoor temp. sensor
3	4500W(1.5HP)	T2	Mid-pipe temp. sensor of evaporator
4	5600W(2.0HP)	T2B	Outlet temp. sensor of evaporator
5	7100W(2.5HP)	XP1-3	Butt connection socket
6	8000W(3.0HP)	XS1-3	Butt connection socket
7	9000W(3.2HP)	TR	Power transformer
8	11200W(4.0HP)		
9	14000W(5.0HP)		

⚠ CAUTION

1	The E-heating component is optional, not for all models.
2	All dial code switches (include HP switch) cannot be adjusted by the user!
3	Power wire fixed screw must be fastened, otherwise may cause fire!
4	After air-conditioner installation and maintenance, put back the electric control box cover, otherwise may cause fire and electric shock!



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
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

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	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	

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
4.5	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
1.8	-20	-19.8	1.01	1.01	1.01	1.01	1.01	1.01
	-19	-18.8	1.08	1.08	1.08	1.08	1.08	1.08
	-17	-16.7	1.13	1.13	1.13	1.13	1.13	1.13
	-15	-14.7	1.17	1.17	1.17	1.17	1.17	1.17
	-13.00	-12.60	1.24	1.24	1.24	1.24	1.24	1.24
	-11.00	-10.50	1.26	1.28	1.28	1.28	1.28	1.28
	-10.00	-9.50	1.31	1.31	1.31	1.31	1.31	1.31
	-9.10	-8.50	1.35	1.35	1.35	1.35	1.35	1.35
	-7.60	-7.00	1.37	1.37	1.37	1.37	1.37	1.37
	-5.60	-5.00	1.42	1.42	1.42	1.42	1.42	1.42
	-3.70	-3.00	1.49	1.49	1.49	1.49	1.49	1.49
	-0.70	0.00	1.60	1.60	1.60	1.60	1.60	1.51
	2.20	3.00	1.69	1.69	1.69	1.69	1.66	1.51
	4.10	5.00	1.75	1.75	1.75	1.75	1.66	1.51
	6.00	7.00	1.80	1.80	1.80	1.75	1.66	1.51
	7.90	9.00	1.85	1.85	1.80	1.75	1.66	1.51
9.80	11.00	1.91	1.91	1.80	1.75	1.66	1.51	
11.80	13.00	1.98	1.94	1.80	1.75	1.66	1.51	
13.70	15.00	2.03	1.94	1.80	1.75	1.66	1.51	
2.2	-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	
2.8	-20	-19.8	1.57	1.57	1.57	1.57	1.57	1.57
	-19	-18.8	1.68	1.68	1.68	1.68	1.68	1.68
	-17	-16.7	1.76	1.76	1.76	1.76	1.76	1.76
	-15	-14.7	1.82	1.82	1.82	1.82	1.82	1.82
	-13.00	-12.60	1.93	1.93	1.93	1.93	1.93	1.93
	-11.00	-10.50	1.96	1.99	1.99	1.99	1.99	1.99
	-10.00	-9.50	2.04	2.04	2.04	2.04	2.04	2.04
-9.10	-8.50	2.10	2.10	2.10	2.10	2.10	2.10	

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
2.8	-7.60	-7.00	2.13	2.13	2.13	2.13	2.13	2.13
	-5.60	-5.00	2.21	2.21	2.21	2.21	2.21	2.21
	-3.70	-3.00	2.32	2.32	2.32	2.32	2.32	2.32
	-0.70	0.00	2.49	2.49	2.49	2.49	2.49	2.35
	2.20	3.00	2.63	2.63	2.63	2.63	2.58	2.35
	4.10	5.00	2.72	2.72	2.72	2.72	2.58	2.35
	6.00	7.00	2.80	2.80	2.80	2.72	2.58	2.35
	7.90	9.00	2.88	2.88	2.80	2.72	2.58	2.35
	9.80	11.00	2.97	2.97	2.80	2.72	2.58	2.35
	11.80	13.00	3.08	3.02	2.80	2.72	2.58	2.35
	13.70	15.00	3.16	3.02	2.80	2.72	2.58	2.35
3.6	-20	-19.8	2.02	2.02	2.02	2.02	2.02	2.02
	-19	-18.8	2.16	2.16	2.16	2.16	2.16	2.16
	-17	-16.7	2.27	2.27	2.27	2.27	2.27	2.27
	-15	-14.7	2.34	2.34	2.34	2.34	2.34	2.34
	-13.00	-12.60	2.48	2.48	2.48	2.48	2.48	2.48
	-11.00	-10.50	2.52	2.56	2.56	2.56	2.56	2.56
	-10.00	-9.50	2.63	2.63	2.63	2.63	2.63	2.63
	-9.10	-8.50	2.70	2.70	2.70	2.70	2.70	2.70
	-7.60	-7.00	2.74	2.74	2.74	2.74	2.74	2.74
	-5.60	-5.00	2.84	2.84	2.84	2.84	2.84	2.84
	-3.70	-3.00	2.99	2.99	2.99	2.99	2.99	2.99
	-0.70	0.00	3.20	3.20	3.20	3.20	3.20	3.02
	2.20	3.00	3.38	3.38	3.38	3.38	3.31	3.02
	4.10	5.00	3.49	3.49	3.49	3.49	3.31	3.02
	6.00	7.00	3.60	3.60	3.60	3.49	3.31	3.02
	7.90	9.00	3.71	3.71	3.60	3.49	3.31	3.02
	9.80	11.00	3.82	3.82	3.60	3.49	3.31	3.02
11.80	13.00	3.96	3.89	3.60	3.49	3.31	3.02	
13.70	15.00	4.07	3.89	3.60	3.49	3.31	3.02	
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	

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
4.5	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. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage(V)	Min. (V)	Max. (V)	MCA	MFA	KW	FLA
MDV-D18Q1/N1-D	50	220-240	198	242	0.169	15	0.012	0.135
MDV-D22Q1/N1-D	50	220-240	198	242	0.169	15	0.012	0.135
MDV-D28Q1/N1-D	50	220-240	198	242	0.178	15	0.012	0.142
MDV-D36Q1/N1-D	50	220-240	198	242	0.178	15	0.012	0.142
MDV-D45Q1/N1-D	50	220-240	198	242	0.235	15	0.38	0.188
MDV-D56Q1/N1-D	50	220-240	198	242	0.238	15	0.38	0.19
MDV-D71Q1/N1-D	50	220-240	198	242	0.275	15	0.43	0.22

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

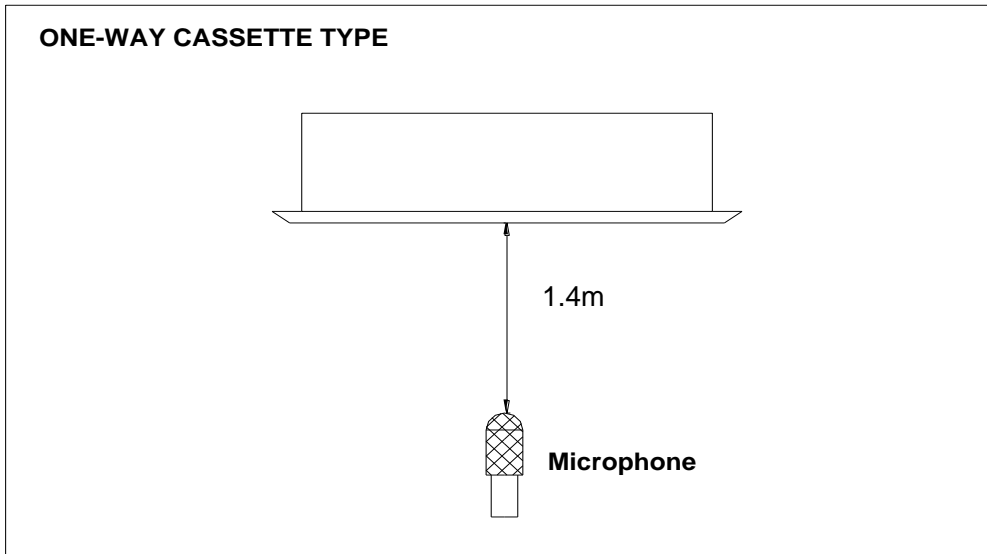
FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor



9. Sound Levels

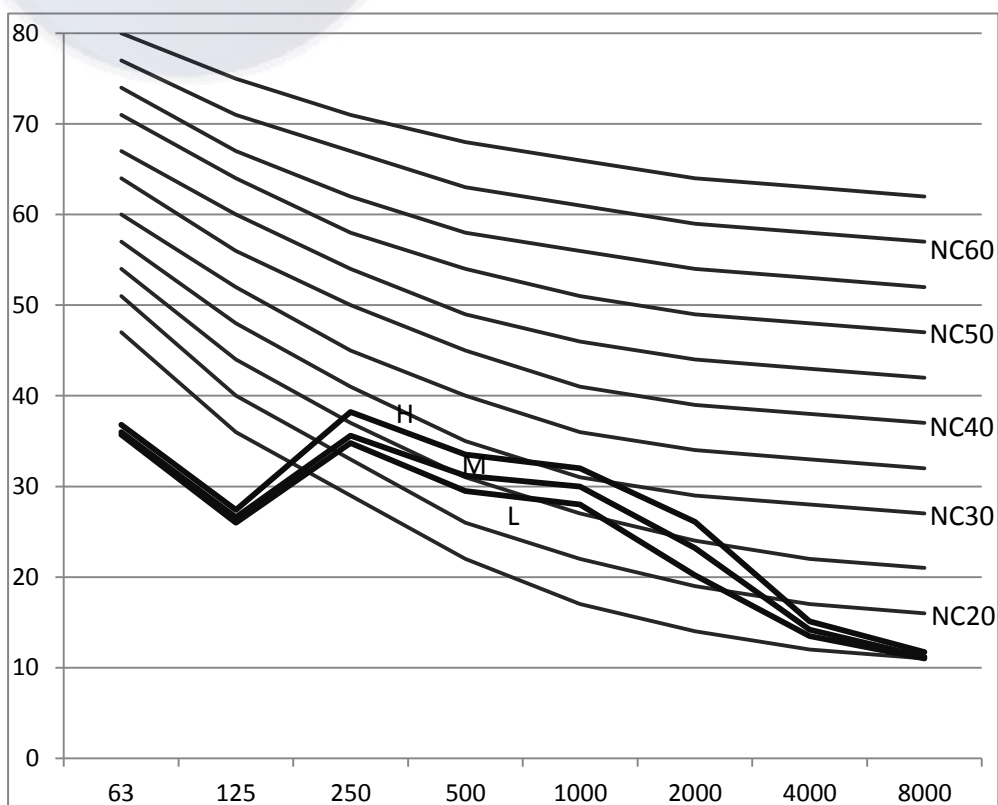
9.1 Test condition



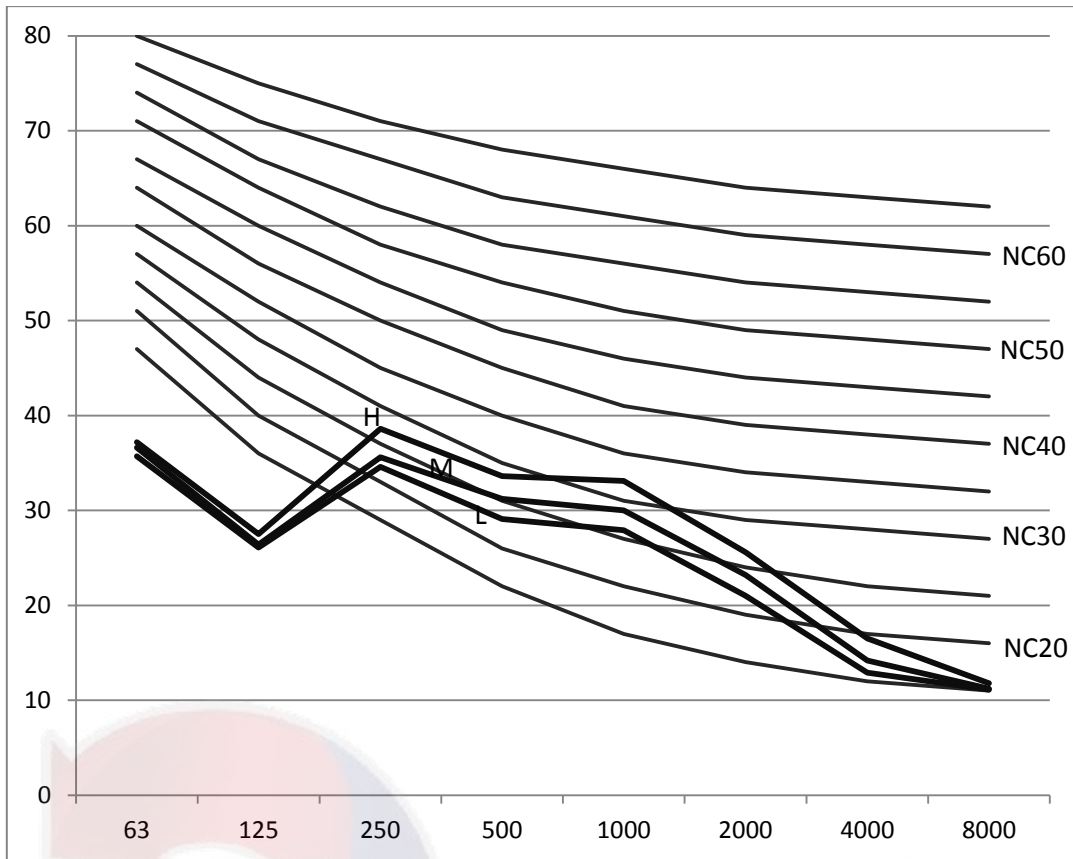
9.2 Test value

Model	Sound test value dB(A)		
	H	M	L
MDV-D18Q1/N1-D	37	34	30
MDV-D22Q1/N1-D	38	34	30
MDV-D28Q1/N1-D	39	37	34
MDV-D36Q1/N1-D	40	38	34
MDV-D45Q1/N1-D	41	39	35
MDV-D56Q1/N1-D	42	40	36
MDV-D71Q1/N1-D	44	41	37

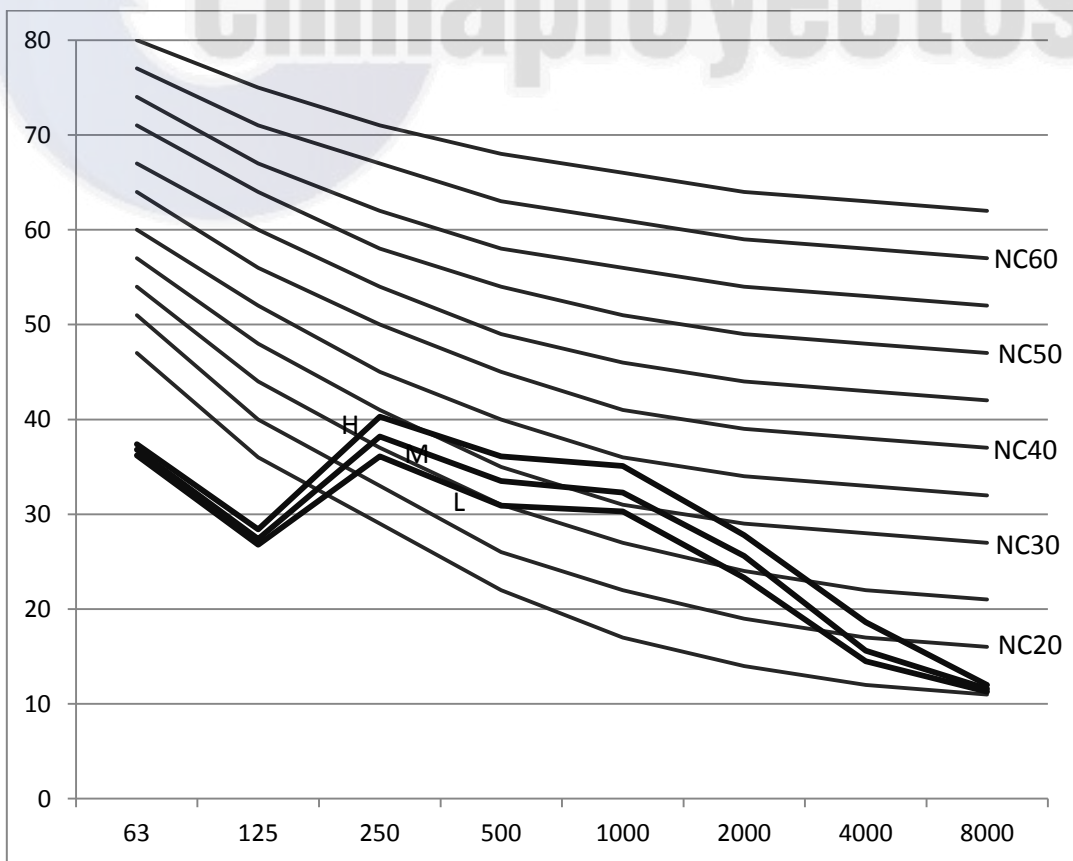
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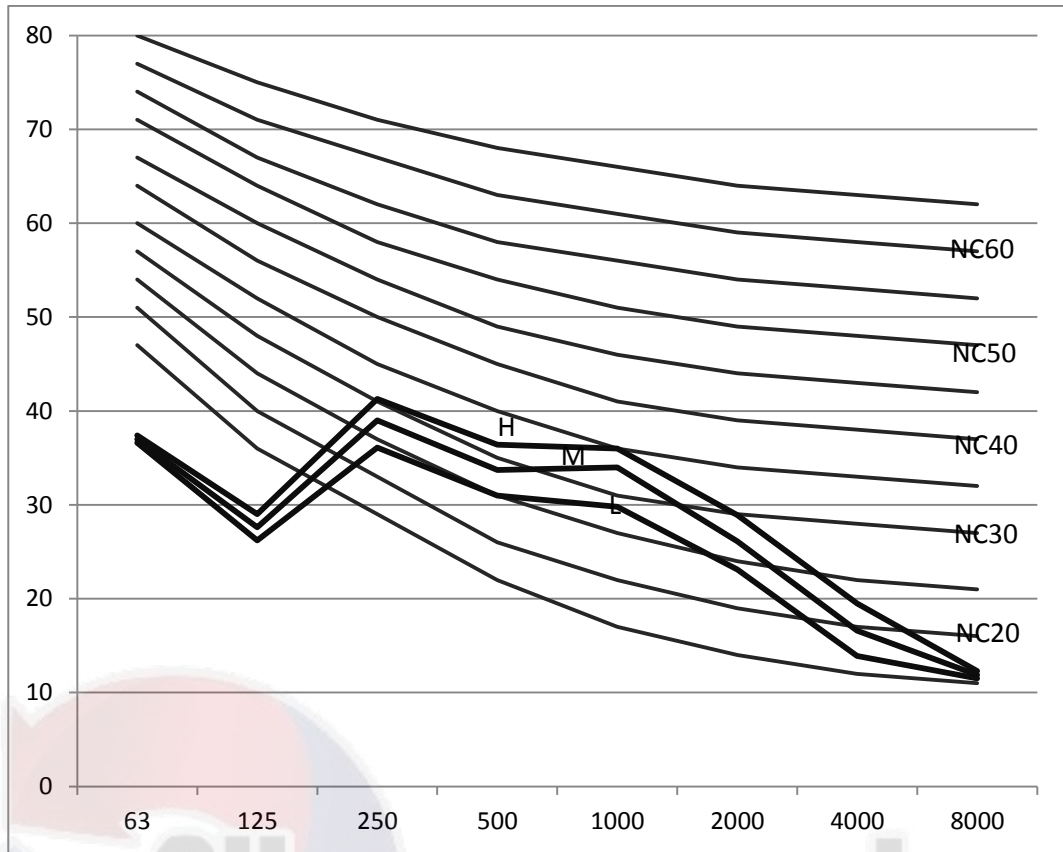
MDV-D22Q1/N1-D



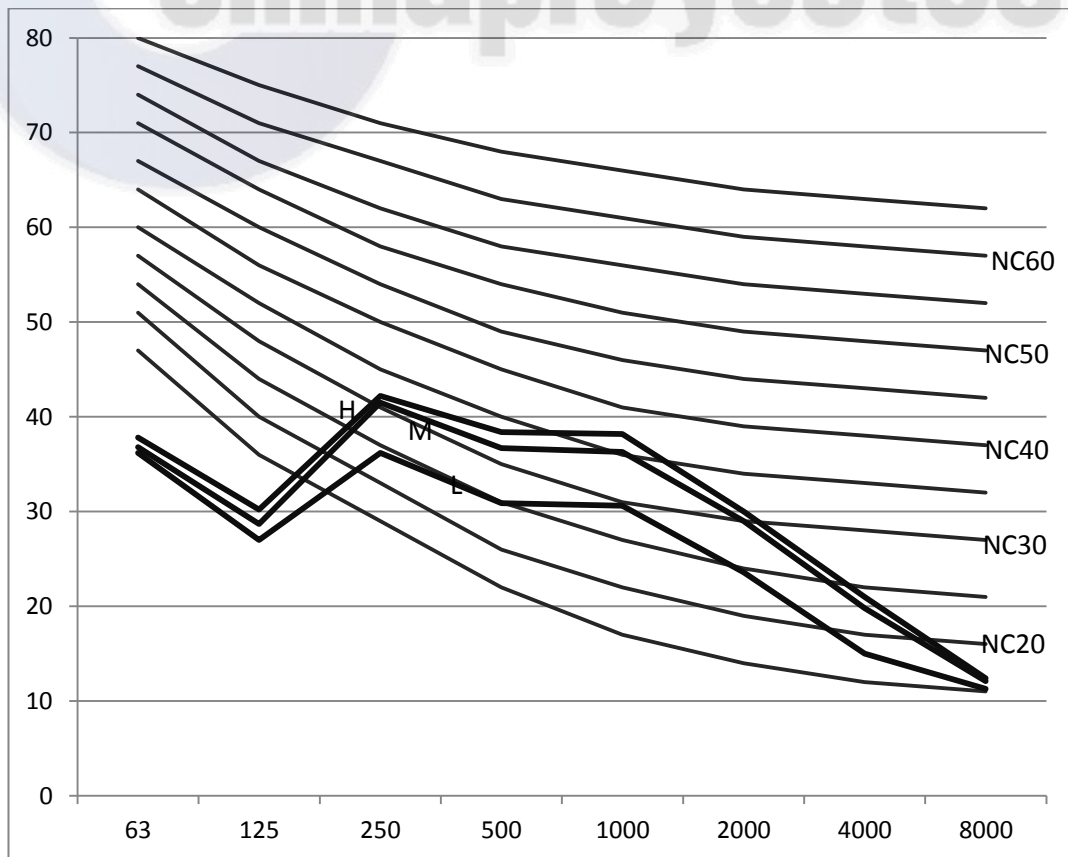
MDV-D28Q1/N1-D



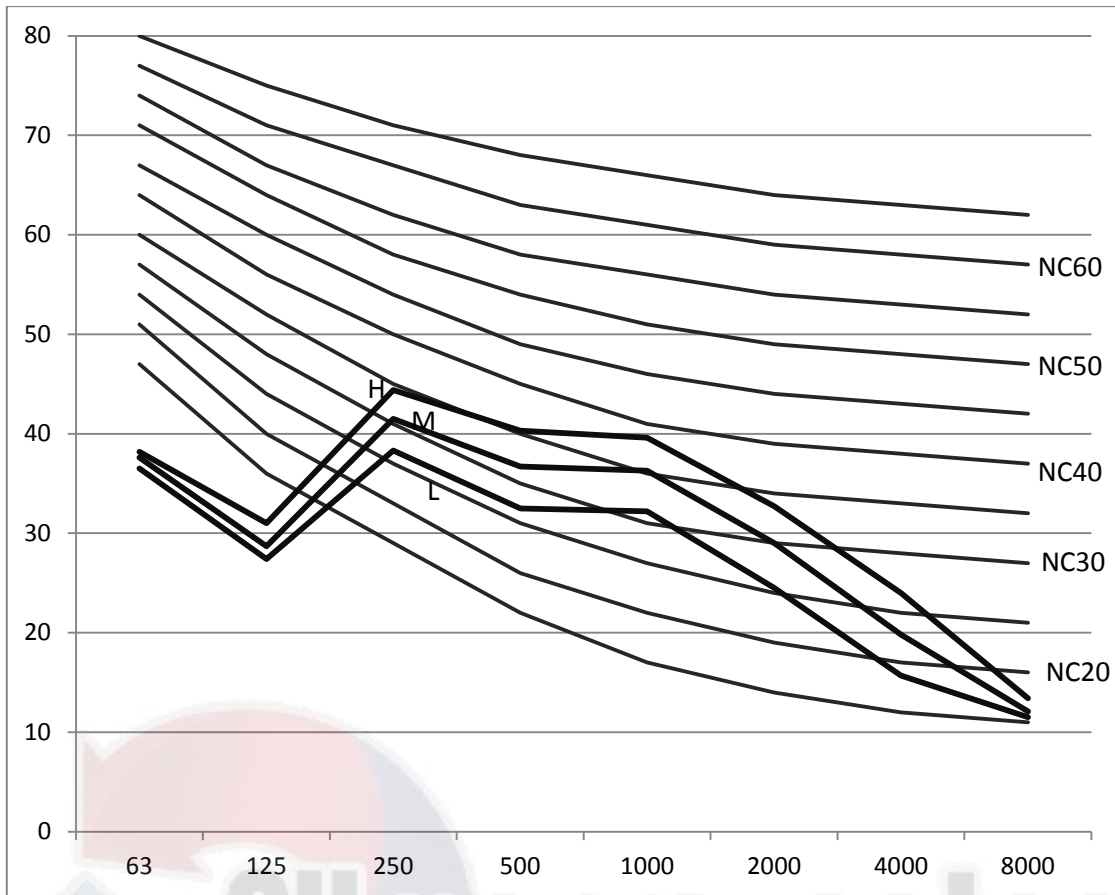
MDV-D36Q1/N1-D



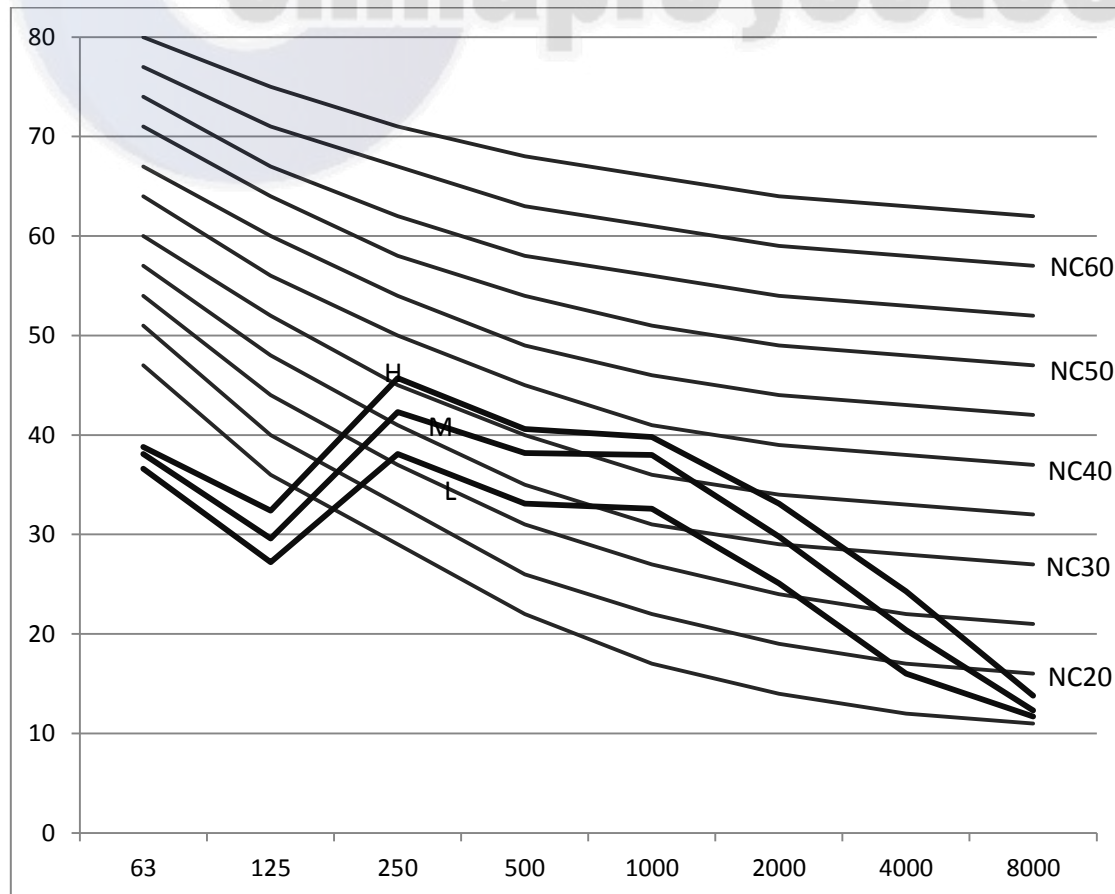
MDV-D45Q1/N1-D


















MDV-D56Q1/N1-D



MDV-D71Q1/N1-D



10. Accessories**Standard accessories**

Name	Quantity	Outline	Function
Indoor unit installation manual	1	/	Hand to the user
Installation paper plate	1		For installing the suspender and cutting the ceiling
Protection sleeve for refrigerant inlet and outlet pipes	2		For heat insulation of the pipe connections
Fastening belt	10		For fastening
Flexible drainage pipe	1		For the connection between the air-conditioner and the drainage pipe
Clasp	1		For fastening the flexible drainage pipe
Big gasket	8		Necessary fastener for hanging the air-conditioner
Screw	8		Necessary fastener for hanging the air-conditioner
Panel installation bolt	6/7		For installing the panel to the air-conditioner
Operation manual for remote controller	1		Please hand to the user
Remote controller	1		For remotely controlling the unit
Remote controller support	1		For placing the remote controller
Battery	2		Battery for remote controller
Cross-recessed countersunk head self tapping screw	2		For fixing the remote controller support
Small flathead screwdriver	1		Use for installing the wires and dial codes
Copper	1		Use for pipe connection of engineering installation