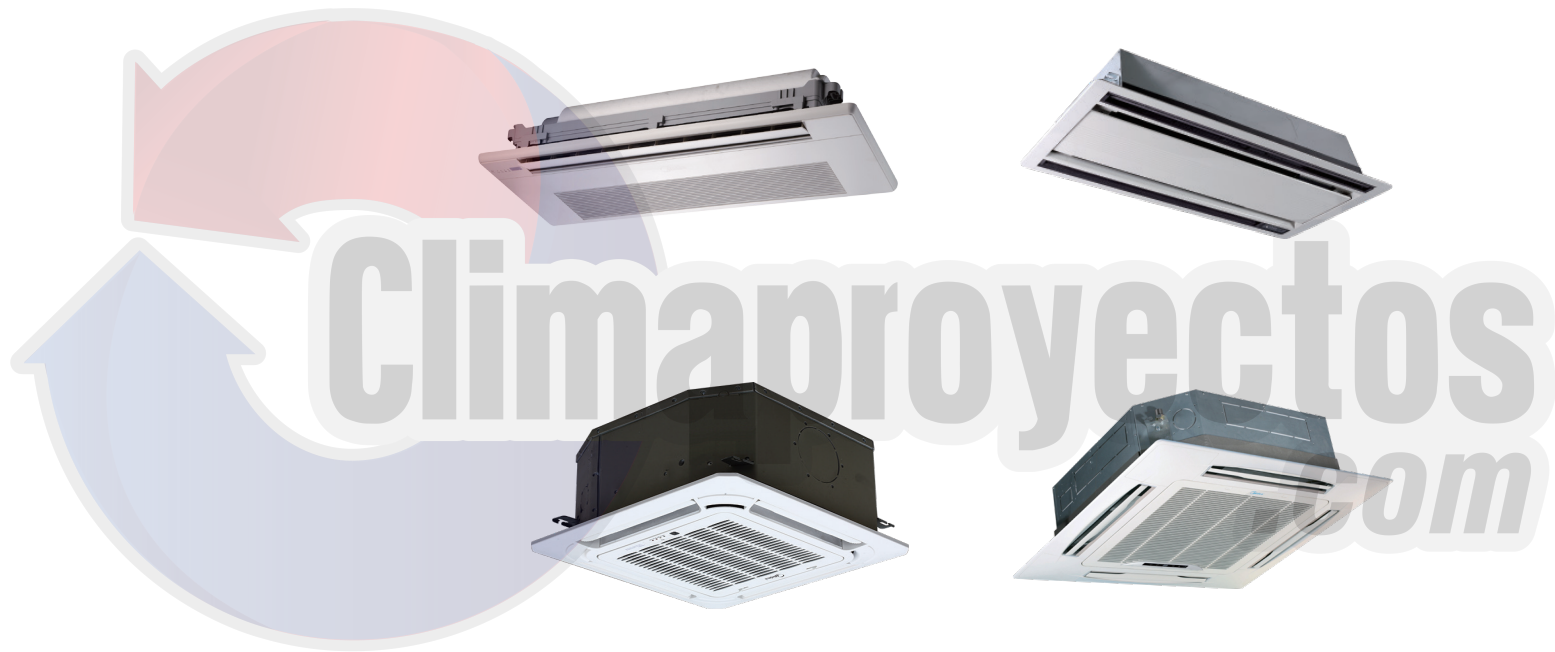




Technical Service Manual

VRF Indoor Unit

60Hz



Series:

One-way Cassette

Two-way Cassette

Compact Four-way Cassette

Four-way Cassette

Silent Four-way Cassette

Contents

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41 Compact Four-way Cassette

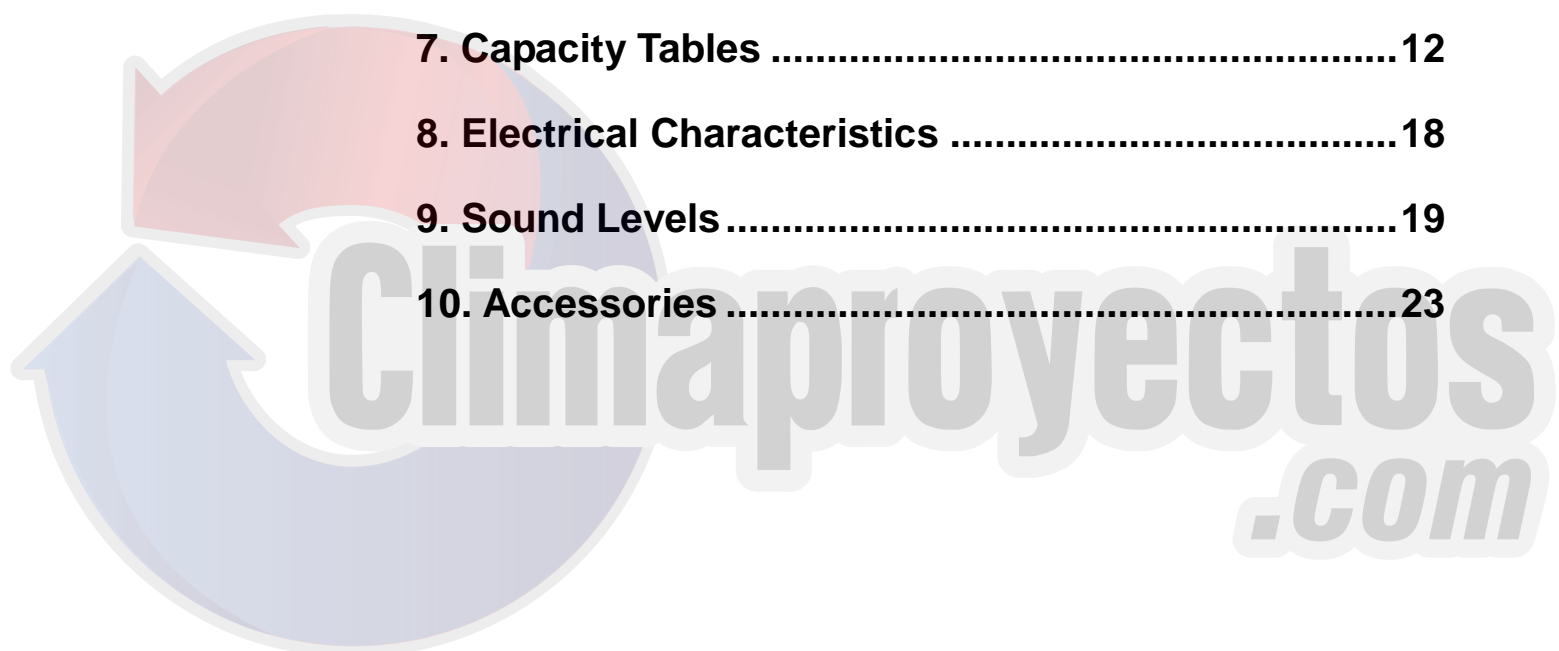
57 Four-way Cassette

81 Silent Four-way Cassette



One-way Cassette

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1. Features

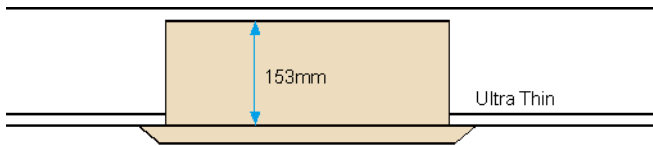
1.1 New panel design

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 6100~12300Btu/h(1.8~3.6kW) models, need only 6-1/32in.(153mm) space above the ceiling. And 7-7/16in.(189mm) for 15400~24200 Btu/h (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

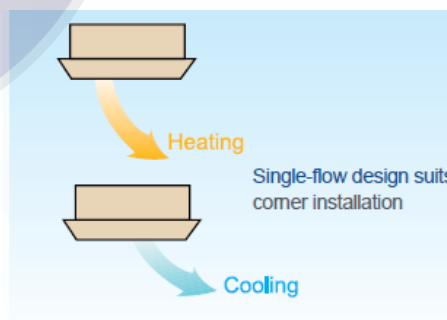
Large airflow, for high ceiling application. Installation height can reach up to 10.5ft(3.2m) for 6100~12300Btu/h(1.8~3.6kW) models and 13.1ft(4.0m) for 15400~24200 Btu/h(4.5~7.1kW) models, guarantees comfort in large space.

1.5 Improved air quality

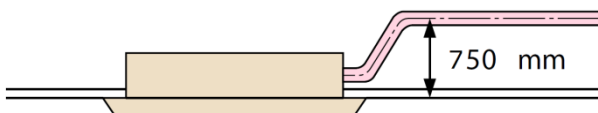
Two folding type air filters and two standard formaldehyde absorption nets improve the air quality greatly. The design of a long air outlet and a wide guide fan blade, which enlarges the range of flow transportation.

1.6 Auto swing

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



1.7 Built-in water pump with 29-17/32in.(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/VN1-D	MDV-D22Q1/VN1-D	
Power supply		V- Ph-Hz	220-240V~1Ph~60Hz	
Cooling	Capacity	kW	1.8	2.2
		Btu/h	6100	7500
	Input	W	41	41
	Rated current	A	0.24	0.24
Heating	Capacity	kW	2.2	2.6
		Btu/h	7500	8900
	Input	W	41	41
	Rated current	A	0.24	0.24
Indoor fan motor	Model		RPS12B	
	Type		AC motor	
	Brand		Welling	
	Input(H/M/L)	W	29.5/26.7/25.0	29.5/26.7/25.0
	Capacitor	μF	0.8μF/450V	0.8μF/450V
	Speed (H/M/L)	r/min	1180/955/710	
	Indoor coil	Number of rows		2
Tube pitch(a) × row pitch(b)		in.(mm)	53/64×17/32(21×13.37)	53/64×17/32(21×13.37)
Fin spacing		in.(mm)	1/16(1.5)	1/16(1.5)
Fin type		Hydrophilic aluminum		
Tube outside dia. and type		in.(mm)	9/32(Φ7) Inner groove tube	
Coil length × height × width		in.(mm)	29-59/64×9-15/16×1-3/64(760×252.4×26.74)	
Number of circuits		2	2	
Indoor air flow (H/M/L)	m ³ /h		523/404/275	
	CFM		308/238/162	
Indoor noise level (H/M/L)		dB(A)	37/34/30	38/34/30
Indoor unit	Dimension (W×H×D)	in.(mm)	41-1/2×6-1/32×16-47/64(1054×153×425)	
	Packing (W×H×D)	in.(mm)	45-15/32×9-41/64×19-19/64(1155×245×490)	
	Net/Gross weight	lbs. (kg)	27.8/35.3(12.5/16)	27.8/35.3(12.5/16)
Panel	Dimension (W×H×D)	in.(mm)	46-29/64×63/64×18-5/16(1180×25×465)	
	Packing (W×H×D)	in.(mm)	48-1/2×4-7/32×20-23/64(1232×107×517)	
	Net/Gross weight	lbs. (kg)	7.7/11.5(3.5/5.2)	7.7/11.5(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	in.(mm)	1/4(Φ6.35)	
	Gas side	in.(mm)	1/2(Φ12.7)	
Connecting wiring	Power wiring	mm ²	3×1.0	
	Signal wiring	mm ²	3×0.75	
Drainage water pipe diameter		in.(mm)	OD 63/64 (Φ25)	
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/VN1-D	MDV-D36Q1/VN1-D
Power supply		V- Ph-Hz	220-240V~1Ph~60Hz
Cooling	Capacity	kW	2.8
		Btu/h	9600
	Input	W	41
	Rated current	A	0.25
Heating	Capacity	kW	3.2
		Btu/h	10900
	Input	W	41
	Rated current	A	0.25
Indoor fan motor	Model		RPS12B
	Type		AC motor
	Brand		Welling
	Input	W	31.0/27.2/25.3
	Capacitor	μF	1.0μF/450V
	Speed (H/M/L)	r/min	1270/1050/790
Indoor coil	Number of rows		2
	Tube pitch(a) × row pitch(b)	in.(mm)	53/64×17/32(21×13.37)
	Fin spacing	in.(mm)	1/16(1.5)
	Fin type		Hydrophilic aluminum
	Tube outside diameter and type	in.(mm)	9/32(Φ7) Inner groove tube
	Coil length × height × width	in.(mm)	29-59/64×9-15/16×1-3/64(760×252.4×26.74)
	Number of circuits		3
Indoor air flow (H/M/L)		m ³ /h	573/456/315
		CFM	337/268/185
Indoor noise level (H/M/L)		dB(A)	39/37/34
Indoor unit	Dimension (W×H×D)	in.(mm)	41-1/2×6-1/32×16-47/64(1054×153×425)
	Packing (W×H×D)	in.(mm)	45-15/32×9-41/64×19-19/64(1155×245×490)
	Net/Gross weight	lbs.(kg)	28.8/ 36.4(13/16.5)
Panel	Dimension (W×H×D)	in.(mm)	46-29/64×63/64×18-5/16(1180×25×465)
	Packing (W×H×D)	in.(mm)	48-1/2×4-7/32×20-23/64(1232×107×517)
	Net/Gross weight	lbs.(kg)	7.7/11.5(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	in.(mm)	1/4(Φ6.35)
	Gas side	in.(mm)	1/2/(Φ12.7)
Connecting wiring	Power wiring	mm ²	3×1.0
	Signal wiring	mm ²	3×0.75
Drainage water pipe diameter		in.(mm)	OD 63/64 (Φ25)
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)

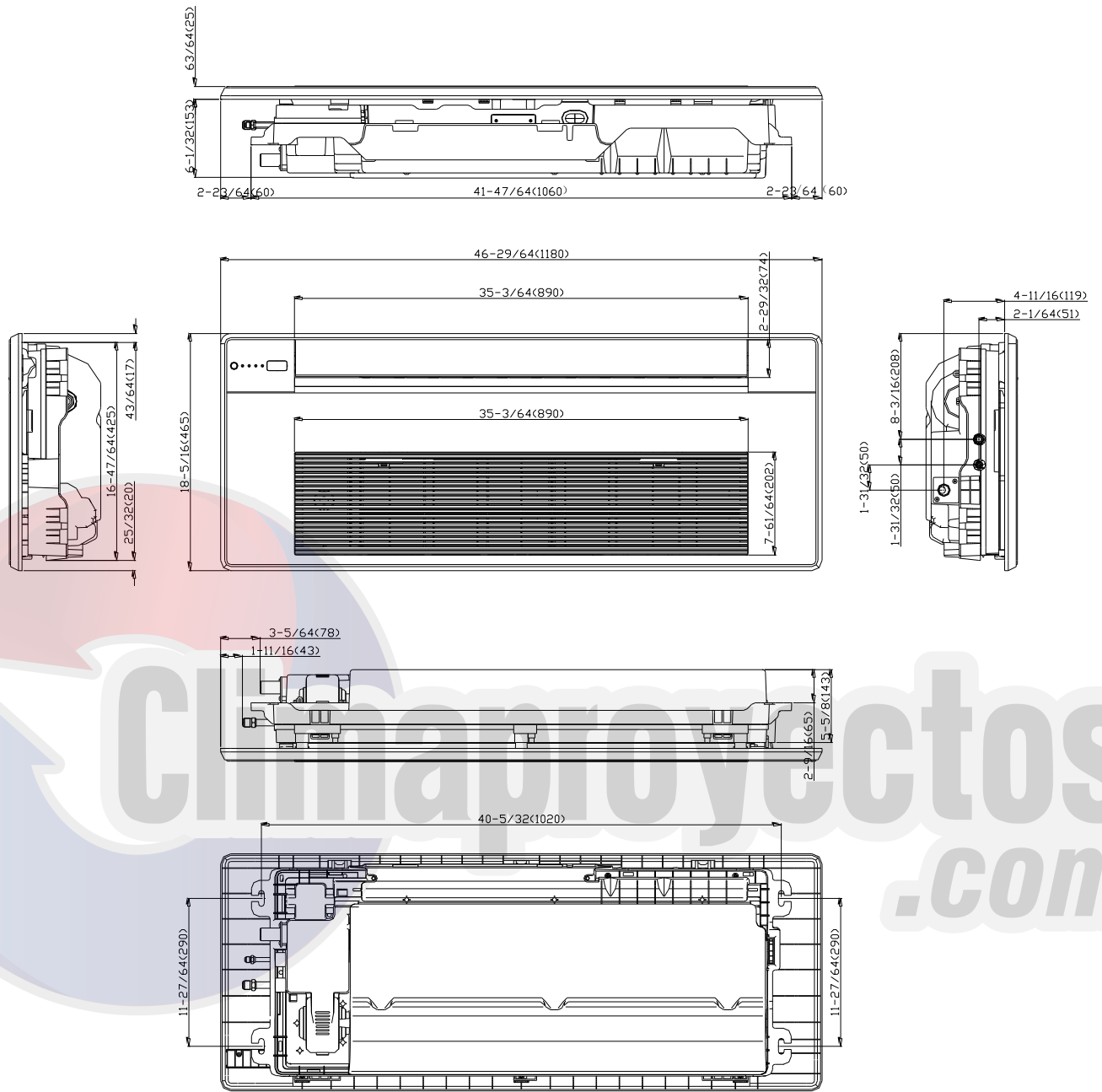
Model			MDV-D45Q1/VN1-D	MDV-D56Q1/VN1-D	MDV-D71Q1/VN1-D
power supply			220-240V~1Ph~60Hz		
Cooling	Capacity	W	4500	5600	7100
		Btu/h	15400	19100	24200
	Input	W	54	60	75
	Rated current	A	0.27	0.32	0.36
Heating	Capacity	W	5000	6300	8000
		Btu/h	17100	21500	27300
	Input	W	44	50	65
	Rated current	A	0.27	0.32	0.36
Indoor fan motor	Model		YDK38-4	YDK38-4	YDK43-4
	Type		AC motor		
	Brand		Welling/ Tongde		
	Input	W	43.6/36.0/26.8	48.2/40.0/29.8	72.8/46.0/31.8
	Capacitor	uF	2.0	3.0	3.0
	Speed (h/m/l)	r/min	930/830/700	1050/930/800	1120/960/780
Indoor coil	Number of rows		2	2	2
	Tube pitch(a) x row	in.(mm)	21x13.37	21x13.37	21x13.37
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum		
	Tube outside dia. and type	in.(mm)	9/32(Φ7) Inner groove tube		
	Coil length x height x width	in.(mm)	37-19/32x9-3/32x1-3/64(955x231x26.74)		37-19/32x13-15/64x1-3/64(955x336x26.74)
	Number of circuits		3	3	5
Indoor air flow (H/M/L)	m ³ /h		693/600/476	792/688/549	933/749/592
	CFM		408/353/280	466/405/323	549/441/349
Indoor noise level (H/M/L)		dB(A)	41/39/35	42/40/36	44/41/37
Indoor unit	Dimension (WxHxD)	in.(mm)	50-13/64x7-7/16x17-23/32(1275x189x450)		
	Packing (WxHxD)	in.(mm)	53-15/16x11-39/64x19-7/8(1370x295x505)		
	Net/Gross weight	lbs.(kg)	40.8/51.1(18.5/23.2)	41.4/51.8(18.8/23.5)	43.0/53.4(19.5/24.2)
Panel	Dimension (WxHxD)	in.(mm)	53-5/32x63/64x19-7/8(1350x25x505)		
	Packing (WxHxD)	in.(mm)	55-33/64x3-47/64x22-3/64(1410x95x560)		
	Net/Gross weight	lbs.(kg)	8.8/11.9(4/5.4)		
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	in.(mm)	1/4 (Φ6.35)	1/2(Φ12.7)	1/2(Φ12.7)
	Gas side	in.(mm)	1/2(Φ12.7)	5/8(Φ15.9)	5/8(Φ15.9)
Connecting wiring	Power wiring	mm ²	3x2.5		
	Signal wiring	mm ²	3x0.75		
Drainage water pipe dia.		in.(mm)	OD 63/64 (Φ25)		
Controller			Wireless remote controller		

Notes: 1. Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F (27°C) DB,66.2°F (19°C) WB, outdoor temperature:95°F (35°C)DB, equivalent ref. Piping: 8m(horizontal)
 2. Nominal heating capacities are based on the following conditions: return air temperature: 68°F (20°C)DB, outdoor temperature: 44.6°F (7°C)DB,42.8°F (6°C)WB, equivalent ref. Piping: 8m(horizontal)

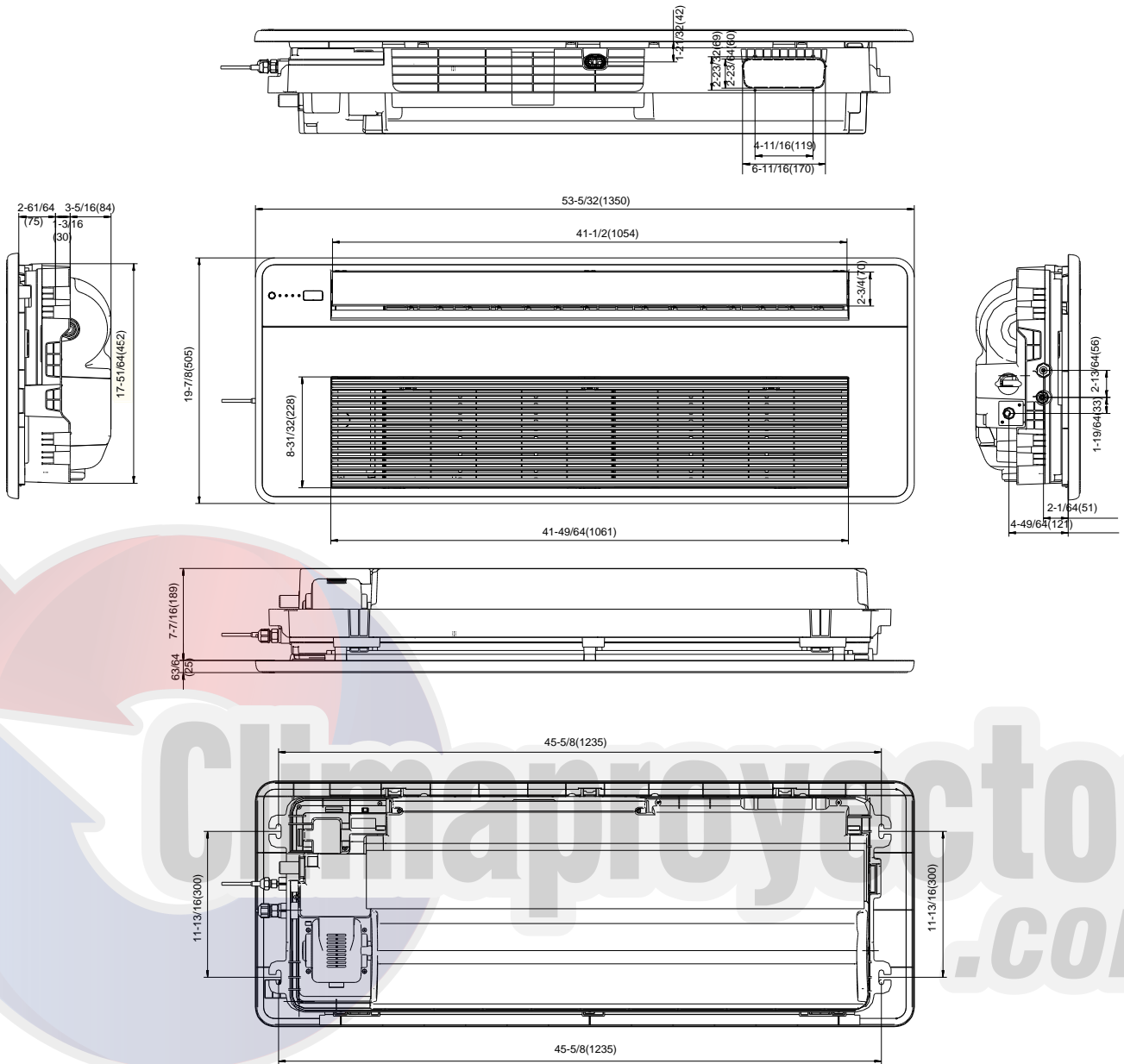
3. Dimensions

Unit : in.(mm)

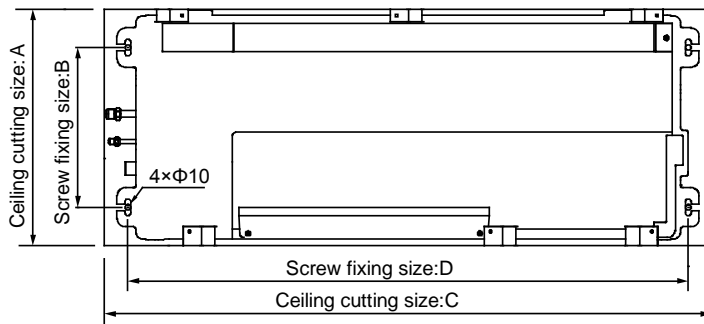
MDV-D18Q1/VN1-D MDV-D22Q1/VN1-D MDV-D28Q1/VN1-D MDV-D36Q1/VN1-D



MDV-D45Q1/VN1-D MDV-D56Q1/VN1-D MDV-D71Q1/VN1-D



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



No.	Model	18-36	45-71
A		16-59/64(430)	18-1/2(470)
B		11-27/64(290)	11-13/16(300)
C		43-5/16(1100)	50-25/32(1290)
D		39-61/64(1015)	48-5/8(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.

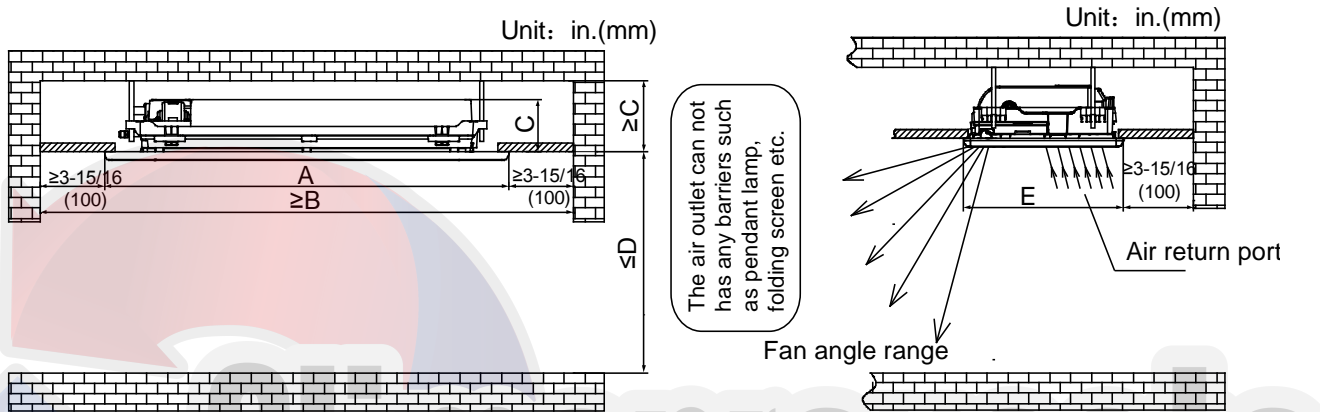
The appliance shall not be installed in the laundry.

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.

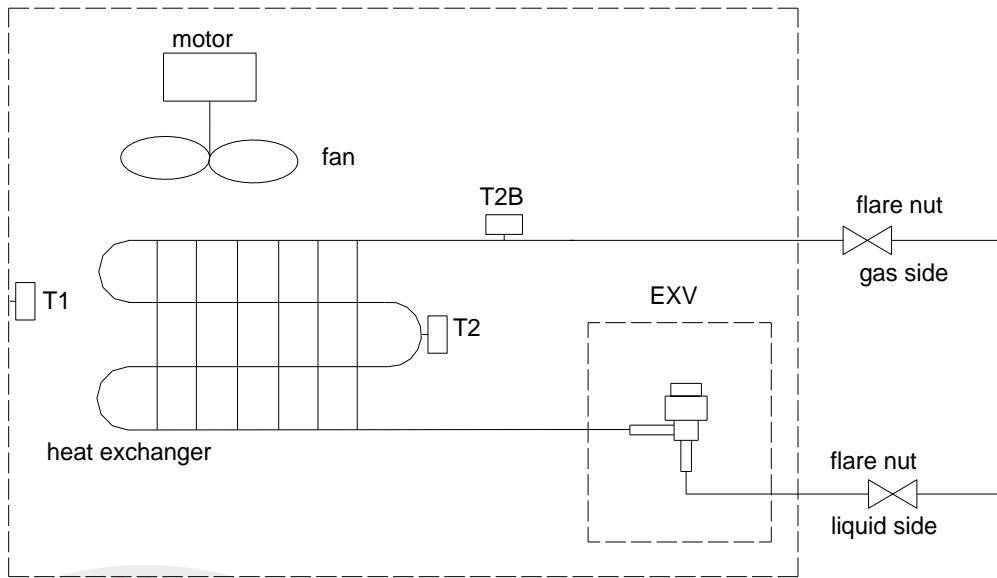
Ceiling space requires $\geq C$ in.(mm).

The installation height of the unit cannot be higher than D in.(mm), or it will affect the operation effect.



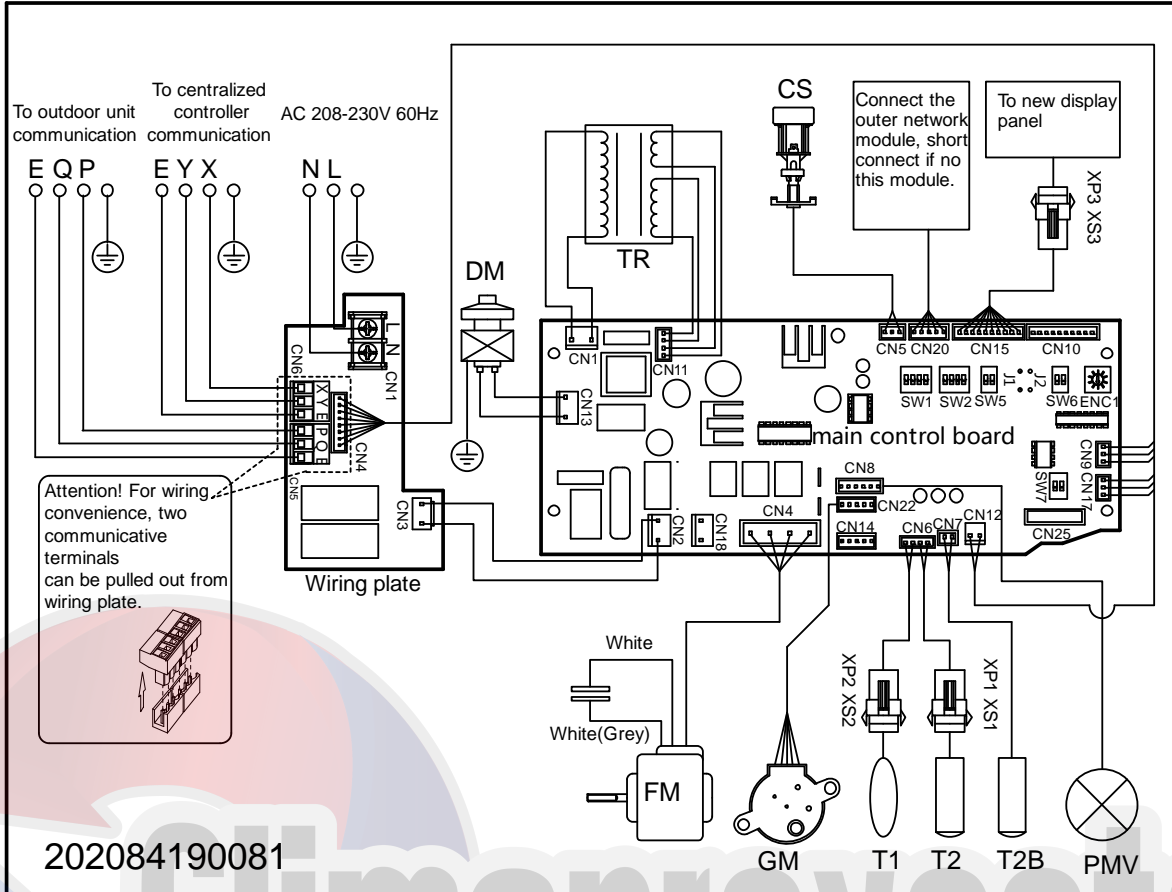
		Unit : in.(mm)	
No.	Model	18-36	45-71
	A	46-29/64(1180)	53-5/32(1350)
	B	54-21/64(1380)	61-1/32(1550)
	C	6-1/32(153)	7-7/16(189)
	D	125-63/64(3200)	157-31/64(4000)
	E	18-5/16(465)	19-7/8(505)

5. Piping Diagrams

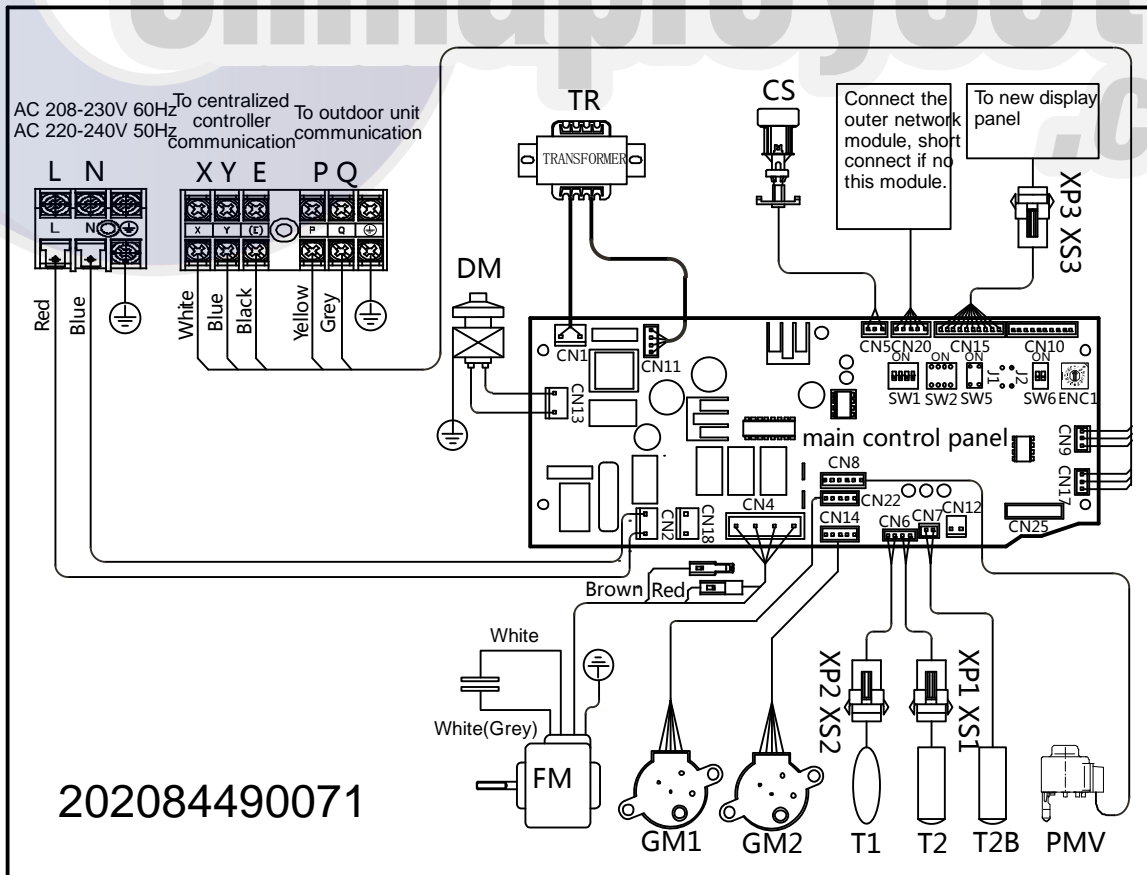


6. Wiring Diagrams

MDV-D18Q1/VN1-D MDV-D22Q1/VN1-D MDV-D28Q1/VN1-D MDV-D36Q1/VN1-D



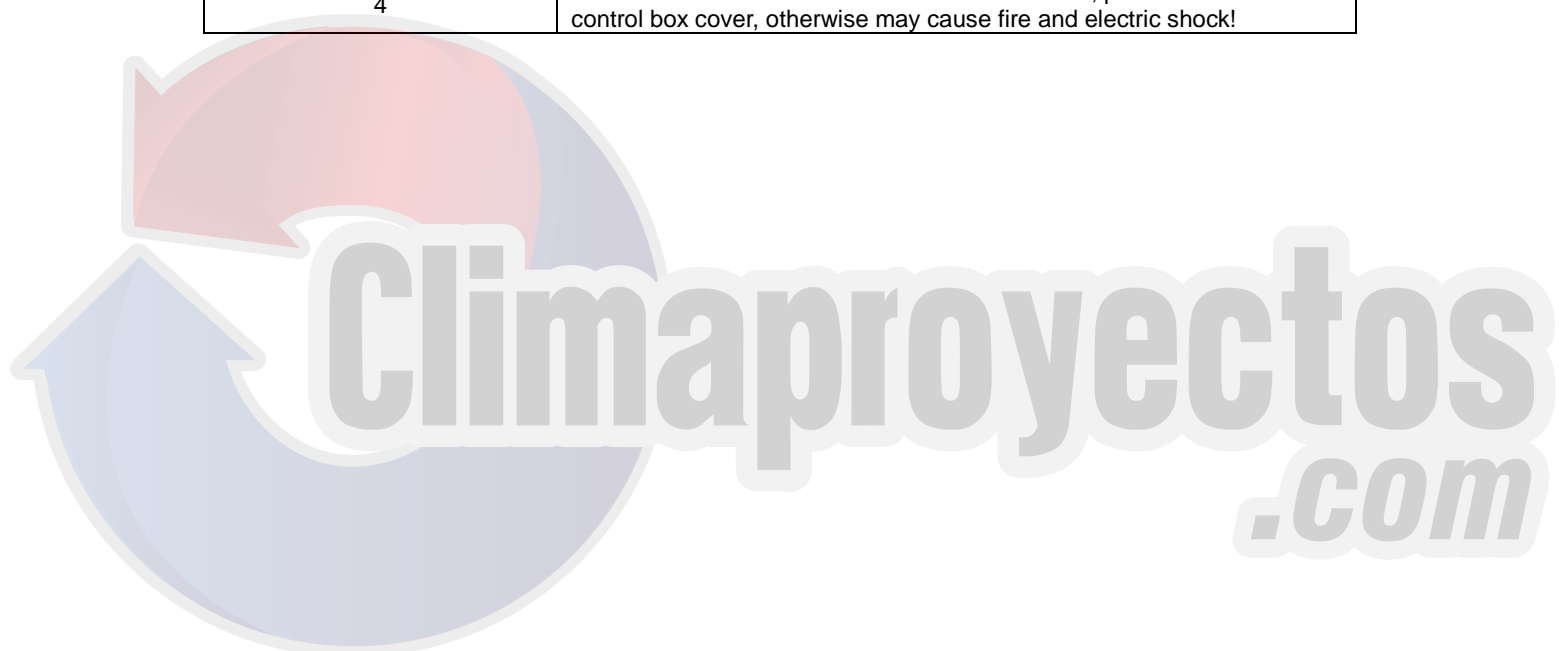
MDV-D45Q1/VN1-D MDV-D56Q1/VN1-D MDV-D71Q1/VN1-D



HP set switch ENC1 definition list		Code	Name
Code	Indoor Unit	FM	Fan motor
	Capacity Value	GM	Swing 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 (°FDB)	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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 (°F 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	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
	111.2	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
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
102.2	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	
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
102.2	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	
107.6	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 (°F 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	111.2	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
	114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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 (°F)		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	-4	-3.64	1.01	1.01	1.01	1.01	1.01	1.01
	-2.2	-1.84	1.08	1.08	1.08	1.08	1.08	1.08
	1.4	1.94	1.13	1.13	1.13	1.13	1.13	1.13
	5	5.54	1.17	1.17	1.17	1.17	1.17	1.17
	8.6	9.32	1.24	1.24	1.24	1.24	1.24	1.24
	12.2	13.1	1.26	1.28	1.28	1.28	1.28	1.28
	14	14.9	1.31	1.31	1.31	1.31	1.31	1.31
	15.62	16.7	1.35	1.35	1.35	1.35	1.35	1.35
	18.32	-3.64	1.37	1.37	1.37	1.37	1.37	1.37
	21.92	-1.84	1.42	1.42	1.42	1.42	1.42	1.42
	25.34	1.94	1.49	1.49	1.49	1.49	1.49	1.49
	30.74	5.54	1.60	1.60	1.60	1.60	1.60	1.51
	35.96	9.32	1.69	1.69	1.69	1.69	1.66	1.51
	39.38	13.1	1.75	1.75	1.75	1.75	1.66	1.51
	42.8	14.9	1.80	1.80	1.80	1.75	1.66	1.51
	46.22	16.7	1.85	1.85	1.80	1.75	1.66	1.51
49.64	-3.64	1.91	1.91	1.80	1.75	1.66	1.51	
53.24	-1.84	1.98	1.94	1.80	1.75	1.66	1.51	
56.66	1.94	2.03	1.94	1.80	1.75	1.66	1.51	
2.2	-4	-3.64	1.23	1.23	1.23	1.23	1.23	1.23
	-2.2	-1.84	1.32	1.32	1.32	1.32	1.32	1.32
	1.4	1.94	1.39	1.39	1.39	1.39	1.39	1.39
	5	5.54	1.43	1.43	1.43	1.43	1.43	1.43
	8.6	9.32	1.52	1.52	1.52	1.52	1.52	1.52
	12.2	13.1	1.54	1.56	1.56	1.56	1.56	1.56
	14	14.9	1.61	1.61	1.61	1.61	1.61	1.61
	15.62	16.7	1.65	1.65	1.65	1.65	1.65	1.65
	18.32	-3.64	1.67	1.67	1.67	1.67	1.67	1.67
	21.92	-1.84	1.74	1.74	1.74	1.74	1.74	1.74
	25.34	1.94	1.83	1.83	1.83	1.83	1.83	1.83
	30.74	5.54	1.96	1.96	1.96	1.96	1.96	1.85
	35.96	9.32	2.07	2.07	2.07	2.07	2.02	1.85
	39.38	13.1	2.13	2.13	2.13	2.13	2.02	1.85
	42.8	14.9	2.20	2.20	2.20	2.13	2.02	1.85
	46.22	16.7	2.27	2.27	2.20	2.13	2.02	1.85
49.64	-3.64	2.33	2.33	2.20	2.13	2.02	1.85	
53.24	-1.84	2.42	2.38	2.20	2.13	2.02	1.85	
56.66	1.94	2.49	2.38	2.20	2.13	2.02	1.85	
2.8	-4	-3.64	1.57	1.57	1.57	1.57	1.57	1.57
	-2.2	-1.84	1.68	1.68	1.68	1.68	1.68	1.68
	1.4	1.94	1.76	1.76	1.76	1.76	1.76	1.76
	5	5.54	1.82	1.82	1.82	1.82	1.82	1.82
	8.6	9.32	1.93	1.93	1.93	1.93	1.93	1.93
	12.2	13.1	1.96	1.99	1.99	1.99	1.99	1.99
	14	14.9	2.04	2.04	2.04	2.04	2.04	2.04
	15.62	16.7	2.10	2.10	2.10	2.10	2.10	2.10

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC	TC	TC	TC	TC	TC
2.8			kW	kW	kW	kW	kW	kW
	18.32	19.4	2.13	2.13	2.13	2.13	2.13	2.13
	21.92	23	2.21	2.21	2.21	2.21	2.21	2.21
	25.34	26.6	2.32	2.32	2.32	2.32	2.32	2.32
	30.74	32	2.49	2.49	2.49	2.49	2.49	2.35
	35.96	37.4	2.63	2.63	2.63	2.63	2.58	2.35
	39.38	41	2.72	2.72	2.72	2.72	2.58	2.35
	42.8	44.6	2.80	2.80	2.80	2.72	2.58	2.35
	46.22	48.2	2.88	2.88	2.80	2.72	2.58	2.35
	49.64	51.8	2.97	2.97	2.80	2.72	2.58	2.35
	53.24	55.4	3.08	3.02	2.80	2.72	2.58	2.35
56.66	59	3.16	3.02	2.80	2.72	2.58	2.35	
3.6	-4	-3.64	2.02	2.02	2.02	2.02	2.02	2.02
	-2.2	-1.84	2.16	2.16	2.16	2.16	2.16	2.16
	1.4	1.94	2.27	2.27	2.27	2.27	2.27	2.27
	5	5.54	2.34	2.34	2.34	2.34	2.34	2.34
	8.6	9.32	2.48	2.48	2.48	2.48	2.48	2.48
	12.2	13.1	2.52	2.56	2.56	2.56	2.56	2.56
	14	14.9	2.63	2.63	2.63	2.63	2.63	2.63
	15.62	16.7	2.70	2.70	2.70	2.70	2.70	2.70
	18.32	19.4	2.74	2.74	2.74	2.74	2.74	2.74
	21.92	23	2.84	2.84	2.84	2.84	2.84	2.84
	25.34	26.6	2.99	2.99	2.99	2.99	2.99	2.99
	30.74	32	3.20	3.20	3.20	3.20	3.20	3.02
	35.96	37.4	3.38	3.38	3.38	3.38	3.31	3.02
	39.38	41	3.49	3.49	3.49	3.49	3.31	3.02
	42.8	44.6	3.60	3.60	3.60	3.49	3.31	3.02
46.22	48.2	3.71	3.71	3.60	3.49	3.31	3.02	
49.64	51.8	3.82	3.82	3.60	3.49	3.31	3.02	
53.24	55.4	3.96	3.89	3.60	3.49	3.31	3.02	
56.66	59	4.07	3.89	3.60	3.49	3.31	3.02	
4.5	-4	-3.64	2.80	2.80	2.80	2.80	2.80	2.80
	-2.2	-1.84	3.00	3.00	3.00	3.00	3.00	3.00
	1.4	1.94	3.15	3.15	3.15	3.15	3.15	3.15
	5	5.54	3.25	3.25	3.25	3.25	3.25	3.25
	8.6	9.32	3.35	3.35	3.35	3.35	3.35	3.35
	12.2	13.1	3.50	3.50	3.50	3.50	3.50	3.50
	14	14.9	3.65	3.65	3.65	3.65	3.65	3.65
	15.62	16.7	3.75	3.75	3.75	3.75	3.75	3.75
	18.32	19.4	3.80	3.80	3.80	3.80	3.80	3.80
	21.92	23	3.95	3.95	3.95	3.95	3.95	3.95
	25.34	26.6	4.15	4.15	4.15	4.15	4.15	4.15
	30.74	32	4.45	4.45	4.45	4.45	4.45	4.20
	35.96	37.4	4.70	4.70	4.70	4.70	4.60	4.20
	39.38	41	4.85	4.85	4.85	4.85	4.60	4.20
	42.8	44.6	5.00	5.00	5.00	4.85	4.60	4.20
46.22	48.2	5.15	5.15	5.00	4.85	4.60	4.20	
49.64	51.8	5.30	5.30	5.00	4.85	4.60	4.20	
53.24	55.4	5.50	5.40	5.00	4.85	4.60	4.20	

Indoor Unit size (kW)	Outdoor temperature (°F)		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	56.66	59	5.65	5.40	5.00	4.85	4.60	4.20
5.6	-4	-3.64	3.53	3.53	3.53	3.53	3.53	3.53
	-2.2	-1.84	3.78	3.78	3.78	3.78	3.78	3.78
	1.4	1.94	3.97	3.97	3.97	3.97	3.97	3.97
	5	5.54	4.10	4.10	4.10	4.10	4.10	4.10
	8.6	9.32	4.22	4.22	4.22	4.22	4.22	4.22
	12.2	13.1	4.41	4.41	4.41	4.41	4.41	4.41
	14	14.9	4.60	4.60	4.60	4.60	4.60	4.60
	15.62	16.7	4.73	4.73	4.73	4.73	4.73	4.73
	18.32	19.4	4.79	4.79	4.79	4.79	4.79	4.79
	21.92	23	4.98	4.98	4.98	4.98	4.98	4.98
	25.34	26.6	5.23	5.23	5.23	5.23	5.23	5.23
	30.74	32	5.61	5.61	5.61	5.61	5.61	5.29
	35.96	37.4	5.92	5.92	5.92	5.92	5.80	5.29
	39.38	41	6.11	6.11	6.11	6.11	5.80	5.29
	42.8	44.6	6.30	6.30	6.30	6.11	5.80	5.29
	46.22	48.2	6.49	6.49	6.30	6.11	5.80	5.29
49.64	51.8	6.68	6.68	6.30	6.11	5.80	5.29	
53.24	55.4	6.93	6.80	6.30	6.11	5.80	5.29	
56.66	59	7.12	6.80	6.30	6.11	5.80	5.29	
7.1	-4	-3.64	4.48	4.48	4.48	4.48	4.48	4.48
	-2.2	-1.84	4.80	4.80	4.80	4.80	4.80	4.80
	1.4	1.94	5.04	5.04	5.04	5.04	5.04	5.04
	5	5.54	5.20	5.20	5.20	5.20	5.20	5.20
	8.6	9.32	5.36	5.36	5.36	5.36	5.36	5.36
	12.2	13.1	5.60	5.60	5.60	5.60	5.60	5.60
	14	14.9	5.84	5.84	5.84	5.84	5.84	5.84
	15.62	16.7	6.00	6.00	6.00	6.00	6.00	6.00
	18.32	19.4	6.08	6.08	6.08	6.08	6.08	6.08
	21.92	23	6.32	6.32	6.32	6.32	6.32	6.32
	25.34	26.6	6.64	6.64	6.64	6.64	6.64	6.64
	30.74	32	7.12	7.12	7.12	7.12	7.12	6.72
	35.96	37.4	7.52	7.52	7.52	7.52	7.36	6.72
	39.38	41	7.76	7.76	7.76	7.76	7.36	6.72
	42.8	44.6	8.00	8.00	8.00	7.76	7.36	6.72
	46.22	48.2	8.24	8.24	8.00	7.76	7.36	6.72
49.64	51.8	8.48	8.48	8.00	7.76	7.36	6.72	
53.24	55.4	8.80	8.64	8.00	7.76	7.36	6.72	
56.66	59	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/VN1-D	60	208-230	198	242	0.173	15	0.012	0.138
MDV-D22Q1/VN1-D	60	208-230	198	242	0.173	15	0.012	0.138
MDV-D28Q1/VN1-D	60	208-230	198	242	0.186	15	0.012	0.149
MDV-D36Q1/VN1-D	60	208-230	198	242	0.186	15	0.012	0.149
MDV-D45Q1/VN1-D	60	208-230	198	242	0.25	15	0.038	0.20
MDV-D56Q1/VN1-D	60	208-230	198	242	0.28	15	0.038	0.22
MDV-D71Q1/VN1-D	60	208-230	198	242	0.34	15	0.043	0.27

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

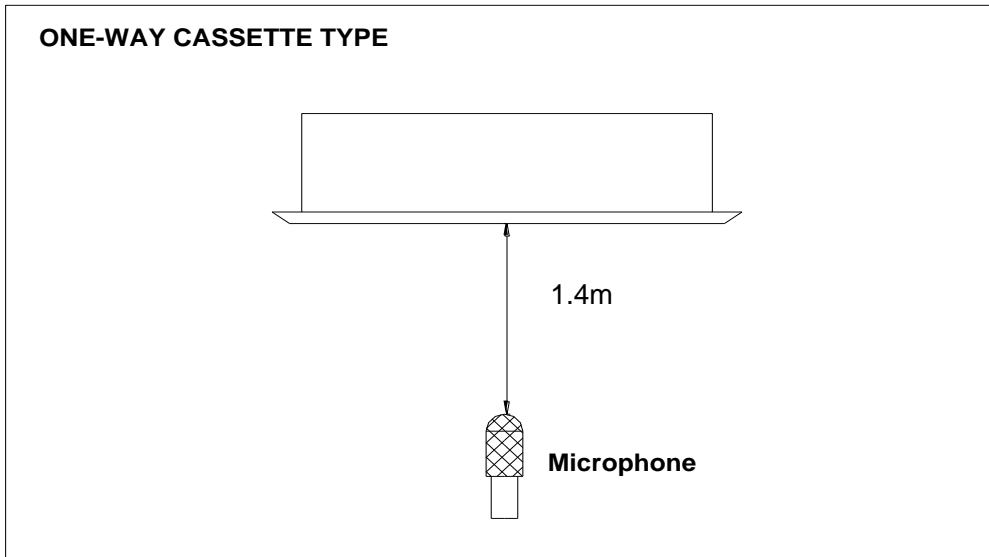
FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor



9. Sound Levels

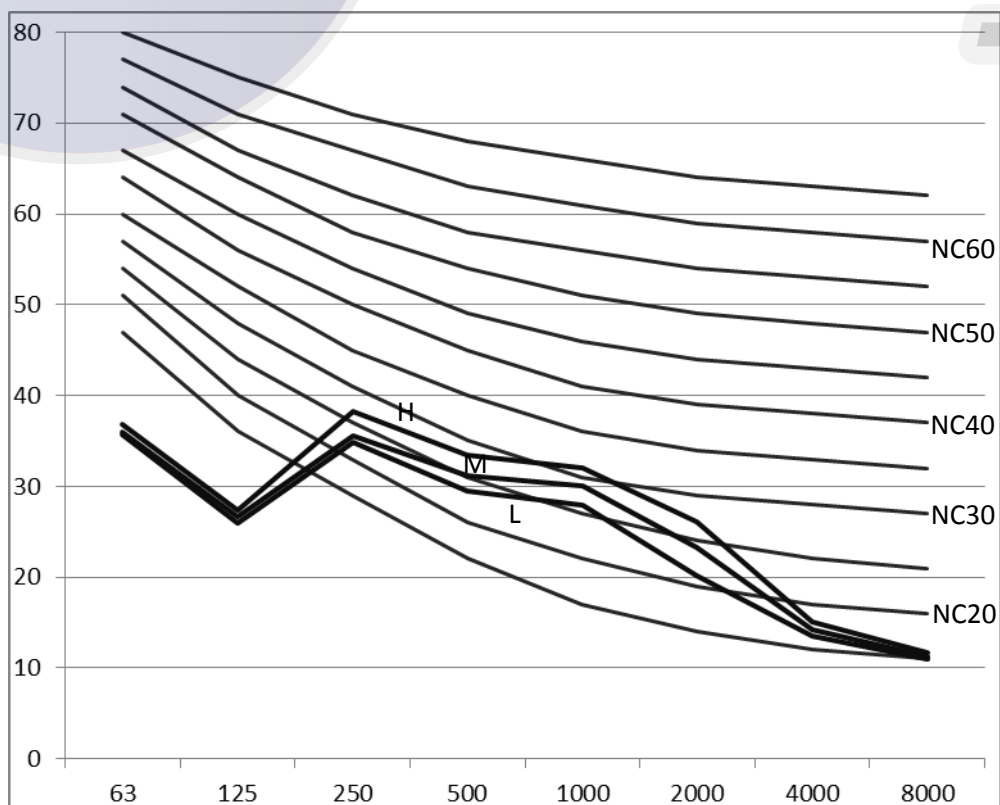
9.1 Test condition



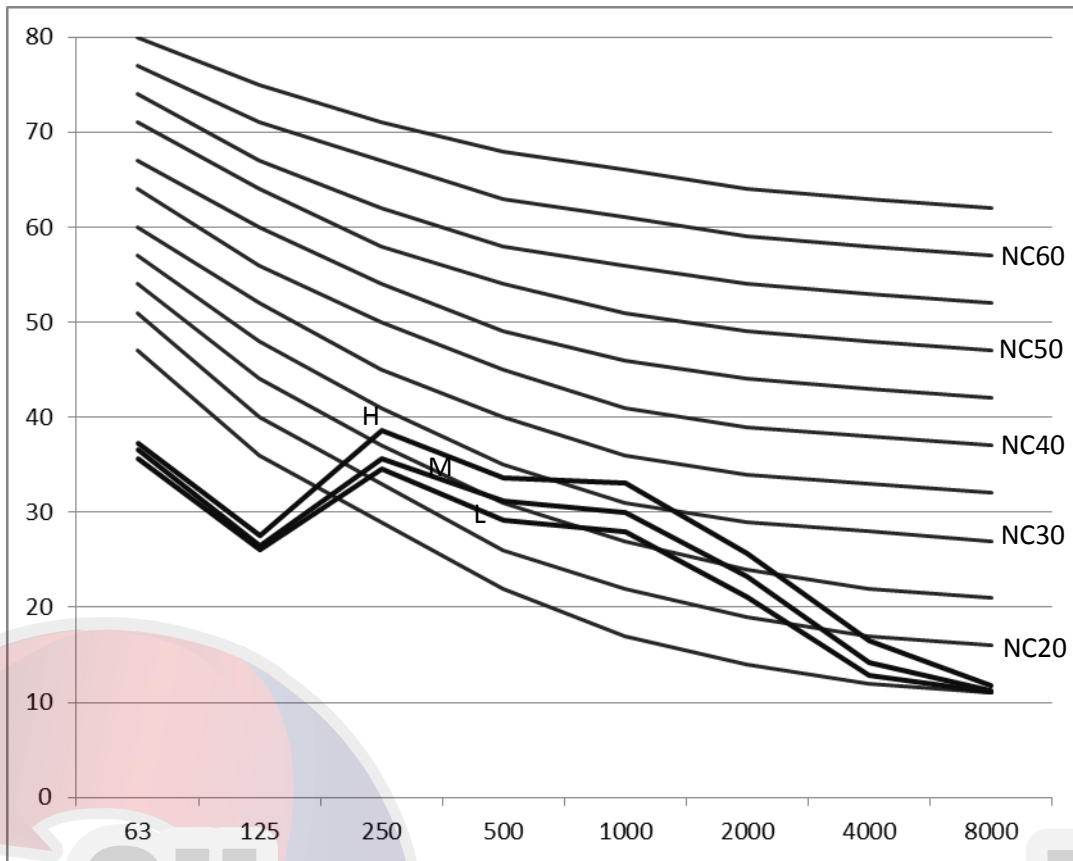
9.2 Test value

Model	Noise test value dB(A)		
	H	M	L
MDV-D18Q1/VN1-D	37	34	30
MDV-D22Q1/VN1-D	38	34	30
MDV-D28Q1/VN1-D	39	37	34
MDV-D36Q1/VN1-D	40	38	34
MDV-D45Q1/VN1-D	41	39	35
MDV-D56Q1/VN1-D	42	40	36
MDV-D71Q1/VN1-D	44	41	37

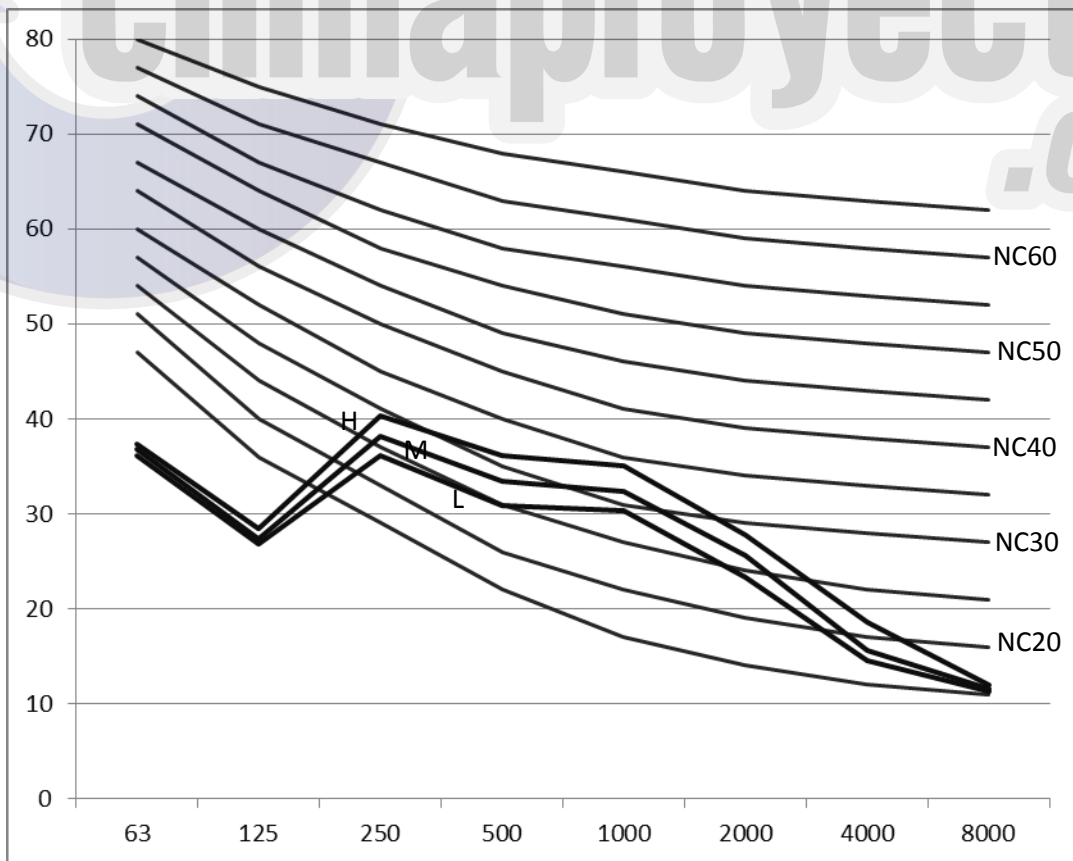
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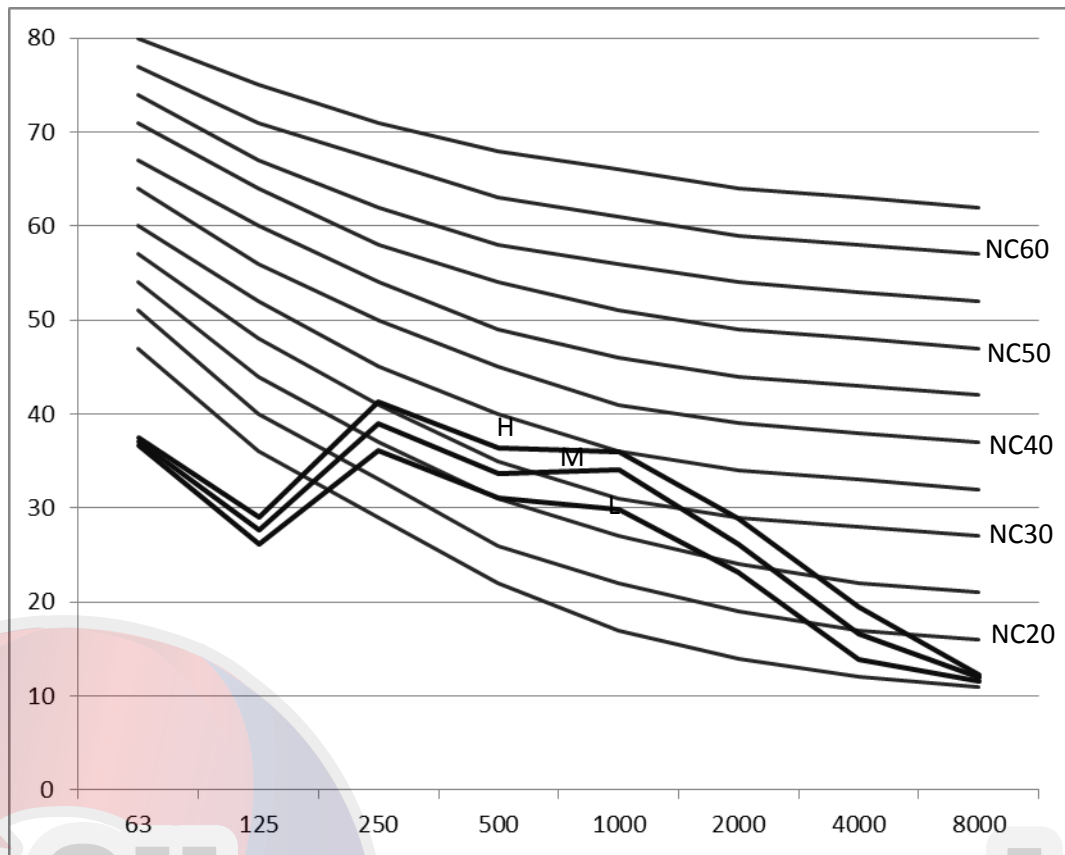
MDV-D22Q1/VN1-D



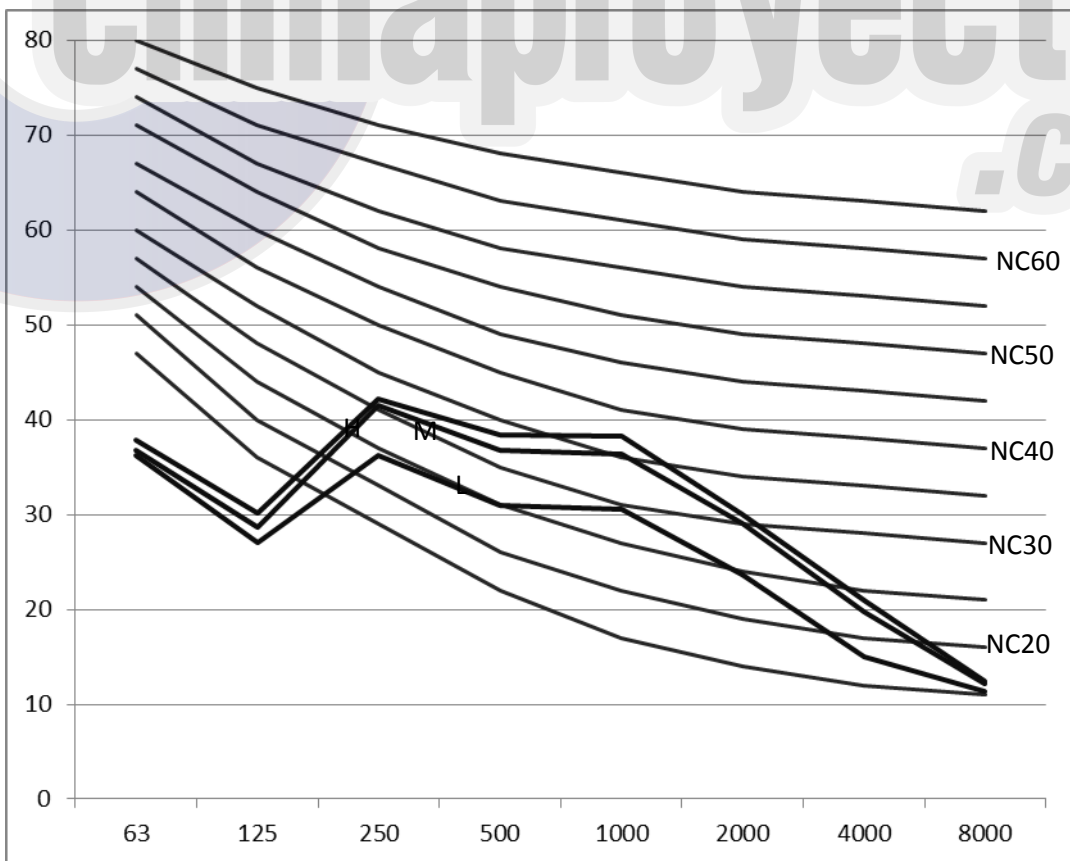
MDV-D28Q1/VN1-D



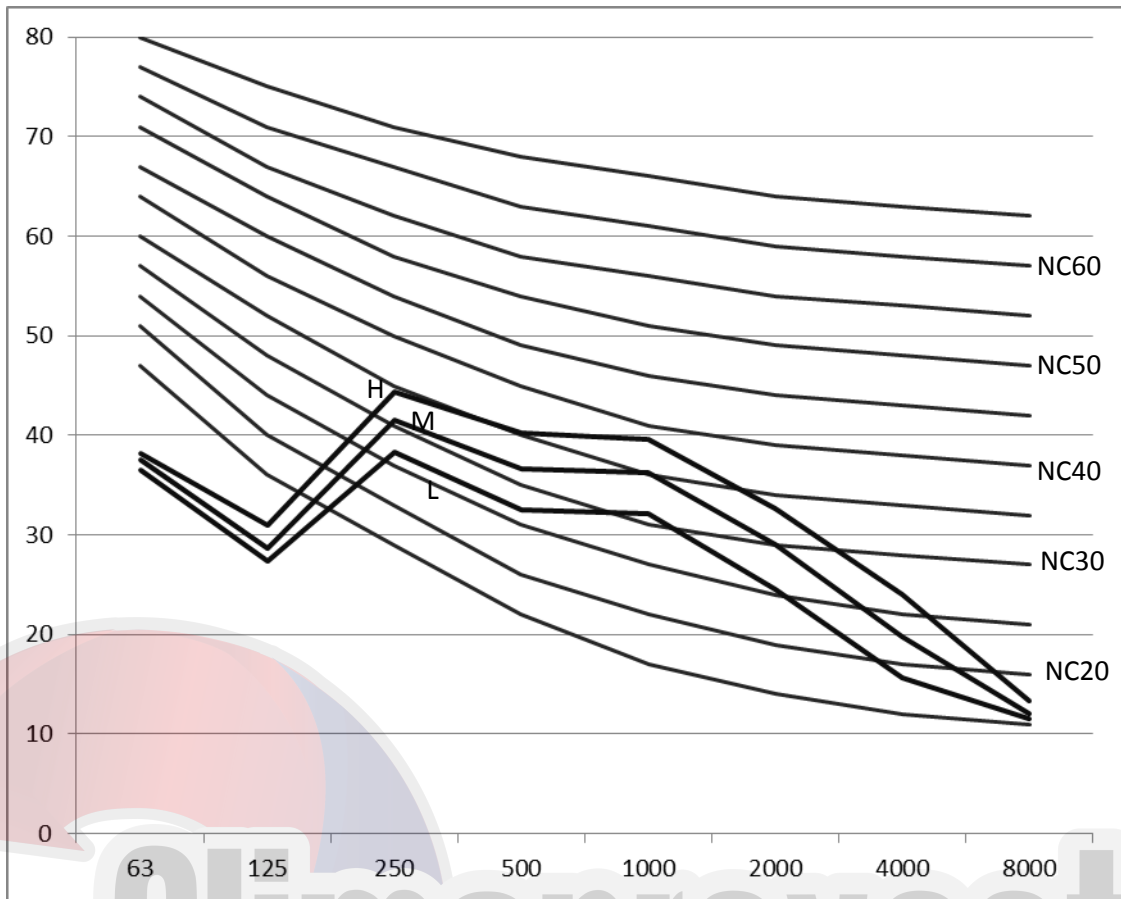
MDV-D36Q1/VN1-D



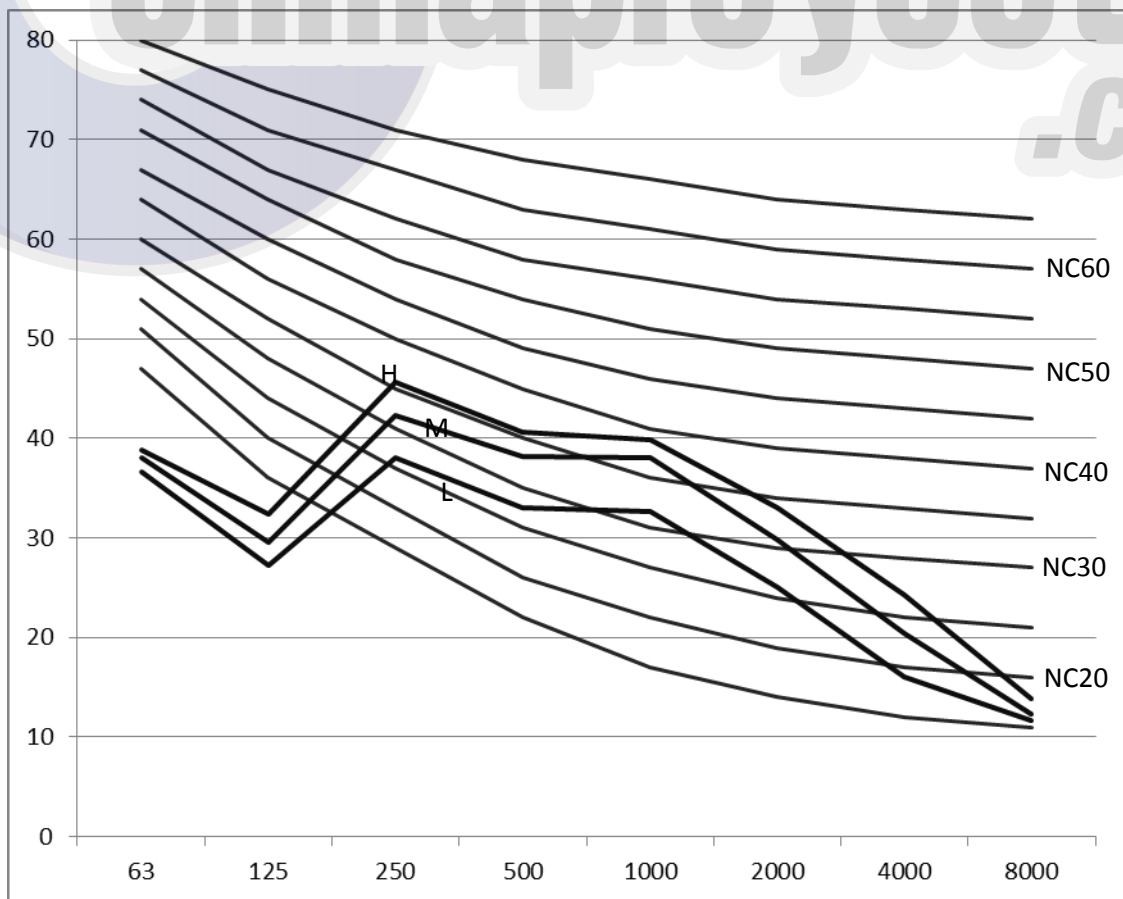
MDV-D45Q1/VN1-D





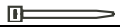












MDV-D56Q1/VN1-D



MDV-D71Q1/VN1-D

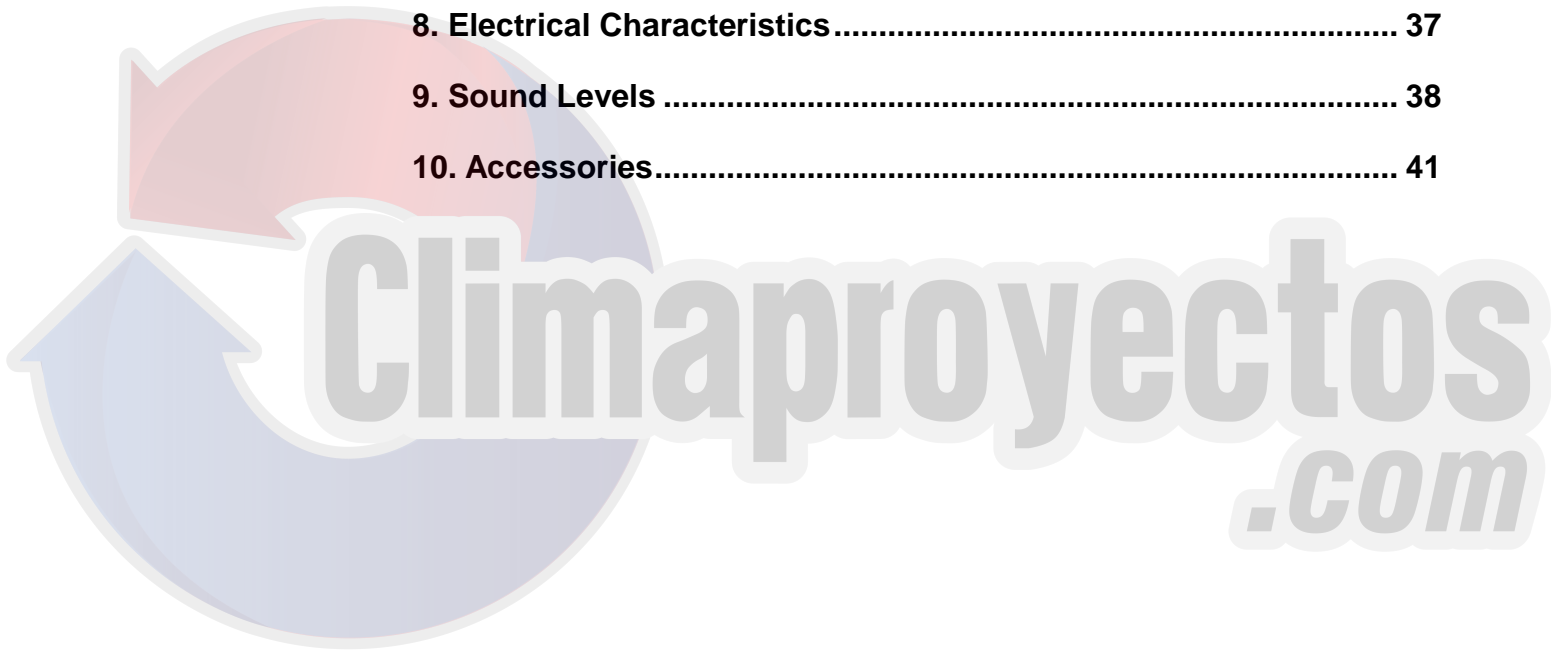


10. Accessories**Standard accessories**

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

Two-way Cassette

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1. Features

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

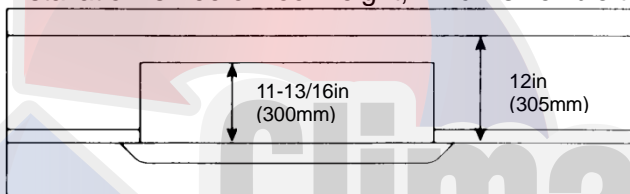


1.4 Stylish design

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

1.5 Thin main body

Slim body needs 11-13/16in (300 mm) space above the ceiling, reduces the suspended ceiling space. Installation is free of floor height, which is flexible to room decoration



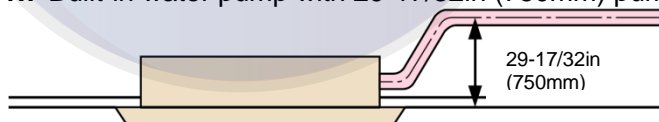
1.6 Convenient installation

----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 pump with 29-17/32in (750mm) pumping head.



1.8 Easier to clean and maintenance

---Flat type suction grille of easy cleaning

2. Specifications

Model			MDV-D22Q2/VN1	MDV-D28Q2/VN1	MDV-D36Q2/VN1
Power supply		V-Ph-Hz	220-240V-1ph-60Hz		
Cooling	Capacity	kW	2.2	2.8	3.6
		Btu/h	7500	9600	12300
	Input	W	78	78	83
	Rated current	A	0.35	0.45	0.45
Heating	Capacity	kW	2.6	3.2	4
		Btu/h	8900	10900	13600
	Input	W	78	78	83
	Rated current	A	0.35	0.45	0.45
Indoor fan & motor	Model		YSK20-6B	YSK20-6B	YSK26-6B
	Type		AC motor	AC motor	AC motor
	Brand		Yongan	Yongan	Yongan
	Input	W	76	76	81.8
	Capacitor	uF	2uF/450V	2uF/450V	2.5uF/450V
	Fan blower material		ABS-GF15	ABS-GF15	ABS-GF15
	Speed (h/m/l)	r/min	830/650/525	830/650/525	870/590/470
Indoor coil	Number of rows		1	1	1
	Tube pitch(a)x row pitch(b)	in.(mm)	13/16x17/32(21x13.37)		
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum		
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35), Inner-groove Tube		
	Number of circuits		4	4	4
Indoor air flow (H/M/L)	m ³ /h		674/509/381	674/509/381	740/577/435
	CFM		397/300/224	397/300/224	436/340/256
Indoor noise level (H/M/L)		dB(A)	33/29/24	36/32/29	36/32/29
Indoor unit	Dimension (WxHxD)		46-9/32x11-49/64x23-17/64(1172x299x591)		
	Packing (WxHxD)		53-11/32x15-3/4x26-37/64 (1355x400x675)		
	Net/Gross weight		75/93.8(34/42.5)		
Panel	Model		CE-MBQ2-01(MBQ2-01)		
	Dimension (WxHxD)		56-19/64x2-3/32x26-49/64(1430x53x680)		
	Packing (WxHxD)		60-3/64x5-1/8x30-1/8 (1525x130x765)		
	Net/Gross weight		23.2/33(10.5/15)		
Throttle		Electronic expansion valve			
Design pressure(H/ L)		MPa	4.4/2.6		
Refrigerant piping	Liquid side	in.(mm)	1/4(Φ6.35)		
	Gas side	in.(mm)	1/2(Φ12.7)		
Connecting wiring	Power wiring	mm ²	3x2.5(L≤20m); 3x3.5(L≤50m)		
	Signal wiring	mm ²	3x0.75		
Drainage water pipe diameter		in.(mm)	OD1-17/64 (Φ32)		
Controller		Wireless remote controller			

Notes:1. Nominal cooling capacities are based on the following conditions: return air temperature : 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)

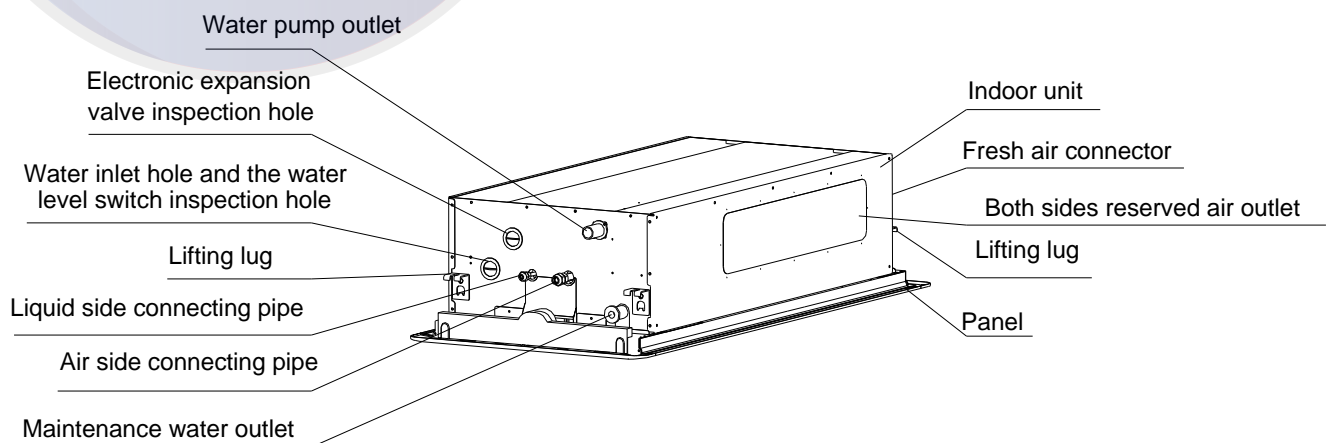
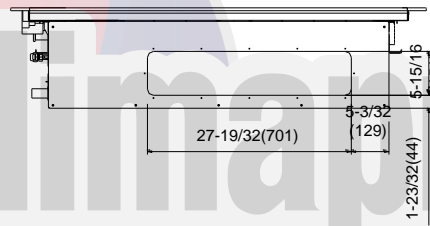
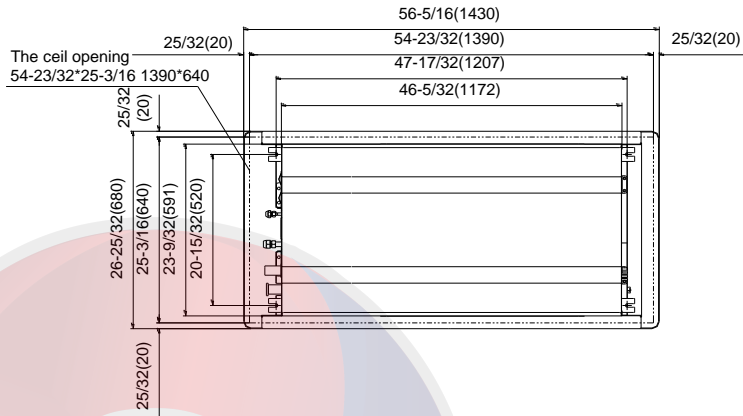
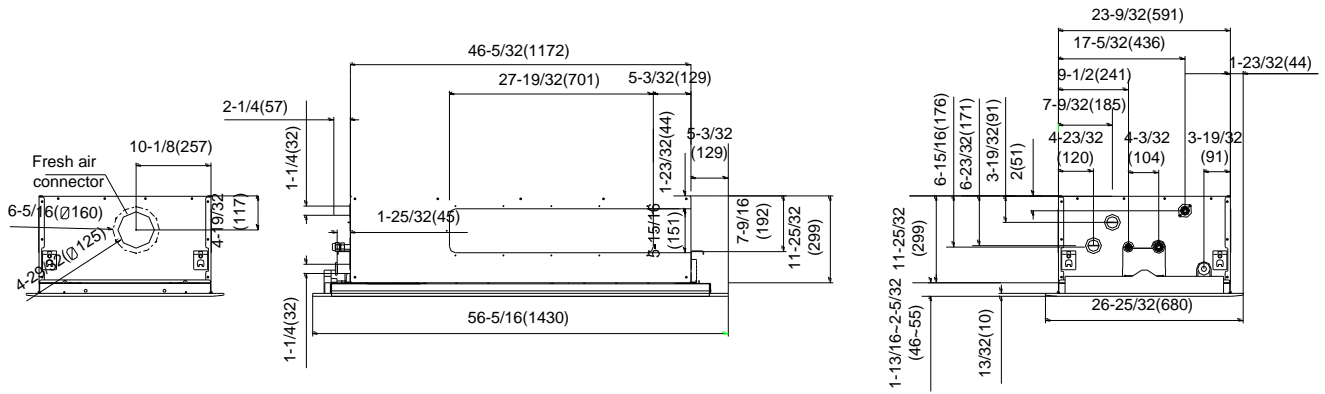
2. Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model			MDV-D45Q2/VN1	MDV-D56Q2/VN1	MDV-D71Q2/VN1
Power supply		V-Ph-Hz	220-240V-1ph-60Hz		
Cooling	Capacity	kW	4.5	5.6	7.1
		Btu/h	15400	19100	24200
	Input	W	115	133	205
	Rated current	A	0.55	0.55	0.75
Heating	Capacity	kW	5	6.3	8
		Btu/h	17100	21500	27300
	Input	W	115	133	205
	Rated current	A	0.55	0.55	0.75
Indoor fan & motor	Model		YSK34-4B	YSK44-4B	YSK91-4B
	Type		AC motor	AC motor	AC motor
	Brand		Yongan	Yongan	Yongan
	Input	W	112	131	202
	Capacitor	uF	2uF/450V	3.5uF/450V	3.5uF/450V
	Fan blower type		ABS-GF15	ABS-GF15	ABS-GF15
	Speed (h/m/l)	r/min	885/785/640	960/860/725	1230/1135/1015
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)× row pitch(b)	in.(mm)	13/16×17/32(21×13.37)		
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum		
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35),Inner-groove Tube		
	Number of circuits		6	6	6
Indoor air flow (H/M/L)	m ³ /h		878/689/561	941/776/654	1236/1110/864
	CFM		517/406/330	554/457/385	727/653/509
Indoor noise level (H/M/L)		dB(A)	39/35/30	39/35/30	44/40/34
Indoor unit	Dimension (W×H×D)		46-9/32×11-49/64×23-17/64(1172×299×591)		
	Packing (W×H×D)		53-11/32×15-3/4×26-37/64 (1355×400×675)		
	Net/Gross weight		79.2/97.9(36/44.5)	79.2/97.9(36/44.5)	79.2/97.9(36/44.5)
Panel	Model		CE-MBQ2-01(MBQ2-01)		
	Dimension (W×H×D)		56-19/64×2-3/32×26-49/64(1430×53×680)		
	Packing (W×H×D)		60-3/64×5-1/8×30-1/8 (1525×130×765)		
	Net/Gross weight		23.2/33(10.5/15)	23.2/33(10.5/15)	23.2/33(10.5/15)
Throttle		Electronic expansion valve			
Design pressure(H/ L)		MPa	4.4/2.6		
Refrigerant piping	Liquid side	in.(mm)	1/4(Φ6.35)	3/8(Φ9.53)	3/8(Φ9.53)
	Gas side	in.(mm)	1/2(Φ12.7)	5/8(Φ15.9)	5/8(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		in.(mm)	OU 1-17/64(Φ32)		
Controller		Wireless remote controller			

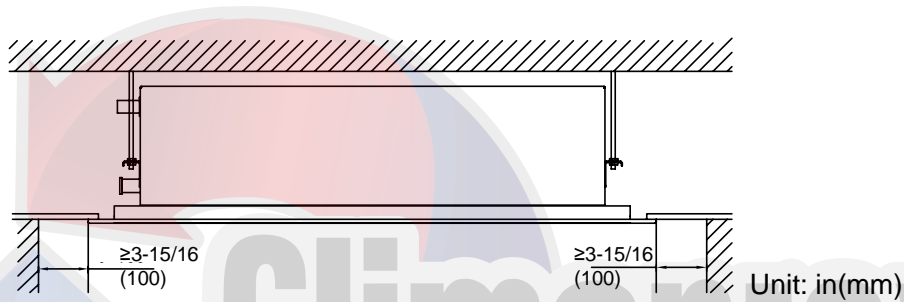
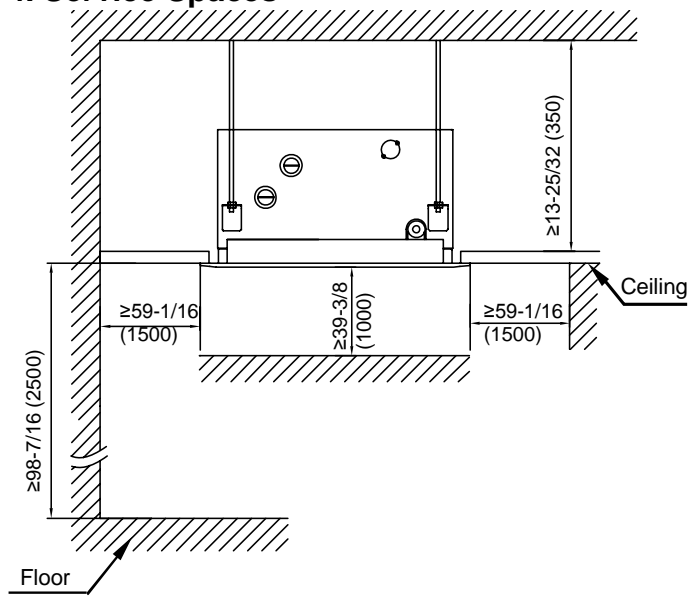
Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature : 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

3. Dimensions Unit :in(mm)

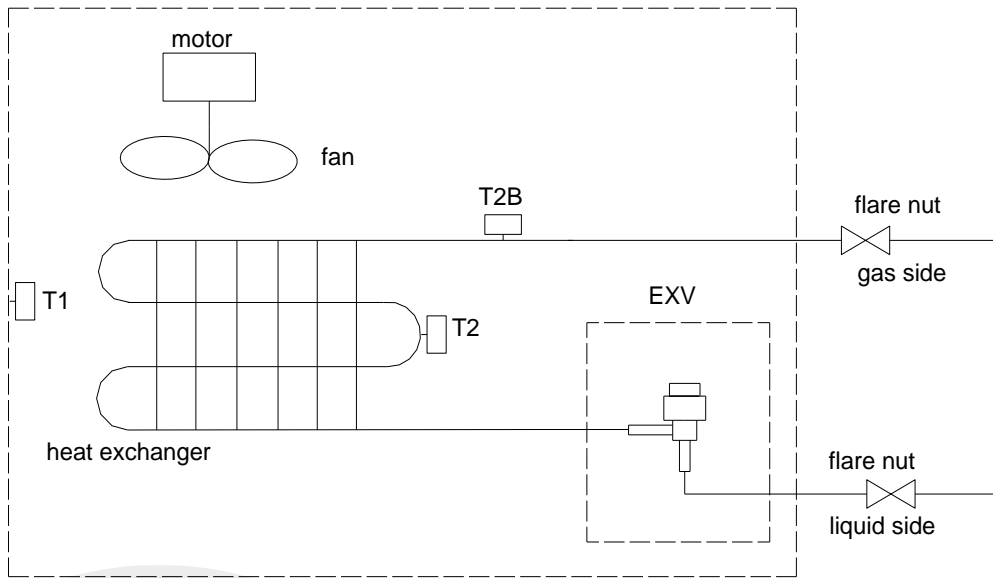


4. Service Spaces



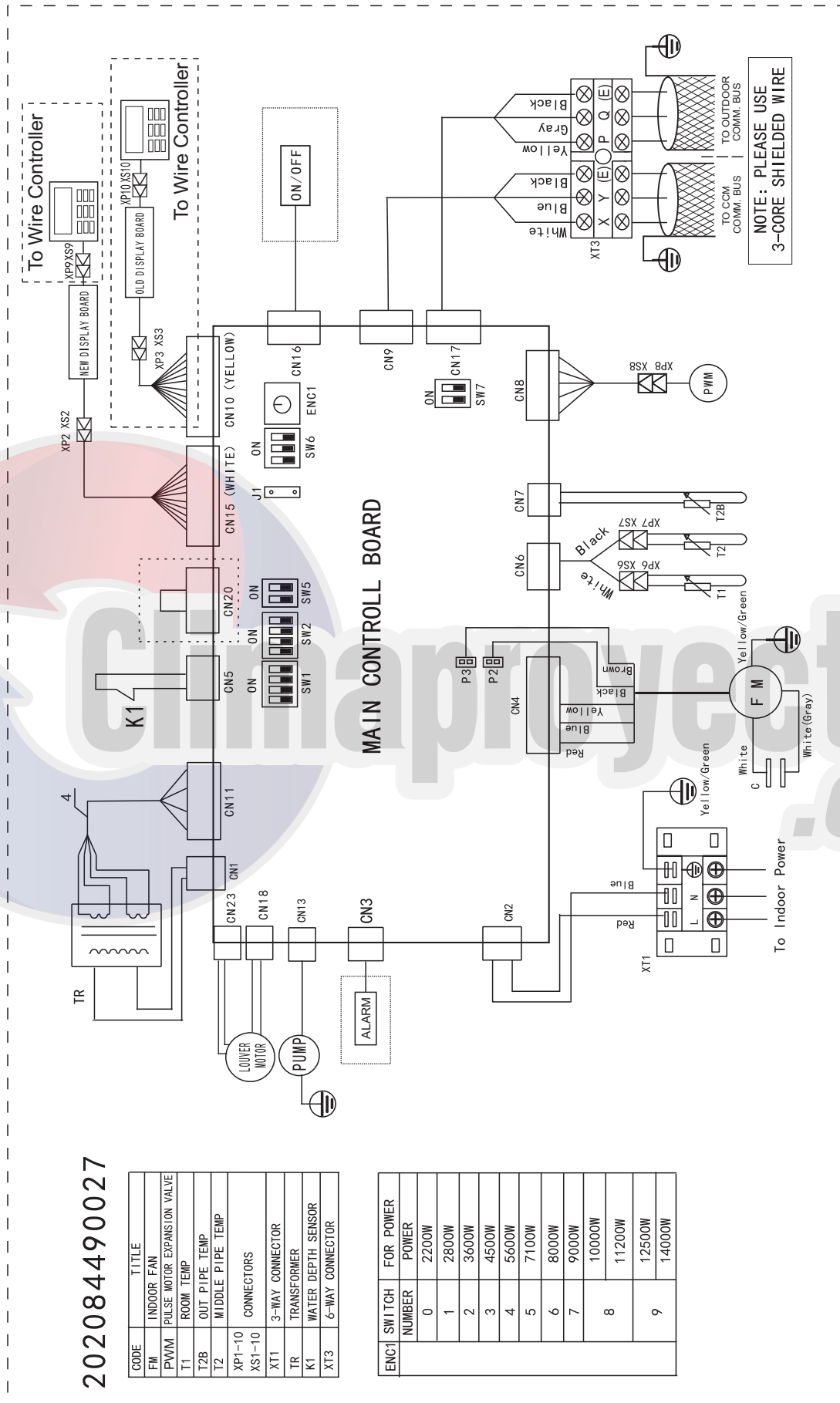
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5. Piping Diagrams



6. Wiring diagram

MDV-D22Q2/VN1, MDV-D28Q2/VN1, MDV-D36Q2/VN1, MDV-D45Q2/VN1, MDV-D56Q2/VN1, MDV-D71Q2/VN1



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 (°FDB)	Indoor temperature (°FWB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		75.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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

Indoor Unit size (kW)	Outdoor temperature (°FDB)	Indoor temperature (°FWB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		75.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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 (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
2.2	-4	-3.64	1.46	1.46	1.46	1.46	1.46	1.46
	-2.2	-1.84	1.56	1.56	1.56	1.56	1.56	1.56
	1.4	1.94	1.64	1.64	1.64	1.64	1.64	1.64
	5	5.54	1.69	1.69	1.69	1.69	1.69	1.69
	8.6	9.32	1.79	1.79	1.79	1.79	1.79	1.79
	12.2	13.1	1.82	1.85	1.85	1.85	1.85	1.85
	14	14.9	1.90	1.90	1.90	1.90	1.90	1.90
	15.62	16.7	1.95	1.95	1.95	1.95	1.95	1.95
	18.32	19.4	1.98	1.98	1.98	1.98	1.98	1.98
	21.92	23	2.05	2.05	2.05	2.05	2.05	2.05
	25.34	26.6	2.16	2.16	2.16	2.16	2.16	2.16
	30.74	32	2.31	2.31	2.31	2.31	2.31	2.18
	35.96	37.4	2.44	2.44	2.44	2.44	2.39	2.18
	39.38	41	2.52	2.52	2.52	2.52	2.39	2.18
	42.8	44.6	2.60	2.60	2.60	2.52	2.39	2.18
	46.22	48.2	2.68	2.68	2.60	2.52	2.39	2.18
49.64	51.8	2.76	2.76	2.60	2.52	2.39	2.18	
53.24	55.4	2.86	2.81	2.60	2.52	2.39	2.18	
56.66	59	2.94	2.81	2.60	2.52	2.39	2.18	
2.8	-4	-3.64	1.79	1.79	1.79	1.79	1.79	1.79
	-2.2	-1.84	1.92	1.92	1.92	1.92	1.92	1.92
	1.4	1.94	2.02	2.02	2.02	2.02	2.02	2.02
	5	5.54	2.02	2.02	2.02	2.02	2.02	2.02
	8.6	9.32	2.14	2.14	2.14	2.14	2.14	2.14
	12.2	13.1	2.24	2.24	2.24	2.24	2.24	2.24
	14	14.9	2.34	2.34	2.34	2.34	2.34	2.34
	15.62	16.7	2.40	2.40	2.40	2.40	2.40	2.40
	18.32	19.4	2.43	2.43	2.43	2.43	2.43	2.43
	21.92	23	2.53	2.53	2.53	2.53	2.53	2.53
	25.34	26.6	2.66	2.66	2.66	2.66	2.66	2.66
	30.74	32	2.85	2.85	2.85	2.85	2.85	2.69
	35.96	37.4	3.01	3.01	3.01	3.01	2.94	2.69
	39.38	41	3.10	3.10	3.10	3.10	2.94	2.69
	42.8	44.6	3.20	3.20	3.20	3.10	2.94	2.69
	46.22	48.2	3.30	3.30	3.20	3.10	2.94	2.69
49.64	51.8	3.39	3.39	3.20	3.10	2.94	2.69	
53.24	55.4	3.52	3.46	3.20	3.10	2.94	2.69	
56.66	59	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-4	-3.64	2.24	2.24	2.24	2.24	2.24	2.24
	-2.2	-1.84	2.40	2.40	2.40	2.40	2.40	2.40
	1.4	1.94	2.52	2.52	2.52	2.52	2.52	2.52
	5	5.54	2.60	2.60	2.60	2.60	2.60	2.60
	8.6	9.32	2.68	2.68	2.68	2.68	2.68	2.68
	12.2	13.1	2.80	2.80	2.80	2.80	2.80	2.80
	14	14.9	2.92	2.92	2.92	2.92	2.92	2.92
	15.62	16.7	3.00	3.00	3.00	3.00	3.00	3.00
	18.32	19.4	3.04	3.04	3.04	3.04	3.04	3.04
	21.92	23	3.16	3.16	3.16	3.16	3.16	3.16
	25.34	26.6	3.32	3.32	3.32	3.32	3.32	3.32
	30.74	32	3.56	3.56	3.56	3.56	3.56	3.36
	35.96	37.4	3.76	3.76	3.76	3.76	3.68	3.36
	39.38	41	3.88	3.88	3.88	3.88	3.68	3.36
	42.8	44.6	4.00	4.00	4.00	3.88	3.68	3.36
	46.22	48.2	4.12	4.12	4.00	3.88	3.68	3.36
49.64	51.8	4.24	4.24	4.00	3.88	3.68	3.36	
53.24	55.4	4.40	4.32	4.00	3.88	3.68	3.36	
56.66	59	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-4	-3.64	2.80	2.80	2.80	2.80	2.80	2.80
	-2.2	-1.84	3.00	3.00	3.00	3.00	3.00	3.00

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC	TC	TC	TC	TC	TC
4.5	1.4	1.94	3.15	3.15	3.15	3.15	3.15	3.15
	5	5.54	3.25	3.25	3.25	3.25	3.25	3.25
	8.6	9.32	3.35	3.35	3.35	3.35	3.35	3.35
	12.2	13.1	3.50	3.50	3.50	3.50	3.50	3.50
	14	14.9	3.65	3.65	3.65	3.65	3.65	3.65
	15.62	16.7	3.75	3.75	3.75	3.75	3.75	3.75
	18.32	19.4	3.80	3.80	3.80	3.80	3.80	3.80
	21.92	23	3.95	3.95	3.95	3.95	3.95	3.95
	25.34	26.6	4.15	4.15	4.15	4.15	4.15	4.15
	30.74	32	4.45	4.45	4.45	4.45	4.45	4.20
	35.96	37.4	4.70	4.70	4.70	4.70	4.60	4.20
	39.38	41	4.85	4.85	4.85	4.85	4.60	4.20
	42.8	44.6	5.00	5.00	5.00	4.85	4.60	4.20
	46.22	48.2	5.15	5.15	5.00	4.85	4.60	4.20
	49.64	51.8	5.30	5.30	5.00	4.85	4.60	4.20
	53.24	55.4	5.50	5.40	5.00	4.85	4.60	4.20
56.66	59	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-4	-3.64	3.53	3.53	3.53	3.53	3.53	3.53
	-2.2	-1.84	3.78	3.78	3.78	3.78	3.78	3.78
	1.4	1.94	3.97	3.97	3.97	3.97	3.97	3.97
	5	5.54	4.10	4.10	4.10	4.10	4.10	4.10
	8.6	9.32	4.22	4.22	4.22	4.22	4.22	4.22
	12.2	13.1	4.41	4.41	4.41	4.41	4.41	4.41
	14	14.9	4.60	4.60	4.60	4.60	4.60	4.60
	15.62	16.7	4.73	4.73	4.73	4.73	4.73	4.73
	18.32	19.4	4.79	4.79	4.79	4.79	4.79	4.79
	21.92	23	4.98	4.98	4.98	4.98	4.98	4.98
	25.34	26.6	5.23	5.23	5.23	5.23	5.23	5.23
	30.74	32	5.61	5.61	5.61	5.61	5.61	5.29
	35.96	37.4	5.92	5.92	5.92	5.92	5.80	5.29
	39.38	41	6.11	6.11	6.11	6.11	5.80	5.29
	42.8	44.6	6.30	6.30	6.30	6.11	5.80	5.29
	46.22	48.2	6.49	6.49	6.30	6.11	5.80	5.29
49.64	51.8	6.68	6.68	6.30	6.11	5.80	5.29	
53.24	55.4	6.93	6.80	6.30	6.11	5.80	5.29	
56.66	59	7.12	6.80	6.30	6.11	5.80	5.29	
7.1	-4	-3.64	4.48	4.48	4.48	4.48	4.48	4.48
	-2.2	-1.84	4.80	4.80	4.80	4.80	4.80	4.80
	1.4	1.94	5.04	5.04	5.04	5.04	5.04	5.04
	5	5.54	5.20	5.20	5.20	5.20	5.20	5.20
	8.6	9.32	5.36	5.36	5.36	5.36	5.36	5.36
	12.2	13.1	5.60	5.60	5.60	5.60	5.60	5.60
	14	14.9	5.84	5.84	5.84	5.84	5.84	5.84
	15.62	16.7	6.00	6.00	6.00	6.00	6.00	6.00
	18.32	19.4	6.08	6.08	6.08	6.08	6.08	6.08
	21.92	23	6.32	6.32	6.32	6.32	6.32	6.32
	25.34	26.6	6.64	6.64	6.64	6.64	6.64	6.64
	30.74	32	7.12	7.12	7.12	7.12	7.12	6.72
	35.96	37.4	7.52	7.52	7.52	7.52	7.36	6.72
	39.38	41	7.76	7.76	7.76	7.76	7.36	6.72
	42.8	44.6	8.00	8.00	8.00	7.76	7.36	6.72
	46.22	48.2	8.24	8.24	8.00	7.76	7.36	6.72
49.64	51.8	8.48	8.48	8.00	7.76	7.36	6.72	
53.24	55.4	8.80	8.64	8.00	7.76	7.36	6.72	
56.66	59	9.04	8.64	8.00	7.76	7.36	6.72	

8. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22Q2/VN1	60	220-240V	198V	254V	0.384	15A	0.076	0.33
MDV-D28Q2/VN1	60	220-240V	198V	254V	0.384	15A	0.076	0.33
MDV-D36Q2/VN1	60	220-240V	198V	254V	0.42	15A	0.081	0.36
MDV-D45Q2/VN1	60	220-240V	198V	254V	0.62	15A	0.112	0.5
MDV-D56Q2/VN1	60	220-240V	198V	254V	0.66	15A	0.131	0.58
MDV-D71Q2/VN1	60	220-240V	198V	254V	1.07	15A	0.202	0.87

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

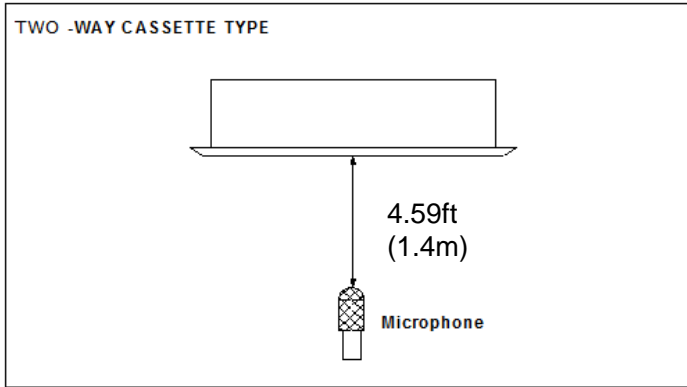
FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor



9. Sound Levels

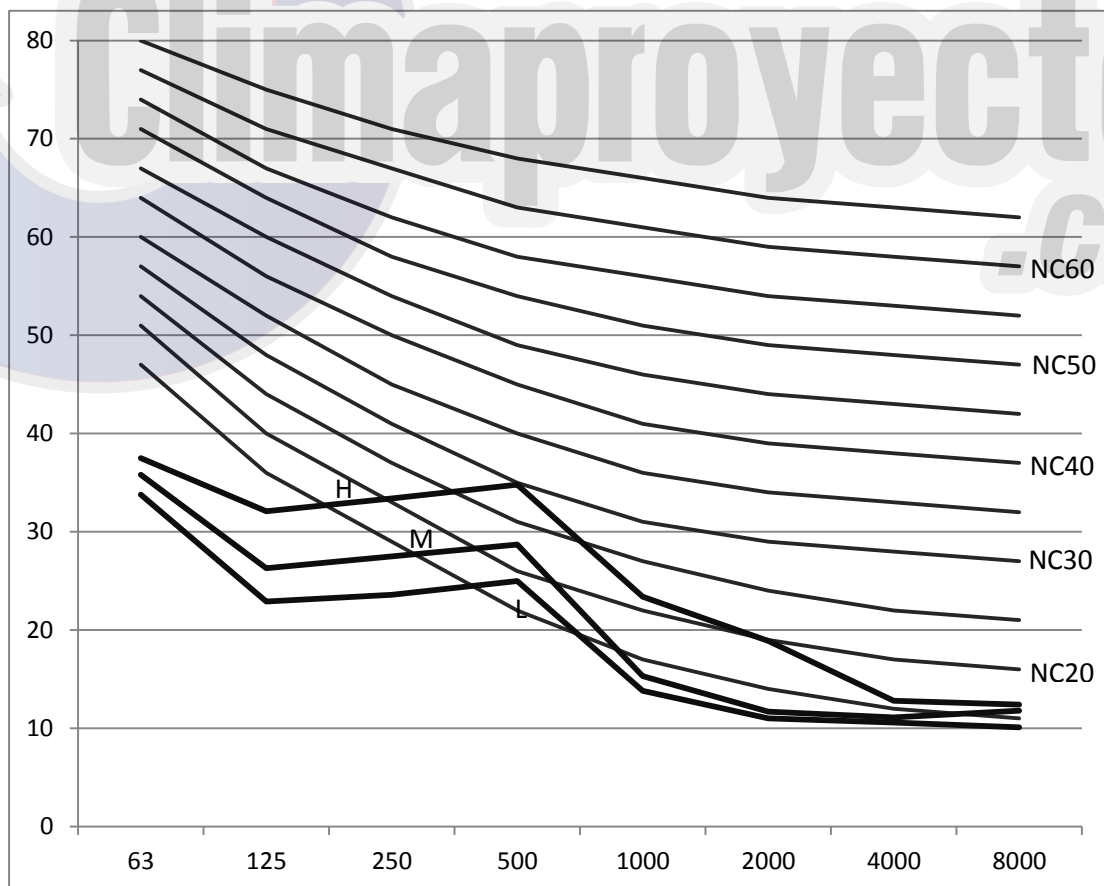
9.1 Test condition



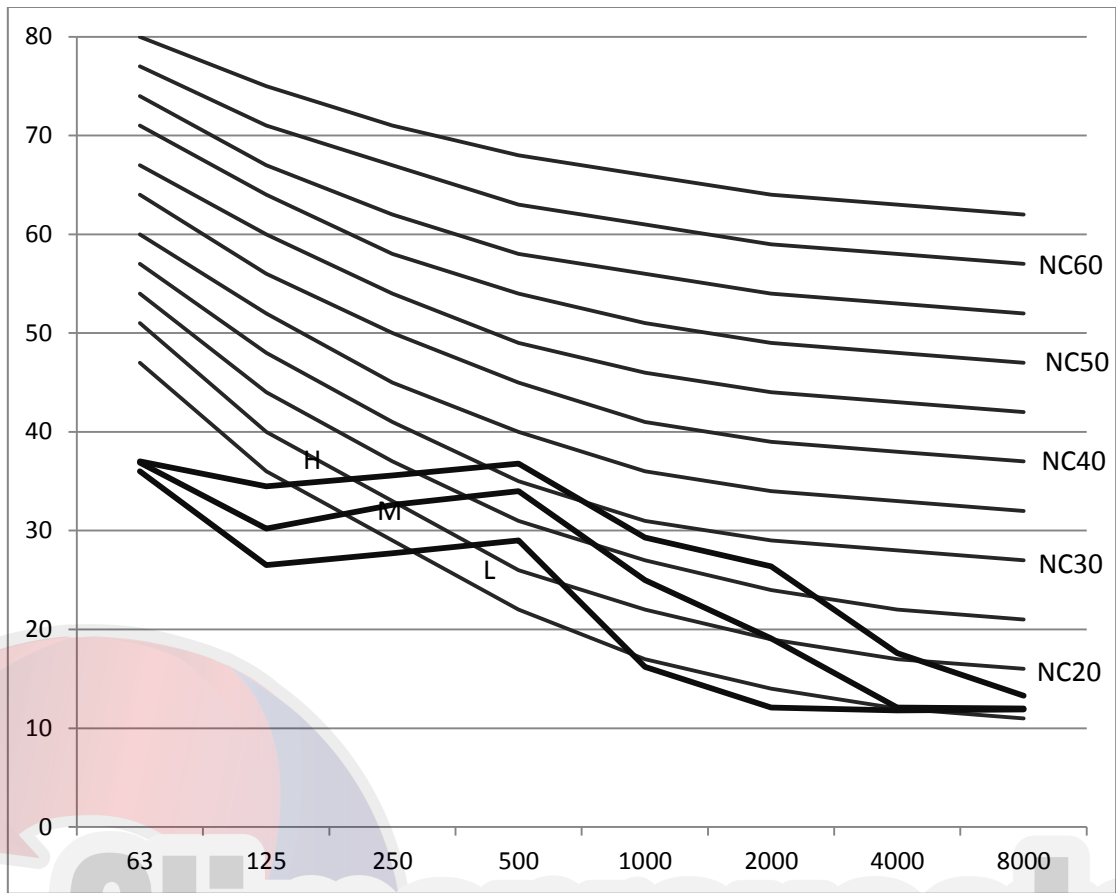
9.2 Test value

Model	Sound test value dB(A)		
	H	M	L
MDV-D22Q2/VN1	33	29	24
MDV-D28Q2/VN1	36	32	29
MDV-D36Q2/VN1	36	32	29
MDV-D45Q2/VN1	39	35	30
MDV-D56Q2/VN1	39	35	30
MDV-D71Q2/VN1	44	40	34

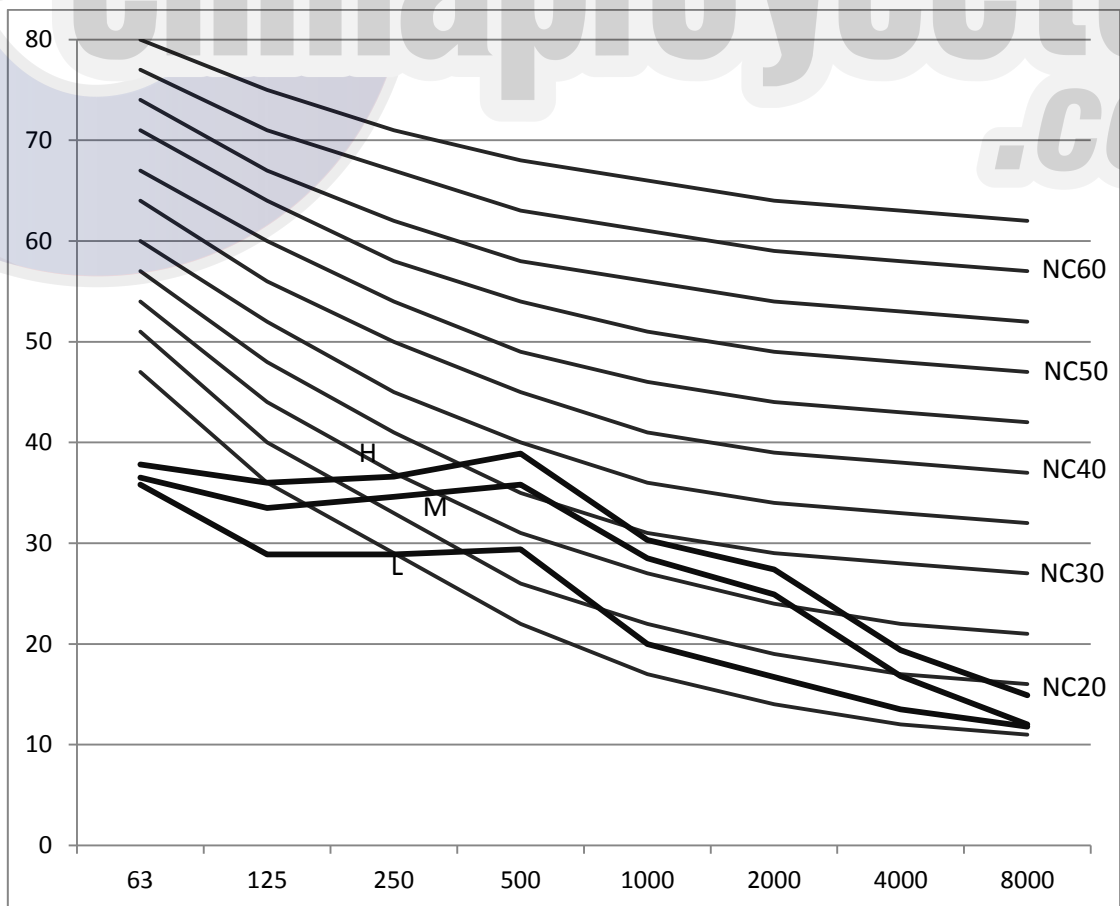
MDV-D22Q2/VN1



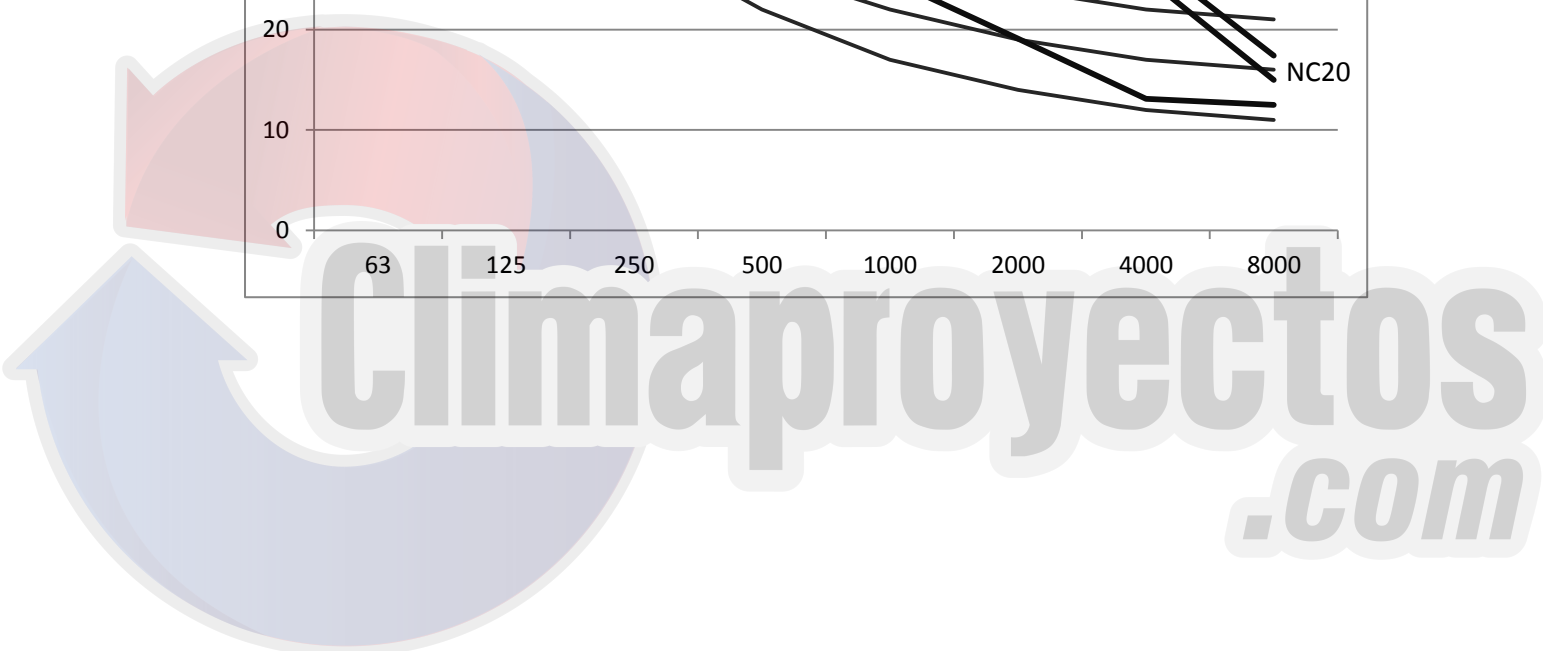
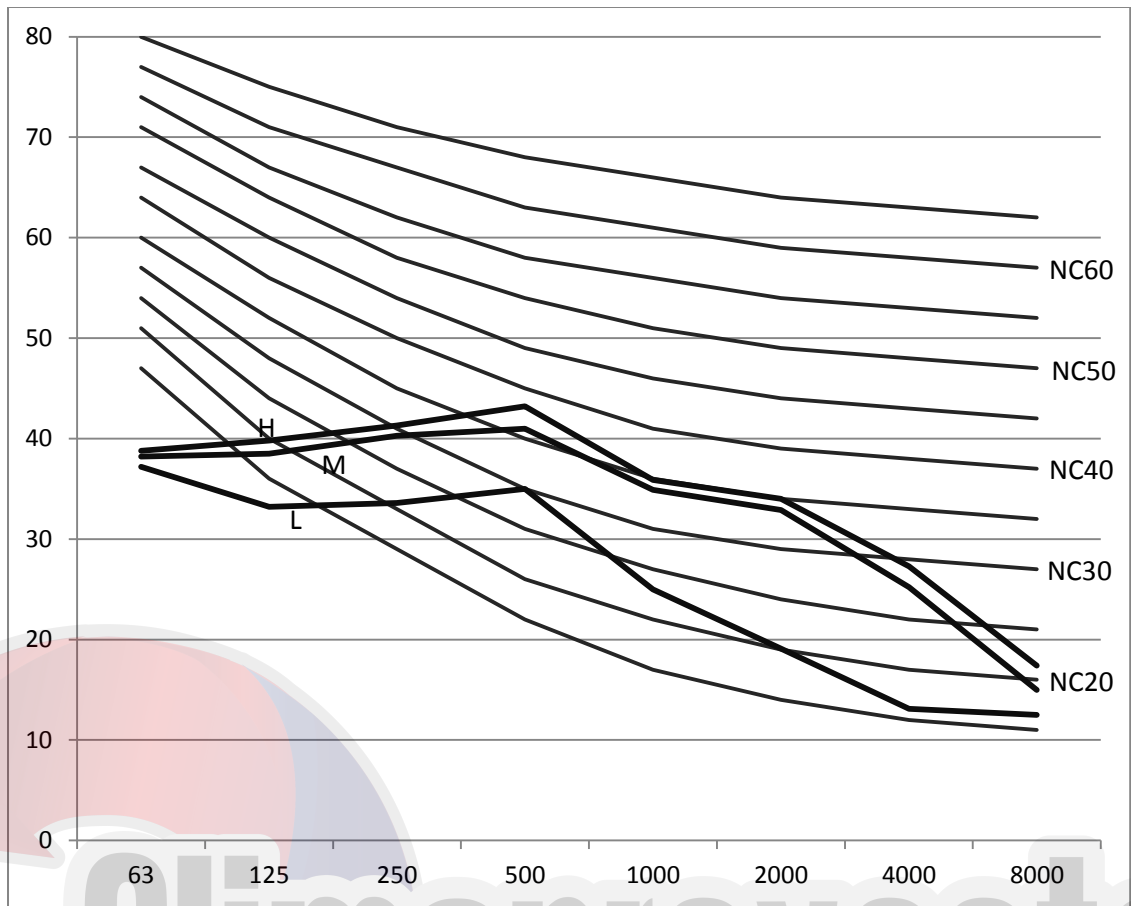
MDV-D28Q2/VN1, MDV-D36Q2/VN1



MDV-D45Q2/VN1, MDV-D56Q2/VN1


















MDV-D71Q2/VN1



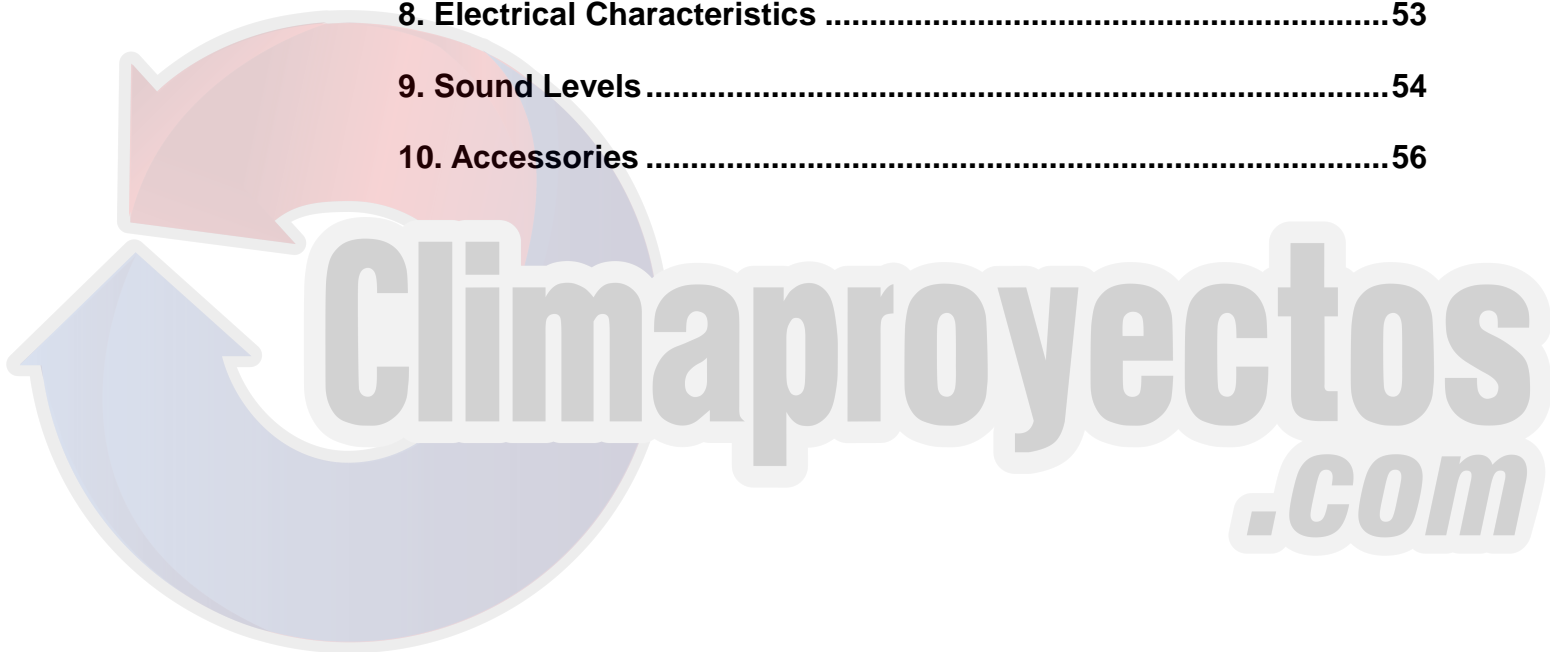
10. Accessories

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		/

Compact Four-way Cassette

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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

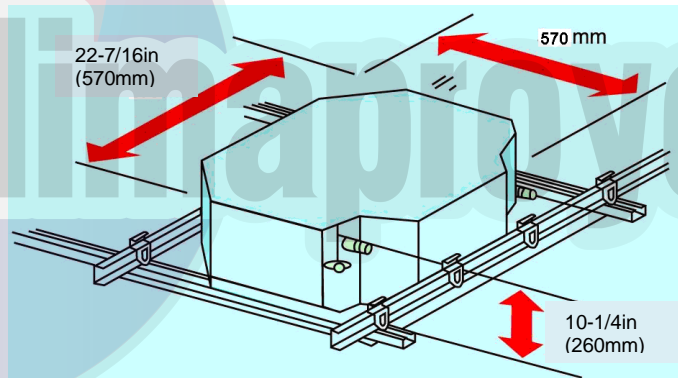


(3) The adoption of the most advanced 3-dimensional centrifugal fan

- Reduces the air resistance passing through
- Smooths 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 (22-7/16in (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

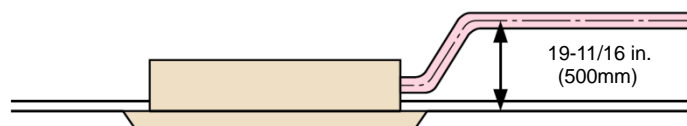
- 360° air outlet makes equal, fast and wide range cooling



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

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

(7) Drain up pump with 19-11/16 in. (500mm) lift fitted as standard, max. up to 23-5/8 in (600mm) head which can be customized.



2. Specifications

Model			MDV-D22Q4/VN1-A3	MDV-D28Q4/VN1-A3
Power supply		V-ph-Hz	220-240V~1Ph~60Hz	220-240V~1Ph~60Hz
Cooling	Capacity	kW	2.2	2.8
		Btu/h	7500	9600
	Input	W	51	52
	Rated current	A	0.175	0.175
Heating	Capacity	kW	2.4	3.2
		Btu/h	8200	10900
	Input	W	43	44
	Rated current	A	0.175	0.175
Indoor fan motor	Model		YDK15-6P-4	YDK15-6P-4
	Type		AC Motor	AC Motor
	Input	W	37.8	37.8
	Capacitor	uF	0.8uF/450V	0.8uF/450V
	Speed(h/m/l)	r/min	658/586/485	658/586/485
Indoor coil	Number of rows		1	1
	Tube pitch(a)x row pitch(b)	in.(mm)	13/16x17/32(21x13.37)	13/16x17/32(21x13.37)
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type		1/4(Φ6.35)	1/4(Φ6.35)
			Inner groove tube	
	Coil length x height x width	in.(mm)	51-9/16x8-9/32x17/32(1310x210x13.37)	
	Number of circuits		2	2
Indoor air flow (H/M/L)	m3/h		397/292/215	408/310/231
	CFM		234/172/127	240/182/136
Sound level (sound pressure)		dB(A)	35.8/33.4/23.4	35.8/33.4/23.4
Indoor unit	Dimension (Wx HxD)	in.(mm)	22-7/16x10-15/64x22-7/16(570x265x570)	
	Packing (WxHxD)	in.(mm)	26-9/16x11-7/32x26-9/16(675x285x675)	
	Net/Gross weight	lbs. (kg)	35.3/44.1/(16/20)	
Panel	Dimension (Wx HxD)	in.(mm)	25-15/32x1-31/32x25-15/32 (647x50x647)	
	Packing (Wx HxD)	in.(mm)	28-5/32x4-27/32x28-5/32(715x113x715)	
	Net/Gross weight	lbs. (kg)	5.5/9.9(2.5/4.5)	
Refrigerant	Type		R410a	R410a
Throttle		Electronic expansion valve		
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side	in.(mm)	1/4(Φ6.35)	1/4(Φ6.35)
	Gas side	in.(mm)	1/2(Φ12.7)	1/2(Φ12.7)
Connection wiring	Power wiring	mm2	3x2.0	
	Signal wiring	mm2	3x0.5 (3-core shielded wire)	
Drainage water pipe diameter		in.(mm)	OD 63/64 (Φ25)	OD 63/64 (Φ25)
Controller		Wireless remote controller		

Notes:

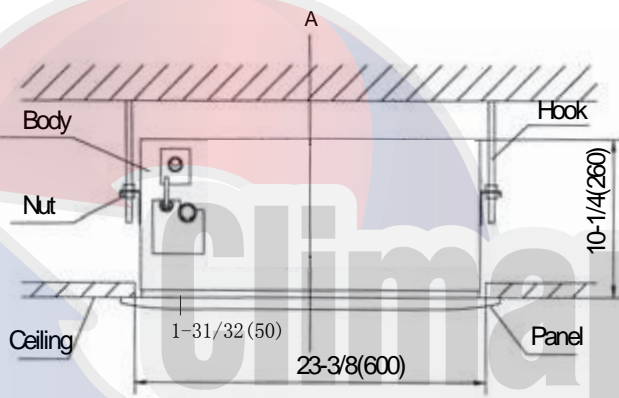
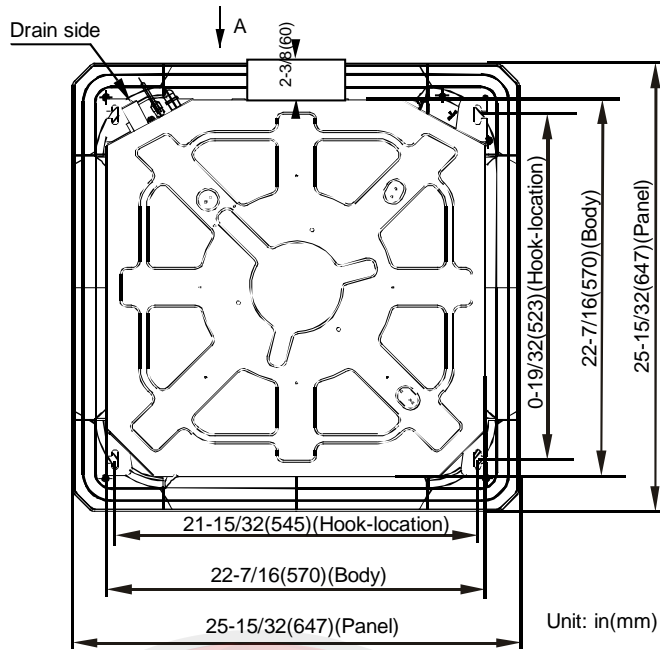
- Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model			MDV-D36Q4/VN1-A3	MDV-D45Q4/VN1-A3
Power supply		V-ph-Hz	220-240V~1Ph~60Hz	220-240V~1Ph~60Hz
Cooling	Capacity	kW	3.6	4.5
		Btu/h	12300	15400
	Input	W	58	58
	Rated current	A	0.21	0.21
Heating	Capacity	kW	4.0	5.0
		Btu/h	13600	17100
	Input	W	50	51
	Rated current	A	0.21	0.21
Indoor fan motor	Model		YDK15-6P-4	YDK15-6P-4
	Type		AC MOTOR	AC MOTOR
	Input	W	44	44
	Capacitor	uF	1.2uF/450V	1.2uF/450V
	Speed(h/m/l)	r/min	780/670/540	780/675/560
Indoor coil	Number of rows		2	2
	Tube pitch(a)x row pitch(b)	in.(mm)	13/16x17/32(21x13.37)	13/16x17/32(21x13.37)
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35)	1/4(Φ6.35)
			Inner groove tube	
	Coil length x height x width	in.(mm)	51-9/16x8-9/32x1-1/16(1310x210x26.74)	
Number of circuits		4	4	
Indoor air flow (H/M/L)	m3/h		496/359/263	496/359/263
	CFM		292/211/155	292/211/155
Sound level (sound pressure)		dB(A)	41.5/35.6/28.8	41.5/35.6/28.8
Indoor unit	Dimension (Wx HxD)	in.(mm)	22-7/16x10-15/64x22-7/16(570x260x570)	
	Packing (WxH xD)	in.(mm)	26-9/16x11-7/32x26-9/16(675x285x675)	
	Net/Gross weight	lbs.(kg)	39.7/48.5(18/22)	39.7/48.5(18/22)
Panel	Dimension (Wx Hx D)	in.(mm)	25-15/32x1-31/32x25-15/32(647x50x647)	
	Packing (Wx Hx D)	in.(mm)	28-5/32x4-27/32x28-5/32(715x113x715)	
	Net/Gross weight	lbs.(kg)	5.5/9.9(2.5/4.5)	
Refrigerant	Type		R410a	R410a
Throttle		Electronic expansion valve		
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side	in.(mm)	1/4(Φ6.35)	1/4(Φ6.35)
	Gas side	in.(mm)	1/2(Φ12.7)	1/2(Φ12.7)
Connection wiring	Power wiring	mm ²	3x2.0	3x2.0
	Signal wiring	mm ²	3x0.5 (3-core shielded wire)	
Drainage water pipe diameter		in.(mm)	OD 63/64 (Φ25)	OD 63/64 (Φ25)
Controller		Wireless remote controller		

Notes:

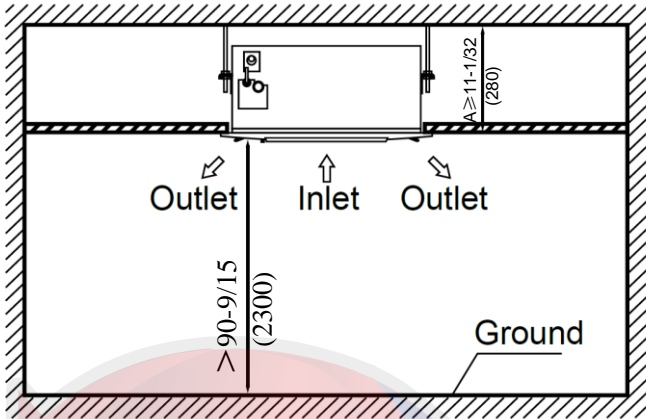
- Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

3. Dimensions



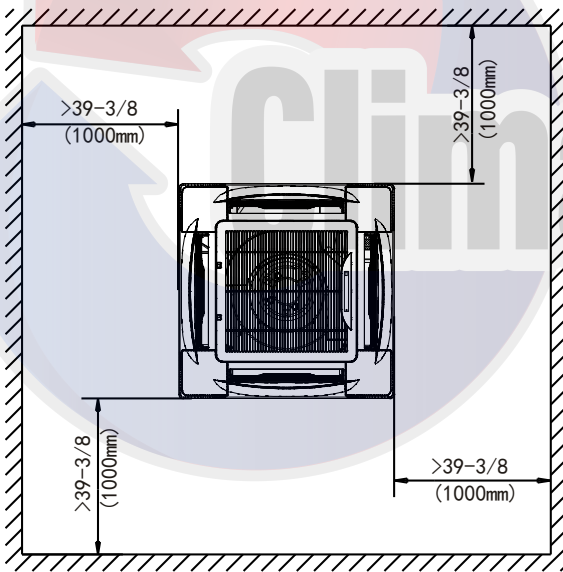
4. Service Spaces

- 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.



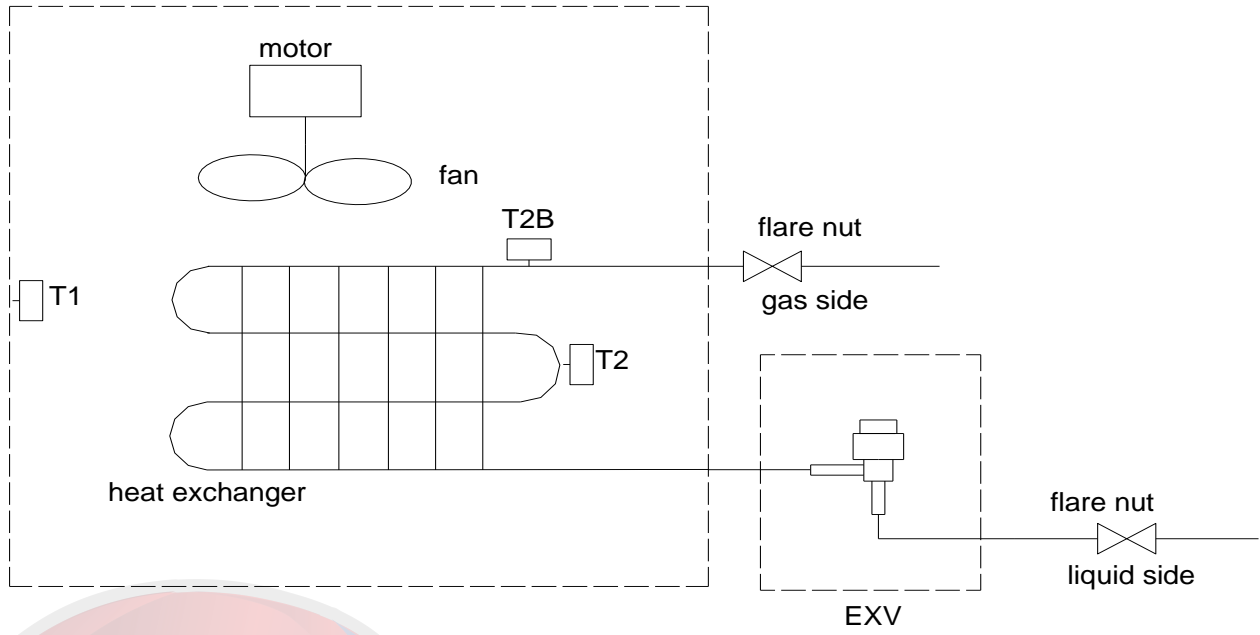
Unit: in(mm)

- Keep more than 7.55ft (2.3m) distance between the panel and ground of the room.



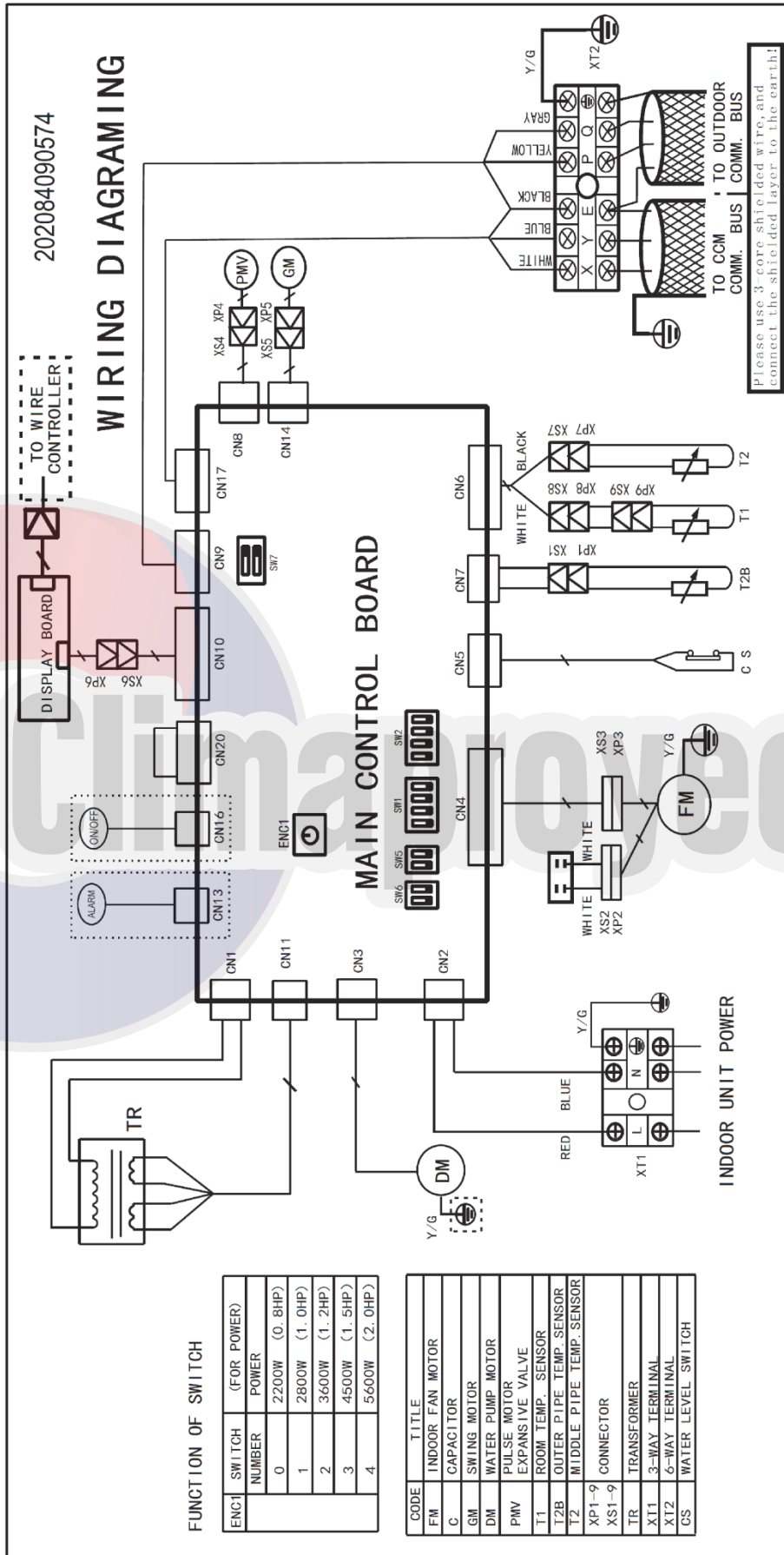
- Keep at least 3.28ft (1m) to the wall of each side.

5. Piping Diagrams (EXV beside)



6. Wiring Diagrams

MDV-D22Q4/VN1-A3 MDV-D28Q4/VN1-A3 MDV-D36Q4/VN1-A3 MDV-D45Q4/VN1-A3



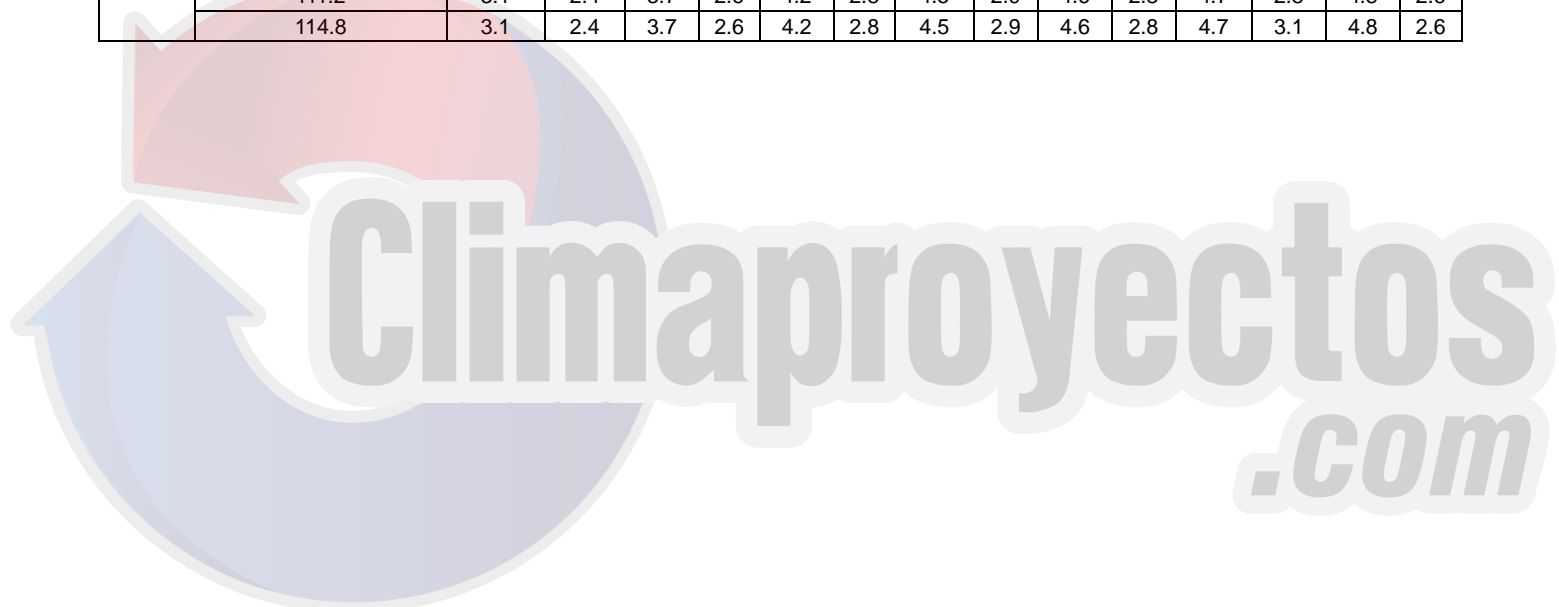
7. Capacity Tables

7.1 Cooling

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

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	111.2	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
	114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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 (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC	TC	TC	TC	TC	TC
2.2	-4	-3.64	1.34	1.34	1.34	1.34	1.34	1.34
	-2.2	-1.84	1.44	1.44	1.44	1.44	1.44	1.44
	1.4	1.94	1.51	1.51	1.51	1.51	1.51	1.51
	5	5.54	1.56	1.56	1.56	1.56	1.56	1.56
	8.6	9.32	1.66	1.66	1.66	1.66	1.66	1.66
	12.2	13.1	1.68	1.70	1.70	1.70	1.70	1.70
	14	14.9	1.75	1.75	1.75	1.75	1.75	1.75
	15.62	16.7	1.80	1.80	1.80	1.80	1.80	1.80
	18.32	19.4	1.82	1.82	1.82	1.82	1.82	1.82
	21.92	23	1.90	1.90	1.90	1.90	1.90	1.90
	25.34	26.6	1.99	1.99	1.99	1.99	1.99	1.99
	30.74	32	2.14	2.14	2.14	2.14	2.14	2.02
	35.96	37.4	2.26	2.26	2.26	2.26	2.21	2.02
	39.38	41	2.33	2.33	2.33	2.33	2.21	2.02
	42.8	44.6	2.40	2.40	2.40	2.33	2.21	2.02
46.22	48.2	2.47	2.47	2.40	2.33	2.21	2.02	
49.64	51.8	2.54	2.54	2.40	2.33	2.21	2.02	
53.24	55.4	2.64	2.59	2.40	2.33	2.21	2.02	
56.66	59	2.71	2.59	2.40	2.33	2.21	2.02	
2.8	-4	-3.64	1.79	1.79	1.79	1.79	1.79	1.79
	-2.2	-1.84	1.92	1.92	1.92	1.92	1.92	1.92
	1.4	1.94	2.02	2.02	2.02	2.02	2.02	2.02
	5	5.54	2.02	2.02	2.02	2.02	2.02	2.02
	8.6	9.32	2.14	2.14	2.14	2.14	2.14	2.14
	12.2	13.1	2.24	2.24	2.24	2.24	2.24	2.24
	14	14.9	2.34	2.34	2.34	2.34	2.34	2.34
	15.62	16.7	2.40	2.40	2.40	2.40	2.40	2.40
	18.32	19.4	2.43	2.43	2.43	2.43	2.43	2.43
	21.92	23	2.53	2.53	2.53	2.53	2.53	2.53
	25.34	26.6	2.66	2.66	2.66	2.66	2.66	2.66
	30.74	32	2.85	2.85	2.85	2.85	2.85	2.69
	35.96	37.4	3.01	3.01	3.01	3.01	2.94	2.69
	39.38	41	3.10	3.10	3.10	3.10	2.94	2.69
	42.8	44.6	3.20	3.20	3.20	3.10	2.94	2.69
46.22	48.2	3.30	3.30	3.20	3.10	2.94	2.69	
49.64	51.8	3.39	3.39	3.20	3.10	2.94	2.69	
53.24	55.4	3.52	3.46	3.20	3.10	2.94	2.69	
56.66	59	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-4	-3.64	2.24	2.24	2.24	2.24	2.24	2.24
	-2.2	-1.84	2.40	2.40	2.40	2.40	2.40	2.40
	1.4	1.94	2.52	2.52	2.52	2.52	2.52	2.52
	5	5.54	2.60	2.60	2.60	2.60	2.60	2.60
	8.6	9.32	2.68	2.68	2.68	2.68	2.68	2.68
	12.2	13.1	2.80	2.80	2.80	2.80	2.80	2.80
	14	14.9	2.92	2.92	2.92	2.92	2.92	2.92
	15.62	16.7	3.00	3.00	3.00	3.00	3.00	3.00
	18.32	19.4	3.04	3.04	3.04	3.04	3.04	3.04
	21.92	23	3.16	3.16	3.16	3.16	3.16	3.16
	25.34	26.6	3.32	3.32	3.32	3.32	3.32	3.32
	30.74	32	3.56	3.56	3.56	3.56	3.56	3.36
	35.96	37.4	3.76	3.76	3.76	3.76	3.68	3.36
	39.38	41	3.88	3.88	3.88	3.88	3.68	3.36
	42.8	44.6	4.00	4.00	4.00	3.88	3.68	3.36
46.22	48.2	4.12	4.12	4.00	3.88	3.68	3.36	
49.64	51.8	4.24	4.24	4.00	3.88	3.68	3.36	
53.24	55.4	4.40	4.32	4.00	3.88	3.68	3.36	
56.66	59	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-4	-3.64	2.80	2.80	2.80	2.80	2.80	2.80

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)						
			60.8	64.4	68	69.8	71.6	75.2	
			TC	TC	TC	TC	TC	TC	
	WB	DB	kW	kW	kW	kW	kW	kW	kW
4.5	-4	-3.64	2.80	2.80	2.80	2.80	2.80	2.80	2.80
	-2.2	-1.84	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	1.4	1.94	3.15	3.15	3.15	3.15	3.15	3.15	3.15
	5	5.54	3.25	3.25	3.25	3.25	3.25	3.25	3.25
	8.6	9.32	3.35	3.35	3.35	3.35	3.35	3.35	3.35
	12.2	13.1	3.50	3.50	3.50	3.50	3.50	3.50	3.50
	14	14.9	3.65	3.65	3.65	3.65	3.65	3.65	3.65
	15.62	16.7	3.75	3.75	3.75	3.75	3.75	3.75	3.75
	18.32	19.4	3.80	3.80	3.80	3.80	3.80	3.80	3.80
	21.92	23	3.95	3.95	3.95	3.95	3.95	3.95	3.95
	25.34	26.6	4.15	4.15	4.15	4.15	4.15	4.15	4.15
	30.74	32	4.45	4.45	4.45	4.45	4.45	4.45	4.20
	35.96	37.4	4.70	4.70	4.70	4.70	4.70	4.60	4.20
	39.38	41	4.85	4.85	4.85	4.85	4.60	4.20	4.20
	42.8	44.6	5.00	5.00	5.00	4.85	4.60	4.20	4.20
	46.22	48.2	5.15	5.15	5.00	4.85	4.60	4.20	4.20
49.64	51.8	5.30	5.30	5.00	4.85	4.60	4.20	4.20	
53.24	55.4	5.50	5.40	5.00	4.85	4.60	4.20	4.20	
56.66	59	5.65	5.40	5.00	4.85	4.60	4.20	4.20	



8. Electrical Characteristics

Model	Indoor Unit				Power Supply	IFM	
	Hz	Voltage	Min.	Max.	MFA	kW	FLA
MDV-D22Q4/VN1-A3	60	220-240	198	254	15	0.039	0.175
MDV-D28Q4/VN1-A3	60	220-240	198	254	15	0.039	0.175
MDV-D36Q4/VN1-A3	60	220-240	198	254	15	0.049	0.21
MDV-D45Q4/VN1-A3	60	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)

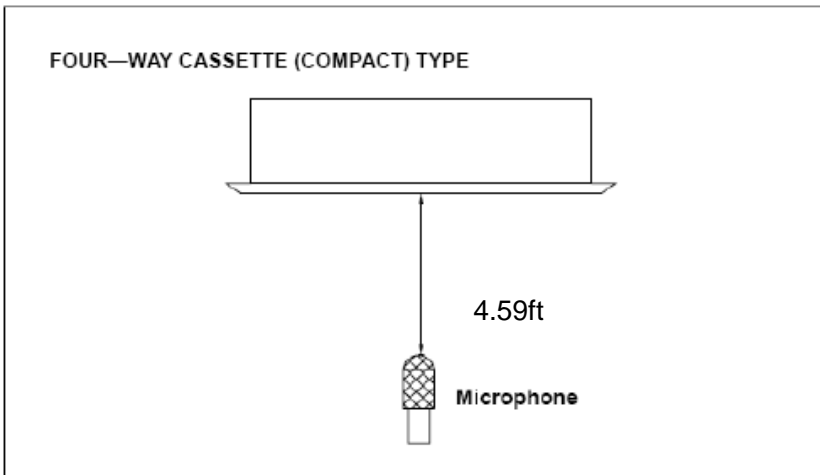
FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor



9. Sound Levels

9.1 Test condition



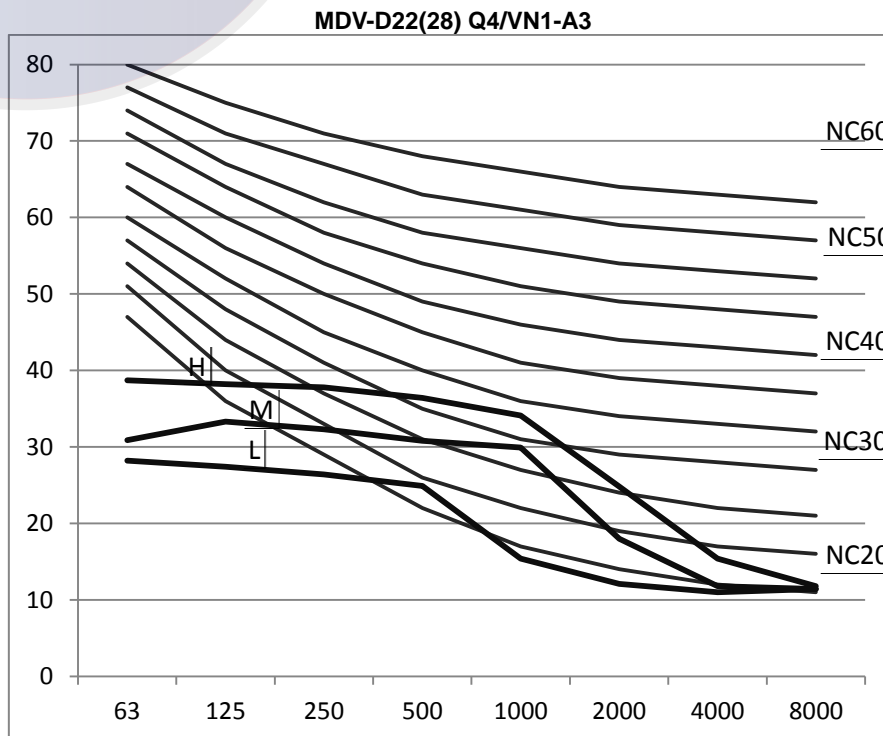
Note:

- 1, During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Semi-anechoic chamber conversion value, measured at a point which is 4.59ft(1.4m) under the unit.

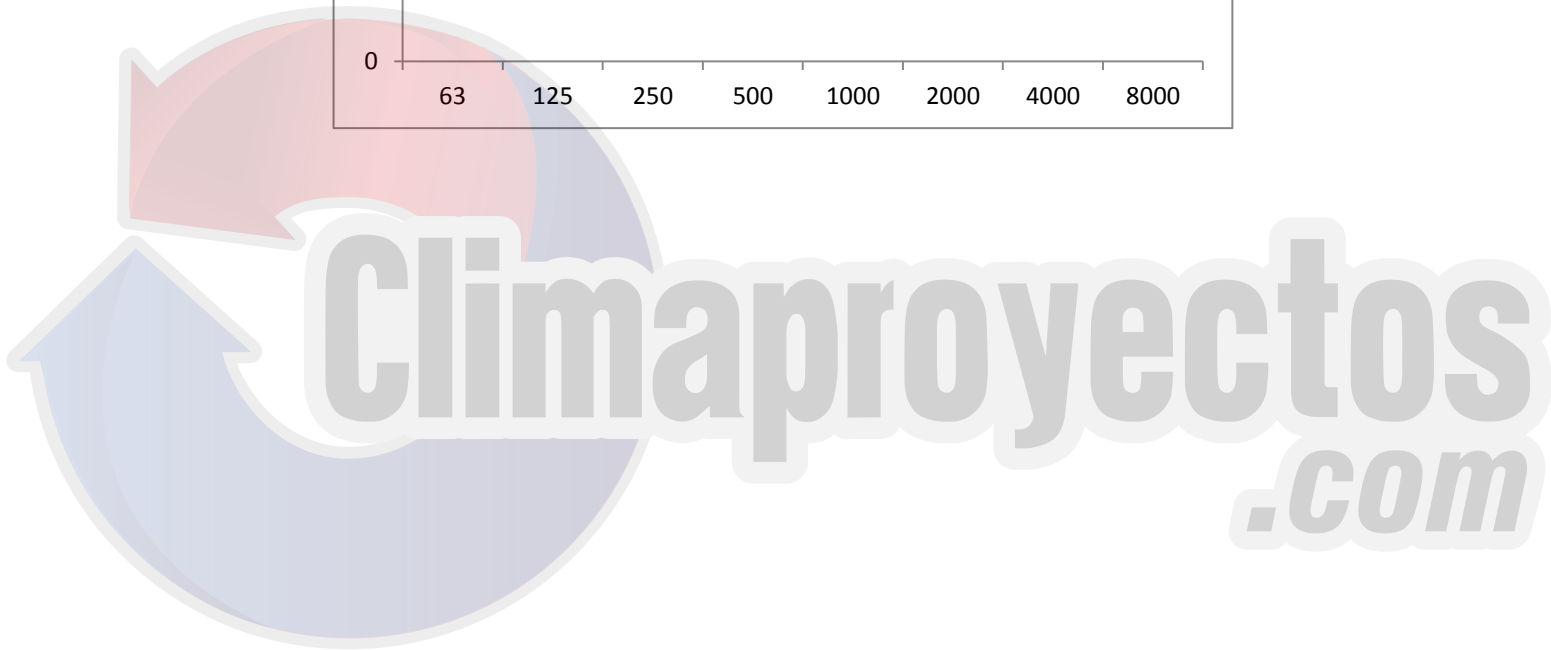
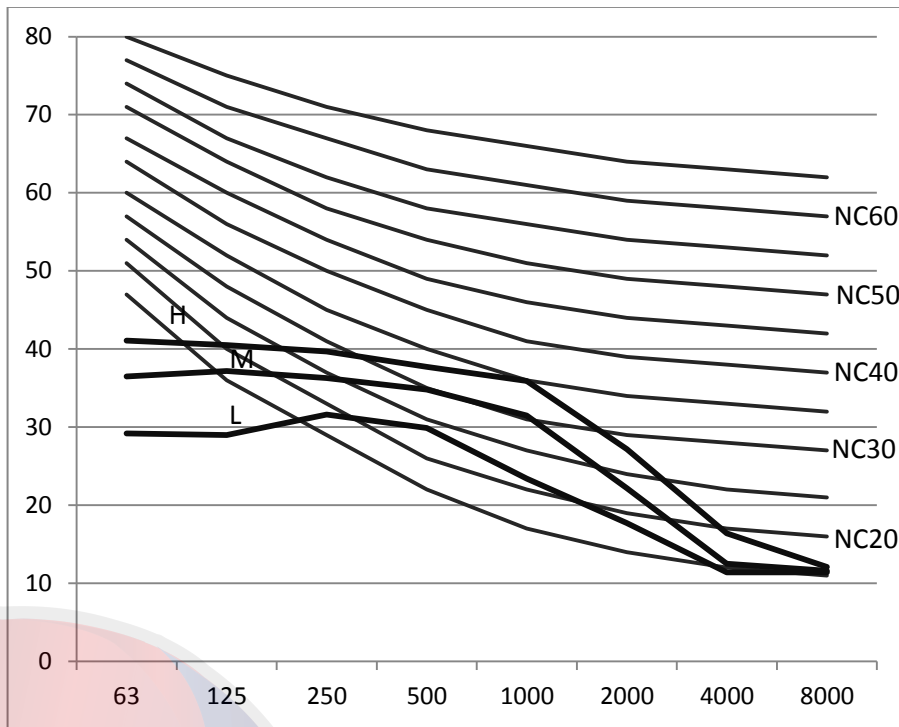
9.2 Test value

Model	Sound level dB(A)		
	H	M	L
MDV-D22Q4/VN1-A3	38.1	33.4	23.4
MDV-D28Q4/VN1-A3	38.1	33.4	23.4
MDV-D36Q4/VN1-A3	41.5	35.6	28.8
MDV-D45Q4/VN1-A3	41.5	35.6	28.8



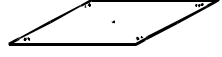
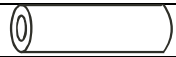







9.3 Octave Band Level



MDV-D36(45) Q4/VN1-A3

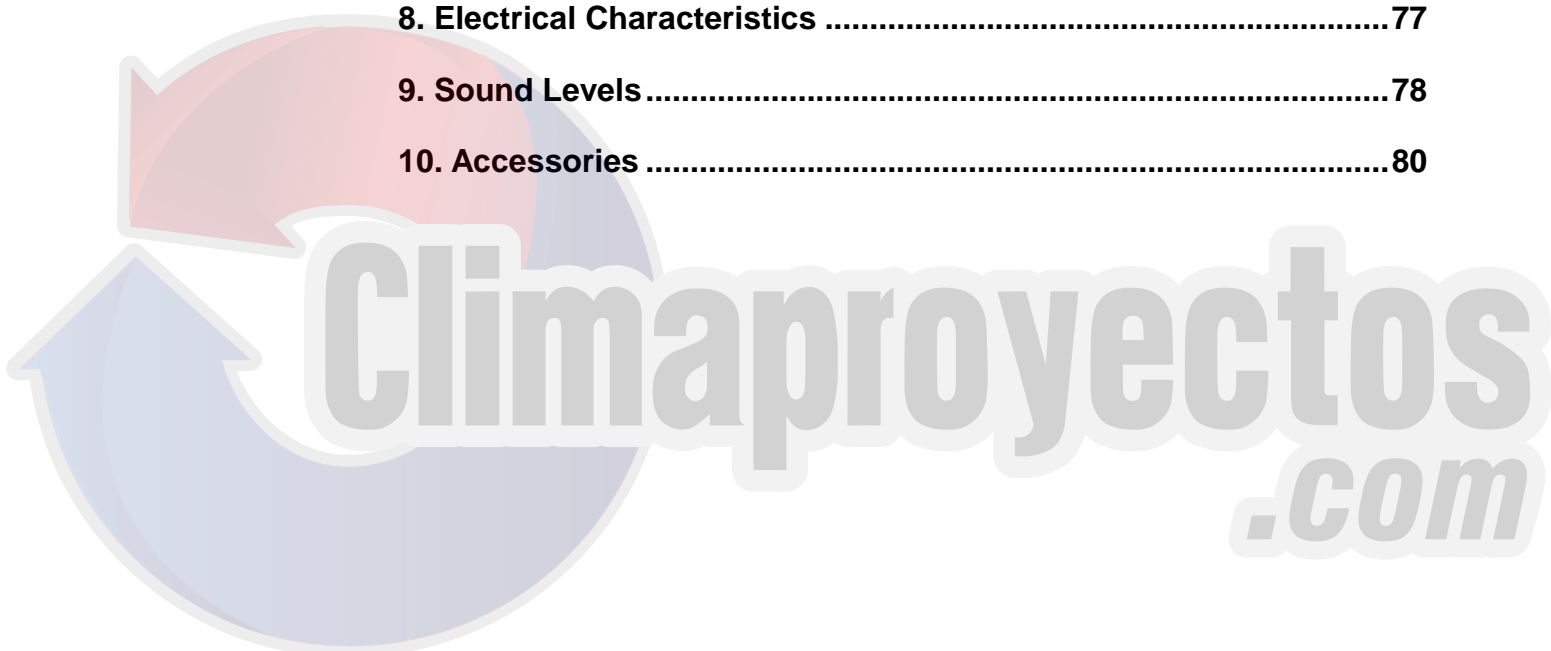


10. Accessories

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. Flexible hose tube	1	
7. Out-let pipe sheath	/	/
8. Drain pipe clasp	1	
9. Tightening band	5	
10. Remote controller	1	
11. Frame	1	
12. Mounting screw(ST2.9x10-C-H)	2	
13. Alkaline dry batteries (AM4)	2	
14. Installation manual	1	/
15. Signal line	1	/
16. Connective pipe for restriction assembly	1	/

Four-way Cassette

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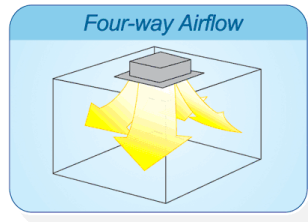


1. Features

(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.

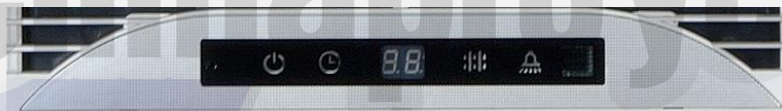
The optimal evaporator & sufficient airflow volume guarantees the excellent capacity

(4) The adoption of the most advanced 3-dimensional centrifugal fan

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



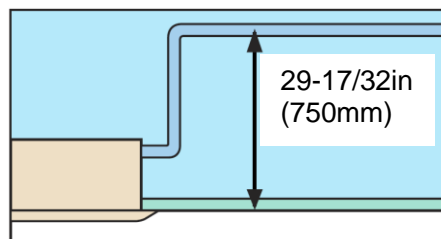
(5) Adding digital tube displaying on the display board. LED can display the Error Code to make the malfunction checking easier.



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

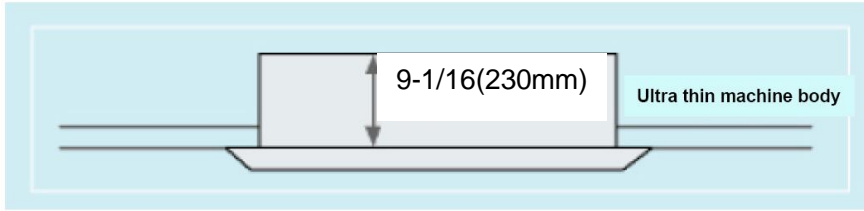


(7) Drainage pump can take up the condenser water to 29-17/32in(750mm).



(8) Ultra-thin machine body to easy installation and maintenance:

- 9600Btu/h~27300Btu/h(2.8Kw~8.0Kw):9-1/16(230mm),
- 30700Btu/h~47800But/h(9.0Kw~14Kw):11-13/16(300mm).



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



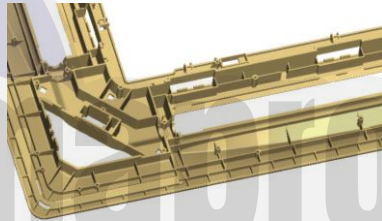
(White) Standard (Black) Optional (Gray) Optional (Blue) Optional

*The optional can be customized if it is more than 500 units.

(10) Swing angle of louver

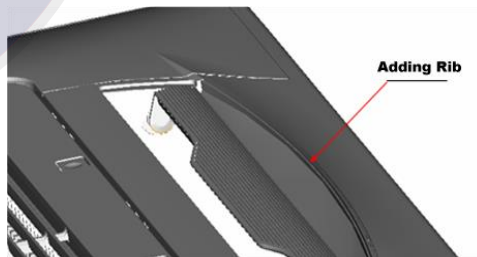
- 1) Add one more swing motor, one motor driving two louvers. Controlling the interspace of each part, minimizing the angle loss.
- 2) The swing angle of the first louver are 40~42 degrees and the second louver are 37~38 degrees. New evaporator and inner configuration designed can acquire high heat-exchanger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

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

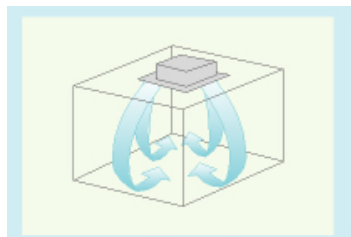


(12) New outlet frame design to make the phenomena of coagulation great improvement: prevents the condensing water from damaging the air guide strip.

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



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



(15) 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, 60Hz		
Cooling	Capacity	kW	2.8	3.6	4.5
		Btu/h	9600	12300	15400
	Input	W	90	90	90
	Rated current	A	0.4	0.4	0.4
Heating	Capacity	kW	3.2	4.0	5.0
		Btu/h	10900	13600	17100
	Input	W	90	90	90
	Rated current	A	0.4	0.4	0.4
Indoor fan motor	Model		YDK60-6F-4	YDK60-6F-4	YDK60-6F-4
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	80.3	80.3	95.1
	Capacitor	uF	2.5uF/450V	2.5uF/450V	3.5uF/450V
	Speed (h/m/l)	r/min	558/497/431	558/497/431	637/656/487
Indoor coil	Number of rows		1	1	2
	Tube pitch(a)× row pitch(b)	in.(mm)	13/16×17/32(21×13.37)	13/16×17/32(21×13.37)	13/16×17/32(21×13.37)
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35),Inner groove Tube		
	Coil length × height × width	in.(mm)	75-63/64×6-5/8 × 17/32(1930×168×13.37)	77-13/64 × 6-5/8 × 1-1/16 (1961×168×26.74)	
	Number of circuits		4	4	8
Indoor air flow (SH/H/M/L)	m ³ /h		1155/847/766/640	1155/847/766/640	1207/864/755/658
	CFM		680/499/451/377	680/499/451/377	710/509/444/387
Indoor noise level (H/M/L)		dB(A)	42/38/35	42/38/35	42/38/35
Indoor unit	Dimension (W×H×D)	in.(mm)	35-19/32×9-1/16×33-5/64(904×230×840)		
	Packing (W × H × D)	in.(mm)	37-19/32×10-15/64×37-19/32(955×260×955)		
	Net/Gross weight	lbs.(kg)	53 /61.7(24/28)	53 /61.7(24/28)	57.3 /66.2(26/30)
Panel	Dimension (W×H×D)	in.(mm)	37-13/32×2-9/64×37-13/32(950×54.5×950)		
	Packing (W × H × D)	in.(mm)	40-3/4×3-35/64×40-3/4(1035×90×1035)		
	Net/Gross weight	lbs.(kg)	11.0/17.6(5/8)	11.0/17.6(5/8)	11.0/17.6(5/8)
Refrigerant type			R410A	R410A	R410A
Throttle			Electronic expansion valve		
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side	in.(mm)	1/4(Φ6.35)	1/4(Φ6.35)	1/4(Φ6.35)
	Gas side	in.(mm)	1/2(Φ12.7)	1/2(Φ12.7)	1/2(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	3×0.75	3×0.75
Drainage water pipe dia.		in.(mm)	OD1-17/64(Φ32)		
Controller			Wireless remote controller		

Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model			MDV-D56Q4/N1-D	MDV-D71Q4/N1-D	MDV-D80Q4/N1-D
Power supply		V- Ph-Hz	220-240V, 1Ph, 60Hz		
Cooling	Capacity	kW	5.6	7.1	8.0
		Btu/h	19100	24200	27300
	Input	W	90	115	115
	Rated current	A	0.4	0.5	0.5
1Heating	Capacity	kW	6.3	8.0	9.0
		Btu/h	21500	27300	30700
	Input	W	90	115	115
	Rated current	A	0.4	0.5	0.5
Indoor fan motor	Model		YDK60-6F-4	YDK80-6F-1	YDK80-6F-1
	Type		AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling
	Input	W	95.1	113.3	113.3
	Capacitor	uF	3.5uF/450V	3.5uF/450V	3.5uF/450V
	Speed (h/m/l)	r/min	637/656/487	781/670/526	781/670/526
Indoor coil	Number of rows		2	2	2
	Tube pitch(a)× row pitch(b)	in.(mm)	13/16×17/32(21×13.37)	13/16×17/32(21×13.37)	13/16×17/32(21×13.37)
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35), Inner groove Tube		
	Coil length × height × width		in.(mm) 77-13/64×6-5/8×1-1/16(1961×168×26.74)		
	Number of circuits		8	8	8
Indoor air flow (H/M/L)	m3/h		1207/864/755/658	1327/1157/955/749	1357/1236/973/729
	CFM		710/509/444/387	781/681/562/441	799/727/573/429
Indoor noise level (H/M/L)		dB(A)	42/38/35	45/42/39	45/42/39
Indoor unit	Dimension (W×H×D)	in.(mm)	35-19/32×9-1/16×33-5/64(904×230×840)		
	Packing (W×H×D)	in.(mm)	37-19/32×10-15/64×37-19/32(955×260×955)		
	Net/Gross weight	lbs. (kg)	57.3 /66.2(26/30)	57.3 /66.2(26/30)	57.3 /66.2(26/30)
Panel	Dimension (W×H×D)	in.(mm)	37-13/32×2-9/64×37-13/32(950×54.5×950)		
	Packing (W×H×D)	in.(mm)	40-3/4×3-35/64×40-3/4(1035×90×1035)		
	Net/Gross weight	lbs. (kg)	11.0/17.6(5/8)	11.0/17.6(5/8)	11.0/17.6(5/8)
Refrigerant type			R410A	R410A	R410A
Throttle			Electronic expansion valve		
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side	in.(mm)	3/8(Φ9.53)	3/8(Φ9.53)	3/8(Φ9.53)
	Gas side	in.(mm)	5/8(Φ15.9)	5/8(Φ15.9)	5/8(Φ15.9)
Connecting wiring	Power wiring	mm2	3×2.5(L≤20m); 3×3.5(L≤50m)		
	Signal wiring	mm2	3×0.75	3×0.75	3×0.75
Drainage water pipe diameter		in.(mm)	OD1-17/64(Φ32)	OD1-17/64(Φ32)	OD1-17/64(Φ32)
Controller			Wireless remote controller		

Notes:

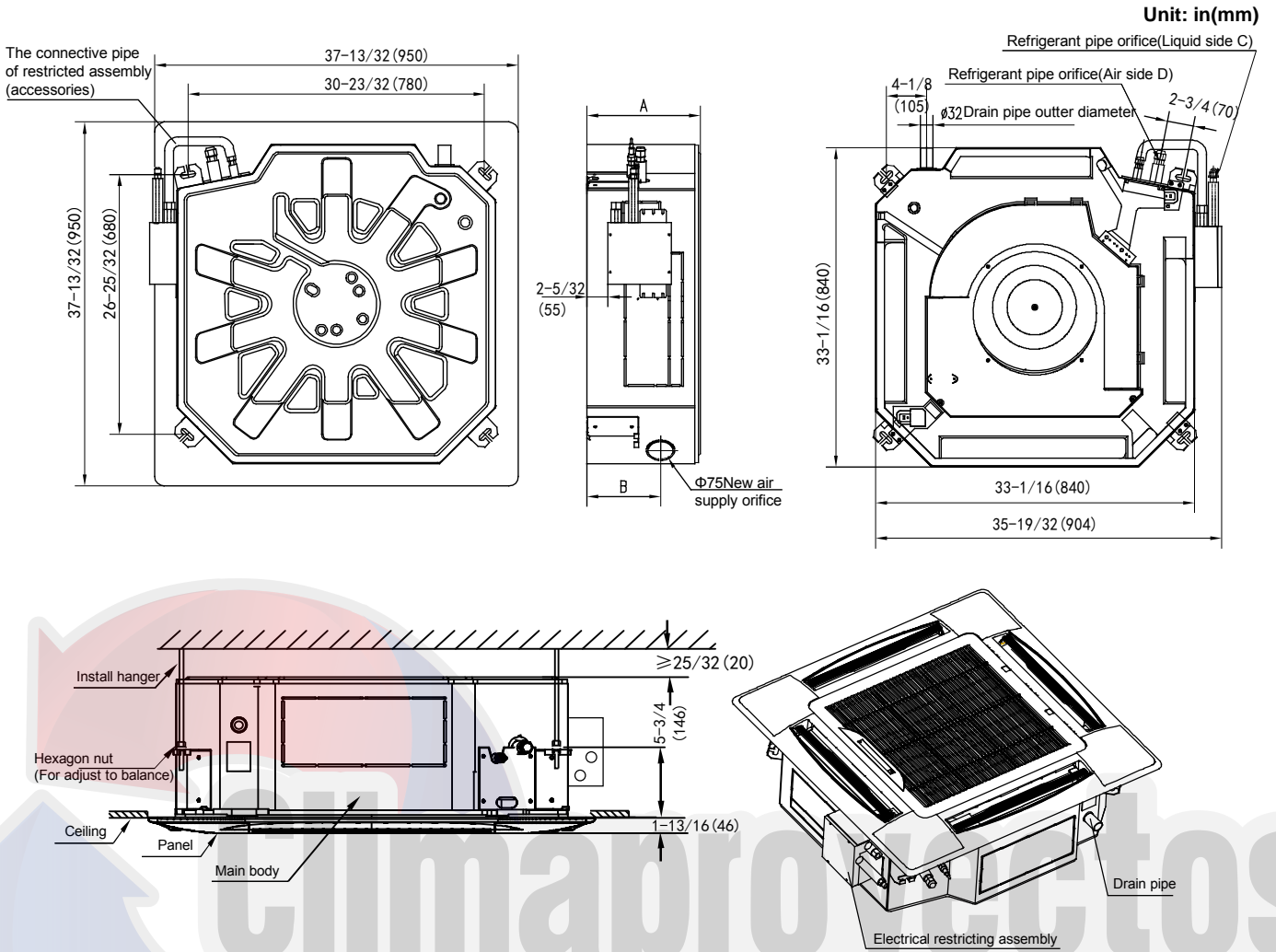
- Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F(27°C)DB,66.2°F(19°C)WB, and outdoor temperature: 95°F(35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F(20°C)DB, outdoor temperature: 44.6°F(7°C)DB,42.8°F(6°C)WB, and equivalent ref. Piping: 26.25ft(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, 60Hz			
Cooling	Capacity	kW	9.0	10.0	11.2	14.0
		Btu/h	30700	34100	38200	47800
	Input	W	160	160	160	180
	Rated current	A	0.7	0.7	0.7	0.8
Heating	Capacity	kW	10.0	11.0	12.5	15.0
		Btu/h	34100	37500	42700	51200
	Input	W	160	160	160	180
	Rated current	A	0.7	0.7	0.7	0.8
Indoor fan motor	Model		YDK90-6F	YDK90-6F	YDK90-6F	YDK100-6P
	Type		AC motor	AC motor	AC motor	AC motor
	Brand		Welling	Welling	Welling	Welling
	Input	W	182	182	182	218
	Capacitor	uF	3.5uF/450V	3.5uF/450V	3.5uF/450V	4uF/450V
	Speed (h/m/l)	r/min	750/610/500	750/610/500	750/610/500	750/605/510
Indoor coil	Number of rows		2	2	2	3
	Tube pitch(a)× row pitch(b)	in.(mm)	13/16×17/32(21×13.37)		13/16×17/32(21×13.37)	
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic Aluminum			
	Tube outside dia. and type	in.(mm)	1/4(Φ6.35), Inner groove Tube			
	Coil length × height × width	in.(mm)	76-31/32×9-29-32×1-1/16(1955×252×26.74)			
	Number of circuits		8	8	8	12
Indoor air flow (H/M/L)	m ³ /h		1795/1590/1300/1090	1795/1590/1300/1090	1795/1590/1300/1090	1881/1678/1358/1115
	CFM		1057/936/765/642	1057/936/765/642	1057/936/765/642	1107/988/799/656
Indoor noise level (H/M/L)	dB(A)		48/45/43	48/45/43	48/45/43	50/47/44
Indoor unit	Dimension (W×H×D)	in.(mm)	35-19/32×11-13/16×33-5/64(904×300×840)			
	Packing (W×H×D)	in.(mm)	37-19/32×11-13/16×37-19/32(955×330×955)			
	Net/Gross weight	lbs.(kg)	70.6/81.6(32/37)	70.6/81.6(32/37)	70.6/81.6(32/37)	70.6/81.6(32/37)
Panel	Dimension (W×H×D)	in.(mm)	37-13/32×2-9/64×37-13/32(950×54.5×950)			
	Packing (W×H×D)	in.(mm)	40-3/4×3-35/64×40-3/4(1035×90×1035)			
	Net/Gross weight	lbs.(kg)	11.0/17.6(5/8)	11.0/17.6(5/8)	11.0/17.6(5/8)	11.0/17.6(5/8)
Refrigerant type		R410A				
Throttle		Electronic expansion valve				
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side	in.(mm)	3/8(Φ9.53)	3/8(Φ9.53)	3/8(Φ9.53)	3/8(Φ9.53)
	Gas side	in.(mm)	5/8(Φ15.9)	5/8(Φ15.9)	5/8(Φ15.9)	5/8(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	3×0.75	3×0.75	3×0.75
Drainage water pipe diameter		in.(mm)	OD1-17/64(Φ32)	OD1-17/64(Φ32)	OD1-17/64(Φ32)	OD1-17/64(Φ32)
Controller		Wireless remote controller				

Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F (27°C)DB, 66.2°F (19°C)WB, and outdoor temperature: 95°F (35°C)DB, equivalent ref. piping: 26.25ft(8m) (horizontal)
- Nominal heating capacities are based on the following conditions: return air temperature: 68°F (20°C)DB, outdoor temperature: 44.6°F (7°C)DB, 42.8°F (6°C)WB, and equivalent ref. Piping: 26.25ft(8m)(horizontal)

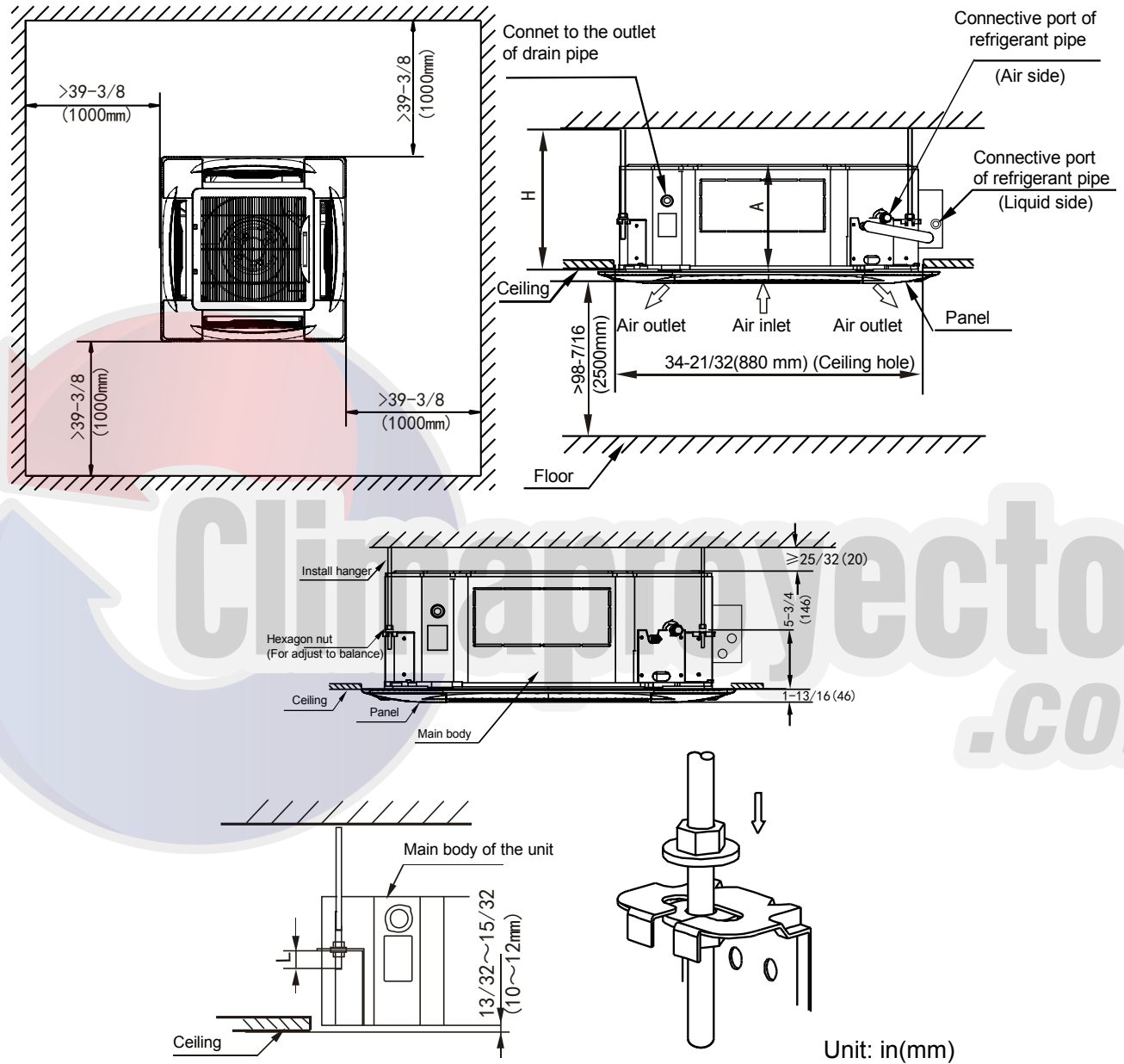
3. Dimensions



Indoor unit model	A in(mm)	B in(mm)	C in(mm)	D in(mm)
MDV-D28Q4/N1-D~ MDV-D45Q4/N1-D	9-1/16(230)	6-11/16(170)	1/4(Φ6.35)	1/2(Φ12.7)
MDV-D56Q4/N1-D~ MDV-D80Q4/N1-D	9-1/16(230)	6-11/16(170)	3/8(Φ9.53)	5/8(Φ15.9)
MDV-D90Q4/N1-D~ MDV-D140Q4/N1-D	11-13/16(300)	7-15/32(190)	3/8(Φ9.53)	5/8(Φ15.9)

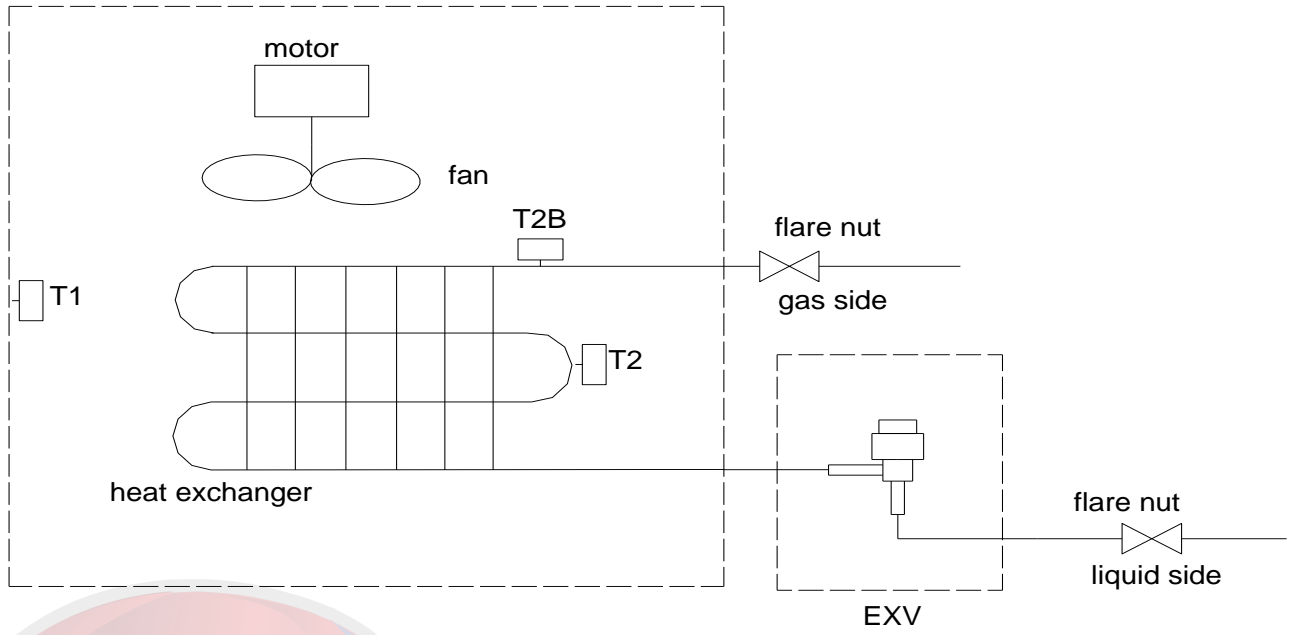
4. Service Spaces

- 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.



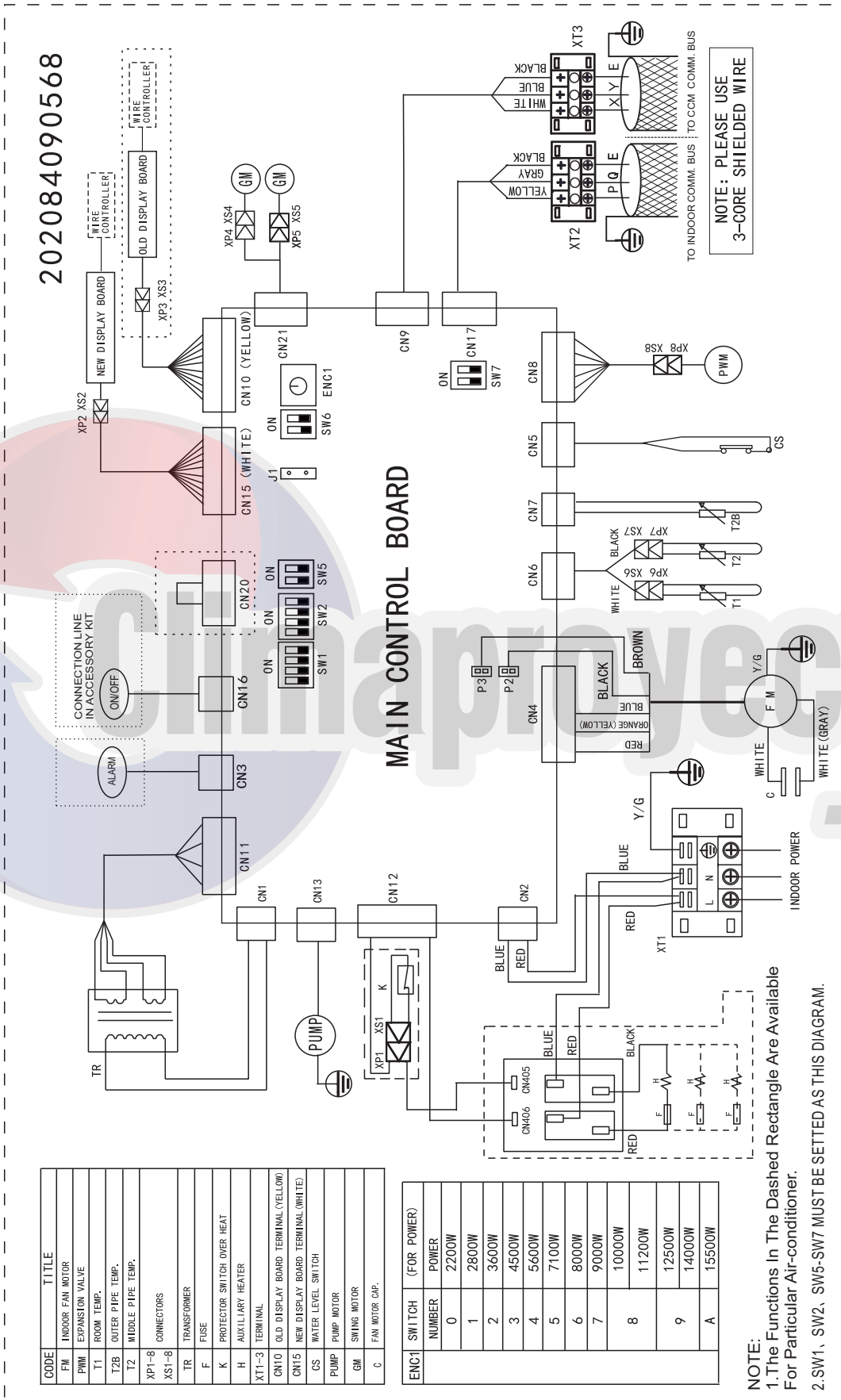
Indoor unit	A in(mm)	H in(mm)
MDV-D28Q4/N1-D~ MDV-D80Q4/N1-D	9-1/16(230)	$\geq 10\text{-}1/4$ (260)
MDV-D90Q4/N1-D~ MDV-D140Q4/N1-D	11-13/16(300)	≥ 13 (330)

5. Piping Diagrams



6. Wiring Diagrams

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



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 (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
102.2	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	
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
98.6	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	

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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	102.2	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
	107.6	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
	111.2	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
	114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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
10.0	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
	107.6	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
	111.2	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
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
	102.2	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
107.6	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	
111.2	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	
114.8	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	50	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
	53.6	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
	57.2	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
	60.8	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
	64.4	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
	68	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
	69.8	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
	73.4	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
	77	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
	80.6	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
	84.2	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
	87.8	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
	91.4	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
	95	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
	98.6	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
102.2	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	

Indoor Unit size (kW)	Outdoor temperature (°F DB)	Indoor temperature (°F WB/DB)													
		57.2/68		60.8/73.4		64.4/78.8		66.2/80.6		68/82.4		71.6/86		75.2/89.6	
		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
14.0	107.6	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
	111.2	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
	114.8	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 (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC	TC	TC	TC	TC	TC
2.8	-4	-3.64	1.79	1.79	1.79	1.79	1.79	1.79
	-2.2	-1.84	1.92	1.92	1.92	1.92	1.92	1.92
	1.4	1.94	2.02	2.02	2.02	2.02	2.02	2.02
	5	5.54	2.02	2.02	2.02	2.02	2.02	2.02
	8.6	9.32	2.14	2.14	2.14	2.14	2.14	2.14
	12.2	13.1	2.24	2.24	2.24	2.24	2.24	2.24
	14	14.9	2.34	2.34	2.34	2.34	2.34	2.34
	15.62	16.7	2.40	2.40	2.40	2.40	2.40	2.40
	18.32	19.4	2.43	2.43	2.43	2.43	2.43	2.43
	21.92	23	2.53	2.53	2.53	2.53	2.53	2.53
	25.34	26.6	2.66	2.66	2.66	2.66	2.66	2.66
	30.74	32	2.85	2.85	2.85	2.85	2.85	2.69
	35.96	37.4	3.01	3.01	3.01	3.01	2.94	2.69
	39.38	41	3.10	3.10	3.10	3.10	2.94	2.69
	42.8	44.6	3.20	3.20	3.20	3.10	2.94	2.69
46.22	48.2	3.30	3.30	3.20	3.10	2.94	2.69	
49.64	51.8	3.39	3.39	3.20	3.10	2.94	2.69	
53.24	55.4	3.52	3.46	3.20	3.10	2.94	2.69	
56.66	59	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-4	-3.64	2.24	2.24	2.24	2.24	2.24	2.24
	-2.2	-1.84	2.40	2.40	2.40	2.40	2.40	2.40
	1.4	1.94	2.52	2.52	2.52	2.52	2.52	2.52
	5	5.54	2.60	2.60	2.60	2.60	2.60	2.60
	8.6	9.32	2.68	2.68	2.68	2.68	2.68	2.68
	12.2	13.1	2.80	2.80	2.80	2.80	2.80	2.80
	14	14.9	2.92	2.92	2.92	2.92	2.92	2.92
	15.62	16.7	3.00	3.00	3.00	3.00	3.00	3.00
	18.32	19.4	3.04	3.04	3.04	3.04	3.04	3.04
	21.92	23	3.16	3.16	3.16	3.16	3.16	3.16
	25.34	26.6	3.32	3.32	3.32	3.32	3.32	3.32
	30.74	32	3.56	3.56	3.56	3.56	3.56	3.36
	35.96	37.4	3.76	3.76	3.76	3.76	3.68	3.36
	39.38	41	3.88	3.88	3.88	3.88	3.68	3.36
	42.8	44.6	4.00	4.00	4.00	3.88	3.68	3.36
46.22	48.2	4.12	4.12	4.00	3.88	3.68	3.36	
49.64	51.8	4.24	4.24	4.00	3.88	3.68	3.36	
53.24	55.4	4.40	4.32	4.00	3.88	3.68	3.36	
56.66	59	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-4	-3.64	2.80	2.80	2.80	2.80	2.80	2.80
	-2.2	-1.84	3.00	3.00	3.00	3.00	3.00	3.00
	1.4	1.94	3.15	3.15	3.15	3.15	3.15	3.15
	5	5.54	3.25	3.25	3.25	3.25	3.25	3.25
	8.6	9.32	3.35	3.35	3.35	3.35	3.35	3.35
	12.2	13.1	3.50	3.50	3.50	3.50	3.50	3.50
	14	14.9	3.65	3.65	3.65	3.65	3.65	3.65

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC	TC	TC	TC	TC	TC
4.5	15.62	16.7	3.75	3.75	3.75	3.75	3.75	3.75
	18.32	19.4	3.80	3.80	3.80	3.80	3.80	3.80
	21.92	23	3.95	3.95	3.95	3.95	3.95	3.95
	25.34	26.6	4.15	4.15	4.15	4.15	4.15	4.15
	30.74	32	4.45	4.45	4.45	4.45	4.45	4.20
	35.96	37.4	4.70	4.70	4.70	4.70	4.60	4.20
	39.38	41	4.85	4.85	4.85	4.85	4.60	4.20
	42.8	44.6	5.00	5.00	5.00	4.85	4.60	4.20
	46.22	48.2	5.15	5.15	5.00	4.85	4.60	4.20
	49.64	51.8	5.30	5.30	5.00	4.85	4.60	4.20
	53.24	55.4	5.50	5.40	5.00	4.85	4.60	4.20
	56.66	59	5.65	5.40	5.00	4.85	4.60	4.20
5.6	-4	-3.64	3.53	3.53	3.53	3.53	3.53	3.53
	-2.2	-1.84	3.78	3.78	3.78	3.78	3.78	3.78
	1.4	1.94	3.97	3.97	3.97	3.97	3.97	3.97
	5	5.54	4.10	4.10	4.10	4.10	4.10	4.10
	8.6	9.32	4.22	4.22	4.22	4.22	4.22	4.22
	12.2	13.1	4.41	4.41	4.41	4.41	4.41	4.41
	14	14.9	4.60	4.60	4.60	4.60	4.60	4.60
	15.62	16.7	4.73	4.73	4.73	4.73	4.73	4.73
	18.32	19.4	4.79	4.79	4.79	4.79	4.79	4.79
	21.92	23	4.98	4.98	4.98	4.98	4.98	4.98
	25.34	26.6	5.23	5.23	5.23	5.23	5.23	5.23
	30.74	32	5.61	5.61	5.61	5.61	5.61	5.29
	35.96	37.4	5.92	5.92	5.92	5.92	5.80	5.29
	39.38	41	6.11	6.11	6.11	6.11	5.80	5.29
	42.8	44.6	6.30	6.30	6.30	6.11	5.80	5.29
46.22	48.2	6.49	6.49	6.30	6.11	5.80	5.29	
49.64	51.8	6.68	6.68	6.30	6.11	5.80	5.29	
53.24	55.4	6.93	6.80	6.30	6.11	5.80	5.29	
56.66	59	7.12	6.80	6.30	6.11	5.80	5.29	
7.1	-4	-3.64	4.48	4.48	4.48	4.48	4.48	4.48
	-2.2	-1.84	4.80	4.80	4.80	4.80	4.80	4.80
	1.4	1.94	5.04	5.04	5.04	5.04	5.04	5.04
	5	5.54	5.20	5.20	5.20	5.20	5.20	5.20
	8.6	9.32	5.36	5.36	5.36	5.36	5.36	5.36
	12.2	13.1	5.60	5.60	5.60	5.60	5.60	5.60
	14	14.9	5.84	5.84	5.84	5.84	5.84	5.84
	15.62	16.7	6.00	6.00	6.00	6.00	6.00	6.00
	18.32	19.4	6.08	6.08	6.08	6.08	6.08	6.08
	21.92	23	6.32	6.32	6.32	6.32	6.32	6.32
	25.34	26.6	6.64	6.64	6.64	6.64	6.64	6.64
	30.74	32	7.12	7.12	7.12	7.12	7.12	6.72
	35.96	37.4	7.52	7.52	7.52	7.52	7.36	6.72
	39.38	41	7.76	7.76	7.76	7.76	7.36	6.72
	42.8	44.6	8.00	8.00	8.00	7.76	7.36	6.72
46.22	48.2	8.24	8.24	8.00	7.76	7.36	6.72	
49.64	51.8	8.48	8.48	8.00	7.76	7.36	6.72	

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)						
			60.8	64.4	68	69.8	71.6	75.2	
	WB	DB	TC	TC	TC	TC	TC	TC	
7.1	53.24	55.4	8.80	8.64	8.00	7.76	7.36	6.72	
	56.66	59	9.04	8.64	8.00	7.76	7.36	6.72	
8.0	-4	-3.64	5.04	5.04	5.04	5.04	5.04	5.04	
	-2.2	-1.84	5.40	5.40	5.40	5.40	5.40	5.40	
	1.4	1.94	5.67	5.67	5.67	5.67	5.67	5.67	
	5	5.54	5.85	5.85	5.85	5.85	5.85	5.85	
	8.6	9.32	6.03	6.03	6.03	6.03	6.03	6.03	
	12.2	13.1	6.30	6.30	6.30	6.30	6.30	6.30	
	14	14.9	6.57	6.57	6.57	6.57	6.57	6.57	
	15.62	16.7	6.75	6.75	6.75	6.75	6.75	6.75	
	18.32	19.4	6.84	6.84	6.84	6.84	6.84	6.84	
	21.92	23	7.11	7.11	7.11	7.11	7.11	7.11	
	25.34	26.6	7.47	7.47	7.47	7.47	7.47	7.47	
	30.74	32	8.01	8.01	8.01	8.01	8.01	7.56	
	35.96	37.4	8.46	8.46	8.46	8.46	8.28	7.56	
	39.38	41	8.73	8.73	8.73	8.73	8.28	7.56	
	42.8	44.6	9.00	9.00	9.00	8.73	8.28	7.56	
	46.22	48.2	9.27	9.27	9.00	8.73	8.28	7.56	
49.64	51.8	9.54	9.54	9.00	8.73	8.28	7.56		
53.24	55.4	9.90	9.72	9.00	8.73	8.28	7.56		
56.66	59	10.17	9.72	9.00	8.73	8.28	7.56		
9.0	-4	-3.64	5.60	5.04	5.60	5.60	5.60	5.60	
	-2.2	-1.84	6.00	5.40	6.00	6.00	6.00	6.00	
	1.4	1.94	6.30	6.30	6.30	6.30	6.30	6.30	
	5	5.54	6.50	6.50	6.50	6.50	6.50	6.50	
	8.6	9.32	6.70	6.70	6.70	6.70	6.70	6.70	
	12.2	13.1	7.00	7.00	7.00	7.00	7.00	7.00	
	14	14.9	7.30	7.30	7.30	7.30	7.30	7.30	
	15.62	16.7	7.50	7.50	7.50	7.50	7.50	7.50	
	18.32	19.4	7.60	7.60	7.60	7.60	7.60	7.60	
	21.92	23	7.90	7.90	7.90	7.90	7.90	7.90	
	25.34	26.6	8.30	8.30	8.30	8.30	8.30	8.30	
	30.74	32	8.90	8.90	8.90	8.90	8.90	8.40	
	35.96	37.4	9.40	9.40	9.40	9.40	9.20	8.40	
	39.38	41	9.70	9.70	9.70	9.70	9.20	8.40	
	42.8	44.6	10.00	10.00	10.00	9.70	9.20	8.40	
	46.22	48.2	10.30	10.30	10.00	9.70	9.20	8.40	
49.64	51.8	10.60	10.60	10.00	9.70	9.20	8.40		
53.24	55.4	11.00	10.80	10.00	9.70	9.20	8.40		
56.66	59	11.30	10.80	10.00	9.70	9.20	8.40		
10.0	-4	-3.64	6.16	6.16	6.16	6.16	6.16	6.16	
	-2.2	-1.84	6.60	6.60	6.60	6.60	6.60	6.60	
	1.4	1.94	6.93	6.93	6.93	6.93	6.93	6.93	
	5	5.54	7.15	7.15	7.15	7.15	7.15	7.15	
	8.6	9.32	7.37	7.37	7.37	7.37	7.37	7.37	
	12.2	13.1	7.70	7.70	7.70	7.70	7.70	7.70	
	14	14.9	8.03	8.03	8.03	8.03	8.03	8.03	
	15.62	16.7	8.25	8.25	8.25	8.25	8.25	8.25	

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)					
			60.8	64.4	68	69.8	71.6	75.2
	WB	DB	TC	TC	TC	TC	TC	TC
10.0	18.32	19.4	8.36	8.36	8.36	8.36	8.36	8.36
	21.92	23	8.69	8.69	8.69	8.69	8.69	8.69
	25.34	26.6	9.13	9.13	9.13	9.13	9.13	9.13
	30.74	32	9.79	9.79	9.79	9.79	9.79	9.24
	35.96	37.4	10.34	10.34	10.34	10.34	10.12	9.24
	39.38	41	10.67	10.67	10.67	10.67	10.12	9.24
	42.8	44.6	11.00	11.00	11.00	10.67	10.12	9.24
	46.22	48.2	11.33	11.33	11.00	10.67	10.12	9.24
	49.64	51.8	11.66	11.66	11.00	10.67	10.12	9.24
	53.24	55.4	12.10	11.88	11.00	10.67	10.12	9.24
56.66	59	12.43	11.88	11.00	10.67	10.12	9.24	
11.2	-4	-3.64	7.00	7.00	7.00	7.00	7.00	7.00
	-2.2	-1.84	7.50	7.50	7.50	7.50	7.50	7.50
	1.4	1.94	7.88	7.88	7.88	7.88	7.88	7.88
	5	5.54	8.13	8.13	8.13	8.13	8.13	8.13
	8.6	9.32	8.38	8.38	8.38	8.38	8.38	8.38
	12.2	13.1	8.75	8.75	8.75	8.75	8.75	8.75
	14	14.9	9.13	9.13	9.13	9.13	9.13	9.13
	15.62	16.7	9.38	9.38	9.38	9.38	9.38	9.38
	18.32	19.4	9.50	9.50	9.50	9.50	9.50	9.50
	21.92	23	9.88	9.88	9.88	9.88	9.88	9.88
	25.34	26.6	10.38	10.38	10.38	10.38	10.38	10.38
	30.74	32	11.13	11.13	11.13	11.13	11.13	10.50
	35.96	37.4	11.75	11.75	11.75	11.75	11.50	10.50
	39.38	41	12.13	12.13	12.13	12.13	11.50	10.50
42.8	44.6	12.50	12.50	12.50	12.13	11.50	10.50	
46.22	48.2	12.88	12.88	12.50	12.13	11.50	10.50	
49.64	51.8	13.25	13.25	12.50	12.13	11.50	10.50	
53.24	55.4	13.75	13.50	12.50	12.13	11.50	10.50	
56.66	59	14.13	13.50	12.50	12.13	11.50	10.50	
14.0	-4	-3.64	8.68	8.68	8.68	8.68	8.68	8.68
	-2.2	-1.84	9.30	9.30	9.30	9.30	9.30	9.30
	1.4	1.94	9.77	9.77	9.77	9.77	9.77	9.77
	5	5.54	10.08	10.08	10.08	10.08	10.08	10.08
	8.6	9.32	10.4	10.4	10.4	10.4	10.4	10.4
	12.2	13.1	10.9	10.9	10.9	10.9	10.9	10.9
	14	14.9	11.3	11.3	11.3	11.3	11.3	11.3
	15.62	16.7	11.6	11.6	11.6	11.6	11.6	11.6
	18.32	19.4	11.8	11.8	11.8	11.8	11.8	11.8
	21.92	23	12.3	12.3	12.3	12.3	12.3	12.3
	25.34	26.6	12.9	12.9	12.9	12.9	12.9	12.9
	30.74	32	13.8	13.8	13.8	13.8	13.8	13.0
	35.96	37.4	14.6	14.6	14.6	14.6	14.3	13.0
	39.38	41	15.0	15.0	15.0	15.0	14.3	13.0
	42.8	44.6	15.5	15.5	15.5	15.0	14.3	13.0
	46.22	48.2	16.0	16.0	15.5	15.0	14.3	13.0
49.64	51.8	16.4	16.4	15.5	15.0	14.3	13.0	
53.24	55.4	17.1	16.7	15.5	15.0	14.3	13.0	

Indoor Unit size (kW)	Outdoor temperature (°F)		Indoor temperature (°F DB)						
			60.8	64.4	68	69.8	71.6	75.2	
	WB	DB	TC	TC	TC	TC	TC	TC	
14.0	56.66	59	kW	kW	kW	kW	kW	kW	kW
			17.5	16.7	15.5	15.0	14.3	13.0	



8. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	kW	FLA
MDV-D28Q4/N1-D	60Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D36Q4/N1-D	60Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D45Q4/N1-D	60Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D56Q4/N1-D	60Hz	220-240V	198V	254V	0.5	15A	0.06	0.38
MDV-D71Q4/N1-D	60Hz	220-240V	198V	254V	0.65	15A	0.080	0.5
MDV-D80Q4/N1-D	60Hz	220-240V	198V	254V	0.65	15A	0.080	0.5
MDV-D90Q4/N1-D	60Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D100Q4/N1-D	60Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D112Q4/N1-D	60Hz	220-240V	198V	254V	0.85	15A	0.09	0.67
MDV-D140Q4/N1-D	60Hz	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)

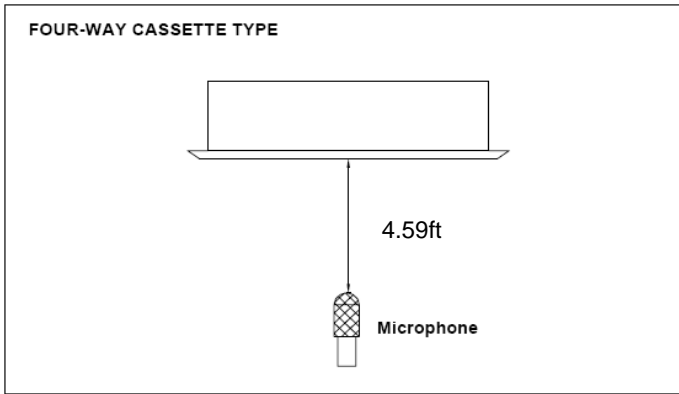
IFM: Indoor Fan Motor



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9. Sound Levels

9.1 Test condition



Note:

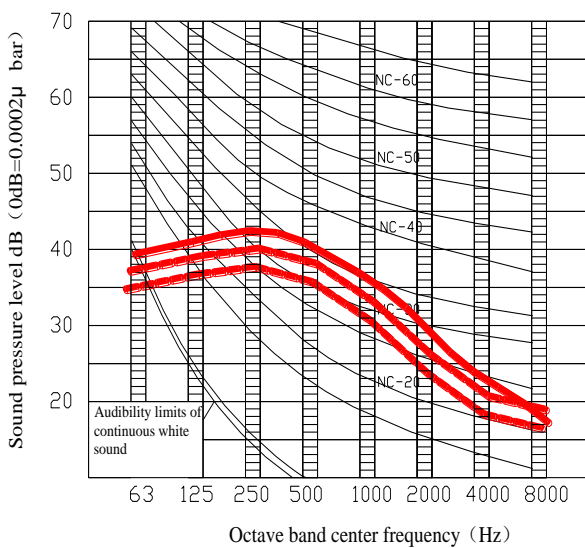
- 1, During actual operation, these values are normally some what higher as a result of ambient conditions.
- 2, Semi-anechoic chamber conversion value, measured at a point which is 4.59ft(1.4m) under the unit.

9.2 Test data (Sound Pressure Levels)

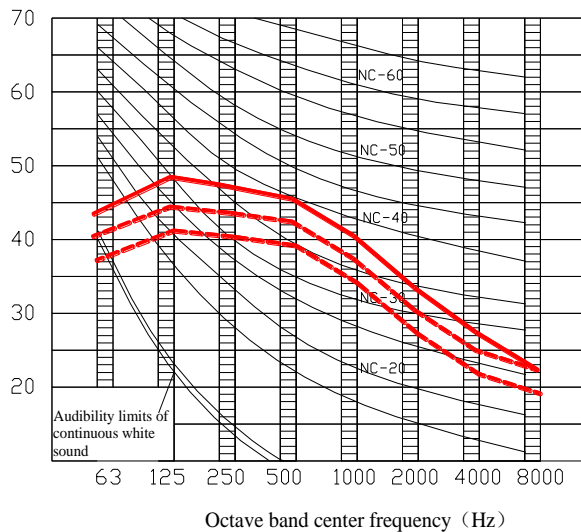
Model	Noise level under three speeds of fan (dB(A))		
	H	M	L
MDV-D28Q4/N1-D	42	38	35
MDV-D36Q4/N1-D	42	38	35
MDV-D45Q4/N1-D	42	38	35
MDV-D56Q4/N1-D	42	38	35
MDV-D71Q4/N1-D	45	42	39
MDV-D80Q4/N1-D	45	42	39
MDV-D90Q4/N1-D	48	45	43
MDV-D100Q4/N1-D	48	45	43
MDV-D112Q4/N1-D	48	45	43
MDV-D140Q4/N1-D	50	47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

9.3 Octave Band Level

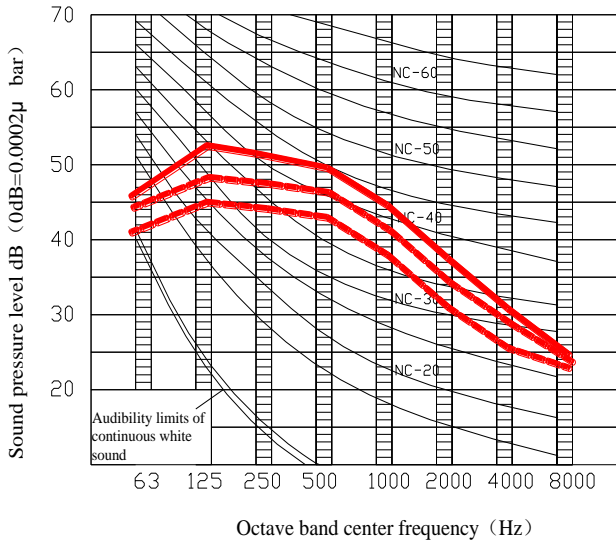
MDV-D28 (36, 45, 56) Q4/N1-D



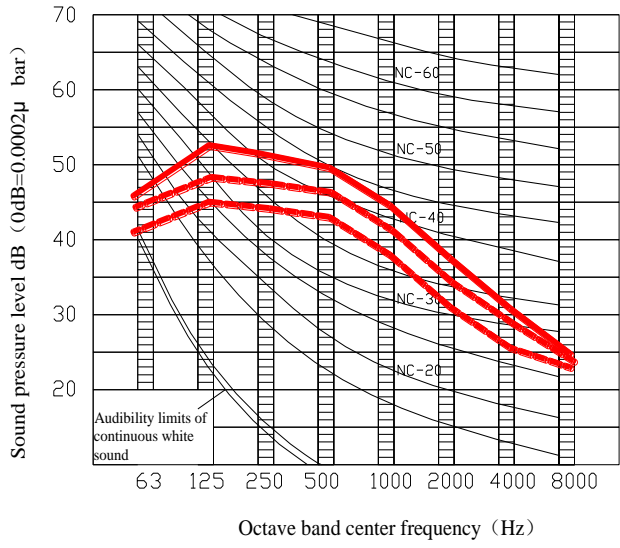
MDV-D71 (80) Q4/N1-D


















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



MDV-D140 Q4/N1-D



10. Accessories

Name	Quantity	Shape	Purpose
Installation manual for indoor unit	1		Must deliver to the 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		/
Electrical throttle (that has been installed at the unit)	1		/

Silent Four-way Cassette

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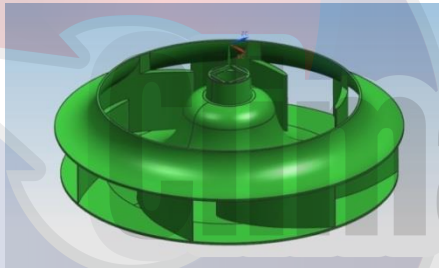
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1. Features

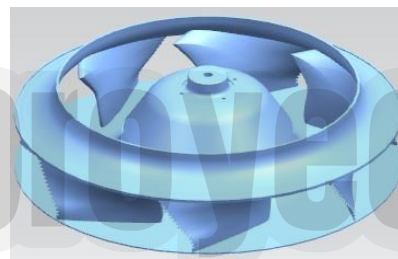
External appearance



- **Regardless of difference in capacity, all indoor units feature the same panel size and design, in consideration or harmonized interior decoration.**
- **Four way uniform airflow**
Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.
- **Ultra-thin machine body to easy installation and maintenance**
2.8kW~8.0kW models in 230mm height and 9.0kW~14kW models in 300mm height which can be installed in narrow false ceilings.
- **Low operating sound**
The new designed wind wheel, ring and the built-in throttling part make the noise reduced greatly.

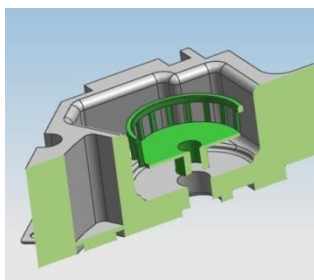


The former wind wheel

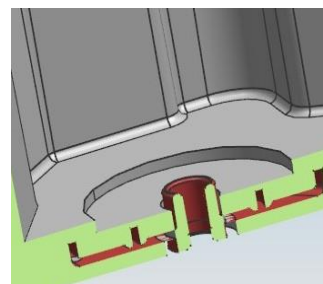


Optimized wind wheel

- **More reliability**
 - a) The vacuum forming mould thickness of drainage pan is increased from 0.45 mm to 0.8 mm. Further improve quality and reliability.
 - b) The connection of drainage pan adopts foaming technology which can further improve the connection tightness.



The former connection

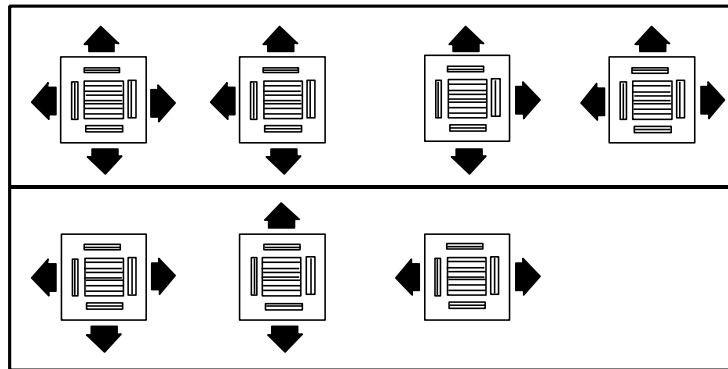


The new connection

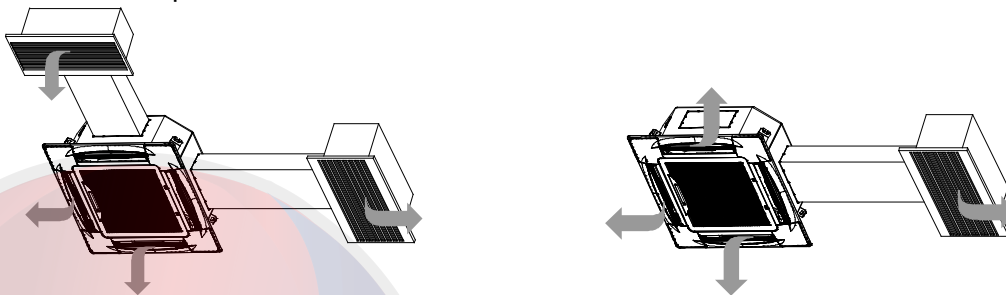
- a) Capacitance is isolated by sheet metal box making more safety and higher reliability.
 - b) Adopt the new water level switch .The floater is on the water surface which can avoid impurity plugging.
 - c) The strong and weak electricity wires are separated in electronic control box making the interference decreased greatly.
- **Easier installation and maintenance**
 - a) The optimized wiring connection and the application of pluggable terminal block make the installation and maintenance easier.
 - b) Built-in electronic throttle components make the installation easier.

- **Flexible air distribution type**

a) 7 discharge patterns in 2 to 4 directions can be selected to suit the requirements of installation site or the shape of the room.



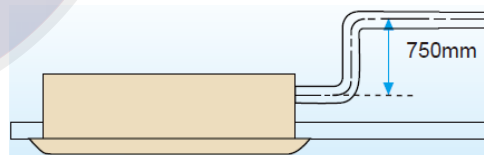
b) Duct connection is possible.



- **Fresh air makes life healthier and more comfortable.**



- **Provided with high lift 700mm drain water pump.**



2. Specifications

Model			MDV-D28Q4/ VN1-E	MDV-D36Q4/ VN1-E	MDV-D45Q4/ VN1-E
Power supply			208-230V~ 60Hz		
Cooling	Capacity	kW	2.8	3.6	4.5
		Btu/h	9554	12283	15354
	Power input	W	80	80	88
Heating	Capacity	kW	3.2	4.0	5.0
		Btu/h	10918	13648	17060
	Power input	W	80	80	88
Indoor fan motor	Model		YDK26-6SA		
	Type		AC motor		
	Brand		Weiling, Tongde		
	Insulation class		B		
	Safe class		IPX0		
	Input	W	72	72	80
	Output	W	26	26	26
	Capacitor	uF	2	2	3
Indoor fan	Material		Plastic		
	Type		Centrifugal fan		
	Diameter	in. (mm)	18-3/4 (476)		
	Height	in. (mm)	4-15/16 (125)		
Indoor coil	Number of rows		1	1	2
	Tube pitch(a)×row pitch(b)	in. (mm)	13/16×17/32 (21×13.37)		
	Fin spacing	in. (mm)	1/16 (1.5)		
	Fin type		Hydrophilic aluminium		
	Tube size	in. (mm)	Φ9/32 (7)		
	Tube type		Innergroove tube		
	Coil length×height	in. (mm)	80-1/16×6-5/8 (2033×168)	80-3/4×6-5/8 (2051×168)	
	Number of circuits		4		8
Indoor air flow (H/M/L)	m ³ /h		791/674/596	791/674/596	942/777/662
	CFM		465/396/351	465/396/351	554/457/389
Sound pressure level (H/M/L)		dB(A)	30/25/22	30/25/22	35/31/27
Indoor unit body	Net dimension (W×H×D)	inch	33-1/16×9-1/16×33-1/16		
		mm	840×230×840		
	Packing size (W×H×D)	inch	37-19/32×10-1/4×37-19/32		
		mm	955×260×955		
	Net/Gross weight	lbs	47.3/58.7	47.3/58.7	52.1/63.6
		kg	21.5/26.7	21.5/26.7	23.7/28.9
Indoor unit panel	Model		T-MBQ4-02B1		
	Net dimension (W×H×D)	inch	37-13/32×2-9/64×37-13/32		
		mm	950×54.5×950		
	Packing size (W×H×D)	inch	40-3/4×3-9/16×40-3/4		
		mm	1035×90×1035		
	Net/Gross weight	lbs	13.2/19.8		
kg		6/9			
Refrigerant type			R410A		
Throttle type			Electronic expansion valve		
Design pressure (H/L)		MPa	4.4/2.6		
Pipe connections	Liquid pipe	in. (mm)	Φ1/4 (6.35)		
	Gas pipe	in. (mm)	Φ1/2 (12.7)		
	Drain pipe	in. (mm)	Φ1-1/4 (32)		
Controller			Wireless remote controller		

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB / 19°C WB; Outdoor temperature 35°C DB / 24°C WB.

Heating: Indoor temperature 20°C DB / 15°C WB; Outdoor temperature 7°C DB / 6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is 0m.

Sound values are measured in a semi-anechoic room, at a position 1.4m downward from the unit center.

Specifications

Model			MDV-D56Q4/ VN1-E	MDV-D71Q4/ VN1-E	MDV-D80Q4/ VN1-E
Power supply			208-230V~ 60Hz		
Cooling	Capacity	kW	5.6	7.1	8.0
		Btu/h	19107	24225	27296
	Power input	W	88	105	120
Heating	Capacity	kW	6.3	8.0	9.0
		Btu/h	21496	27296	30708
	Power input	W	88	105	120
Indoor fan motor	Model		YDK26-6SA	YDK37-6SA	YDK37-6SA
	Type		AC motor		
	Brand		Weiling, Tongde		
	Insulation class		B		
	Safe class		IPX0		
	Input	W	80	99	110
	Output	W	26	37	37
	Capacitor	uF	3	2.5	3.5
Indoor fan	Material		Plastic		
	Type		Centrifugal fan		
	Diameter	in. (mm)	18-3/4 (476)		
	Height	in. (mm)	4-15/16 (125)		
Indoor coil	Number of rows		2		
	Tube pitch(a)xrow pitch(b)	in. (mm)	13/16x17/32 (21x13.37)		
	Fin spacing	in. (mm)	1/16 (1.5)		
	Fin type		Hydrophilic aluminium		
	Tube size	in. (mm)	Φ9/32 (7)		
	Tube type		Innergroove tube		
	Coil lengthxheight	in. (mm)	80-3/4x6-5/8 (2051x168)		
	Number of circuits		8		
Indoor air flow (H/M/L)		m ³ /h	942/777/662	1235/1013/805	1235/1013/805
		CFM	554/457/389	726/596/474	726/596/474
Sound pressure level (H/M/L)		dB(A)	35/31/27	43/37/31	43/37/31
Indoor unit body	Net dimension (WxHxD)	inch	33-1/16x9-1/16x33-1/16		
		mm	840x230x840		
	Packing size (WxHxD)	inch	37-19/32x10-1/4x37-19/32		
		mm	955x260x955		
	Net/Gross weight	lbs	52.1/63.6		
		kg	23.7/28.9		
Indoor unit panel	Model		T-MBQ4-02B1		
	Net dimension (WxHxD)	inch	37-13/32x2-9/64x37-13/32		
		mm	950x54.5x950		
	Packing size (WxHxD)	inch	40-3/4x3-9/16x40-3/4		
		mm	1035x90x1035		
	Net/Gross weight	lbs	13.2/19.8		
kg		6/9			
Refrigerant type			R410A		
Throttle type			Electronic expansion valve		
Design pressure (H/L)		MPa	4.4/2.6		
Pipe connections	Liquid pipe	in. (mm)	Φ3/8 (9.53)		
	Gas pipe	in. (mm)	Φ5/8 (15.9)		
	Drain pipe	in. (mm)	Φ1-1/4 (32)		
Controller			Wireless remote controller		

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB / 19°C WB; Outdoor temperature 35°C DB / 24°C WB.

Heating: Indoor temperature 20°C DB / 15°C WB; Outdoor temperature 7°C DB / 6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is 0m.

Sound values are measured in a semi-anechoic room, at a position 1.4m downward from the unit center.

Specifications

Model			MDV-D90Q4/ VN1-E	MDV-D100Q4/ VN1-E	MDV-D112Q4/ VN1-E	MDV-D140Q4/ VN1-E	
Power supply			208-230V~ 60Hz				
Cooling	Capacity	kW	9.0	10.0	11.2	14.0	
		Btu/h	30708	34120	38214	47768	
	Power input	W	187	200	200	220	
Heating	Capacity	kW	10.0	11.1	12.5	16.0	
		Btu/h	34120	37873	42650	54592	
	Power input	W	187	200	200	220	
Indoor fan motor	Model		YDK50-6SA	YDK65-6SA	YDK65-6SA	YDK65-6SA	
	Type		AC motor				
	Brand		Weiling, Tongde				
	Insulation class		B				
	Safe class		IPX0				
	Input	W	170	180	180	200	
	Output	W	50	65	65	65	
	Capacitor	uF	2.5	3.5	3.5	4	
Indoor fan	Material		Plastic				
	Type		Centrifugal fan				
	Diameter	in. (mm)	18-3/4 (476)				
	Height	in. (mm)	6-11/16 (170)				
Indoor coil	Number of rows		2	2	2	3	
	Tube pitch(a)× row pitch(b)	in. (mm)	13/16×17/32 (21×13.37)				
	Fin spacing	in. (mm)	1/16 (1.5)				
	Fin type		Hydrophilic aluminium				
	Tube size	in. (mm)	Φ9/32 (7)				
	Tube type		Innergroove tube				
	Coil length× height	in. (mm)	80-3/4×9-15/16 (2051×252)			79×9-15/16 (2007×252)	
	Number of circuits		8				
Indoor air flow (H/M/L)	m ³ /h		1333/1158/957	1634/1219/1139		1692/1243/1157	
	CFM		784/681/563	961/717/670		995/731/681	
Sound pressure level (H/M/L)	dB(A)		43/38/32	45/37/35		46/38/37	
Indoor unit body	Net dimension (W×H×D)	in. (mm)	33-1/16×11-13/16×33-1/16				
		mm	840×300×840				
	Packing size (W×H×D)	in. (mm)	37-19/32×13×37-19/32				
		mm	955×330×955				
	Net/Gross weight	lbs	63.1/75	63.1/75	63.1/75	68/79.9	
kg		28.7/34.1	28.7/34.1	28.7/34.1	30.9/36.3		
Indoor unit panel	Model		T-MBQ4-02B1				
	Net dimension (W×H×D)	in. (mm)	37-13/32×2-9/64×37-13/32				
		mm	950×54.5×950				
	Packing size (W×H×D)	in. (mm)	40-3/4×3-9/16×40-3/4				
		mm	1035×90×1035				
Net/Gross weight	lbs	13.2/19.8					
	kg	6/9					
Refrigerant type			R410A				
Throttle type			Electronic expansion valve				
Design pressure (H/L)	MPa		4.4/2.6				
Pipe connections	Liquid pipe	in. (mm)	Φ3/8 (9.53)				
	Gas pipe	in. (mm)	Φ5/8 (15.9)				
	Drain pipe	in. (mm)	Φ1-1/4 (32)				
Controller			Wireless remote controller				

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB / 19°C WB; Outdoor temperature 35°C DB / 24°C WB.

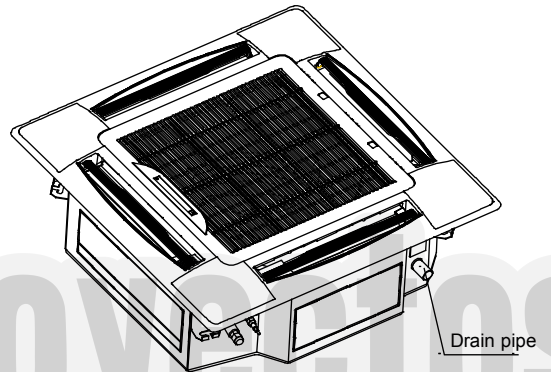
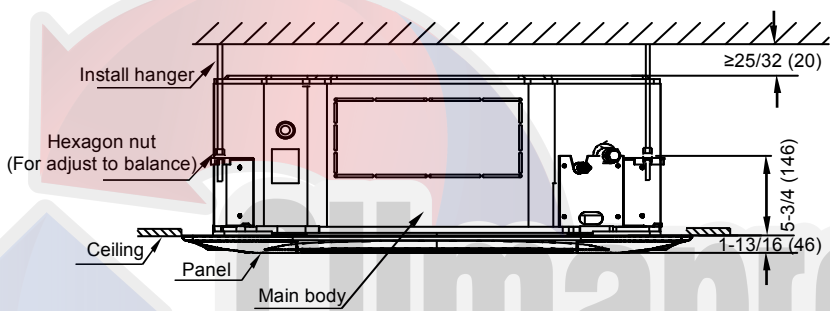
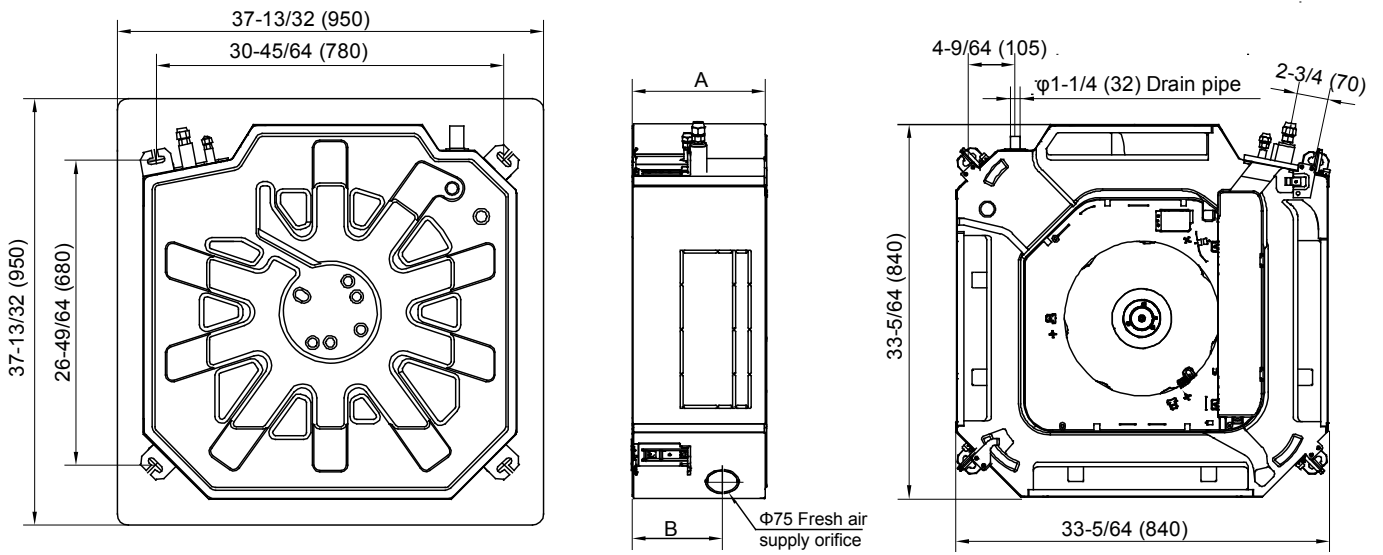
Heating: Indoor temperature 20°C DB / 15°C WB; Outdoor temperature 7°C DB / 6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is 0m.

Sound values are measured in a semi-anechoic room, at a position 1.4m downward from the unit center.

3. Dimensions

Unit: in. (mm)

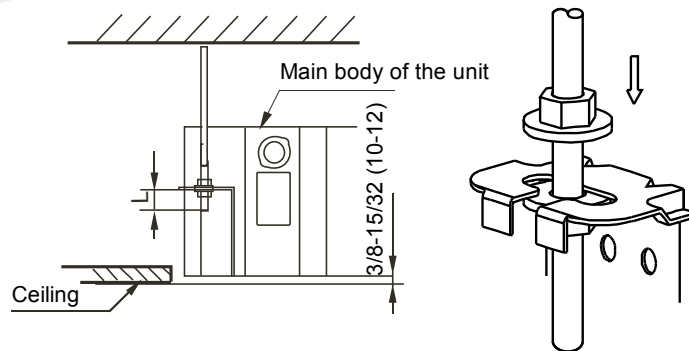
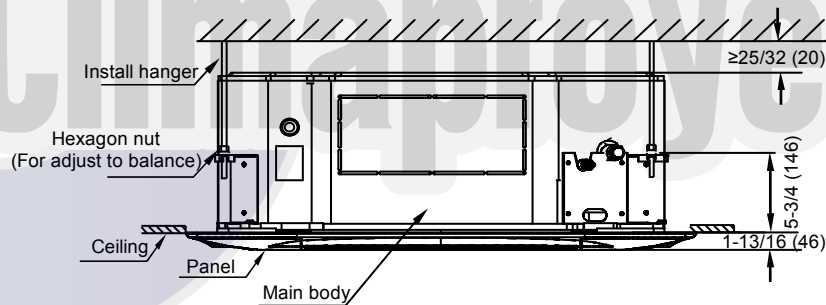
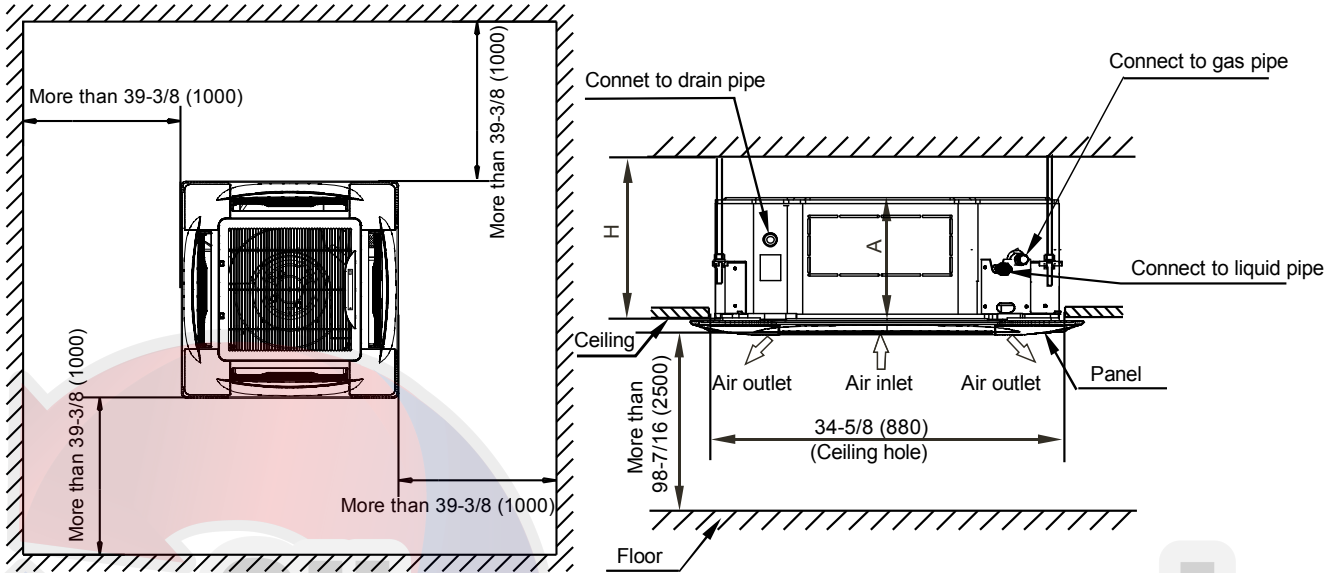


Model	A in. (mm)	B in.(mm)
≤8kW	9-1/16 (230)	4-15/16 (126)
≥9kW	11-13/16 (300)	7-3/4 (197)

4. Service spaces

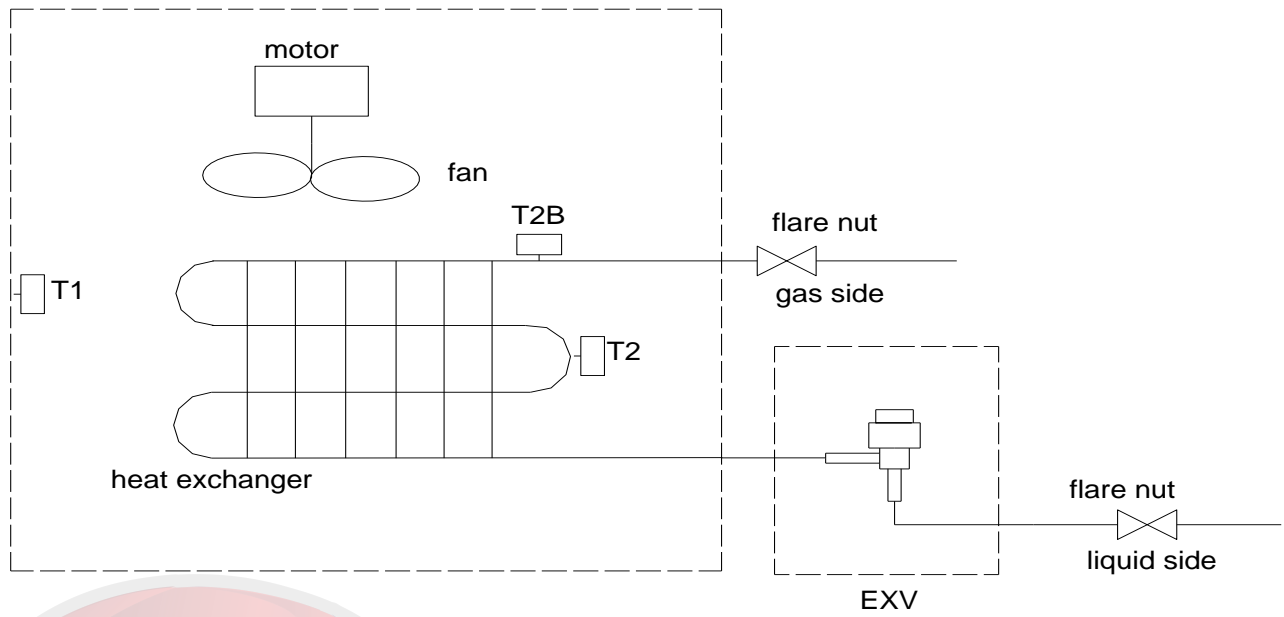
- 1) There is enough room for installation and maintenance.
- 2) The ceiling is horizontal, and its structure can endure the weight of the indoor unit.
- 3) The outlet and the inlet are not impeded, and the influence of external air is the least.
- 4) The air flow can reach throughout the room.
- 5)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

Unit: in. (mm)



Model	A in. (mm)	H in.(mm)
≤8kW	9-1/16 (230)	More than 10-1/4 (260)
≥9kW	11-13/16 (300)	More than 13 (330)

5. Piping diagrams



- T1:** Indoor ambient temperature sensor;
- T2:** Temperature sensor in the middle of evaporator;
- T2B:** Evaporator outlet temperature sensor.

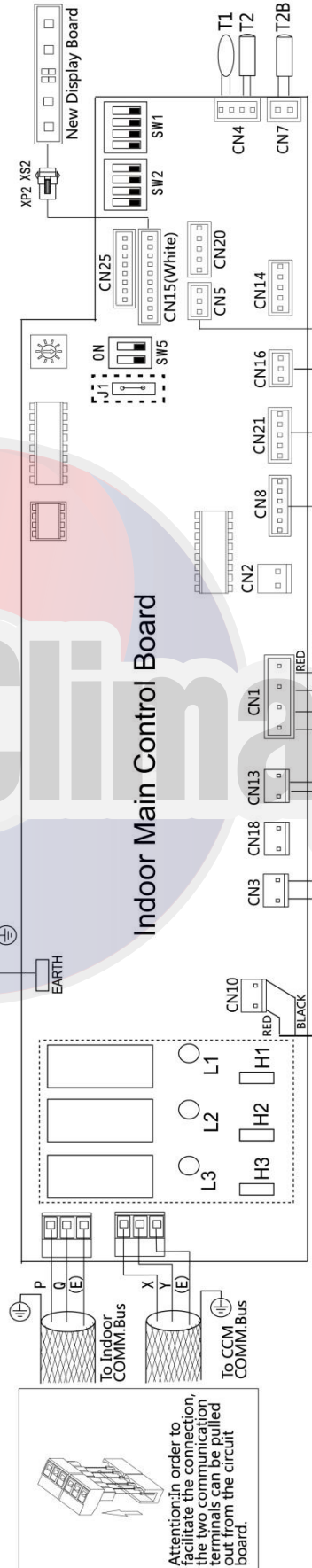
- Refrigerant pipe connection port diameters

Model	Gas pipe	Liquid pipe	in. (mm)
2.8-4.5kW	Φ1/2 (12.7)	Φ1/4 (6.35)	
5.6-14kW	Φ5/8 (15.9)	Φ3/8 (9.53)	

6. Wiring diagrams

Models: 2.8-14kW

Attention: Please use three core shielding wire, and the shielding layer must be connected to the of sheet metal



ENC1 SWITCH NUMBER	(FOR POWER) POWER
0	2200W
1	2800W
2	3600W
3	4500W/5000W
4	5600W/6300W
5	7100W
6	8000W
7	9000W
8	10000W
	11200W
	12500W
9	14000W

Error Type	Error Code
No address when first time power on	FE
MY-HOME non-matching	H0
Mode conflict	E0
Communication error between indoor and outdoor unit	E1
Temp. sensor(T1) error	E2
Temp. sensor(T2) error	E3
Temp. sensor(T2B) error	E4
Outdoor unit error	Ed
EEPROM error	E7
Water level switch error	EE

Code	Title	Code	Title
FM	Indoor Fan Motor	XP1-8	Connectors
PWV	Electronic Expansion Valve	XS1-8	Terminal
T1	Room Temp. Sensor	XT1	Pump Motor
T2B	Outer Pipe Temp. Sensor	PUMP	Water Level Switch
T2	Middle Pipe Temp. Sensor	CS	
		GM	Swing Motor
		C	Fan Motor Cap.
		ALARM	Warning Lamp(Optional)
		CN15	New Display Board Terminal

7. Capacity tables

7.1 Cooling capacity tables

TC: Total Cooling Capacity; **SC:** Sensible Cooling Capacity

Unit size (kW)	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
2.8	10	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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
	18	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	

Cooling capacity tables

TC: Total Cooling Capacity; SC: Sensible Cooling Capacity

Unit size (kW)	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
5.6	10	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	4.0
	37	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	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	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	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	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	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	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	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	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	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	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	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	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	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	5.1
	27	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	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	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	4.9
	33	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	4.9
	35	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	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	4.8
	39	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	4.8
42	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	4.8	
44	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	4.8	
46	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	4.8	

Cooling capacity tables

TC: Total Cooling Capacity; **SC:** Sensible Cooling Capacity

Unit size (kW)	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW	TC kW	SC kW
9.0	10	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	

Cooling capacity tables

TC: Total Cooling Capacity; **SC:** Sensible Cooling Capacity

Unit size (kW)	Outdoor air temp. (°C DB)	Indoor air temp. (°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
14.0	10	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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 capacity tables

TC: Total Heating Capacity

Unit size (kW)	Outdoor air temp. (°C)		Indoor air temp. (°C DB)						
			16.0	18.0	20.0	21.0	22.0	24.0	
			TC	TC	TC	TC	TC	TC	
		WB	DB	kW	kW	kW	kW	kW	kW
2.8	-20.0	-19.8	1.79	1.79	1.79	1.79	1.79	1.79	
	-19.0	-18.8	1.92	1.92	1.92	1.92	1.92	1.92	
	-17.0	-16.7	2.02	2.02	2.02	2.02	2.02	2.02	
	-15.0	-14.7	2.08	2.08	2.08	2.08	2.08	2.08	
	-13.0	-12.6	2.21	2.21	2.21	2.21	2.21	2.21	
	-11.0	-10.5	2.24	2.27	2.27	2.27	2.27	2.27	
	-10.0	-9.5	2.34	2.34	2.34	2.34	2.34	2.34	
	-9.1	-8.5	2.40	2.40	2.40	2.40	2.40	2.40	
	-7.6	-7.0	2.43	2.43	2.43	2.43	2.43	2.43	
	-5.6	-5.0	2.53	2.53	2.53	2.53	2.53	2.53	
	-3.7	-3.0	2.66	2.66	2.66	2.66	2.66	2.66	
	-0.7	0.0	2.85	2.85	2.85	2.85	2.85	2.69	
	2.2	3.0	3.01	3.01	3.01	3.01	2.94	2.69	
	4.1	5.0	3.10	3.10	3.10	3.10	2.94	2.69	
	6.0	7.0	3.20	3.20	3.20	3.10	2.94	2.69	
	7.9	9.0	3.30	3.30	3.20	3.10	2.94	2.69	
9.8	11.0	3.39	3.39	3.20	3.10	2.94	2.69		
11.8	13.0	3.52	3.46	3.20	3.10	2.94	2.69		
13.7	15.0	3.62	3.46	3.20	3.10	2.94	2.69		

Heating capacity tables

TC: Total Heating Capacity

Unit size (kW)	Outdoor air temp. (°C)		Indoor air temp. (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
	WB	DB	TC	TC	TC	TC	TC	TC
3.6	-20.0	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19.0	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17.0	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15.0	-14.7	2.60	2.60	2.60	2.60	2.60	2.60
	-13.0	-12.6	2.76	2.76	2.76	2.76	2.76	2.76
	-11.0	-10.5	2.80	2.84	2.84	2.84	2.84	2.84
	-10.0	-9.5	2.92	2.92	2.92	2.92	2.92	2.92
	-9.1	-8.5	3.00	3.00	3.00	3.00	3.00	3.00
	-7.6	-7.0	3.04	3.04	3.04	3.04	3.04	3.04
	-5.6	-5.0	3.16	3.16	3.16	3.16	3.16	3.16
	-3.7	-3.0	3.32	3.32	3.32	3.32	3.32	3.32
	-0.7	0.0	3.56	3.56	3.56	3.56	3.56	3.36
	2.2	3.0	3.76	3.76	3.76	3.76	3.68	3.36
	4.1	5.0	3.88	3.88	3.88	3.88	3.68	3.36
	6.0	7.0	4.00	4.00	4.00	3.88	3.68	3.36
	7.9	9.0	4.12	4.12	4.00	3.88	3.68	3.36
9.8	11.0	4.24	4.24	4.00	3.88	3.68	3.36	
11.8	13.0	4.40	4.32	4.00	3.88	3.68	3.36	
13.7	15.0	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-20.0	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19.0	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17.0	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15.0	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.0	-12.6	3.45	3.45	3.45	3.45	3.45	3.45
	-11.0	-10.5	3.50	3.55	3.55	3.55	3.55	3.55
	-10.0	-9.5	3.65	3.65	3.65	3.65	3.65	3.65
	-9.1	-8.5	3.75	3.75	3.75	3.75	3.75	3.75
	-7.6	-7.0	3.80	3.80	3.80	3.80	3.80	3.80
	-5.6	-5.0	3.95	3.95	3.95	3.95	3.95	3.95
	-3.7	-3.0	4.15	4.15	4.15	4.15	4.15	4.15
	-0.7	0.0	4.45	4.45	4.45	4.45	4.45	4.20
	2.2	3.0	4.70	4.70	4.70	4.70	4.60	4.20
	4.1	5.0	4.85	4.85	4.85	4.85	4.60	4.20
	6.0	7.0	5.00	5.00	5.00	4.85	4.60	4.20
	7.9	9.0	5.15	5.15	5.00	4.85	4.60	4.20
9.8	11.0	5.30	5.30	5.00	4.85	4.60	4.20	
11.8	13.0	5.50	5.40	5.00	4.85	4.60	4.20	
13.7	15.0	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-20.0	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19.0	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17.0	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15.0	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.0	-12.6	4.35	4.35	4.35	4.35	4.35	4.35
	-11.0	-10.5	4.41	4.47	4.47	4.47	4.47	4.47
	-10.0	-9.5	4.60	4.60	4.60	4.60	4.60	4.60
	-9.1	-8.5	4.73	4.73	4.73	4.73	4.73	4.73
	-7.6	-7.0	4.79	4.79	4.79	4.79	4.79	4.79
	-5.6	-5.0	4.98	4.98	4.98	4.98	4.98	4.98
	-3.7	-3.0	5.23	5.23	5.23	5.23	5.23	5.23
	-0.7	0.0	5.61	5.61	5.61	5.61	5.61	5.29
	2.2	3.0	5.92	5.92	5.92	5.92	5.80	5.29
	4.1	5.0	6.11	6.11	6.11	6.11	5.80	5.29
	6.0	7.0	6.30	6.30	6.30	6.11	5.80	5.29
	7.9	9.0	6.49	6.49	6.30	6.11	5.80	5.29
9.8	11.0	6.68	6.68	6.30	6.11	5.80	5.29	
11.8	13.0	6.93	6.80	6.30	6.11	5.80	5.29	
13.7	15.0	7.12	6.80	6.30	6.11	5.80	5.29	

Heating capacity tables

TC: Total Heating Capacity

Unit size (kW)	Outdoor air temp. (°C)		Indoor air temp. (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
	WB	DB	TC	TC	TC	TC	TC	TC
7.1	-20.0	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19.0	-18.8	4.80	4.80	4.80	4.80	4.80	4.80
	-17.0	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15.0	-14.7	5.20	5.20	5.20	5.20	5.20	5.20
	-13.0	-12.6	5.52	5.52	5.52	5.52	5.52	5.52
	-11.0	-10.5	5.60	5.68	5.68	5.68	5.68	5.68
	-10.0	-9.5	5.84	5.84	5.84	5.84	5.84	5.84
	-9.1	-8.5	6.00	6.00	6.00	6.00	6.00	6.00
	-7.6	-7.0	6.08	6.08	6.08	6.08	6.08	6.08
	-5.6	-5.0	6.32	6.32	6.32	6.32	6.32	6.32
	-3.7	-3.0	6.64	6.64	6.64	6.64	6.64	6.64
	-0.7	0.0	7.12	7.12	7.12	7.12	7.12	6.72
	2.2	3.0	7.52	7.52	7.52	7.52	7.36	6.72
	4.1	5.0	7.76	7.76	7.76	7.76	7.36	6.72
	6.0	7.0	8.00	8.00	8.00	7.76	7.36	6.72
	7.9	9.0	8.24	8.24	8.00	7.76	7.36	6.72
9.8	11.0	8.48	8.48	8.00	7.76	7.36	6.72	
11.8	13.0	8.80	8.64	8.00	7.76	7.36	6.72	
13.7	15.0	9.04	8.64	8.00	7.76	7.36	6.72	
8.0	-20.0	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19.0	-18.8	5.40	5.40	5.40	5.40	5.40	5.40
	-17.0	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15.0	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13.0	-12.6	6.21	6.21	6.21	6.21	6.21	6.21
	-11.0	-10.5	6.30	6.39	6.39	6.39	6.39	6.39
	-10.0	-9.5	6.57	6.57	6.57	6.57	6.57	6.57
	-9.1	-8.5	6.75	6.75	6.75	6.75	6.75	6.75
	-7.6	-7.0	6.84	6.84	6.84	6.84	6.84	6.84
	-5.6	-5.0	7.11	7.11	7.11	7.11	7.11	7.11
	-3.7	-3.0	7.47	7.47	7.47	7.47	7.47	7.47
	-0.7	0.0	8.01	8.01	8.01	8.01	8.01	7.56
	2.2	3.0	8.46	8.46	8.46	8.46	8.28	7.56
	4.1	5.0	8.73	8.73	8.73	8.73	8.28	7.56
	6.0	7.0	9.00	9.00	9.00	8.73	8.28	7.56
	7.9	9.0	9.27	9.27	9.00	8.73	8.28	7.56
9.8	11.0	9.54	9.54	9.00	8.73	8.28	7.56	
11.8	13.0	9.90	9.72	9.00	8.73	8.28	7.56	
13.7	15.0	10.17	9.72	9.00	8.73	8.28	7.56	
9.0	-20.0	-19.8	5.60	5.60	5.60	5.60	5.60	5.60
	-19.0	-18.8	6.00	6.00	6.00	6.00	6.00	6.00
	-17.0	-16.7	6.30	6.30	6.30	6.30	6.30	6.30
	-15.0	-14.7	6.50	6.50	6.50	6.50	6.50	6.50
	-13.0	-12.6	6.90	6.90	6.90	6.90	6.90	6.90
	-11.0	-10.5	7.00	7.10	7.10	7.10	7.10	7.10
	-10.0	-9.5	7.30	7.30	7.30	7.30	7.30	7.30
	-9.1	-8.5	7.50	7.50	7.50	7.50	7.50	7.50
	-7.6	-7.0	7.60	7.60	7.60	7.60	7.60	7.60
	-5.6	-5.0	7.90	7.90	7.90	7.90	7.90	7.90
	-3.7	-3.0	8.30	8.30	8.30	8.30	8.30	8.30
	-0.7	0.0	8.90	8.90	8.90	8.90	8.90	8.40
	2.2	3.0	9.40	9.40	9.40	9.40	9.20	8.40
	4.1	5.0	9.70	9.70	9.70	9.70	9.20	8.40
	6.0	7.0	10.00	10.00	10.00	9.70	9.20	8.40
	7.9	9.0	10.30	10.30	10.00	9.70	9.20	8.40
9.8	11.0	10.60	10.60	10.00	9.70	9.20	8.40	
11.8	13.0	11.00	10.80	10.00	9.70	9.20	8.40	
13.7	15.0	11.30	10.80	10.00	9.70	9.20	8.40	

Heating capacity tables

TC: Total Heating Capacity

Unit size (kW)	Outdoor air temp. (°C)		Indoor air temp. (°C DB)					
			16.0	18.0	20.0	21.0	22.0	24.0
	WB	DB	TC	TC	TC	TC	TC	TC
10.0	-20.0	-19.8	6.22	6.22	6.22	6.22	6.22	6.22
	-19.0	-18.8	6.66	6.66	6.66	6.66	6.66	6.66
	-17.0	-16.7	6.99	6.99	6.99	6.99	6.99	6.99
	-15.0	-14.7	7.22	7.22	7.22	7.22	7.22	7.22
	-13.0	-12.6	7.66	7.66	7.66	7.66	7.66	7.66
	-11.0	-10.5	7.77	7.88	7.88	7.88	7.88	7.88
	-10.0	-9.5	8.10	8.10	8.10	8.10	8.10	8.10
	-9.1	-8.5	8.33	8.33	8.33	8.33	8.33	8.33
	-7.6	-7.0	8.44	8.44	8.44	8.44	8.44	8.44
	-5.6	-5.0	8.77	8.77	8.77	8.77	8.77	8.77
	-3.7	-3.0	9.21	9.21	9.21	9.21	9.21	9.21
	-0.7	0.0	9.88	9.88	9.88	9.88	9.88	9.32
	2.2	3.0	10.43	10.43	10.43	10.43	10.21	9.32
	4.1	5.0	10.77	10.77	10.77	10.77	10.21	9.32
	6.0	7.0	11.10	11.10	11.10	10.77	10.21	9.32
	7.9	9.0	11.43	11.43	11.10	10.77	10.21	9.32
9.8	11.0	11.77	11.77	11.10	10.77	10.21	9.32	
11.8	13.0	12.21	11.99	11.10	10.77	10.21	9.32	
13.7	15.0	12.54	11.99	11.10	10.77	10.21	9.32	
11.2	-20.0	-19.8	7.00	7.00	7.00	7.00	7.00	7.00
	-19.0	-18.8	7.50	7.50	7.50	7.50	7.50	7.50
	-17.0	-16.7	7.88	7.88	7.88	7.88	7.88	7.88
	-15.0	-14.7	8.13	8.13	8.13	8.13	8.13	8.13
	-13.0	-12.6	8.63	8.63	8.63	8.63	8.63	8.63
	-11.0	-10.5	8.75	8.88	8.88	8.88	8.88	8.88
	-10.0	-9.5	9.13	9.13	9.13	9.13	9.13	9.13
	-9.1	-8.5	9.38	9.38	9.38	9.38	9.38	9.38
	-7.6	-7.0	9.50	9.50	9.50	9.50	9.50	9.50
	-5.6	-5.0	9.88	9.88	9.88	9.88	9.88	9.88
	-3.7	-3.0	10.38	10.38	10.38	10.38	10.38	10.38
	-0.7	0.0	11.13	11.13	11.13	11.13	11.13	10.50
	2.2	3.0	11.75	11.75	11.75	11.75	11.50	10.50
	4.1	5.0	12.13	12.13	12.13	12.13	11.50	10.50
	6.0	7.0	12.50	12.50	12.50	12.13	11.50	10.50
	7.9	9.0	12.88	12.88	12.50	12.13	11.50	10.50
9.8	11.0	13.25	13.25	12.50	12.13	11.50	10.50	
11.8	13.0	13.75	13.50	12.50	12.13	11.50	10.50	
13.7	15.0	14.13	13.50	12.50	12.13	11.50	10.50	
14.0	-20.0	-19.8	8.96	8.96	8.96	8.96	8.96	8.96
	-19.0	-18.8	9.60	9.60	9.60	9.60	9.60	9.60
	-17.0	-16.7	10.08	10.08	10.08	10.08	10.08	10.08
	-15.0	-14.7	10.40	10.40	10.40	10.40	10.40	10.40
	-13.0	-12.6	11.04	11.04	11.04	11.04	11.04	11.04
	-11.0	-10.5	11.20	11.36	11.36	11.36	11.36	11.36
	-10.0	-9.5	11.68	11.68	11.68	11.68	11.68	11.68
	-9.1	-8.5	12.00	12.00	12.00	12.00	12.00	12.00
	-7.6	-7.0	12.16	12.16	12.16	12.16	12.16	12.16
	-5.6	-5.0	12.64	12.64	12.64	12.64	12.64	12.64
	-3.7	-3.0	13.28	13.28	13.28	13.28	13.28	13.28
	-0.7	0.0	14.24	14.24	14.24	14.24	14.24	13.44
	2.2	3.0	15.04	15.04	15.04	15.04	14.72	13.44
	4.1	5.0	15.52	15.52	15.52	15.52	14.72	13.44
	6.0	7.0	16.00	16.00	16.00	15.52	14.72	13.44
	7.9	9.0	16.48	16.48	16.00	15.52	14.72	13.44
9.8	11.0	16.96	16.96	16.00	15.52	14.72	13.44	
11.8	13.0	17.60	17.28	16.00	15.52	14.72	13.44	
13.7	15.0	18.08	17.28	16.00	15.52	14.72	13.44	

8. Electrical characteristics

Model	Indoor unit				Power supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	kW	FLA
MDV-D28Q4/VN1-E	60	208-230	198	242	0.39	10	0.026	0.31
MDV-D36Q4/VN1-E	60	208-230	198	242	0.39	10	0.026	0.31
MDV-D45Q4/VN1-E	60	208-230	198	242	0.5	10	0.026	0.4
MDV-D56Q4/VN1-E	60	208-230	198	242	0.5	10	0.026	0.4
MDV-D71Q4/VN1-E	60	208-230	198	242	0.54	15	0.037	0.43
MDV-D80Q4/VN1-E	60	208-230	198	242	0.67	15	0.037	0.53
MDV-D90Q4/VN1-E	60	208-230	198	242	1.05	15	0.05	0.84
MDV-D100Q4/VN1-E	60	208-230	198	242	1.09	15	0.065	0.87
MDV-D112Q4/VN1-E	60	208-230	198	242	1.09	15	0.065	0.87
MDV-D140Q4/VN1-E	60	208-230	198	242	1.18	15	0.065	0.94

Remarks:

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

Note:

1) Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.

2) Maximum allowable voltage unbalance between phase is 2%.

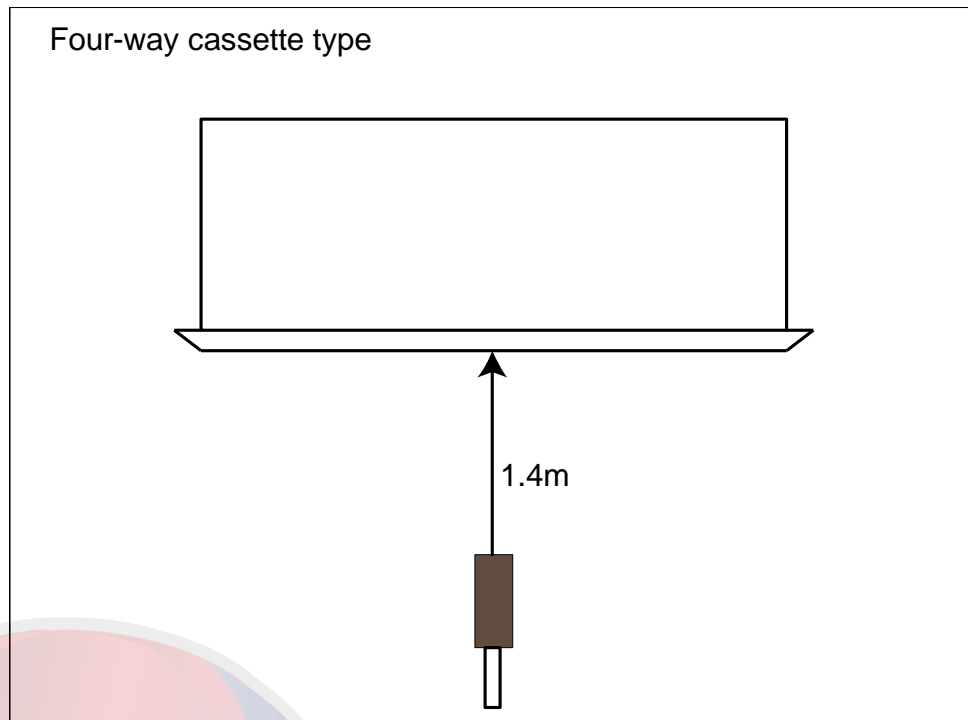
3) MCA

$$MCA = 1.25 \times FLA$$

4) Select wire size based on the MCA.

5) Instead of fuse, use Circuit Breaker.

9. Sound levels



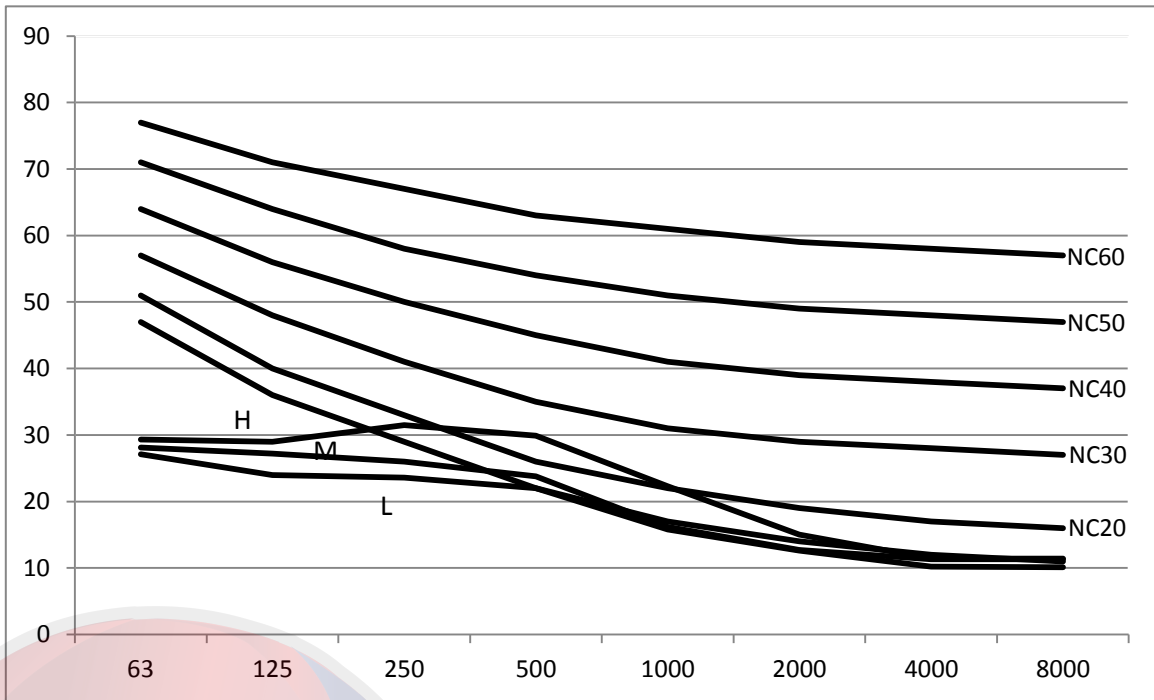
Note:

1. Sound values are measured in a semi-anechoic room, at a position 1.4m downward from the unit center.
2. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

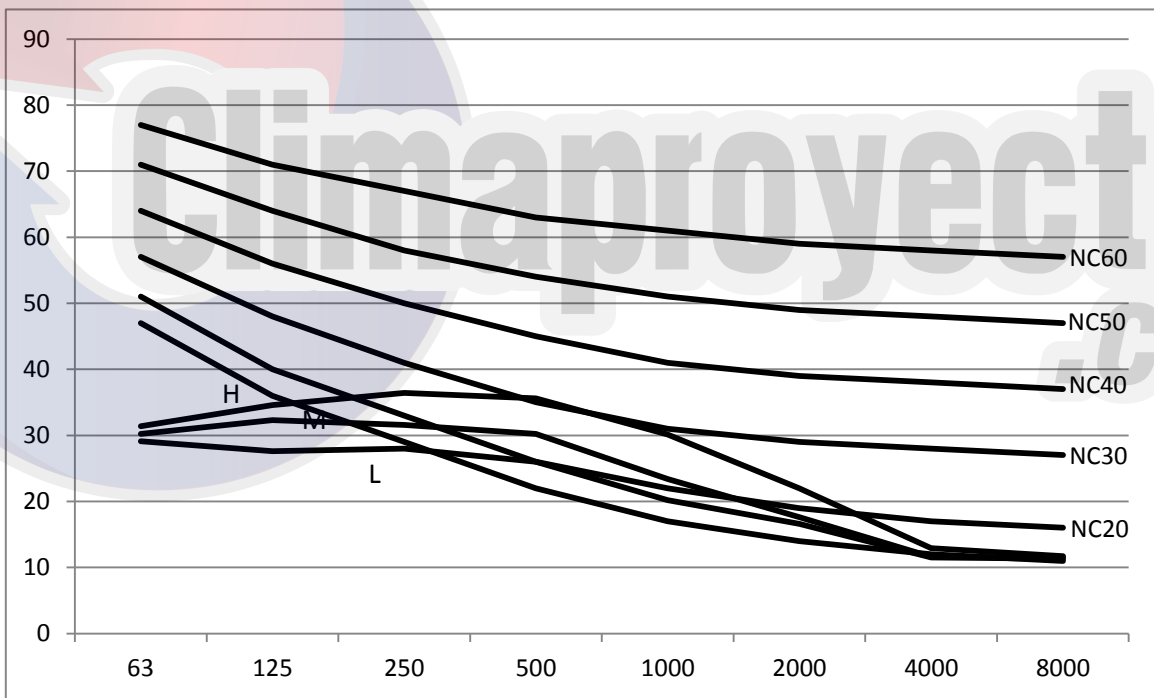
Model	Sound pressure level dB(A)		
	H	M	L
MDV-D28Q4/VN1-E	30	25	22
MDV-D36Q4/VN1-E	30	25	22
MDV-D45Q4/VN1-E	35	31	27
MDV-D56Q4/VN1-E	35	31	27
MDV-D71Q4/VN1-E	43	37	31
MDV-D80Q4/VN1-E	43	37	31
MDV-D90Q4/VN1-E	43	38	32
MDV-D100Q4/VN1-E	45	37	35
MDV-D112Q4/VN1-E	45	37	35
MDV-D140Q4/VN1-E	46	38	37

Octave band level

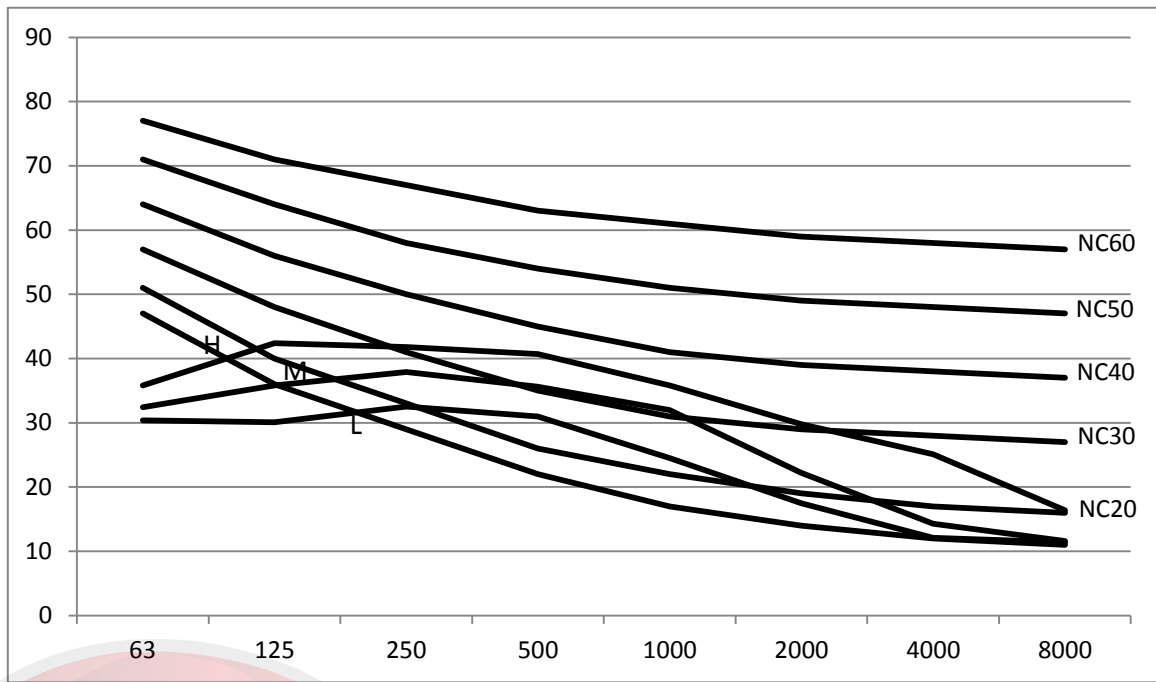
MDV-D28Q4/VN1-E ~ MDV-D36Q4/VN1-E



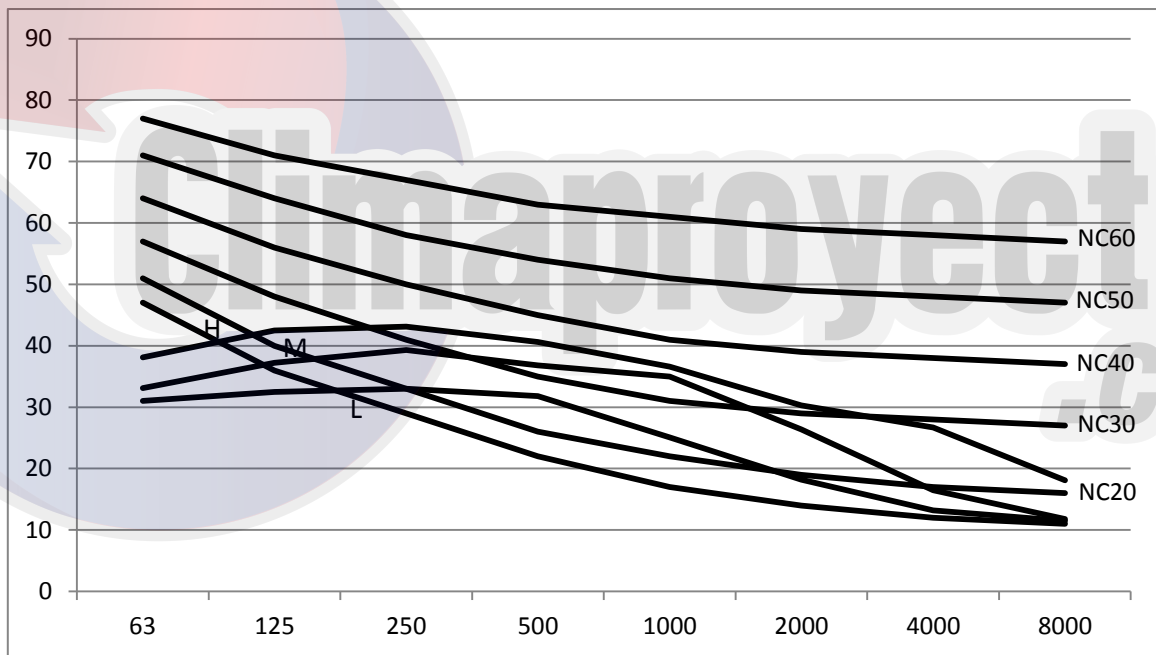
MDV-D45Q4/VN1-E ~ MDV-D56Q4/VN1-E



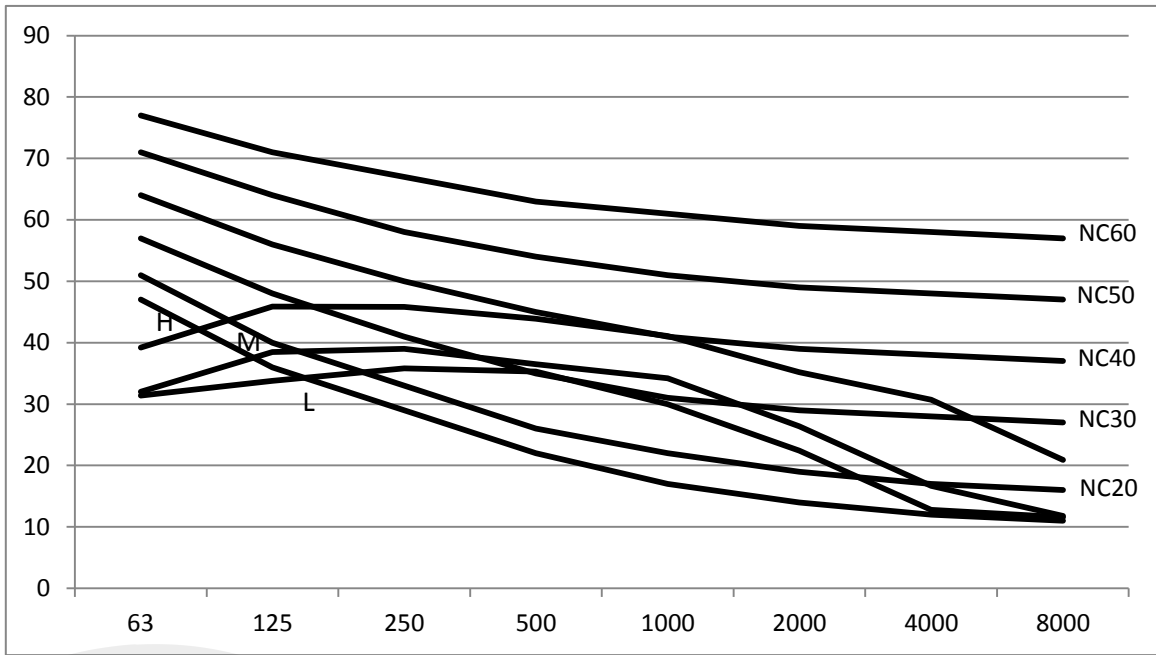
MDV-D71Q4/VN1-E ~ MDV-D80Q4/VN1-E



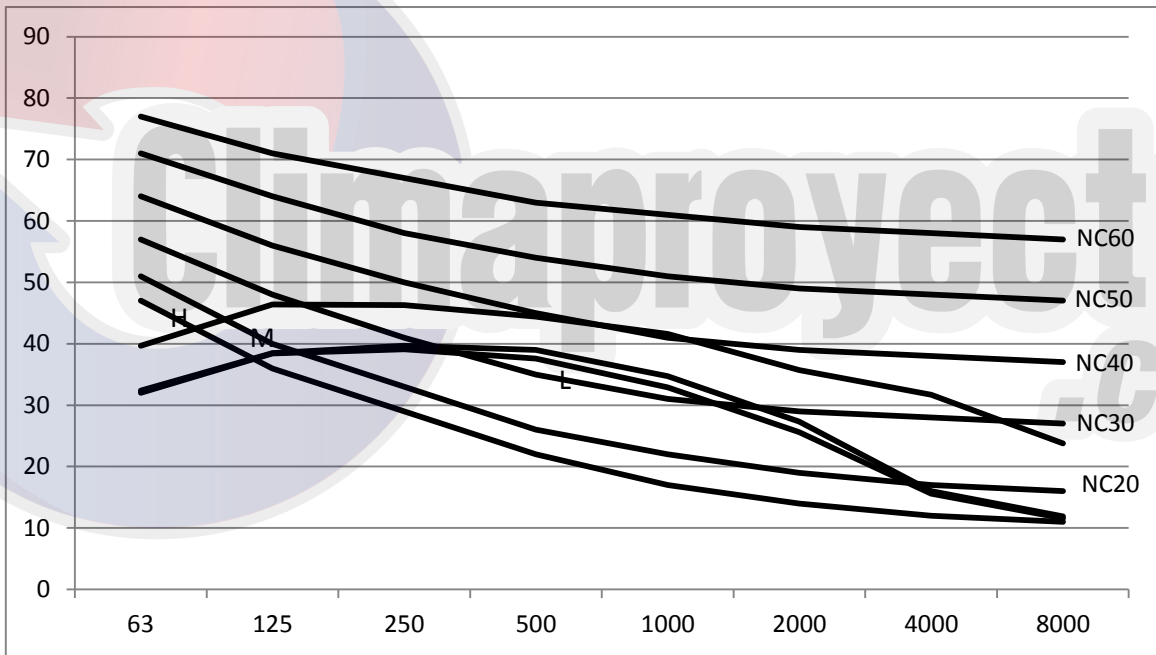
MDV-D90Q4/VN1-E



MDV-D100Q4/VN1-E ~ MDV-D112Q4/VN1-E






















MDV-D140Q4/VN1-E








10. Accessories

Attached accessories

Name	Shape	Quantity
Nut		8
Washer		8
Installation paper board		1
Bolt M6		4
Connection pipe		1
Soundproof / insulation sheath		2
Sponge (250x250x10)		1
Sponge (60x100x5)		1
Outlet pipe sheath		1
Outlet pipe clasp		1
Tightening band		5
Flexible hose tube		1
Signal line		1
Remote controller		1
Frame		1
Alkaline dry batteries (AM4)		2
Remote controller operation manual		1
Installation manual		1
Copper (use for pipe connection)		1

Local purchased accessories

Name	Shape	Specification	Quantity	Remark
Copper pipe		Liquid pipe & gas pipe Refer to specifications	According to actual needs	Use for connecting the indoor unit refrigerant system, suggest to use flexible copper pipe (T2M)
PVC pipe		external diameter is about 37~39mm, inner diameter is 32mm	According to actual needs	Use for draining the water in the indoor unit
Heat insulation casing pipe		Inner diameter corresponds with the copper pipe and PVC pipe, the thickness should be 10mm (above), and it should be thicker when in the close humid area.	According to actual needs	Use for preventing the condensate water
Expansive hook		M10	4	Use for the installation of the indoor unit, please purchase from the market
Installation hook		M10	4	Use for the installation of the indoor unit, please purchase from the market



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for environmental management.
Certificate No.15912E10020R0L



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Certificate No. 15912S20006R0L-1.

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quality and performance.

Midea CAC After-service Application



iOS Version

Midea CAC News Application



Android Version



iOS Version