



Service manual

MIV V4+ Indoor units

Ceiling & Floor Type

MVX36A-VA1

MVX45A-VA1

MVX56A-VA1

MVX71A-VA1

MVX80A-VA1

MVX90A-VA1

MVX112A-VA1

MVX140A-VA1



Ceiling & Floor Type

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1. Feature

1.1 Convenient for installation

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

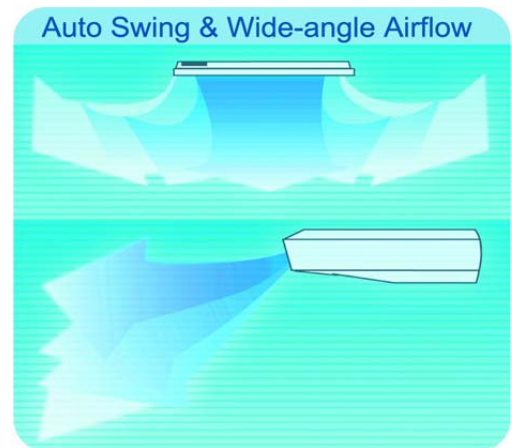
1.2 Three air flow speed: high/middle/low, double air guides.

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

1.4 Low noise, creates quiet and comfortable environment.

- 1.4.1 Electronic expansion valve, ensure precise flow control, as well lower modulation noise when EXV operating.
- 1.4.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable

1.5 RM05/BG(T)E-A remote wireless controller which can set the indoor unit address is standard, and wired controller is optional.



2. Specifications

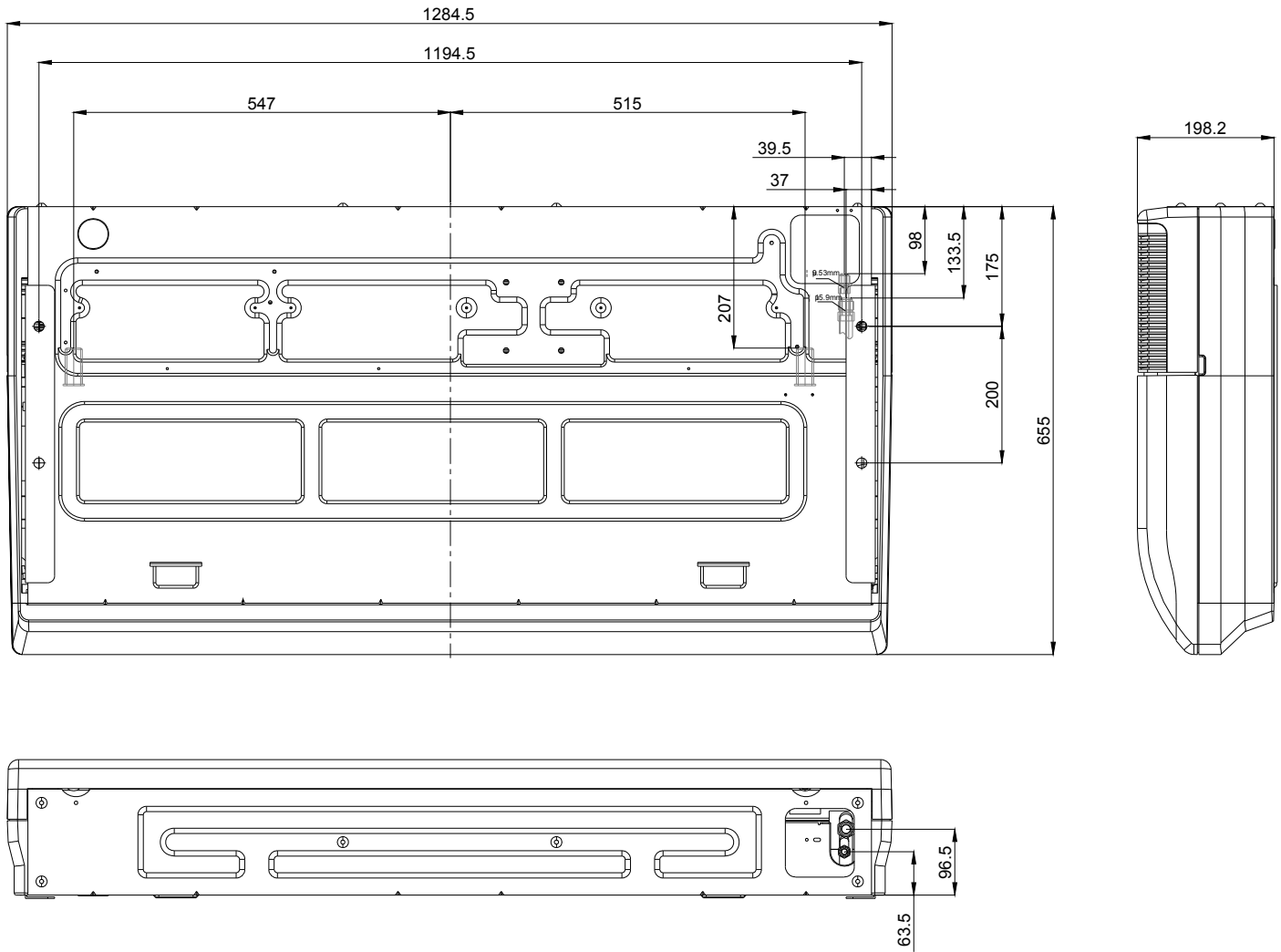
Model			MXV36A-VA1	MXV45A-VA1	MXV56A-VA1	MXV71A-VA1
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	3.6	4.5	5.6	7.1
	Input	W	49	120	122	125
	Rated current	A	0.55	0.55	0.55	0.57
Heating	Capacity	kW	4	5	6.3	8
	Input	W	49	120	122	125
	Rated current	A	0.55	0.55	0.55	0.57
Indoor fan motor	Model		YSK25-6L-1	YSK55-4L-1	YSK55-4L-1	YSK55-4L-1
	Type		AC motor			
	Brand		Welling			
	Input	W	33.4/31.1/29.5	125/105/85	125/105/85	125/105/85
	Capacitor	μF	1.2uF/450V	2UF/450V	2.5UF/450V	2.5UF/450V
	Speed (hi/mid/lo)	r/min	756/666/592	1310/1190/1040	1310/1190/1040	1310/1190/1040
Indoor coil	Number of rows		2	3	3	3
	Tube pitch*row pitch	mm	25.4x22	25.4x22	25.4x22	25.4x22
	Fin spacing	mm	1.8	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ9.53			
			Inner groove tube			
	length *height *width	mm	804*254*44	804*254*66	804*254*66	804*254*66
Number of circuits		3	3	3	3	
Indoor air flow (H/M/L)	m ³ /h	650/570/500	800/600/500	800/600/500	800/600/500	
Indoor noise level (Hi/Mid/Lo)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	
Indoor unit	Dimension (W×H×D)	mm	990x660x206	990x660x206	990x660x206	990x660x206
	Packing (W×H×D)	mm	1089x744x296	1089x744x296	1089x744x296	1089x744x296
	Net/Gross weight	kg	26/32	28/34	28/34	28/34
Refrigerant type			R410A			
Throttle	Type		EXV (Built-in)			
	Model		BD20FKS(L)			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ6.35/ Φ12.7		Φ9.53/ Φ16	
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)			
	Signal wiring	mm ²	3*0.75			
Drainage water pipe diameter			ODΦ16			
Controller			Wireless remote controller RM05/BG(T)E-A (Standard), to set address			
Operation temp		°C	Cooling: 17~32; Heating:10~28			

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

Model			MXV80A-VA1	MXV90A-VA1	MXV112A-VA1	MXV140A-VA1
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	8	9	11.2	14
	Input	W	130	130	182	182
	Rated current	A	0.6	0.6	0.83	0.83
Heating	Capacity	kW	9	10	12.5	15.5
	Input	W	130	130	182	182
	Rated current	A	0.6	0.6	0.83	0.83
Indoor fan motor	Model		YSK80-4A-1	YSK80-4A-1	YSK59-4D x2	YSK59-4D x2
	Type		AC motor			
	Brand		Welling			
	Input	W	143/122/110	143/122/110	(89.5/81.5/77.5) x 2	(89.5/81.5/77.5) x 2
	Capacitor	μF	3.5UF/450V	3.5UF/450V	2.5UF/450V x2	2.5UF/450V x2
	Speed (hi/mid/lo)	r/min	1310/1210/1115	1310/1210/1115	1170/1070/995	1170/1070/995
Indoor coil	Number of rows		3	3	3	3
	Tube pitch*row pitch	mm	25.4x22	25.4x22	25.4x22	25.4x22
	Fin spacing	mm	1.8	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	mm	Φ9.53 Inner groove tube			
	length *height *width	mm	1094*254*66		1360*254*66	
	Number of circuits		5	5	5	5
Indoor air flow (H/M/L)	m ³ /h	1200/900/700	1200/900/700	1980/1860/1730	1980/1860/1730	
Indoor noise level (Hi/Mid/Lo)	dB(A)	45/43/40	45/43/40	47/45/42	47/45/42	
Indoor unit	Dimension (W×H×D)	mm	1280 x 660x206	1280 x 660x206	1670x680x244	1670x680x244
	Packing (W×H×D)	mm	1379x744x296	1379x744x296	1764x760x329	1764x760x329
	Net/Gross weight	kg	34.5/41	34.5/41	54/59	54/59
Refrigerant type		R410A				
Throttle	Type		EXV (Built-in)			
	Model		BD20FKS(L)		BD24FKS(L)	
Design pressure	MPa	4.4/2.6				
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/ Φ16			
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)			
	Signal wiring	mm ²	3*0.75			
Drainage water pipe diameter		ODΦ16				
Controller		Wireless remote controller RM05/BG(T)E-A (Standard), to set address				
Operation temp	°C	Cooling: 17~32; Heating:10~28				

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

3.3 Outline dimension of MVX80A-VA1 MVX90A-VA1

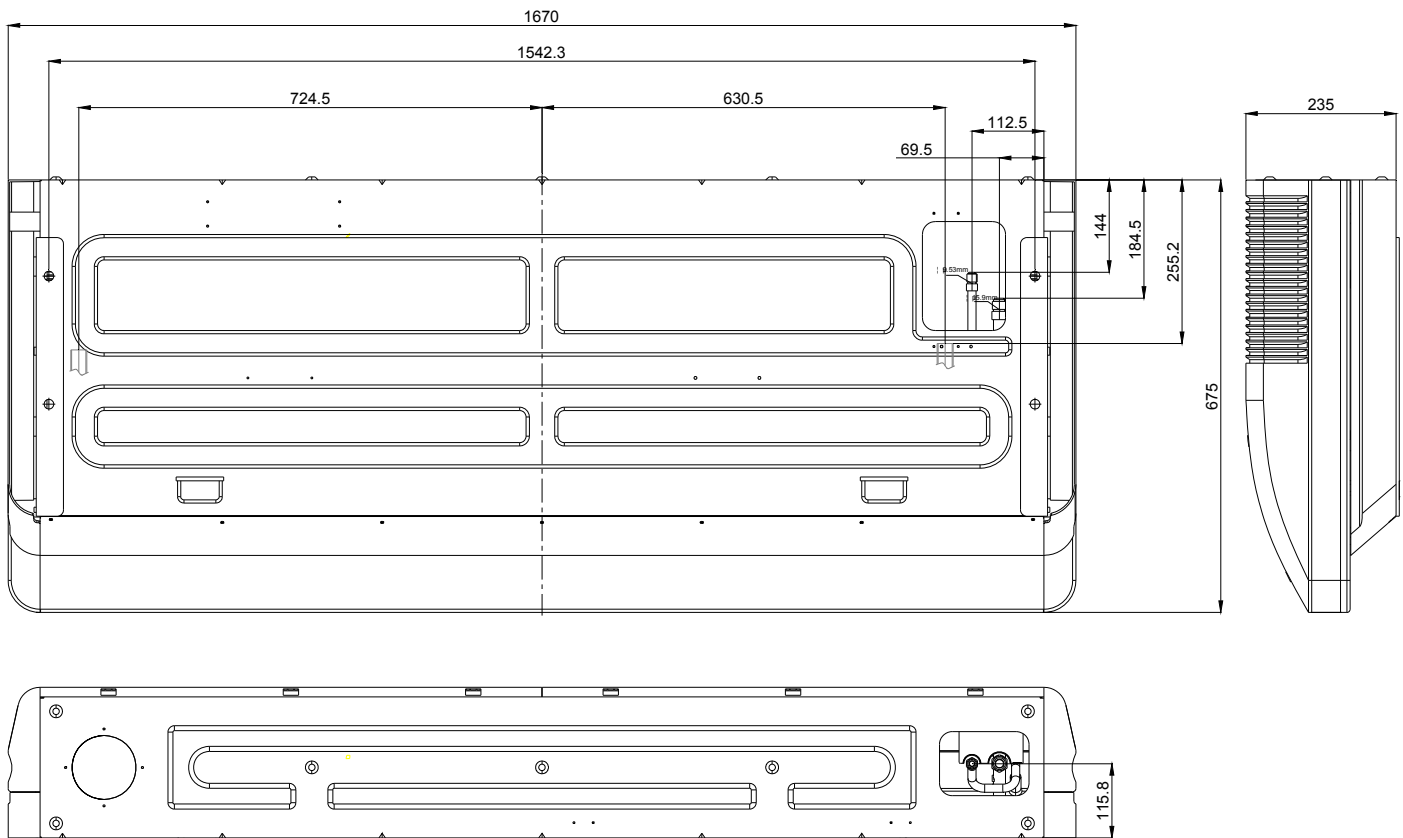


**3.4 Main dimension:
MVX80A-VA1 MVX90A-VA1**

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

Gas tube: $\phi 15.9\text{mm}$ Liquid tube: $\phi 9.53$

3.5 Outline dimension of MVX112A-VA1 MVX140A-VA1



3.6 Main dimension:

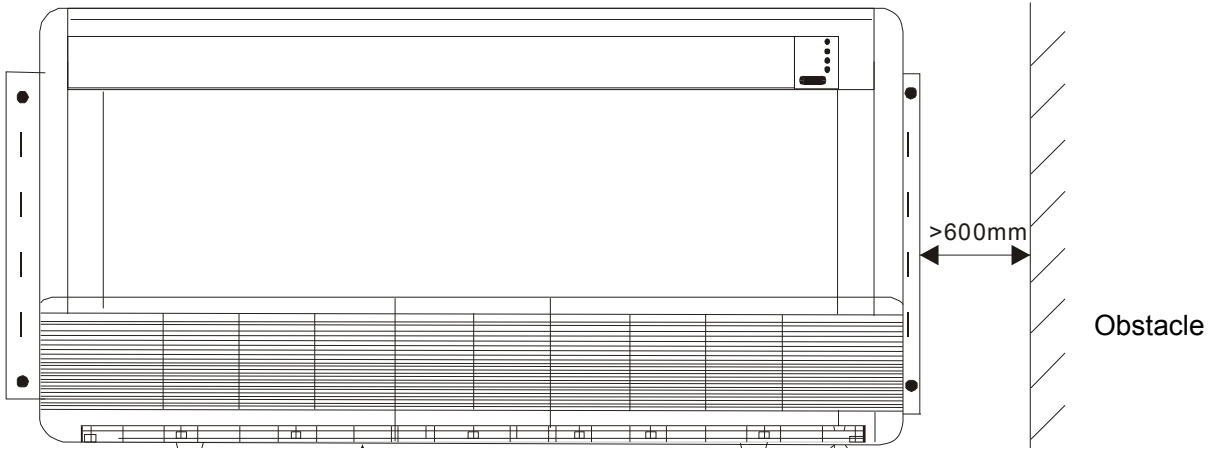
MVX112A-VA1 MVX140A-VA1

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

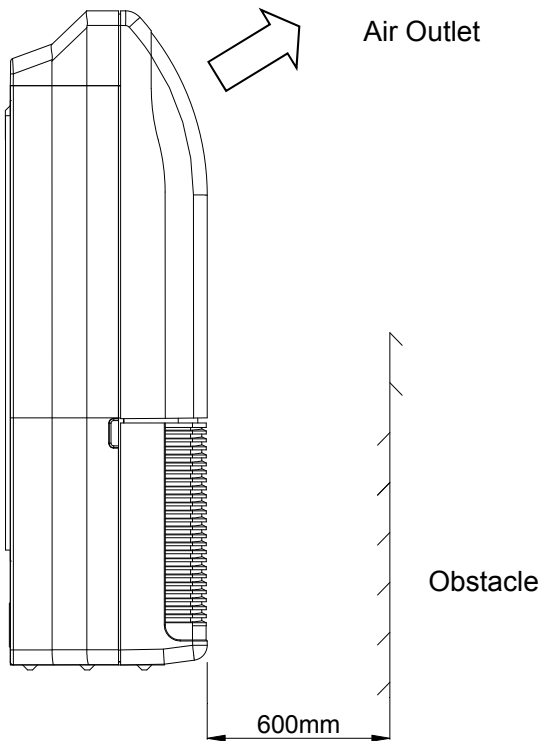
Gas tube: ϕ 15.9mm, Liquid tube: ϕ 9.53

4. Service Space

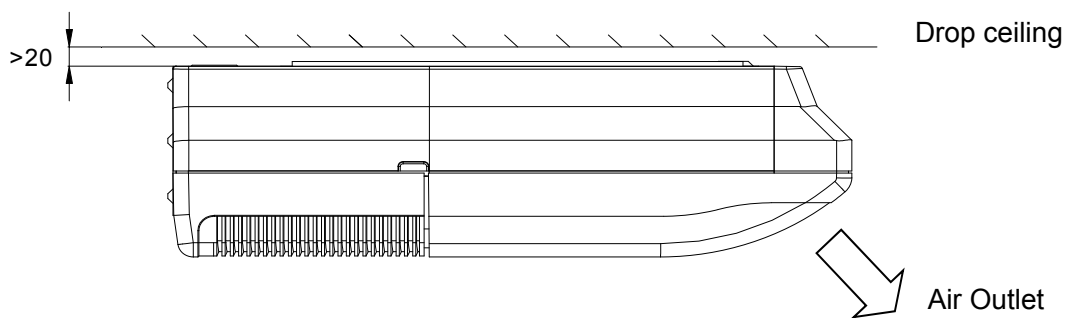
MVX36A-VA1 MVX45A-VA1 MVX56A-VA1 MVX71A-VA1
MVX80A-VA1 MVX90A-VA1 MVX112A-VA1 MVX140A-VA1



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



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



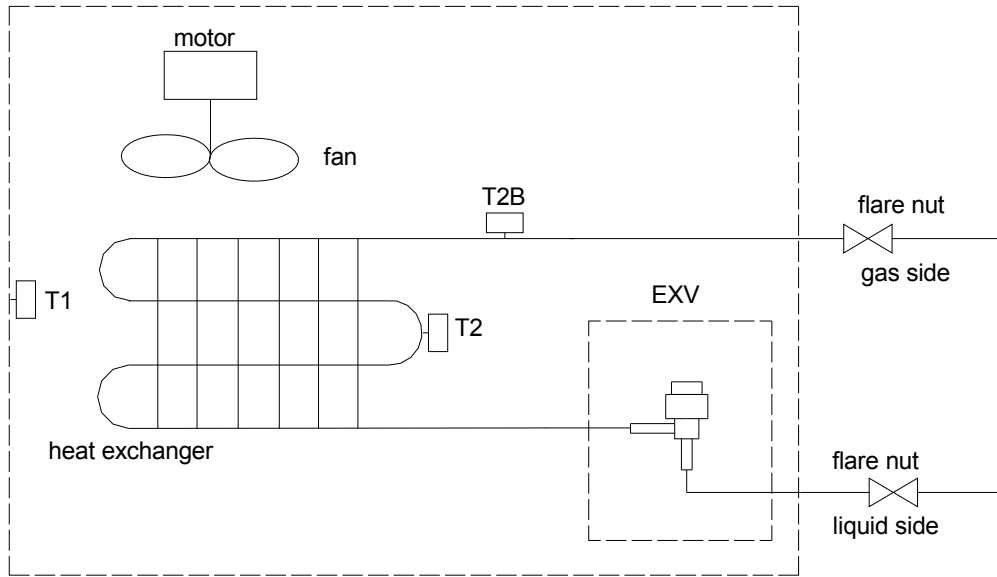
Keep 20mm up between the rear and wall if standing installed. As well 20mm between top and the drop ceiling if under ceiling installed

Note:

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

5. Piping Diagrams

MVX36A-VA1 MVX45A-VA1 MVX56A-VA1 MVX71A-VA1
MVX80A-VA1 MVX90A-VA1 MVX112A-VA1 MVX140A-VA1

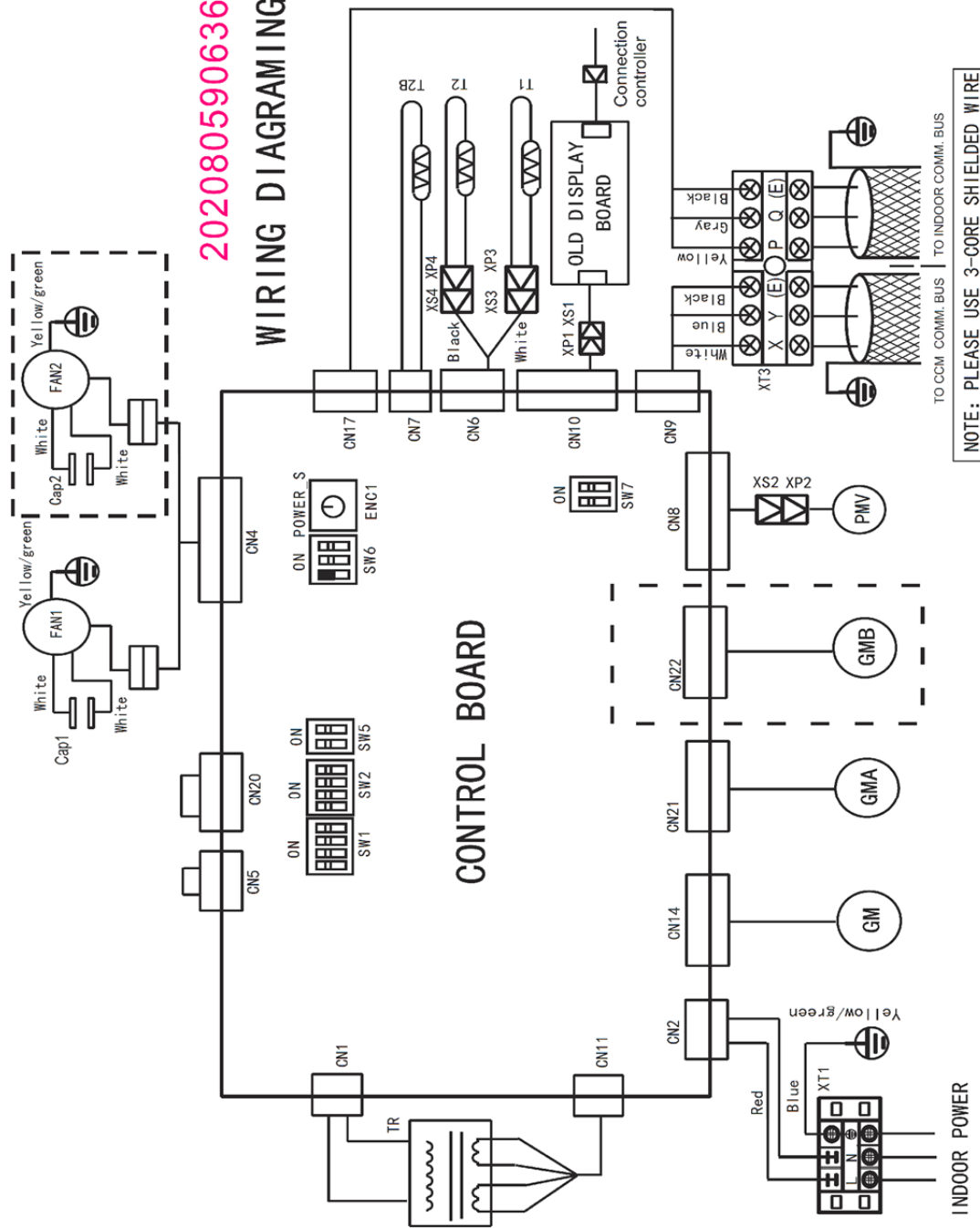


6. Wiring Diagram

MX36A-VA1 MX45A-VA1 MX56A-VA1 MX71A-VA1
 MX80A-VA1 MX90A-VA1 MX112A-VA1 MX140A-VA1

202080590636

WIRING DIAGRAMING



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

ENC1 SWITCH NUMBER	(FOR POWER) POWER
0	2200W (0.8HP)
1	2800W (1.0HP)
2	3600W (1.2HP)
3	4500W (1.5HP)
4	5600W (2.0HP)
5	7100W (2.5HP)
6	8000W (3.0HP)
7	9000W (3.2HP)
8	10000W (3.6HP)
9	11200W (4.0HP)
	12500W (4.5HP)
	14000W (5.0HP)

7. Capacity Tables

7.1 Cooling

TC: total capacity

SC: sensible capacity

WB: wet-bulb temperature

DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (□ DB)	Indoor temperature (□ WB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
44.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6	
46.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	3.1	4.8	2.6	
5.6	10.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.3	3.5
	12.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.2	3.5
	14.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.1	3.5
	16.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	7.0	3.4
	18.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.8	3.4
	20.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.7	3.3
	21.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	23.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.6	3.3
	25.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.6	3.6	6.5	3.2
	27.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.4	3.5	6.4	3.2
	29.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.3	3.5	6.4	3.3
	31.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	33.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.2	3.4	6.2	3.2
	35.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	6.0	3.3	6.0	3.1
	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1	
46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1	
10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6	

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

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

7.2 Heating

TC: total capacity

WB: wet-bulb temperature DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (□)		Indoor temperature (□ DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC	TC	TC	TC	TC	TC
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	2.60	2.60	2.60	2.60	2.60	2.60
	-13.00	-12.60	2.68	2.68	2.68	2.68	2.68	2.68
	-11.00	-10.50	2.80	2.80	2.80	2.80	2.80	2.80
	-10.00	-9.50	2.92	2.92	2.92	2.92	2.92	2.92
	-9.10	-8.50	3.00	3.00	3.00	3.00	3.00	3.00
	-7.60	-7.00	3.04	3.04	3.04	3.04	3.04	3.04
	-5.60	-5.00	3.16	3.16	3.16	3.16	3.16	3.16
	-3.70	-3.00	3.32	3.32	3.32	3.32	3.32	3.32
	-0.70	0.00	3.56	3.56	3.56	3.56	3.56	3.36
	2.20	3.00	3.76	3.76	3.76	3.76	3.68	3.36
	4.10	5.00	3.88	3.88	3.88	3.88	3.68	3.36
	6.00	7.00	4.00	4.00	4.00	3.88	3.68	3.36
	7.90	9.00	4.12	4.12	4.00	3.88	3.68	3.36
9.80	11.00	4.24	4.24	4.00	3.88	3.68	3.36	
11.80	13.00	4.40	4.32	4.00	3.88	3.68	3.36	
13.70	15.00	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-10.00	-9.50	3.65	3.65	3.65	3.65	3.65	3.65
	-9.10	-8.50	3.75	3.75	3.75	3.75	3.75	3.75
	-7.60	-7.00	3.80	3.80	3.80	3.80	3.80	3.80
	-5.60	-5.00	3.95	3.95	3.95	3.95	3.95	3.95
	-3.70	-3.00	4.15	4.15	4.15	4.15	4.15	4.15
	-0.70	0.00	4.45	4.45	4.45	4.45	4.45	4.20
	2.20	3.00	4.70	4.70	4.70	4.70	4.60	4.20
	4.10	5.00	4.85	4.85	4.85	4.85	4.60	4.20
	6.00	7.00	5.00	5.00	5.00	4.85	4.60	4.20
	7.90	9.00	5.15	5.15	5.00	4.85	4.60	4.20
9.80	11.00	5.30	5.30	5.00	4.85	4.60	4.20	
11.80	13.00	5.50	5.40	5.00	4.85	4.60	4.20	
13.70	15.00	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-10.00	-9.50	4.60	4.60	4.60	4.60	4.60	4.60
	-9.10	-8.50	4.73	4.73	4.73	4.73	4.73	4.73
	-7.60	-7.00	4.79	4.79	4.79	4.79	4.79	4.79
	-5.60	-5.00	4.98	4.98	4.98	4.98	4.98	4.98
	-3.70	-3.00	5.23	5.23	5.23	5.23	5.23	5.23
	-0.70	0.00	5.61	5.61	5.61	5.61	5.61	5.29
	2.20	3.00	5.92	5.92	5.92	5.92	5.80	5.29
	4.10	5.00	6.11	6.11	6.11	6.11	5.80	5.29
	6.00	7.00	6.30	6.30	6.30	6.11	5.80	5.29
	7.90	9.00	6.49	6.49	6.30	6.11	5.80	5.29
9.80	11.00	6.68	6.68	6.30	6.11	5.80	5.29	
11.80	13.00	6.93	6.80	6.30	6.11	5.80	5.29	
13.70	15.00	7.12	6.80	6.30	6.11	5.80	5.29	
7.1	-20	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.80	4.80	4.80	4.80	4.80	4.80

	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.20	5.20	5.20	5.20	5.20	5.20
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.60	5.60	5.60	5.60	5.60	5.60
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6.00	6.00	6.00	6.00	6.00	6.00
	-7.60	-7.00	6.08	6.08	6.08	6.08	6.08	6.08
	-5.60	-5.00	6.32	6.32	6.32	6.32	6.32	6.32
	-3.70	-3.00	6.64	6.64	6.64	6.64	6.64	6.64
	-0.70	0.00	7.12	7.12	7.12	7.12	7.12	6.72
	2.20	3.00	7.52	7.52	7.52	7.52	7.36	6.72
	4.10	5.00	7.76	7.76	7.76	7.76	7.36	6.72
	6.00	7.00	8.00	8.00	8.00	7.76	7.36	6.72
	7.90	9.00	8.24	8.24	8.00	7.76	7.36	6.72
	9.80	11.00	8.48	8.48	8.00	7.76	7.36	6.72
	11.80	13.00	8.80	8.64	8.00	7.76	7.36	6.72
	13.70	15.00	9.04	8.64	8.00	7.76	7.36	6.72
8.0	-20	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19	-18.8	5.40	5.40	5.40	5.40	5.40	5.40
	-17	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13.00	-12.60	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-10.00	-9.50	6.57	6.57	6.57	6.57	6.57	6.57
	-9.10	-8.50	6.75	6.75	6.75	6.75	6.75	6.75
	-7.60	-7.00	6.84	6.84	6.84	6.84	6.84	6.84
	-5.60	-5.00	7.11	7.11	7.11	7.11	7.11	7.11
	-3.70	-3.00	7.47	7.47	7.47	7.47	7.47	7.47
	-0.70	0.00	8.01	8.01	8.01	8.01	8.01	7.56
	2.20	3.00	8.46	8.46	8.46	8.46	8.28	7.56
	4.10	5.00	8.73	8.73	8.73	8.73	8.28	7.56
	6.00	7.00	9.00	9.00	9.00	8.73	8.28	7.56
7.90	9.00	9.27	9.27	9.00	8.73	8.28	7.56	
9.80	11.00	9.54	9.54	9.00	8.73	8.28	7.56	
11.80	13.00	9.90	9.72	9.00	8.73	8.28	7.56	
13.70	15.00	10.17	9.72	9.00	8.73	8.28	7.56	
9.0	-20	-19.8	5.60	5.04	5.60	5.60	5.60	5.60
	-19	-18.8	6.00	5.40	6.00	6.00	6.00	6.00
	-17	-16.7	6.30	6.30	6.30	6.30	6.30	6.30
	-15	-14.7	6.50	6.50	6.50	6.50	6.50	6.50
	-13.00	-12.60	6.70	6.70	6.70	6.70	6.70	6.70
	-11.00	-10.50	7.00	7.00	7.00	7.00	7.00	7.00
	-10.00	-9.50	7.30	7.30	7.30	7.30	7.30	7.30
	-9.10	-8.50	7.50	7.50	7.50	7.50	7.50	7.50
	-7.60	-7.00	7.60	7.60	7.60	7.60	7.60	7.60
	-5.60	-5.00	7.90	7.90	7.90	7.90	7.90	7.90
	-3.70	-3.00	8.30	8.30	8.30	8.30	8.30	8.30
	-0.70	0.00	8.90	8.90	8.90	8.90	8.90	8.40
	2.20	3.00	9.40	9.40	9.40	9.40	9.20	8.40
	4.10	5.00	9.70	9.70	9.70	9.70	9.20	8.40
	6.00	7.00	10.00	10.00	10.00	9.70	9.20	8.40
7.90	9.00	10.30	10.30	10.00	9.70	9.20	8.40	
9.80	11.00	10.60	10.60	10.00	9.70	9.20	8.40	
11.80	13.00	11.00	10.80	10.00	9.70	9.20	8.40	
13.70	15.00	11.30	10.80	10.00	9.70	9.20	8.40	
10.0	-20	-19.8	6.16	6.16	6.16	6.16	6.16	6.16
	-19	-18.8	6.60	6.60	6.60	6.60	6.60	6.60
	-17	-16.7	6.93	6.93	6.93	6.93	6.93	6.93
	-15	-14.7	7.15	7.15	7.15	7.15	7.15	7.15
	-13.00	-12.60	7.37	7.37	7.37	7.37	7.37	7.37
	-11.00	-10.50	7.70	7.70	7.70	7.70	7.70	7.70
	-10.00	-9.50	8.03	8.03	8.03	8.03	8.03	8.03
	-9.10	-8.50	8.25	8.25	8.25	8.25	8.25	8.25
	-7.60	-7.00	8.36	8.36	8.36	8.36	8.36	8.36
-5.60	-5.00	8.69	8.69	8.69	8.69	8.69	8.69	

	-3.70	-3.00	9.13	9.13	9.13	9.13	9.13	9.13
	-0.70	0.00	9.79	9.79	9.79	9.79	9.79	9.24
	2.20	3.00	10.34	10.34	10.34	10.34	10.12	9.24
	4.10	5.00	10.67	10.67	10.67	10.67	10.12	9.24
	6.00	7.00	11.00	11.00	11.00	10.67	10.12	9.24
	7.90	9.00	11.33	11.33	11.00	10.67	10.12	9.24
	9.80	11.00	11.66	11.66	11.00	10.67	10.12	9.24
	11.80	13.00	12.10	11.88	11.00	10.67	10.12	9.24
	13.70	15.00	12.43	11.88	11.00	10.67	10.12	9.24
11.2	-20	-19.8	7.00	7.00	7.00	7.00	7.00	7.00
	-19	-18.8	7.50	7.50	7.50	7.50	7.50	7.50
	-17	-16.7	7.88	7.88	7.88	7.88	7.88	7.88
	-15	-14.7	8.13	8.13	8.13	8.13	8.13	8.13
	-13.00	-12.60	8.38	8.38	8.38	8.38	8.38	8.38
	-11.00	-10.50	8.75	8.75	8.75	8.75	8.75	8.75
	-10.00	-9.50	9.13	9.13	9.13	9.13	9.13	9.13
	-9.10	-8.50	9.38	9.38	9.38	9.38	9.38	9.38
	-7.60	-7.00	9.50	9.50	9.50	9.50	9.50	9.50
	-5.60	-5.00	9.88	9.88	9.88	9.88	9.88	9.88
	-3.70	-3.00	10.38	10.38	10.38	10.38	10.38	10.38
	-0.70	0.00	11.13	11.13	11.13	11.13	11.13	10.50
	2.20	3.00	11.75	11.75	11.75	11.75	11.50	10.50
	4.10	5.00	12.13	12.13	12.13	12.13	11.50	10.50
	6.00	7.00	12.50	12.50	12.50	12.13	11.50	10.50
	7.90	9.00	12.88	12.88	12.50	12.13	11.50	10.50
9.80	11.00	13.25	13.25	12.50	12.13	11.50	10.50	
11.80	13.00	13.75	13.50	12.50	12.13	11.50	10.50	
13.70	15.00	14.13	13.50	12.50	12.13	11.50	10.50	
14.0	-20	-19.8	8.68	8.68	8.68	8.68	8.68	8.68
	-19	-18.8	9.30	9.30	9.30	9.30	9.30	9.30
	-17	-16.7	9.77	9.77	9.77	9.77	9.77	9.77
	-15	-14.7	10.08	10.08	10.08	10.08	10.08	10.08
	-13.0	-12.6	10.4	10.4	10.4	10.4	10.4	10.4
	-11.0	-10.5	10.9	10.9	10.9	10.9	10.9	10.9
	-10.0	-9.5	11.3	11.3	11.3	11.3	11.3	11.3
	-9.1	-8.5	11.6	11.6	11.6	11.6	11.6	11.6
	-7.6	-7.0	11.8	11.8	11.8	11.8	11.8	11.8
	-5.6	-5.0	12.3	12.3	12.3	12.3	12.3	12.3
	-3.7	-3.0	12.9	12.9	12.9	12.9	12.9	12.9
	-0.7	0.0	13.8	13.8	13.8	13.8	13.8	13.0
	2.2	3.0	14.6	14.6	14.6	14.6	14.3	13.0
	4.1	5.0	15.0	15.0	15.0	15.0	14.3	13.0
	6.0	7.0	15.5	15.5	15.5	15.0	14.3	13.0
	7.9	9.0	16.0	16.0	15.5	15.0	14.3	13.0
9.8	11.0	16.4	16.4	15.5	15.0	14.3	13.0	
11.8	13.0	17.1	16.7	15.5	15.0	14.3	13.0	
13.7	15.0	17.5	16.7	15.5	15.0	14.3	13.0	

8. Electric Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MVX36A-VA1	50	220-240V	198	254	0.21	15	0.025	0.15
MVX45A-VA1	50	220-240V	198	254	0.64	15	0.055	0.57
MVX56A-VA1	50	220-240V	198	254	0.64	15	0.055	0.57
MVX71A-VA1	50	220-240V	198	254	0.64	15	0.055	0.57
MVX80A-VA1	50	220-240V	198	254	0.8	15	0.08	0.63
MVX90A-VA1	50	220-240V	198	254	0.8	15	0.08	0.63
MVX112A-VA1	50	220-240V	198	254	1.05	15	0.059*2	0.39*2
MVX140A-VA1	50	220-240V	198	254	1.05	15	0.059*2	0.39*2

Remark:

MCA: Min. CircuitAmps. (A)

MFA: Max. Fuse Amps. (A)

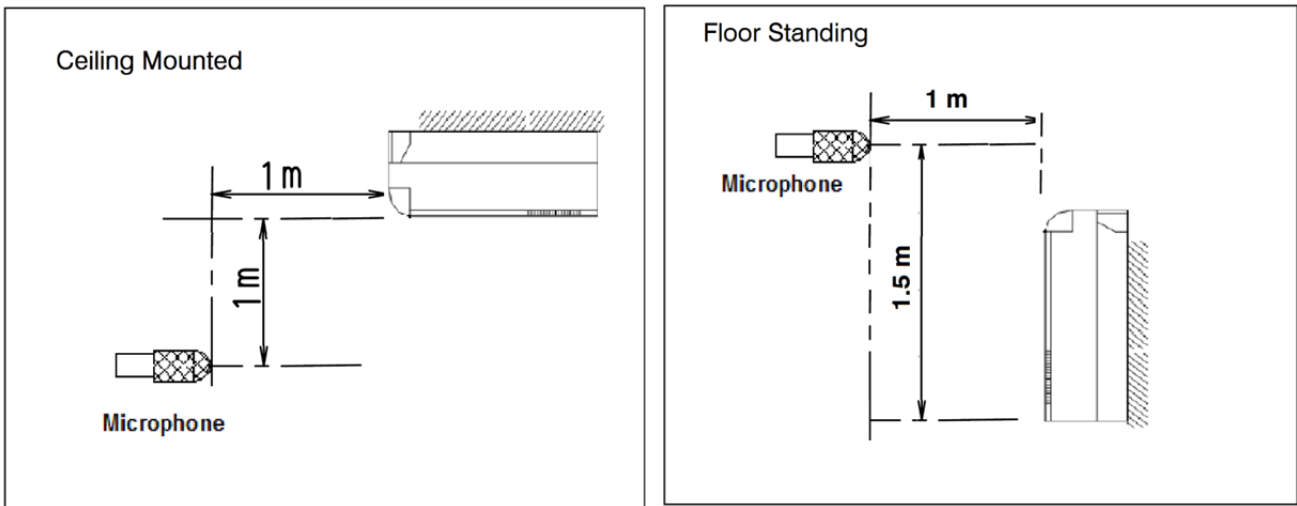
KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

9. Noise Levels

9.1 Test condition



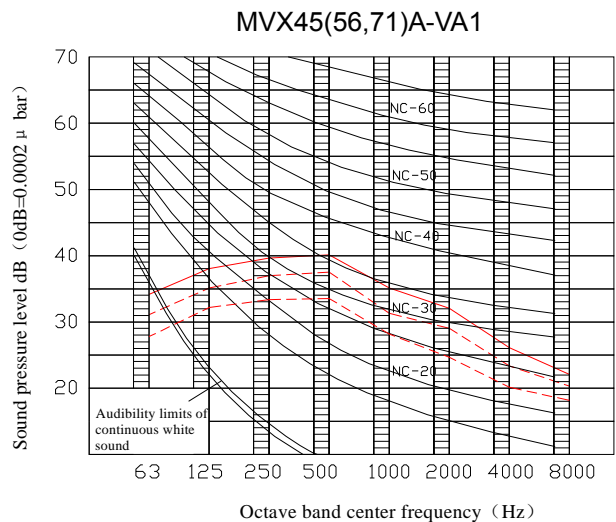
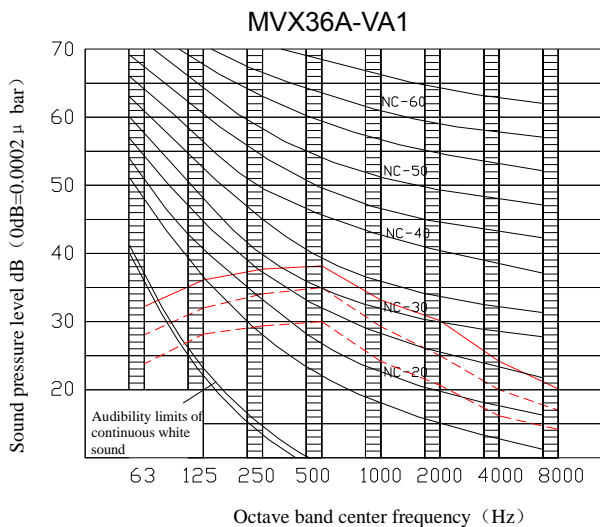
Note:

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

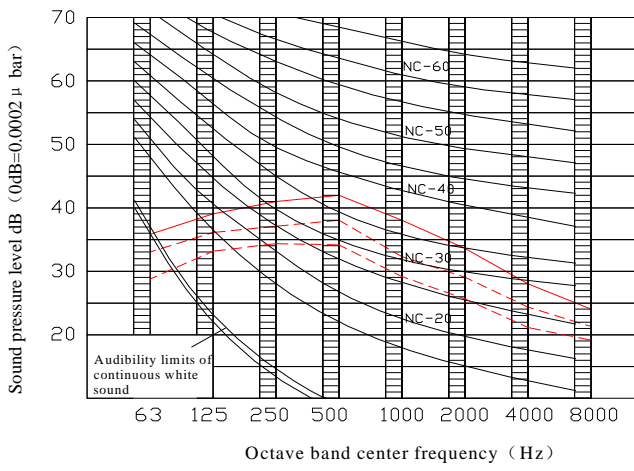
9.2 Test data (Sound Pressure Levels)

Model	Noise level under three speeds of fan (dB(A))		
	H	M	L
MVX36A-VA1	40	38	36
MVX45A-VA1	43	41	38
MVX56A-VA1	43	41	38
MVX71A-VA1	43	41	38
MVX80A-VA1	45	43	40
MVX90A-VA1	45	43	40
MVX112A-VA1	47	45	42
MVX140A-VA1	47	45	42

9.3 Octave Band Level



MVX80(90)A-VA1



MVX112(140)A-VA1

