



Service manual

MIV V4+ Indoor units

Compact Four-way Cassette Type

MVS22A-VA1

MVS28A-VA1

MVS36A-VA1

MVS45A-VA1

MVS56A-VA1



Compact Four-way Cassette Type

1. Features	2
2. Specifications	3
3. Dimensions	6
4. Service Space	7
5. Piping Diagram (EXV beside)	8
6. Wiring Diagram	9
7. Capacity Tables	10
8. Electric Characteristics	14
9. Sound Levels	15

1. Features

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

- Streamline plate ensures quietness
- Creates natural and comfortable environment

(2) Efficient cooling

- Equal, fast and wide — range cooling

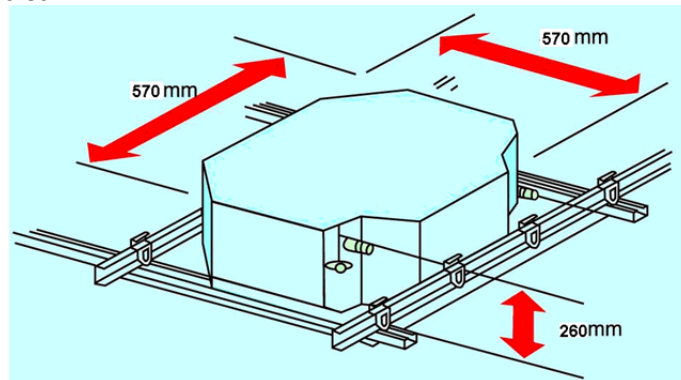


(3) The adoption of the most advanced 3-Dimensional Screw fan

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

(4) Improvement for easy installation and maintenance

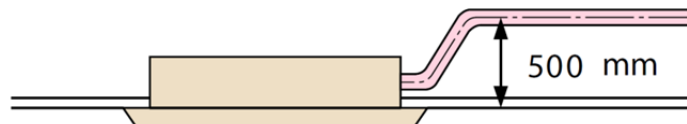
- Little space is required for installation into a shallow ceiling,
- Extremely compact casing (**570mm in width and depth**) enables unit to fit flush into ceilings and match standard architectural modules
- Because of the compactness and weight reduction of the main unit and panel, all models can be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



(5) 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

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



2. Specifications

Model			MVS22A-VA1	MVS28A-VA1
Power supply		V-ph-Hz	220~240-1-50	220~240-1-50
Cooling	Capacity	kW	2.2	2.8
	Input	W	51	52
	Rated current	A	0.175	0.175
Heating	Capacity	kW	2.4	3.2
	Input	W	43	44
	Rated current	A	0.175	0.175
Indoor fan motor	Model		YDK15-6M	YDK15-6M
	Type		AC Motor	AC Motor
	Input	W	34.3	34.3
	Capacitor	uF	1.2uF/450V	1.2uF/450V
	Speed(hi/mi/lo)	r/min	658/586/485	658/586/485
Indoor coil	Number of rows		1	1
	Tube pitch(a)x row pitch(b)	Mm	21*13.37	21*13.37
	Fin spacing	Mm	1.3	1.3
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type	Mm	Φ7	Φ7
	Coil length x height x width	Mm	1310×210×13.37	
	Number of circuits		2	2
Indoor air flow (Hi/Me/Lo)		m3/h	522/414/313	522/414/313
Sound level (sound pressure)		dB(A)	35.8/33.4/23.4	35.8/33.4/23.4
Indoor unit	Dimension (W x H x D)	Mm	630*265*575	630*265*575
	Packing (W x H x D)	Mm	675*285*675	675*285*675
	Net/Gross weight	Kg	17.5/22	17.5/22
Panel	Model		T-MBQ-03D1	
	Dimension (W x H x D)	Mm	647*50*647	647*50*647
	Packing (W x H x D)	Mm	705*113*705	705*113*705
	Net/Gross weight	Kg	3/5	3/5
Refrigerant	Type		R410a	R410a
Throttle			Electric expansive valve	
Design pressure		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	Mm	6.35/12.7	6.35/12.7
Connection wiring	Power wiring	mm2	3*2.0	
	Signal wiring	mm2	3*0.75 (3-core shielded wire)	
Drainage water pipe dia.		Mm	ID Φ20 ODΦ25	ID Φ20 ODΦ25
Wireless remote controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)	
Operation temp		℃	17~32	

Notes:

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

Model			MVS36A-VA1	MVS45A-VA1
Power supply		V-ph-Hz	220~240-1-50	220~240-1-50
Cooling	Capacity	kW	3.6	4.5
	Input	W	58	58
	Rated current	A	0.21	0.21
Heating	Capacity	kW	4.0	5.0
	Input	W	50	51
	Rated current	A	0.21	0.21
Indoor fan motor	Model		YDK15-6P	YDK15-6P
	Type		AC MOTOR	AC MOTOR
	Input	W	47.1	47.1
	Capacitor	uF	1.5uF/450V	1.5uF/450V
	Speed(hi/mi/lo)	r/min	780/670/540	780/670/540
Indoor coil	Number of rows		2	2
	Tube pitch(a)x row pitch(b)	Mm	21*13.37	21*13.37
	Fin spacing	Mm	1.3	1.3
	Fin type (code)		Hydrophilic aluminium	
	Tube outside dia. and type	Mm	Φ7	Φ7
			Inner groove tube	
	Coil length x height x width	Mm	1310×210×26.74	1310×210×26.74
Number of circuits		4	4	
Indoor air flow (Hi/Me/Lo)		m3/h	610/521/409	610/521/409
Sound level (sound pressure)		dB(A)	41.5/35.6/28.8	41.5/35.6/28.8
Indoor unit	Dimension (W x H x D)	Mm	630*265*575	630*265*575
	Packing (W x H x D)	Mm	675*285*675	675*285*675
	Net/Gross weight	Kg	19/23.5	19/23.5
Panel	Model		T-MBQ-03D1	
	Dimension (W x H x D)	Mm	647*50*647	647*50*647
	Packing (W x H x D)	Mm	705*113*705	705*113*705
	Net/Gross weight	Kg	3/5	3/5
Refrigerant	Type		R410a	R410a
Throttle			Electric expansive valve	
Design pressure		MPa	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	Mm	6.35/12.7	6.35/12.7
Connection wiring	Power wiring	mm2	3*2.0	3*2.0
	Signal wiring	mm2	3*0.75 (3-core shielded wire)	
Drainage water pipe dia.		Mm	ID Φ20 ODΦ25	ID Φ20 ODΦ25
Wireless remote controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)	
Operation temp		℃	17~32	

Notes:

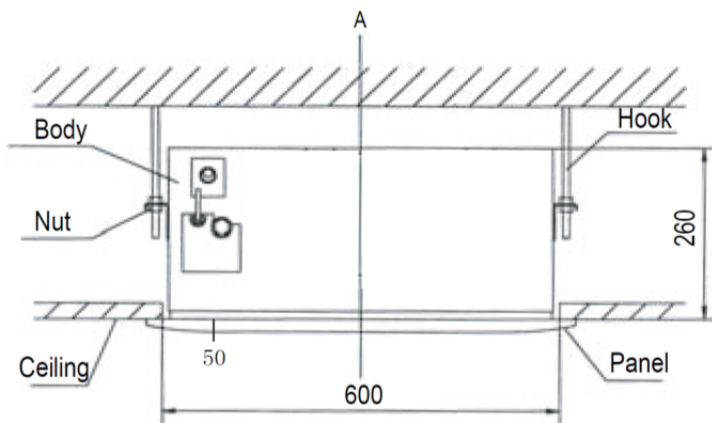
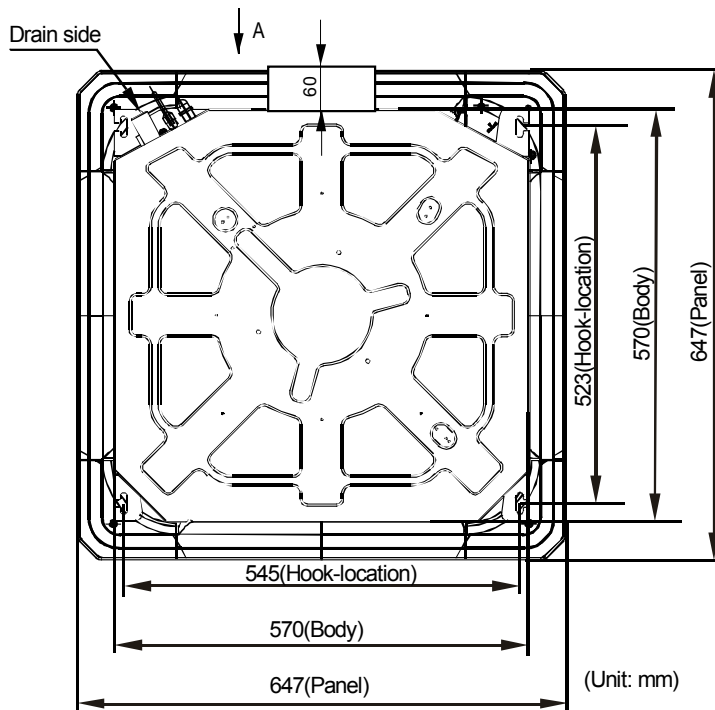
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent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

Model		MVS56A-VA1	
Power supply		V-ph-Hz	220~240-1-50
Cooling	Capacity	kW	5.6
	Input	W	62
	Rated current	A	0.25
Heating	Capacity	kW	6.1
	Input	W	62
	Rated current	A	0.25
Indoor fan motor	Model		YDK15-6P
	Type		AC MOTOR
	Input	W	47.1
	Capacitor	uF	1.5uF/450V
	Speed(hi/mi/lo)	r/min	780/670/540
Indoor coil	Number of rows		2
	Tube pitch(a)x row pitch(b)	Mm	21*13.37
	Fin spacing	Mm	1.3
	Fin type (code)		Hydrophilic aluminium
	Tube outside dia. and type	Mm	Φ7 Inner groove tube
	Coil length x height x width	Mm	1310*210*26.74
	Number of circuits		4
Indoor air flow (Hi/Me/Lo)		m3/h	610/521/409
Sound level (sound pressure)		dB(A)	41.5/35.6/28.8
Indoor unit	Dimension (W x H x D)	Mm	630*265*575
	Packing (W x H x D)	Mm	675*285*675
	Net/Gross weight	Kg	19/23.5
Panel	Model		T-MBQ-03D1
	Dimension (W x H x D)	Mm	647*50*647
	Packing (W x H x D)	Mm	705*113*705
	Net/Gross weight	Kg	3/5
Refrigerant	Type		R410a
Throttle			Electric expansive valve
Design pressure		MPa	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	Mm	9.5/15.9
Connection wiring	Power wiring	mm2	3*2.0
	Signal wiring	mm2	3*0.75 (3-core shielded wire)
Drainage water pipe dia.		Mm	ID Φ20 ODΦ25
Wireless remote controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)
Operation temp		℃	17~32

Notes:

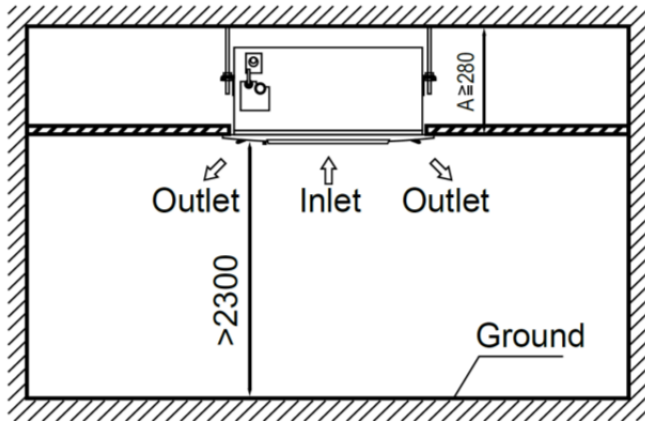
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent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

3. Dimensions

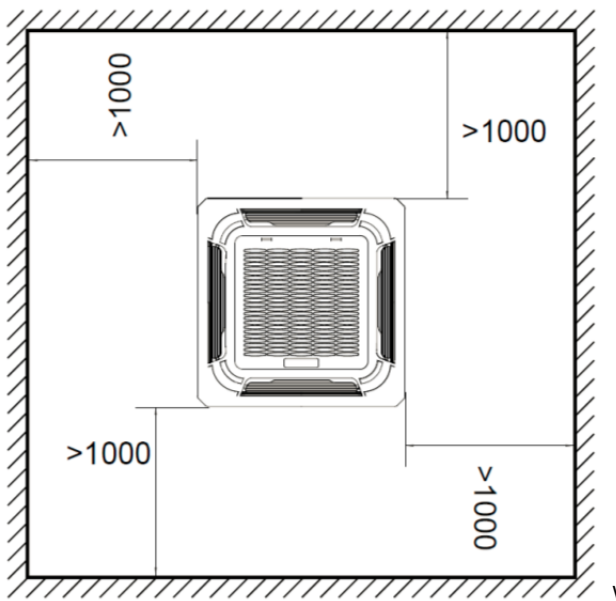


4. Service Space

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

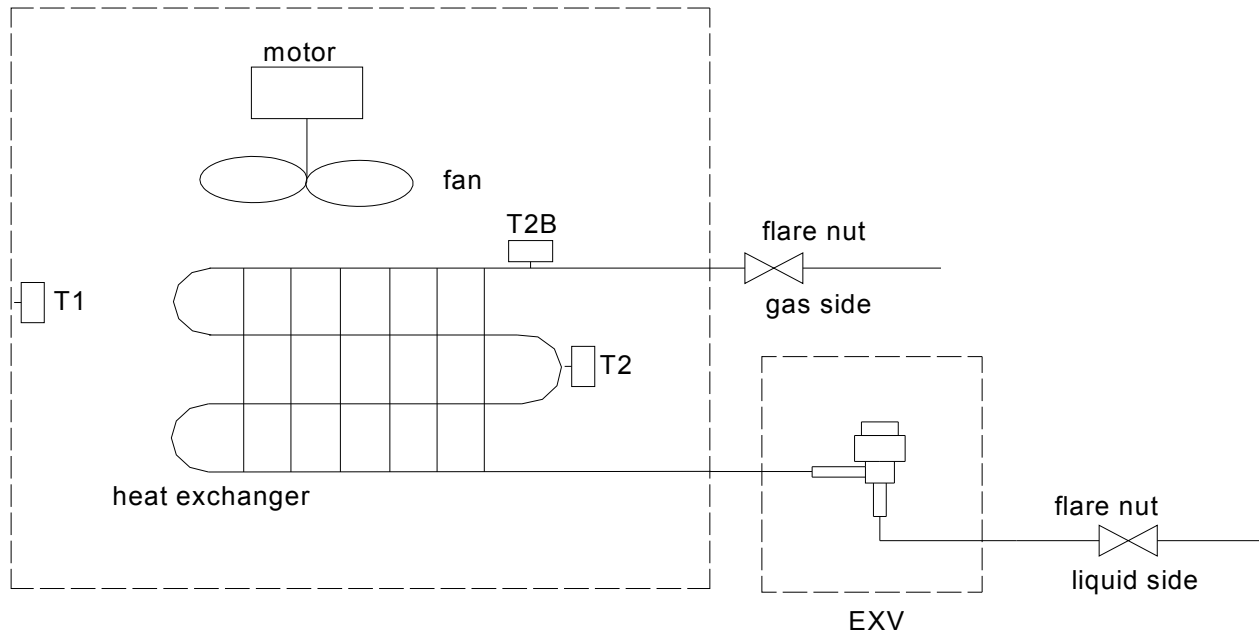


- Keep more than 2.3m distance between the panel and ground of the room.



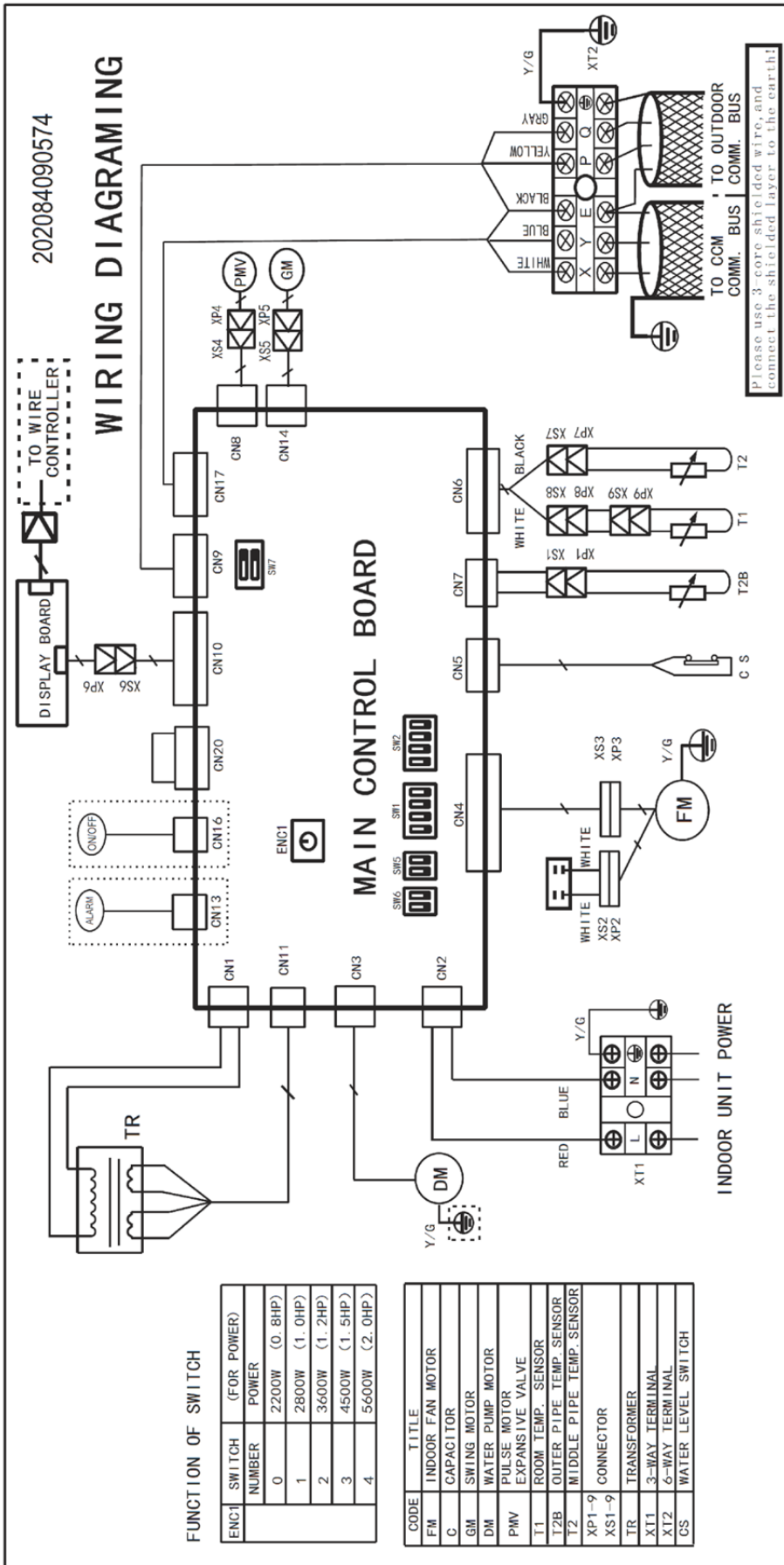
- Keep at least 1m to the wall of each side.

5. Piping Diagram (EXV beside)



6. Wiring Diagram

MVS22A-VA1, MVS28A-VA1, MVS36A-VA1, MVS45A-VA1, MVS56A-VA1



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

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

7.2 Heating

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

Indoor Unit size (kW)	Outdoor temperature (□)		Indoor temperature (□ DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC	TC	TC	TC	TC	TC
2.2	-20	-19.8	1.34	1.34	1.34	1.34	1.34	1.34
	-19	-18.8	1.44	1.44	1.44	1.44	1.44	1.44
	-17	-16.7	1.51	1.51	1.51	1.51	1.51	1.51
	-15	-14.7	1.56	1.56	1.56	1.56	1.56	1.56
	-13.00	-12.60	1.66	1.66	1.66	1.66	1.66	1.66
	-11.00	-10.50	1.68	1.70	1.70	1.70	1.70	1.70
	-10.00	-9.50	1.75	1.75	1.75	1.75	1.75	1.75
	-9.10	-8.50	1.80	1.80	1.80	1.80	1.80	1.80
	-7.60	-7.00	1.82	1.82	1.82	1.82	1.82	1.82
	-5.60	-5.00	1.90	1.90	1.90	1.90	1.90	1.90
	-3.70	-3.00	1.99	1.99	1.99	1.99	1.99	1.99
	-0.70	0.00	2.14	2.14	2.14	2.14	2.14	2.02
	2.20	3.00	2.26	2.26	2.26	2.26	2.21	2.02
	4.10	5.00	2.33	2.33	2.33	2.33	2.21	2.02
	6.00	7.00	2.40	2.40	2.40	2.33	2.21	2.02
7.90	9.00	2.47	2.47	2.40	2.33	2.21	2.02	
9.80	11.00	2.54	2.54	2.40	2.33	2.21	2.02	

	11.80	13.00	2.64	2.59	2.40	2.33	2.21	2.02
	13.70	15.00	2.71	2.59	2.40	2.33	2.21	2.02
2.8	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	2.02	2.02	2.02	2.02	2.02	2.02
	-13.00	-12.60	2.14	2.14	2.14	2.14	2.14	2.14
	-11.00	-10.50	2.24	2.24	2.24	2.24	2.24	2.24
	-10.00	-9.50	2.34	2.34	2.34	2.34	2.34	2.34
	-9.10	-8.50	2.40	2.40	2.40	2.40	2.40	2.40
	-7.60	-7.00	2.43	2.43	2.43	2.43	2.43	2.43
	-5.60	-5.00	2.53	2.53	2.53	2.53	2.53	2.53
	-3.70	-3.00	2.66	2.66	2.66	2.66	2.66	2.66
	-0.70	0.00	2.85	2.85	2.85	2.85	2.85	2.69
	2.20	3.00	3.01	3.01	3.01	3.01	2.94	2.69
	4.10	5.00	3.10	3.10	3.10	3.10	2.94	2.69
	6.00	7.00	3.20	3.20	3.20	3.10	2.94	2.69
	7.90	9.00	3.30	3.30	3.20	3.10	2.94	2.69
9.80	11.00	3.39	3.39	3.20	3.10	2.94	2.69	
11.80	13.00	3.52	3.46	3.20	3.10	2.94	2.69	
13.70	15.00	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	2.60	2.60	2.60	2.60	2.60	2.60
	-13.00	-12.60	2.68	2.68	2.68	2.68	2.68	2.68
	-11.00	-10.50	2.80	2.80	2.80	2.80	2.80	2.80
	-10.00	-9.50	2.92	2.92	2.92	2.92	2.92	2.92
	-9.10	-8.50	3.00	3.00	3.00	3.00	3.00	3.00
	-7.60	-7.00	3.04	3.04	3.04	3.04	3.04	3.04
	-5.60	-5.00	3.16	3.16	3.16	3.16	3.16	3.16
	-3.70	-3.00	3.32	3.32	3.32	3.32	3.32	3.32
	-0.70	0.00	3.56	3.56	3.56	3.56	3.56	3.36
	2.20	3.00	3.76	3.76	3.76	3.76	3.68	3.36
	4.10	5.00	3.88	3.88	3.88	3.88	3.68	3.36
	6.00	7.00	4.00	4.00	4.00	3.88	3.68	3.36
	7.90	9.00	4.12	4.12	4.00	3.88	3.68	3.36
9.80	11.00	4.24	4.24	4.00	3.88	3.68	3.36	
11.80	13.00	4.40	4.32	4.00	3.88	3.68	3.36	
13.70	15.00	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-10.00	-9.50	3.65	3.65	3.65	3.65	3.65	3.65
	-9.10	-8.50	3.75	3.75	3.75	3.75	3.75	3.75
	-7.60	-7.00	3.80	3.80	3.80	3.80	3.80	3.80
	-5.60	-5.00	3.95	3.95	3.95	3.95	3.95	3.95
	-3.70	-3.00	4.15	4.15	4.15	4.15	4.15	4.15
	-0.70	0.00	4.45	4.45	4.45	4.45	4.45	4.20
	2.20	3.00	4.70	4.70	4.70	4.70	4.60	4.20
	4.10	5.00	4.85	4.85	4.85	4.85	4.60	4.20
	6.00	7.00	5.00	5.00	5.00	4.85	4.60	4.20
	7.90	9.00	5.15	5.15	5.00	4.85	4.60	4.20
9.80	11.00	5.30	5.30	5.00	4.85	4.60	4.20	
11.80	13.00	5.50	5.40	5.00	4.85	4.60	4.20	
13.70	15.00	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41

	-10.00	-9.50	4.60	4.60	4.60	4.60	4.60	4.60
	-9.10	-8.50	4.73	4.73	4.73	4.73	4.73	4.73
	-7.60	-7.00	4.79	4.79	4.79	4.79	4.79	4.79
	-5.60	-5.00	4.98	4.98	4.98	4.98	4.98	4.98
	-3.70	-3.00	5.23	5.23	5.23	5.23	5.23	5.23
	-0.70	0.00	5.61	5.61	5.61	5.61	5.61	5.29
	2.20	3.00	5.92	5.92	5.92	5.92	5.80	5.29
	4.10	5.00	6.11	6.11	6.11	6.11	5.80	5.29
	6.00	7.00	6.30	6.30	6.30	6.11	5.80	5.29
	7.90	9.00	6.49	6.49	6.30	6.11	5.80	5.29
	9.80	11.00	6.68	6.68	6.30	6.11	5.80	5.29
	11.80	13.00	6.93	6.80	6.30	6.11	5.80	5.29
	13.70	15.00	7.12	6.80	6.30	6.11	5.80	5.29

8. Electric Characteristics

Model	Indoor Unit				Power Supply	IFM	
	Hz	Voltage	Min.	Max.	MFA	kW	FLA
MVS22A-VA1	50	220-240	198	254	15	0.039	0.175
MVS28A-VA1	50	220-240	198	254	15	0.039	0.175
MVS36A-VA1	50	220-240	198	254	15	0.049	0.21
MVS45A-VA1	50	220-240	198	254	15	0.049	0.21
MVS56A-VA1	50	220-240	198	254	15	0.049	0.21

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

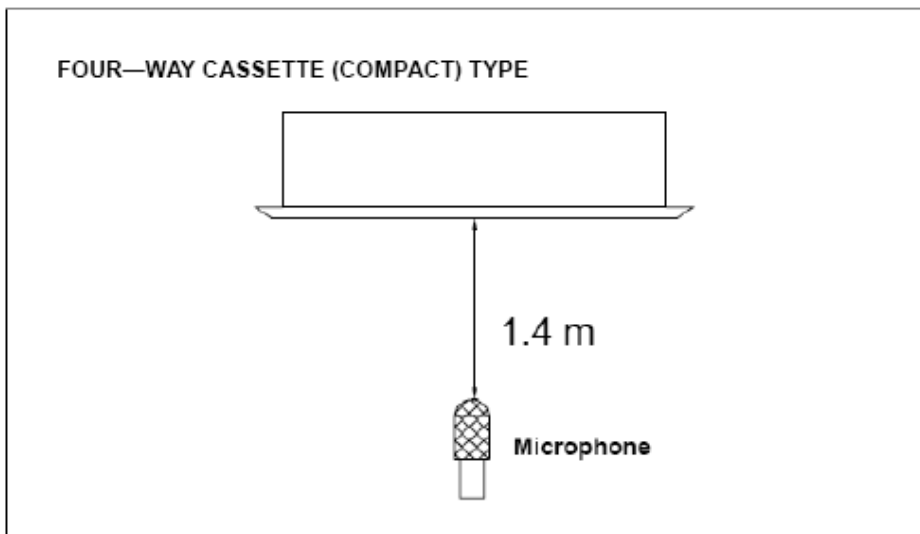
kW: Fan Motor Rated Output (kW)

FLA: Full Load Amps. (A)

IFM: Indoor Fan Motor

9. Sound Levels

9.1 Test condition



Note:

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

9.2 Test value

Model	Noise level dB(A)		
	H	M	L
MVS22A-VA1	38.1	33.4	23.4
MVS28A-VA1	38.1	33.4	23.4
MVS36A-VA1	41.5	35.6	28.8
MVS45A-VA1	41.5	35.6	28.8
MVS56A-VA1	41.5	35.6	28.8

9.3 Octave Band Level

