



# Technical Service Manual

VRF Indoor Unit

60Hz



Series:

Wall Mounted M Series

Wall Mounted S Series

Wall Mounted C Series

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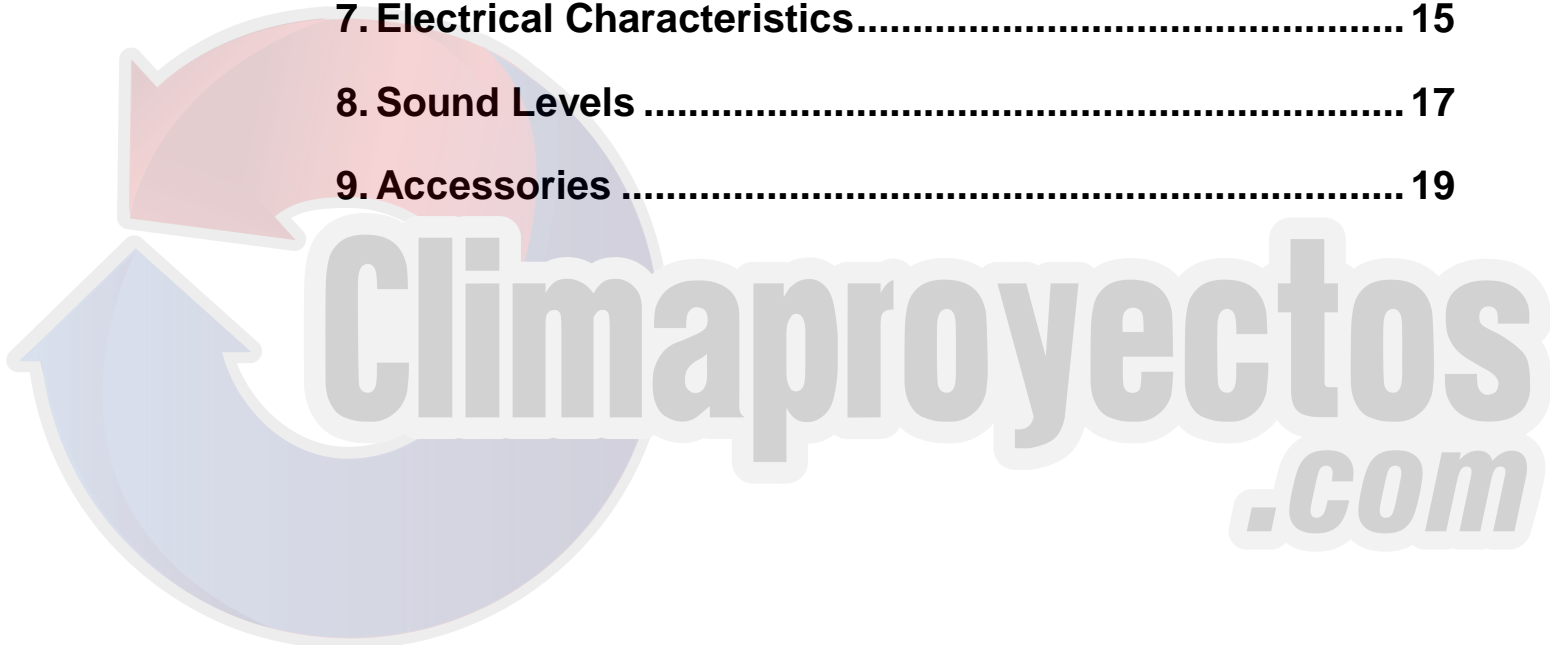
20 Wall Mounted S Series

36 Wall Mounted C Series



# Wall Mounted M Series

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### 1. Features

#### ➤ Various selection

Three styles of panels to choose.

M9 panel (standard)



M3 panel



M10 panel



#### ➤ Flexible installation

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

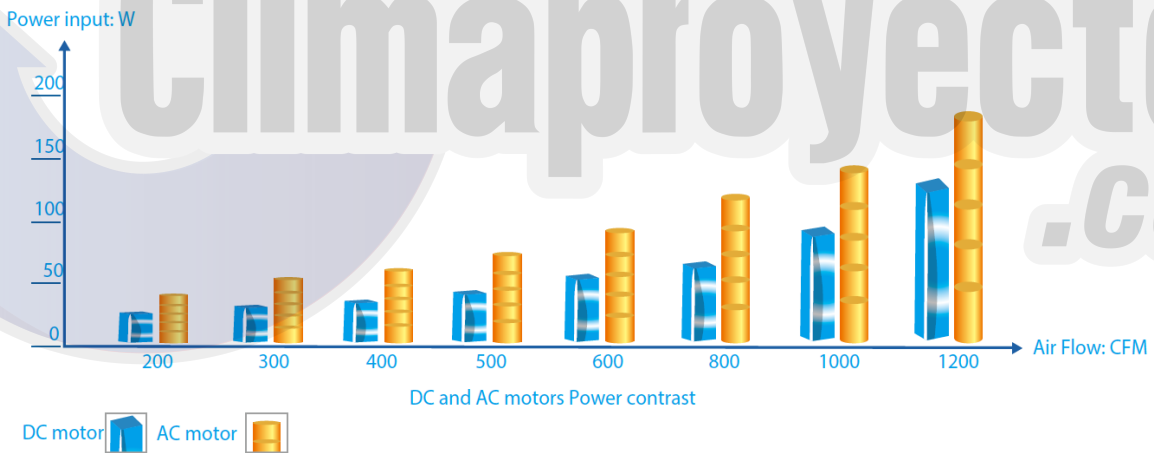
Flexible piping connection

Refrigerant piping and condensate piping on the same side



#### ➤ High efficiency DC fan motor

The power consumption of DC driven VRF indoor units can be reduced up to 30% in comparison to corresponding AC type.



#### ➤ Quiet operation

Adoption of the 2000 stages element positioning mechanical expansion valve, ensures precise flow control, as well as lower modulation noise when EXV operating.

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

## 2. Specifications

Model			MI-22G/DHN1-M	MI-28G/DHN1-M	MI-36G/DHN1-M	MI-45G/DHN1-M
Power supply		V- Ph-Hz	220-240V~60Hz			
Cooling	Capacity	kW	2.2	2.8	3.6	4.5
	Input	W	8	9	19	19
	Rated current	A	0.27	0.31	0.43	0.44
Heating	Capacity	kW	2.4	3.2	4	5
	Input	W	8	9	19	19
	Rated current	A	0.27	0.31	0.43	0.44
Indoor fan motor	Model		WZDK20-38G	WZDK20-38G	ZKSP-58-8-1	ZKSP-58-8-1
	Type		DC motor			
	Input	W	7	8	18	18
Indoor coil	Number of rows		1	2	1	2
	Tube pitch× row pitch	mm	21×13.37			
	Fin spacing	mm	1.3			
	Fin type		Hydrophilic aluminum			
	Piping diameter	mm	Φ7			
	Length× height	mm	585×315	585×315	701×315	701×315
	Number of circuits		2	3	3	5
Indoor air flow (H/M/L)		m <sup>3</sup> /h	422/393/356	417/370/316	656/573/488	594/507/424
Indoor noise level (H/M/L)		dB(A)	31/30/29	31/30/29	33/32/30	35/33/31
Indoor unit	Dimension (W×H×D)		835×280×203	835×280×203	990×315×223	990×315×223
	Packing (W×H×D)		935×385×320	935×385×320	1085×420×335	1085×420×335
	Net/Gross weight		8.4/12.1	9.5/13.1	11.4/15.5	12.8/16.9
Refrigerant type			R410A			
Throttle		Type	Electronic expansion valve			
Design pressure (H/L)		MPa	4.4/2.6			
Liquid pipe/ Gas pipe		mm	Φ6.35/ Φ12.7			
Connecting wiring	Power wiring	mm <sup>2</sup>	3×2.5			
	Signal wiring	mm <sup>2</sup>	3×0.75			
Drainage water pipe diameter		mm	Φ16.5			
Controller			Wireless remote controller			

### Notes:

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

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

**Specifications**

Model		MI-56G/DHN1-M	MI-71G/DHN1-M	MI-80G/DHN1-M	MI-90G/DHN1-M	
Power supply		V- Ph-Hz	220-240V~60Hz			
Cooling	Capacity	kW	5.6	7.1	8	9
	Input	W	27	49	53	82
	Rated current	A	0.58	0.6	0.6	0.78
Heating	Capacity	kW	6.3	8	9	10
	Input	W	27	49	53	80
	Rated current	A	0.58	0.6	0.6	0.78
Indoor fan motor	Model		ZKSP-58-8-1	ZKSP-60-8-3	ZKSP-60-8-3	ZKSP-60-8-3
	Type		DC motor			
	Input	W	25	40	40	65
Indoor coil	Number of rows		2	2	2	2
	Tube pitch× row pitch	mm	21×13.37			
	Fin spacing	mm	1.3			
	Fin type		Hydrophilic aluminum			
	Piping diameter	mm	Φ7			
	Length× height	mm	701×315	825×399	825×399	825×399
	Number of circuits		5			
Indoor air flow (H/M/L)		m <sup>3</sup> /h	747/648/547	1195/1005/809	1195/1005/809	1421/1067/867
Indoor noise level (H/M/L)		dB(A)	38/36/34	44/39/36	44/39/36	48/43/38
Indoor unit	Dimension (W×H×D)	mm	990×315×223	1194×343×262	1194×343×262	1194×343×262
	Packing (W×H×D)	mm	1085×420×335	1290×375×460	1290×375×460	1290×375×460
	Net/Gross weight	kg	12.8/16.9	17/22.4	17/22.4	17/22.4
Refrigerant type		R410A				
Throttle	Type	Electronic expansion valve				
Design pressure (H/L)		MPa	4.4/2.6			
Liquid pipe/ Gas pipe		mm	Φ9.53/ Φ15.9			
Connecting wiring	Power wiring	mm <sup>2</sup>	3×2.5			
	Signal wiring	mm <sup>2</sup>	3×0.75			
Drainage water pipe diameter		mm	Φ16.5			
Controller		Wireless remote controller				

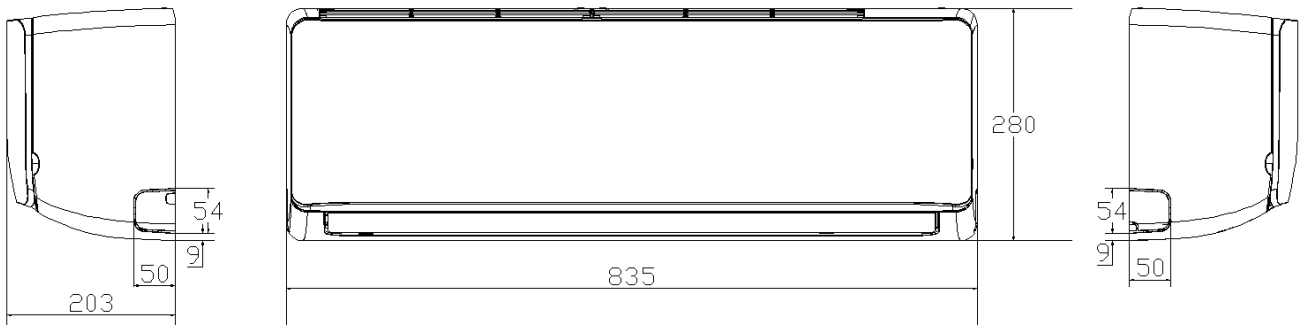
## Notes:

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

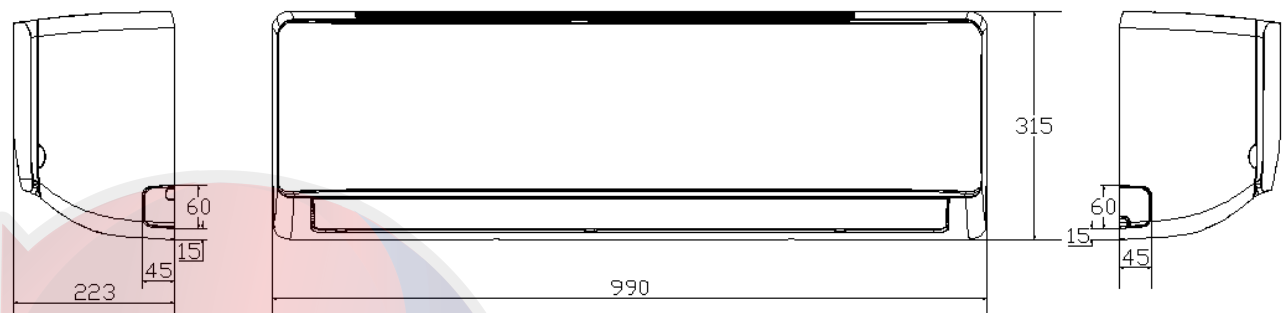
Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB; equivalent ref. piping: 8m (horizontal)

### 3. Dimensions

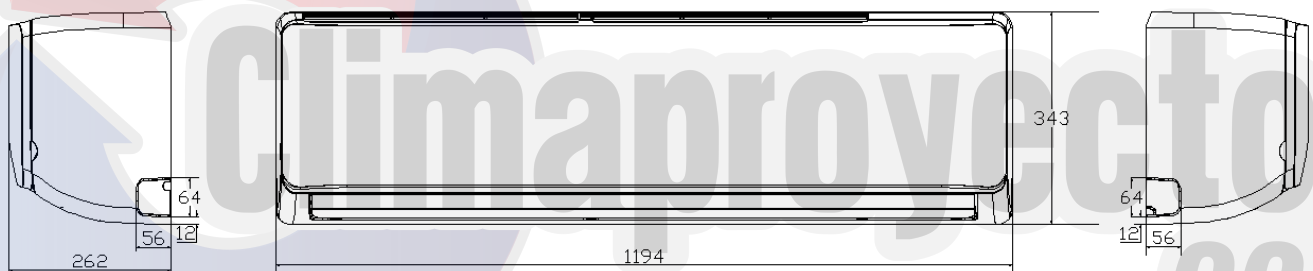
MI-22G/DHN1-M, MI-28G/DHN1-M



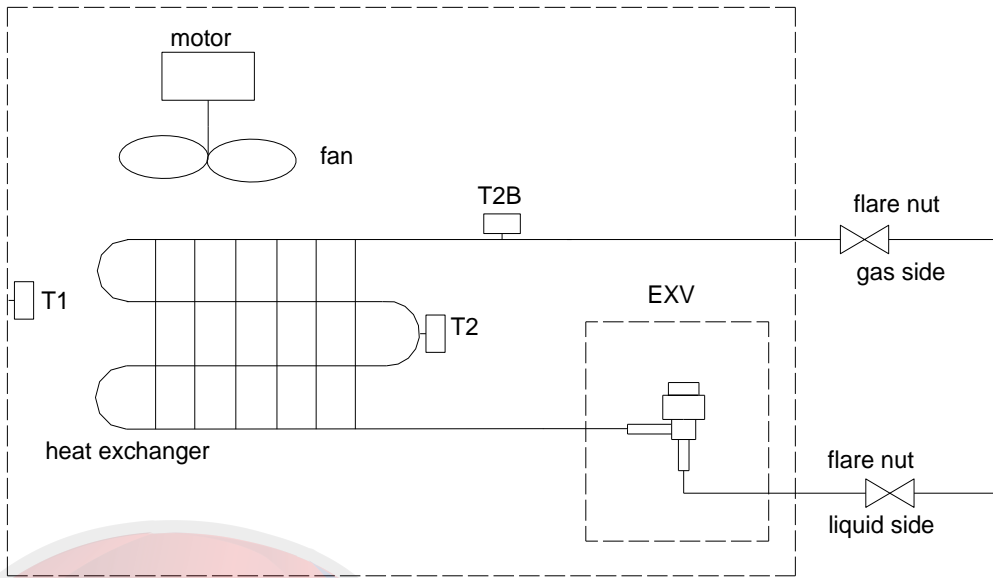
MI-36G/DHN1-M, MI-45G/DHN1-M, MI-56G/DHN1-M



MI-71G/DHN1-M, MI-80G/DHN1-M, MI-90G/DHN1-M



### 4. Piping Diagrams



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

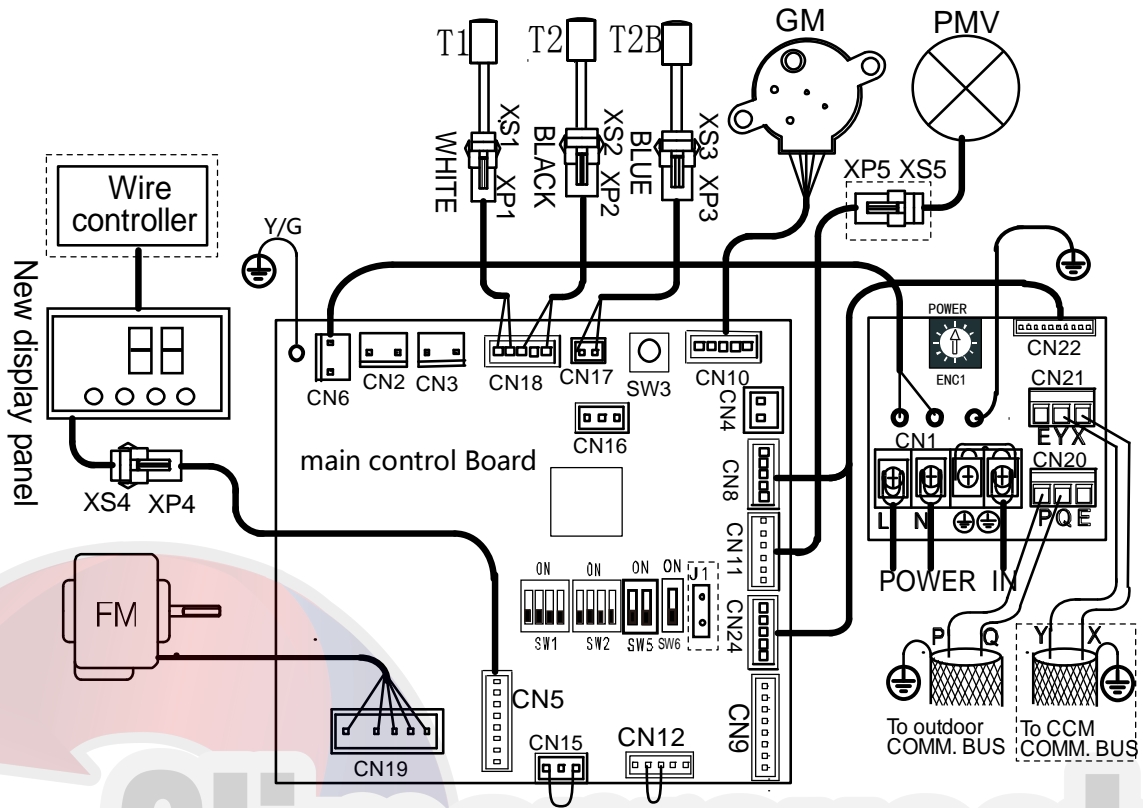
#### Refrigerant pipe connection port diameters

Model	Gas pipe	Liquid pipe
2.2-4.5kW	Φ12.7	Φ6.35
5.6-9.0kW	Φ15.9	Φ9.53

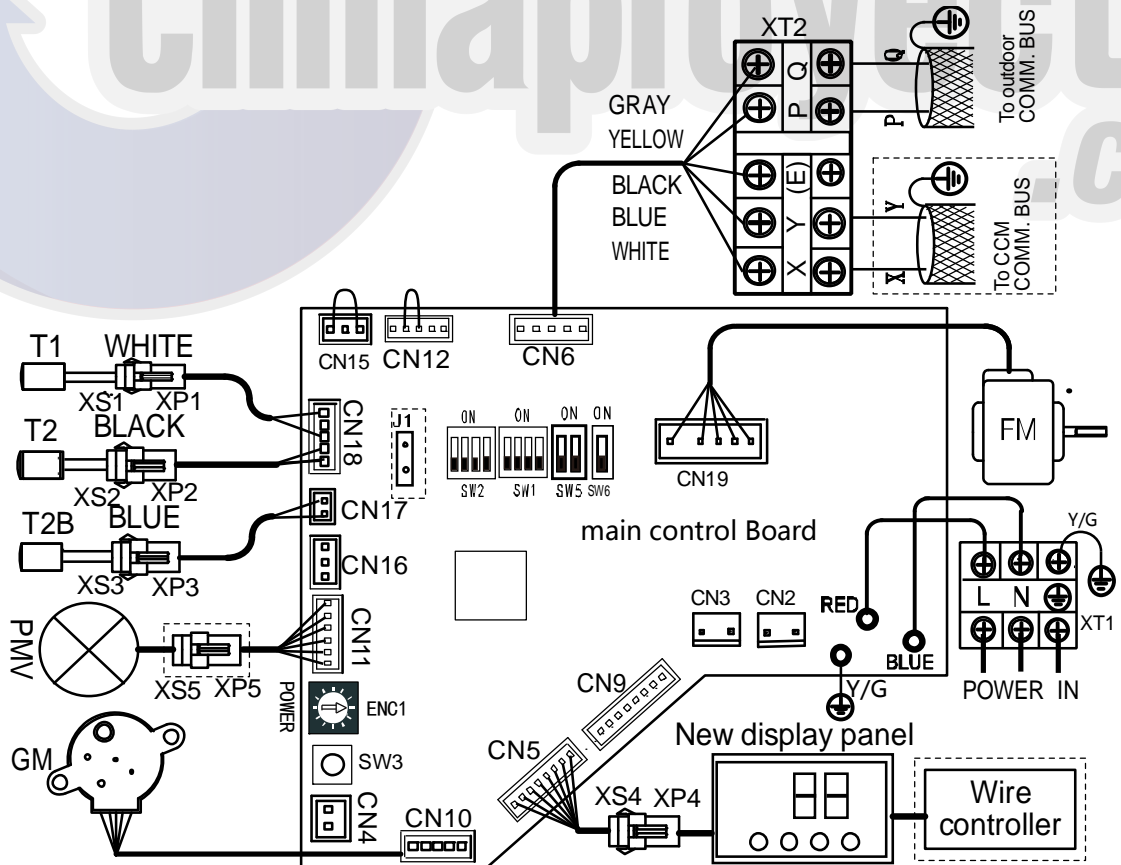


### 5. Wiring Diagrams

MI-22G/DHN1-M, MI-28G/DHN1-M

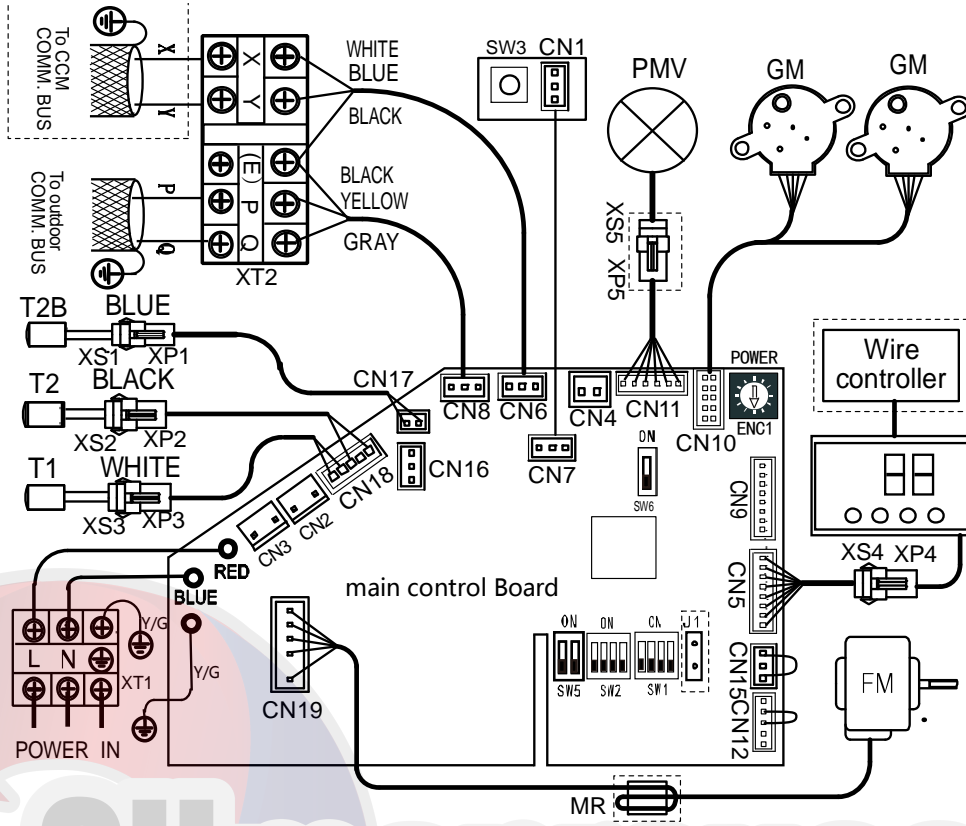


MI-36G/DHN1-M, MI-45G/DHN1-M, MI-56G/DHN1-M



**Wiring diagrams**

MI-71G/DHN1-M, MI-80G/DHN1-M, MI-90G/DHN1-M



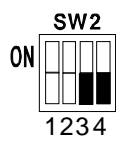
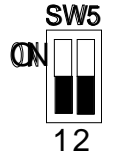

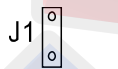

**Code definition**

Code	Name	Code	Name
FM	Fan motor	T2B	Evaporator outlet temperature sensor
GM	Swing motor	CS	Water level switch
PMV	EXV	XP1-5/XS1-5	Connectors
T1	Indoor ambient temperature sensor	XT1/XT2	Terminals
T2	Temperature sensor in the middle of evaporator	MR	Magnetic ring

**Dial switch setting**

ON	Means 0
ON	Means 1
<b>SW1 setting</b>	
ON	0 means auto addressing mode (Default)
	1 means factory test mod
<b>SW2 setting</b>	
ON	00 means when temperature is 15°C or below, fan will stop to prevent cold air(Default)
	01 means when temperature is 20°C or below, fan will stop to prevent cold air
	10 means when temperature is 24°C or below, fan will stop to prevent cold air
	11 means when temperature is 26°C or below, fan will stop to prevent cold air

**Dial switch setting**

<b>SW2 setting</b>	
	00 means in heating mode, the fan which stop for reaching the set temp., will periodically stop for 4 minutes and run for 1 minute (Default)
	01 means in heating mode, the fan which stop for reaching the set temp., will periodically stop for 8 minutes and run for 1 minute
	10 means in heating mode, the fan which stop for reaching the set temp., will periodically stop for 12 minutes and run for 1 minute
	11 means in heating mode, the fan which stop for reaching the set temp., will periodically stop for 16 minutes and run for 1 minute
<b>SW5 setting</b>	
	00 means temperature compensation value is 6°C in heating mode (default)
	01 means temperature compensation value is 2°C in heating mode
	10 means temperature compensation value is 4°C in heating mode
	11 means temperature compensation value is 8°C in heating mode
<b>SW6 setting</b>	
	0 means temperature compensation value is 0°C in cooling mode (default)
	1 means temperature compensation value is 2°C in cooling mode
<b>J1 definition</b>	
	With auto restart function
	Non-auto restart function

## 6. Capacity Tables

### 6.1 Cooling capacity tables

TC: Total Capacity; SC: Sensible Capacity

Indoor Unit size (kW)	Outdoor temperature (°CDB)	Indoor temperature (°CWB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC 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
2.2	10.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.9	1.5
	12.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	14.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	16.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.5
	18.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.8	1.4
	20.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	21.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.6	1.6	2.7	1.4
	23.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.7	1.4
	25.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	27.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.5	1.5	2.6	1.4
	29.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	31.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.5	1.4
	33.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.4	1.4	2.4	1.4
	35.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.4	1.4
	37.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.3	1.6	2.3	1.3	2.3	1.4
	39.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4
42.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
44.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
46.0	1.5	1.3	1.8	1.4	2.1	1.5	2.2	1.5	2.2	1.5	2.3	1.3	2.3	1.4	
2.8	10.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.7	2.0
	12.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	14.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.6	2.0
	16.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	18.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.5	1.9
	20.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	21.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	23.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.3	2.0	3.4	1.9
	25.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	27.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.2	1.9	3.3	1.9
	29.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.8
	31.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.2	1.7
	33.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	3.0	1.9	3.1	1.8	3.1	1.7
	35.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.1	1.7
	37.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.8	3.0	1.7
	39.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7
42.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
44.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
46.0	1.9	1.6	2.3	1.8	2.6	1.9	2.8	1.9	2.9	1.9	3.0	1.9	3.0	1.7	
3.6	10.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	12.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.7	2.5
	14.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.6	2.4
	16.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	18.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.5	2.4
	20.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	21.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.3	2.4	4.4	2.3
	23.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.3	2.2
	25.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.1	2.3	4.2	2.2
	27.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.2	2.2
	29.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.0	2.2	4.1	2.2
	31.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	4.1	2.2
	33.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	35.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.8	2.5	4.2	2.6	3.9	2.1
	37.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.9	2.1
	39.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1
42.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
44.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	
46.0	2.5	1.9	2.9	2.1	3.4	2.3	3.6	2.4	3.7	2.4	3.8	2.3	3.8	2.1	



Indoor Unit size (kW)	Outdoor temperature (°CDB)	Indoor temperature (°CWB/DB)													
		14/20		16/23		18/26		19/27		20/28		22/30		24/32	
		TC 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	10.0	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	



### 6.2 Heating capacity tables

TC: Total Capacity; WB: Wet-bulb temperature; DB: Dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
2.2	-20	-19.8	1.46	1.46	1.46	1.46	1.46	1.46
	-19	-18.8	1.56	1.56	1.56	1.56	1.56	1.56
	-17	-16.7	1.64	1.64	1.64	1.64	1.64	1.64
	-15	-14.7	1.69	1.69	1.69	1.69	1.69	1.69
	-13.00	-12.60	1.79	1.79	1.79	1.79	1.79	1.79
	-11.00	-10.50	1.82	1.85	1.85	1.85	1.85	1.85
	-10.00	-9.50	1.90	1.90	1.90	1.90	1.90	1.90
	-9.10	-8.50	1.95	1.95	1.95	1.95	1.95	1.95
	-7.60	-7.00	1.98	1.98	1.98	1.98	1.98	1.98
	-5.60	-5.00	2.05	2.05	2.05	2.05	2.05	2.05
	-3.70	-3.00	2.16	2.16	2.16	2.16	2.16	2.16
	-0.70	0.00	2.31	2.31	2.31	2.31	2.31	2.18
	2.20	3.00	2.44	2.44	2.44	2.44	2.39	2.18
	4.10	5.00	2.52	2.52	2.52	2.52	2.39	2.18
	6.00	7.00	2.60	2.60	2.60	2.52	2.39	2.18
	7.90	9.00	2.68	2.68	2.60	2.52	2.39	2.18
9.80	11.00	2.76	2.76	2.60	2.52	2.39	2.18	
11.80	13.00	2.86	2.81	2.60	2.52	2.39	2.18	
13.70	15.00	2.94	2.81	2.60	2.52	2.39	2.18	
2.8	-20	-19.8	1.79	1.79	1.79	1.79	1.79	1.79
	-19	-18.8	1.92	1.92	1.92	1.92	1.92	1.92
	-17	-16.7	2.02	2.02	2.02	2.02	2.02	2.02
	-15	-14.7	2.02	2.02	2.02	2.02	2.02	2.02
	-13.00	-12.60	2.14	2.14	2.14	2.14	2.14	2.14
	-11.00	-10.50	2.24	2.24	2.24	2.24	2.24	2.24
	-10.00	-9.50	2.34	2.34	2.34	2.34	2.34	2.34
	-9.10	-8.50	2.40	2.40	2.40	2.40	2.40	2.40
	-7.60	-7.00	2.43	2.43	2.43	2.43	2.43	2.43
	-5.60	-5.00	2.53	2.53	2.53	2.53	2.53	2.53
	-3.70	-3.00	2.66	2.66	2.66	2.66	2.66	2.66
	-0.70	0.00	2.85	2.85	2.85	2.85	2.85	2.69
	2.20	3.00	3.01	3.01	3.01	3.01	2.94	2.69
	4.10	5.00	3.10	3.10	3.10	3.10	2.94	2.69
	6.00	7.00	3.20	3.20	3.20	3.10	2.94	2.69
	7.90	9.00	3.30	3.30	3.20	3.10	2.94	2.69
9.80	11.00	3.39	3.39	3.20	3.10	2.94	2.69	
11.80	13.00	3.52	3.46	3.20	3.10	2.94	2.69	
13.70	15.00	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-20	-19.8	2.24	2.24	2.24	2.24	2.24	2.24
	-19	-18.8	2.40	2.40	2.40	2.40	2.40	2.40
	-17	-16.7	2.52	2.52	2.52	2.52	2.52	2.52
	-15	-14.7	2.60	2.60	2.60	2.60	2.60	2.60
	-13.00	-12.60	2.68	2.68	2.68	2.68	2.68	2.68
	-11.00	-10.50	2.80	2.80	2.80	2.80	2.80	2.80
	-10.00	-9.50	2.92	2.92	2.92	2.92	2.92	2.92
	-9.10	-8.50	3.00	3.00	3.00	3.00	3.00	3.00
	-7.60	-7.00	3.04	3.04	3.04	3.04	3.04	3.04
	-5.60	-5.00	3.16	3.16	3.16	3.16	3.16	3.16
	-3.70	-3.00	3.32	3.32	3.32	3.32	3.32	3.32
	-0.70	0.00	3.56	3.56	3.56	3.56	3.56	3.36
	2.20	3.00	3.76	3.76	3.76	3.76	3.68	3.36
	4.10	5.00	3.88	3.88	3.88	3.88	3.68	3.36
	6.00	7.00	4.00	4.00	4.00	3.88	3.68	3.36
	7.90	9.00	4.12	4.12	4.00	3.88	3.68	3.36
9.80	11.00	4.24	4.24	4.00	3.88	3.68	3.36	
11.80	13.00	4.40	4.32	4.00	3.88	3.68	3.36	
13.70	15.00	4.52	4.32	4.00	3.88	3.68	3.36	

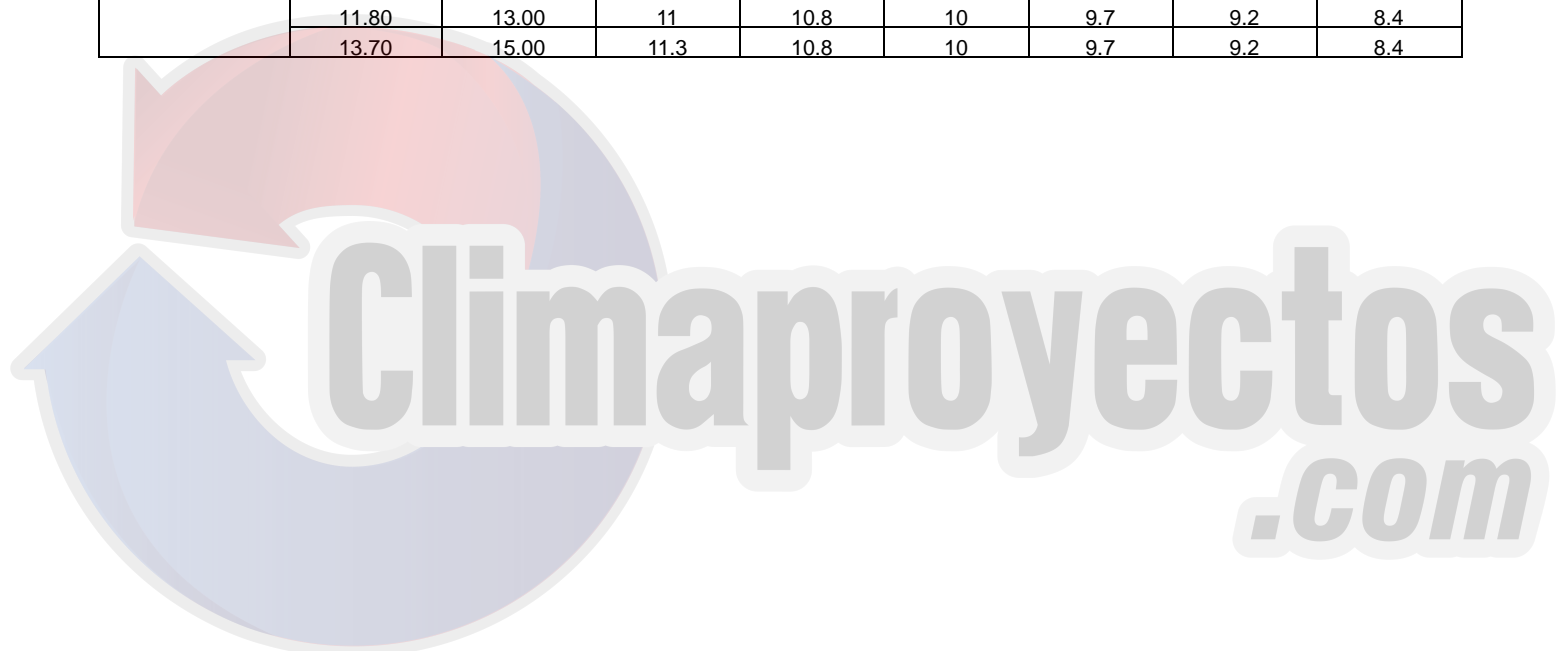
**Heating capacity tables**

**TC: Total Capacity; WB: Wet-bulb temperature; DB: Dry-bulb temperature**

Indoor Unit size (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	kW
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
	-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	4.8	4.8	4.8	4.8	4.8	4.8
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.2	5.2	5.2	5.2	5.2	5.2
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.6	5.6	5.6	5.6	5.6	5.6
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6	6	6	6	6	6
	-7.60	-7.00	6.08	6.08	6.08	6.08	6.08	6.08
	-5.60	-5.00	6.32	6.32	6.32	6.32	6.32	6.32
	-3.70	-3.00	6.64	6.64	6.64	6.64	6.64	6.64
	-0.70	0.00	7.12	7.12	7.12	7.12	7.12	6.72
	2.20	3.00	7.52	7.52	7.52	7.52	7.36	6.72
	4.10	5.00	7.76	7.76	7.76	7.76	7.36	6.72
	6.00	7.00	8	8	8	7.76	7.36	6.72
	7.90	9.00	8.24	8.24	8	7.76	7.36	6.72
	9.80	11.00	8.48	8.48	8	7.76	7.36	6.72
11.80	13.00	8.8	8.64	8	7.76	7.36	6.72	
13.70	15.00	9.04	8.64	8	7.76	7.36	6.72	
8.0	-20	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19	-18.8	5.4	5.4	5.4	5.4	5.4	5.4
	-17	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13.00	-12.60	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.3	6.3	6.3	6.3	6.3	6.3
	-10.00	-9.50	6.57	6.57	6.57	6.57	6.57	6.57
	-9.10	-8.50	6.75	6.75	6.75	6.75	6.75	6.75
	-7.60	-7.00	6.84	6.84	6.84	6.84	6.84	6.84
	-5.60	-5.00	7.11	7.11	7.11	7.11	7.11	7.11
	-3.70	-3.00	7.47	7.47	7.47	7.47	7.47	7.47
	-0.70	0.00	8.01	8.01	8.01	8.01	8.01	7.56
	2.20	3.00	8.46	8.46	8.46	8.46	8.28	7.56
	4.10	5.00	8.73	8.73	8.73	8.73	8.28	7.56
	6.00	7.00	9	9	9	8.73	8.28	7.56
	7.90	9.00	9.27	9.27	9	8.73	8.28	7.56
	9.80	11.00	9.54	9.54	9	8.73	8.28	7.56
11.80	13.00	9.9	9.72	9	8.73	8.28	7.56	
13.70	15.00	10.17	9.72	9	8.73	8.28	7.56	



Indoor Unit size (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
	WB	DB	TC kW	TC kW	TC kW	TC kW	TC kW	TC kW
9.0	-20	-19.8	5.6	5.04	5.6	5.6	5.6	5.6
	-19	-18.8	6	5.4	6	6	6	6
	-17	-16.7	6.3	6.3	6.3	6.3	6.3	6.3
	-15	-14.7	6.5	6.5	6.5	6.5	6.5	6.5
	-13.00	-12.60	6.7	6.7	6.7	6.7	6.7	6.7
	-11.00	-10.50	7	7	7	7	7	7
	-10.00	-9.50	7.3	7.3	7.3	7.3	7.3	7.3
	-9.10	-8.50	7.5	7.5	7.5	7.5	7.5	7.5
	-7.60	-7.00	7.6	7.6	7.6	7.6	7.6	7.6
	-5.60	-5.00	7.9	7.9	7.9	7.9	7.9	7.9
	-3.70	-3.00	8.3	8.3	8.3	8.3	8.3	8.3
	-0.70	0.00	8.9	8.9	8.9	8.9	8.9	8.4
	2.20	3.00	9.4	9.4	9.4	9.4	9.2	8.4
	4.10	5.00	9.7	9.7	9.7	9.7	9.2	8.4
	6.00	7.00	10	10	10	9.7	9.2	8.4
	7.90	9.00	10.3	10.3	10	9.7	9.2	8.4
	9.80	11.00	10.6	10.6	10	9.7	9.2	8.4
11.80	13.00	11	10.8	10	9.7	9.2	8.4	
13.70	15.00	11.3	10.8	10	9.7	9.2	8.4	



## 7. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MI-22G/DHN1-M	50/60	220-240	198	254	0.29	16	0.01	0.23
MI-28G/DHN1-M	50/60	220-240	198	254	0.33	16	0.012	0.26
MI-36G/DHN1-M	50/60	220-240	198	254	0.44	16	0.016	0.35
MI-45G/DHN1-M	50/60	220-240	198	254	0.45	16	0.017	0.36
MI-56G/DHN1-M	50/60	220-240	198	254	0.61	16	0.026	0.49
MI-71G/DHN1-M	50/60	220-240	198	254	0.75	16	0.034	0.6
MI-80G/DHN1-M	50/60	220-240	198	254	0.75	16	0.034	0.6
MI-90G/DHN1-M	50/60	220-240	198	254	0.80	16	0.055	0.64

Remark:

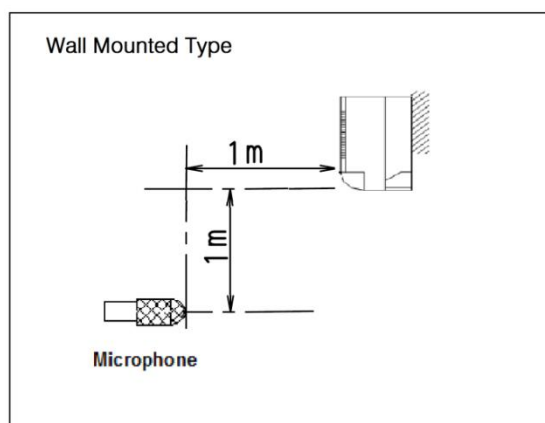
**MCA:** Min. Current Amps. (A); **MFA:** Max. Fuse Amps. (A); **KW:** Fan Motor Rated Output (kW)

**FLA:** Full Load Amps. (A); **IFM:** Indoor Fan Motor



## 8. Sound Levels

### Test condition



Note:

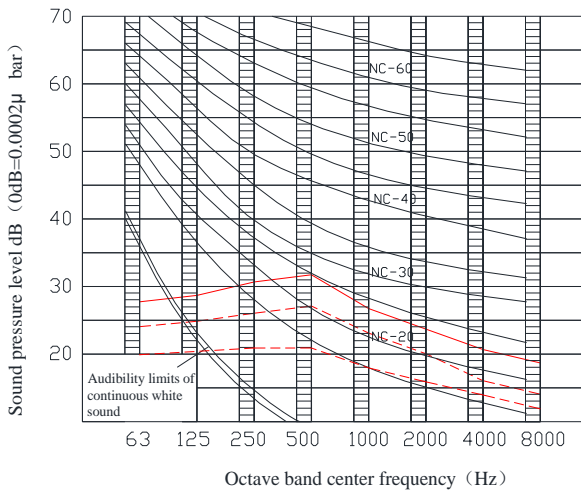
1. Sound values are measured in a semi-anechoic room, at a position 1m below the air outlet both horizontally and vertically.
2. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

### Sound pressure levels

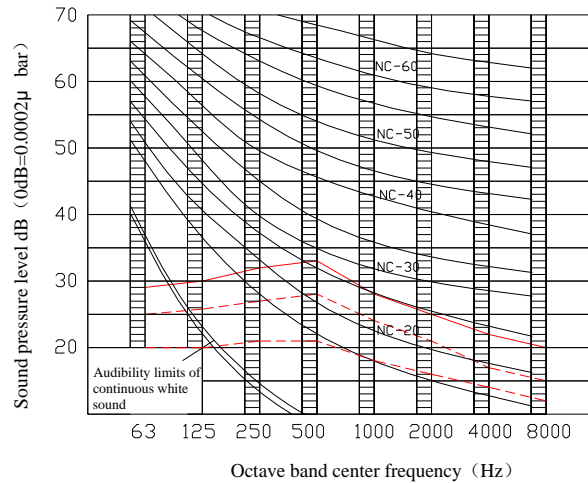
Model	Sound test value dB(A)		
	H	M	L
MI-22G/DHN1-M	31	30	29
MI-28G/DHN1-M	31	30	29
MI-36G/DHN1-M	33	32	30
MI-45G/DHN1-M	35	33	31
MI-56G/DHN1-M	38	36	34
MI-71G/DHN1-M	44	39	36
MI-80G/DHN1-M	44	39	36
MI-90G/DHN1-M	48	43	38

**Octave band level**

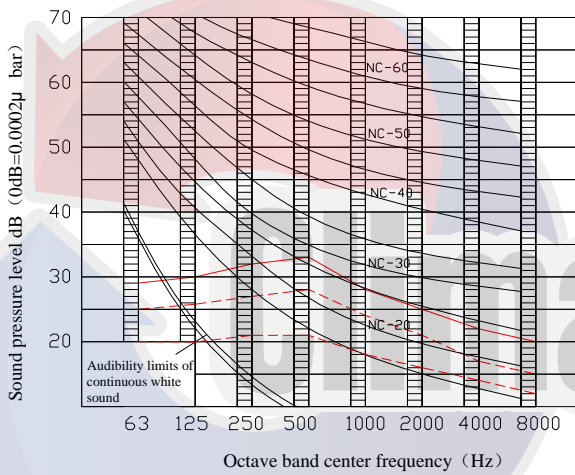
**MI-22G/DHN1-M, MI-28G/DHN1-M**



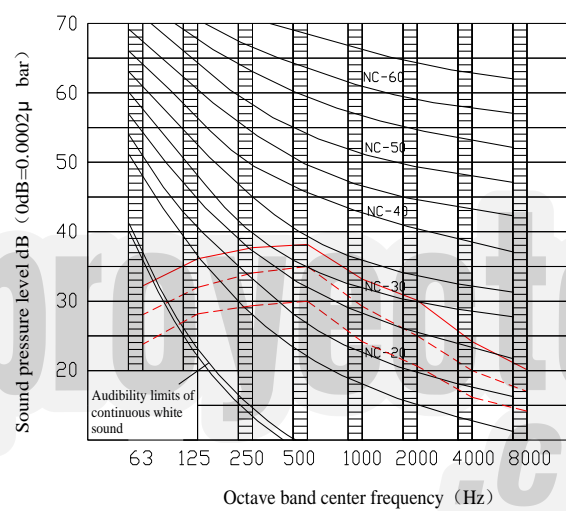
**MI-36G/DHN1-M**



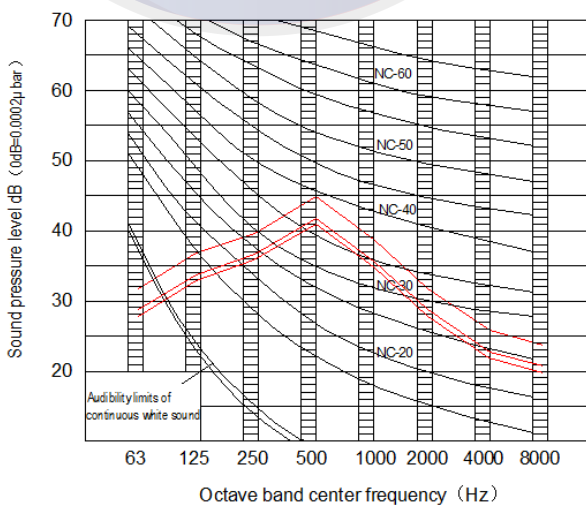
**MI-45G/DHN1-M**



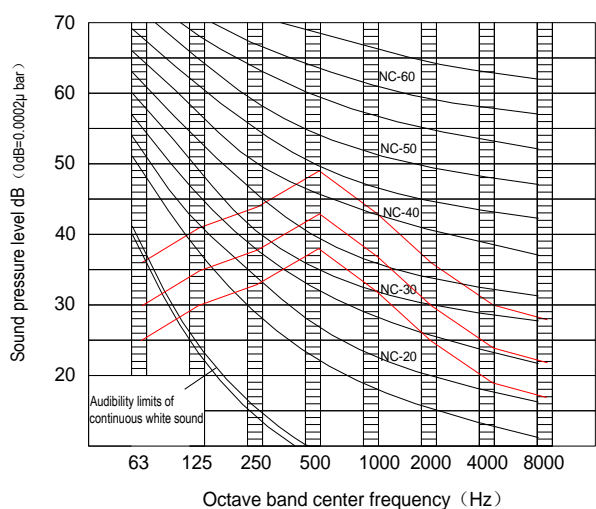
**MI-56G/DHN1-M**














**MI-71G/DHN1-M , MI-80G/DHN1-M**



**MI-90G/DHN1-M**

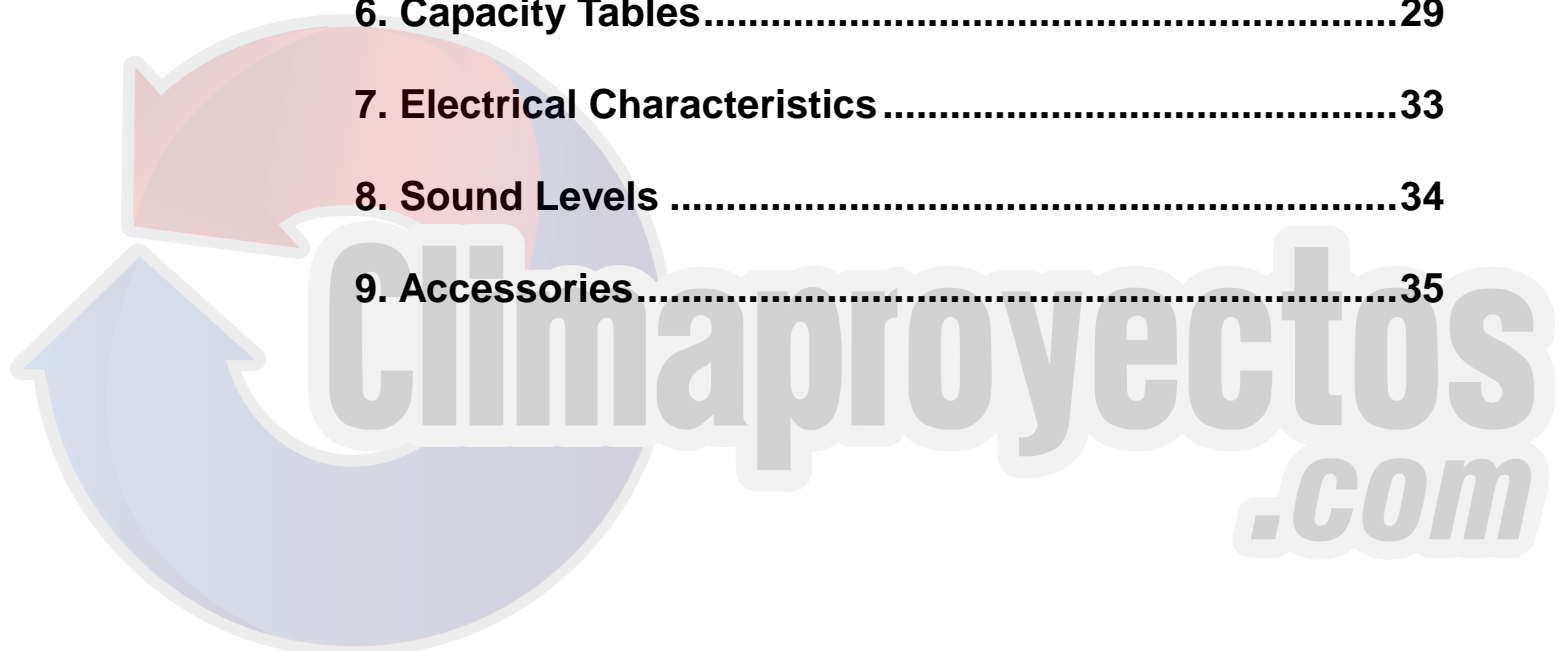


**9. Accessories**

Name	Quantity	Shape	Usage
1. Remote controller manual	1	/	/
2. Screw ST3.9×25 for installation board	8		Secure the installation board
3. Plastic expanded tube	8		
4. Wrapping tape	1		
5. Drain pipe	1		
6. Wall conduit cover	1		
7. Remote controller (including operation manual)	1		
8. Frame	1		Hold the remote controller
9. Mounting screw(ST2.9 10-C-H)	2		Installation Holder for remote controller
10. Alkaline dry batteries (AM4)	2		
11. Installation manual	1		
12. Network matching wire	1		The indoor unit which at the terminal of communication system should connect a impedance between port P and port Q.
13. Copper nut	1		Connect piping

# Wall Mounted S Series

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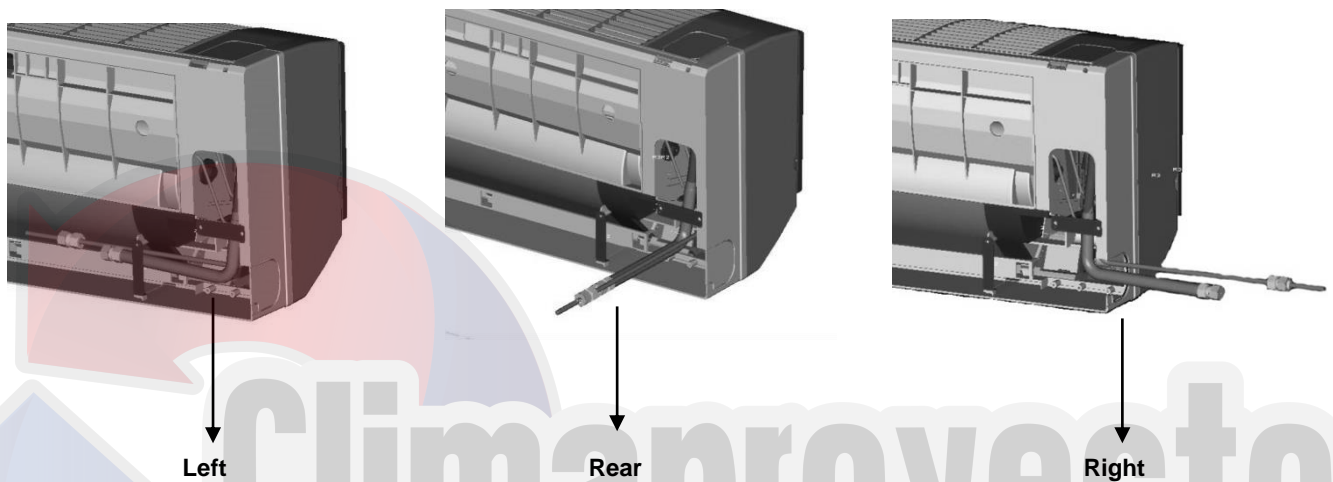
## 1. Features

### 1.1 New panels design, with LED display.



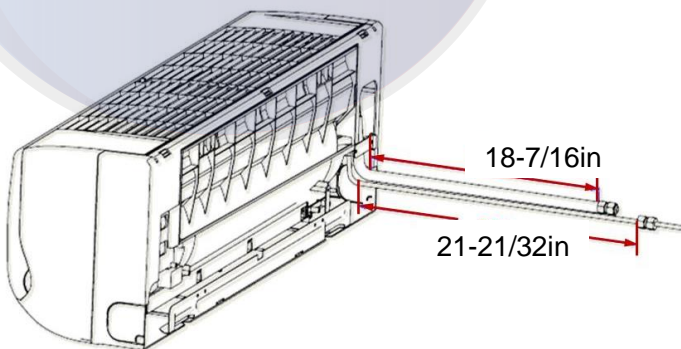
### 1.2 Convenient for installation

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



#### 1.2.2 Longer the connection pipe, Gas pipe: 18-7/16in(468mm) /Liquid pipe: 21-21/32in(550mm), more flexible for the installation

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



2.2~3.6kw



4.5~5.6kw

- 1.2.4 The EXV is built-in the indoor unit, compact size, and convenient for the installation.
- 1.2.5 Reserved socket on main control board for water pump and PCB can be customized if you need water pump function.
- 1.2.6 The front panel can be lifted up to max. 65 degree and maintain, or be removed. Easy access for wiring and service.

**1.3 Auxiliary electrical heating type is available.**

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

**1.5 Low noise, creates quiet and comfortable environment.**

- 1.5.1 Adoption of the Fujikoki brand mechanical expansion valve which has 2000 stages element positioning, ensure precise flow control, as well lower modulation noise when EXV operating.
- 1.5.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable.
- 1.5.3 Louver's air swing angle can be up to 90°

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



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## 2. Specifications

Model			MDV-D22G/N1-S	MDV-D22G/DN1-S	MDV-D28G/N1-S	MDV-D28G/DN1-S
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz			
Cooling	Capacity	kW	2.2	2.2	2.8	2.8
		Btu/h	7500	7500	9600	9600
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Heating	Capacity	kW	2.4	2.4+0.75	3.2	3.2+0.75
		Btu/h	8200	8900+2600	10900	10900+2600
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14+3.38	0.14	0.14+3.38
Electrical heating capacity		kW	-	0.75	-	0.75
Indoor fan motor	Model		YDK15-6B	YDK15-6B	YDK15-6B	YDK15-6B
	Type		AC motor			
	Brand		Welling			
	Input	W	25	25	25	25
	Capacitor	μF	1.2μF/450V	1.2μF/450V	1.2μF/450V	1.2μF/450V
	Speed (h/m/l)	r/min	810/760/700	810/760/700	810/760/700	810/760/700
Indoor coil	Number of rows		2	2	2	2
	Tube pitch x row pitch	in.(mm)	13/16x17/32(21x13.37)		13/16x17/32(21x13.37)	
	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 diameter and type	in.(mm)	1/4(Φ6.35) Inner groove tube			
	Length x height x width	in.(mm)	25x11-5/32x1-1/16(635x283.5x26.74)			
	Number of circuits		3	3	3	3
Indoor air flow (H/M/L)		m <sup>3</sup> /h	525/480/430		525/480/430	
		CFM	309/282.5/253		309/282.5/253	
Indoor noise level (H/M/L)		dB(A)	35/32/29	35/32/29	35/32/29	35/32/29
Indoor unit	Dimension (WxHxD)	in.(mm)	36-1/32 x9-1/16x11-13/32 (915x230x290)		36-1/32 x9-1/16x11-13/32 (915x230x290)	
	Packing (WxHxD)	in.(mm)	40-5/32x12-13/32x15-11/32 (1020x315x390)		40-5/32x12-13/32x15-11/32 (1020x315x390)	
	Net/Gross weight	lbs.(kg)	28.7/37.1(13/16 .8)	29.3/37.7(13.3/ 17.1)	28.7/37.1(13/16. 8)	29.3/37.7(13.3/1 7.1)
Refrigerant type			R410A			
Throttle		Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)			
		Model	EFM-25YGMISZ-6M-A			
Design pressure(H/L)		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ6.35/ Φ12.7)			
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5			
	Signal wiring	mm <sup>2</sup>	3x0.75			
Drainage water pipe diameter		in.(mm)	OD 21/32 (Φ16.5)			
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: 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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model		MDV-D36G/N1-S	MDV-D36G/DN1-S	MDV-D45G/N1-S	MDV-D45G/DN1-S	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz			
Cooling	Capacity	kW	3.6	3.6	4.5	4.5
		Btu/h	12300	12300	15400	15400
	Input	W	28	28	51	51
	Rated current	A	0.14	0.14	0.2	0.2
Heating	Capacity	kW	4	4+0.75	5	5+0.9
		Btu/h	13600	13600+2600	17100	17100+3100
	Input	W	28	28	51	51
	Rated current	A	0.14	0.14+0.38	0.2	0.2+4.05
Electrical heating capacity		kW	-	0.75	-	0.9
Indoor fan motor	Model		YDK15-6B	YDK15-6B	YDK18-4	YDK18-4
	Type		AC motor			
	Brand		Welling			
	Input	W	25	25	44	44
	Capacitor	μF	1.2μF/450V	1.2μF/450V	1.2μF/450V	1.2μF/450V
	Speed (h/m/l)	r/min	810/760/700	810/760/700	980/880/760	980/880/760
Indoor coil	Number of rows		2	2	2	2
	Tube pitch x row pitch	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		Hydrophilic aluminum			
	Tube outside diameter and type	in.(mm)	1/4(Φ6.35) Inner groove tube			
	Length x height x width	in.(mm)	25x11-5/32x1-1/16 (635x283.5x26.74)		30-29/32x14-1/16x1-1/16 (785x357x26.74)	
	Number of circuits		3	3	6	6
Indoor air flow (H/M/L)		m <sup>3</sup> /h	590/520/480		860/755/630	
		CFM	347/306/282.5		506/444/370.8	
Indoor noise level (H/M/L)		dB(A)	35/32/29	35/32/29	40/38/34	40/38/34
Indoor unit	Dimension (WxHxD)	in.(mm)	36-1/32 x9-1/16x11-13/32 (915x230x290)		42-7/32 x9-1/16x12-13/32 (1072x230x315)	
	Packing (WxHxD)	in.(mm)	40-5/32 x12-13/32x15-11/32 (1020x315x390)		46-15/32x12-13/32x16-11/32 (1180x315x415)	
	Net/Gross weight	lbs.(kg)	28.7/37.1(13/16.8)	29.3/37.7(13.3/17.1)	33.4/41.5(15.1/19.5)	34.2/43.9(15.5/19.9)
Refrigerant type		R410A				
Throttle	Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)				
	Model	EFM-25YGMISZ-6M-A				
Design pressure(H/L)		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ6.35/ Φ12.7)			
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5			
	Signal wiring	mm <sup>2</sup>	3x0.75			
Drainage water pipe diameter		in.(mm)	OD 21/32(Φ16.5)			
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: 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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model			MDV-D56G/N1-S	MDV-D56G/DN1-S
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz	
Cooling	Capacity	kW	5.6	5.6
		Btu/h	19100	19100
	Input	W	51	51
	Rated current	A	0.2	0.2
Heating	Capacity	kW	6.3	6.3+0.9
		Btu/h	21500	21500+3100
	Input	W	51	51
	Rated current	A	0.2	0.2+4.05
Electrical heating capacity		kW	-	0.9
Indoor fan motor	Model		YDK18-4	YDK18-4
	Type		AC motor	
	Brand		Welling	
	Input	W	44	44
	Capacitor	μF	1.2μF/450V	1.2μF/450V
	Speed (h/m/l)	r/min	980/880/760	980/880/760
Indoor coil	Number of rows		2	2
	Tube pitch x row pitch	in.(mm)	13/16x17/32(21x13.37)	
	Fin spacing	in.(mm)	1/16(1.5)	1/16(1.5)
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	in.(mm)	1/4(Φ6.35) Inner groove tube	
	Length x height x width	in.(mm)	30-29/32x14-1/16x1-1/16 (785x357x26.74)	
	Number of circuits		6	6
Indoor air flow (H/M/L)		m <sup>3</sup> /h	925/860/755	925/860/755
		CFM	544/506/444	544/506/444
Indoor noise level (H/M/L)		dB(A)	40/38/34	40/38/34
Indoor unit	Dimension (W×H×D)	in.(mm)	42-7/32x9-1/16x12-13/32(1072x230x315)	
	Packing (W×H×D)	in.(mm)	46-15/32x12-13/32x16-11/32 (1180x315x415)	
	Net/Gross weight	lbs.(kg)	33.4/43(15.1/19.5)	34.2/43.9(15.5/19.9)
Refrigerant type			R410A	
Throttle		Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)	
		Model	EFM-25YGMISZ-6M-A	
Design pressure(H/L)		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ9.53/Φ15.9)	
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5	
	Signal wiring	mm <sup>2</sup>	3x0.75	
Drainage water pipe diameter		in.(mm)	OD 21/32(Φ16.5)	
Controller			Wireless remote controller	

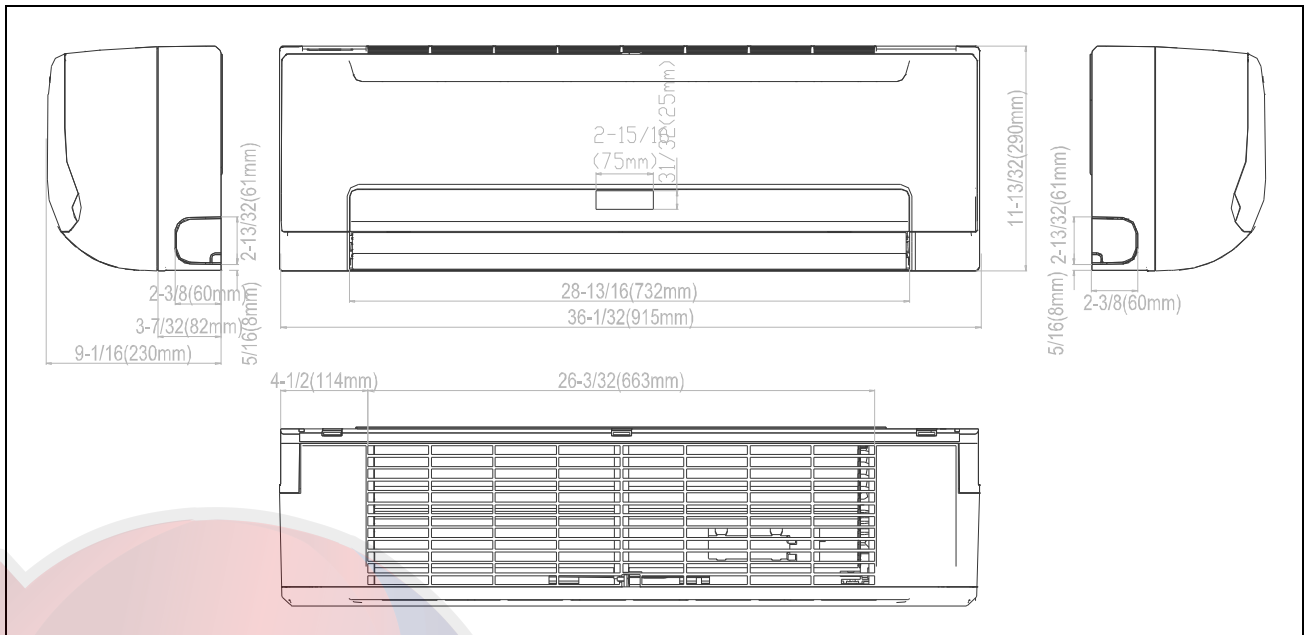
**Notes:** 1. Nominal cooling capacities are based on the following conditions: return air temperature: 80.6°F(27°C)DB, 66.2°F(19°C)WB, outdoor temperature:95°F(35°C)DB, equivalent ref. Piping: 26.25ft(8m)(horizontal)

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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

### 3. Dimensions

#### Outline dimension and air outlet opening size

MDV-D22G/N1-S MDV-D28G/N1-S MDV-D36G/N1-S  
 MDV-D22G/DN1-S MDV-D28G/DN1-S MDV-D36G/DN1-S



#### Main dimension:

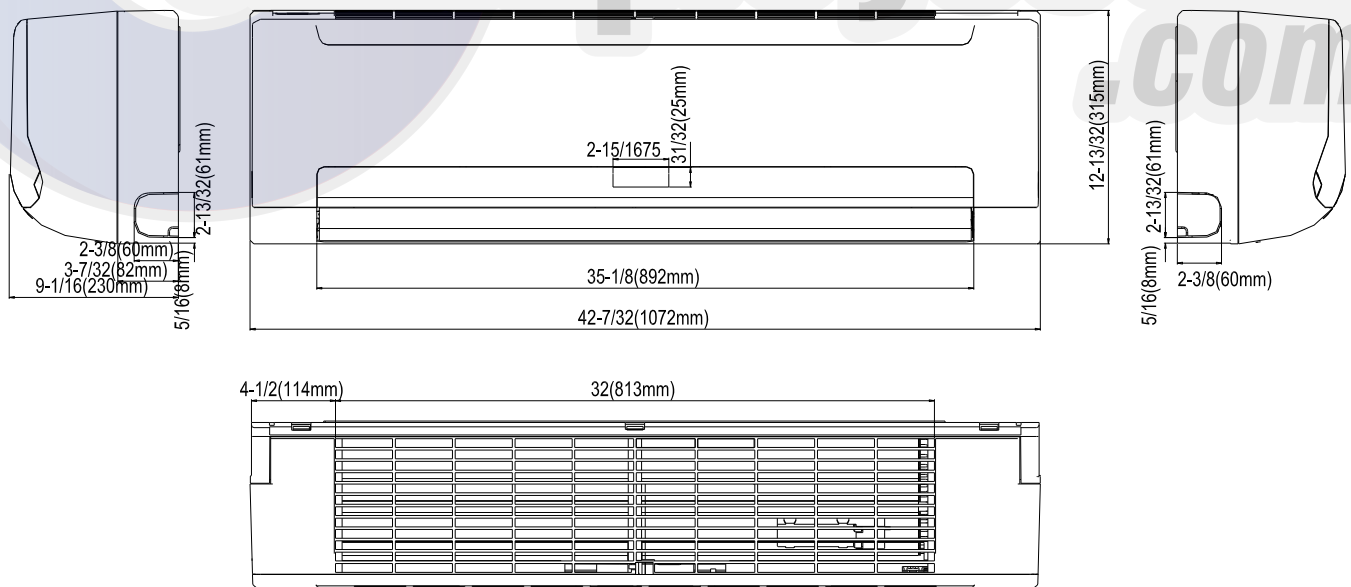
Outer Length: 36-1/32in(915mm), Height: 11-13/32in(290mm), Depth: 9-1/16in(230mm)

Filter length: 26-3/32in(663mm)

Gas tube:  $\Phi 1/2"$  ( $\Phi 12.7\text{mm}$ ), (length: Approx. 468mm, 18-7/16in)

Liquid tube:  $\Phi 1/4"$  ( $\Phi 6.35\text{mm}$ ) (length: Approx. 550mm, 21-21/32in)

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



Outer Length: 42-7/32in(1072mm), Height: 12-13/32in(315mm), Depth: 9-1/16in(230mm)

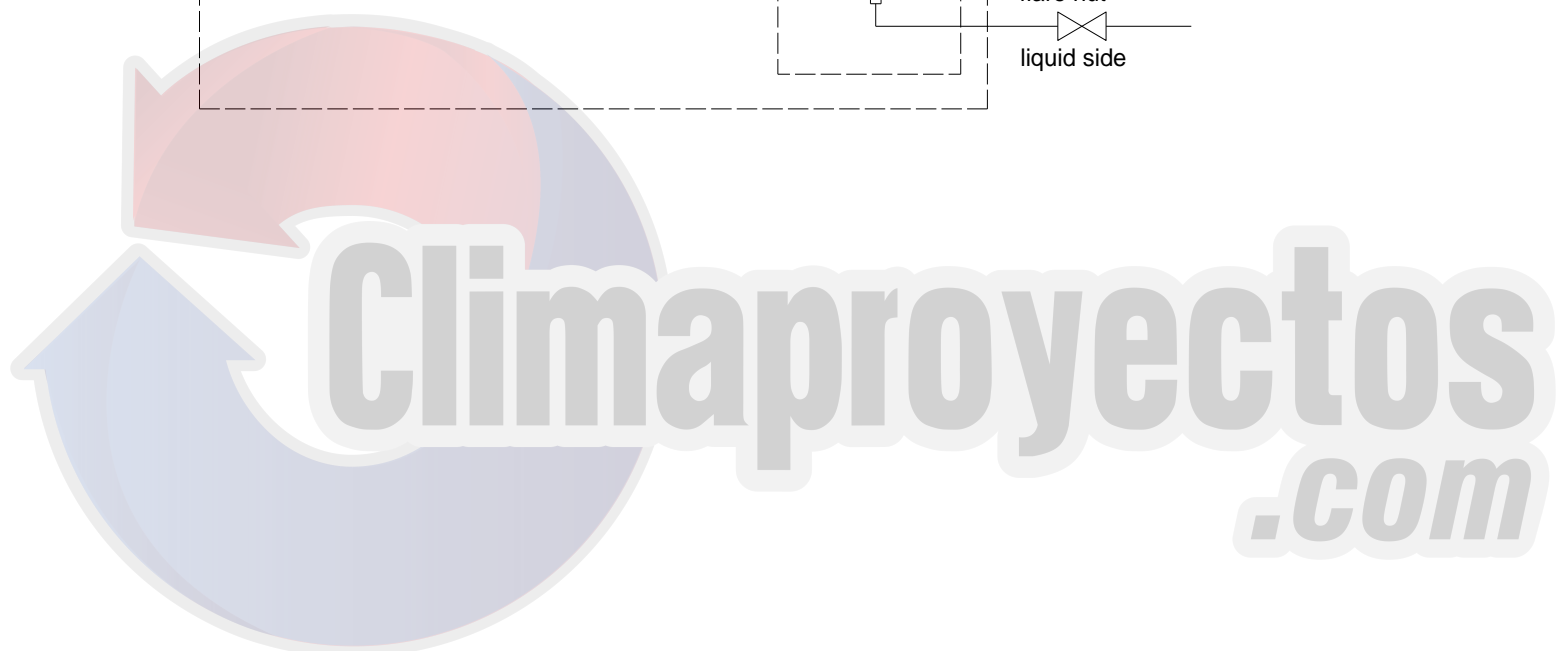
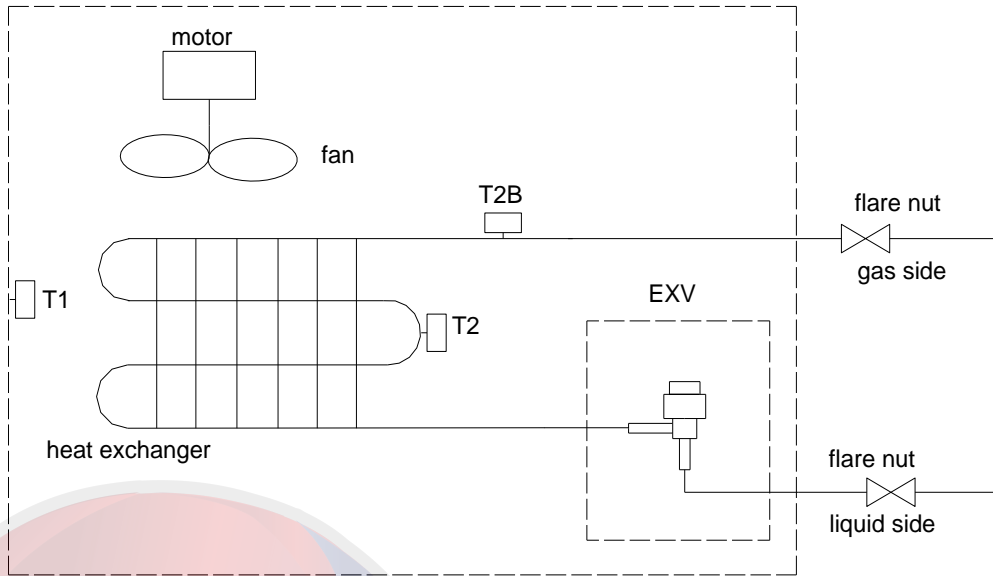
Filter length: 32in(813mm)

Gas tube:  $\Phi 1/2"$  ( $\Phi 12.7\text{mm}$ ), (length: Approx. 468mm, 18-7/16in)

Liquid tube:  $\Phi 3/8"$  ( $\Phi 9.53$ ) (length: Approx. 550mm, 21-21/32in)

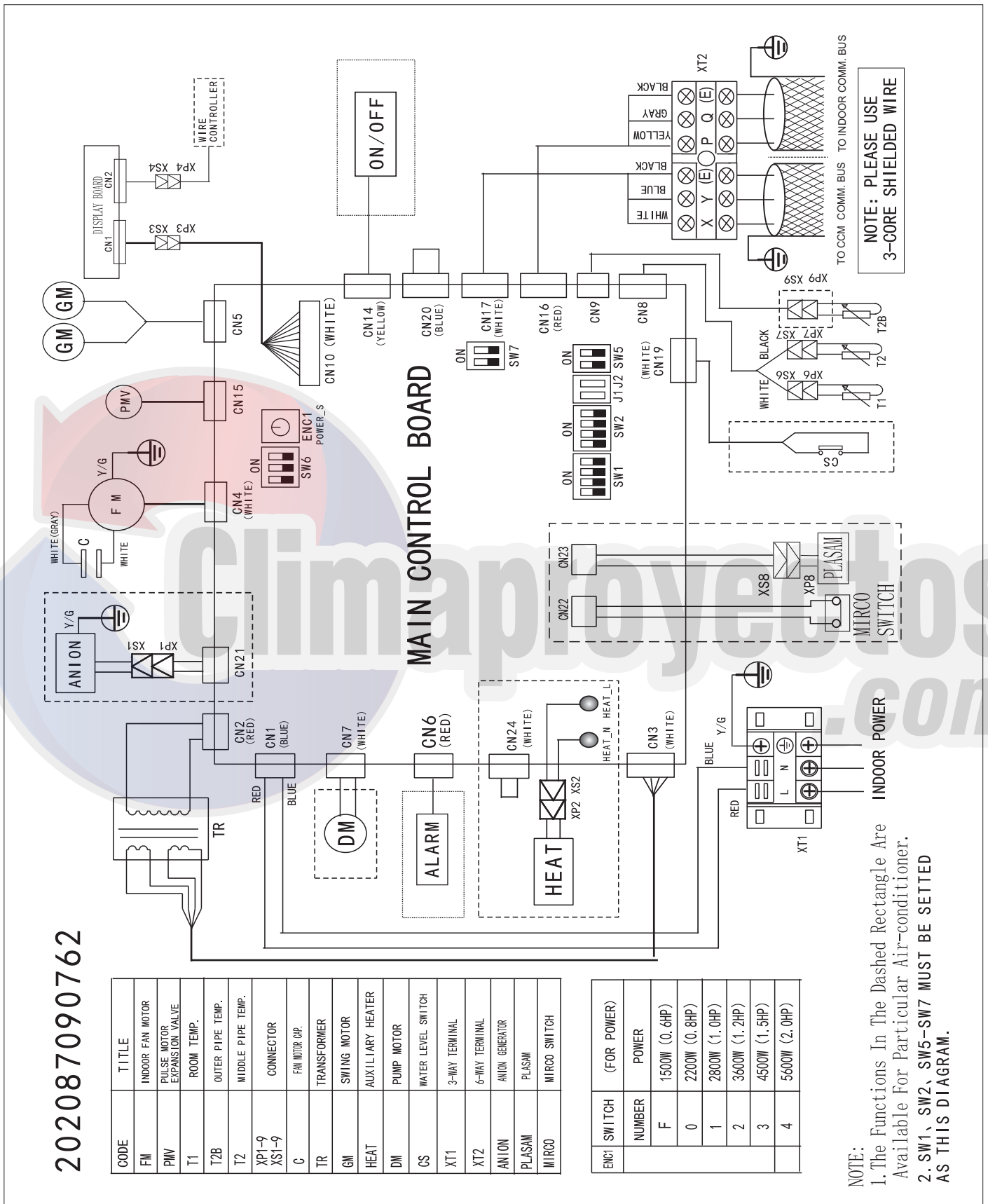
### 4. Piping Diagrams

MDV-D22G/N1-S MDV-D28G/N1-S MDV-D36G/N1-S MDV-D45G/N1-S MDV-D56G/N1-S  
MDV-D22G/DN1-S MDV-D28G/DN1-S MDV-D36G/DN1-S MDV-D45G/DN1-S MDV-D56G/DN1-S



### 5. Wiring Diagrams

MDV-D22G/N1-S MDV-D28G/N1-S MDV-D36G/N1-S MDV-D45G/N1-S MDV-D56G/N1-S  
 MDV-D22G/DN1-S MDV-D28G/DN1-S MDV-D36G/DN1-S MDV-D45G/DN1-S MDV-D56G/DN1-S



### 6. Capacity Tables

6.1 Cooling TC: total capacity SC: sensible capacity

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

Indoor Unit size (kW)	Outdoor temperature (°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 (°F DB)	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	



**6.2 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	-3.64	-4	1.46	1.46	1.46	1.46	1.46	1.46
	-1.84	-2.2	1.56	1.56	1.56	1.56	1.56	1.56
	1.94	1.4	1.64	1.64	1.64	1.64	1.64	1.64
	7.34	5	1.69	1.69	1.69	1.69	1.69	1.69
	10.76	8.6	1.79	1.79	1.79	1.79	1.79	1.79
	14.36	12.2	1.82	1.85	1.85	1.85	1.85	1.85
	14.9	14	1.90	1.90	1.90	1.90	1.90	1.90
	16.7	15.62	1.95	1.95	1.95	1.95	1.95	1.95
	19.4	18.32	1.98	1.98	1.98	1.98	1.98	1.98
	23	21.92	2.05	2.05	2.05	2.05	2.05	2.05
	26.6	25.34	2.16	2.16	2.16	2.16	2.16	2.16
	32	30.74	2.31	2.31	2.31	2.31	2.31	2.18
	37.4	35.96	2.44	2.44	2.44	2.44	2.39	2.18
	41	39.38	2.52	2.52	2.52	2.52	2.39	2.18
	44.6	42.8	2.60	2.60	2.60	2.52	2.39	2.18
	48.2	46.22	2.68	2.68	2.60	2.52	2.39	2.18
	51.8	49.64	2.76	2.76	2.60	2.52	2.39	2.18
55.4	53.24	2.86	2.81	2.60	2.52	2.39	2.18	
59	56.66	2.94	2.81	2.60	2.52	2.39	2.18	
2.8	-3.64	-4	1.79	1.79	1.79	1.79	1.79	1.79
	-1.84	-2.2	1.92	1.92	1.92	1.92	1.92	1.92
	1.94	1.4	2.02	2.02	2.02	2.02	2.02	2.02
	7.34	5	2.02	2.02	2.02	2.02	2.02	2.02
	10.76	8.6	2.14	2.14	2.14	2.14	2.14	2.14
	14.36	12.2	2.24	2.24	2.24	2.24	2.24	2.24
	14.9	14	2.34	2.34	2.34	2.34	2.34	2.34
	16.7	15.62	2.40	2.40	2.40	2.40	2.40	2.40
	19.4	18.32	2.43	2.43	2.43	2.43	2.43	2.43
	23	21.92	2.53	2.53	2.53	2.53	2.53	2.53
	26.6	25.34	2.66	2.66	2.66	2.66	2.66	2.66
	32	30.74	2.85	2.85	2.85	2.85	2.85	2.69
	37.4	35.96	3.01	3.01	3.01	3.01	2.94	2.69
	41	39.38	3.10	3.10	3.10	3.10	2.94	2.69
	44.6	42.8	3.20	3.20	3.20	3.10	2.94	2.69
	48.2	46.22	3.30	3.30	3.20	3.10	2.94	2.69
	51.8	49.64	3.39	3.39	3.20	3.10	2.94	2.69
55.4	53.24	3.52	3.46	3.20	3.10	2.94	2.69	
59	56.66	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-3.64	-4	2.24	2.24	2.24	2.24	2.24	2.24
	-1.84	-2.2	2.40	2.40	2.40	2.40	2.40	2.40
	1.94	1.4	2.52	2.52	2.52	2.52	2.52	2.52
	7.34	5	2.60	2.60	2.60	2.60	2.60	2.60
	10.76	8.6	2.68	2.68	2.68	2.68	2.68	2.68
	14.36	12.2	2.80	2.80	2.80	2.80	2.80	2.80
	14.9	14	2.92	2.92	2.92	2.92	2.92	2.92
	16.7	15.62	3.00	3.00	3.00	3.00	3.00	3.00
	19.4	18.32	3.04	3.04	3.04	3.04	3.04	3.04
	23	21.92	3.16	3.16	3.16	3.16	3.16	3.16
	26.6	25.34	3.32	3.32	3.32	3.32	3.32	3.32
	32	30.74	3.56	3.56	3.56	3.56	3.56	3.36
	37.4	35.96	3.76	3.76	3.76	3.76	3.68	3.36
	41	39.38	3.88	3.88	3.88	3.88	3.68	3.36
	44.6	42.8	4.00	4.00	4.00	3.88	3.68	3.36
	48.2	46.22	4.12	4.12	4.00	3.88	3.68	3.36
	51.8	49.64	4.24	4.24	4.00	3.88	3.68	3.36
55.4	53.24	4.40	4.32	4.00	3.88	3.68	3.36	
59	56.66	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-3.64	-4	2.80	2.80	2.80	2.80	2.80	2.80
	-1.84	-2.2	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	1.94	1.4	3.15	3.15	3.15	3.15	3.15	3.15
	7.34	5	3.25	3.25	3.25	3.25	3.25	3.25
	10.76	8.6	3.35	3.35	3.35	3.35	3.35	3.35
	14.36	12.2	3.50	3.50	3.50	3.50	3.50	3.50
	14.9	14	3.65	3.65	3.65	3.65	3.65	3.65
	16.7	15.62	3.75	3.75	3.75	3.75	3.75	3.75
	19.4	18.32	3.80	3.80	3.80	3.80	3.80	3.80
	23	21.92	3.95	3.95	3.95	3.95	3.95	3.95
	26.6	25.34	4.15	4.15	4.15	4.15	4.15	4.15
	32	30.74	4.45	4.45	4.45	4.45	4.45	4.20
	37.4	35.96	4.70	4.70	4.70	4.70	4.60	4.20
	41	39.38	4.85	4.85	4.85	4.85	4.60	4.20
	44.6	42.8	5.00	5.00	5.00	4.85	4.60	4.20
	48.2	46.22	5.15	5.15	5.00	4.85	4.60	4.20
	51.8	49.64	5.30	5.30	5.00	4.85	4.60	4.20
	55.4	53.24	5.50	5.40	5.00	4.85	4.60	4.20
59	56.66	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-3.64	-4	3.53	3.53	3.53	3.53	3.53	3.53
	-1.84	-2.2	3.78	3.78	3.78	3.78	3.78	3.78
	1.94	1.4	3.97	3.97	3.97	3.97	3.97	3.97
	7.34	5	4.10	4.10	4.10	4.10	4.10	4.10
	10.76	8.6	4.22	4.22	4.22	4.22	4.22	4.22
	14.36	12.2	4.41	4.41	4.41	4.41	4.41	4.41
	14.9	14	4.60	4.60	4.60	4.60	4.60	4.60
	16.7	15.62	4.73	4.73	4.73	4.73	4.73	4.73
	19.4	18.32	4.79	4.79	4.79	4.79	4.79	4.79
	23	21.92	4.98	4.98	4.98	4.98	4.98	4.98
	26.6	25.34	5.23	5.23	5.23	5.23	5.23	5.23
	32	30.74	5.61	5.61	5.61	5.61	5.61	5.29
	37.4	35.96	5.92	5.92	5.92	5.92	5.80	5.29
	41	39.38	6.11	6.11	6.11	6.11	5.80	5.29
	44.6	42.8	6.30	6.30	6.30	6.11	5.80	5.29
	48.2	46.22	6.49	6.49	6.30	6.11	5.80	5.29
51.8	49.64	6.68	6.68	6.30	6.11	5.80	5.29	
55.4	53.24	6.93	6.80	6.30	6.11	5.80	5.29	
59	56.66	7.12	6.80	6.30	6.11	5.80	5.29	

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

**7. Electrical Characteristics**

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22G/N1-S	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D28G/N1-S	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D36G/N1-S	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D45G/N1-S	60	220-240V	198	254	0.3	15	0.028	0.24
MDV-D56G/N1-S	60	220-240V	198	254	0.3	15	0.028	0.24
MDV-D22G/DN1-S	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D28G/DN1-S	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D36G/DN1-S	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D45G/DN1-S	60	220-240V	198	254	4.3	15	0.028	0.24
MDV-D56G/DN1-S	60	220-240V	198	254	4.3	15	0.028	0.24

**Remark:**

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

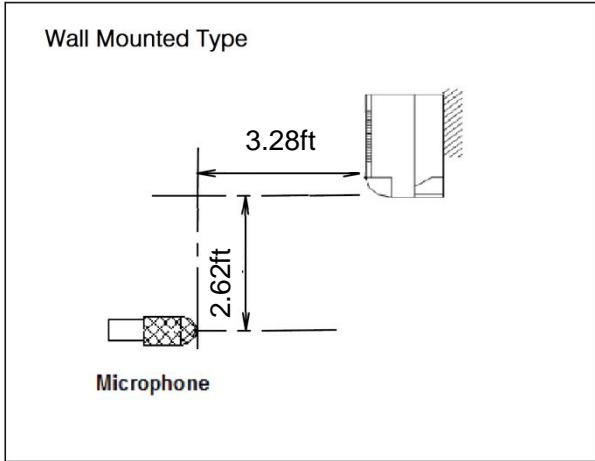
FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor



## 8. Sound Levels

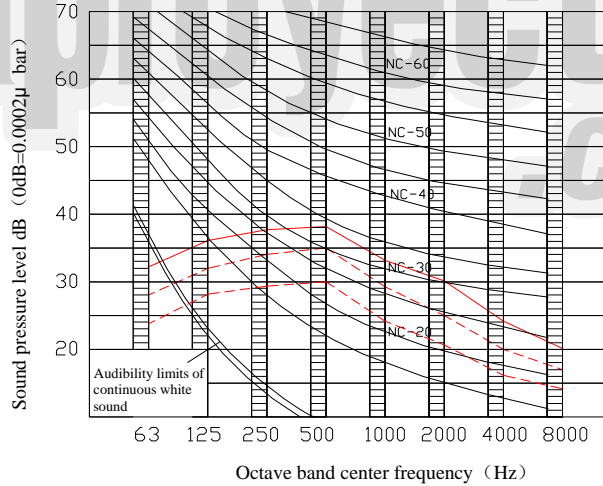
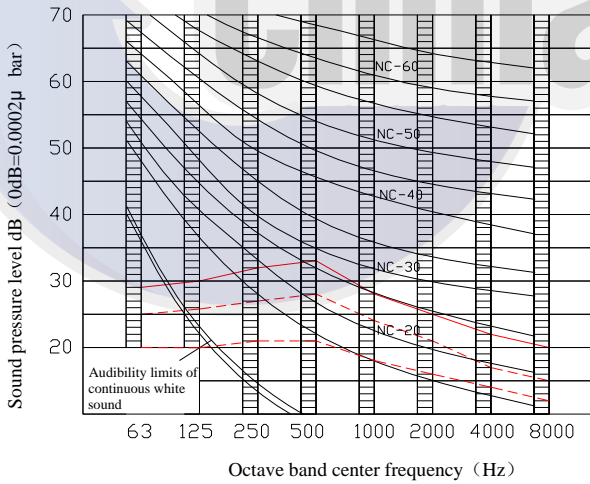
### 8.1 Test condition



### 8.2 Test value













Model	Sound test value dB(A)		
	H	M	L
MDV-D22G/(D)N1-S	35	32	29
MDV-D28G/(D)N1-S	35	32	29
MDV-D36G/(D)N1-S	35	32	29
MDV-D45G/(D)N1-S	40	38	34
MDV-D56G/(D)N1-S	40	38	34

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



## 9. Accessories

### 9.1 Standard accessories

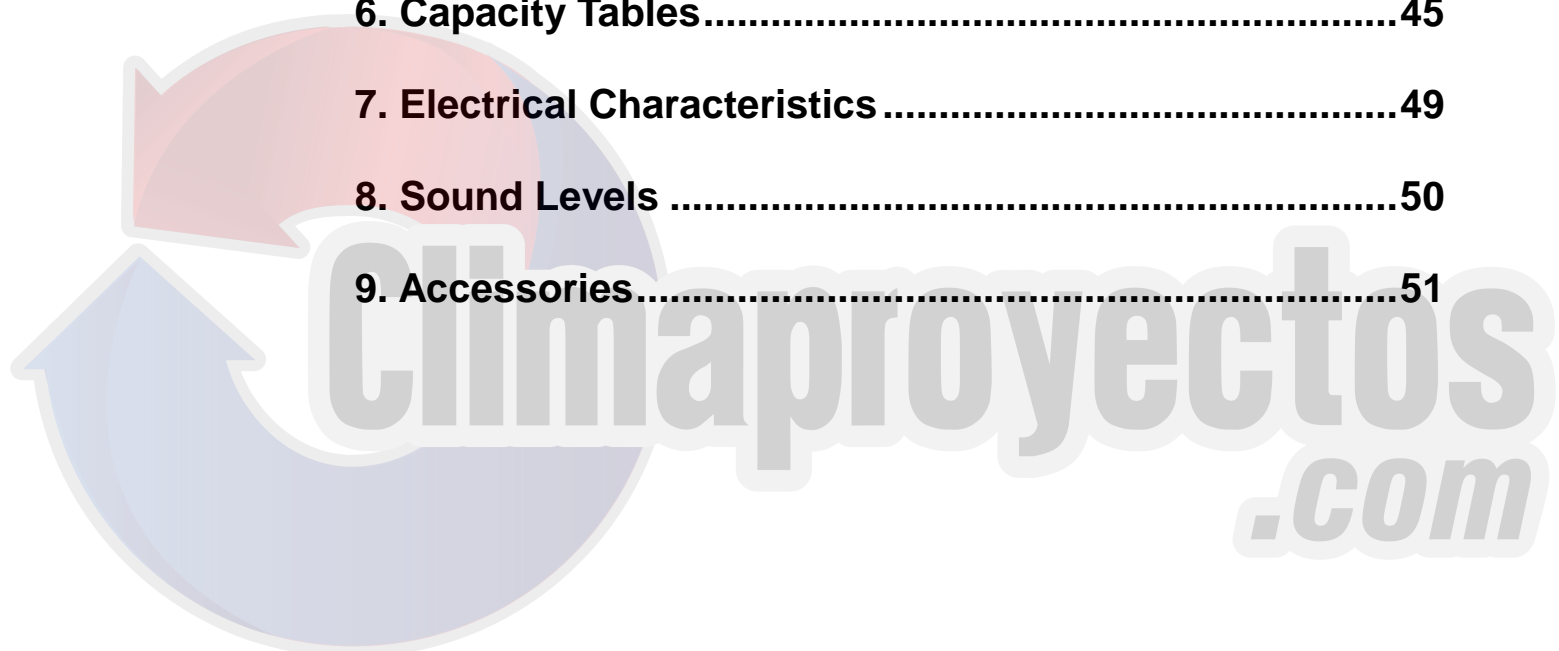
Name	Quantity	Shape	Usage
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Remote controller	1		/
7# alkaline battery	2		/
Holder for remote controller	1		Hold the remote controller
Remoter controller manual	1		/
Mounting screw(ST2.9 10-C-H)	2		Installation Holder for remote controller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

### 9.2 Optional accessories

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

# Wall Mounted C Series

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# 1. Features

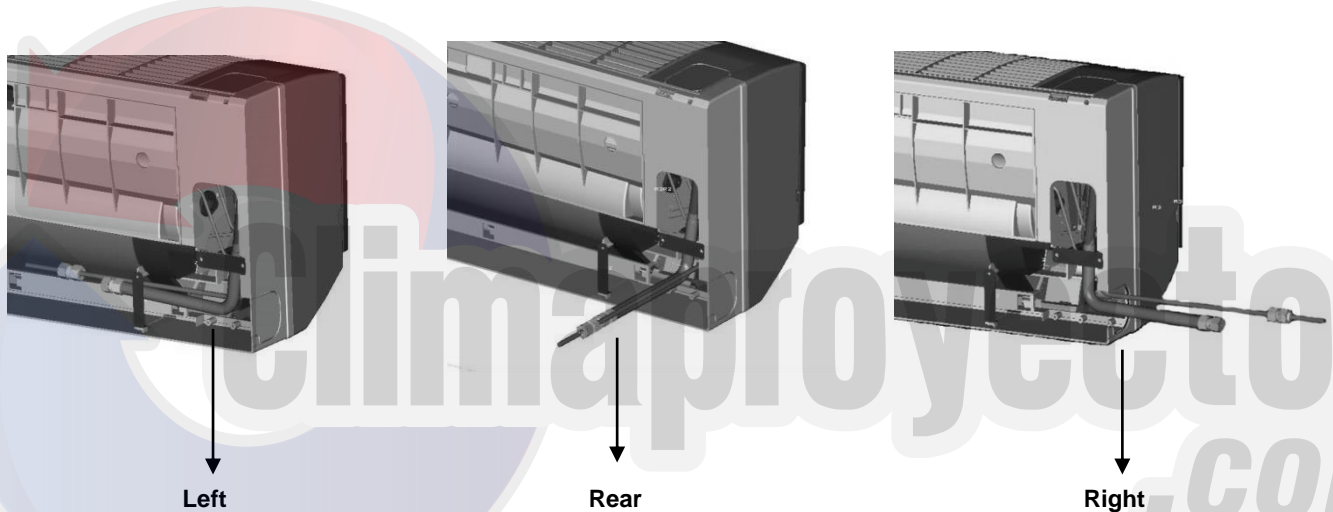
## 1.1 Panel with LED display.



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

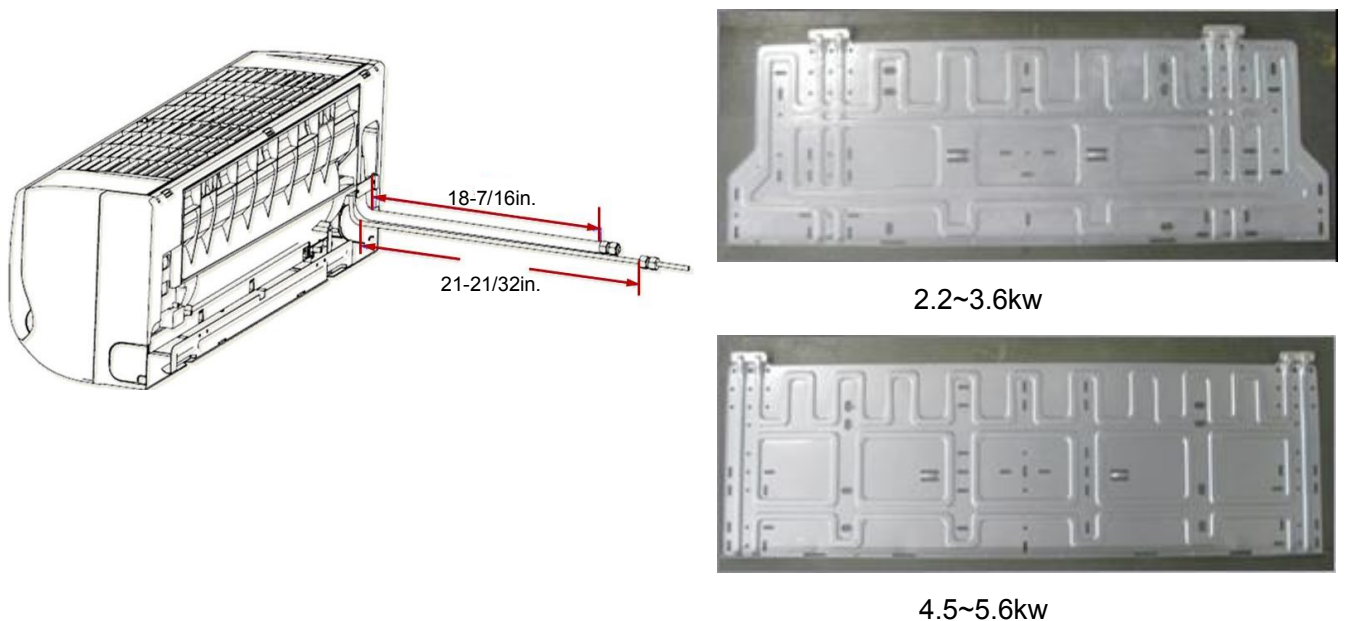
## 1.2 Convenient for installation

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



### 1.2.2 Longer the connection pipe, Gas pipe: 18-7/16in.(468mm)/Liquid pipe: 21-21/32in(550mm), more flexible for the installation.

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



- 1.2.4 The EXV is built-in the indoor unit, compact size, and convenient for the installation.
- 1.2.5 Reserved socket on main control board for water pump and PCB can be customized if you need water pump function.
- 1.3 Auxiliary electrical heating type is available.**
- 1.4 Three air flow speed: high/middle/low, double air guides.**
- 1.5 Low noise, creates quiet and comfortable environment.**
  - 1.5.1 Adoption of the Fujikoki brand mechanical expansion valve which has 2000 stages element positioning, ensure precise flow control, lower modulation noise when EXV operating as well.
  - 1.5.2 Smoother airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smoother and more comfortable.
- 1.6 Wired control compatible. RM05/BG(T)E-A remote wireless controller which can set the indoor unit address is standard, and wired controller is optional.**





## 2. Specifications

Model		MDV-D22G/N1YB	MDV-D22G/DN1YB	MDV-D28G/N1YB	MDV-D28G/DN1YB	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz			
Cooling	Capacity	kW	2.2	2.2	2.8	2.8
		Btu/h	7500	7500	9600	9600
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14	0.14	0.14
Heating	Capacity	kW	2.4	2.4+0.75	3.2	3.2+0.75
		Btu/h	8900	8900+2600	10900	10900+2600
	Input	W	28	28	28	28
	Rated current	A	0.14	0.14+3.38	0.14	0.14+3.38
Electrical heating capacity		kW	-	0.75	-	0.75
Indoor fan motor	Model		YDK15-6B	YDK15-6B	YDK15-6B	YDK15-6B
	Type		AC motor			
	Brand		Welling			
	Input	W	25	25	25	25
	Capacitor	μF	1.2μF/450V	1.2μF/450V	1.2μF/450V	1.2μF/450V
	Speed (h/m/l)	r/min	810/760/700	810/760/700	810/760/700	810/760/700
Indoor coil	Number of rows		2	2	2	2
	Tube pitch x row pitch	in.(mm)	13/16x17/32(21x13.37)		13/16x17/32(21x13.37)	
	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 diameter and type	in.(mm)	1/4(Φ6.35) Inner groove tube			
	length x height x width	in.(mm)	25x11-5/32x1-1/16(635x283.5x26.74)			
	Number of circuits		3	3	3	3
Indoor air flow (H/M/L)		m <sup>3</sup> /h	557/520/467		557/520/467	
		CFM	328/306/275		328/306/275	
Indoor noise level (H/M/L)		dB(A)	35/32/29	35/32/29	35/32/29	35/32/29
Indoor unit	Dimension (W×H×D)	in.(mm)	36-1/32x8-9/32x11-13/32 (915×210×290)		36-1/32x8-9/32x11-13/32 (915×210×290)	
	Packing (W×H×D)	in.(mm)	40-5/32×11-13/16×15-5/32 (1020×300×385)		40-5/32×11-13/16×15-5/32 (1020×300×385)	
	Net/Gross weight	lbs.(kg)	26.5/38.6(12/17.5)		26.5/38.6(12/17.5)	
Refrigerant type		R410A				
Throttle		Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)			
		Model	EFM-25YGMISZ-6M-A			
Design pressure(H/L)		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ6.35/ Φ12.7)			
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5			
	Signal wiring	mm <sup>2</sup>	3x0.75			
Drainage water pipe diameter		in.(mm)	OD 21/32 (Φ16.5)			
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: 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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

Model		MDV-D36G/N1YB	MDV-D36G/DN1YB	MDV-D45G/N1YB	MDV-D45G/DN1YB	
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz			
Cooling	Capacity	kW	3.6	3.6	4.5	4.5
		Btu/h	12300	12300	15400	15400
	Input	W	28	28	45	45
	Rated current	A	0.14	0.14	0.2	0.2
Heating	Capacity	kW	4	4	5	5+0.9
		Btu/h	13600	13600+2600	17100	17100+3100
	Input	W	28	28	45	45
	Rated current	A	0.14	0.14+3.38	0.2	0.2+4.05
Electrical heating capacity		kW	-	0.75	-	0.9
Indoor fan motor	Model		YDK15-6B	YDK15-6B	YDK18-4	YDK18-4
	Type		AC motor			
	Brand		Welling			
	Input	W	25	25	44	44
	Capacitor	μF	1.2μF/450V	1.2μF/450V	1.2μF/450V	1.2μF/450V
	Speed (h/m/l)	r/min	810/760/700	810/760/700	1030/980/880	1030/980/880
	Indoor coil		Hydrophilic aluminum			
Number of rows		2				
Tube pitch x row pitch		in.(mm) 13/16x17/32(21x13.37)				
Fin spacing		in.(mm) 1/16(1.5)				
Tube outside diameter and type		in.(mm) 1/4(Φ6.35) Inner groove tube				
length x height x width		in.(mm) 25x11-5/32x1-1/16 (635x283.5x26.74)		in.(mm) 30-29/32x14-1/16x1-1/16 (785x357x26.74)		
Number of circuits		3		6		
Indoor air flow (H/M/L)		m <sup>3</sup> /h	557/520/467		842/722/597	
		CFM	328/306/275		496/425/351	
Indoor noise level (H/M/L)		dB(A)	35/32/29		40/38/34	
Indoor unit	Dimension (W×H×D)	in.(mm)	36-1/32x8-9/32x11-13/32 (915×210×290)		42-7/32x8-9/32x12-13/32 (1070×210×315)	
	Packing (W×H×D)	in.(mm)	40-5/32x11-13/16x15-5/32 (1020×300×385)		46-7/16x11-13/16x16-1/8 (1180×300×410)	
	Net/Gross weight	lbs.(kg)	26.5/38.6(12/17.5)		33.1/41.9(15/19)	
Refrigerant type		R410A				
Throttle	Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)				
	Model	EFM-25YGMISZ-6M-A				
Design pressure(H/L)		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ6.35/ Φ12.7)			
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5			
	Signal wiring	mm <sup>2</sup>	3x0.75			
Drainage water pipe diameter		in.(mm)	OD 31/32 (Φ16.5)			
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: 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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

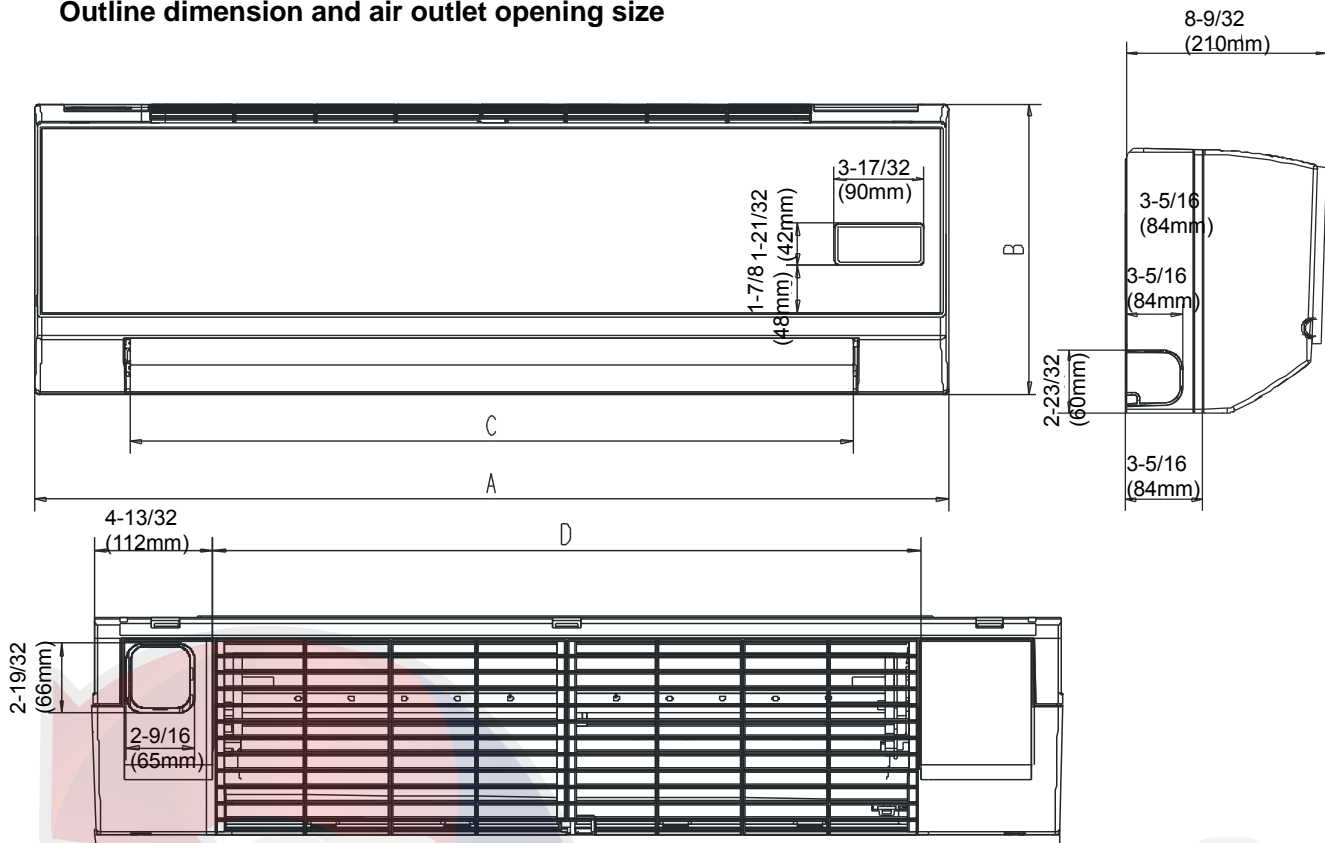
Model		MDV-D56G/N1YB		MDV-D56G/DN1YB		
Power supply		V- Ph-Hz	220-240V~, 1Ph, 60Hz			
Cooling	Capacity	kW	5.6	5.6		
		Btu/h	19100	19100		
	Input	W	45	45		
	Rated current	A	0.2	0.2		
Heating	Capacity	kW	6.3	6.3+0.9		
		Btu/h	21500	21500+3100		
	Input	W	45	45		
	Rated current	A	0.2	0.2+4.25		
Electrical heating capacity		kW	-	0.9		
Indoor fan motor	Model		YDK18-4		YDK18-4	
	Type		AC motor			
	Brand		Welling			
	Input	W	44	44		
	Capacitor	μF	1.2μF/450V	1.2μF/450V		
	Speed (h/m/l)	r/min	980/860/730	980/860/730		
Indoor coil	Number of rows		2		2	
	Tube pitch x row pitch	in.(mm)	13/16x17/32(21x13.37)			
	Fin spacing	in.(mm)	1/16(1.5)		1/16(1.5)	
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and type	in.(mm)	1/4(Φ6.35) Inner groove tube			
	length x height x width	in.(mm)	30-29/32x14-1/16x1-1/16 (785x357x26.74)			
	Number of circuits		6		6	
Indoor air flow (H/M/L)	m <sup>3</sup> /h		842/722/597	842/722/597		
	CFM		496/425/351	496/425/351		
Indoor noise level (H/M/L)		dB(A)	40/38/34		40/38/34	
Indoor unit	Dimension (W×H×D)	in.(mm)	42-7/32×8-9/32×12-13/32 (1070×210×315)			
	Packing (W×H×D)	in.(mm)	46-7/16×11-13/16×16-1/8(1180×300×410)			
	Net/Gross weight	lbs.(kg)	33.1/41.9(15/18)		33.1/41.9(15/19)	
Refrigerant type		R410A				
Throttle	Type	Electronic expansion valve (Mechanical gear modulation, Integrated with the evaporator)				
	Model	EFM-25YGMISZ-6M-A				
Design pressure(H/L)		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ9.53/Φ15.9)			
Connecting wiring	Power wiring	mm <sup>2</sup>	3x2.5			
	Signal wiring	mm <sup>2</sup>	3x0.75			
Drainage water pipe diameter		in.(mm)	OD 31/32 (Φ16.5)			
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: 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, equivalent ref. Piping: 26.25ft(8m)(horizontal)

### 3. Dimensions

#### Outline dimension and air outlet opening size



Model	2.2kW	2.8 kW	3.6 kW	4.5 kW	5.6 kW
A	36-1/32 (915)	36-1/32 (915)	36-1/32 (915)	42-1/8 (1070)	42-1/8 (1070)
B	11-13/32 (290)	11-13/32 (290)	11-13/32 (290)	12-13/32 (315)	12-13/32 (315)
C	28-17/32 (725)	28-17/32 (725)	28-17/32 (725)	34-27/32 (885)	34-27/32 (885)
D	26-3/8 (670)	26-3/8 (670)	26-3/8 (670)	32-3/32 (815)	32-3/32 (815)

#### Main dimension:

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

**MDV-D28G/DN1YB MDV-D36G/DN1YB**

Outer Length: 915mm, Height: 11-13/32in(290mm), Depth: 8-9/32in(210mm)

Filter length: 26-3/8in(670mm)

Gas tube:  $\Phi 1/2''$  ( $\Phi 12.7\text{mm}$ ), (length: Approx. 468mm, 18-7/16in)

Liquid tube:  $\Phi 1/4''$  ( $\Phi 6.35\text{mm}$ ) (length: Approx.550mm, 21-21/32in)

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

Outer Length: 42-1/8in(1072mm), Height: 12-13/32in(315mm), Depth: 9-1/16in(230mm)

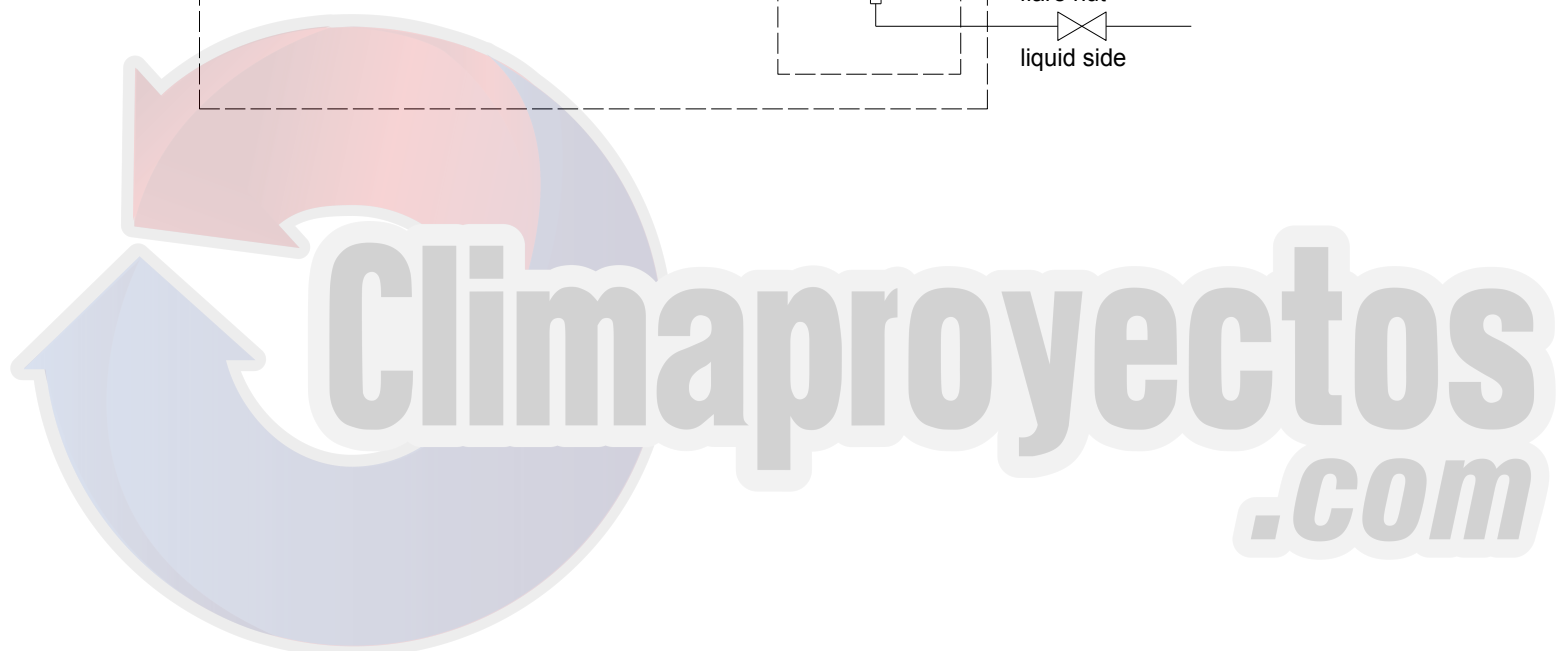
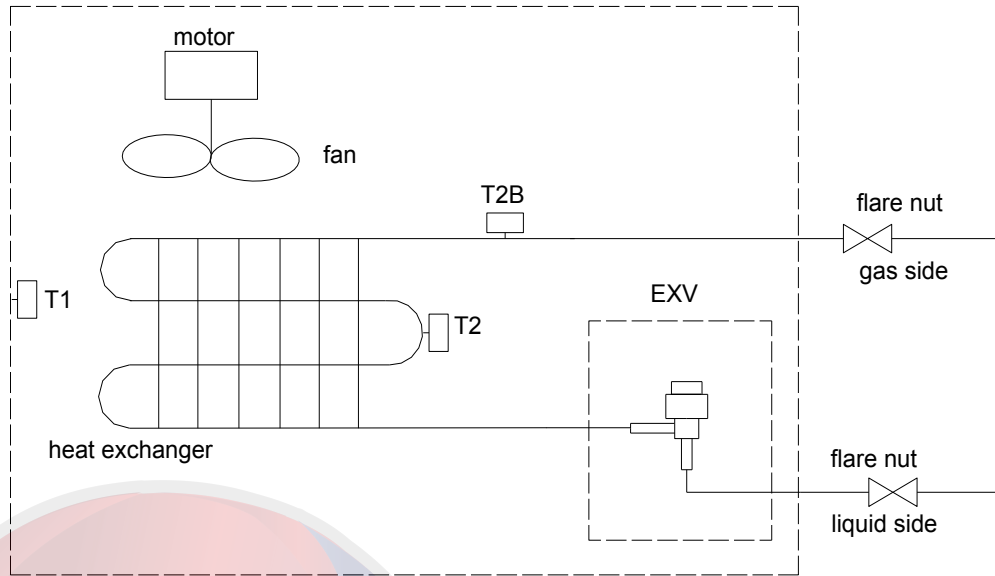
Filter length: 32-3/32in(815mm)

Gas tube:  $\Phi 1/2''$  ( $\Phi 12.7\text{mm}$ ), (length: Approx. 468mm, 18-7/16in)

Liquid tube:  $\Phi 3/8''$  ( $\Phi 9.53$ ) (length: Approx.550mm, 21-21/32in)

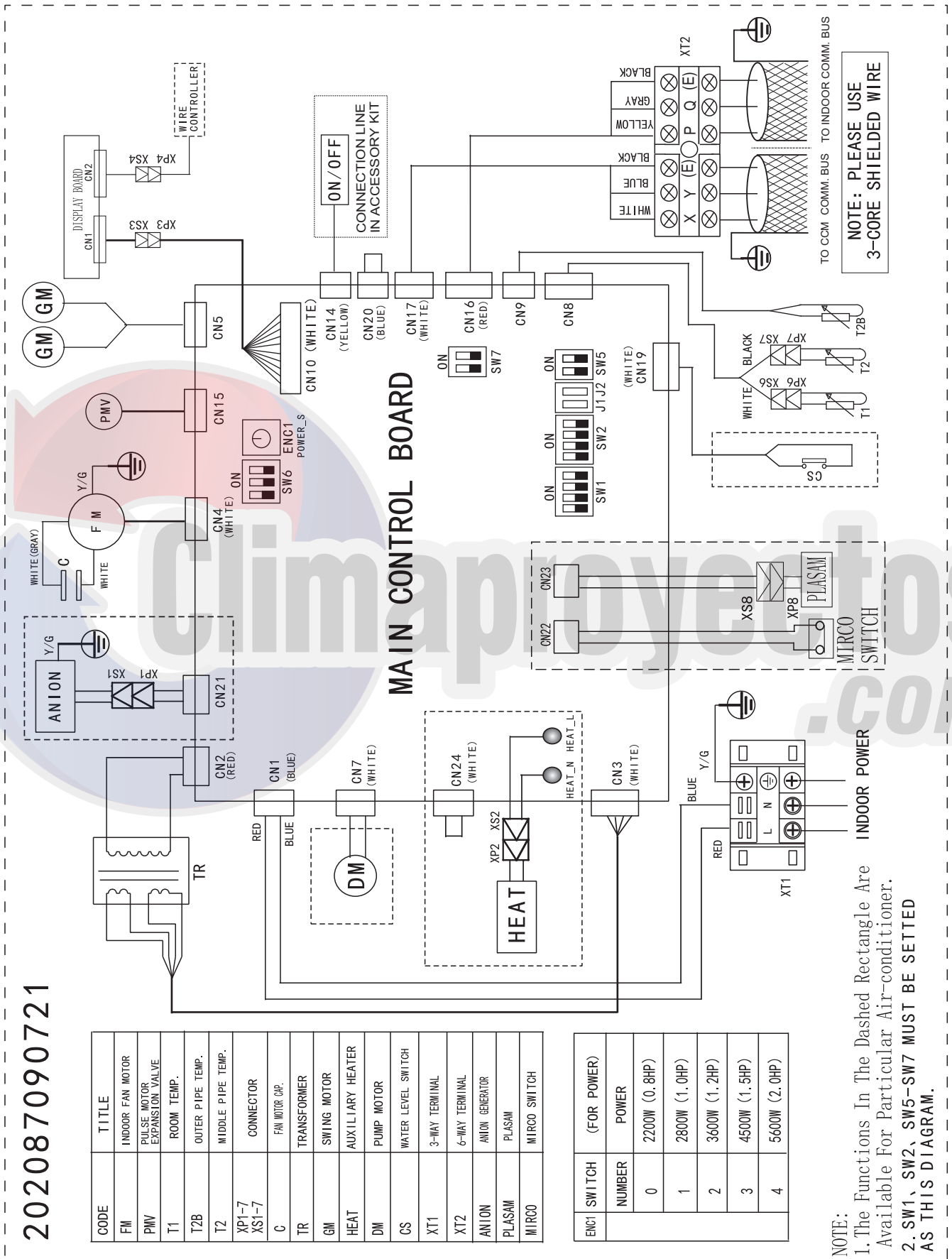
### 4. Piping Diagrams

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



5. Wiring diagrams

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



### 6. Capacity Tables

6.1 Cooling TC: total capacity SC: sensible capacity

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

Indoor Unit size (kW)	Outdoor temperature (°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	



**6.2 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	-3.64	-4	1.46	1.46	1.46	1.46	1.46	1.46
	-1.84	-2.2	1.56	1.56	1.56	1.56	1.56	1.56
	1.94	1.4	1.64	1.64	1.64	1.64	1.64	1.64
	7.34	5	1.69	1.69	1.69	1.69	1.69	1.69
	10.76	8.6	1.79	1.79	1.79	1.79	1.79	1.79
	14.36	12.2	1.82	1.85	1.85	1.85	1.85	1.85
	14.9	14	1.90	1.90	1.90	1.90	1.90	1.90
	16.7	15.62	1.95	1.95	1.95	1.95	1.95	1.95
	19.4	18.32	1.98	1.98	1.98	1.98	1.98	1.98
	23	21.92	2.05	2.05	2.05	2.05	2.05	2.05
	26.6	25.34	2.16	2.16	2.16	2.16	2.16	2.16
	32	30.74	2.31	2.31	2.31	2.31	2.31	2.18
	37.4	35.96	2.44	2.44	2.44	2.44	2.39	2.18
	41	39.38	2.52	2.52	2.52	2.52	2.39	2.18
	44.6	42.8	2.60	2.60	2.60	2.52	2.39	2.18
	48.2	46.22	2.68	2.68	2.60	2.52	2.39	2.18
	51.8	49.64	2.76	2.76	2.60	2.52	2.39	2.18
	55.4	53.24	2.86	2.81	2.60	2.52	2.39	2.18
59	56.66	2.94	2.81	2.60	2.52	2.39	2.18	
2.8	-3.64	-4	1.79	1.79	1.79	1.79	1.79	1.79
	-1.84	-2.2	1.92	1.92	1.92	1.92	1.92	1.92
	1.94	1.4	2.02	2.02	2.02	2.02	2.02	2.02
	7.34	5	2.02	2.02	2.02	2.02	2.02	2.02
	10.76	8.6	2.14	2.14	2.14	2.14	2.14	2.14
	14.36	12.2	2.24	2.24	2.24	2.24	2.24	2.24
	14.9	14	2.34	2.34	2.34	2.34	2.34	2.34
	16.7	15.62	2.40	2.40	2.40	2.40	2.40	2.40
	19.4	18.32	2.43	2.43	2.43	2.43	2.43	2.43
	23	21.92	2.53	2.53	2.53	2.53	2.53	2.53
	26.6	25.34	2.66	2.66	2.66	2.66	2.66	2.66
	32	30.74	2.85	2.85	2.85	2.85	2.85	2.69
	37.4	35.96	3.01	3.01	3.01	3.01	2.94	2.69
	41	39.38	3.10	3.10	3.10	3.10	2.94	2.69
	44.6	42.8	3.20	3.20	3.20	3.10	2.94	2.69
	48.2	46.22	3.30	3.30	3.20	3.10	2.94	2.69
	51.8	49.64	3.39	3.39	3.20	3.10	2.94	2.69
	55.4	53.24	3.52	3.46	3.20	3.10	2.94	2.69
59	56.66	3.62	3.46	3.20	3.10	2.94	2.69	
3.6	-3.64	-4	2.24	2.24	2.24	2.24	2.24	2.24
	-1.84	-2.2	2.40	2.40	2.40	2.40	2.40	2.40
	1.94	1.4	2.52	2.52	2.52	2.52	2.52	2.52
	7.34	5	2.60	2.60	2.60	2.60	2.60	2.60
	10.76	8.6	2.68	2.68	2.68	2.68	2.68	2.68
	14.36	12.2	2.80	2.80	2.80	2.80	2.80	2.80
	14.9	14	2.92	2.92	2.92	2.92	2.92	2.92
	16.7	15.62	3.00	3.00	3.00	3.00	3.00	3.00
	19.4	18.32	3.04	3.04	3.04	3.04	3.04	3.04
	23	21.92	3.16	3.16	3.16	3.16	3.16	3.16
	26.6	25.34	3.32	3.32	3.32	3.32	3.32	3.32
	32	30.74	3.56	3.56	3.56	3.56	3.56	3.36
	37.4	35.96	3.76	3.76	3.76	3.76	3.68	3.36
	41	39.38	3.88	3.88	3.88	3.88	3.68	3.36
	44.6	42.8	4.00	4.00	4.00	3.88	3.68	3.36
	48.2	46.22	4.12	4.12	4.00	3.88	3.68	3.36
	51.8	49.64	4.24	4.24	4.00	3.88	3.68	3.36
	55.4	53.24	4.40	4.32	4.00	3.88	3.68	3.36
59	56.66	4.52	4.32	4.00	3.88	3.68	3.36	
4.5	-3.64	-4	2.80	2.80	2.80	2.80	2.80	2.80
	-1.84	-2.2	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	1.94	1.4	3.15	3.15	3.15	3.15	3.15	3.15
	7.34	5	3.25	3.25	3.25	3.25	3.25	3.25
	10.76	8.6	3.35	3.35	3.35	3.35	3.35	3.35
	14.36	12.2	3.50	3.50	3.50	3.50	3.50	3.50
	14.9	14	3.65	3.65	3.65	3.65	3.65	3.65
	16.7	15.62	3.75	3.75	3.75	3.75	3.75	3.75
	19.4	18.32	3.80	3.80	3.80	3.80	3.80	3.80
	23	21.92	3.95	3.95	3.95	3.95	3.95	3.95
	26.6	25.34	4.15	4.15	4.15	4.15	4.15	4.15
	32	30.74	4.45	4.45	4.45	4.45	4.45	4.20
	37.4	35.96	4.70	4.70	4.70	4.70	4.60	4.20
	41	39.38	4.85	4.85	4.85	4.85	4.60	4.20
	44.6	42.8	5.00	5.00	5.00	4.85	4.60	4.20
	48.2	46.22	5.15	5.15	5.00	4.85	4.60	4.20
	51.8	49.64	5.30	5.30	5.00	4.85	4.60	4.20
	55.4	53.24	5.50	5.40	5.00	4.85	4.60	4.20
59	56.66	5.65	5.40	5.00	4.85	4.60	4.20	
5.6	-3.64	-4	3.53	3.53	3.53	3.53	3.53	3.53
	-1.84	-2.2	3.78	3.78	3.78	3.78	3.78	3.78
	1.94	1.4	3.97	3.97	3.97	3.97	3.97	3.97
	7.34	5	4.10	4.10	4.10	4.10	4.10	4.10
	10.76	8.6	4.22	4.22	4.22	4.22	4.22	4.22
	14.36	12.2	4.41	4.41	4.41	4.41	4.41	4.41
	14.9	14	4.60	4.60	4.60	4.60	4.60	4.60
	16.7	15.62	4.73	4.73	4.73	4.73	4.73	4.73
	19.4	18.32	4.79	4.79	4.79	4.79	4.79	4.79
	23	21.92	4.98	4.98	4.98	4.98	4.98	4.98
	26.6	25.34	5.23	5.23	5.23	5.23	5.23	5.23
	32	30.74	5.61	5.61	5.61	5.61	5.61	5.29
	37.4	35.96	5.92	5.92	5.92	5.92	5.80	5.29
	41	39.38	6.11	6.11	6.11	6.11	5.80	5.29
	44.6	42.8	6.30	6.30	6.30	6.11	5.80	5.29
	48.2	46.22	6.49	6.49	6.30	6.11	5.80	5.29
51.8	49.64	6.68	6.68	6.30	6.11	5.80	5.29	
55.4	53.24	6.93	6.80	6.30	6.11	5.80	5.29	
59	56.66	7.12	6.80	6.30	6.11	5.80	5.29	

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

**7. Electrical Characteristics**

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MDV-D22G/N1YB	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D28G/N1YB	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D36G/N1YB	60	220-240V	198	254	0.3	15	0.013	0.225
MDV-D45G/N1YB	60	220-240V	198	254	0.3	15	0.028	0.24
MDV-D56G/N1YB	60	220-240V	198	254	0.3	15	0.028	0.24
MDV-D22G/DN1YB	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D28G/DN1YB	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D36G/DN1YB	60	220-240V	198	254	3.6	15	0.013	0.225
MDV-D45G/DN1YB	60	220-240V	198	254	4.3	15	0.028	0.24
MDV-D56G/DN1YB	60	220-240V	198	254	4.3	15	0.028	0.24

**Remark:**

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

KW: Fan Motor Rated Output (kW)

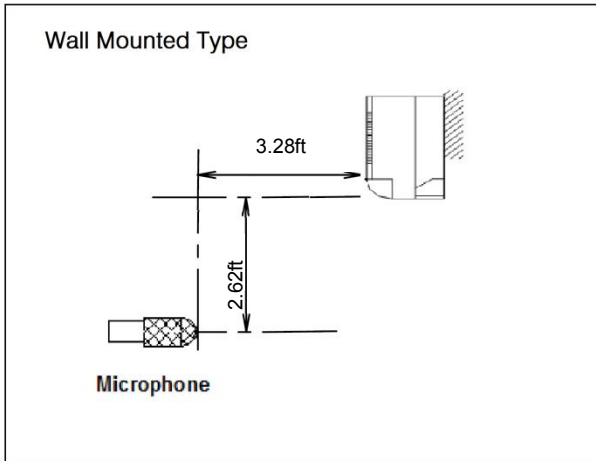
FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor



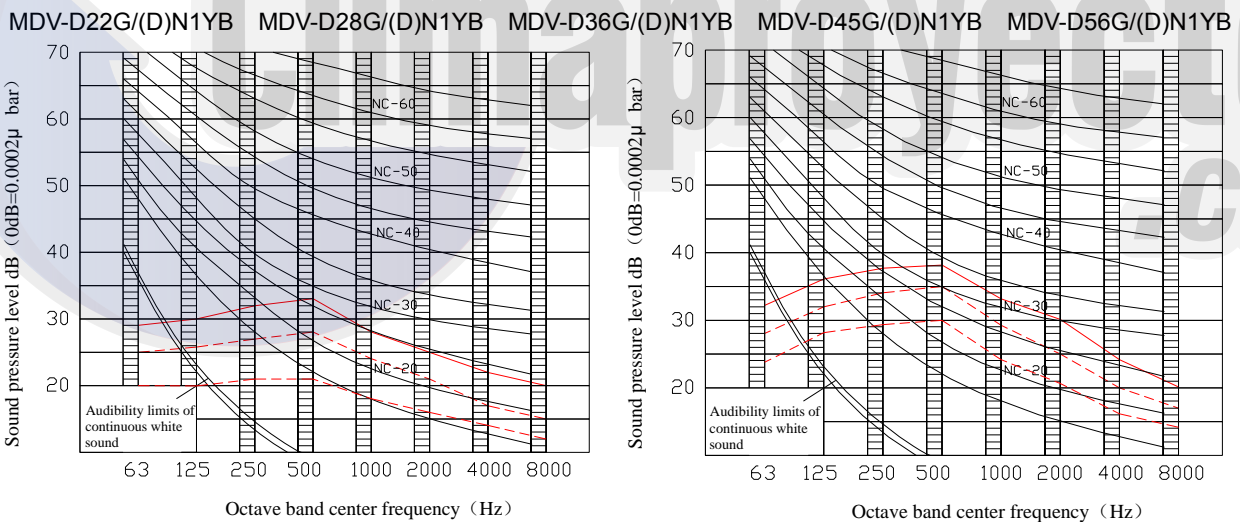
## 8. Sound Levels

### 8.1 Test condition















### 8.2 Test value

Model	Sound test value dB(A)		
	H	M	L
MDV-D22G/(D)N1YB	35	32	29
MDV-D28G/(D)N1YB	35	32	29
MDV-D36G/(D)N1YB	35	32	29
MDV-D45G/(D)N1YB	40	38	34
MDV-D56G/(D)N1YB	40	38	34



## 9. Accessories

### 9.1 Standard accessories

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

### 9.2 Optional accessories

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



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Midea CAC After-service Application



iOS Version

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Android Version



iOS Version