

Floor standing MVD DC

Service manual



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1. Feature

1.1 Exposed & Concealed type



Air intake from front (F4 series)



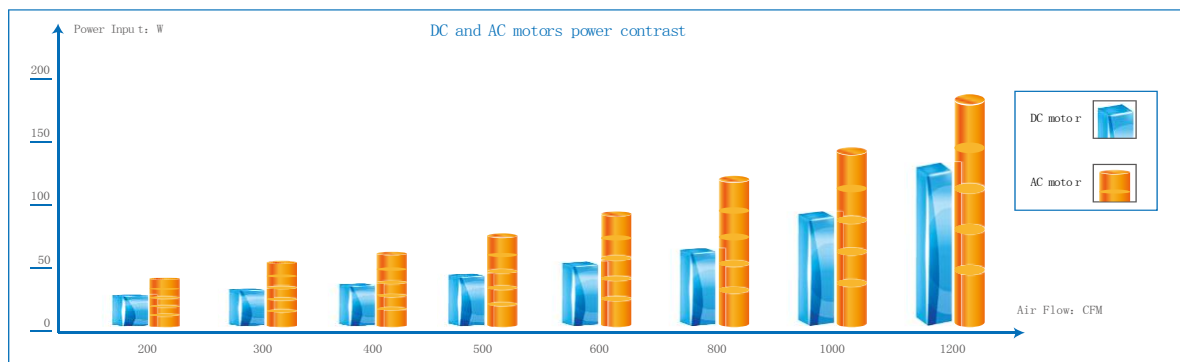
Air intake from below (F5 series)



Concealed type (F3 series)

1.2 Adopting DC fan motor

Efficiency can be up to 90%. Contrast with the AC fan motor, the power consumption of DC fan motor can reduce up to 30%.



1.3 Lower noise

Flat shape air outlet, three speeds adjustment. Smoother airflow with less turbulence.

Adoption of the built-in Fujikoki brand electronica expansion valve, ensures precise flow control, as well as lower modulation noise when EXV operating.

1.4 Easy Installation

Floor standing types can be hung on the wall or installed on the floor. The former can make cleaning and maintenance much more easily. Running the piping from the back allows the unit to be hung on walls.

Cleaning under the unit, where dust tends to accumulate, is considerably easier.

1.5 Easy maintenance

Filter is equipped as standard accessory; and it can be removed and cleaned easily due to Mundoclima's sophisticated design as well as the removable blades.

Streamlined appearance makes it much more harmonious with the decoration. All metal parts are made of commercial grade galvanized steel, providing maximum protection against corrosion.

1.6 Auto restart

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

2. Specifications

Model			MVD-22Z/DHN1-F4	MVD-28Z/DHN1-F4	MVD-36Z/DHN1-F4	
			MVD-22Z/DHN1-F5	MVD-28Z/DHN1-F5	MVD-36Z/DHN1-F5	
Power supply		V- Ph-Hz	220-240V, 1Ph, 50/60Hz			
Cooling	Capacity	kW	2.2	2.8	3.6	
	Input	W	24	24	21	
	Rated current	A	0.29	0.32	0.33	
Heating	Capacity	kW	2.4	3.2	4.0	
	Input	W	23	24	19	
	Rated current	A	0.29	0.32	0.33	
Indoor fan motor	Model		WZDK100-38GS-2	WZDK100-38GS-2	WZDK100-38GS-2	
	Type		DC motor			
	Brand		Panasonic/Welling/Shibaura			
	Input	W	26	29	22	
	Output	W	21	22	17	
	Speed (h/m/l)	r/min	950/820/730	990/870/770	790/700/570	
Indoor coil	Number of rows		2	2	3	
	Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4*22	25.4*22	
	Fin spacing	mm	1.8	1.8	1.8	
	Fin type		Hydrophilic aluminum			
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube			
	Coil length*height*width	mm	568*254*44	568*254*44	768*254*66	
	Number of circuits		3	3	3	
Indoor air flow (H/M/L)		m³/h	530/456/400	569/485/421	624/522/375	
Indoor noise level (Hi/Mid/Lo)		F4	36/33/29	36/33/29	37/34/30	
		F5				
Indoor unit	Dimension (W*H*D)	F4	mm	1000*569*225	1000*569*225	1200*596*225
		F5		1000*677*220	1000*677*220	1200*677*220
	Packing (W*H*D)	F4	mm	1089*683*312	1089*683*312	1289*683*312
		F5		1182*683*312	1182*683*312	1382*683*312
	Net/Gross weight	F4	kg	29/34	29/34	35/43
		F5		27.5/35.5	27.5/35.5	33/41.5
Refrigerant type			R410A			
Throttle		Type	EXV (Built-in)			
		Model	D20MISZ-1R(L)			
Design pressure		MPa	4.4/2.6			
Refrigerant piping	Liquid side/ Gas	mm	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7	
Connecting wiring	Power wiring	mm²	3*2.5(L≤20m); 3*3.5(L≤50m)			
	Signal wiring	mm²	3*0.75			
Drainage water pipe diameter		mm	ODΦ25			
Controller			Wireless remote controller (RM05/BG(T)E-A)			

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

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

3.Specifications of F4/F5 series are measured at 0Pa external static pressure.

Model			MVD-45Z/DHN1-F4	MVD-56Z/DHN1-F4
			MVD-45Z/DHN1-F5	MVD-56Z/DHN1-F5
Power supply		V- Ph-Hz	220-240V, 1Ph, 50/60Hz	
Cooling	Capacity	kW	4.5	5.6
	Input	W	24	38
	Rated current	A	0.35	0.49
Heating	Capacity	kW	5.0	6.3
	Input	W	24	41
	Rated current	A	0.35	0.49
Indoor fan motor	Model		WZDK100-38GS-2	WZDK100-38GS-3
	Type		DC motor	
	Brand		Panasonic/Welling/Shibaura	Panasonic/Welling/Shibaura
	Input	W	27	49
	Output	W	22	39
	Speed (h/m/l)	r/min	850/780/650	950/800/690
Indoor coil	Number of rows		3	2
	Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4*22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube	
	Coil length*height*width	mm	768*254*66	1068*254*44
	Number of circuits		3	4
Indoor air flow (H/M/L)		m³/h	660/542/440	1150/970/830
Indoor noise level (H/M/L)		F4	37/34/30	41/35/31
		F5	37/34/30	41/35/31
Indoor unit	Dimension (W*H*D)	F4	1200*596*225	1500*596*225
		F5	1200*677*220	1500*677*220
	Packing (W*H*D)	F4	1289*683*312	1589*683*312
		F5	1382*683*312	1682*683*312
	Net/Gross weight	F4	35/43	40/45.5
		F5	33/41.5	38.7/48
	Refrigerant type			R410A
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ6.35/Φ12.7	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm²	3*0.75	
Drainage water pipe diameter		mm	ODΦ25	
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard)	

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

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

3.Specifications of F4/F5 series are measured at 0Pa external static pressure.

Model			MVD-71Z/DHN1-F4	MVD-80Z/DHN1-F4
			MVD-71Z/DHN1-F5	MVD-80Z/DHN1-F5
Power supply		V- Ph-Hz	220-240V, 1Ph, 50/60Hz	
Cooling	Capacity	kW	7.1	8.0
	Input	W	62	62
	Rated current	A	0.81	0.82
Heating	Capacity	kW	8.0	9.0
	Input	W	65	63
	Rated current	A	0.81	0.82
Indoor fan motor	Model		YSK74-4E	YSK74-4E
	Type		DC motor	
	Brand		Panasonic/Welling/Shibaura	Panasonic/Welling/Shibaura
	Input	W	86	86
	Output	W	72	69
	Speed (h/m/l)	r/min	950/800/690	1140/1040/910
Indoor coil	Number of rows		2	3
	Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4*22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	mm	Φ9.52 inner grooved tube	
	Coil length*height*width	mm	1068*254*44	1068*254*66
	Number of circuits		4	3
Indoor air flow (H/M/L)		m ³ /h	1380/1100/870	1332/1212/1023
Indoor noise level (H/M/L)		F4	dB(A)	44/39/33
		F5		44/39/33
Indoor unit	Dimension (W*H*D)	F4	mm	1500*596*225
		F5		1500*677*220
	Packing (W*H*D)	F4	mm	1589*683*312
		F5		1682*683*312
	Net/Gross weight	F4	kg	40/45.5
		F5		38.7/48
	Refrigerant type			R410A
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm ²	3*0.75	
Drainage water pipe diameter		mm	ODΦ25	
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)	

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

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

3.Specifications of F4/F5 series are measured at 0Pa external static pressure.

Model			MVD-22Z/DHN1-F3B	MVD-28Z/DHN1-F3B	MVD-36Z/DHN1-F3B
Power supply		V-	220-240V, 1Ph, 50/60Hz		
Cooling	Capacity	kW	2.2	2.8	3.6
	Input	W	24	24	21
	Rated current	A	0.18	0.21	0.22
Heating	Capacity	kW	2.6	3.2	4.0
	Input	W	23	24	19
	Rated current	A	0.18	0.21	0.22
Indoor fan motor	Model		WZDK100-38GS-2		
	Type		DC motor		
	Brand		Panasonic/Welling/Shibaura		Panasonic/Welling/Shibaura
	Input	W	26	29	22
	Output	W	21	22	17
	Speed (h/m/l)	r/min	950/820/730	990/870/770	790/700/570
Indoor coil	Number of rows		2	2	3
	Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4*22	25.4*22
	Fin spacing	mm	1.8	1.8	1.8
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube		
	Coil length*height*width	mm	568*254*44	568*254*44	768*254*66
	Number of circuits		3	3	3
Indoor air flow (H/M/L)		m ³ /h	530/456/400	569/485/421	624/522/375
Indoor noise level (H/M/L)		dB(A)	36/33/29	36/33/29	37/34/30
Indoor unit	Dimension (W*H*D)	mm	840*545*212	840*545*212	1040*545*212
	Packing (W*H*D)	mm	939*639*305	939*639*305	1139*639*305
	Net/Gross weight	kg	21/25	21/25	28/33
Refrigerant type			R410A		
Throttle		Type	EXV (Built-in)		
		Model	D20MISZ-1R(L)		
Design pressure		MPa	4.4/2.6		
Refrigerant	Liquid side/ Gas side	mm	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7	Φ 6.35/Φ12.7
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)		
	Signal wiring	mm ²	3*0.75		
Drainage water pipe diameter		mm	ODΦ25		
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard)		

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

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

3. Specifications of F3 series are measured at 10Pa external static pressure.

Model			MVD-45Z/DHN1-F3B	MVD-56Z/DHN1-F3B
Power supply		V- Ph-Hz	220-240V, 1Ph, 50/60Hz	
Cooling	Capacity	kW	4.5	5.6
	Input	W	24	38
	Rated current	A	0.22	0.4
Heating	Capacity	kW	5.0	6.3
	Input	W	24	41
	Rated current	A	0.22	0.4
Indoor fan motor	Model		WZDK100-38GS-2	WZDK100-38GS-3
	Type		DC motor	
	Brand		Panasonic/Welling/Shibaur	Panasonic/Welling/Shibaura
	Input	W	27	49
	Output	W	22	39
	Speed (h/m/l)	r/min	850/780/650	950/800/690
Indoor coil	Number of rows		3	2
	Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4*22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and	mm	Φ9.52 Inner grooved tube	
	Coil length*height*width	mm	768*254*66	1068*254*44
	Number of circuits		3	4
Indoor air flow (H/M/L)		m ³ /h	660/542/440	1150/970/830
Indoor noise level (H/M/L)		dB(A)	37/34/30	41/35/31
Indoor unit	Dimension (W*H*D)	mm	1040*545*212	1340*545*212
	Packing (W*H*D)	mm	1139*639*305	1425*639*305
	Net/Gross weight	kg	28/33	32/38
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ6.35/Φ12.7	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm ²	3*0.75	
Drainage water pipe diameter		mm	ODΦ25	
Controller			Wireless remote controller (RM05/BG(T)E-A) (Standard)	

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

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

3.Specifications of F3 series are measured at 10Pa external static pressure.

Model			MVD-71Z/DHN1-F3B	MVD-80Z/DHN1-F3B
Power supply		V-	220-240V, 1Ph, 50/60Hz	
Cooling	Capacity	kW	7.1	8.0
	Input	W	62	62
	Rated current	A	0.56	0.59
Heating	Capacity	kW	8.0	9.0
	Input	W	65	63
	Rated current	A	0.56	0.59
Indoor fan motor	Model		WZDK100-38GS-3	YSK74-4E
	Type		DC motor	
	Brand		Panasonic/Welling/Shibaura	Panasonic/Welling/Shibaura
	Input	W	90	86
	Output	W	72	69
	Speed (h/m/l)	r/min	1140/1040/910	1140/1040/910
Indoor coil	Number of rows		2	3
	Tube pitch(a)* row pitch(b)	mm	25.4*22	25.4*22
	Fin spacing	mm	1.8	1.8
	Fin type		Hydrophilic aluminum	
	Tube outside diameter and type	mm	Φ9.52 inner grooved tube	
	Coil length*height*width	mm	1068*254*44	1068*254*66
	Number of circuits		4	3
Indoor air flow (H/M/L)		m3/h	1380/1100/870	1380/1100/870
Indoor noise level (H/M/L)		dB(A)	44/39/33	44/39/33
Indoor unit	Dimension (W*H*D)	mm	1340*545*212	1340*545*212
	Packing (W*H*D)	mm	1425*639*305	1425*639*305
	Net/Gross weight	kg	32/38	35/39
Refrigerant type			R410A	
Throttle		Type	EXV (Built-in)	
		Model	D20MISZ-1R(L)	
Design pressure		MPa	4.4/2.6	
Refrigerant piping	Liquid side/ Gas	mm	Φ9.53/Φ16	Φ9.53/Φ16
Connecting wiring	Power wiring	mm ²	3*2.5(L≤20m); 3*3.5(L≤50m)	
	Signal wiring	mm ²	3*0.75	
Drainage water pipe diameter		mm	ODΦ25	
Controller			Wireless remote controller (RM05/BG(T)E-A)(Standard)	

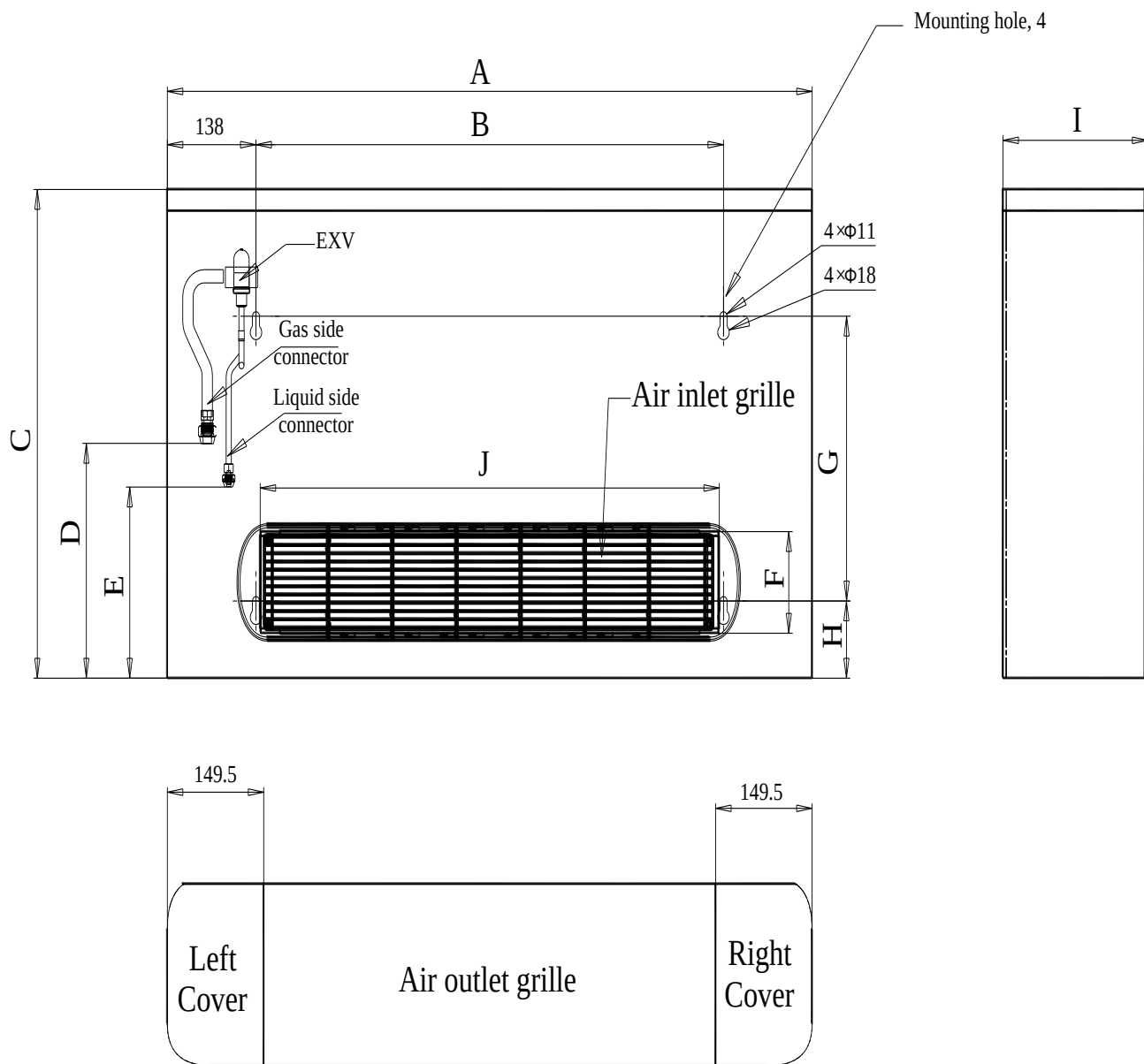
Notes: 1.Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB, 19°CWB, outdoor temperature:35°CDB,equivalent ref. Piping: 8m(horizontal)

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

3.Specifications of F3 series are measured at 10Pa external static pressure.

3. Dimensions

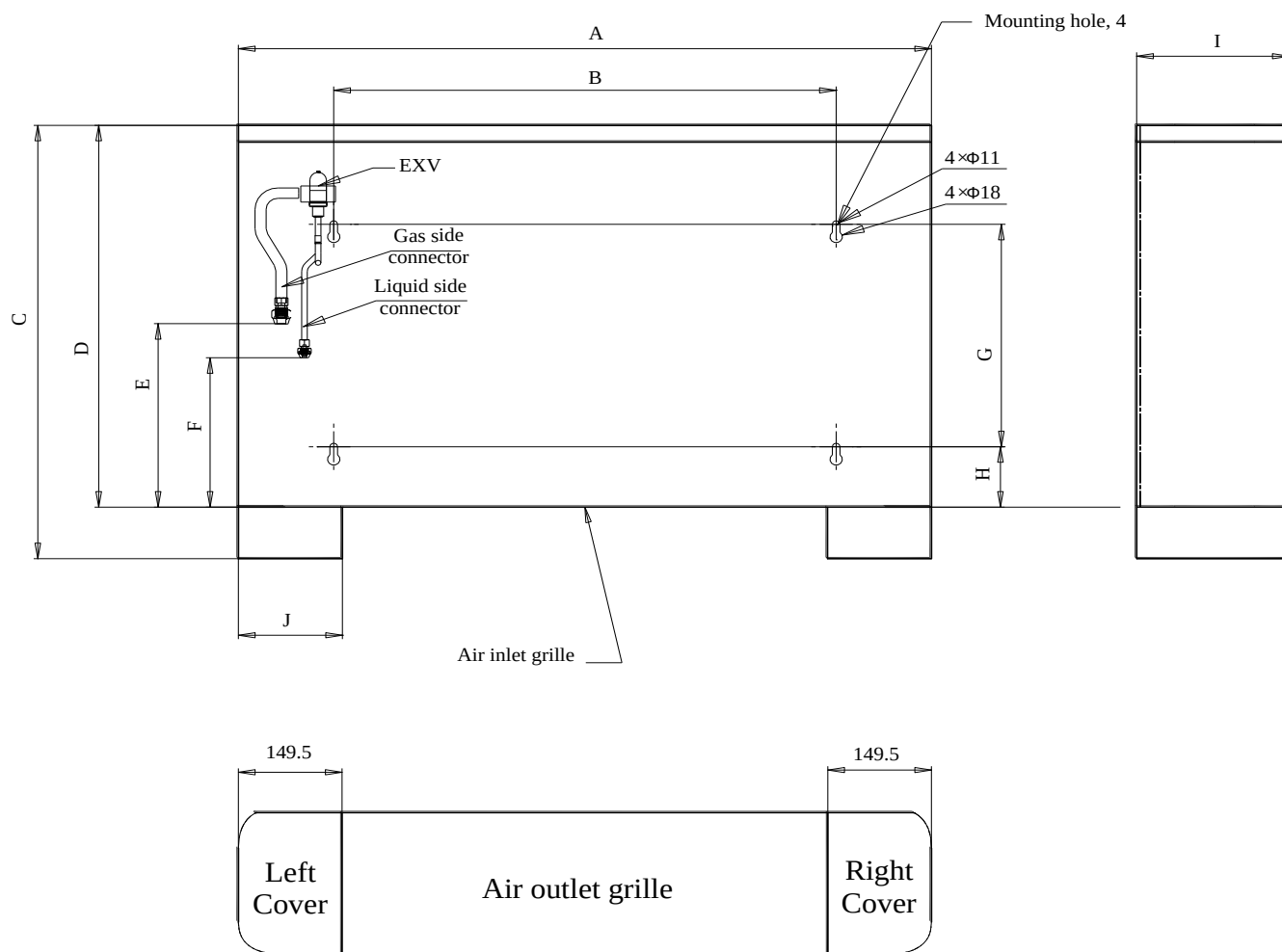
3.1 Exposed Floor-standing (air inlet from front)



Unit: mm

MODEL (MVD-**Z/DHN1-F4)	A	B	C	D	E	F	G	H	I
22	1000	725	596	284	232	112	345	94	225
28									
36	1200	925	596	310	258	112	345	100	225
45									
56	1500	1225	596	310	258	112	345	100	225
71									
80									

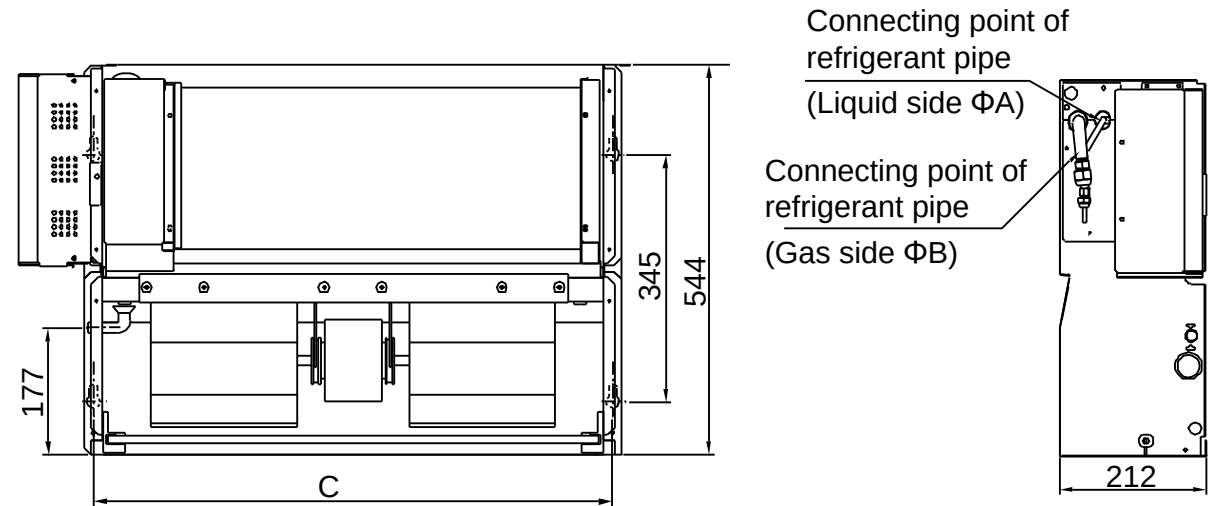
3.2 Exposed Floor-standing (air inlet from bottom)



Unit: mm

MODEL (MVD-**Z/DHN1-F5)	A	B	C	D	E	F	G	H	I	J
22	1000	725	677	592	284	232	345	94	220	150
28										
36										
45	1200	925	677	592	310	258	345	100	220	150
56										
71										
80	1500	1225	677	592	310	258	345	100	220	150

3.3 3.1 Concealed Floor-standing

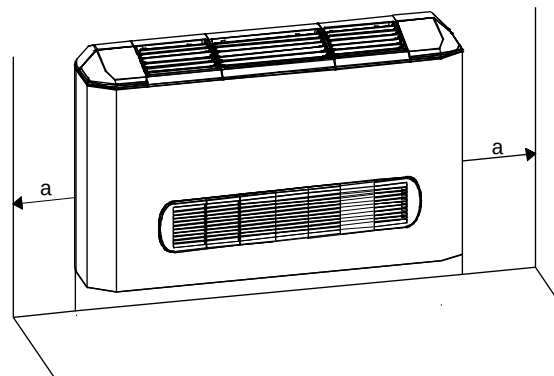


MODEL (MVD-**Z/DHN1-F3B)	A	B	C (mm)
22	Φ6.4	Φ12.7	725
28			
36			
45	Φ6.4	Φ12.7	925
56			
71			
80	Φ9.5	Φ15.9	1225

4. Service Spaces

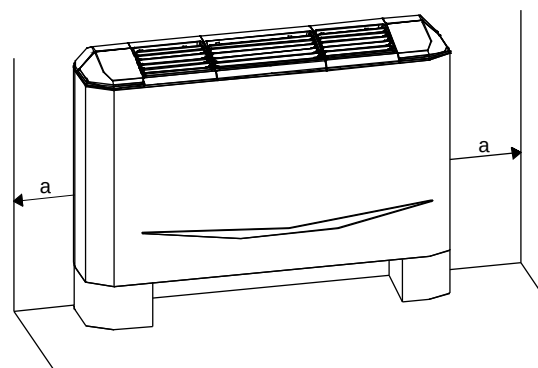
F4 series

Vertical unit with casing , with air intake from front and air outlet on top, for installation on a wall or on feet on the floor.



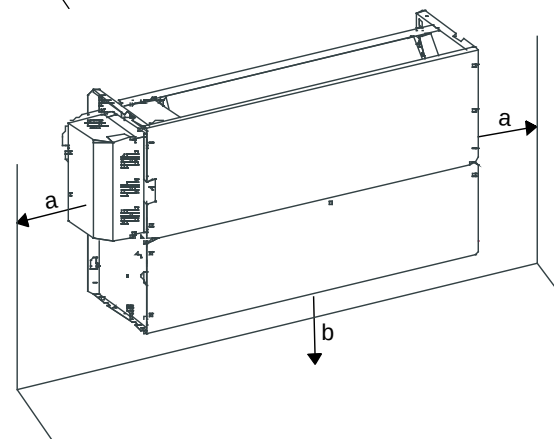
F5 series

Vertical unit with casing , with air intake from below and air outlet on top, for installation on a wall or on feet on the floor.



F3 series

Vertical unit for building-in, with air intake from below and air delivery at the top, for installation on a wall.

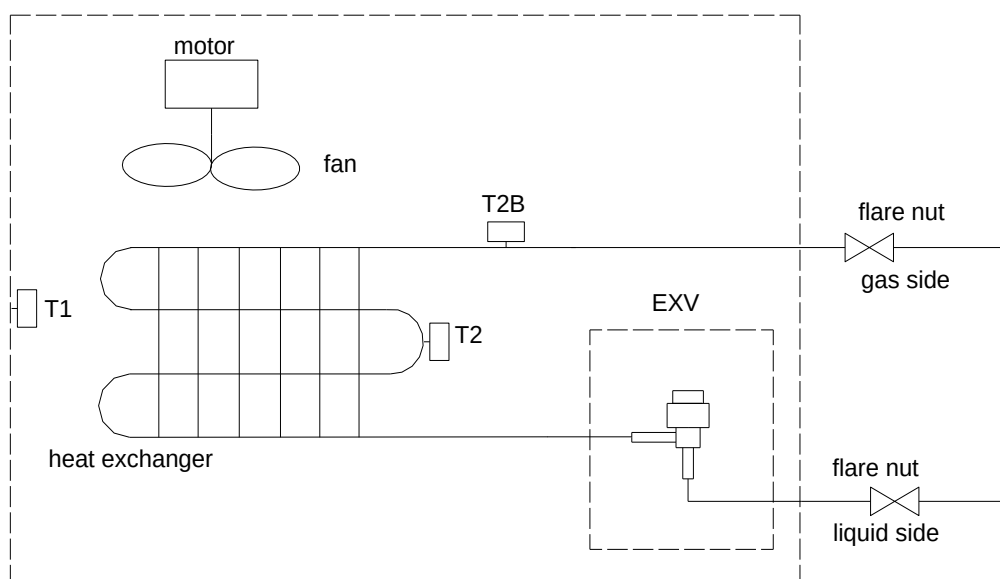


Required clearance for above 3 versions:

Model	F4	F5	F3
a (mm)	≥150	≥150	≥200
b (mm)	-	(with bottom feet)	≥80

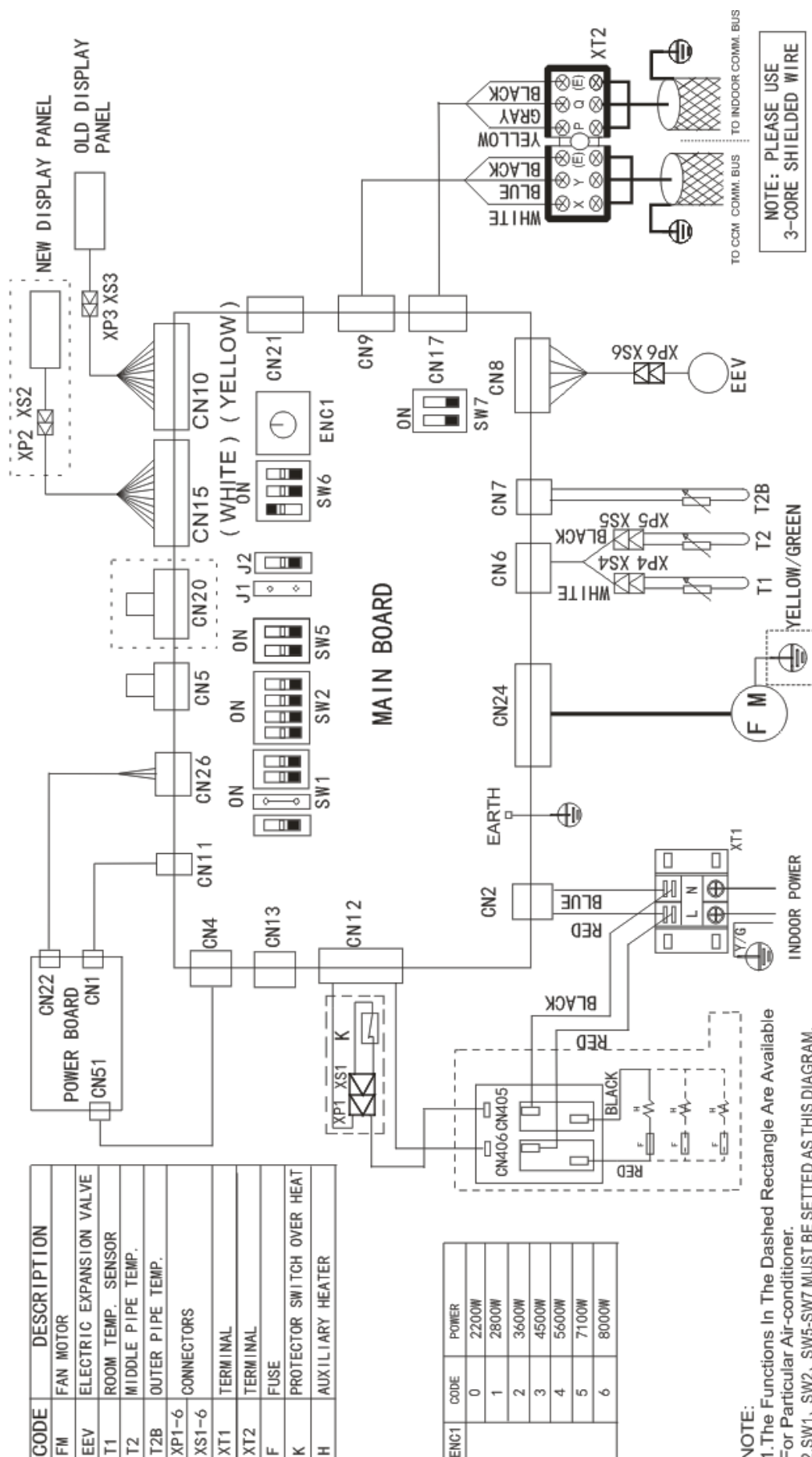
Additionally, it is required to keep 20mm between the rear and wall; 600mm between the front face and the obstacle. 1700mm vertical distance between the top of unit(outlet) and the upper obstacle.

5. Piping Diagrams



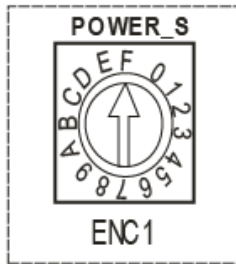
6. Wiring Diagrams

202084090688



Horsepower set

Horsepower code



ENC1 switch code	Cooling power output
0	2200W(0.8HP)
1	2800W(1.0HP)
2	3600W(1.2HP)
3	4500W(1.5HP)
4	5600W(2.0HP)
5	7100W(2.5HP)
6	8000W(3.0HP)

Note: Base on different purposes to setting the switch cords on PC panel of indoor electrical control box. Once finish the setting, please cut off the main power, and then input power again, otherwise, setting function could not work.

Main board Code designation

SW1 definition

SW1 ON 1 2 3 4	● 1 means factory test mode ● 0 means add. auto searching mode (default setting)	SW1 ON 1 2 3 4	● 01 means DC fan static pressure is 1 (reserved)
SW1 ON 1 2 3 4	● 1 means DC fan is chosen ● 0 means AC fan is chosen	SW1 ON 1 2 3 4	● 10 means DC fan static pressure is 2 (reserved)
SW1 ON 1 2 3 4	● 00 means DC fan static pressure is 0 (reserved)	SW1 ON 1 2 3 4	● 11 means DC fan static pressure is 3 (reserved)

SW2 definition

SW2 ON 1 2 3 4	● 00 means the temperature is 15 degrees when shutting down the unit for cold wind proof.	SW2 ON 1 2 3 4	● 00 means the time of stopping indoor fan is 4 minutes
SW2 ON 1 2 3 4	● 01 means the temperature is 20 degrees when shutting down the unit for cold wind proof.	SW2 ON 1 2 3 4	● 01 means the time of stopping indoor fan is 8 minutes
SW2 ON 1 2 3 4	● 10 means the temperature is 24 degrees when shutting down the unit for cold wind proof.	SW2 ON 1 2 3 4	● 10 means the time of stopping indoor fan is 12 minutes
SW2 ON 1 2 3 4	● 11 means the temperature is 26 degrees when shutting down the unit for cold wind proof.	SW2 ON 1 2 3 4	● 11 means the time of stopping indoor fan is 16 minutes

SW5 definition

	● 00 means temperature compensation is 6 degrees under heating mode		● 10 means temperature compensation is 4 degrees under heating mode
	● 01 means temperature compensation is 2 degrees under heating mode		● 11 means temperature compensation is 8 degrees under heating mode

SW6 definition

	● 1 means old display panel ● 0 means new display panel
	● 1 means auto wind under auto mode ● 0 means auto wind under non auto mode
	reserved

SW7 definition

	Standard configure
	Last one in the network

J1,J2 definition

	J1 no Jumpers means power off memory function
	J1 Jumpers means no power off memory function
	reserved

0/1 definition

	Means 0
	Means 1

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 (°CDB)	Indoor temperature (°CWB/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	1.3	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
4.5	10.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0

	12.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.9	3.0
	14.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.8	3.0
	16.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	2.9
	18.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	20.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.7	3.0
	21.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.6	3.0
	23.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.3	3.4	5.5	3.0
	25.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.2	3.0	5.4	2.9
	27.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	3.0	5.2	2.8
	29.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.1	2.9	5.2	2.8
	31.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	5.0	2.9	5.1	2.7
	33.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.9	2.8	5.1	2.7
	35.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.8	5.0	2.7
	37.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.8	3.0	4.8	2.9	4.9	2.6
	39.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
	42.0	3.1	2.4	3.7	2.6	4.2	2.8	4.5	2.9	4.6	2.8	4.7	2.8	4.8	2.6
5.6	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
	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
7.1	37.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.9	3.5	5.9	3.2	6.0	3.1
	39.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
	42.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
	44.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.4	5.8	3.2	6.0	3.1
	46.0	3.9	2.7	4.6	3.0	5.3	3.3	5.6	3.4	5.7	3.7	5.8	3.2	6.0	3.1
	10.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.2	4.6
	12.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.1	4.5
	14.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	9.0	4.5
	16.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.9	4.4
	18.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.7	4.3
	20.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.5	4.2
	21.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.4	4.2
	23.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.3	4.1
	25.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.4	4.5	8.2	4.1
	27.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.4	8.1	4.3	8.2	4.1
	29.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	8.0	4.3	8.1	4.1
8.0	31.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.9	4.3	7.8	4.0
	33.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.8	4.2	7.8	4.0
	35.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.5	4.5	7.6	4.1	7.7	3.9
	37.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.4	4.4	7.5	4.1	7.6	4.0
	39.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
	42.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
	44.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
	46.0	4.9	3.6	5.8	4.0	6.7	4.3	7.1	4.5	7.2	4.3	7.4	4.1	7.6	4.0
	10.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.4	5.6
	12.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	14.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.2	5.5
	16.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	10.0	5.4
	18.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.8	5.3
	20.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.6	5.2
	21.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	23.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.4	5.1
	25.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.4	5.5	9.3	5.0

	27.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.4	9.1	5.3	9.2	5.1
	29.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	9.0	5.3	9.1	5.0
	31.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.9	5.2	8.8	4.8
	33.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
	35.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.6	5.1	8.6	4.8
	37.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.3	5.4	8.4	5.0	8.6	4.9
	39.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	42.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	44.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9
	46.0	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.1	5.3	8.3	5.0	8.6	4.9

7.2 Heating

TC: total capacity

WB: wet-bulb temperature

DB: dry-bulb temperature

Indoor Unit size (kW)	Outdoor temperature (°C)		Indoor temperature (°C DB)					
			16.00	18.00	20.00	21.00	22.00	24.00
			TC	TC	TC	TC	TC	TC
	WB	DB	kW	kW	kW	kW	kW	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
4.5	-20	-19.8	2.80	2.80	2.80	2.80	2.80	2.80
	-19	-18.8	3.00	3.00	3.00	3.00	3.00	3.00
	-17	-16.7	3.15	3.15	3.15	3.15	3.15	3.15
	-15	-14.7	3.25	3.25	3.25	3.25	3.25	3.25
	-13.00	-12.60	3.35	3.35	3.35	3.35	3.35	3.35
	-11.00	-10.50	3.50	3.50	3.50	3.50	3.50	3.50
	-10.00	-9.50	3.65	3.65	3.65	3.65	3.65	3.65
	-9.10	-8.50	3.75	3.75	3.75	3.75	3.75	3.75
	-7.60	-7.00	3.80	3.80	3.80	3.80	3.80	3.80
	-5.60	-5.00	3.95	3.95	3.95	3.95	3.95	3.95
	-3.70	-3.00	4.15	4.15	4.15	4.15	4.15	4.15
	-0.70	0.00	4.45	4.45	4.45	4.45	4.45	4.20
	2.20	3.00	4.70	4.70	4.70	4.70	4.60	4.20
	4.10	5.00	4.85	4.85	4.85	4.85	4.60	4.20
	6.00	7.00	5.00	5.00	5.00	4.85	4.60	4.20
	7.90	9.00	5.15	5.15	5.00	4.85	4.60	4.20
	9.80	11.00	5.30	5.30	5.00	4.85	4.60	4.20
	11.80	13.00	5.50	5.40	5.00	4.85	4.60	4.20
	13.70	15.00	5.65	5.40	5.00	4.85	4.60	4.20
5.6	-20	-19.8	3.53	3.53	3.53	3.53	3.53	3.53
	-19	-18.8	3.78	3.78	3.78	3.78	3.78	3.78
	-17	-16.7	3.97	3.97	3.97	3.97	3.97	3.97
	-15	-14.7	4.10	4.10	4.10	4.10	4.10	4.10
	-13.00	-12.60	4.22	4.22	4.22	4.22	4.22	4.22
	-11.00	-10.50	4.41	4.41	4.41	4.41	4.41	4.41
	-10.00	-9.50	4.60	4.60	4.60	4.60	4.60	4.60
	-9.10	-8.50	4.73	4.73	4.73	4.73	4.73	4.73
	-7.60	-7.00	4.79	4.79	4.79	4.79	4.79	4.79
	-5.60	-5.00	4.98	4.98	4.98	4.98	4.98	4.98
	-3.70	-3.00	5.23	5.23	5.23	5.23	5.23	5.23
	-0.70	0.00	5.61	5.61	5.61	5.61	5.61	5.29
	2.20	3.00	5.92	5.92	5.92	5.92	5.80	5.29
	4.10	5.00	6.11	6.11	6.11	6.11	5.80	5.29
	6.00	7.00	6.30	6.30	6.30	6.11	5.80	5.29
	7.90	9.00	6.49	6.49	6.30	6.11	5.80	5.29
	9.80	11.00	6.68	6.68	6.30	6.11	5.80	5.29
	11.80	13.00	6.93	6.80	6.30	6.11	5.80	5.29
	13.70	15.00	7.12	6.80	6.30	6.11	5.80	5.29
7.1	-20	-19.8	4.48	4.48	4.48	4.48	4.48	4.48
	-19	-18.8	4.80	4.80	4.80	4.80	4.80	4.80
	-17	-16.7	5.04	5.04	5.04	5.04	5.04	5.04
	-15	-14.7	5.20	5.20	5.20	5.20	5.20	5.20
	-13.00	-12.60	5.36	5.36	5.36	5.36	5.36	5.36
	-11.00	-10.50	5.60	5.60	5.60	5.60	5.60	5.60
	-10.00	-9.50	5.84	5.84	5.84	5.84	5.84	5.84
	-9.10	-8.50	6.00	6.00	6.00	6.00	6.00	6.00
	-7.60	-7.00	6.08	6.08	6.08	6.08	6.08	6.08
	-5.60	-5.00	6.32	6.32	6.32	6.32	6.32	6.32
	-3.70	-3.00	6.64	6.64	6.64	6.64	6.64	6.64
	-0.70	0.00	7.12	7.12	7.12	7.12	7.12	6.72
	2.20	3.00	7.52	7.52	7.52	7.52	7.36	6.72
	4.10	5.00	7.76	7.76	7.76	7.76	7.36	6.72
	6.00	7.00	8.00	8.00	8.00	7.76	7.36	6.72
	7.90	9.00	8.24	8.24	8.00	7.76	7.36	6.72
	9.80	11.00	8.48	8.48	8.00	7.76	7.36	6.72
	11.80	13.00	8.80	8.64	8.00	7.76	7.36	6.72
	13.70	15.00	9.04	8.64	8.00	7.76	7.36	6.72

8.0	-20	-19.8	5.04	5.04	5.04	5.04	5.04	5.04
	-19	-18.8	5.40	5.40	5.40	5.40	5.40	5.40
	-17	-16.7	5.67	5.67	5.67	5.67	5.67	5.67
	-15	-14.7	5.85	5.85	5.85	5.85	5.85	5.85
	-13.00	-12.60	6.03	6.03	6.03	6.03	6.03	6.03
	-11.00	-10.50	6.30	6.30	6.30	6.30	6.30	6.30
	-10.00	-9.50	6.57	6.57	6.57	6.57	6.57	6.57
	-9.10	-8.50	6.75	6.75	6.75	6.75	6.75	6.75
	-7.60	-7.00	6.84	6.84	6.84	6.84	6.84	6.84
	-5.60	-5.00	7.11	7.11	7.11	7.11	7.11	7.11
	-3.70	-3.00	7.47	7.47	7.47	7.47	7.47	7.47
	-0.70	0.00	8.01	8.01	8.01	8.01	8.01	7.56
	2.20	3.00	8.46	8.46	8.46	8.46	8.28	7.56
	4.10	5.00	8.73	8.73	8.73	8.73	8.28	7.56
	6.00	7.00	9.00	9.00	9.00	8.73	8.28	7.56
	7.90	9.00	9.27	9.27	9.00	8.73	8.28	7.56
	9.80	11.00	9.54	9.54	9.00	8.73	8.28	7.56
	11.80	13.00	9.90	9.72	9.00	8.73	8.28	7.56
	13.70	15.00	10.17	9.72	9.00	8.73	8.28	7.56

8. Electrical Characteristics

Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MVD-22Z/DHN1-F4	50/60	220-240V	198	254	0.36	5	0.026	0.29
MVD-22Z/DHN1-F5	50/60	220-240V	198	254	0.36	5	0.026	0.29
MVD-22Z/DHN1-F3B	50/60	220-240V	198	254	0.36	5	0.026	0.29
MVD-28Z/DHN1-F4	50/60	220-240V	198	254	0.4	5	0.029	0.32
MVD-28Z/DHN1-F5	50/60	220-240V	198	254	0.4	5	0.029	0.32
MVD-28Z/DHN1-F3B	50/60	220-240V	198	254	0.4	5	0.029	0.32
MVD-36Z/DHN1-F4	50/60	220-240V	198	254	0.33	5	0.022	0.26
MVD-36Z/DHN1-F5	50/60	220-240V	198	254	0.33	5	0.022	0.26
MVD-36Z/DHN1-F3B	50/60	220-240V	198	254	0.33	5	0.022	0.26
MVD-45Z/DHN1-F4	50/60	220-240V	198	254	0.36	5	0.027	0.29
MVD-45Z/DHN1-F5	50/60	220-240V	198	254	0.36	5	0.027	0.29
MVD-45Z/DHN1-F3B	50/60	220-240V	198	254	0.36	5	0.027	0.29
MVD-56Z/DHN1-F4	50/60	220-240V	198	254	0.61	5	0.049	0.49
MVD-56Z/DHN1-F5	50/60	220-240V	198	254	0.61	5	0.049	0.49
MVD-56Z/DHN1-F3B	50/60	220-240V	198	254	0.61	5	0.049	0.49
MVD-71Z/DHN1-F4	50/60	220-240V	198	254	1.01	5	0.09	0.81
MVD-71Z/DHN1-F5	50/60	220-240V	198	254	1.01	5	0.09	0.81
MVD-71Z/DHN1-F3B	50/60	220-240V	198	254	1.01	5	0.09	0.81
MVD-80Z/DHN1-F4	50/60	220-240V	198	254	0.96	5	0.086	0.77
MVD-80Z/DHN1-F5	50/60	220-240V	198	254	0.96	5	0.086	0.77
MVD-80Z/DHN1-F3B	50/60	220-240V	198	254	0.96	5	0.086	0.77

Remark:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

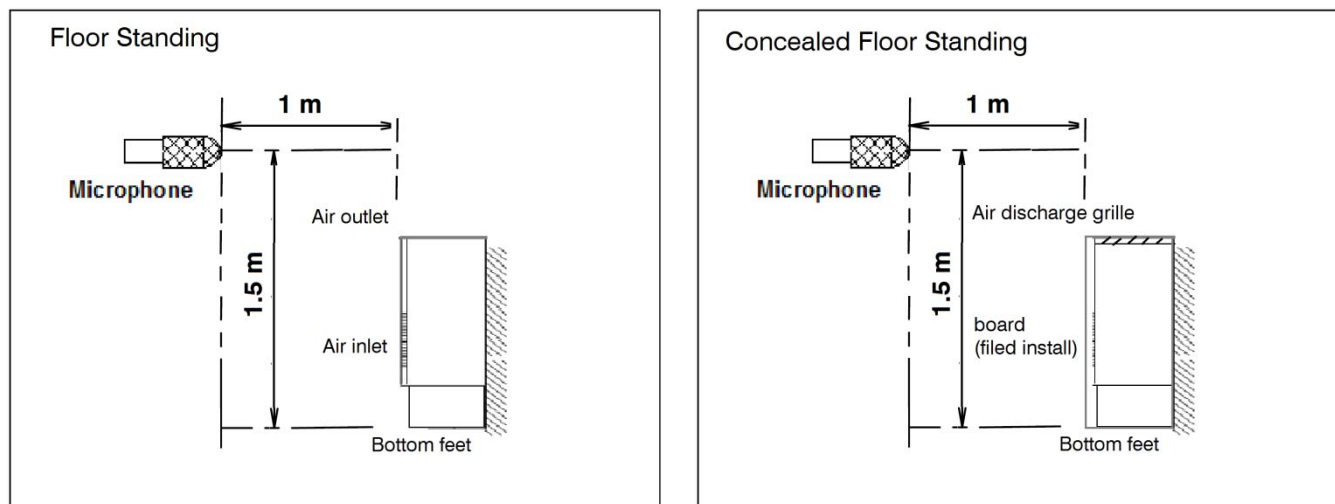
KW: Fan Motor Rated Output (k

FLA: Full Load Amps. (A)

IFM:Indoor Fan Motor

9. Sound Levels

9.1 Test condition



Note:

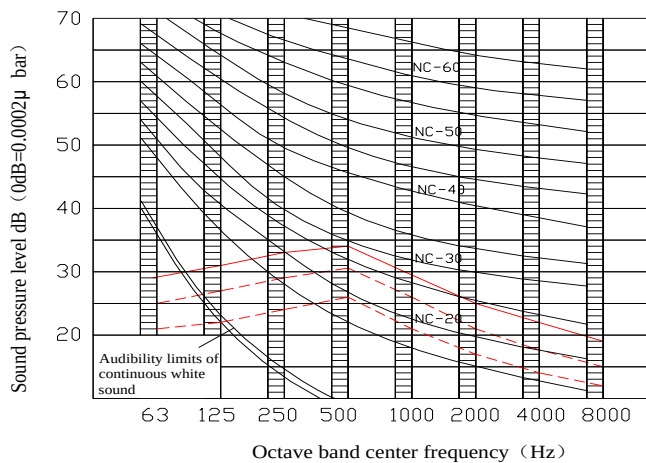
- 1, during actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 2, Semi-anechoic chamber conversion value, measured at a point 1m in front of the unit at a height of 1.5m.

9.2 Test value

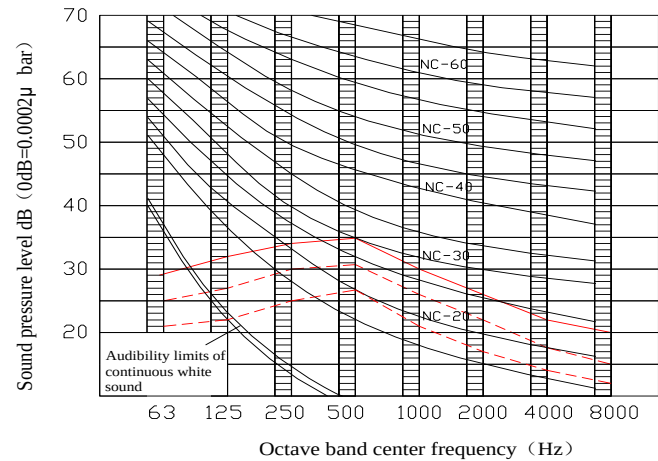
Model	Sound test value dB(A)		
	H	M	L
MVD-22Z/DHN1-F4	36	33	29
MVD-22Z/DHN1-F5	36	33	29
MVD-22Z/DHN1-F3B	36	33	29
MVD-28Z/DHN1-F4	36	33	29
MVD-28Z/DHN1-F5	36	33	29
MVD-28Z/DHN1-F3B	36	33	29
MVD-36Z/DHN1-F4	37	34	30
MVD-36Z/DHN1-F5	37	34	30
MVD-36Z/DHN1-F3B	37	34	30
MVD-45Z/DHN1-F4	37	34	30
MVD-45Z/DHN1-F5	37	34	30
MVD-45Z/DHN1-F3B	37	34	30
MVD-56Z/DHN1-F4	41	35	31
MVD-56Z/DHN1-F5	41	35	31
MVD-56Z/DHN1-F3B	41	35	31
MVD-71Z/DHN1-F4	44	39	33
MVD-71Z/DHN1-F5	44	39	33
MVD-71Z/DHN1-F3B	44	39	33
MVD-80Z/DHN1-F4	44	39	33
MVD-80Z/DHN1-F5	44	39	33
MVD-80Z/DHN1-F3B	44	39	33

9.3 Octave Band Level

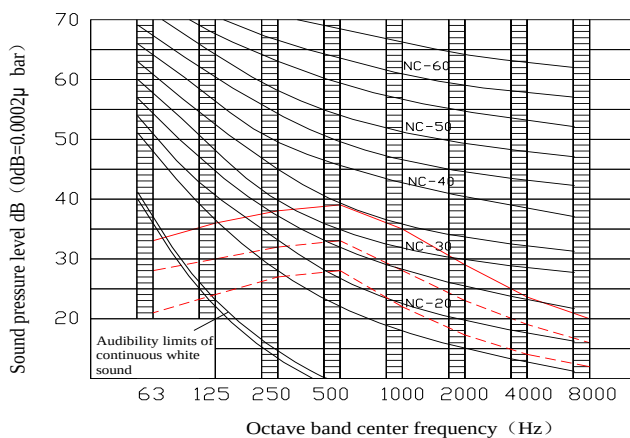
2,2 kW to 2,8 kW



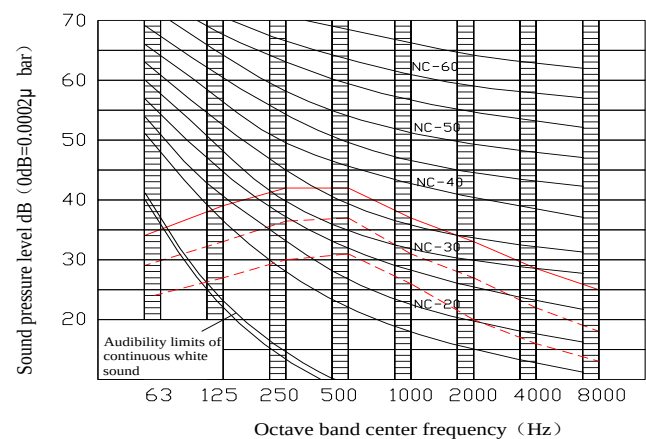
3,6 kW to 4,5 kW



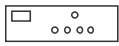
5,6 kW



7,1 kW to 8 kW



10. Accessories

Name	Quantity	Shape	Usage
Owner's manual	1	/	/
Installation manual	1	/	/
Pipe insulation material	2		Heat insulation
Signal receiver display board	1		Receive signals
Mounting screw(ST3.9x12-C-H)	4		/
Cooper nut	1		Use for pipe connection of engineering installation
Remote controller	1		Control the indoor units
Remote controller holder	1		For holding the remote controller
Mounting screw (ST2.9x10-C-H)	2		/
Alkaline dry batteries(AM4)	2		/



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