MUNDOCLIMA®

MVD

Duct 100% fresh air MVD DC

Service manual

CL23390 to CL23394

English

Content

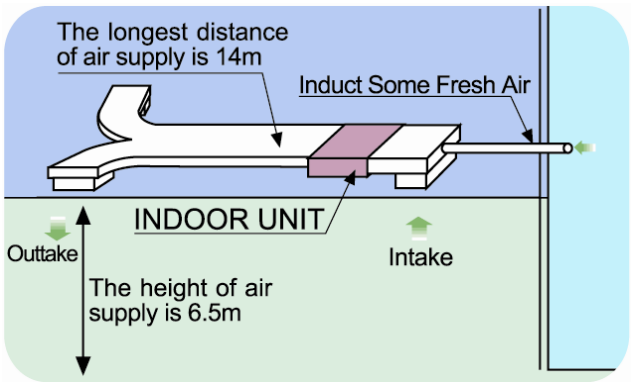
1. Features

1.1 100% Fresh Air Processing Unit

Both fresh air treatment and heating and cooling can be achieved successfully in a single system. Indoor units and fresh air processing unit can be connected to the same refrigerant system, resulting in enhanced design flexibility and a significant reduction in total system costs.

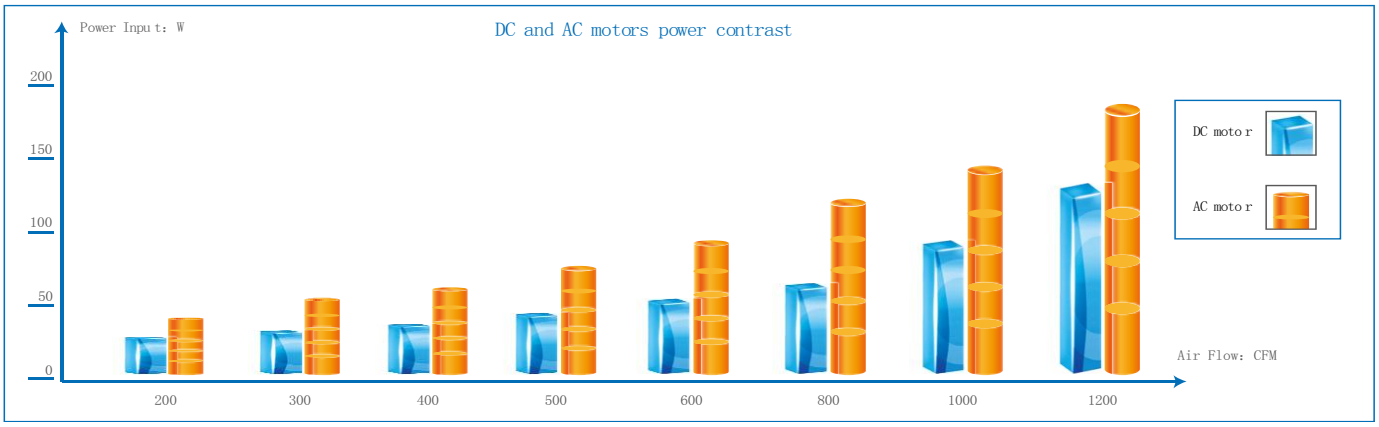
1.2 High External Static Pressure

External static pressure of Indoor Unit can be up to 280Pa, which allows extensive duct work for flexible applications. So the cool air can be delivered to every indoor corner even in a super-high ceiling. The maximal distance of air supply is about 14m; the height of air supply is about 6.5m.



1.3 Adopting DC fan motor

Adoption of a DC fan motor can raise efficiency up to 90%. When compared with an AC fan motor, power consumption can be reduced by up to 30% with a DC fan motor.



Thanks to the DC fan motor, this fresh air processing unit can meet the latest CE certification requirements.

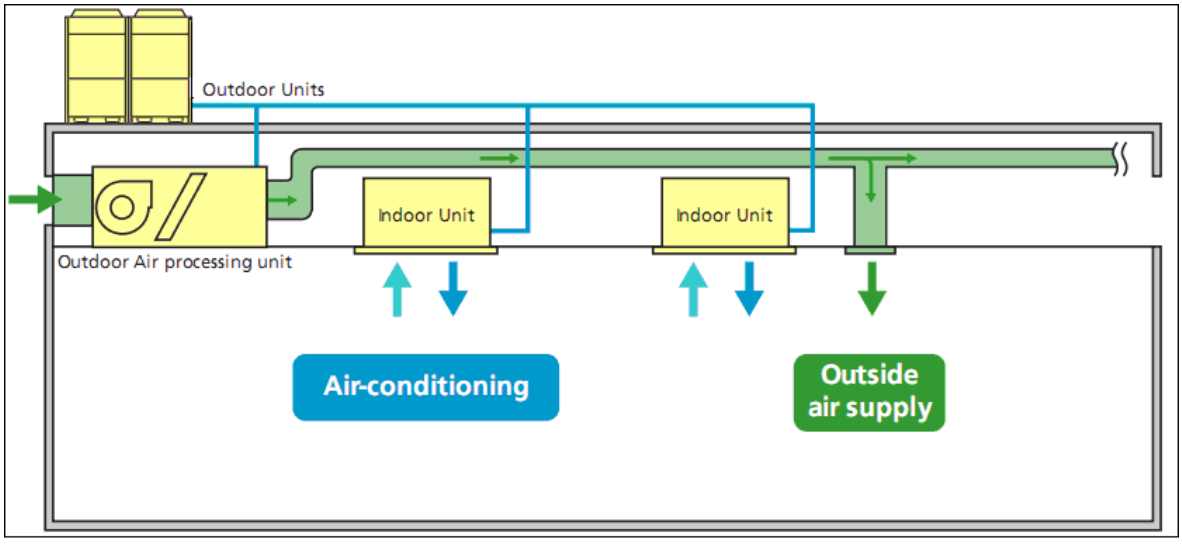
1.4 Wired control and group control available.

1.5 High capacity of cooling/heating and efficient.

1.6 Innovative air supply, which provides homogeneous conditioning of the room temperature.

1.7 Can be connected to all Mundoclima VRF systems except heat recovery VRF and 8~26kW side discharge outdoor units.

Layout Example:



2. Specifications

Model			**MVD-125T1/DHN1-FA**	**MVD-140T1/DHN1-FA**
Power supply		V-Ph-Hz	220-240V~50/60Hz	220-240V~50/60Hz
Cooling	Capacity	kW	12.5	14
		Btu/h	42700	47800
	Input	W	370	370
	Rated current	A	2.8	2.8
Heating	Capacity	kW	10.5	12
		Btu/h	35800	41000
	Input	W	370	370
	Rated current	A	2.8	2.8
Indoor fan motor	Model		WZDK750-38GS-W	WZDK750-38GS-W
	Type		DC Motor	DC Motor
	Brand		Pansonic/ Welling	Pansonic/ Welling
	Output	W	290	290
Indoor coil	Number of rows		4	4
	Tube pitch(a) × row pitch(b)	in.(mm)	1×7/8 (25.4×22)	1×7/8 (25.4×22)
	Fin spacing	in.(mm)	1/16(1.6)	1/16(1.6)
	Fin type		Hydrophilic aluminum	
	Tube outside dia. and type	in.(mm)	3/8(9.53)	3/8(9.53)
			Inner groove tube	Inner groove tube
	Coil length × height × width	in.(mm)	39-7/32×14-1/64×3-15/32(996×356×88)	
	Number of circuits		7	7
Indoor air flow (H/M/L)		m^3/h	2440/2000/1470	2440/2000/1470
		CFM	1437/1178/866	1437/1178/866
*Indoor external static pressure		Pa	50(0~200)	50(0~200)
Indoor noise level (Sound pressure)(H/M/L)		dB(A)	52/50/48	52/50/48
Indoor unit	Dimension (W×H×D)	in.(mm)	51-3/16×16-17/32×27-11/64(1300×420×690)	
	Packing (W×H×D)	in.(mm)	56-17/23×17-23/32×30-1/4(1436×450×768)	
	Net/Gross weight	lbs.(kg)	138.9/156.5(63/71)	138.9/156.5(63/71)
Refrigerant type			R410A	
Throttle type			EXV	
Design pressure(H/L)		MPa	4.4/2.6	4.4/2.6
Pipe connections	Liquid side/ Gas side	in.(mm)	Φ3/8,Φ5/8(Φ9.53/Φ15.9)	Φ3/8,Φ5/8(Φ9.53/Φ15.9)
	Drain pipe	in.(mm)	OD 63/64 (Φ25)	OD 63/64 (Φ25)
Operation temperature range		˚C	Heating: -5~16; Fan only: 16~20; Cooling: 20~43	
Controller			Wired controller KJR-29B1/BK-E	

Notes:

1. Nominal cooling capacities are based on the following conditions: outdoor air temperature: 33ºC DB, 28ºC WB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: outdoor temperature: 0°CDB, -2.9°CWB, and equivalent ref. Piping: 8m (horizontal)
3. *( ) is the available static pressure range which represents optimal pressure levels at which the unit can operate stably. When selecting a suitable unit please refer to the recommended static pressure level ranges in the installation manual. Risks of selecting a unit outside of the optimal range include higher noise levels, low air flow volume ect.
   The value without ( ) is rated static pressure.

Model			MVD-200T1/DHN1-FA	MVD-250T1/DHN1-FA	MVD-280T1/DHN1-FA
Power supply		V-Ph-Hz	220-240V~50/60Hz	220-240V~50/60Hz	220-240V~50/60Hz
Cooling	Capacity	kW	20.0	25.0	28.0
		Btu/h	68200	85300	95500
	Input	W	615	670	670
	Rated current	A	4.5	5	5
Heating	Capacity	kW	18.0	20.0	22.0
		Btu/h	61400	68200	75100
	Input	W	615	670	670
	Rated current	A	4.5	5	5
Indoor fan motor	Model		WZDK750-38GS-W	WZDK750-38GS-W	WZDK750-38GS-W
	Type		DC Motor	DC Motor	DC Motor
	Brand		Pansonic/ Nidec	Pansonic/ Nidec	Pansonic/ Nidec
	Output	W	480	520	520
Indoor coil	Number of rows		4	4	4
	Tube pitch(a) × row pitch(b)	in.(mm)	1×7/8 (25.4×22)	1×7/8 (25.4×22)	1×7/8 (25.4×22)
	Fin spacing	in.(mm)	5/64(1.8)	5/64(1.8)	5/64(1.8)
	Fin type		Hydrophilic aluminum		
	Tube outside dia. and type	in.(mm)	3/8(Φ9.53)	3/8(Φ9.53)	3/8(Φ9.53)
			Inner groove tube	Inner groove tube	Inner groove tube
	Coil length × height × width	in.(mm)	44-19/64×20×3-15/32(1125×508×88)		
	Number of circuits		20	20	20
Indoor air flow (H/M/L)		m^3/h	3860/3430/2890	3860/3430/2890	3860/3430/2890
		CFM	2273/2020/1702	2273/2020/1702	2273/2020/1702
*Indoor external static pressure		Pa	62(0~200)	62(0~200)	62(0~200)
Indoor noise level (Sound pressure)(H/M/L)		dB(A)	52/51/49	53/52/50	53/52/50
Indoor unit	Dimension (W×H×D)	in.(mm)	1450× 505× 925		
	Packing (W×H×D)	in.(mm)	1509× 550× 990		
	Net/ Gross weight	lbs.(kg)	238/264.6(108/120)	238/264.6(108/120)	238/264.6(108/120)
Refrigerant type			R410A		
Throttle type			EXV		
Design pressure(H/L)		MPa	4.2/2.0	4.2/2.0	4.2/2.0
Pipe connections	Liquid side/ Gas side	in.(mm)	Φ3/8, Φ5/8(Φ9.53/Φ15.9)		
	Drain pipe	in.(mm)	OD 1-17/64(Φ32)		
Operation temperature range		˚C	Heating: -5~16; Fan only: 16~20; Cooling: 20~43		
Controller			Wired controller KJR-29B1/BK-E		

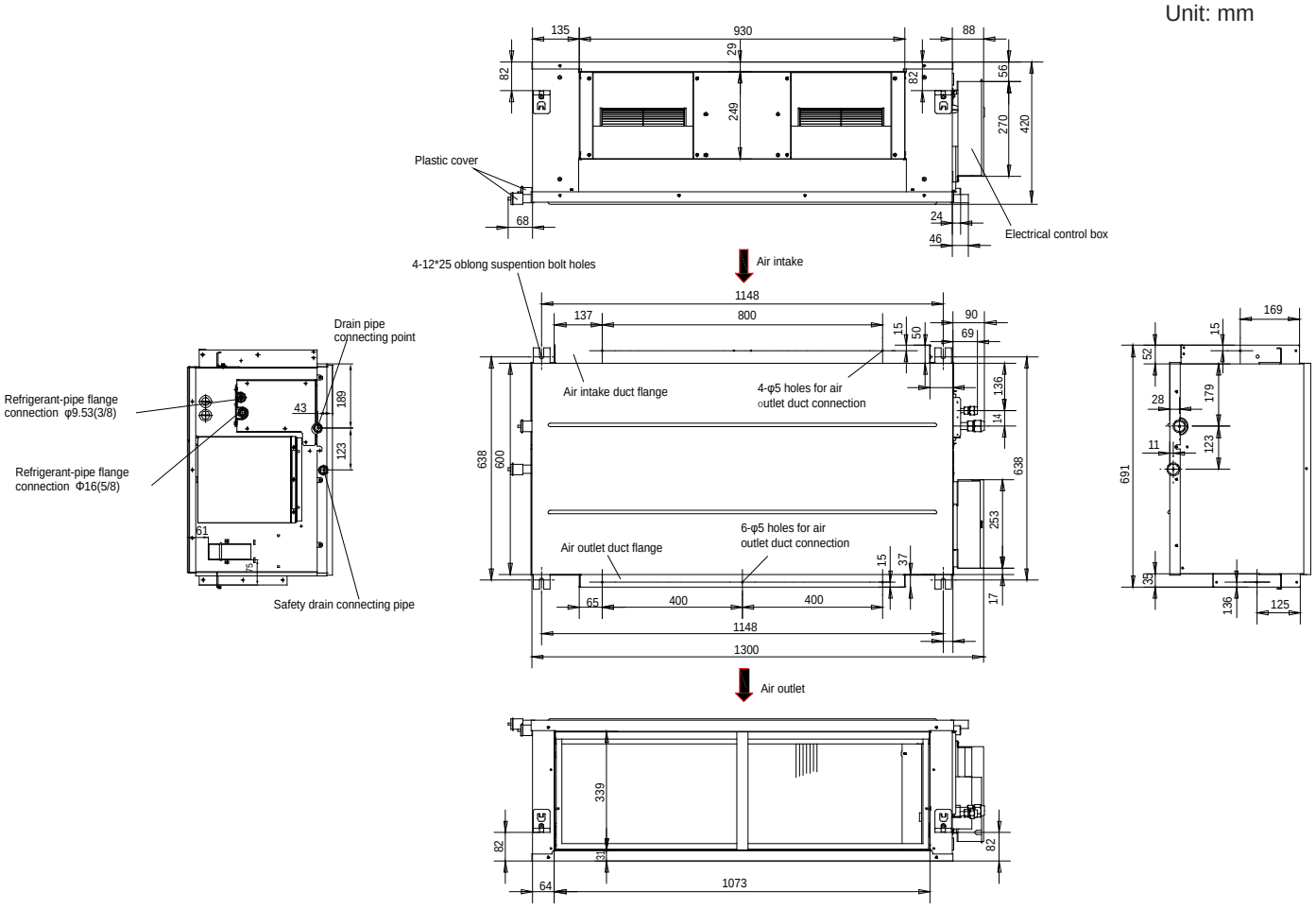
Notes:

1. Nominal cooling capacities are based on the following conditions: outdoor air temperature: 33ºC DB, 28ºC WB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: outdoor temperature: 0°C DB, -2.9°C WB, and equivalent ref. Piping: 8m (horizontal)
3. *( ) is the available static pressure range which represents optimal pressure levels at which the unit can operate stably. When selecting a suitable unit please refer to the recommended static pressure level ranges in the installation manual. Risks of selecting a unit outside of the optimal range include higher noise levels, low air flow volume ect.
   The value without ( ) is rated static pressure.

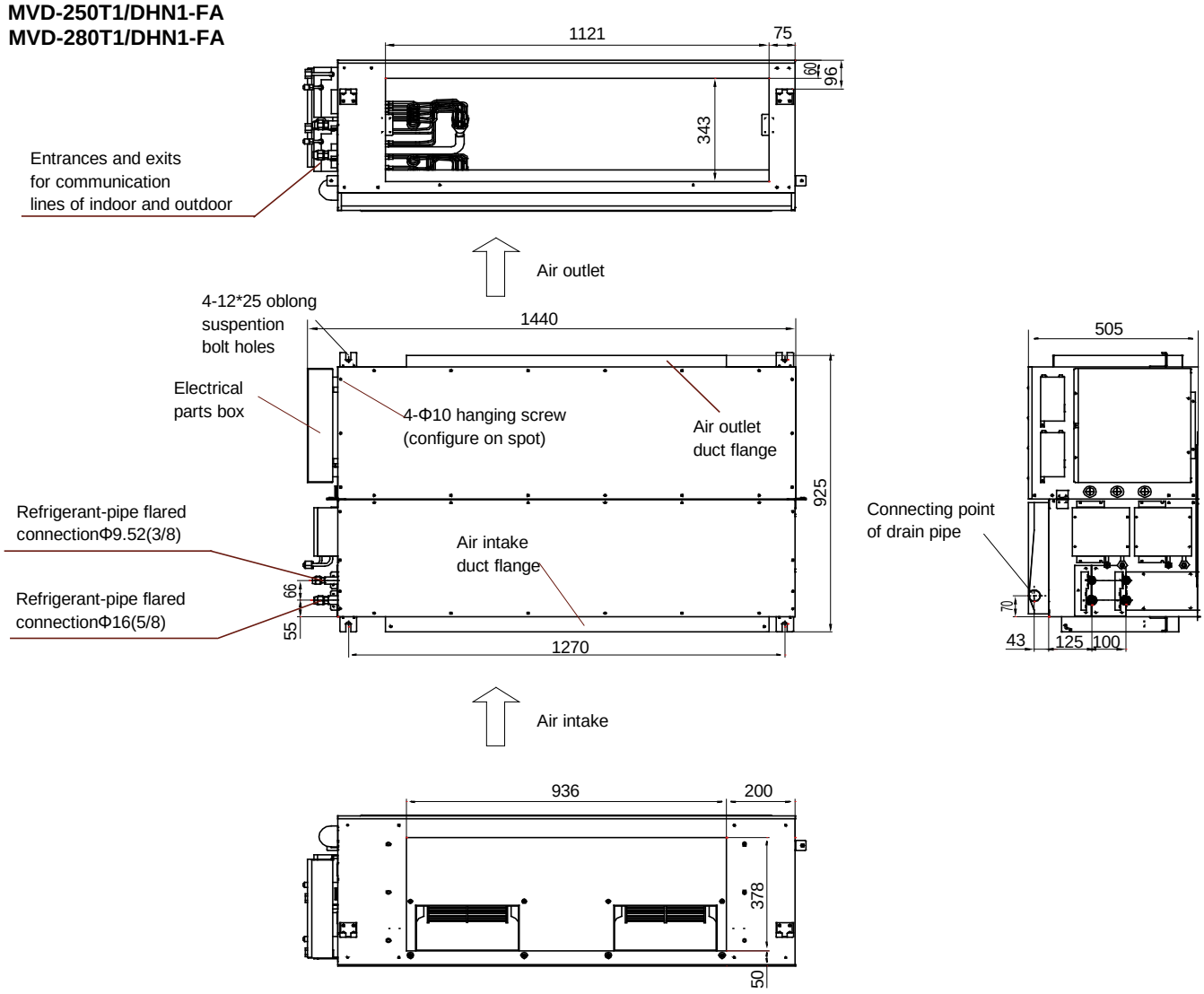
3. Dimensions

MVD-125T1/DHN1-FA
MVD-140T1/DHN1-FA

Unit: mm

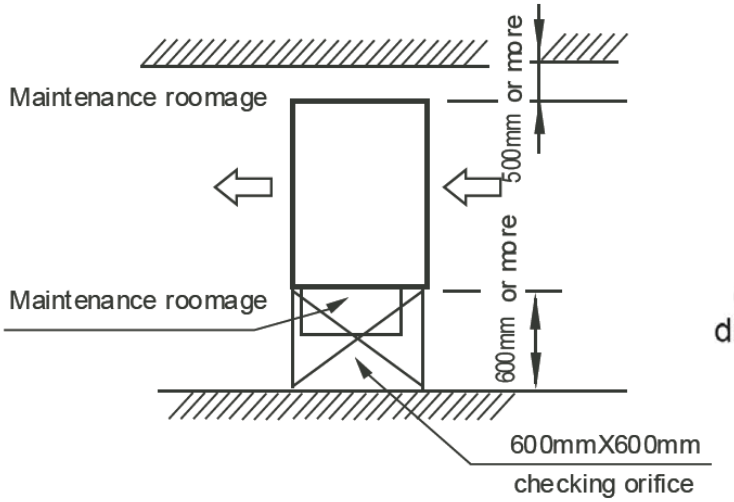


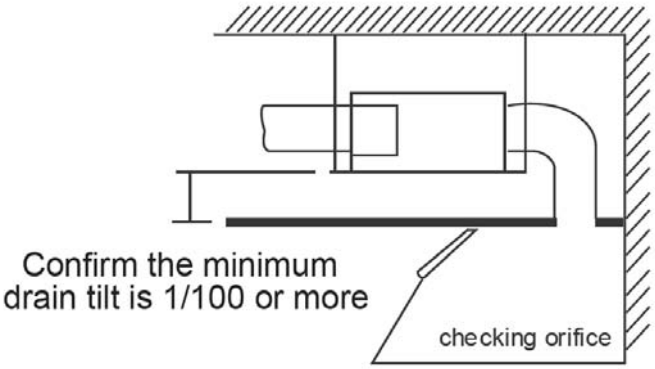
MVD-200T1/DHN1-FA
MVD-250T1/DHN1-FA
MVD-280T1/DHN1-FA



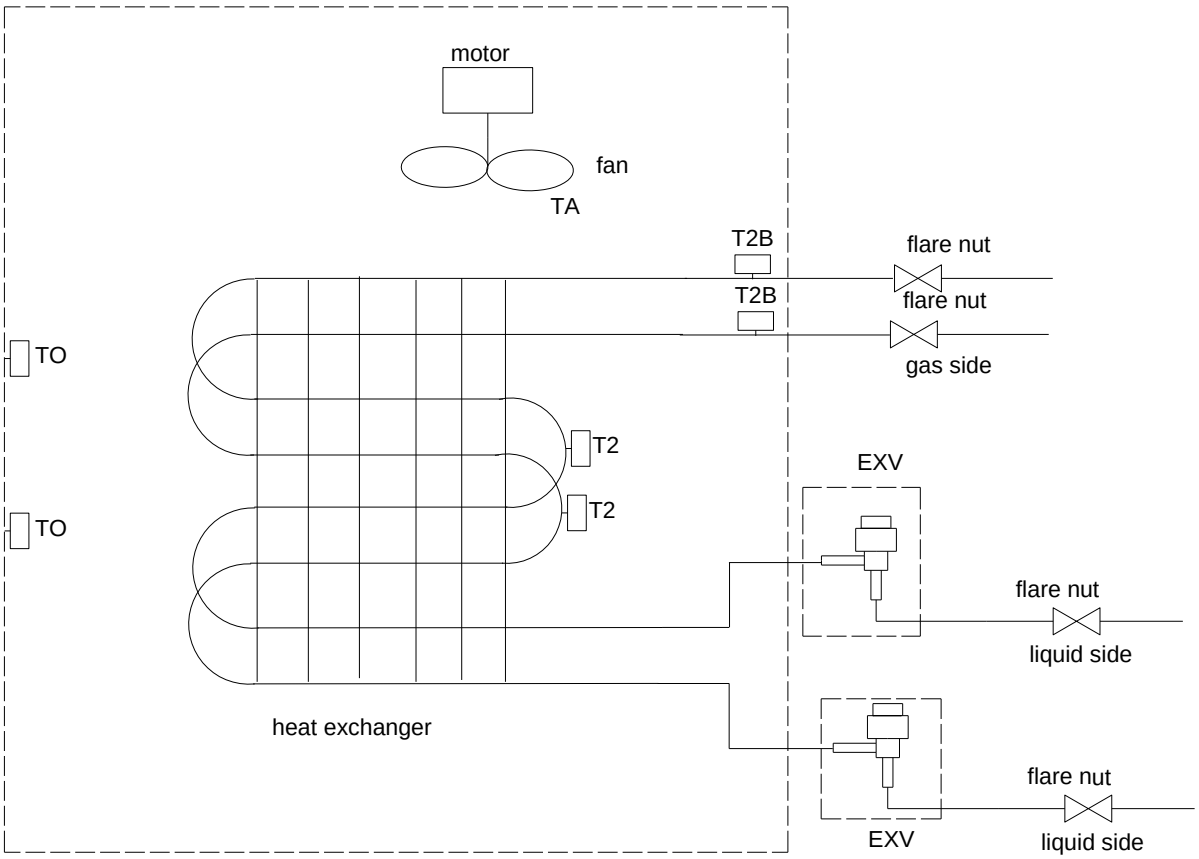
4. Service Spaces

Ensure enough space required for installation and maintenance.



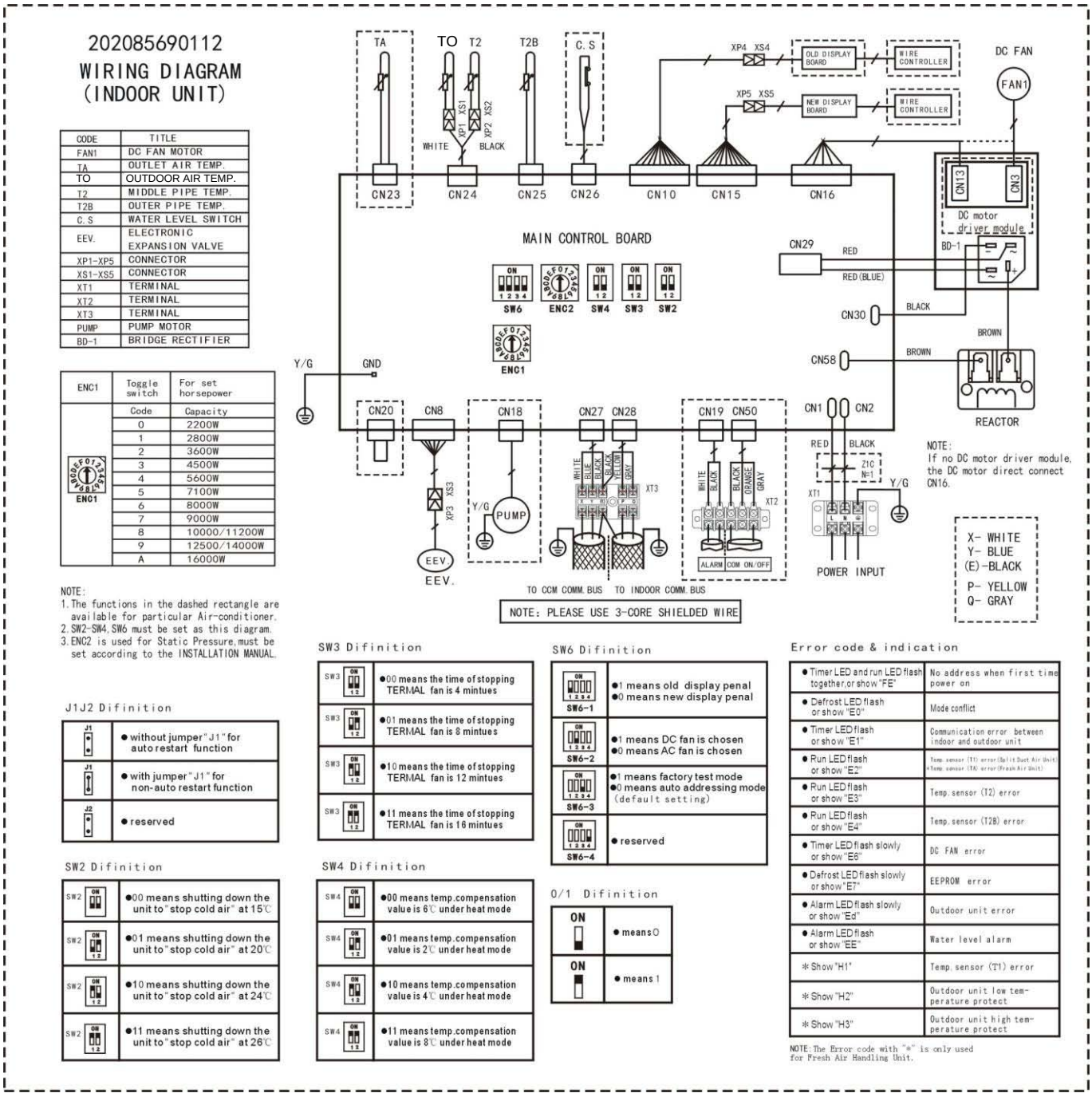


5. Piping Diagrams

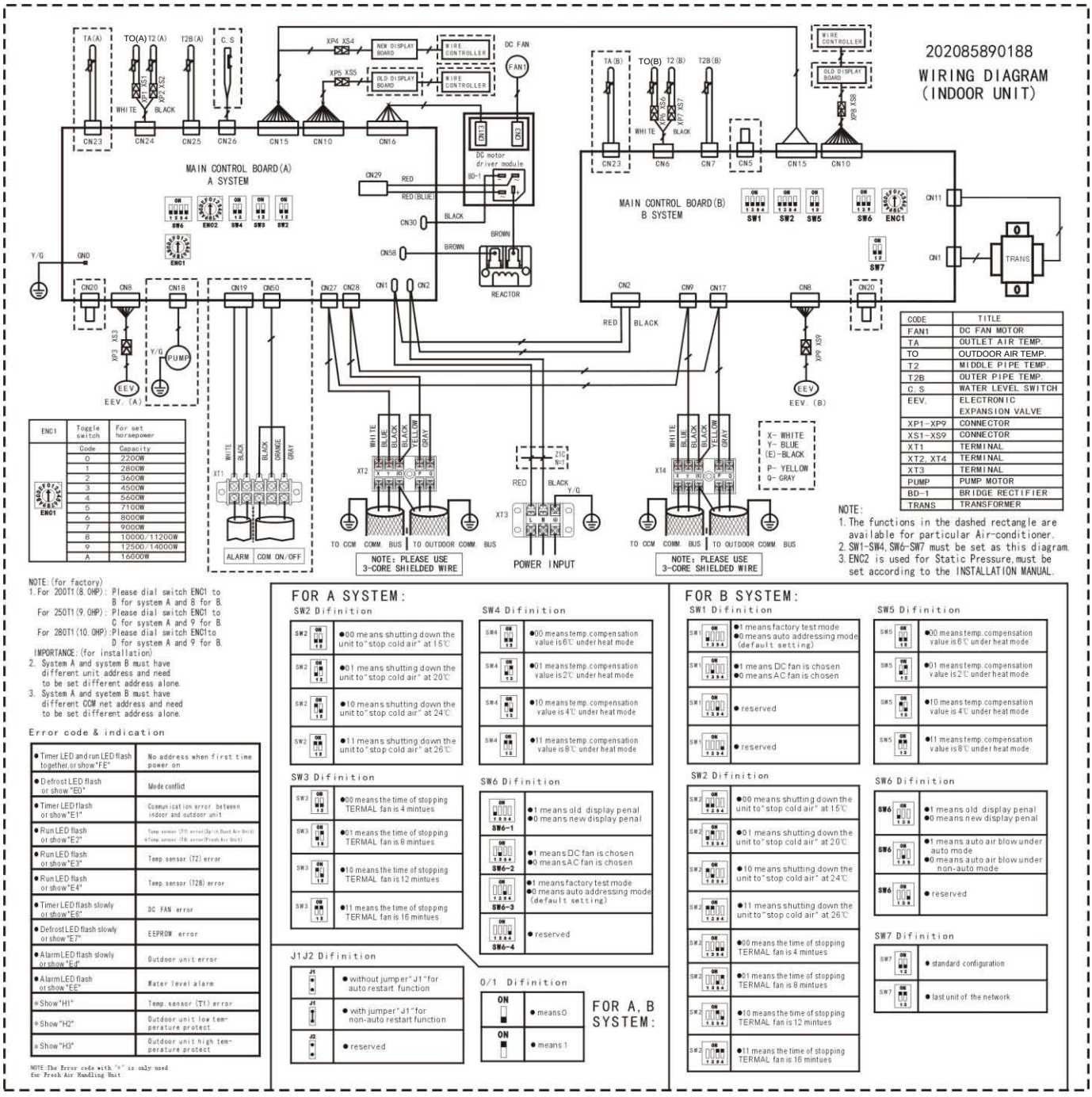


6. Wiring Diagrams

MVD-125T1/DHN1-FA
MVD-140T1/DHN1-FA



MVD-200T1/DHN1-FA
MVD-250T1/DHN1-FA
MVD-280T1/DHN1-FA



CODE	TITLE
FAN1	DC FAN MOTOR
TA	OUTLET AIR TEMP.
TO	OUTDOOR AIR TEMP.
T2	MIDDLE PIPE TEMP.
T2B	OUTER PIPE TEMP.
C.S	WATER LEVEL SWITCH
EEV.	ELECTRONIC EXPANSION VALVE
XP1-XP9	CONNECTOR
XS1-XS9	CONNECTOR
XT1	TERMINAL
XT2, XT4	TERMINAL
XT3	TERMINAL
PUMP	PUMP MOTOR
BD-1	BRIDGE RECTIFIER
TRANS	TRANSFORMER

ENC1 Toggle switch Code	For set horsepower Capacity
0	220OW
1	280OW
2	360OW
3	450OW
4	560OW
5	710OW
6	800OW
7	900OW
8	10000/11200W
9	12500/14000W
A	16000W

NOTE: (for factory)
1. For 200T1(8.0HP): Please dial switch ENC1 to B for system A and 8 for B.
For 250T1(9.0HP): Please dial switch ENC1 to C for system A and 9 for B.
For 280T1(10.0HP): Please dial switch ENC1 to D for system A and 9 for B.

IMPORTANCE: (for installation)
2. System A and system B must have different unit address and need to be set different address alone.
3. System A and syetem B must have different CCM net address and need to be set different address alone.

Error code & indication

● Timer LED and run LED flash together, or show "FE"	No address when first time power on
● Defrost LED flash or show "E0"	Mode conflict
● Timer LED flash or show "E1"	Communication error between indoor and outdoor unit
● Run LED flash or show "E2"	Temp. sensor (T1) error (Split Duct Air Unit) / Temp. sensor (T4) error (Fresh Air Unit)
● Run LED flash or show "E3"	Temp. sensor (T2) error
● Run LED flash or show "E4"	Temp. sensor (T2B) error
● Timer LED flash slowly or show "E6"	DC FAN error
● Defrost LED flash slowly or show "E7"	EEPROM error
● Alarm LED flash slowly or show "E8"	Outdoor unit error
● Alarm LED flash or show "EE"	Water level alarm
✳ Show "H1"	Temp. sensor (T1) error
✳ Show "H2"	Outdoor unit low temperature protect
✳ Show "H3"	Outdoor unit high temperature protect

NOTE: The Error code with "✳" is only used for Fresh Air Handling Unit.

FOR A SYSTEM:

SW2 Definition
- ●00 means shutting down the unit to "stop cold air" at 15℃
- ●01 means shutting down the unit to "stop cold air" at 20℃
- ●10 means shutting down the unit to "stop cold air" at 24℃
- ●11 means shutting down the unit to "stop cold air" at 26℃

SW4 Definition
- ●00 means temp. compensation value is 6℃ under heat mode
- ●01 means temp. compensation value is 2℃ under heat mode
- ●10 means temp. compensation value is 4℃ under heat mode
- ●11 means temp. compensation value is 8℃ under heat mode

SW3 Definition
- ●00 means the time of stopping TERMAL fan is 4 mintues
- ●01 means the time of stopping TERMAL fan is 8 mintues
- ●10 means the time of stopping TERMAL fan is 12 mintues
- ●11 means the time of stopping TERMAL fan is 16 mintues

SW6 Definition
- SW6-1: ●1 means old display penal ●0 means new display penal
- SW6-2: ●1 means DC fan is chosen ●0 means AC fan is chosen
- SW6-3: ●1 means factory test mode ●0 means auto addressing mode (default setting)
- SW6-4: ● reserved

J1J2 Definition
- J1: ● without jumper "J1" for auto restart function
- J1: ● with jumper "J1" for non-auto restart function
- J2: ● reserved

0/1 Definition
- ON: ● means 0
- ON: ● means 1

FOR A, B SYSTEM:

FOR B SYSTEM:

SW1 Definition
- ●1 means factory test mode ●0 means auto addressing mode (default setting)
- ●1 means DC fan is chosen ●0 means AC fan is chosen
- ● reserved
- ● reserved

SW5 Definition
- ●00 means temp. compensation value is 6℃ under heat mode
- ●01 means temp. compensation value is 2℃ under heat mode
- ●10 means temp. compensation value is 4℃ under heat mode
- ●11 means temp. compensation value is 8℃ under heat mode

SW2 Definition
- ●00 means shutting down the unit to "stop cold air" at 15℃
- ●01 means shutting down the unit to "stop cold air" at 20℃
- ●10 means shutting down the unit to "stop cold air" at 24℃
- ●11 means shutting down the unit to "stop cold air" at 26℃
- ●00 means the time of stopping TERMAL fan is 4 mintues
- ●01 means the time of stopping TERMAL fan is 8 mintues
- ●10 means the time of stopping TERMAL fan is 12 mintues
- ●11 means the time of stopping TERMAL fan is 16 mintues

SW6 Definition
- ●1 means old display penal ●0 means new display penal
- ●1 means auto air blow under auto mode ●0 means auto air blow under non-auto mode
- ● reserved

SW7 Definition
- ● standard configuration
- ● last unit of the network

7. Capacity Tables

7.1 MVD-125T1/DHN1-FA

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

Cooling

Outdoor temperature	℃ WB							
℃ DB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity (TC)							
	KW	KW	KW	KW	KW	KW	KW	KW
20.0	5.6	6.1	/	/	/	/	/	/
22.0	6.3	6.9	7.5	/	/	/	/	/
25.0	6.8	7.5	8.3	8.9	/	/	/	/
27.0	/	8.0	8.8	9.5	/	/	/	/
29.0	/	/	9.2	10.0	10.8	/	/	/
31.0	/	/	9.6	10.5	11.3	12.0	/	/
33.0	/	/	9.9	10.9	11.8	12.5	13.3	/
35.0	/	/	/	11.1	12.2	13.1	13.8	14.4
38.0	/	/	/	/	12.8	13.7	14.4	15.1
43.0	/	/	/	/	13.4	14.3	15.0	15.8

Heating

Outdoor temperature	℃ WB								
℃ DB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity (TC)								
	KW	KW	KW	KW	KW	KW	KW	KW	KW
-5.0	8.9	8.7	/	/	/	/	/	/	/
0.0	/	/	10.5	/	/	/	/	/	/
3.0	/	/	11.1	10.9	9.8	/	/	/	/
7.0	/		/	/	12.1	12.0	11.8	/	/
11.0	/	/	/	/	/	13.7	13.5	13.4	/
15.0	/	/	/	/	/	/	15.8	15.6	15.4

7.2 MVD-140T1/DHN1-FA

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

Cooling

Outdoor temperature	℃ WB							
℃ DB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity (TC)							
	KW	KW	KW	KW	KW	KW	KW	KW
20.0	6.3	6.8	/	/	/	/	/	/
22.0	7.0	7.8	8.4	/	/	/	/	/
25.0	7.6	8.4	9.2	10.0	/	/	/	/
27.0	/	8.9	9.8	10.7	/	/	/	/
29.0	/	/	10.3	11.2	12.1	/	/	/
31.0	/	/	10.7	11.7	12.6	13.5	/	/
33.0	/	/	11.1	12.2	13.2	14.0	14.8	/
35.0	/	/	/	12.5	13.7	14.6	15.4	16.2
38.0	/	/	/	/	14.3	15.3	16.1	16.9
43.0	/	/	/	/	15.0	16.0	16.8	17.7

Heating

Outdoor temperature	℃ WB								
℃ DB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity (TC)								
	KW	KW	KW	KW	KW	KW	KW	KW	KW
-5.0	10.2	10.0	/	/	/	/	/	/	/
0.0	/	/	12.0	/	/	/	/	/	/
3.0	/	/	12.7	12.5	11.2	/	/	/	/
7.0	/		/	/	13.8	13.7	13.5	/	/
11.0	/	/	/	/	/	15.6	15.4	15.3	/
15.0	/	/	/	/	/	/	18.0	17.8	17.6

7.3 MVD-200T1/DHN1-FA

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

Cooling

Outdoor temperature	℃ WB							
℃ DB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity (TC)							
	KW	KW	KW	KW	KW	KW	KW	KW
20.0	9.0	9.7	/	/	/	/	/	/
22.0	10.0	11.1	12.0	/	/	/	/	/
25.0	10.8	12.0	13.2	14.3	/	/	/	/
27.0	/	12.7	14.0	15.3	/	/	/	/
29.0	/	/	14.7	16.0	17.3	/	/	/
31.0	/	/	15.3	16.7	18.0	19.3	/	/
33.0	/	/	15.8	17.4	18.8	20.0	21.2	/
35.0	/	/	/	17.8	19.6	20.9	22.0	23.1
38.0	/	/	/	/	20.5	21.8	23.0	24.1
43.0	/	/	/	/	21.4	22.8	24.0	25.2

Heating

Outdoor temperature	℃ WB								
℃ DB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity (TC)								
	KW	KW	KW	KW	KW	KW	KW	KW	KW
-5.0	15.2	14.9	/	/	/	/	/	/	/
0.0	/	/	18.0	/	/	/	/	/	/
3.0	/	/	19.1	18.7	16.8	/	/	/	/
7.0	/		/	/	20.7	20.5	20.3	/	/
11.0	/	/	/	/	/	23.4	23.2	22.9	/
15.0	/	/	/	/	/	/	27.0	26.7	26.5

7.4 MVD-250T1/DHN1-FA

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

Cooling

Outdoor temperature	℃ WB							
℃ DB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity (TC)							
	KW	KW	KW	KW	KW	KW	KW	KW
20.0	11.2	12.1	/	/	/	/	/	/
22.0	12.5	13.9	15.0	/	/	/	/	/
25.0	13.5	15.0	16.5	17.9	/	/	/	/
27.0	/	15.9	17.5	19.1	/	/	/	/
29.0	/	/	18.4	20.0	21.6	/	/	/
31.0	/	/	19.1	20.9	22.5	24.1	/	/
33.0	/	/	19.8	21.8	23.5	25.0	26.5	/
35.0	/	/	/	22.3	24.5	26.1	27.5	28.9
38.0	/	/	/	/	25.6	27.3	28.7	30.2
43.0	/	/	/	/	26.7	28.5	30.0	31.5

Heating

Outdoor temperature	℃ WB								
℃ DB	**-7.0**	**-5.2**	**-2.9**	**0.0**	**2.0**	**4.0**	**6.0**	**10.0**	**14.0**
	Capacity (TC)								
	KW	**KW**	**KW**	**KW**	**KW**	**KW**	**KW**	**KW**	**KW**
-5.0	16.9	16.6	/	/	/	/	/	/	/
0.0	/	/	20.0	/	/	/	/	/	/
3.0	/	/	21.2	20.8	18.7	/	/	/	/
7.0	/		/	/	23.0	22.8	22.5	/	/
11.0	/	/	/	/	/	26.0	25.7	25.5	/
15.0	/	/	/	/	/	/	30.0	29.7	29.4

7.5 MVD-280T1/DHN1-FA

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

Cooling

Outdoor temperature	℃ WB							
℃ DB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity							
	KW	KW	KW	KW	KW	KW	KW	KW
20.0	12.5	13.6	/	/	/	/	/	/
22.0	14.0	15.5	16.8	/	/	/	/	/
25.0	15.1	16.8	18.5	20.0	/	/	/	/
27.0	/	17.8	19.6	21.4	/	/	/	/
29.0	/	/	20.6	22.4	24.2	/	/	/
31.0	/	/	21.4	23.4	25.2	27.0	/	/
33.0	/	/	22.1	24.4	26.3	28.0	29.7	/
35.0	/	/	/	24.9	27.4	29.3	30.8	32.3
38.0	/	/	/	/	28.6	30.6	32.2	33.8
43.0	/	/	/	/	29.9	32.0	33.6	35.3

Heating

Outdoor temperature	℃ WB								
℃ DB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity								
	KW	KW	KW	KW	KW	KW	KW	KW	KW
-5.0	18.6	18.3	/	/	/	/	/	/	/
0.0	/	/	22.0	/	/	/	/	/	/
3.0	/	/	23.3	22.9	20.6	/	/	/	/
7.0	/		/	/	25.3	25.0	24.8	/	/
11.0	/	/	/	/	/	28.6	28.3	28.0	/
15.0	/	/	/	/	/	/	33.0	32.7	32.3

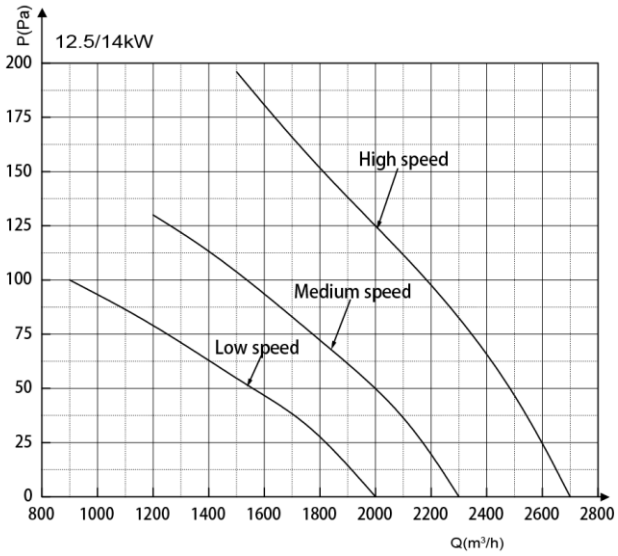
8. Electrical Characteristics

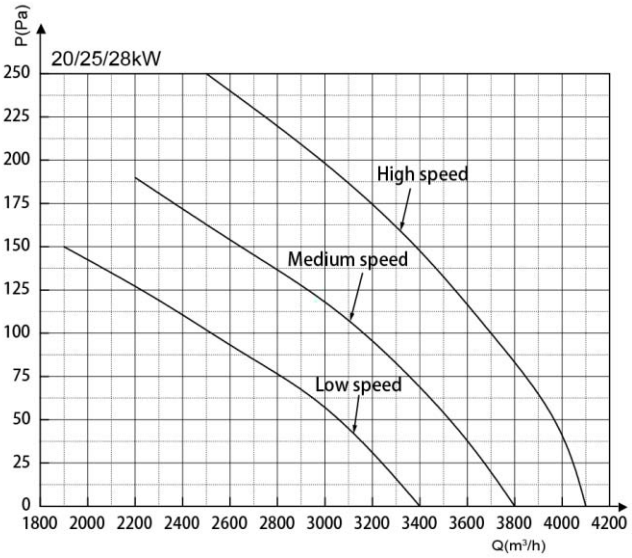
Model	Indoor Unit				Power Supply		IFM	
	Hz	Voltage	Min.	Max.	MCA	MFA	KW	FLA
MVD-125T1/DHN1-FA	50/60	220-240V	198V	254V	2.8	16	290	2.2
MVD-140T1/DHN1-FA	50/60	220-240V	198V	254V	2.8	16	290	2.2
MVD-200T1/DHN1-FA	50/60	220-240V	198V	254V	4.5	16	480	3.6
MVD-250T1/DHN1-FA	50/60	220-240V	198V	254V	5	16	520	4
MVD-280T1/DHN1-FA	50/60	220-240V	198V	254V	5	16	520	4

Remark:
MCA: Min. Current Amps. (A)
MFA: Max. Fuse Amps. (A)
KW: Fan Motor Rated Output (KW)
FLA: Full Load Amps. (A)
IFM: Indoor Fan Motor

9. Fan Performance

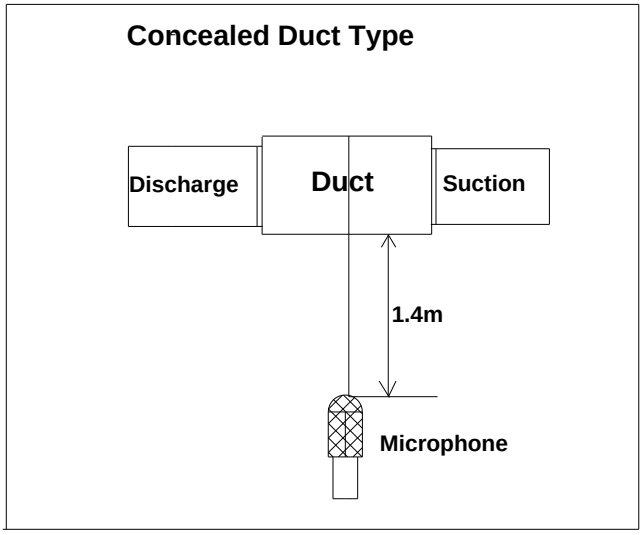
Heating capacity and cooling capacity are tested under the standard allowable static pressure;
the 125/140 test static pressure is 50Pa, the 200/250/280 test pressure is 62Pa.





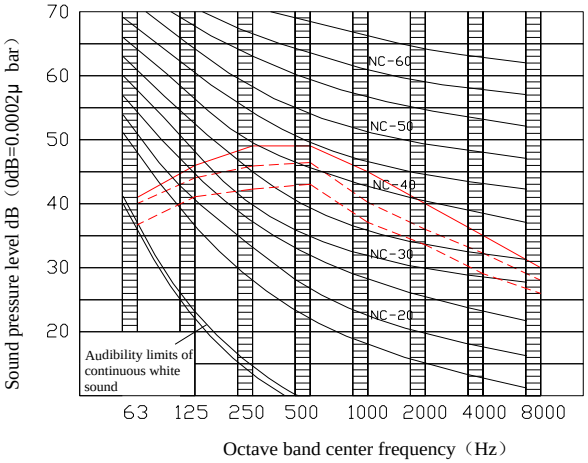
- If the external static pressure is too high, caused by extensive ducting for example, the air flow volume at each outlet may be reduced to insufficient levels.
- So there's a limit air flow volume for each speed, which is the min. airflow of this duct unit. At this flow volume, the fan achieve the max. ESP, and indoor evaporator may protect by low temperature.
- As well, there's a limit airflow volume, which is the max. value at each speed. It request the unit to connect duct for air-inlet and outlet, to prevent damage from the high temperature of motor/evaporator.
- This is the available static pressure range which means the unit can run stably in this static pressure range, and the optimal static pressure range please refers to the Installation Manual.
- Risks of selecting a unit outside of the optimal range include higher noise levels, low air flow volume ect.

10. Sound Levels

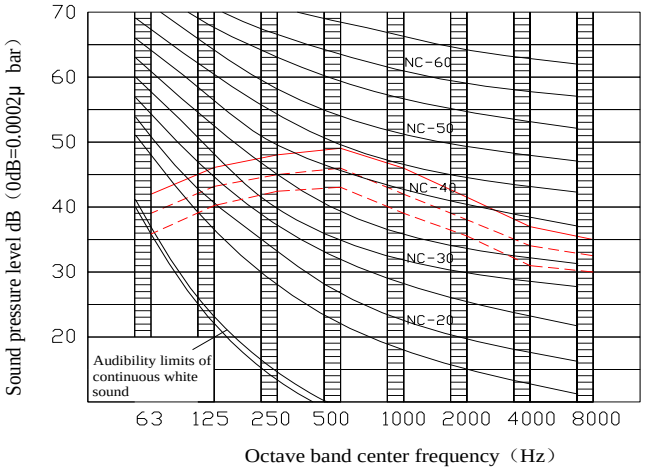


Model	Noise level under three speeds of fan (dB(A))		
	H	M	L
MVD-125T1/DHN1-FA	52	50	48
MVD-140T1/DHN1-FA	52	50	48
MVD-200T1/DHN1-FA	52	51	49
MVD-250T1/DHN1-FA	53	52	50
MVD-280T1/DHN1-FA	53	52	50

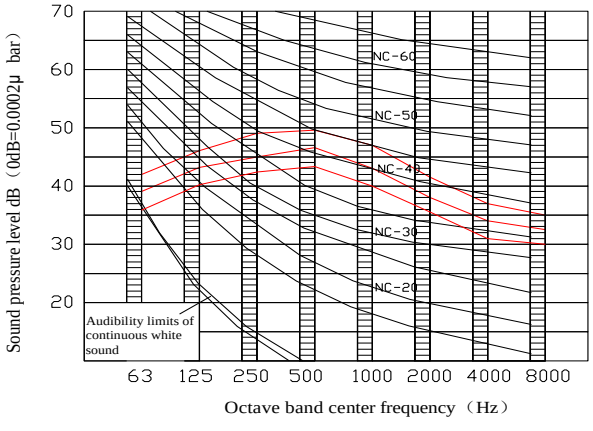
MVD-125T1/DHN1-FA
MVD-140T1/DHN1-FA



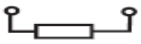
MVD-200T1/DHN1-FA



MVD-250T1/DHN1-FA
MVD-280T1/DHN1-FA



11. Accessories

Name		Qty.	Shape	Usage
Installation manual		1	/	/
Pipe insulation material	12.5~14kW	2		Heat insulation
	20~28kW	4		
Adhesive tape for seal	20~28kW	2		To connect drain pipe
Water outlet joint	12.5~14kW	1		For drainage
Wired controller (KJR-29B1/BK-E)		1		Control the air conditioner.
Water connecting pipe	20~28kW	2		To connect drain pipe
Network matching wire	12.5~14kW	1		The indoor unit witch at the terminal of communication system should connect a impedance between port P and port Q
	20~28kW	2		
Copper nut	12.5~14kW	1		Use for pipe connection of engineering installation
	20~28kW	2		
Clasp	12.5~14kW	1		Chucking the joint which connect the drain hose and the outlet of indoor unit
Electric throttle connect part A	20~28kW	1		Connect electric throttle part A
Electric throttle connect part B	20~28kW	1		Connect electric throttle part B
Spring	20~28kW	1		To fix display box

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