



Midea M18 Series Air Conditioner

Up to 17.5 SEER2

Cooling capacity: 24 - 60kBtu/h



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Standard Features:

- R410A chlorine-free refrigerant.
- High efficiency inverter compressor.
- Internally protection against high temperature motor overload conditions.
- High quality condenser with inner-groove copper tube and aluminum fin.
- Service valves with sweat connections and easy-access gauge ports.
- Factory-installed high pressure switch
- AHRI certified and ETL listed
- Optional drier filter as accessory.

Cabinet Features:

- Unique sound control top design.
- Compact design, easy installation and transportation.
- Powder-painted galvanized steel cabinet.
- Wire fan discharge grille.
- Steel louver coil guard

1 Nomenclature

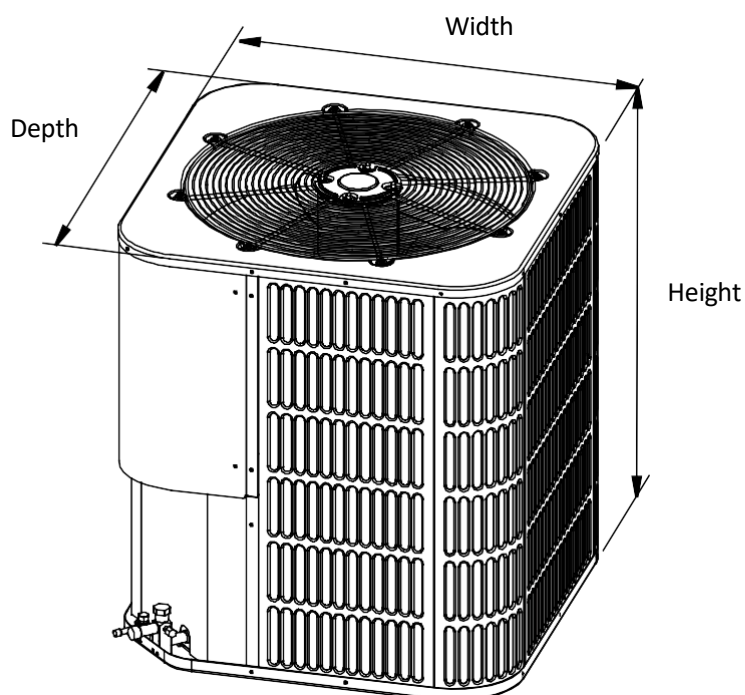
M	O	V	B	-	24	C	D	N1	-	M	18	M
1	2	3	4		5	6	7	8		9	10	11

Legend		
No.	Code	Remarks
1	M	Brand: Midea brand
2	O	Outdoor unit
3	V	Discharge type: vertical discharge
4	B	Version No.: B version
5	24	Capacity: 24: 24/36 kBtu/h; 48: 48/60 kBtu/h;
6	C	Unit type: C: cooling only; H: heat pump
7	D	Compressor type: D: DC Rotary Inverter
8	N1	Refrigerant type: N1: R410A
9	M	Power supply type: M: 1-Phase; X: 3- Phase
10	18	Efficiency: 18: 18 SEER / 17.5 SEER2
11	M	Compressor type: M: Mitsubishi compressor

2 Specifications

	MOVB-24CDN1- M18M (2 TON)	MOVB-24CDN1- M18M (3 TON)	MOVB-48CDN1- M18M (4 TON)	MOVB-48CDN1- M18M (5 TON)
NOMINAL CAPACITY				
Cooling (BTU/h)	23,000	34,600	48,000	58,000
Heating (BTU/h)	/	/	/	/
ELECTRICAL DATA				
Voltage / Phase (60 Hz)	208/230 /1	208/230 / 1	208/230 / 1	208/230 / 1
Min. / Max. Voltage	172/270	172/270	172/270	172/270
MCA	24.8	24.8	38.8	38.8
MOP	40	40	60	60
COMPRESSOR				
Type	Rotary	Rotary	Rotary	Rotary
Stage	Variable	Variable	Variable	Variable
RLA	19	19	27.2	27.2
LRA	/	/	/	/
Crankcase Heater	NO	NO	NO	NO
CONDENSER COIL				
Type	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin
Tube Size(O.D)	3/16	3/16	3/16	3/16
FAN MOTOR				
Motor Type	PSC	PSC	ECM	ECM
Capacitor(uF)	6	6	/	/
Horsepower (HP)	1/6	1/6	1/3	1/3
Full Load Amps (FLA)	1	1	2.6	2.6
REFRIGERATION SYSTEM				
Liquid Valve Size (O.D.)	3/8	3/8	3/8	3/8
Suction Valve Size (O.D.)	3/4	3/4	7/8	7/8
Liquid Line Size ("O.D.)	3/8	3/8	3/8	3/8
Suction Line Size ("O.D.)	3/4	3/4	7/8	7/8
Refrigerant Charge (lbs. - oz.)	7 LBS.-9 OZ	7 LBS.-9 OZ	10 LBS.-10 OZ	10 LBS.-10 OZ
OPERATION RANGE				
Cooling(°F)	55-115	55-115	55-115	55-115
Heating(°F)	/	/	/	/
SOUND POWER (DB)	64	64	67	67

3 Dimensions

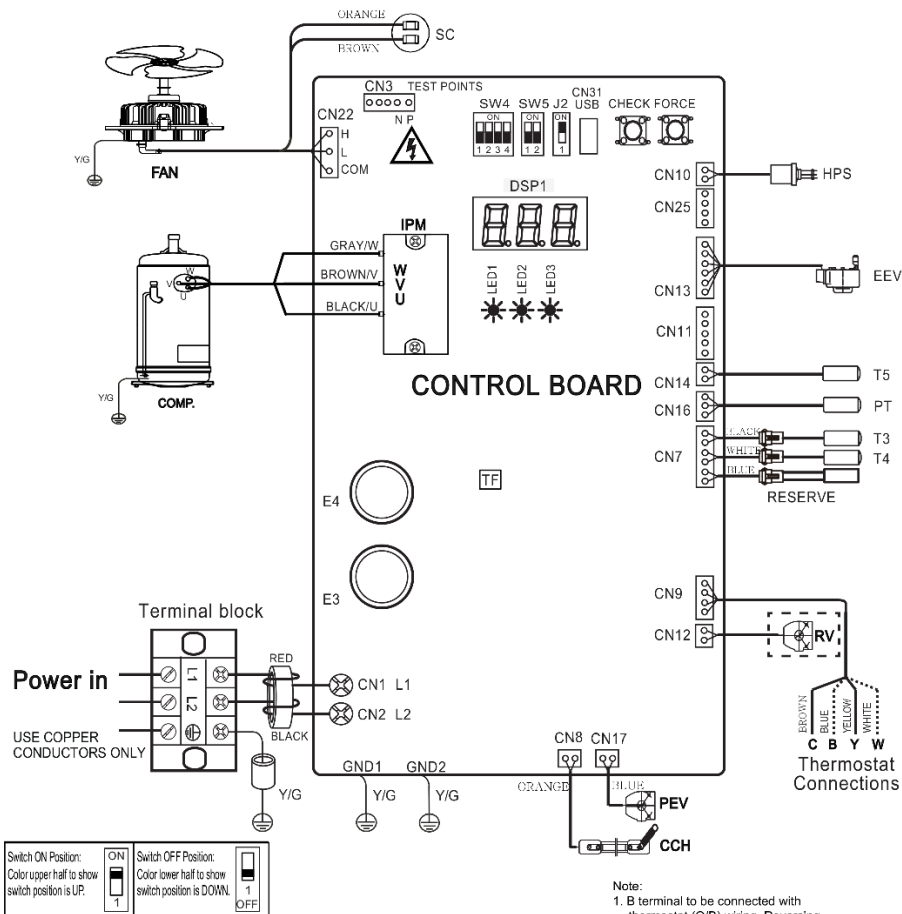


	MOVB-24CDN1-M18M (2 TON)	MOVB-24CDN1-M18M (3 TON)	MOVB-48CDN1-M18M (4 TON)	MOVB-48CDN1-M18M (5 TON)
UNIT DIMENSION AND WEIGHTS				
Height (in.)	24-15/16	24-15/16	33-3/16	33-3/16
Width (in.)	29-1/8	29-1/8	29-1/8	29-1/8
Depth (in.)	29-1/8	29-1/8	29-1/8	29-1/8
Weight (lbs.)	150	150	187	187

4 Wiring Diagrams

MOVB-24CDN1-M18 (2 / 3 Ton Platform)

OUTDOOR UNIT WIRING DIAGRAM



WARNING

ELECTRIC HAZARD 380 VOLTS DC

WAIT 3 MINUTES AFTER DISCONNECTING POWER, THEN VERIFY DC VOLTAGE. LESS THAN 42 VDC AT INVERTER TEST POINTS P-N. COMPONENTS MAY STORE A DANGEROUS ELECTRICAL POTENTIAL OF 380 VOLTS DC.

FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PERSONAL INJURY OR DEATH

CODE	Fault description
C3	The coil sensor is seated fault in cooling(T3)
E4	Temperature sensor fault (T3,T4,T5)
E5	High/Low voltage protection
E7	Compressor discharge sensor is seated fault (T5)
E9	EEPROM fault
F1	High pressure switch fault (HPS)
H0	Communication fault in main control chip
H5	5 times (P2) protection in 100 minutes, lockout
H8	Pressure transducer fault (PT)
L0-L9	The IPM module protection(only for analysis)
P0	High module radiator temperature protection (TF)
P1	High pressure(HPS) protection
P2	Low pressure protection in cooling or heating (PT)
P3	Compressor over current protection
P4	High T5 protection
P5	Condensor coil temperature protection in cooling (T3)
PH	Low discharge superheat protection
AtL	Ambient temperature limited T4 (heat pump)

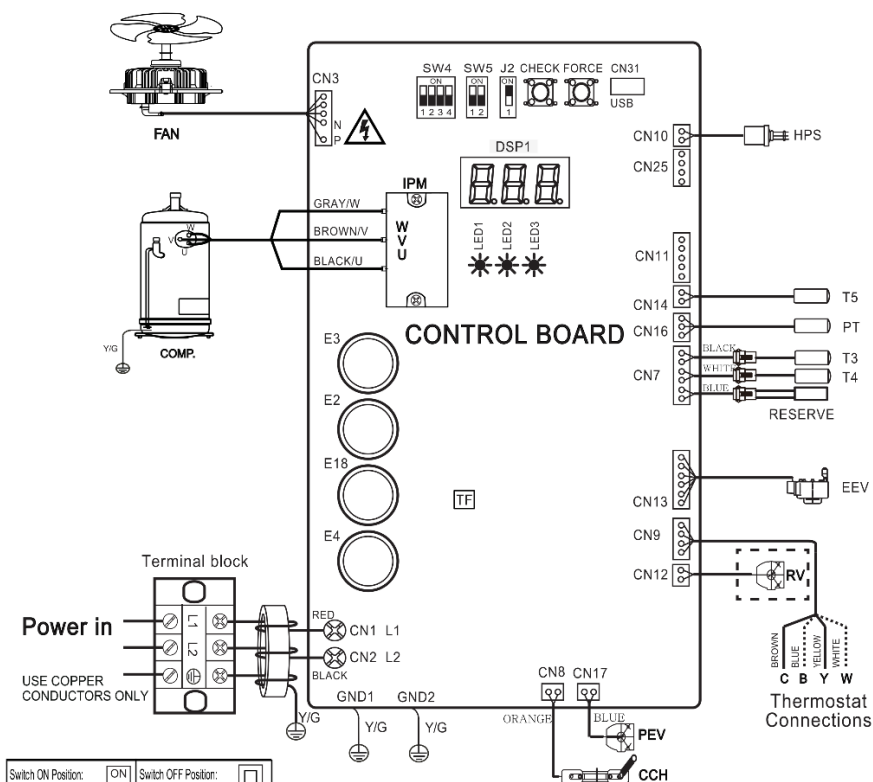
CODE	Description
+	Forced operation mode
L	Running indication under T3 limited condition
d	Running indication under T5 limited condition
P	Compression ratio protection limit
F	Running indication under TF limited condition
C	Running indication under current limited condition
U	Running indication under low voltage limited condition
A	Running indication under return oil model
dF	Running indication under defrost model

Number	Point check content
0	Outdoor unit capacity, example: H3=Heat pump 3 ton
1	Outdoor unit mode: 0-standby, 2-cooling, 3-heating
2	Outdoor unit set compressor speed(Hz)
3	T3: outdoor coil temp.(°F)
4	T4: outdoor ambient temp.(°F)
5	T5: compressor discharge temp.(°F)
6	/
7	/
8	Tf: module temp.(°F)
9	Pe: evaporating pressure(Psi)
10	Pc: condensing pressure(Psi)
11	Tes target evaporating temp.(only for cooling mode)(°F)
12	Te: evaporating temp.(°F)
13	Tcs target condensing temp(only for heating mode)(°F)
14	Tc: condensing temp.(°F)
15	Target of the compressor discharge superheat (heating mode only) (°F)
16	Compressor discharge superheat(°F)
17	Opening of EEV
18	Outdoor fan speed
19	Compressor current(A)
20	Power AC voltage Input(V)
21	Compressor input DC voltage (V)
22	Continuous running time of the compressor(min)
23	Last fault code
24	Software version
25	Remark *--*

Wiring Diagrams

MOVA-48CDN1-M18 (4 / 5 Ton Platform)

OUTDOOR UNIT WIRING DIAGRAM



WARNING

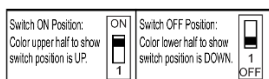
ELECTRIC HAZARD 380 VOLTS DC

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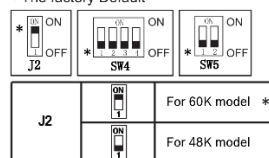
CODE	Fault description
C3	The coil sensor is seated fault in cooling(T3)
E4	Temperature sensor fault (T3,T4,T5,TF)
E5	High/Low voltage protection
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E7	Compressor discharge sensor is seated fault (T5)
E9	EEPROM fault
F1	High pressure switch fault (HPS)
H0	Communication fault in main control chip
H5	5 times (P2) protection in 100 minutes, lockout
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L0-L9	The IPM module protection(only for analysis)
P0	High module radiator temperature protection (TF)
P1	High pressure(HPS) protection
P2	Low pressure protection in cooling or heating (PT)
P3	Compressor over current protection
P4	High T5 protection
P5	Condensor coil temperature protection in cooling (T3)
P8	DC fan motor hurricane/typhoon protection
PH	Low discharge superheat protection
ATL	Ambient Temperature Limited T4 (heat pump)

CODE	Description
F	Forced operation mode
L	Running indication under T3 limited condition
d	Running indication under T5 limited condition
P	Compression ratio protection limit
F	Running indication under TF limited condition
C	Running indication under current limited condition
U	Running indication under low voltage limited condition
A	Running indication under return oil model
dF	Running indication under defrost model

Number	Point check content
0	Outdoor unit capacity, example: H5=Heat pump 5 ton
1	Outdoor unit mode: 0-standby, 2-cooling, 3-heating
2	Outdoor unit set compressor speed(Hz)
3	T3: outdoor coil temp.(°F)
4	T4: outdoor ambient temp.(°F)
5	T5: compressor discharge temp.(°F)
6	Reserve
7	Reserve
8	Tf: module temp.(°F)
9	Pe: evaporating pressure(PSI)
10	Pc: condensing pressure(PSI)
11	Tes: target evaporating temp.(only for cooling mode)(°F)
12	Te: evaporating temp.(°F)
13	Tcs target condensing temp.(only for heating mode)(°F)
14	Tc: condensing temp.(°F)
15	Target of the compressor discharge superheat (heating mode only) (°F)
16	Compressor discharge superheat(°F)
17	Opening of EEV
18	Fan speed
19	Compressor current(A)
20	Power AC voltage input(V)
21	Compressor input DC voltage (V)
22	Continuous running time of the compressor(min)
23	Last fault code
24	Software version
25	Remark"---"



*The factory Default



SW4-1	ON	Unused
SW4-1	OFF	Must be set at OFF position *
SW4-2	ON	Unused
SW4-2	OFF	Must be set at OFF position *
SW4-3	ON	Adaptive capacity output disable
SW4-3	OFF	Adaptive capacity output enable *
SW4-4	ON	Accelerated cooling/heating
SW4-4	OFF	Normally cooling/heating *
SW5-1	ON	Operating time is reduced 10%
SW5-1	OFF	Normal *
SW5-2	ON	Defrosting extended for 60 seconds
SW5-2	OFF	Normal *

CHECK	PRESS 1s	Check the system parameters
	PRESS 6s	Unused
FORCE	PRESS 1s	Forced cooling/heating (Charge mode)
	PRESS 6s	Forced defrosting
LED1 GREEN	ON	COMP. running
	FLASH	IPM Module Fault
	LED2 ON	Standby
	LED2 OFF	
LED2 RED	ON	Fault
	OFF	No fault
LED3 GREEN	ON	Power on
	OFF	Power off

Note:
1. B terminal to be connected with thermostat (O/B) wiring. Reversing valve energizes in heating.
2. B and W wiring only needed in heat pump systems

HPS	High pressure switch
T5	Comp. discharge temp. sensor
PT	Pressure sensor
T3	Condensor temp. sensor
T4	Ambient temp. sensor
EEV	Electric expansive valve
RV	Reversing valve
PEV	Pressure equalizer valve
CCH	Crankcase heater
COMP.	Compressor
TEMP.	Temperature
TF	Control board module temperature

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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.



