Midea MPCE Series Ceiling-mounted

Cooling capacity: 18 - 36 kBTU/h

Contents:

Features：

- Cabinet - Our cabinet have the reliability of durable and corrosion-resistant. It also helps prevent energy loss and virtually eliminates condensation.
- All-Aluminum coil-It provides excellent heat transfer and efficiency.
- Compare to the conventional copper coils, it is more durable and have less chance of refrigerant leaking into the atmosphere.
- Integrated Drain Pan-Made from rust resistant material, this unique drain pan is gently sloped to eliminate standing water.
- Variable Speed Blower Motor. It- means we provide gradual startup and shutdown for operation which can decrease the energy consumption. We also have the advantages of higher air quality, more consistent temperature for added comfort.
- Blower compartment- It can reduce sound for quiet operation and save energy.
- Exquisite design-Super slim appearance and compact structure will save much installation space.

1 Nomenclature

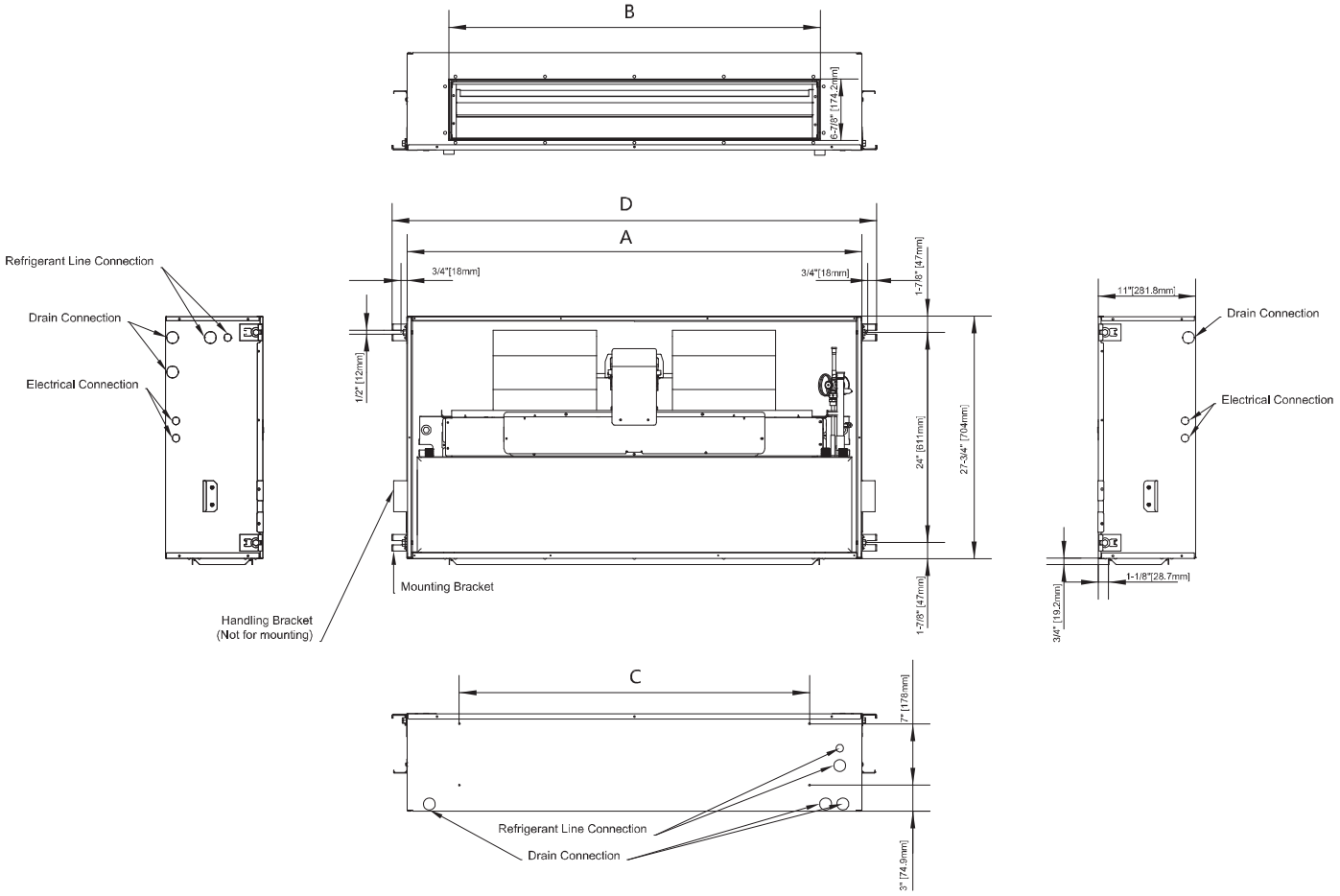
M	P	C	E	24	A	1	M	N1	T	A
1	2	3	4	5	6	7	8	9	10	11

Legend		
No.	**Code**	**Remarks**
1	M	Brand: Midea brand
2	P	Discharge type: V: Vertical Air Handler H: Wall Mounted P: Pancake
3	C	Installation type: M: Multiple Position Installation V: Vertical Position Installation C: Cased (pancake) U: Uncased (pancake)
4	E	Motor type: P: PSC Motor E: ECM Motor
5	24	Capacity: 18: 18 kBtu/h; 24: 24 kBtu/h; 30: 30 kBtu/h; 36: 36 kBtu/h; 42: 42 kBtu/h; 48: 48 kBtu/h; 60: 60 kBtu/h;
6	A	Cabinet Size
7	1	Cabinet Version Number
8	M	Power supply type: M: 1-Phase; X: 3- Phase
9	N1	Refrigerant type: N1: R410A
10	T	Valve type: O: Orifice(Piston) T: TXV E: EEV(Reserved)
11	A	Version Number

2 Specifications

	MPCE18A1MN1TA	MPCE24A1MN1TA	MPCE30B1MN1TA	MPCE36B1MN1TA
NOMINAL RATING				
Cooling (BTU/h)	18,000	24,000	36,000	48,000
External Static Pressure(in.w.g)(Pa)	45	45	60	60
ELECTRICAL DATA				
Voltage / Phase(60Hz)	208/230/1	208/230/1	208/230/1	208/230/1
Min. / Max. Voltage	187/253	187/253	187/253	187/253
Min. Circuit Amps	3.3	3.3	3.3	3.3
Max. Overcurrent Protection	15	15	15	15
FAN MOTOR				
Motor Type	ECM	ECM	ECM	ECM
Capacitor (uF)	/	/	/	/
Horsepower (HP)	1/3	1/3	1/3	1/3
Rated RPM	1050	1050	1050	1050
Full Load Amps (FLA)	2.6	2.6	2.6	2.6
FAN BLOWER				
Material	Metal	Metal	Metal	Metal
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Diameter(in.)	7	7	7	7
Height(in.)	8	8	9	9
EVAPORATOR COIL				
Type	Tube & Fin	Tube & Fin	Tube & Fin	Tube & Fin
Tube Material	Aluminum	Aluminum	Aluminum	Aluminum
Tube Size(in.)	9/32	9/32	9/32	9/32
SOUND POWER (dB)	57	57	54	54
REFRIGERANT CONNECTION SIZE				
Liquid Line Size (O.D.)	3/8	3/8	3/8	3/8
Suction Line Size (O.D.)	3/4	3/4	3/4	3/4

3 Dimensions



Model	Dimensions (in.)				Unit Operating Weight (lbs.)
	A	B	C	D	
MPCE18A1MN1TA	39-3/4	30-3/8	28	43-3/8	110
MPCE24A1MN1TA	39-3/4	30-3/8	28	43-3/8	110
MPCE30B1MN1TA	51-3/4	42-1/6	40	55-3/8	137
MPCE36B1MN1TA	51-3/4	42-1/6	40	55-3/8	137

4 Airflow Data

Model	Motor Speed	CFM Wet Coil without Filter or Electric Heat, Cased, Back Return							
		External Static Pressure-Inches W.C.[kPa]							
		0[0]	0.1[.025]	0.15[.0375]	0.2[.050]	0.3[.075]	0.4[.100]	0.5[.125]	0.55[.1375]
18K	1	753	655	609	564	481	407	340	309
	2	913	828	787	746	666	588	513	476
	3	1044	982	945	904	810	700	575	500
	4	1153	1058	1007	953	837	711	578	503
	5	1163	1068	1017	963	847	719	580	506
24K	1	753	655	609	564	481	407	340	309
	2	913	828	787	746	666	588	513	476
	3	1044	982	945	904	810	700	575	500
	4	1153	1058	1007	953	837	711	578	503
	5	1163	1068	1017	963	847	719	580	506
30K	1	801	700	651	602	508	418	331	288
	2	1015	916	869	822	731	645	562	523
	3	1177	1107	1069	1029	943	848	745	670
	4	1327	1279	1245	1203	1098	963	795	692
	5	1493	1404	1350	1289	1150	987	798	695
36K	1	801	700	651	602	508	418	331	288
	2	1015	916	869	822	731	645	562	523
	3	1177	1107	1069	1029	943	848	745	670
	4	1327	1279	1245	1203	1098	963	795	692
	5	1493	1404	1350	1289	1150	987	798	695

Model	Motor Speed	CFM Wet Coil w ithout Filter or Electric Heat, Cased, Bottom Return							
		External Static Pressure-Inches W.C.[kPa]							
		0[0]	0.1[.025]	0.15[.0375]	0.2[.050]	0.3[.075]	0.4[.100]	0.5[.125]	0.55[.1375]
18K	1	756	658	611	566	480	400	325	290
	2	946	855	810	766	675	591	506	464
	3	1035	965	926	883	788	681	561	497
	4	1208	1110	1056	999	874	736	585	504
	5	1225	1132	1079	1023	898	758	602	518
24K	1	756	658	611	566	480	400	325	290
	2	946	855	810	766	678	591	506	464
	3	1035	965	926	883	788	681	561	497
	4	1208	1110	1056	999	874	736	585	504
	5	1225	1132	1079	1023	898	758	602	518
30K	1	796	712	670	626	537	445	351	302
	2	1012	901	850	801	709	627	555	522
	3	1156	1083	1044	1002	911	811	702	616
	4	1310	1197	1150	1101	980	850	708	626
	5	1469	1328	1256	1182	1031	875	714	632
36K	1	796	712	670	626	537	445	351	302
	2	1012	901	850	801	709	627	555	522
	3	1156	1083	1044	1002	911	811	702	616
	4	1310	1197	1150	1101	980	850	708	626
	5	1469	1328	1256	1182	1031	875	714	632

--- Shaded boxes represent airflow outside the required 300-450 cfm/ton.

NOTES:

1. Airflow data is without filter or electric heat accessory. Heater adds 0.05 ---in. static.
2. Use wet coil data for determining cooling airflow.
3. Accessory louver panel adds 0.05 ---in. Static.
4. When electric heater is working only, 300CFM for each ton is sufficient except 30K work with 10KW heat（≧900SCFM）

Required CFM Range for Heat Pump Operation

Size	CFM	
	Min	Max
18	450	675
24	600	900
30	750	1125
36	900	1350

5 Wiring Diagram

MPCE18A1MN1TA; MPCE24A1MN1TA; MPCE30B1MN1TA; MPCE36B1MN1TA

SCHEMATIC DIAGRAM

SEE RATING PLATE FOR VOLTS&HERTZ

FIELD POWER WIRING

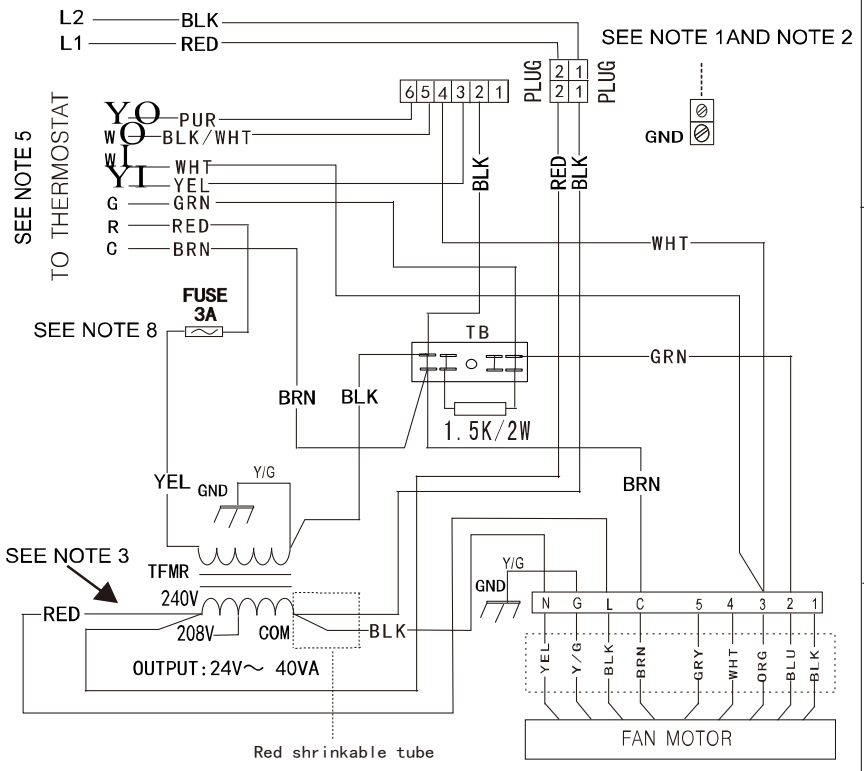
CAUTION:
NOT SUITABLE FOR USE ON SYSTEMS EXCEEDING 150V TO GROUND
ATTENTION:
NE CONVIENT PAS AUXINSTALLATIONS DE PLUS DE 150V ALA TERRE

TO THERMOSTAT		TO OUTDOOR UNIT	
W_1	WHITE	W_0	BLACK/WHITE
Y_1	YELLOW	Y_0	PURPLE
R	RED		
C	BROWN		
G	GREEN		

CAP AND SEAL THE UNUSED WIRE

ELECTRIC HEAT WIRING

CONNECTION (WHEN APPLIED)



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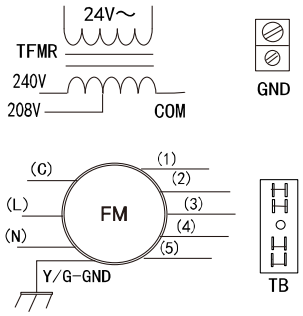
COMPONENT ARRANGEMENT



SPEED TAP SELECTION

1	LOW
2	MEDIUM LOW
3	MEDIUM
4	MEDIUM HIGH
5	HIGH

SEE NOTE 6

TFMR	TRANSFORMER
TB	TERMINAL BLOCK
FM	FAN MOTOR
GND	GROUND

NOTES:
1: Use copper wire(75 min only between disconnect switch and unit, To be wired in accordance with N.E.C. and local codes. Fan coils equipped with electric heater connect power supply to terminal block .Cooling controls wiring not used with electric heaters.
2: If any of the original wire as supplied must be replaced,use the same or equivalent type wire.
3: Remove the red lead from 240V terminal and then connect the red lead to 208V terminal on the transformer for 208 volts.
4: To Change Speed Tap,Move green Wire Desired Terminal.
5:Connect R to R, G to G, etc. See outdoor or indoor instructions for details.
6:See Airflow Tables For Tap Usage.
7:N.E.C.Class 2,24volts.
8: The fuse model is 32V/ 3A.Fuse Manufacturer: Littelfuse, fuse part number: 0257003.

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