

# R454b Refrigerant

# SUBMITTAL DATA SHEET



Series Name: Advanced Heat Ceiling-Mounted AHU Series  
Model Number: MAPHE-H18B-2A/MO1BE-H18B-2A

## Air Handler Heat Pump System

Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:



## INDOOR SPECIFICATION

ESP(in.W.G)	0-0.8	
Indoor Air Flow (Turbo/H/M/L/Si) (CFM)	600 / 565 / 530 / 489 / 489	
Indoor Noise Level (Turbo/H/M/L/Si) (dBA)	55.5 / 55.5 / 52.5 / 50.5 / 50.5	
Dimension (W×D×H)	inch	43-1/4 x 23-3/8 x 10-15/16
	mm	1098 x 593 x 278
Package (W×D×H)	inch	47-1/4 x 26-3/4 x 13-5/8
	mm	1200 x 680 x 345
Net/Gross Weight	lbs	118/127.87
	kg	53.5/58

## OUTDOOR SPECIFICATION

Compressor Type	ROTARY	
Compressor Model	KSN140D58UFZ	
Refrigerant	R454B	
Refrigerant Oil Charge(mL)	440	
Refrigerant Oil	VG74	
Outdoor Air Flow (Max) (CFM)	1,451	
Outdoor Noise Level (dBA)	56	
Dimension (W×D×H)	inch	31-3/4 x 13 x 21-3/4
	mm	805 x 330 x 554
Package (W×D×H)	inch	36 x 14-9/16 x 24-3/16
	mm	915 x 370 x 615
Net/Gross Weight	lbs	77 / 84
	kg	35 / 38

## EFFICIENCY

Cooling		Heating	
SEER2	16.8	HSPF2-4	8.8
EER2	11.5	COP	3.5

## PERFORMANCE of Cooling

Cooling (Btu/hr)	
Rated Capacity	18,000
Min/Max Capacity	6,000~20,000
Moisture Removal(L/h)	1.46
Standard Operating Range(°F/°C)	-13~122(-25 ~ 50)
Rated Cooling Conditions:	Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB

## PERFORMANCE of Heating

Heating (Btu/hr)	
1. @ 47°F Rated	18,000
1. @ 47°F Min/Max Capacity	5,500~19,600
2. @ 17°F Rated	11,800
3. @ 5°F Rated: Capacity / COP	11,400/1.8
3. @ 5°F Max: Capacity	11,400
Standard Operating Range(°F/°C)	-13~75(-25 ~ 24)
1. Rated Heating Conditions:	Indoor: 70°F DB/60°F WB Outdoor: 47°F DB/43°F WB
2. Rated Heating Conditions:	Indoor: 70°F DB/60°F WB Outdoor: 17°F DB/15°F WB
3. Heating Conditions, Compressor Operating at Max. Frequency	Indoor: 70°F DB/60°F WB Outdoor: 5°F DB/5°F WB

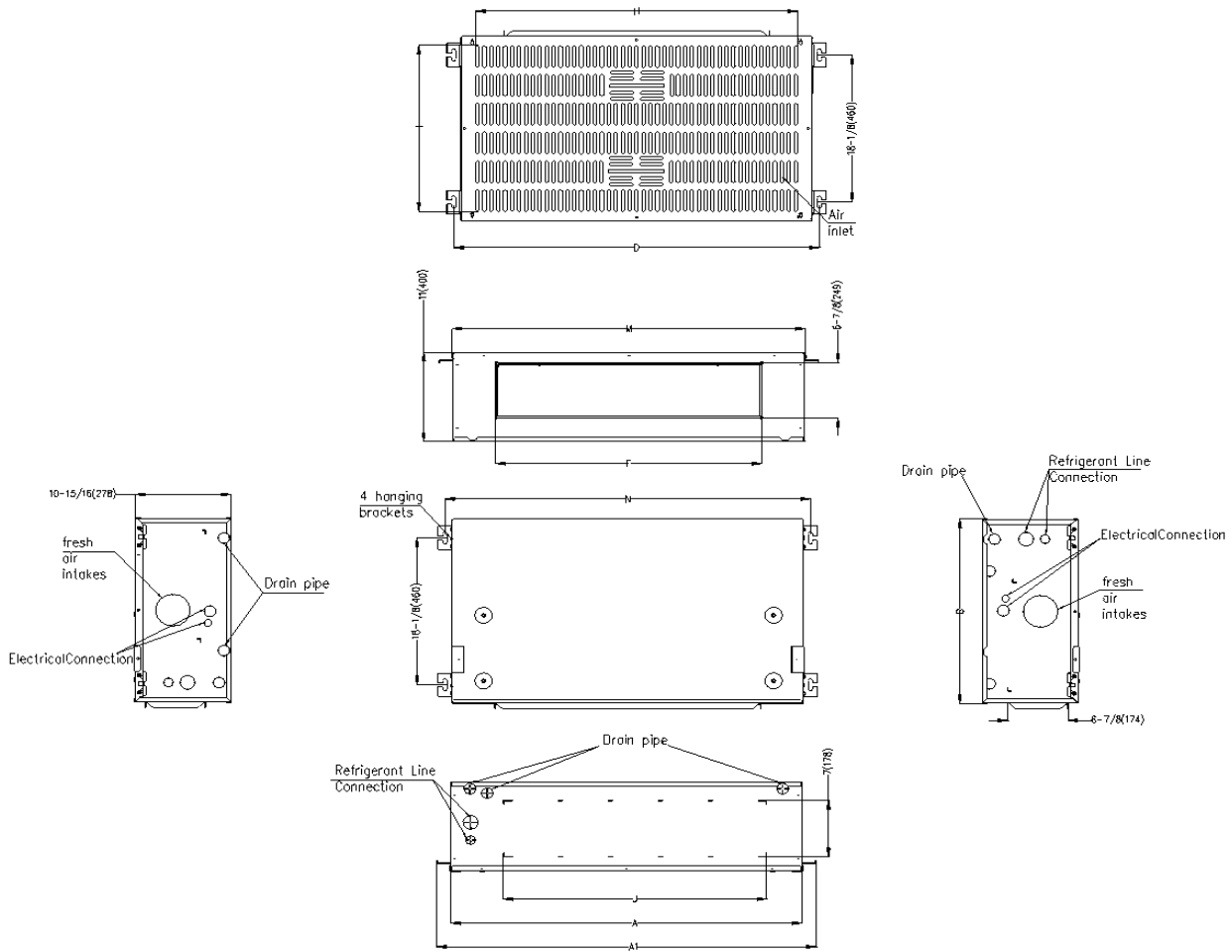
## ELECTRICAL

Indoor Power Supply	115/208/230,60Hz,1Ph
Indoor MCA 115V/(208/230V)	115V:6;208/230V:5
Indoor MOP	15.0
Outdoor Power Supply	208/230,60Hz,1Ph
Outdoor MCA	16.0
Outdoor MOP	20.0
Communication Wiring	AWG 20/2
Compressor RLA	10
Outdoor Fan Motor RLA	0.8
Outdoor Fan Motor W	34
Indoor Fan Motor RLA	115V:4;208/230V:3.5
Indoor Fan Motor W	250
System Power Input @ Cooling (W)	1,565(600 ~ 1,900)
System Power Input @ Heating (W)	1,512(390 ~ 1,700)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

## PIPING

Throttle type(Indoor)	EXV
Throttle type(Outdoor)	EXV
Liquid Size	3/8" (9.52mm)
Gas Size	3/4" (19mm)
Max. Piping Length(ft/m)	98(30)
Max. Height Difference(ft/m)	66(20)
Max. Pre-charged Length(ft/m)	25(7.5)
Refrigerant Pre-charged Amount(oz/kg)	51(1.45)
Additional Charge of Refrigerant(oz/ft)/(g/m)	0.7(65)
Connection Method	Flared

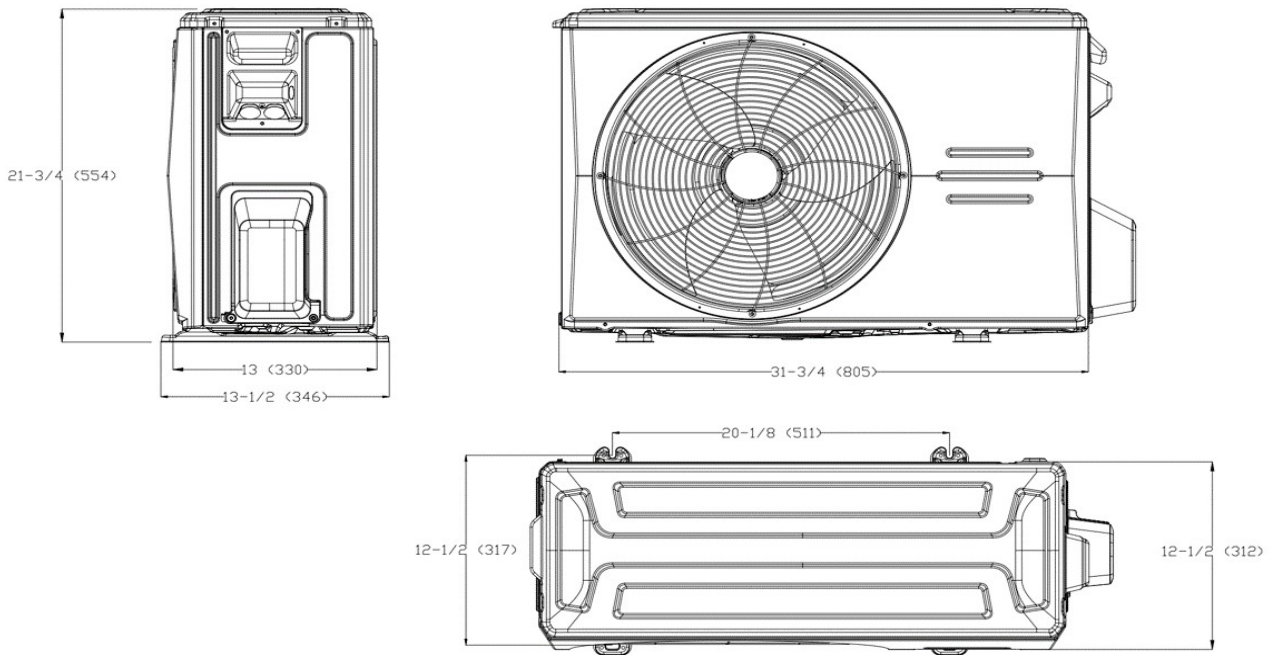
Indoor Unit Dimension



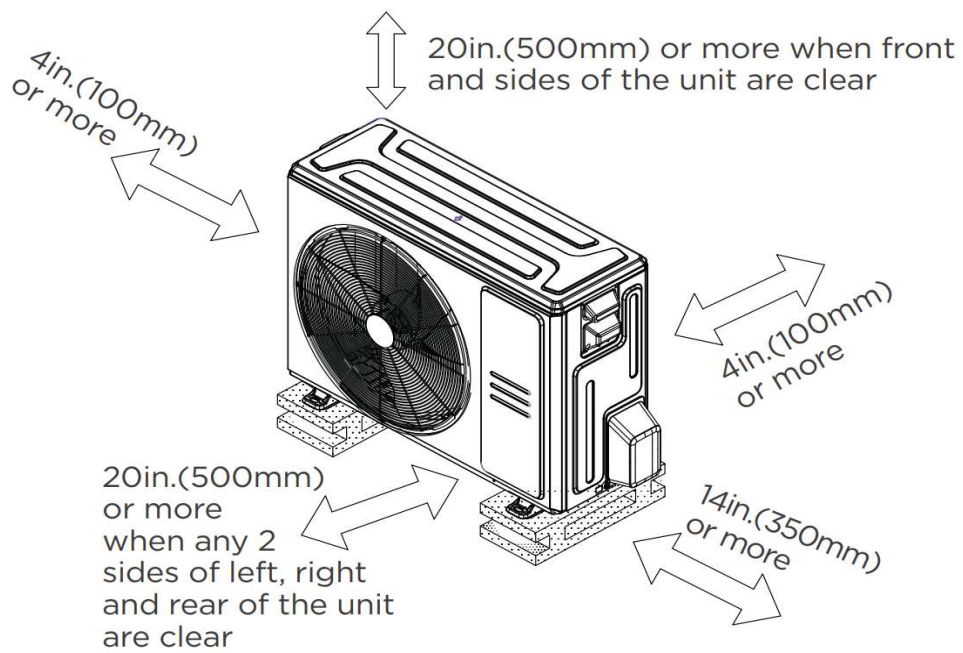
	18K		24K		30K		36K	
	inch	mm	inch	mm	inch	mm	inch	mm
A	39-15/16	1015	45-7/8	1165	51-15/16	1320	58-7/8	1495
A1	43-1/4	1098	49-1/8	1248	55-1/4	1403	62-1/8	1578
J	30	761	35-7/8	911	41-15/16	1066	48-7/8	1241
D	41-5/8	1057	47-1/2	1207	53-5/8	1362	60-1/2	1537
F	30-1/4	769	36-3/16	919	42-5/16	1074	49-3/16	1249
H	36-5/8	930	39-3/4	1010	47-5/8	1210	53-15/16	1370
M	40-3/16	1020	46-1/16	1170	52-3/16	1325	59-1/16	1500
N	41-5/8	1057	40-7/16	1027	53-5/8	1362	60 1/2	1537

Outdoor Unit Dimension

Unit:inch(mm)

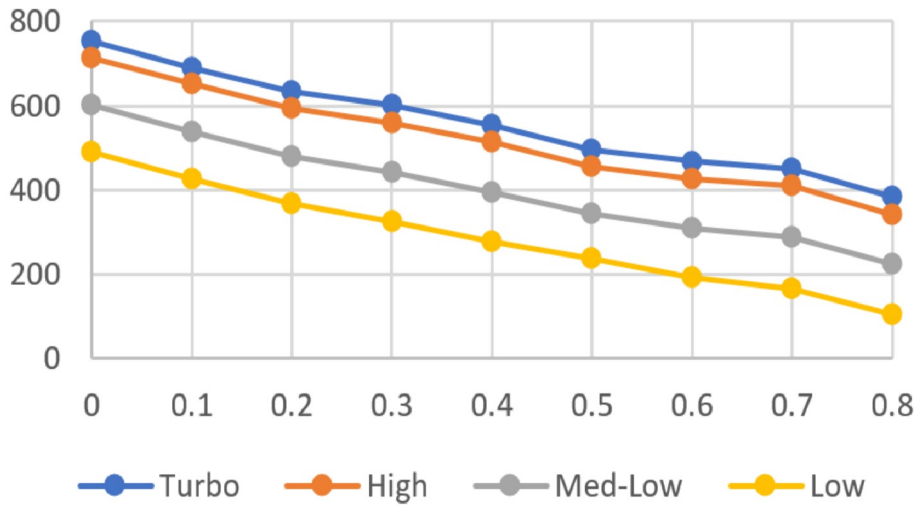


Installation Instruction For Outdoor Unit



## Fan Performance For Indoor Unit

18K



## Features

- Downward or backward (optional) air inlet
- Aluminum Coil
- The IDU supports 115/230V voltage compatibility
- Constant Torque System: Up to 0.80 In.W.C.
- Optional Auxiliary heat kit up to 10kW
- Easy Maintenance
- Multiple control options available:
  - Two-way communication wired controller with built-in Wi-Fi: 120N (X6W)
  - Wireless remote controller
  - Third-Party 24V Thermostat
- Adaptive control systems with 24V and RS485 communication
- High efficiency up to 17.5 SEER2, 12 EER2, 10.5 HSPF2
- Base pan heater and crankcase heater are equipped as standard