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SUBMITTAL

18 SERIES

Single Zone Mini-Split Inverter System

M4MHW1824A1N0B

M4THS1824A11NB

Specifications - IP

MODEL - Heat Pump Only	M4MHW1824A1N0B/ M4THS1824A11NB	
	Cooling	Heating
RATED Volts/PH	208 / 230 / 1	
Frequency (Hz)	60Hz	
Rated Cooling / Heating Capacity (Btu/h):	22000	23000
Minimum Cooling Capacity (@95°F) (Btu/h): ②	6800	-
Maximum Cooling Capacity (@95°F) (Btu/h): ②	27200	-
Minimum Heating Capacity (@47°F) (Btu/h): ②	-	6800
Maximum Heating Capacity (@47°F) (Btu/h): ②	-	30600
Rated Heating Capacity (@17°F) (Btu/h): ②	-	14600
Total Capacity (W) (High/Standard/Low):	8000/6448/2000	9000/6741/2000
Nominal Power Input (W)	1760	2000
Nominal Input Current (A)	8.05	8.35
SEER / HSPF	18.0	10.2
EER / COP (Btu/h)/W	12.5	11.5
Air Flow Volume (CFM) (H//M/L/QUIET)	700/650/575/525	
Dehumidifying Volume (pt./h)	4.2	
Indoor Unit	M4MHW1824A1N0B	
Fan Motor Speed (r/min) (H//M/L/QUIET)	1300/1100/900/850	1300/1100/1000/900
Fan Motor RLA(A)	0.38	
Evaporator	Aluminum Fin-Copper Tube	
Pipe Diameter (inch)	0.28	
Rows - Fin Gap (inch)	2 - 0.06	
Coil length (L) x depth (D) x coil width (W) (inch)	33.25 × 1 × 13.5	
Output of Swing Motor (W)	2.5	
Fuse (A)	3.15	
Sound PRESSURE Level dB (A)(H//M/L/QUIET) ①	48/44/40/36	
Uncrated Dimension (W/H/D) (inch)	42.4 × 12.8 × 9.7	
Crated Dimension of Package (L/W/H) (inch)	45.2 × 16.3 × 13.8	
Net Weight /Gross Weight (lbs)	34.2 / 41.9	
Outdoor Unit	M4THS1824A11NB	
Compressor Type	Rotary	
Compressor Oil Type	RB68EP (POE Oil)	
Compressor RLA(A)	11.5	
Compressor Power Input(W)	2550	
Throttling Method	EEV	
Working Temp Range (°F)	0 ~ 115	-4 ~ 75
Condenser	Aluminum Fin-Copper Tube	
Pipe Diameter (inch)	0.28	
Rows - Fin Gap (inch)	2 - 0.06	
Coil length (L) x depth (D) x coil width (W) (inch)	37.5 × 1.5 × 29.4	
Fan Motor Speed (rpm)	820	
Output of Fan Motor (W)	92	
Fan Motor RLA (A)	0.65	
Air Flow Volume of Outdoor Unit (CFM)	1386	
Fan Diameter (inch)	21.7	
Defrosting Method	Automatic Defrosting	
Sound PRESSURE Level dB (A)①	59	
Uncrated Dimension (W/H/D) (inch)	38.6 × 31.1 × 16.8	
Crated Dimension of Package (L/W/H) (inch)	42.6 × 19.2 × 33.7	
Net Weight /Gross Weight (lbs)	142.2 / 153.2	
Refrigerant Charge (oz)	78	
MCA	20	
MOP	30	
Connection Pipe		
Gas additional charge(oz/ft)	0.5	
Outer Diameter Liquid Pipe (inch)	1/4	
Outer Diameter Gas Pipe (inch)	5/8	
Max Height Distance (ft)	55	
Max Length Distance (ft)	130	

① Sound PRESSURE Level @ 3.3 ft. dB(A)

② Capacities based on fixed compressor speed
AHRI validation testing

Specifications - SI

MODEL - Heat Pump Only	M4MHW1824A1N0B/ M4THS1824A11NB	
	Cooling	Heating
RATED Volts/PH Frequency (Hz)	208 / 230 / 1 60Hz	
Rated Cooling / Heating Capacity (Btu/h):	22000	23000
Minimum Cooling Capacity (@35°C) (Btu/h): ②	6800	-
Maximum Cooling Capacity (@35°C) (Btu/h): ②	27200	-
Minimum Heating Capacity (@8.3°C) (Btu/h): ②	-	6800
Maximum Heating Capacity (@8.3°C) (Btu/h): ②	-	30600
Rated Heating Capacity (@-8.3°C) (Btu/h): ②	-	14600
Total Capacity (W) (High/Standard/Low):	8000/6448/2000	9000/6741/2000
Nominal Power Input (W)	1760	2000
Nominal Input Current (A)	8.05	8.35
SEER / HSPF	18.0	10.2
EER / COP (Btu/h)/W	12.5	11.5
Air Flow Volume (m³/h) (H/M/L/QUIET)	1200/1100 /1000/ /900	
Dehumidifying Volume (L/h)	2.0	

Indoor Unit	M4MHW1824A1N0B	
Fan Motor Speed (r/min) (H/M/L/QUIET)	1300/1100/900/850	1300/1100/1000/900
Fan Motor RLA(A)	0.38	
Evaporator	Aluminum Fin-Copper Tube	
Pipe Diameter (mm)	φ 7	
Rows - Fin Gap (mm)	2 - 1.5	
Coil length (L) x depth (D) x coil width (W) (mm)	845×25.4×342.9	
Output of Swing Motor (W)	2.5	
Fuse (A)	3.15	
Sound PRESSURE Level dB (A)(H/M/L/QUIET) ①	48/44/40/36	
Uncrated Dimension (W/H/D) (mm)	1078×325×246	
Crated Dimension of Package (L/W/H) (mm)	1148×413×350	
Net Weight /Gross Weight (kg)	15.5 / 19	

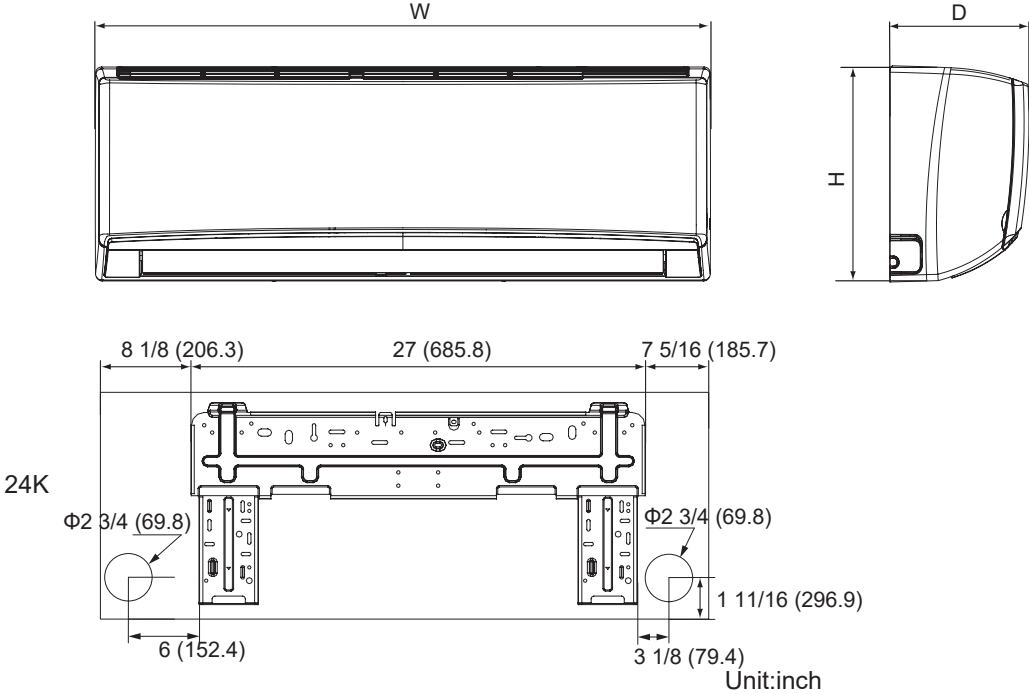
Outdoor Unit	M4THS1824A11NB	
Compressor Type	Rotary	
Compressor Oil Type	RB68EP (POE Oil)	
Compressor RLA(A)	11.5	
Compressor Power Input(W)	2550	
Throttling Method	EEV	
Working Temp Range (°C)	-18 ~ 46	-20 ~ 24
Condenser	Aluminum Fin-Copper Tube	
Pipe Diameter (mm)	φ 7	
Rows - Fin Gap (mm)	2 - 1.4	
Coil length (L) x depth (D) x coil width (W) (mm)	952×38.1×748	
Fan Motor Speed (rpm)	820	
Output of Fan Motor (W)	92	
Fan Motor RLA (A)	0.65	
Air Flow Volume of Outdoor Unit (m³h)	2354	
Fan Diameter (mm)	550	
Defrosting Method	Automatic Defrosting	
Sound PRESSURE Level dB (A)①	59	
Uncrated Dimension (W/H/D) (mm)	980×790×427	
Crated Dimension of Package (L/W/H) (mm)	1083×488×855	
Net Weight /Gross Weight (kg)	64.5 / 69.5	
Refrigerant Charge (kg)	2.2	
MCA	20	
MOP	30	

Connection Pipe	
Gas additional charge(g/m)	50
Outer Diameter Liquid Pipe (mm)	φ 6
Outer Diameter Gas Pipe (mm)	φ 16
Max Height Distance (m)	17
Max Length Distance (m)	40

- ① Sound PRESSURE Level @ 1m dB(A)
 ② Capacities based on fixed compressor speed
 AHRI validation testing

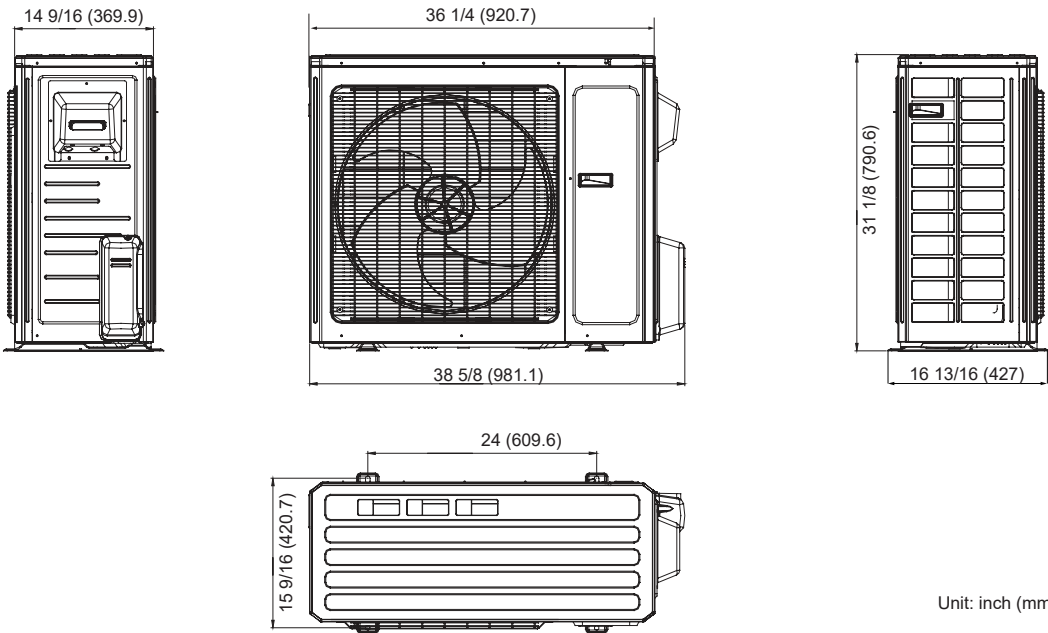
Unit Dimensions

24K Indoor Units



Model	W	H	D
24K	42 7/16 (1078)	12 13/16 (325)	9 11/16 (246)

24K Outdoor Units



Performance Data

M4THS1824A11NB/M4MHW1824A1N0B - Cooling Mode Performance Data

Outdoor Ambient Air Temperature (°F)	Indoor Entering Air Temperature (Dry Bulb/Wet Bulb)							
	68/57°F		73/61°F		80/67°F		82/68°F	
	TC*	SHC**	TC	SHC	TC	SHC	TC	SHC
5	18100	14200	19200	15100	21100	16500	21700	17000
15	19000	14900	20100	15700	21900	17100	22700	17800
25	19800	15600	21200	16700	23100	18100	24200	19000
35	20800	16300	22300	17500	24500	19200	26000	20400
45	21300	16700	22900	18000	25100	19700	27000	21200
55	21000	16500	22500	17700	24600	19300	26700	20900
65	21100	16600	22500	17600	24000	18900	25900	20400
75	20700	16200	22000	17300	23500	18400	25200	19800
85	20100	15800	21500	16800	23000	18000	24600	19300
95	19200	15100	20600	16100	22500	17600	24600	19300
105	20600	16100	22100	17300	24700	19400	26600	20900
115	19400	15200	20900	16400	23400	18400	25300	19900
125	16000	12600	17200	13500	19400	15200	21000	16500

*Total Capacity **Sensible Heat Capacity

M4THS1824A11NB/M4MHW1824A1N0B - Heating Mode Performance Data

Outdoor Ambient Air Temperature (°F)	Indoor Entering Air Temperature			
	68°F	73°F	80°F	82°F
	TC*	TC	TC	TC
-5	17100	16800	16100	15800
0	18200	17900	17200	16800
5	18900	18600	17800	17400
10	20300	19900	19100	18700
15	22100	21800	20900	20400
20	23900	23600	22600	22100
25	23800	23400	22600	22100
30	24100	23800	23000	22600
35	24000	23700	22900	22500
40	23600	23300	22600	22200
45	23200	22900	22100	21600
50	23000	22600	21700	21100
55	23300	22900	21900	21400
60	23800	23400	22400	21800
65	24300	23800	22800	22300
70	24600	24200	23200	22600
75	25000	24600	23500	22900
80	25600	25100	24000	23500

*Total Capacity

Capacities in these performance tables reflect normal operation at the temperatures indicated. See specification tables above for certified values under prescribed test conditions.

Application Area/Air Throw for High Wall			
Model	Application Area	Cooling Mode	Heating Mode
M4MHW1824	291-452 sf. (27-42 m ²)	31.2 (9.5)	19.7 (6)

Unit: ft. (m)

Mechanical Specifications

Single Zone Outdoor Unit

General

This unit shall be fully charged from the factory for 25 feet (7.6m) of piping. This unit is designed to operate at outdoor ambient temperatures as high as 115°F (46°C). Cooling capacities with the mini-split air handler shown in the catalog are AHRI certified. The unit is ETL listed for outdoor application.

Unit Casing

The unit casing shall be constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint.

Refrigerant Controls

Refrigeration system controls include condenser fan and compressor relay. High and low pressure controls are inherent to the compressor. A suction line multi function service valve is standard

Compressor

The compressor features internal over temperature and pressure protection; total dipped hermetic motor windings. Other features include: centrifugal oil pump and low vibration and noise.

Condenser Coil

The coil shall consist of aluminum finned coils brazed to copper tubing. The coil provides airflow resistance and efficient heat transfer. The coil is protected by the casing.

Low Ambient Cooling

Matched 18 Series Energy Star® ductless products, have a cooling capability to 0°F (-18°C) and heating capability to -4°F (-20°C).

Single Zone Indoor High Wall

General

The High Wall mounted type air handler shall be completely factory assembled including coil, condensate drain pan, fan motor, washable filter, air purifying filter and electric controls to be used with a wireless remote controller. Unit shall be shipped with a unit mounting plate. Unit shall be matched with a 18 Series Energy Star® outdoor unit, rated and tested in accordance with AHRI standard. Unit shall be ETL listed.

Unit Casing

Casing shall be provided with knockouts on the right, and left of the unit to facilitate piping and electrical connection on either side of the unit. An electrical service cover shall be provided to permit easy access to the electrical terminal strip.

Discharge Airflow and Distribution System

Unit shall have auto swing, dual horizontal blades to optimize the aperture outlet for vertical airflow and air distribution. Blade shall close automatically when the air conditioner is turned off to minimize dust entering the unit. Five-Step preset program on the remote controller shall be available to control the blade angle.

Manually adjusted wide-angle louvers shall be provided to adjust the coverage and direction of airflow.

Controls

Units shall have the capability to be controlled remotely.

Remote Controller

The unit shall have an optional wireless infrared remote controller with an easily readable digital display panel to start, stop and regulate the air conditioner from a distance.

The wireless controller is included with all units.

Healthy Filters

The unit shall have one combined active carbon and catechin filter with the unit. The filter needs to be cleaned at least once a year.

About Trane and American Standard Heating and Air Conditioning

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