

Specifications, Performance & Submittal

**Model:
Ceiling Cassette
208-230V
9k-24k**

Ceiling Cassette Air Handler (Heat Pump)

Model		Single Zone			Capacity		Voltage	Product Revision
M	H	C	A	S			D	A
Maximum Heat Series Heat Pump		Ceiling Cassette Heat Pump			09 - 9,000 Btu/h 12 - 12,000 Btu/h 18 - 18,000 Btu/h 24 - 24,000 Btu/h		D - 208-230V/1ph/60Hz	

Indicate the *quantity of field installed accessories, required for each unit*

QTY Ordered	Description	Part Number
	Assembly, Facia, CASH 09/12/18 - Facia is packaged and sold separately [1 per unit 09 / 12 / 18 required)	TMBQ403E
	Assembly, Facia, CASH 24 - Facia is packaged and sold separately [1 per unit is required]	TMBQ-04B
	Optional: Wall Thermostat Cassette 9-24k	17317100007936
	Optional: SPARE Hand Held Infrared Remote Control 9-18k [NOTE: Each Wall Air Handler comes with a hand held remote, standard]	17317000A63429
	Optional: SPARE Hand Held Infrared Remote Control 24k [NOTE: Each Wall Air Handler comes with a hand held remote, standard]	17317000A62345
	Optional: Wi-Fi Module Cassette 9-18k	1731900A06403
	Optional: Wi-Fi Module Cassette 24k	17310900003167

Number of Units Ordered

Approval
By: _____

Approved:	
Reviewed:	
Contact:	
Address:	
Phone:	
Unit Tag #	
REVISION	



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Specifications, Performance & Submittal

**Model:
Single Zone
Condenser
208-230V
9k-24k**

Single Zone Condenser (Heat Pump)

<u>Model</u>	<u>Single Zone</u>	<u>Nominal Rated Capacity</u>	<u>Voltage</u>	<u>Product Revision</u>														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">M</td> <td style="width: 50%; text-align: center; padding: 5px;">H</td> </tr> <tr> <td colspan="2" style="font-size: small;">Maximum Heat Series Heat Pump</td> </tr> </table>	M	H	Maximum Heat Series Heat Pump		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center; padding: 5px;">S</td> <td style="width: 25%; text-align: center; padding: 5px;">Z</td> <td style="width: 50%; text-align: center; padding: 5px;">1</td> </tr> </table>	S	Z	1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; height: 20px;"></td> <td style="width: 50%; height: 20px;"></td> </tr> <tr> <td colspan="2" style="font-size: small;"> 09 - 9,000 Btu/h 12 - 12,000 Btu/h 18 - 18,000 Btu/h 24 - 24,000 Btu/h </td> </tr> </table>			09 - 9,000 Btu/h 12 - 12,000 Btu/h 18 - 18,000 Btu/h 24 - 24,000 Btu/h		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; padding: 5px;">D</td> <td style="width: 50%; text-align: center; padding: 5px;">A</td> </tr> <tr> <td colspan="2" style="font-size: small;"> D - 208-230V/1ph/60Hz </td> </tr> </table>	D	A	D - 208-230V/1ph/60Hz	
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D	A																	
D - 208-230V/1ph/60Hz																		

Indicate the *quantity* of field installed accessories, required for each unit

QTY Ordered	Description	Part Number	Notes
	TUBE SET,3/8X1/4X16',5M,09,FLR,INS,US	F0323161A	09 size only
	TUBE SET,3/8X1/4X26',8M,09,FLR,INS,US	F0323261A	09 size only
	TUBE SET,3/8X1/4X49',15M,09,FLR,INS,US	F0323491	09 size only
	TUBE SET,1/2X1/4X16',5M,12-18,FLR,INS,US	F0423161A	12 & 18 sizes
	TUBE SET,1/2X1/4X26',8M,12-18,FLR,INS,US	F0423261A	12 & 18 sizes
	TUBE SET,1/2X1/4X49',15M,12/18,FLR,INS,	F0423491	12 & 18 sizes
	TUBE SET,5/8X3/8X26',8M,24-36,FL,INS,US	F0533262A	24 size only
	TUBE SET,5/8x3/8X49',15M,24-36,FL,INS,US	F0533492A	24 size only

Number of Units Ordered

Approved:	
Reviewed:	
Contact:	
Address:	
Phone:	
Unit Tag #	
REVISION	

Approval



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Specifications, Performance & Submittal

Single - Zone Systems 208V-230V 9k-24k

Ductless Mini Split:

- ◆ Heat Pump
- ◆ R-410A refrigerant.
- ◆ Single and multi-zone application flexibility.
- ◆ 20 to 25 SEER high efficiency models with capacities from 9,000 Btu/h to 24,000 Btu/h.
- ◆ Easy installation requiring no ductwork, a small hole for running power wiring and refrigerant lines is all that is needed to connect indoor and outdoor sections.
- ◆ Low profile indoor air handler is neutral color that blends with any decor.
- ◆ Next generation outdoor condenser with inverter compressor provides exceptionally quiet operation and intelligently adjusts speed to temperature conditions.
- ◆ Low noise.
- ◆ Low operating cost.
- ◆ Optional Wall Thermostat.
- ◆ Optional Wi-Fi Module.
- ◆ Simple design makes it easy to remove and clean the washable filters.
- ◆ Intelligent Design allows system to intelligently adjust the angle of the louver to ensure greatest efficiency for heating and cooling. For more control, manually adjust louver as small as 6 degrees from using the hand-held remote.
- ◆ Golden Fin prevents bacteria breeding and improves heat transfer efficiency. The unique anti-corrosive golden coating on the condenser can withstand salty air, rain, and other corrosive elements.
- ◆ Refrigerant Leakage Detection will better protect compressor being damaged by high temperature due to refrigerant leakage.

Features:

- All models supplied with hand-held Infrared Remote Controller with easy-to-read LCD display. Factory installer operating features provide capacity to set temperature, louver control, fan speeds and more.
- Follow-Me Technology - Mode that activates a temperature sensor that is built into Infrared remote control. When you stay close to the remote control, the unit will continue to condition the space until you are comfortable.
- Turbo Mode - Air condition maximizes output of cooling and heating capacity, making the room cool down or heat up rapidly and attain the desired temperature in the shortest time.
- Auto Restart - If system shuts down due to power failure, system will restart with previous function setting when power is restored.
- Auto Level Swing Louvers - In cooling mode, louvers self adjust to horizontal position and circulate cold air more efficiently. In heating mode, louvers deflect hot air downward so hot air will rise and circulate keeping the room warm.
- 24 Hour Timer - Set a wide variety of timer based operations, start and stop at specific times. Control fan speed as well as cool, heat and auto from anywhere in the room.
- Sleep Mode - Enables the system to gradually decrease cooling or heating output automatically during night operation to maintain comfort level while saving energy.
- Self-Diagnosis & Auto Protection - Should abnormal operation or part failure happen, unit will shut off automatically. Unit will then indicate protection or error code for fast service.
- Low Ambient Cooling/Heating - Operating range -22°F to 122°F provide year round cooling/heating comfort.

Single - Zone Systems

208V-230V 9-24K

Indoor Cassette Unit Model		MHCAS09DAA	MHCAS12DAA	MHCAS18DAA	MHCAS24DAA	
Power Supply		V/ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Cooling	Nominal Capacity	Btu/h	9000	12000	17000	24000
	EER	Btu/W	13	12.7	12.5	11
	SEER	Btu/W	20.5	21.5	20	20.2
Heating	Capacity	Btu/h	10900	12000	18000	24000
	HSPF		10.8	10.4	10.3	11.6
Indoor air flow (Hi/Mi/Lo)		cfm	360/310/270	380/310/260	560/490/440	710/640/550
Indoor noise level (Hi/Mi/Lo)		dB(A)	40/36/33	41/36/32	44/39/36	48/46/43
Indoor Unit	Dimensions (WxDxH)	inch	22 ⁷ / ₁₆ × 22 ⁷ / ₁₆ × 10 ¹ / ₄	22 ⁷ / ₁₆ × 22 ⁷ / ₁₆ × 10 ¹ / ₄	22 ⁷ / ₁₆ × 22 ⁷ / ₁₆ × 10 ¹ / ₄	35 ⁷ / ₁₆ × 35 ⁷ / ₁₆ × 8 ⁹ / ₁₆
	Dimensions (WxDxH)	mm	570 × 570 × 260	570 × 570 × 260	570 × 570 × 260	830 × 830 × 205
	Weight	lbs.	38.5	41	41.5	54.5
kg		17.5	18.6	18.8	24.7	
Indoor Unit Facia	Dimensions (WxDxH)	inch	28 ¹ / ₈ × 28 ¹ / ₈ × 4 ¹³ / ₁₆	28 ¹ / ₈ × 28 ¹ / ₈ × 4 ¹³ / ₁₆	28 ¹ / ₈ × 28 ¹ / ₈ × 4 ¹³ / ₁₆	40 ³ / ₄ × 40 ³ / ₄ × 3 ⁹ / ₁₆
		mm	715 × 715 × 123	715 × 715 × 123	715 × 715 × 123	1035 × 1035 × 90
Indoor Fan		RLA	0.81	0.92	1.65	1.0
Thermostat Setting Range	Indoor (cooling/heating)	°F	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86	62~90 / 32~86
		°C	17~32 / 0~30	17~32 / 0~30	17~32 / 0~30	17~32 / 0~30
Refrigerant Piping	Liquid side/Gas side	inch	¹ / ₄ × ³ / ₈	¹ / ₄ × ¹ / ₂	¹ / ₄ × ¹ / ₂	³ / ₈ × ⁵ / ₈
		mm	6.35 × 9.52	6.35 × 12.7	6.35 × 12.7	9.52 × 15.9
	Maximum pipe length	ft	82	82	98	164
		m	25	25	30	50
	Max. height difference between indoor units	ft	33	33	66	82
m		10	10	20	25	

Interconnect wire: 3 - conductor plus ground, stranded, un-shielded. Wire size is determined by MCA and MOP/fuse, per NEC, CEC and local codes.

Single - Zone Systems

208V-230V 9-24k

Outdoor Condensing Unit Model			MHSZ109DA	MHSZ112DA	MHSZ118DA	MHSZ124DA
Power supply		V/ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Cooling	Capacity	Btu/h	9000	12000	18000	24000
	Rated current	A	10.04	9.96	15.3	19.0
	EER		16.2	14	12.5	13
	SEER		28.1	25.5	21.5	21.5
Heating	Capacity (at 47°F/8.3°C)	Btu/h	13500	14000	19500	28000
	Input	W	907	907	1700	2500
	Rated current	A	4.1	4.1	7.3	10.9
	COP		3.81	3.88	3.10	3.40
	HSPF		13	13	13	12
MINIMUM CIRCUIT AMPACITY		A	15	15	16	25
MAX TIME DELAY FUUSE OR HARC BREAKER		A	15	15	25	35
Outdoor air flow		m3/h	2200	2200	3000	3700
Outdoor air flow		cfm	1300	1300	1750	2200
Outdoor noise level		dB(A)	54.5	56	59	62
Outdoor unit	Dimension (WxDXH)	inch	31 ¹¹ / ₁₆ x 13 x 21 ¹⁵ / ₁₆	31 ¹¹ / ₁₆ x 13 x 21 ¹⁵ / ₁₆	35 ¹ / ₁₆ x 13 ¹ / ₂ x 26 ¹ / ₂	37 ³ / ₄ x 16 ¹ / ₈ x 31 ⁷ / ₈
	Dimension (WxDXH)	mm	805x330x554	805x330x554	890x342x673	946x410x810
	Packing (WxDXH)	inch	36 x 14 ⁹ / ₁₆ x 24 ³ / ₄	36 x 14 ⁹ / ₁₆ x 24 ³ / ₄	39 ³ / ₁₆ x 15 ¹¹ / ₁₆ x 29 ⁷ / ₈	42 ¹⁵ / ₁₆ x 19 ¹¹ / ₁₆ x 34 ⁷ / ₈
	Packing (WxDXH)	mm	915x370x615	915x370x615	995x398x740	1090x500x885
	Gross weight	lbs.	80.25	79.37	108.03	144.40
	Gross weight	kg	36.4	36	49	65.5
Refrigerant type - 410A / oz		oz	41.62	41.62	65.2	91.7
Refrigerant precharge (Total pipe length)		ft	25.0	25.0	25.0	25.0
Additional charge for each ft		oz	7.6	7.6	7.6	7.6
Design pressure		psig	550/340	550/340	550/340	550/340
Refrigerant piping	Liquid side/Gas side	inch	1/4 liquid line 3/8 gas line	1/4 liquid line 1/2 gas line	1/4 liquid line 1/2 gas line	3/8 liquid line 5/8 gas line
		mm	6.35 liquid line 9.52 gas line	6.35 liquid line 12.7 gas line	6.35 liquid line 12.7 gas line	9.52 liquid line 15.9 gas line
	Max. pipe length	ft	82.0	82.0	98.0	164.0
		m	25.0	25.0	30.0	50.0
	Max. height difference between indoor units	ft	32.8	32.8	66.0	82.0
		m	10.0	10.0	20.0	25.0
Operating Range Ambient Temperature	Indoor (cooling/heating)	°F	60~90 / 32~81	60~90 / 32~81	63~90 / 32~86	63~90 / 32~86
		°C	16~32 / 0~27	16~32 / 0~27	17~32 / 0~30	17~32 / 0~30
	Outdoor (cooling/heating)	°F	-22~122 / -22~86	-22~122 / -22~86	-22~122 / -22~86	-22~122 / -22~86
		°C	-30~50 / -30~30	-30~50 / -30~30	-30~50 / -30~30	-30~50 / -30~30

Additional Refrigerant Calculation: Sum Total Liquid Pipe ft. (m) - Additional Charge Required After ft. (m.) x Additional Charge oz./ft. (g/m) 0.16 (15)

NOTES: If the calculation results in a negative number no refrigerant is required to be added or removed. Electronic expansion valves in the outdoor unit are used as metering devices

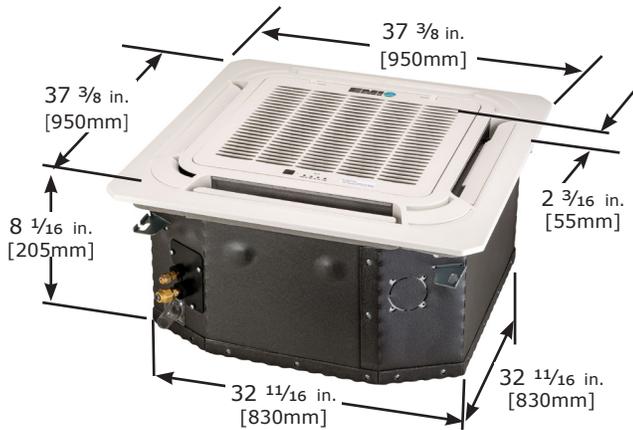
NOTE: The refrigerant charge included is adequate for the outdoor unit's maximum number of zones multiplied by the standard piping length per zone. For piping runs greater than the "Maximum Piping Length with no additional refrigerant charge per System", see Additional Refrigerant Charge (see Table 3).

Refrigerant Piping: Line sets to be sized based on the connection size of the indoor unit. Each pipe should be insulated individually.

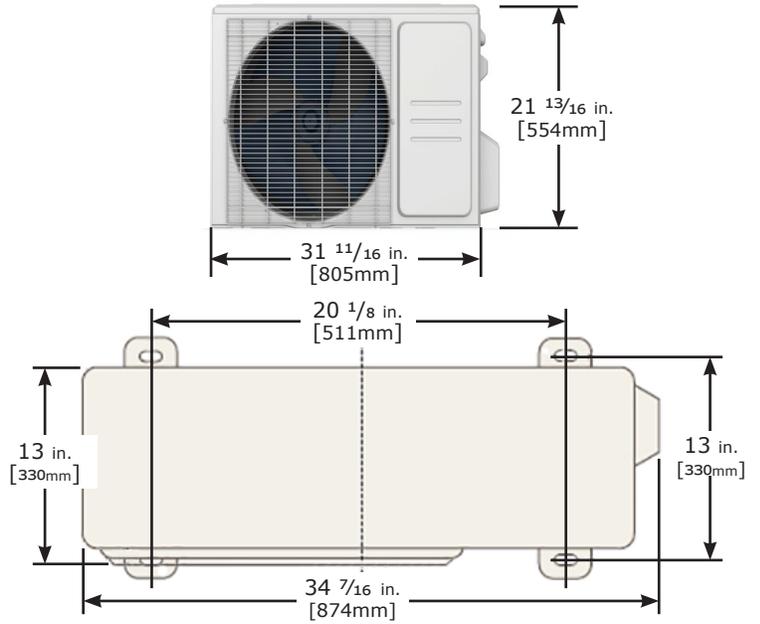
MHCAS09DAA, MHCAS12DAA, MHCAS18DAA



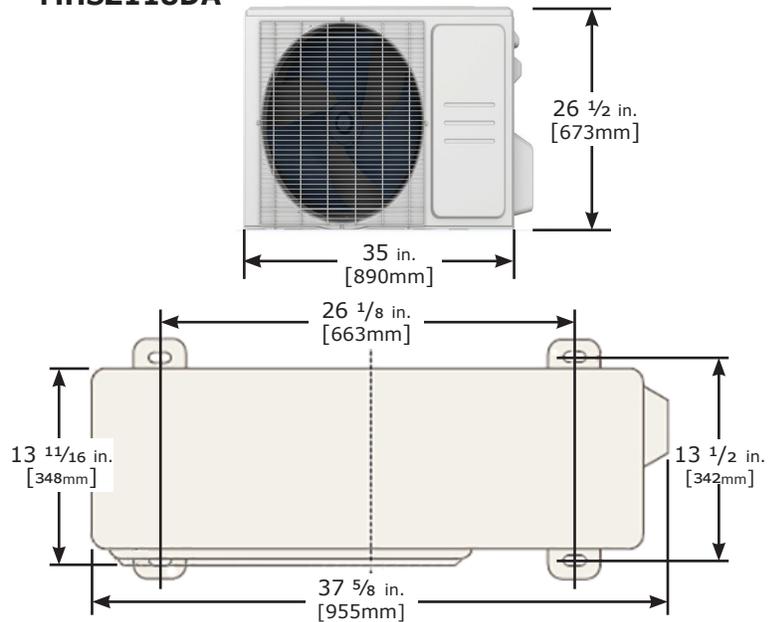
MHCAS24DAA



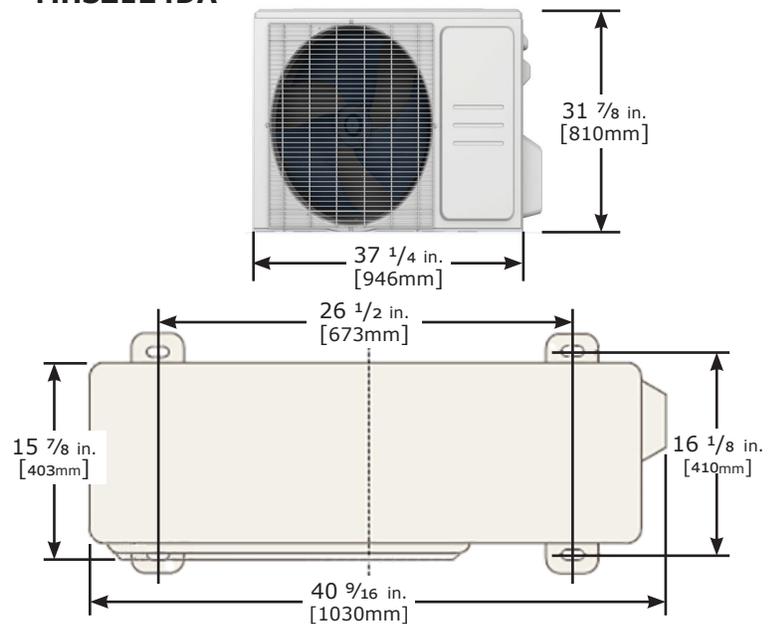
MHSZ109DA & MHSZ112DA



MHSZ118DA



MHSZ124DA



Handheld Remote Controller

Every EMI System comes with an easy to use handheld remote so you can adjust your comfort level at the touch of a button.

- Enabling "Follow Me" Technology. When "Follow Me" mode is activated, the system switches from air handler-mounted room temperature sensor, to the sensor inside of the infrared handheld remote control. The unit conditions the space where you are, with the remote close at hand.
- Enabling Timer Modes - On a schedule? Control variety of settings with precision through the Timer Mode. Never worry about arriving to a cold home again. If the system stops due to power outage, it will automatically restart to its last setting when the power comes back.



Optional Wired Wall Thermostat

Instead of a hand-held remote controller, the unit can be wired to a wall mounted thermostat.



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