Ceiling Cassette Air Handler (Heat Pump)

Model

| C | A | S | H |

Ceiling Cassette Heat Pump

Capacity

09 - 9,000 Btu/h
12 - 12,000 Btu/h
18 - 18,000 Btu/h
24 - 24,000 Btu/h

Voltage

| D |

D - 208-230V/1ph/60Hz

Product Revision

| A | A |

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]	**TMBQ02C1**
	Optional: Wall Thermostat for Iverter & Deluxe Heat, Fahrenheit	**KJR12BDPTF1**
	Optional: Wall Thermostat for Iverter & Deluxe Heat, Celsius	**KJR12B**
	Optional: **SPARE** Hand Held Infrared Remote Control [**NOTE:** Each Wall Air Handler comes with a hand held remote, standard]	**17317000A14903**

c ETL us
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Intertek

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

Number of Units Ordered

Approval

By:_____

NOTICE: Due to ongoing product development; design, specification and performance data listed within this submittal document are subject to change without notice. Visit our website *emiretroaire.com* for the most current performance data or consult the factory.

Deluxe heat
EMI Presents

Single Zone Condenser (Heat Pump)

Model		Single Zone			Nominal Rated Capacity		Voltage	Product Revision
D	**H**	**S**	**Z**	**1**			**D**	**A**

Deluxe Heat Series Heat Pump

Nominal Rated Capacity:
09 - 9,000 Btu/h
12 - 12,000 Btu/h
18 - 18,000 Btu/h
24 - 24,000 Btu/h

Voltage:
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 #	
REVISON	

Approval

By:_____

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Intertek

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.

♦ 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.

• Enhanced features - Compatible with after market Wi-Fi controllers.

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

Indoor Cassette Unit Model			CASH09DAA	CASH12DAA	CASH18DAA	CASH24DAA
Power Supply		V-Hz-ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph
Cooling	Nominal Capacity	Btu/h	9000	12000	17000	24000
	EER		14.5	13.0	12.5	13
	SEER		25	22.5	20	20.5
Heating	Capacity	Btu/h	10900	12000	18000	24000
	HSPF4		11.2	12	10.3	11.5
Indoor air flow (Hi/Mi/Lo)		cfm	374/301/257	379/309/261	560/483/415	700/636/573
Indoor noise level (Hi/Mi/Lo)		dB(A)	41/37/33	43/39/36	44/39/36	51/47/43
Indoor Unit	Dimensions (W*D*H)	inches	$22^{7}/_{16}$ x $22^{7}/_{16}$ x 10¼	$22^{7}/_{16}$ x $22^{7}/_{16}$ x 10¼	$22^{7}/_{16}$ x $22^{7}/_{16}$ x 10¼	35 $^{7}/_{16}$ x 35 $^{7}/_{16}$ x 8 $^{9}/_{16}$
	Dimensions (W*D*H)	mm	570 x 570 x 260	570 x 570 x 260	570 x 570 x 260	900 x 900 x 217
	Weight	lbs.	38.5	41	41.5	54.5
Indoor Unit Facia	Dimensions (W*D*H)	inches	28⅛ x 28⅛ x 4 $^{13}/_{16}$	28⅛ x 28⅛ x 4 $^{13}/_{16}$	28⅛ x 28⅛ x 4 $^{13}/_{16}$	40 ¾ x 40 ¾ x 3 $^{9}/_{16}$
	Dimensions (W*D*H)	mm	715 x 715 x 123	715 x 715 x 123	715 x 715 x 123	1035 x 1035 x 90
Refrigerant Piping	Liquid side/Gas side	mm (inch)	6.35 x 9.52 (¼" x ⅜")	6.35 x 12.7 (¼" x ½")	6.35 x 12.7 (¼" x ½")	9.52 x 15.9 (⅜" x ⅝")
Indoor Fan		RLA	0.9	1.0	1.5	2
Thermostat Setting Range	Indoor(cooling/heating)	°C	17~32/0~30	17~32/0~30	17~32/0~30	17~32/0~30
	Indoor(cooling/heating)	°F	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86

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 09-24k

Outdoor Condensing Unit Model		V-Hz-ph	DHSZ109DA	DHSZ112DA	DHSZ118DA	DHSZ124DA
Power supply		V-Hz-ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph	208-230V-60Hz,1ph
Cooling	Capacity	Btu/h	9000	12000	17000	24000
	Input	W	620	960	1360	1920
	Rated current	A	2.7	4.2	5.95	8.4
	EER		14.5	13	12.5	13
	SEER		25	22.5	20	20.5
Heating	Capacity	Btu/h	10900	12000	18000	24000
	Input	W	835	975	1685	2500
	Rated current	A	3.6	4.2	7.4	10.9
	COP		3.83	3.55	3.13	2.81
	HSPF4		11.2	12	10.3	11.5
	HSPF5		9	9.9	8.8	9.6
MINIMUM CIRCUIT AMPACITY		A	9	9	18	20
MAX TIME DELAY FUUSE OR HARC BREAKER		A	15	15	25	30
Outdoor air flow		m3/h	1900	2000	2300	4000
Outdoor air flow		cfm	1120	1180	1355	2355
Outdoor noise level		dB(A)	55.5	56	57.5	60
Outdoor unit	Dimension (W*D*H*)	mm	800x333x554	800x333x554	845x363x702	946x410x810
	Dimension (W*D*H*)	inch	31.50x13.11x21.81	31.50x13.11x21.81	33.27x14.29x27.64	37.24x16.14x31.89
	Packing (W*D*H*)	mm	920x390x615	920x390x615	965x395x755	1090x500x875
	Packing (W*D*H*)	inch	36.22x15.35x24.21	36.22x15.35x24.21	37.99x15.55x29.72	42.91x19.69x34.45
	Net/Gross weight	kg	40/42.5	40/42.5	48.7/52.2	61.5/67.5
	Net/Gross weight	lbs.	88.2/93.7	88.2/93.7	107.4/115.1	135.58/148.81
Refigerant type - 410A / oz		oz	52.9	52.9	68.8	91.7
Refrigerant precharge (Total pipe length)		ft	25	25	25	25
Additional charge for each ft		oz	0.161	0.161	0.161	0.322
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 mm liquid line 9.52 mm gas line	6.35 mm liquid line 12.7 mm gas line	6.35 mm liquid line 12.7 mm gas line	9.52 mm liquid line 15.9 mm gas line
	Max. refrigerant pipe length	m	25	25	30	50
	Max. refrigerant pipe length	ft	82	82	98	164
	Max. difference in level	m	10	10	20	25
	Max. difference in level	ft	33	33	66	82
Operating Range Ambient Temperature	Indoor (cooling/heating)	°C	17~32/0~30	17~32/0~30	17~32/0~30	17~32/0~30
	Indoor (cooling/heating)	°F	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86
	Outdoor (cooling/heating)	°C	-30~50/-30~30	-30-50/-30-30	-30-50/-30-30	-30-50/-30-30
	Outdoor (cooling/heating)	°F	-22~122/-22~86	-22~122/-22~86	-22~122/-22~86	-22~122/-22~86

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.
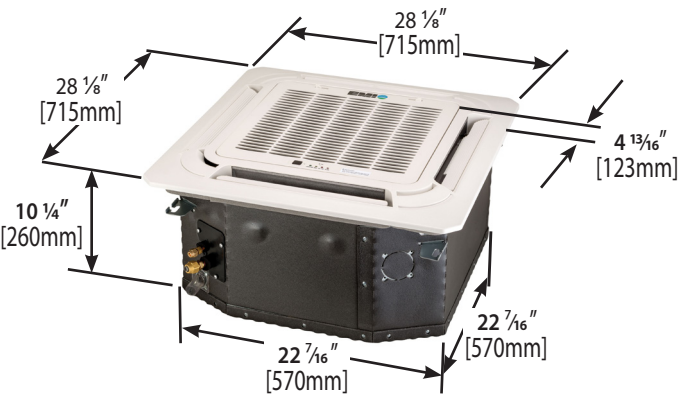Electronic expansion valves in the outdoor unit are used as metering devices

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).
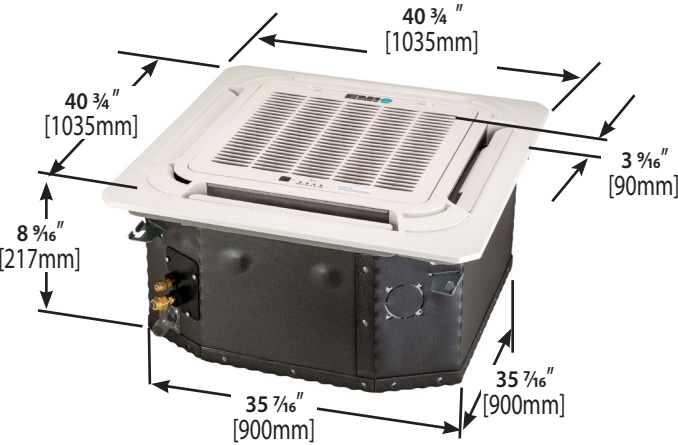
Refrigerant Piping:
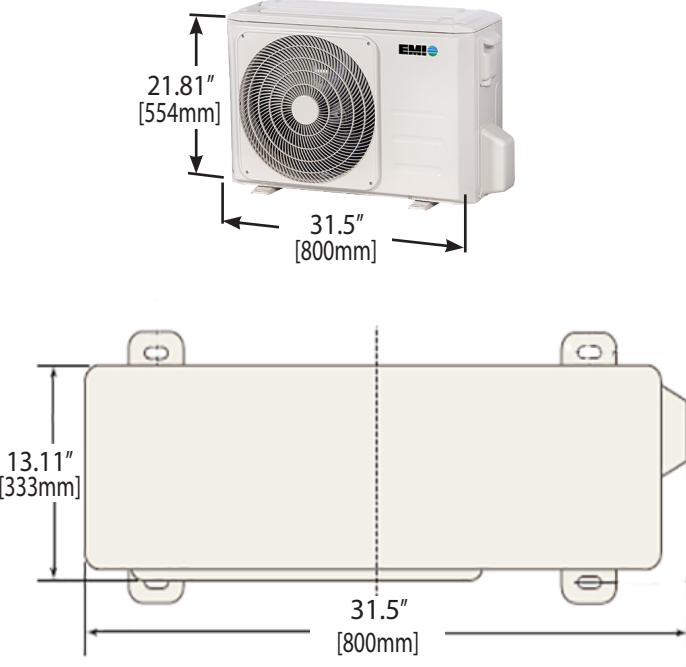Line sets to be sized based on the connection size of the indoor unit. Each pipe should be insulated individually.
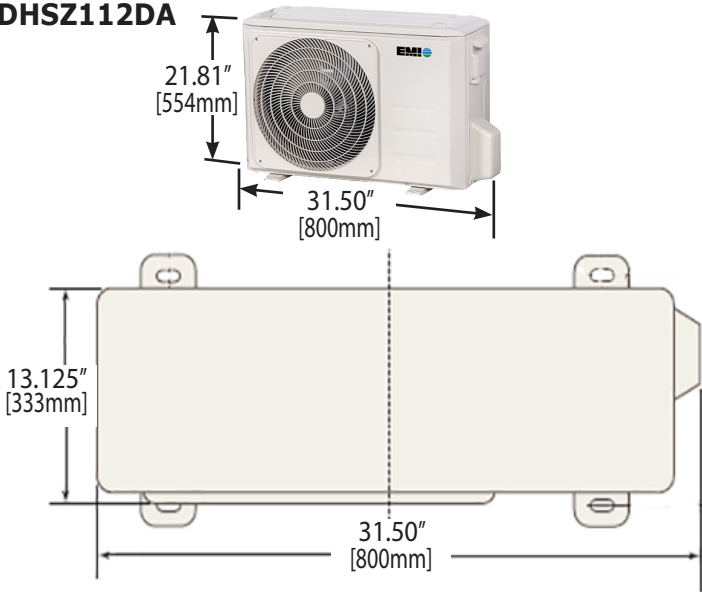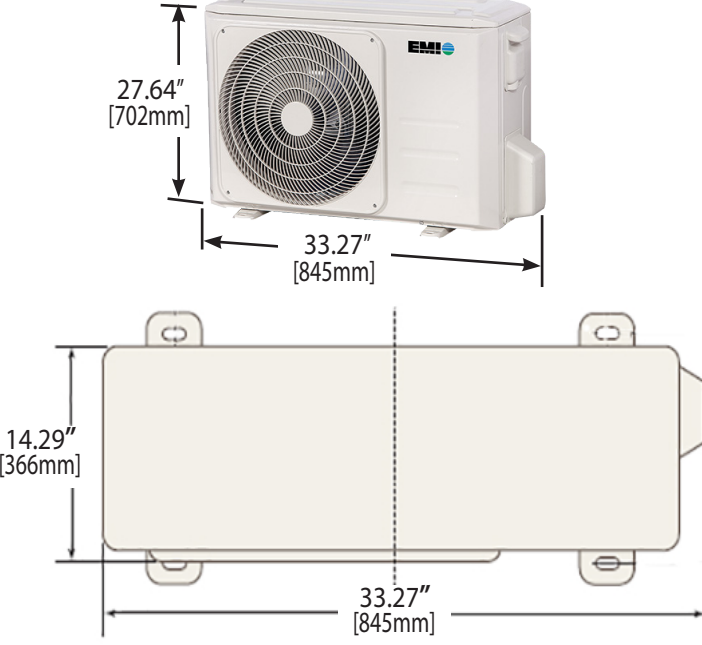
CASH09DAA, CASH12DAA, CASH18DAA

28 ⅛″ [715mm]

28 ⅛″ [715mm]

4 ¹³⁄₁₆″ [123mm]

10 ¼″ [260mm]

22 ⁷⁄₁₆″ [570mm]

22 ⁷⁄₁₆″ [570mm]

CASH24DAA

40 ¾ ″ [1035mm]

40 ¾ ″ [1035mm]

3 ⁹⁄₁₆″ [90mm]

8 ⁹⁄₁₆″ [217mm]

35 ⁷⁄₁₆″ [900mm]

35 ⁷⁄₁₆″ [900mm]

DHSZ112DA

21.81″ [554mm]

31.50″ [800mm]

13.125″ [333mm]

31.50″ [800mm]

DHSZ118DA

27.64″ [702mm]

33.27″ [845mm]

14.29″ [366mm]

33.27″ [845mm]

DHSZ109DA

21.81″ [554mm]

31.5″ [800mm]

13.11″ [333mm]

31.5″ [800mm]

DHSZ124DA

31.89″ [810mm]

37.24″ [946mm]

16.14″ [410mm]

37.24″ [946mm]
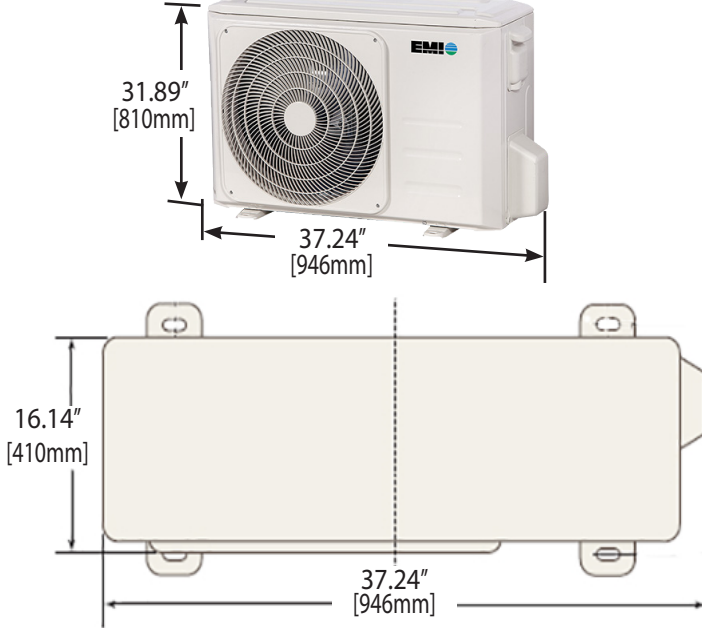
Handheld Remote Controller

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 I-verter or Deluxe Heat wall mounted thermostat.

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