



Comfort Where It Counts.

**CAH\_12-S2HA**  
Cassette Air Handler  
Dual-Zone Limited Range Heat Pump

Rev. 1.2 [01/08]

JOB NAME: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
 PURCHASER: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 SUBMITTED TO: \_\_\_\_\_ FOR: REFERENCE [ ] APPROVAL [ ] CONSTRUCTION [ ]  
 SUBMITTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 UNIT DESIGNATION: SCHEDULE #: \_\_\_\_\_ MODEL #: \_\_\_\_\_

Manufacturer reserves the right to change these specifications at any time without incurring obligation.

**Note:** CAH\_ = CAHA and/or CAHB



**▲ PERFORMANCE:**

Performance certified in accordance with ARI 210/240

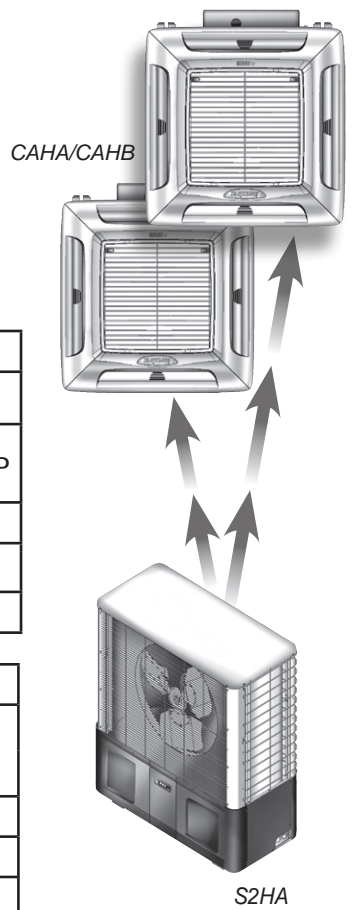
**Note:** 35°F ambient, minimum operating temperature for compressor.  
System will automatically switch to electric heat if option is ordered.

**COOLING**

Indoor design conditions: 80°F Dry Bulb / 67°F Wet Bulb  
Outdoor design conditions: 95°F

**HEATING**

Indoor design conditions: 70°F Dry Bulb / 57°F Wet Bulb  
Outdoor design conditions (High): 47°F Dry Bulb / 43°F Dry Bulb



**EMI ENGINEERING SUBMITTAL**

SYSTEM CAPACITIES							
Models		Cooling				Heating	
Indoor	Outdoor	Capacity Btuh (kW)	SEER	EER	SHR	High Temperature Capacity Btuh (kW)	COP
(2) CAH_12	S2HA2200	22,600 (6.6)	13.00	11.6	0.75	20,000 (5.9)	3.1
(2) CAH_12	S2HA9200	20,600 (6.0)	13.00	11.6	0.77	18,000 (5.3)	3.1
(2) CAH_12	S2HA9900	18,600 (5.4)	13.00	11.7	0.79	15,700 (4.6)	3.1

CIRCUIT PERFORMANCE				
Models		Circuit	Cooling Capacity Btuh (kW)	Heating Capacity Btuh (kW)
Indoor	Outdoor			
(2) CAH_12	S2HA2200	1	11,300 (3.3)	10,000 (2.9)
		2	11,300 (3.3)	10,000 (2.9)
(2) CAH_12	S2HA9200	1	9,300 (2.7)	8,000 (2.3)
		2	11,300 (3.3)	10,000 (2.9)
(2) CAH_12	S2HA9900	1	9,300 (2.7)	8,000 (2.3)
		2	9,300 (2.7)	8,000 (2.3)



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**▲ STANDARD FEATURES:**

**INDOOR UNIT:**

- In ceiling mounted unit
- Connections for 24V remote wall thermostat
- Custom control board with anti-short cycle timer
- Relays and connectors to condensing unit
- Condensate Pump with 36" (0.9 m) lift – from base of unit
- 24V / 40VA Transformer
- Fans are backward curved impeller centrifugal design
- Single fan w/fire retardant plastic impeller
- Fan purge for improved efficiency
- Freeze protection
- Motor is multispeed, enclosed type w/thermal protection and sealed lifetime bearings
- Permanent, washable filter (user accessible)
- Branch duct knockouts on two sides for remote discharge locations (Use up to 2 non-adjacent)
- Fresh air intake capability on two sides of cabinet
- Four plastic air vanes are equipped w/manually adjusted air vanes
- Custom Control Board with 7-day, 4 event/day, Programmability (CAHB12 only)
- Infrared Hand-Held Controller (CAHB24 only)
- One year Limited Parts Warranty

**OUTDOOR UNIT:**

- Side Condenser Air Discharge Unit
- Dual Independent Circuits
- Standard Operating Low Ambient in Cooling 32°F (0°C)
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Factory installed Hard Start Assist
- Duratec compressor protection package
  - Suction Accumulator
  - Filter Drier
  - Loss of Charge Switch
  - Crankcase heater
  - Start assist
- High Pressure Switch (*manual reset*)
- Coated Wire Grille Condenser Coil Protection and Fan Guard
- Five years Limited Compressor Warranty, One year Limited Parts Warranty

Please use check-box to select Options and Accessories.

**▲ FACTORY INSTALLED OPTIONS:**

**INDOOR UNIT**

**Power Connection:**

- 208/230-1-60

**Electric Heat:**

- None
- 1.5 kW (208/230 Volt)

**OUTDOOR UNIT**

**Power Connection:**

- 208/230-1-60

**Condenser Coil:**

- Copper Tube/ Copper Fin
- Copper Tube/ Post-Coat Aluminum Fin

**▲ FIELD INSTALLED ACCESSORIES:**

**INDOOR UNIT**

- 24 Volt Wall Thermostat

**OUTDOOR UNIT**

- Wind Baffle/Hail Guard, Architectural Louver Kit

**Refrigerant Line Sets**

- 10'
- 25'
- 50'

**EMI ENGINEERING SUBMITTAL CAH\_12-S2HA**

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**ELECTRICAL SPECIFICATIONS**

Indoor Unit	V-Ph-Hz	Voltage		Indoor Fan Motor		Heater		Unit FLA	MCA	MOCP
		Min	Max	RLA	HP	kW	Amps			
CAH_12	208/230-1-60	197	240	0.35	0.1	-	-	0.4	0.5	15
						1.5	6.52	6.9	8.6	15

Outdoor Unit	Power Supply V-1-60			Control* V-1-60	Compressor			Outdoor Fan Motor			Unit FLA	MCA	MOCP
	Volts	Min	Max		Qty	RLA	LRA	Qty	FLA	Hp			
S2HA2200	208/230	197	240	24	2	4.3	27.0	1	1.8	0.33	10.4	11.5	15
S2HA9200	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	9.5	10.6	15
					1	4.3	27.0						
S2HA9900	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	8.6	9.5	15

Note: \* - Control Voltage is supplied from the indoor unit. No separate supply required.

**SOUND DATA**

Unit	Sound dBA	
	High	Low
CAH_12	41	39
	65	
S2HA2200	65	
S2HA9200	65	
S2HA9900	64	

**WEIGHT DATA**

Unit	Weight, lbs (kg)
CAH_12	70 (31.8)
S2HA2200	197 (89.5)
S2HA9200	187 (85.0)
S2HA9900	159 (72.3)

Note: Sound data for indoor unit at high speed, 230 V  
Sound data for outdoor unit at 230V

**INTERCONNECTING TUBING SPECIFICATIONS**

Indoor Unit	Outdoor Unit	Maximum Separation Equivalent ft (m)	Maximum Elevation Difference ft (m)	Liquid Line OD	Suction Line OD	Condensate Line ID
CAH_12	S2HA2200 S2HA9200 or S2HA9900	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"

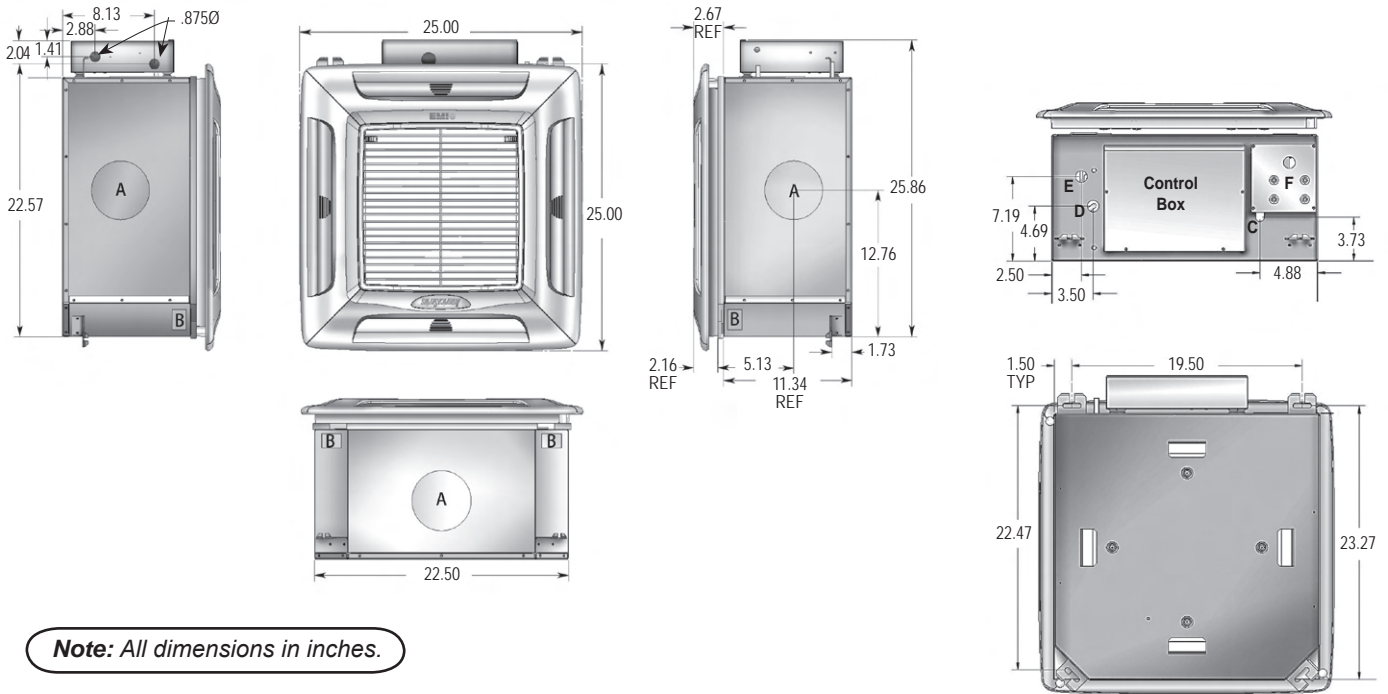
**INDOOR AIR FLOW**

Indoor Unit	CFM (l/s)		Coil	ft/min (m/s)	Air Throw, ft. (m)
	High Speed	Low Speed			
CAH_12	380 (180)	335 (158)	Dry	900 (4.6)	15 (4.6)

PHYSICAL DIMENSIONS

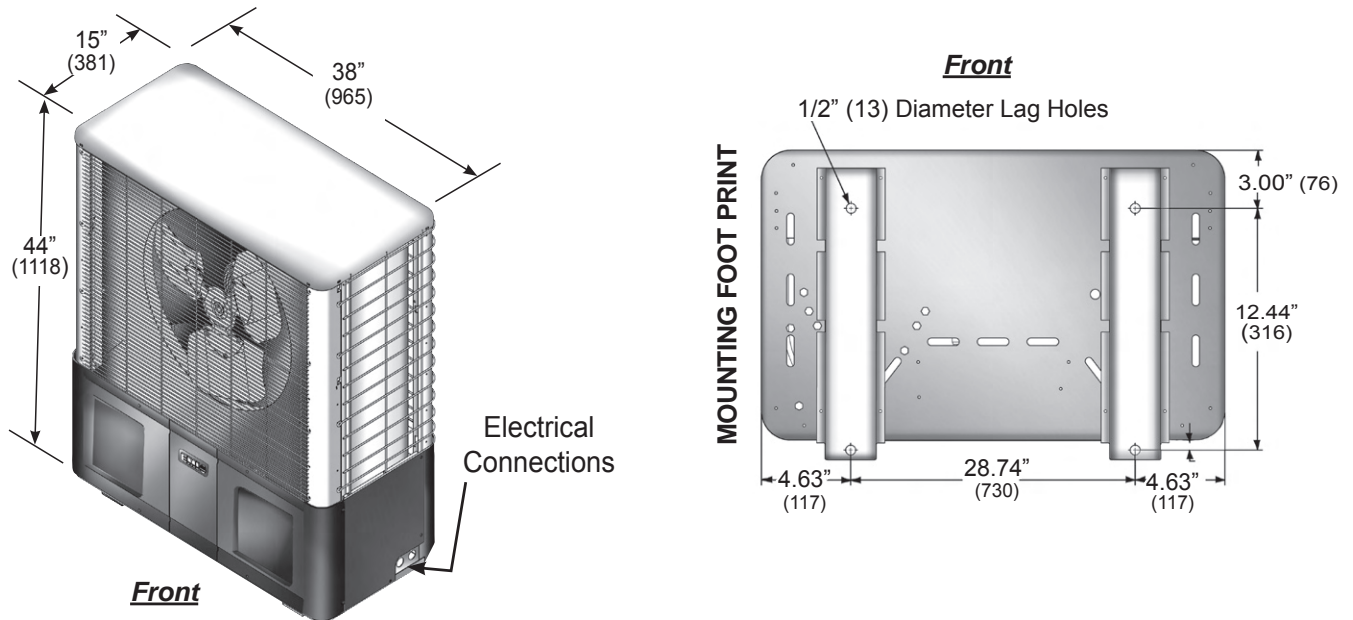
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INDOOR UNIT



Note: All dimensions in inches.

OUTDOOR UNIT



Note: Numbers in ( ) are mm.