

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

Rev. 1.1 [09/07]

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

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

Note: CAC\_ = CACA and/or CACB

# **▶** 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**

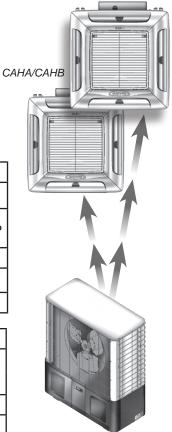
Indoor design conditions: 80°F Dry Bulb / 67°F Wet Bulb Outdoor design conditions: 95°F

#### **HEATING**

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

SYSTEM CAPACITIES									
Mod	lels		Cooling	Heating					
Indoor	Outdoor	Capacity Btuh (kW)	SEER	EER	SHR	High Temperature Capacity Btuh (kW)	СОР		
(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	Heating Capacity			
Indoor	Outdoor	Circuit	Btuh (kW)	Btuh (kW)			
(2) CAU 12	S2HA2200	1	11,300 (3.3)	10,000 (2.9)			
(2) CAH_12	32HA2200	2	11,300 (3.3)	10,000 (2.9)			
(2) CAU 12	COLLAGOO	1	9,300 (2.7)	8,000 (2.3)			
(2) CAH_12	S2HA9200	2	11,300 (3.3)	10,000 (2.9)			
(2) CALL 12	COLLANDON	1	9,300 (2.7)	8,000 (2.3)			
(2) CAH_12	S2HA9900	2	9,300 (2.7)	8,000 (2.3)			



S2HA



#### **EMI ENGINEERING SUBMITTAL CAH 12-S2HA**

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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:	FIELD INSTALLED ACCESSORIES:
INDOOR UNIT  Power Connection:  208/230-1-60  Electric Heat:  None  1.5 kW (208/230 Volt)	INDOOR UNIT  24 Volt Wall Thermostat
OUTDOOR UNIT  Power Connection:  208/230-1-60  Condenser Coil:	OUTDOOR UNIT  Wind Baffle/Hail Guard, Architectural Louver Kit  Refrigerant Line Sets
<ul><li>☐ Copper Tube/ Copper Fin</li><li>☐ Copper Tube/ Post-Coat Aluminum Fin</li></ul>	10' 25' 50'

### EMI ENGINEERING SUBMITTAL CAH\_12-S2HA

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### **ELECTRICAL SPECIFICATIONS**

Indoor Ur	it V-Ph-Hz	Voltage		Indoor F	an Motor	Heater		r Heater		Unit	MCA	MOCP
lilidoor or	V-1 11-112	Min	Max	RLA	HP	kW	Amps	FLA	IVICA	IVIOCE		
CAH 12	208/230-1-60	197	240	0.25	0.1	-	-	0.4	0.5	15		
CAH_12	200/230-1-00	197	240	0.35	0.35 0.1	1.5	6.52	6.9	8.6	15		

Outdoor Unit	Power Supply V-1-60		Control*	Compressor		Outdoor Fan Motor			Unit FLA	MCA	МОСР				
Onn	Volts	Min	Max	V-1-00	Qty	RLA	LRA	Qty	FLA	Нр	FLA				
S2HA2200	208/230	197	240	24	2	4.3	27.0	1	1.8	0.33	10.4	11.5	15		
S2HA9200	00 208/230	197	240	24	24	24	1	3.4	23.0	4	1.8	0.33	9.5	10.6	15
52HA9200	200/230	197	240		1	4.3	27.0	-	1.0	0.55	9.5	10.6	15		
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	d dBA	
CAH 12	High	Low	
CAH_12	41	39	
S2HA2200	HA2200 65		
S2HA9200	65		
S2HA9900	6	4	

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

### **WEIGHT DATA**

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

### 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

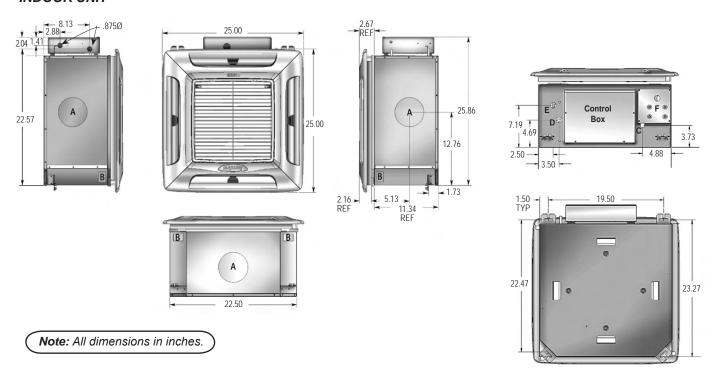
Indoor Unit	CFN	1 (I/s)	Coil	ft/min (m/s)	Air Throw, ft. (m)	
ilidoor offit	High Speed Low Speed		Coll	10/11111 (111/5)	All Throw, it. (iii)	
CAH_12	380 (180)	335 (158)	Dry	900 (4.6)	15 (4.6)	

### EMI ENGINEERING SUBMITTAL CAH\_12-S2HA

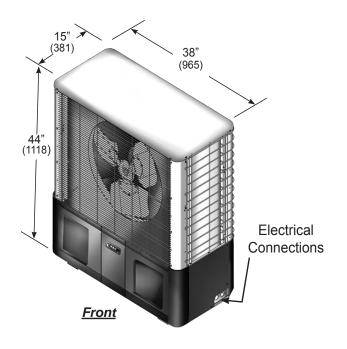
### PHYSICAL DIMENSIONS

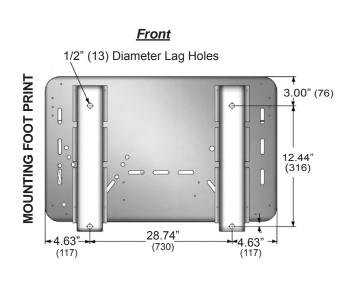
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#### INDOOR UNIT -



#### **OUTDOOR UNIT-**





Note: Numbers in ( ) are mm.

