



Comfort Where It Counts.

CAH\_24-S1HA4000  
Cassette Air Handler  
Single - Zone Heat Pump

Rev. 1.1 [09/07]

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: CAC\_ = CACA and/or CACB



**▲ PERFORMANCE:**

Performance certified in accordance with ARI 210/240

**COOLING**

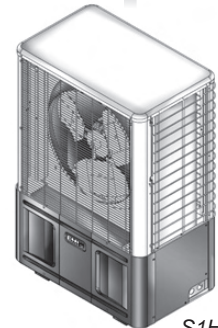
Indoor design conditions: 80°F Dry Bulb / 67°F Wet Bulb  
Outdoor design conditions: 95°F

**HEATING**

Indoor design conditions: 70°F Dry Bulb / 57°F Wet Bulb  
Outdoor design conditions (High): 47°F Dry Bulb / 43°F Dry Bulb  
Outdoor design conditions (Low): 17°F Dry Bulb / 15°F Dry Bulb



CAHA/CAHB



S1HA



EMI ENGINEERING SUBMITTAL

SYSTEM CAPACITIES					
Models		Cooling			
Indoor	Outdoor	Capacity	SEER	SHR	EER
CAH_24	S1HA4000	23,000 Btuh (6.7 kW)	13.0	0.69	11.7
		Heating			
		High Temperature	Low Temperature	HSPF	COP
		20,000 Btuh (5.9 kW)	11,700 Btuh (3.4 kW)	7.7	3.3

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

**▲ 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 with aluminum impeller
- Fan purge for improved efficiency
- Freeze protection
- Motors are multispeed, enclosed type w/thermal protection and sealed lifetime bearings
- Permanent, washable filter (user accessible)
- Branch duct knockouts on three sides for remote discharge locations (Use up to 2 non-adjacent)
- Fresh air intake capability on three sides of cabinet
- Four plastic air vanes; motor driven w/auto sweep or fixed position stop setting
- Custom Control Board with 7-day, 4 event/day, Programmability (CAHB24 only)
- Infrared Hand-Held Controller (CAHB24 only)
- One year Limited Parts Warranty

**OUTDOOR UNIT:**

- Single Zone, Heat Pump, Side Discharge Unit
- Standard Operating Low Ambient in Cooling 32 °F (0 °C)
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Suction Line Accumulator
- High Pressure Switch (*manual reset*)
- Factory Installed Compressor Start Assist Capacitor
- 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
- 3.0 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 (required for cooling operation to 0° F (-18° C))

**Refrigerant Line Sets**

- 10'
- 25'
- 50'

**EMI ENGINEERING SUBMITTAL CAH\_24-S1HA4000**

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

**ELECTRICAL SPECIFICATIONS**

Indoor Unit	V-Ph-Hz	Voltage		Indoor Fan		Heater		Unit FLA	MCA	MOCP
		Min	Max	RLA	HP	kW	Amps			
CAH_24	208/230-1-60	197	240	0.55	0.125	-	-	0.6	0.7	15
						3.00	13.04	13.6	17.0	20

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			
S1HA4000	208/230	197	240	24	1	8.0	53.5	1	0.8	0.125	8.8	10.8	15

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

**SOUND DATA**

Unit	Sound dBA	
	High	Low
CAH_24	44	42
	63	
S1HA4000	63	

**WEIGHT DATA**

Unit	Weight, lbs (kg)
CAH_24	116 (53)
S1HA4000	156 (71)

**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_24	S1HA4000	100 (30.5)	35 (10.7)	3/8"	3/4"	1/2"

**INDOOR AIR FLOW**

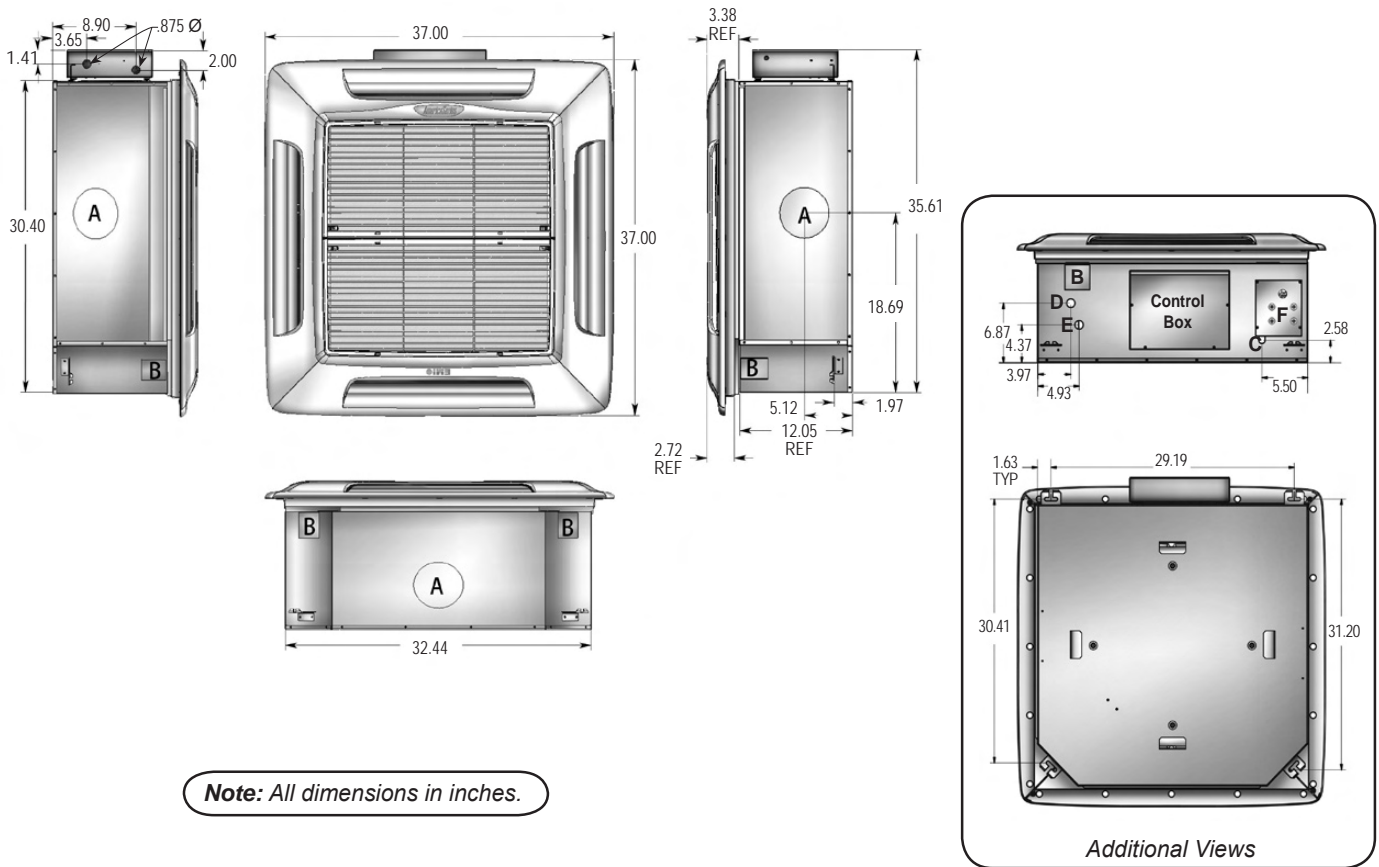
Indoor Unit	CFM (l/s)		Coil	ft/min (m/s)	Air Throw, ft. (m)
	High Speed	Low Speed			
CAH_24	700 (330)	620 (293)	Dry	1,225 (6.2)	24 (7.3)

EMI ENGINEERING SUBMITTAL CAH\_24-S1HA4000

PHYSICAL DIMENSIONS

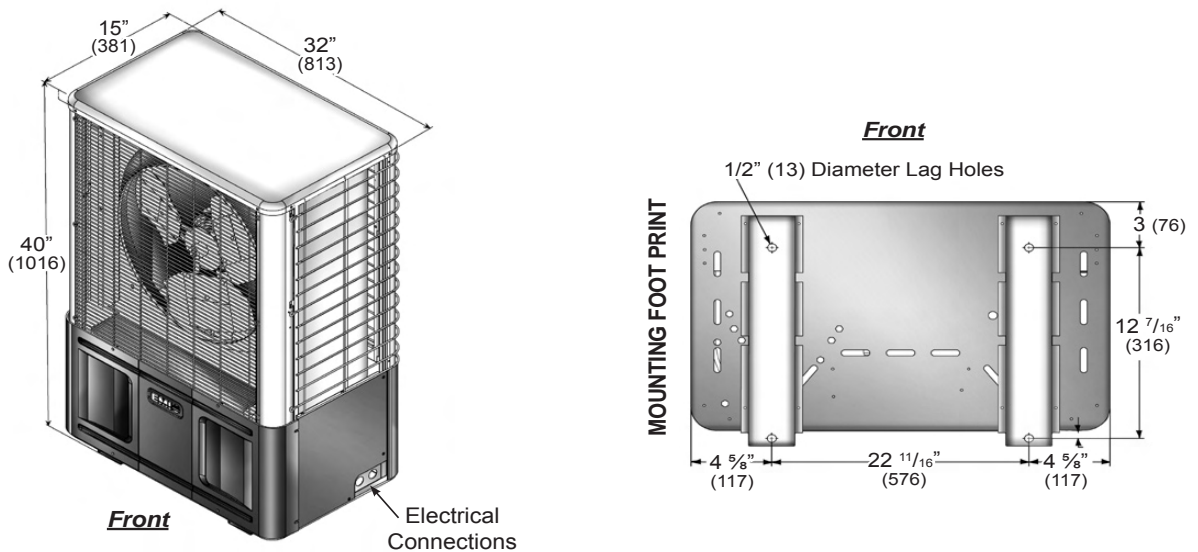
Manufacturer reserves the right to change these specifications at any time without incurring obligation.

INDOOR UNIT



**Note:** All dimensions in inches.

OUTDOOR UNIT



**Note:** Numbers in ( ) are mm.