

CAH_12-S1HA2000 Cassette Air Handler

Cassette Air Handler Single - Zone Heat Pump

Rev. 1.2 [01/08]

| JOB NAME: | LOCATION: |
|-------------------------------|-----------|
| PURCHASER: | |
| ENGINEER: | |
| SUBMITTED TO: | |
| 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 certified in accordance with ARI 210/240

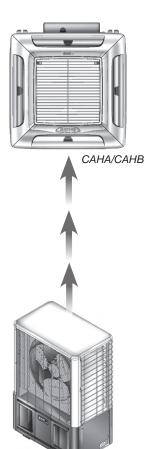
COOLING

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

| SYSTEM CAPACITIES | | | | | | | | | |
|-------------------|----------|-------------------------|------------------------|------|------|--|--|--|--|
| Mod | dels | | Cooling | | | | | | |
| Indoor Outdoor | | Capacity | SEER | SHR | EER | | | | |
| | | 11,800 Btuh (3.5 kW) | 13.0 | 0.72 | 11.4 | | | | |
| | | | Heating | | | | | | |
| CAH_12 | S1HA2000 | High Temperature | Low Temperature | HSPF | СОР | | | | |
| | | 10,800 Btuh (3.2 kW) | 6,000 Btuh (1.8 kW) | 7.7 | 3.4 | | | | |





S1HA

EMI ENGINEERING SUBMITTAL CAH 12-S1HA2000

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STANDARD FEATURES: -

INDOOR UNIT:

- In Ceiling Mounted
- 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 three 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 (CAHB12 only)
- · One year Limited Parts Warranty

OUTDOOR UNIT:

- Side Condenser Air Discharge Unit
- Standard Operating Low Ambient in Cooling 32 °F (0 °C)
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Duratec Compressor Protection Package which includes the following items:
 - Suction Accumulator
 - Filter Drier
 - Loss of Charge Switch
 - Crankcase heater
 - Start assist
- Factory Installed Compressor Start Assist Capacitor
- 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: | $\overline{}$ |
|-------------------------------------|---------------|
| INDOOR UNIT Power Connection: | |
| 208/230-1-60 | |
| None | |
| 1.5 kW (208/230 Volt) | |
| <u>OUTDOOR UNIT</u> | |
| Power Connection: | |
| <u> </u> | |
| 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 |
| |
| |
| |
| |
| <u>OUTDOOR UNIT</u> |
| Wind Baffle/Hail Guard, Architectural Louver Kit (Required for cooling operation to 0° F (-18° C)) |
| Refrigerant Line Sets |
| <u> </u> |
| <u> </u> |
| <u></u> 50' |

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ELECTRICAL SPECIFICATIONS

| Indoor | V-Ph-Hz | Voltage | | Indoor Fan | | Heater | | Unit | MCA | МОСР |
|--------|--------------|---------|-----|------------|-----|--------|------|------|-------|--------|
| Unit | V-FII-HZ | Min | Max | RLA | HP | kW | Amps | FLA | IVICA | INIOCE |
| 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 | 0.1 | 1.5 | 6.52 | 6.9 | 8.6 | 15 |

| Outdoor Unit | | Power Supply V-1-60 | | Control* | Co | mpres | sor | Outd | oor Far | n Motor | Unit FLA | MCA | МОСР |
|-----------------|---------|------------------------|-----|----------|-----|-------|------|------|---------|---------|-------------|------|------|
| | Volts | Min | Max | V-1-60 | Qty | RLA | LRA | Qty | FLA | HP | FLA | | |
| S1HA2000 | 115 | 104 | 126 | 24 | 1 | 8.6 | 48.3 | 1 | 1.4 | 0.125 | 10.0 | 12.2 | 20 |
| | 208/230 | 197 | 240 | 24 | 1 | 4.3 | 27.0 | 1 | 0.8 | 0.125 | 5.1 | 6.2 | 15 |

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

SOUND DATA

| Unit | Sound dBA | | | |
|----------|-----------|-----|--|--|
| CAH 12 | High | Low | | |
| CAH_12 | 41 | 39 | | |
| S1HA2000 | 5 | 9 | | |

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) |
| S1HA2000 | 98 (45) |

INTERCONNECTING TUBING SPECIFICATIONS

| Indoor | Outdoor | Maximum Separation, | Maximum Elevation | Liquid | Suction | Condensate |
|--------|----------|---------------------|--------------------|---------|---------|------------|
| Unit | Unit | Equivalent ft (m) | Difference, ft (m) | Line OD | Line OD | Line ID |
| CAH_12 | S1HA2000 | 100 (30.5) | 35 (10.7) | 1/4" | 1/2" | |

INDOOR AIR FLOW

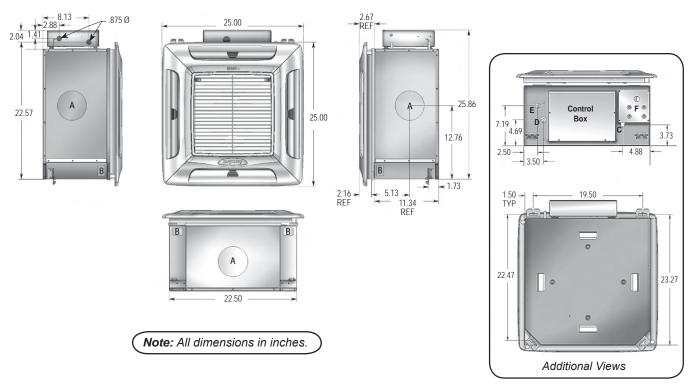
| | Indoor Unit | CFN | /I (I/s) | Coil | ft/min (m/s) | Air Throw, ft. (m) |
|--|-------------|------------|-----------|------|------------------|-----------------------|
| | indoor Onit | High Speed | Low Speed | Coil | 10/11111 (11//5) | All Tillow, It. (III) |
| | CAH_12 | 380 (180) | 335 (158) | Dry | 900 (4.6) | 15 (4.6) |

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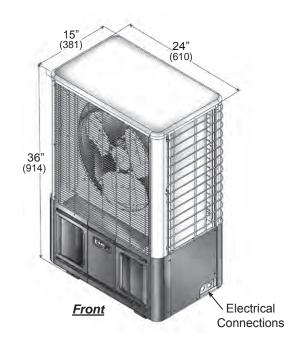
PHYSICAL DIMENSIONS

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INDOOR UNIT -



OUTDOOR UNIT-



1/2" (13) Diameter Lag Holes 1/2" (13) Diameter Lag Holes 3" (76) 12 7/16" (316) 14 11/16" (373) (117)

Note: Numbers in () are mm.

Comfort Where It Counts.