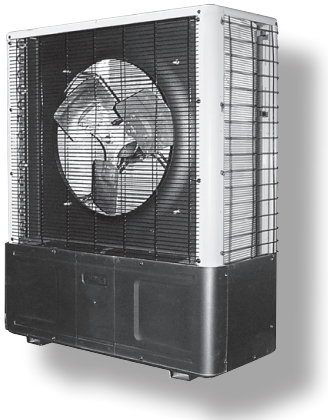
EMI AmericaSeries
*Comfort Where It Counts.*

# S2H
# DUCTLESS SPLIT SYSTEM
# DUAL-ZONE HEAT PUMP CONDENSING UNIT

P/N# 240006613, Rev. A [06/08]

*SPECIFICATIONS AND PERFORMANCE*



**HEAT PUMP**

Nominal Capacities:
9,000 and 12,000 Btuh

## DESCRIPTION

EMI offers the finest high capacity dual zone outdoor units in the ductless split market, the S2H High Capacity Condensing Unit. The S2H allows the installation of two circuits from a single outside location when space or aesthetic requirements limit the use of locations. The S2H has easy access interconnect valves on the back of the unit and each zone is independent so no mixing of refrigerant will occur. All 9,000 and 12,000 Btuh units are equipped with the Duratec Performance package which includes a large capacity suction accumulator with surge baffles and enhanced oil management and a factory installed solid core filter drier.

*All EMI products are subject to ongoing development programs so design and specifications may change without notice.*

▲▼ ***Cabinet -***
- Vertically arranged side discharge

## CONDENSER STANDARD FEATURES

- Scratch and dent resistant injection molded front access panel
- Powder coated *(2,000 hour salt spray tested)* 18 and 20 gauge aluminized steel
- Concealed service valves
- Easy access hose connections at 45° from valve body

▲▼ ***Compressors -*** Hermetically sealed high efficiency rotary compressors. Motors are PSC type with inherent overload protection.

▲▼ ***Condenser Fan/Motor -*** The condenser fan is a large diameter, high efficiency propeller type, which is directly connected to the totally enclosed PSC motor. The S2H units are draw-through airflow design and the PSC motor is fitted with internal overload protection.

▲▼ ***Condenser Coil -*** Condenser coils are seamless copper tubing arranged in staggered configuration with enhanced aluminum fins tested to 460psig. The tubes are mechanically expanded for secure bonding to the fin shoulder.

▲▼ ***Refrigeration Circuits -*** The S2H is delivered with pre-charged refrigerant for the condenser coils and evaporators while charging of field installed piping is required. Unit refrigeration service valves are solid brass for sweat connection. Solid core filter driers are factory installed on all models.

▲▼ ***Refrigerant Run Options -*** The standard system will support refrigerant runs to the inside unit of 35' of lift, up to 100' of interconnect.

▲▼ ***Reverse Cycle Operation S2H -*** A four-way reversing valve, solenoid activated by 24V, is energized for cooling operation. A TXV with internal check valve provides proven operation through all temperature ranges when in the heat pump mode.

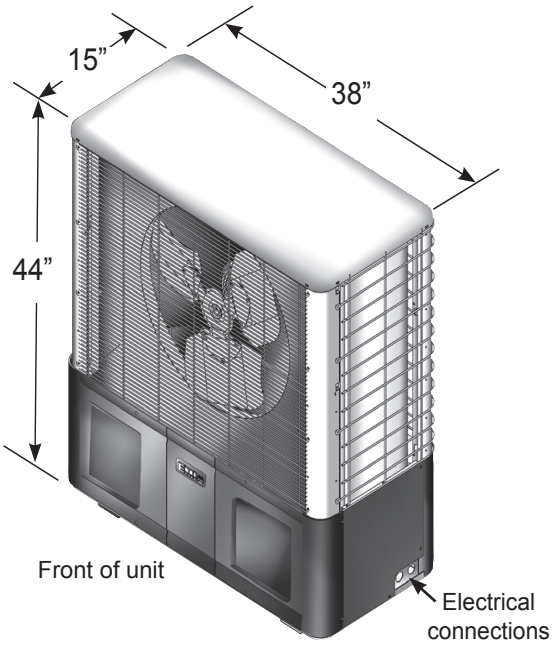
▲▼ ***Controls and Components:***
- Compressor and fan motor contactor
- Capacitor
- Low Voltage terminals for evaporator interconnection
- Large capacity suction accumulators
- Factory installed solid core filter drier
- Heat pump circuits equipped with thermostatically controlled crankcase heater
- Common suction pressure access point
- Hard Start Assist

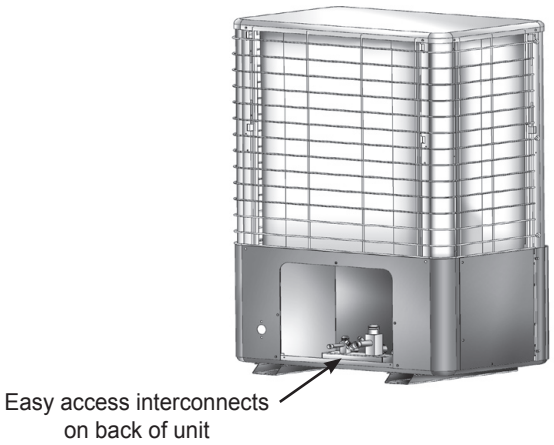
## SYSTEM OPTIONS

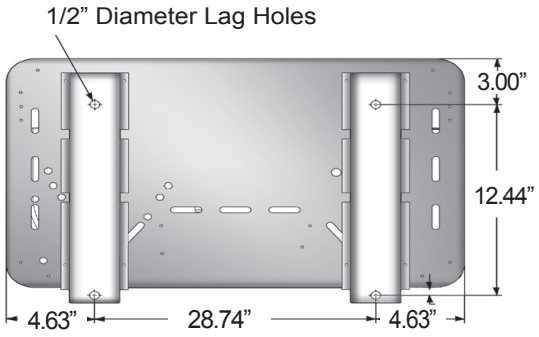
- Sea Coast Style Coated Coils / Copper-Copper coils
- Wind Baffles - Louvers

# S2H DIMENSIONS AND SPECIFICATIONS

**NOTE:** *All EMI products are subject to ongoing development programs so design and specifications may change without notice.*



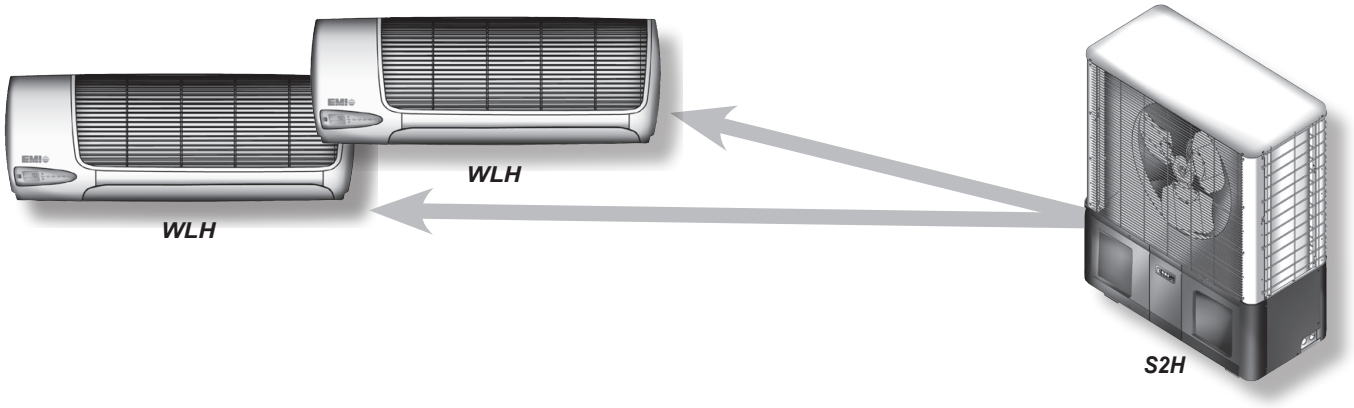




| S2H ELECTRICAL SPECIFICATIONS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| MODEL (1) | VOLTS/HZ/PHASE | FAN | | COMPRESSOR 1 | | COMPRESSOR 2 | | TOTAL AMPS | MIN. CIR. AMPS (2) | HACR BRKR |
| | | RLA | HP | RLA | LRA | RLA | LRA | | | |
| 9900 | 208-230/60/1 | 1.8 | 0.33 | 3.4 | 23 | 3.4 | 23 | 8.6 | 9.5 | 15 |
| 2200 | 208-230/60/1 | 1.8 | 0.33 | 4.3 | 27 | 4.3 | 27 | 10.4 | 11.5 | 15 |
| 9200 | 208-230/60/1 | 1.8 | 0.33 | 3.4 | 23 | 4.3 | 27 | 9.5 | 10.6 | 15 |

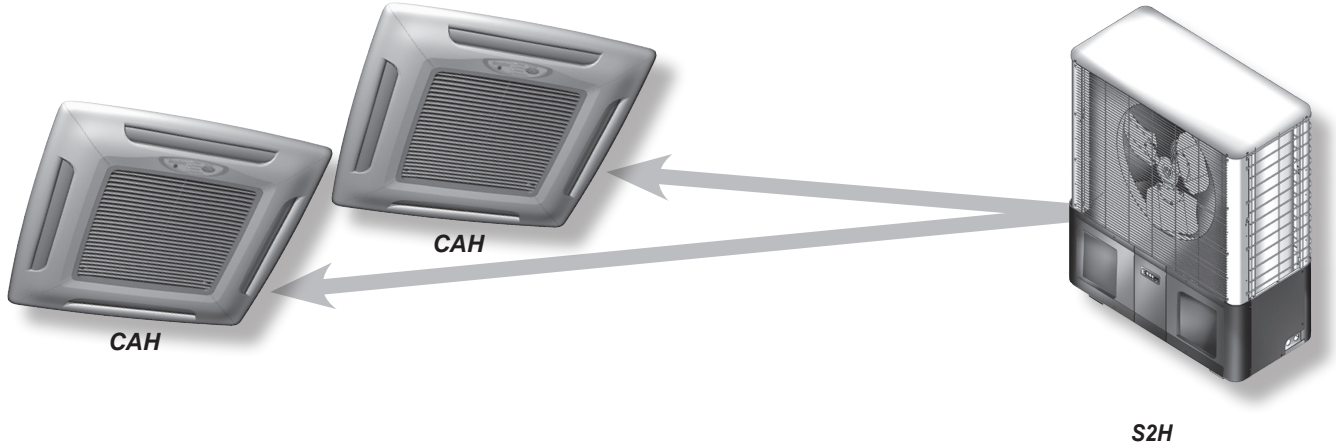
(1) Circuit Designators: 9 = 9,000 Btuh • 2 = 12,000 Btuh (ex. - Model 9200 consists of one 9,000 Btuh compressor and one 12,000 Btuh compressor)
(2) Always refer to the rating plate for Minimum Circuit Ampacity on all multiple compressor units.

| S2H PIPING SPECIFICATIONS | | | SOUND DATA | SHIPPING WEIGHT |
|---|---|---|---|---|
| Model# | Line Sizes | | | |
| | Liquid | Suction | dBA | Lbs. |
| 9900 | 1/4” | 1/2” | 64 | 159 |
| 2200 | 1/4” | 1/2” | 65 | 197 |
| 9200 | 1/4” | 1/2” | 65 | 187 |

# S2H SYSTEM PERFORMANCE

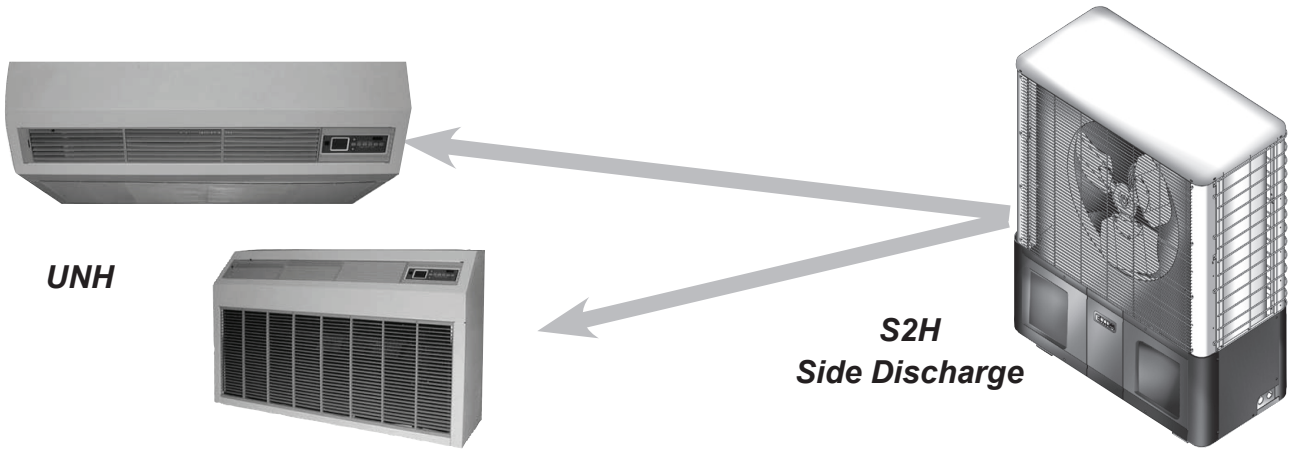



| S2H / WLH SYSTEM PERFORMANCE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MODEL | | COOLING | | | | HEATING | | |
| S2H (Outdoor) | Indoor Units | Btuh | SEER | SHR | EER | Btuh | HSPF | C.O.P. |
| 9900 | WLH09 + WLH09 | 18,600 | 13.0 | .80 | 12.2 | 16,000 | 7.7 | 3.3 |
| 2200 | WLH12 + WLH12 | 22,600 | 13.0 | .72 | 11.9 | 20,000 | 7.7 | 3.3 |
| 9200 | WLH09 + WLH12 | 20,600 | 13.0 | .76 | 12.0 | 18,000 | 7.7 | 3.3 |




| S2H / CAH SYSTEM PERFORMANCE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MODEL | | COOLING | | | | HEATING | | |
| S2H (Outdoor) | Indoor Units | Btuh | SEER | SHR | EER | Btuh | HSPF | C.O.P. |
| 9900 | CAH12 + CAH12 | 18,600 | 13.0 | 79 | 11.7 | 15,700 | 7.7 | 3.1 |
| 2200 | CAH12 + CAH12 | 22,600 | 13.0 | .75 | 11.6 | 20,000 | 7.7 | 3.2 |
| 9200 | CAH12 + CAH12 | 20,600 | 13.0 | .77 | 11.6 | 18,000 | 7.7 | 3.1 |

# S2H SYSTEM PERFORMANCE




| S2H / UNH SIDE DISCHARGE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MODEL | | COOLING | | | | HEATING | | |
| S2H (Outdoor) | Indoor Units | Btuh | SEER | SHR | EER | Btuh | HSPF | C.O.P. |
| 9900 | UNH09 + UNH09 | 18,600 | 13.0 | .75 | 12.2 | 16,000 | 7.7 | 3.3 |
| 2200 | UNH12 + UNH12 | 22,600 | 13.0 | .73 | 11.9 | 20,000 | 7.7 | 3.3 |
| 9200 | UNH09 + UNH12 | 20,600 | 13.0 | .74 | 12.0 | 18,000 | 7.7 | 3.3 |

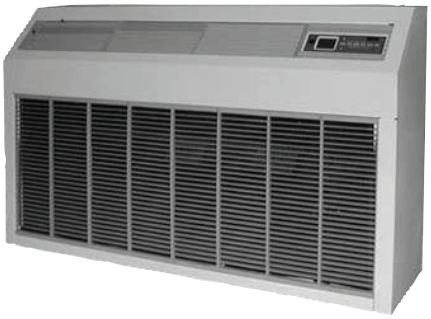
# EMI'S HIGH SEER PRODUCT LINE

## EVAPORATORS

***WLC/WLH***
***High Wall Evaporator***

***CAC/CAH***
***Cassette Evaporator***

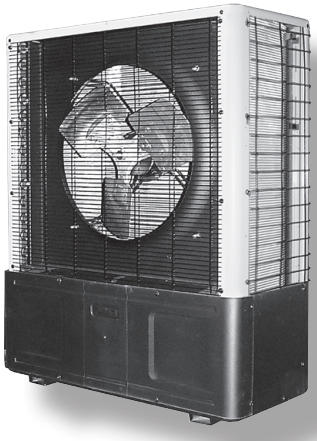
***UNC/UNH***
***Universal Evaporator***



## CONDENSERS

***S1C & S1H***
***Single Zone***
***Side Discharge***

***S2C & S2H***
***Dual Zone***
***Side Discharge***



***T2C, T3C & T4C***
***T2H, T3H & T4H***
***2, 3, & 4 Zone***
***Top Discharge***

Phone: 1-800-228-9364
Fax: 1-800-232-9364

EMI
*Comfort Where It Counts.*

5780 Success Drive,
Rome, NY 13440