



Comfort Where It Counts.

**UNHA-S2HA**  
**Universal Air Handler**  
**Dual-Zone Limited Range Heat Pump**

Rev. 1.0 [07/07]

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.



**▲ PERFORMANCE:**

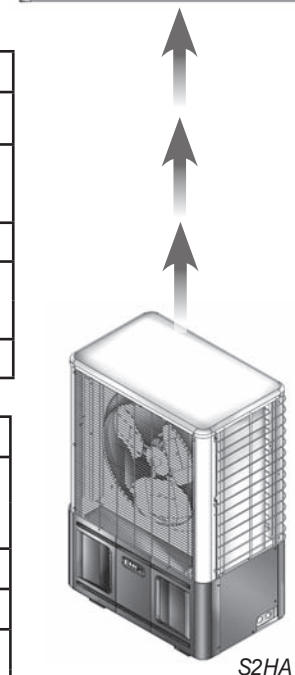
Performance certified in accordance with ARI 210/240

**COOLING**

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

**HEATING**

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



**EMI ENGINEERING SUBMITTAL**

SYSTEM CAPACITIES							
Models		Cooling			Heating		
Indoor	Outdoor	Capacity Btuh (kW)	SEER	EER	SHR	High Temperature Capacity Btuh (kW)	COP
(2) UNHA12	S2HA2200	22,600 (6.6)	13.00	12.00	0.73	20,000 (5.9)	3.3
(1) UNHA09	S2HA9200	20,600 (6.0)	13.00	12.00	0.74	18,000 (5.3)	3.3
(1) UNHA12							
(2) UNHA09	S2HA9900	18,600 (5.4)	13.00	12.20	0.75	16,000 (4.7)	3.3

CIRCUIT PERFORMANCE				
Models		Circuit	Cooling Capacity Btuh (kW)	Heating Capacity Btuh (kW)
Indoor	Outdoor			
(2) UNHA12	S2HA2200	1	11,500 (3.4)	10,000 (2.9)
		2	11,500 (3.4)	10,000 (2.9)
(1) UNHA09	S2HA9200	1	9,000 (2.6)	8,000 (2.3)
(1) UNHA12		2	11,500 (3.4)	10,000 (2.9)
(2) UNHA09	S2HA9900	1	9,000 (2.6)	8,000 (2.3)
		2	9,000 (2.6)	8,000 (2.3)

**EMI ENGINEERING SUBMITTAL UNHA-S2HA**

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

**▲ STANDARD FEATURES:**

**INDOOR UNIT:**

- Ceiling-Suspended or Floor Console mounted without any field modification
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Indoor Coil
- Unit-mounted, Infrared compatible control package, configurable to either unit mount or 24 Volt wall thermostat
- Control programming stored in non-volatile memory Unit will restart following power failure
- Indoor coil freeze protection
- Anti-short cycle compressor protection
- Fan purge
- Dry mode for humidity control (*requires electric heat*)
- Factory-installed condensate pan overflow protection
- Factory-supplied molex-type connector for condensate pump power and control connections
- 24-7 programing
- 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:**

- 115-1-60
- 208/230-1-60

**Electric Heat:**

- None
- 0.75 / 3.0 kW (115/230 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**

**Condensate Pump:**

- 48" (1.2 m) Lift
- 144" (3.7 m) Lift
- Floor Mount Trim Kit** (*Required for Floor Mount with Condensate Pump accessory*)
- 24 Volt Wall Thermostat**
- Infrared Hand-held Controller**

**OUTDOOR UNIT**

- Wind Baffle/Hail Guard, Architectural Louver Kit**

**Refrigerant Line Sets**

- 10'
- 25'
- 50'

**EMI ENGINEERING SUBMITTAL UNHA-S2HA**

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

**ELECTRICAL SPECIFICATIONS**

Indoor Unit	V-Ph-Hz	Voltage		Indoor Fan Motor		Heater		Unit FLA	MCA	MOCP
		Min	Max	RLA	HP	kW	Amps			
UNHA09 UNHA12	115-1-60	104	126	0.64	0.02	-	-	0.64	0.8	15
						0.75	6.50	7.14	8.9	15
	208/230-1-60	197	240	0.34	0.02	-	-	0.34	0.4	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	1	1.8	0.33			
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
UNHA09 or UNHA12	51
S2HA2200	65
S2HA9200	65
S2HA9900	64

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

**WEIGHT DATA**

Unit	Weight, lbs (kg)
UNHA09	92 (41.8)
UNHA12	95 (43.2)
S2HA2200	167 (75.9)
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
UNHA09 or UNHA12	S2HA2200 S2HA9200 or S2HA9900	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"

**INDOOR AIR FLOW**

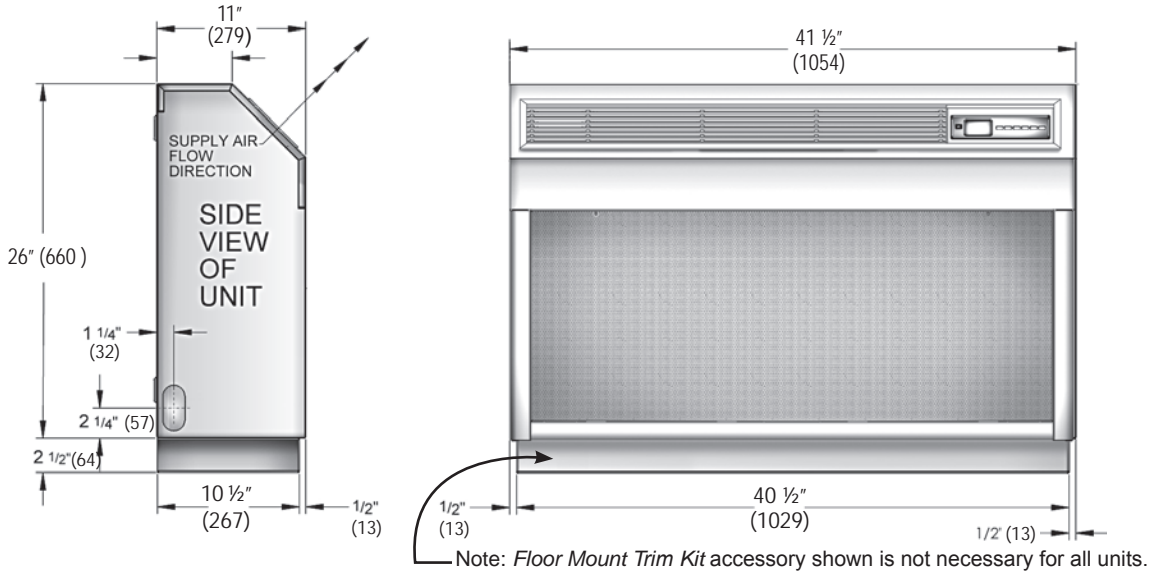
Indoor Unit	CFM (l/s)		Coil	ft/min (m/s)	Air Throw, ft. (m)
	High Speed	Low Speed			
UNHA09 or UNHA12	425 (200)	375 (175)	Dry	900 (4.6)	15 (4.6)

# EMI ENGINEERING SUBMITTAL UNHA-S2HA

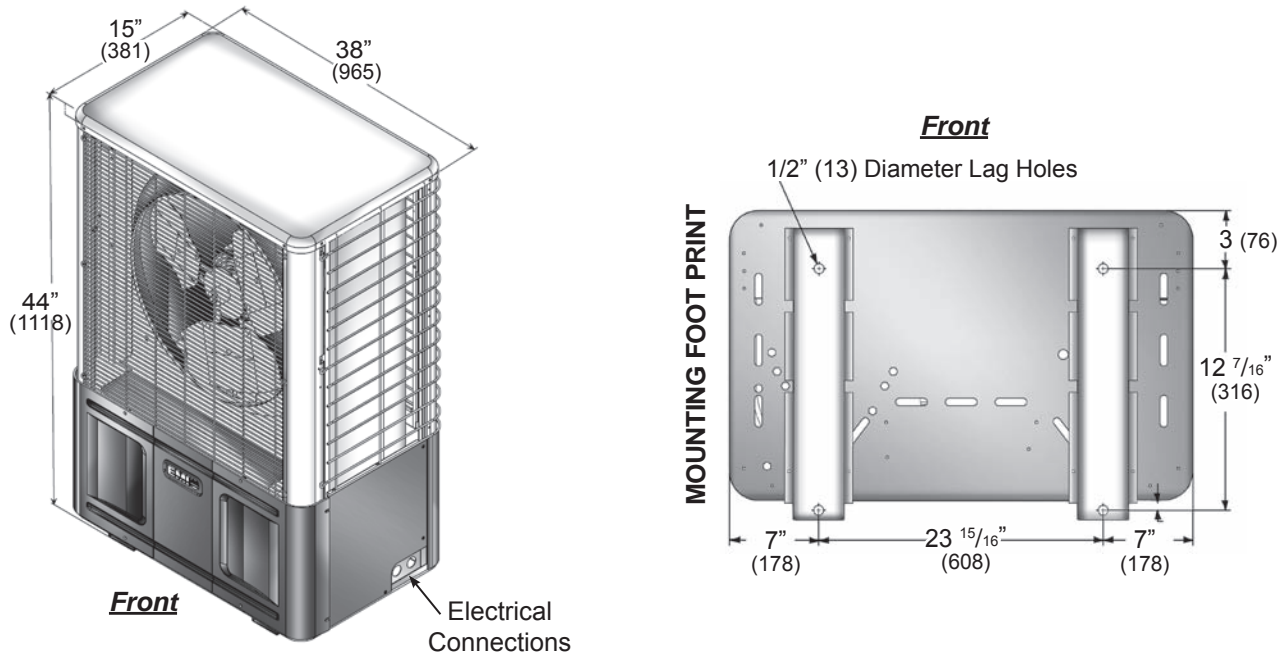
## PHYSICAL DIMENSIONS

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

### INDOOR UNIT



### OUTDOOR UNIT



Note: Numbers in ( ) are mm.