



# Submittal

**Prepared For:**  
Action Mechanical  
Attn: Randy Minnich

**Date:** June 08, 2023

**Engineer:**  
Buford Goff & Associates  
Jonathan Burkett, P.E.

**Job Name:**  
Lesslie Elementary School  
Rock Hill School District 3

---

Trane U.S. Inc. is pleased to provide the following submittal for your review and approval.

## Product Summary

### Qty Product

15 - 3-10 Ton R-410 Packaged Heat Pumps (W4C)

## Notes:

1. This submittal is based on mechanical specifications and drawings sealed 05-10-2023 including all applicable addenda.
2. All electrical requirements shall be coordinated / confirmed with electrical contractor prior to ordering equipment.
3. A curb adaptor will be provided for SPHP-D109 and will be submitted separately after field confirmation of the existing rooftop unit.
4. The following items are not included by Trane unless otherwise noted:
  - Equipment startup or labor warranty*
  - Emergency stop switches*
  - Smoke detectors or firestats*
  - Thermostats*
  - Controls and interlock wiring*
  - Extra filters*
  - Items not listed in submittal*

---

**Jeff Auten**  
Trane U.S. Inc.  
4501 South Tryon Street  
Charlotte, NC 28217  
Office Phone: (704) 525-9600

The attached information describes the equipment we propose to furnish for this project and is submitted for your approval.  
***Submittal acceptance and return is a critical step, so please ensure submittals are returned with approval to release to production within 14 days of submittal date.***

## Table of Contents

<b>Product Summary</b> .....	<b>1</b>
<b>3-10 Ton R-410 Packaged Heat Pump (W4C) (Items A1, A2)</b> .....	<b>3</b>
Tag Data .....	3
Product Data.....	3
Performance Data.....	4
Mechanical Specifications .....	5
Dimensional Drawings .....	8
Weight, Clearance & Rigging .....	14
Accessory .....	17
Field Wiring.....	22
<b>Field Installed Options - Part/Order Number Summary</b> .....	<b>25</b>
3-10 Ton R-410 Packaged Heat Pump .....	25

**Tag Data - 3-10 Ton R-410 Packaged Heat Pump (W4C) (Qty: 15)**

Item	Tag(s)	Qty	Description	Model Number
A1	SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113	14	3-10 Ton R-410 Packaged Heat Pump (W4C)	WHC036H4REB**01B1A2A2000700 0000000000000
A2	SPHP-D109	1	3-10 Ton R-410 Packaged Heat Pump (W4C)	WHC102H4RGA**P0B1A2A2000700 0000000000000

**Product Data - 3-10 Ton R-410 Packaged Heat Pump (W4C)**

**All Units**

- Packaged heat pump, DX cooling, high efficiency
- Convertible airflow
- 460 volts, 60 hertz, 3 phase
- Microprocessor controls
- Standard access panels / 2 inch pleated filters, MERV 8
- Standard condenser coil w/hail guard
- Through the base electrical
- Circuit breaker
- Lontalk(R) communications interface
- Clogged filter switch, fan failure switch and discharge air sensing tube
- Room sensor with temperature adjustment with override (Field Installed)

**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**

- 3 tons nominal cooling capacity
- 12 kW electric heat @ 480 volts, derate to unit voltage
- Oversize motor
- Dry bulb economizer, 0-100% (Field Installed)
- Barometric relief damper (Field Installed)
- Comparative enthalpy kit (Field Installed)
- 6" tall curb (Field Installed)

**Item: A2 Qty: 1 Tag(s): SPHP-D109**

- 8.5 tons nominal cooling capacity
- 18 kW electric heat @ 480 volts, derate to unit voltage
- Low leakage economizer with comparative enthalpy control and barometric relief, 0-100%
- Unpowered convenience outlet
- Curb adaptor to fit existing (Field Installed)

**Performance Data - 3-10 Ton R-410 Packaged Heat Pumps (W4C)**

Tags	SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113	SPHP-D109
Airflow application	Horizontal	Downflow
Design Airflow (cfm)	1280	3000
Cooling Entering Air, DB / WB (F)	80.00 / 67.10	79.00 / 66.60
Ambient Temperature (F)	95.00	95.00
Cooling Leaving Air, DB / WB (F)	60.57 / 58.57	57.19 / 55.96
Gross Total Capacity (MBh)	36.78	103.36
Gross Sensible Capacity (MBh)	29.02	75.94
Output htg capacity (MBh)	31.56	90.14
Electric heat output (MBh)	40.98	61.47
Heating EAT (F)	70.00	70.00
Heating ambient temp (F)	47.00	47.00
Electric heat air temp rise (F)	29.48	18.87
Design ESP (in H2O)	1.000	1.000
Component S.P. (in H2O)	0.043	0.599
Indoor mtr operating power (bhp)	0.60	1.52
Indoor srpm (rpm)	996	1345
Compressor power (kW)	2.38	3.93
System power (kW)	3.30	9.37
IPLV @ AHRI (IPLV)	16.0	15.5
MCA (A)	28.00	49.00
MOP (A)	30.00	50.00
Compressor 1 RLA (A)	5.70	7.63
Compressor 2 RLA (A)	0.00	6.30
Evaporator fan FLA (A)	1.90	3.60
Condenser fan FLA (A)	0.55	1.60
Electric Heat FLA (A)	14.40	21.70
Evaporator face area (sq ft)	8.74	12.36
Evaporator face velocity (ft/min)	146	243
Evaporator fin spacing (Per Foot)	192	192
Evaporator rows (Each)	3.00	4.00
Fan motor heat (MBh)	0.72	1.70
Evap Coil Leaving Air Temp, DB / WB (F)	57.29 / 57.21	55.06 / 54.98
Rated capacity (AHRI) (MBh)	40.00	105.90
Refrig charge (HFC-410A) - ckt 1 (lb)	9.2	17.0
ASHRAE 90.1	Yes	Yes
Saturated Suction Temp 1 (F)	53.39	48.45
Saturated Discharge Temp 1 (F)	111.05	118.62
SEER/IEER @ AHRI conditions	16.00	15.50
EER @ AHRI Conditions	12.50	12.00
Total Static Pressure (in H2O)	1.067	1.613
Indoor Fan Type	FC Centrifugal	BC Plenum
Indoor Fan Drive Type	Direct	Direct
Outdoor Fan Type	Propeller	Propeller
Outdoor Fan Drive Type	Direct	Direct
Outdoor Fan Quantity	1	1
Heating Type	Electric	Electric
Heating Stages	2	1

**Mechanical Specifications - 3-10 Ton R-410 Packaged Heat Pump****Item: A1, A2 Qty: 15 Tag(s): All****General**

The units shall be convertible airflow. The operating range shall be between 115°F and 0°F in cooling as standard from the factory for units with microprocessor controls. Cooling performance shall be rated in accordance with ARI testing procedures. All units shall be factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory. Wiring internal to the unit shall be colored and numbered for simplified identification. Units shall be cULus listed and labeled, classified in accordance for Central Cooling Air Conditioners.

**Case**

Unit casing shall be constructed of zinc coated, heavy gauge, and galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit's surface shall be tested 672 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. All exposed vertical panels and top covers in the indoor air section shall be insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material. All insulation edges shall be either captured or sealed. The unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8" high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up. The base of the unit shall have provisions for forklift and crane lifting, with forklift capabilities on three sides of the unit.

**Unit Top**

The top cover shall be one piece construction or, where seams exist, it shall be double-hemmed and gasket-sealed. The ribbed top adds extra strength and enhances water removal from unit top.

**Filters**

Throwaway filters shall be 2" MERV 8 for all units.

**Compressors**

All units shall have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of unit nameplate voltage. Internal overloads shall be provided with the scroll compressors.

**Refrigerant Circuits**

Service pressure ports, and refrigerant line filter driers are factory-installed as standard. An area shall be provided for replacement suction line driers.

**Evaporator and Condenser Coils**

Internally finned, 5/16" copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 650 psig and pressure tested to 450 psig. The condenser coil shall have a patent pending 1+1+1 hybrid coil designed with slight gaps for ease of cleaning. A removable, reversible, double-sloped condensate drain pan with through the base condensate drain is standard.

**Tool-less Hail Guards**

Tool-less, hail protection quality coil guards are included for condenser coil protection.

**Outdoor Fans**

The outdoor fan shall be direct-drive, statically and dynamically balanced, draw-through in the vertical discharge position. The fan motor shall be permanently lubricated and shall have built-in thermal overload protection.

**Indoor Fan**

All high efficiency and 10 ton standard efficiency shall have variable speed direct drive motors. All motors shall be thermally protected. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

**Controls**

Unit shall be completely factory-wired with necessary controls and contactor pressure lugs or terminal block for power wiring. Unit shall provide an external location for mounting a fused disconnect device. A choice of microprocessor or electromechanical controls shall be available. Microprocessor controls provide for volt control functions. The resident control algorithms shall make all heating, cooling, and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperatures. The control algorithm maintains accurate temperature control,

minimizes drift from set point, and provides better building comfort. A centralized Microprocessor shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

**Phase Monitor**

Phase monitor shall provide 100% protection for motors and compressors against problems caused by phase loss, phase imbalance, and phase reversal. Phase monitor is equipped with an LED that provides an ON or FAULT indicator. There are no field adjustments. The module will automatically reset from a fault condition.

**LonTalk Communication Interface**

This option shall be provided to allow the unit to communicate as a Tracer LCI-R device or directly with generic LonTalk Network Building Automation System Controls.

**Unpowered Convenience Outlet**

This is a GFCI, 120v/15amp, 2 plug, convenience outlet, unpowered. The convenience outlet is powered from the line side of the disconnect or circuit breaker, and therefore will not be affected by the position of the disconnect or circuit breaker. This option can only be ordered when the Through the Base Electrical with either the Disconnect Switch or Circuit Breaker option is ordered.

**Electric Heaters**

Electric heat modules shall be available for installation within basic unit. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally wye connected for 480 and 600 volt. Staging shall be achieved through ReliaTel. Each heater package shall have automatically reset high limit control operating through heating element contactors. All heaters shall be individually fused from the factory, where required, and shall meet all NEC and CEC requirements when properly installed. Power assemblies shall provide single point connection. Electric heat modules shall be UL listed or CSA certified.

**Low Leak Economizer**

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (3 cfm/ft<sup>2</sup>@1" wg exterior air, 4 cfm/ft<sup>2</sup>@1" wg return air). This option allows 100% outdoor air supply from 0-100% modulating dampers and is standard with barometric relief. Available on downflow units only.

**Through the Base Electrical Access**

An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field-installed disconnect switch.

**Through the Base Electrical with Circuit Breaker**

This option is a thermal magnetic, molded case, HACR Circuit Breaker with provisions for through the base electrical connections. The circuit breaker will be installed in a water tight enclosure in the unit with access through a swinging door. Wiring will be provided from the switch to the unit high voltage terminal block. The circuit breaker will provide overcurrent protection, be sized per NEC and UL guidelines, and be agency recognized by UL/CSA.

**Economizer**

This accessory shall be available with or without barometric relief. The assembly includes fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control. The barometric relief shall provide a pressure operated damper that shall be gravity closing and shall prohibit entrance of outside air during the equipment off cycle. Optional solid state or differential enthalpy control shall be available for either factory or field installation. The economizer arrives in the shipping position and shall be moved to the operating position by the installing contractor.

**Accessory - Comparative Enthalpy**

Comparative Enthalpy measures and communicates humidity for both outdoor and return air conditions and return air temperature. The unit receives and uses this information to maximize use of economizer cooling, and to provide maximum occupant comfort control. Comparative Enthalpy option shall be available when a factory or field installed Downflow Economizer is ordered.

**Sequence of Operation (if applied in a SINGLE-ZONE CONSTANT-VOLUME SYSTEM)*****B. SINGLE-ZONE CONSTANT-VOLUME SYSTEM*****1. OCCUPIED HEAT/COOL:**

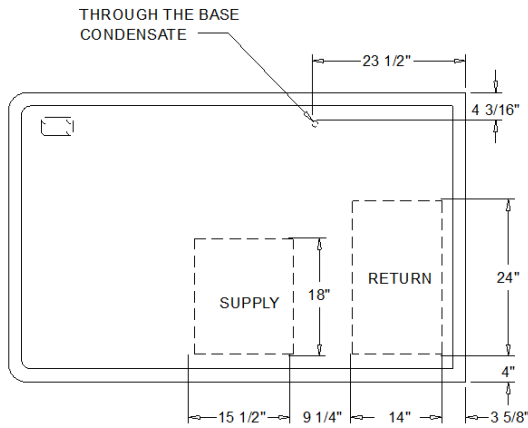
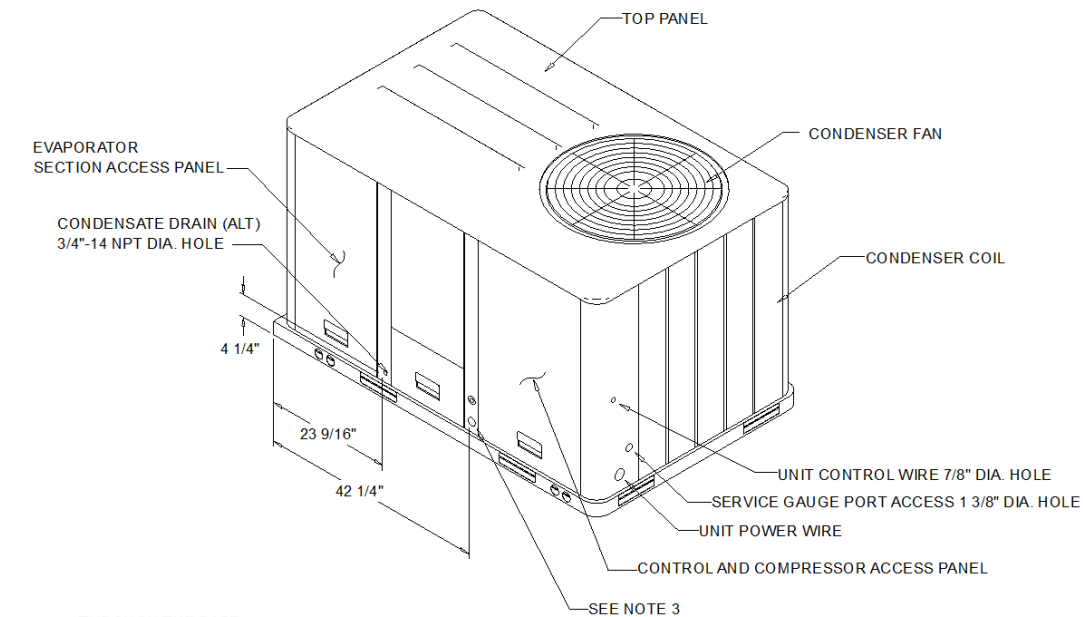
The RTU shall operate the supply fan continuously and modulate (or cycle) compressors, modulate (or stage) heat, and/or enable airside economizing to maintain zone temperature at setpoint. The OA damper shall open to bring in the required amount of ventilation.

**2. MORNING WARM-UP/PRE-COOL:**

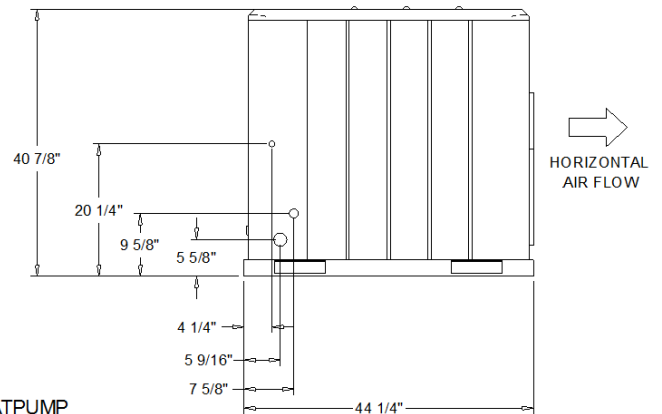
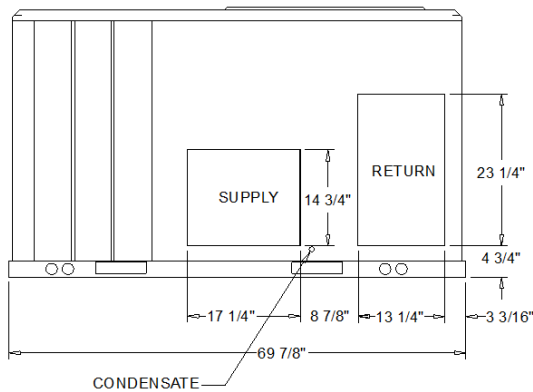
The RTU shall operate the supply fan and modulate (or cycle) compressors or modulate (or stage) heat to raise/lower zone temperature to its occupied setpoint. The OA damper shall remain closed, unless economizing.

**Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**



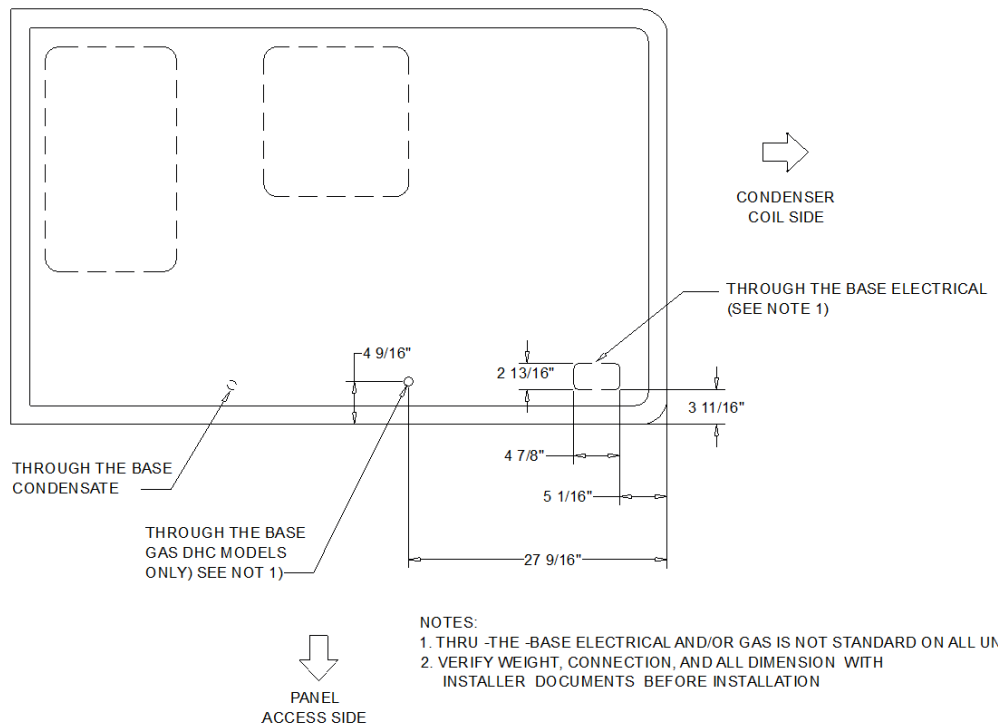
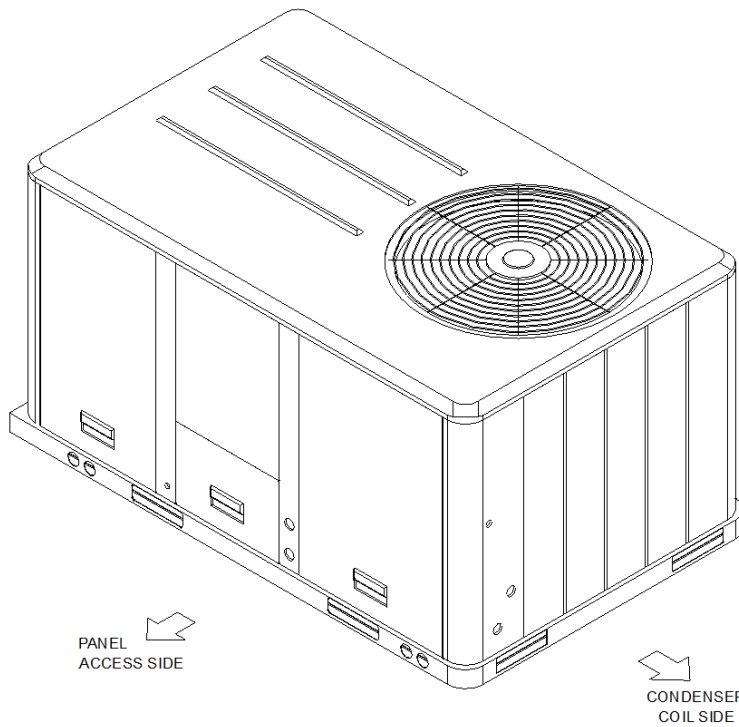
**PLAN VIEW UNIT**  
DIMENSION DRAWING



**PACKAGED HEATPUMP**  
DIMENSION DRAWING

**Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**



- NOTES:
1. THRU -THE -BASE ELECTRICAL AND/OR GAS IS NOT STANDARD ON ALL UNITS.
  2. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION

THRU THE BASE ELECTRICAL  
PLAN / ISO VIEW DRAWING

**Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**

**ELECTRICAL / GENERAL DATA**

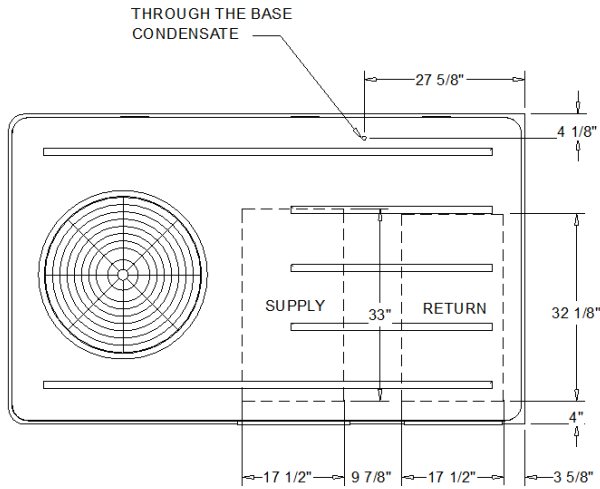
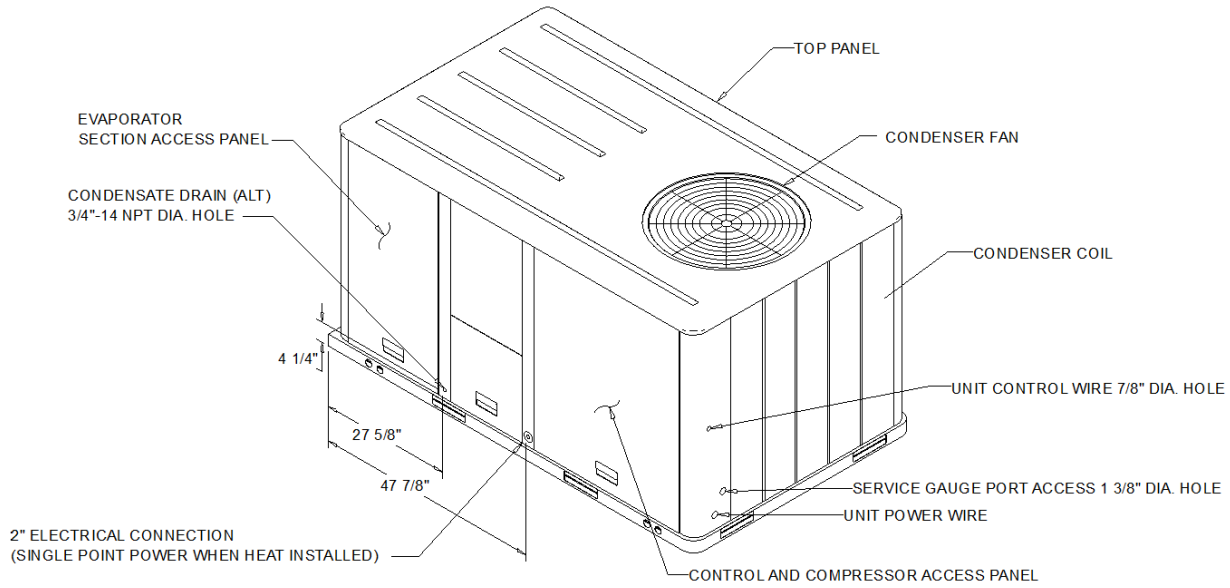
<b>GENERAL</b> <sup>(2)(4)(6)</sup> Model: WHC036H Oversized Motor Unit Operating Voltage: 414-506 Unit Primary Voltage: 460 Unit Secondary Voltage: -- Unit Hertz: 60 Unit Phase: 3 EER / SEER 12.8/15.7 Standard Motor Minimum Circuit Ampacity: 13.0 Maximum Fuse Size: 15.0 Maximum (HACR) Circuit Breaker: 15.0		<b>WITH HEATER</b> Heater kW Rating : 12.0 Stage: 2 MCA: 31.0 MFS: 35.0 MCB: 35.0  Oversized Motor MCA: 28.0 MFS: 30.0 MCB: 30.0	
<b>INDOOR MOTOR</b> Standard Motor Number: 1 Horsepower: 0.75 Motor Speed (RPM): - Phase: 3 Full Load Amps: 4.3 Locked Rotor Amps: -		Outsized Motor Number: 1 Horsepower: 1.5 Motor Speed (RPM): - Phase: 3 Full Load Amps: 1.9 Locked Rotor Amps: -	
<b>COMPRESSOR</b> Circuit 1/2 Number: 1 Horsepower: 3.8 Phase: 3 Rated Load Amps: 5.7 Locked Rotor Amps: -		<b>OUTDOOR MOTOR</b> Number: 1 Horsepower: 0.25 Motor Speed (RPM): 1100 Phase: 3 Full Load Amps: 0.55 Locked Rotor Amps: -	
<b>POWER EXHAUST ACCESSORY</b> <sup>(3,7)</sup> (Field Installed Power Exhaust) Phase: N/A Horsepower: N/A Motor Speed (RPM): N/A Full Load Amps: N/A Locked Rotor Amps: N/A		<b>FILTERS</b> Type: Throwaway Furnished: - Number: 2 Recommended: 20"x35"x2"	
<b>REFRIGERANT</b> <sup>(2)</sup> Type R410 Factory Charge Circuit #1 9.2 lb Circuit #2 -			

**NOTES:**

1. Maximum (HACR) Circuit Breaker sizing is for installations in the United States only.
2. Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
3. Value does not include Power Exhaust Accessory.
4. Value includes oversized motor.
5. Value does not include Power Exhaust Accessory.
6. EER is rated at AHRI conditions and in accordance with DOE test procedures.
7. Installation of this power exhaust kit will affect unit level MCA and could affect MOP sizing having a direct impact on existing field wiring and unit protection devices. The change in MCA/MOP is the sole responsibility of the field installing party. Trane will not issue new nameplates as a result of this power exhaust accessory installation. FLA of the power exhaust kit option must be added to the MCA of the unit for building supply conductor sizing determination.

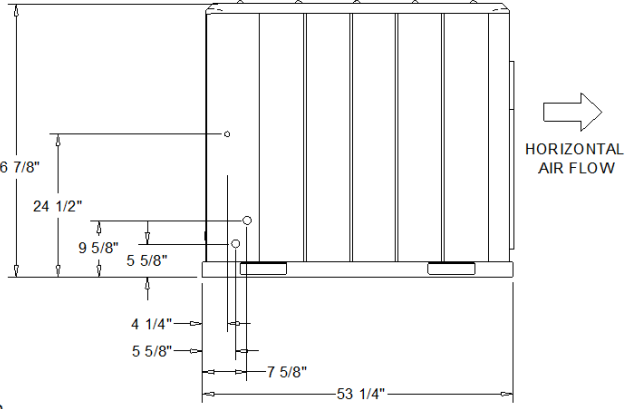
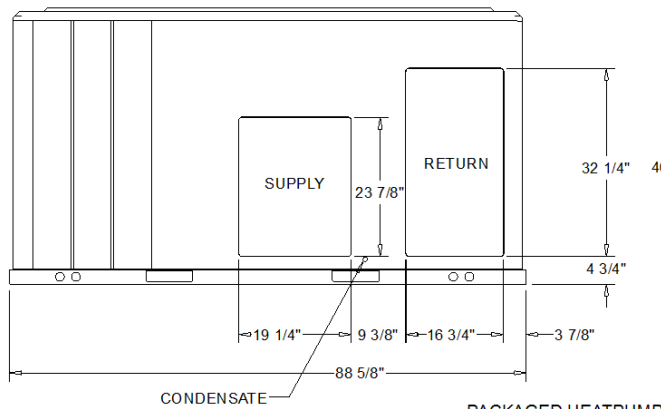
**Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump**

Item: A2 Qty: 1 Tag(s): SPHP-D109



- NOTES:
1. THRU -THE -BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.
  2. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION

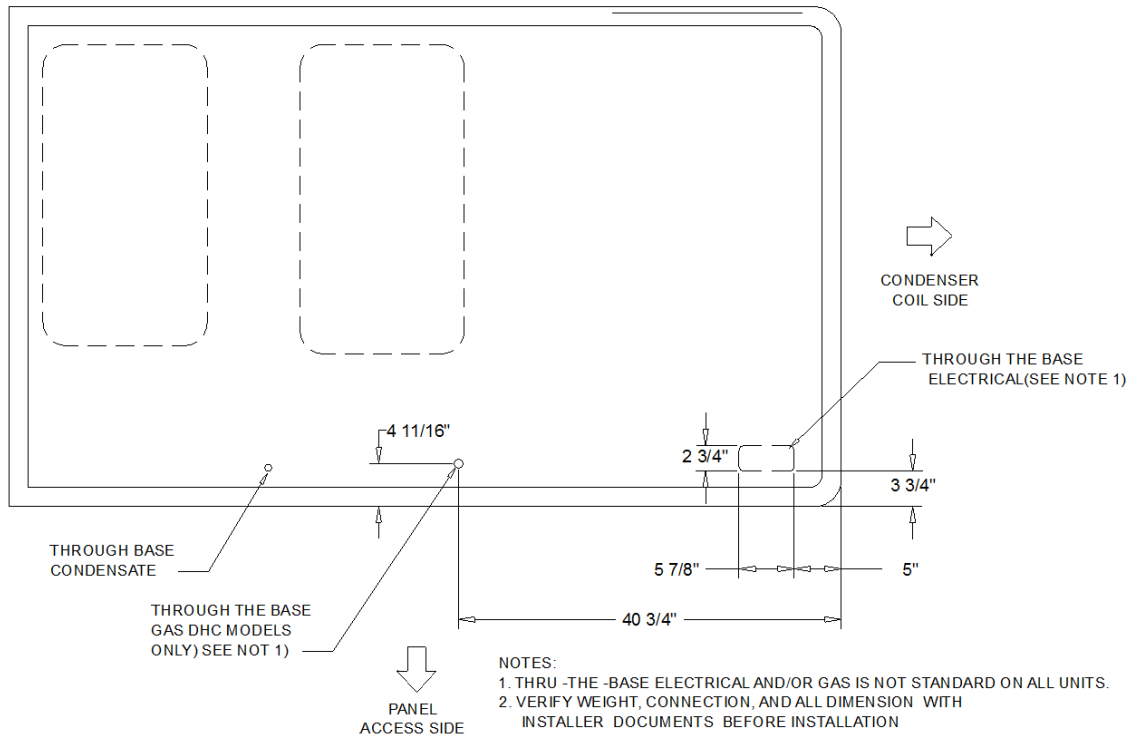
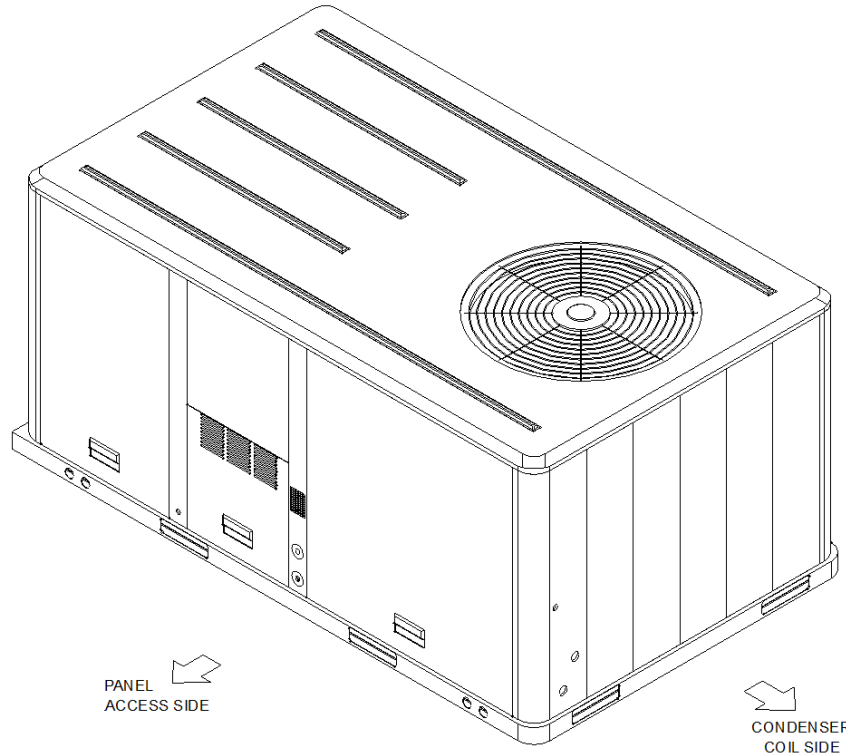
PLAN VIEW UNIT  
DIMENSION DRAWING



PACKAGED HEATPUMP  
DIMENSION DRAWING

Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump

Item: A2 Qty: 1 Tag(s): SPHP-D109



THRU THE BASE UTILITIES

PLAN / ISO VIEW DRAWING

**Dimensional Drawings - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A2 Qty: 1 Tag(s): SPHP-D109**

**ELECTRICAL / GENERAL DATA**

<b>GENERAL</b> <sup>(2)(4)(6)</sup> Model: WHC102H Oversized Motor Unit Operating Voltage: 414-506 Unit Primary Voltage: 460 Unit Secondary Voltage: -- Unit Hertz: 60 Unit Phase: 3 EER 12.0 Standard Motor Minimum Circuit Ampacity: 22.0 Maximum Fuse Size: 25.0 Maximum (HACR) Circuit Breaker: 25.0		<b>WITH HEATER</b> Heater kW Rating : 18.0 Stage: 1 MCA: 49.0 MFS: 50.0 MCB: 50.0  Oversized Motor MCA: MFS: MCB:	
(Field Installed Oversized Motor) MCA: MFS: MCB:		Field Installed Oversized Motor MCA: MFS: MCB:	
<b>INDOOR MOTOR</b> Standard Motor Number: 1 Horsepower: 2.75 Motor Speed (RPM): - Phase: 1 Full Load Amps: 3.6 Locked Rotor Amps: -			
Outsized Motor Number: Horsepower: Motor Speed (RPM): Phase: Full Load Amps: Locked Rotor Amps:		Field Installed Oversized Motor Number: Horsepower: Motor Speed (RPM): Phase: Full Load Amps: Locked Rotor Amps:	
<b>COMPRESSOR</b> Circuit 1/2 Number: 2 Horsepower: 52.0/55.0 Phase: 3 Rated Load Amps: 7.62/6.3 Locked Rotor Amps: -		<b>OUTDOOR MOTOR</b> Number: 1 Horsepower: 0.7 Motor Speed (RPM): 1100 Phase: 3 Full Load Amps: 1.6 Locked Rotor Amps: -	
<b>POWER EXHAUST ACCESSORY</b> <sup>(3,7)</sup> (Field Installed Power Exhaust) Phase: N/A Horsepower: N/A Motor Speed (RPM): N/A Full Load Amps: N/A Locked Rotor Amps: N/A		<b>FILTERS</b> Type: Throwaway Furnished: Yes Number: 4 Recommended: 20"x25"x2"	
<b>REFRIGERANT</b> <sup>(2)</sup> Type R410 Factory Charge Circuit #1 17.0 lb Circuit #2 -			

**NOTES:**

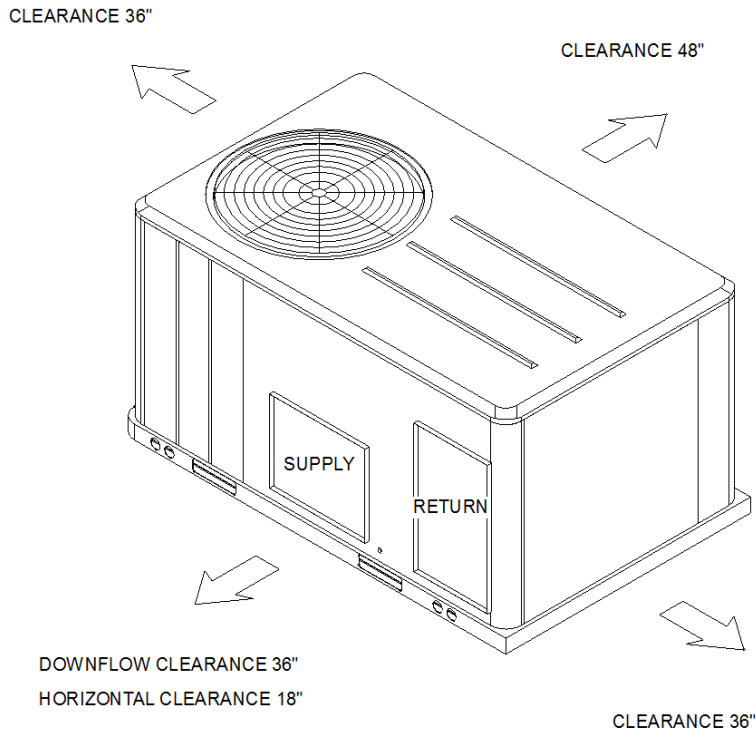
1. Maximum (HACR) Circuit Breaker sizing is for installations in the United States only.
2. Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
3. Value does not include Power Exhaust Accessory.
4. Value includes oversized motor.
5. Value does not include Power Exhaust Accessory.
6. EER is rated at AHRI conditions and in accordance with DOE test procedures.
7. Installation of this power exhaust kit will affect unit level MCA and could affect MOP sizing having a direct impact on existing field wiring and unit protection devices. The change in MCA/MOP is the sole responsibility of the field installing party. Trane will not issue new nameplates as a result of this power exhaust accessory installation. FLA of the power exhaust kit option must be added to the MCA of the unit for building supply conductor sizing determination.



**Weight, Clearance & Rigging - 3-10 Ton R-410 Packaged Heat Pump**

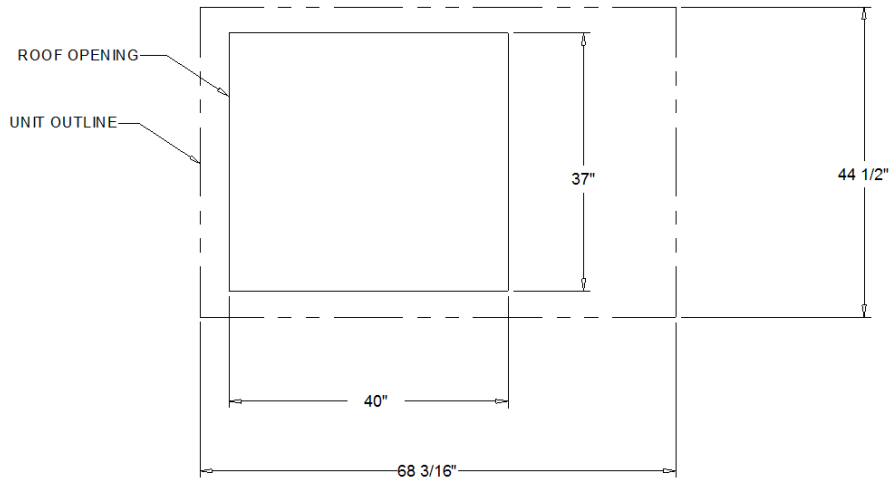
**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**

CLEARANCE FROM TOP OF UNIT 72"



**PACKAGED HEAT PUMP**

CLEARANCE



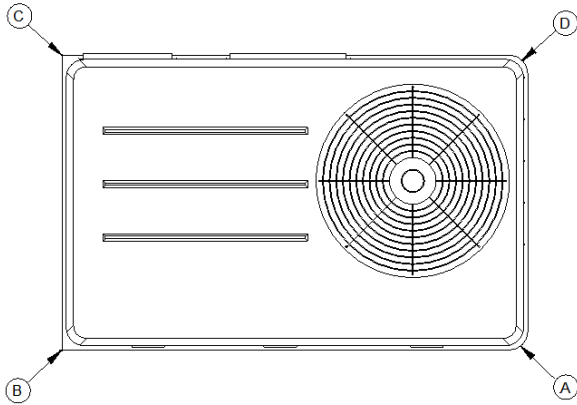
**PACKAGED HEAT PUMP**

DOWNFLOW TYPICAL ROOF OPENING

**Weight, Clearance & Rigging - 3-10 Ton R-410 Packaged Heat Pump**

Item: A2 Qty: 1 Tag(s): SPHP-D109

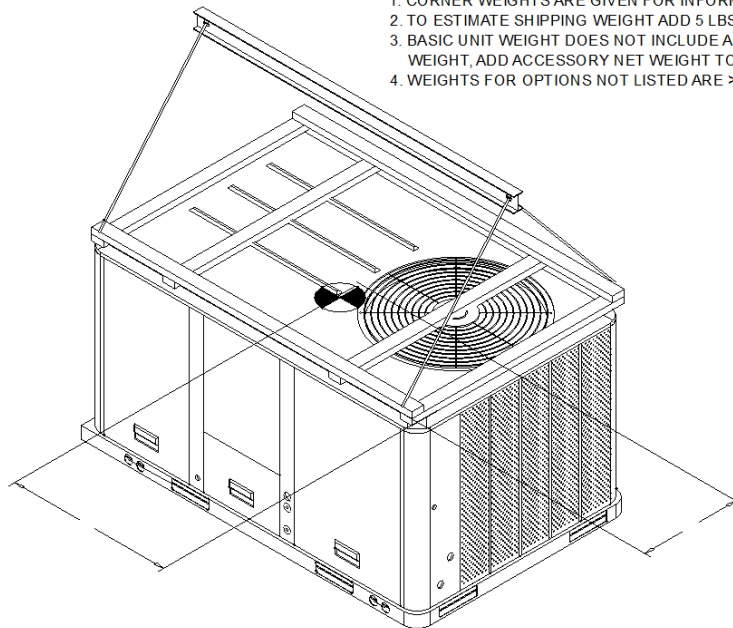
**INSTALLED ACCESSORIES NET WEIGHT DATA**



**PACKAGED HEAT PUMP**  
CORNER WEIGHT

ACCESSORY		WEIGHTS			
ECONOMIZER		93.0 lb			
MOTORIZED OUTSIDE AIR DAMPER					
MANUAL OUTSIDE AIR DAMPER					
BAROMETRIC RELIEF					
OVERSIZED MOTOR					
BELT DRIVE MOTOR					
POWER EXHAUST					
HEATER		30.0 lb			
THROUGH THE BASE ELECTRICAL (FIOPS)		13.0 lb			
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)		5.0 lb			
UNIT MOUNTED DISCONNECT (FIOPS)					
POWERED CONVENIENCE OUTLET (FIOPS)					
HINGED DOORS (FIOPS)					
HAIL GUARD		20.0 lb			
SMOKE DETECTOR, SUPPLY / RETURN					
ROOF CURB					
BASIC UNIT WEIGHTS		CORNER WEIGHTS		CENTER OF GRAVITY	
SHIPPING	NET	(A)	(C)	(E) LENGHT	(F) WIDTH
953.0 lb	855.0 lb	(B) 306" 336"	(D) 283.0 lb	39"	22"

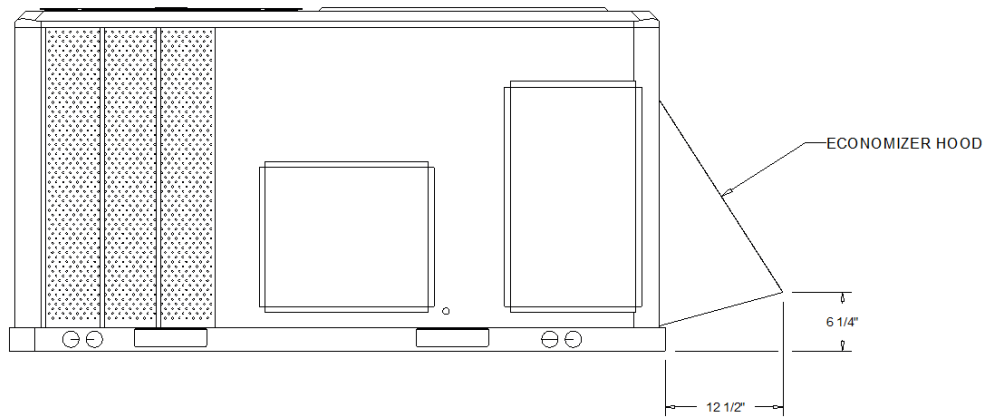
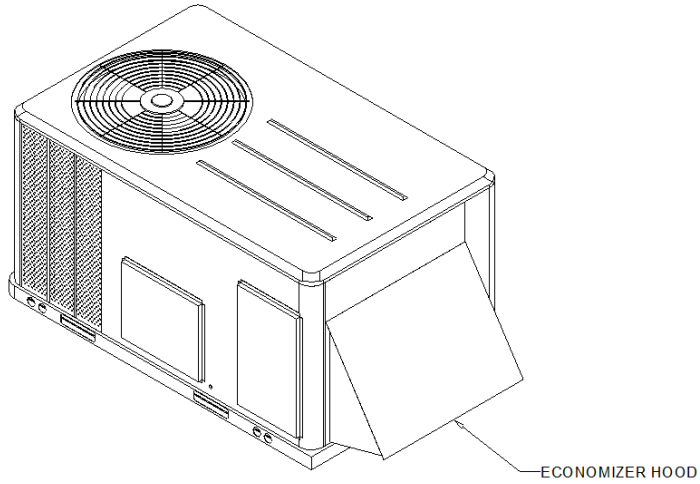
- NOTE:
1. CORNER WEIGHTS ARE GIVEN FOR INFORMATION ONLY.
  2. TO ESTIMATE SHIPPING WEIGHT ADD 5 LBS TO NET WEIGHT.
  3. BASIC UNIT WEIGHT DOES NOT INCLUDE ACCESSORY WEIGHT. TO OBTAIN TOTAL WEIGHT, ADD ACCESSORY NET WEIGHT TO BASIC UNIT WEIGHT.
  4. WEIGHTS FOR OPTIONS NOT LISTED ARE >5 LBS.



**PACKAGED HEAT PUMP**  
RIGGING AND CENTER OF GRAVITY

**Accessory - 3-10 Ton R-410 Packaged Heat Pump**

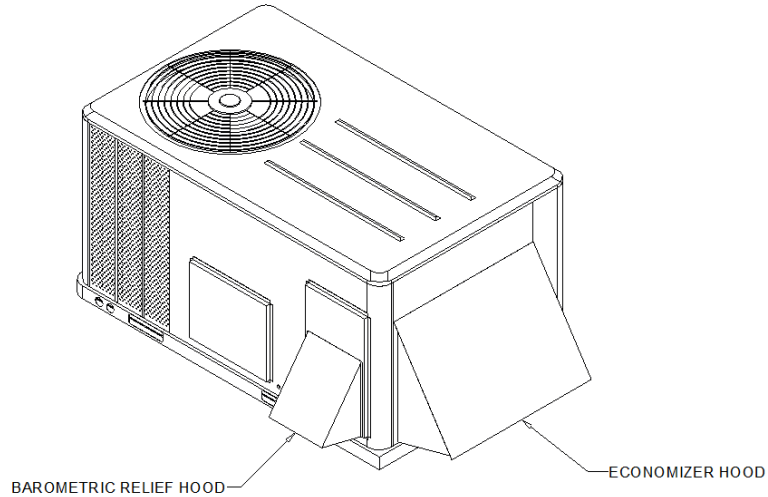
**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**



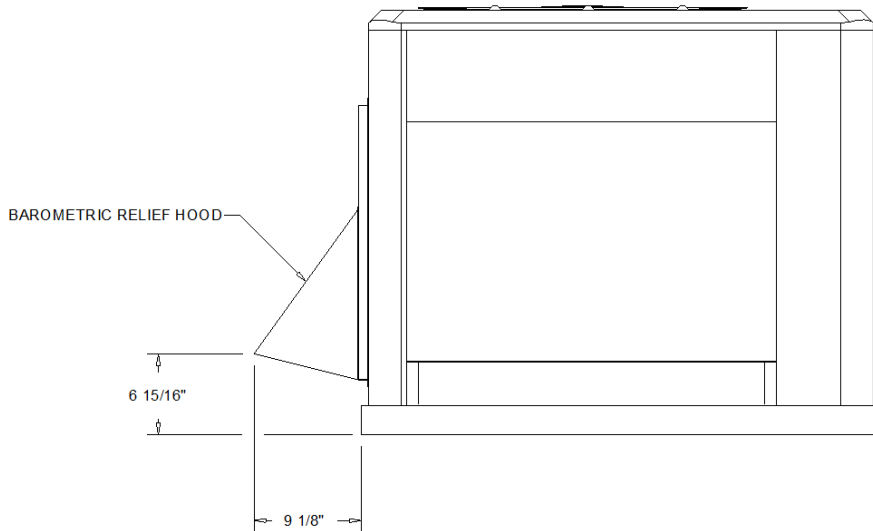
ACCESSORY - ECONOMIZER HOOD

**Accessory - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1 Qty: 14 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113**



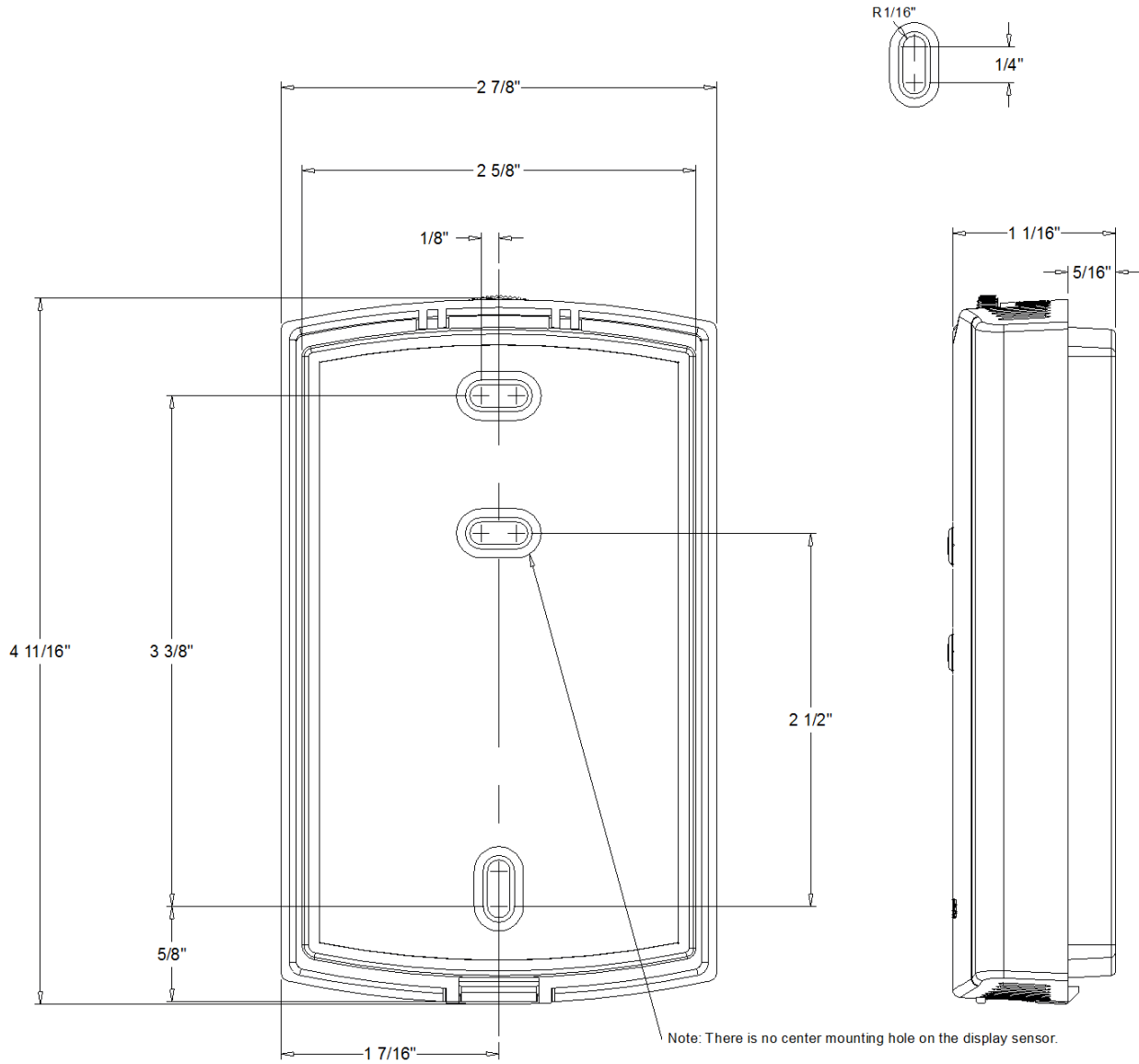
**Note: Barometric relief damper(s) shall be shipped loose for field installation in the return air ductwork entering unit.**



ACCESSORY - BAROMETRIC RELIEF DAMPER HOOD

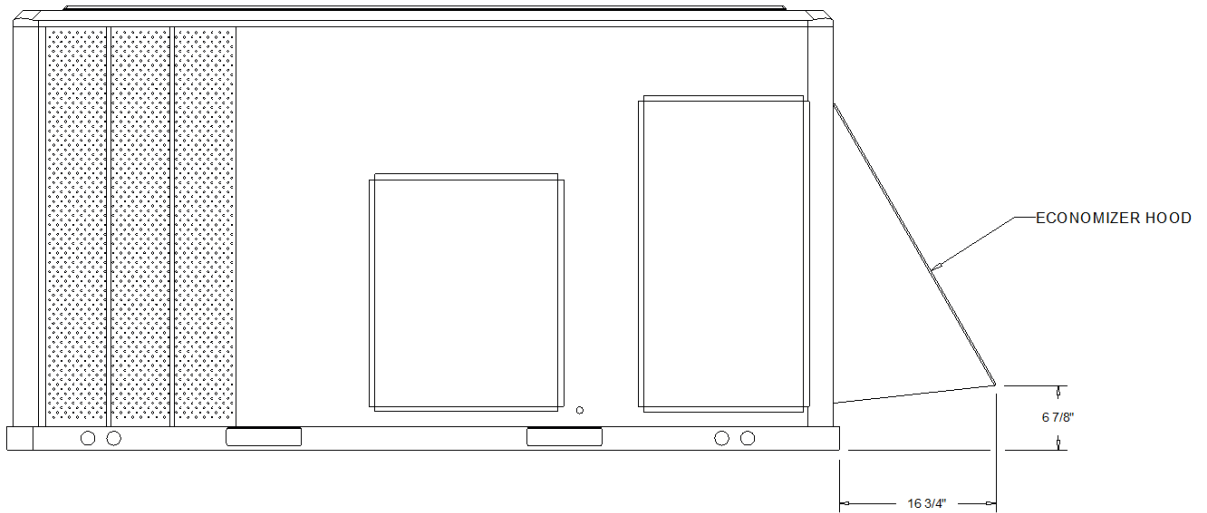
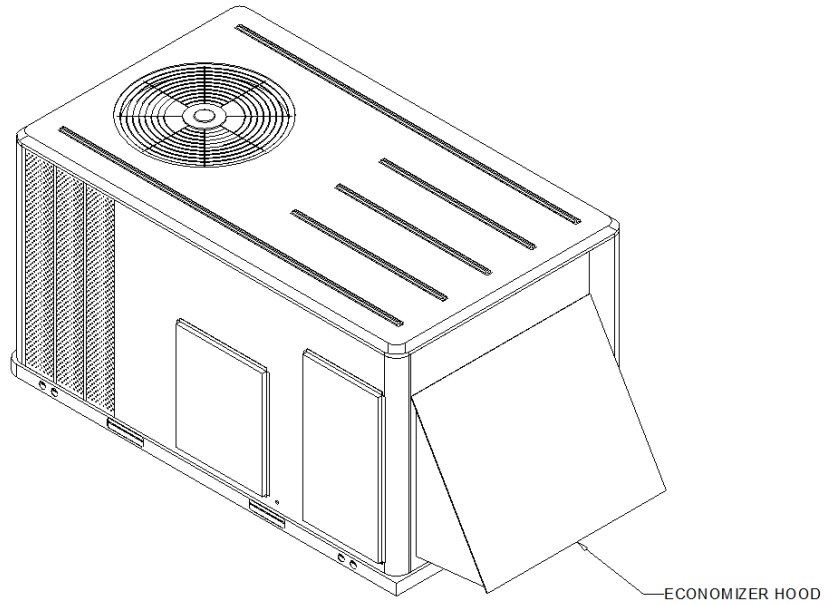
**Accessory - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1, A2 Qty: 15 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113, SPHP-D109**

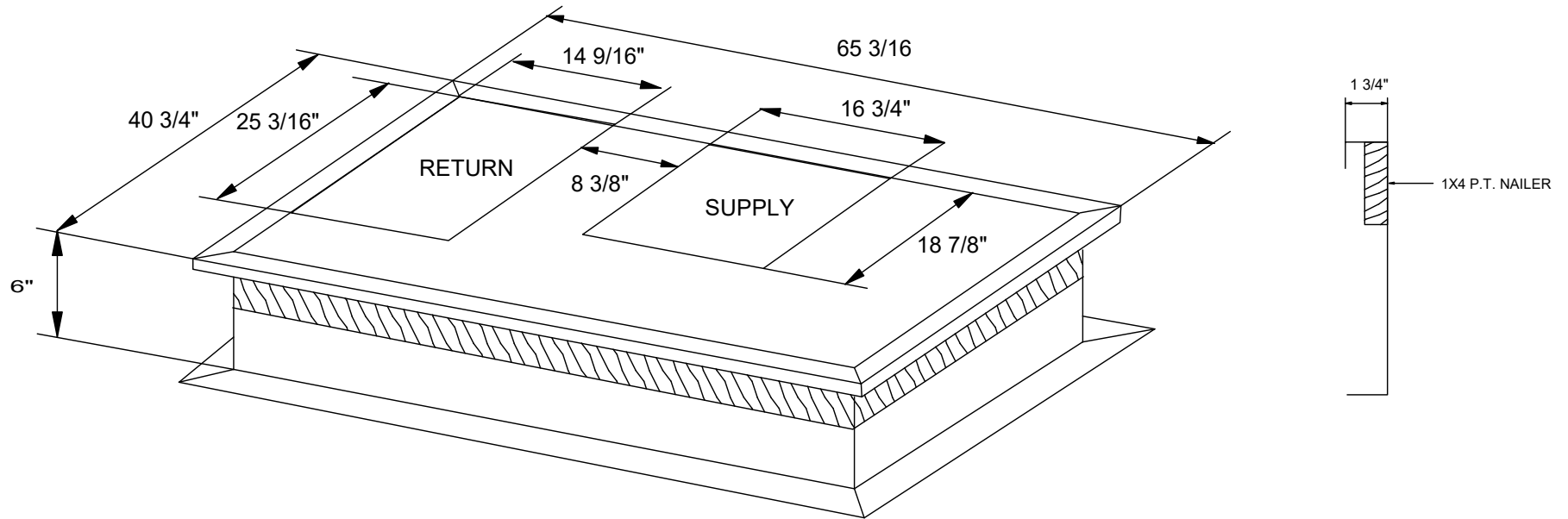


BAYSEN074 - ZONE SENSOR  
ROOM SENSOR WITH TEMP ADJ AND OVERRIDE

**Accessory - 3-10 Ton R-410 Packaged Heat Pump**  
Item: A2 Qty: 1 Tag(s): SPHP-D109



ACCESSORY - ECONOMIZER HOOD



**STANDARD FEATURES**

1. 1"X4" PRESSURE TREATED NAILER
2. 16 GA GALVANIZED CONSTRUCTION
3. FULLY WELDED AND ASSEMBLED
4. GASKETING MATERIAL SUPPLIED
5. 6" TALL
6. REVERSIBLE DUCT RAILS

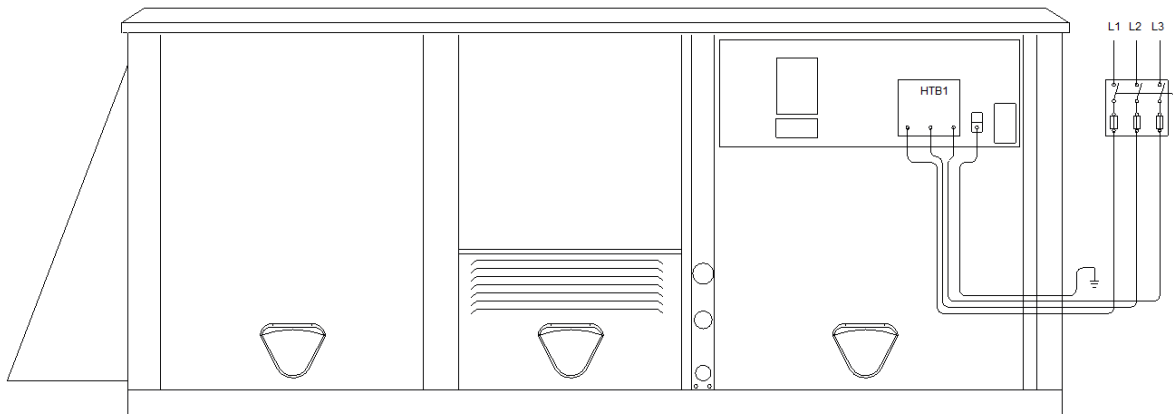
**OPTIONS**

1. CUSTOM HEIGHTS AND FLANGES
2. HEAVY GAUGE CONSTRUCTION
3. BURGLAR BARS
4. ALUMINUM CONSTRUCTION
5. METAL ROOF APPLICATIONS
6. PITCHED ROOF APPLICATIONS

Part Number	MTI042T6	DESCRIPTION:	ADAPTER CURB	Quantity:	1
UNLESS OTHERWISE SPECIFIED ALL DRAWING UNITS ARE IN INCHES		List Update Authorization here.		MTI Manufacturing LLC	
TOLERANCES ARE: +/- 1/8"		APPROVALS:	DD/MM/YY		
CURB GASKET QTY	2	Drawing:			
MATERIAL: 18GA	FINISH: GALVANIZED (G90)	Checked:			
INSULATION DETAILS: NRC: 0.85 (R6) R Value: 4.2 ( 1.0") ASTM C1071 Type I: Complies Greenguard: Certified		Revision 1			
		Revision 2		SO #	
		Revision 3		PO#	
				Sheet [1] of [1]	

**Field Wiring - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1, A2 Qty: 15 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113, SPHP-D109**



ZONE SENSOR WIRE TABLE

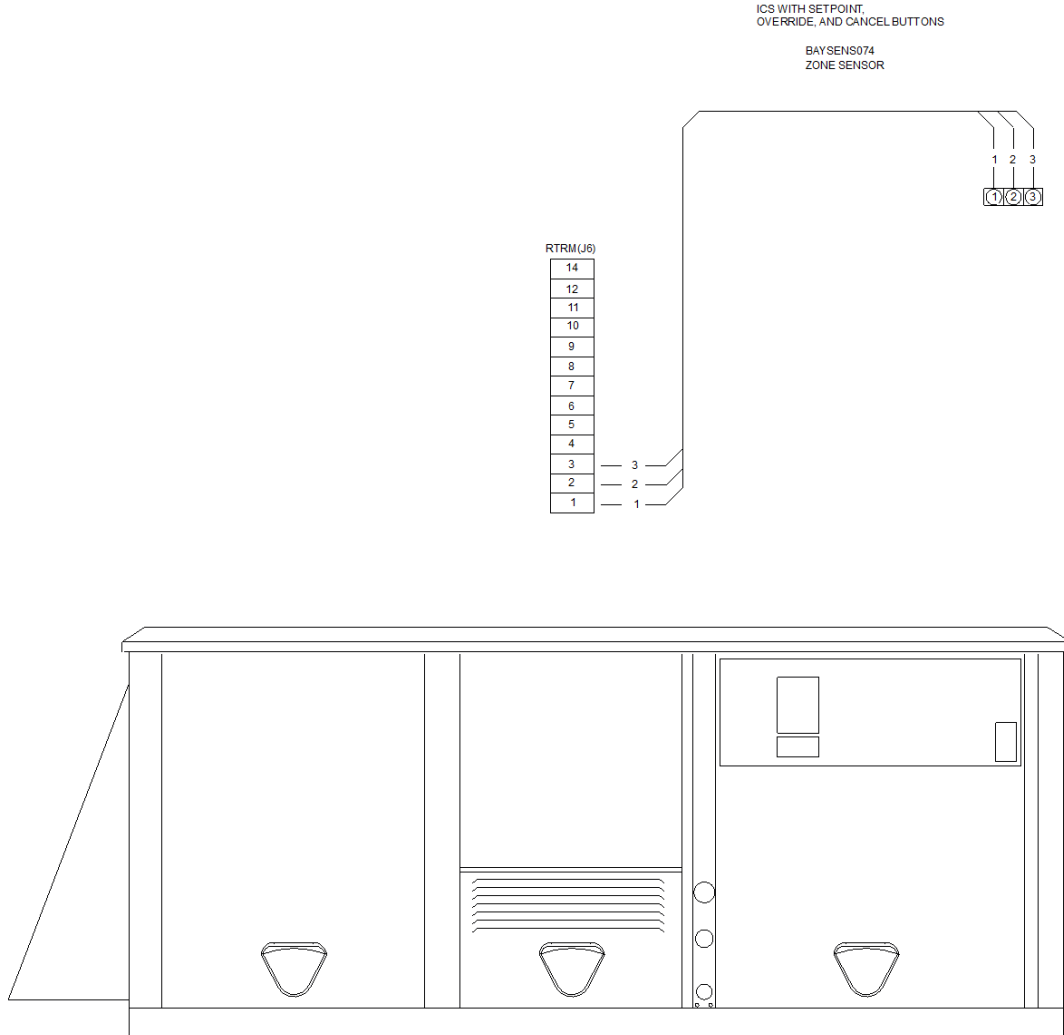
WIRE SIZE	MAXIMUM WIRE LENGTH
22 GAUGE	1800"
20 GAUGE	3000"
18 GAUGE	4500"
16 GAUGE	7200"
14 GAUGE	11700"

NOTE:

1. All wiring and devices shown dashed to be supplied and installed by the customer in accordance with national and local electrical codes.
2. Low voltage control wiring must not be run in conduit with power wiring.

**Field Wiring - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1, A2 Qty: 15 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113, SPHP-D109**



ZONE SENSOR WIRE TABLE

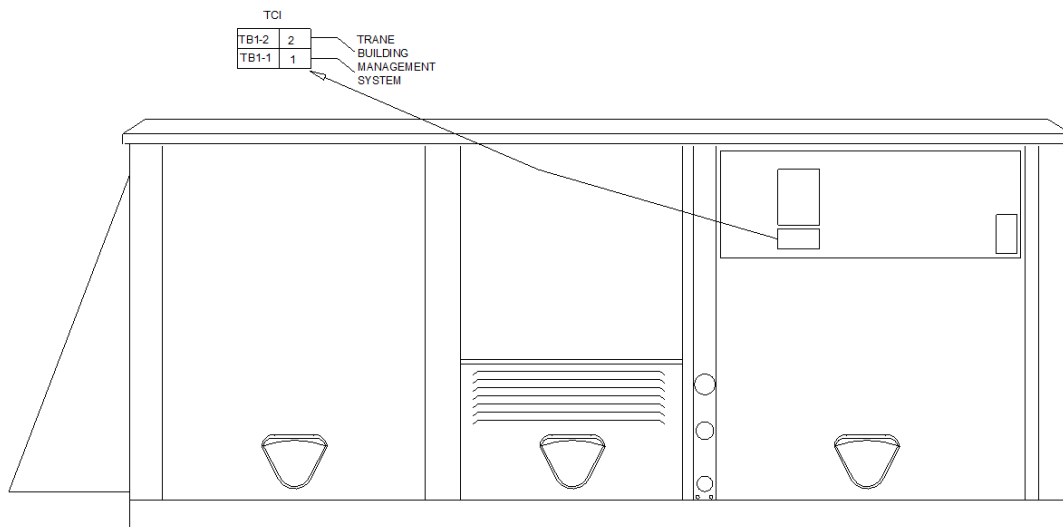
WIRE SIZE	MAXIMUM WIRE LENGTH
22 GAUGE	1800"
20 GAUGE	3000"
18 GAUGE	4500"
16 GAUGE	7200"
14 GAUGE	11700"

NOTE:

1. All wiring and devices shown dashed to be supplied and installed by the customer in accordance with national and local electrical codes.
2. Low voltage control wiring must not be run in conduit with power wiring.

**Field Wiring - 3-10 Ton R-410 Packaged Heat Pump**

**Item: A1, A2 Qty: 15 Tag(s): SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113, SPHP-D109**



ZONE SENSOR WIRE TABLE

WIRE SIZE	MAXIMUM WIRE LENGTH
22 GAUGE	1800"
20 GAUGE	3000"
18 GAUGE	4500"
16 GAUGE	7200"
14 GAUGE	11700"

NOTE:

1. All wiring and devices shown dashed to be supplied and installed by the customer in accordance with national and local electrical codes.
2. Low voltage control wiring must not be run in conduit with power wiring.

**Field Installed Options - Part/Order Number Summary**

This is a report to help you locate field installed options that arrive at the jobsite. This report provides part or order numbers for each field installed option, and references it to a specific product tag. It is NOT intended as a bill of material for the job.

**Product Family - 3-10Ton R-410 Packaged Heat Pump**

Item	Tag(s)	Qty	Description	Model Number
A1	SPHP-A100, SPHP-A101, SPHP-A102, SPHP-A103, SPHP-A104, SPHP-A105, SPHP-A106, SPHP-A107, SPHP-A108, SPHP-A109, SPHP-A110, SPHP-A111, SPHP-A112, SPHP-A113	14	3-10Ton R-410 Packaged Heat Pump (W4C)	WHC036H4REB**01B1A2A20007000000000000000

Field Installed Option Description	Part/Ordering Number
Dry bulb econ 0-100% w/o bar relief	BAYECON085A
Barometric relief	BAYBARM010A
Comparative enthalpy kit	BAYENTH006B
6" tall roof curb	By MTI
Room sensor with temperature adjustment with override	BAYSENS074A

Item	Tag(s)	Qty	Description	Model Number
A2	SPHP-D109	1	3-10Ton R-410 Packaged Heat Pump (W4C)	WHC102H4RGA**P0B1A2A20007000000000000000

Field Installed Option Description	Part/Ordering Number
Curb adaptor	By MTI
Room sensor with temperature adjustment with override	BAYSENS074A