



# Submittal

**Prepared For:**  
Perfection Group

**Date:** August 04, 2025

**Job Name:** Perfection - SE Fairfield

**Opportunity ID:** 8066226

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

## Product Summary

### Qty Product

4 3 - 25 Ton PKGD Precedent Unitary Rooftop

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**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.***

**Product performance and submittal data is valid for a period of 6 months from the date of submittal generation. If six months or more has elapsed between submittal generation and equipment release, the product performance and submittal data will need to be verified. It is the customer's responsibility to obtain such verification.**

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    3 - 25 Ton PKGD Precedent Unitary Rooftop ..... 15

**Tag Data - 3 - 25 Ton PKGD Precedent Unitary Rooftop (Qty: 4)**

Item	Tag(s)	Qty	Description	Model Number
A1	25 T VAV	4	3 - 25 Ton PKGD Precedent Unitary Rooftop	WSK300A4S0P**G500000100A

**Product Data - 3 - 25 Ton PKGD Precedent Unitary Rooftop**

**Item: A1 Qty: 4 Tag(s): 25 T VAV**

- Heat Pump
- Standard Efficiency
- R-454B Refrigerant
- 25 Ton
- 460/60/3
- Symbio 700 unit controls
- 54 kW electric heat
- 0-100% Economizer, comparative enthalpy control
- Multiple Zone Variable Air Volume with oversized motor
- Advanced Controller with BACnet communications interface
- Return air smoke detector
- 3-year parts, coils & controls warranty
- 5-year compressor parts only warranty
- 18" Full perimeter knockdown curb (Field Installed)
- Power exhaust (Field Installed)

**Performance Data - 3 - 25 Ton PKGD Precedent Unitary Rooftop**

<b>Tags</b>	<b>25 T VAV</b>
Cooling Entering Dry Bulb (F)	80.00
Cooling Entering Wet Bulb (F)	67.00
Summer Ambient (F)	95.00
Heating Entering Air Temperature (F)	70.00
Design Airflow (cfm)	9000
Airflow Application	Downflow
Total SP (in H2O)	1.913
Elevation (ft)	0.00
Gross Total Capacity (MBh)	267.20
Gross Sensible Capacity (MBh)	205.89
Gross Latent Capacity (MBh)	61.31
Net Total Capacity (MBh)	255.30
Net Sensible Capacity (MBh)	193.99
Net Sensible Heat Ratio (%)	76.00
Coil LAT DB (F)	58.44
Coil LAT WB (F)	57.29
Cooling Leaving Unit Dry Bulb (F)	60.41
Cooling Leaving Unit WB (F)	58.06
Fan Motor Heat (MBh)	5.07
Dew Point Temperature (F)	56.59
Refrigerant charge - Ckt 1 (lb)	35.0
Saturated Discharge Temperature (F)	128.34
Saturated Suction Temperature (F)	48.50
Heat Static Pressure Adj (in H2O)	0.107
Component SP Add (in H2O)	0.406
Max Available ESP (in H2O)	1.487
Supply Motor Horsepower (hp)	4.200
Total Supply Operating Horsepower (hp)	5.320
Supply RPM (rpm)	1601
Compressor Power (kW)	21.60
System Power (kW)	29.14
EER @ AHRI	9.50
IEER @ AHRI	13.00
AHRI COP @ 47 F	3.20
AHRI COP @ 17 F	2.05
MCA (A)	129.00
MOP (A)	150.00
Compressor 1 RLA (A)	23.80
Compressor 2 RLA (A)	14.40
Condenser Fan FLA (A)	0.00
Evaporator Fan FLA (A)	5.50
Electric Heat FLA (A)	65.00
Electric heat FLA (230V) (A)	0.00
Output Heating Capacity (MBh)	184.41
Heating Leaving Air Temperature (F)	88.73
Heating Temperature Rise (F)	18.73
Height (ft)	5.50
Width (ft)	7.25
Length (ft)	10.25
Approx Installed Weight (lb)	2700.0
Corner weight A (lb)	680.0
Corner Weight B (lb)	550.0
Corner Weight C (lb)	427.0
Corner Weight D (lb)	528.0

Tags	25 T VAV
Center of Gravity - Length (ft)	4.58
Center of Gravity - Width (ft)	3.17
Ducted Discharge - 63 Hz (dB)	87
Ducted Discharge - 125 Hz (dB)	96
Ducted Discharge - 250 Hz (dB)	82
Ducted Discharge - 500 Hz (dB)	77
Ducted Discharge - 1 kHz (dB)	71
Ducted Discharge - 2 kHz (dB)	68
Ducted Discharge - 4 kHz (dB)	68
Ducted Discharge - 8 kHz (dB)	67
Ducted Inlet - 63 Hz (dB)	81
Ducted Inlet - 125 Hz (dB)	87
Ducted Inlet - 250 Hz (dB)	80
Ducted Inlet - 500 Hz (dB)	77
Ducted Inlet - 1 kHz (dB)	74
Ducted Inlet - 2 kHz (dB)	71
Ducted Inlet - 4 kHz (dB)	70
Ducted Inlet - 8 kHz (dB)	66
Outdoor Noise - 63 Hz (dB)	95
Outdoor Noise - 125 Hz (dB)	92
Outdoor Noise - 250 Hz (dB)	93
Outdoor Noise - 500 Hz (dB)	92
Outdoor Noise - 1 kHz (dB)	88
Outdoor Noise - 2 kHz (dB)	84
Outdoor Noise - 4 kHz (dB)	81
Outdoor Noise - 8 kHz (dB)	75
Acoustic Footnote 1	Ducted Discharge/Ducted Inlet prediction data conform to AHRI 260
Heat pump Heating Capacity (MBh)	242.32
Heat pump leaving air temperature (F)	98.99
Heat pump heating ambient temperature (F)	47.00
Heat pump heating temperature rise (F)	28.99
Heat pump heating ambient relative humid (%)	70.00
Supply Fan Count	2
Indoor Fan Type	BC Plenum
Indoor Fan Drive Type	Variable Direct
Outdoor Fan Type	Propeller
Outdoor Fan Drive Type	Direct
Outdoor Fan Quantity	2
Exhaust Fan Type	FC Centrifugal
Exhaust Drive Type	Direct
Replication Run	294

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**Mechanical Specifications - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV****Heatpump - General**

- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 210-240 for 12.5 to 25 Tons and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces (all gas heating units).
- Convertible airflow.
- Symbio controls operating range between 40.0 F and 125.0 F in cooling mode standard from the factory. Factory or field-installed low ambient kit extended operating range down to 0°F.
- Factory assembled, internally wired, fully charged with R-454B, and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory.
- Colored and numbered wiring internal to the unit for simplified identification.
- Units cULus listed and labeled, classified in accordance for Central Cooling Air Conditioners.
- Unit shall be furnished with a leak detection system from the factory. The leak detection system shall consist of one or more refrigerant detection sensors. When the system detects a leak, the unit controller shall initiate mitigation actions.

**Heatpump - Casing**

- Zinc coated, heavy gauge, galvanized steel.
- Weather resistant pre-painted metal with galvanized substrate.
- Meets ASTM B117, 672 hour salt spray test.
- Removable single side maintenance access panels.
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing fasteners while providing a water and air tight seal).
- Exposed vertical panels and top covers in the indoor air section insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material.
- Base pan shall have no penetrations within the perimeter of the curb other than the raised 1 inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.
- Base of the unit insulated with 1/8 inch, foil-faced, closed-cell insulation.
- Unit base provisions for forklift and/or crane lifting on three sides of unit.

**Heatpump - Coils Evaporator and Condenser**

- Internally finned, 5/16" copper tubes mechanically bonded to a configured aluminum plate fin are standard.
- Coils are leak tested at the factory to ensure integrity.
- Evaporator coil and condenser coil are leak tested to 600 psig.
- Assembled unit is leak tested to 465 psig.
- Condenser coil is patent pending 1+1+1 hybrid coil, designed with slight gaps for cleaning ease.
- Composite, dual-sloped, removable condensate drain pan is standard.

**Heatpump - Coil Guards**

- Provides condenser coil protection.

**Heatpump - Compressors**

- All units have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps.
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage.
- Internal overloads standard with scroll compressors.
- Crankcase heaters are standard on all compressors.
- All units have dual compressors.
- Three stages of cooling available on 12.5 to 17.5 tons units and four stages of cooling available on 20 and 25 tons units.

**Heatpump - Filters**

- Standard throwaway filters
- Optional 2 inch MERV 8 and MERV 13 filters

**Heatpump - Froststat**

- Utilized as a safety device.

- Opens to prevent freezing temperatures on evaporator coil.
- Temperature will need to rise to 50.0 F before closing.
- Utilized in low airflow or high outside air applications (cooling only).

#### **Heatpump - Indoor Fan**

- **Direct drive** plenum fan design - 12.5 to 25 tons units.
- Plenum fan design- backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor.
- Supply fan speed adjustments can be made using the Symbio 700 or Mobile App.
- Motors are thermally protected.
- Variable speed direct drive motors are high efficiency - 12.5 to 25 tons.

#### **Heatpump - Economizer (Standard)**

- Available with or without barometric relief.
- 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.
- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment "off" cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

#### **Heatpump - Powered Exhaust**

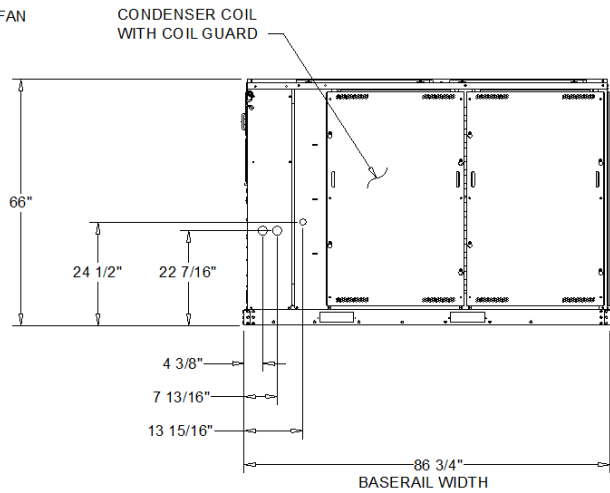
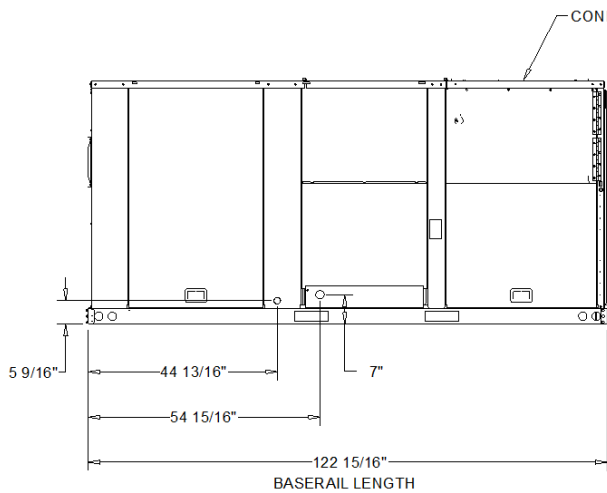
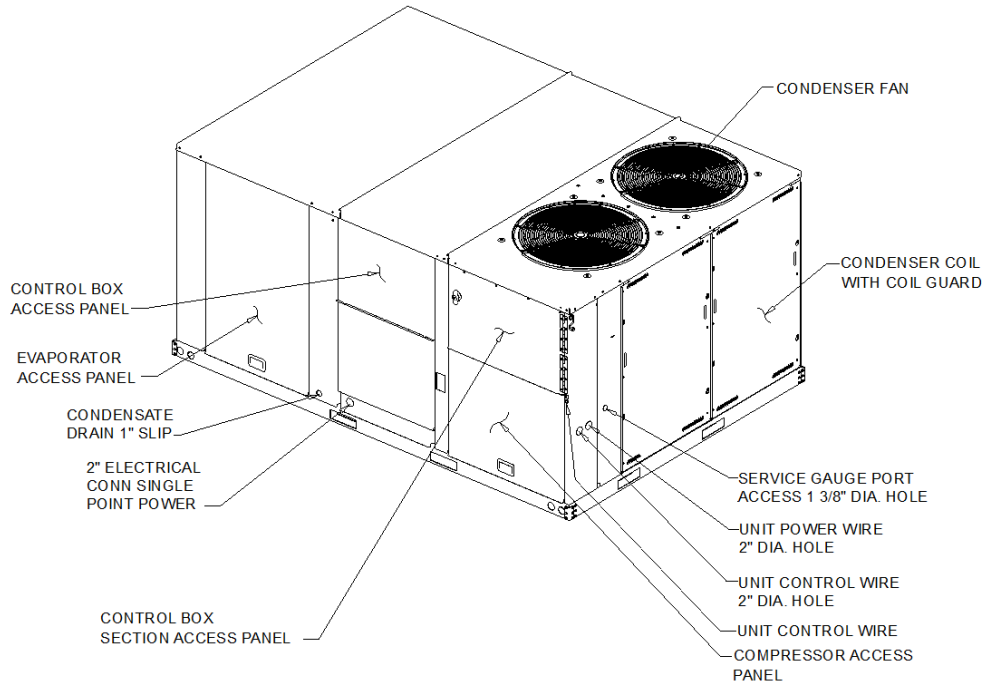
- Shall provide exhaust of return air, when using an economizer.
- Maintain better building pressurization.

#### **Heatpump - Roof Curb**

- Designed to mate with the unit's downflow supply and return.
- Provide support and a water tight installation when installed properly.
- Shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb.
- Curb shall be shipped knocked down for field assembly.
- Shall include wood nailer strips.

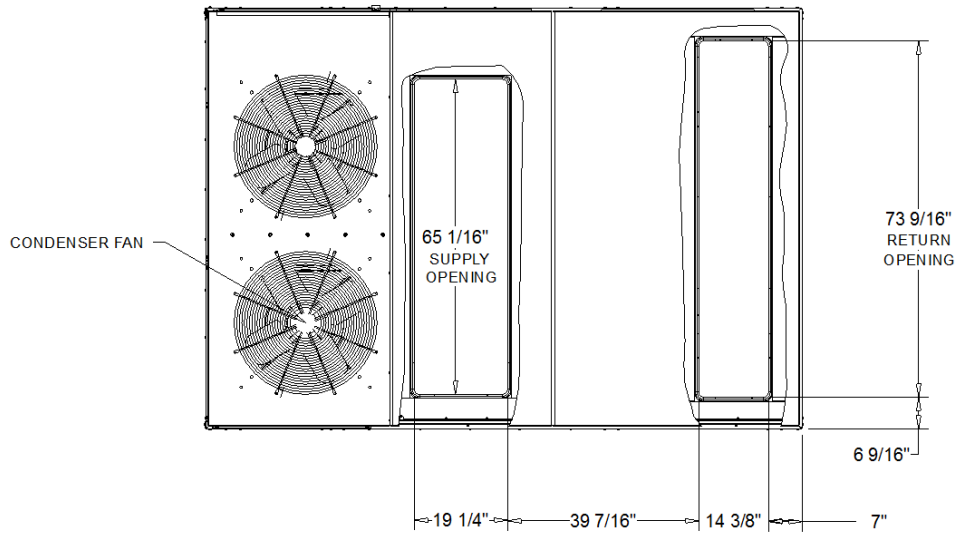
**Dimensional Drawings - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**

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

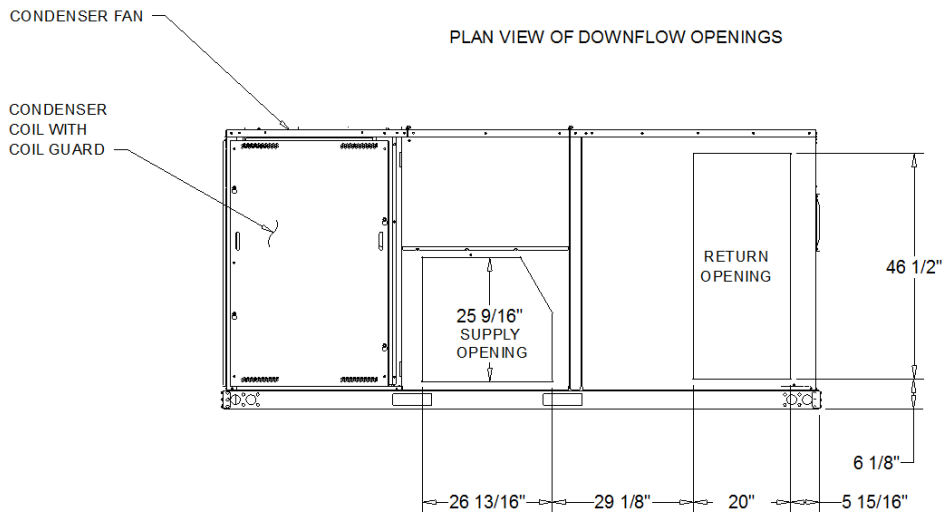


HEAT PUMP / ELECTRIC HEAT STANDARD EFFICIENCY  
 DIMENSION DRAWING

**Dimensional Drawings - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**



PLAN VIEW OF DOWNFLOW OPENINGS



HORIZONTAL AIR FLOW OPENING

HEAT PUMP / ELECTRIC HEAT STANDARD EFFICIENCY

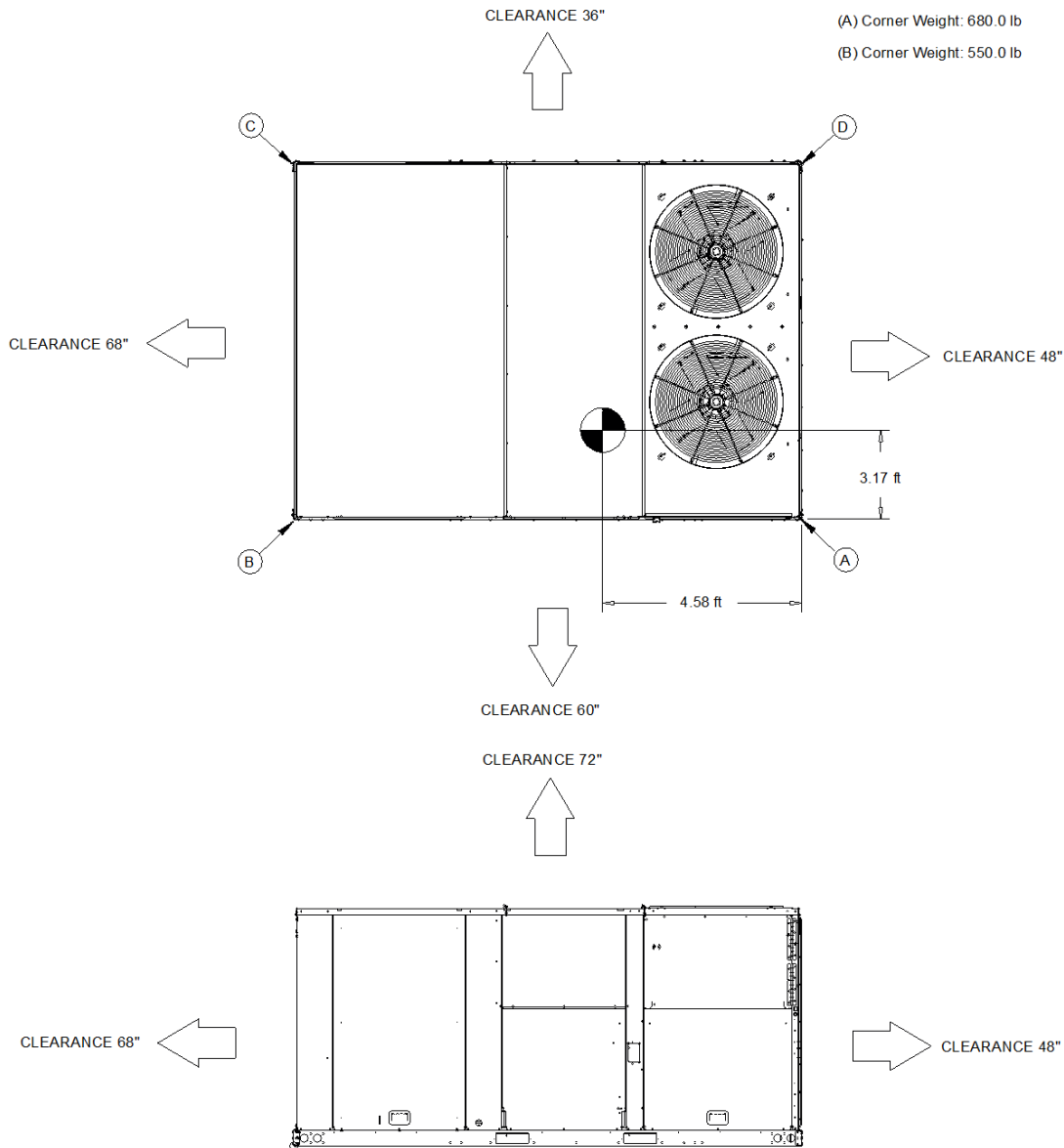
DIMENSION DRAWING

**Weight, Clearance & Rigging - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**

- NOTES:  
 1. APPROX. INSTALLED WEIGHT INCLUDES ALL SELECTED OPTIONS AND ACCESSORIES.  
 2. CORNER WEIGHTS ARE FOR BASE UNIT ONLY AND DO NOT INCLUDE OPTIONS OR ACCESSORIES.  
 3. WEIGHT INCLUDES BOTH FACTORY AND FIELD INSTALLED ACCESSORY.

Approximate Installed Weight: 2,700.0 lb

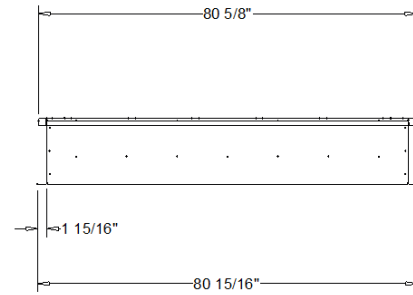
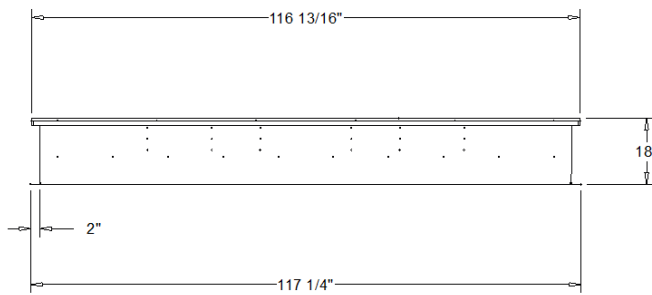
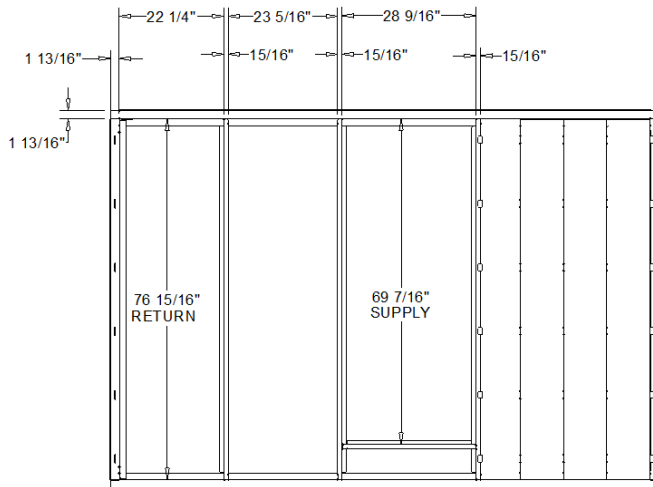
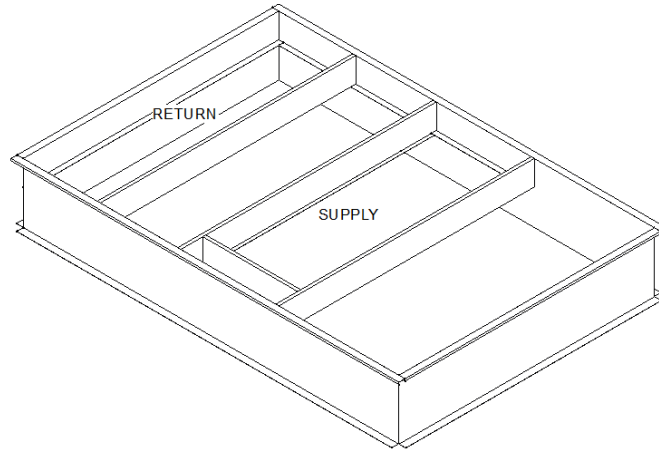
- (A) Corner Weight: 680.0 lb      (C) Corner Weight: 427.0 lb  
 (B) Corner Weight: 550.0 lb      (D) Corner Weight: 528.0 lb



HEAT PUMP / ELECTRIC HEAT STANDARD EFFICIENCY

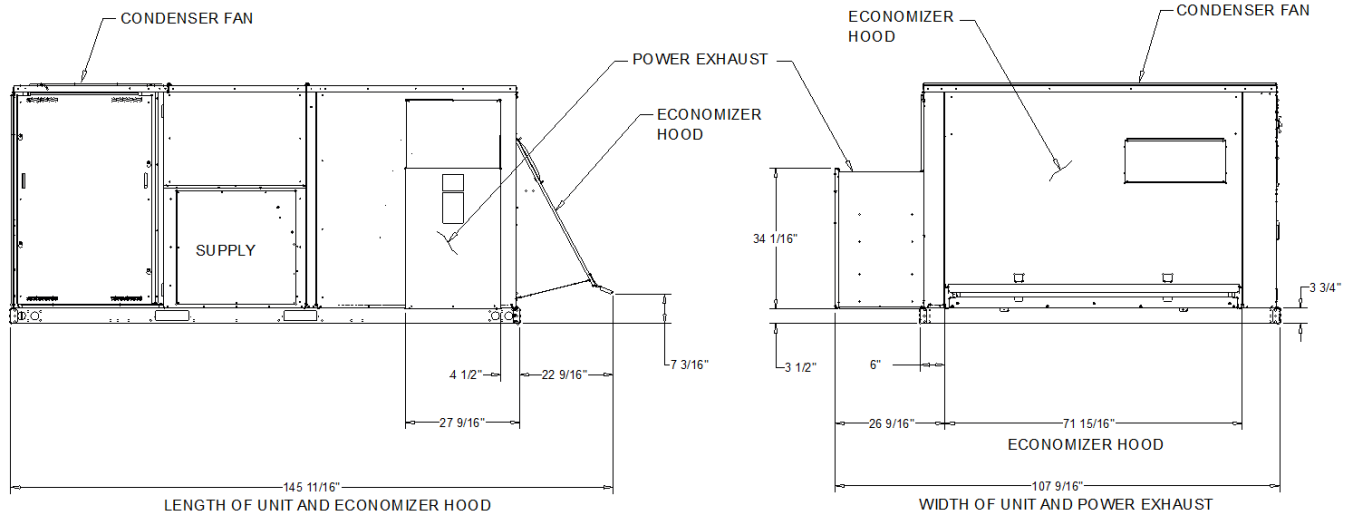
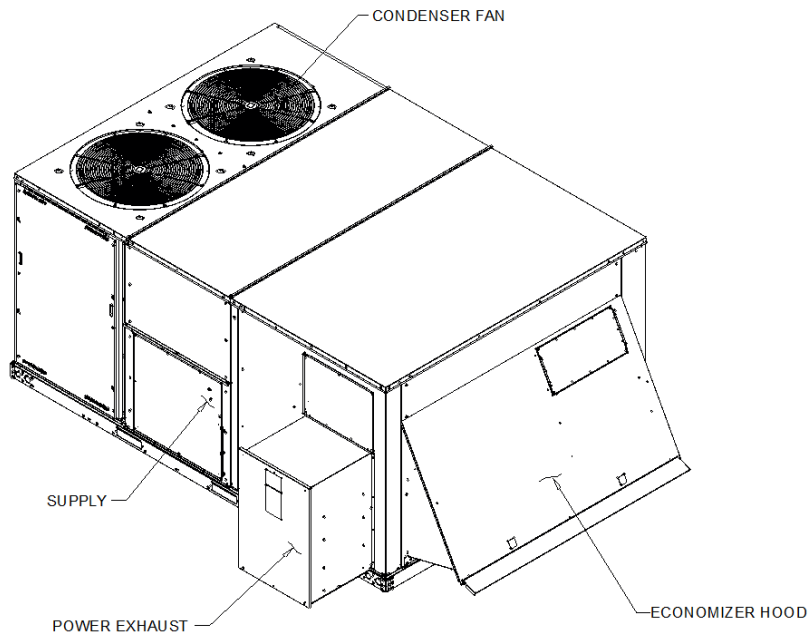
WEIGHTS AND CLEARANCES

**Accessory - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**



HEAT PUMP / ELECTRIC HEAT STANDARD EFFICIENCY

**Accessory - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**

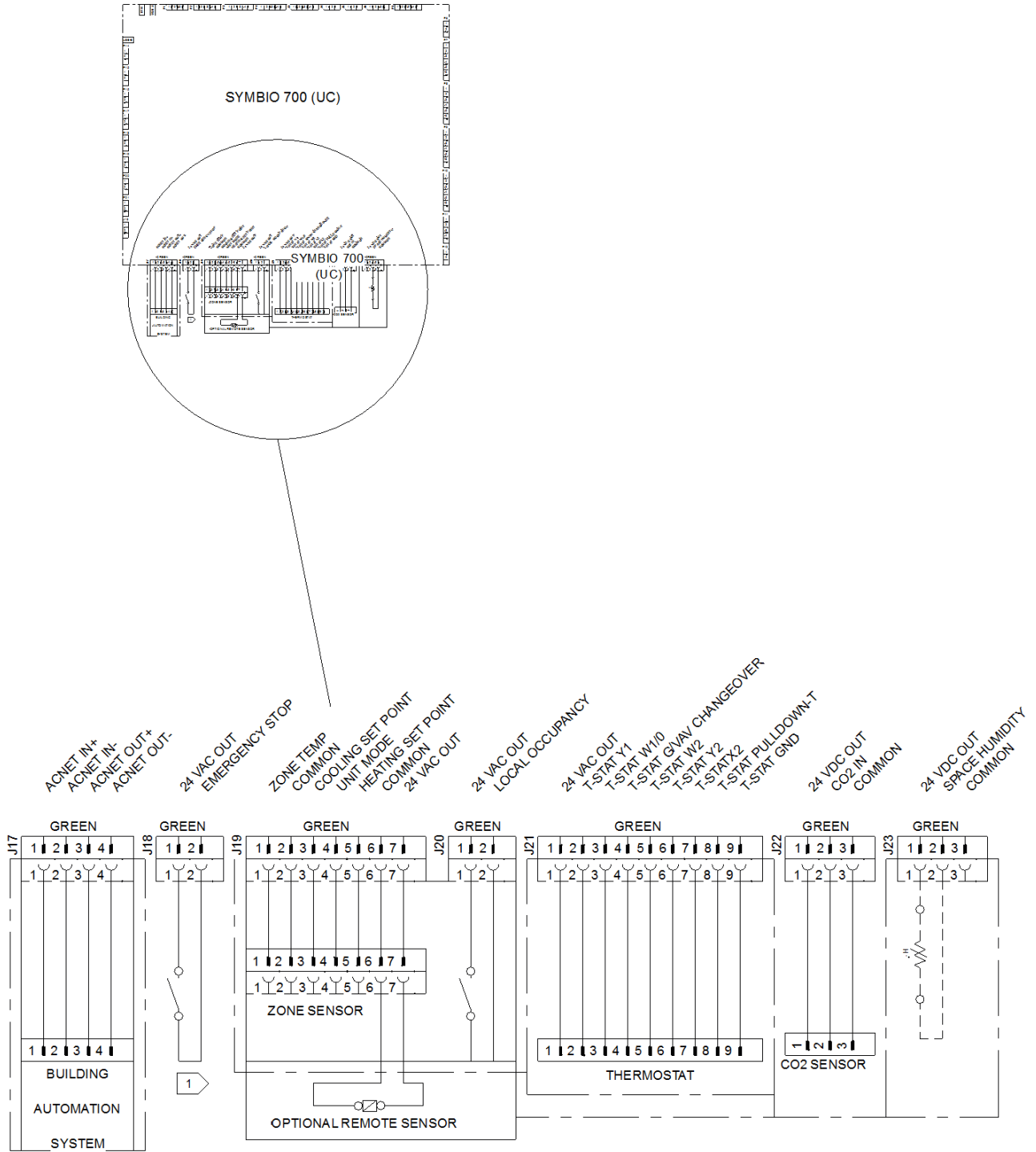


POWERED EXHAUST AND AIR DAMPER(S) (FIELD ACCESSORY)

HEAT PUMP / ELECTRIC HEAT STANDARD EFFICIENCY

**Field Wiring - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**

NOTES:  
 1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION

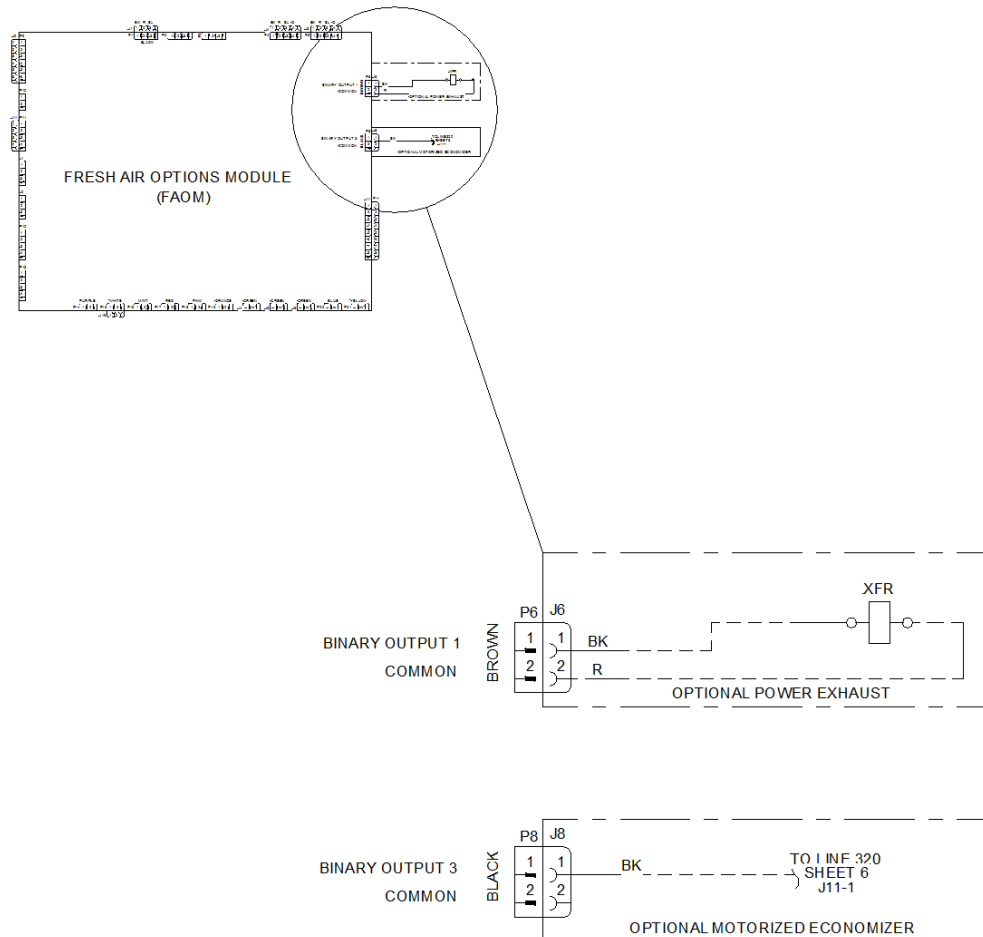


SYMBIO 700 (J17, J18, J19, J20, J21, J22, AND J23)

FIELD WIRING DRAWING

**Field Wiring - 3 - 25 Ton PKGD Precedent Unitary Rooftop**  
**Item: A1 Qty: 4 Tag(s): 25 T VAV**

NOTES:  
 1. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH  
 INSTALLER DOCUMENTS BEFORE INSTALLATION



OPTIONAL POWER EXHAUST WITH MOTORIZED ECONOMIZER (J6 and J8)

FIELD WIRING DRAWING (INDOOR OPTION MODULE)

**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 - 25 Ton PKGD Precedent Unitary Rooftop**

Item	Tag(s)	Qty	Description	Model Number
A1	25 T VAV	4	3 - 25 Ton PKGD Precedent Unitary Roofto	WSK300A4S0P**G500000100A

Field Installed Option Description	Part/Ordering Number
18" Full perimeter knockdown curb	FIACURB804A
Power exhaust	FIAPWRX403B