Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
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Date: 1/25/2024
Return Request: 2/5/2024
Project: East End HVAC Replacement
Supplier: Trane
Manufacturer: Trane
Submittal: Mechanical Equipment
Submittal Number: 23 00 00-05
Drawing # and Installation: Mechanical Drawings

ARCHITECT
Lewis Architects Engineers
11225 Huron Lane, Suite 104
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ENGINEER
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GENERAL CONTRACTOR
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9924 Landers Rd.
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MECHANICAL SUBCONTRACTOR
Comfort Systems USA (Arkansas), Inc.
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N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.
24-2021
chowell@comfortar.com

RTU Submittal

Prepared For:
Lewis Architects Engineers

Date: January 17, 2024

Sold To:
Comfort Systems USA (AR)

Job Name:
East End Elementary HVAC Replacement

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

Product Summary

Qty	Product	
7	4 Ton Gas Rooftop Packaged Units	(Tags: AC-1 Thru AC-7

Equipment Submitted Based on Plans and Specifications Dated 12-1-23

Submittal Notes:

- Economizer Comparative Enthalpy 0-100% With Barometric Relief
- Co2 Wall Mounted, Sensor Only (Field Installed)
- Humidity Wall Mounted Sensor (Field Installed)
- Bacnet Communications Interface (Field Installed)
- 2-Stage Cooling, 1-Stage Gas Heat
- Dehumidification-Hot Gas Reheat
- Field Configurable Discharge
- Hinged Panels/2 In Pleated Filters Merv 8
- Stainless Steel Heat Exchanger

Not Included: **Startup**, **Labor Warranty**, Installation, Wiring, Controls Wiring, Controls Integration, Rigging, Any Kind of Vibration Isolation, Seismic Isolation, **Ground Mounting Curb**, **Smoke Detectors**, **Zone Sensors, Thermostats**, Disconnects, **Convenience Outlets**, Owner Training, Extended Warranty, Anything Else Not Specifically Mentioned In This Document.

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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.

Tag Data - Y4C (Qty: 7)

Item	Tag(s)	Qty	Description	Model Number
A1	AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7	7	3-10 Ton R-410A PKGD Unitary Gas/Electri	YHC047E3RXA**H0C10000B00DA000

Product Data - Y4C

Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

DX cooling, gas heat
High efficiency
Convertible configuration
4 Ton 17 SEER
208-230/60/3
Microprocessor controls
Low gas heat stainless steel heat exchanger
Economizer Comparative Enthalpy 0-100% with Barometric Relief
Hinged panels/2 in pleated filters MERV 8
Standard condenser coil w/hail guard
Dehumidification-hot gas reheat
Discharge air sensing & Condensate Drain Pan Overflow Switch
Demand control ventilation
CO2 wall mounted, sensor only (Field Installed)
Humidity wall mounted sensor (Field Installed)
BACnet Communications Interface (Field Installed)

Performance Data - Y4C

Tags	AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7
Design Airflow (cfm)	1600
Airflow Application	Horizontal
Cooling Entering DB (F)	80.00
Cooling Entering WB (F)	67.00
Ent Air Relative Humidity (%)	51.08
Ambient Temp (F)	95.00
Evap Coil Leaving Air Temp (DB) (F)	58.46
Evap Coil Leaving Air Temp (DB) (F)	58.46
Evap Coil Leaving Air Temp (WB) (F)	56.78
Evap Coil Leaving Air Temp (WB) (F)	56.78
Cooling Leaving Unit DB (F)	59.87
Cooling Leaving Unit WB (F)	57.33
Cooling LDB with reheat (F)	74.48
Gross Total Capacity (MBh)	50.50
Gross Sensible Capacity (MBh)	37.22
Gross Latent Capacity (MBh)	13.28
Net sensible heat ratio w/reheat on (Number)	0.36
Net Total Capacity (MBh)	48.64
Net Sensible Capacity (MBh)	35.36
Net Sensible Heat Ratio (Number)	0.73
Heating EAT (F)	70.00
Heating LAT (F)	98.70
Heating Delta T (F)	28.70
Input Heating Capacity (MBh)	60.00
Output Heating Capacity (MBh)	49.00
Output Heating Cap. w/Fan (MBh)	50.86
Design ESP (in H2O)	0.500
Component SP (in H2O)	0.200
Field supplied drive kit required	None
Indoor mtr operating power (bhp)	0.62
Indoor RPM (rpm)	905
Indoor Motor Power (kW)	0.46
Outdoor Motor Power (kW)	0.34
Compressor Power (kW)	3.08
System Power (kW)	3.88
MCA (A)	30.00
MOP (A)	40.00
Compressor 1 RLA (A)	14.00
Compressor 2 RLA (A)	0.00
Evaporator fan FLA (A)	0.00
Condenser fan FLA (A)	2.50
Evaporator face area (sq ft)	9.27
Evaporator rows (Each)	3.00
Evaporator fin spacing (Per Foot)	192
Evaporator face velocity (ft/min)	173
Min. unit operating weight (lb)	725.0
Max. unit operating weight (lb)	976.0
Fan motor heat (MBh)	1.86
Reheat Temp Rise (F)	16.01
Reheat Capacity (MBh)	27.80

Tags	**AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7**
Dew Point (F)	55.69
Dew Point (F)	55.69
Leaving Air Humidity Ratio (lb/lb)	0.01
Moisture Removal (gal/hr) (gph)	1.50
Mixed Air Humidity Ratio (lb/lb)	0.01
Leaving Unit Rel Humid w/Reheat (%)	51.93
Run Acoustics	Yes
Rated capacity (AHRI) (MBh)	49.00
Refrig charge (HFC-410A) - ckt 1 (lb)	12.5
ASHRAE 90.1	Yes
Saturated Suction Temp Circuit 1 (F)	51.96
Saturated Discharge Temp Circuit 1 (F)	110.81
SEER/IEER @ AHRI conditions	17.50
EER @ AHRI Conditions (EER)	13.0
EER2 @ AHRI Conditions	12.50
SEER2 @ AHRI Conditions	16.10
Rated Capacity (AHRI EER2/SEER2)	48.50
Total Static Pressure (in H2O)	0.700
Length (ft)	7.39
Width (ft)	4.44
Height (ft)	3.41
Indoor Fan Type	FC Centrifugal
Indoor Fan Drive Type	Direct
Outdoor Fan Type	Propeller
Outdoor Fan Drive Type	Direct
Outdoor Fan Quantity	1
Heating Type	Gas Heat
Heating Stages	1

Product Report - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

Trane Precedent Gas/Electric Packaged Rooftop

Unit Overview - YHC047E3RXA**H0C10000B00DA00000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight		EER	IEER/SEER	Elevation
		Airflow	External Static Pressure	Height	Width	Length	Minimum	Maximum			
DX cooling, gas heat	4 Ton 17 SEER (047)	1600 cfm	0.500 in H2O	3.41 ft	4.44 ft	7.39 ft	725.0 lb	976.0 lb	13.00	17.50	

Unit Features

Fresh Air Selection	Econ-comp enthalpy 0-100% w/bar rel 3ph
Condenser coil protection	Std condenser coil w/hail guard
Hinged Service Access/Filters	Hinged pnl/2 in pltd filters MERV 3
Refrigeration Systems Option	Dehumidification-hot gas reheat

Unit Electrical

Voltage/phase/hertz	208-230/60/3
MCA	30.00 A
MOP	40.00 A

Controls

Unit Controls	Microprocessor controls
System Monitoring Controls 1	DAS & cond drain pan overflow switch
System Monitoring Controls 2	Demand control ventilation (CO2)

Cooling Section

Entering Dry Bulb	80.00 F
Entering Wet Bulb	67.00 F
Ambient Temp	95.00 F
Leaving Coil Dry Bulb	58.46 F
Leaving Coil Dry Bulb	58.46 F
Leaving Coil Wet Bulb	56.78 F
Leaving Coil Wet Bulb	56.78 F
Leaving Unit Dry Bulb	59.87 F
Leaving Unit Wet Bulb	57.33 F
Refrigeration System Options	
Dehumidification/Hot Gas Reheat	27.80 MBh
Cooling Leaving Dry Bulb	74.48 F
Leaving Dew Point	55.69 F
Reheat Temperature Rise	16.01 F
Moisture Removal Rate	1.50 gph

Capacity	
Gross Total	50.50 MBh
Gross Sensible	37.22 MBh
Net Total	48.64 MBh
Net Sensible	35.36 MBh
Fan Motor Heat	1.86 MBh
Refrig Charge-circuit 1	12.5 lb

Heating Section

Heat Type	Gas Heat
Heating Stages	1
Output Heating Capacity	49.00 MBh
Output Heating Capacity with Fan	50.86 MBh
Heating EAT	70.00 F
Heating LAT	98.70 F
Heating Temp Rise	28.70 F

Product Report - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

Fan Section

Indoor Fan Data		Outdoor Fan Data	
Type	FC Centrifugal	Type	Propeller
Drive Type	Direct	Fan Quantity	1
Evap Fan FLA	0.00 A	Drive Type	Direct
Indoor Fan Performance		**Outdoor Fan Performance**	
Airflow	1600 cfm	Outdoor Motor Power	0.34 kW
Design ESP	0.500 in H2O	Condenser Fan FLA	2.50 A
Component SP	0.200 in H2O		
Total SP	0.700 in H2O		
Supply Motor Horsepower	1.000 hp		
Indoor Motor Operating Power	0.62 bhp		
Indoor Motor Power	0.46 kW		
Indoor RPM	905 rpm		

Compressor Section

Power	3.08 kW
Circuit 1 RLA	14.00 A
Circuit 2 RLA	0.00 A

Accessories

CO2 sensor kit	CO2 wall mounted, sensor only
Humidity wall mounted sensor	yes
Communication interface	BACnet Communications Interface

Acoustics

Sound Path	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz

Warranty

Labor (first year)	1st Year Labor warranty

Mechanical Specifications - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

General (Precedent 17 Plus)
The units shall be convertible airflow. The operating range shall be between 125°F and 0°F incooling 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.

Casing
Unit casing shall be constructed of zinc coated, heavy gauge, 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. Service panels shall have lifting handles and be removed and reinstalled by removing two fasteners while providing a water and air tight seal. 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. The base of the unit shall be insulated with 1/8", foil-faced, closed-cell insulation. 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.

Two-Inch Pleated Filters
2" pleated media filters shall be available on all models.

Compressors (Precedent 17 Plus)
All units shall have direct-drive and hermetic 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.
Crankcase heaters shall be included. Two-stage compressor is outstanding for humidity control and light load cooling conditions.

Indoor Fan
The following units shall be equipped with a direct drive plenum fan design (T/YSC120F,T/YHC074F, T/YHC092F,T/YHC102F, 120F). Plenum fan design shall include a backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor. All plenum fan designs will have a variable speed adjustment potentiometer located in the control box.

3 to 5 ton units (high efficiency 3-phase with optional motor) are belt driven, FC centrifugal fans with adjustable motor sheaves. 3 to 5 ton units (standard and high efficiency 3-phase) have multispeed, direct drive motors. All 6 to 8½ ton units (standard efficiency) shall have belt drive motors with an adjustable idler-arm assembly for quick-adjustment to fan belts and motor sheaves. All motors shall be thermally protected. All 10 tons, 6 ton (074), 7½ to 8½ (high efficiency) units have variable speed direct drive motors. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

Indoor Fan (Precedent 17 Plus)
All motors shall be thermally protected. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

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.

Evaporator and Condenser Coils
Internally finned, 5/16" copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Evaporator coils are standard for all 3 to 10 ton standard efficiency models. Microchannel condenser coils are standard for all 3 to 10 ton standard efficiency models and 4, 5, 6, 7.5, 8.5 ton high efficiency models. The microchannel type condenser coil is not offered on the 4 and 5 ton dehumidification model. Due to flat streamlined tubes with small ports, and metallurgical tube-to-fin bond, microchannel coil has better heat transfer performance. Microchannel condenser coil can reduce system refrigerant charge by up to 50% because of smaller internal volume, which leads to better compressor reliability. Compact all-aluminum microchannel coils also help to reduce the unit weight. These all aluminum coils are recyclable. Galvanic corrosion is also minimized due to all aluminum construction. Strong aluminum brazed structure provides better fin protection. In addition, flat streamlined tubes also make microchannel coils more dust resistant and easier to clean. Coils shall be leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 600 psig. The assembled unit shall be leak tested to 465 psig. The condenser coil shall have a patent pending 1+1+1 hybrid coil designed with slight gaps for ease of cleaning. A plastic, dual-sloped, removable and reversible condensate drain pan with through-the-base condensate drain is standard.

Condensate Overflow Switch
This option shall shut the unit down in the event that a clogged condensate drain line prevents proper condensate removal from the unit.

Tool-less Hail Guards
Tool-less, hail protection quality coil guards are available for condenser coil protection.

Controls (Precedent 17 Plus)
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. 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.

High Pressure Control
All units include High Pressure Cutout as standard.

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.

Refrigerant Circuits
Each refrigerant circuit offer thermal expansion valve as standard. Service pressure ports, and refrigerant line filter driers are factory-installed as standard. An area shall be provided for replacement suction line driers.

Gas Heating Section
The heating section shall have a progressive tubular heat exchanger design using stainless steel burners and corrosion resistant steel throughout. An induced draft combustion blower shall be used to pull the combustion products through the firing tubes. The heater shall use a direct spark ignition (DSI) system. On initial call for heat, the combustion blower shall purge the heat exchanger for 20 seconds before ignition After three unsuccessful ignition attempts, the entire heating system shall be locked out until manually reset at the thermostat/zone sensor. Units shall be suitable for use with natural gas or propane (field-installed kit) and also comply with the California requirement for low NOx emissions (Gas/Electric Only).

Dehumidification
The unit shall be equipped with internally finned, 5/16" copper tubes mechanically bonded to configured aluminum plate fins. The coil shall be 2 row with a minimum of 16 fins per inch. Dehumidification shall be achieved by routing hot refrigerant gas from the discharge line of the compressor through the reheat coil.

Hinged Access Doors
Sheet metal hinges are available on the Filter/Evaporator, Supply Fan/Heat, and the Compressor/Control Access Doors.

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 - BACnet Communications
The BACnet communications interface allows the unit to communicate directly with a generic open protocol BACnet MS/TP Network Building Automation System Controls.

Enhanced Dehumidification (Precedent 17 Plus)
Enhanced Dehumidification will be available on all units equipped with a Space Humidity sensor, regardless of whether the unit is configured with traditional Hot Gas Reheat. Humidity levels are decreased while increasing the comfort level in an air space through advanced controls of compressor and indoor fan operation.

ATTENTION
For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to $450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

Field Selected BACnet Communication Interface Control Specification (if applied in a system with a system-level controller)

A. CONTROL SYSTEM OVERVIEW:
Control System shall include a System Controller, all controllers for HVAC equipment and ancillary devices (such as lights and exhaust fans), wireless communication between the System Controller, equipment controllers, and space sensors, and all wiring and end devices required. Control System to be fully programmed and commissioned by the installing contractor.

B. TOUCH SCREEN DISPLAY:
Control System shall include a 10" color Touch Screen Display for use by building occupants to adjust zone temperature setpoints, override lighting and HVAC equipment for after-hours use, modify schedules, and view service notifications. This display shall have PIN access for users and provide setpoint adjustment limits.

C. MOBILE APP: *(Field* Accessories)
Control System manufacturer shall provide a Mobile App for iOS and Android devices to allow occupants to perform the same functions (listed above) as the Touch Screen Display.

D. WEB BROWSER INTERFACE:
System Controller shall have an embedded Web Browser Interface to allow the installer and service providers to make adjustments to system control parameters and view trend logs and other service information.

E .SYSTEM CONTROLLER:
System Controller shall provide scheduling and coordination of all HVAC equipment, exhaust fans, and controlled lighting devices. The System Controller shall include a software application that coordinates the operation of rooftop units and VAV terminals. The System Controller shall support multiple system types, including Single-Zone Constant Volume, Single-Zone VAV, Changeover Bypass, Changeover VAV, and Multiple-Zone VAV with Terminal Heat (electric or hot water). The System Controller shall provide energy optimization strategies including Night Setback, Optimal Start, Fan Pressure Optimization, Discharge Air Temperature Reset, and Demand-Controlled Ventilation.

F. REMOTE ACCESS/NETWORK SECURITY:
Installer shall provide secure remote access to the Control System to enable the owner or service provider to access the system remotely using the Mobile App or Web Browser Interface. The Control System must be secured behind a firewall and not allow any inbound ports to be open or exposed to the internet. Control System manufacturer shall provide a remote access portal accessible by the owner and/or a service provider (as authorized by the owner).

Sequence of Operation (if applied in a SINGLE-ZONE CONSTANT-VOLUME SYSTEM or a CHANGEOVER BYPASS SYSTEM)

A. SYSTEM OPERATING MODES: (Field Selected BACnet Communication Interface)
The System Controller shall send the equipment controllers Occupied/Unoccupied, Morning Warm-up/Pre-cool, and Heat/Cool modes. If communication is lost, the equipment controllers shall operate using default modes and setpoints.

1. NIGHT SETBACK:
During unoccupied mode, the system shall shut off. If the zone temperature drifts to the unoccupied heating or cooling setpoint, the system shall start up to heat or cool the zone, while the OA damper remains closed (unless economizing).

2. OPTIMAL START:
The System Controller shall automatically determine the optimal start time, such that each zone reaches its occupied setpoint just in time for scheduled occupancy.

3. DEMAND-CONTROLLED VENTILATION:
For those zones equipped with an occupancy sensor or CO2 sensor, outdoor airflow shall be reset based on occupancy status and/or measured CO2 concentration.

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.

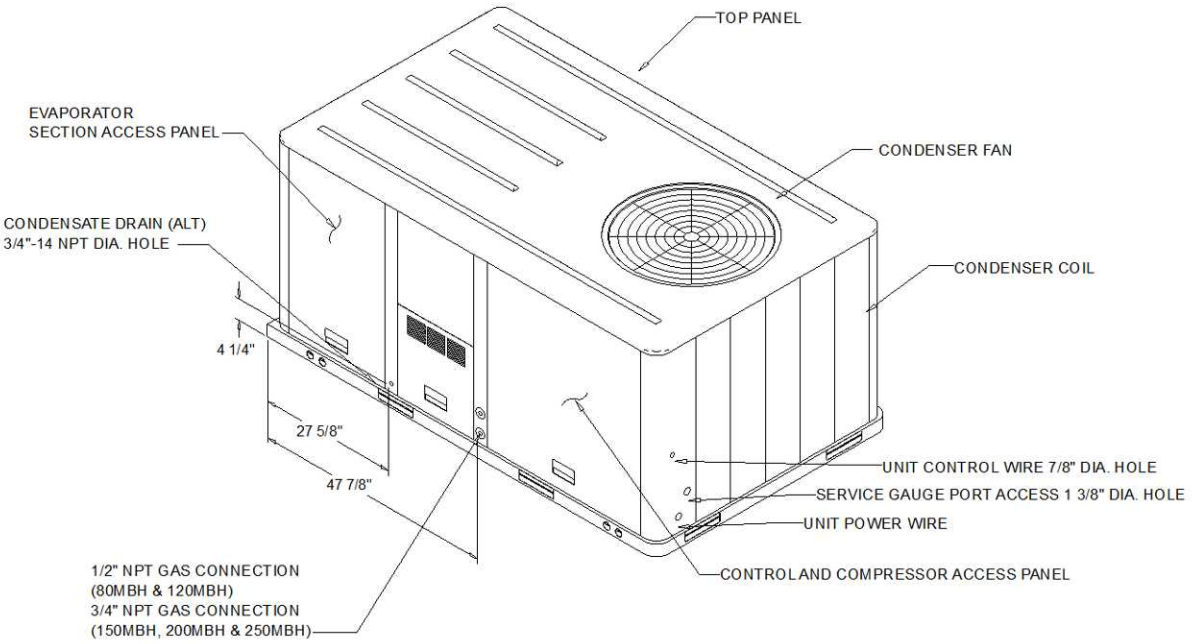
D. CHANGEOVER BYPASS SYSTEM

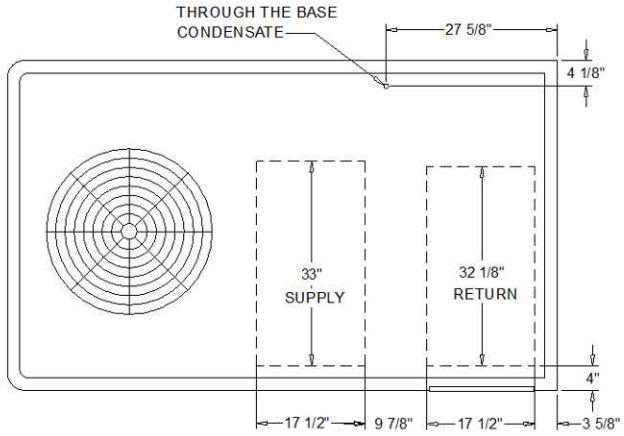
1. OCCUPIED HEAT/COOL:
Each VAV terminal shall use pressure-independent control, with airflow measurement, to vary primary airflow to maintain zone temperature at its occupied setpoint. The RTU shall modulate the bypass damper to maintain duct static pressure at setpoint and modulate (or cycle) compressors, modulate (or stage) heat, and/or enable airside economizing based on current zone cooling/heating demands. The OA damper shall open to bring in the required amount of ventilation.

2. MORNING WARM-UP/PRE-COOL:
Each VAV terminal unit shall vary primary airflow to raise/lower zone temperature to its occupied setpoint. The RTU shall modulate the bypass damper to maintain duct static pressure at setpoint and modulate (or cycle) compressors or modulate (or stage) heat based on current zone cooling/heating demands. The OA damper shall remain closed, unless economizing.

3. COOLING/HEATING CHANGEOVER LOGIC:
The System Controller shall determine the overall system cooling/heating mode based on "voting" from each zone. When the majority of zones require cooling, the RTU shall operate in cooling mode and any zone that requires heating shall reduce primary airflow to minimum. When the majority of zones require heating, the RTU shall operate in heating mode and any zone that requires cooling shall reduce primary airflow to minimum.

Dimensional Drawings - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

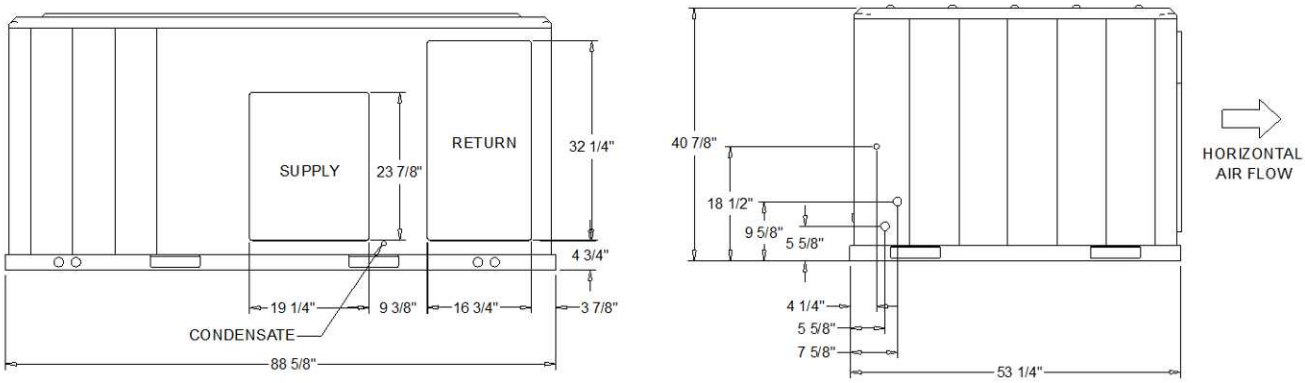




PLAN VIEW UNIT

DIMENSION DRAWING

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



PACKAGED GAS / ELECTRICAL

DIMENSION DRAWING

Dimensional Drawings - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

Model:	YHC047E
Unit Operating Voltage:	187-253
Unit Primary Voltage:	208
Unit Secondary Voltage	230
Unit Hertz:	60
Unit Phase:	3

Oversized Motor
MCA: N/A
MFS: N/A
MCB: N/A

Standard Motor
MCA:
MFS:
MCB:

Field Installed Oversized Motor
MCA: N/A
MFS: N/A
MCB: N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Low
Heating Input (BTU):	60,000
Heating Output (BTU):	49,000
No. Burners:	2
No. Stages	1

Gas Inlet Pressure

Natural Gas (Min/Max):	4 1/2"/14"
LP (Min/Max)	11"/14"
Gas Pipe Connection Size:	1/2"

INDOOR MOTOR

Standard Motor		Oversized Motor		Field Installed Oversized Motor	
Number:	1	Number:		Number:	N/A
Horsepower:	1.0	Horsepower:		Horsepower:	N/A
Motor Speed (RPM):	--	Motor Speed (RPM):		Motor Speed (RPM):	N/A
Phase	1	Phase		Phase	N/A
Full Load Amps:	9.4	Full Load Amps:		Full Load Amps:	N/A
Locked Rotor Amps:	--	Locked Rotor Amps:		Locked Rotor Amps:	N/A

COMPRESSOR Circuit 1/2

Number:	1
Horsepower:	3.6
Phase:	3
Rated Load Amps:	14.0
Locked Rotor Amps:	-

OUTDOOR MOTOR

Number:	1
Horsepower:	0.40
Motor Speed (RPM):	1075
Phase:	1
Full Load Amps:	2.5
	-

POWER EXHAUST ACCESSORY (3,7)

(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

FILTERS

Type:	Throwaway
Furnished:	Yes
Number	4
Recommended	16"x25"x2"

REFRIGERANT (2)

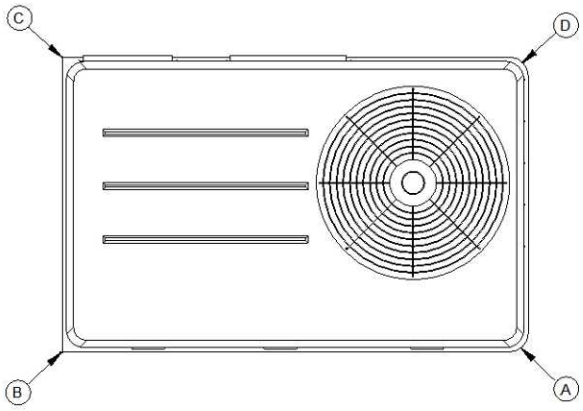
Type

Factory Charge

Circuit #1	15.2 lb
Circuit #2	N/A

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 - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7



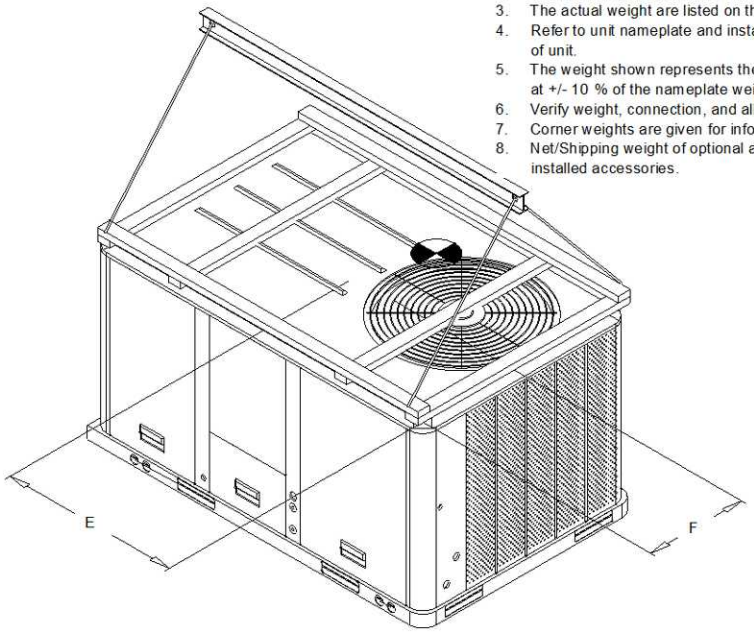
PACKAGED GAS / ELECTRICAL
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

ACCESSORY	WEIGHTS
ECONOMIZER	36.0 lb
MOTORIZED OUTSIDE AIR DAMPER	
MANUAL OUTSIDE AIR DAMPER	
BAROMETRIC RELIEF	
OVERSIZED MOTOR	
BELT DRIVE MOTOR	
POWER EXHAUST	
THROUGHT THE BASE ELECTRICAL/GAS (FIOPS)	
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)	
UNIT MOUNTED DISCONNECT (FIOPS)	
POWERED CONVENIENCE OUTLET (FIOPS)	
HINGED DOORS (FIOPS)	12.0 lb
HAIL GUARD	20.0 lb
SMOKE DETECTOR, SUPPLY / RETURN	
NOVAR CONTROL	
STAINLESS STEEL HEAT EXCHANGER	6.0 lb
REHEAT	
ROOF CURB	

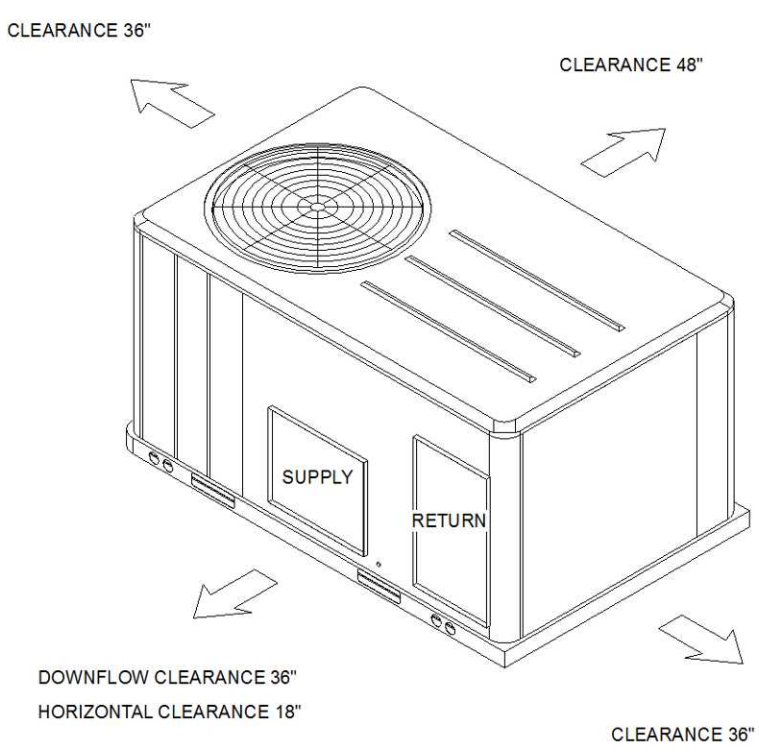
BASIC UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITIY	
SHIPPING	NET	A	238.0 lb	C	148.0 lb	(E) LENGHT	(F) WIDTH
858.0 lb	763.0 lb	B	200.0 lb	D	176.0 lb	40"	23"

NOTE:
1. All weights are approximate.
2. Weights for options that are not list refer to Installation guide.
3. The actual weight are listed on the unit nameplate.
4. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
5. The weight shown represents the typical unit operating weight for the configuration selected. Estimated at +/- 10 % of the nameplate weight. .
6. Verify weight, connection, and all dimension with installer documents before installation.
7. Corner weights are given for information only.
8. Net/Shipping weight of optional accessories should be added to unit weight when ordering factory or field installed accessories.



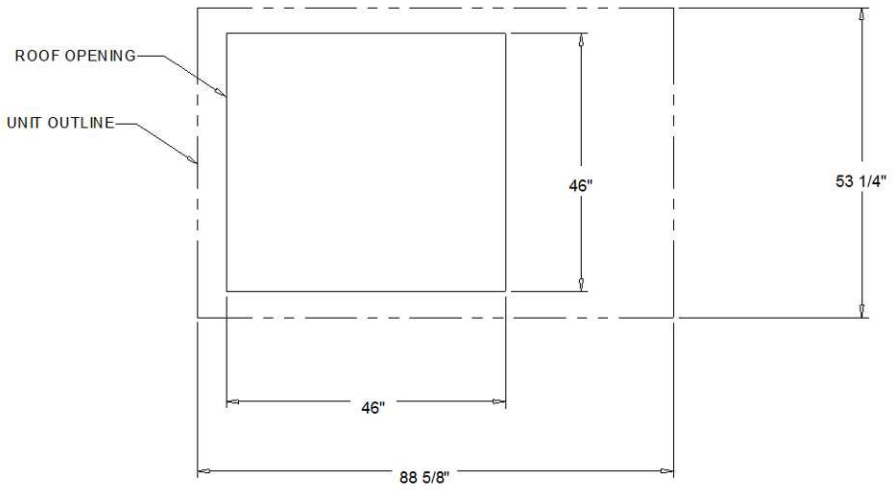
PACKAGED GAS / ELECTRICAL
RIGGING AND CENTER OF GRAVITY

Weight, Clearance & Rigging - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7



PACKAGED GAS / ELECTRIC

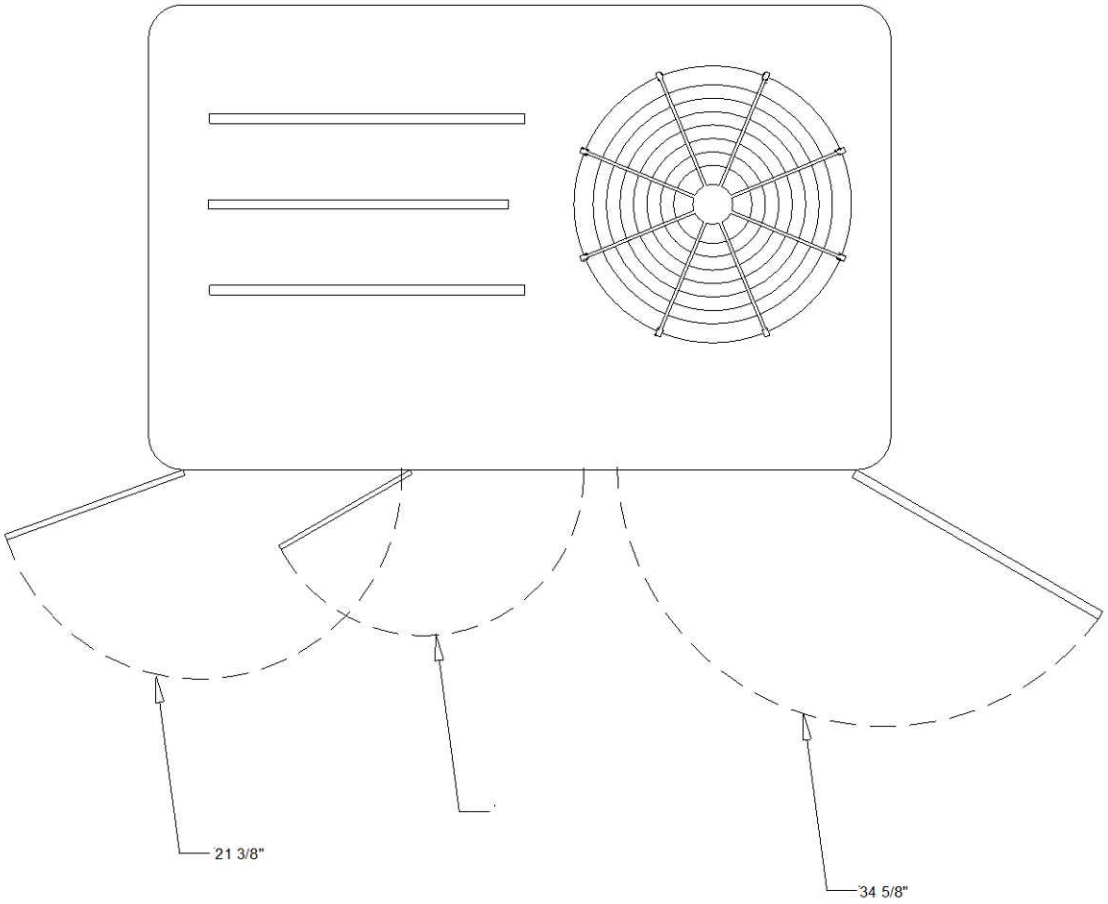
CLEARANCE



PACKAGED GAS / ELECTRIC

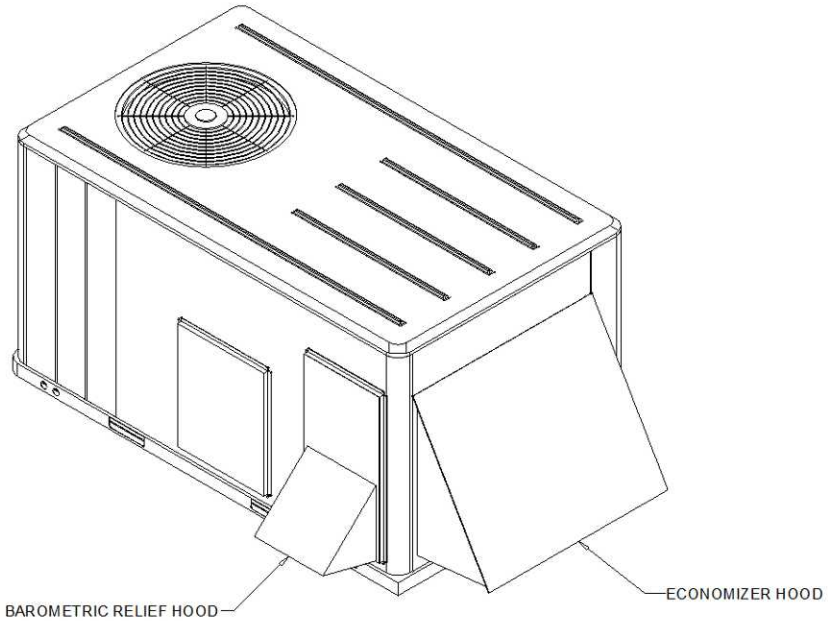
DOWNFLOW TYPICAL ROOF OPENING

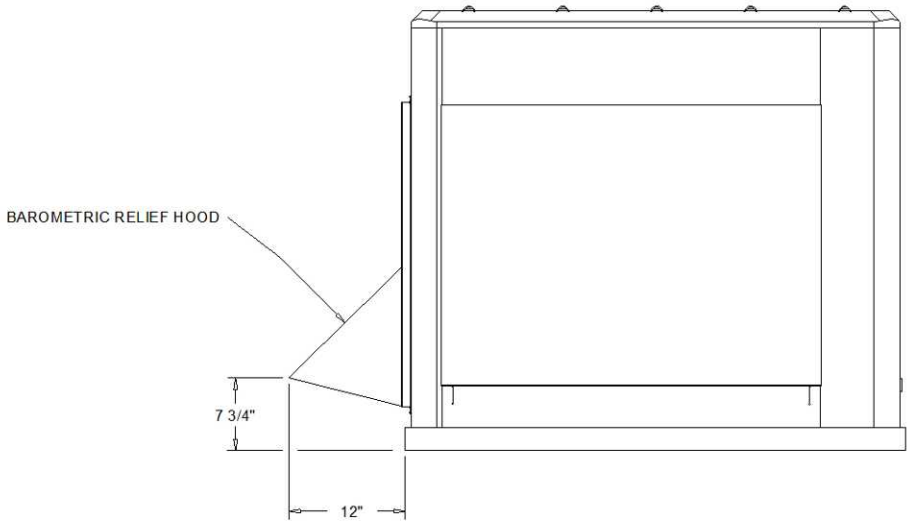
Accessory - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7



SWING DIAMETER - HINGED DOOR(S) OPTION
ACCESSORY

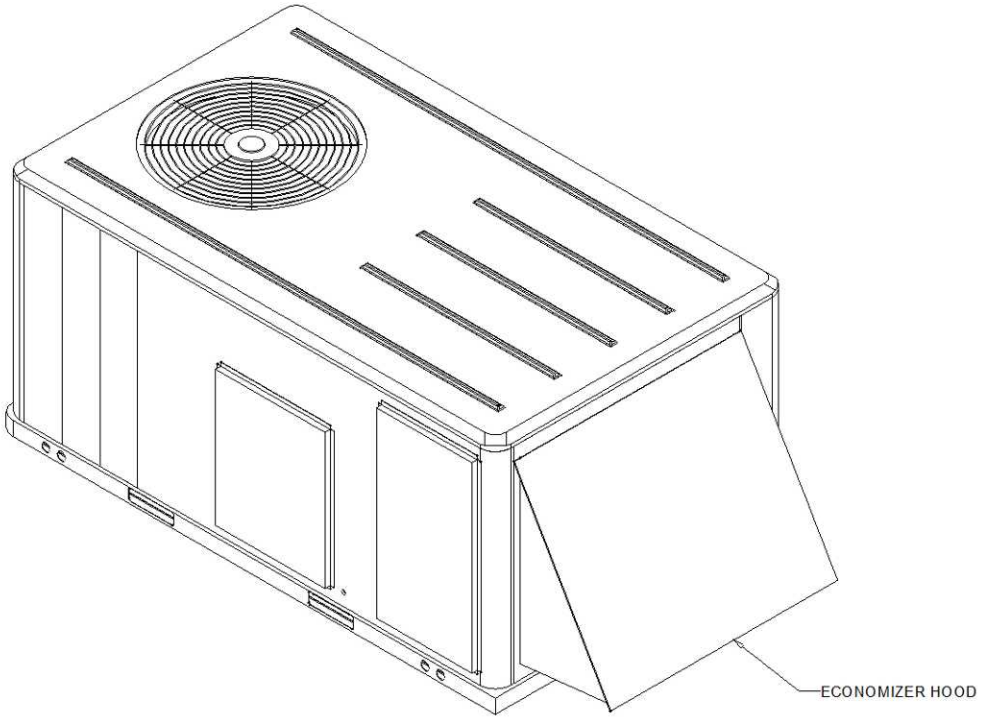
Accessory - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7

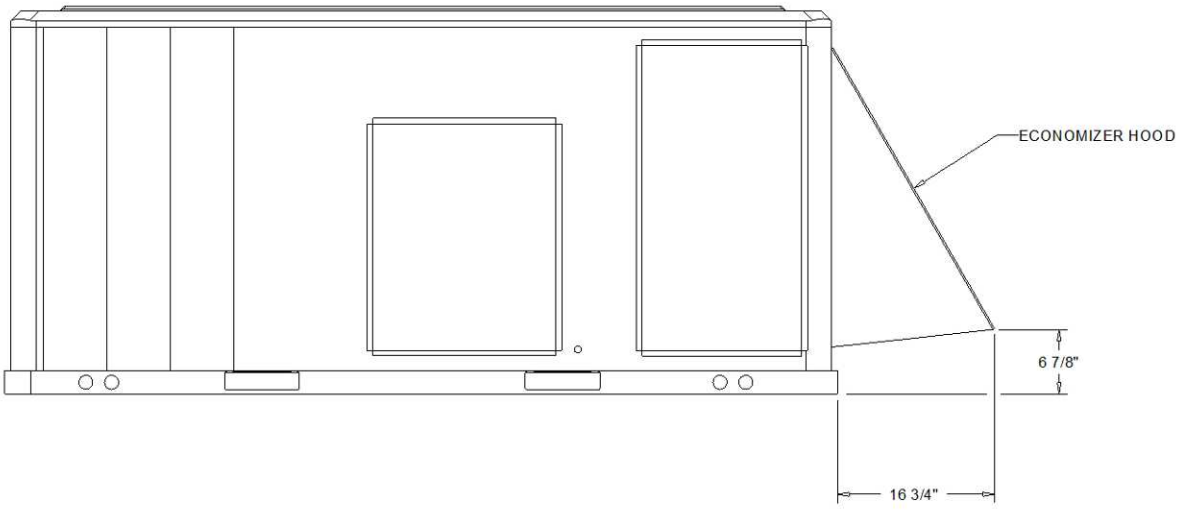




ACCESSORY - BAROMETRIC RELIEF DAMPER HOOD

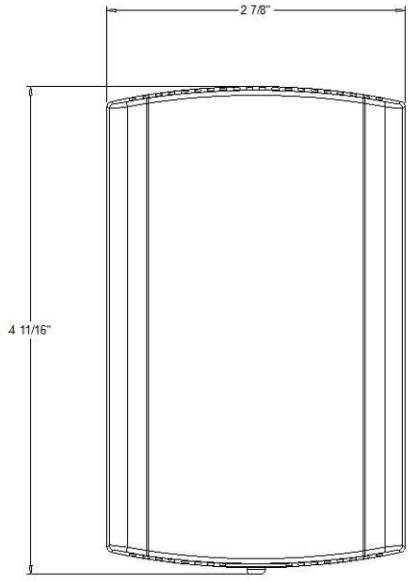
Accessory - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7



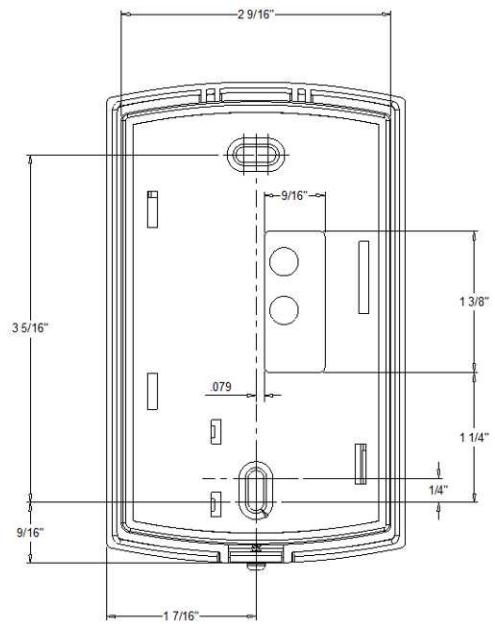


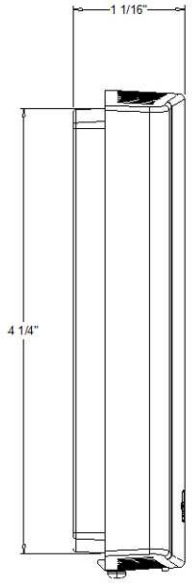
ACCESSORY - ECONOMIZER HOOD

Accessory - Y4C
Item: A1 Qty: 7 Tag(s): AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7



NOTES:
1. SEE ENGINEERING SPECIFICATION FOR DETAILS.
2. VERIFY ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION.





BAYSENS036A - WALL MOUNT HUMIDITY SENSOR

ACCESSORY

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 - Y4C

Item	Tag(s)	Qty	Description	Model Number
A1	AC-1, AC-2, AC-3, AC-4, AC-5, AC-6, AC-7	7	3-10 Ton R-410A PKGD Unitary Gas/Electri	YHC047E3RXA**H0C1000 0B00DA00000000000000

Field Installed Option Description	Part/Ordering Number
CO2 wall mounted, sensor only	BAYSENS251A
Humidity wall mounted sensor	BAYSENS036A
BACnet Communications Interface	BAYBCIR200A