Submittal

Prepared For:
Kroger

Date: *May 19, 2022*

Sold To:

Job Name:
Kroger GA422 Peachtree City GA

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

Product Summary

Qty	Product
1	Packaged Rooftop, Cooling / Heating Units
5	3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop

The attached information describes the equipment we propose to furnish for this project, and is submitted for your approval.

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.

Coordination details:

-

Jeff Swanson on behalf of:
Jeff Betz - Trane U.S. Inc.
2300 CityGate Drive, Suite 100
Columbus, OH 43219
For questions on this project call 866-415-2499, Option #4 - - or email: kroger@trane.com

Table Of Contents

Tag Data - Packaged Rooftop, Cooling / Heating Units (Qty: 1)

Item	Tag(s)	Qty	Description	Model Number
A1	AC-4 Sales	1	30 ton VOY3 - HGRH, CV	YCD360B4L-0B2DE1-B-D---HJB0100-T500-0000X----------2

Product Data - Packaged Rooftop, Cooling / Heating Units

Item: A1 Qty: 1 Tag(s): AC-4 Sales

Standard Unit
DX Cooling, natural gas heat
Downflow supply and upflow return
30 ton 60 Hertz
460 Volt 60 Hertz 3 Phase
Low gas heat capacity
2" MERV 8 High efficiency, throwaway filters
10 hp supply motor
700/583 (60/50 hz) Supply fan drive
0-100% Economizer, differential enthalpy control
Constant volume (CV) - Zone temperature control
Thru-the-base electrical provision
Factory powered ground fault convenience outlet with disconnect switch
Hinged service access doors
Condenser coil guards
BACnet communication interface module
5k SCCR
Pre-painted steel drain pan w/ condensate overflow switch
Standard efficiency unit
Modulating hot gas reheat
TD5 Touchscreen display, human interface
Wall mounted humidity sensor (Fld)

Performance Data - Packaged Rooftop, Cooling / Heating Units

Tags	AC-4 Sales
Supply airflow (cfm)	12000
Elevation (ft)	0.00
Cooling entering DB (F)	78.00
Cooling entering WB (F)	64.00
Ambient DB (F)	95.00
Cooling leaving unit DB (F)	57.44
Cooling leaving unit WB (F)	55.03
Cooling leaving coil DB (F)	55.20
Cooling leaving coil WB (F)	54.11
Gross total capacity (MBh)	350.39
Gross sensible capacity (MBh)	299.76
Gross latent capacity (MBh)	50.63
Net total capacity (MBh)	324.45
Net sensible capacity (MBh)	273.82
Net sensible heat ratio (%)	0.84
Input htg capacity (MBh)	350.00
Output htg capacity (MBh)	280.00
Heating EAT (F)	70.00
Heating LAT (F)	92.00
Heating delta T (F)	22.00
ESP (in H2O)	1.250
Total static pressure (in H2O)	2.240
Actual Supply Motor BHP (hp)	9.010
Supply Motor Power (kW) (rpm)	719
Indoor motor power (kW)	6.73
Outdoor motor power (kW)	0.01
Compressor power (kW)	26.49
System power (kW)	37.30
EER @ AHRI (EER)	10.3
IEER @ AHRI (EER)	12.0
Minimum circuit ampacity (A)	74.85
Maximum overcurrent protection (A)	90.00
Minimum disconnect switch size (A)	79.00
Compressor 1 RLA (A)	23.00
Compressor 2 RLA (A)	23.00
Compressor 3 RLA (A)	0.00
Supply fan FLA (A)	12.60
Condenser fan FLA (A)	3.50
Condenser fan count (Each)	3.00
Exhaust fan FLA (A)	0.00
Exhaust fan count (Each)	0.00
Electric heater FLA (A)	0.00
Crankcase heater FLA (A)	0.00
Unit est operating weight (lb)	4488.0
Discharge duct - 63 Hz (dB)	87
Discharge duct - 125 Hz (dB)	86
Discharge duct - 250 Hz (dB)	83
Discharge duct - 500 Hz (dB)	85
Discharge duct - 1 kHz (dB)	77
Discharge duct - 2 kHz (dB)	74
Discharge duct - 4 kHz (dB)	70
Discharge duct - 8 kHz (dB)	65
Return duct - 63 Hz (dB)	86
Return duct - 125 Hz (dB)	78
Return duct - 250 Hz (dB)	72

Tags	AC-4 Sales
Return duct - 500 Hz (dB)	75
Return duct - 1 kHz (dB)	70
Return duct - 2 kHz (dB)	64
Return duct - 4 kHz (dB)	60
Return duct - 8 kHz (dB)	53
Outdoor - 63 Hz (dB)	100
Outdoor - 125 Hz (dB)	96
Outdoor - 250 Hz (dB)	97
Outdoor - 500 Hz (dB)	96
Outdoor - 1 kHz (dB)	93
Outdoor - 2 kHz (dB)	89
Outdoor - 4 kHz (dB)	90
Outdoor - 8 kHz (dB)	83
HFCF-410A refrigerant charge - circuit 1 (lb)	31.3
EDB in HGRH (F)	73.00
EWB in HGRH (F)	64.00
Ambient in HGRH (F)	75.00
Reheat setpoint (F)	71.50
Reheat latent capacity (MBh)	130.45
Reheat sensible capacity (MBh)	210.55
Leaving unit dew point in HGRH (F)	52.91
Moisture removal (gpm)	0.23

Mechanical Specifications - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales

General R-410A
The units shall be downflow, horizontal, or mixed airflow. The operating range shall be between 115°F and 0°F in cooling as standard from the factory for all units. Cooling performance shall be rated in accordance with AHRI testing procedures. All units shall be factory assembled, internally wired, fully charged with R-410A refrigerant and 100% run tested to check cooling operation, fan and blower rotation and control sequence before leaving the factory. Wiring internal to the unit shall be numbered for simplified identification. Units shall be cULus listed.

Compressors R410A
The 3-D Scroll shall provide a completely enclosed compressor chamber with optimized scroll profiles which leads to increased efficiency. The 3-D Scroll shall include a direct-drive, 3600 rpm, suction gas cooled hermetic motor. The compressor shall include a centrifugal oil pump, scroll tips seals, internal heat shield that lowers the heat transfer from discharge and suction gas, oil level sight glass and oil charge valve. Some compressor models shall also provide a dip tube that allows for oil draining, in addition to a low leakage internal discharge check valve to help prevent refrigerant migration. Each compressor shall have a crankcase heater installed, properly sized to minimize the amount of liquid refrigerant present in the oil sump during off cycles.

Casing
Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. Cabinet surface shall be tested 672 hours in salt spray in compliance with ASTM B117. All components shall be mounted in a weather resistant steel cabinet with a painted exterior. Where top cover seams exist, they shall be double hemmed and gasket sealed to prevent water leakage. Cabinet construction shall allow for all maintenance on one side of the unit. Service panels shall have handles and shall be removable while providing a water and air tight seal. Control box access shall be hinged. The indoor air section shall be completely insulated with fire resistant, permanent, odorless, foil faced glass fiber material. The base of the unit shall have provisions for crane lifting.

Hinged Service Access
Filter access panel and supply fan access panel shall be hinged for ease of unit service.

Modulating Hot Gas Reheat
A reheat condenser coil shall be factory installed downstream of the unit evaporator coil. Modulating valves shall control the flow of refrigerant between the indoor reheat and outdoor condensers in response to the unit discharge air temperature in order to dehumidify the space. The modulating valve shall always apply to circuit 1.

Phase and Voltage Monitor
Standard on all Voyager Commercial units. Shall protects 3-phase equipment from phase loss, phase reversal, and low voltage. Any fault condition shall send the unit into an auto stop condition. cULus approved.

Refrigerant Circuits
Each refrigerant circuit shall have independent thermostatic expansion devices, service pressure ports and refrigerant line filter driers factory-installed as standard. An area shall be provided for replacement suction line driers.

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

Evaporator and Condenser Coils - R410A
Condenser coils shall have all Aluminum Microchannel coils. Evaporator coils shall be internally finned Copper tubes mechanically bonded to high performance Aluminum plate fins. All coils shall be leak tested at the factory to ensure pressure integrity. The evaporator coil is pressure tested to 450 psig and the condenser coil at 650 psig. All dual circuit evaporator coils shall be of intermingled configuration. Sloped condensate drain pans are 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.

Condenser Coil Guards
Factory installed condenser vinyl coated wire mesh coil guards shall be available to provide full area protection against debris and vandalism.

High/Low 2 Stage Gas Heat
The heating section shall have a drum and tube heat exchanger(s) design with primary and secondary surfaces of corrosion resistant aluminized steel or optional stainless steel. A forced combustion blower shall supply premixed fuel to a single burner ignited by a pilotless hot surface ignition system. In order to provide reliable operation, a regulated gas valve shall be used that requires blower operation to initiate gas flow. On an initial call for heat, the combustion blower shall purge the heat exchanger(s) 45 seconds before ignition. After three unsuccessful ignition attempts, the entire heating system shall be locked out until manually reset at the thermostat. Two stage gas heat units shall be suitable for use with natural gas or propane (field installed kit). Gas heat units comply with California requirements for low NOx emissions.

Indoor Fan, 60 Hz Supply Motor
Unit will have belt driven, forward curve, centrifugal fans with fixed motor sheaves. The supply fan motors will be circuit breaker protected. All 60 Hz supply fan motors meet the Energy Independence and Security Act of 2009 (EISA).

Constant Volume Control Option
The unit shall be provided with all the necessary controls to operate rooftop from a zone sensor, including microprocessor unit control.

2" High Efficiency Filters - MERV 8
2" High Efficiency MERV 8 filters will be standard.

Economizer w Differential Enthalpy Control
Economizer shall be factory installed. The assembly shall include: fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness, and fixed dry bulb control. Differential enthalpy control shall be a factory or field installed option.

Controls
Unit shall be completely factory wired with necessary controls and terminal block for power wiring. Units shall provide an external location for mounting fused disconnect device. ReliaTel controls shall be provided for all 24 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. ReliaTel controls shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

Human Interface
The Human Interface shall have a 5 inch color touchscreen display that conforms to FCC Part 15 Class B with an Ingress Protection Rating of IP24.The display text shall be readable by a person with 20/20 vision at a distance of 3 feet and 60 degree angle at lighting levels ranging from 100 lux - 25,000 lux. Also, the display shall operate at temperatures of -40 Celsius to 70 Celsius. Firmware and unit configurations shall be able to be restored via a USB storage device.

Unit Interrupt Rating (Standard Short Circuit Current Rating-SCCR)
A 5,000 Amp rating shall be applied to the unit enclosure using a non-fused circuit breaker for disconnect switch purposes. Fan motors, compressors, and electric heat circuits shall be provided with protective devices that will provide the unit rated level of fault protection. The unit shall be marked with approved cULus markings and will adhere to cULus regulations.

Through-The-Base Electrical Provision
An electrical service entrance shall be provided which allows access to route all high and low voltage electrical wiring inside the curb, through the bottom of the outdoor section of the unit and into the control box area.

Non-Fused Disconnect Switch
A factory installed non-fused disconnect switch with external handle shall be provided and shall satisfy NEC requirements for a service disconnect. The non-fused disconnect shall be mounted inside the unit control box.

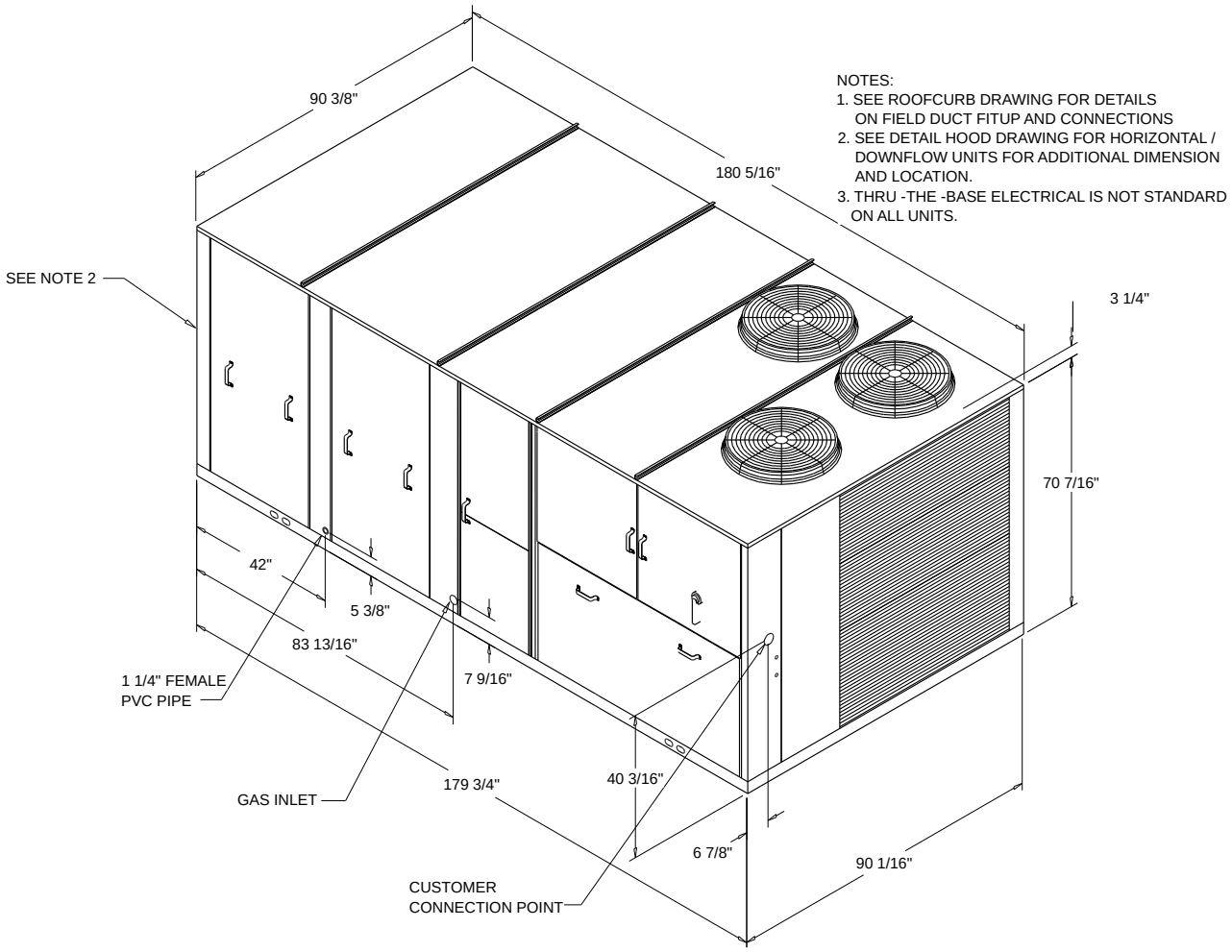
GFI Convenience Outlet (Factory Powered)
A 15A, 115V Ground Fault Interrupter convenience outlet shall be factory installed. It shall be wired and powered from a factory mounted transformer. Unit mounted non-fused disconnect with external handle shall be furnished with factory powered outlet.

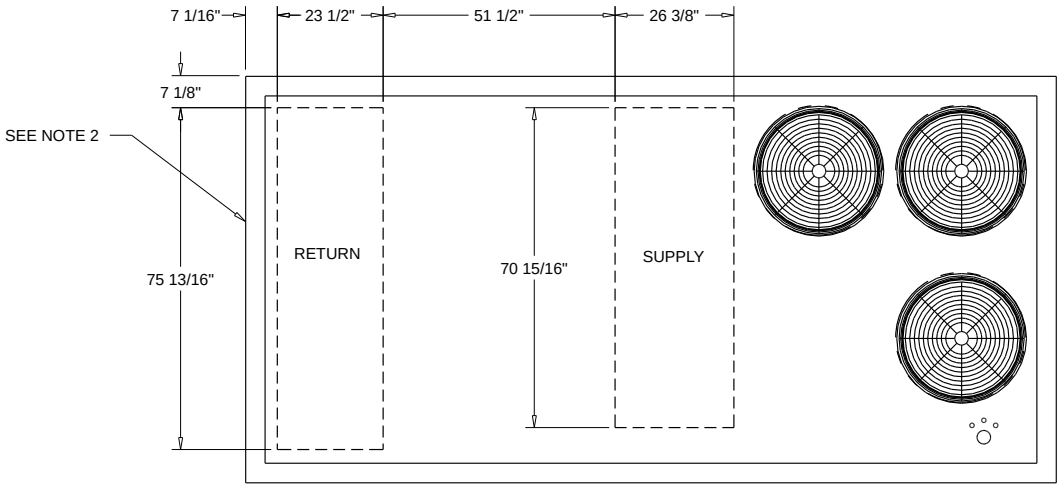
BACnet Communications
The BACnet communications interface shall allow the unit to communicate directly with a generic open protocol BACnet MS/TP Network Building Automation System Controls.

Humidity Sensor
This wall or duct-mounted humidity sensor shall be used to control activation of the hot gas reheat dehumidification option. The humidity sensor can be set for humidity levels between 40% and 60% relative humidity.

Certified AHRI Performance
Packaged Rooftop units cooling, heating capacities and efficiencies are rated within the scope of the Air-Conditioning, Heating & Refrigeration Institute (AHRI) Certification Program and display the AHRI Certified® mark as a visual confirmation of conformance to the certification sections of AHRI Standard 340-360 (I-P) and ANSIZ21.47 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces.The applications in this catalog specifically excluded from the AHRI certification program are:
-Ventilation modes
-Heat Recovery

Unit Dimensions - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales



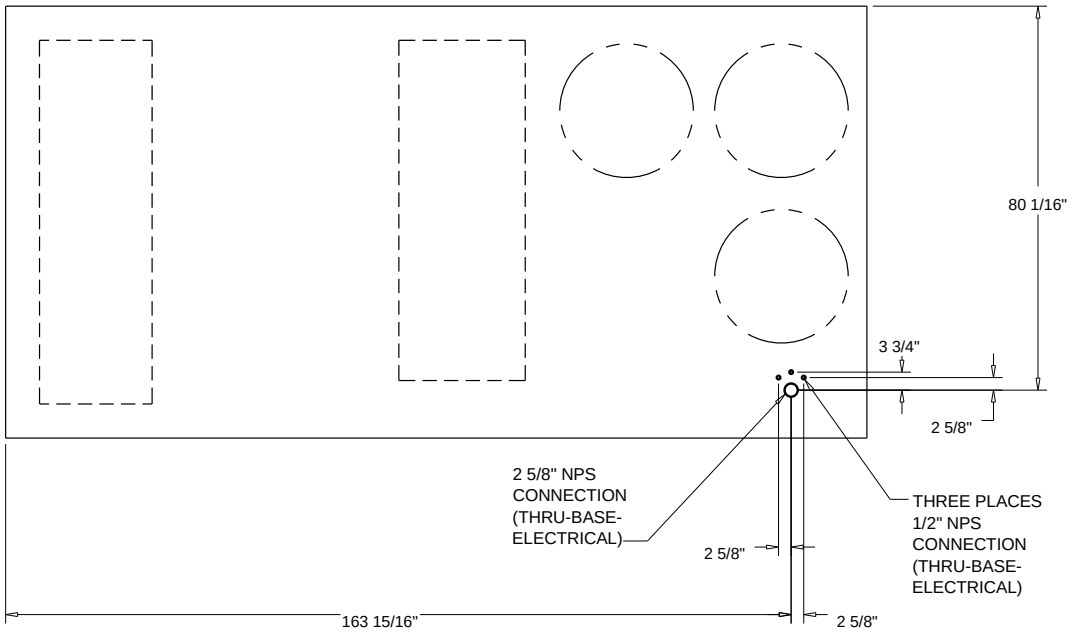


PLAN VIEW

DOWNFLOW SUPPLY AND UPFLOW CONFIGURATION

DIMENSIONAL DRAWING

Unit Dimensions - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales



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

THRU -THE -BASE ELECTRICAL PROVISION

PLAN VIEW

Unit Dimensions - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales

ELECTRICAL / GENERAL DATA

UNIT

Model (Tonnage)	YCD360 (30.0)
Operating voltage range:	414 - 506
Primary voltage:	460
Hertz:	60
Phase:	3
EER / IEER:	10.3 EER/12.0 EER

HEATING - PERFORMANCE

Heat:	Low
Heating Input (Btu/h):	350,000
First Stage (Btu/h):	250,000
Heating Output (Btu/h):	283,500
First Stage (Btu/h):	202,500
No Burners:	1
No. Stages / Turn Down Rate:	2
Gas Supply Pressure (in w.c.)	
Natural or LP:	2.5/14.0
Gas Connection Pipe Size:	3/4"

COMPRESSOR

Number	
Tons	
Compressor Rated Load Amps	
Locked Rotor Amps	

ELECTRIC HEATER

Electric Heater kw	N/A
Electric Heater Full Load Amps	N/A

INDOOR MOTOR SUPPLY FAN

Horsepower	10.0
Motor speed (rpm)	1,760
Indoor motor full load amps	12.6

OUTDOOR MOTOR

Number	3
Horsepower	1.1
Phase	1
Outdoor motor full load amps	3.5

EXHAUST MOTOR

Number	N/A
Horsepower	N/A
Phase	N/A
Exhaust motor full load amps	N/A

FILTERS (7)

Type	Throwaway
Furnished	Yes
Number	16
Recommended size	16"x20"x2"

REFRIGERANT TYPE (6)

Type	R-410A
Factory Charge (Circuit #1)	31.3 lb
Factory Charge (Circuit #2)	Not Available

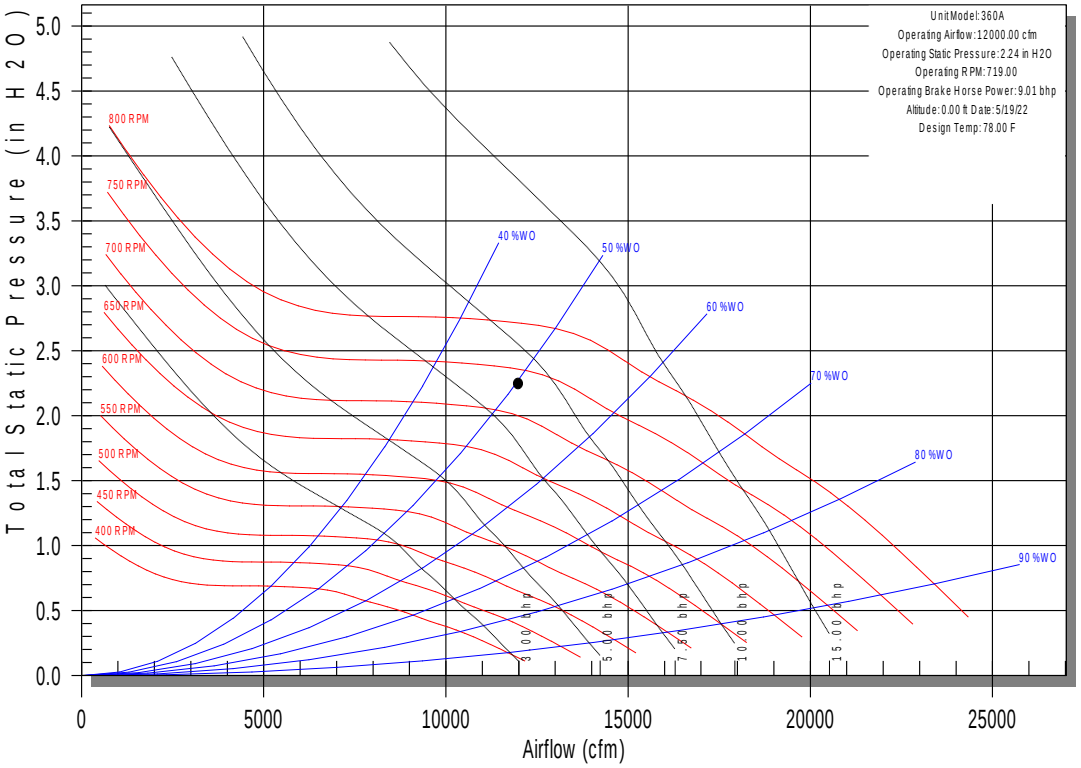
Cooling MCA = (1.25 x Load 1) + Load 2 + Load 4

Cooling MOP = (2.25 x Load 1) + Load 2 + Load 4

Notes:
1. LOAD 1= Current of the largest motor (Compressor or Fan Motor); LOAD 2=Sum of the currents of all remaining motors LOAD 3= FLA(Full Load Amps) of the electric heater; LOAD 4= Any other load rated at 1 amp or more.
2. For Electric Heat MCA, MOP, RDE values, calculate for both cooling and heating modes.
3. If selected Max Over Cur is less than the Min Cir Amp, then select the lowest maximum fuse size which is equal to or larger than the Min Cir Amp, provided the selected fuse size does not exceed 800 amps.
4. The use of Liquid Propane (LP) requires unit modification. Contact a Trane salesman for information.
5. Compressor KW at AHRI rating conditions of 80/67 -95
6. Refrigerant charge is an approx. value. For a more precise value, see unit nameplate and service instructions.
7. Filter dimension are actual. Norminal filter size 16"x20"

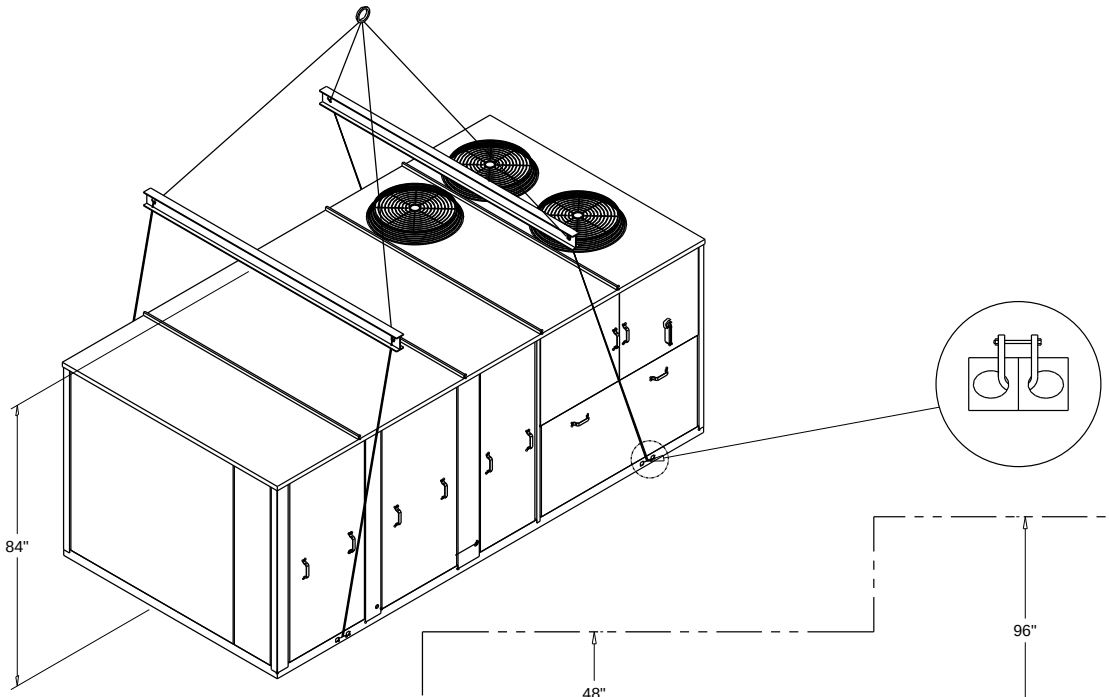
Fan Curve - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales

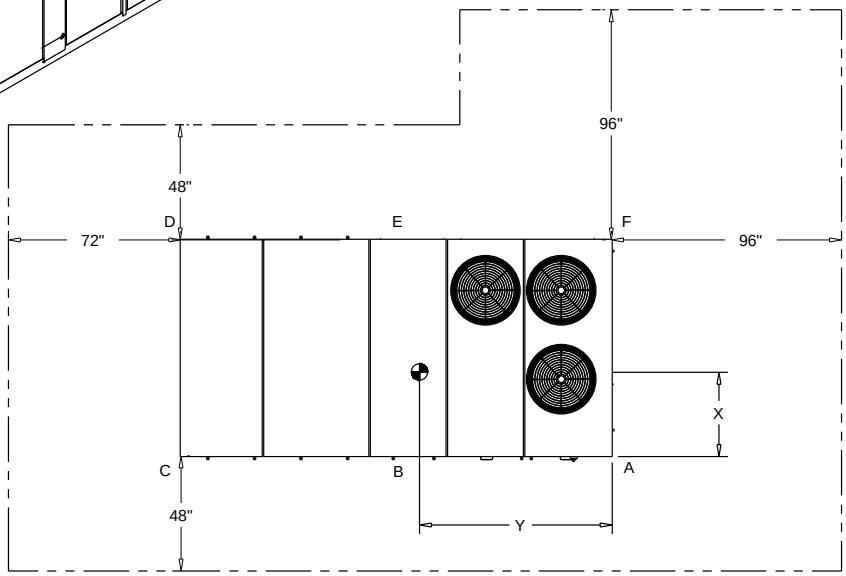
V36



	63Hz	125Hz	250Hz	500Hz	1 kHz	2 kHz	4 kHz	8 kHz
Discharge duct:	87	86	83	85	77	74	70	65
Return duct:	86	78	72	75	70	64	60	53
Outdoor sound:	100	96	97	96	93	89	90	83

Weight, Clearance & Rigging Diagram - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales



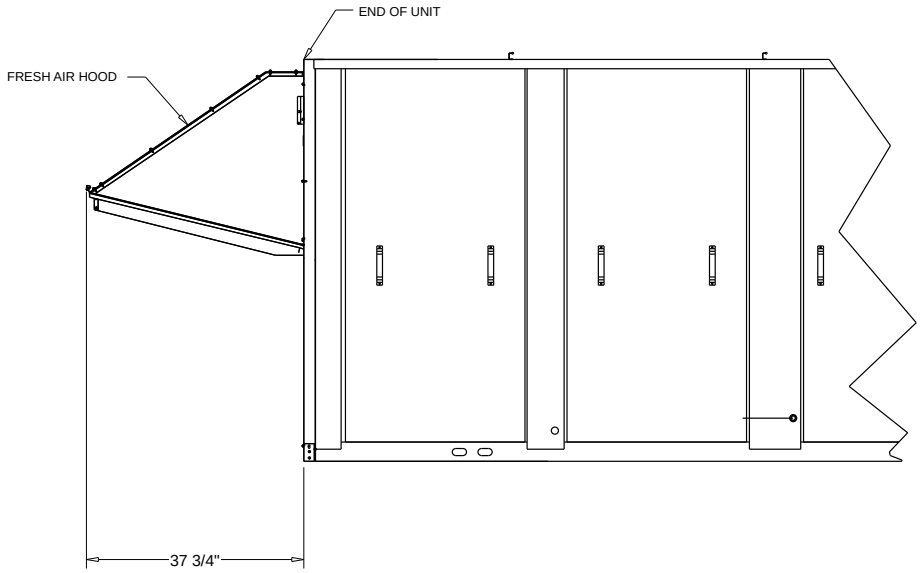


CLEARANCE NOTES:
1. HORIZONTAL AND DOWNFLOW UNITS, ALL SIZES.
2. CONDENSER COIL IS LOCATED AT THE END AND SIDE OF THE UNIT.
3. CLEARANCES ON MULTIPLE UNIT INSTALLATIONS ARE DISTANCES BETWEEN UNITS.
4. ECONO / EXHAUST END MULTIPLE UNITS 144".
5. CONDENSER COIL END/SIDE 192" TO 96"
6. SERVICE SIDE ACCESS 96"

ESTIMATED OPERATING WEIGHT											
OPERATION WEIGHT: 4488.0 lb											
CENTER OF GRAVITY						OPTIONAL COMPONENTS					
X	43"		Y	77"		POWER EXHAUST	N/A	BARO. RELIEF	N/A	SERVICE VALVES	N/A
CORNER LOADING PERCENTS						ECONOMIZER	260.0 lb	THRU-BASE ELECTRICAL	N/A 6.0 lb	DISC. SWITCH	N/A
A	B	C	D	E	F	MANUAL DAMPERS	N/A	GFI WITH DISCON. SWITCH	85.0 lb	VFD	N/A
21%	16%	18%	17%	14%	15%	ULTRA LOW LEAK EXH.	N/A	ULTRA LOW LEAK ECON	N/A		
						COIL HAIL GUARD	105.0 lb	MOD. HOT GAS REHEAT	107.0 lb		

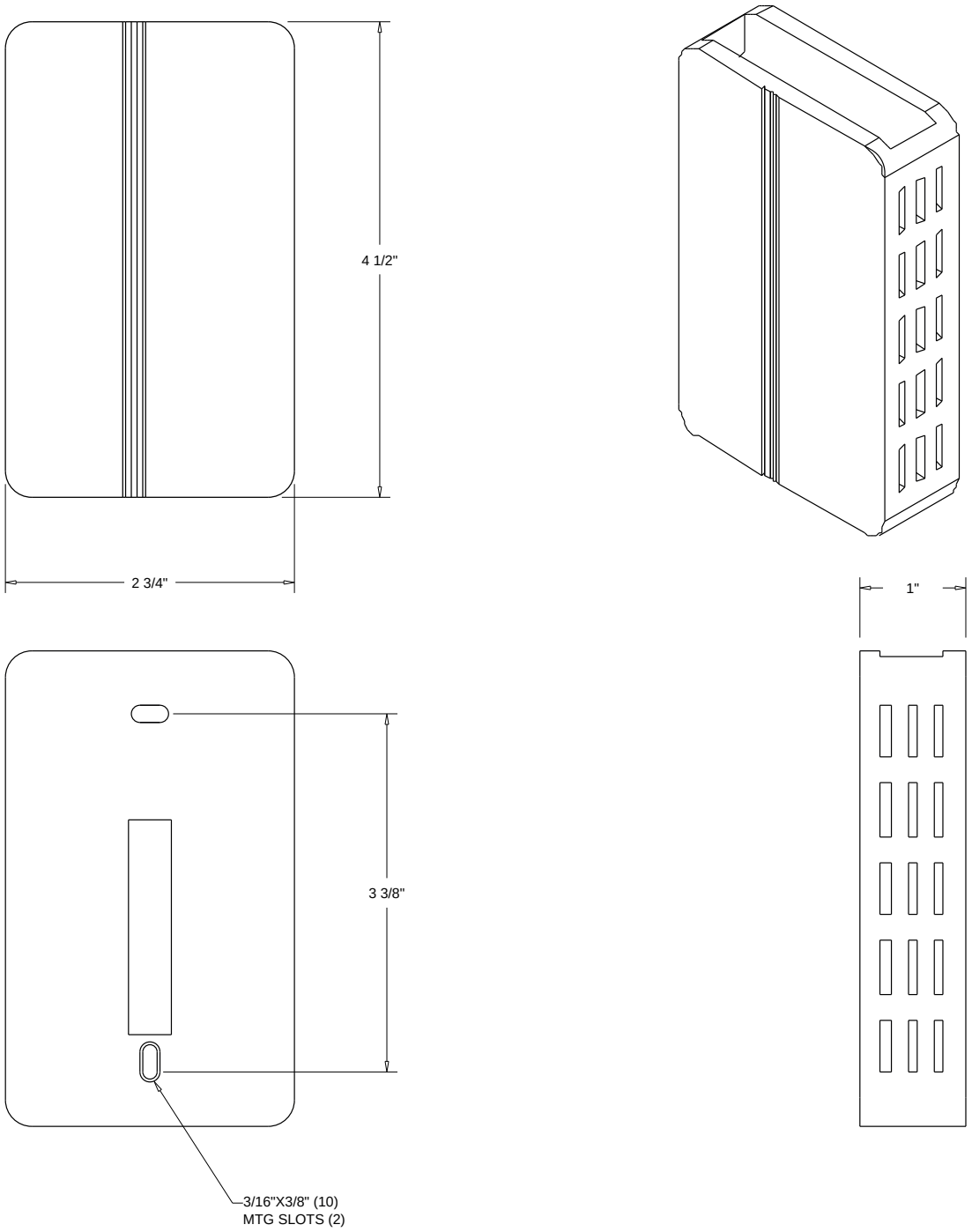
WEIGHT NOTES:
1. THE WEIGHT SHOWN REPRESENTS THE TYPICAL UNIT OPERATING WEIGHT FOR THE CONFIGURATION SELECTED. ESTIMATED AT +/- 10 % OF THE NAMEPLATE WEIGHT.
2. THE ACTUAL WEIGHT IS STAMPED ON THE UNIT NAMEPLATE.

Accessory - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales



FRESH AIR HOODS FOR DOWNFLOW AND HORIZONTAL
UNIT DETAIL

Accessory - Packaged Rooftop, Cooling / Heating Units
Item: A1 Qty: 1 Tag(s): AC-4 Sales



BAYSENS036 - HUMIDITY WALL MOUNTED SENSOR

Tag Data - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop (Qty: 5)

Item	Tag(s)	Qty	Description	Model Number
B1	AC-5 Mezz	1	5 Ton - HGRH	YHC060F4RMA--F0C1A1B6000G000001000000000
B2	AC-8	1	3 Ton - HGRH	YHC036E3RLA--B0C1A1B6000G000001000000000
B3	AC-12	1	4 Ton - base	YHC048F3RLA--B0C1A1B6000G000001000000000
B4	AC-6	1	5 Ton - base	YHC060F3RMA--F0C1A1B6000G000001000000000
B5	AC-13 RX	1	4 Ton - Pharmacy	YHC048E3RLA--F0C1A1B6B00G000001000000000

Product Data - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop

All Units

DX cooling, gas heat
High efficiency
Convertible configuration
Microprocessor controls
Hinged panels/2 in pleated filters MERV 8
Standard condenser coil w/hail guard
Through the base electrical
Non-fused disconnect
Powered convenience outlet
BACnet Communications Interface
Fan failure switch, discharge air sensing & Condensate Drain Pan Overflow Switch
Human Interface

Item: B1 Qty: 1 Tag(s): AC-5 Mezz

5 Ton
460/60/3
Medium gas heat
Economizer Reference Enthalpy 0-100% with Barometric Relief
Remote room sensor (Fld)

Item: B2 Qty: 1 Tag(s): AC-8

3 Ton
208-230/60/3
Low gas heat
Motorized damper 0-50% 3hp
Remote room sensor (Fld)

Item: B3 Qty: 1 Tag(s): AC-12

4 Ton
208-230/60/3
Low gas heat
Motorized damper 0-50% 3hp
Remote room sensor (Fld)

Item: B4 Qty: 1 Tag(s): AC-6

5 Ton
208-230/60/3
Medium gas heat
Economizer Reference Enthalpy 0-100% with Barometric Relief
Remote room sensor (Fld)

Item: B5 Qty: 1 Tag(s): AC-13 RX

4 Ton
208-230/60/3
Low gas heat
Economizer Reference Enthalpy 0-100% with Barometric Relief
Dehumidification-hot gas reheat
Humidity wall mounted sensor (Fld)

Performance Data - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop

Tags	AC-5 Mezz	AC-8	AC-12	AC-6	AC-13 RX
Design Airflow (cfm)	1750	1200	1600	2000	1600
Airflow Application	Downflow	Downflow	Downflow	Downflow	Downflow
Elevation (ft)	-	0.00	-	-	-
Cooling Entering DB (F)	78.00	78.00	78.00	78.00	78.00
Cooling Entering WB (F)	64.00	64.00	64.00	64.00	64.00
Ent Air Relative Humidity (%)	46.60	46.60	46.60	46.60	46.60
Ambient Temp (F)	95.00	96.80	95.00	95.00	95.00
Evap Coil Leaving Air Temp (DB) (F)	-	-	-	-	55.73
Evap Coil Leaving Air Temp (DB) (F)	54.46	55.55	57.28	56.43	55.73
Evap Coil Leaving Air Temp (WB) (F)	-	-	-	-	53.72
Evap Coil Leaving Air Temp (WB) (F)	52.73	53.57	53.70	53.93	53.72
Cooling Leaving Unit DB (F)	56.12	56.99	58.57	58.04	57.42
Cooling Leaving Unit WB (F)	53.42	54.16	54.23	54.59	54.42
Cooling LDB with reheat (F)	-	-	-	-	73.72
Gross Total Capacity (MBh)	56.72	36.28	47.82	58.56	47.70
Gross Sensible Capacity (MBh)	44.48	29.10	35.80	46.58	38.48
Gross Latent Capacity (MBh)	12.24	7.18	12.02	11.98	9.22
Net sensible heat ratio w/reheat on (Number)	-	-	-	-	0.35
Net Total Capacity (MBh)	54.53	34.98	46.21	55.94	45.52
Net Sensible Capacity (MBh)	42.29	27.80	34.19	43.96	36.30
Net Sensible Heat Ratio (Number)	0.78	0.79	0.74	0.79	0.80
Heating EAT (F)	70.00	62.74	70.00	70.00	70.00
Heating LAT (F)	104.20	100.04	98.70	99.90	98.70
Heating Delta T (F)	34.20	37.30	28.70	29.90	28.70
Input Heating Capacity (MBh)	80.00	60.00	60.00	80.00	60.00
Output Heating Capacity (MBh)	64.00	48.00	49.00	64.00	49.00
Output Heating Cap. w/Fan (MBh)	66.19	49.30	50.61	66.62	51.18
Design ESP (in H2O)	0.800	0.600	0.600	0.800	0.650
Component SP (in H2O)	0.165	0.100	0.150	0.190	0.240
Field supplied drive kit required	-	-	-	-	None
Indoor mtr operating power (bhp)	0.71	0.42	0.51	0.86	0.62
Indoor RPM (rpm)	1041	938	912	1076	941
Indoor Motor Power (kW)	0.53	0.31	0.38	0.64	0.46
Outdoor Motor Power (kW)	0.36	0.22	0.34	0.36	0.37
Compressor Power (kW)	3.70	2.69	3.13	3.71	3.01
System Power (kW)	4.60	3.22	3.85	4.72	3.83
MCA (A)	14.00	21.00	28.00	30.00	24.00
MOP (A)	20.00	30.00	40.00	45.00	35.00
Compressor 1 RLA (A)	7.10	10.40	13.70	15.90	13.70
Compressor 2 RLA (A)	0.00	0.00	0.00	0.00	0.00
Evaporator fan FLA (A)	4.00	6.00	7.60	7.60	3.40
Condenser fan FLA (A)	1.00	1.50	2.50	2.50	2.50
Evaporator face area (sq ft)	9.89	7.71	9.27	9.89	9.27
Evaporator rows (Each)	4.00	3.00	3.00	4.00	3.00
Evaporator fin spacing (Per Foot)	192	192	192	192	192
Evaporator face velocity (ft/min)	177	156	173	202	173
Min. unit operating weight (lb)	755.0	544.0	711.0	755.0	725.0
Max. unit operating weight (lb)	992.0	767.0	948.0	992.0	976.0
Fan motor heat (MBh)	2.19	1.30	1.61	2.62	2.18
Reheat Temp Rise (F)	-	-	-	-	17.99
Reheat Capacity (MBh)	-	-	-	-	31.23
Dew Point (F)	-	-	-	-	52.28
Dew Point (F)	51.44	52.13	51.07	52.12	52.28
Leaving Air Humidity Ratio (lb/lb)	-	-	-	-	0
Moisture Removal (gal/hr) (gph)	-	-	-	-	1.04

Tags	AC-5 Mezz	AC-8	AC-12	AC-6	AC-13 RX
Mixed Air Humidity Ratio (lb/lb)	-	-	-	-	0
Leaving Unit Rel Humid w/Reheat (%)	-	-	-	-	47.01
Max Available ESP (in H2O)	1.065	0.790	0.840	1.030	-
Run Acoustics	Yes	Yes	Yes	Yes	Yes
Ducted Discharge - 63 Hz (dB)	89	91	85	88	86
Ducted Discharge - 125 Hz (dB)	77	74	73	77	75
Ducted Discharge - 250 Hz (dB)	71	70	66	72	68
Ducted Discharge - 500 Hz (dB)	67	65	64	68	65
Ducted Discharge - 1 kHz (dB)	65	63	61	66	63
Ducted Discharge - 2 kHz (dB)	63	59	59	64	61
Ducted Discharge - 4 kHz (dB)	60	56	55	61	57
Ducted Discharge - 8 kHz (dB)	53	48	48	55	50
Ducted Inlet - 63 Hz (dB)	83	89	82	84	83
Ducted Inlet - 125 Hz (dB)	72	72	71	73	71
Ducted Inlet - 250 Hz (dB)	60	62	58	61	59
Ducted Inlet - 500 Hz (dB)	57	55	55	58	56
Ducted Inlet - 1 kHz (dB)	55	52	52	57	54
Ducted Inlet - 2 kHz (dB)	53	51	49	54	51
Ducted Inlet - 4 kHz (dB)	51	47	47	53	49
Ducted Inlet - 8 kHz (dB)	45	41	41	46	42
Outdoor Noise - 63 Hz (dB)	80	79	80	80	80
Outdoor Noise - 125 Hz (dB)	86	85	86	86	86
Outdoor Noise - 250 Hz (dB)	84	79	84	84	84
Outdoor Noise - 500 Hz (dB)	85	79	85	85	85
Outdoor Noise - 1 kHz (dB)	83	77	83	83	83
Outdoor Noise - 2 kHz (dB)	79	71	79	79	79
Outdoor Noise - 4 kHz (dB)	73	67	73	73	73
Outdoor Noise - 8 kHz (dB)	67	58	67	67	67
Rated capacity (AHRI) (MBh)	60.00	37.00	49.00	60.00	49.00
Refrig charge (HFC-410A) - ckt 1 (lb)	6.1	6.2	5.2	6.1	12.0
ASHRAE 90.1	Yes	Yes	Yes	Yes	Yes
Saturated Suction Temp Circuit 1 (F)	48.29	49.17	48.44	49.89	49.14
Saturated Discharge Temp Circuit 1 (F)	111.60	115.45	110.32	112.15	110.12
IEER ( )	15.00	15.00	15.00	15.00	14.20
EER @ AHRI Conditions (EER)	12.8	12.7	13.5	12.9	11.6
Total Static Pressure (in H2O)	0.965	0.700	0.750	0.990	0.890
Length (ft)	7.39	5.82	7.39	7.39	7.39
Width (ft)	4.44	3.69	4.44	4.44	4.44
Height (ft)	3.41	3.02	3.41	3.41	3.41
Indoor Fan Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Indoor Fan Drive Type	Direct	Direct	Direct	Direct	Belt
Outdoor Fan Type	Propeller	Propeller	Propeller	Propeller	Propeller
Outdoor Fan Drive Type	Direct	Direct	Direct	Direct	Direct
Outdoor Fan Quantity ( )	1	1	1	1	1
Heating Type	Gas Heat	Gas Heat	Gas Heat	Gas Heat	Gas Heat
Heating Stages	1	1	1	1	1

Mechanical Specifications - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1 - B5 Qty: 5 Tag(s): AC-5 Mezz, AC-8, AC-12, AC-6, AC-13 RX

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. Operating range for units with electromechanical controls shall be between 115°F and 40°F. 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
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.

Dual compressors are outstanding for humidity control, light load cooling conditions and system back-up applications. Dual compressors are available on 7½-10 ton models and allow for efficient cooling utilizing 3-stages of compressor operation for all high efficiency models.

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).

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
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 all 24V 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. 24-volt electromechanical control circuit shall include control transformer and contactor

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.

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.

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.

Powered or Unpowered Convenience Outlet
This is a GFCI, 120v/15amp, 2 plug, convenience outlet, either powered or unpowered. When the convenience outlet is powered, a service receptacle disconnect will be available. 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.

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.

Motorized Outside Air Dampers
Manually set outdoor air dampers shall provide up to 50 percent outside air. Once set, outdoor air dampers shall open to set position when indoor fan starts. The damper shall close to the full closed position when indoor fan shuts down.

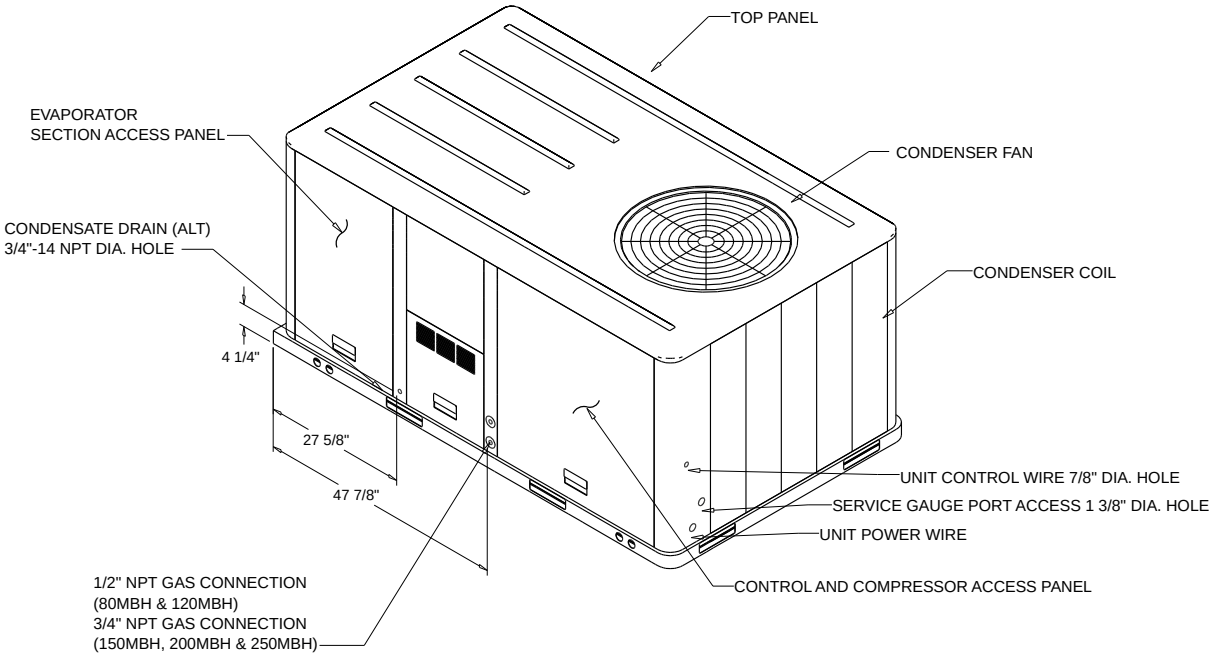
Through the Base Electrical Access
An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field-installed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

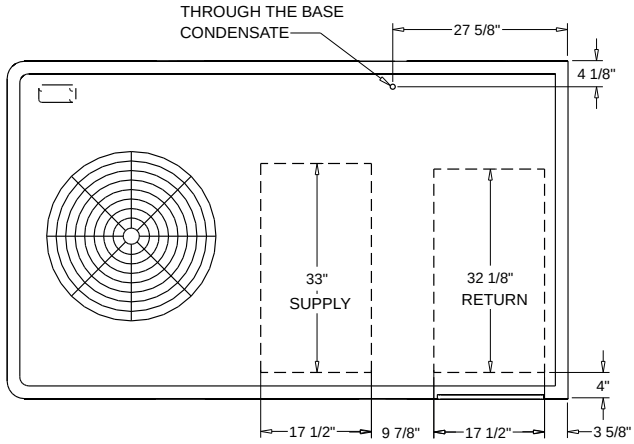
Through the Base Electrical with Disconnect Switch
This 3-pole, molded case, disconnect switch with provisions for through the base electrical connections are available. The disconnect switch will be installed in the unit in a water tight enclosure with access through a swinging door. Wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/CSA agency recognized.

Note: The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit overcurrent protection.

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.

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B3 - B5 Qty: 4 Tag(s): AC-5 Mezz, AC-12, AC-6, AC-13 RX





PLAN VIEW UNIT

DIMENSION DRAWING

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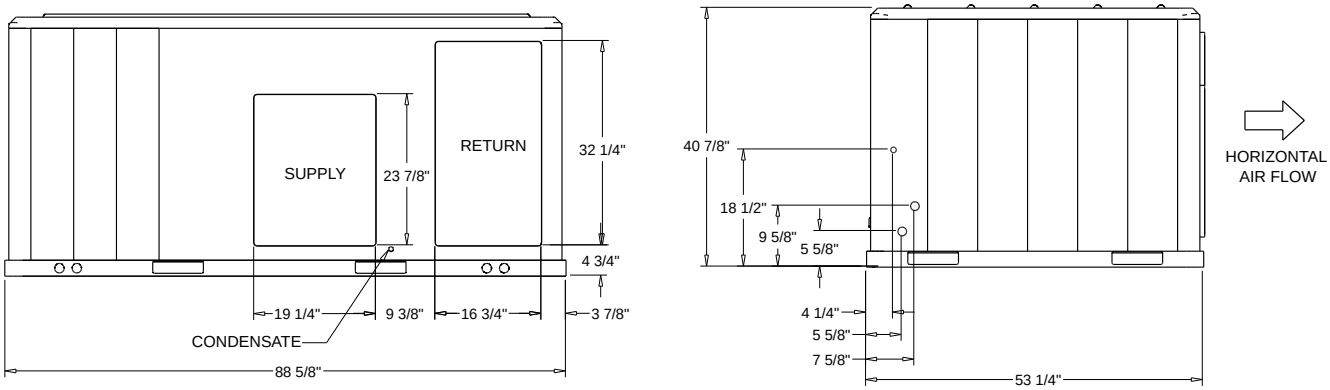
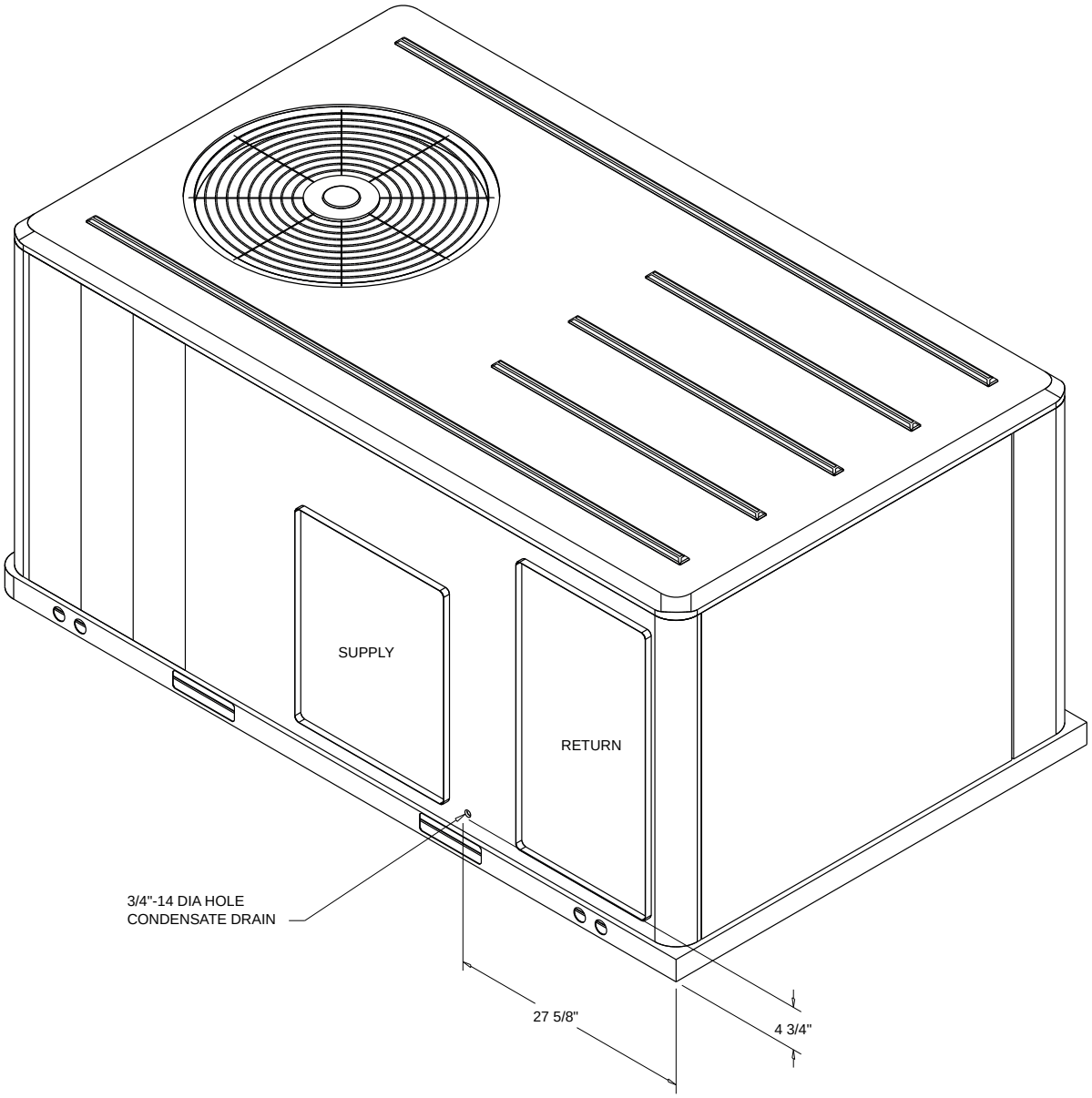
2. VERIFY WEIGHT, CONNECTION, AND ALL DIMENSION WITH INSTALLER DOCUMENTS BEFORE INSTALLATION



PACKAGED GAS / ELECTRICAL

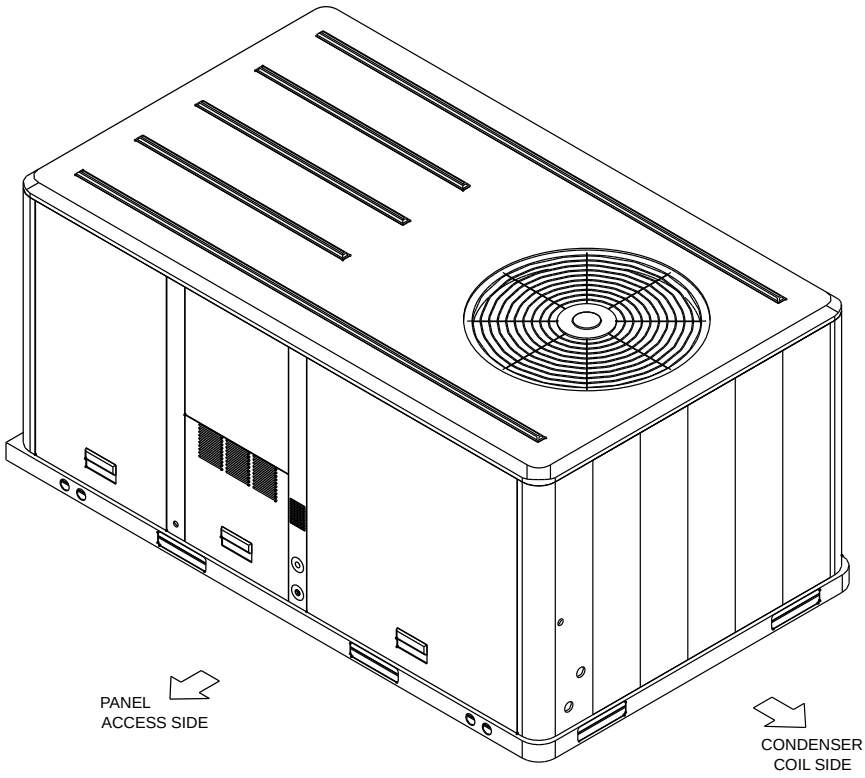
DIMENSION DRAWING

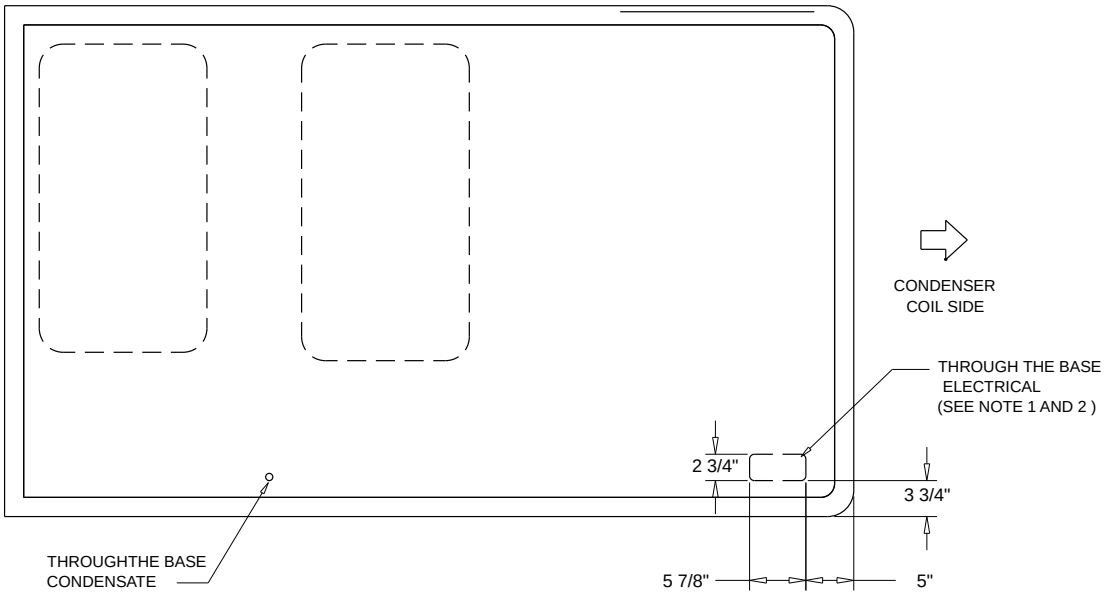
Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B3, B4 Qty: 3 Tag(s): AC-5 Mezz, AC-12, AC-6



ISOMETRIC-PACKAGED COOLING

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B3 - B5 Qty: 4 Tag(s): AC-5 Mezz, AC-12, AC-6, AC-13 RX





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THRU THE BASE ELECTRICAL

PLAN / ISO VIEW DRAWING

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1 Qty: 1 Tag(s): AC-5 Mezz

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

		Oversized Motor	
Model:	YHC060F	MCA:	N/A
Unit Operating Voltage:	414-506	MFS:	N/A
Unit Primary Voltage:	460	MCB:	N/A
Unit Secondary Voltage	--		
Unit Hertz:	60		
Unit Phase:	3		
EER/SEER			

Standard Motor		Field Installed Oversized Motor	
MCA:	14.0	MCA:	N/A
MFS:	20.0	MFS:	N/A
MCB:	20.0	MCB:	N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Medium
Heating Input (BTU):	80000
Heating Output (BTU):	64000
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:	4.0	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:	4.3
Phase:	3
Rated Load Amps:	7.1
Locked Rotor Amps:	-

OUTDOOR MOTOR

Number:	1
Horsepower:	0.40
Motor Speed (RPM):	1075
Phase:	1
Full Load Amps:	1.0
	--

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"

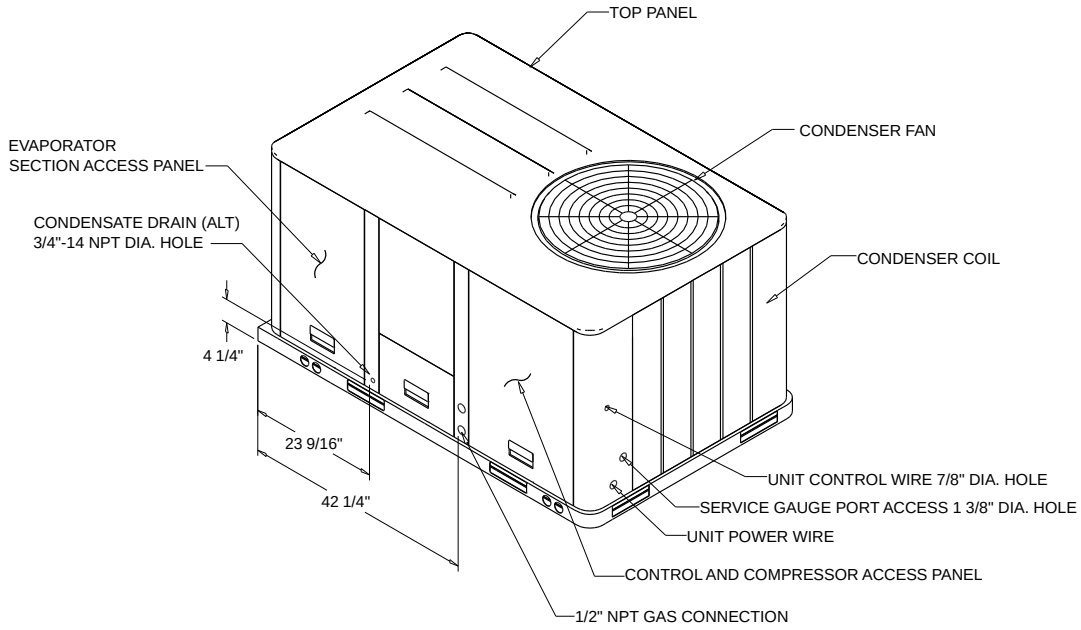
REFRIGERANT (2)

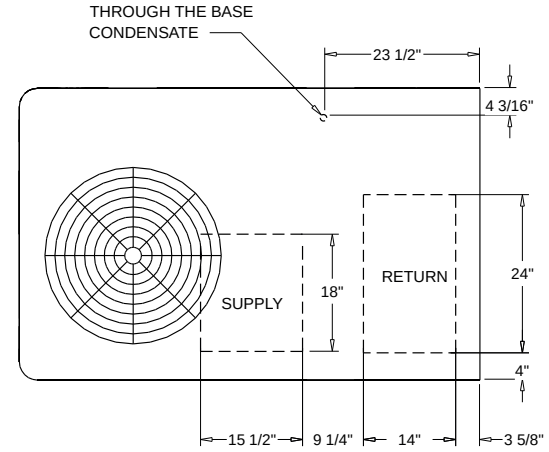
Type	R-410
Factory Charge	
Circuit #1	6.1 lb
Circuit #2	N/A

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.

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8





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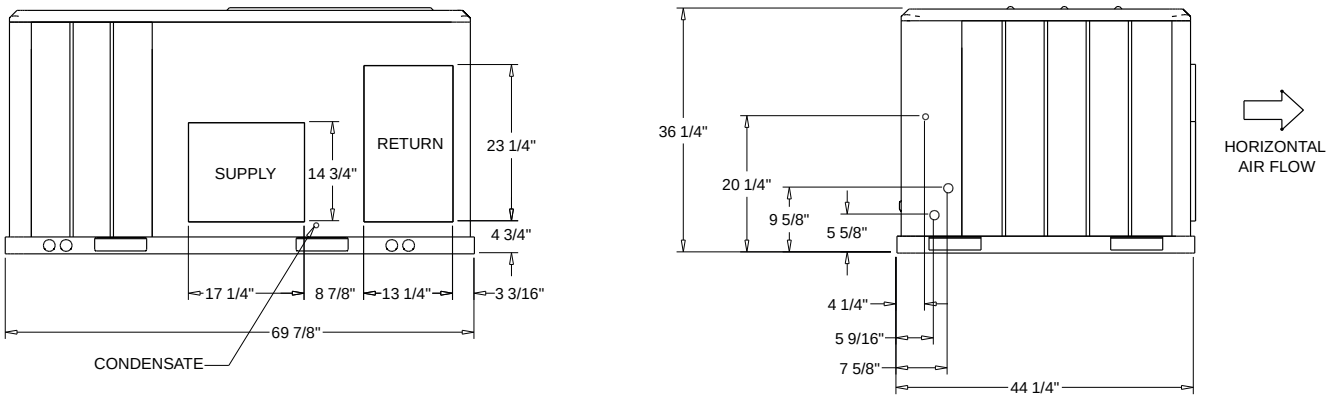
PLAN VIEW UNIT

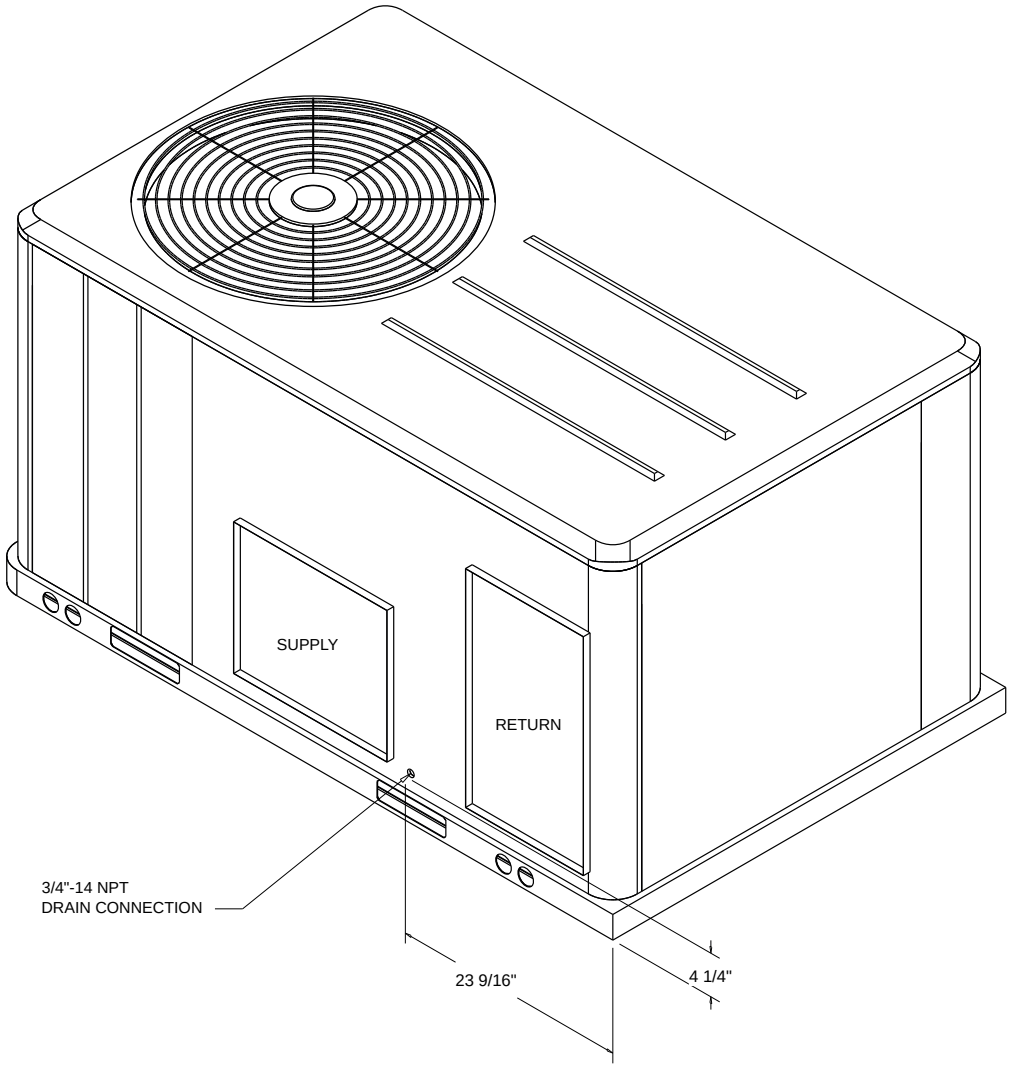
DIMENSION DRAWING



PACKAGED GAS / ELECTRICAL

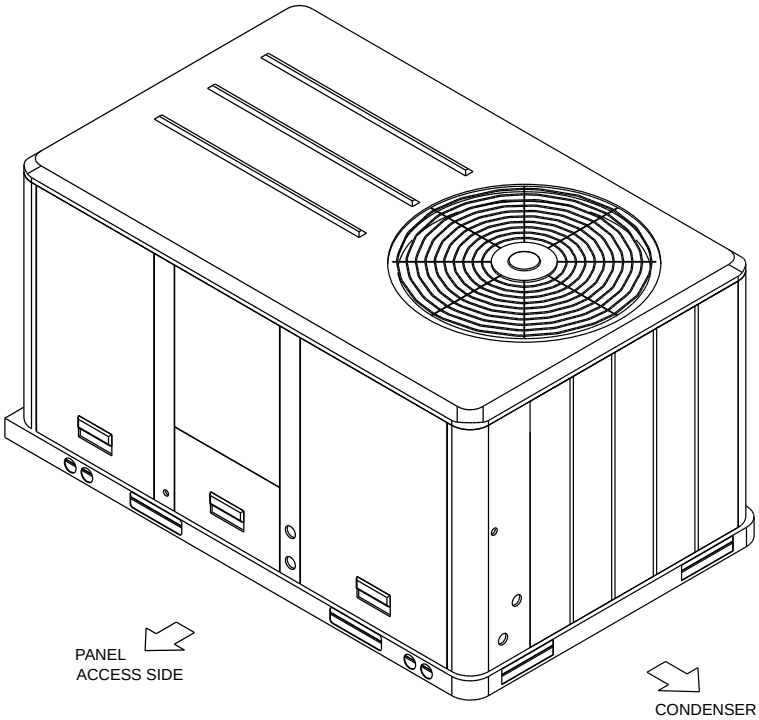
DIMENSION DRAWING

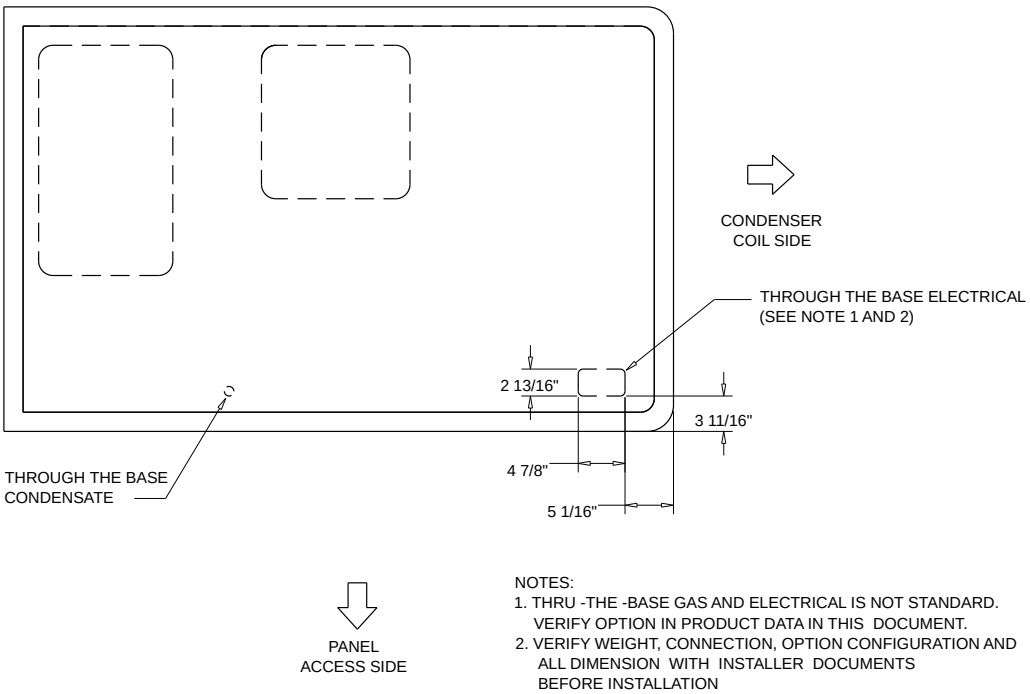
Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8



ISOMETRIC-PACKAGED COOLING

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8





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THRU THE BASE ELECTRICAL

PLAN / ISO VIEW DRAWING

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

		Oversized Motor	
Model:	YHC036E		
Unit Operating Voltage:	187-253	MCA:	N/A
Unit Primary Voltage:	208	MFS:	N/A
Unit Secondary Voltage	230	MCB:	N/A
Unit Hertz:	60		
Unit Phase:	3		
EER/SEER	12.7/15.0		
Standard Motor		Field Installed Oversized Motor	
MCA:	21.0	MCA:	N/A
MFS:	30.0	MFS:	N/A
MCB:	30.0	MCB:	N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Low
Heating Input (BTU):	60000
Heating Output (BTU):	48000
No. Burners:	2
No. Stages	1

Gas Inlet Pressure

Natural Gas (Min/Max):	4.5/14.0
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:	0.75	Horsepower:		Horsepower:	N/A
Motor Speed (RPM):	--	Motor Speed (RPM):		Motor Speed (RPM):	N/A
Phase	1	Phase		Phase	N/A
Full Load Amps:	6.0	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:	2.7
Phase:	3
Rated Load Amps:	10.4
Locked Rotor Amps:	73.0

OUTDOOR MOTOR

Number:	1
Horsepower:	0.20
Motor Speed (RPM):	1075
Phase:	1
Full Load Amps:	1.5
	-

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	2
Recommended	20"x30"x2"

REFRIGERANT (2)

Type	R-410
Factory Charge	
Circuit #1	6.2 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.

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B3 Qty: 1 Tag(s): AC-12

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

Model:	YHC048F	Oversized Motor	
Unit Operating Voltage:	187-253	MCA:	N/A
Unit Primary Voltage:	208	MFS:	N/A
Unit Secondary Voltage	230	MCB:	N/A
Unit Hertz:	60		
Unit Phase:	3		
EER/SEER	13.35/15.0		
Standard Motor		Field Installed Oversized Motor	
MCA:	28.0	MCA:	N/A
MFS:	40.0	MFS:	N/A
MCB:	40.0	MCB:	N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Low
Heating Input (BTU):	60000
Heating Output (BTU):	49000
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:	0.75	Horsepower:		Horsepower:	N/A
Motor Speed (RPM):	--	Motor Speed (RPM):		Motor Speed (RPM):	N/A
Phase	1	Phase		Phase	N/A
Full Load Amps:	6.0	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:	3.5
Phase:	3
Rated Load Amps:	13.7
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	R-410
Factory Charge	
Circuit #1	5.2 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.

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B4 Qty: 1 Tag(s): AC-6

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

Model:	YHC060F
Unit Operating Voltage:	187-253
Unit Primary Voltage:	208
Unit Secondary Voltage	230
Unit Hertz:	60
Unit Phase:	3
EER/SEER	

Oversized Motor

MCA:	N/A
MFS:	N/A
MCB:	N/A

Standard Motor

MCA:	30.0
MFS:	45.0
MCB:	45.0

Field Installed Oversized Motor

MCA:	N/A
MFS:	N/A
MCB:	N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Medium
Heating Input (BTU):	80000
Heating Output (BTU):	64000
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

Number:	1
Horsepower:	1.0
Motor Speed (RPM):	--
Phase	1
Full Load Amps:	7.6
Locked Rotor Amps:	--

Oversized Motor

Number:	
Horsepower:	
Motor Speed (RPM):	
Phase	
Full Load Amps:	
Locked Rotor Amps:	

Field Installed Oversized Motor

Number:	N/A
Horsepower:	N/A
Motor Speed (RPM):	N/A
Phase	N/A
Full Load Amps:	N/A
Locked Rotor Amps:	N/A

COMPRESSOR Circuit 1/2

Number:	1
Horsepower:	4.1
Phase:	3
Rated Load Amps:	15.9
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	R-410
Factory Charge	
Circuit #1	6.1 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.

Unit Dimensions - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B5 Qty: 1 Tag(s): AC-13 RX

ELECTRICAL / GENERAL DATA

GENERAL (2)(4)(6)

		Oversized Motor	
Model:	YHC048E		
Unit Operating Voltage:	187-253	MCA:	N/A
Unit Primary Voltage:	208	MFS:	N/A
Unit Secondary Voltage	230	MCB:	N/A
Unit Hertz:	60		
Unit Phase:	3		
EER/SEER	- / 14.2		
Standard Motor		Field Installed Oversized Motor	
MCA:	24.0	MCA:	N/A
MFS:	35.0	MFS:	N/A
MCB:	35.0	MCB:	N/A

HEATING PERFORMANCE

HEATING - GENERAL DATA

Heating Model:	Low
Heating Input (BTU):	60000
Heating Output (BTU):	49000
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	3	Phase		Phase	N/A
Full Load Amps:	3.4	Full Load Amps:		Full Load Amps:	N/A
Locked Rotor Amps:	32.2	Locked Rotor Amps:		Locked Rotor Amps:	N/A

COMPRESSOR Circuit 1/2

Number:	1
Horsepower:	3.6
Phase:	3
Rated Load Amps:	13.7
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"

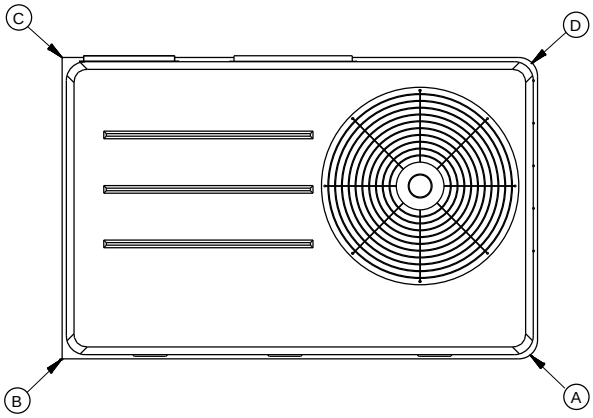
REFRIGERANT (2)

Type	R-410
Factory Charge	
Circuit #1	15.7 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 Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B4 Qty: 2 Tag(s): AC-5 Mezz, AC-6



PACKAGED GAS / ELECTRICAL

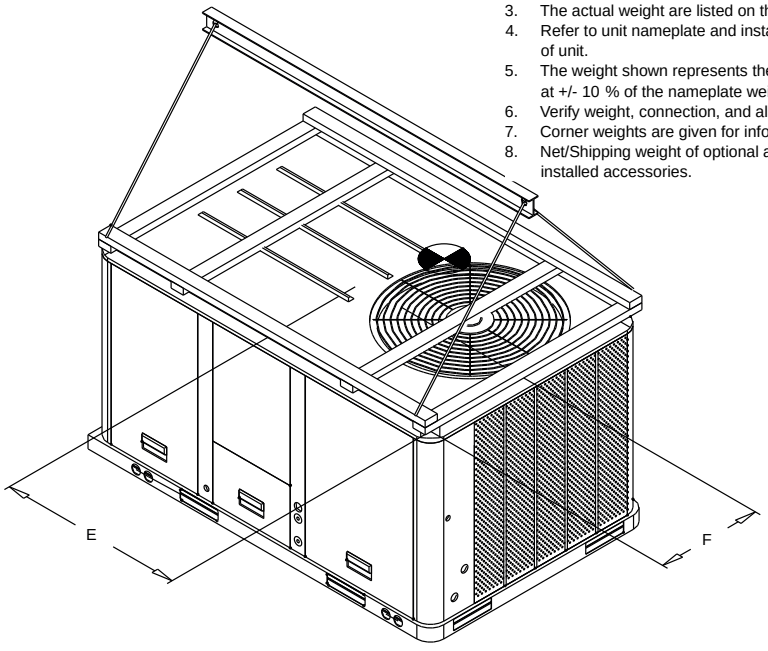
CORNER WEIGHT

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)	13.0 lb
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)	
UNIT MOUNTED DISCONNECT (FIOPS)	5.0 lb
POWERED CONVENIENCE OUTLET (FIOPS)	38.0 lb
HINGED DOORS (FIOPS)	12.0 lb
HAIL GUARD	20.0 lb
SMOKE DETECTOR, SUPPLY / RETURN	
NOVAR CONTROL	
STAINLESS STEEL HEAT EXCHANGER	
REHEAT	
ROOF CURB	

BASIC UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITIY	
SHIPPING	NET	A	239.0 lb	C	152.0 lb	(E) LENGHT	(F) WIDTH
850.0 lb	755.0 lb	B	214.0 lb	D	151.0 lb	44"	21"

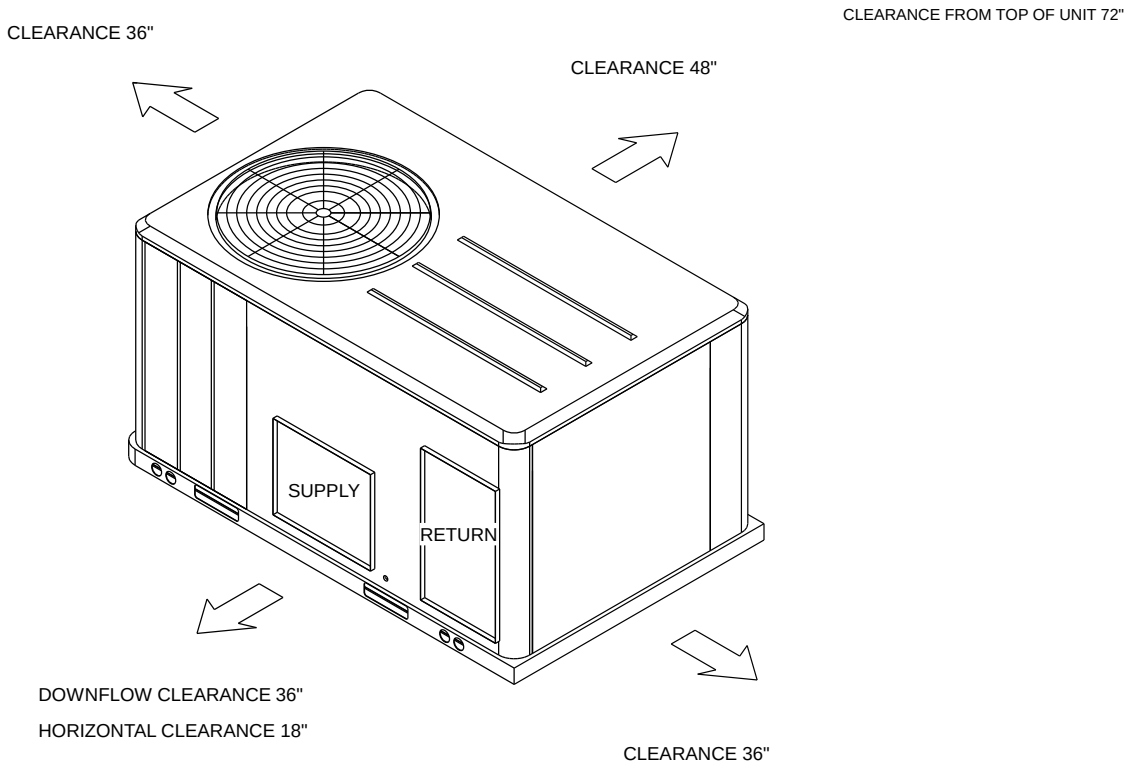
NOTE:
1. All weights are approximate.
2. Weights for options that are not list refer to Installation guide.
3. The actual weight are listed on the unit nameplate.
4. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
5. The weight shown 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

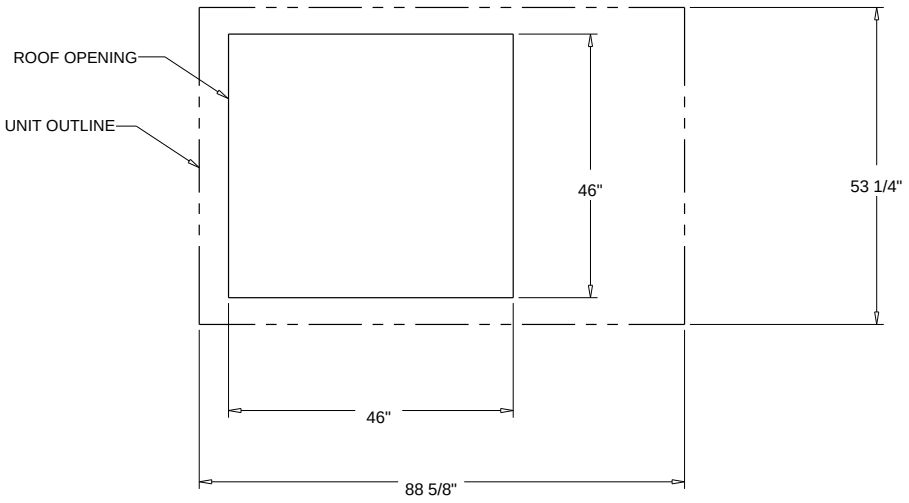
RIGGING AND CENTER OF GRAVITY

Weight, Clearance & Rigging Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B3 - B5 Qty: 4 Tag(s): AC-5 Mezz, AC-12, AC-6, AC-13 RX



PACKAGED GAS / ELECTRIC

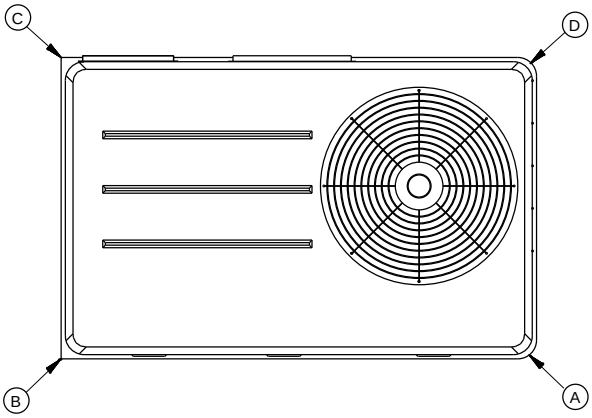
CLEARANCE



PACKAGED GAS / ELECTRIC

DOWNFLOW TYPICAL ROOF OPENING

Weight, Clearance & Rigging Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8



PACKAGED GAS / ELECTRICAL

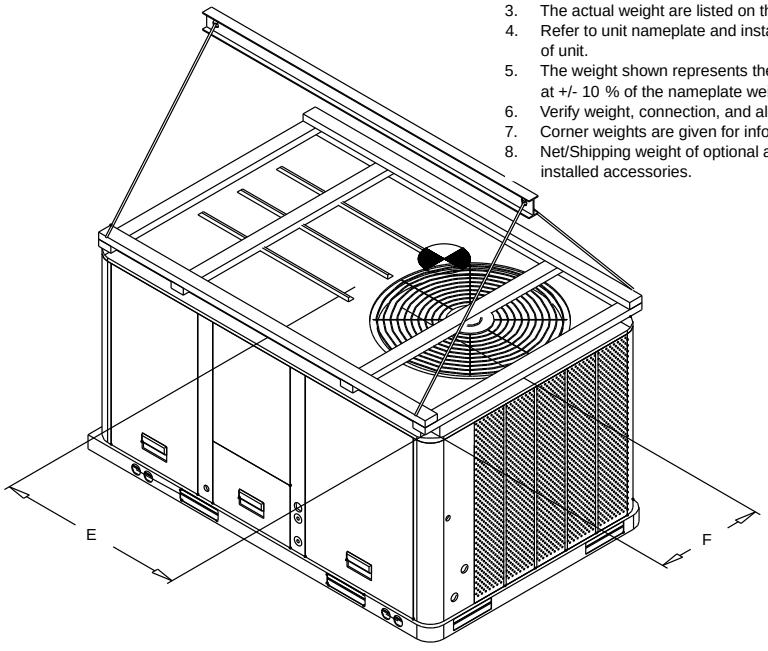
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

ACCESSORY	WEIGHTS
ECONOMIZER	
MOTORIZED OUTSIDE AIR DAMPER	20.0 lb
MANUAL OUTSIDE AIR DAMPER	
BAROMETRIC RELIEF	
OVERSIZED MOTOR	
BELT DRIVE MOTOR	
POWER EXHAUST	
THROUGHT THE BASE ELECTRICAL/GAS (FIOPS)	8.0 lb
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)	
UNIT MOUNTED DISCONNECT (FIOPS)	5.0 lb
POWERED CONVENIENCE OUTLET (FIOPS)	38.0 lb
HINGED DOORS (FIOPS)	10.0 lb
HAIL GUARD	12.0 lb
SMOKE DETECTOR, SUPPLY / RETURN	
NOVAR CONTROL	
STAINLESS STEEL HEAT EXCHANGER	
REHEAT	
ROOF CURB	

BASIC UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITIY	
SHIPPING	NET	A	165.0 lb	C	95.0 lb	(E) LENGHT	(F) WIDTH
607.0 lb	532.0 lb	B	137.0 lb	D	134.0 lb	31"	19"

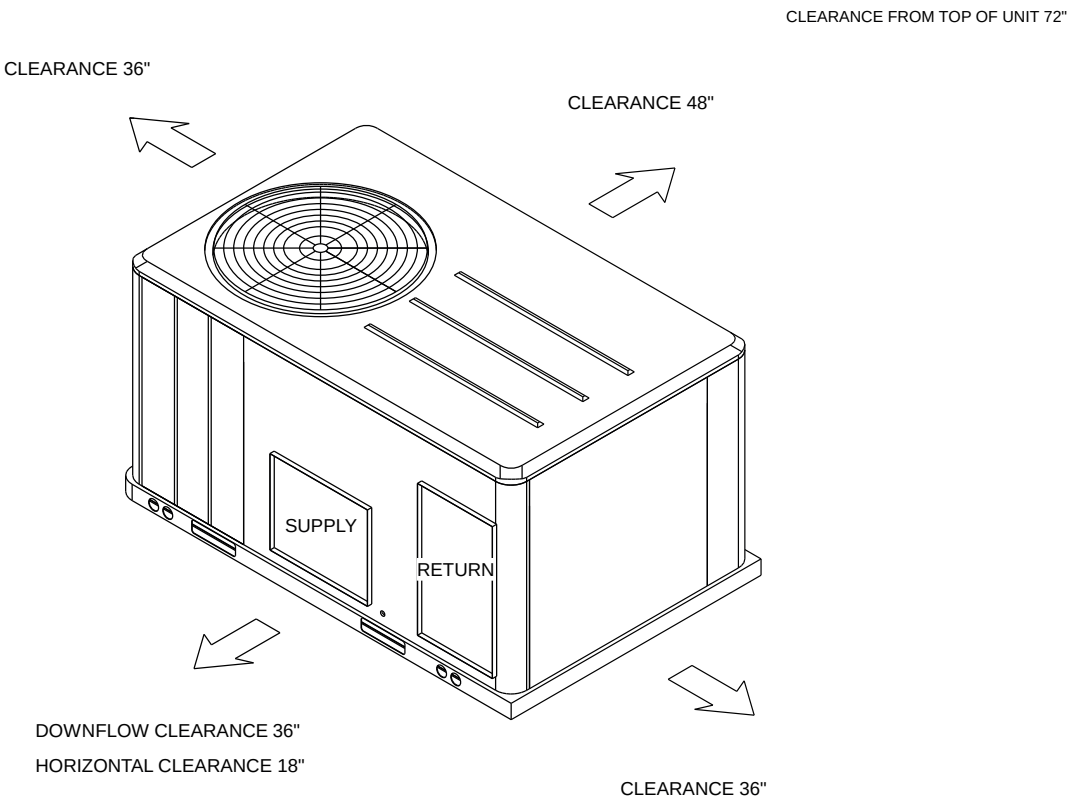
NOTE:
1. All weights are approximate.
2. Weights for options that are not list refer to Installation guide.
3. The actual weight are listed on the unit nameplate.
4. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
5. The weight shown 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

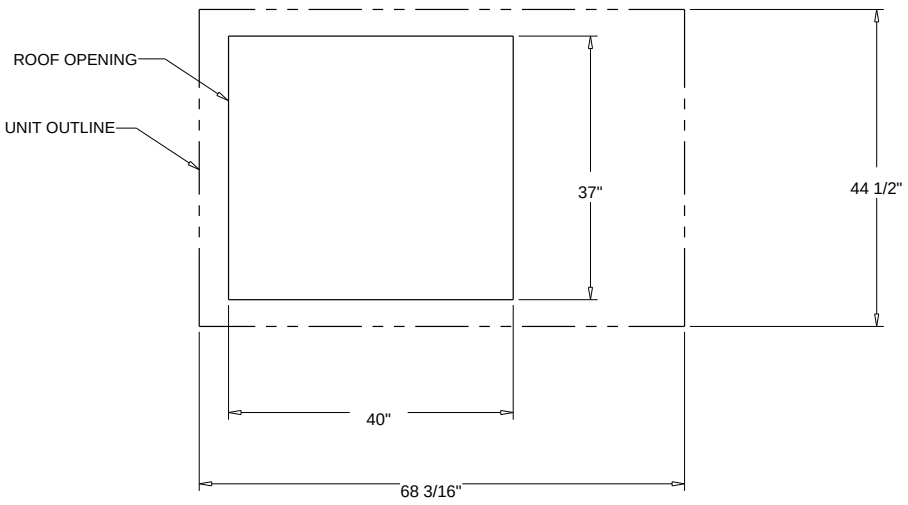
RIGGING AND CENTER OF GRAVITY

Weight, Clearance & Rigging Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8



PACKAGED GAS / ELECTRIC

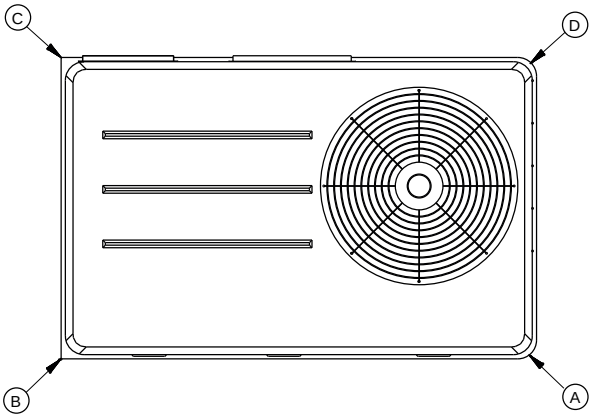
CLEARANCE



PACKAGED GAS / ELECTRIC

DOWNFLOW TYPICAL ROOF OPENING

Weight, Clearance & Rigging Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B3 Qty: 1 Tag(s): AC-12



PACKAGED GAS / ELECTRICAL

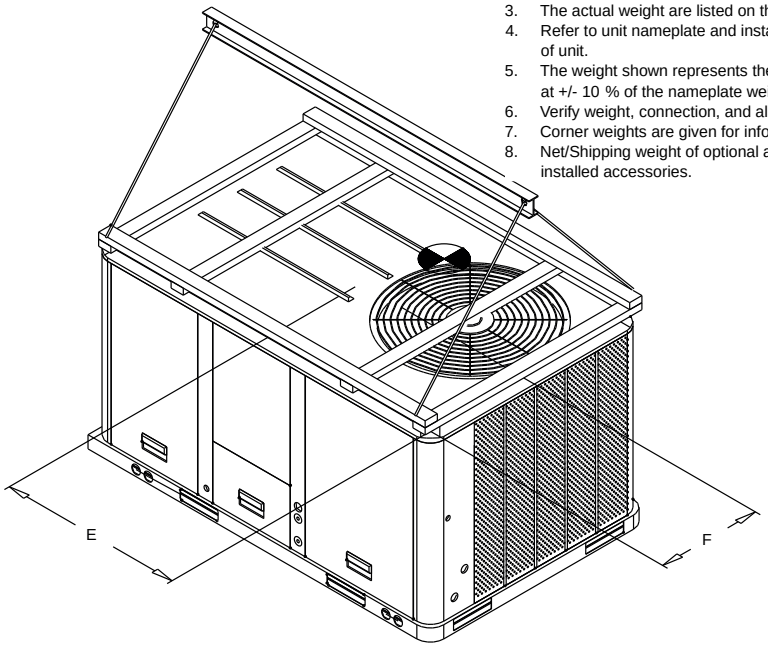
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

ACCESSORY	WEIGHTS
ECONOMIZER	
MOTORIZED OUTSIDE AIR DAMPER	30.0 lb
MANUAL OUTSIDE AIR DAMPER	
BAROMETRIC RELIEF	
OVERSIZED MOTOR	
BELT DRIVE MOTOR	
POWER EXHAUST	
THROUGHT THE BASE ELECTRICAL/GAS (FIOPS)	13.0 lb
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)	
UNIT MOUNTED DISCONNECT (FIOPS)	5.0 lb
POWERED CONVENIENCE OUTLET (FIOPS)	38.0 lb
HINGED DOORS (FIOPS)	12.0 lb
HAIL GUARD	20.0 lb
SMOKE DETECTOR, SUPPLY / RETURN	
NOVAR CONTROL	
STAINLESS STEEL HEAT EXCHANGER	
REHEAT	
ROOF CURB	

BASIC UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITIY	
SHIPPING	NET	A	226.0 lb	C	144.0 lb	(E) LENGHT	(F) WIDTH
806.0 lb	711.0 lb	B	199.0 lb	D	143.0 lb	44"	22"

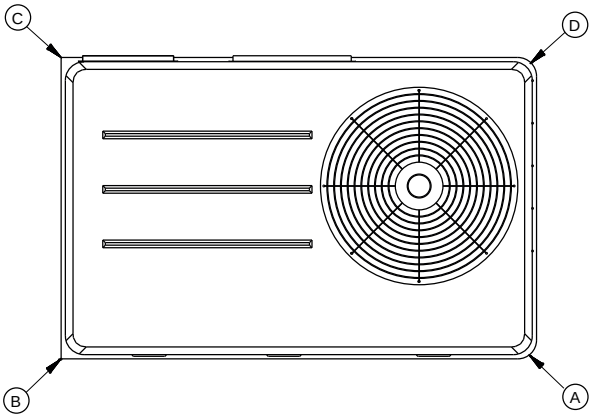
NOTE:
1. All weights are approximate.
2. Weights for options that are not list refer to Installation guide.
3. The actual weight are listed on the unit nameplate.
4. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
5. The weight shown 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 Diagram - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B5 Qty: 1 Tag(s): AC-13 RX



PACKAGED GAS / ELECTRICAL

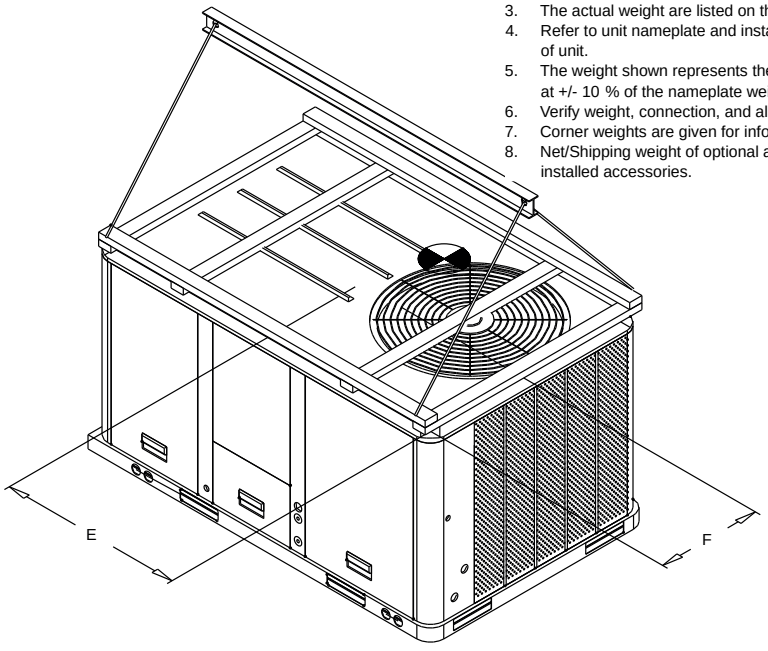
CORNER WEIGHT

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)	13.0 lb
UNIT MOUNTED CIRCUIT BREAKER (FIOPS)	
UNIT MOUNTED DISCONNECT (FIOPS)	5.0 lb
POWERED CONVENIENCE OUTLET (FIOPS)	38.0 lb
HINGED DOORS (FIOPS)	12.0 lb
HAIL GUARD	20.0 lb
SMOKE DETECTOR, SUPPLY / RETURN	
NOVAR CONTROL	
STAINLESS STEEL HEAT EXCHANGER	
REHEAT	14.0 lb
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"

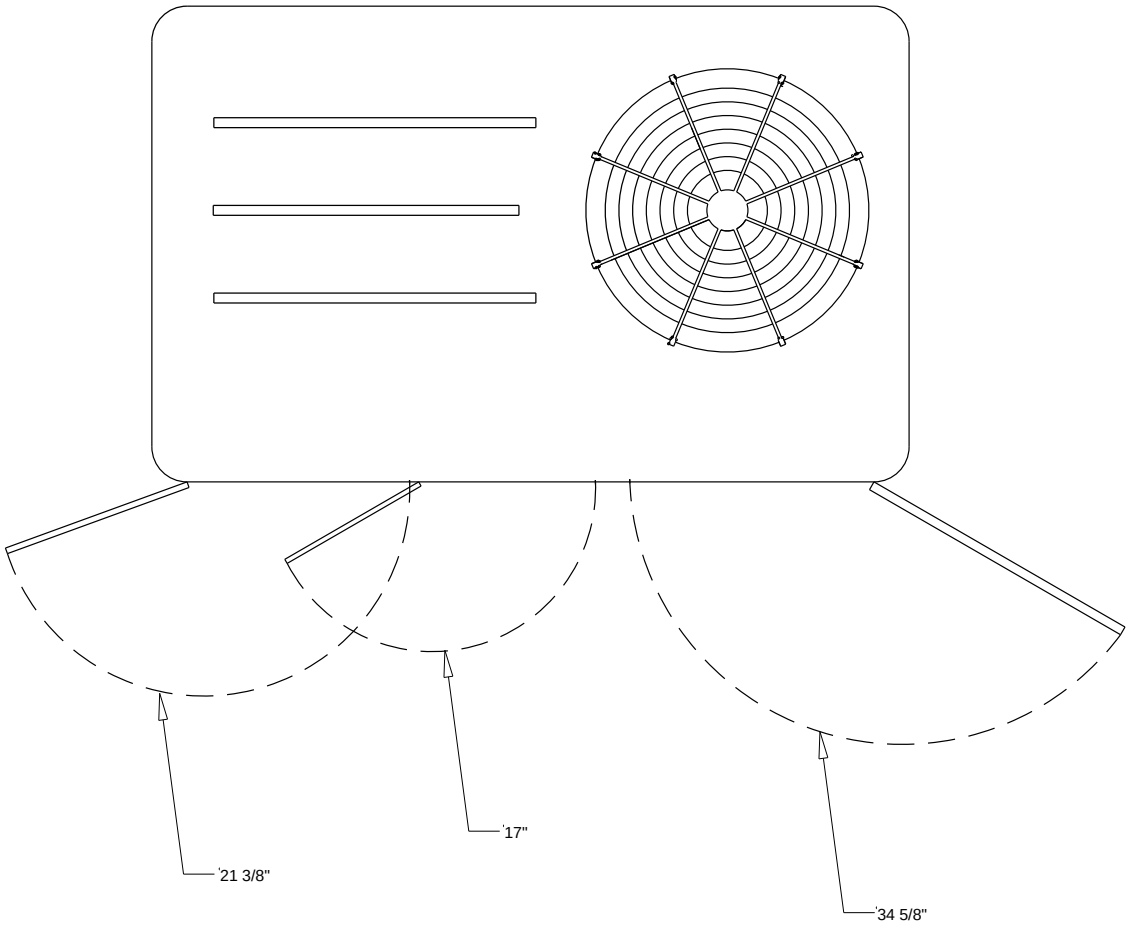
NOTE:
1. All weights are approximate.
2. Weights for options that are not list refer to Installation guide.
3. The actual weight are listed on the unit nameplate.
4. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
5. The weight shown 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

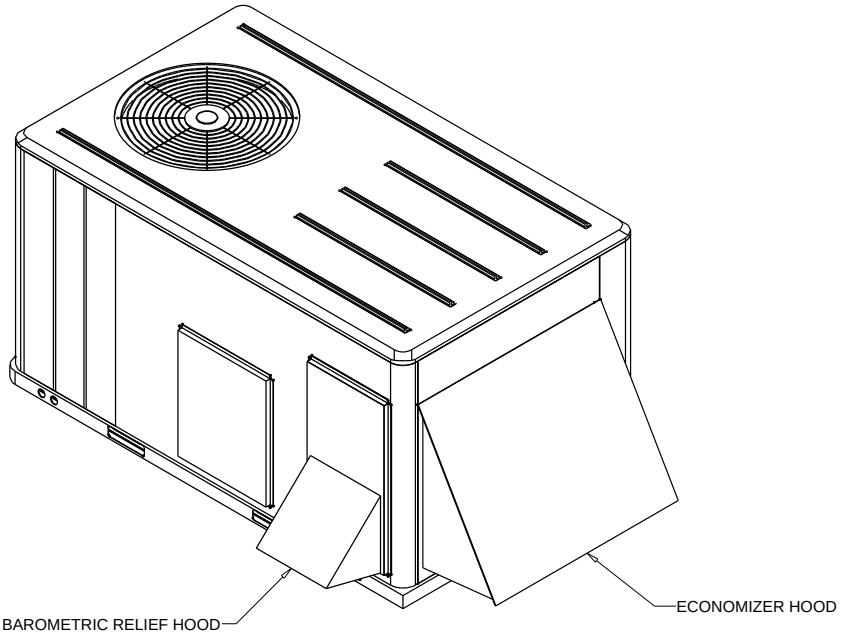
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B3 - B5 Qty: 4 Tag(s): AC-5 Mezz, AC-12, AC-6, AC-13 RX

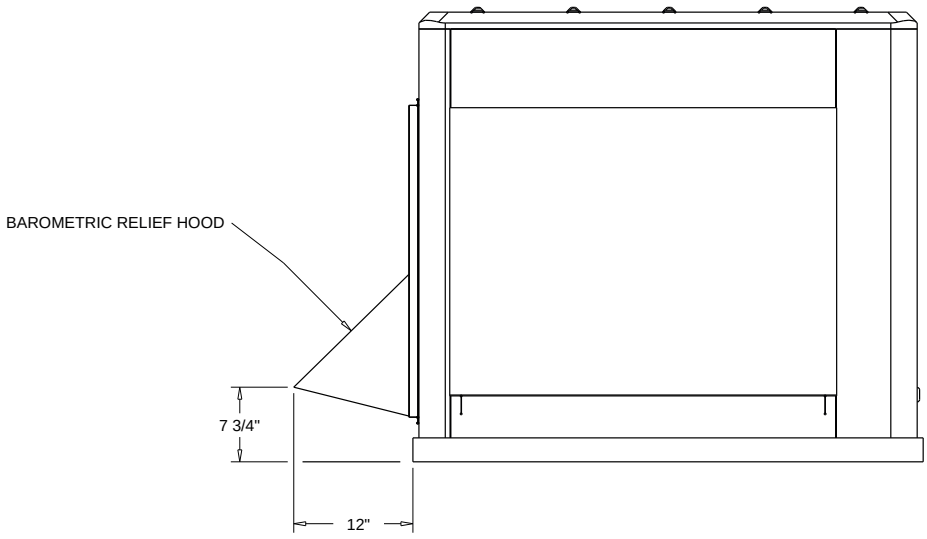


SWING DIAMETER - HINGED DOOR(S) OPTION

ACCESSORY

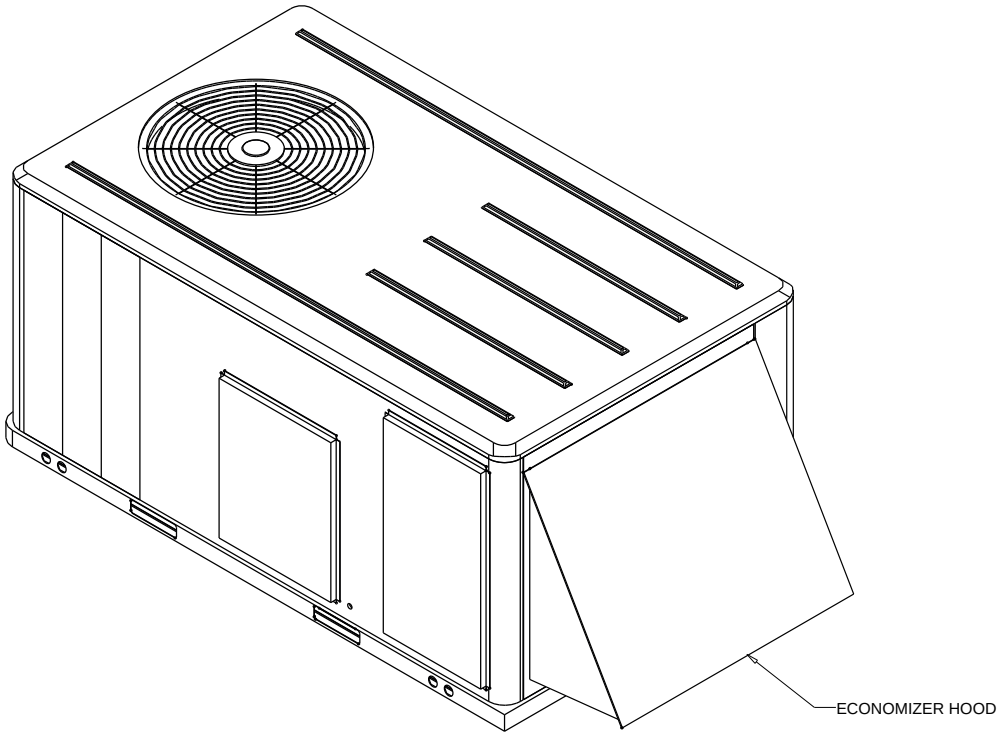
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B4, B5 Qty: 3 Tag(s): AC-5 Mezz, AC-6, AC-13 RX

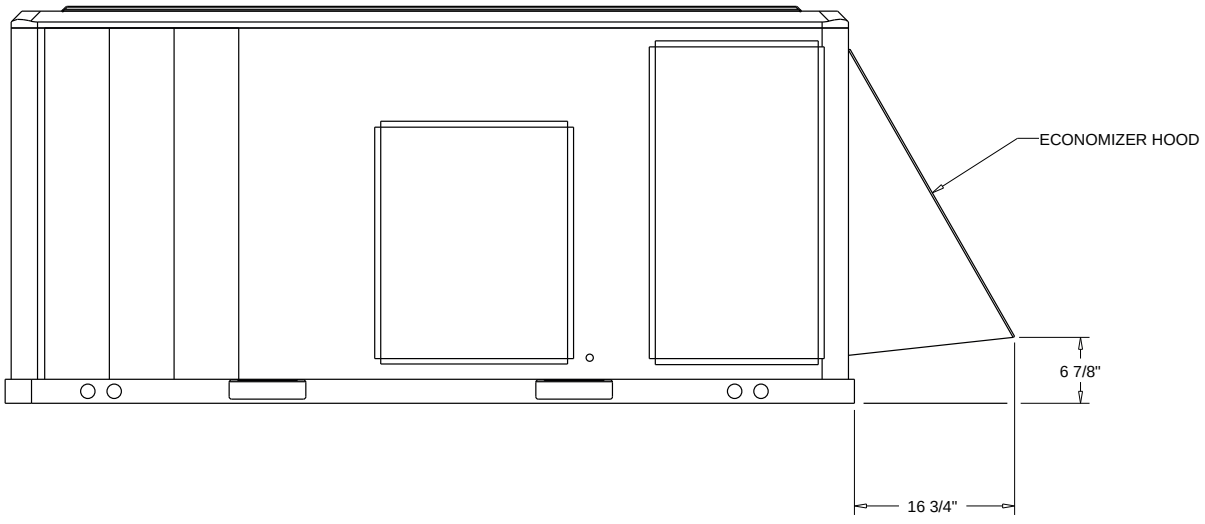




ACCESSORY - BAROMETRIC RELIEF DAMPER HOOD

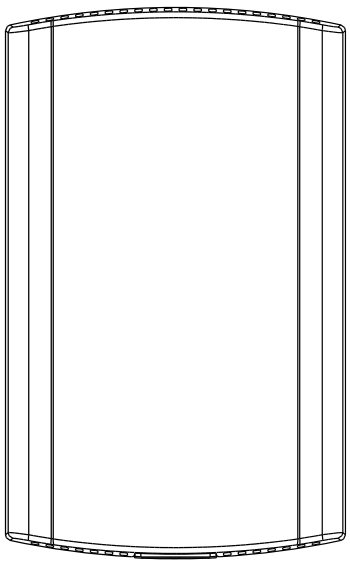
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1, B4, B5 Qty: 3 Tag(s): AC-5 Mezz, AC-6, AC-13 RX

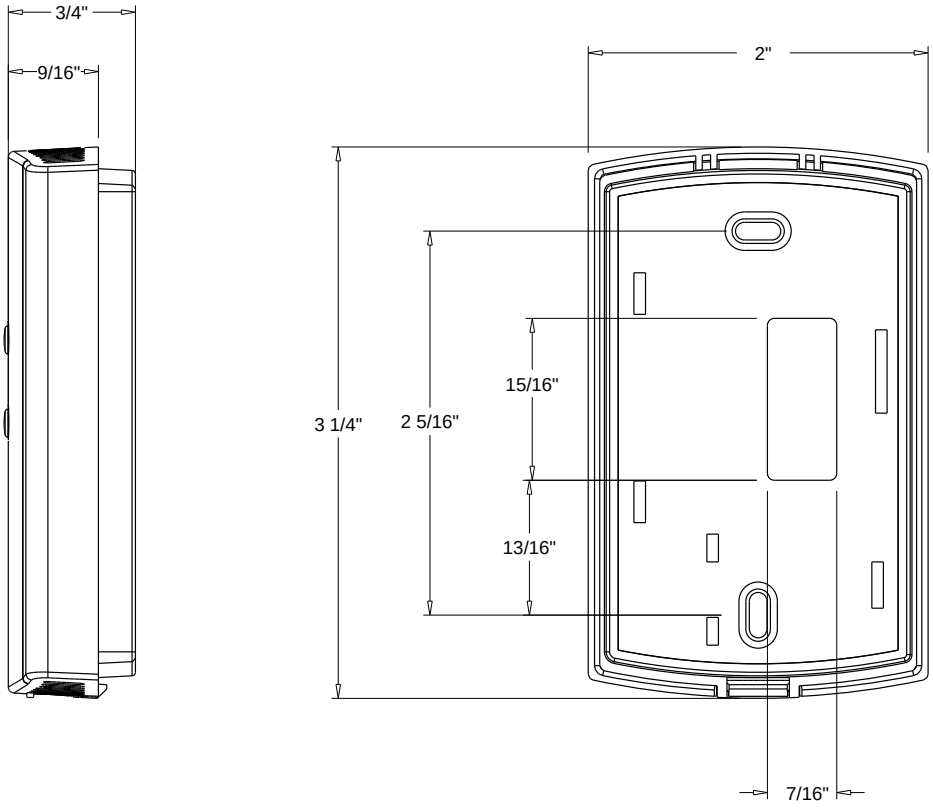




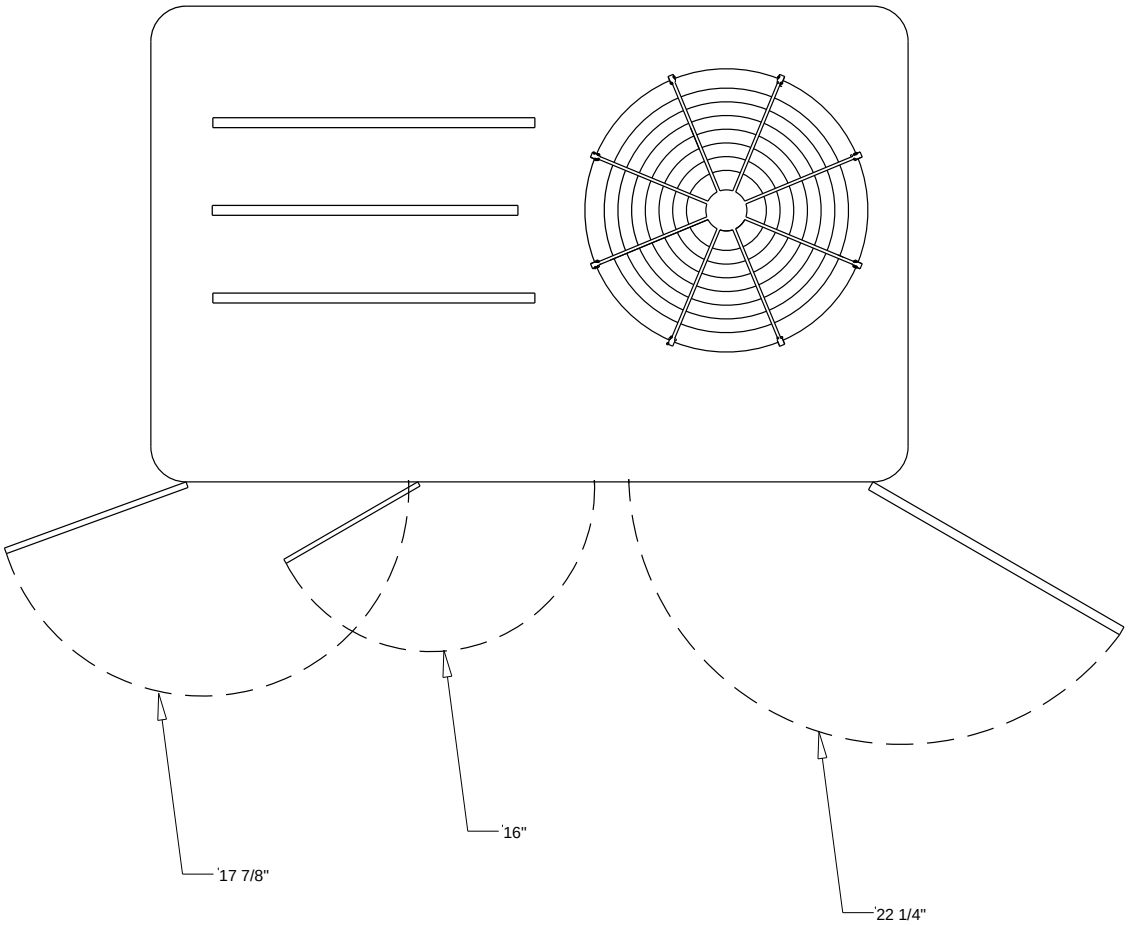
ACCESSORY - ECONOMIZER HOOD

Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1 - B4 Qty: 4 Tag(s): AC-5 Mezz, AC-8, AC-12, AC-6





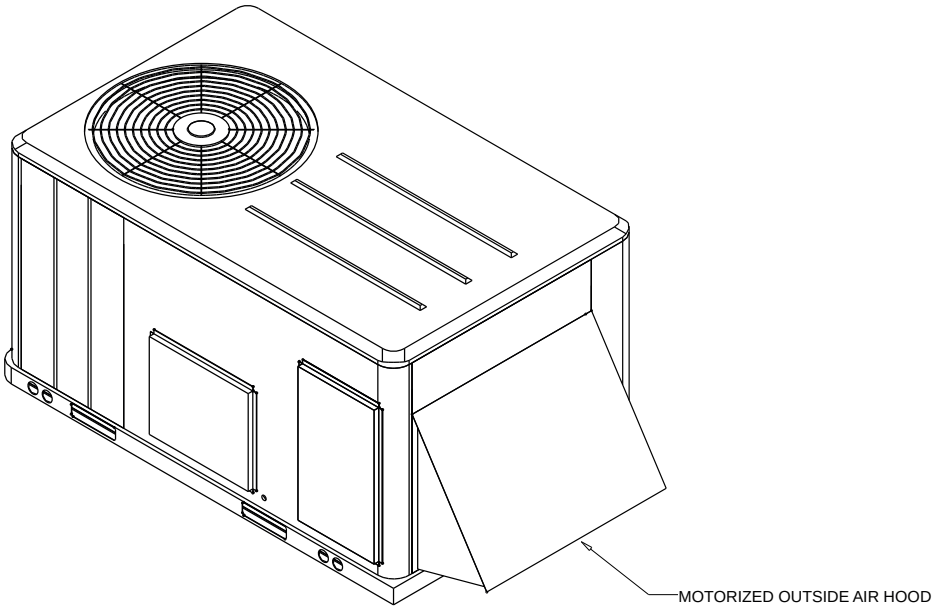
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8

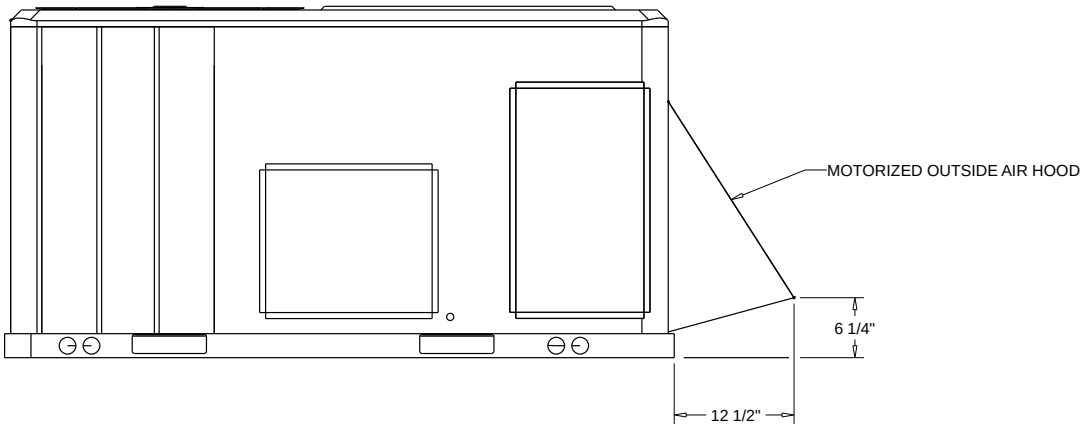


SWING DIAMETER - HINGED DOOR(S) OPTION

ACCESSORY

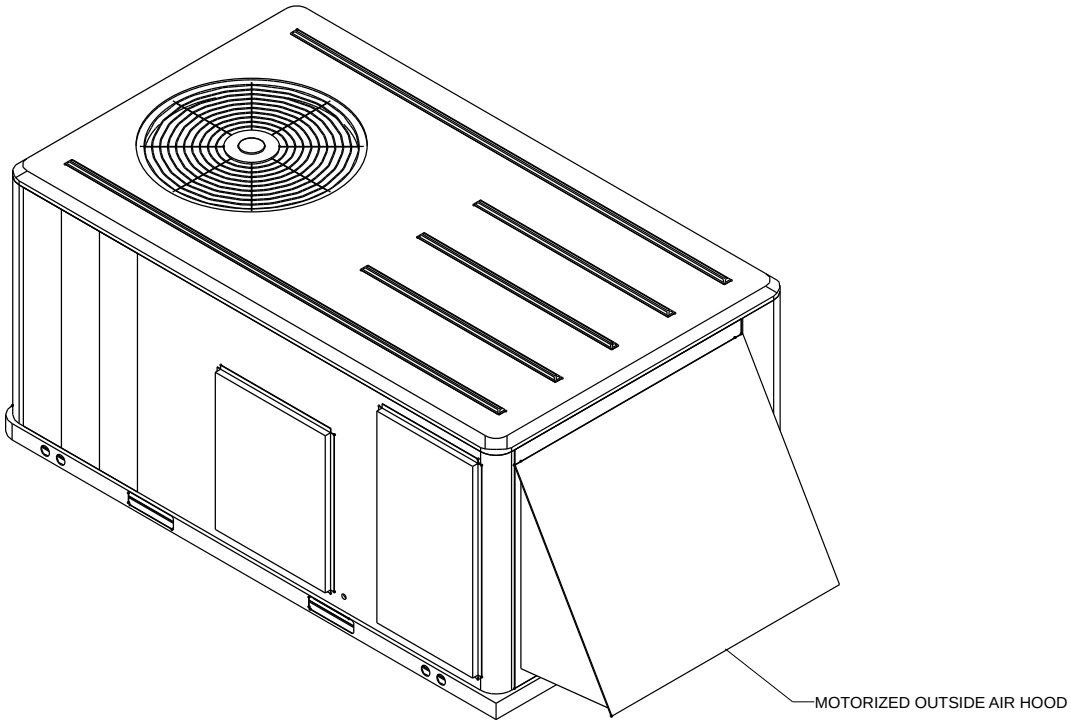
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B2 Qty: 1 Tag(s): AC-8

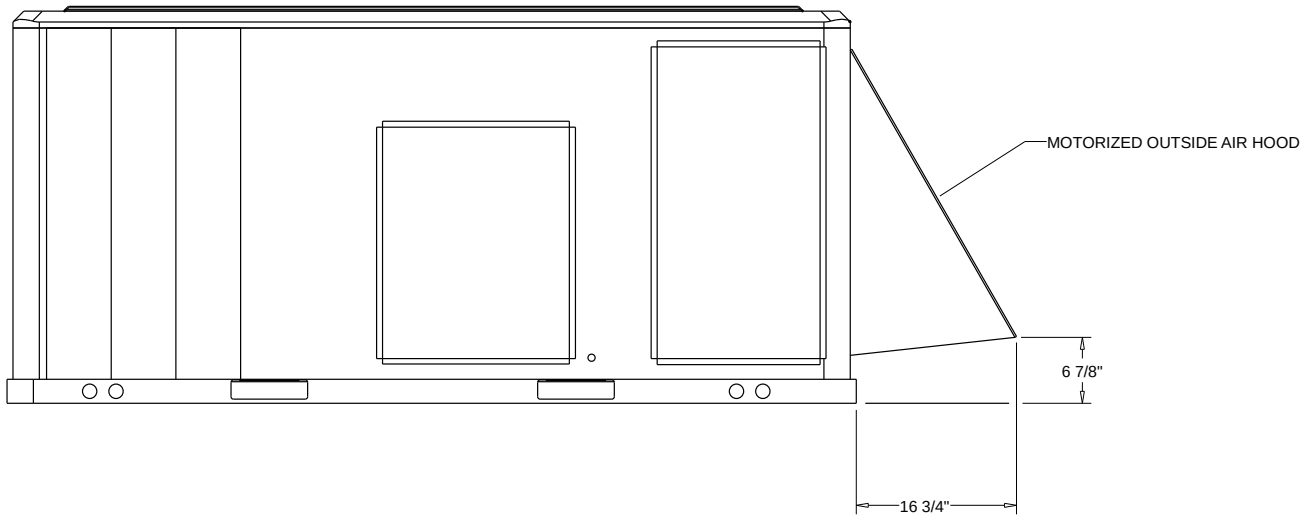




ACCESSORY - MOTORIZED OUTSIDE AIR HOOD

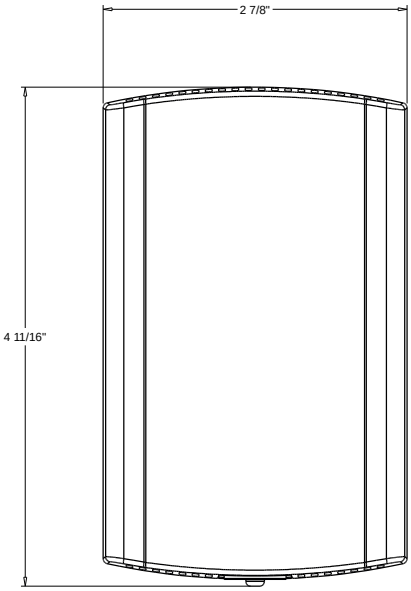
Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B3 Qty: 1 Tag(s): AC-12



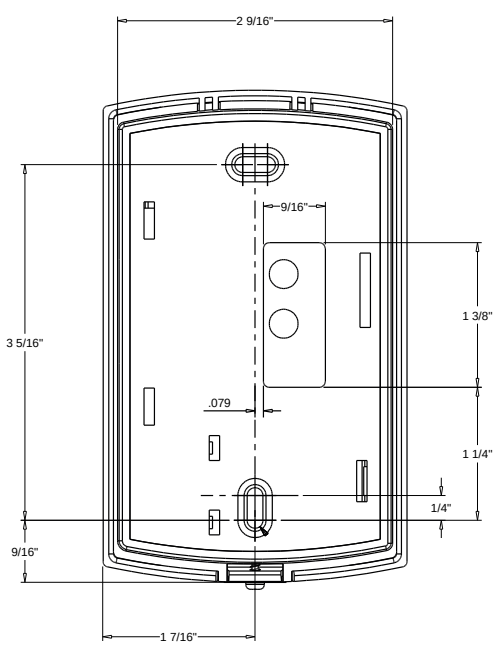


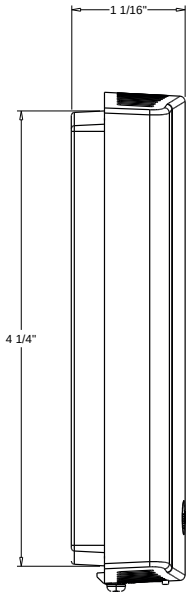
ACCESSORY - MOTORIZED OUTSIDE AIR HOOD

Accessory - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B5 Qty: 1 Tag(s): AC-13 RX



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

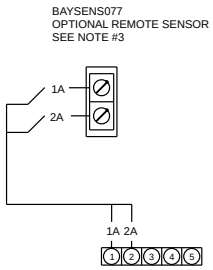


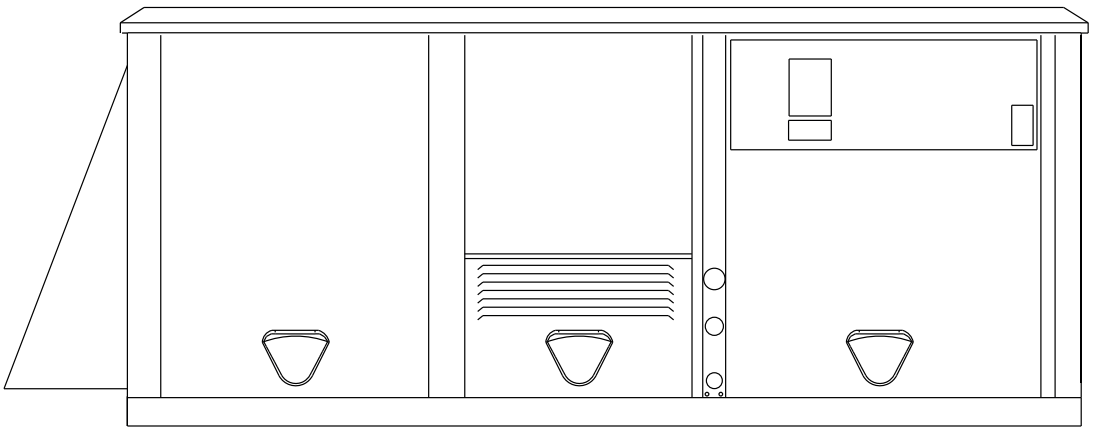


BAYSENS036A - WALL MOUNT HUMIDITY SENSOR

ACCESSORY

Field Wiring - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop
Item: B1 - B4 Qty: 4 Tag(s): AC-5 Mezz, AC-8, AC-12, AC-6





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 - Packaged Rooftop, Cooling / Heating Units

Item	Tag(s)	Qty	Description	Model Number
A1	AC-4 Sales	1	30 ton VOY3 - HGRH, CV	YCD360B4L-0B2DE1-B-D---HJB0100-T500-0000X----------2

Field Installed Option Description	Part/Ordering Number
Wall mounted humidity sensor	BAYSENS036A

Product Family - 3-10 Ton R-410A PKGD Unitary Gas/Electric Rooftop

Item	Tag(s)	Qty	Description	Model Number
B1	AC-5 Mezz	1	5 Ton - HGRH	YHC060F4RMA--F0C1A1B6000G000001000000000
B2	AC-8	1	3 Ton - HGRH	YHC036E3RLA--B0C1A1B6000G000001000000000
B3	AC-12	1	4 Ton - base	YHC048F3RLA--B0C1A1B6000G000001000000000
B4	AC-6	1	5 Ton - base	YHC060F3RMA--F0C1A1B6000G000001000000000

Field Installed Option Description	Part/Ordering Number
Remote room sensor	BAYSENS077A

Item	Tag(s)	Qty	Description	Model Number
B5	AC-13 RX	1	4 Ton - Pharmacy	YHC048E3RLA--F0C1A1B6B00G000001000000000

Field Installed Option Description	Part/Ordering Number
Humidity wall mounted sensor	BAYSENS036A