



Submittal

Prepared For:
Bend Heating

Date: April 12, 2022

Engineer:
CBD Engineering

Job Name:
Wilco Prineville Replacement

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

Product Summary

Qty Product

6 Packaged Gas/Electric Rooftop Units

Submittal Header:

Notes:

1. RTUs provided with terminal strip interface. Field installed controls/controllers will be necessary to meet schedule note (4).
2. Concentric Supply/Return diffuser drops not included in submittal (lead times did not meet project schedule), assume field constructed and installed.

Brad Hubbard – TraneOregon

7257 SW Kable Lane
Portland, OR 97224-7181
Phone: (503) 620-8031
Brad.hubbard@trane.com

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.

Tag Data - Packaged Gas/Electric Rooftop Units (Qty: 6)

Item	Tag(s)	Qty	Description	Model Number
A1	RTU-1, 2, 3, 4	4	15 Ton Pkgd Gas/DX RTU - Foundation	GBC180A3EMC--
A2	RTU-6, RTU-7	2	3 Ton Pkgd Gas/DX RTU - Foundation	GBC036A3EMB--
A3	RTU-5	1	5 Ton Pkgd Gas/DX RTU - Foundation	GBC060A3EMB--

All Units

Gas/DX
 Convertible Airflow
 208-230/60/3
 Electro-mechanical Terminal Strip Interface
 Gas Heat - Medium

Item: A1 Qty: 4 Tag(s): RTU-1, RTU-2, RTU-3, RTU-4

New Construction Downflow
 15 Ton
 Economizer Comparative Enthalpy with barometric relief
 Two speed fan standard motor
 14" Roof curb, non-seismic, rigid, flat roof (Fld)

Item: A2 Qty: 2 Tag(s): RTU-6, RTU-7

3 Ton
 Economizer Comparative Enthalpy w/o barometric relief
 14" Roof curb, non-seismic, rigid, flat roof (Fld)

Item: A3 Qty: 1 Tag(s): RTU-5

5 Ton
 Economizer Comparative Enthalpy w/o barometric relief
 14" Roof curb, non-seismic, rigid, flat roof (Fld)



Job Name: Wilco Prineville Replacement
 Prepared For:
 Unit Tag: RTU-1, RTU-2, RTU-3, RTU-4
 Quantity: 4

Trane Foundation Gas/Electric Rooftop

Unit Overview - GBC180A3EMC**H70000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight		EER	IEER/SEER	Elevation
		Airflow	External Static Pressure	Height	Width	Length	Minimum	Maximum			
Gas/Electric	15 Ton	6000 cfm	1.000 in H2O	4.94 ft	7.24 ft	10.26 ft	1990.0 lb	2412.0 lb	11.0 EER	13.20	

Unit Features

Fresh Air Selection	Econ-comp enthaply with bar rel
SupplyFan/Drive/ MotorType	Two speed fan standard motor

Unit Electrical

Voltage/phase/hertz	208-230/60/3
MCA	79.00 A
MOP	100.00 A



Controls

Unit Controls	Electro-mechanical
----------------------	--------------------

Cooling Section

	Capacity
Entering Dry Bulb 81.00 F	Gross Total 169.59 MBh
Entering Wet Bulb 63.00 F	Gross Sensible 164.00 MBh
Ambient Temp 98.00 F	Net Total 155.17 MBh
Leaving Coil Dry Bulb 55.05 F	Net Sensible 149.59 MBh
Leaving Coil Wet Bulb 53.53 F	Refrig Charge-circuit 1 11.4 lb
Leaving Unit Dry Bulb 58.22 F	Refrig Charge-circuit 2 6.0 lb
Leaving Unit Wet Bulb 54.76 F	

Heating Section

Output Heating Capacity	226.30 MBh
Output Heating Capacity with Fan	226.30 MBh
Heating EAT	50.00 F
Heating LAT	89.32 F
Heating Temp Rise	39.32 F

Fan Section

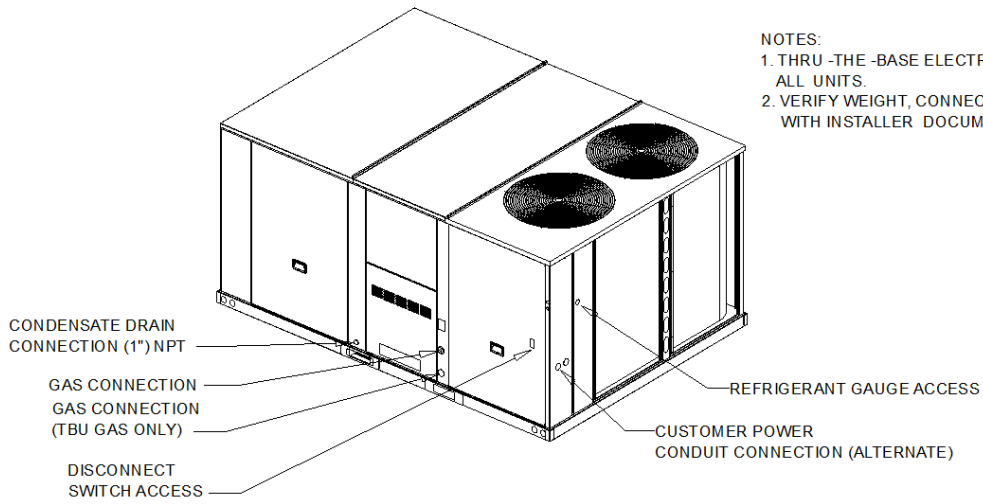
Indoor Fan Data		Outdoor Fan Data	
Type	FC Centrifugal	Type	Propeller
Drive Type	Belt	Fan Quantity	2
Indoor Fan Performance		Drive Type	Direct
Airflow	6000 cfm	Outdoor Fan Performance	
Design ESP	1.000 in H2O	Condenser Fan FLA	9.60 A
Component SP	0.200 in H2O	Exhaust Fan Data	
Total SP	1.200 in H2O	Type	FC Centrifugal
Indoor Motor Operating Power	2.98 bhp	Drive Type	Direct
Indoor Motor Power	2.22 kW	Exhaust Fan Performance	
Indoor RPM	898 rpm	Exhaust Fan FLA	10.60 A

Compressor Section

Circuit 1 RLA	26.90 A
Circuit 2 RLA	24.90 A

Accessories

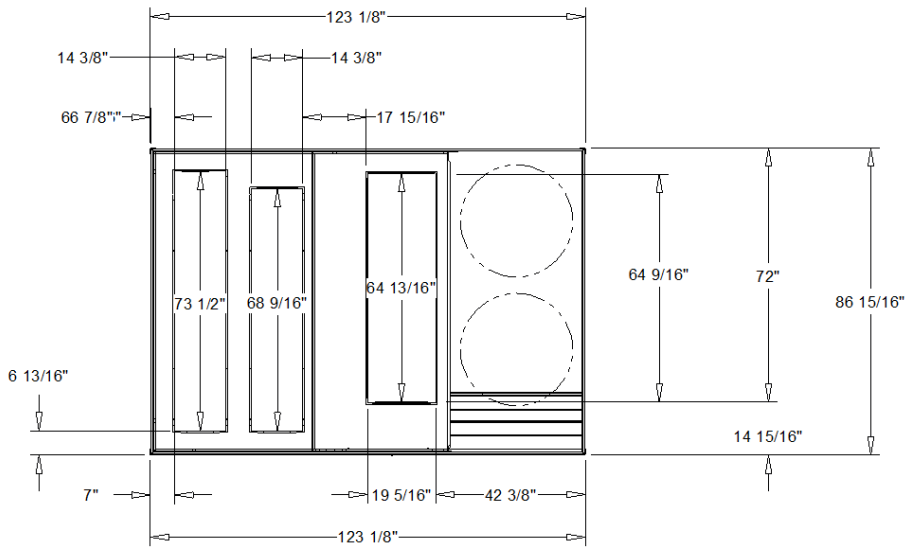
Roof curb	Roof curb (15 - 25 Tons)
------------------	--------------------------



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

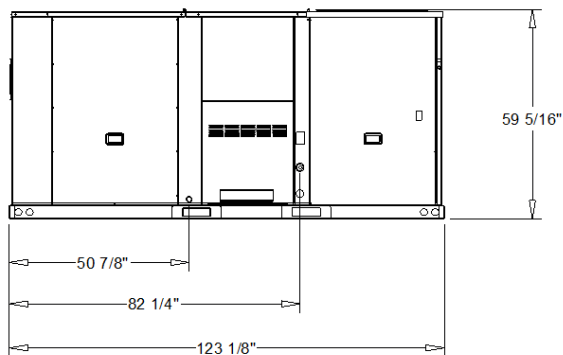
PACKAGED GAS / ELEC DOWNFLOW

DIMENSION DRAWING



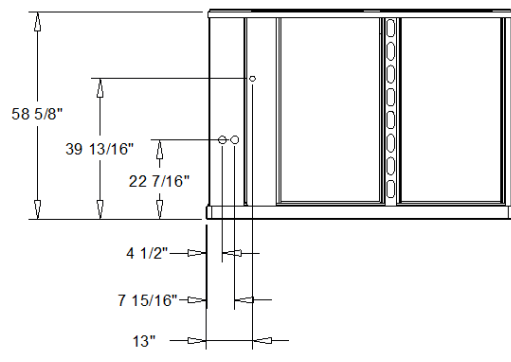
PLAN VIEW OF UNIT

DIMENSION DRAWING



FRONT VIEW OF UNIT

DIMENSION DRAWING



RIGHT VIEW OF UNIT

DIMENSION DRAWING

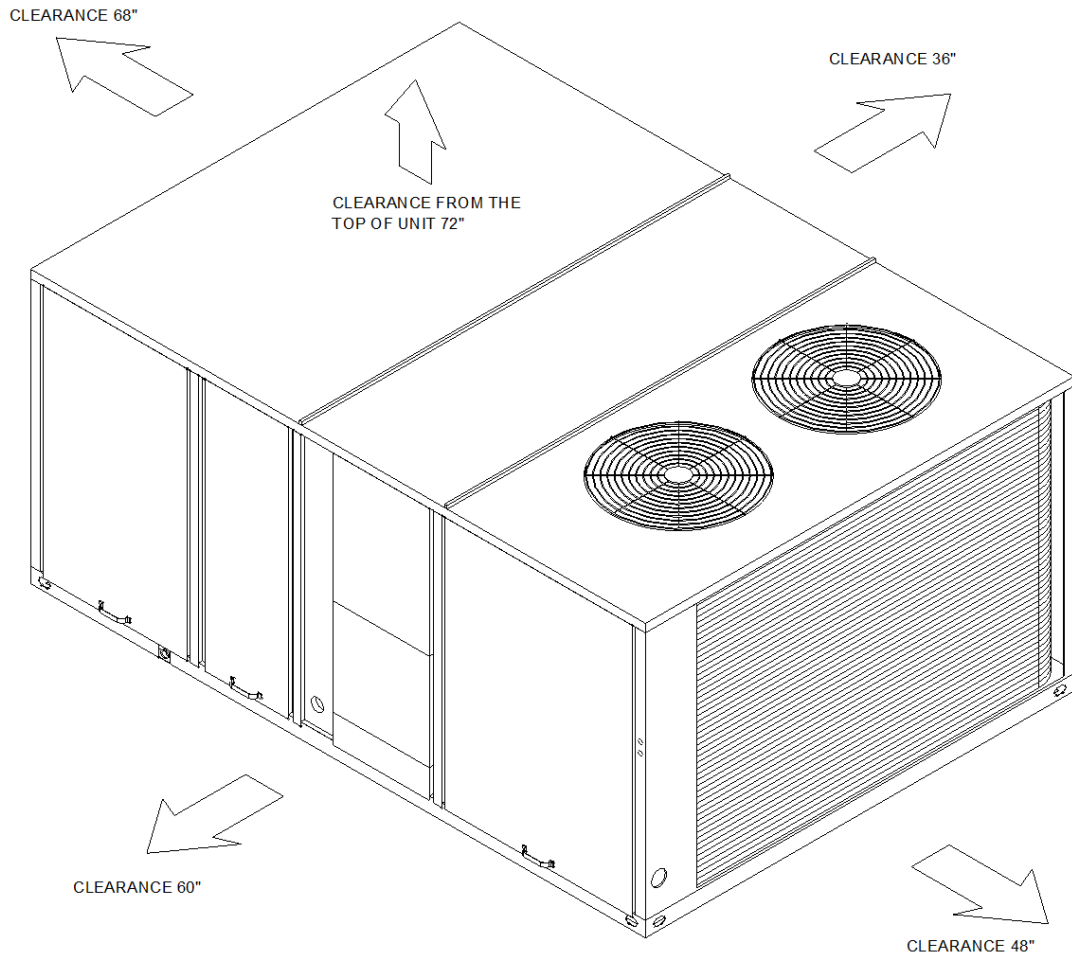


ELECTRICAL / GENERAL DATA

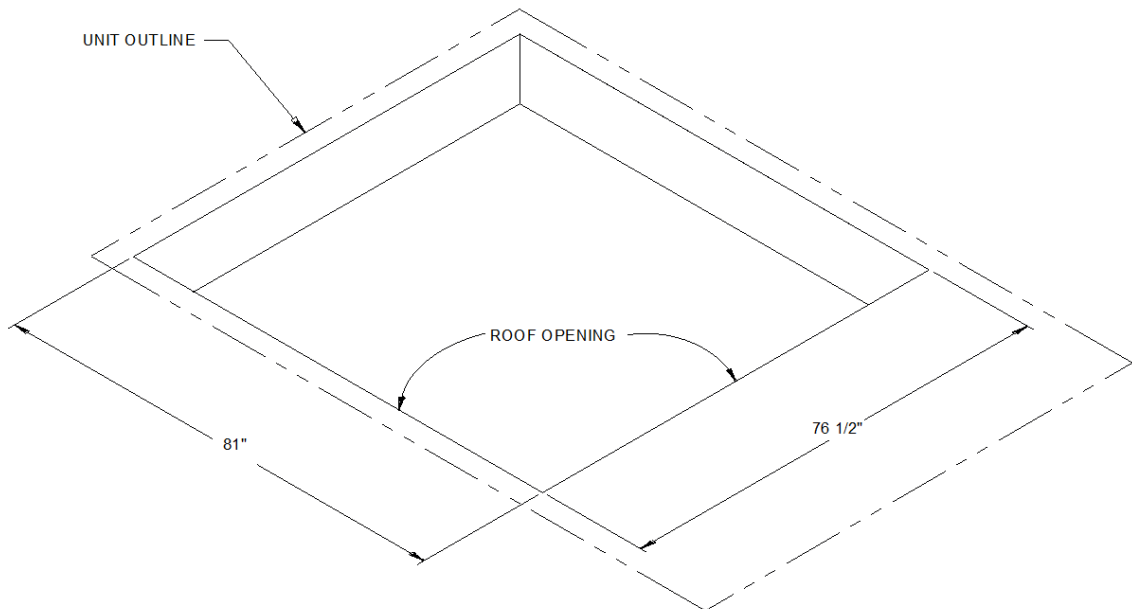
GENERAL ⁽²⁾⁽⁴⁾⁽⁶⁾⁽⁷⁾⁽¹⁰⁾ Model: GBC180 Oversized Motor Unit Operating Voltage: - Unit Primary Voltage: 208 MCA: Unit Secondary Voltage: 230 MFS: Unit Hertz: 60 MCB: Unit Phase: 3 EER: 10.0 IEER One Speed Fan: - IEER Multi Speed Fan: 13.2 Standard Motor Field Installed Oversized Motor MCA: 79.0 MCA: MFS: 100.0 MFS: MCB: 100.0 MCB:		HEATING PERFORMANCE HEATING - GENERAL DATA Heating Model: Medium Heating Input (BTU): 320000/224000 Heating Output (BTU): 256000/179200 No. Burners: 8 No. Stages: 2 Gas Inlet Pressure Natural Gas (Min/Max): 4.5 / 14.0 in. wc LP (Min/Max): 11.0 / 14.0 in. wc Gas Pipe Connection Size: 3/4"																						
INDOOR MOTOR <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Standard Motor</td> <td style="width: 33%;">Oversized Motor</td> <td style="width: 33%;">Field Installed Oversized Motor</td> </tr> <tr> <td>Number: 1</td> <td>Number:</td> <td>Number:</td> </tr> <tr> <td>Horsepower: 3.0</td> <td>Horsepower:</td> <td>Horsepower:</td> </tr> <tr> <td>Motor Speed (RPM): 1750</td> <td>Motor Speed (RPM):</td> <td>Motor Speed (RPM):</td> </tr> <tr> <td>Phase: 3</td> <td>Phase</td> <td>Phase</td> </tr> <tr> <td>Full Load Amps: 10.6</td> <td>Full Load Amps:</td> <td>Full Load Amps:</td> </tr> <tr> <td>Locked Rotor Amps: 83.0</td> <td>Locked Rotor Amps:</td> <td>Locked Rotor Amps:</td> </tr> </table>				Standard Motor	Oversized Motor	Field Installed Oversized Motor	Number: 1	Number:	Number:	Horsepower: 3.0	Horsepower:	Horsepower:	Motor Speed (RPM): 1750	Motor Speed (RPM):	Motor Speed (RPM):	Phase: 3	Phase	Phase	Full Load Amps: 10.6	Full Load Amps:	Full Load Amps:	Locked Rotor Amps: 83.0	Locked Rotor Amps:	Locked Rotor Amps:
Standard Motor	Oversized Motor	Field Installed Oversized Motor																						
Number: 1	Number:	Number:																						
Horsepower: 3.0	Horsepower:	Horsepower:																						
Motor Speed (RPM): 1750	Motor Speed (RPM):	Motor Speed (RPM):																						
Phase: 3	Phase	Phase																						
Full Load Amps: 10.6	Full Load Amps:	Full Load Amps:																						
Locked Rotor Amps: 83.0	Locked Rotor Amps:	Locked Rotor Amps:																						
COMPRESSOR Circuit 1/2 Number: 2 Horsepower: - Phase: 3 Rated Load Amps: 26.9/24.9 Locked Rotor Amps: 208/180		OUTDOOR MOTOR Number: 2 Horsepower: 1.0 Motor Speed (RPM): 1125 Phase: 3 Full Load Amps: (11) 9.6 Locked Rotor Amps: -																						
POWER EXHAUST ACCESSORY ⁽³⁾ (Field Installed Power Exhaust) Phase: Horsepower: Motor Speed (RPM): Full Load Amps: Locked Rotor Amps:		FILTERS <table style="width: 100%; border: none;"> <tr> <td>Type:</td> <td>Throwaway</td> </tr> <tr> <td>Furnished:</td> <td>Yes</td> </tr> <tr> <td>Number</td> <td>8</td> </tr> <tr> <td>Recommended</td> <td>20"x25"x2"</td> </tr> </table>		Type:	Throwaway	Furnished:	Yes	Number	8	Recommended	20"x25"x2"													
Type:	Throwaway																							
Furnished:	Yes																							
Number	8																							
Recommended	20"x25"x2"																							
REFRIGERANT ⁽²⁾ Type: R-410A Factory Charge: Circuit #1 7.6 lb Circuit #2 7.0 lb																								

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 does not include Heater.
5. Value include Standard Motor.
6. Value include Oversized Motor
7. EER is rated at AHRI conditions and in accordance with DOE test procedures.
8. For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.
9. HP for each compressor.
10. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 360.
11. Full Load Amps (FLA) are the combined amps for outdoor motors.



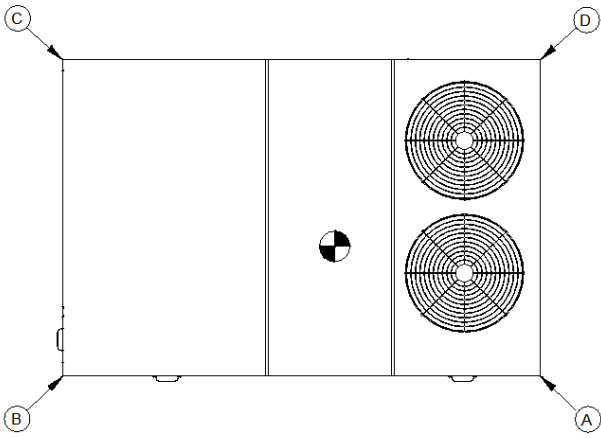
DOWNFLOW-PACKAGED COOLING WITH ELECTRIC CLEARANCE



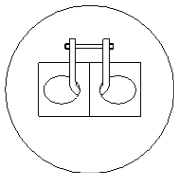
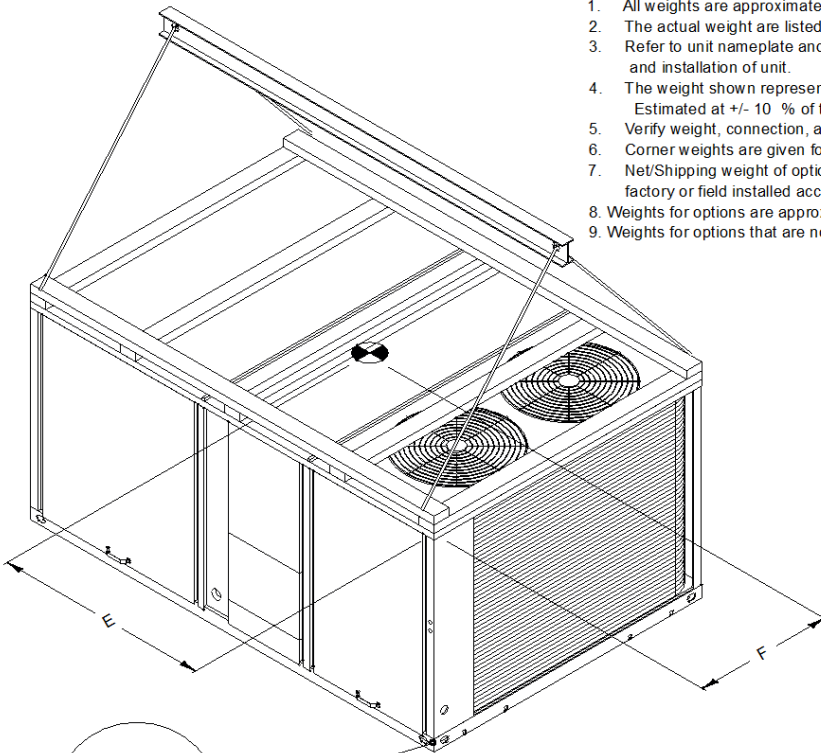
DOWNFLOW-PACKAGED COOLING WITH ELECTRIC ROOF OPENING CLEARANCE

INSTALLED ACCESSORIES NET WEIGHT DATA

ACCESSORY		WEIGHTS			
ECONOMIZER		91.0 lb			
MOTORIZED OUTSIDE AIR DAMPER					
MANUAL OUTSIDE AIR DAMPER					
OVERSIZED MOTOR					
MULTI-SPEED WITH DRIVE		65.0 lb			
THROUGH THE BASE ELECTRICAL					
BAROMETRIC		40.0 lb			
ROOF CURB		235.0 lb			
POWER EXHAUST					
HAIL GUARD					
LP GAS CONVERSION					
STATIC DRIVE					
DISCONNECT					
BASE UNIT WEIGHTS		CORNER WEIGHTS		CENTER OF GRAVITY	
SHIPPING	NET	(A)	(C)	(E) LENGTH	(F) WIDTH
2324.0 lb	2003.0 lb	(B) 505.0 lb	(D) 457.0 lb	55"	37"



CORNER WEIGHT



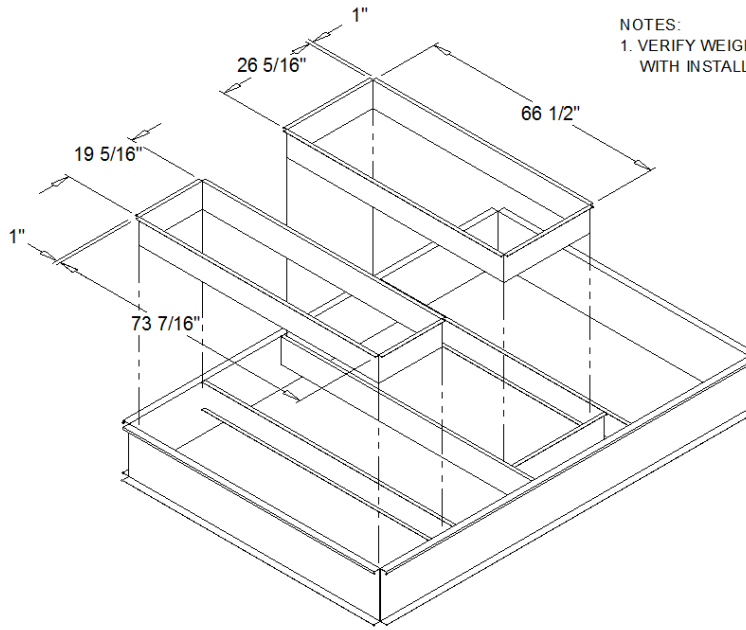
RIGGING AND CENTER OF GRAVITY

NOTE:

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



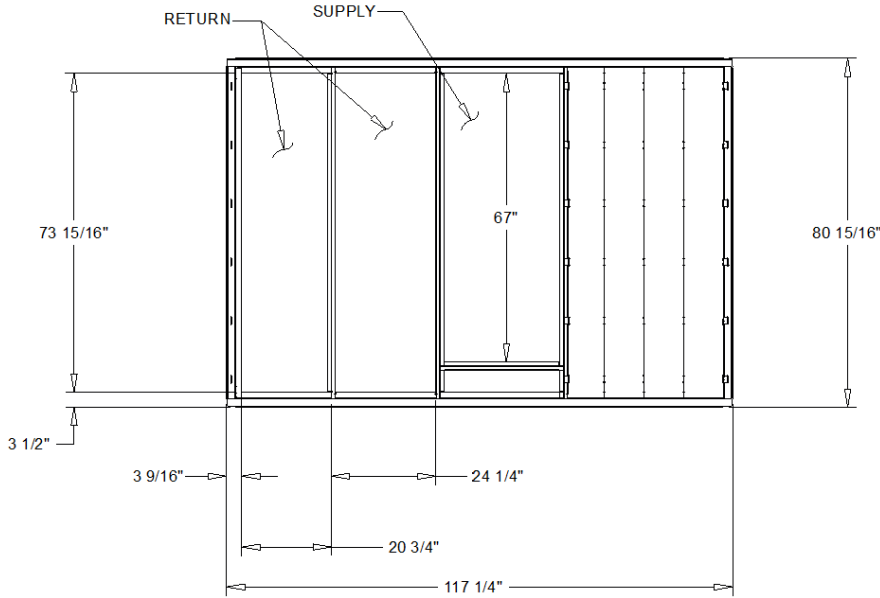
Job Name: Wilco Prineville Replacement
Prepared For:
Unit Tag: RTU-1, RTU-2, RTU-3, RTU-4
Quantity: 4



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

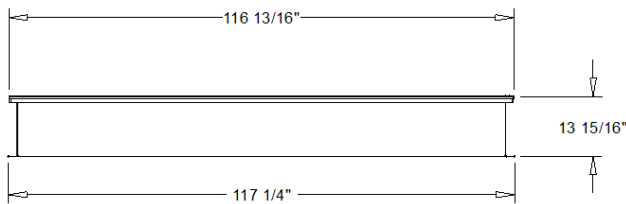
PACKAGED COOLING ROOF CURB

DIMENSION DRAWING



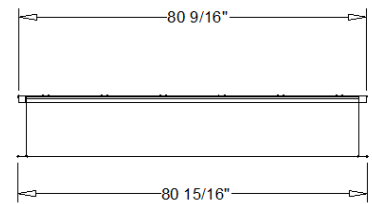
PLAN VIEW OF UNIT

DIMENSION DRAWING



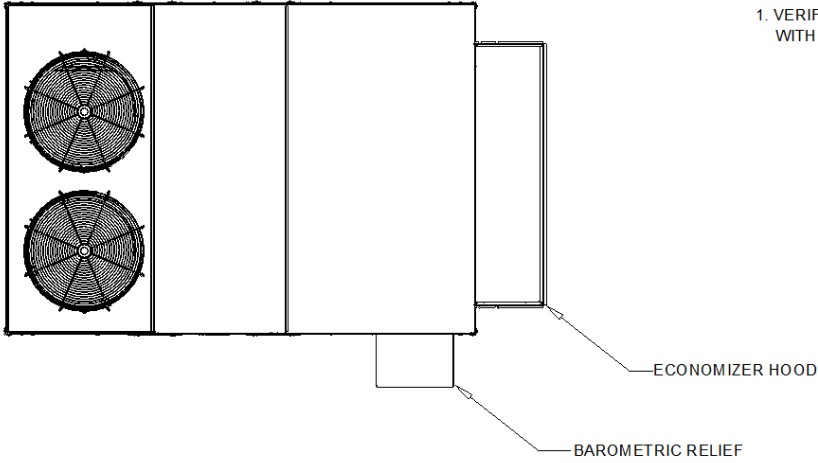
FRONT VIEW OF UNIT

DIMENSION DRAWING



RIGHT VIEW OF UNIT

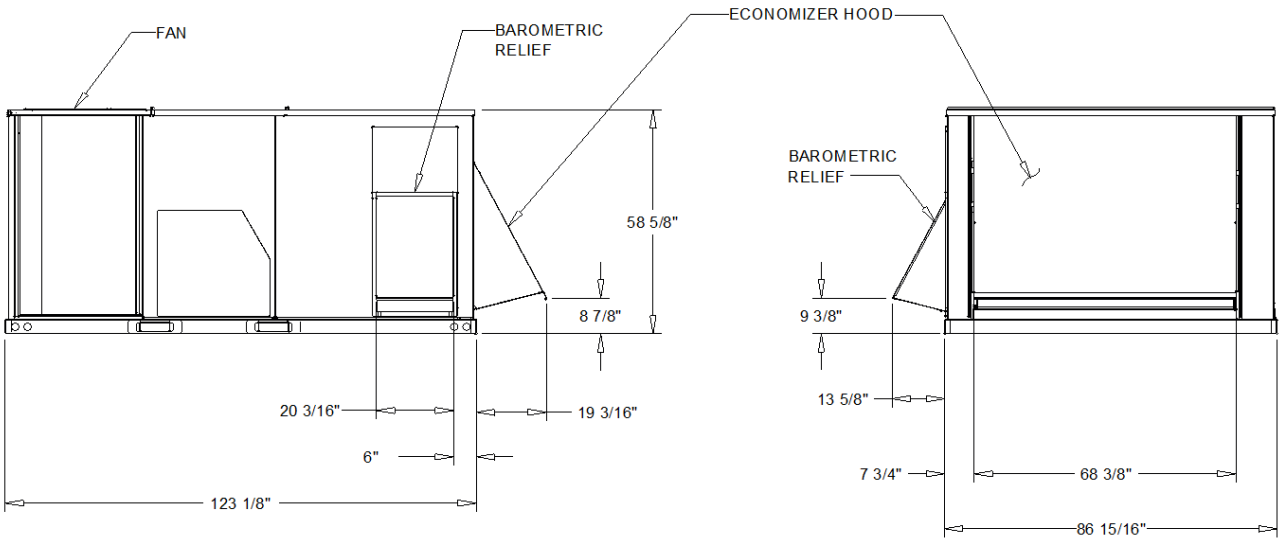
DIMENSION DRAWING



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

PLAN VIEW OF UNIT
 DIMENSION DRAWING

ECONOMIZER WITH BAROMETRIC RELIEF
 DIMENSION DRAWING



BACK VIEW OF UNIT
 DIMENSION DRAWING

LEFT VIEW OF UNIT
 DIMENSION DRAWING



15 thru 25 Ton General

The units shall be dedicated downflow or horizontal airflow. The operating range shall be between 115°F and 40°F in cooling as standard from the factory for all units. 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 UL listed and labeled, classified in accordance to UL 1995/C 22.2, 236-05 3rd Edition.

15 thru 25 Ton 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. In order to ensure a water and air tight seal, service panels shall have lifting handles and no more than three screws to remove. All exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2", 1.0 lbdensity foil-faced, fire-resistant, permanent, odorless, glass fiber material. The base of the downflow unit shall be insulated with 1/2", 1.0 lbdensity foil-faced, closed-cell material. The downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8" high 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.

15 thru 25 Ton 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 nameplate voltage. Internal overloads shall be provided with the scroll compressors. All models shall have phase monitors and low and high pressure control as standard.

15 thru 25 Ton 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.

15 thru 25 Ton Discharge Line Thermostat

A bi-metal element discharge line thermostat is installed as a standard option on the discharge line of each system. This standard option provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher. Discharge line thermostat is wired in series with high pressure control. When the discharge temperature rises above the protection limit, the bi-metal disc in the thermostat switches to the off position, opening the 24 Vac circuit. When the temperature on the discharge line cools down, the bi-metal disc closes the contactor circuit, providing power to the compressor.

15 thru 25 Ton Evaporator and Condenser Coils

Microchannel coils will be burst tested by the manufacturer. Internally finned, 5/16" copper tubes mechanically bonded to a configured aluminum plate fin shall be standard for evaporator coils. Microchannel condenser coils shall be standard on all units. Coils shall be leak tested to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 225 psig and pressure tested to 450 psig. Sloped condensate drain pans are standard.

15 thru 25 Ton Filters

Two inch standard filters shall be factory supplied on all units.

15 thru 25 Ton Gas Heating Section

The heating section shall have a progressive tubular heat exchanger design. 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. 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).



15 thru 25 Ton High Pressure Control

All units include High Pressure Cutout as standard.

15 thru 25 Ton Indoor Fan

Units above shall have belt driven, FC centrifugal fans with adjustable motor sheaves. Units with standard motors shall have an adjustable idler-arm assembly for quick-adjustment of fan belts and motor sheaves. All motors shall be thermally protected. Oversized motors shall be available for high static application. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

15 thru 25 Ton Low Pressure Control

All units include Low Pressure Cutout as standard.

15 thru 25 Ton Outdoor Fans

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

15 thru 25 Ton Phase Monitor

The Phase Monitor is a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has an operating input voltage range of 190-600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

15 thru 25 Ton Refrigerant Circuits

Each refrigerant circuit shall have independent fixed orifice, service pressure ports, and refrigerant line filter driers factory installed as standard. An area shall be provided for replacement suction line driers.

15 thru 25 Ton Unit Top

The top cover shall be double hemmed and gasket sealed to prevent water leakage.

15 thru 25 Ton Multi-Speed Indoor Fan System

Multi-speed indoor fan system is designed for use in applications for meeting the minimum requirement of CA Title 24. This system incorporates a multi-speed fan control to change the speed of the fan to 66% of full airflow based off of compressor stages.

15 thru 25 Ton Barometric Relief

Designed to be used on downflow units, barometric relief is an unpowered means of relieving excess building pressure.

15 thru 25 Ton Economizer-Downflow

The assembly includes fully modulating 0-100% motor and dampers, barometric relief, minimum position setting, preset linkage, wiring harness with plug, fixed dry bulb and spring return actuator. The barometric relief damper shall provide a pressure operated damper that shall be gravity closing and shall prohibit entrance of outside air during the equipment off cycle. Solid state enthalpy and differential enthalpy control shall be field-installed.

15 thru 25 Ton Reference or Comparative Enthalpy

Reference Enthalpy is used to measure and communicate outdoor humidity. The unit receives and uses this information to provide improved comfort cooling while using the economizer. Comparative Enthalpy measures and communicates humidity for both outdoor and return air conditions, and return air temperature. The unit receives and uses this information to maximize use of economizer cooling, and to provide maximum occupant comfort control. Reference or Comparative Enthalpy option shall be available when a factory or field installed Downflow Economizer is ordered. This option is available on all downflow models.

15 thru 25 Ton Roof Curb-Downflow - Field Installed

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



Job Name: Wilco Prineville Replacement
Prepared For:
Unit Tag: RTU-1, RTU-2, RTU-3, RTU-4
Quantity: 4

15 thru 25 Ton Tool-less Hail Guards - Field Installed

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

3 thru 5 Ton Filters

Two inch standard filters shall be factory supplied on all units.



Trane Foundation Gas/Electric Rooftop

Unit Overview - GBC060A3EMB**G000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight		EER	IEER/SEER	Elevation
		Airflow	External Static Pressure	Height	Width	Length	Minimum	Maximum			
Gas/Electric	5 Ton	2000 cfm	0.750 in H2O	3.55 ft	3.99 ft	6.40 ft	586.0 lb	785.0 lb	12.0 EER	14.00	

Unit Features

Fresh Air Selection Econ-comp enthaply w/o bar rel

Unit Electrical

Voltage/phase/hertz	208-230/60/3
MCA	27.00 A
MOP	40.00 A



Controls

Unit Controls Electro-mechanical

Cooling Section

		Capacity
Entering Dry Bulb	81.00 F	Gross Total 55.80 MBh
Entering Wet Bulb	63.00 F	Gross Sensible 53.46 MBh
Ambient Temp	98.00 F	Net Total 50.70 MBh
Leaving Coil Dry Bulb	55.98 F	Net Sensible 48.36 MBh
Leaving Coil Wet Bulb	53.81 F	Refrig Charge-circuit 1 5.0 lb
Leaving Unit Dry Bulb	58.97 F	
Leaving Unit Wet Bulb	54.96 F	

Heating Section

Output Heating Capacity	81.33 MBh
Output Heating Capacity with Fan	81.33 MBh
Heating EAT	70.00 F
Heating LAT	112.40 F
Heating Temp Rise	42.40 F

Fan Section

Indoor Fan Data		Outdoor Fan Data	
Type	FC Centrifugal	Type	Propeller
Drive Type	Belt	Fan Quantity	1
Indoor Fan Performance		Drive Type	Direct
Airflow	2000 cfm	Outdoor Fan Performance	
Design ESP	0.750 in H2O	Condenser Fan FLA	1.40 A
Component SP	0.180 in H2O	Exhaust Fan Data	
Total SP	0.930 in H2O	Type	FC Centrifugal
Indoor Motor Operating Power	NaN bhp	Drive Type	Direct
Indoor Motor Power	NaN kW	Exhaust Fan Performance	
Indoor RPM	NaN rpm	Exhaust Fan FLA	5.00 A

Compressor Section

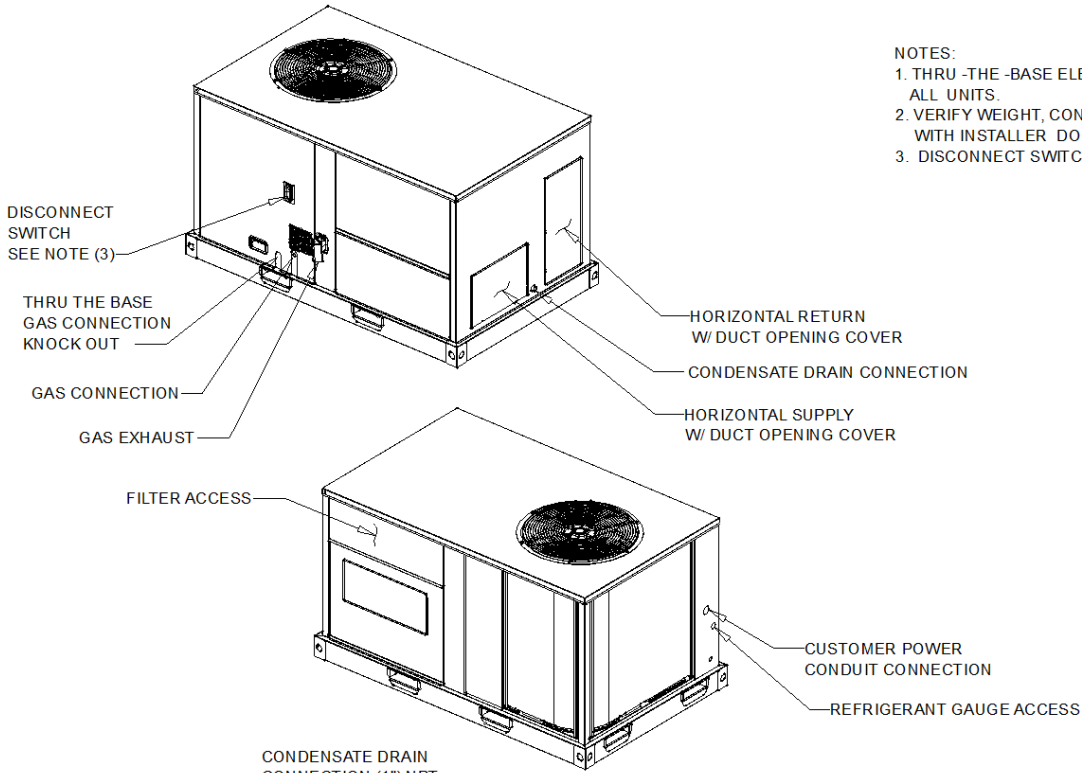
Circuit 1 RLA	16.00 A
Circuit 2 RLA	0.00 A

Accessories

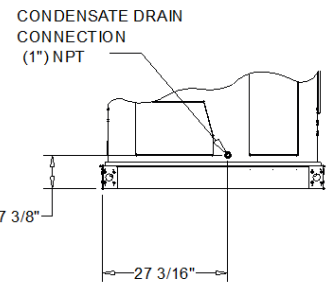
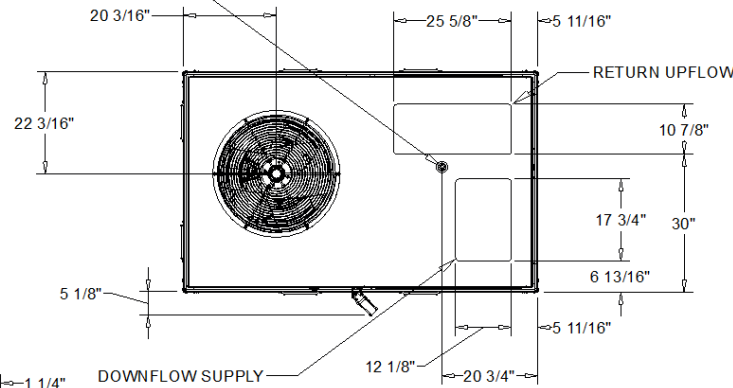
Roof curb	Roof curb (3 - 5 Tons)
------------------	------------------------

NOTES:

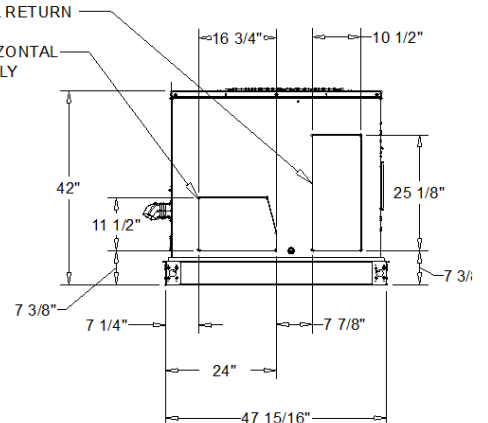
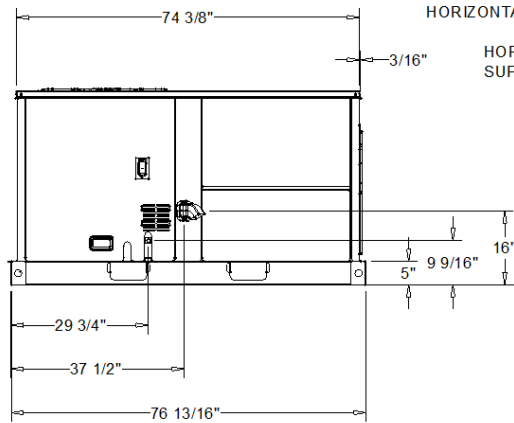
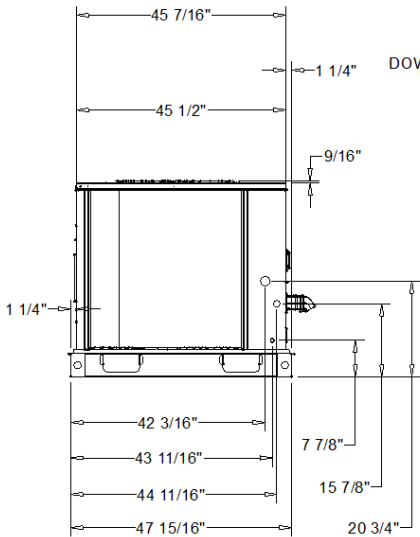
1. THRU -THE -BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.
2. VERIFY WEIGHT, CONNECTIONS, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION
3. DISCONNECT SWITCH IS NOT STANDARD ON ALL UNITS.



CONDENSATE DRAIN CONNECTION (1") NPT



CONDENSATE DRAIN DIMENSION DRAWING



3 - 5 PACKAGED COOLING

DIMENSION DRAWING



ELECTRICAL / GENERAL DATA

<p>GENERAL ⁽²⁾⁽⁴⁾⁽⁶⁾⁽⁷⁾⁽¹⁰⁾</p> <p>Model: GBC060 Oversized Motor</p> <p>Unit Operating Voltage: - MCA:</p> <p>Unit Primary Voltage: 208 MFS:</p> <p>Unit Secondary Voltage: 230 MCB:</p> <p>Unit Hertz: 60</p> <p>Unit Phase: 3</p> <p>EER: 12 / 14</p> <p>IEER One Speed Fan: -</p> <p>IEER Multi Speed Fan: -</p> <p>Standard Motor Field Installed Oversized Motor</p> <p>MCA: 26.4 MCA:</p> <p>MFS: 40.0 MFS:</p> <p>MCB: 40.0 MCB:</p>	<p>HEATING PERFORMANCE</p> <p>HEATING - GENERAL DATA</p> <p>Heating Model: Medium</p> <p>Heating Input (BTU): 115000 / 92000</p> <p>Heating Output (BTU): 92000 / 73000</p> <p>No. Burners: 3</p> <p>No. Stages: 2</p> <p>Gas Inlet Pressure</p> <p>Natural Gas (Min/Max): 4.5 / 14.0 in. wc</p> <p>LP (Min/Max): 11.0 / 14.0 in. wc</p> <p>Gas Pipe Connection Size: 1/2"</p>																					
<p>INDOOR MOTOR</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Standard Motor</td> <td style="width: 33%;">Oversized Motor</td> <td style="width: 33%;">Field Installed Oversized Motor</td> </tr> </table> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Number: 1</td> <td style="width: 33%;">Number:</td> <td style="width: 33%;">Number:</td> </tr> <tr> <td>Horsepower: 1.0</td> <td>Horsepower:</td> <td>Horsepower:</td> </tr> <tr> <td>Motor Speed (RPM): -</td> <td>Motor Speed (RPM):</td> <td>Motor Speed (RPM):</td> </tr> <tr> <td>Phase: 3</td> <td>Phase</td> <td>Phase</td> </tr> <tr> <td>Full Load Amps: 5.0</td> <td>Full Load Amps:</td> <td>Full Load Amps:</td> </tr> <tr> <td>Locked Rotor Amps: 24.5</td> <td>Locked Rotor Amps:</td> <td>Locked Rotor Amps:</td> </tr> </table>		Standard Motor	Oversized Motor	Field Installed Oversized Motor	Number: 1	Number:	Number:	Horsepower: 1.0	Horsepower:	Horsepower:	Motor Speed (RPM): -	Motor Speed (RPM):	Motor Speed (RPM):	Phase: 3	Phase	Phase	Full Load Amps: 5.0	Full Load Amps:	Full Load Amps:	Locked Rotor Amps: 24.5	Locked Rotor Amps:	Locked Rotor Amps:
Standard Motor	Oversized Motor	Field Installed Oversized Motor																				
Number: 1	Number:	Number:																				
Horsepower: 1.0	Horsepower:	Horsepower:																				
Motor Speed (RPM): -	Motor Speed (RPM):	Motor Speed (RPM):																				
Phase: 3	Phase	Phase																				
Full Load Amps: 5.0	Full Load Amps:	Full Load Amps:																				
Locked Rotor Amps: 24.5	Locked Rotor Amps:	Locked Rotor Amps:																				
<p>COMPRESSOR Circuit 1/2</p> <p>Number: 1</p> <p>Horsepower: 6.45</p> <p>Phase: 3</p> <p>Rated Load Amps: 16.0/17.8</p> <p>Locked Rotor Amps: 110.0</p>	<p>OUTDOOR MOTOR</p> <p>Number: 1</p> <p>Horsepower: 0.33</p> <p>Motor Speed (RPM): -</p> <p>Phase: 3</p> <p>Full Load Amps: 1.4</p> <p>Locked Rotor Amps: 4.6</p>																					
<p>POWER EXHAUST ACCESSORY ⁽³⁾</p> <p>(Field Installed Power Exhaust)</p> <p>Phase:</p> <p>Horsepower:</p> <p>Motor Speed (RPM):</p> <p>Full Load Amps:</p> <p>Locked Rotor Amps:</p>	<p>FILTERS</p> <table style="width: 100%; border: none;"> <tr> <td>Type:</td> <td>Throwaway</td> </tr> <tr> <td>Furnished:</td> <td>Yes</td> </tr> <tr> <td>Number</td> <td>4</td> </tr> <tr> <td>Recommended</td> <td>16"x16"x2"</td> </tr> </table>	Type:	Throwaway	Furnished:	Yes	Number	4	Recommended	16"x16"x2"	<p>REFRIGERANT ⁽²⁾</p> <p>Type: R-410A</p> <p>Factory Charge:</p> <p>Circuit #1 5.0 lb</p> <p>Circuit #2</p>												
Type:	Throwaway																					
Furnished:	Yes																					
Number	4																					
Recommended	16"x16"x2"																					

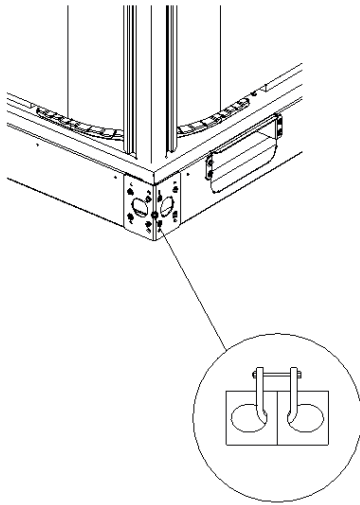
NOTES:

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 does not include Heater.
5. Value include Standard Motor.
6. Value include Oversized Motor
7. EER is rated at AHRI conditions and in accordance with DOE test procedures.
8. For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.
9. HP for each compressor.
10. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 360.
11. Full Load Amps (FLA) are the combined amps for outdoor motors.

Base Unit and Corner Weights only

Base unit weights		Corner Weights				Center of Gravity	
SHIPPING	NET	(A)	(B)	(C)	(D)	E	F
636.0 lb	586.0 lb	120.0 lb	125.0 lb	174.0 lb	168.0 lb	40"	29"

1. All weights are approximate.
2. The actual weight are listed on the unit nameplate.
3. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
4. The weight shown represents the typical unit operating weight for the configuration selected. Estimated at +/- 10 % of the nameplate weight.
5. Verify weight, connection, and all dimension with installer documents before installation.
6. Corner weights are given for information only.
7. Net/Shipping weight of optional accessories should be added to unit weight when ordering factory or field installed accessories.



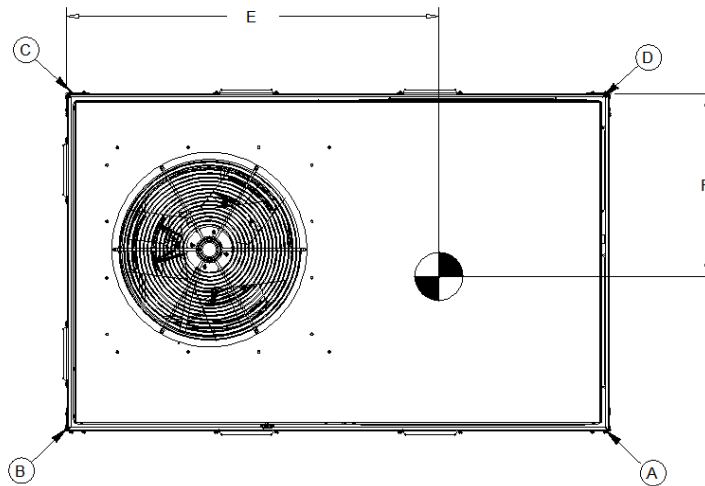
PACKAGED COOLING PLAN VIEW

RIGGING DRAWING

Installed Options Net Weight Data

Accessory	Weight
Economizer, Manual and Motorized Outside Air Damper	26.0 lb
Barometric Relief	.
Power Exhaust	.
Roof Curb	61.0 lb
Oversized Motor	.
Disconnect	.
Hail Guard	.
Through the Base	.
Through the Gas	.
	.
	.

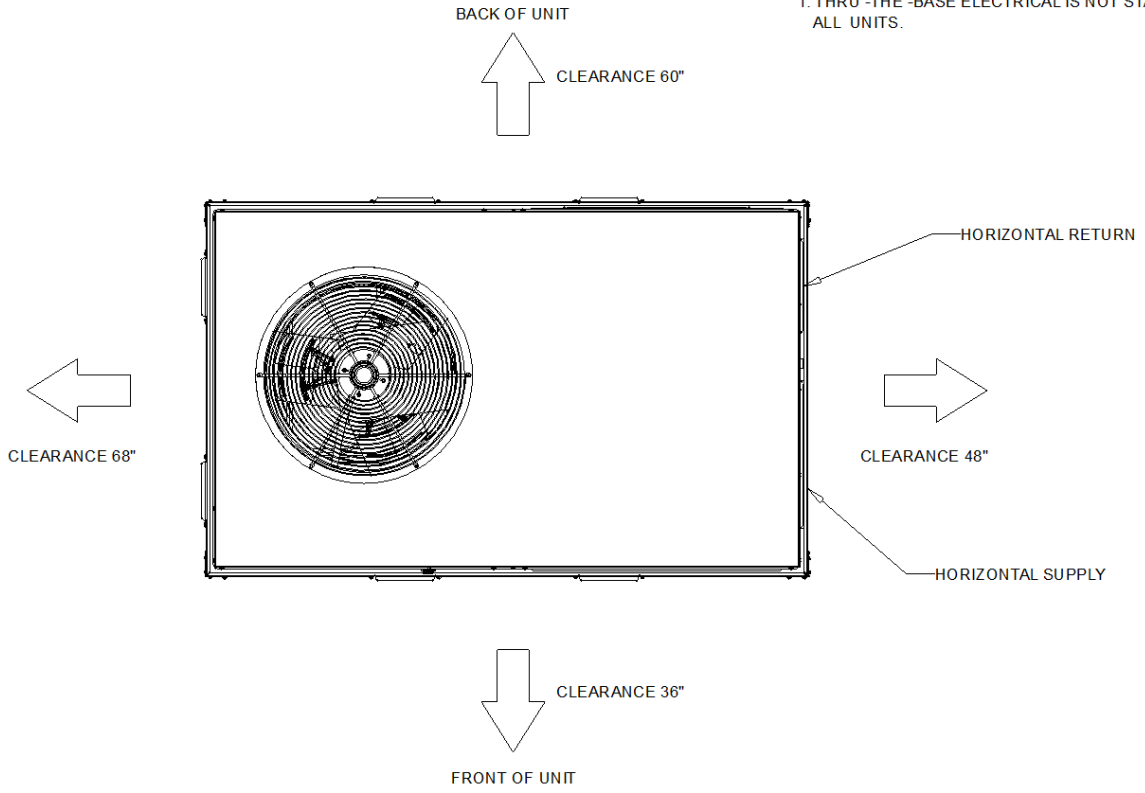
1. Weights for options are approximate.
2. Weights for options that are not list refer to Installation guide.



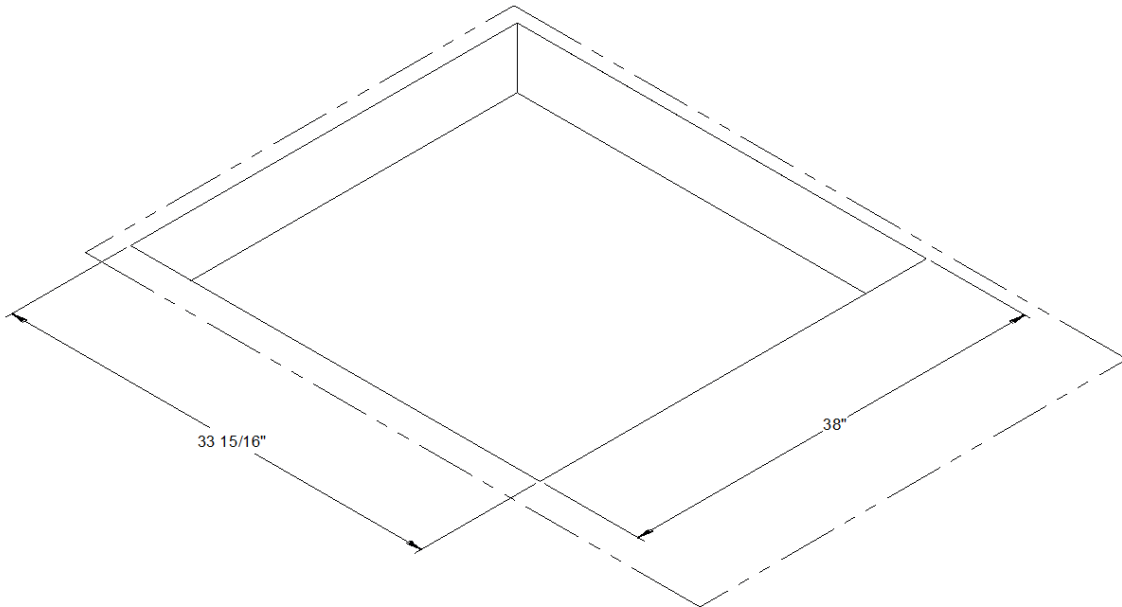
PACKAGED GAS/ELECTRIC PLAN VIEW

CENTER OF GRAVITY DRAWING

NOTES:
 1. THRU-THE-BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.

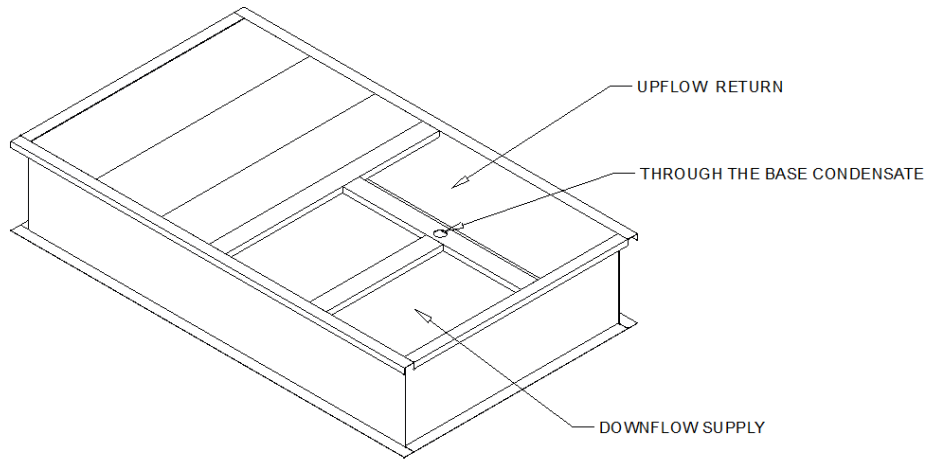


PACKAGED GAS / ELECTRIC PLAN VIEW
 CLEARANCE DRAWING



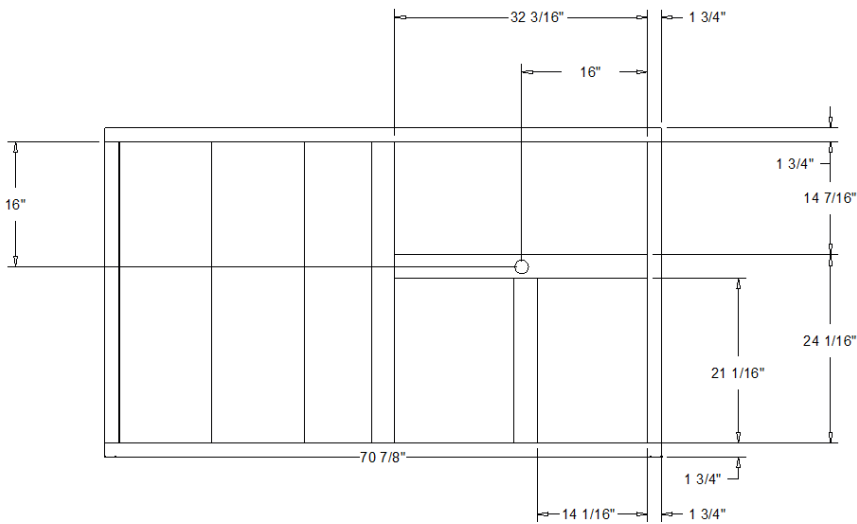
PACKAGED GAS / ELECTRIC PLAN VIEW
 DOWNFLOW CLEARANCE DRAWING

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



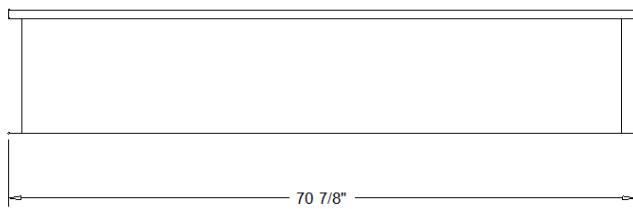
PACKAGED GAS ROOF CURB

DIMENSION DRAWING



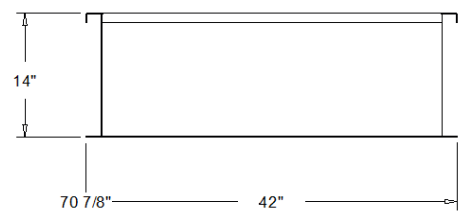
PLAN VIEW OF UNIT

DIMENSION DRAWING



FRONT VIEW OF UNIT

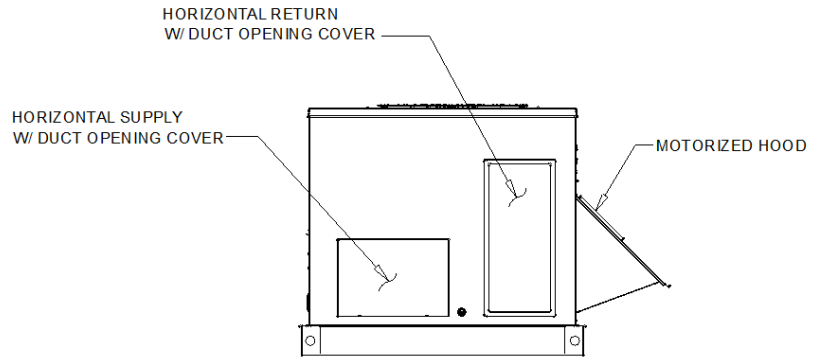
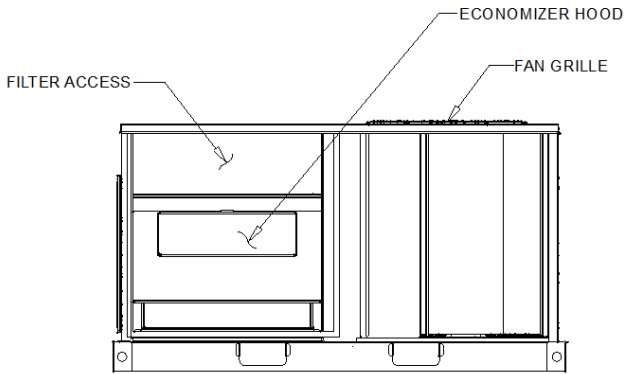
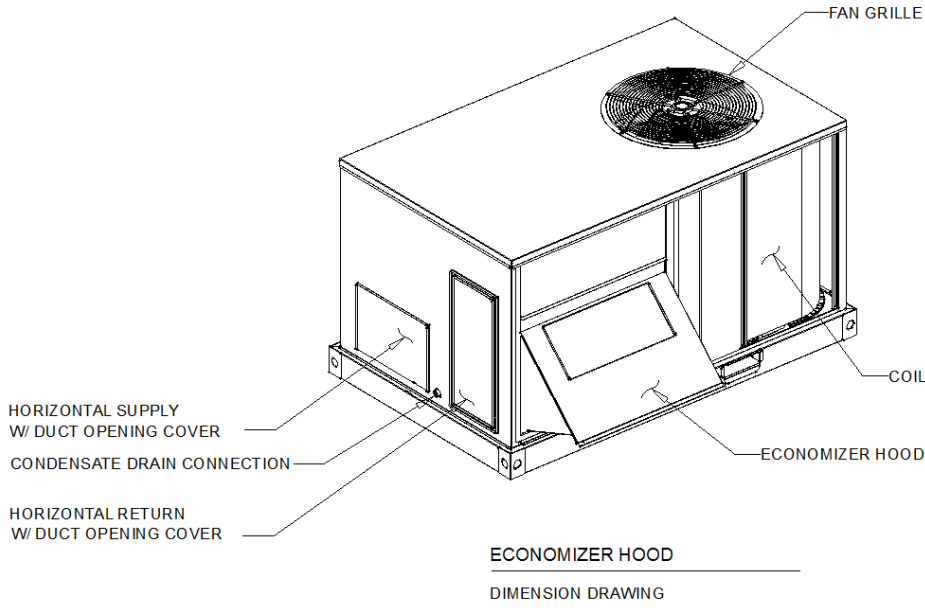
DIMENSION DRAWING



RIGHT VIEW OF UNIT

DIMENSION DRAWING

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





3 thru 5 Ton General

The units shall be convertible from downflow or horizontal airflow. The operating range shall be between 125.0 F and 40.0 F in cooling as standard from the factory for all units. 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 UL listed and labeled, classified in accordance to UL 1995/C 22.2, 236-05 5rd Edition.

3 thru 5 Ton 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. In order to ensure a water and air tight seal, service panels shall have lifting handles and no more than four screws to remove. All exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2", 1.0 lb density foil-faced, fire-resistant, permanent, dorless, glass fiber material. The base of the downflow unit shall be insulated with 1/2", 1.0 lb density foil-faced, closed-cell material. The downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8" high 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.

3 thru 5 Ton 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 nameplate voltage. Internal overloads shall be provided with the scroll compressors. All models shall have phase monitors and low and high pressure control as standard.

3 thru 5 Ton 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.

3 thru 5 Ton Discharge Line Thermostat

A bi-metal element discharge line thermostat is installed as a standard option on the discharge line of each system. This standard option provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher. Discharge line thermostat is wired in series with high pressure control. When the discharge temperature rises above the protection limit, the bi-metal disc in the thermostat switches to the off position, opening the 24 Vac circuit. When the temperature on the discharge line cools down, the bi-metal disc closes the contactor circuit, providing power to the compressor.

3 thru 5 Ton Evaporator and Condenser Coils

Microchannel coils will be burst tested by the manufacturer. Microchannel condenser coils shall be standard on all units. Coils shall be leak tested to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 225 psig and pressure tested to 450 psig. Sloped condensate drain pans are standard.

3 thru 5 Ton Gas Heating Section

The heating section shall have a tubular heat exchanger design. 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. 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 Heat Only).

3 thru 5 Ton High Pressure Control

All units include High Pressure Cutout as standard.



3 thru 5 Ton Indoor Fan

Units above shall have belt driven, FC centrifugal fans with adjustable motor sheaves. All motors shall be thermally protected. Oversized motors shall be available for high static application. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

3 thru 5 Ton Low Pressure Control

All units include low pressure cutout as standard.

3 thru 5 Ton Outdoor Fans

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

3 thru 5 Ton Phase Monitor

The Phase Monitor is a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has an operating input voltage range of 190-600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

3 thru 5 Ton Refrigerant Circuits

Each refrigerant circuit shall have independent thermal expansion valve, service pressure ports, and refrigerant line filter driers factory installed as standard. An area shall be provided for replacement suction line driers.

3 thru 5 Ton Unit Top

The top cover shall be double hemmed and gasket sealed to prevent water leakage.



Trane Foundation Gas/Electric Rooftop

Unit Overview - GBC036A3EMB**G000000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Operating Weight		EER	IEER/SEER	Elevation
		Airflow	External Static Pressure	Height	Width	Length	Minimum	Maximum			
Gas/Electric	3 Ton	1200 cfm	0.750 in H2O	3.55 ft	3.99 ft	6.40 ft	524.0 lb	723.0 lb	12.0 EER	14.00	

Unit Features

Fresh Air Selection Econ-comp enthaply w/o bar rel

Unit Electrical

Voltage/phase/hertz	208-230/60/3
MCA	20.00 A
MOP	25.00 A



Controls

Unit Controls Electro-mechanical

Cooling Section

		Capacity
Entering Dry Bulb	81.00 F	Gross Total 34.04 MBh
Entering Wet Bulb	63.00 F	Gross Sensible 32.10 MBh
Ambient Temp	98.00 F	Net Total 30.92 MBh
Leaving Coil Dry Bulb	54.96 F	Net Sensible 28.97 MBh
Leaving Coil Wet Bulb	53.48 F	Refrig Charge-circuit 1 3.5 lb
Leaving Unit Dry Bulb	57.99 F	
Leaving Unit Wet Bulb	54.65 F	

Heating Section

Output Heating Capacity	70.72 MBh
Output Heating Capacity with Fan	70.72 MBh
Heating EAT	70.00 F
Heating LAT	131.44 F
Heating Temp Rise	61.44 F

Fan Section

Indoor Fan Data		Outdoor Fan Data	
Type	FC Centrifugal	Type	Propeller
Drive Type	Belt	Fan Quantity	1
Indoor Fan Performance		Drive Type	Direct
Airflow	1200 cfm	Outdoor Fan Performance	
Design ESP	0.750 in H2O	Condenser Fan FLA	1.40 A
Component SP	0.060 in H2O	Exhaust Fan Data	
Total SP	0.810 in H2O	Type	FC Centrifugal
Indoor Motor Operating Power	0.55 bhp	Drive Type	Direct
Indoor Motor Power	0.41 kW	Exhaust Fan Performance	
Indoor RPM	905 rpm	Exhaust Fan FLA	5.00 A

Compressor Section

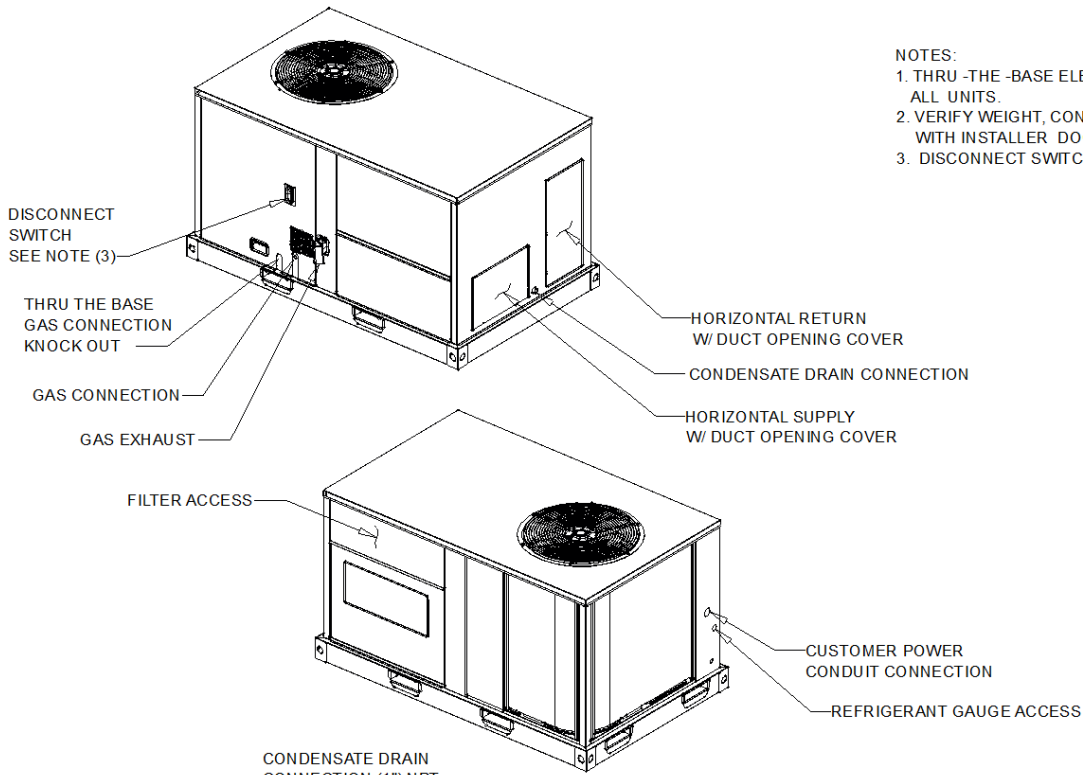
Circuit 1 RLA	10.40 A
Circuit 2 RLA	0.00 A

Accessories

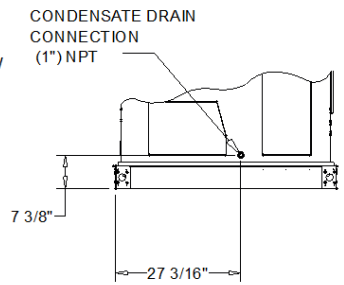
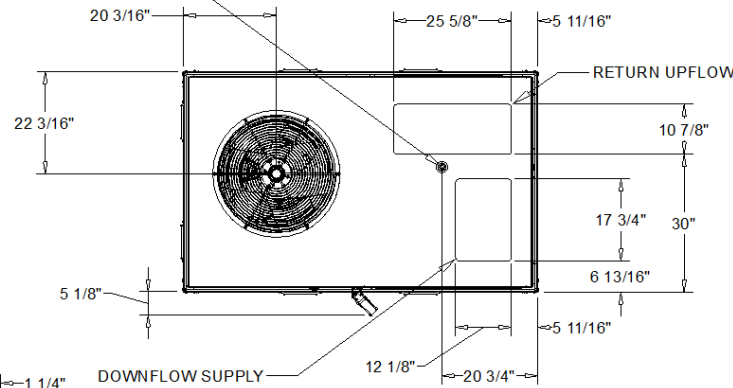
Roof curb Roof curb (3 - 5 Tons)

NOTES:

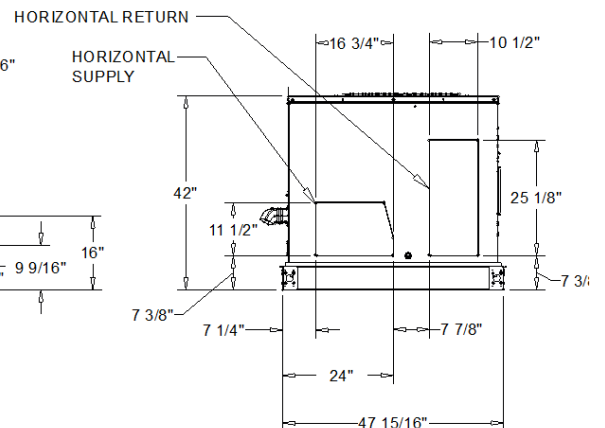
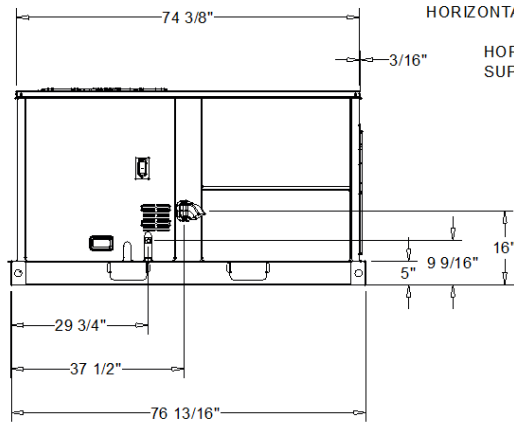
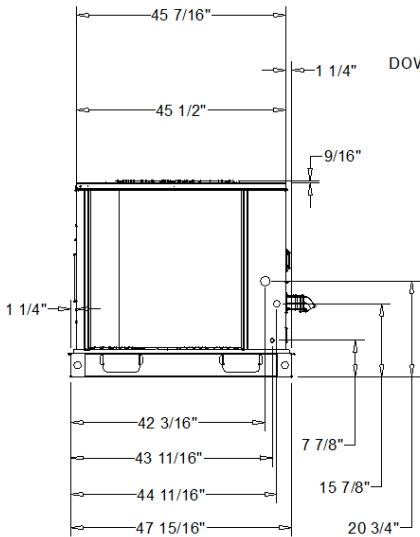
1. THRU -THE -BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.
2. VERIFY WEIGHT, CONNECTIONS, AND ALL DIMENSIONS WITH INSTALLER DOCUMENTS BEFORE INSTALLATION
3. DISCONNECT SWITCH IS NOT STANDARD ON ALL UNITS.



CONDENSATE DRAIN CONNECTION (1") NPT



CONDENSATE DRAIN DIMENSION DRAWING



3 - 5 PACKAGED COOLING

DIMENSION DRAWING



ELECTRICAL / GENERAL DATA

GENERAL ⁽²⁾⁽⁴⁾⁽⁶⁾⁽⁷⁾⁽¹⁰⁾ Model: GBC036 Oversized Motor Unit Operating Voltage: - MCA: Unit Primary Voltage: 208 MFS: Unit Secondary Voltage: 230 MCB: Unit Hertz: 60 Unit Phase: 3 EER: 12 / 14 IEER One Speed Fan: - IEER Multi Speed Fan: - Standard Motor Field Installed Oversized Motor MCA: 19.5 MCA: MFS: 25.0 MFS: MCB: 25.0 MCB:		HEATING PERFORMANCE HEATING - GENERAL DATA Heating Model: Medium Heating Input (BTU): 100000 / 80000 Heating Output (BTU): 80000/64000 No. Burners: 3 No. Stages: 2 Gas Inlet Pressure Natural Gas (Min/Max): 4.5 / 14.0 in. wc LP (Min/Max): 11.0 / 14.0 in. wc Gas Pipe Connection Size: 1/2"																													
INDOOR MOTOR <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Standard Motor</td> <td style="width: 25%;">Oversized Motor</td> <td style="width: 25%;">Field Installed Oversized Motor</td> <td style="width: 25%;"></td> </tr> <tr> <td>Number: 1</td> <td>Number:</td> <td>Number:</td> <td>Number:</td> </tr> <tr> <td>Horsepower: 1.0</td> <td>Horsepower:</td> <td>Horsepower:</td> <td>Horsepower:</td> </tr> <tr> <td>Motor Speed (RPM): -</td> <td>Motor Speed (RPM):</td> <td>Motor Speed (RPM):</td> <td>Motor Speed (RPM):</td> </tr> <tr> <td>Phase: 3</td> <td>Phase</td> <td>Phase</td> <td>Phase</td> </tr> <tr> <td>Full Load Amps: 5.0</td> <td>Full Load Amps:</td> <td>Full Load Amps:</td> <td>Full Load Amps:</td> </tr> <tr> <td>Locked Rotor Amps: 24.5</td> <td>Locked Rotor Amps:</td> <td>Locked Rotor Amps:</td> <td>Locked Rotor Amps:</td> </tr> </table>				Standard Motor	Oversized Motor	Field Installed Oversized Motor		Number: 1	Number:	Number:	Number:	Horsepower: 1.0	Horsepower:	Horsepower:	Horsepower:	Motor Speed (RPM): -	Motor Speed (RPM):	Motor Speed (RPM):	Motor Speed (RPM):	Phase: 3	Phase	Phase	Phase	Full Load Amps: 5.0	Full Load Amps:	Full Load Amps:	Full Load Amps:	Locked Rotor Amps: 24.5	Locked Rotor Amps:	Locked Rotor Amps:	Locked Rotor Amps:
Standard Motor	Oversized Motor	Field Installed Oversized Motor																													
Number: 1	Number:	Number:	Number:																												
Horsepower: 1.0	Horsepower:	Horsepower:	Horsepower:																												
Motor Speed (RPM): -	Motor Speed (RPM):	Motor Speed (RPM):	Motor Speed (RPM):																												
Phase: 3	Phase	Phase	Phase																												
Full Load Amps: 5.0	Full Load Amps:	Full Load Amps:	Full Load Amps:																												
Locked Rotor Amps: 24.5	Locked Rotor Amps:	Locked Rotor Amps:	Locked Rotor Amps:																												
COMPRESSOR Circuit 1/2 Number: 1 Horsepower: 4.10 Phase: 3 Rated Load Amps: 10.4/11.6 Locked Rotor Amps: 73.0		OUTDOOR MOTOR Number: 1 Horsepower: 0.33 Motor Speed (RPM): - Phase: 3 Full Load Amps: 1.4 Locked Rotor Amps: 4.6																													
POWER EXHAUST ACCESSORY ⁽³⁾ (Field Installed Power Exhaust) Phase: Horsepower: Motor Speed (RPM): Full Load Amps: Locked Rotor Amps:	FILTERS Type: Throwaway Furnished: Yes Number: 4 Recommended: 16"x16"x2"		REFRIGERANT ⁽²⁾ Type: R-410A Factory Charge: Circuit #1: 3.5 lb Circuit #2:																												

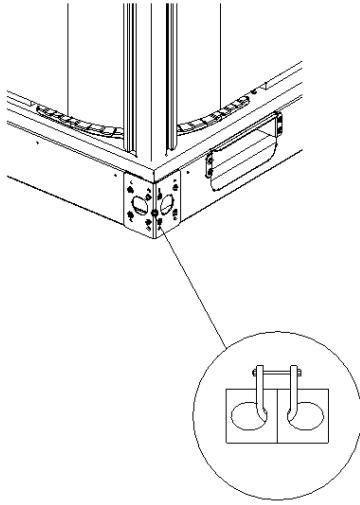
NOTES:

1. Maximum (HACR) Circuit Breaker sizing is for installations in the United States only.
2. Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.
3. Value does not include Power Exhaust Accessory.
4. Value does not include Heater.
5. Value include Standard Motor.
6. Value include Oversized Motor
7. EER is rated at AHRI conditions and in accordance with DOE test procedures.
8. For Compressor Motors and Condenser Fan Motors: Amp draw for each motor; multiply value by number of motors to determine total amps.
9. HP for each compressor.
10. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 360.
11. Full Load Amps (FLA) are the combined amps for outdoor motors.

Base Unit and Corner Weights only

Base unit weights		Corner Weights				Center of Gravity	
SHIPPING	NET	(A)	(B)	(C)	(D)	E	F
574.0 lb	524.0 lb	95.0 lb	111.0 lb	172.0 lb	146.0 lb	42"	29"

1. All weights are approximate.
2. The actual weight are listed on the unit nameplate.
3. Refer to unit nameplate and installation guide for weights before scheduling transportation and installation of unit.
4. The weight shown represents the typical unit operating weight for the configuration selected. Estimated at +/- 10 % of the nameplate weight.
5. Verify weight, connection, and all dimension with installer documents before installation.
6. Corner weights are given for information only.
7. Net/Shipping weight of optional accessories should be added to unit weight when ordering factory or field installed accessories.



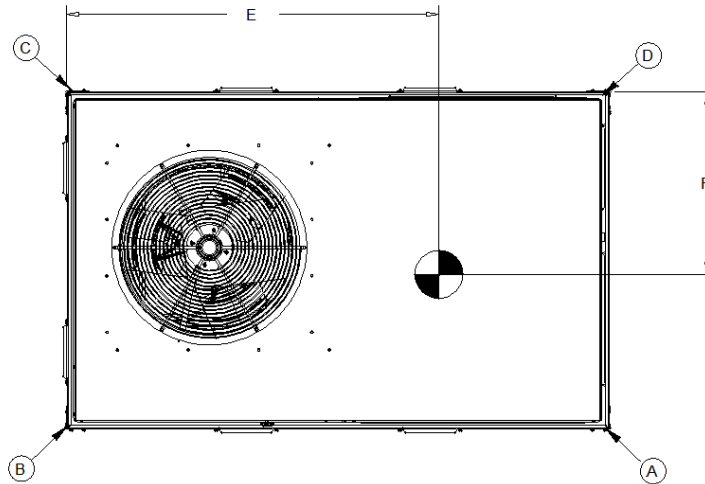
PACKAGED COOLING PLAN VIEW

RIGGING DRAWING

Installed Options Net Weight Data

Accessory	Weight
Economizer, Manual and Motorized Outside Air Damper	26.0 lb
Barometric Relief	.
Power Exhaust	.
Roof Curb	61.0 lb
Oversized Motor	.
Disconnect	.
Hail Guard	.
Through the Base	.
Through the Gas	.
	.
	.

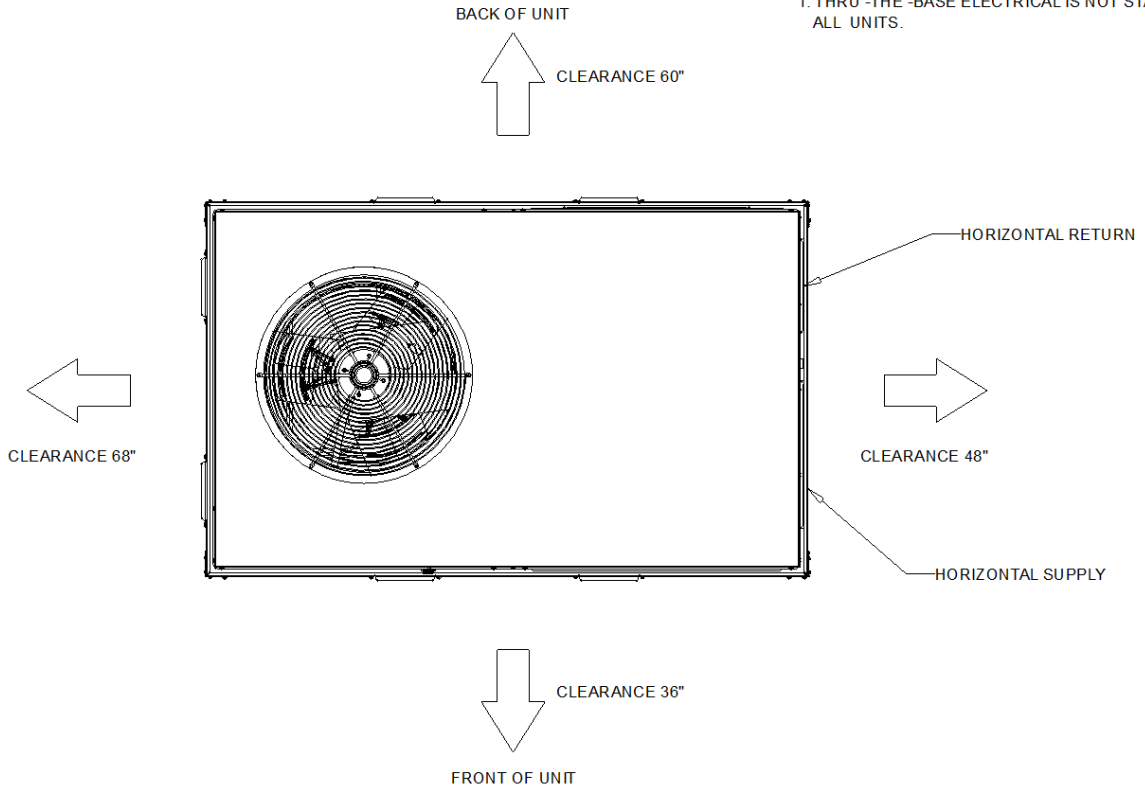
1. Weights for options are approximate.
2. Weights for options that are not list refer to Installation guide.



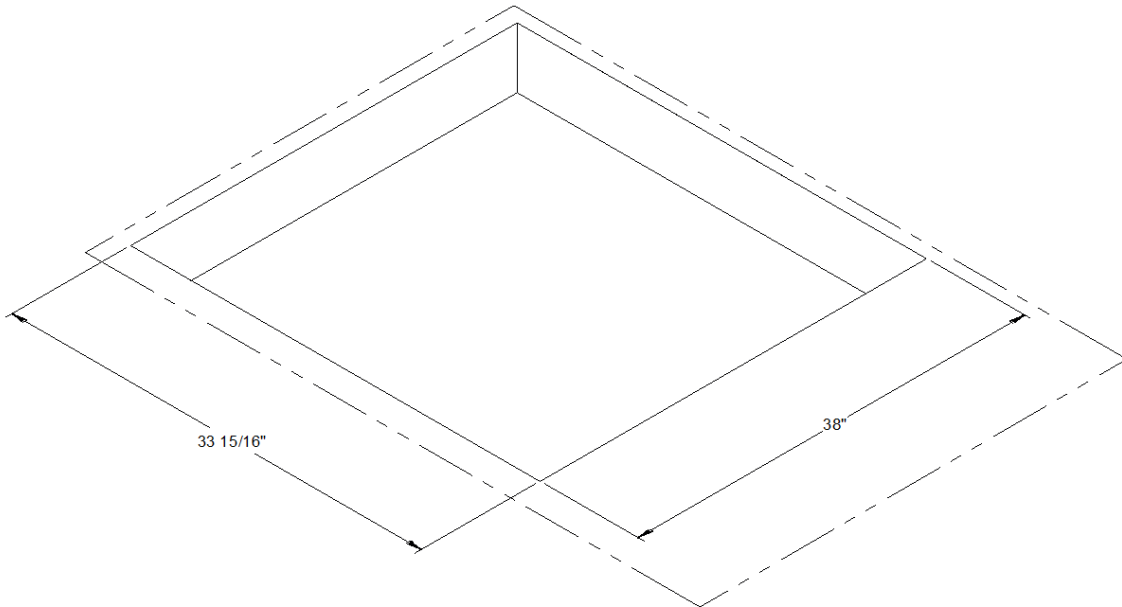
PACKAGED GAS/ELECTRIC PLAN VIEW

CENTER OF GRAVITY DRAWING

NOTES:
 1. THRU-THE-BASE ELECTRICAL IS NOT STANDARD ON ALL UNITS.

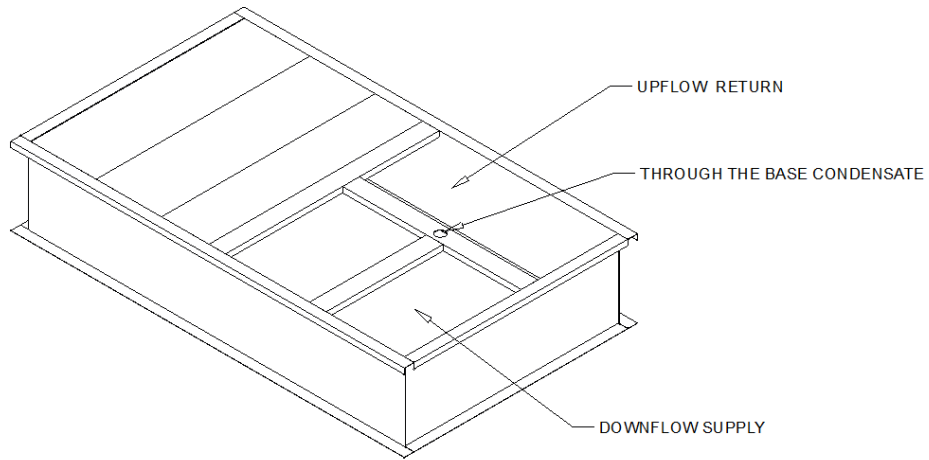


PACKAGED GAS / ELECTRIC PLAN VIEW
 CLEARANCE DRAWING



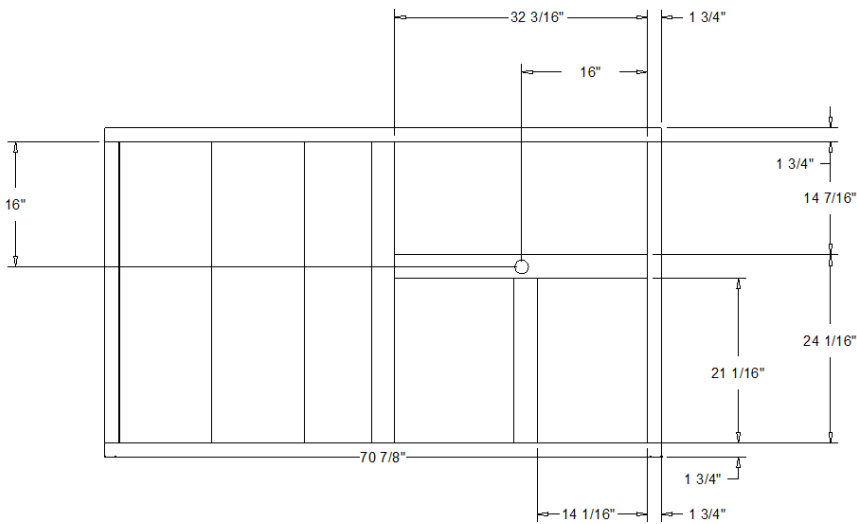
PACKAGED GAS / ELECTRIC PLAN VIEW
 DOWNFLOW CLEARANCE DRAWING

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



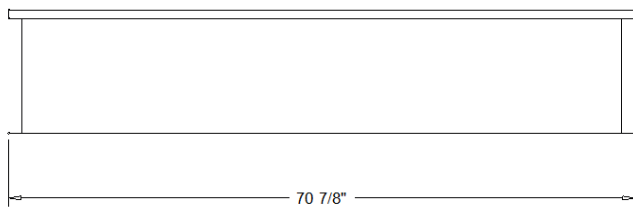
PACKAGED GAS ROOF CURB

DIMENSION DRAWING



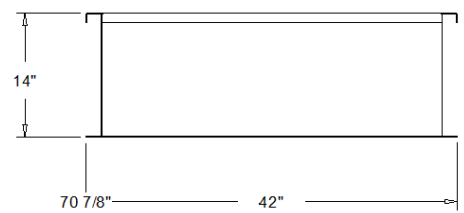
PLAN VIEW OF UNIT

DIMENSION DRAWING



FRONT VIEW OF UNIT

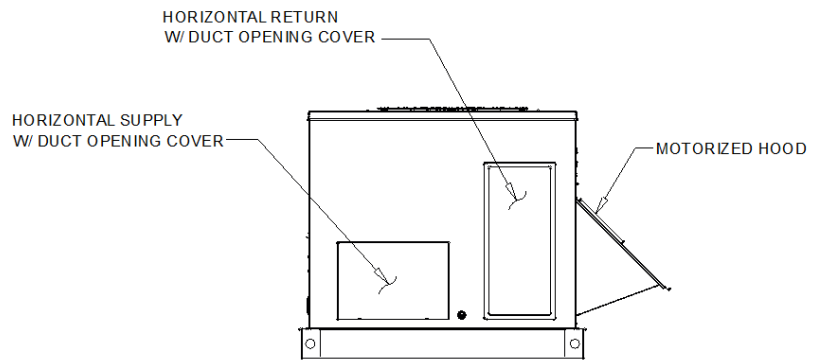
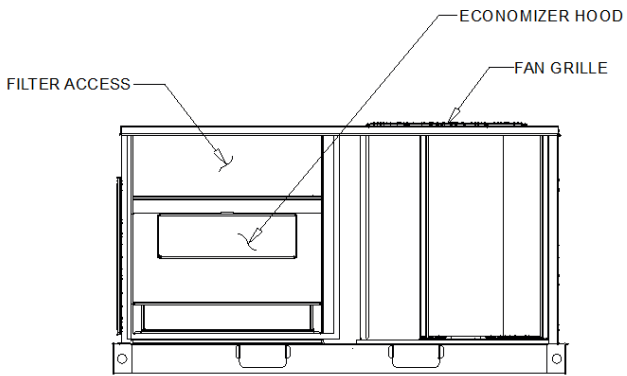
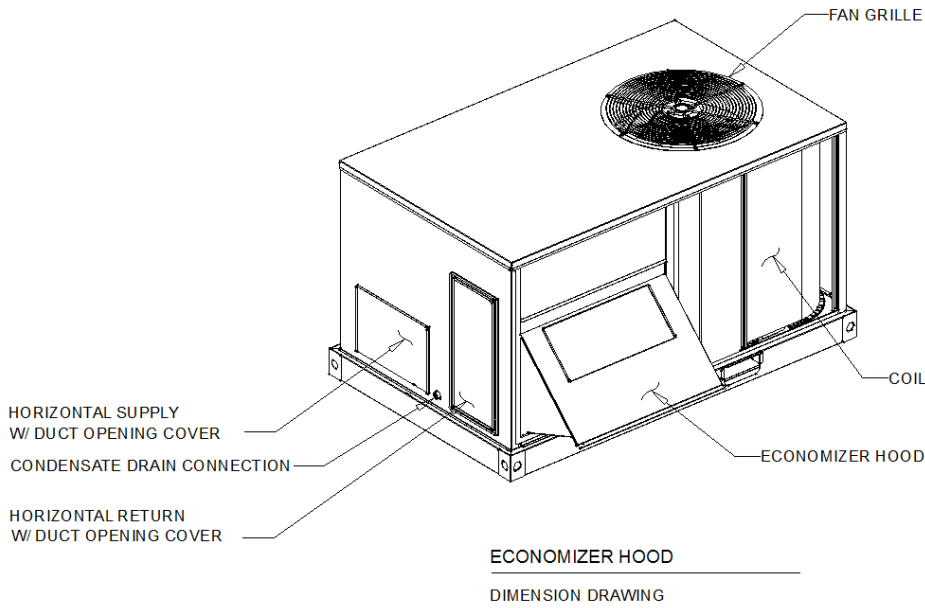
DIMENSION DRAWING



RIGHT VIEW OF UNIT

DIMENSION DRAWING

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





3 thru 5 Ton General

The units shall be convertible from downflow or horizontal airflow. The operating range shall be between 125.0 F and 40.0 F in cooling as standard from the factory for all units. 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 UL listed and labeled, classified in accordance to UL 1995/C 22.2, 236-05 5rd Edition.

3 thru 5 Ton 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. In order to ensure a water and air tight seal, service panels shall have lifting handles and no more than four screws to remove. All exposed vertical panels and top covers in the indoor air section shall be insulated with a 1/2", 1.0 lb density foil-faced, fire-resistant, permanent, dorless, glass fiber material. The base of the downflow unit shall be insulated with 1/2", 1.0 lb density foil-faced, closed-cell material. The downflow unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1 1/8" high 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.

3 thru 5 Ton 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 nameplate voltage. Internal overloads shall be provided with the scroll compressors. All models shall have phase monitors and low and high pressure control as standard.

3 thru 5 Ton 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.

3 thru 5 Ton Discharge Line Thermostat

A bi-metal element discharge line thermostat is installed as a standard option on the discharge line of each system. This standard option provides extra protection to the compressors against high discharge temperatures in case of loss of charge, extremely high ambient and other conditions which could drive the discharge temperature higher. Discharge line thermostat is wired in series with high pressure control. When the discharge temperature rises above the protection limit, the bi-metal disc in the thermostat switches to the off position, opening the 24 Vac circuit. When the temperature on the discharge line cools down, the bi-metal disc closes the contactor circuit, providing power to the compressor.

3 thru 5 Ton Evaporator and Condenser Coils

Microchannel coils will be burst tested by the manufacturer. Microchannel condenser coils shall be standard on all units. Coils shall be leak tested to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 225 psig and pressure tested to 450 psig. Sloped condensate drain pans are standard.

3 thru 5 Ton Filters

Two inch standard filters shall be factory supplied on all units.

3 thru 5 Ton Gas Heating Section

The heating section shall have a tubular heat exchanger design. 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. 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 Heat Only).

3 thru 5 Ton High Pressure Control

All units include High Pressure Cutout as standard.



3 thru 5 Ton Indoor Fan

Units above shall have belt driven, FC centrifugal fans with adjustable motor sheaves. All motors shall be thermally protected. Oversized motors shall be available for high static application. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

3 thru 5 Ton Low Pressure Control

All units include low pressure cutout as standard.

3 thru 5 Ton Outdoor Fans

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

3 thru 5 Ton Phase Monitor

The Phase Monitor is a three-phase line monitor module that protects against phase loss, phase reversal and phase unbalance. It is intended to protect compressors from reverse rotation. It has an operating input voltage range of 190-600 Vac, and LED indicators for ON and FAULT. There are no field adjustments and the module will automatically reset from a fault condition.

3 thru 5 Ton Refrigerant Circuits

Each refrigerant circuit shall have independent thermal expansion valve, service pressure ports, and refrigerant line filter driers factory installed as standard. An area shall be provided for replacement suction line driers.

3 thru 5 Ton Unit Top

The top cover shall be double hemmed and gasket sealed to prevent water leakage.