Foundation Gas/Electric Rooftop

Unit Overview - GDK300A3SHA**07000000000000000000000000

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	25 Ton	10000. cfm	0.500 in H2O	4.94 ft	7.24 ft	10.26 ft	2098.0 lb	2628.0 lb	9.80	13.00	

Unit Features

SupplyFan/Drive/ MotorType	Two speed fan standard motor

Unit Electrical

Voltage/phase/hertz	208-230/60/3
MCA	121.00 A
MOP	150.00 A

Controls

Unit Controls	Symbio 700

Cooling Section

Entering Dry Bulb	80.00 F	**Capacity**	
Entering Wet Bulb	67.00 F	**Gross Total**	284.84 MBh
Ambient Temp	95.00 F	**Gross Sensible**	219.06 MBh
Leaving Coil Dry Bulb	59.80 F	**Net Total**	265.14 MBh
Leaving Coil Wet Bulb	57.88 F	**Net Sensible**	199.37 MBh
Leaving Unit Dry Bulb	62.04 F	**Refrig Charge-circuit 1**	14.4 lb
Leaving Unit Wet Bulb	58.75 F		

Heating Section

Input Heating Capacity	380.00 MBh
Output Heating Capacity	308.00 MBh
Output Heating Capacity with Fan	308.00 MBh
Heating EAT	70.00 F
Heating LAT	98.39 F
Heating Temp Rise	28.39 F

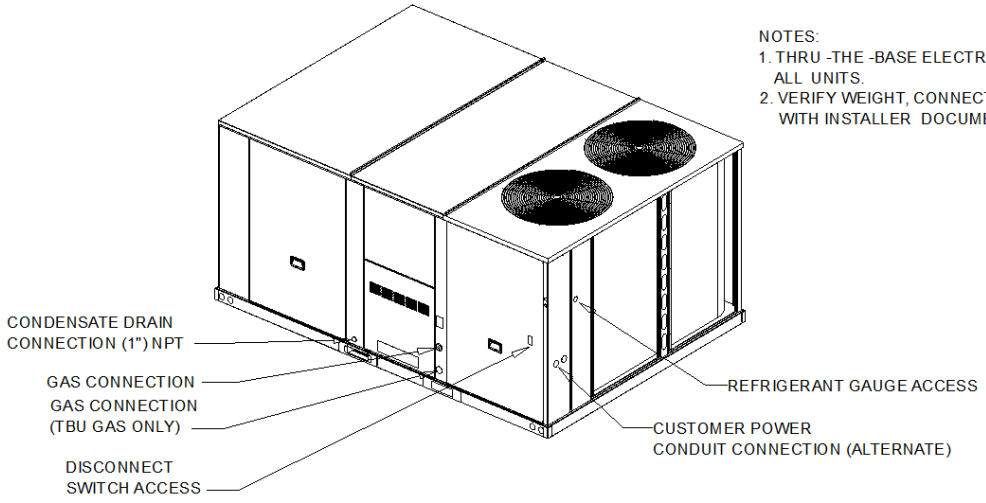
Fan Section

Indoor Fan Data		**Outdoor Fan Data**	
Type	FC Centrifugal	**Type**	Propeller
Drive Type	Belt	**Fan Quantity**	2
Indoor Fan Performance		**Drive Type**	Direct
Airflow	10000. cfm	**Outdoor Fan Performance**	
Design ESP	0.500 in H2O	**Condenser Fan FLA**	4.30 A
Component SP	0.000 in H2O	**Exhaust Fan Data**	
Total SP	0.500 in H2O	**Type**	FC Centrifugal
Indoor Motor Operating Power	6.51 bhp	**Drive Type**	Direct
Indoor Motor Power	5.59 kW	**Exhaust Fan Performance**	
Indoor RPM	1029 rpm	**Exhaust Fan FLA**	19.80 A

Compressor Section

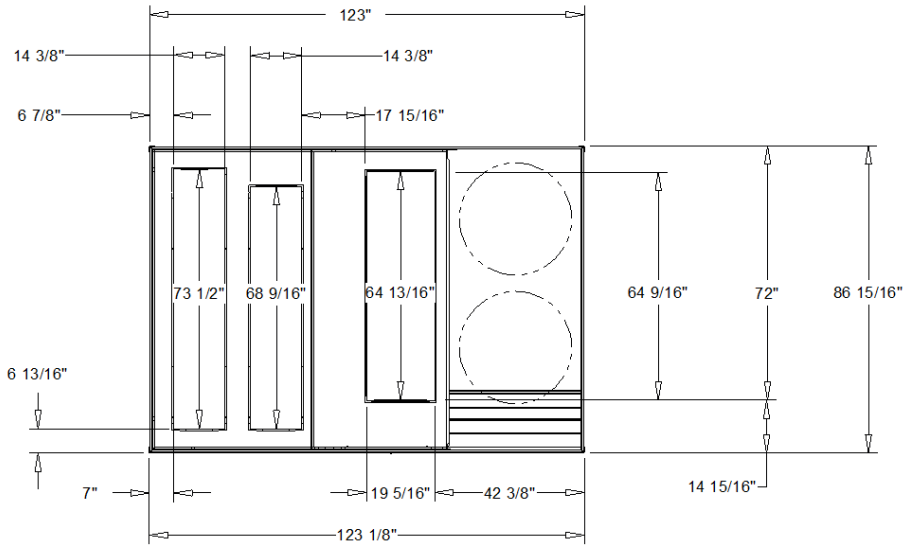
Compressor 1 RLA	49.60 A
Compressor 2 RLA	30.10 A

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



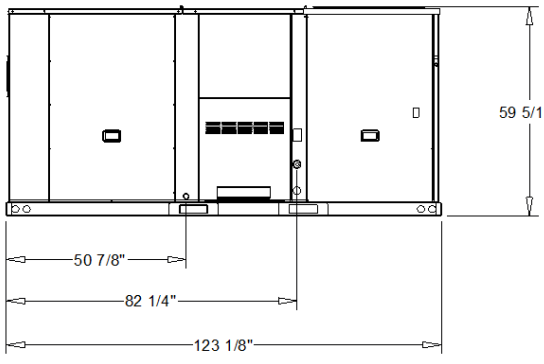
PACKAGED GAS / ELEC DOWNFLOW

DIMENSION DRAWING



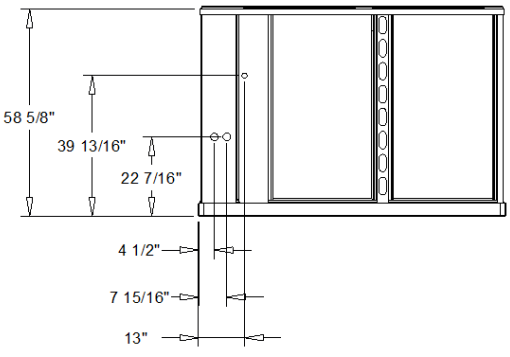
PLAN VIEW OF UNIT

DIMENSION DRAWING



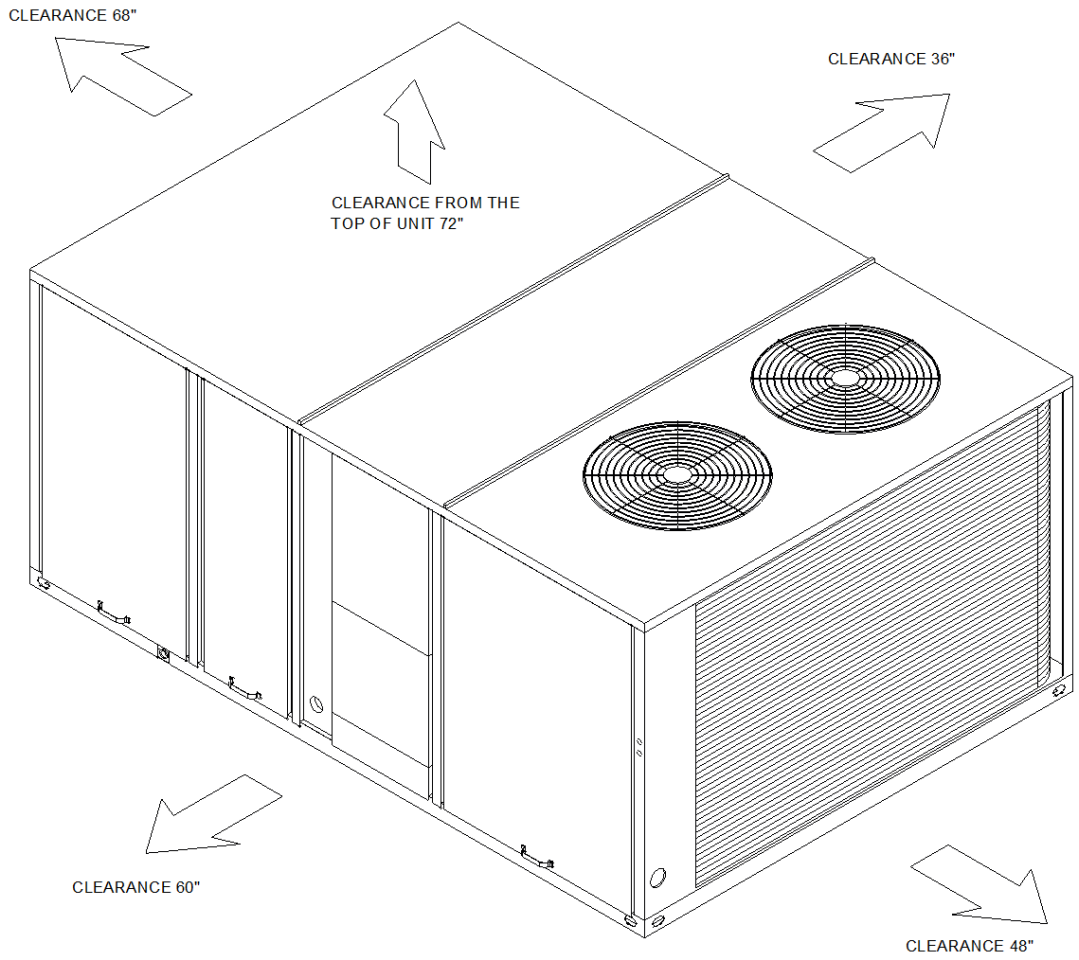
FRONT VIEW OF UNIT

DIMENSION DRAWING

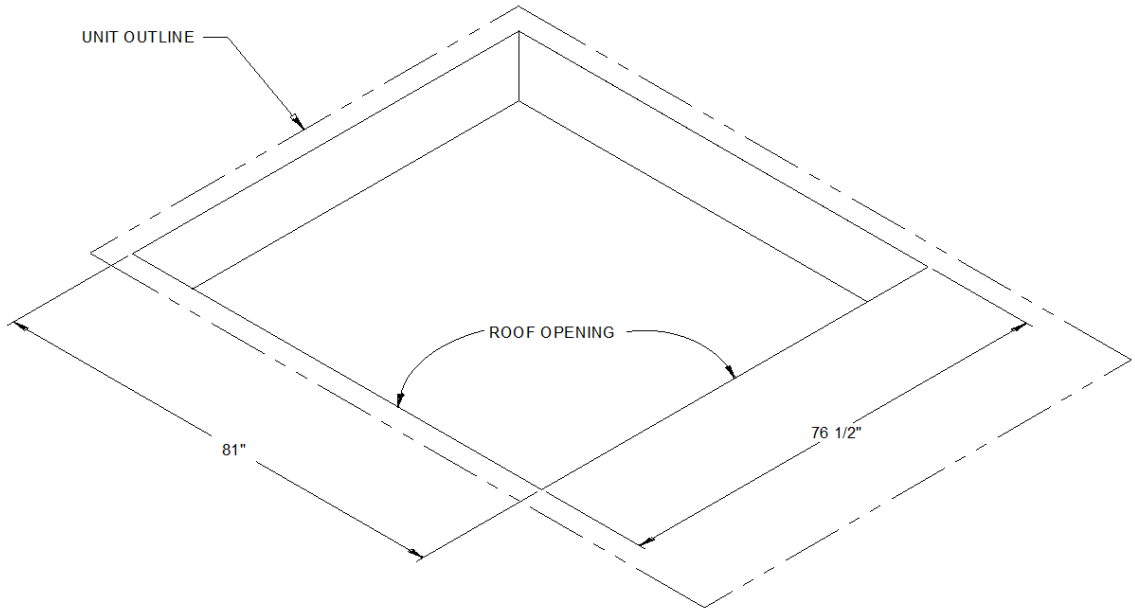


RIGHT VIEW OF UNIT

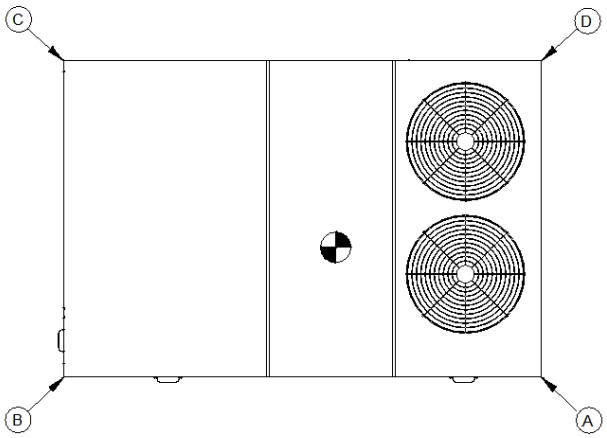
DIMENSION DRAWING



DOWNFLOW-PACKAGED COOLING WITH ELECTRIC CLEARANCE



DOWNFLOW-PACKAGED COOLING WITH ELECTRIC ROOF OPENING CLEARANCE



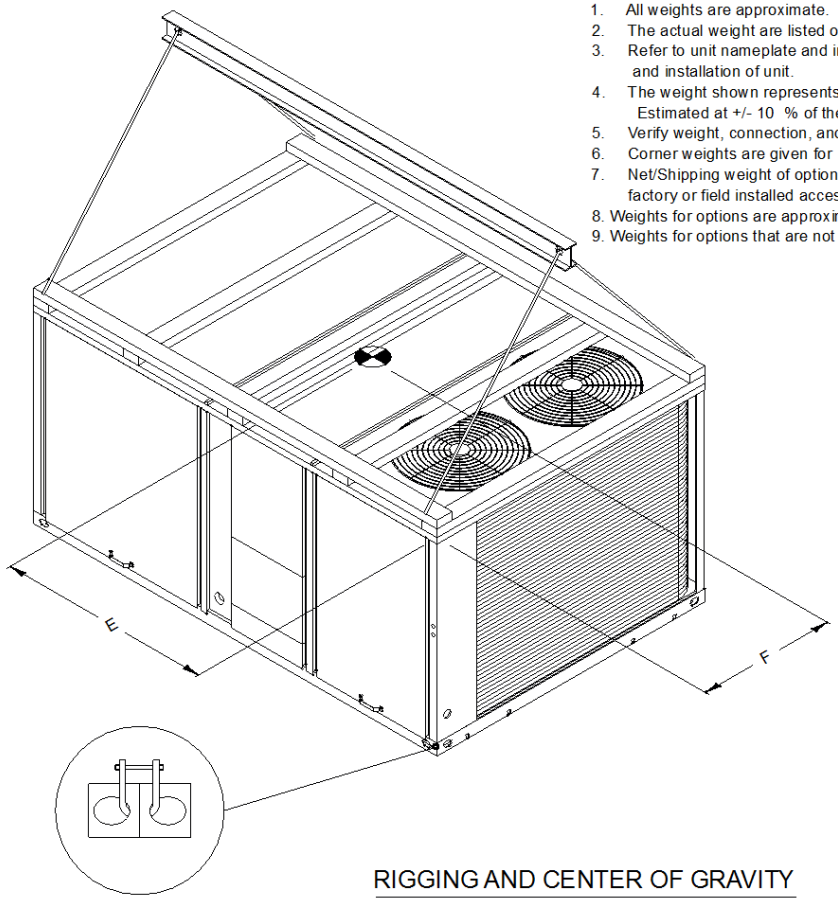
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

ACCESSORY	WEIGHTS
ECONOMIZER	
MOTORIZED OUTSIDE AIR DAMPER	
MANUAL OUTSIDE AIR DAMPER	
OVERSIZED MOTOR	
MULTI-SPEED WITH DRIVE	65.0 lb
THROUGH THE BASE ELECTRICAL	
BAROMETRIC	
ROOF CURB	
POWER EXHAUST	
HAIL GUARD	
LP GAS CONVERSION	
STATIC DRIVE	
DISCONNECT	

BASE UNIT WEIGHTS		CORNER WEIGHTS				CENTER OF GRAVITY	
SHIPPING	NET	A	671.0 lb	C	393.0 lb	(E) LENGTH	(F) WIDTH
2386.0 lb	2061.0 lb	B	524.0 lb	D	472.0 lb	55"	36"

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.



RIGGING AND CENTER OF GRAVITY

15 thru 25 Ton General
The units shall be dedicated downflow or horizontal airflow. The operating range shall be between115°F and 40°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-454B, 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. Unit shall be furnished with a leak detection system from the factory. The leak detection system shall consist of one or more refrigerant detection sensors. When the system detects a leak, the unit controller shall initiate mitigation actions.

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.