



TECHNICAL GUIDE

SINGLE PACKAGE

AIR CONDITIONER/GAS HEAT

ULTRA-LOW NO_x - 14 SEER

R-410A - 1 PHASE

2 TO 5 NOMINAL TONS - 208/230 V

50 TO 65 MBH HEAT INPUT

MODELS: PCG4*24 TO 60



Due to continuous product improvement, specifications are subject to change without notice.

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WARRANTY SUMMARY

20-year limited warranty on heat exchangers in residential applications and 10-year limited warranty on heat exchangers in commercial applications.

Standard 5-year limited parts and compressor warranty.

Extended 10-year limited parts and compressor warranty when product is registered online within 90 days of purchase for replacement or closing for new home construction.

See the limited warranty certificate in the *User's Information Manual* for details.

DESCRIPTION

These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

FEATURES

- **Operating Efficiency** - All PCG4 model gas units provide a minimum AFUE of 81.0% in heating and 14.0 SEER rating for cooling operation. All models meet California requirements of 14 ng/J NO_x emission level for Air Quality Management Districts.
- **On-Site Flexibility** - All model sizes use a compact design cabinet in one of two footprints. This provides installer flexibility for placing the proper capacity unit on curbs or pads with the smallest footprint after the internal load has been determined. Field convertible duct connections from side shot to down shot allow the installer to have greater flexibility with less inventory.
- **Lower Installation Cost** - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof. All units are completely wired, charged with R-410A, and tested before shipment. Test stations using a state-of-the-art computerized process system are used to ensure product quality. Refrigerant charge and component part numbers are verified using computers during assembly. Vital run test statistics, such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties, are monitored and recorded by the system to ensure unit performance. Equal size side supply and return duct connections allow easy connection of ducts to match low crawl spaces without transition pieces.
- **Utility Connections Made Easy** - Gas and electric utility access is provided through the bottom or side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field-supplied and field-installed electrical disconnect switch must be installed.
- **Convertible Airflow Design** - The bottom duct openings are covered when they leave the factory, ready to be used for a side supply/side return application. If a bottom supply/bottom return application is required, remove the two panels from the bottom of the unit and place them in the side supply/side return duct openings. No panel cutting is required and no accessory panel is necessary. The convertible airflow design allows for maximum field flexibility and minimum inventory.
- **Condensate Pan** - A corrosion-resistant, long-lasting, water-tight pan is positioned below the indoor coil to collect and drain all condensate, preventing build-up of stagnant condensate. The condensate pan conforms to ASHRAE 62-19 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4-in. NPT female connection is rigidly mounted to ensure proper fit and leak tight seal.
- **Durable Finish** - The cabinet is made of G90 galvanized steel with a powder paint coating for appearance and protection. The pre-treated galvanized steel provides a better paint-to-steel bond, which resists corrosion and rust creep. The powder paint finish ensures less fading when exposed to sunlight, and provides superior corrosion resistance (1,000 hour salt spray tested).

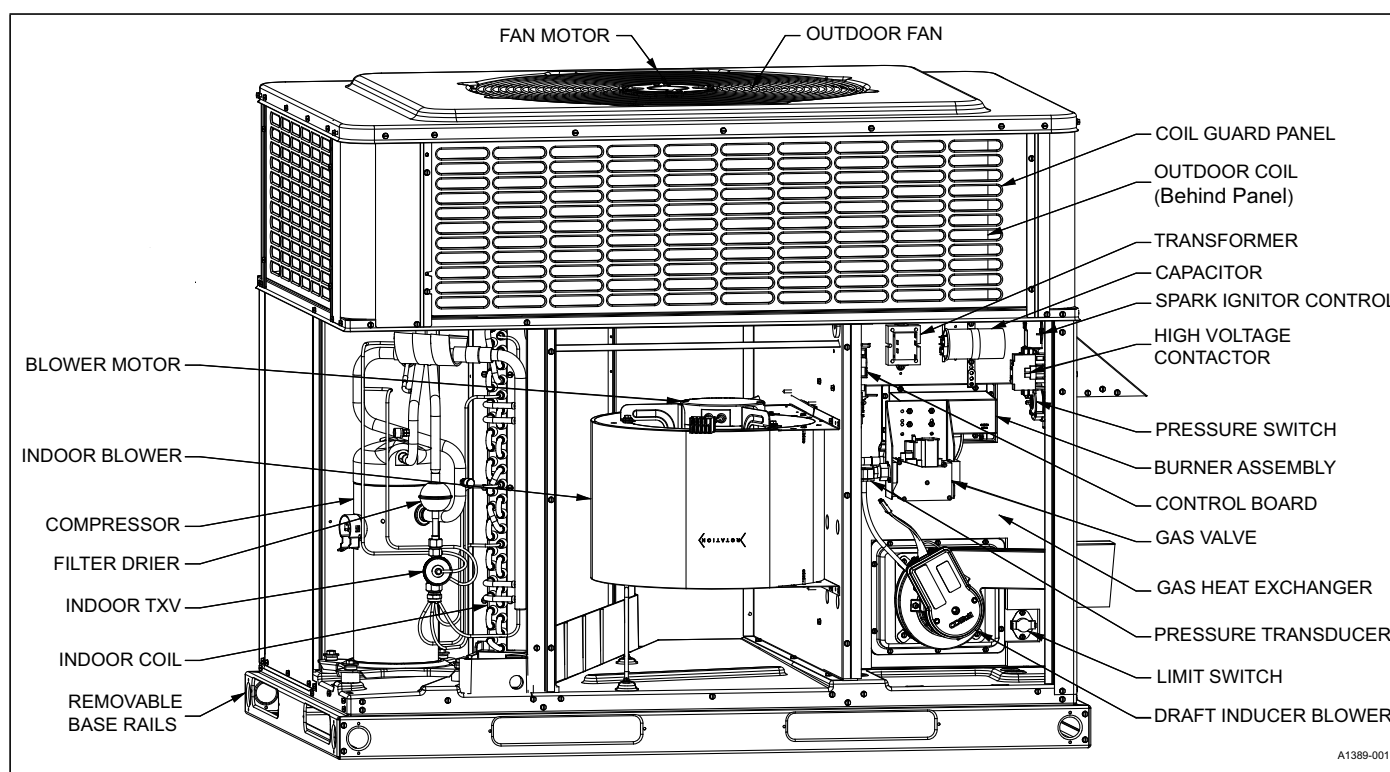
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- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails provide forklift access from all sides, and rigging holes are also provided so an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base keeps the unit off the pad to deter corrosion. On applications where height is limited, the base rails can be removed by removing two screws in each corner.
 - **More Attractive Appearance** - A single-piece top cover containing a top-discharge outdoor fan arrangement requires less square footage on installation and provides a wider variety of installations. The one-piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance.
 - **Top Discharge** - The top-discharge outdoor fan does not disrupt neighboring areas or dry out vegetation surrounding the unit. The warm air from the top mounted fan is blown up and away from the structure and any landscaping. This allows compact location on multiunit applications.
 - **Outdoor Coil Grille** - All models use a stamped slotted design that provides superior impact protection against small objects during transit and after installation.
 - **Low Operating Sound Level** - The upward airflow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates noise. The isolator mounted compressor and the rippled fins of the outdoor coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound attenuation with its structural design. This design strategically places embossments in the pan for optimum strength and rigidity.
 - **Fan System** - All models operate over a wide range of design conditions with a standard ECM indoor fan motor. These units easily match all types of applications and provide greater on-site flexibility to match comfort requirements. The cooling speed is factory set and can be field-adjusted to a second speed. The heating speed is factory set to maintain midpoint rise at the units' heating input, but can be field-adjusted. This allows for maximum comfort conditions.
 - **Simple Control Circuit** - A low-voltage gas heat printed circuit board contains a status/diagnostic indicator light. Field thermostat wiring connects to color-coded leads using twist-on wire connections. Cooling controls use contactor and relays for simple application and troubleshooting. MATE-N-LOK® plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted to allow removal of the separate access panel for troubleshooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color-coded and number-coded.
 - **Protected Compressor** - The compressor is internally protected against high pressure and temperature. This is done by the simultaneous operation of a high-pressure relief valve and a temperature sensor, which protects the compressor if undesirable operating conditions occur.
 - **Pressure Switches** - A high-pressure switch is standard in all units. It is an automatic reset switch. When discharge pressure reaches 650 psi, the compressor de-energizes until pressure reaches 450 psi.
 - **Exclusive Coil Design** - The grooved copper tubes and enhanced aluminum fin construction of the outdoor coils improve heat transfer for maximum efficiency and durability. Indoor tube and fin coils have all aluminum construction for reliability and efficient heat transfer.
 - **Heat Exchangers** - High-grade stainless steel heat exchangers provide long-life, trouble-free operation. For residential applications, gas heat exchangers are offered with a 20-year limited warranty. For commercial applications, gas heat exchangers are offered with a 10-year limited warranty.
 - **Premix Burner** - No field adjustment is required to mix the air and gas for natural gas. These burners are constructed of high-grade corrosion-resistant, stainless steel. Burners are for natural gas applications only.
 - **Post-Purge Induced Draft Combustion** - This exhausts combustion products from the heat exchanger upon completion of the heating cycle to prolong the heat exchanger life.
 - **Spark to Burner Ignition** - No pilot assembly is required, which provides more consistent ignition in gas heating mode. This ignition is highly reliable and durable and eliminates nuisance lockouts.
 - **Low Maintenance** - Long-life, permanently lubricated outdoor and indoor fan motor bearings need no annual maintenance, adding greater reliability to the unit. The slide-out blower assembly can be easily removed for cleaning.
 - **Easy Service Access** - Individual access panels covering the electrical and gas controls, compressor, and blower make servicing easy. Removing these panels allows easy removal of components such as the blower assembly for maintenance and troubleshooting.
 - **Replacement Parts** - The installer requires no special training to replace any of the components of these units. The number of new components has been reduced to minimize the inventory of unique parts.
- Note:** Transition Curb Kits (S1-1TC01*) are available to allow field use of preexisting installed Affinity roof curbs or Carrier, Trane, or Goodman roof curbs. See the APPLICATIONS AND ACCESSORIES section for more information about these adapter kits and the full list of accessories.

NOMENCLATURE

PCG	4	A	36	050	2	L	1	A
1	2	3	4	5	6	7	8	9
1. Model Family PCG - packaged A/C with gas heat					6. Voltage-Phase-Frequency 2 = 208/230-1-60, 3 = 208/230-3-60, 4 = 460-3-60			
2. Nominal Cooling Efficiency 4 = 14 SEER, 6 = 16 SEER					7. NOx Approval L = Ultra-Low NOx, X = Low NOx			
3. Cabinet Size A = small 35 x 51, B = large 45 x 51					8. Generation Level 1 = first generation, 2 = second generation			
4. Nominal Air Conditioning Cooling Capacity Btu x 1000 24 = 24,000 Btu, 30 = 30,000 Btu					9. Revision Level A = original release, B = second release			
5. Gas Heating Input Btu/h x 1000 050 = 50,000 Btu/h input, 065 = 65,000 Btu/h input								
Example: PCG4A360502L1A is a packaged A/C with gas heat, 14 SEER, small cabinet, 3 ton, single-stage heat, 50,000 Btu gas heat, 208/230 V, single-phase, Ultra-Low NOx model, first generation, first release.								

COMPONENT LOCATION



UNIT LIMITATIONS

Model	Unit Voltage	Unit Limitations		
		Applied Voltage		Outdoor DB Temperature
		Minimum	Maximum	Maximum (°F)
PCG4A240502L1	208/230-1-60	187	252	125
PCG4A360502L1	208/230-1-60	187	252	125
PCG4B480652L1	208/230-1-60	187	252	125
PCG4B600652L1	208/230-1-60	187	252	125

APPLICATIONS AND ACCESSORIES

Application Limitations				
Packaged Equipment Series	Air Temperature at Outdoor Coil (°F)		Air Temperature at Indoor Coil (°F)	
	Minimum	Maximum	Minimum	Maximum
	DB Cool	DB Cool	WB Cool	WB Cool
14 SEER AC	55	125	57	72

- **Anchor Bracket Kit (S1-1HK0601)** - This kit firmly anchors PCG, PCE, PHE, and PHG packaged units to a pad or support structure. When properly installed, the kit is approved for ground-mounted or roof-mounted applications, wind load certified, and listed with the State of Florida. See <https://floridabuilding.org> for this listing.
- **Flue Exhaust Extension Kit (S1-1FE0417, S1-1FE0422)** - The purpose of this kit is to divert flue gas up and away from walkways or fresh air intakes. Use the kit when installing PCG or PHG packaged units if required.
- **Economizer for Downflow Applications (S1-2EE04710024, S1-2EE04710124)** - The modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. The independent blade design ensures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor, and barometric relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available.
- **Economizer for Horizontal Applications (S1-2EE04710224, S1-2EE04710324)** - The modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. The independent blade design ensures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood and dry bulb sensor. Separate field accessories of single enthalpy and dual enthalpy are also available.
- **Barometric Relief Hood (S1-1RD0501)** - Used in conjunction with a horizontal economizer, the Barometric Relief Hood helps to equalize the building pressure caused by the fresh air introduced through the economizer fresh air hood.
- **Single/Dual Enthalpy Sensor (S1-HE-69630NS-2D)** - This sensor replaces the supply air temperature dry bulb sensor standard in the economizer kit. The sensor enables improved economizer operation by sensing the dry bulb temperature of indoor supply air plus the enthalpy content of the outdoor air.
- **Duct/Unit Mount CO₂ Kit (S1-2AQ04700924)** - This sensor kit detects CO₂ levels automatically and overrides the economizer when CO₂ levels rise above the preset limits.
- **Wall Mount CO₂ Kit (S1-2AQ04701024)** - This sensor kit detects CO₂ levels automatically and overrides the economizer when CO₂ levels rise above the preset limits.
- **Supply Air Temperature Sensor Kit (S1-TE-63616E-2D)** - This outdoor supply air temperature sensor kit is used with economizers.
- **Filter/Frame Kit (S1-1FF0602, S1-1FF0601)** - This kit contains the necessary hardware to field install return air filters into the base unit. The filter rack is suitable for 1-in. filters or 2-in. filters.
- **Filter (S1-02647812000)** - Washable 1-in. filter. Two filters are required for A base units. Three filters are required for B base units.

- **Motorized Fresh Air Damper (S1-2MD04705224, S1-2MD04705124)** - Designed for duct mounted side supply/return and unit mounted down supply/return applications. The damper is capable of providing 0% to 50% of outdoor air (field supplied). Closes on power loss and includes hood and screen assembly.
- **Rectangle to Round (Horizontal) Adapter (S1-1AK0110, S1-1AK0111)** - This kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current horizontal duct openings on the base unit. Transition is from rectangle to 12 in. round for the 1AK0110 kit and from rectangle to 14 in. round for the 1AK0111 kit.
- **Rectangle to Round (Downflow) Adapter (S1-1AK0108, S1-1AK0109)** - This kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit into current downflow duct openings on the roof curb. Transition is from rectangle to 16 in. round for the 1AK0108 kit and from rectangle to 18 in. round for the 1AK0109 kit.
- **Roof Curbs (S1-1RC0503, S1-1RC0501)** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. The kit also provides seal strip to ensure an air tight seal. These are 8-inch high roof curbs.
- **Roof Curbs (S1-1RC0504, S1-1RC0502)** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. The kit also provides seal strip to ensure an air tight seal. These are 14-inch high roof curbs.
- **Transition Curb Kits (S1-1TC01*)** - These adapter kits allow field use of preexisting installed roof curbs, matching the PCG4 unit footprint to Affinity roof curbs or Carrier, Trane, or Goodman roof curbs. Curb adapters are optional for current generation Carrier replacements, but are recommended for previous generation applications. Refer to the PCG4 price pages for more details.
- **Manual Outdoor Damper (S1-1FA0502, S1-1FA0501)** - Provides 0% to 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications. Includes hood and screen assembly.
- **Transformer Kit (S1-2EC06700124)** - This kit provides the necessary hardware to change single-phase models from the factory with 40-VA transformer capability to 75-VA transformer capability. Required on installations with an economizer or motorized damper.
- **Loss of Charge Switch (S1-2LC00024)** - This kit provides a loss of charge switch and wiring to provide safe shutdown of the compressor.
- **Low Ambient Kit (S1-2LA04701024)** - This kit provides the necessary hardware to convert the unit to operate in cooling cycle down to 0°F. Standard unit operation is 55°F.
- **Base Rail Hole Cover Kit (S1-1HC0101)** - This kit provides the necessary hardware to close off openings in base rails to block off openings and prevent animal entrance.
- **Thermostat** - Compatible thermostat controls are available through accessory sourcing. For optimum performance, these outdoor units are fully compatible with our residential Hx™ Touch Screen Thermostat available through Source 1. For more information, refer to the thermostat section of the Product Equipment Catalog.
- **Wall Thermostat** - The units are designed to operate with standard, 24-V electronic and electromechanical thermostats. All units can operate with single-stage heat/single-stage cool thermostats - with or without the economizer.

* For additional kit numbers, refer to the price pages.

GUIDE SPECIFICATIONS

GENERAL

Units shall be manufactured by Ducted Systems in an ISO 9001 certified facility. Ultra-Low NOx packaged units are compliant with SCAQMD Rule 1111 for the reduction of NOx emissions. Packaged units give you the flexibility and choice you need in today's market. These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation. The single-stage gas fired heaters have stainless steel tubular heat exchangers and spark to burner ignition.

DESCRIPTION

Units shall be factory-assembled, single packaged, electric cooling/gas heating units, designed for outdoor installation. For SEER ratings, refer to the technical literature. Units shall have built-in, equal size, field convertible duct connections for supply/return or horizontal supply/return. The units shall be factory wired, piped, charged with R-410A refrigerant, and factory tested before shipment. All unit wiring shall be both numbered and color-coded. All models shall be rated in accordance with DOE and AHRI test procedures for heating and cooling operation. Units shall be CSA listed and classified to ANSI Z21.47/CAN/ CSA 2.3 standards and UL 1995/CAN/CSA No. 236-M90 standards.

UNIT CABINET

The unit cabinet shall be constructed of G-90 galvanized, powder-painted steel, certified at 1000 hours salt spray test per ASTM-B117 standards. The unit top shall be a single-piece design, with drip edges and no-seam corners to provide optimum water integrity. The unit shall have a rigidly mounted outdoor coil guard to provide protection from objects and personnel after installation. The indoor blower section shall be insulated with foil-faced or foam insulation, fastened to prevent insulation from entering the air stream. Cabinet panels shall be separate and easily removable for servicing and maintenance. The unit shall be built on a formed, design base pan, with embossments at critical points to add strength and rigidity and aid in minimizing sound. Full perimeter base rails shall be provided to ensure reliable transit of equipment and facilitate overhead rigging, allowing truck access and proper sealing on roof curb applications. Base rails shall be easily removable if their removal is required to lower the unit height. Filters shall be field installed, furnished, and accessible through a removable access door, sealed airtight. The unit's vertical discharge and return duct configuration shall be designed to fit between standard 24-in. O.C. beams without modification to the building structure, duct work, and base unit. The condensate pan shall be internally sloped and conform to ASHRAE 62-19 self-draining standards, with 3/4-in. NPT female ridged mount connection.

Indoor Blower Assembly - The fan shall be a direct drive design. The fan wheel shall be a double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. The airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. The fan assembly shall be a slide-out design for easy removal and cleaning. Indoor blower motors shall be equipped with a standard high-efficiency brushless DC motor (constant torque), also known as a standard ECM motor.

Outdoor Fan Assembly - The outdoor fan shall be a direct-driven propeller type, discharge air vertically, have aluminum blades riveted to a corrosion resistant steel spider bracket, and be statically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

REFRIGERANT COMPONENTS

Compressors:

- Shall be a fully hermetic type, direct drive, and internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of +/- 10% of the unit nameplate voltage.
- Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- Indoor coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced aluminum tubes with all joints brazed.
- Indoor coils shall be a direct expansion, draw through design.
- Outdoor coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.
- Outdoor coils shall be a draw through design.

Refrigerant Circuit and Refrigerant Safety Components shall include the following:

- Thermal expansion devices (TXVs) that are factory mounted and provided
- Filter/strainer to eliminate any foreign matter

GAS HEATING SECTION

The heat exchanger and exhaust system shall be constructed of corrosion-resistant materials and be designed with induced draft combustion with post-purge logic and a redundant main gas valve. The heat exchanger shall be a tubular type, constructed of stainless steel for corrosion resistance and allowing a minimum mixed air entering temperature of 40°F. Premix burners shall allow for minimum NOx emissions and quiet operation. All gas piping shall enter the unit cabinet at a single location through either the side or bottom, without any field modifications. An integrated control board shall provide timed control of indoor fan functioning and burner ignition. The heating section shall be provided with the following minimum protection:

- Primary high-temperature limit switch
- Induced draft pressure switch
- Blocked burner inlet pressure switch
- Flame proving controls

All gas heat models meet the requirement of SCAQMD Rule 1111 for emissions of less than 14ng/J.

PHYSICAL DATA

NOMINAL TONNAGE	MODELS			
	PCG4A24	PCG4A36	PCG4B48	PCG4B60
	2.0	3.0	4.0	5.0
AHRI cooling performance				
Gross capacity at AHRI A point (MBH)	23.9	36.6	49.2	58.2
AHRI net capacity (MBH)	23.6	35.8	48.0	56.5
EER	11.0	11.8	11.2	11.2
SEER	14.0	14.0	14.0	14.0
Nominal CFM	775	1165	1560	1810
System power (kW)	2.1	3.0	4.3	5.0
Refrigerant type	R-410A	R-410A	R-410A	R-410A
Refrigerant charge (lb-oz)	3-15	7-0	7-14	10-2
AHRI gas heat performance				
Heating model	050	050	065	065
Heat input (kBtu)	50.0	50.0	65.0	65.0
Heat output (kBtu)	41.0	41.0	53.0	53.0
AFUE (%)	81.0	81.0	81.0	81.0
Number of burners	2	2	3	3
Number of stages	1	1	1	1
Temperature rise range (°F)	25–55	25–55	30–60	30–60
Maximum static pressure W.C.	0.5	0.5	0.5	0.5
Maximum outlet air temperature (°F)	180	180	180	180
Gas piping connection (in.)	1/2	1/2	1/2	1/2
Dimensions (in.)				
Length	51 1/4	51 1/4	51 1/4	51 1/4
Width	35 3/4	35 3/4	45 3/4	45 3/4
Height	44	47	47	50
Operating weight (lb)	341	349	460	477
Compressors				
Type	Scroll	Scroll	Scroll	Scroll
Outdoor coil data				
Face area (ft ²)	12.3	15.3	17.5	21.1
Rows	1	2	2	2
Fins per inch	22	22	22	22
Tube diameter (mm)	7	7	7	7
Circuitry type	Straight	Interlaced	Interlaced	Interlaced
Indoor coil data				
Face area (ft ²)	4.6	4.6	6.2	6.2
Rows	2	3	3	4
Fins per inch	16	16	16	16
Tube diameter (in.)	3/8	3/8	3/8	3/8
Circuitry type	Interlaced	Interlaced	Interlaced	Interlaced
Refrigerant control	TXV	TXV	TXV	TXV
Outdoor fan data				
Fan diameter (in.)	24	24	26	26
Type	Prop	Prop	Prop	Prop
Drive type	Direct	Direct	Direct	Direct
Number of speeds	1	1	1	1
Motor HP each	1/8	1/3	1/3	1/3
RPM	790	850	850	850
Nominal total CFM	2400	2400	3200	3200
Direct drive indoor fan data				
Fan size (in.)	11 x 8	11 x 10	11 x 10	11 x 10
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Motor HP each	1/2	1/2	3/4	1
RPM	1400 Maximum	1400 Maximum	1400 Maximum	1400 Maximum
Frame size	48	48	48	48
Filters				
Filter size	A	A	B	B
Quantity - size	Field-supplied external filters must be sized so as not to exceed 300 fpm air velocity through disposable filters. For internal filter use, a filter rack kit is available. Consult the instructions supplied with the kit for replacement filter sizes. Filter sizes: A = 20 x 20, B = 20 x 30.			

COOLING PERFORMANCE DATA - 2 TON**PACKAGED UNIT MODEL NO. PCG4A24**

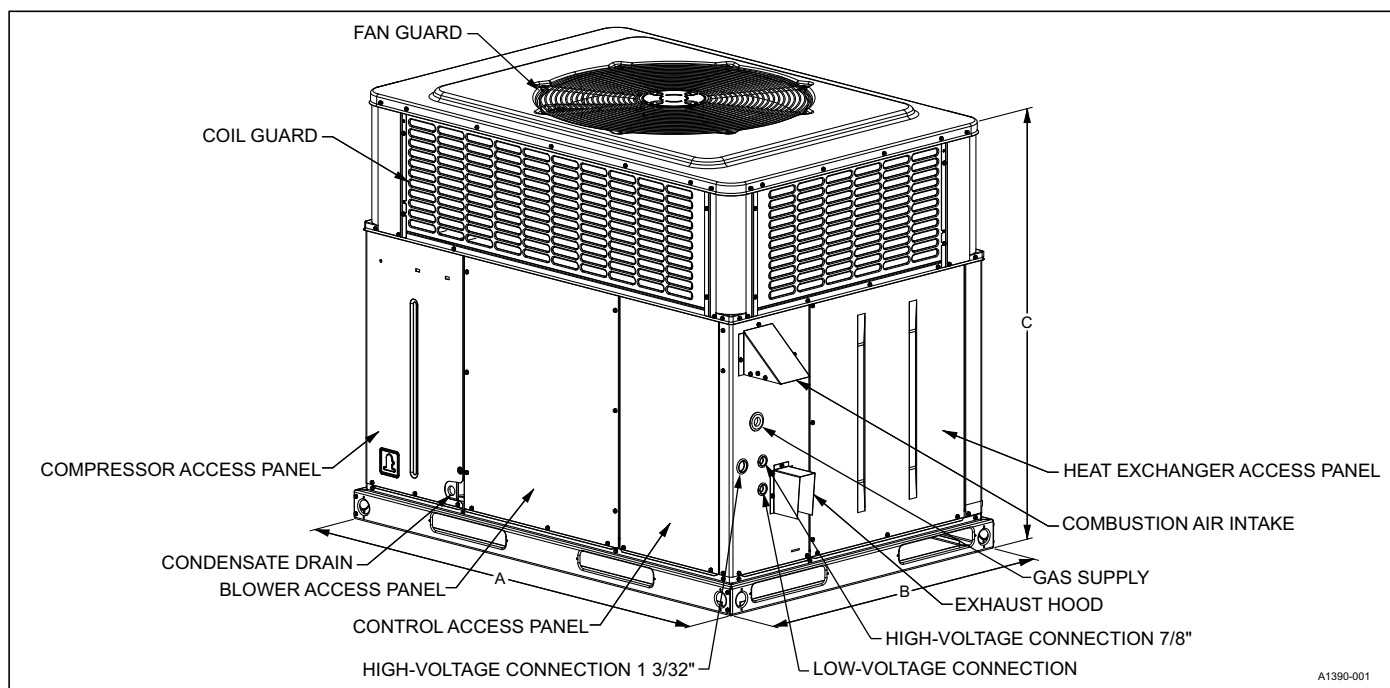
CONDENSER ENTERING AIR TEMPERATURE (°F)	ID CFM	600					800					1000				
	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	T.C.	25.1	28.2	27.8	31.3	35.3	28.0	30.7	29.8	35.9	37.5	31.0	33.2	31.8	40.5	39.8
	S.C.	24.2	22.6	19.0	19.6	16.6	27.6	26.4	21.7	22.9	18.4	30.9	30.2	24.4	26.2	20.1
	K.W.	1.28	1.26	1.26	1.25	1.22	1.34	1.32	1.32	1.31	1.29	1.39	1.38	1.38	1.37	1.35
65 / 55	T.C.	23.2	25.8	25.4	29.5	33.2	26.0	28.1	27.4	33.2	36.9	28.7	30.3	29.3	36.9	40.6
	S.C.	22.5	21.0	17.5	18.8	15.6	25.6	24.7	20.3	21.9	17.7	28.6	28.3	23.1	25.0	19.7
	K.W.	1.45	1.44	1.45	1.43	1.41	1.51	1.50	1.51	1.49	1.47	1.56	1.56	1.56	1.55	1.54
75 / 63	T.C.	21.3	23.5	23.1	27.6	31.0	23.9	25.4	24.9	30.5	36.2	26.4	27.4	26.7	33.3	41.5
	S.C.	20.9	19.5	16.1	17.9	14.5	23.6	22.9	18.9	20.9	16.9	26.4	26.4	21.8	23.8	19.3
	K.W.	1.61	1.61	1.63	1.61	1.59	1.67	1.67	1.69	1.68	1.66	1.73	1.73	1.75	1.74	1.73
85 / 69	T.C.	20.7	18.7	21.3	25.5	28.5	22.6	21.7	22.7	27.6	31.8	24.5	24.6	24.2	29.7	35.2
	S.C.	20.5	15.9	15.2	16.8	13.3	22.5	20.0	17.8	19.6	15.4	24.5	24.1	20.4	22.4	17.6
	K.W.	1.82	2.27	1.84	1.83	1.81	1.89	2.11	1.90	1.89	1.88	1.95	1.95	1.96	1.96	1.95
95 / 75	T.C.	20.1	14.0	19.5	23.4	25.9	21.4	17.9	20.6	24.7	27.4	22.6	21.9	21.6	26.0	28.9
	S.C.	20.0	12.4	14.3	15.6	12.0	21.3	17.1	16.7	18.3	13.9	22.6	21.8	19.1	20.9	15.8
	K.W.	2.03	2.93	2.05	2.04	2.03	2.10	2.56	2.11	2.11	2.10	2.17	2.18	2.18	2.18	2.17
105 / 83	T.C.	17.8	13.7	17.4	20.9	23.4	18.8	16.5	17.9	21.7	24.4	19.9	19.2	18.5	22.6	25.5
	S.C.	17.7	12.6	13.5	14.5	11.1	18.8	15.9	15.2	16.9	12.8	19.8	19.2	16.8	19.2	14.6
	K.W.	2.33	2.93	2.35	2.34	2.34	2.40	2.70	2.41	2.41	2.41	2.47	2.48	2.48	2.49	2.48
115 / 89	T.C.	15.5	13.4	15.3	18.4	21.0	16.4	15.0	15.4	18.8	21.6	17.2	16.7	15.4	19.2	22.1
	S.C.	15.5	12.8	12.8	13.5	10.2	16.3	14.7	13.7	15.5	11.8	17.2	16.6	14.6	17.5	13.4
	K.W.	2.63	2.92	2.64	2.63	2.64	2.70	2.84	2.71	2.71	2.71	2.76	2.77	2.78	2.78	2.79
125 / 95	T.C.	13.3	13.1	13.2	16.0	18.6	13.9	13.6	12.8	15.9	18.7	14.5	14.1	12.4	15.9	18.7
	S.C.	13.2	13.1	12.1	12.4	9.3	13.9	13.6	12.2	14.1	10.8	14.5	14.1	12.4	15.8	12.2
	K.W.	2.92	2.91	2.93	2.92	2.94	2.99	2.99	3.00	3.00	3.02	3.06	3.06	3.07	3.08	3.09

COOLING PERFORMANCE DATA - 3 TON**PACKAGED UNIT MODEL NO. PCG4A36**

CONDENSER ENTERING AIR TEMPERATURE (°F)	ID CFM	1000					1200					1400				
	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	T.C.	39.0	41.9	42.0	47.0	51.2	41.2	43.9	44.0	48.8	52.8	43.3	45.8	45.9	50.6	54.4
	S.C.	38.6	34.6	29.6	30.2	24.5	40.8	37.8	32.1	32.4	25.9	42.9	41.0	34.5	34.7	27.2
	K.W.	1.78	1.77	1.77	1.76	1.74	1.83	1.83	1.83	1.82	1.81	1.89	1.90	1.89	1.88	1.88
65 / 55	T.C.	37.3	39.8	40.0	44.7	49.1	39.3	41.5	41.6	46.3	50.7	41.2	43.1	43.2	47.9	52.3
	S.C.	36.9	33.6	28.6	28.9	23.5	38.9	36.5	30.8	31.1	24.8	40.8	39.4	33.0	33.3	26.2
	K.W.	1.98	1.97	1.97	1.96	1.95	2.03	2.04	2.03	2.02	2.01	2.09	2.10	2.09	2.08	2.07
75 / 63	T.C.	35.6	37.7	37.9	42.3	47.1	37.4	39.0	39.2	43.8	48.7	39.2	40.3	40.5	45.3	50.3
	S.C.	35.2	32.5	27.5	27.7	22.4	37.0	35.2	29.5	29.8	23.8	38.8	37.9	31.6	32.0	25.2
	K.W.	2.17	2.18	2.18	2.16	2.15	2.23	2.24	2.24	2.22	2.21	2.29	2.30	2.30	2.28	2.27
85 / 69	T.C.	33.4	35.0	35.1	39.4	43.8	35.0	36.0	36.1	40.5	45.0	36.5	37.1	37.0	41.7	46.2
	S.C.	33.1	31.1	26.3	26.4	21.1	34.7	33.4	28.2	28.5	22.4	36.2	35.7	30.2	30.6	23.7
	K.W.	2.40	2.41	2.41	2.40	2.39	2.46	2.47	2.47	2.46	2.45	2.52	2.53	2.53	2.53	2.52
95 / 75	T.C.	31.3	32.2	32.3	36.5	40.5	32.6	33.1	32.9	37.3	41.2	33.9	33.9	33.5	38.1	42.0
	S.C.	31.0	29.6	25.0	25.2	19.9	32.3	31.6	26.9	27.2	21.1	33.6	33.6	28.9	29.3	22.3
	K.W.	2.62	2.63	2.63	2.63	2.64	2.69	2.70	2.70	2.70	2.70	2.76	2.76	2.77	2.77	2.77
105 / 83	T.C.	28.5	29.2	28.9	33.0	36.9	29.7	29.9	29.2	33.5	37.4	31.0	30.6	29.5	34.0	38.0
	S.C.	28.2	27.4	23.3	23.5	18.3	29.5	28.8	24.8	25.4	19.4	30.7	30.3	26.3	27.3	20.4
	K.W.	2.92	2.93	2.92	2.93	2.94	2.98	2.99	2.99	3.00	3.00	3.05	3.06	3.06	3.07	3.07
115 / 89	T.C.	25.8	26.2	25.7	29.6	33.4	26.9	26.8	25.6	29.8	33.7	28.1	27.4	25.6	30.0	34.0
	S.C.	25.5	25.2	21.6	21.9	16.7	26.7	26.2	22.7	23.6	17.7	27.8	27.1	23.9	25.3	18.7
	K.W.	3.21	3.21	3.20	3.22	3.23	3.27	3.28	3.27	3.28	3.30	3.34	3.35	3.34	3.35	3.37
125 / 95	T.C.	23.1	23.3	22.4	26.2	30.0	24.1	23.7	22.0	26.1	30.0	25.2	24.2	21.7	26.0	30.1
	S.C.	22.9	23.1	19.9	20.2	15.2	23.9	23.5	20.7	21.8	16.1	24.9	24.0	21.5	23.4	16.9
	K.W.	3.49	3.49	3.48	3.50	3.52	3.56	3.56	3.55	3.57	3.59	3.63	3.63	3.62	3.64	3.66

COOLING PERFORMANCE DATA - 4 TON																
PACKAGED UNIT MODEL NO.		PCG4B48														
CONDENSER ENTERING AIR TEMPERATURE (°F)	ID CFM	1400					1600					1800				
	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	T.C.	51.6	55.3	55.4	62.2	67.8	53.8	57.4	57.5	64.1	69.7	55.9	59.6	59.6	65.9	71.5
	S.C.	50.5	45.8	39.1	40.0	32.5	52.6	49.1	41.8	42.4	34.1	54.7	52.5	44.4	44.8	35.7
	K.W.	2.58	2.58	2.58	2.55	2.53	2.65	2.64	2.64	2.62	2.60	2.71	2.71	2.71	2.68	2.67
65 / 55	T.C.	49.5	52.5	52.6	58.5	64.7	51.4	54.1	54.1	60.1	66.4	53.2	55.6	55.7	61.6	68.0
	S.C.	48.4	44.6	37.7	38.2	31.1	50.2	47.6	40.1	40.5	32.5	52.1	50.5	42.4	42.7	34.0
	K.W.	2.86	2.86	2.86	2.85	2.84	2.93	2.93	2.93	2.92	2.92	3.00	3.00	3.00	2.99	2.99
75 / 63	T.C.	47.4	49.8	49.7	54.8	61.7	49.0	50.7	50.7	56.1	63.1	50.6	51.6	51.8	57.4	64.5
	S.C.	46.3	43.4	36.3	36.3	29.6	47.9	46.0	38.4	38.5	31.0	49.4	48.5	40.4	40.7	32.4
	K.W.	3.14	3.15	3.15	3.15	3.16	3.21	3.22	3.22	3.22	3.23	3.29	3.29	3.29	3.30	3.30
85 / 69	T.C.	44.6	46.4	46.3	51.5	57.2	46.0	47.2	47.1	52.5	58.4	47.3	47.9	47.9	53.5	59.5
	S.C.	43.7	41.8	34.8	35.0	27.8	45.0	43.8	36.8	37.1	29.2	46.2	45.9	38.9	39.2	30.5
	K.W.	3.46	3.47	3.46	3.48	3.49	3.54	3.54	3.54	3.55	3.56	3.61	3.61	3.61	3.62	3.64
95 / 75	T.C.	41.9	43.1	42.9	48.2	52.8	43.0	43.6	43.5	48.9	53.7	44.0	44.2	44.1	49.6	54.5
	S.C.	41.0	40.2	33.3	33.6	26.1	42.0	41.7	35.3	35.7	27.3	43.0	43.3	37.4	37.8	28.6
	K.W.	3.78	3.78	3.78	3.80	3.83	3.86	3.86	3.86	3.87	3.90	3.94	3.93	3.93	3.95	3.98
105 / 83	T.C.	37.9	38.5	38.0	43.9	48.8	38.9	38.9	38.3	44.4	49.5	39.9	39.4	38.5	45.0	50.1
	S.C.	37.0	36.3	31.0	31.5	24.2	38.1	37.4	32.5	33.5	25.4	39.1	38.5	33.9	35.5	26.6
	K.W.	4.21	4.20	4.20	4.22	4.24	4.29	4.28	4.28	4.29	4.32	4.36	4.36	4.35	4.36	4.40
115 / 89	T.C.	34.0	34.0	33.2	39.8	44.9	35.0	34.3	33.2	40.1	45.4	36.0	34.7	33.2	40.5	45.9
	S.C.	33.2	32.6	28.8	29.5	22.4	34.2	33.3	29.7	31.4	23.5	35.2	33.9	30.6	33.3	24.6
	K.W.	4.63	4.61	4.61	4.63	4.65	4.70	4.69	4.68	4.70	4.73	4.78	4.77	4.76	4.77	4.81
125 / 95	T.C.	30.0	29.5	28.4	35.6	41.0	31.0	29.8	28.1	35.8	41.3	32.0	30.0	27.8	36.0	41.6
	S.C.	29.4	28.9	26.5	27.5	20.6	30.4	29.1	26.9	29.3	21.6	31.3	29.3	27.2	31.0	22.6
	K.W.	5.05	5.02	5.02	5.04	5.05	5.12	5.10	5.09	5.11	5.14	5.19	5.18	5.17	5.17	5.22

COOLING PERFORMANCE DATA - 5 TON																
PACKAGED UNIT MODEL NO.		PCG4B60														
CONDENSER ENTERING AIR TEMPERATURE (°F)	ID CFM	1600					1800					2000				
	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	T.C.	62.7	67.2	67.1	74.1	78.7	65.2	69.1	69.1	75.8	80.0	67.7	71.0	71.2	77.6	81.3
	S.C.	62.5	55.1	46.6	46.6	36.2	65.0	58.7	49.4	49.0	37.4	67.6	62.3	52.3	51.5	38.6
	K.W.	3.16	3.17	3.17	3.18	3.20	3.23	3.24	3.24	3.25	3.27	3.30	3.31	3.32	3.33	3.35
65 / 55	T.C.	59.6	63.1	63.0	70.0	75.9	61.9	64.8	64.8	71.7	77.6	64.1	66.5	66.6	73.4	79.3
	S.C.	59.4	52.9	44.4	44.6	35.0	61.7	56.4	47.1	47.1	36.4	64.0	59.8	49.9	49.6	37.8
	K.W.	3.47	3.49	3.49	3.51	3.53	3.55	3.56	3.56	3.58	3.61	3.63	3.64	3.64	3.66	3.69
75 / 63	T.C.	56.5	59.0	58.9	65.8	73.2	58.5	60.5	60.5	67.6	75.2	60.5	62.0	62.1	69.3	77.2
	S.C.	56.3	50.8	42.3	42.7	33.7	58.3	54.1	44.8	45.2	35.3	60.4	57.3	47.4	47.8	36.9
	K.W.	3.79	3.81	3.80	3.84	3.87	3.87	3.88	3.88	3.91	3.95	3.95	3.96	3.96	3.99	4.03
85 / 69	T.C.	53.2	55.2	55.3	61.9	68.8	55.0	56.5	56.6	63.3	70.4	56.8	57.7	57.9	64.8	72.1
	S.C.	53.1	48.9	40.6	41.9	32.0	54.9	52.0	43.1	43.9	33.5	56.7	55.0	45.7	45.9	35.0
	K.W.	4.16	4.18	4.18	4.22	4.25	4.25	4.26	4.25	4.29	4.33	4.33	4.34	4.33	4.37	4.41
95 / 75	T.C.	50.0	51.5	51.6	58.0	64.4	51.6	52.4	52.7	59.1	65.7	53.1	53.4	53.7	60.2	66.9
	S.C.	49.9	47.1	39.0	41.1	30.3	51.4	49.9	41.5	42.5	31.6	53.0	52.7	43.9	44.0	33.0
	K.W.	4.54	4.55	4.55	4.59	4.63	4.63	4.63	4.63	4.67	4.71	4.71	4.71	4.70	4.74	4.79
105 / 83	T.C.	46.5	48.3	47.2	54.0	59.7	48.0	49.4	48.2	54.5	60.9	49.5	50.4	49.2	55.0	62.1
	S.C.	46.4	45.2	36.7	38.5	28.2	47.9	47.4	39.0	40.0	29.5	49.4	49.7	41.4	41.5	30.8
	K.W.	5.04	5.05	5.02	5.09	5.12	5.13	5.13	5.10	5.16	5.20	5.21	5.21	5.18	5.23	5.28
115 / 89	T.C.	43.1	45.3	43.0	50.1	55.1	44.6	46.4	43.9	50.1	56.2	46.1	47.5	44.8	50.0	57.3
	S.C.	43.0	43.3	34.4	36.0	26.2	44.5	45.0	36.6	37.6	27.4	45.9	46.7	38.9	39.1	28.6
	K.W.	5.52	5.53	5.48	5.57	5.58	5.61	5.62	5.56	5.64	5.67	5.70	5.70	5.65	5.71	5.76
125 / 95	T.C.	39.8	42.2	38.8	46.2	50.5	41.2	43.4	39.6	45.6	51.6	42.6	44.7	40.4	45.0	52.6
	S.C.	39.7	41.5	32.2	33.5	24.1	41.1	42.6	34.3	35.1	25.3	42.5	43.8	36.3	36.8	26.5
	K.W.	6.00	6.02	5.94	6.06	6.05	6.10	6.10	6.03	6.12	6.14	6.19	6.18	6.11	6.18	6.23



A1390-001

UNIT DIMENSIONS

Model	Dimensions (in.)		
	A	B	C
PCG4A240502L1	51 1/4	35 3/4	44
PCG4A360502L1	51 1/4	35 3/4	47
PCG4B480652L1	51 1/4	45 3/4	47
PCG4B600652L1	51 1/4	45 3/4	50

UNIT CLEARANCES^{1,2}

Direction	Distance (in.)	Direction	Distance (in.)
Top ³	36	Power Entry (Right Side)	36
Side Opposite Ducts	36	Left Side	24
Duct Panel	0	Bottom ⁴	1

1. Provide a 1-in. clearance between any combustible material and the supply air duct work.
2. Do not allow the products of combustion to accumulate within a confined space and recirculate.
3. Install units outdoors. Make sure that overhanging structure or shrubs do not obstruct the outdoor air discharge outlet.
4. You can install units on combustible materials made from wood or class A, B, or C roof covering materials if factory base rails are left in place as shipped.

INDOOR BLOWER SPECIFICATIONS

Model	Motor				
	HP	RPM	EFF.	SF	Frame
PCG4A240502L1	1/3	Variable	0.8	1.0	48
PCG4A360502L1	1/2	Variable	0.8	1.0	48
PCG4B480652L1	3/4	Variable	0.8	1.0	48
PCG4B600652L1	1	Variable	0.8	1.0	48

SOUND PERFORMANCE

Model	Sound Rating ¹ dB(A)	Octave Band Centerline Frequency (Hz)						
		125	250	500	1000	2000	4000	8000
PCG4A240502L1	70	74.2	67.8	68.1	67	59	54.9	50.1
PCG4A360502L1	76	78.7	71.9	73.8	72.5	66.1	61.2	55.0
PCG4B480652L1	72	76.2	69.4	67.8	69	63	61.0	55.0
PCG4B600652L1	73	76.6	70.4	68.2	69	64	62.4	56.7

1. Rated in accordance with AHRI Standard 270.

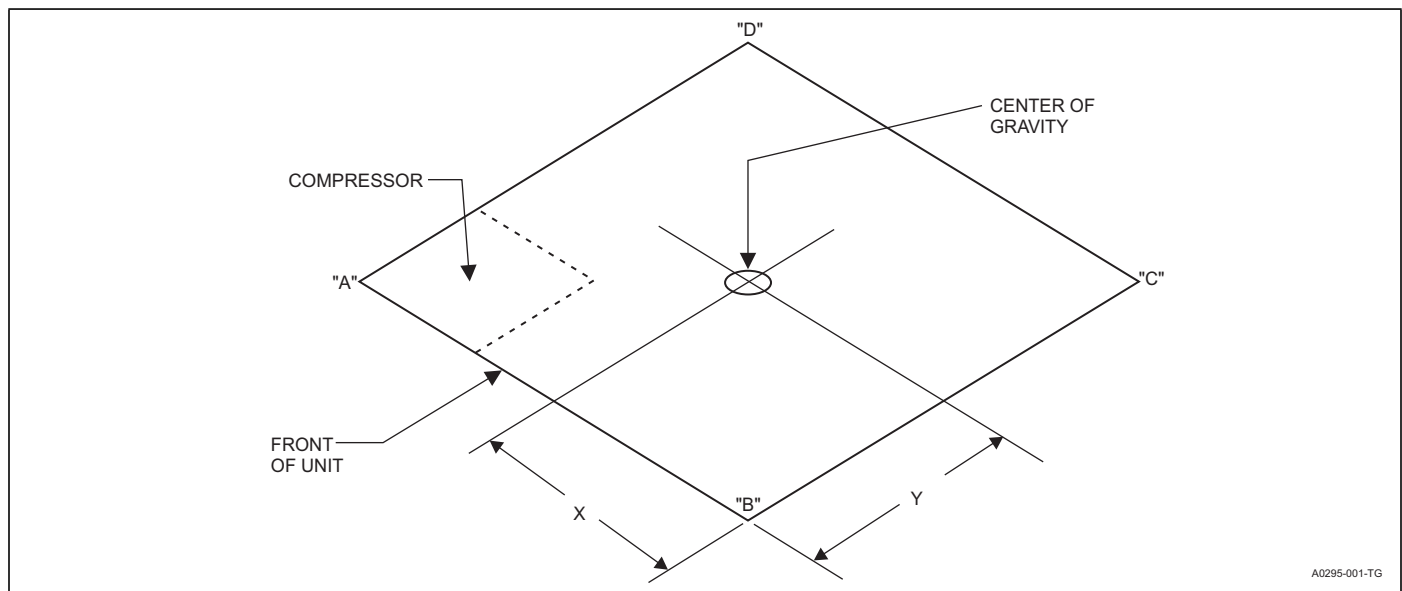
ELECTRICAL DATA

Model	Voltage	Compressor			Outdoor Fan Motor	Indoor Blower Motor	MCA ¹ (A)	Max Fuse ² / Breaker ³ Size (A)
		RLA	LRA	MCC	FLA	FLA		
PCG4A240502L1	208/230-1-60	10.8	55.0	16.8	0.8	2.6	16.9	25
PCG4A360502L1	208/230-1-60	14.7	75.0	22.9	1.7	3.8	23.9	35
PCG4B480652L1	208/230-1-60	18.3	108.0	28.5	1.7	5.4	30.0	45
PCG4B600652L1	208/230-1-60	22.2	127.9	34.7	1.7	7.0	36.5	50

1. Minimum Circuit Ampacity.

2. Maximum Overcurrent Protection per standard UL 1995.

3. Fuse or HACR circuit breaker is field installed.



WEIGHTS AND DIMENSIONS

Model	Weight (lb)		Center of Gravity		4-Point Load Location (lb)			
	Shipping	Operating	X	Y	A	B	C	D
PCG4A240502L1	346	341	28	15	120	95	81	71
PCG4A360502L1	352	349	28	15	141	107	94	78
PCG4B480652L1	465	460	28	15	189	116	93	117
PCG4B600652L1	482	477	29	15	174	142	124	92

AIRFLOW PERFORMANCE - SIDE AND BOTTOM DUCT APPLICATION

Model	Motor Speed	External Static Pressure (in. W.C.)								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0
		SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM
PCG4A24	Low (1)	560	520	480	410	370	320	270	220	120
	Medium Low (2)	810	770	730	690	630	590	540	500	420
	Medium (3)	900	860	820	790	740	690	650	610	520
	Medium High (4)	960	920	890	850	810	770	720	680	600
	High (5)	980	950	920	890	850	810	760	720	630
PCG4A36	Low (1)	850	790	710	660	610	560	510	450	400
	Medium Low (2)	960	910	860	790	740	690	640	590	510
	Medium (3)	1120	1080	1030	990	930	870	820	770	690
	Medium High (4)	1270	1230	1190	1150	1110	1060	1000	960	860
	High (5)	1370	1340	1300	1260	1220	1180	1130	1070	980
PCG4B48	Low (1)	1140	1090	1040	980	930	860	790	730	610
	Medium Low (2)	1320	1270	1230	1170	1130	1070	1020	960	840
	Medium (3)	1430	1380	1340	1290	1240	1200	1150	1100	980
	Medium High (4)	1690	1650	1600	1570	1530	1490	1440	1400	1310
	High (5)	1800	1760	1720	1680	1650	1610	1560	1520	1440
PCG4B60	Low (1)	1270	1210	1160	1110	1060	1010	950	890	780
	Medium Low (2)	1380	1330	1280	1240	1190	1150	1100	1040	930
	Medium (3)	1660	1620	1580	1540	1500	1470	1430	1390	1310
	Medium High (4)	1870	1840	1810	1770	1730	1690	1650	1620	1540
	High (5)	2000	1970	1930	1890	1860	1830	1780	1740	1670

Notes:

Airflow is tested with dry coil conditions, without air filters, at 230 V.

Applications above 0.8 in. W.C. external static pressure are not recommended.

Brushless DC high-efficiency standard ECM blower motor is used for all indoor blower assemblies.

Minimal variations in airflow performance data result from operating at 208 V. The data in the table can be used in those cases.

Heating applications are tested at 0.50 in. W.C. external static pressure. Cooling applications are tested per AHRI Standard 210/240.

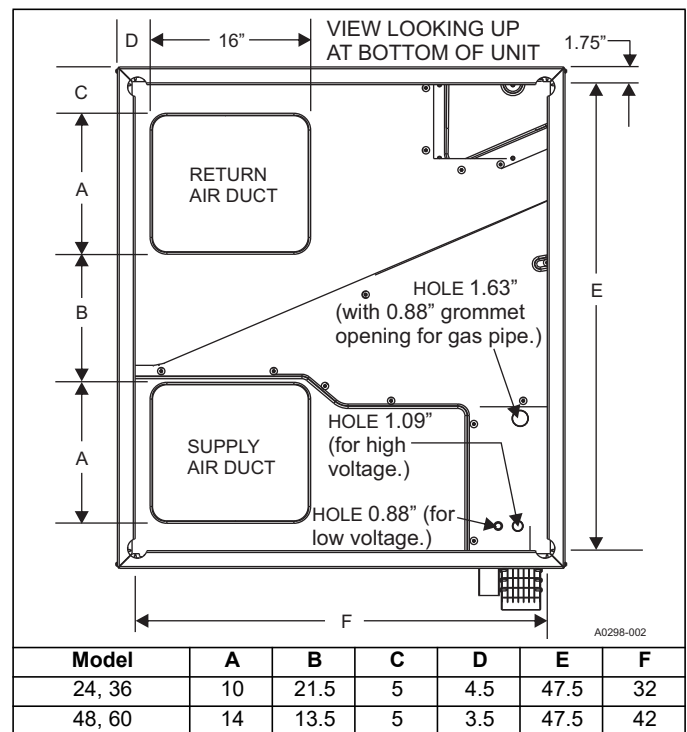
The differences between side duct airflows and bottom duct airflows are insignificant.

ADDITIONAL STATIC RESISTANCE

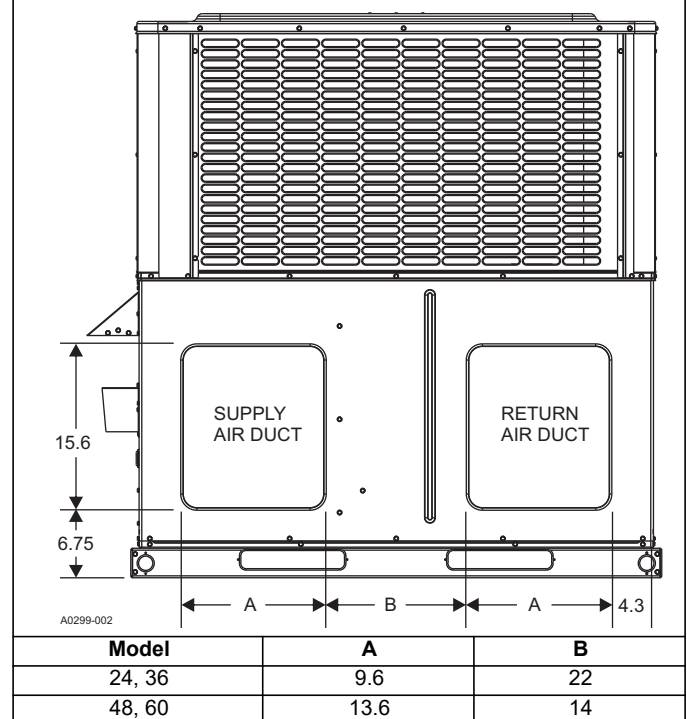
Size (Tons)	CFM	Wet Indoor Coil	Economizer ¹	Filter/Frame Kit
024 (2.0)	500	0.01	0.00	0.01
	600	0.01	0.00	0.02
	700	0.01	0.00	0.04
	800	0.02	0.01	0.06
	900	0.03	0.01	0.08
	1000	0.04	0.01	0.10
	1100	0.05	0.01	0.13
	1200	0.06	0.02	0.16
036 (3.0)	700	0.01	0.00	0.04
	800	0.02	0.01	0.06
	900	0.03	0.01	0.08
	1000	0.04	0.01	0.10
	1100	0.05	0.01	0.13
	1200	0.06	0.02	0.16
	1300	0.07	0.03	0.17
	1400	0.08	0.04	0.18
048 (4.0)	1100	0.02	0.02	0.04
	1200	0.03	0.02	0.04
	1300	0.04	0.02	0.05
	1400	0.05	0.03	0.05
	1500	0.06	0.04	0.06
	1600	0.07	0.04	0.07
	1700	0.07	0.04	0.08
	1800	0.08	0.04	0.09
	1900	0.09	0.05	0.10
	2000	0.09	0.05	0.11
060 (5.0)	1100	0.02	0.02	0.04
	1200	0.03	0.02	0.04
	1300	0.04	0.02	0.05
	1400	0.05	0.03	0.05
	1500	0.06	0.04	0.06
	1600	0.07	0.04	0.07
	1700	0.07	0.04	0.08
	1800	0.08	0.04	0.09
	1900	0.09	0.05	0.10
	2000	0.09	0.05	0.11

1. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

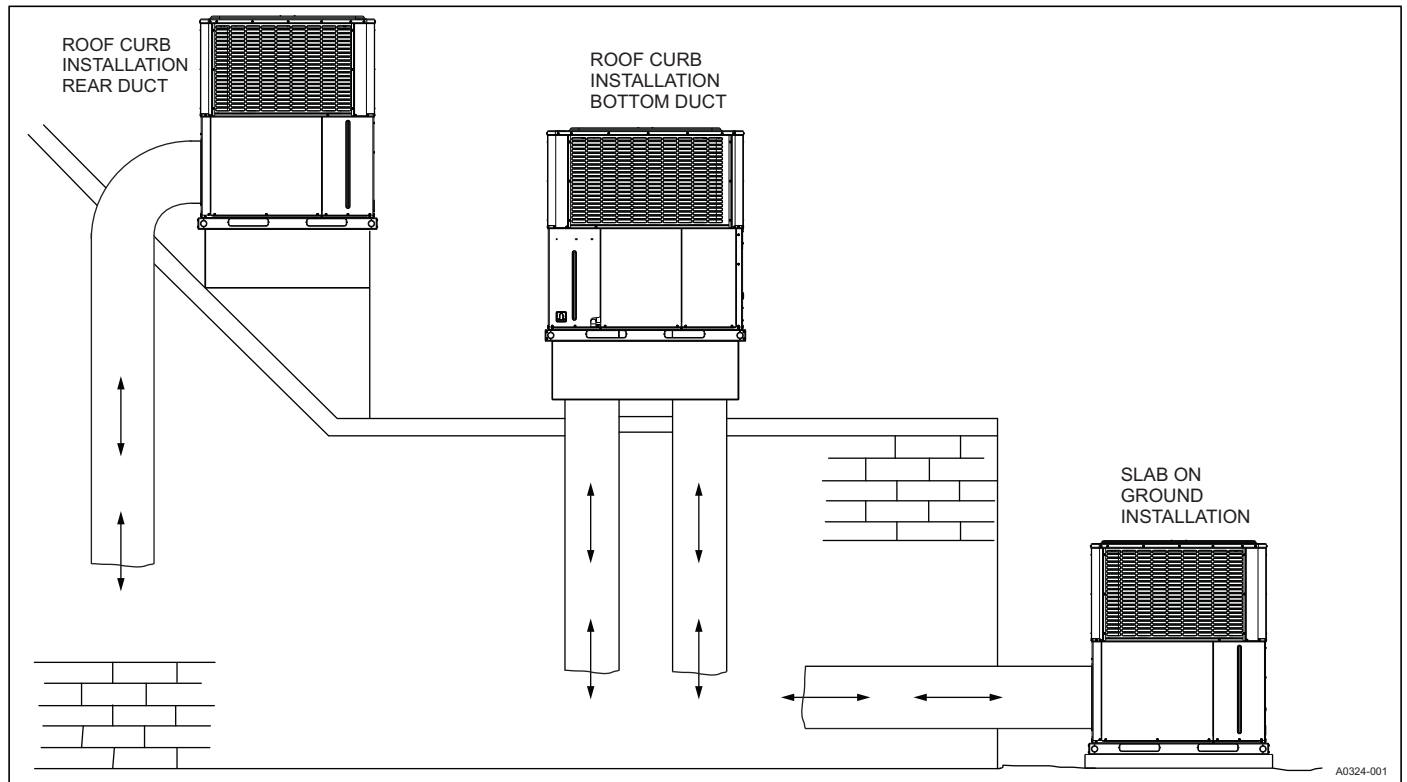
Note: Filter pressure drop based on standard filter media tested at velocities not to exceed 300 ft/min.

BOTTOM DUCT DIMENSIONS (in.)**REAR DUCT DIMENSIONS (in.)**

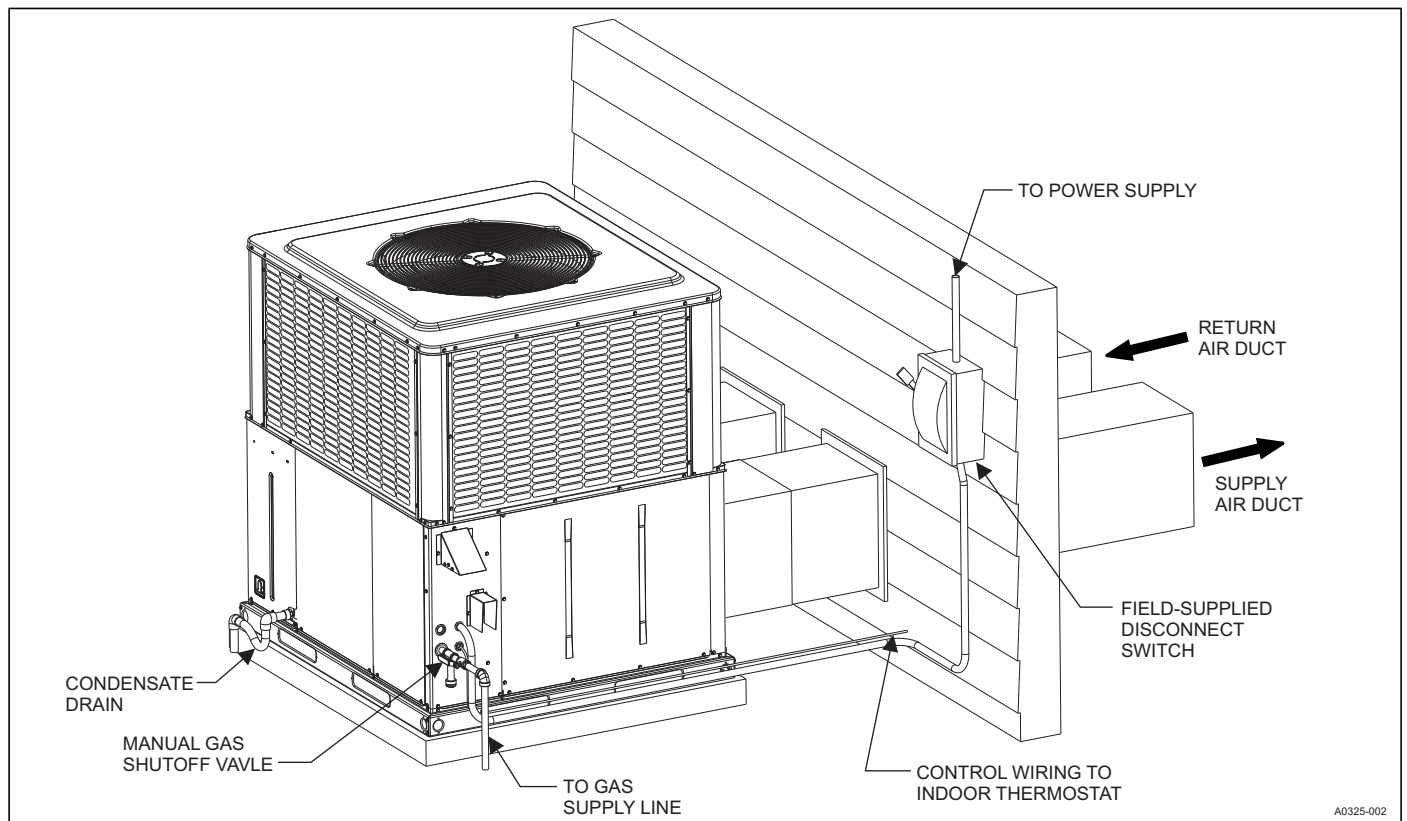
NOTE: See Figure titled "Unit Dimensions" for side hole sizes of electrical and gas lines.



UNIT TYPICAL DUCT APPLICATIONS



UNIT TYPICAL SLAB ON GROUND INSTALLATION



UNIT TYPICAL ROOF CURB INSTALLATION

