

TECHNICAL GUIDE

**Single Package
Air Conditioner with Gas Heat
13.4 SEER2 (14 SEER)
R-410A - Three-Phase
3 ton to 5 Nominal ton - 460 V
50 to 125 MBH Heat Input
Models: PCG4*36 to 60**



Assembled at a facility with
an ISO 9001:2015-certified
Quality Management
System



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

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Additional rating information can be found at

www.ahridirectory.org

Warranty summary*

Standard 1-year limited parts warranty.

Standard 5-year limited compressor warranty.

Lifetime gas heat exchanger warranty with registration.

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

Description

These packaged cooling and 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 13.4 SEER2 (14 SEER), and 11.0 EER2 rating for cooling operation. All models meet California Low-NOx requirements of 40 ng/J 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 correct 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 use a state-of-the-art computerized process system to ensure product quality. Refrigerant charge and component part numbers are verified 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. Installers can make utility connections quickly and with a minimum amount of field labor. Install a field-supplied and field-installed electrical disconnect switch.
- **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. Convertible airflow design allows 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 buildup 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 correct 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. Powder paint finish ensures less fading when exposed to sunlight, provides superior corrosion resistance, and is 1,000 h salt spray tested.

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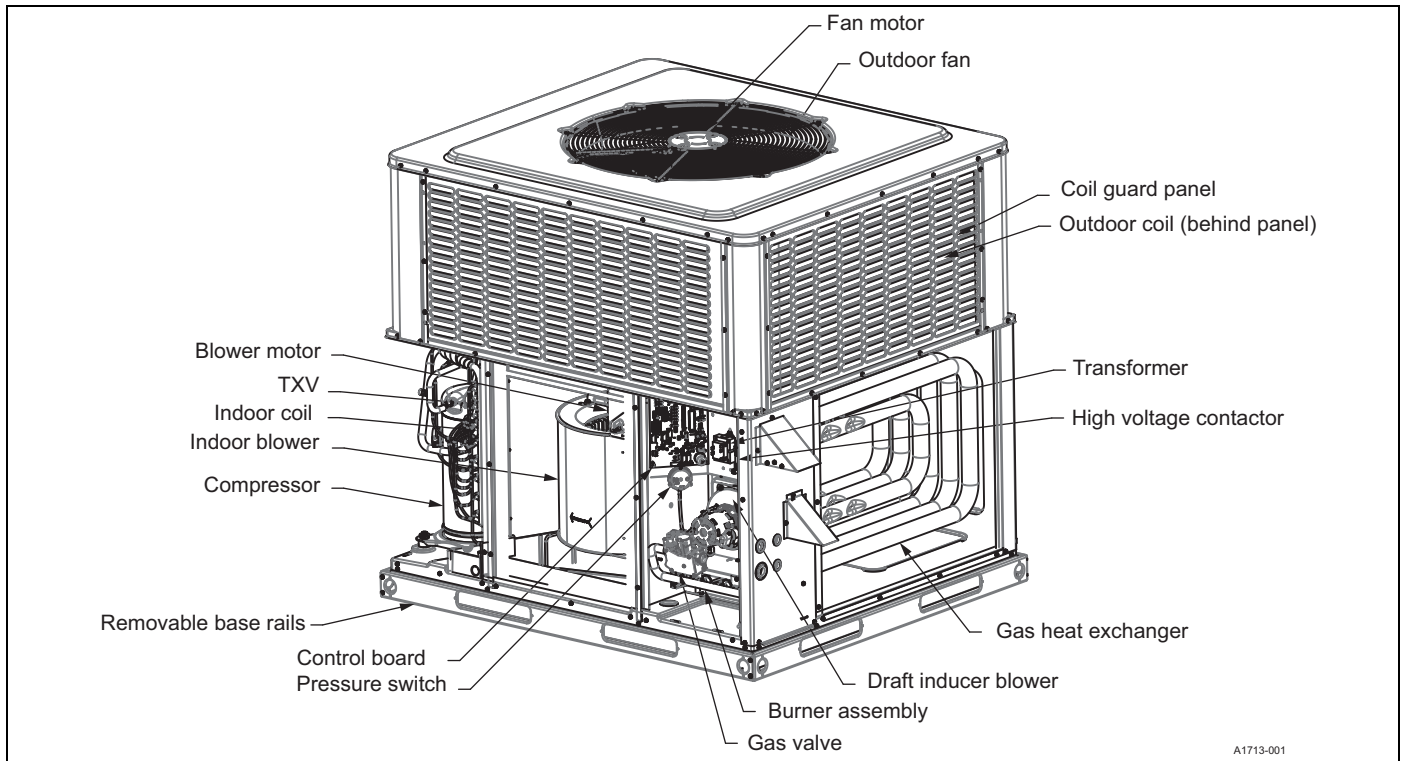
- **Outdoor coil grille** - All models use a stamped slotted design that provides superior impact protection against small objects during transit and after installation.
- **Full perimeter base rails** - The easily removable base rails provide a solid foundation for the entire unit and protect the unit 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, installers can remove the base rails 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 multi-unit applications.
- **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 helps with 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 blower 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 or diagnostic indicator light. Field thermostat wiring connects to color coded wire 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 so that the separate access panel can be removed 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 accomplished by the simultaneous operation of a high pressure relief valve and a temperature sensor, which protects the compressor if unsuitable operating conditions occur.
- **Pressure switches** - A high pressure switch is standard in all units. When abnormal conditions are sensed through the pressure switch, the unit locks out, preventing any further operation until it is reset or the problem is corrected.
- **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** - Gas heat exchangers use corrosion-resistant, stainless-steel tubular construction to provide long-life, trouble-free operation. Gas heat exchangers are offered with lifetime warranties as standard with registration.
- **Post purge induced draft combustion** - Expels combustion products from the heat exchanger on 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 reliable, durable, and eliminates nuisance lockouts.
- **Multi-port in-shot burners** - No field adjustment is required to mix the air and gas for natural gas or propane use. These burners are constructed with high-grade corrosion-resistant, aluminized steel.
- **Low maintenance** - Long life, permanently lubricated outdoor fan motor bearings and indoor blower motor bearings need no annual maintenance, adding greater reliability to the unit. Slide-out blower assembly can be easily removed for cleaning.
- **Easy service access** - Individual access panels covering the electrical and gas controls 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.
- **Filter frame kit** - All three-phase units include a filter frame kit, which is shipped inside the unit from production. Field installation is required.
- **Filters** - All three-phase units include an applicable number of 1 in. washable filters, which are shipped inside the unit from production. Field installation is required. Two filters are required for A base units. Three filters are required for B base units.

Nomenclature

Model family	PCG	PHE = packaged heat pump with electric heat
		PCG = packaged AC with gas heat
		PHG = packaged heat pump with gas heat
		PCE = packaged AC with electric heat
Nominal cooling efficiency	4	4 = standard efficiency
		6 = high efficiency
Cabinet size	A	A = small, 35.75 in. x 51.25 in.
		B = large, 45.75 in. x 51.25 in.
Nominal air conditioning cooling capacity Btu/h x 1000	36	24 = 24,000 Btu/h
		30 = 30,000 Btu/h
		36 = 36,000 Btu/h
		42 = 42,000 Btu/h
		48 = 48,000 Btu/h
		60 = 60,000 Btu/h
Gas heating input Btu/h x 1000	050	050 = 50,000 Btu/h input
		065 = 65,000 Btu/h input
		075 = 75,000 Btu/h input
		100 = 100,000 Btu/h input
		125 = 125,000 Btu/h input
		blank = electric heat
Voltage-phase-frequency	4	2 = 208/230-1-60
		3 = 208/230-3-60
		4 = 460-3-60
		blank = electric heat
NOx approval	X	X = Low NOx
		blank = not Low NOx
Generation level	4	1 = first generation
		2 = second generation
		3 = third generation
		4 = fourth generation
Revision level	A	A = original release
		B = second release

Nomenclature example: PCG4A360504X4A is a packaged air conditioner with gas heat, standard efficiency, small cabinet, 3 ton, single-stage heat, 50,000 Btu/h gas heat, 460 V, three-phase, low NOx model, fourth generation, original release.

Component location



Unit limitations

Model	Unit voltage	Unit limitations		
		Applied voltage		Outdoor DB temperature
		Minimum	Maximum	Maximum (°F)
PCG4A36	460-3-60	432	504	125
PCG4B48				
PCG4B60				

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
PCG4	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 correctly installed, the kit is approved for ground-mounted or roof-mounted applications, wind load certified, and listed with the State of Florida. Refer to <https://floridabuilding.org> for this listing.
- **Flue Exhaust Extension Kit (S1-1FE0417, S1-1FE0422)** - This kit diverts flue gas up and away from walkways or fresh air intakes. Use the kit when installing PCG or PHG packaged units if required.
- **Propane Conversion Kit (S1-1NP0703, S1-1NP0704)** - This kit includes burner orifices, gas valve conversion, and installation instructions necessary to field convert the unit from natural gas to propane.
- **Economizer for Downflow Applications (S1-2EE04710024, S1-2EE04710124)** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. 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)** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. 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)** - The sensor replaces the supply air temperature dry bulb sensor standard in economizer kit. This provides 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)** - The outdoor supply air temperature sensor kit is used with economizers.
- **Filter/Frame Kit (Kit provided) (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. Washable filters are included inside shipped units for field installation.
- **Motorized Fresh Air Damper (S1-2MD04705224, S1-2MD04705124)** - Designed for duct mounted side supply/return and unit mounted down supply/return applications. The damper can provide 0% to 50% of outdoor air (field supplied). Closes on power loss, and includes hood and screen assembly.
- **Loss of Charge Switch (S1-2LC00024)** - The kit provides a loss of charge switch and wiring to provide safe shutdown of compressor.
- **Rectangle to Round (Horizontal) Adapter (S1-1AK0110, S1-1AK0111)** - The 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)** - The kit includes one supply and one return air rectangle to round duct adapter. The 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. The curbs are designed to be assembled through hinge pins in each corner. The kit also provides a seal strip to ensure an airtight seal. These are 8 in. high roof curbs.
- **Roof Curbs (S1-1RC0504, S1-1RC0502)** - NRCA approved curbs provide proper fit to base unit for rooftop installations. The curbs are designed to be assembled through hinge pins in each corner. The kit also provides a seal strip to ensure an airtight seal. These are 14 in. high roof curbs.
- **Transition Curb Kits (S1-1TC01*)** - These adapter kits allow field use of existing installed roof curbs, matching the PCG4 unit footprint to Affinity roof curbs or Carrier, Trane, or Goodman roof curbs. The 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.
- **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 *Thermostats & Controllers* section of the *Offering 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 or single stage cool thermostats - with or without the economizer.
- **Low Ambient Kit (S1-2LA04701024)** - The kit provides necessary hardware to convert the unit to operate in a cooling cycle down to 0°F. Standard unit operation is 55°F.
- **Base Rail Hole Cover Kit (S1-1HC0101)** - The kit provides necessary hardware to close off openings in the base rails to block off openings and prevent animal entry.

Guide specifications

General

Units shall be assembled at a facility with an ISO 9001:2015-certified Quality Management System. 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. They are available in natural gas with field conversion to propane.

Description

Units are factory-assembled, single packaged, electric cooling/gas heating units, designed for outdoor installation. For SEER ratings, refer to the technical literature. They have built-in, equal size, field convertible duct connections for downflow supply/return or horizontal supply/return. The units are factory wired, piped, charged with R-410A refrigerant, and factory tested before shipment. All unit wiring are both numbered and color coded. All models are rated in accordance with DOE and AHRI test procedures for both heating and cooling operation. Units are 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 is constructed of G-90 galvanized, powder-painted steel, certified at 1,000 h salt spray test per ASTM-B117 standards. The unit top is a single piece design, with drip edges and no-seam corners to provide optimum water integrity. The unit has a rigidly mounted outdoor coil guard to provide protection from objects and personnel after installation. The indoor blower section is insulated with foil-faced or foam insulation, fastened to prevent insulation from entering the air stream. The cabinet panels are separate and easily removable for servicing and maintenance. The unit is built on a formed, design base pan, with embossments at critical points to add strength and rigidity and to help with minimizing sound. Full perimeter base rails are provided to ensure reliable transit of equipment and facilitate overhead rigging, allowing truck access and proper sealing on roof curb applications. The base rails are easily removable if their removal is required to lower the unit height. Filters are field installed, furnished, and accessible through a removable access door, sealed airtight. The unit's vertical discharge and return duct configuration is designed to fit between standard 24 in. O.C. beams without modification to building structure, ductwork, and base unit. Condensate pan is internally sloped and conforms to ASHRAE 62-19 self-draining standards, with 3/4 in. NPT female ridged mount connection.

Indoor blower assembly - The blower is direct drive design. The blower wheel is double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design is constant air volume. Bearings are sealed and permanently lubricated for longer life and no maintenance. The blower assembly is a slide-out design for easy removal and cleaning. Indoor blower motors are equipped with a standard high efficiency brushless DC

motor (constant torque), also known as a standard ECM motor.

Outdoor fan assembly - The outdoor fan is a direct-driven propeller type that discharges air vertically. The outdoor fan has aluminum blades that are riveted to the corrosion resistant steel spider bracket. Installers can statically balance the fans for smooth operation. The outdoor fan motor is totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

Refrigerant components

Compressors:

- Are fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor is suction gas cooled and has a voltage range of $\pm 10\%$ of the unit nameplate voltage.
- Have internal isolation and sound muffling to minimize vibration and noise, and are externally isolated on a dedicated, independent mounting.

Coils:

- Indoor coils have aluminum plate fins mechanically bonded to seamless internally enhanced aluminum tubes with all joints brazed.
- Indoor coil is of the direct expansion, draw through design.
- Outdoor coils have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.
- Outdoor coil is draw through design.

Refrigerant circuit and refrigerant safety components includes:

- Thermal expansion valve (TXV) that is factory mounted and provided
- Filter/strainer to eliminate any foreign matter

Gas heating section

Heat exchanger and exhaust system is constructed of corrosion-resistant materials and is designed with induced draft combustion with post purge logic and redundant main gas valve. The heat exchanger is of the tubular type, constructed of stainless steel for corrosion resistance and allowing minimum mixed air entering temperature of 40°F. Burners are of the in-shot type, constructed of aluminumized steel. All gas piping enters the unit cabinet at a single location through either the side or bottom, without any field modifications. An integrated control board provides timed control of indoor blower functioning and burner ignition. The heating section is provided with the following minimum protection:

- Primary high-temperature limit switch
- Induced draft pressure switch
- Flame rollout switch or switches (manual reset)
- Flame proving controls

All gas heat models meet the California requirement for emissions of less than 40 ng/J.

Physical data

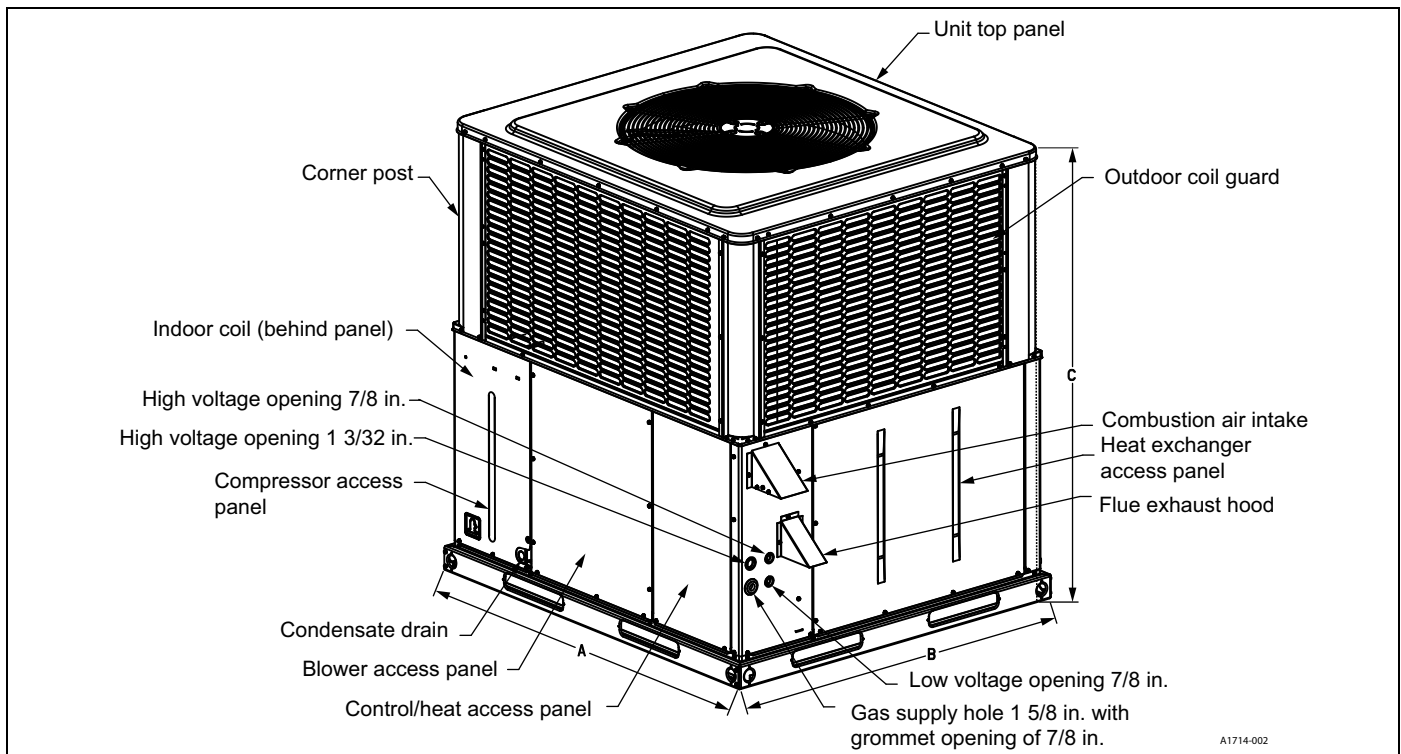
Models		PCG4A36			PCG4B48			PCG4B60			
Nominal tonnage		3.0			4.0			5.0			
AHRI cooling performance	Gross capacity at AHRI A point (MBH)	35.3			47.9			58.0			
	AHRI net capacity (MBH)	34.0			46.5			56.0			
	EER	11.8			11.2			11.2			
	EER2	11.0			11.0			11.0			
	SEER	14.0			14.0			14.0			
	SEER2	13.4			13.4			13.4			
	Nominal CFM	1150			1575			1825			
	System power (kW)	3.1			4.2			5.1			
	Refrigerant type	R-410A			R-410A			R-410A			
Refrigerant charge (lb-oz)	7-0			7-14			10-2				
AHRI gas heat performance	Heating model	50	75	100	65	100	125	65	100	125	
	Heat input (kBtu)	50	75	100	65	100	125	65	100	125	
	Heat output (kBtu)	40	60	80	52	80	100	52	80	100	
	AFUE (%)	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	
	Number of burners	2	3	4	2	3	4	2	3	4	
	Number of stages	1	1	1	1	1	1	1	1	1	
	Temperature rise range (°F)	35–65		40–70		40–70			40–70		
	Maximum static pressure W.C.	0.5			0.5			0.5			
	Maximum outlet air temperature (°F)	180			180			180			
Gas piping connection (in.)	1/2			1/2			1/2				
Dimensions (in.)	Length	51 1/4			51 1/4			51 1/4			
	Width	35 3/4			45 3/4			45 3/4			
	Height	47			47			50			
Operating weight (lb)	359	379	383	450	456	460	469	475	479		
Compressor type	Scroll			Scroll			Scroll				
Outdoor coil data	Face area (ft ²)	15.3			17.5			21.1			
	Rows	2			2			2			
	Fins per inch	22			22			22			
	Tube diameter (mm)	7			7			7			
	Circuitry type	Interlaced			Interlaced			Interlaced			
Indoor coil data	Face area (ft ²)	4.6			6.2			6.2			
	Rows	3			3			4			
	Fins per inch	16			16			16			
	Tube diameter	3/8			3/8			3/8			
	Circuitry type	Interlaced			Interlaced			Interlaced			
Refrigerant control	TXV			TXV			TXV				
Outdoor fan data	Fan diameter (in.)	24			26			26			
	Type	Prop			Prop			Prop			
	Drive type	Direct			Direct			Direct			
	Number of speeds	1			1			1			
	Motor hp	1/3			1/3			1/3			
	RPM	850			850			850			
	Nominal total CFM	2400			3200			3200			
Direct drive indoor blower data	Blower size (in.)	11 x 10			11 x 10			11 x 10			
	Type	Centrifugal			Centrifugal			Centrifugal			
	Motor hp	1/2	1		1			1			
	RPM	1400 maximum			1400 maximum			1400 maximum			
	Frame size	48			48			48			
Filter size	A			B			B				

Note: Field-supplied external filters must be sized so as not to exceed 300 fpm air velocity through disposable filters. All three-phase models include an internal filter rack kit and washable filters. Consult the instructions supplied with the kit for replacement filter sizes. Filter sizes: A= 20 in. x 20 in., B = 20 in. x 30 in.

Cooling performance data - 3 ton																
Packaged unit model number		PCG4A36														
Condenser entering air temperature DB/WB (°F)	ID SCFM	1000					1200					1400				
	IDDB (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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 number		PCG4B48														
Condenser entering air temperature DB/WB (°F)	ID SCFM	1400					1600					1800				
	IDDB (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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 number		PCG4B60														
Condenser entering air temperature DB/WB (°F)	ID SCFM	1600					1800					2000				
	IDDB (°F)	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
	IDWB (°F)	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
55 / 45	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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	Total capacity (MBH)	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
	Sensible capacity (MBH)	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
	Total power (kW)	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



Unit dimensions

Model	Dimensions (in.)		
	A	B	C
PCG4A36	51 1/4	35 3/4	47
PCG4B48		45 3/4	47
PCG4B60		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 ductwork.
2. Do not allow the products of combustion to accumulate within a confined space and recirculate.
3. Install the units outdoors. Do not allow overhanging structures or shrubs to obstruct the outdoor air discharge outlet.
4. Install the 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
PCG4A360504X4	1/2	Variable	0.8	1.0	48
PCG4A360754X4	1/2				
PCG4A361004X4	1				
PCG4B480654X4	1				
PCG4B481004X4	1				
PCG4B481254X4	1				
PCG4B600654X4	1				
PCG4B601004X4	1				
PCG4B601254X4	1				

Sound performance

Model (ton)	Sound rating ¹ dB(A)	Octave band centerline frequency (Hz)						
		125	250	500	1000	2000	4000	8000
PCG4A36	76	78.7	71.9	73.8	72.5	66.1	61.2	55.0
PCG4B48	72	76.2	69.4	67.8	69	63	61.0	55.0
PCG4B60	73	76.6	70.4	68.2	69	64	62.4	56.7

1. Rated in accordance with AHRI Standard 270.

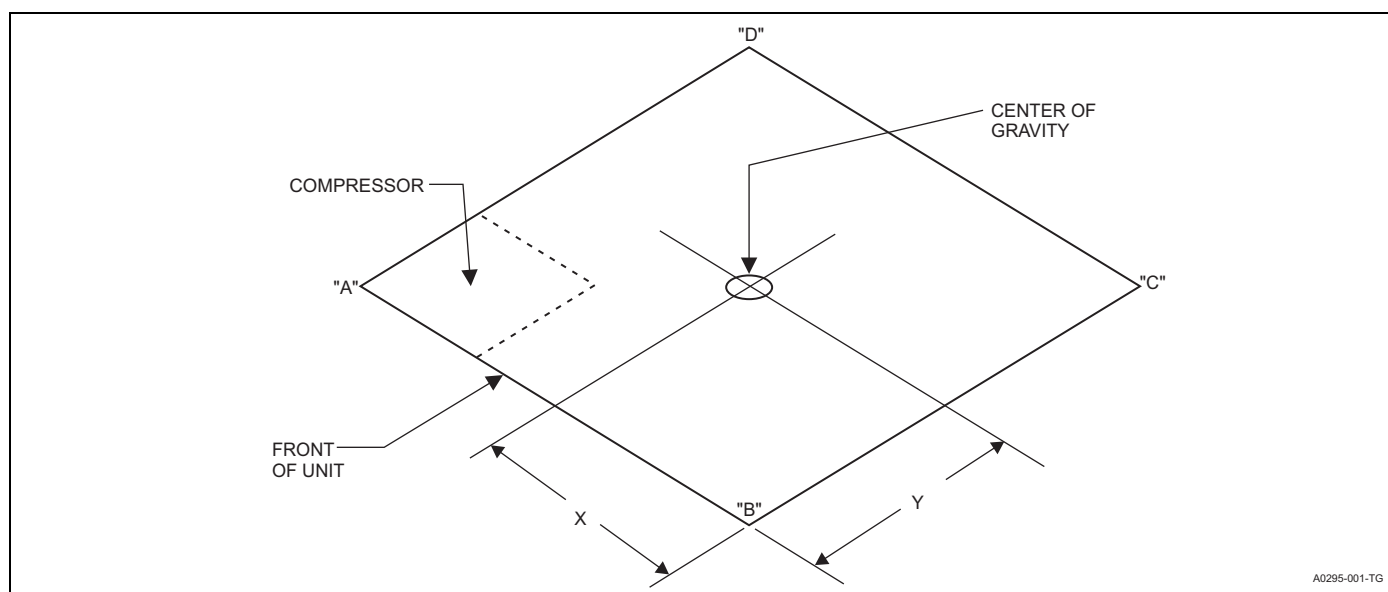
Electrical data - 460-3-60

Model	Voltage	Compressor			Outdoor fan motor	Indoor blower motor	MCA ¹	Max fuse ² / breaker ³ size
		RLA	LRA	MCC	FLA	FLA	A	A
36050, 36075	460-3-60	3.8	31.0	6.0	0.87	1.95	7.6	15
36100	460-3-60	3.8	31.0	6.0	0.87	3.15	8.8	15
48065, 48100, 48125	460-3-60	6.0	60.0	9.3	0.87	3.15	11.5	15
60065, 60100, 60125	460-3-60	6.3	60.0	9.9	0.87	3.20	12.0	15

1. Minimum Circuit Ampacity.

2. Maximum Over Current Protection per standard UL 1995.

3. Fuse or HACR circuit breaker size field installed.



A0295-001-TG

Weights and dimensions

Model	Weight (lb)		Center of gravity		Four-point load location (lb)			
	Shipping	Operating	X	Y	A	B	C	D
PCG4A360504X4	364	359	28	15	123	84	79	73
PCG4A360754X4	384	379	27	16	121	92	85	81
PCG4A361004X4	388	383	27	16	120	95	87	81
PCG4B480654X4	455	450	28	18	165	107	99	79
PCG4B481004X4	461	456	28	18	163	110	99	84
PCG4B481254X4	465	460	28	18	163	112	101	84
PCG4B600654X4	474	469	27	18	167	118	102	82
PCG4B601004X4	480	475	27	18	165	121	102	87
PCG4B601254X4	484	479	27	18	165	122	104	88

Airflow performance - side 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
PCG4A36050	Low (1)	850	790	710	660	610	560	510	450	400
	Medium Low (2)	1000	950	900	840	790	730	680	640	550
	Medium (3)	1270	1230	1190	1150	1110	1060	1000	960	860
	Medium High (4)	1370	1340	1300	1260	1220	1180	1130	1070	980
	High (5)	1490	1450	1420	1380	1340	1300	1260	1210	1120
PCG4A36075	Low (1)	850	790	710	660	610	560	510	450	400
	Medium Low (2)	1130	1090	1050	1000	940	890	830	790	700
	Medium (3)	1270	1230	1190	1150	1110	1060	1000	960	860
	Medium High (4)	1370	1340	1300	1260	1220	1180	1130	1070	980
	High (5)	1490	1450	1420	1380	1340	1300	1260	1210	1120
PCG4A36100	Low (1)	870	800	730	670	610	560	510	450	230
	Medium Low (2)	1220	1170	1130	1080	1030	970	920	860	780
	Medium (3)	1390	1350	1310	1270	1220	1180	1130	1080	970
	Medium High (4)	1520	1480	1440	1400	1360	1320	1270	1220	1110
	High (5)	1630	1590	1560	1520	1480	1440	1400	1350	1260
PCG4B48065	Low (1)	1090	1040	990	930	870	800	720	670	540
	Medium Low (2)	1140	1090	1030	980	920	850	780	730	600
	Medium (3)	1690	1650	1600	1570	1530	1490	1440	1400	1310
	Medium High (4)	1800	1760	1720	1680	1650	1610	1560	1520	1440
	High (5)	2020	1980	1940	1910	1870	1830	1790	1760	1690
PCG4B48100	Low (1)	1140	1090	1030	980	920	850	780	730	600
	Medium Low (2)	1520	1470	1430	1390	1340	1300	1250	1210	1090
	Medium (3)	1690	1650	1600	1570	1530	1490	1440	1400	1310
	Medium High (4)	1800	1760	1720	1680	1650	1610	1560	1520	1440
	High (5)	2020	1980	1940	1910	1870	1830	1790	1760	1690
PCG4B48125	Low (1)	1140	1090	1030	980	920	850	780	730	600
	Medium Low (2)	1690	1650	1600	1570	1530	1490	1440	1400	1310
	Medium (3)	1800	1760	1720	1680	1650	1610	1560	1520	1440
	Medium High (4)	1870	1840	1790	1760	1730	1690	1640	1600	1520
	High (5)	2020	1980	1940	1910	1870	1830	1790	1760	1690
PCG4B60065	Low (1)	1090	1020	960	910	840	750	690	640	550
	Medium Low (2)	1160	1100	1050	990	930	860	800	740	640
	Medium (3)	1870	1840	1810	1770	1730	1690	1650	1620	1540
	Medium High (4)	2000	1970	1930	1890	1860	1830	1780	1740	1670
	High (5)	2240	2210	2180	2150	2100	2070	2040	2010	1940
PCG4B60100	Low (1)	1300	1240	1200	1150	1090	1050	1000	940	820
	Medium Low (2)	1510	1470	1430	1390	1340	1310	1260	1220	1130
	Medium (3)	1870	1840	1810	1770	1730	1690	1650	1620	1540
	Medium High (4)	2000	1970	1930	1890	1860	1830	1780	1740	1670
	High (5)	2240	2210	2180	2150	2100	2070	2040	2010	1940
PCG4B60125	Low (1)	1300	1240	1200	1150	1090	1050	1000	940	820
	Medium Low (2)	1700	1670	1630	1590	1550	1520	1480	1440	1370
	Medium (3)	1870	1840	1810	1770	1730	1690	1650	1620	1540
	Medium High (4)	2000	1970	1930	1890	1860	1830	1780	1740	1670
	High (5)	2240	2210	2180	2150	2100	2070	2040	2010	1940

Notes:

- 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.
- 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.

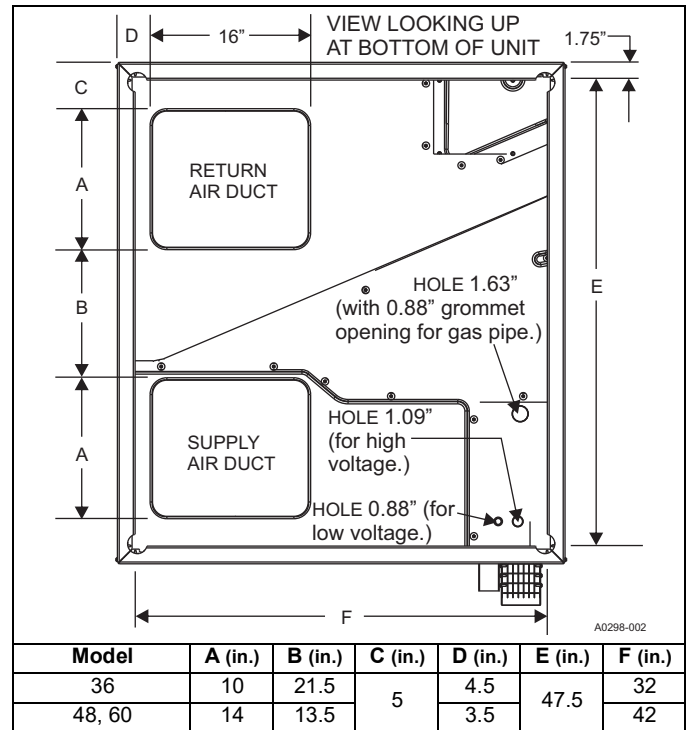
Additional static resistance

Size (ton)	CFM	Wet indoor coil	Economizer ¹	Filter/frame kit
PCG4A36 (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
PCG4B48 (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
PCG4B60 (5.0)	1800	0.08	0.04	0.09
	1900	0.09	0.05	0.10
	2000	0.09	0.05	0.11
	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	

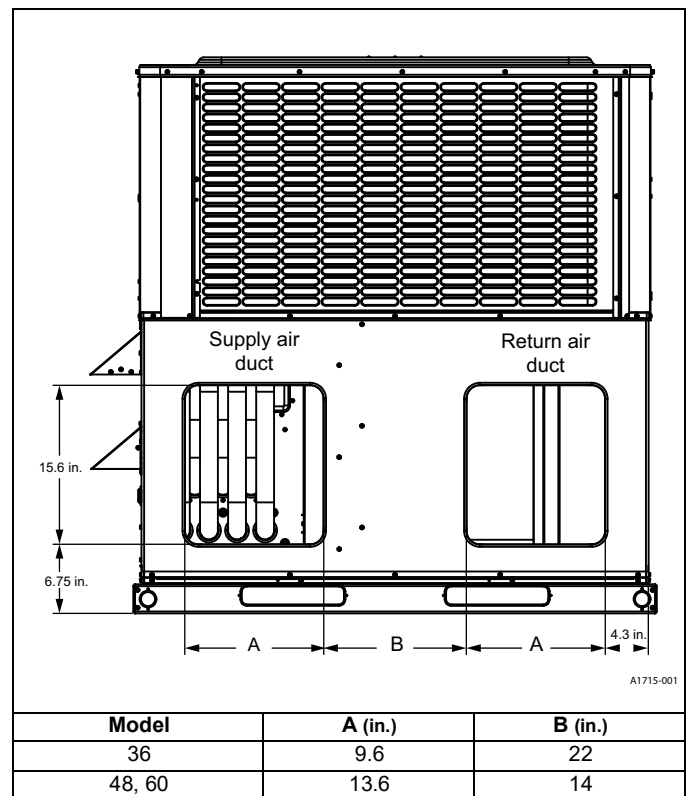
1. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

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

Bottom duct dimensions (in.)

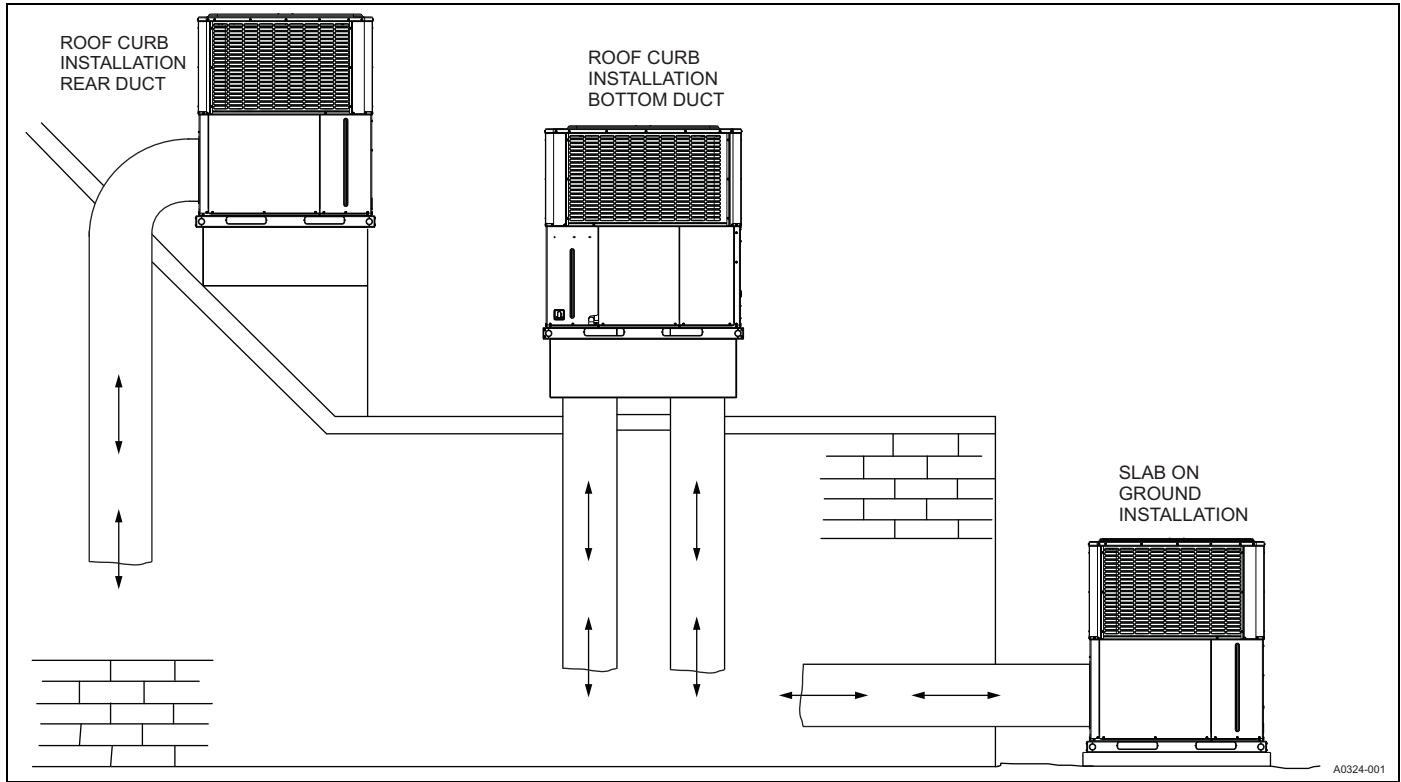


Rear duct dimensions (in.)

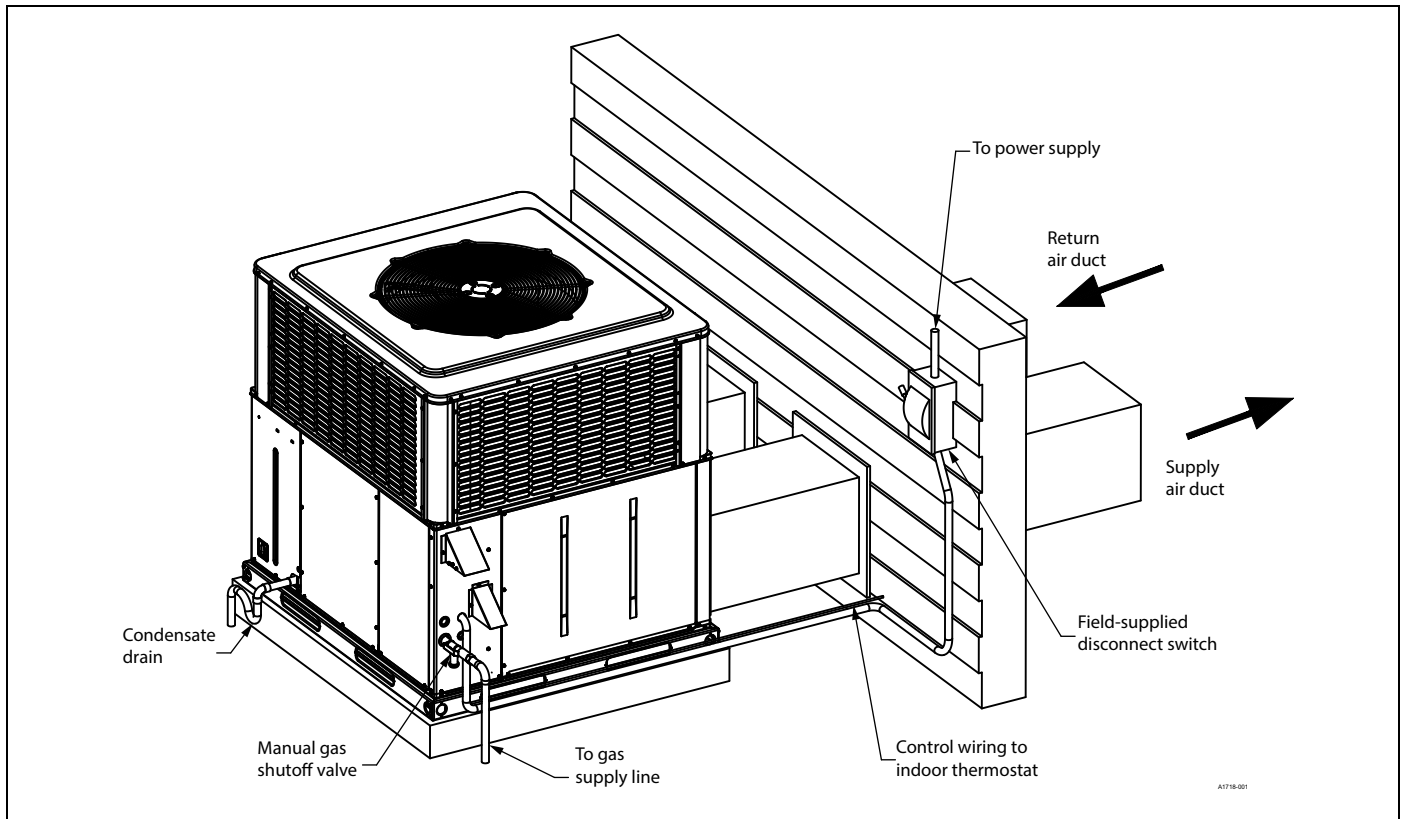


Note: See *Unit dimensions* figure for side hole sizes of electrical and gas lines.

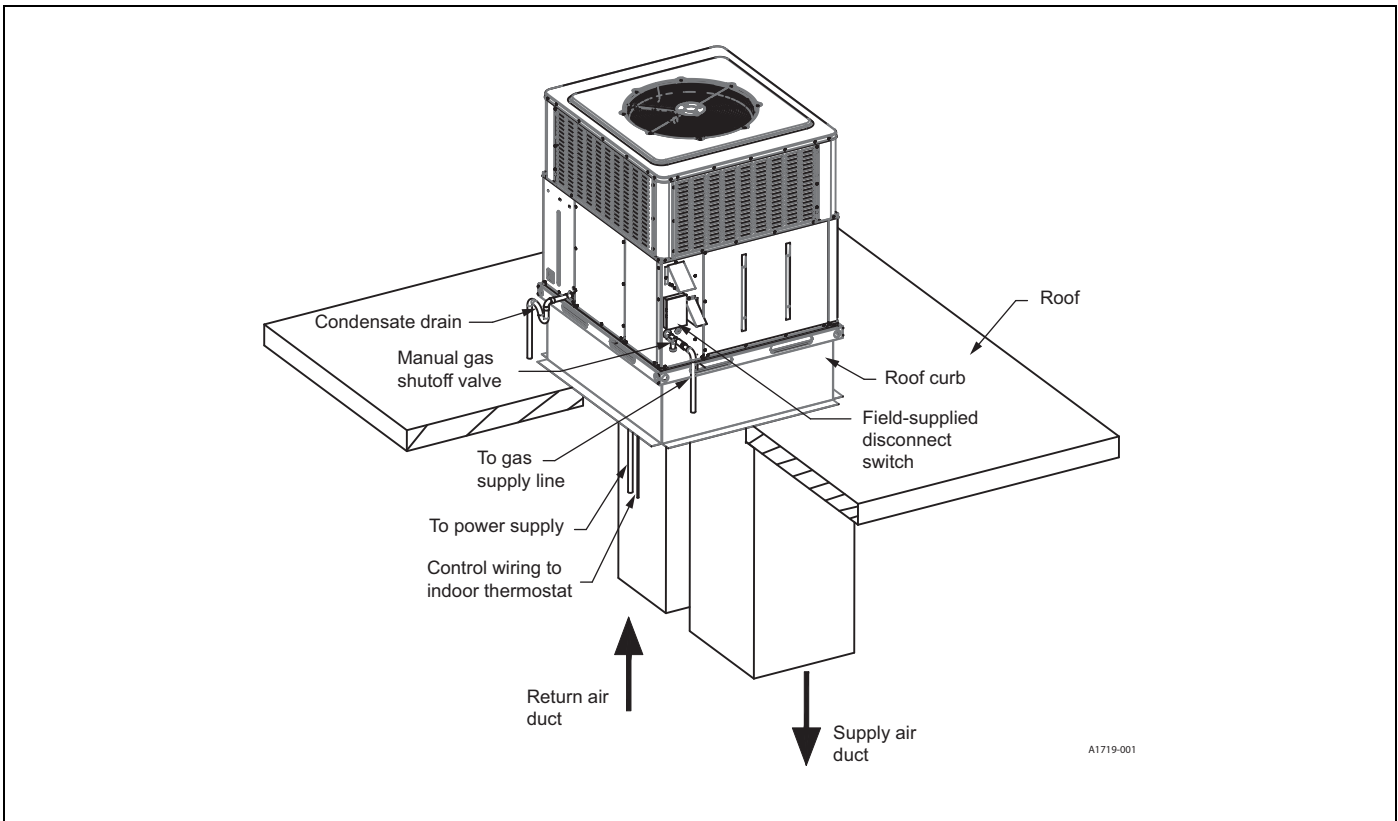
Unit typical duct applications



Unit typical slab on ground installation



Unit typical roof curb installation



Third-Party Trademarks Notice: For information about third-party trademarks, refer to the relevant company websites.