



TECHNICAL GUIDE
SINGLE PACKAGE
AIR CONDITIONER/GAS HEAT
14 SEER – R-410A
2 THRU 5 NOMINAL TONS
50 - 125 MBH HEAT INPUT
MODELS: PCG4*24 THRU 60



**AMERICAN
QUALITY**
DESIGNED, ENGINEERED &
ASSEMBLED IN THE USA



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

Visit us on the web at
www.upgnet.com and www.york.com

Additional rating information can be found at:
www.ahridirectory.org

WARRANTY SUMMARY*

Extended 10-Years limited parts and compressor warranty
 Lifetime gas heat exchanger warranty with registration.

* Extended warranty requires online registration within 90 days of purchase for replacement or closing for new home purchase. See limited warranty certificate in 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, 11.0 EER rating for cooling operation. All models meet California Low-Nox requirements of 40 ng/joule 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 allows 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 prior to shipment. Test stations using a state-of-the-art computerized process system are used to insure product quality. Refrigerant charge and component part numbers are verified via 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 insure 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 provided through the bottom or the 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 desired, simply 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 evaporator coil to collect and drain all condensate, preventing build-up of stagnant condensate. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4 inch NPT female connection is rigidly mounted to assure 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. Powder paint finish insures less fading when exposed to sunlight, and provides superior corrosion resistance (1000 hour salt spray tested).

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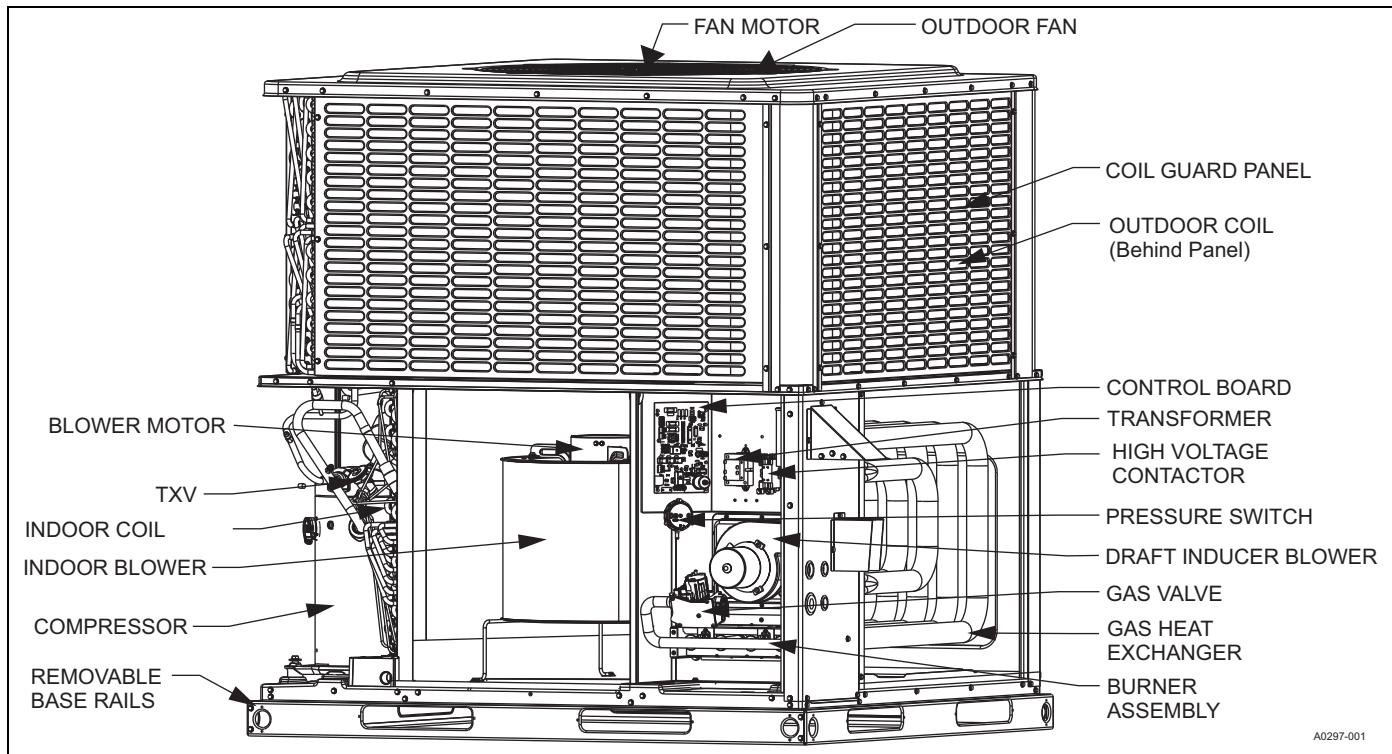
- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the base rails may be removed by removing 2 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.
- **Outdoor Coil Grille** - All models utilize a stamped slotted design which provides superior impact protection against small objects during transit and after installation.
- **Low Operating Sound Level** - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates noise. 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 mid point rise at the units heating input, but can be field adjusted. This allows 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-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted to allow the separate access panel to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Protected Compressor** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable 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 will lock out preventing any further operation until reset or problem is corrected.
- **Exclusive Coil Design** - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability for long-lasting durability and efficient operation. Indoor coils use tin-coated copper tubing with aluminum fins for effective 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** - 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 required, which provides more consistent ignition in gas heating mode. This ignition is highly 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 of high-grade corrosion-resistant, aluminized steel.
- **Low Maintenance** - Long life, permanently lubricated outdoor and evaporator fan 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 makes servicing easy. Removing this panel will allow easy removal of the blower assembly for maintenance and ease of troubleshooting.
- **Replacement Parts** - The installer requires no special training to replace any of the components of these units and the number of new components have been reduced to minimize the inventory of unique parts.
- **Loss of Charge Sensor (S1-2LC00024)** - Kit provides Loss of Charge sensor and wiring to provide safe shutdown of compressor.
- **Transition Curb Kits (S1-1TC01*)** - Adapter kits to allow field use of pre-existing installed roof curbs to match PHE4 footprint to Affinity roof curbs, Carrier, Trane, or Goodman curb footprints. Curb adapters are optional for current generation Carrier replacements but are recommended for previous generation applications. Refer to the PCE4 price pages for more details.

NOMENCLATURE

PCG	4	A	24	50	2	X	1	A
1	2	3	4	5	6	7	8	9
1. Model Family								
PCG - packaged A/C with gas heat, PHG - packaged heat pump with gas heat, PCE - packaged A/C with electric heat, PHE - packaged heat pump with electric heat								
5. Gas Heating Input BTU/Hr x 1000								
050 = 50,000 BTU/Hr. input, blank = electric heat								
6. Voltage-Phase-Frequency								
2 = 208/230-1-60, 3=208/230-3-60, 4 = 460-3-60								
7. NOx Approval								
X = low-NOx, blank = not low-Nox								
8. Generation Level								
1 = first generation								
9. Revision Level								
A = original release, B = second release								

Examples:
PCG4B421002X1A is a packaged A/C with gas heat, 14 SEER, 3-1/2 ton, large cabinet, single-stage heat, 100,000 BTU gas heat, 230 volt, single phase, low-NOx model (first generation, first release)

COMPONENT LOCATION



Unit Limitations

Model	Unit Voltage	Unit Limitations		
		Applied Voltage		Outdoor DB Temp
		Min	Max	Max (°F)
PCG4A24	208/230-1-60	187	252	125
PCG4A30	208/230-1-60	187	252	125
PCG4A36	208/230-1-60	187	252	125
PCG4A42	208/230-1-60	187	252	125
PCG4B48	208/230-1-60	187	252	125
PCG4B60	208/230-1-60	187	252	125

ACCESSORIES

- **Propane Conversion Kit (S1-1NP0702, S1-1NP0701)** - Kit includes burner orifices, gas valve conversion and installation instructions necessary to field convert unit from natural gas to propane.
- **Economizer for Downflow Applications**
(S1-2EE04708424, S1-2EE04708524) - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available.
- **Economizer for Horizontal Applications**
(S1-2EE04708624, S1-2EE04708724) - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available.
- **Single/Dual Enthalpy Sensor (S1-2EC04700624)** - Sensor replaces dry bulb sensor standard in economizer kit. Provides improved economizer operation by sensing the dry bulb temperature from outdoors plus the enthalpy content of the outdoor air.
- **CO₂ Sensor Kit (S1-2AQ04700824)** - Sensor kit detects CO₂ levels automatically and overrides the economizer when CO₂ levels rise above the preset limits.
- **Outdoor Temp. Sensor Kit**
(S1-2EC04700724S1-2EC04700724v) - Additional outdoor air temp sensor kit used with economizers.
- **Filter/Frame Kit (Single Phase Only)**
(S1-1FF0602, S1-1FF0601) - Kit contains the necessary hardware to field install return air filters into the base unit. The filter rack is suitable for either 1" or 2" filters. (filters not supplied) This kit is available for single phase horizontal or vertical duct applications.
- **Motorized Fresh Air Damper**
(S1-2MD04705224, S1-2MD04705124) - Designed for duct mounted side supply/return and unit mounted down supply/return applications. Damper capable of providing 0% through 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.
- **Rectangle to Round (Horizontal) Adapter**
(S1-1AK0110, S1-1AK0111) - 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" round for the 1AK0110 kit and from rectangle to 14" round for the 1AK0111 kit.
- **Rectangle to Round (Downflow) Adapter**
(S1-1AK0108, S1-1AK0109) - 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" round for the 1AK0108 kit and from rectangle to 18" 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. Kit also provides seal strip to assure 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. Kit also provides seal strip to assure an air tight seal. These are 14 inch high roof curbs.
- **Manual Outdoor Damper**
(S1-1FA0502, S1-1FA0501) - Provides 0% through 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications. Includes hood and screen assembly.
- **Wall Thermostat** - The units are designed to operate with standard, 24-volt electronic and electro-mechanical thermostats. All units can operate with single stage heat/single stage cool thermostats - with or without the economizer.
- **Low Ambient Kit (S1-2LA04700824)** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0° F. Standard unit operation 45° F.
- **Transformer Kit (S1-2EC06700124)** - Kit provides necessary hardware to provide single phase models from factory furnished 40 VA transformer capability to 75 VA transformer capability. (Required on installations with economizer or motorized damper).
- **Base Rail Hole Cover Kit (S1-1HC0101)** - Kit provides necessary hardware to close off openings in base rails to block off openings, i.e. prevent animal entrance.

GUIDE SPECIFICATIONS

GENERAL

Units shall be manufactured by Unitary Products in an ISO 9001 certified facility. Package units give you the flexibility and choices 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 shall be factory-assembled, single packaged, Electric Cooling/Gas Heating units, designed for outdoor installation. For SEER ratings, refer to technical literature. They 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 prior to 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 both 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

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. Unit shall have a rigidly mounted outdoor coil guard to provide protection from objects and personnel after installation. 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, easily removable for servicing and maintenance. Unit shall be built on a formed, design base pan, with embossments at critical points to add strength and rigidity and to aid in minimizing sound. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, for truck access and proper sealing on roof curb applications. Base rails shall be easily removable, when required to lower unit height. Filters shall be field installed, furnished and be accessible through a removable access door, sealed airtight. Units vertical discharge and return duct configuration shall be designed to fit between standard 24" O.C. beams without modification to building structure, duct work and base unit. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4" NPT female ridged mount connection.

Indoor Blower Assembly - Fan shall be direct drive design. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. 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 of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider bracket and shall 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:

- a. Shall be fully hermetic type, direct drive, 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.
- b. Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- a. Indoor coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced tin-coated copper tubes with all joints brazed.
- b. Indoor coil shall be of the direct expansion, draw through design.
- c. Outdoor coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.
- d. Outdoor coil shall be draw through design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Thermal expansion devices (TXV's) shall be factory mounted and provided.
- b. Filter,strainer to eliminate any foreign matter.

GAS HEATING SECTION

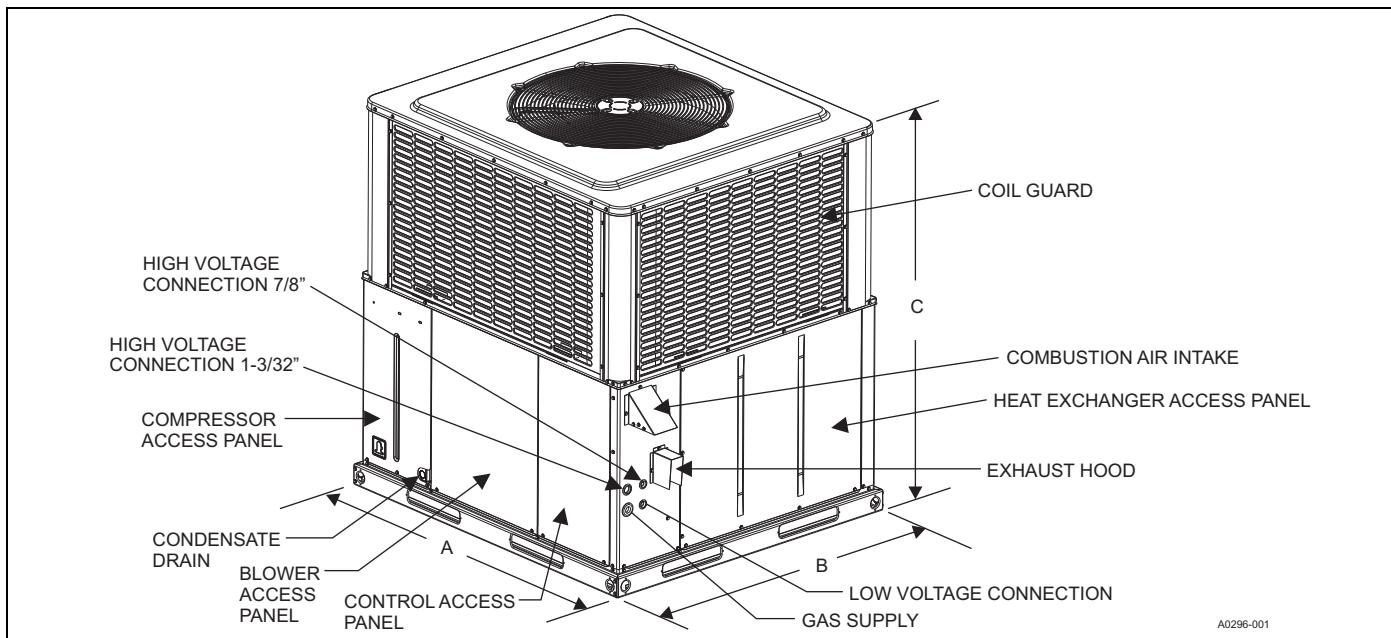
Heat exchanger and exhaust system shall be constructed of corrosion-resistant materials and shall be designed with induced draft combustion with post purge logic and redundant main gas valve. The heat exchanger shall be of the tubular type, constructed of stainless steel for corrosion resistance and allowing minimum mixed air entering temperature of 40 °F. Burners shall be of the in-shot type, constructed of aluminized steel. 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. Heating section shall be provided with the following minimum protection:

- a. Primary high-temperature limit switch.
- b. Induced draft pressure switch.
- c. Flame roll out switch(s) (manual reset).
- d. Flame proving controls.

All gas heat models will meet the California requirement for emissions of less than 40 nanograms per Joule (California requirement on single phase models only).

PHYSICAL DATA

COMPONENT	MODELS														
	PCG4A24	PCG4A30	PCG4A36	PCG4A42	PCG4B48	PCG4B60									
NOMINAL TONNAGE	2.0	2.5	3.0	3.5	4.0	5.0									
AHRI Cooling Performance															
Gross Capacity @ AHRI A point (MBH)	23.7	30.1	37.2	43.5	47.7	55.0									
AHRI net capacity (MBH)	22.8	29.0	34.6	41.0	45.5	52.5									
EER	11.0	11.0	11.0	11.0	11.0	11.0									
SEER	14.0	14.0	14.0	14.0	14.0	14.0									
Nominal CFM	800	1000	1200	1400	1600	2000									
System power (kW)	2.1	2.6	3.2	3.8	4.2	4.8									
Refrigerant type	R410A	R410A	R410A	R410A	R410A	R410A									
Refrigerant charge (lb-oz)	5-4	9-2	8-3	9-4	14-4	14-2									
AHRI Gas Heat Performance															
Heating model	50	75	50	75	50	75	100	75	100	65	100	125			
Heat input (K Btu)	50.0	75.0	50.0	75.0	50.0	75.0	100.0	75.0	100.0	65.0	100.0	125.0			
Heat output (K Btu)	40	60	40	60	40	60	80	60	80	52	80	100			
AFUE %	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0			
No. burners	2	3	2	3	2	3	4	3	4	2	3	4			
No. stages	1	1	1	1	1	1	1	1	1	1	1	1			
Temperature Rise Range (°F)	40-70	40-70	35-65	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70			
Max. Static Pressure (in. w.c.)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
Max. Outlet Air Temp. (°F)	180	180	180	180	180	180	180	180	180	180	180	180			
Gas piping connection (in.)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2			
Dimensions (inches)															
Length	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4	51-1/4			
Width	35-3/4	35-3/4	35-3/4	35-3/4	35-3/4	35-3/4	45-3/4	45-3/4	45-3/4	45-3/4	45-3/4	45-3/4			
Height	47	47	47	49	53	55									
Operating WT. (lbs.)	359	366	379	386	415	422	426	442	446	495	503	508	522	530	535
Compressors															
Type	Recip	Recip	Recip	Recip	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll			
Condenser Coil Data															
Face area (Sq. Ft.)	15.1	17.0	17.0	17.0	23.8	23.8	26.0								
Rows	2	3	3	3	3	3	3								
Fins per inch	16	16	16	16	16	16	16								
Tube diameter	3/8	3/8	3/8	3/8	3/8	3/8	3/8								
Circuitry Type	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced								
Evaporator Coil Data															
Face area (Sq. Ft.)	3.4	3.4	3.4	4.4	4.4	4.4	4.4								
Rows	2	3	3	3	3	3	3								
Fins per inch	16	16	16	16	16	16	16								
Tube diameter	3/8	3/8	3/8	3/8	3/8	3/8	3/8								
Circuitry Type	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced	Interlaced								
Refrigerant control	TXV	TXV	TXV	TXV	TXV	TXV	TXV								
Condenser Fan Data															
Fan diameter (Inch)	24	24	24	24	26	26	26								
Type	Prop	Prop	Prop	Prop	Prop	Prop	Prop								
Drive type	Direct	Direct	Direct	Direct	Direct	Direct	Direct								
No. speeds	1	1	1	1	1	1	1								
Motor HP each	1/4	1/4	1/4	1/4	1/3	1/3	1/3								
RPM	850	850	850	850	850	850	850								
Nominal total CFM	2400	2400	2400	2400	3200	3200	3200								
Direct Drive Evaporator Fan Data															
Fan Size (Inch)	11 x 8	11 x 8	11 x 10												
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal								
Motor HP each	1/3	1/2	1/3	1/2	3/4	3/4	1								
RPM	1200 Max	1200 Max	1200 Max	1200 Max	1200 Max	1200 Max	1200 Max								
Frame size	48	48	48	48	48	48	48								
Filters															
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 that kit for replacement filter sizes. Filter sizes: A=20x20, B=20x30.														

DIMENSIONS

A0296-001

Unit Dimensions

Model	Dimensions		
	A	B	C
PCG4A24	51-1/4	35-3/4	47
PCG4A30	51-1/4	35-3/4	47
PCG4A36	51-1/4	35-3/4	47
PCG4A42	51-1/4	35-3/4	49
PCG4B48	51-1/4	45-3/4	53
PCG4B60	51-1/4	45-3/4	55

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. A 1" clearance must be provided between any combustible material and the supply air duct work.
2. The products of combustion must not be allowed to accumulate within a confined space and recirculate.
3. Units must be installed outdoors. Over hanging structure or shrubs should not obstruct condenser air discharge outlet.
4. Units may be installed on combustible floors made from class A, B or C roof covering materials.

Indoor Blower Specifications

Model	Motor				
	HP	RPM	EFF.	SF	Frame
24050	1/3	Variable	0.8	1.0	48
24075	1/2	Variable	0.8	1.0	48
30050	1/3	Variable	0.8	1.0	48
30075	1/2	Variable	0.8	1.0	48
36050	1/2	Variable	0.8	1.0	48
36075	1/2	Variable	0.8	1.0	48
36100	3/4	Variable	0.8	1.0	48
42075	3/4	Variable	0.8	1.0	48
42100	3/4	Variable	0.8	1.0	48
48065	3/4	Variable	0.8	1.0	48
48100	3/4	Variable	0.8	1.0	48
48125	3/4	Variable	0.8	1.0	48
60065	1	Variable	0.8	1.0	48
60100	1	Variable	0.8	1.0	48
60125	1	Variable	0.8	1.0	48

Sound Performance

Model (Tons)	Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)						
		125	250	500	1000	2000	4000	8000
PCG4A24	75	62.4	61.5	64.2	67.0	61.0	57.3	49.6
PCG4A30	75	60.5	61.6	64.8	66.9	60.9	56.0	49.7
PCG4A36	74	58.5	61.8	65.4	66.5	60.7	54.8	49.8
PCG4A42	74	63.5	63.9	62.3	65.0	64.0	54.1	46.6
PCG4B48	74	63.5	63.9	62.3	65.0	64.0	54.1	46.6
PCG4B60	76	72.3	65.0	63.9	64.0	60.0	55.5	49.0

1. Rated in accordance with AHRI Standard 270.

Electrical Data

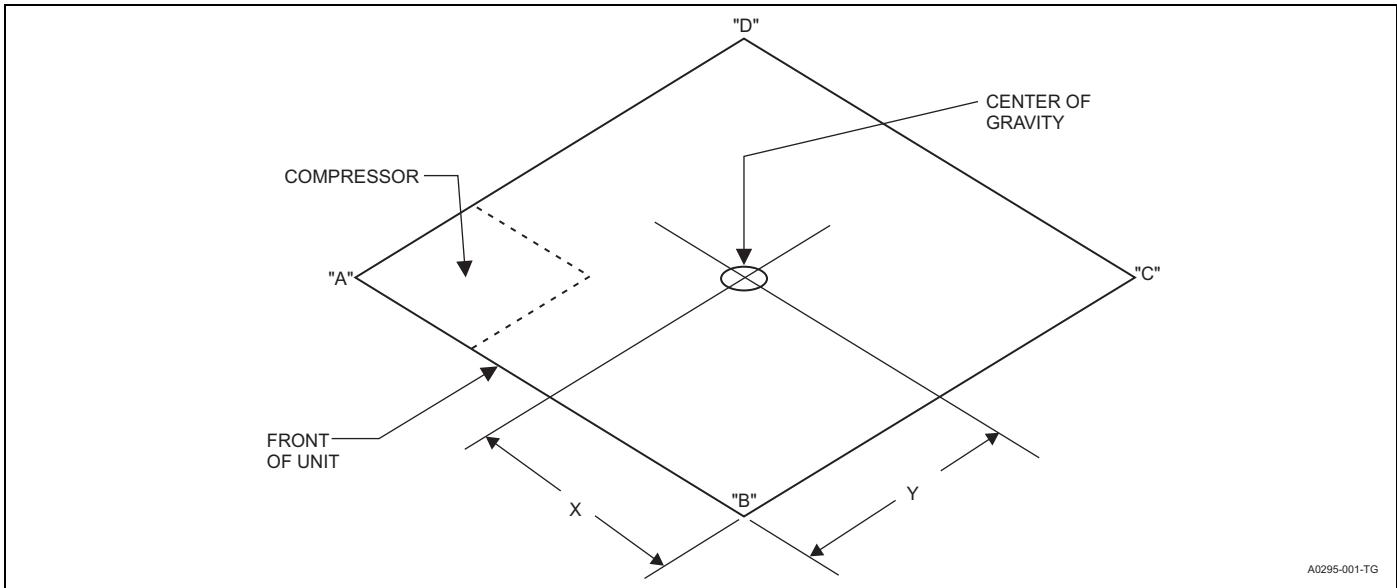
Model	Voltage	Compressor			OD Fan Motor	Supply Blower Motor	MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC				
24050	208/230-1-60	8.7	45.0	14.4	1.3	2.6	14.8	20
24075	208/230-1-60	8.7	45.0	14.4	1.3	3.8	16.0	20
30050	208/230-1-60	9.8	57.0	15.1	1.3	2.6	16.2	25
30075	208/230-1-60	9.8	57.0	15.1	1.3	3.8	17.4	25
36050, 36075	208/230-1-60	13.0	78.0	23.0	1.3	3.8	21.4	30
36100	208/230-1-60	13.0	78.0	23.0	1.3	5.4	23.0	35
42075, 42100	208/230-1-60	17.9	112.0	28.0	1.3	5.4	29.1	45
48065, 48100, 48125	208/230-1-60	21.8	117.0	34.0	1.7	5.4	34.4	50
60065, 60100, 60125	208/230-1-60	24.4	144.2	38.0	1.7	7.0	39.2	60

1. Minimum Circuit Ampacity.

2. Maximum Over Current Protection per standard UL 1995.

3. Fuse or HACR circuit breaker size installed at factory or field installed.

WEIGHTS & DIMENSIONS



Weights and Dimensions

Model	Weight (lbs.)		Center of Gravity		4 Point Load Location (lbs.)			
	Shipping	Operating	X	Y	A	B	C	D
24050	372	367	28	15	120	95	81	71
24075	382	377	28	15	124	96	81	76
30050	417	412	28	15	139	99	90	84
30075	421	416	28	15	146	93	82	95
36050	425	420	28	15	141	107	94	78
36075	432	427	28	15	135	115	103	74
36100	436	431	28	15	139	113	99	80
42075	446	441	28	15	145	112	99	85
42100	448	443	28	15	148	110	96	89
48065	520	515	28	15	189	116	93	117
48100	528	523	28	15	169	139	115	100
48125	533	528	28	15	164	145	124	95
60065	537	532	29	15	174	142	124	92
60100	541	536	28	15	177	140	117	102
60125	548	543	27	15	151	167	141	84

AIRFLOW PERFORMANCE**Airflow - Side Duct Application**

Model	Motor Speed	External Static Pressure (Inches WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
		SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM
24050	Low (1)	732	667	624	567	517	470	415	369
	Low/Medium (2)	818	771	723	674	628	579	530	482
	Medium (3)	823	774	721	676	631	583	533	505
	Medium/High (4)	994	948	906	865	823	778	739	700
	High (5)	1148	1108	1071	1035	996	960	925	901
24075	Low (1)	887	847	802	750	705	664	613	563
	Low/Medium (2)	978	941	898	850	803	759	713	667
	Medium (3)	1171	1114	1074	1039	993	949	906	864
	Medium/High (4)	1349	1297	1265	1224	1185	1146	1107	1063
	High (5)	1487	1462	1392	1331	1318	1281	1241	1201
30050	Low (1)	700	657	599	554	512	461	411	365
	Low/Medium (2)	906	868	825	779	735	692	650	608
	Medium (3)	992	951	911	868	826	787	747	712
	Medium/High (4)	1075	1032	1000	958	918	874	837	800
	High (5)	1136	1089	1053	1018	978	941	903	869
30075	Low (1)	1076	1020	984	943	903	859	819	779
	Low/Medium (2)	1102	1048	1010	974	934	890	850	810
	Medium (3)	1191	1140	1112	1076	1038	1000	958	919
	Medium/High (4)	1201	1225	1187	1151	1118	1080	1041	1002
	High (5)	1370	1329	1283	1271	1209	1176	1143	1109
36050	Low (1)	1003	952	904	851	790	730	674	633
	Low/Medium (2)	1180	1133	1085	1042	995	942	889	834
	Medium (3)	1259	1209	1166	1126	1084	1032	980	928
	Medium/High (4)	1314	1271	1229	1186	1144	1097	1049	998
	High (5)	1506	1471	1403	1389	1345	1305	1262	1216
36075	Low (1)	1225	1174	1131	1090	1046	993	941	888
	Low/Medium (2)	1259	1209	1166	1126	1084	1032	980	928
	Medium (3)	1314	1271	1229	1186	1144	1097	1049	998
	Medium/High (4)	1348	1306	1259	1222	1179	1133	1086	1036
	High (5)	1506	1471	1403	1389	1345	1305	1262	1216
36100	Low (1)	1342	1302	1260	1217	1178	1134	1082	1034
	Low/Medium (2)	1425	1368	1332	1293	1251	1208	1163	1113
	Medium (3)	1554	1503	1465	1423	1386	1346	1302	1257
	Medium/High (4)	1658	1599	1588	1530	1495	1454	1414	1373
	High (5)	1966	1914	1862	1810	1757	1705	1653	1600
42075	Low (1)	1315	1266	1229	1194	1156	1117	1080	1036
	Low/Medium (2)	1436	1382	1342	1304	1262	1220	1179	1131
	Medium (3)	1458	1406	1365	1327	1286	1244	1203	1155
	Medium/High (4)	1573	1523	1484	1445	1408	1367	1327	1279
	High (5)	1966	1914	1862	1810	1757	1705	1653	1600
42100	Low (1)	1436	1382	1342	1304	1262	1220	1179	1131
	Low/Medium (2)	1544	1492	1455	1416	1376	1336	1294	1248
	Medium (3)	1573	1523	1484	1445	1408	1367	1327	1279
	Medium/High (4)	1681	1640	1599	1557	1517	1478	1436	1393
	High (5)	1935	1887	1834	1788	1743	1701	1651	1591
48065	Low (1)	1046	1009	980	946	915	878	844	779
	Low/Medium (2)	1295	1250	1213	1172	1133	1087	1045	964
	Medium (3)	1620	1564	1517	1466	1418	1360	1308	1206
	Medium/High (4)	1798	1722	1669	1620	1572	1527	1480	1413
	High (5)	2146	2085	2025	1960	1872	1862	1798	1735

Continued on next page.

Airflow - Side Duct Application (Continued)

Model	Motor Speed	External Static Pressure (Inches WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
		SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM
48100	Low (1)	1620	1564	1517	1466	1418	1360	1308	1206
	Low/Medium (2)	1694	1630	1580	1530	1482	1430	1380	1292
	Medium (3)	1798	1722	1669	1620	1572	1527	1480	1413
	Medium/High (4)	1835	1758	1703	1653	1604	1558	1511	1442
	High (5)	2146	2085	2025	1960	1872	1862	1798	1735
48125	Low (1)	1620	1564	1517	1466	1418	1360	1308	1206
	Low/Medium (2)	1798	1722	1669	1620	1572	1527	1480	1413
	Medium (3)	1922	1863	1804	1754	1724	1658	1612	1559
	Medium/High (4)	2001	1952	1890	1839	1820	1742	1696	1651
	High (5)	2146	2085	2025	1960	1872	1862	1798	1735
60065	Low (1)	1073	1043	1009	988	963	941	917	892
	Low/Medium (2)	1329	1292	1250	1223	1192	1165	1136	1105
	Medium (3)	2054	1998	1934	1890	1843	1801	1757	1710
	Medium/High (4)	2195	2144	2098	2049	2003	1955	1883	1868
	High (5)	2445	2388	2306	2293	2235	2178	2129	2077
60100	Low (1)	1730	1682	1628	1592	1552	1517	1479	1439
	Low/Medium (2)	1858	1807	1749	1710	1667	1629	1589	1546
	Medium (3)	2054	1998	1934	1890	1843	1801	1757	1710
	Medium/High (4)	2195	2144	2098	2049	2003	1955	1883	1868
	High (5)	2445	2388	2306	2293	2235	2178	2129	2077
60125	Low (1)	2063	2008	1943	1899	1851	1809	1763	1717
	Low/Medium (2)	2130	2084	2032	1983	1927	1951	1860	1815
	Medium (3)	2195	2144	2098	2049	2003	1955	1883	1868
	Medium/High (4)	2275	2252	2169	2154	2112	2065	1989	1976
	High (5)	2445	2388	2306	2293	2235	2178	2129	2077

1. Airflow tested with dry coil conditions, without air flitters, at 230 volts
2. Applications above 0.8" w.c. external static pressure are not recommended.
3. Brushless DC high efficiency standard ECM blower motor used for all indoor blower assemblies.
4. Minimal variations in airflow performance data results from operating at 208 volts. Data above may be used in those cases.
5. Heating applications tested at 0.50" w.c. esp, and cooling applications tested at 0.30" w.c.esp per standards.

Airflow - Bottom Duct Application

Model	Motor Speed	External Static Pressure (Inches WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
		SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM
24050	Low (1)	754	710	665	611	560	491	445	391
	Low/Medium (2)	867	815	773	720	677	622	559	505
	Medium (3)	951	908	868	828	781	735	686	631
	Medium/High (4)	1024	982	942	902	861	817	775	721
	High (5)	1204	1159	1121	1085	1051	1013	975	938
24075	Low (1)	899	869	827	782	734	685	630	575
	Low/Medium (2)	1033	960	924	879	834	787	735	685
	Medium (3)	1186	1133	1095	1056	1016	975	935	891
	Medium/High (4)	1357	1322	1284	1248	1211	1174	1127	1087
	High (5)	1480	1439	1404	1367	1369	1299	1264	1226
30050	Low (1)	726	676	622	575	520	467	410	376
	Low/Medium (2)	928	886	841	795	745	706	658	607
	Medium (3)	1021	983	942	900	855	811	770	729
	Medium/High (4)	1109	1071	1029	995	949	908	864	826
	High (5)	1170	1134	1096	1061	1020	978	938	899
30075	Low (1)	1076	1042	1009	969	930	890	849	808
	Low/Medium (2)	1104	1063	1025	987	947	908	869	830
	Medium (3)	1205	1170	1136	1098	1060	1025	985	943
	Medium/High (4)	1285	1251	1213	1179	1141	1104	1065	1027
	High (5)	1406	1375	1341	1306	1271	1236	1198	1163
36050	Low (1)	1008	962	916	861	807	757	700	650
	Low/Medium (2)	1190	1148	1106	1055	1008	955	914	863
	Medium (3)	1262	1223	1181	1137	1091	1044	994	952
	Medium/High (4)	1324	1282	1245	1202	1161	1112	1067	1018
	High (5)	1517	1475	1447	1400	1357	1318	1275	1232
36075	Low (1)	1231	1186	1146	1103	1069	1030	977	912
	Low/Medium (2)	1270	1225	1189	1140	1098	1046	1008	960
	Medium (3)	1317	1286	1245	1198	1151	1110	1064	1024
	Medium/High (4)	1358	1317	1275	1238	1197	1148	1105	1057
	High (5)	1517	1475	1447	1400	1357	1318	1275	1232
36100	Low (1)	1340	1299	1264	1224	1182	1182	1097	1049
	Low/Medium (2)	1409	1368	1334	1291	1253	1201	1173	1128
	Medium (3)	1527	1492	1470	1419	1385	1343	1299	1250
	Medium/High (4)	1663	1585	1594	1601	1521	1480	1440	1400
	High (5)	1930	1892	1853	1805	1760	1696	1625	1553
42075	Low (1)	1332	1295	1263	1222	1185	1148	1110	1063
	Low/Medium (2)	1457	1419	1376	1340	1299	1253	1215	1160
	Medium (3)	1451	1412	1371	1339	1296	1257	1211	1165
	Medium/High (4)	1568	1524	1491	1464	1425	1383	1345	1296
	High (5)	1978	1937	1891	1837	1785	1725	1656	1604
42100	Low (1)	1455	1414	1379	1335	1294	1254	1212	1160
	Low/Medium (2)	1566	1532	1492	1455	1416	1372	1333	1280
	Medium (3)	1565	1530	1491	1458	1419	1381	1336	1290
	Medium/High (4)	1675	1641	1606	1578	1535	1495	1455	1412
	High (5)	1946	1909	1863	1815	1771	1721	1654	1595
48065	Low (1)	1032	999	970	938	910	879	843	808
	Low/Medium (2)	1272	1236	1204	1165	1129	1081	1037	968
	Medium (3)	1611	1574	1518	1494	1439	1405	1357	1266
	Medium/High (4)	1892	1777	1771	1701	1639	1617	1565	1489
	High (5)	2131	2058	1998	1949	1892	1840	1788	1728

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Airflow - Bottom Duct Application (Continued)

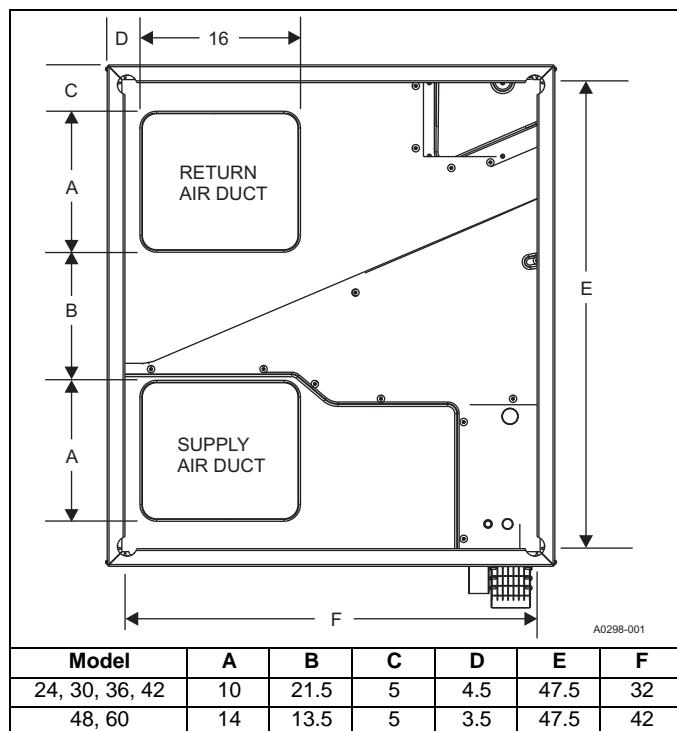
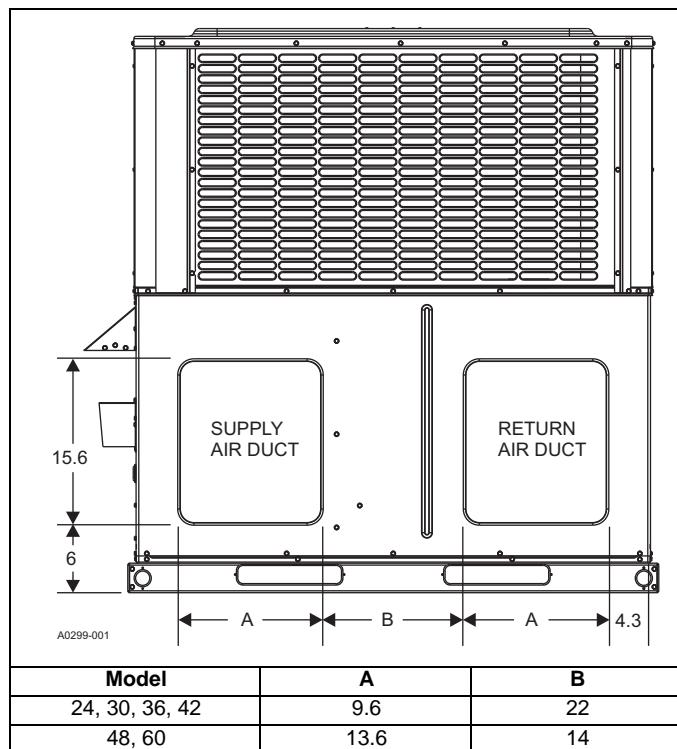
Model	Motor Speed	External Static Pressure (Inches WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
		SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM	SCFM
48100	Low (1)	1598	1548	1502	1454	1410	1362	1307	1251
	Low/Medium (2)	1663	1612	1568	1522	1476	1422	1370	1297
	Medium (3)	1789	1733	1670	1650	1596	1578	1535	1483
	Medium/High (4)	1931	1814	1808	1736	1673	1650	1597	1519
	High (5)	2131	2058	1998	1949	1892	1840	1788	1728
48125	Low (1)	1598	1548	1502	1454	1410	1362	1307	1251
	Low/Medium (2)	1766	1703	1656	1611	1566	1518	1469	1419
	Medium (3)	1912	1875	1805	1787	1750	1713	1672	1636
	Medium/High (4)	2105	2014	2006	1931	1898	1845	1793	1739
	High (5)	2131	2058	1998	1949	1892	1840	1788	1728
60065	Low (1)	1026	999	989	950	907	907	886	862
	Low/Medium (2)	1263	1230	1192	1165	1167	1101	1099	1071
	Medium (3)	1987	1933	1861	1817	1820	1715	1725	1651
	Medium/High (4)	2114	2050	2047	1974	1899	1889	1920	1866
	High (5)	2369	2308	2249	2183	2126	2088	2034	1990
60100	Low (1)	1655	1612	1596	1531	1461	1462	1429	1391
	Low/Medium (2)	1766	1720	1667	1629	1632	1539	1537	1498
	Medium (3)	1987	1933	1861	1817	1820	1715	1725	1651
	Medium/High (4)	2114	2050	2047	1974	1899	1889	1920	1866
	High (5)	2369	2308	2249	2183	2126	2088	2034	1990
60125	Low (1)	1973	1924	1905	1826	1743	1744	1703	1660
	Low/Medium (2)	2024	1983	1937	1889	1886	1843	1799	1759
	Medium (3)	2123	2075	2019	1970	1978	1862	1849	1804
	Medium/High (4)	2191	2154	2117	2075	2002	1995	2028	1974
	High (5)	2369	2308	2249	2183	2126	2088	2034	1990

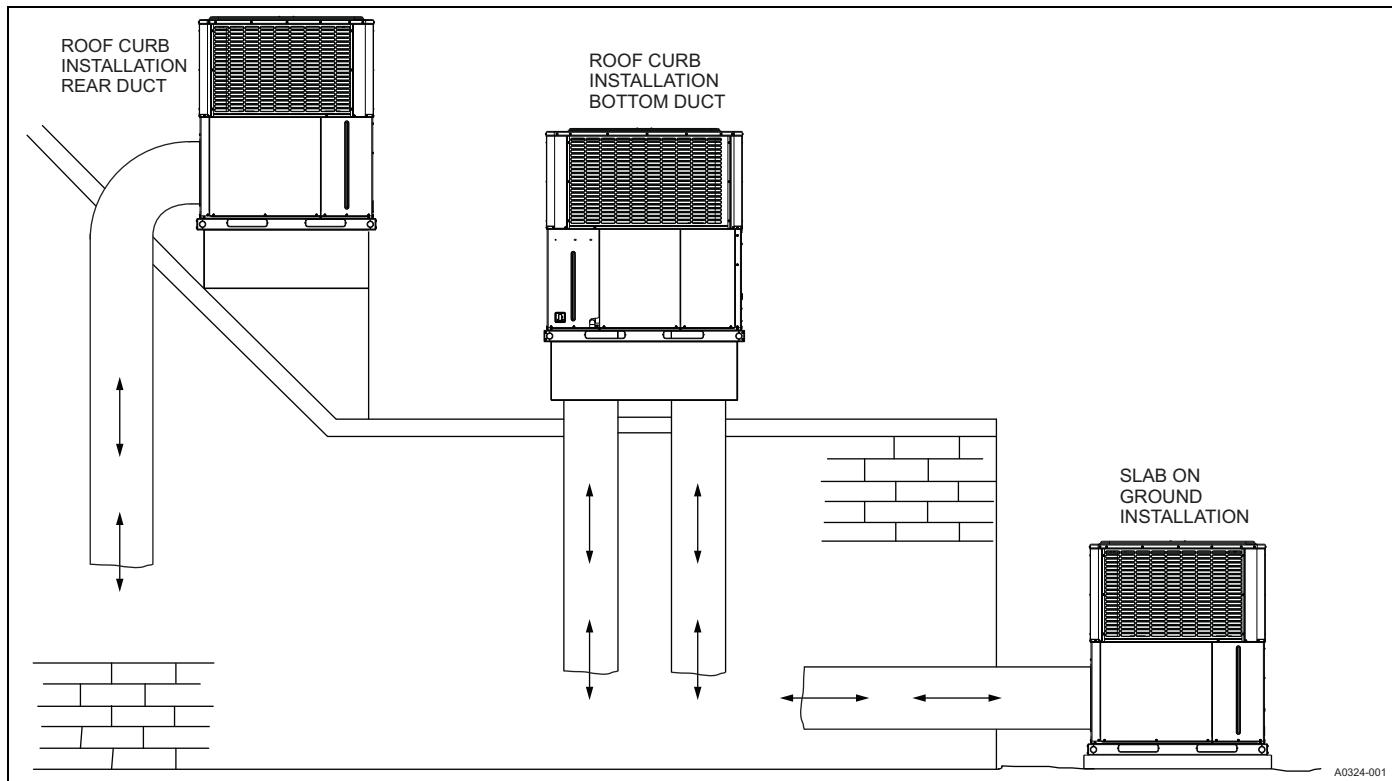
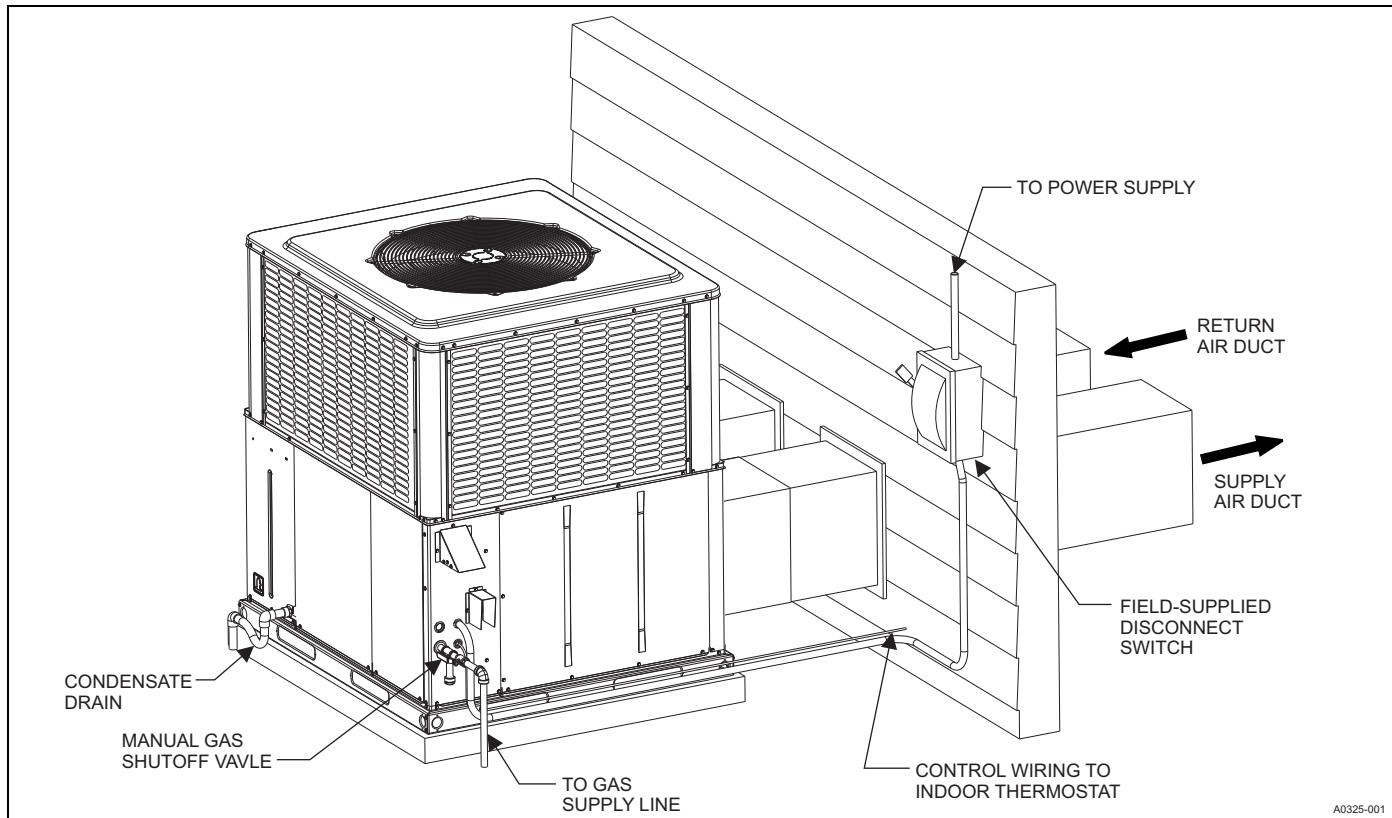
1. Airflow tested with dry coil conditions, without air flitters, at 230 volts
2. Applications above 0.8" w.c. external static pressure are not recommended.
3. Brushless DC high efficiency standard ECM blower motor used for all indoor blower assemblies.
4. Minimal variations in airflow performance data results from operating at 208 volts. Data above may be used in those cases.
5. Heating applications tested at 0.50" w.c. esp, and cooling applications tested at 0.30" w.c.esp per standards.

Additional Static Resistance

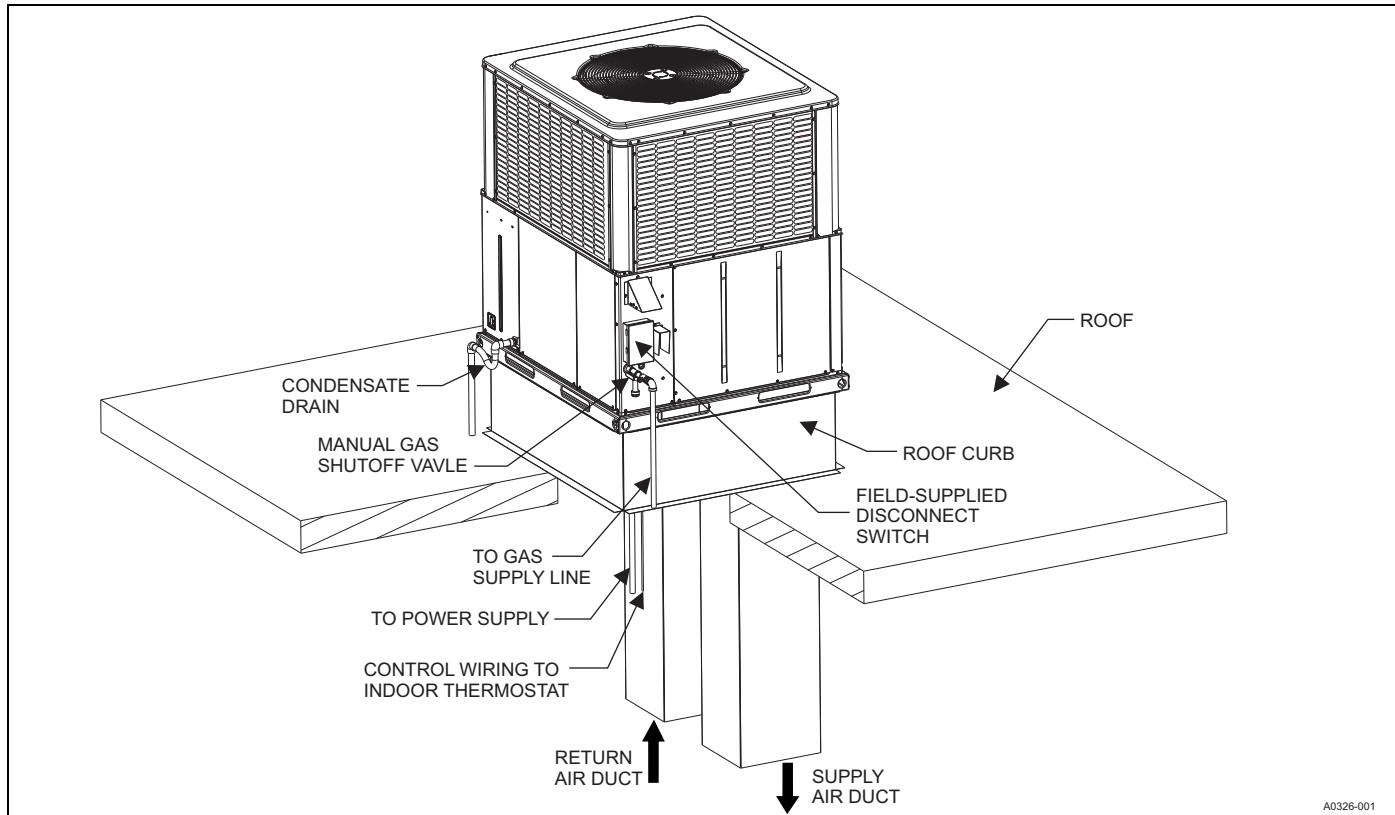
Size (Tons)	CFM	Wet Indoor Coil	Economizer ¹	Filter/Frame Kit
024 (2.0)	500	0.01	0.00	0.01
	600	0.01	0.00	0.02
	700	0.01	0.00	0.04
	800	0.02	0.01	0.06
	900	0.03	0.01	0.08
	1000	0.04	0.01	0.10
	1100	0.05	0.01	0.13
	1200	0.06	0.02	0.16
030 (2.5)	700	0.01	0.00	0.04
	800	0.02	0.01	0.06
	900	0.03	0.01	0.08
	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
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
042 (3.5)	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
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

- 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 will deliver less CFM during full economizer operation.
- Filter pressure drop based on standard filter media tested at velocities not to exceed 300 ft/min.

BOTTOM DUCT DIMENSIONS (Inches)**REAR DUCT DIMENSIONS (Inches)**

UNIT TYPICAL DUCT APPLICATIONS**UNIT TYPICAL SLAB ON GROUND INSTALLATION**

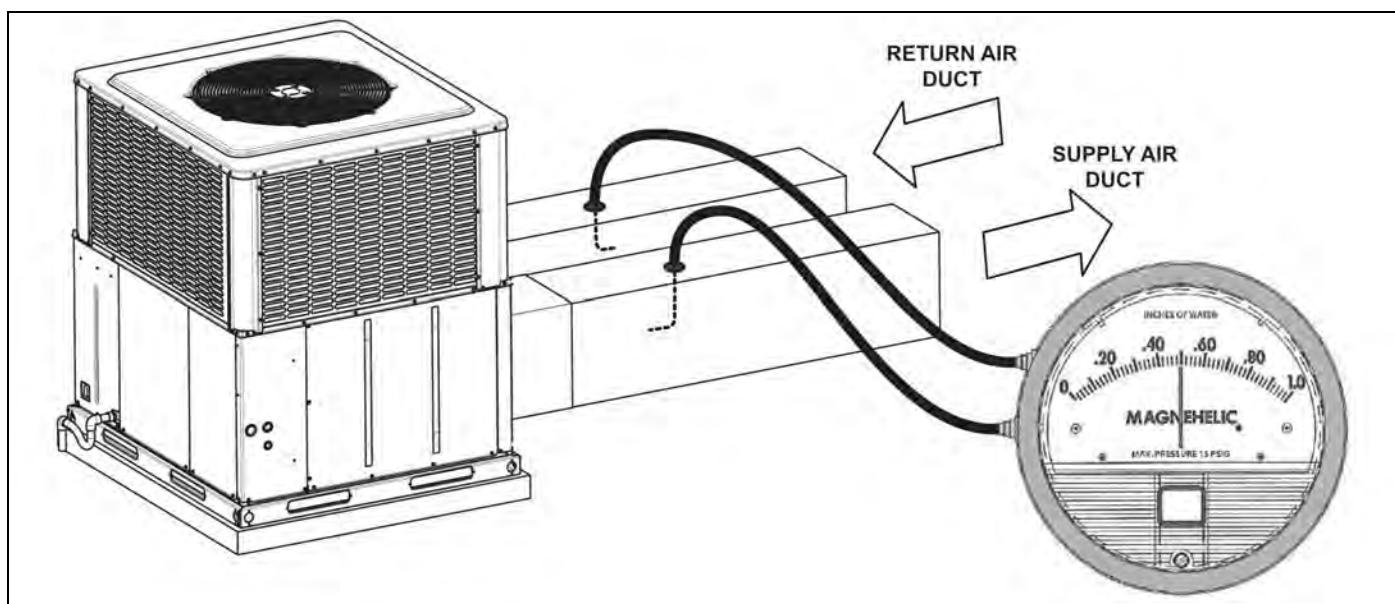
UNIT TYPICAL ROOF CURB INSTALLATION



EXTERNAL STATIC PRESSURE SETUP

To measure external static pressure:

- Measure the supply air static pressure
- Record this positive number
- Measure the return air static pressure
- Record this negative number
- Treat the negative number as a positive and add the two numbers together
- This is total system static



NOTES