

### COMMERCIAL ASHRAE EFFICIENT PACKAGE GAS HEATING/ELECTRIC COOLING R-22 SINGLE PACKAGE ROOFTOP 6 – 25 TONS (3-Phase)

#### BUILT TO LAST, EASY TO INSTALL AND SERVICE

- One-piece, high efficiency gas heating, electric cooling with a low profile, prewired, tested, and charged at the factory
- Field convertible supply and return openings are intended for installation on a roof top or ground level for 072-150 models
- Hermetic-type scroll compressor: single compressor on 072 model, dual compressors on 090-300 models
- Refrigeration system: loss-of-charge, freeze protection, and high pressure safety switches
- Units 090 to 300 have 2-stage cooling operation
- Refrigerant circuits contain a filter drier to trap dirt and moisture
- Non-corrosive condensate pan on 072 – 150 models with choice of bottom or side drain connections. All models have self draining sloping design
- Adjustable belt drive indoor fan standard on all models
- Direct-drive propeller outdoor fan totally enclosed with permanently lubricated bearings
- Prepainted, galvanized steel cabinet, primer inner panels, certified at 500-hr salt spray test and noncorrosive screws
- Easily removable panels provide ready access to unit components for rapid removal or maintenance
- Two inch disposable fiberglass type return air filters in dedicated rack with tool-less filter access door
- Exclusive integrated gas control board with diagnostics and anti-cycle protection
- Tubular, dimpled gas heat exchangers optimize heat transfer for improved efficiency
- Induced-draft fan for gas combustion
- Outdoor temperature cooling operation down to 25°F and up to 125°F
- Fixed orifice metering devices on 072-150 units and TXV's on 180-300 units to precisely control refrigerant flow
- 24-Volt control circuit with resettable circuit breaker on 072-150 models
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless copper tubes
- 25% Manual outside air damper on 180-300 models
- Thru-the-bottom power entry capability

#### WARRANTY

- 10 Year heat exchanger limited warranty
- 5 Year compressor limited warranty
- 1 Year parts limited warranty



PGE 072



PGE090-150



PGE180-240



PGE300



ISO 9001:2000



#### UNIT PERFORMANCE DATA

UNIT PGE 3-Phase	Nominal TONS	COOLING			GAS HEATING RANGE		Unit Dimensions H x W x L	Unit Weight
		Net Capacity (Btuh)	EER	Total kW	Heating Input Capacity (Btuh)	AFUE (%)		
PGE072*^A00AA	6	71,000	10.1	7.0	74,000 – 150,000	80	33 <sup>9</sup> / <sub>16</sub> " x 73 <sup>11</sup> / <sub>16</sub> " x 45"	626
PGE090*^A00AA	7½	88,000	10.1	8.7	125,000 – 224,000	80	41 <sup>5</sup> / <sub>16</sub> " x 87 <sup>5</sup> / <sub>16</sub> " x 57 <sup>3</sup> / <sub>4</sub> "	881
PGE102*^A00AA	8½	100,000	10.1	9.9	125,000 – 224,000	80	41 <sup>5</sup> / <sub>16</sub> " x 87 <sup>5</sup> / <sub>16</sub> " x 57 <sup>3</sup> / <sub>4</sub> "	896
PGE120*^A00AA	10	114,000	10.1	11.3	180,000 – 250,000	80	49 <sup>5</sup> / <sub>16</sub> " x 87 <sup>5</sup> / <sub>16</sub> " x 57 <sup>3</sup> / <sub>4</sub> "	1057
PGE150*^A00AA	12½	136,000	9.5	14.3	224,000 – 250,000	80	49 <sup>5</sup> / <sub>16</sub> " x 87 <sup>5</sup> / <sub>16</sub> " x 57 <sup>3</sup> / <sub>4</sub> "	1077
PGE180*^A00AA	15	176,000	9.5	17.1	275,000 – 360,000	81	45" x 91 <sup>1</sup> / <sub>4</sub> " x 86 <sup>1</sup> / <sub>8</sub> "	1800
PGE210*^A00AA	18	202,000	9.7	21.2			45" x 91 <sup>1</sup> / <sub>4</sub> " x 86 <sup>1</sup> / <sub>8</sub> "	1850
PGE240*^A00AA	20	236,000	9.5	24.8			47" x 91 <sup>1</sup> / <sub>4</sub> " x 86 <sup>1</sup> / <sub>8</sub> "	1900
PGE300*^A00AA	25	278,000	9.7	28.5			52 <sup>1</sup> / <sub>4</sub> " x 120 <sup>1</sup> / <sub>4</sub> " x 86 <sup>1</sup> / <sub>8</sub> "	2270

\* Indicates Unit Voltage 3 Phase: H = 208/230v, L = 460v, S = 575v

^ Indicates Heating Capacity: D = Low Heat, F = High Heat

NOTE: BASE MODEL NUMBERS LISTED. SEE MODEL NOMENCLATURE LISTING FOR ADDITIONAL OPTIONS.

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# MODEL NOMENCLATURE

<b>MODEL SERIES</b>	<b>P</b>	<b>G</b>	<b>E</b>	<b>090</b>	<b>H</b>	<b>D</b>	<b>A</b>	<b>00</b>	<b>A</b>	<b>A</b>	<b>A</b>
P = Package											
G = Gas/Electric											
E = ASHRAE Compliant											
072 = 72,000											
090 = 90,000											
102 = 102,000											
120 = 120,000											
155 = 155,000											
180 = 180,000											
210 = 210,000											
240 = 240,000											
300 = 300,000											
<b>NOMINAL COOLING BTU/h</b>											
H = 208/230-3-60											
L = 460-3-60											
S = 575-3-60											
<b>VOLTAGE</b>											
0 = No Heat											
D = Low Heat											
F = High Heat											
<b>HEATING CAPACITY (see spec sheet for actual capacity)</b>											
A = Standard Motor											
B = High Static Motor											
<b>MOTOR OPTION (see spec sheet for details)</b>											
00 = No Factory Installed Options											
0A = Economizer											
0B = Damper											
XX = See FIOP Selection Guide for Details											
<b>FACTORY INSTALLED OPTIONS (see spec sheet for details)</b>											
A = Aluminum/Copper Outdoor Coil											
<b>OUTDOOR COIL OPTION</b>											
A = Initial Offering											
<b>SALES DIGIT</b>											
A = Original Design											
<b>ENGINEERING DIGIT</b>											

## FEATURES/BENEFITS

Every compact one-piece unit arrives fully assembled, charged, tested, and ready to run.

All ignition components are contained in the compact Integrated Gas Controller (IGC) which is easily accessible for servicing. The IGC control board provides built-in diagnostic capability. A LED (light-emitting diode) simplifies troubleshooting by providing visual fault notification and required system status confirmation.

The IGC also contains an exclusive anti-cycle protection for gas heat operation. The IGC also contains burner control logic for accurate and dependable gas ignition. The LED is visible without removing the unit control box access panel. The IGC also maximizes heating efficiency by controlling evaporator-fan on and off delays.

Tubular, dimpled gas heat exchangers optimize heat transfer for improved efficiency. The tubular design permits hot gases to make multiple passes across the path of the supply air. The dimpled design creates a turbulent gas flow to maximize heating efficiency.

The efficient in-shot burners and all ignition components are contained in an easily removable, compact assembly.

The extra thick heat exchanger coating provides corrosion resistance and ensures long life.

The inducer fan draws hot combustion gas through the heat exchanger at the optimum rate for the most effective heat transfer. The heat exchanger operates under negative pressure, preventing flue gas leakage into the indoor supply air. The 30-second fan delay prevents cold air from entering the supply duct system when the conditioned space is calling for heat to maximize efficiency. The direct-spark ignition system saves operating expense when compared to pilot ignition systems.

All standard units are designed for natural gas, but an accessory propane conversion kit is available.

All units have a flame rectification sensor to quickly sense the burner flame and ignite burners almost immediately. Fast shutdown is a certainty since the sensor reacts quickly to any flame outage or system failure.

**QUIET, EFFICIENT OPERATION AND DEPENDABLE PERFORMANCE** – Compressors have vibration isolators for quiet operation. Efficient fan and motor design permits operation at low sound levels.

Unit sizes 090–300 offer lower utility costs through part-load operation using 2 stages of cooling. Quiet and efficient operation is provided by belt-driven evaporator fans. The belt-driven evaporator-fan is equipped with variable-pitch pulleys which allow adjustment within the rpm ranges of the factory-supplied pulleys.

Increased operating efficiency is achieved through computer-designed coils featuring staggered internally enhanced copper tubes. Fins are ripple-edged for strength, lanced, and double waved for higher heat transfer.

**DURABLE, DEPENDABLE CONSTRUCTION** – Designed for durability in any climate, the weather-resistant cabinets are constructed of galvanized steel and bonderized, and all exterior panels are coated with a prepainted baked enamel finish.

The paint finish is non-chalking, and is capable of withstanding ASTM (American Society for Testing and Materials) B117 500-hour Salt Spray Test. All internal cabinet panels are primed, permitting longer life and a more attractive appearance for the entire unit. In addition, all size 072–150 units are designed with a single, continuous top piece to eliminate any possible leaks at seams or gasketing.

Totally enclosed condenser-fan motors and permanently lubricated bearings provide additional unit dependability.

**EASY INSTALLATION AND CONVERSION All Units are Shipped in the Vertical Duct Configuration** for fit-up to standard roof curbs. All units feature a base rail design with forklift slots and rigging holes for easier maneuvering. Durable packaging protects all units during shipment and storage.

The units can be easily converted from a vertical to a horizontal duct configuration by relocating the panels supplied with the unit (072–150 only).

**To Convert 072–150 Units** from vertical to horizontal discharge, simply relocate 2 panels. The same basic unit can be used for a variety of applications and can be quickly modified at the jobsite.

**To Convert 180–300 Units** from vertical to horizontal discharge, use the optional horizontal supply/return adapter roof curb.

**Convenient Duct Openings** in the unit basepans permit side-by-side or concentric duct connections without requiring internal unit modification.

**NOTE:** On units using horizontal supply and return, the accessory barometric relief or power exhaust MUST be installed on the return ductwork.

**Thru-The-Bottom Service Connection Capability** comes standard with the rooftop unit to allow power and control wiring and gas connections to be routed through the unit's basepan, thereby minimizing roof penetrations (to prevent water leaks). (Thru-the-bottom gas connection requires thru-the-bottom accessory kit.) Power, gas and control connections are made on the same side of the unit to simplify installation.

### **The Non-Corrosive Sloped Condensate Drain Pan**

**(Size 072–150)** permits either an external horizontal side condensate drain (outside the roof curb) or an internal vertical bottom drain (inside the roof curb). Both options require an external, field-supplied P-trap.

**Standard 2 in. Throwaway Filters** are easily accessed through a removable panel located above the air intake hood. No tools are required to change unit filters.

**Belt-Driven Evaporator-Fan Motors** allow maximum on-site flexibility without changing motors or drives.

**Low Voltage Wiring Connections** are easily made thanks to the large terminal board which is located for quick, convenient access. In addition, color-coded wires permit easy tracing and diagnostics.

**PROVEN COMPRESSOR RELIABILITY** – Design techniques feature computer-programmed balance between compressor, condenser, and evaporator. Hermetic compressors are equipped with compressor overcurrent and over temperature protection to ensure dependability.

All units have piston (072–150) or TXV (thermostatic expansion valve) metering device (180–300) which precisely controls refrigerant flow, preventing slugging and flood-back, while maintaining optimum unit performance. Refrigerant filter driers are standard.

**INTEGRATED ECONOMIZERS AND OUTDOOR-AIR DAMPERS** – Available as options or accessories, economizers and manual outdoor-air dampers introduce outdoor air which mixes with the conditioned air, improving indoor-air quality and often reducing energy consumption.

During a first stage call for cooling, if the outdoor-air temperature is below the economizer control changeover set point, the mixed-air sensor modulates the economizer outdoor-air damper open to take advantage of free cooling provided by the outside air. When second-stage cooling is called for, the compressor is energized in addition to the economizer. If the outdoor-air temperature is above the changeover set point, the first stage of compression is activated and the economizer damper stays at minimum position.

Accessory upgrade kits allow for control by differential dry-bulb temperature (outdoor vs return), outdoor air enthalpy changeover, or more precise differential enthalpy control. All economizers incorporate a parallel blade, gear-driven damper system for efficient air mixing and reliable control. In addition, the standard damper actuator includes a spring return to provide reliable closure on power loss.

The economizers for sizes 072–150 are equipped with up to 100% barometric relief capability for high outdoor airflow operations. Economizers for unit sizes 072–150 are available, factory-installed, for vertical return only. Economizers for unit sizes 180–300 are compatible for vertical or horizontal return. An optional field-installed barometric relief package is available for size 180–300 units.

In addition, single-stage power exhaust is available as a field-installed accessory to help maintain proper building pressure. For units without economizer, year-round ventilation is enhanced by an optional manual outdoor-air damper.

On 072–150 units, a manual damper is available as a field-installed accessory. Unit sizes 180–300 are equipped with a manual 25% damper.

**INDOOR-AIR QUALITY (IAQ)** – Sloped condensate pans minimize biological growth in rooftop units in accordance with ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers) Standard 62.

Two-inch filters with optional dirty filter indicator switch provide for greater particle reduction in the return air.

The face-split evaporator coils improve the dehumidification capability of standard units, maximize building humidity control.

**ARI\* CAPACITY RATINGS – PGE072–150**

UNIT PGE	NOMINAL TONS	NET COOLING CAPACITY (Btuh)	TOTAL kW	EER	SOUND RATING (dB)	IPLV
072	6	71,000	7.0	10.1	80	**
090	7½	88,000	8.7	10.1	82	10.5
102	8½	100,000	9.9	10.1	82	10.4
120	10	114,000	11.3	10.1	84	11.0
150	12½	136,000	14.3	9.5	86	9.70

**NOTES:**

- Rated in accordance with ARI Standards 210/240 (for sizes 072–120) or 360, (for size 150) and 270.
- ARI ratings are net values, reflecting the effects of circulating fan heat.
- Ratings are based on:  
**Cooling Standard:** 80°F db, 67°F wb indoor entering–air temperature and 95°F db air entering outdoor unit.  
**IPLV Standard:** 80°F db, 67°F wb indoor entering–air temperature and 80°F db outdoor entering–air temperature.
- All PGE072, 090, 102, 120, 150 units are in compliance with ASHRAE 90.1–1999 Energy Standard for minimum SEER and EER requirements. Refer to state and local codes or visit the following website: <http://bcap-energy.org> to determine if compliance with this standard pertains to a given geographical area of the United States.

**LEGEND:**

**SEER** – Seasonal Energy Efficiency Ratio

**dB** – Sound Level (Decibels)

**db** – Dry Bulb

**EER** – Energy Efficiency Ratio

**IPLV** – Integrated Part–Load Value

**wb** – Wet Bulb

\* Air Conditioning and Refrigeration Institute

† – Applies only to units with capacity of 60,000 Btuh or less

\*\* – The IPLV applies only to two–stage cooling units

**ARI\* CAPACITY RATINGS – PGE072–150(cont.)**

**HEATING CAPACITIES AND EFFICIENCIES**

**PGE072 – 150**

UNIT PGE	HEATING INPUT (Btuh) Stage 2/Stage 1	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE (°F)	MINIMUM HEATING AIRFLOW (CFM)	AFUE (%)	STEADY STATE EFFICIENCY (%)
072*D	–/74,000	59,200	25–55	1220	80.0	80.0
072*F	150,000/120,000	120,000	50–80	1390	80.0	80.0
090*D	–/125,000	100,000	20–50	1860	80.0	80.0
090*F	224,000/180,000	179,200	45–75	2180	80.0	80.0
102*D	–/125,000	100,000	20–50	1860	80.0	80.0
102*F	224,000/180,000	179,200	45–75	2180	80.0	80.0
120*D	180,000/120,000	179,200	35–65	2060	80.0	80.0
120*F	250,000/200,000	200,000	40–70	2650	80.0	80.0
150*D	224,000/180,000	179,200	35–65	2510	80.0	80.0
150*E	250,000/200,000	200,000	40–70	2650	80.0	80.0

**LEGEND:**

\* – Voltage

**AFUE** – Annual Fuel Efficiency

**ARI\* CAPACITY RATINGS – PGE180–300**

UNIT PGE	NOMINAL TONS	NET COOLING CAPACITY (Btuh)	TOTAL WATTS	EER	SOUND RATING (dB)	IPLV
180	15	176,000	17,064	9.5	88	9.5
210	18	202,000	21,166	9.7	88	10.2
240	20	236,000	24,832	9.5	94	10.1
300	25	278,000	28,535	9.7	94	10.4

UNIT PGE	NOMINAL TONS	NET COOLING CAPACITY (Btuh)	TOTAL WATTS	EER	SOUND RATING (dB)	IPLV
180	15	176,000	17,179	9.5	88	9.5
210	18	202,000	21,301	9.7	88	10.1
240	20	236,000	24,832	9.5	94	10.0
300	25	277,000	29,067	9.5	94	10.0

**LEGEND:**

**SEER** – Seasonal Energy Efficiency Ratio

**dB** – Sound Level (Decibels)

**db** – Dry Bulb

**EER** – Energy Efficiency Ratio

**IPLV** – Integrated Part-Load Value

**wb** – Wet Bulb

\* Air Conditioning and Refrigeration Institute

**NOTES:**

1. Rated in accordance with ARI Standards 360 and 270.
2. ARI ratings are net values, reflecting the effects of circulating fan heat.

3. Ratings are based on:

**Cooling Standard:** 80°F db, 67°F wb indoor entering–air temperature and 95°F db air entering outdoor unit.

**IPLV Standard:** 80°F db, 67°F wb indoor entering–air temperature and 80°F db outdoor entering–air temperature.

4. All PGE180–300 units are in compliance with ASHRAE 90.1–1999 Energy Standard for minimum SEER and EER requirements. Refer to state and local codes or visit the following website: <http://bcap-energy.org> to determine if compliance with this standard pertains to a given geographical area of the United States.

**HEATING CAPACITIES AND EFFICIENCIES**

UNIT PGE	HEATING INPUT (Btuh)Stage 2/Stage 1†	OUTPUT CAPACITY (Btuh)	TEMPERATURE RISE (°F)	STEADY-STATE EFFICIENCY (%)	MINIMUM HEATING CFM
180*D	275,000/206,000	223,000	15–45	81.0	3750
180*F	360,000/270,000	292,000	20–50	81.0	3830
210*D	275,000/206,000	223,000	15–45	81.0	4580
210*F	360,000/270,000	292,000	20–50	81.0	5400
240*D	275,000/206,000	223,000	15–45	81.0	4580
240*F	360,000/270,000	292,000	20–50	81.0	5400
300*D	275,000/206,000	223,000	15–45	81.0	4580
300*F	360,000/270,000	292,000	20–50	81.0	5400

\* – Voltage

†All units are 2–stage heat.

**NOTE:** Minimum allowable temperature of mixed–air entering the heat exchanger during first–stage heating is 45°F. There is no minimum mixed–air temperature limitation during second–stage heating. For entering–air temperatures below 45°F both stages of heat must be energized together to minimize condensation issues and ensure proper unit operation.

**AIR QUALITY LIMITS (Cooling)**

UNIT PGE	MINIMUM CFM	MAXIMUM CFM
180	4500	7,500
210	5400	9,000
240	6000	10,000
300	7000	11,250

**COOLING OPERATION**

**LOW OUTDOOR TEMPERATURE OPERATING LIMITS (°F)**

UNIT PGE	TEMPERATURE
All – Standard Unit	40
180 and 210 with Low Ambient Kit	10
240 and 300 with Low Ambient Kit	25
All with Head Pressure Control	–20

## OPTIONS AND ACCESSORIES – PGE072–150

ITEM	OPTION*	ACCESSORY†
High Static Motors and Drives	X	
Compressor Cycle Delay		X
Economizer with Controller	X	X
Electronic Programmable Thermostat**		X
Indoor Air Quality (CO <sub>2</sub> ) Sensor (For Return Air)		X
Manual Outdoor–Air Damper	X	X
Low Ambient Kits		X
Outdoor Air Enthalpy Sensor		X
Outdoor Coil Grille		X
Outdoor Coil Hail Guard Assembly		X
Outdoor Air/Return Air Temperature Sensor		X
Power Exhaust with Barometric Relief		X
Return Air Enthalpy Sensor		X
Return Air Temperature Sensor		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Thermostats and Subbases**		X
Thru–the–Bottom Utility Connections		X
Natural to LP Conversion Kit		X

## OPTIONS AND ACCESSORIES – PGE 180–300

ITEM	OPTION*	ACCESSORY†
High Static Motors and Drives	X	
Compressor Cycle Delay		X
Barometric Relief Damper (Not for use with horizontal roof curb)		X
Economizer with Controller	X	X
Electronic Programmable Thermostat**		X
Horizontal Adapter Curb		X
Indoor Air Quality (CO <sub>2</sub> ) Sensor		X
Manual Outdoor–Air Damper	X	X
Low Ambient Kit		X
Outdoor Air Enthalpy Sensor		X
Power Exhaust without Barometric Relief		X
Return Air Enthalpy Sensor		X
Return Air Temperature Sensor		X
Roof Curbs (Vertical and Horizontal Discharge)		X
Thermostats and Subbases **		X
Winter Start Time Delay		X
Natural to LP Conversion Kit		X

\*Factory–installed.

†Field–installed.

\*\*Available through FAST Parts.

### NOTES:

1. Refer to unit specifications or contact your local representative for accessory and option package information.
2. Some options may increase product lead times.

### OPTIONS AND ACCESSORIES

**Roof Curbs (Horizontal and Vertical)** permit installation and securing of ductwork to curb prior to mounting unit on the curb. 8 inch, 14 inch, and 24 inch roof curbs are available as field–installed accessories.

**Economizer** is available as a factory–installed option in vertical supply/return configuration only for unit sizes 072–150. Vertical or horizontal configuration is available for unit sizes 180–300. (Economizer is available as a field–installed accessory for horizontal and/or vertical supply return configurations.)

**Manual Outdoor–Air Damper** accessory can be preset to admit up to 50% outdoor air for year round ventilation and is available as a field–installed accessory.

**Low Ambient Pressure Control** accessory package maintains condensing temperature between 90°F and 110°F at outdoor ambient temperatures down to –20°F by condenser–fan speed modulation or condenser–fan cycling and wind baffles.

**Convenience Outlet** can be installed and internally mounted with easily accessible 115v female receptacle. Requires separate field supplied power source.

**Compressor Cycle Delay** accessory prevents unit from restarting for minimum of 5 minutes after shutdown.

**Thru–The–Bottom Utility Connectors** permit electrical connections to be brought to the unit through the basepan. Connectors are available as field–installed accessories.

**Power Exhaust** accessory will provide system exhaust of up to 100% of return air (vertical only). The power exhaust is a field–installed accessory (separate vertical and horizontal design).

## ACCESSORIES – PGE072–300

<b>FLAT ROOF CURBS</b>		
<b>Model Number</b>	<b>Height</b>	<b>Use With Model Size</b>
AXB035CLA	8" High Roof Curb	072
AXB035CMA	14" High Roof Curb	072
AXB035CHA	24" High Roof Curb	072
AXB045CLA	8" High Roof Curb	090–150
AXB045CMA	14" High Roof Curb	090–150
AXB045CHA	24" High Roof Curb	090–150
AXB060CMA	14" Vertical Roof Curb	180–240
AXB060CHA	24" Vertical Roof Curb	180–240
AXB065CHA	24" Horizontal Roof Curb	180–240
AXB165CHA	24" Horizontal Roof Curb with transition duct	180–240
AXB090CMA	14" Vertical Discharge Roof Curb	300
AXB090CHA	24" Vertical Discharge Roof Curb	300
AXB095CHA	24" Horizontal Roof Curb	300
AXB195CHA	24" Horizontal Roof Curb with transition duct	300

<b>ECONOMIZERS</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNECOMZR020A02	Vertical – with W7212 controller	072
DNECOMZR021A02	Vertical – with W7212 controller	090–150
DNECOMZR024A02	Horizontal – with W7212 controller	072
DNECOMZR025A02	Horizontal – with W7212 controller	090–150
DNECOMZR008C00	Vertical or Horizontal – with W7212 controller	180–300
<b>ALTERNATE ECONOMIZERS</b>		
<b>Model Number</b>	<b>Description</b>	<b>P*E Model Size</b>
AXB035EMA	Fully Modulating Economizer – Downflow	072
AXB035EPA	Three Position Economizer – Downflow	072
AXB035HEA	Fully Modulating Economizer – Horizontal	072
AXB035HPA	Three Position Economizer – Horizontal	072
AXB145EMA	Fully Modulating Economizer – Downflow	90,102
AXB245EMA	Fully Modulating Economizer – Downflow	120,150
AXB145EPA	Three Position Economizer – Downflow	90,102
AXB245EPA	Three Position Economizer – Downflow	120,150
AXB145HEA	Fully Modulating Economizer – Horizontal	90,102
AXB245HEA	Fully Modulating Economizer – Horizontal	120,150
AXB145HPA	Three Position Economizer – Horizontal	90,102
AXB245HPA	Three Position Economizer – Horizontal	120,150
AXB060EMA	Fully Modulating Economizer – Horizontal/Downflow	180 – 300
AXB060EPA	Three Position Economizer – Horizontal/Downflow	180 – 300

<b>DAMPERS</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNMANDPR001A03	50% Open	072
DNMANDPR002A03	50% Open	090–150
DNBARREL001A00	Barometric Relief Damper	180–300
<b>ALTERNATE DAMPERS</b>		
AXB035FAA	Manual Fresh Air Damper	072
AXB035FMA	Motorized Fresh Air Damper	072
AXB145FAA	Fresh Air Damper – 35% Manual	90,102
AXB245FAA	Fresh Air Damper – 35% Manual	120,150
AXB145FMA	Fresh Air Damper – 35% Motorized	90,102
AXB245FMA	Fresh Air Damper – 35% Motorized	120,150
AXB060FMA	Fresh Air Damper – 35% Motorized	180 – 300



## ACCESSORIES – PGE072–300

<b>POWER EXHAUST</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNPWREXH030A01	208/230–3–60, Vertical	072
DNPWREXH021A01	460–3–60, Vertical	072
DNPWREXH022A01	208/230–3–60, Vertical	090–150
DNPWREXH023A01	460–3–60, Vertical	090–150
DNPWREXH028A01	208/230–3–60, Horizontal	072–150
DNPWREXH029A01	460–3–60, Horizontal	072–150
DNPWREXH008B00	Power Exhaust 460 volt (field convertible to 208/230 volt)	180 – 240
DNPWREXH010B00	Power Exhaust 575 volt	180 – 240

<b>ALTERNATE POWER EXHAUST</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
AXB035PEH	Power Exhaust 208/230 volt	072
AXB035PEL	Power Exhaust 460 volt	072
AXB035PES	Power Exhaust 575 volt	072
AXB145PEH	Power Exhaust 208/230 volt	090, 102
AXB145PEL	Power Exhaust 460 volt	090, 102
AXB145PES	Power Exhaust 575 volt	090, 102
AXB245PEH	Power Exhaust 208/230 volt	120, 150
AXB245PEL	Power Exhaust 460 volt	120, 150
AXB245PES	Power Exhaust 575 volt	120, 150
AXB060PEH	Power Exhaust 208/230 volt	180 – 300
AXB060PEL	Power Exhaust 460 volt	180 – 300
AXB060PES	Power Exhaust 575 volt	180 – 300

<b>LOW AMBIENT CONTROLS</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
AXB035LAA	Low Ambient Kit (0 Deg. F)	072 – 150
AXB045LAA	Low Ambient / OFM Sequencing Kit (-20 Deg. F) 208/230v	090 – 150
AXB160LAA	OFM Sequencing kit (3 fans)	180, 210, 300
AXB260LAA	25° F Low Ambient Kit	240
DNLOWAMB002A01	Low Ambient Kit (25 Deg. F)	240
DNLOWAMB015A00	208/230V Motor Controller (-20° F)	240
DNLOWAMB016A00	460V Motor Controller (-20° F)	240
DNLOWAMB017A00	575V Motor Controller (-20° F)	240

<b>WINTER START KIT</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNWINSTR001A00	Low pressure switch bypass (time delay)	ALL

<b>PHASE MONITOR CONTROL</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNPHASE3001A01	Electronic phase monitor breaks "R" control signal if trouble is detected	ALL

<b>THROUGH-THE-BOTTOM/CURB POWER CONNECTION</b>		
<b>Model Number</b>	<b>Description</b>	<b>Use With Model Size</b>
DNBTMPWR001A01	Thru-the bottom electrical + thru-the curb Gas	072
DNBTMPWR002A01	Thru-the bottom electrical + thru-the curb Gas	090–150
DNBTMPWR003A01	Thru-the bottom electrical and Gas	072
AXB045PKA	Thru-the-bottom electrical and Gas	090 – 150

## ACCESSORIES – PGE072–300 (cont.)

### ECONOMIZER SENSORS

Model Number	Description	Use With Model Size
DNTEMPSN002A00	Single Temp' (dry bulb) Control	ALL Economizers With W7212 Controller
DNCBDIOX005A00	CO <sub>2</sub> Sensor	ALL Economizers With W7212 Controller
DNENTDIF004A00	Return Air Enthalpy Sensor	ALL Economizers With W7212 Controller
AXB078ENT	Enthalpy Control	ALL

### ANTI-CYCLE TIMER

Model Number	Description	Use With Model Size
DNTIMEGD001A00	Five minute compressor delay	ALL

### LP GAS CONVERSION KITS

Model Number	Description	Use With Model Size
AXB035LPA	Natural to LP	072
AXB345LPA	Natural to LP	090–150
DNLKIT7002A00	Natural to LP	210–300

### COIL PROTECTION

Model Number	Description	Use With Model Size
AXB036HGA	Hail Guard	072
AXB145CGA	Coil Guard	090, 102
AXB145HGA	Hail Guard	090, 102
AXB245CGA	Coil Guard	120, 150
AXB245HGA	Hail Guard	120, 150
AXB060CGA	Coil Guard	180–240
AXB060HGA	Hail Guard	180–240
AXB090CGA	Coil Guard	300
AXB090HGA	Hail Guard	300

### CONCENTRIC DIFFUSERS AND DUCT KITS

Model Number	Description	P*E Model Size
AXB035CTA	20" Round Concentric Duct Kit	072
AXB445CTA	20" Round Concentric Duct Kit	090, 102
AXB545CTA	Concentric Duct Kit 18" x 28" Rect.	120
AXB645CTA	Concentric Duct Kit 18" x 32" Rect.	150
AXB160CTA	Concentric Duct Kit 18" x 36"	180, 210
AXB260CTA	Concentric Duct Kit 24" x 48"	240, 300
AXB030CFA	Concentric Diffuser – Flush Mount	072
AXB030CSA	Concentric Diffuser – Step Down	072
AXB040CFA	Concentric Diffuser – Flush Mount	072
	Concentric Diffuser – Flush Mount (use with AXB445CTA)	090, 102
AXB040CSA	Concentric Diffuser – Step Down	072
	Concentric Diffuser – Step Down (use with AXB445CTA)	090, 102
AXB045CFA	Concentric Diffuser – Flush Mount (use with AXB545CTA)	120
AXB045CSA	Concentric Diffuser – Step Down (use with AXB545CTA)	120
AXB050CFA	Concentric Diffuser – Flush Mount (use with AXB645CTA)	150
AXB050CSA	Concentric Diffuser – Step Down (use with AXB645CTA)	150
AXB055CFA	Concentric Diffuser – Flush Mount (use with AXB160CTA)	180, 210
AXB055CSA	Concentric Diffuser – Step Down (use with AXB160CTA)	180, 210
AXB058CFA	Concentric Diffuser – Flush Mount	240, 300
AXB058CSA	Concentric Diffuser – Step Down	240, 300

**PHYSICAL DATA – PGE072**

<b>UNIT SIZE: PGE</b>		<b>072</b>
<b>NOMINAL CAPACITY (tons)</b>		6
<b>OPERATING WEIGHT (lb)</b>		
Unit		
Al/Cu*		626
<b>COMPRESSOR</b>		
Type		Scroll
Quantity		1
No. Cylinders (per Circuit)		2
Oil (oz)		60
<b>REFRIGERANT TYPE</b>		
<b>R-22</b>		
Expansion Device		Fixed Orifice Metering Device
Operating Charge (lb-oz)		
Circuit 1 (first stage)		11-0
<b>CONDENSER FAN</b>		
<b>Propeller Type</b>		
Nominal Cfm		4100
Quantity...Diameter (in.)		1...22.0
Motor Hp...Rpm		1/4...1100
Watts Input (Total)		320
<b>CONDENSER COIL</b>		
<b>3/8" OD Enhanced Copper tubes, Aluminum Lanced Fins</b>		
Rows...Fins/in.		2...17
Total Face Area (sq ft)		16.5
<b>EVAPORATOR FAN</b>		
<b>Centrifugal Type</b>		
Quantity...Size (in.)	Std	1...10 x 10
	High-Static	1...10 x 10
Type Drive	Std	Belt
	High-Static	Belt
Nominal Cfm		2100
Maximum Continuous Bhp	Std	2.40
	High-Static	2.90
Motor Frame Size	Std	56
	High-Static	56
Nominal Rpm High/Low	Std	-
	High-Static	1725
Fan Rpm Range	Std	1070-1460
	High-Static	1300-1685
Motor Bearing Type		Ball
Maximum Allowable Rpm		2100
Motor Pulley Pitch Diameter Min/Max (in.)	Std	2.8/3.8
	High-Static	3.4/4.4
Nominal Motor Shaft Diameter (in.)	Std	5/8
	High-Static	7/8
Fan Pulley Pitch Diameter (in.)	Std	4.5
	High-Static	4.5
Belt, Quantity...Type...Length (in.)	Std	1...A...39
	High-Static	1...A...40
Pulley Center Line Distance (in.)	Std	14.7-15.5
	High-Static	14.7-15.5
Speed Change per Full Turn of Moveable Pulley Flange (rpm)	Std	80
	High-Static	60
Movable Pulley Maximum Full Turns From Closed Position	Std	5
	High-Static	5
Factory Setting	Std	3
	High-Static	3 1/2
Factory Speed Setting (rpm)	Std	1226
	High-Static	1416
Fan Shaft Diameter at Pulley (in.)		5/8
<b>EVAPORATOR COIL</b>		
<b>3/8" OD Enhanced Copper tubes, Aluminum Double-Wavy Fins, Face Split</b>		
Rows...Fins/in.		4...15
Total Face Area (sq ft)		5.5

## PHYSICAL DATA – PGE072

<b>UNIT SIZE: PGE</b>	<b>072</b>
<b>FURNACE SECTION</b>	
Rollout Switch Cutout Temp ††	195
Burner Orifice Diameter (In...drill size)	
Natural Gas (Nominal Heating Size) Std (74,000)	.113...33
(150,000)	.129...30
LoNox (60,000)	-
LoNox (90,000)	-
LoNox (120,000)	-
Liquid Propane (Nominal Heating Size) Alt (74,000)	.089...43
(150,000)	.104...37
Thermostat Heat Anticipator Setting (Amps)	
208/230v and 575v Stage 1 / Stage 2	.14
460v Stage 1 / Stage 2	.14
Gas Input (Btuh) Standard Units Stage 1/ Stage 2 (74,000)	74,000 / -
(Nominal Heating Size) (115,000)	115,000 / -
(150,000)	120,000/150,000
Efficiency (Steady State) (%)	80
Temperature Rise Range (74,000)	15-45
(150,000)	50-80
Manifold Pressure (in. wg)	
Natural Gas Std	3.5
Liquid Propane Alt	3.5
Gas Valve Quantity	1
Gas Valve Pressure Range (Min-Max Allowable)	
Psig	0.180-0.470
in. wg.	5.0-13.0
Field Gas Connection Size (in. FPT)	1/2
<b>HIGH-PRESSURE SWITCH (psig)</b>	
Standard Compressor	500 ± 50
Internal Relief (Differential)	
Cutout	428
Reset (Auto)	320
<b>LOW-PRESSURE SWITCH (psig)</b>	
Cutout	7 ± 3
Reset (Auto)	22 ± 7
<b>FREEZE PROTECTION THERMOSTAT (F)</b>	
Opens	30 ± 5
Closes	45 ± 5
<b>RETURN AIR FILTERS</b>	
	<b>Throwaway</b>
Quantity... Size (in.)	2...16 x 25 x 2

### LEGEND

**Al** – Aluminum

**Bhp** – Brake Horsepower

**Cu** – Copper

\*Evaporator coil fin material/condenser coil fin material.

††Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

\*\*\*Three-phase standard high heat models have heating input values as shown.

### NOTES:

1. An LP kit is available as an accessory. Kit may be used at elevations as high as 2000 ft. LP kit is not used with Low NOx units.

**PHYSICAL DATA – PGE090–150**

UNIT SIZE: PGE		090	102	120	150
NOMINAL CAPACITY (tons)		7½	8½	10	12½
<b>OPERATING WEIGHT (lb)</b>					
Unit					
Al/Cu*		881	896	1057	1077
<b>COMPRESSOR</b>					
Type		Reciprocating		Scroll	
Quantity		2	2	2	2
No. Cylinders (per Circuit)		2	2	2	2
Oil (oz)		42	53	50	60
<b>REFRIGERANT TYPE</b> <span style="float:right">R-22</span>					
Expansion Device		Fixed Orifice Metering Device			
Operating Charge (lb-oz)					
Circuit 1 (first stage)		7-10	7-14	8-10	9-8
Circuit 2 (second stage)		8-2	8-5	8-8	9-5
<b>CONDENSER FAN</b> <span style="float:right">Propeller Type</span>					
Nominal Cfm		6500	6500	7000	7000
Quantity...Diameter (in.)		2...22.0	2...22.0	2...22.0	2...22.0
Motor Hp...Rpm		1/4...1100	1/4...1100	1/4...1100	1/4...1100
Watts Input (Total)		650	650	650	650
<b>CONDENSER COIL</b> <span style="float:right">3/8" OD Enhanced Copper tubes, Aluminum Lanced Fins</span>					
Rows...Fins/in.		2...17	2...17	2...17	2...17
Total Face Area (sq ft)		20.50	20.50	25.00	25.00
<b>EVAPORATOR FAN</b> <span style="float:right">Centrifugal Type</span>					
Quantity...Size (in.)		Std	1...15 x 15	1...15 x 15	1...15 x 15
		High-Static	1...15 x 15	-	1...15 x 15 †
Type Drive		Std	Belt	Belt	Belt
		High-Static	Belt	Belt	Belt †
Nominal Cfm			2900	3000	3200
Maximum Continuous Bhp		Std	2.40	2.40	2.40
		High-Static	3.70	3.70	5.25 †
Motor Frame Size		Std	56	56	56
		High-Static	56	56	56 †
Fan Rpm Range		Std	590-840	685-935	685-935
		High-Static	860-1080	860-1080	830-1130
Motor Bearing Type			Ball	Ball	Ball
Maximum Allowable Rpm			1500	1500	1500
Motor Pulley Pitch Diameter Min/Max (in.)		Std	2.4/3.4	2.8/3.8	2.8/3.8
		High-Static	4.0/5.0	4.0/5.0	2.8/3.8
Nominal Motor Shaft Diameter (in.)		Std	5/8	5/8	5/8
		High-Static	7/8	7/8	7/8 †
Fan Pulley Pitch Diameter (in.)		Std	7.0	7.0	7.0
		High-Static	8.0	8.0	5.8
Belt, Quantity...Type...Length (in.)		Std	1...A...48	1...A...48	1...A...49
		High-Static	1...A...53	1...A...53	1...BX...48
Pulley Center Line Distance (in.)		Std	16.75-19.25	16.75-19.25	15.85-17.50
		High-Static	16.75-19.25	16.75-19.25	15.85-17.50 †
Speed Change per Full Turn of Moveable Pulley Flange (rpm)		Std	50	50	50
		High-Static	60	60	60 †
Movable Pulley Maximum Full Turns From Closed Position		Std	5	5	5
		High-Static	5	5	6 †
Factory Setting		Std	5	5	5
		High-Static	5	5	5 †
Factory Speed Setting (rpm)		Std	590	685	685
		High-Static	860	860	887 †
Fan Shaft Diameter at Pulley (in.)			1	1	1
<b>EVAPORATOR COIL</b> <span style="float:right">3/8" OD Enhanced Copper tubes, Aluminum Double-Wavy Fins, Face Split</span>					
Rows...Fins/in.			3...15	3...15	3...15
Total Face Area (sq ft)			8.9	8.9	10.0
					11.1

**PHYSICAL DATA – PGE090–150**

UNIT SIZE: PGE		090	102	120	150
<b>FURNACE SECTION</b>					
Rollout Switch Cutout Temp ††		195	195	195	195
Burner Orifice Diameter (In...drill size)					
Natural Gas (Nominal Htg Size)	Std	.120...31	.120...31	–	–
	(125,000)	.120...31	.120...31	.120...31	–
	(180,000)	.120...31	.120...31	.120...31	.120...31
	(224,000)	.120...31	.120...31	.120...31	.120...31
	(250,000)	–	–	.120...31	.120...31
Liquid Propane (Nominal Htg Size)	Alt	.096...41	.096...41	–	.120...31
	(125,000)	.096...41	.096...41	.096...41	.096...41
	(180,000)	.096...41	.096...41	.096...41	.096...41
	(224,000)	.096...41	.096...41	.096...41	.102...38
	(250,000)	–	–	.102...38	.102...38
Thermostat Heat Anticipator Setting (Amps)					
208/230v and 575v Stage 1 / Stage 2			.14 / .20		
460v Stage 1 / Stage 2			.14 / .20		
Gas Input (Btuh)	Stage 1 / Stage 2	125,000 / –	125,000 / –	–	–
(Nominal Htg Size)	Stage 1 / Stage 2	120,000/180,000	120,000/180,000	120,000/180,000	–
	Stage 1 / Stage 2	180,000/224,000	180,000/224,000	180,000/224,000	180,000/224,000
	Stage 1 / Stage 2	–	–	250,000/250,000	250,000/250,000
Efficiency (Steady State) (%)		80	80	80	80
Temperature Rise Range	(125,000)	20–50	20–50	35–65	35–65
(Nominal Htg Size)	(180,000)	35–65	35–65	35–65	40–70
	(224,000)	45–75	45–75	40–70	–
Manifold Pressure (in. wg)					
Natural Gas	Std	3.5	3.5	3.5	3.5
Liquid Propane	Alt	3.5	3.5	3.5	3.5
Gas Valve Quantity		1	1	1	1
Gas Valve Pressure Range (Min–Max Allowable)			0.180–0.470 / 5.0–13.0		
Field Gas Connection Size (in. FPT)	(125,000)	1/2	1/2	–	–
(Nominal Htg Size)	(180,000)	3/4	3/4	3/4	–
	(224,000)	3/4	3/4	3/4	3/4
	(250,000)	–	–	3/4	3/4
<b>HIGH-PRESSURE SWITCH (psig)</b>					
Standard Compressor			450 ± 50		500 ± 50
Internal Relief (Differential)					
Cutout			428		
Reset (Auto)			320		
<b>LOW-PRESSURE SWITCH (psig)</b>					
Cutout			7 ± 3		
Reset (Auto)			22 ± 7		
<b>FREEZE PROTECTION THERMOSTAT (F)</b>					
Opens			30 ± 5		
Closes			45 ± 5		
<b>RETURN AIR FILTERS</b>					
Quantity... Size (in.)		2...16 x 20 x 2		4...20 x 20 x 2	

**LEGEND**

Al – Aluminum  
 Bhp – Brake Horsepower  
 Cu – Copper

\*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.

†Alternate drive package for size 150.

††Rollout switch lockout is manually reset by interrupting power to unit or resetting thermostat.

BASE UNIT DIMENSIONS - PGE072

CONNECTION SIZES

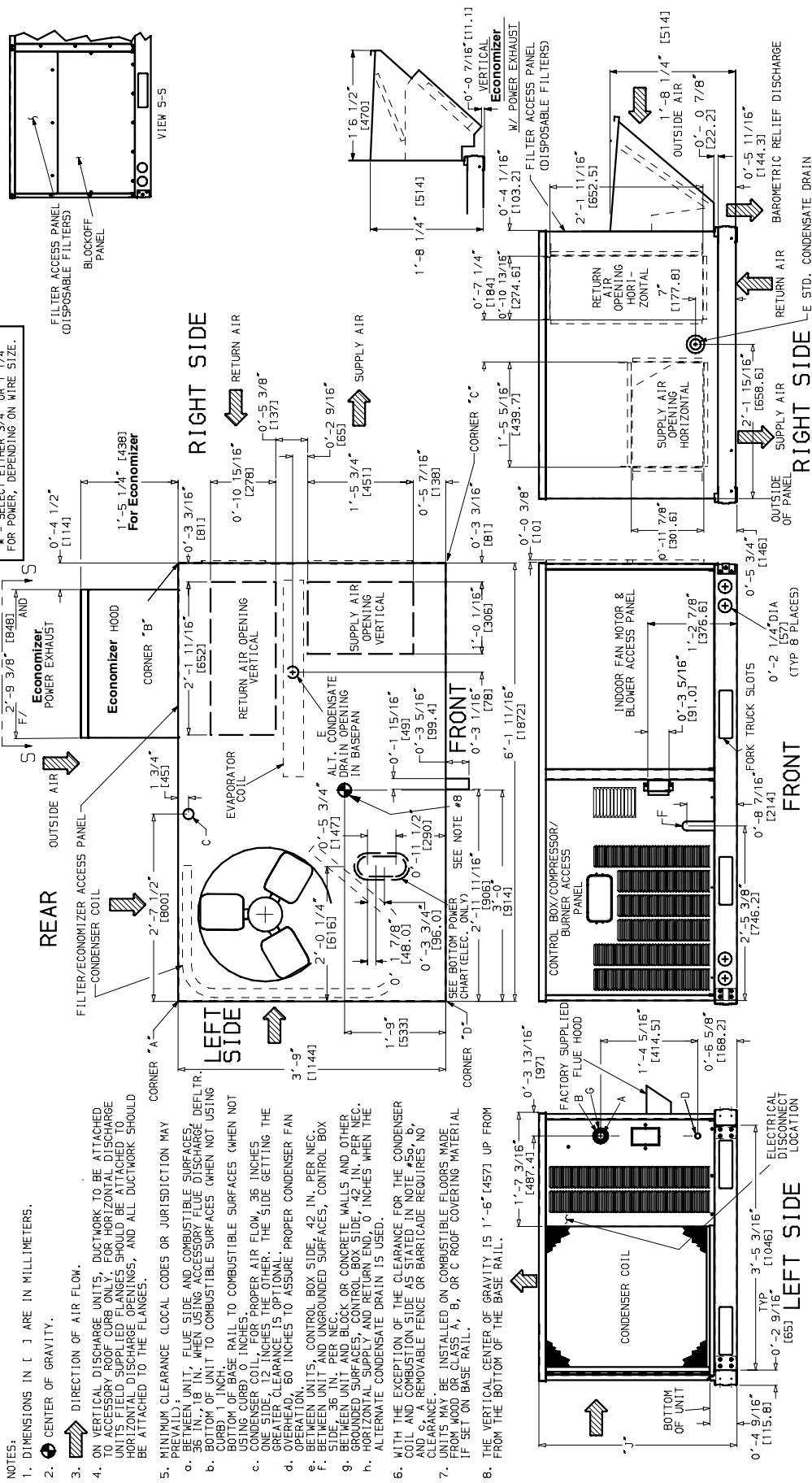
A	1/2" DIA. 1501 FIELD POWER SUPPLY HOLE
B	2" DIA. 1511 POWER SUPPLY KNOCK-OUT
C	3/4" DIA. 1541 CHARGING PORT HOLE
D	7/8" DIA. 1521 FIELD CONTROL WIRING HOLE
E	3/4" DIA. 1611 NPT CONDENSATE DRAIN
F	1/2" DIA. 1621 NPT GAS CONNECTION
G	1/2" DIA. 1641 POWER SUPPLY KNOCK-OUT

BOTTOM POWER CHART. THESE HOLES REQUIRED FOR USE WITH UNIT.

Threaded Conduit Size	Wire Size	Rect'd Hole Use Size (MAX.)	ACC. W/8" (22.2)	POWER* 1/16" (28.4)
1/2"	1/2"	7/8"	7/8"	1/16"
3/4"	3/4"	1 1/8"	1 1/8"	1/16"

\* - SELECT EITHER 3/4" OR 1 1/4" FOR POWER, DEPENDING ON WIRE SIZE.

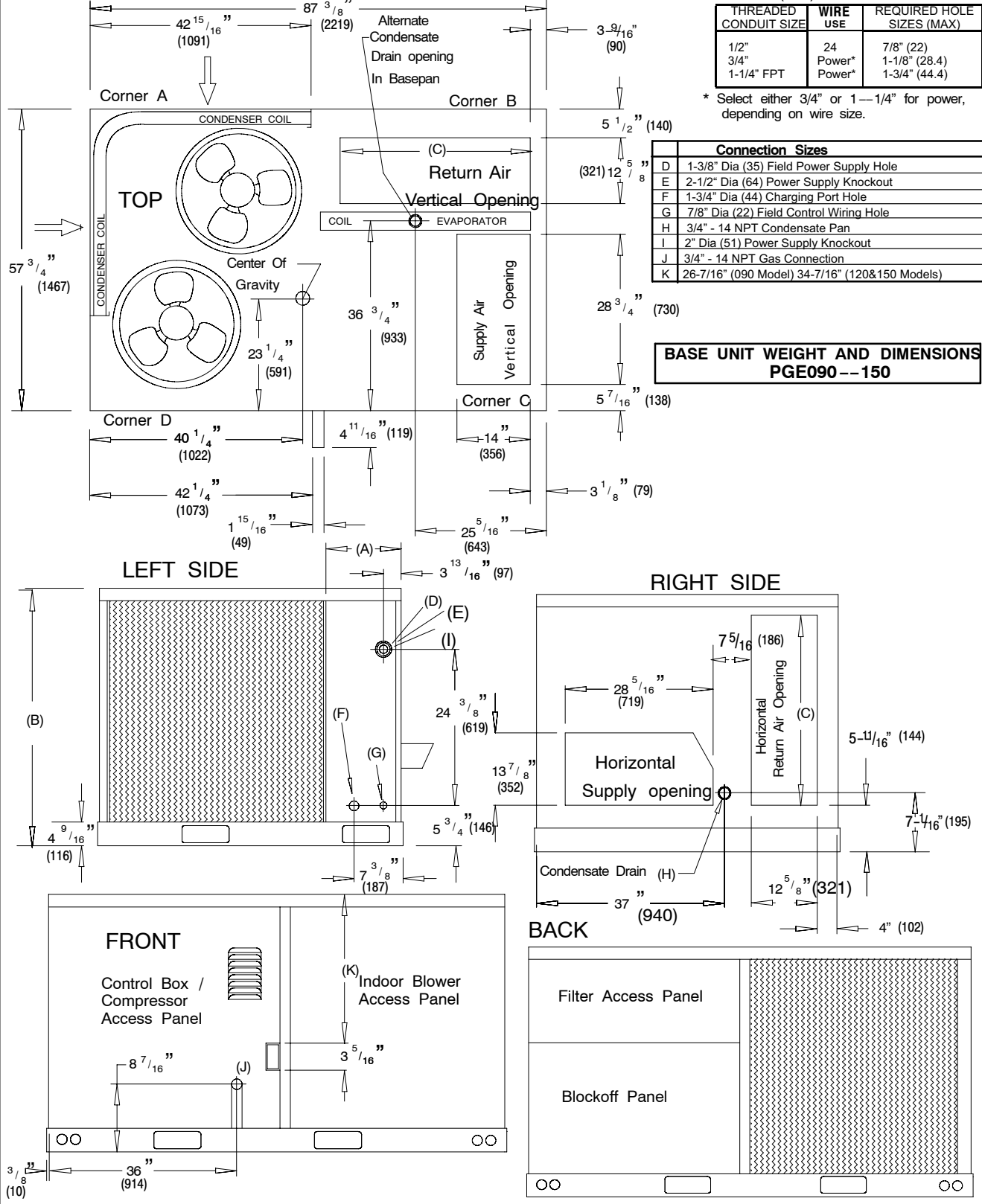
UNIT	Econimizer		ECON		VERT. W/P-E.		(A)		(B)		(C)		(D)			
WT. LB	KG	WT. LB	KG	WT. LB	KG	WT. LB	KG	WT. LB	KG	WT. LB	KG	WT. LB	KG	WT. LB	KG	
PGE072	615	279	50	22.7	90	40.9	147	66.7	142	64.4	180	72.6	166	75.3	2'-9 5/16"	846.5



BASE UNIT DIMENSIONS - PGE090-150

Unit Size	Total		Corner A		Corner B		Corner C		Corner D		Dim A		Dim B		Dim C	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	ft-in	mm	ft-in	mm	ft-in	mm
090	870	395	189	86	161	73	239	109	280	127	1-2 <sup>7</sup> / <sub>8</sub>	378	3-5 <sup>5</sup> / <sub>16</sub>	1050	2-9 <sup>11</sup> / <sub>16</sub>	856
102	880	399	191	87	153	74	242	110	284	129	3-3 <sup>7</sup> / <sub>8</sub>	1013	3-5 <sup>5</sup> / <sub>16</sub>	1050	2-9 <sup>11</sup> / <sub>16</sub>	856
120	1035	489	225	102	192	87	285	129	333	151	2-5 <sup>7</sup> / <sub>8</sub>	759	4-1 <sup>5</sup> / <sub>16</sub>	1253	3-3 <sup>3</sup> / <sub>8</sub>	924
150	1050	476	228	103	195	88	289	131	338	153	1-2 <sup>7</sup> / <sub>8</sub>	378	4-1 <sup>5</sup> / <sub>16</sub>	1253	3-3 <sup>3</sup> / <sub>8</sub>	924

All measurements in inches (mm)





PERFORMANCE DATA – PGE072–150 (cont.)

COOLING CAPACITIES

PGE072 (6 TONS)													
Temp (F) Air Entering Condenser (Edb)		Air Entering Evaporator – Cfm/BF											
		1800/0.06			2100/0.07			2400/0.09			3000/0.11		
		Air Entering Evaporator – Ewb (F)											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	81.3	77.8	71.3	82.7	78.7	72.9	84.2	79.7	74.6	85.3	82.5	76.7
	SHC	38.2	51.3	61.6	40.2	54.2	65.9	42.3	57.1	70.2	43.7	64	76.4
	kW	4.69	4.63	4.52	4.73	4.65	4.56	4.77	4.67	4.6	4.8	4.75	4.63
85	TC	78.8	75.6	69	81.1	77.1	70.7	83.3	78.6	72.3	85	80.5	75
	SHC	37.7	50.4	60.5	40	53.9	64.9	42.2	57.5	69.2	44.3	63.6	74.9
	kW	5.21	5.16	5.05	5.27	5.2	5.09	5.34	5.24	5.13	5.39	5.29	5.17
95	TC	77.1	73.3	66.9	79.2	74.8	68.5	81.3	76.2	70.1	82	78	73.3
	SHC	37	49.9	59.7	39.4	53.3	64	41.8	56.8	68.3	43.5	63.4	73.2
	kW	5.8	5.78	5.65	5.87	5.81	5.7	5.94	5.85	5.74	5.95	5.88	5.8
105	TC	75.4	70.7	62.9	76.6	72.1	64.8	77.9	73.4	66.7	79.7	74.9	70.9
	SHC	36.7	48.7	58.2	38.6	52.3	62.2	40.6	55.9	66.3	43	62.4	70.9
	kW	6.49	6.45	6.26	6.53	6.48	6.32	6.56	6.51	6.38	6.61	6.53	6.46
115	TC	72.1	67.9	59	73.6	69	61.1	75.2	70.1	63.3	76.7	71.9	68.1
	SHC	35.3	47.5	57.2	37.6	51.2	60.2	39.9	54.8	63.3	42.2	61.5	68.1
	kW	7.2	7.17	6.94	7.25	7.18	7.01	7.29	7.2	7.08	7.35	7.26	7.15

PGE090 (7 1/2 TONS)													
Temp (F) Air Entering Condenser (Edb)		Air Entering Evaporator– Cfm/BF											
		2250/0.10			2800/0.11			3000/0.11			3750/0.14		
		Air Entering Evaporator – Ewb (F)											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	105.8	97.6	88.7	108.9	101.1	92.6	109.5	101.9	93.5	112.4	104.6	96.4
	SHC	50.9	63.6	75.4	54.1	69.8	84.0	55.2	71.9	86.5	59.9	79.7	94.9
	kW	6.34	6.05	5.77	6.46	6.19	5.93	6.50	6.25	5.96	6.62	6.37	6.09
85	TC	101.1	92.9	84.0	104.8	96.4	87.7	105.6	97.2	88.5	107.7	99.6	92.2
	SHC	49.4	62.0	73.3	53.1	68.4	81.9	54.4	70.6	84.4	58.5	78.2	92.0
	kW	6.80	6.51	6.21	6.94	6.66	6.37	6.98	6.69	6.41	7.08	6.82	6.57
95	TC	96.6	87.7	78.9	99.9	91.0	82.4	100.5	91.6	83.6	102.3	93.9	87.7
	SHC	47.8	59.9	70.8	51.7	66.5	79.5	52.9	68.8	81.3	57.2	76.6	87.7
	kW	7.26	6.96	6.64	7.42	7.10	6.78	7.46	7.14	6.83	7.54	7.24	7.03
105	TC	91.0	82.1	72.9	93.7	85.2	76.8	94.3	85.9	78.2	96.6	87.9	83.0
	SHC	45.9	57.9	67.9	49.6	64.4	76.4	50.9	66.7	77.8	55.8	74.5	83.0
	kW	7.70	7.37	7.08	7.81	7.51	7.22	7.86	7.54	7.28	7.97	7.67	7.47
115	TC	85.2	76.0	67.9	87.7	79.1	71.6	88.1	79.7	73.1	90.2	81.7	78.2
	SHC	43.9	55.4	65.1	47.8	62.2	71.6	49.2	64.4	73.1	54.4	72.5	78.0
	kW	8.13	7.79	7.47	8.25	7.92	7.67	8.29	7.95	7.74	8.41	8.08	7.93

PGE102 (8 1/2 TONS)													
Temp (F) Air Entering Condenser (Edb)		Air Entering Evaporator – Cfm/BF											
		2550/0.08			3000/0.09			3400/0.11			4250/0.13		
		Air Entering Evaporator – Ewb											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	117.7	104.1	93.4	121.3	107.5	97.2	122.9	109.0	98.7	124.4	111.1	101.8
	SHC	55.7	64.7	76.6	59.3	70.6	85.0	61.3	74.7	91.4	66.8	82.1	99.7
	kW	6.42	6.34	6.26	6.46	6.38	6.30	6.47	6.39	6.33	6.50	6.41	6.35
85	TC	113.8	100.4	89.2	117.9	103.8	93.4	119.6	105.3	94.7	122.1	107.5	97.2
	SHC	54.3	63.3	75.0	58.0	69.4	83.8	60.4	73.4	89.1	65.2	81.7	97.0
	kW	7.35	7.26	7.17	7.41	7.31	7.24	7.43	7.33	7.24	7.46	7.37	7.28
95	TC	109.6	96.2	85.3	113.3	99.7	89.2	115.4	101.1	90.3	118.3	103.2	93.1
	SHC	52.9	61.9	73.1	56.5	67.9	81.7	59.1	71.9	87.3	64.0	80.3	83.1
	kW	8.37	8.27	8.16	8.42	8.33	8.24	8.46	8.34	8.22	8.51	8.40	8.31
105	TC	105.6	92.1	81.3	108.8	95.2	84.6	110.4	96.4	86.3	113.2	98.4	89.1
	SHC	51.4	60.4	71.6	55.2	66.4	80.0	57.5	70.3	85.3	62.5	78.3	89.1
	kW	9.49	9.37	9.27	9.55	9.44	9.34	9.57	9.45	9.35	9.61	9.49	9.41
115	TC	100.4	87.9	76.8	103.1	90.4	80.3	105.1	91.7	82.1	107.6	93.5	85.0
	SHC	49.4	58.6	69.6	52.9	64.7	78.3	55.8	68.5	81.9	60.6	76.6	85.0
	kW	10.63	10.56	10.46	10.70	10.62	10.55	10.74	10.62	10.54	10.80	10.68	10.58
125	TC	95.8	83.0	72.0	98.5	85.5	74.9	99.8	86.6	77.5	101.4	88.2	80.7
	SHC	48.0	56.8	67.5	51.6	62.9	74.9	54.0	66.9	77.5	58.2	74.6	80.7
	kW	11.97	11.83	11.61	12.02	11.89	11.73	12.05	11.92	11.80	12.09	11.97	11.86

PERFORMANCE DATA – PGE072–150 (cont.)

COOLING CAPACITIES

PGE120 (10 TONS)										
Temp (F) Air Entering Condenser (Edb)		Air Entering Evaporator – Cfm/BF								
		3000/0.095			4000/0.125			5000/0.15		
		Air Entering Evaporator – Ewb (F)								
		72	67	62	72	67	62	72	67	62
75	TC	138.2	127.0	114.0	145.0	132.9	122.0	149.1	136.6	125.9
	SHC	68.0	84.1	99.1	74.5	95.1	114.7	81.1	106.3	125.3
	kW	8.37	8.07	7.80	8.57	8.24	7.95	8.72	8.36	8.07
85	TC	132.3	121.7	105.9	138.4	127.2	116.6	142.5	130.2	120.9
	SHC	65.5	81.9	95.5	72.4	93.3	112.2	78.9	103.6	120.8
	kW	8.92	8.63	8.35	9.15	8.81	8.52	9.29	8.92	8.65
95	TC	126.3	115.7	98.4	131.8	121.0	108.8	135.2	124.2	116.1
	SHC	63.3	79.8	91.6	70.3	91.4	107.8	76.2	101.9	116.0
	kW	9.54	9.24	8.91	9.75	9.42	9.11	9.87	9.55	9.28
105	TC	120.2	106.5	89.5	124.9	113.8	100.3	128.3	117.2	109.9
	SHC	61.5	76.2	86.7	68.1	89.3	100.3	74.4	100.1	109.9
	kW	10.23	9.87	9.51	10.40	10.06	9.78	10.52	10.19	9.99
115	TC	117.1	99.8	85.7	122.2	105.7	95.1	124.8	111.8	104.6
	SHC	60.5	73.7	84.9	67.6	86.3	95.1	74.1	98.6	104.6
	kW	10.51	10.13	9.77	10.70	10.34	10.10	10.80	10.46	10.29

PGE150 (12½ TONS)													
Temp (F) Air Entering Condenser (Edb)		Air Entering Evaporator – Cfm/BF											
		3750/0.08			4300/0.09			5000/0.11			6250/0.13		
		Air Entering Evaporator – Ewb											
		72	67	62	72	67	62	72	67	62	72	67	62
75	TC	164.6	152.0	139.9	167.3	155.3	142.6	170.9	158.2	146.2	173.9	162.0	151.0
	SHC	81.3	101.9	121.7	84.5	108.1	130.0	88.9	115.9	139.8	96.7	128.7	150.8
	kW	10.24	9.96	9.71	10.31	10.05	9.78	10.42	10.12	9.84	10.50	10.23	9.95
85	TC	159.9	147.1	133.6	162.6	150.2	137.4	166.3	153.0	141.3	169.5	156.8	147.1
	SHC	79.7	99.9	119.1	83.1	106.3	128.0	88.3	114.1	137.7	96.1	127.4	146.9
	kW	11.38	11.05	10.82	11.45	11.14	10.87	11.58	11.20	10.97	11.66	11.32	11.08
95	TC	154.2	141.5	124.4	157.2	144.6	129.3	159.9	147.6	134.5	164.0	150.9	142.3
	SHC	77.9	98.0	114.8	81.8	104.5	124.1	86.3	112.5	133.8	94.4	125.8	142.2
	kW	12.59	12.26	11.95	12.68	12.36	12.04	12.75	12.44	12.15	12.88	12.54	12.31
105	TC	147.8	134.2	114.0	150.7	137.2	119.1	153.3	140.4	136.4	156.4	143.7	136.7
	SHC	75.4	95.2	109.5	79.6	101.9	118.2	84.4	110.6	126.5	92.2	124.0	136.6
	kW	13.84	13.48	13.12	13.92	13.58	13.24	14.01	13.69	13.37	14.06	13.80	13.58
115	TC	139.7	120.4	102.8	142.1	124.2	109.1	145.5	127.5	117.1	148.4	133.2	128.1
	SHC	72.5	89.8	102.6	76.7	97.0	109.1	82.1	105.7	116.6	90.4	120.1	128.0
	kW	15.03	14.70	14.34	15.12	14.80	15.24	15.24	14.90	14.65	15.35	15.04	14.86
125	TC	130.5	107.0	92.5	132.8	109.7	135.5	135.5	112.7	105.0	138.2	121.1	118.3
	SHC	69.8	84.4	92.4	73.7	91.5	99.2	79.0	99.9	104.9	87.7	114.6	118.3
	kW	16.32	15.91	15.67	16.43	16.00	15.79	16.52	16.11	15.97	16.59	16.21	16.10

LEGEND

Shaded Areas = Standard Ratings

BF – Bypass Factor

Edb – Entering Dry-Bulb

Ewb – Entering Wet-Bulb

kW – Compressor Motor Power Input

Ldb – Leaving Dry-Bulb

Lwb – Leaving Wet-Bulb

SHC – Sensible Heat Capacity (1000 Btuh) Gross

TC – Total Capacity (1000 Btuh) Gross

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.

2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$t_{lwb}$  = Wet-bulb temperature corresponding to enthalpy of air leaving indoor coil ( $h_{lwb}$ )

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where:  $h_{ewb}$  = Enthalpy of air entering evaporator coil

3. The SHC is based on 80°F edb temperature of air entering indoor coil. Below 80°F edb, subtract (corr factor x cfm) from SHC. Above 80°F edb, add (corr factor x cfm) to SHC.

BYPASS FACTOR (BF)	ENTERING AIR DRY-BULB TEMP (°F)					Use formula shown at right.
	79	78	77	76	75	
	81	82	83	84	85	
	Correction Factor					
.05	1.04	2.07	3.11	4.14	5.18	
.10	.98	1.96	2.94	3.92	4.90	
.20	.87	1.74	2.62	3.49	4.36	
.30	.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

Correction Factor = 1.10 x (1-BF) x (edb-80).

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE072 (6 TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	967	0.65	579	1077	0.81	718	1172	0.96	856	1257	1.12	993	1334	1.27	1130
1900	1007	0.75	663	1115	0.91	811	1208	1.08	957	1291	1.24	1101	1368	1.40	1246
2000	1048	0.85	757	1153	1.03	913	1244	1.20	1066	1326	1.37	1219	1401	1.54	1371
2100	1090	0.97	859	1191	1.15	1023	1281	1.33	1185	1361	1.51	1345	1435	1.69	1505
2200	1131	1.09	970	1230	1.29	1143	1318	1.48	1313	1397	1.67	1481	1470	1.86	1649
2300	1173	1.23	1091	1269	1.43	1273	1355	1.63	1451	1433	1.83	1627	1505	2.03	1803
2400	1215	1.38	1223	1309	1.59	1413	1393	1.80	1600	1470	2.01	1784	1540	2.21	1967
2500	1258	1.54	1365	1349	1.76	1564	1431	1.98	1759	1506	2.20	1951	-	-	-
2600	1300	1.71	1518	1389	1.94	1726	1470	2.17	1929	1544	2.40	2130	-	-	-
2700	1343	1.90	1683	1430	2.14	1899	1509	2.38	2111	-	-	-	-	-	-
2800	1386	2.09	1860	1471	2.35	2085	-	-	-	-	-	-	-	-	-
2900	1429	2.31	2050	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE072 (6 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1406	1.43	1268	1473	1.58	1407	1535	1.74	1548	1595	1.90	1690	1652	2.06	1833
1900	1438	1.57	1391	1504	1.73	1537	1567	1.90	1685	1626	2.06	1833	1682	2.23	1983
2000	1471	1.72	1523	1536	1.89	1677	1598	2.06	1831	1657	2.24	1986	-	-	-
2100	1504	1.87	1665	1569	2.06	1825	1630	2.24	1986	-	-	-	-	-	-
2200	1538	2.04	1816	1602	2.23	1984	-	-	-	-	-	-	-	-	-
2300	1572	2.23	1978	-	-	-	-	-	-	-	-	-	-	-	-
2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 1070 to 1460 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required

2. Maximum continuous Bhp is 2.40

3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE072 (6 TONS) – HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	967	0.65	579	1077	0.81	718	1172	0.96	856	1257	1.12	993	1334	1.27	1130
1900	1007	0.75	663	1115	0.91	811	1208	1.08	957	1291	1.24	1101	1368	1.40	1246
2000	1048	0.85	757	1153	1.03	913	1244	1.20	1066	1326	1.37	1219	1401	1.54	1371
2100	1090	0.97	859	1191	1.15	1023	1281	1.33	1185	1361	1.51	1345	1435	1.69	1505
2200	1131	1.09	970	1230	1.29	1143	1318	1.48	1313	1397	1.67	1481	1470	1.86	1649
2300	1173	1.23	1091	1269	1.43	1273	1355	1.63	1451	1433	1.83	1627	1505	2.03	1803
2400	1215	1.38	1223	1309	1.59	1413	1393	1.80	1600	1470	2.01	1784	1540	2.21	1967
2500	1258	1.54	1365	1349	1.76	1564	1431	1.98	1759	1506	2.20	1951	1576	2.41	2142
2600	1300	1.71	1518	1389	1.94	1726	1470	2.17	1929	1544	2.40	2130	1613	2.62	2329
2700	1343	1.90	1683	1430	2.14	1899	1509	2.38	2111	1581	2.61	2320	1649	2.85	2527
2800	1386	2.09	1860	1471	2.35	2085	1548	2.60	2305	1619	2.84	2522	-	-	-
2900	1429	2.31	2050	1512	2.57	2283	1588	2.83	2512	-	-	-	-	-	-
3000	1473	2.54	2252	1553	2.81	2494	-	-	-	-	-	-	-	-	-

PGE072 (6 TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1406	1.43	1268	1473	1.58	1407	1535	1.74	1548	1595	1.90	1690	1652	2.06	1833
1900	1438	1.57	1391	1504	1.73	1537	1567	1.90	1685	1626	2.06	1833	1682	2.23	1983
2000	1471	1.72	1523	1536	1.89	1677	1598	2.06	1831	1657	2.24	1986	<b>1713</b>	<b>2.41</b>	<b>2142</b>
2100	1504	1.87	1665	1569	2.06	1825	1630	2.24	1986	<b>1688</b>	<b>2.42</b>	<b>2149</b>	<b>1744</b>	<b>2.60</b>	<b>2312</b>
2200	1538	2.04	1816	1602	2.23	1984	1663	2.42	2152	<b>1720</b>	<b>2.61</b>	<b>2321</b>	<b>1775</b>	<b>2.81</b>	<b>2491</b>
2300	1572	2.23	1978	1635	2.42	2153	<b>1695</b>	<b>2.62</b>	<b>2328</b>	<b>1753</b>	<b>2.82</b>	<b>2504</b>	-	-	-
2400	1607	2.42	2150	1669	2.63	2332	<b>1729</b>	<b>2.83</b>	<b>2515</b>	-	-	-	-	-	-
2500	1642	2.63	2333	<b>1704</b>	<b>2.84</b>	<b>2523</b>	-	-	-	-	-	-	-	-	-
2600	1677	2.85	2527	-	-	-	-	-	-	-	-	-	-	-	-
2700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.90
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE090 (7½ TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	513	0.54	505	595	0.76	713	665	1.01	940	728	1.27	1187	786	1.56	1453
2300	521	0.57	531	601	0.79	741	671	1.04	972	734	1.31	1222	791	1.60	1489
2400	535	0.63	584	615	0.86	802	684	1.11	1038	745	1.39	1293	802	1.68	1566
2500	551	0.69	642	628	0.93	866	696	1.19	1109	757	1.47	1369	813	1.77	1647
2550	558	0.72	673	635	0.97	900	702	1.23	1146	763	1.51	1409	818	1.81	1689
2600	566	0.76	705	642	1.00	935	709	1.27	1183	769	1.55	1450	824	1.86	1732
2700	582	0.83	771	656	1.08	1008	721	1.35	1263	781	1.65	1535	835	1.95	1823
2800	597	0.90	842	670	1.16	1086	734	1.44	1347	793	1.74	1625	<b>847</b>	<b>2.06</b>	<b>1917</b>
2900	613	0.98	918	684	1.25	1169	748	1.54	1436	805	1.84	1720	<b>859</b>	<b>2.16</b>	<b>2019</b>
3000	629	1.07	999	699	1.35	1256	761	1.64	1530	818	1.95	1820	<b>871</b>	<b>2.28</b>	<b>2125</b>
3100	645	1.16	1085	713	1.45	1349	775	1.75	1630	831	2.06	1925	<b>883</b>	<b>2.40</b>	<b>2235</b>
3200	662	1.26	1176	728	1.55	1448	788	1.86	1734	<b>844</b>	<b>2.18</b>	<b>2036</b>	-	-	-
3300	678	1.36	1272	743	1.66	1551	802	1.98	1845	<b>857</b>	<b>2.31</b>	<b>2152</b>	-	-	-
3400	694	1.47	1374	758	1.78	1660	816	2.10	1961	-	-	-	-	-	-
3500	711	1.59	1482	773	1.90	1775	831	2.23	2082	-	-	-	-	-	-
3600	727	1.71	1596	789	2.03	1896	<b>845</b>	<b>2.37</b>	<b>2210</b>	-	-	-	-	-	-
3700	744	1.84	1716	804	2.17	2023	-	-	-	-	-	-	-	-	-
3750	752	1.91	1778	812	2.24	2089	-	-	-	-	-	-	-	-	-

PGE090 (7½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	839	1.86	1735	<b>889</b>	<b>2.18</b>	<b>2032</b>	-	-	-	-	-	-	-	-	-
2300	<b>844</b>	<b>1.90</b>	<b>1773</b>	<b>893</b>	<b>2.22</b>	<b>2073</b>	-	-	-	-	-	-	-	-	-
2400	<b>854</b>	<b>1.99</b>	<b>1855</b>	<b>903</b>	<b>2.32</b>	<b>2159</b>	-	-	-	-	-	-	-	-	-
2500	<b>865</b>	<b>2.08</b>	<b>1940</b>	-	-	-	-	-	-	-	-	-	-	-	-
2550	<b>870</b>	<b>2.13</b>	<b>1985</b>	-	-	-	-	-	-	-	-	-	-	-	-
2600	<b>875</b>	<b>2.18</b>	<b>2031</b>	-	-	-	-	-	-	-	-	-	-	-	-
2700	<b>886</b>	<b>2.28</b>	<b>2126</b>	-	-	-	-	-	-	-	-	-	-	-	-
2800	<b>897</b>	<b>2.39</b>	<b>2227</b>	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 590 to 840 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required

2. Maximum continuous Bhp is 2.40

3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE090 (7½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	513	0.54	505	595	0.76	713	665	1.01	940	728	1.27	1187	786	1.56	1453
2300	521	0.57	531	601	0.79	741	671	1.04	972	734	1.31	1222	791	1.60	1489
2400	535	0.63	584	615	0.86	802	684	1.11	1038	745	1.39	1293	802	1.68	1566
2500	551	0.69	642	628	0.93	866	696	1.19	1109	757	1.47	1369	813	1.77	1647
2550	558	0.72	673	635	0.97	900	702	1.23	1146	763	1.51	1409	818	1.81	1689
2600	566	0.76	705	642	1.00	935	709	1.27	1183	769	1.55	1450	824	1.86	1732
2700	582	0.83	771	656	1.08	1008	721	1.35	1263	781	1.65	1535	835	1.95	1823
2800	597	0.90	842	670	1.16	1086	734	1.44	1347	793	1.74	1625	847	2.06	1917
2900	613	0.98	918	684	1.25	1169	748	1.54	1436	805	1.84	1720	859	2.16	2019
3000	629	1.07	999	699	1.35	1256	761	1.64	1530	818	1.95	1820	871	2.28	2125
3100	645	1.16	1085	713	1.45	1349	775	1.75	1630	831	2.06	1925	883	2.40	2235
3200	662	1.26	1176	728	1.55	1448	788	1.86	1734	844	2.18	2036	895	2.52	2352
3300	678	1.36	1272	743	1.66	1551	802	1.98	1845	857	2.31	2152	908	2.65	2475
3400	694	1.47	1374	758	1.78	1660	816	2.10	1961	870	2.44	2275	920	2.79	2603
3500	711	1.59	1482	773	1.90	1775	831	2.23	2082	884	2.58	2402	933	2.93	2737
3600	727	1.71	1596	789	2.03	1896	845	2.37	2210	897	2.72	2537	946	3.09	2877
3700	744	1.84	1716	804	2.17	2023	860	2.51	2343	911	2.87	2677	959	3.24	3023
3750	752	1.91	1778	812	2.24	2089	867	2.59	2413	918	2.95	2750	966	3.32	3100

PGE090 (7½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	839	1.86	1735	889	2.18	2032	935	2.52	2345	980	2.87	2673	1022	3.23	3015
2300	844	1.90	1773	893	2.22	2073	940	2.56	2389	984	2.91	2718	1027	3.28	3062
2400	854	1.99	1855	903	2.32	2159	950	2.66	2478	993	3.02	2812	1035	3.39	3159
2500	865	2.08	1940	913	2.41	2249	959	2.76	2573	1003	3.12	2911	1044	3.50	3261
2550	870	2.13	1985	918	2.46	2296	964	2.81	2622	1008	3.18	2962	1049	3.55	3315
2600	875	2.18	2031	923	2.51	2344	969	2.87	2673	1012	3.23	3014	1054	3.61	3370
2700	886	2.28	2126	934	2.62	2445	979	2.98	2777	1022	3.35	3123	-	-	-
2800	897	2.39	2227	944	2.73	2550	989	3.10	2888	1032	3.47	3238	-	-	-
2900	908	2.50	2333	955	2.85	2661	1000	3.22	3003	1042	3.60	3358	-	-	-
3000	920	2.62	2443	966	2.98	2777	1010	3.35	3123	-	-	-	-	-	-
3100	931	2.75	2560	977	3.11	2899	1021	3.49	3250	-	-	-	-	-	-
3200	943	2.88	2682	989	3.25	3026	1032	3.63	3383	-	-	-	-	-	-
3300	955	3.01	2810	1000	3.39	3159	-	-	-	-	-	-	-	-	-
3400	967	3.16	2945	1012	3.54	3299	-	-	-	-	-	-	-	-	-
3500	980	3.31	3084	1024	3.69	3445	-	-	-	-	-	-	-	-	-
3600	992	3.46	3230	-	-	-	-	-	-	-	-	-	-	-	-
3700	1005	3.63	3383	-	-	-	-	-	-	-	-	-	-	-	-
3750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 3.70
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGEx072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	558	0.72	673	635	0.97	900	702	1.23	1146	763	1.51	1409	818	1.81	1689
2600	566	0.76	705	642	1.00	935	709	1.27	1183	769	1.55	1450	824	1.86	1732
2700	582	0.83	771	656	1.08	1008	721	1.35	1263	781	1.65	1535	835	1.95	1823
2800	597	0.90	842	670	1.16	1086	734	1.44	1347	793	1.74	1625	847	2.06	1917
2900	613	0.98	918	684	1.25	1169	748	1.54	1436	805	1.84	1720	859	2.16	2019
3000	629	1.07	999	699	1.35	1256	761	1.64	1530	818	1.95	1820	871	2.28	2125
3100	645	1.16	1085	713	1.45	1349	775	1.75	1630	831	2.06	1925	883	2.40	2235
3200	662	1.26	1176	728	1.55	1448	788	1.86	1734	844	2.18	2036	-	-	-
3300	678	1.36	1272	743	1.66	1551	802	1.98	1845	857	2.31	2152	-	-	-
3400	694	1.47	1374	758	1.78	1660	816	2.10	1961	-	-	-	-	-	-
3500	711	1.59	1482	773	1.90	1775	831	2.23	2082	-	-	-	-	-	-
3600	727	1.71	1596	789	2.03	1896	845	2.37	2210	-	-	-	-	-	-
3700	744	1.84	1716	804	2.17	2023	-	-	-	-	-	-	-	-	-
3750	752	1.91	1778	812	2.24	2089	-	-	-	-	-	-	-	-	-
3800	761	1.98	1842	820	2.31	2156	-	-	-	-	-	-	-	-	-
3900	777	2.12	1974	-	-	-	-	-	-	-	-	-	-	-	-
4000	794	2.27	2113	-	-	-	-	-	-	-	-	-	-	-	-
4100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	870	2.13	1985	-	-	-	-	-	-	-	-	-	-	-	-
2600	875	2.18	2031	-	-	-	-	-	-	-	-	-	-	-	-
2700	886	2.28	2126	-	-	-	-	-	-	-	-	-	-	-	-
2800	897	2.39	2227	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE102 (8½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	558	0.72	673	635	0.97	900	702	1.23	1146	763	1.51	1409	818	1.81	1689
2600	566	0.76	705	642	1.00	935	709	1.27	1183	769	1.55	1450	824	1.86	1732
2700	582	0.83	771	656	1.08	1008	721	1.35	1263	781	1.65	1535	835	1.95	1823
2800	597	0.90	842	670	1.16	1086	734	1.44	1347	793	1.74	1625	847	2.06	1917
2900	613	0.98	918	684	1.25	1169	748	1.54	1436	805	1.84	1720	859	2.16	2019
3000	629	1.07	999	699	1.35	1256	761	1.64	1530	818	1.95	1820	871	2.28	2125
3100	645	1.16	1085	713	1.45	1349	775	1.75	1630	831	2.06	1925	883	2.40	2235
3200	662	1.26	1176	728	1.55	1448	788	1.86	1734	844	2.18	2036	895	2.52	2352
3300	678	1.36	1272	743	1.66	1551	802	1.98	1845	857	2.31	2152	908	2.65	2475
3400	694	1.47	1374	758	1.78	1660	816	2.10	1961	870	2.44	2275	920	2.79	2603
3500	711	1.59	1482	773	1.90	1775	831	2.23	2082	884	2.58	2402	933	2.93	2737
3600	727	1.71	1596	789	2.03	1896	845	2.37	2210	897	2.72	2537	946	3.09	2877
3700	744	1.84	1716	804	2.17	2023	860	2.51	2343	911	2.87	2677	959	3.24	3023
3750	752	1.91	1778	812	2.24	2089	867	2.59	2413	918	2.95	2750	966	3.32	3100
3800	761	1.98	1842	820	2.31	2156	874	2.66	2484	925	3.03	2824	973	3.41	3177
3900	777	2.12	1974	835	2.46	2296	889	2.82	2630	939	3.19	2977	986	3.58	3336
4000	794	2.27	2113	851	2.62	2442	904	2.99	2784	953	3.36	3137	-	-	-
4100	811	2.42	2259	867	2.78	2595	919	3.16	2944	968	3.54	3304	-	-	-
4200	828	2.59	2412	883	2.95	2755	934	3.34	3110	-	-	-	-	-	-
4250	837	2.67	2490	891	3.04	2838	942	3.43	3197	-	-	-	-	-	-

PGE102 (8½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	870	2.13	1985	918	2.46	2296	964	2.81	2622	1008	3.18	2962	1049	3.55	3315
2600	875	2.18	2031	923	2.51	2344	969	2.87	2673	1012	3.23	3014	1054	3.61	3370
2700	886	2.28	2126	934	2.62	2445	979	2.98	2777	1022	3.35	3123	-	-	-
2800	897	2.39	2227	944	2.73	2550	989	3.10	2888	1032	3.47	3238	-	-	-
2900	908	2.50	2333	955	2.85	2661	1000	3.22	3003	1042	3.60	3358	-	-	-
3000	920	2.62	2443	966	2.98	2777	1010	3.35	3123	-	-	-	-	-	-
3100	931	2.75	2560	977	3.11	2899	1021	3.49	3250	-	-	-	-	-	-
3200	943	2.88	2682	989	3.25	3026	1032	3.63	3383	-	-	-	-	-	-
3300	955	3.01	2810	1000	3.39	3159	-	-	-	-	-	-	-	-	-
3400	967	3.16	2945	1012	3.54	3299	-	-	-	-	-	-	-	-	-
3500	980	3.31	3084	1024	3.69	3445	-	-	-	-	-	-	-	-	-
3600	992	3.46	3230	-	-	-	-	-	-	-	-	-	-	-	-
3700	1005	3.63	3383	-	-	-	-	-	-	-	-	-	-	-	-
3750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required

2. Maximum continuous Bhp is 3.70

3. See General Notes for Fan Performance following this section



PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	592	<b>0.77</b>	<b>672</b>	<b>658</b>	<b>0.93</b>	<b>817</b>	719	1.10	961	775	1.26	1105	828	1.42	1249
3100	607	<b>0.83</b>	<b>731</b>	<b>672</b>	<b>1.00</b>	<b>881</b>	731	1.17	1030	787	1.34	1179	839	1.51	1328
3200	623	<b>0.90</b>	<b>794</b>	686	1.08	949	744	1.26	1103	798	1.43	1257	850	1.61	1410
3300	<b>638</b>	<b>0.98</b>	<b>860</b>	700	1.16	1020	757	1.34	1179	810	1.52	1338	861	1.71	1496
3400	<b>653</b>	<b>1.06</b>	<b>931</b>	714	1.25	1095	770	1.44	1260	822	1.62	1423	872	1.81	1586
3500	<b>669</b>	<b>1.15</b>	<b>1005</b>	728	1.34	1175	783	1.53	1344	835	1.72	1512	884	1.91	1680
3600	685	1.23	1084	742	1.43	1258	796	1.63	1432	847	1.83	1606	895	2.03	1778
3700	700	1.33	1167	757	1.53	1346	810	1.74	1524	860	1.94	1703	907	2.14	1881
3800	716	1.43	1254	771	1.64	1438	823	1.85	1621	873	2.06	1805	919	2.26	1987
3900	732	1.53	1345	786	1.75	1534	837	1.96	1722	886	2.18	1911	932	2.39	2099
4000	748	1.64	1441	801	1.86	1635	851	2.08	1828	899	2.30	2022	-	-	-
4100	764	1.76	1542	816	1.98	1741	865	2.21	1939	-	-	-	-	-	-
4200	780	1.88	1648	831	2.11	1851	879	2.34	2054	-	-	-	-	-	-
4300	796	2.00	1758	846	2.24	1966	-	-	-	-	-	-	-	-	-
4400	812	2.13	1874	861	2.38	2087	-	-	-	-	-	-	-	-	-
4500	828	2.27	1994	-	-	-	-	-	-	-	-	-	-	-	-
4600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	878	1.59	1391	925	1.75	1534	<b>970</b>	<b>1.91</b>	<b>1676</b>	<b>1014</b>	<b>2.07</b>	<b>1817</b>	<b>1055</b>	<b>2.23</b>	<b>1958</b>
3100	888	1.68	1475	935	1.85	1623	<b>979</b>	<b>2.02</b>	<b>1769</b>	<b>1022</b>	<b>2.18</b>	<b>1916</b>	<b>1063</b>	<b>2.35</b>	<b>2062</b>
3200	898	1.78	1563	<b>944</b>	<b>1.95</b>	<b>1715</b>	<b>988</b>	<b>2.13</b>	<b>1867</b>	<b>1031</b>	<b>2.30</b>	<b>2018</b>	-	-	-
3300	909	1.88	1654	<b>954</b>	<b>2.06</b>	<b>1811</b>	<b>998</b>	<b>2.24</b>	<b>1968</b>	-	-	-	-	-	-
3400	919	1.99	1749	<b>964</b>	<b>2.18</b>	<b>1911</b>	<b>1007</b>	<b>2.36</b>	<b>2073</b>	-	-	-	-	-	-
3500	930	2.11	1848	<b>975</b>	<b>2.30</b>	<b>2015</b>	-	-	-	-	-	-	-	-	-
3600	<b>941</b>	<b>2.22</b>	<b>1951</b>	-	-	-	-	-	-	-	-	-	-	-	-
3700	<b>952</b>	<b>2.35</b>	<b>2058</b>	-	-	-	-	-	-	-	-	-	-	-	-
3800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	592	0.77	672	658	0.93	817	719	1.10	961	775	1.26	1105	828	1.42	1249
3100	607	0.83	731	672	1.00	881	731	1.17	1030	787	1.34	1179	839	1.51	1328
3200	623	0.90	794	686	1.08	949	744	1.26	1103	798	1.43	1257	850	1.61	1410
3300	638	0.98	860	700	1.16	1020	757	1.34	1179	810	1.52	1338	861	1.71	1496
3400	653	1.06	931	714	1.25	1095	770	1.44	1260	822	1.62	1423	872	1.81	1586
3500	669	1.15	1005	728	1.34	1175	783	1.53	1344	835	1.72	1512	884	1.91	1680
3600	685	1.23	1084	742	1.43	1258	796	1.63	1432	847	1.83	1606	895	2.03	1778
3700	700	1.33	1167	757	1.53	1346	810	1.74	1524	860	1.94	1703	907	2.14	1881
3800	716	1.43	1254	771	1.64	1438	823	1.85	1621	873	2.06	1805	919	2.26	1987
3900	732	1.53	1345	786	1.75	1534	837	1.96	1722	886	2.18	1911	932	2.39	2099
4000	748	1.64	1441	801	1.86	1635	851	2.08	1828	899	2.30	2022	944	2.52	2214
4100	764	1.76	1542	816	1.98	1741	865	2.21	1939	912	2.43	2137	957	2.66	2334
4200	780	1.88	1648	831	2.11	1851	879	2.34	2054	925	2.57	2257	969	2.80	2460
4300	796	2.00	1758	846	2.24	1966	894	2.48	2175	939	2.71	2382	982	2.95	2589
4400	812	2.13	1874	861	2.38	2087	908	2.62	2299	952	2.86	2512	995	3.10	2725
4500	828	2.27	1994	877	2.52	2212	922	2.77	2430	966	3.02	2648	1008	3.26	2865
4600	845	2.42	2120	892	2.67	2343	937	2.92	2566	980	3.18	2788	1022	3.43	3010
4700	861	2.57	2251	907	2.82	2479	952	3.08	2706	994	3.34	2934	1035	3.60	3161
4800	877	2.72	2388	923	2.99	2621	966	3.25	2853	1008	3.52	3086	1049	3.78	3317
4900	894	2.88	2531	938	3.15	2768	981	3.42	3005	1022	3.69	3242	1062	3.96	3479
5000	910	3.05	2679	954	3.33	2921	996	3.60	3163	1037	3.88	3405	1076	4.15	3647

PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	878	1.59	1391	925	1.75	1534	970	1.91	1676	1014	2.07	1817	1055	2.23	1958
3100	888	1.68	1475	935	1.85	1623	979	2.02	1769	1022	2.18	1916	1063	2.35	2062
3200	898	1.78	1563	944	1.95	1715	988	2.13	1867	1031	2.30	2018	1072	2.47	2169
3300	909	1.88	1654	954	2.06	1811	998	2.24	1968	1040	2.42	2124	1080	2.60	2280
3400	919	1.99	1749	964	2.18	1911	1007	2.36	2073	1049	2.55	2234	1089	2.73	2395
3500	930	2.11	1848	975	2.30	2015	1017	2.49	2182	1058	2.68	2348	1098	2.86	2514
3600	941	2.22	1951	985	2.42	2123	1027	2.61	2295	1068	2.81	2466	1107	3.00	2637
3700	952	2.35	2058	996	2.55	2236	1038	2.75	2412	1078	2.95	2588	1117	3.15	2764
3800	964	2.47	2170	1007	2.68	2352	1048	2.89	2534	1088	3.09	2715	1126	3.30	2895
3900	976	2.60	2286	1018	2.82	2473	1059	3.03	2660	1098	3.24	2846	1136	3.45	3031
4000	987	2.74	2407	1029	2.96	2598	1069	3.18	2790	1108	3.40	2981	1146	3.61	3171
4100	999	2.88	2532	1041	3.11	2729	1080	3.33	2925	1119	3.56	3121	1156	3.78	3316
4200	1012	3.03	2662	1052	3.26	2863	1092	3.49	3065	1130	3.72	3266	1167	3.95	3466
4300	1024	3.19	2796	1064	3.42	3003	1103	3.66	3210	1141	3.89	3415	1177	4.13	3621
4400	1036	3.35	2937	1076	3.59	3148	1114	3.83	3359	1152	4.07	3570	1188	4.31	3781
4500	1049	3.51	3082	1088	3.76	3298	1126	4.00	3514	1163	4.25	3730	1199	4.50	3945
4600	1062	3.68	3232	1100	3.94	3454	1138	4.19	3675	1174	4.44	3895	1210	4.69	4116
4700	1075	3.86	3387	1113	4.12	3614	1150	4.38	3840	1186	4.63	4065	1221	4.89	4291
4800	1088	4.04	3549	1125	4.31	3780	1162	4.57	4011	1198	4.83	4241	-	-	-
4900	1101	4.23	3716	1138	4.50	3951	1174	4.77	4188	-	-	-	-	-	-
5000	1114	4.43	3888	1151	4.70	4129	1187	4.98	4370	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 5.25
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	728	1.36	1266	789	1.58	1473	848	1.81	1686	904	2.04	1906	957	2.29	2132
3800	744	1.46	1361	804	1.69	1572	861	1.92	1790	916	2.16	2015	969	2.41	2246
3900	760	1.57	1460	819	1.80	1676	875	2.04	1899	929	2.28	2128	981	2.53	2364
4000	777	1.68	1563	834	1.91	1785	889	2.16	2012	942	2.41	2247	993	2.67	2487
4100	793	1.79	1672	850	2.04	1899	904	2.29	2132	956	2.54	2371	1006	2.80	2615
4200	810	1.92	1786	865	2.16	2018	918	2.42	2255	969	2.68	2499	1018	2.95	2748
4300	826	2.04	1906	880	2.30	2142	932	2.56	2385	983	2.82	2633	1031	3.10	2888
4400	843	2.18	2031	896	2.44	2272	947	2.70	2520	996	2.97	2773	1044	3.25	3032
4500	860	2.32	2161	912	2.58	2408	962	2.85	2660	1010	3.13	2918	1057	3.41	3182
4600	876	2.46	2297	927	2.73	2549	977	3.01	2807	1024	3.29	3070	1070	3.58	3338
4700	893	2.62	2439	943	2.89	2696	992	3.17	2958	1038	3.46	3226	-	-	-
4800	910	2.77	2587	959	3.06	2849	1007	3.34	3116	1053	3.63	3390	-	-	-
4900	927	2.94	2741	975	3.23	3008	1022	3.52	3280	-	-	-	-	-	-
5000	944	3.11	2901	991	3.40	3173	1037	3.70	3451	-	-	-	-	-	-
5100	961	3.29	3068	1007	3.59	3345	-	-	-	-	-	-	-	-	-
5200	978	3.48	3241	-	-	-	-	-	-	-	-	-	-	-	-
5300	995	3.67	3420	-	-	-	-	-	-	-	-	-	-	-	-
5400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	1008	2.54	2364	1058	2.79	2602	<b>1106</b>	<b>3.05</b>	<b>2846</b>	<b>1152</b>	<b>3.32</b>	<b>3094</b>	<b>1198</b>	<b>3.59</b>	<b>3348</b>
3800	1019	2.66	2482	1068	2.92	2725	<b>1116</b>	<b>3.19</b>	<b>2972</b>	<b>1162</b>	<b>3.46</b>	<b>3226</b>	-	-	-
3900	1031	2.79	2605	1079	3.06	2852	<b>1126</b>	<b>3.33</b>	<b>3104</b>	<b>1171</b>	<b>3.61</b>	<b>3362</b>	-	-	-
4000	1042	2.93	2733	<b>1090</b>	<b>3.20</b>	<b>2984</b>	<b>1136</b>	<b>3.48</b>	<b>3241</b>	-	-	-	-	-	-
4100	1054	3.07	2866	<b>1101</b>	<b>3.35</b>	<b>3122</b>	<b>1146</b>	<b>3.63</b>	<b>3383</b>	-	-	-	-	-	-
4200	1066	3.22	3004	<b>1112</b>	<b>3.50</b>	<b>3264</b>	-	-	-	-	-	-	-	-	-
4300	1078	3.38	3148	<b>1123</b>	<b>3.66</b>	<b>3413</b>	-	-	-	-	-	-	-	-	-
4400	<b>1090</b>	<b>3.54</b>	<b>3297</b>	-	-	-	-	-	-	-	-	-	-	-	-
4500	<b>1103</b>	<b>3.70</b>	<b>3451</b>	-	-	-	-	-	-	-	-	-	-	-	-
4600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 3.70
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (cont.)

FAN PERFORMANCE VERTICAL DISCHARGE UNITS

PGE150 (12½ TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	728	1.36	1266	789	1.58	1473	848	1.81	1686	904	2.04	1906	957	2.29	2132
3800	744	1.46	1361	804	1.69	1572	861	1.92	1790	916	2.16	2015	969	2.41	2246
3900	760	1.57	1460	819	1.80	1676	875	2.04	1899	929	2.28	2128	981	2.53	2364
4000	777	1.68	1563	834	1.91	1785	889	2.16	2012	942	2.41	2247	993	2.67	2487
4100	793	1.79	1672	850	2.04	1899	904	2.29	2132	956	2.54	2371	1006	2.80	2615
4200	810	1.92	1786	865	2.16	2018	918	2.42	2255	969	2.68	2499	1018	2.95	2748
4300	826	2.04	1906	880	2.30	2142	932	2.56	2385	983	2.82	2633	1031	3.10	2888
4400	843	2.18	2031	896	2.44	2272	947	2.70	2520	996	2.97	2773	1044	3.25	3032
4500	860	2.32	2161	912	2.58	2408	962	2.85	2660	1010	3.13	2918	1057	3.41	3182
4600	876	2.46	2297	927	2.73	2549	977	3.01	2807	1024	3.29	3070	1070	3.58	3338
4700	893	2.62	2439	943	2.89	2696	992	3.17	2958	1038	3.46	3226	1084	3.75	3500
4800	910	2.77	2587	959	3.06	2849	1007	3.34	3116	1053	3.63	3390	1098	3.93	3668
4900	927	2.94	2741	975	3.23	3008	1022	3.52	3280	1067	3.82	3558	1111	4.12	3841
5000	944	3.11	2901	991	3.40	3173	1037	3.70	3451	1082	4.00	3733	1125	4.31	4021
5100	961	3.29	3068	1007	3.59	3345	1053	3.89	3627	1096	4.20	3915	1139	4.51	4208
5200	978	3.48	3241	1024	3.78	3523	1068	4.09	3811	1111	4.40	4103	1153	4.72	4400
5300	995	3.67	3420	1040	3.98	3707	1084	4.29	4000	1126	4.61	4298	1168	4.93	4600
5400	1012	3.87	3606	1056	4.18	3899	1099	4.50	4196	1141	4.82	4499	1182	5.15	4806
5500	1029	4.07	3799	1073	4.39	4097	1115	4.72	4400	1156	5.05	4707	-	-	-
5600	1046	4.29	3999	1089	4.61	4302	1131	4.94	4610	-	-	-	-	-	-
5700	1063	4.51	4207	1105	4.84	4515	1146	5.18	4827	-	-	-	-	-	-
5800	1080	4.74	4420	1122	5.08	4734	-	-	-	-	-	-	-	-	-
5900	1098	4.98	4642	-	-	-	-	-	-	-	-	-	-	-	-
6000	1115	5.22	4872	-	-	-	-	-	-	-	-	-	-	-	-

PGE150 (12½ TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	1008	2.54	2364	1058	2.79	2602	1106	3.05	2846	1152	3.32	3094	1198	3.59	3348
3800	1019	2.66	2482	1068	2.92	2725	1116	3.19	2972	1162	3.46	3226	1206	3.74	3484
3900	1031	2.79	2605	1079	3.06	2852	1126	3.33	3104	1171	3.61	3362	1215	3.89	3624
4000	1042	2.93	2733	1090	3.20	2984	1136	3.48	3241	1180	3.76	3503	1224	4.04	3770
4100	1054	3.07	2866	1101	3.35	3122	1146	3.63	3383	1190	3.91	3649	1233	4.20	3921
4200	1066	3.22	3004	1112	3.50	3264	1157	3.79	3530	1200	4.08	3801	1243	4.37	4077
4300	1078	3.38	3148	1123	3.66	3413	1167	3.95	3683	1210	4.24	3958	1252	4.54	4238
4400	1090	3.54	3297	1135	3.82	3566	1179	4.12	3841	1221	4.42	4121	1262	4.72	4405
4500	1103	3.70	3451	1147	4.00	3726	1190	4.29	4005	1232	4.60	4289	1273	4.91	4578
4600	1115	3.87	3612	1159	4.17	3891	1201	4.48	4175	1243	4.79	4464	1283	5.10	4757
4700	1128	4.05	3778	1171	4.36	4062	1213	4.67	4350	1254	4.98	4644	-	-	-
4800	1141	4.24	3951	1183	4.55	4239	1225	4.86	4532	1265	5.18	4830	-	-	-
4900	1154	4.43	4130	1196	4.74	4422	1237	5.06	4720	-	-	-	-	-	-
5000	1167	4.63	4314	1209	4.95	4611	-	-	-	-	-	-	-	-	-
5100	1181	4.83	4505	1221	5.16	4808	-	-	-	-	-	-	-	-	-
5200	1194	5.04	4703	-	-	-	-	-	-	-	-	-	-	-	-
5300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

Bhp – Brake Horsepower

Watts – Input Watts to Motor

\*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required

2. Maximum continuous Bhp is 5.25

3. See General Notes for Fan Performance following this section

GENERAL NOTES FOR FAN PERFORMANCE TABLES:

- Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Indoor Fan Motor Performance table.
- Values include losses for filters, unit casing, and wet coils. Refer to Accessory/FIOP Static Pressure tables for accessory static pressure information.
- Use of a field-supplied motor may affect wire sizing.
- Interpolation is permissible. Do not extrapolate.

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE072 (6 TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	919	0.63	561	1010	0.75	663	1095	0.87	771	1174	1.00	886	1250	1.14	1008
1900	960	0.73	648	1047	0.85	754	1129	0.98	867	1206	1.11	986	1279	1.25	1111
2000	1001	0.84	744	1085	0.96	855	1163	1.09	972	1238	1.23	1095	1309	1.38	1224
2100	1043	0.96	850	1123	1.09	965	1199	1.22	1086	1271	1.37	1213	1340	1.52	1346
2200	1085	1.09	966	1162	1.22	1086	1235	1.36	1211	1305	1.51	1342	1372	1.67	1479
2300	1127	1.23	1092	1201	1.37	1217	1272	1.52	1347	1340	1.67	1482	1405	1.83	1623
2400	1169	1.38	1229	1241	1.53	1359	1310	1.68	1493	1375	1.84	1633	1439	2.00	1778
2500	1212	1.55	1378	1281	1.70	1513	1348	1.86	1652	1412	2.02	1796	1473	2.19	1945
2600	1255	1.73	1539	1322	1.89	1678	1386	2.05	1822	1448	2.22	1970	1508	2.39	2124
2700	1298	1.93	1713	1363	2.09	1857	1425	2.26	2005	-	-	-	-	-	-
2800	1341	2.14	1899	1404	2.31	2048	-	-	-	-	-	-	-	-	-
2900	1384	2.36	2099	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE072 (6 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1321	1.28	1137	1390	1.43	1273	1455	1.59	1415	1518	1.76	1563	1579	1.93	1718
1900	1348	1.40	1243	1415	1.56	1381	1479	1.72	1526	1541	1.89	1677	1601	2.06	1834
2000	1377	1.53	1359	1442	1.69	1500	1505	1.86	1648	1565	2.03	1801	1624	2.21	1961
2100	1406	1.67	1485	1470	1.83	1629	1531	2.00	1780	1591	2.18	1936	1648	2.36	2098
2200	1437	1.83	1621	1499	1.99	1769	1559	2.16	1923	1617	2.34	2082	-	-	-
2300	1468	1.99	1769	1529	2.16	1920	1587	2.34	2077	-	-	-	-	-	-
2400	1500	2.17	1928	1559	2.35	2083	-	-	-	-	-	-	-	-	-
2500	1533	2.36	2098	-	-	-	-	-	-	-	-	-	-	-	-
2600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bhp – Brake Horsepower

Watts – Input Watts to Motor

\*Motor drive range: 1070 to 1460 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA -PGE072-150(CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE072 (6 TONS) - HIGH STATIC MOTOR (BELT DRIVE)*															
Air-flow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	919	0.63	561	1010	0.75	663	1095	0.87	771	1174	1.00	886	1250	1.14	1008
1900	960	0.73	648	1047	0.85	754	1129	0.98	867	1206	1.11	986	1279	1.25	1111
2000	1001	0.84	744	1085	0.96	855	1163	1.09	972	1238	1.23	1095	1309	1.38	1224
2100	1043	0.96	850	1123	1.09	965	1199	1.22	1086	1271	1.37	1213	1340	1.52	1346
2200	1085	1.09	966	1162	1.22	1086	1235	1.36	1211	1305	1.51	1342	1372	1.67	1479
2300	1127	1.23	1092	1201	1.37	1217	1272	1.52	1347	1340	1.67	1482	1405	1.83	1623
2400	1169	1.38	1229	1241	1.53	1359	1310	1.68	1493	1375	1.84	1633	1439	2.00	1778
2500	1212	1.55	1378	1281	1.70	1513	1348	1.86	1652	1412	2.02	1796	1473	2.19	1945
2600	1255	1.73	1539	1322	1.89	1678	1386	2.05	1822	1448	2.22	1970	1508	2.39	2124
2700	1298	1.93	1713	1363	2.09	1857	1425	2.26	2005	1485	2.43	2158	1544	2.61	2315
2800	1341	2.14	1899	1404	2.31	2048	1464	2.48	2201	1523	2.66	2358	1580	2.84	2520
2900	1384	2.36	2099	1445	2.54	2253	1504	2.71	2410	1561	2.90	2572	-	-	-
3000	1428	2.60	2313	1487	2.78	2471	-	-	-	-	-	-	-	-	-

PGE072 (6 TONS) - HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Air-flow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
1800	1321	1.28	1137	1390	1.43	1273	1455	1.59	1415	1518	1.76	1563	1579	1.93	1718
1900	1348	1.40	1243	1415	1.56	1381	1479	1.72	1526	1541	1.89	1677	1601	2.06	1834
2000	1377	1.53	1359	1442	1.69	1500	1505	1.86	1648	1565	2.03	1801	1624	2.21	1961
2100	1406	1.67	1485	1470	1.83	1629	1531	2.00	1780	1591	2.18	1936	1648	2.36	2098
2200	1437	1.83	1621	1499	1.99	1769	1559	2.16	1923	1617	2.34	2082	1673	2.53	2246
2300	1468	1.99	1769	1529	2.16	1920	1587	2.34	2077	1644	2.52	2239	<b>1699</b>	<b>2.71</b>	<b>2406</b>
2400	1500	2.17	1928	1559	2.35	2083	1616	2.53	2243	1672	2.71	2408	<b>1726</b>	<b>2.90</b>	<b>2579</b>
2500	1533	2.36	2098	1591	2.54	2257	1647	2.73	2421	-	-	-	-	-	-
2600	1566	2.57	2281	1623	2.75	2444	-	-	-	-	-	-	-	-	-
2700	1600	2.79	2477	-	-	-	-	-	-	-	-	-	-	-	-
2800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bhp – Brake Horsepower

Watts – Input Watts to Motor

\*Motor drive range: 1300 to 1685 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.90
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072-150(CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE090 (7½ TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	505	0.52	484	586	0.73	681	657	0.97	901	722	1.22	1142	782	1.50	1403
2300	513	0.55	509	592	0.76	708	663	1.00	931	727	1.26	1174	787	1.54	1437
2400	527	0.60	561	605	0.82	766	674	1.07	993	738	1.33	1241	796	1.62	1508
2500	543	0.66	617	618	0.89	828	686	1.14	1060	748	1.41	1312	806	1.70	1583
2550	550	0.69	647	625	0.92	860	692	1.17	1095	754	1.45	1349	811	1.74	1623
2600	558	0.73	677	632	0.96	894	698	1.21	1131	759	1.49	1388	816	1.78	1664
2700	574	0.80	742	645	1.03	964	710	1.29	1207	770	1.58	1469	826	1.88	1749
2800	589	0.87	811	659	1.11	1039	723	1.38	1287	782	1.67	1554	837	1.97	1839
2900	605	0.95	885	673	1.20	1119	736	1.47	1372	794	1.76	1644	<b>848</b>	<b>2.07</b>	<b>1933</b>
3000	621	1.03	963	688	1.29	1204	749	1.57	1463	806	1.87	1740	<b>859</b>	<b>2.18</b>	<b>2033</b>
3100	637	1.12	1046	702	1.39	1293	762	1.67	1558	818	1.97	1840	<b>871</b>	<b>2.29</b>	<b>2139</b>
3200	654	1.22	1135	717	1.49	1388	776	1.78	1658	831	2.09	1946	-	-	-
3300	670	1.32	1228	732	1.60	1488	789	1.89	1764	<b>843</b>	<b>2.21</b>	<b>2057</b>	-	-	-
3400	686	1.42	1328	747	1.71	1593	803	2.01	1876	<b>856</b>	<b>2.33</b>	<b>2174</b>	-	-	-
3500	703	1.54	1433	762	1.83	1705	817	2.14	1993	-	-	-	-	-	-
3600	720	1.66	1543	777	1.95	1822	832	2.27	2116	-	-	-	-	-	-
3700	736	1.78	1660	793	2.09	1944	-	-	-	-	-	-	-	-	-
3750	745	1.85	1721	801	2.15	2008	-	-	-	-	-	-	-	-	-

PGE090 (7½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	838	1.81	1683	<b>891</b>	<b>2.12</b>	<b>1981</b>	-	-	-	-	-	-	-	-	-
2300	<b>842</b>	<b>1.84</b>	<b>1719</b>	<b>895</b>	<b>2.17</b>	<b>2019</b>	-	-	-	-	-	-	-	-	-
2400	<b>851</b>	<b>1.92</b>	<b>1793</b>	<b>903</b>	<b>2.25</b>	<b>2097</b>	-	-	-	-	-	-	-	-	-
2500	<b>860</b>	<b>2.01</b>	<b>1873</b>	<b>911</b>	<b>2.34</b>	<b>2180</b>	-	-	-	-	-	-	-	-	-
2550	<b>865</b>	<b>2.05</b>	<b>1914</b>	<b>916</b>	<b>2.38</b>	<b>2223</b>	-	-	-	-	-	-	-	-	-
2600	<b>869</b>	<b>2.10</b>	<b>1957</b>	-	-	-	-	-	-	-	-	-	-	-	-
2700	<b>879</b>	<b>2.19</b>	<b>2046</b>	-	-	-	-	-	-	-	-	-	-	-	-
2800	<b>889</b>	<b>2.29</b>	<b>2140</b>	-	-	-	-	-	-	-	-	-	-	-	-
2900	<b>899</b>	<b>2.40</b>	<b>2239</b>	-	-	-	-	-	-	-	-	-	-	-	-
3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 590 to 840 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150(CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE090 (7½ TONS) –HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	505	0.52	484	586	0.73	681	657	0.97	901	722	1.22	1142	782	1.50	1403
2300	513	0.55	509	592	0.76	708	663	1.00	931	727	1.26	1174	787	1.54	1437
2400	527	0.60	561	605	0.82	766	674	1.07	993	738	1.33	1241	796	1.62	1508
2500	543	0.66	617	618	0.89	828	686	1.14	1060	748	1.41	1312	806	1.70	1583
2550	550	0.69	647	625	0.92	860	692	1.17	1095	754	1.45	1349	811	1.74	1623
2600	558	0.73	677	632	0.96	894	698	1.21	1131	759	1.49	1388	816	1.78	1664
2700	574	0.80	742	645	1.03	964	710	1.29	1207	770	1.58	1469	826	1.88	1749
2800	589	0.87	811	659	1.11	1039	723	1.38	1287	782	1.67	1554	837	1.97	1839
2900	605	0.95	885	673	1.20	1119	736	1.47	1372	794	1.76	1644	848	2.07	1933
3000	621	1.03	963	688	1.29	1204	749	1.57	1463	806	1.87	1740	859	2.18	2033
3100	637	1.12	1046	702	1.39	1293	762	1.67	1558	818	1.97	1840	871	2.29	2139
3200	654	1.22	1135	717	1.49	1388	776	1.78	1658	831	2.09	1946	882	2.41	2249
3300	670	1.32	1228	732	1.60	1488	789	1.89	1764	843	2.21	2057	894	2.54	2365
3400	686	1.42	1328	747	1.71	1593	803	2.01	1876	856	2.33	2174	907	2.67	2488
3500	703	1.54	1433	762	1.83	1705	817	2.14	1993	870	2.46	2297	919	2.81	2616
3600	720	1.66	1543	777	1.95	1822	832	2.27	2116	883	2.60	2425	932	2.95	2750
3700	736	1.78	1660	793	2.09	1944	846	2.41	2245	896	2.75	2560	944	3.10	2889
3750	745	1.85	1721	801	2.15	2008	853	2.48	2312	903	2.82	2630	951	3.18	2962

PGE090 (7½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2250	<b>838</b>	<b>1.81</b>	<b>1683</b>	891	2.12	1981	941	2.46	2297	988	2.82	2629	1033	3.19	2976
2300	<b>842</b>	<b>1.84</b>	<b>1719</b>	895	2.17	2019	944	2.51	2336	992	2.86	2669	1037	3.24	3018
2400	<b>851</b>	<b>1.92</b>	<b>1793</b>	903	2.25	2097	952	2.59	2416	999	2.95	2752	1043	3.33	3104
2500	860	2.01	1873	911	2.34	2180	960	2.68	2502	1006	3.05	2842	1051	3.43	3196
2550	865	2.05	1914	916	2.38	2223	964	2.73	2547	1010	3.10	2888	1054	3.48	3243
2600	869	2.10	1957	920	2.43	2267	968	2.78	2593	1014	3.15	2935	1058	3.53	3292
2700	879	2.19	2046	929	2.53	2360	976	2.88	2689	1022	3.25	3035	1066	3.64	3395
2800	889	2.29	2140	938	2.64	2458	985	2.99	2791	1030	3.37	3140	–	–	–
2900	899	2.40	2239	948	2.75	2561	994	3.11	2898	1039	3.49	3250	–	–	–
3000	910	2.51	2343	958	2.86	2670	1004	3.23	3011	1048	3.61	3366	–	–	–
3100	921	2.63	2453	968	2.98	2783	1013	3.35	3128	–	–	–	–	–	–
3200	932	2.75	2569	978	3.11	2903	1023	3.49	3252	–	–	–	–	–	–
3300	943	2.88	2690	989	3.25	3029	1033	3.63	3382	–	–	–	–	–	–
3400	954	3.02	2816	1000	3.39	3159	–	–	–	–	–	–	–	–	–
3500	966	3.16	2950	1011	3.54	3297	–	–	–	–	–	–	–	–	–
3600	978	3.31	3088	1022	3.69	3442	–	–	–	–	–	–	–	–	–
3700	990	3.47	3233	–	–	–	–	–	–	–	–	–	–	–	–
3750	996	3.55	3308	–	–	–	–	–	–	–	–	–	–	–	–

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 3.70
3. See General Notes for Fan Performance following this section



PERFORMANCE DATA – PGE072-150(CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	550	<b>0.69</b>	<b>647</b>	<b>625</b>	<b>0.92</b>	<b>860</b>	692	1.17	1095	754	1.45	1349	811	1.74	1623
2600	558	<b>0.73</b>	<b>677</b>	<b>632</b>	<b>0.96</b>	<b>894</b>	698	1.21	1131	759	1.49	1388	816	1.78	1664
2700	574	<b>0.80</b>	<b>742</b>	<b>645</b>	<b>1.03</b>	<b>964</b>	710	1.29	1207	770	1.58	1469	826	1.88	1749
2800	589	<b>0.87</b>	<b>811</b>	<b>659</b>	<b>1.11</b>	<b>1039</b>	723	1.38	1287	782	1.67	1554	837	1.97	1839
2900	605	<b>0.95</b>	<b>885</b>	<b>673</b>	<b>1.20</b>	<b>1119</b>	736	1.47	1372	794	1.76	1644	848	2.07	1933
3000	621	<b>1.03</b>	<b>963</b>	688	1.29	1204	749	1.57	1463	806	1.87	1740	859	2.18	2033
3100	637	<b>1.12</b>	<b>1046</b>	702	1.39	1293	762	1.67	1558	818	1.97	1840	871	2.29	2139
3200	654	<b>1.22</b>	<b>1135</b>	717	1.49	1388	776	1.78	1658	831	2.09	1946			
3300	670	<b>1.32</b>	<b>1228</b>	732	1.60	1488	789	1.89	1764	843	2.21	2057			
3400	686	1.42	1328	747	1.71	1593	803	2.01	1876	856	2.33	2174			
3500	703	1.54	1433	762	1.83	1705	817	2.14	1993						
3600	720	1.66	1543	777	1.95	1822	832	2.27	2116						
3700	736	1.78	1660	793	2.09	1944									
3750	745	1.85	1721	801	2.15	2008									
3800	753	1.91	1783	808	2.22	2074									
3900	770	2.05	1912	824	2.37	2209									
4000	787	2.20	2047												
4100	804	2.35	2189												
4200															
4250															

PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	865	2.05	1914	916	2.38	2223									
2600	869	2.10	1957												
2700	879	2.19	2046												
2800	889	2.29	2140												
2900	899	2.40	2239												
3000															

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE102 (8½ TONS) -- HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	550	0.69	647	625	0.92	860	692	1.17	1095	754	1.45	1349	811	1.74	1623
2600	558	0.73	677	632	0.96	894	698	1.21	1131	759	1.49	1388	816	1.78	1664
2700	574	0.80	742	645	1.03	964	710	1.29	1207	770	1.58	1469	826	1.88	1749
2800	589	0.87	811	659	1.11	1039	723	1.38	1287	782	1.67	1554	837	1.97	1839
2900	605	0.95	885	673	1.20	1119	736	1.47	1372	794	1.76	1644	848	2.07	1933
3000	621	1.03	963	688	1.29	1204	749	1.57	1463	806	1.87	1740	859	2.18	2033
3100	637	1.12	1046	702	1.39	1293	762	1.67	1558	818	1.97	1840	871	2.29	2139
3200	654	1.22	1135	717	1.49	1388	776	1.78	1658	831	2.09	1946	882	2.41	2249
3300	670	1.32	1228	732	1.60	1488	789	1.89	1764	843	2.21	2057	894	2.54	2365
3400	686	1.42	1328	747	1.71	1593	803	2.01	1876	856	2.33	2174	907	2.67	2488
3500	703	1.54	1433	762	1.83	1705	817	2.14	1993	870	2.46	2297	919	2.81	2616
3600	720	1.66	1543	777	1.95	1822	832	2.27	2116	883	2.60	2425	932	2.95	2750
3700	736	1.78	1660	793	2.09	1944	846	2.41	2245	896	2.75	2560	944	3.10	2889
3750	745	1.85	1721	801	2.15	2008	853	2.48	2312	903	2.82	2630	951	3.18	2962
3800	753	1.91	1783	808	2.22	2074	861	2.55	2380	910	2.90	2701	957	3.26	3036
3900	770	2.05	1912	824	2.37	2209	875	2.70	2522	924	3.05	2848	970	3.42	3189
4000	787	2.20	2047	840	2.52	2351	890	2.86	2669	938	3.22	3002	984	3.59	3348
4100	804	2.35	2189	856	2.68	2499	905	3.03	2824	952	3.39	3162	-	-	-
4200	821	2.51	2338	872	2.85	2655	920	3.20	2986	967	3.57	3331	-	-	-
4250	829	2.59	2415	880	2.93	2735	928	3.29	3069	974	3.66	3417	-	-	-

PGE102 (8½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
2550	865	2.05	1914	916	2.38	2223	964	2.73	2547	1010	3.10	2888	1054	3.48	3243
2600	869	2.10	1957	920	2.43	2267	968	2.78	2593	1014	3.15	2935	1058	3.53	3292
2700	879	2.19	2046	929	2.53	2360	976	2.88	2689	1022	3.25	3035	1066	3.64	3395
2800	889	2.29	2140	938	2.64	2458	985	2.99	2791	1030	3.37	3140	-	-	-
2900	899	2.40	2239	948	2.75	2561	994	3.11	2898	1039	3.49	3250	-	-	-
3000	910	2.51	2343	958	2.86	2670	1004	3.23	3011	1048	3.61	3366	-	-	-
3100	921	2.63	2453	968	2.98	2783	1013	3.35	3128	-	-	-	-	-	-
3200	932	2.75	2569	978	3.11	2903	1023	3.49	3252	-	-	-	-	-	-
3300	943	2.88	2690	989	3.25	3029	1033	3.63	3382	-	-	-	-	-	-
3400	954	3.02	2816	1000	3.39	3159	-	-	-	-	-	-	-	-	-
3500	966	3.16	2950	1011	3.54	3297	-	-	-	-	-	-	-	-	-
3600	978	3.31	3088	1022	3.69	3442	-	-	-	-	-	-	-	-	-
3700	990	3.47	3233	-	-	-	-	-	-	-	-	-	-	-	-
3750	996	3.55	3308	-	-	-	-	-	-	-	-	-	-	-	-
3800	1002	3.63	3385	-	-	-	-	-	-	-	-	-	-	-	-
3900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Bhp – Brake Horsepower

Watts – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 3.70
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	555	0.72	630	629	0.87	765	696	1.03	904	757	1.19	1048	814	1.36	1198
3100	568	0.78	686	641	0.94	825	706	1.10	968	766	1.27	1115	823	1.45	1269
3200	582	0.85	745	652	1.01	888	717	1.18	1035	776	1.35	1186	832	1.53	1343
3300	595	0.92	808	664	1.09	955	728	1.26	1106	786	1.44	1261	841	1.62	1421
3400	609	1.00	874	677	1.17	1026	739	1.35	1181	797	1.53	1340	851	1.71	1503
3500	623	1.08	945	689	1.25	1100	750	1.43	1259	807	1.62	1422	860	1.81	1589
3600	636	1.16	1019	702	1.34	1179	762	1.53	1341	817	1.72	1508	870	1.91	1679
3700	650	1.25	1097	714	1.44	1261	773	1.63	1428	828	1.82	1598	880	2.02	1772
3800	664	1.34	1179	727	1.54	1347	785	1.73	1518	839	1.93	1693	890	2.13	1870
3900	678	1.44	1266	740	1.64	1438	797	1.84	1613	850	2.04	1791	901	2.25	1973
4000	693	1.55	1356	753	1.75	1533	809	1.95	1712	861	2.16	1894	911	2.37	2080
4100	707	1.65	1451	766	1.86	1632	821	2.07	1816	873	2.28	2002	-	-	-
4200	721	1.77	1551	779	1.98	1736	833	2.19	1924	-	-	-	-	-	-
4300	735	1.89	1656	792	2.10	1845	846	2.32	2037	-	-	-	-	-	-
4400	750	2.01	1764	806	2.23	1958	-	-	-	-	-	-	-	-	-
4500	764	2.14	189	819	2.37	2077	-	-	-	-	-	-	-	-	-
4600	779	2.28	1998	-	-	-	-	-	-	-	-	-	-	-	-
4700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	867	1.54	1353	918	1.72	1513	966	1.91	1680	1012	2.11	1852	1056	2.31	2029
3100	876	1.63	1427	926	1.81	1590	973	2.00	1760	1019	2.20	1934	-	-	-
3200	884	1.71	1504	934	1.90	1671	981	2.10	1843	1026	2.30	2020	-	-	-
3300	893	1.81	1586	942	2.00	1755	988	2.20	1931	1033	2.40	2111	-	-	-
3400	902	1.90	1671	950	2.10	1844	996	2.30	2022	-	-	-	-	-	-
3500	911	2.01	1760	959	2.21	1937	-	-	-	-	-	-	-	-	-
3600	920	2.11	1854	967	2.32	2033	-	-	-	-	-	-	-	-	-
3700	929	2.22	1951	-	-	-	-	-	-	-	-	-	-	-	-
3800	939	2.34	2053	-	-	-	-	-	-	-	-	-	-	-	-
3900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 685 to 935 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 2.40
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	555	0.72	630	629	0.87	765	696	1.03	904	757	1.19	1048	814	1.36	1198
3100	568	0.78	686	641	0.94	825	706	1.10	968	766	1.27	1115	823	1.45	1269
3200	582	0.85	745	652	1.01	888	717	1.18	1035	776	1.35	1186	832	1.53	1343
3300	595	0.92	808	664	1.09	955	728	1.26	1106	786	1.44	1261	841	1.62	1421
3400	609	1.00	874	677	1.17	1026	739	1.35	1181	797	1.53	1340	851	1.71	1503
3500	623	1.08	945	689	1.25	1100	750	1.43	1259	807	1.62	1422	860	1.81	1589
3600	636	1.16	1019	702	1.34	1179	762	1.53	1341	817	1.72	1508	870	1.91	1679
3700	650	1.25	1097	714	1.44	1261	773	1.63	1428	828	1.82	1598	880	2.02	1772
3800	664	1.34	1179	727	1.54	1347	785	1.73	1518	839	1.93	1693	890	2.13	1870
3900	678	1.44	1266	740	1.64	1438	797	1.84	1613	850	2.04	1791	901	2.25	1973
4000	693	1.55	1356	753	1.75	1533	809	1.95	1712	861	2.16	1894	911	2.37	2080
4100	707	1.65	1451	766	1.86	1632	821	2.07	1816	873	2.28	2002	922	2.50	2191
4200	721	1.77	1551	779	1.98	1736	833	2.19	1924	884	2.41	2114	933	2.63	2307
4300	735	1.89	1656	792	2.10	1845	846	2.32	2037	896	2.54	2231	944	2.77	2428
4400	750	2.01	1764	806	2.23	1958	858	2.45	2154	908	2.68	2352	955	2.91	2553
4500	764	2.14	1879	819	2.37	2077	871	2.59	2276	920	2.82	2479	966	3.06	2684
4600	779	2.28	1998	833	2.51	2200	883	2.74	2404	932	2.97	2611	978	3.21	2820
4700	793	2.42	2121	846	2.65	2328	896	2.89	2537	944	3.13	2747	989	3.37	2960
4800	808	2.56	2251	860	2.81	2462	909	3.05	2674	956	3.29	2889	1001	3.54	3106
4900	822	2.72	2385	873	2.96	2601	922	3.21	2818	968	3.46	3037	1013	3.71	3258
5000	837	2.88	2525	887	3.13	2745	935	3.38	2966	981	3.63	3189	1024	3.89	3414

PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3000	867	1.54	1353	918	1.72	1513	966	1.91	1680	1012	2.11	1852	1056	2.31	2029
3100	876	1.63	1427	926	1.81	1590	973	2.00	1760	1019	2.20	1934	1062	2.41	2114
3200	884	1.71	1504	934	1.90	1671	981	2.10	1843	1026	2.30	2020	1069	2.51	2203
3300	893	1.81	1586	942	2.00	1755	988	2.20	1931	1033	2.40	2111	1076	2.62	2295
3400	902	1.90	1671	950	2.10	1844	996	2.30	2022	1041	2.51	2205	1083	2.73	2393
3500	911	2.01	1760	959	2.21	1937	1004	2.41	2118	1048	2.62	2303	1091	2.84	2494
3600	920	2.11	1854	967	2.32	2033	1013	2.53	2217	1056	2.74	2406	1098	2.96	2600
3700	929	2.22	1951	976	2.43	2134	1021	2.65	2322	1064	2.86	2513	1106	3.09	2710
3800	939	2.34	2053	985	2.55	2239	1030	2.77	2430	1073	2.99	2625	1114	3.22	2824
3900	949	2.46	2159	995	2.68	2349	1039	2.90	2543	1081	3.12	2741	1122	3.35	2943
4000	959	2.59	2269	1004	2.81	2462	1048	3.03	2660	1090	3.26	2861	1130	3.49	3067
4100	969	2.72	2384	1014	2.94	2581	1057	3.17	2782	1098	3.40	2987	1139	3.64	3195
4200	979	2.85	2504	1024	3.08	2705	1066	3.31	2909	1107	3.55	3117	1147	3.79	3329
4300	990	3.00	2629	1034	3.23	2833	1076	3.46	3040	1117	3.71	3252	1156	3.95	3467
4400	1000	3.14	2758	1044	3.38	2966	1085	3.62	3177	1126	3.87	3392	1165	4.11	3611
4500	1011	3.30	2892	1054	3.54	3104	1095	3.78	3319	1135	4.03	3537	1174	4.28	3759
4600	1022	3.45	3032	1064	3.70	3247	1105	3.95	3466	1145	4.20	3688	1183	4.46	3913
4700	1033	3.62	3176	1075	3.87	3395	1115	4.12	3618	1155	4.38	3843	1193	4.64	4072
4800	1044	3.79	3326	1085	4.04	3549	1126	4.30	3775	1164	4.56	4004	1202	4.83	4237
4900	1055	3.97	3482	1096	4.22	3708	1136	4.49	3938	1174	4.75	4171	1212	5.02	4406
5000	1066	4.15	3642	1107	4.41	3873	1146	4.68	4106	1184	4.95	4342	1221	5.22	4582

Bhp – Brake Horsepower

Watts – Input Watts to Motor

\*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

NOTES

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 5.25
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – STANDARD MOTOR (BELT DRIVE)*															
Airflow (Cfm)	External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	676	1.19	1106	747	1.42	1328	811	1.66	1552	871	1.91	1779	927	2.15	2008
3800	690	1.27	1185	760	1.52	1414	823	1.76	1644	882	2.01	1876	938	2.26	2111
3900	705	1.36	1269	773	1.61	1503	835	1.86	1739	894	2.12	1977	948	2.38	2217
4000	719	1.45	1357	786	1.71	1597	848	1.97	1838	905	2.23	2082	959	2.50	2328
4100	734	1.55	1449	799	1.82	1695	860	2.08	1942	917	2.35	2192	970	2.62	2443
4200	748	1.66	1545	813	1.93	1797	872	2.20	2050	928	2.47	2305	981	2.75	2562
4300	763	1.76	1646	826	2.04	1903	885	2.32	2162	940	2.60	2423	992	2.88	2686
4400	778	1.88	1751	840	2.16	2014	898	2.44	2279	952	2.73	2546	1004	3.02	2814
4500	792	1.99	1860	853	2.28	2130	910	2.57	2401	964	2.87	2673	1015	3.16	2947
4600	807	2.12	1975	867	2.41	2250	923	2.71	2527	976	3.01	2805	1027	3.31	3085
4700	822	2.25	2094	881	2.55	2375	936	2.85	2658	989	3.15	2942	1038	3.46	3227
4800	837	2.38	2218	895	2.69	2505	949	3.00	2794	1001	3.31	3083	1050	3.62	3375
4900	852	2.52	2347	909	2.83	2640	963	3.15	2935	1014	3.46	3230	-	-	-
5000	867	2.66	2482	923	2.98	2781	976	3.30	3081	1026	3.63	3383	-	-	-
5100	882	2.81	2622	937	3.14	2926	989	3.47	3232	-	-	-	-	-	-
5200	897	2.97	2766	951	3.30	3077	1003	3.63	3389	-	-	-	-	-	-
5300	912	3.13	2917	966	3.47	3233	-	-	-	-	-	-	-	-	-
5400	927	3.30	3073	980	3.64	3395	-	-	-	-	-	-	-	-	-
5500	943	3.47	3234	-	-	-	-	-	-	-	-	-	-	-	-
5600	958	3.65	3402	-	-	-	-	-	-	-	-	-	-	-	-
5700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)															
Airflow (Cfm)	External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	981	2.40	2240	1031	2.65	2473	1079	2.91	2709	1125	3.16	2948	1169	3.42	3189
3800	990	2.52	2348	1040	2.77	2587	1088	3.03	2828	1133	3.30	3073	1177	3.56	3319
3900	1000	2.64	2459	1050	2.90	2705	1097	3.17	2951	1142	3.43	3201	1186	3.70	3452
4000	1011	2.76	2576	1059	3.03	2826	1106	3.30	3079	1151	3.58	3334	-	-	-
4100	1021	2.89	2697	1069	3.17	2953	1116	3.44	3210	-	-	-	-	-	-
4200	1031	3.03	2822	1079	3.31	3083	1125	3.59	3347	-	-	-	-	-	-
4300	1042	3.16	2951	1089	3.45	3218	-	-	-	-	-	-	-	-	-
4400	1053	3.31	3085	1100	3.60	3357	-	-	-	-	-	-	-	-	-
4500	1064	3.46	3224	-	-	-	-	-	-	-	-	-	-	-	-
4600	1075	3.61	3367	-	-	-	-	-	-	-	-	-	-	-	-
4700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Motor drive range: 860 to 1080 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 3.70
3. See General Notes for Fan Performance following this section

PERFORMANCE DATA – PGE072–150 (CONT.)

FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)*															
AIRFLOW (Cfm)	EXTERNAL STATIC PRESSURE (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	676	1.19	1106	747	1.42	1328	811	1.66	1552	871	1.91	1779	927	2.15	2008
3800	690	1.27	1185	760	1.52	1414	823	1.76	1644	882	2.01	1876	938	2.26	2111
3900	705	1.36	1269	773	1.61	1503	835	1.86	1739	894	2.12	1977	948	2.38	2217
4000	719	1.45	1357	786	1.71	1597	848	1.97	1838	905	2.23	2082	959	2.50	2328
4100	734	1.55	1449	799	1.82	1695	860	2.08	1942	917	2.35	2192	970	2.62	2443
4200	748	1.66	1545	813	1.93	1797	872	2.20	2050	928	2.47	2305	981	2.75	2562
4300	763	1.76	1646	826	2.04	1903	885	2.32	2162	940	2.60	2423	992	2.88	2686
4400	778	1.88	1751	840	2.16	2014	898	2.44	2279	952	2.73	2546	1004	3.02	2814
4500	792	1.99	1860	853	2.28	2130	910	2.57	2401	964	2.87	2673	1015	3.16	2947
4600	807	2.12	1975	867	2.41	2250	923	2.71	2527	976	3.01	2805	1027	3.31	3085
4700	822	2.25	2094	881	2.55	2375	936	2.85	2658	989	3.15	2942	1038	3.46	3227
4800	837	2.38	2218	895	2.69	2505	949	3.00	2794	1001	3.31	3083	1050	3.62	3375
4900	852	2.52	2347	909	2.83	2640	963	3.15	2935	1014	3.46	3230	1062	3.78	3528
5000	867	2.66	2482	923	2.98	2781	976	3.30	3081	1026	3.63	3383	1074	3.95	3685
5100	882	2.81	2622	937	3.14	2926	989	3.47	3232	1039	3.80	3540	1086	4.13	3849
5200	897	2.97	2766	951	3.30	3077	1003	3.63	3389	1052	3.97	3702	1099	4.31	4017
5300	912	3.13	2917	966	3.47	3233	1016	3.81	3551	1065	4.15	3870	1111	4.49	4191
5400	927	3.30	3073	980	3.64	3395	1030	3.99	3719	1078	4.34	4044	1123	4.69	4370
5500	943	3.47	3234	994	3.82	3563	1044	4.17	3892	1091	4.53	4223	1136	4.88	4555
5600	958	3.65	3402	1009	4.01	3736	1057	4.37	4071	1104	4.73	4408	1149	5.09	4746
5700	973	3.83	3575	1023	4.20	3915	1071	4.56	4256	1117	4.93	4599	-	-	-
5800	988	4.03	3754	1038	4.40	4100	1085	4.77	4447	1130	5.14	4796	-	-	-
5900	1004	4.22	3939	1052	4.60	4292	1099	4.98	4645	-	-	-	-	-	-
6000	1019	4.43	4131	1067	4.81	4489	1113	5.20	4848	-	-	-	-	-	-
6100	1034	4.64	4329	1082	5.03	4693	-	-	-	-	-	-	-	-	-
6200	1050	4.86	4533	-	-	-	-	-	-	-	-	-	-	-	-
6300	1065	5.09	4744	-	-	-	-	-	-	-	-	-	-	-	-

PGE150 (12 <sup>1</sup> / <sub>2</sub> TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)* (cont)															
AIRFLOW (Cfm)	EXTERNAL STATIC PRESSURE (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
3700	981	2.40	2240	1031	2.65	2473	1079	2.91	2709	1125	3.16	2948	1169	3.42	3189
3800	990	2.52	2348	1040	2.77	2587	1088	3.03	2828	1133	3.30	3073	1177	3.56	3319
3900	1000	2.64	2459	1050	2.90	2705	1097	3.17	2951	1142	3.43	3201	1186	3.70	3452
4000	1011	2.76	2576	1059	3.03	2826	1106	3.30	3079	1151	3.58	3334	1194	3.85	3591
4100	1021	2.89	2697	1069	3.17	2953	1116	3.44	3210	1160	3.72	3471	1203	4.00	3733
4200	1031	3.03	2822	1079	3.31	3083	1125	3.59	3347	1169	3.87	3612	1212	4.16	3880
4300	1042	3.16	2951	1089	3.45	3218	1135	3.74	3487	1179	4.03	3758	1221	4.32	4031
4400	1053	3.31	3085	1100	3.60	3357	1145	3.90	3632	1188	4.19	3909	1230	4.49	4187
4500	1064	3.46	3224	1110	3.76	3502	1155	4.06	3782	1198	4.36	4064	1239	4.66	4348
4600	1075	3.61	3367	1121	3.91	3650	1165	4.22	3937	1208	4.53	4224	1249	4.84	4514
4700	1086	3.77	3515	1131	4.08	3805	1175	4.39	4096	1217	4.71	4389	1258	5.02	4684
4800	1097	3.93	3668	1142	4.25	3963	1186	4.57	4260	1228	4.89	4559	1268	5.21	4860
4900	1109	4.10	3826	1153	4.43	4128	1196	4.75	4430	1238	5.08	4734	-	-	-
5000	1120	4.28	3990	1164	4.61	4296	1207	4.94	4604	-	-	-	-	-	-
5100	1132	4.46	4159	1175	4.79	4471	1218	5.13	4784	-	-	-	-	-	-
5200	1144	4.65	4333	1187	4.99	4651	-	-	-	-	-	-	-	-	-
5300	1155	4.84	4512	1198	5.19	4836	-	-	-	-	-	-	-	-	-
5400	1167	5.04	4697	-	-	-	-	-	-	-	-	-	-	-	-
5500	1179	5.24	4889	-	-	-	-	-	-	-	-	-	-	-	-

**Bhp** – Brake Horsepower  
**Watts** – Input Watts to Motor  
 \*Motor drive range: 830 to 1130 rpm. All other rpms require field-supplied drive.

**NOTES**

1. **Boldface** indicates field-supplied drive required
2. Maximum continuous Bhp is 5.25
3. See General Notes for Fan Performance following this section

**GENERAL NOTES FOR FAN PERFORMANCE TABLES:**

1. Extensive motor and electrical testing on these units ensures that the full range of the motor can be utilized with confidence. Using your fan motors up to the wattage ratings shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected. For additional information on motor performance, refer to Indoor Fan Motor Performance table.
2. Values include losses for filters, unit casing, and wet coils. Refer to Accessory/FIOP Static Pressure tables for accessory static pressure information.
3. Use of a field-supplied motor may affect wire sizing.
4. Interpolation is permissible. Do not extrapolate.

**PERFORMANCE DATA – PGE072–150 (cont.)**

**OUTDOOR SOUND POWER (Total Unit)**

UNIT PGE	SOUND RATING 60 Hz (dB)	A-WEIGHTED (dB)	OCTAVE BANDS							
			63	125	250	500	1000	2000	4000	8000
072	80	80.0	59.1	68.9	68.7	71.9	74.0	68.9	65.7	59.0
090, 102	82	82.0	62.2	69.3	71.5	74.7	76.2	72.9	68.7	61.5
120	84	84.0	64.6	71.7	73.3	76.9	77.6	73.7	70.6	63.7
150	86	86.0	63.7	69.9	72.5	78.2	81.1	77.3	73.3	66.8

**ACCESSORY/FIOP ECONOMIZER STATIC PRESSURE\* (in. wg) – PGE072**

COMPONENT	CFM							
	1250	1500	1750	2000	2250	2500	2750	3000
Vertical Economizer	0.045	0.065	0.08	0.12	0.145	0.175	0.22	0.255
Horizontal Economizer	–	–	0.1	0.125	0.15	0.18	0.225	0.275

NOTE: Performance is for the DN series Economizer

**ACCESSORY/FIOP ECONOMIZER STATIC PRESSURE\* (in. wg) – PGE090–150**

COMPONENT	CFM													
	2250	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	6250
Vertical Economizer	0.06	0.075	0.09	0.115	0.13	0.15	0.17	0.195	0.22	0.25	0.285	0.325	0.36	–
Horizontal Economizer	–	0.1	0.125	0.15	0.18	0.21	0.25	0.275	0.3	0.34	0.388	–	–	–

**LEGEND**

FIOP – Factory Installed Option

\*The static pressure must be added to external static pressure. The sum and indoor-entering air cfm should be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

NOTE: Performance is for the DN series Economizer

**FAN RPM AT MOTOR PULLEY SETTINGS\* – PGE072**

UNIT PGE	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
072 ††	1460	1421	1382	1343	1304	1265	1226	1187	1148	1109	1070	–	–
072**	1685	1647	1608	1570	1531	1493	1454	1416	1377	1339	1300	–	–

**FAN RPM AT MOTOR PULLEY SETTINGS\* – PGE090–150**

UNIT PGE	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
090 ††	840	815	790	765	740	715	690	665	635	615	590	–	–
090**	1080	1025	1007	988	970	952	933	915	897	878	860	–	–
102 ††	935	910	885	860	835	810	785	760	735	710	685	–	–
102**	1080	1025	1007	988	970	952	933	915	897	878	860	–	–
120 ††	935	910	885	860	835	810	785	760	735	710	685	–	–
120**	1130	1112	1087	1062	1037	1012	987	962	937	912	887	862	830
150 ††	1080	1060	1035	1015	990	970	950	925	905	880	860	–	–
150**	1130	1112	1087	1062	1037	1012	987	962	937	912	887	862	830

\* Approximate fan rpm shown

\*\* Indicates high-static motor and drive package

†† Indicates standard motor and drive package

**PERFORMANCE DATA – PGE072–150 (cont.)**

**ALTITUDE COMPENSATION\* STANDARD UNITS – PGE072**

ELEVATION (ft)	74,000 AND 115,000 BTUH NOMINAL INPUT		150,000 BTUH NOMINAL INPUT	
	Natural Gas Orifice Size †	Liquid Propane Orifice Size †	Natural Gas Orifice Size †	Liquid Propane Orifice Size †
0–2,000	33	43	30	37
2,000	36	44	31	39
3,000	36	45	31	40
4,000	37	45	32	41
5,000	38	46	32	42
6,000	40	47	34	43
7,000	41	48	35	43
8,000	42	49	36	44
9,000	43	50	37	45
10,000	44	50	39	46
11,000	45	51	41	47
12,000	46	52	42	48
13,000	47	52	43	49
14,000	48	53	44	50

**ALTITUDE COMPENSATION\* – PGE090–150**

ELEVATION (ft)	125,000,180,000, AND 224,000 BTUH NOMINAL INPUT		250,000 BTUH NOMINAL INPUT	
	Natural Gas Orifice Size	Liquid Propane Orifice Size	Natural Gas Orifice Size	Liquid Propane Orifice Size
0–2,000	31	41	30	38
2,000	32	42	30	39
3,000	32	42	31	40
4,000	32	42	32	41
5,000	33	43	33	42
6,000	34	43	34	43
7,000	35	44	35	43
8,000	36	44	36	44
9,000	37	45	37	44
10,000	38	46	38	45
11,000	39	47	39	45
12,000	40	47	40	46
13,000	41	48	41	47
14,000	42	48	42	47

\*As the height above sea level increases, there is less oxygen per cubic foot of air, so the input rate should be reduced at higher altitudes.

†Orifices are available through your distributor.

**ALTITUDE DERATING FACTOR\***

ELEVATION (ft.)	MAXIMUM HEATING VALUE (Btu/ft <sup>3</sup> )
0–2,000	1,100
2,001–3,000	1,050
3,001–4,000	1,000
4,001–5,000	950
5,001–6,000	900

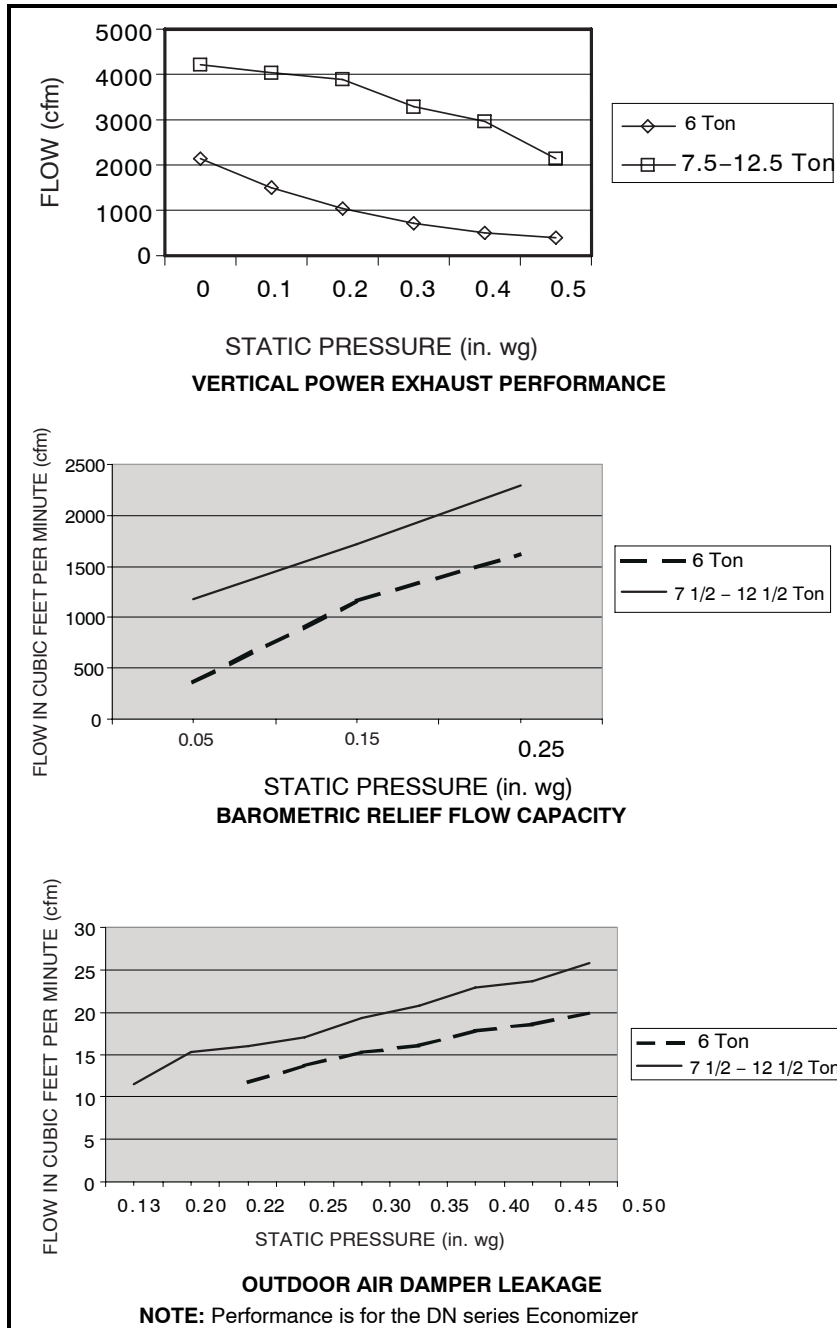
\*Derating of the unit is not required unless the heating value of the gas exceeds the values listed in the table above, or if the elevation exceeds 6000 ft. Derating conditions must be 4% per thousand ft above 2000 ft. For example at 4000 ft, if the heating value of the gas exceeds 1000 Btu/ft<sup>3</sup>, the unit requires a 16% derating. For elevations above 6000 ft, the same formula applies. For example at 7000 ft, the unit requires a 28% derating of the maximum heating value per the National Fuel Gas Code.

**IMPORTANT:** Local utility companies may be reducing heat content of gas at altitudes above 2000 ft. If this is being done, changing spuds may not be required.



PERFORMANCE DATA – PGE072–150 (cont.)

Vertical Economizer



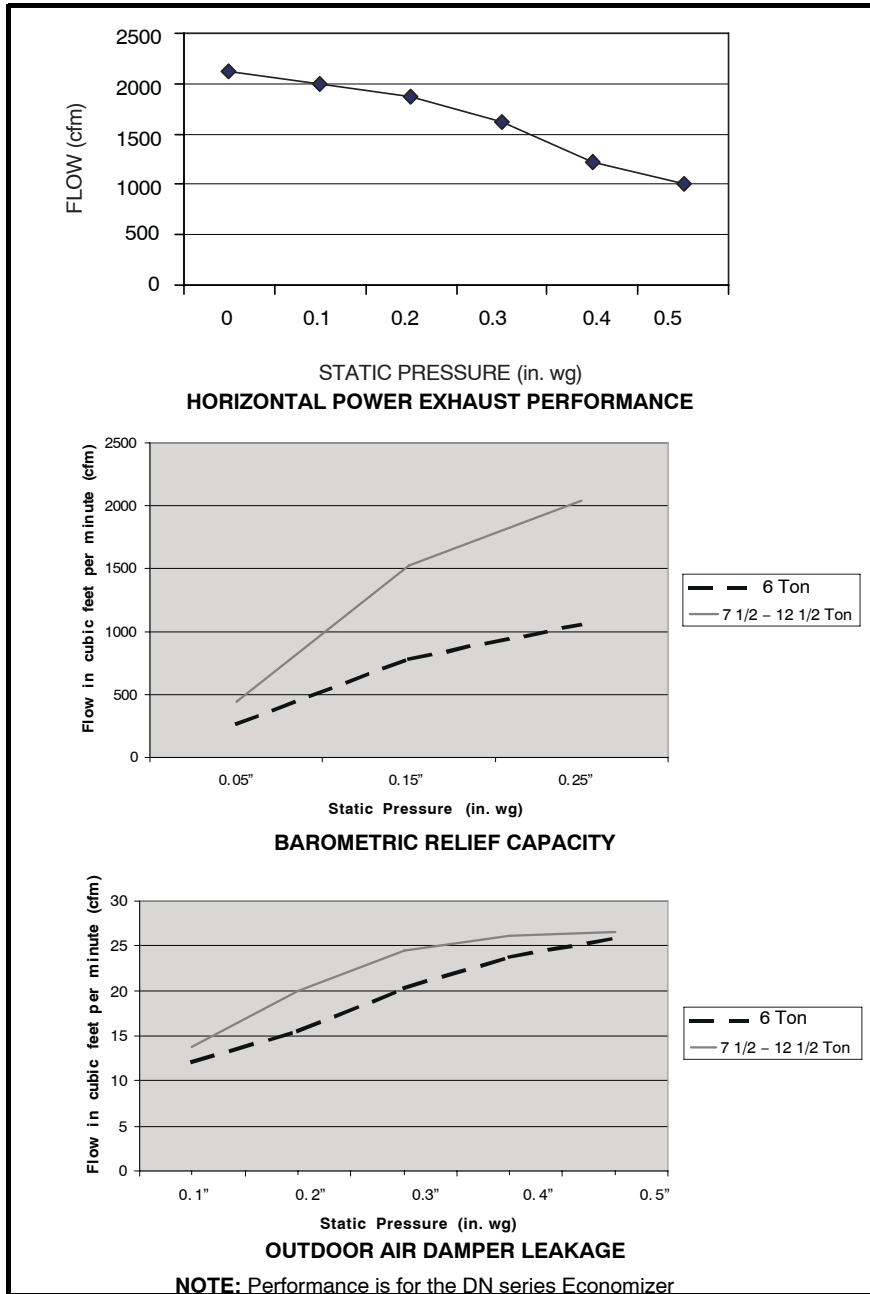
POWER EXHAUST OPTIONS

VERTICAL – MOUNTED IN ECONOMIZER HOOD				
POWER EXHAUST PART NO.	POWER EXHAUST DESCRIPTION	APPLICATION USAGE	POWER OUTPUT (Hp per fan)	NO. FANS
DNPWREXH030A01	Power Exhaust System (208/230–1–60)	072	0.23	2
DNPWREXH021A01	Power Exhaust System (460–3–60)	072	0.24	2
DNPWREXH022A01	Power Exhaust System (208/230–1–60)	090–150	0.47	2
DNPWREXH023A01	Power Exhaust System (460–3–60)	090–150	0.37	2

HORIZONTAL – MOUNTED IN RETURN DUCTWORK				
POWER EXHAUST PART NO.	POWER EXHAUST DESCRIPTION	APPLICATION USAGE	POWER OUTPUT (Hp per fan)	NO. FANS
DNPWREXH028A01	Horizontal Power Exhaust (208/230–1–60)	All	0.48	1
DNPWREXH029A01	Horizontal Power Exhaust (460–3–60)	All	0.48	1

PERFORMANCE DATA – PGE072–150 (cont.)

Horizontal Economizer



OPTIONAL POWER EXHAUST

UNIT PGE	AMPS AT 230 V (2 Fans Running)	MOCP		
		230 VAC	460 VAC	575 VAC
072	1.40 Amps at 60 Hz	15.0 amps	15.0 amps	15.0 amps
090-150	3.04 Amps at 60 Hz			

LEGEND

MOCP – Maximum Overcurrent Protection

EVAPORATOR-FAN MOTOR EFFICIENCY

UNIT PGE	MOTOR EFFICIENCY (%)
072	84
090-120	80
150	87

**NOTE:** The EPACT (Energy Policy Act of 1992) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (three-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT-compliant energy efficient motor. Variable speed motors are exempt from EPACT compliance requirements. Therefore, the indoor-fan motors for these units are exempt from these requirements.

**PERFORMANCE DATA – PGE072–150 (cont.)**

**EVAPORATOR–FAN MOTOR PERFORMANCE**

<b>UNIT PGE</b>	<b>EVAPORATOR FAN MOTOR</b>	<b>UNIT VOLTAGE</b>	<b>MAXIMUM ACCEPTABLE CONTINUOUS BHP*</b>	<b>MAXIMUM ACCEPTABLE OPERATING WATTS</b>	<b>MAXIMUM AMP DRAW</b>
<b>072</b>	Standard	208/230	2.40	2120	5.2
		460			3.0
		575			3.0
	High Static	208/230	2.90	2562	8.6
		460			3.9
		575			3.9
<b>090</b>	Standard	208/230	2.40	2120	6.7
		460			3.0
		575			3.0
	High Static	208/230	3.70	3313	12.2
		460			5.5
		575			5.5
<b>102</b>	Standard	208/230	2.40	2120	6.7
		460			3.0
		575			3.0
	High Static	208/230	3.70	3313	12.2
		460			5.5
		575			5.5
<b>120</b>	Standard	208/230	2.40	2120	6.7
		460			3.0
		575			3.0
	High Static	208/230	5.25	4400	17.3
		460			8.5
		575			8.5
<b>150</b>	Standard	208/230	3.70	3313	12.2
		460			5.5
		575			5.5
	High Static	208/230	5.25	4400	17.3
		460			8.5
		575			8.5

**LEGEND**

**BHP** – Brake Horsepower

\*Extensive motor and electrical testing on these units ensures that the full horsepower range of the motors can be utilized with confidence. Using your fan motors up to the horsepower ratings shown in this table will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.

**ELECTRICAL DATA – PGE072–150**

Unit Size PGE	Nominal V- ph-Hz	IFM Type	Voltage Range		Compressor (each)			OFM (each)		IFM	Combustion Fan Motor	Power Supply			Min. Unit Disconnect Size*
			Min	Max	Qty	RLA	LRA	Qty	FLA			FLA	FLA	MCA	
072	208/230 -3-60	STD	187	254	1	20.6	146	1	1.4	5.2	0.6	32.4	40	31	180
		High													
	460-3-60	STD	414	508	1	9.5	73	1	0.9	2.6	0.3	15.4	20	15	90
		High													
	575-3-60	STD	518	632	1	7.6	62	1	0.6	1.9	0.3	15	12.3	13	75
		High													
090	208/230 -3-60	STD	187	254	2	14	91	2	1.4	5.8	0.6	40.1	45	42	229
		High													
	460-3-60	STD	414	508	2	6.4	42	2	0.7	2.6	0.3	18.4	20	19	108
		High													
	575-3-60	STD	518	632	2	5.2	39	2	0.6	2.0	0.3	20	14.9	16	97
		High													

Unit Size PGE	Nominal V- ph-Hz	IFM Type	Voltage Range		Compressor (each)			OFM (each)		IFM	Combustion Fan Motor	Power Supply			Min. Unit Disconnect Size*
			Min	Max	Qty	RLA	LRA	Qty	FLA			FLA	FLA	MCA	
102	208/230 -3-60	STD	187	254	2	17.3	120.0	2	1.4	5.8	0.6	44.3	50	46	272
		High													
	460-3-60	STD	414	508	2	7.9	70.0	2	0.7	2.6	0.3	21.0	25	22	149
		High													
	575-3-60	STD	518	632	2	5.5	50.0	2	0.6	2.0	0.3	16.7	20	17	109
		High													
120	208/230 -3-60	STD	187	254	2	15.8	130	2	1.4	5.8	0.6	44.6	50	46	307
		High													
	460-3-60	STD	414	508	2	7.9	64	2	0.7	2.6	0.3	22.0	25	23	152
		High													
	575-3-60	STD	518	632	2	6.6	52	2	0.6	2.0	0.3	18.1	20	19	123
		High													
150	208/230 -3-60	STD	187	254	2	19	156	2	1.4	10.6	0.6	56.2	70	59	359
		High													
	460-3-60	STD	414	508	2	9	75	2	0.7	4.8	0.3	26.5	30	28	174
		High													
	575-3-60	STD	518	632	2	7.4	54	2	0.6	3.3	0.3	21.6	25	23	127
		High													

See Legend and Notes for Electrical Data following this section.

## ELECTRICAL DATA – PGE072–150 (cont.)

### LEGEND

**FLA** – Full Load Amps  
**HACR** – Heating, Air Conditioning and Refrigeration  
**IFM** – Indoor Fan Motor  
**LRA** – Locked Rotor Amps  
**MCA** – Minimum Circuit Amps  
**MOCP** – Maximum Overcurrent Protection  
**NEC** – National Electrical Code  
**OFM** – Outdoor Fan Motor  
**RLA** – Rated Load Amps



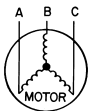
\*Used to determine minimum disconnect per NEC.  
 †Fuse or HACR circuit breaker.

### NOTES:

- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker.
- Unbalanced 3–Phase Supply Voltage** Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percent of voltage imbalance.  
 % Voltage Imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 460–3–60.



AB = 452 v  
 BC = 464 v  
 AC = 455 v

$$\begin{aligned}
 \text{Average Voltage} &= \frac{452 + 464 + 455}{3} \\
 &= \frac{3171}{3} \\
 &= 457
 \end{aligned}$$

Determine maximum deviation from average voltage.

(AB) 457 – 452 = 5 v  
 (BC) 464 – 457 = 7 v  
 (AC) 457 – 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

$$\begin{aligned}
 \% \text{ Voltage Imbalance} &= 100 \times \frac{7}{457} \\
 &= 1.53\%
 \end{aligned}$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

**IMPORTANT:** If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

3. For units with power exhaust: If a single power source is to be used, size wire to include power exhaust MCA and MOCP. Check MCA and MOCP when power exhaust is powered through the unit (must be in accordance with NEC and/or local codes). Determine the new MCA including the power exhaust using the following formula:

$$\text{MCA New} = \text{MCA unit only} + \text{MCA of Power Exhaust}$$

$$\text{MCA New} = 28.9 \text{ amps} + 1.6 \text{ amps} = 30.5 \text{ amps}$$

If the new MCA does not exceed the published MOCP, then MOCP would not change. The MOCP in this example is 35 amps, the MCA New is below 35, therefore the MOCP is acceptable. If MCA New is larger than the published MOCP, raise the MOCP to the next larger size. For separate power, the MOCP for the power exhaust will be 15 amps per NEC.

### POWER EXHAUST ELECTRICAL DATA

Power Exhaust Part No.	Application Usage	MCA (230V)	MCA (460V)	MCA (575V)	MOCP (separate power source only)
DNPWREXH030A01	072	1.6	N/A	0.64	15
DNPWREXH021A01	072	N/A	0.68	N/A	15
DNPWREXH022A01	090-150	3.4	N/A	1.32	15
DNPWREXH023A01	090-150	N/A	1.4	N/A	15
DNPWREXH028A01	ALL	1.7	N/A	0.68	15
DNPWREXH029A01	ALL	N/A	0.7	N/A	15

Model	Application Usage	Volt/Phase/Hertz	Unit			
			LRA	FLA	MCA	Fuse Size
AXB035PEH	072	208/230/1/60	10.2	4.3	5.4	10
AXB035PEL	072	460/1/60	4.1	1.7	2.2	4
AXB035PES	072	575/1/60	4.1	1.7	2.2	4
AXB145PEH	90-102	208-230/1/60	10.2	4.3	5.4	8
AXB145PEL	90-102	460/1/60	4.1	1.7	2.2	5
AXB145PES	90-102	575/1/60	4.1	1.7	2.2	5
AXB245PEH	120-150	208-230/1/60	24.9	5.0	6.3	10
AXB245PEL	120-150	460/1/60	N/A	2.2	2.8	5
AXB245PES	120-150	575/1/60	N/A	1.5	1.9	4

NOTE: AXB power exhaust is wired single phase, drop third leg when installing.

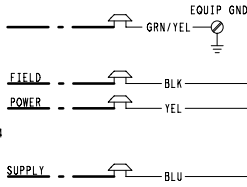
TYPICAL WIRING SCHEMATICS - PGE072-150

PGE090 - 208/230v SHOWN

SCHEMATIC

CIRCUIT BREAKER	VOLTS	MFG. PT. NO.	MUST TRIP AMPS
CB	24V	POTTER & BRUMFIELD W28X-1024-3.2	3.2

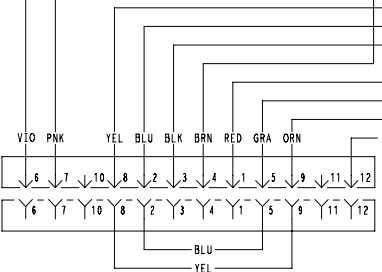
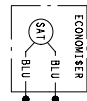
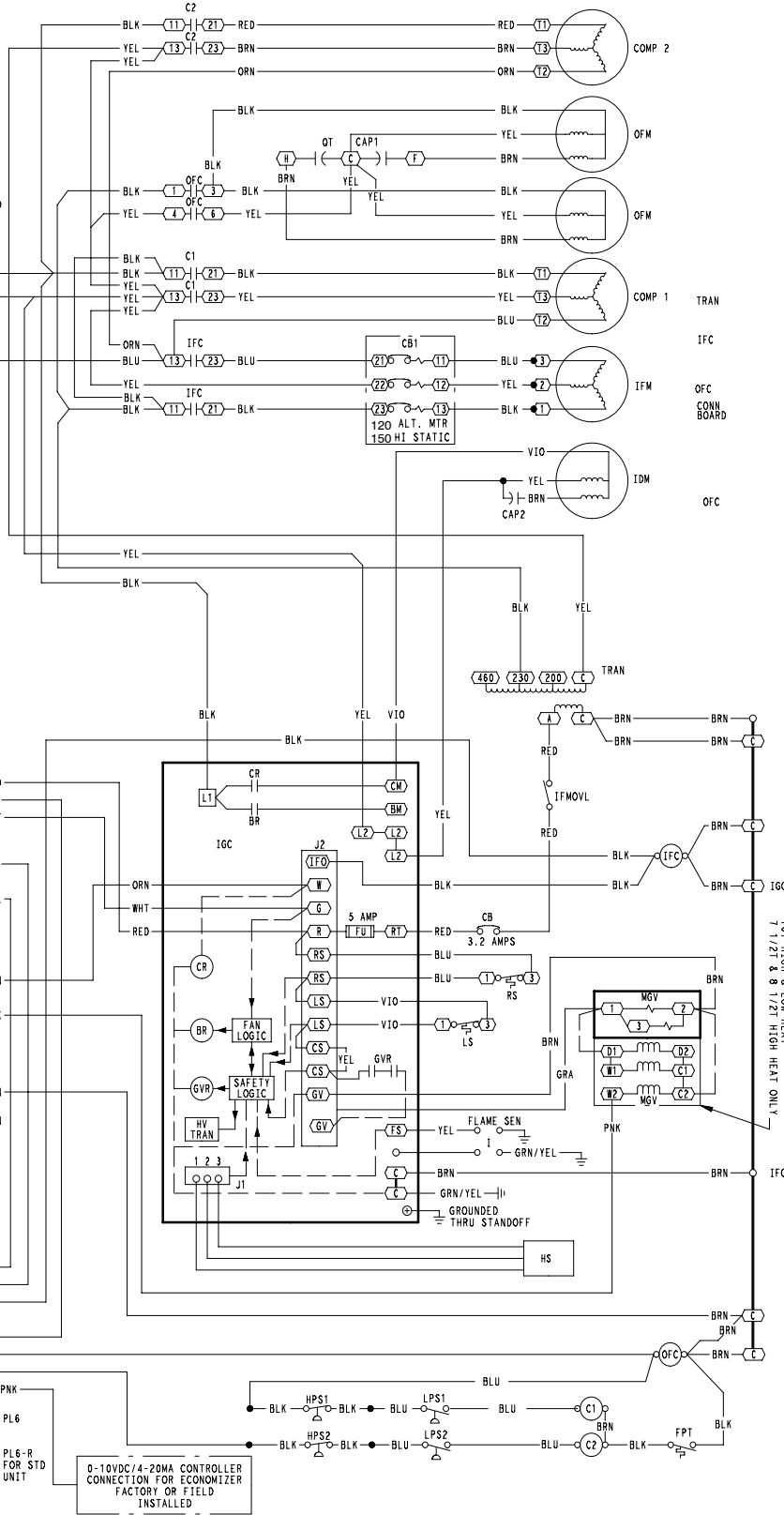
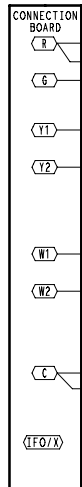
208/230-3-60



SEE NOTE #4

- NOTES
- IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
  - COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
  - TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP (ORN) AND CONNECT TO 208V TAP (RED). INSULATE END OF 230V WIRE.
  - USE COPPER CONDUCTORS ONLY.

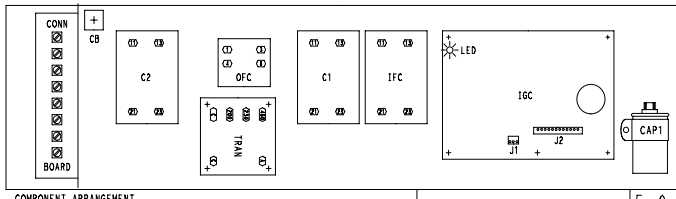
- LEGEND
- C CONTACTOR, COMPRESSOR
  - CB CIRCUIT BREAKER
  - CH CRANKCASE HEATER
  - CLO COMPRESSOR LOCKOUT
  - COMP COMPRESSOR MOTOR
  - EQUIP EQUIPMENT
  - FPT FREEZE UP PROTECTION THERMOSTAT
  - GND GROUND
  - HPS HIGH PRESSURE SWITCH
  - HS HALL EFFECT SEN.
  - I IGNITOR
  - IAO INDOOR AIR QUALITY SEN.
  - IARH INDOOR AIR RELATIVE HUMIDITY SEN.
  - LA LOW AMBIENT LOCKOUT
  - LPS LOW PRESSURE SWITCH
  - LS LIMIT SWITCH
  - MGV MAIN GAS VALVE
  - MTR MOTOR
  - OARH OUTDOOR AIR RELATIVE HUMIDITY SEN.
  - OAT OUTDOOR AIR TEMP. SEN.
  - OFC OUTDOOR FAN CONTACTOR
  - OFM OUTDOOR FAN MOTOR
  - P PLUG
  - PL PLUG ASSEMBLY
  - POT POTENTIOMETER
  - OT QUADRUPLE TERMINAL
  - PAT RETURN AIR TEMP. SEN.
  - RS ROLL OUT SWITCH
  - SAT SUPPLY AIR TEMP. SEN.
  - SEN SENSOR
  - TRAN TRANSFORMER



0-10VDC/4-20MA CONTROLLER CONNECTION FOR ECONOMIZER FACTORY OR FIELD INSTALLED

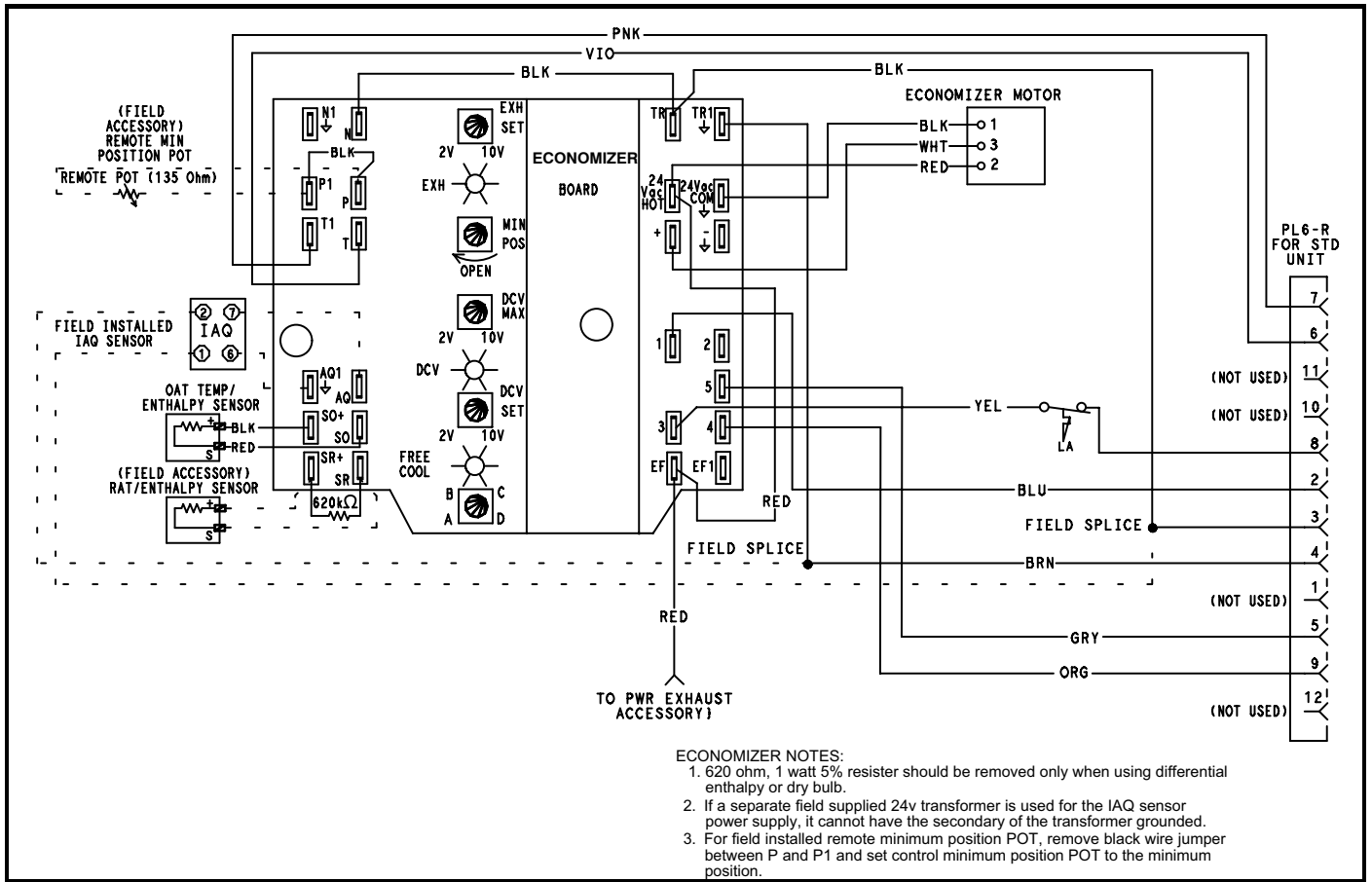
LEGEND

- FIELD SPlice
- MARKED WIRE
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY: NOT TO REPRESENT WIRING



50DK508790 5.0

**TYPICAL WIRING SCHEMATICS – PGE072-150 (cont.)  
ECONOMIZER WIRING – PGE072-150**



**LEGEND**

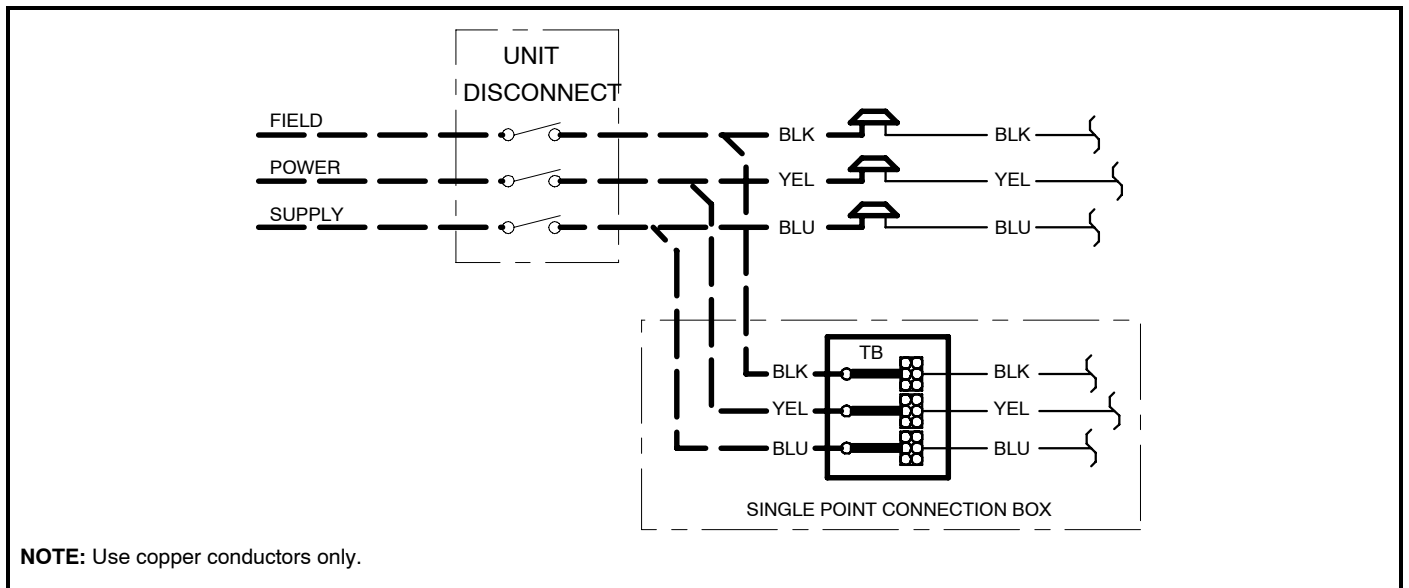
IAQ – Indoor Air Quality  
 LA – Low Ambient Lockout Device  
 POT – Potentiometer  
 OAT – Outdoor Air Temperature  
 RAT – Return Air Temperature

**NOTES:**

Potentiometer Default Settings:  
 Power Exhaust Middle  
 Minimum Pos – Fully Closed  
 DCV Max. – Middle  
 DCV Set – Middle  
 Enthalpy C Setting

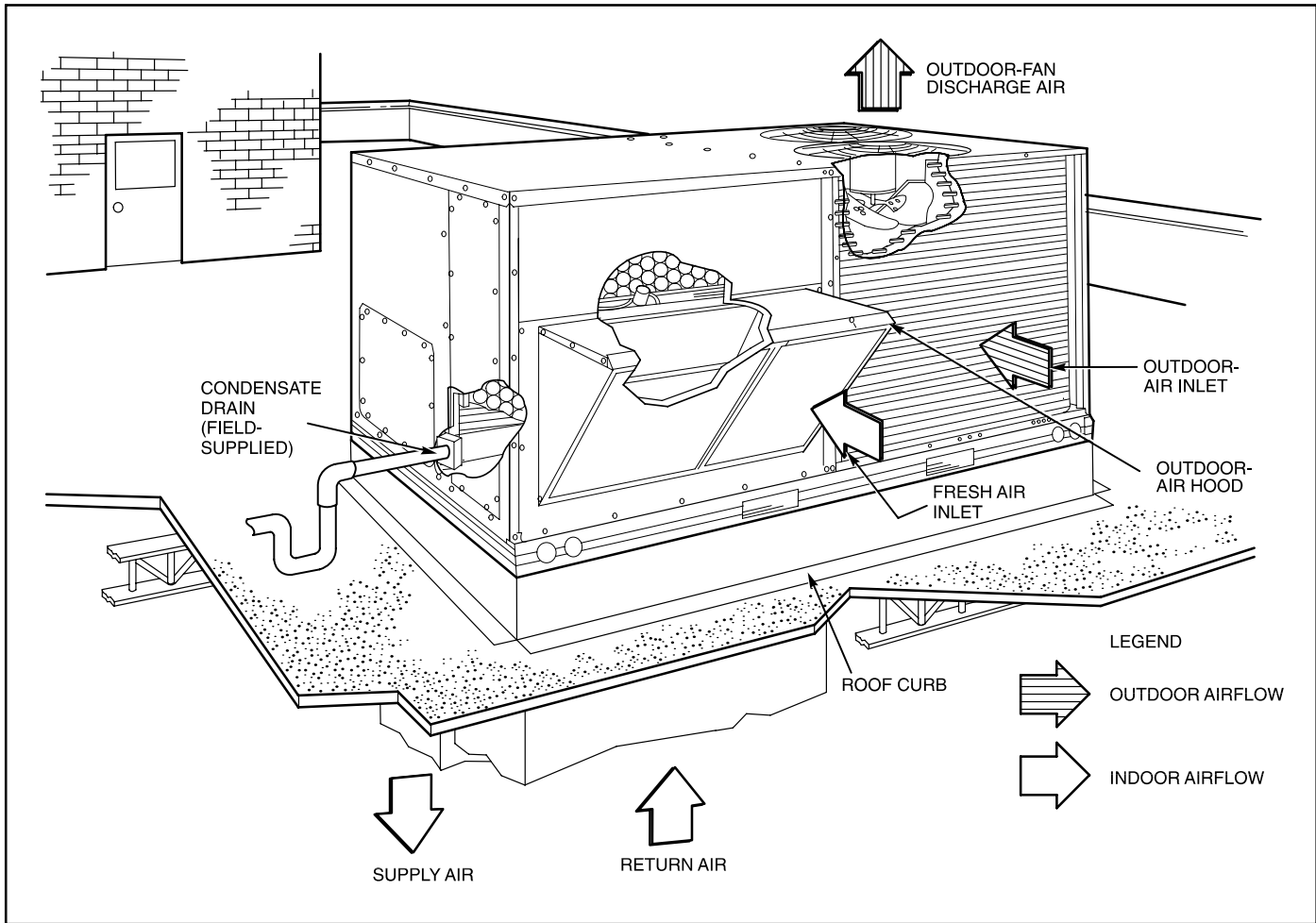
**NOTE:** Wiring is for the DN series Economizer

**TYPICAL WIRING SCHEMATICS – PGE072-150 (cont.)  
NON-FUSED DISCONNECT (Optional) – PGE072-150**

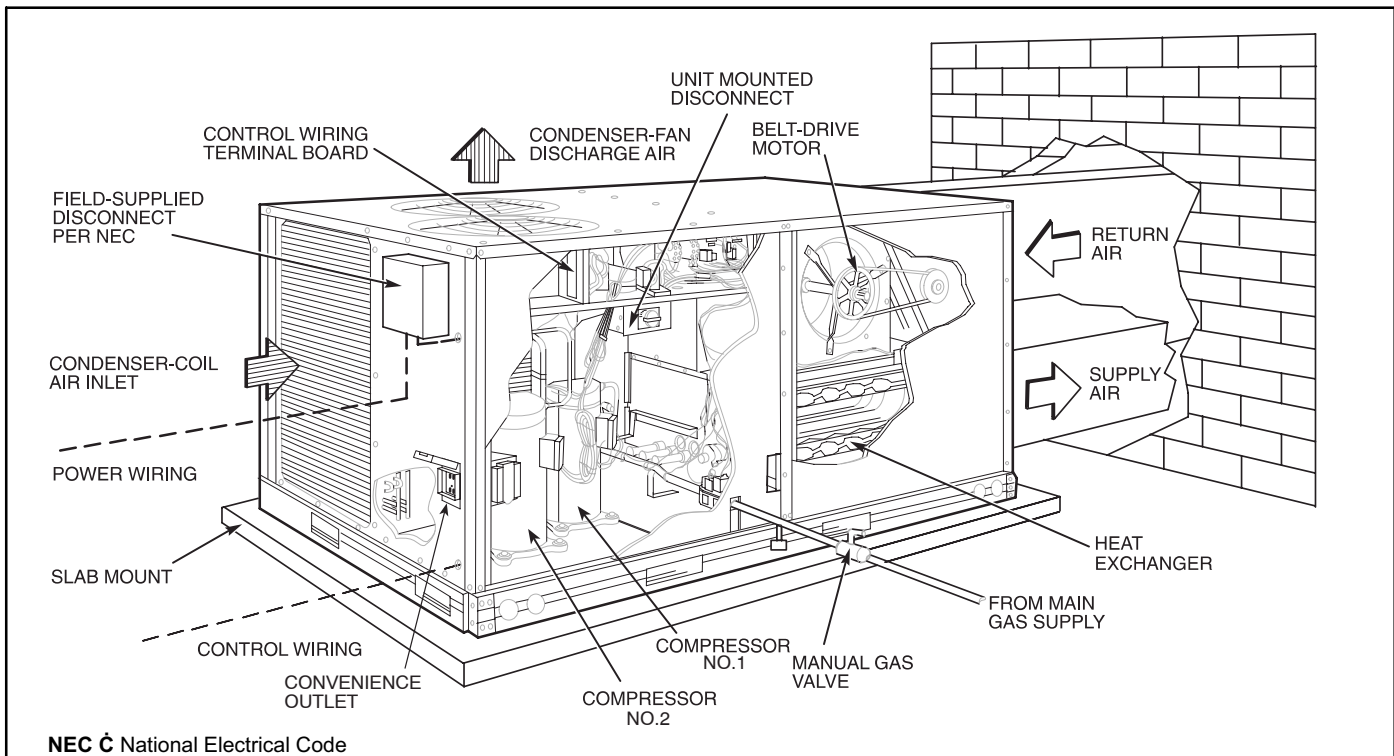


TYPICAL PIPING AND WIRING - PGE072-150 (cont.)

VERTICAL DISCHARGE DUCTING



HORIZONTAL DISCHARGE DUCTING





**PART 1 – GENERAL****1.01 SYSTEM DESCRIPTION**

Outdoor rooftop mounted, electrically controlled heating and cooling unit utilizing a hermetic compressor(s) for cooling duty and gas combustion for heating duty. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.

**1.02 QUALITY ASSURANCE**

- A. Unit well exceeds ASHRAE 90.1–2001 Energy Standards.
- B. Unit shall be rated in accordance with ARI Standards 210 or 360. Designed in accordance with UL Standard 1995.
- C. Unit shall be designed to conform to ASHRAE 15, latest revision.
- D. Unit shall be UL tested and certified in accordance with ANSI Z21.47 Standards and UL listed and certified under Canadian standards as a total package for safety requirements.
- E. Roof curb shall be designed to conform to NRCA Standards.
- F. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- G. Unit casing shall be capable of withstanding 500 hour salt spray exposure per ASTM B117 (scribed specimen).
- H. Unit shall be designed in accordance with ISO 9001:2000, and shall be manufactured in a facility registered to ISO 9001:2000.
- I. Each unit shall be subjected to a completely automated run testing on the assembly line. A factory supplied printout indicating tested pressures, amperages, data, and inspectors; providing certification of the unit status at the time of manufacture, shall be available upon request.

**1.03 DELIVERY, STORAGE, AND HANDLING**

Unit shall be stored and handled per manufacturer's recommendations.

**PART 2 – PRODUCTS****2.01 EQUIPMENT (STANDARD)**

- A. General: Factory assembled, single piece heating and cooling unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22), and special features required prior to field start-up.

**B. Unit Cabinet:**

1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
2. Evaporator fan compartment interior cabinet surfaces shall be insulated with a minimum ½ in. thick, 1 lb density, flexible fiberglass insulation, neoprene coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
3. Cabinet panels shall be easily removable for servicing.
4. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
5. Unit shall have a factory installed, sloped condensate drain pan made of a non corrosive material, providing a minimum ¾ in.–14 NPT connection with both vertical and horizontal drains, and shall comply with ASHRAE Standard 62.
6. Unit shall have a factory installed filter access panel to provide filter access with toolless removal.
7. Unit shall have standard thru-the-bottom gas and power connection capability (accessory kit is required).

**C. Fans:****1. Evaporator Fan:**

- a. Fan shall be belt driven as shown on the equipment drawings. Belt drive shall include an adjustable pitch motor pulley.
  - b. Fan wheel shall be double inlet type with forward curved blades.
  - c. Bearings shall be sealed, permanently lubricated ball bearing type for longer life and lower maintenance.
2. Evaporator fan shall be made from steel with a corrosion resistant finish and shall be dynamically balanced.
  3. Rooftop evaporator fan motors smaller than 5 hp are specifically designed and are rated in maximum continuous Bhp or maximum continuous watts. The motors do not have a horsepower rating on the nameplate.
  4. Condenser fan shall be of the direct driven (with totally enclosed motors) propeller type and shall discharge air vertically.

5. Condenser fan shall have aluminum blades riveted to corrosion resistant steel spiders and shall be dynamically balanced.
6. Induced draft blower shall be of the direct driven, single inlet, forward curved centrifugal type, made from steel with a corrosion resistant finish and shall be dynamically balanced.

**D. Compressor(s):**

1. Fully hermetic type, internally protected scroll type.
2. Factory mounted on rubber grommets and internally spring mounted for vibration isolation.
3. On dual electrically and mechanically independent circuits (090–150).

**E. Coils:**

1. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved ¾-in. OD copper tubes with all joints brazed.
2. Dual compressor models (size 090–150) shall have face-split type evaporator coil (circuit no. 1 on bottom).
3. Testing:
  - a. Evaporator and condenser coils shall be qualified to UL 1995 burst test at 2,200 psi.
  - b. Evaporator and condenser coils shall be leak tested to 150 psig and pressure tested to 400 psig.

**F. Heating Section:**

1. Induced draft combustion type with energy saving direct spark ignition system and redundant main gas valve.

**2. Heat Exchanger:**

- a. The standard heat exchanger shall be of the tubular section type constructed of a minimum of 20 gage steel coated with a nominal 1.2 mil aluminum silicone alloy for corrosion resistance.
3. Burners shall be of the in shot type constructed of aluminum coated steel.
4. All gas piping shall enter the unit cabinet at a single location on side of unit (horizontal plane).
5. The integrated gas controller (IGC) board shall include gas heat operation fault notification using an LED (light emitting diode).
6. Unit shall be equipped with anti-cycle protection with one short cycle on unit flame rollout switch or 4 continuous short cycles on the high temperature limit switch. Fault indication shall be made using an LED.
7. The IGC board shall contain algorithms that modify evaporator fan operation to prevent future cycling on high temperature limit switch.
8. The LED shall be visible without removal of control box access panel.

**G. Refrigerant Components: Refrigerant circuit components shall include:**

1. Fixed orifice metering system.
2. Refrigerant filter drier.
3. Service gage connections on suction, discharge, and liquid lines.

## GUIDE SPECIFICATIONS – PGE072–150 (cont.)

### H. Filter Section:

1. Standard filter section shall consist of factory installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
2. Filter face velocity shall not exceed 320 fpm at nominal airflows.
3. Filter section should use only one size filter.
4. Filters shall be accessible through an access panel with no-tool-removal.

### I. Controls and Safeties:

1. Unit Controls: Unit shall be complete with self contained low voltage control circuit protected by a fuse on the 24v transformer side (090–150 units have a resettable circuit breaker).
2. Safeties:
  - a. Unit shall incorporate a solid state compressor protector which provides anti-cycle reset capability at the space thermostat, should any of the following standard safety devices trip and shut off compressor.
    - 1) Compressor over temperature, overcurrent.
    - 2) Loss of charge/low pressure switch.
    - 3) Freeze protection thermostat, evaporator coil.
    - 4) High pressure switch.
    - 5) Automatic reset motor thermal overload protector. The lockout protection shall be easily disconnected at the control board, if necessary.
  - b. Heating section shall be provided with the following minimum protections:
    - 1) High temperature limit switches.
    - 2) Induced draft motor speed sensor.
    - 3) Flame rollout switch.
    - 4) Flame proving controls.

### J. Operating Characteristics:

1. Unit shall be capable of starting and running at 125°F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/240 or 360 at + 10% voltage.
2. Compressor with standard controls shall be capable of operation down to 25°F ambient outdoor temperature.

### K. Electrical Requirements: All unit power wiring shall enter unit cabinet at a single factory predrilled location.

### L. Motors:

1. Compressor motors shall be cooled by refrigerant gas passing through motor windings and shall have line break thermal and current overload protection.
2. Evaporator fan motor shall have permanently lubricated bearings and inherent automatic reset thermal overload protection. Evaporator motors are specifically designed and do *not* have conventional horsepower (HP) ratings listed on the motor nameplate. Motors are designed and qualified in the –air over location downstream of the cooling coil and carry a maximum continuous bhp rating that is the maximum application bhp rating for the motor; no safety factors above that rating may be applied.
3. Totally enclosed condenser fan motor shall have permanently lubricated bearings, and inherent automatic reset thermal overload protection.
4. Induced draft motor shall have permanently lubricated sealed bearings and inherent automatic reset thermal overload protection.

### N. Special Features

#### 1. Integrated Economizers

- a. Integrated integral modulating type capable of simultaneous economizer and compressor operation. During economizer operation, up to two compressors on sizes 090–150 will operate.

- b. Available as a factory-installed option in vertical supply/return configuration only. (Available as a field-installed accessory for dedicated horizontal and/or vertical supply return configurations.)
- c. Includes all hardware and controls to provide cooling with outdoor air.
- d. Equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
- e. Capable of introducing up to 100% outdoor air.
- f. Economizer shall be equipped with a barometric relief damper capable of relieving up to 100% return air.
- g. Designed to close damper(s) during loss-of power situations with spring return built into motor.
- h. Dry bulb outdoor-air temperature sensor shall be provided as standard. Outdoor air sensor set point is adjustable and shall range from 40° to 100° F. For the economizer, the return air sensor, indoor enthalpy sensor, and outdoor enthalpy sensor shall be provided as field installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control.
- i. Economizer controller shall use a mixed air thermistor mounted on the evaporator fan housing to control economizer operation to a supply air temperature of 55° F.
- j. The economizer shall have a gear-driven parallel blade design.
- k. Economizer controller shall provide control of internal building pressure through its accessory power exhaust function. Factory set at 100%, with a range of 0% to 100%.
- l. Economizer Controller Occupied Minimum Damper Position Setting maintains the minimum airflow into the building during occupied period providing design ventilation rate for full occupancy (damper position during heating). A remote potentiometer may be used to override the set point.
- m. Economizer Controller Unoccupied Minimum Damper Position Setting – The economizer damper shall be completely closed when the unit is in the occupied mode.
- n. Economizer Controller IAQ/DCV Maximum Damper Position Setting – Setting the maximum position of the damper prevents the introduction of large amounts of hot or cold air into the space. This position is intended to satisfy the base minimum ventilation rate.
- o. Economizer controller IAQ/DCV control modulates the outdoor-air damper to provide ventilation based on the optional 2 to 10 vdc CO2 sensor input.
- p. Compressor lockout sensor (opens at 35° F, closes at 50° F).
- q. Actuator shall be direct coupled to economizer gear, eliminating linkage arms and rods.
- r. Control LEDs:
  1. When the outdoor-air damper is capable of providing free cooling, the “Free Cool” LED shall illuminate.
  2. The IAQ LED indicates when the module is on the DCV mode.
  3. The EXH LED indicates when the exhaust fan contact is closed.
- s. Remote Minimum Position Control – A field-installed accessory remote potentiometer shall allow the outdoor-air damper to be opened or closed beyond the minimum position in the occupied mode for modified ventilation.

PHYSICAL DATA – PGE180–300

UNIT PGE	180	210	240	300
<b>NOMINAL CAPACITY (tons)</b>	15	18	20	25
<b>OPERATING WEIGHT</b>				
Unit	1800	1850	1900	2270
Economizer	80	80	80	80
<b>COMPRESSOR/MANUFACTURER</b> Scroll, Copeland				
Quantity...Model (Ckt 1, Ckt 2)	1...ZR94KC, 1...ZR72KC	1...ZR108KC, 1...ZR94KC	1...ZR125KC, 1...ZR108KC	1...ZR4140KC, 2...ZR144KC
Capacity Stages (%)	60, 40	55, 45	55, 45	60, 40
Number of Refrigerant Circuits	2	2	2	2
Oil (oz) (Ckt 1, Ckt 2)	85, 60	106, 81	106, 106	136, 106
<b>REFRIGERANT TYPE</b> R-22				
Expansion Device TXV				
Operating Charge (lb-oz)				
Circuit 1*	19-8	19-8	19-11	26-13
Circuit 2	13-8	19-2	13-14	25-10
<b>CONDENSER COIL</b> Cross-Hatched 3/8-in. Copper Tubes, Aluminum Lanced, Aluminum Pre-Coated, or Copper Plate Fins				
Rows...Fins/in.	4...15	4...15	4...15	3...15 (2 coils)
Total Face Area (sq ft)	21.7	21.7	21.7	43.4
<b>CONDENSER FAN</b> Propeller Type				
Nominal Cfm	10,500	10,500	14,200	21,000
Quantity...Diameter (in.)	3...22	3...22	2...30	6...22
Motor Hp...Rpm	1/2...1050	1/2...1050	1...1075	1/2...1050
Watts Input (Total)	1100	1100	3400	2200
<b>EVAPORATOR COIL</b> Cross-Hatched 3/8-in. Copper Tubes, Aluminum Lanced or Copper Plate Fins, Face Split				
Rows...Fins/in.	4...15	4...15	4...15	4...15
Total Face Area (sq ft)	17.5	17.5	17.5	17.5
<b>EVAPORATOR FAN</b> Centrifugal Type				
Quantity...Size (in.)	2...12 x 12	2...12 x 12	2...12 x 12	2...12 x 12
Type Drive	Belt	Belt	Belt	Belt
Nominal Cfm	6000	7200	8000	10,000
Motor Hp	5	5	7.5	10
Motor Nominal Rpm	1745	1745	1745	1740
Maximum Continuous Bhp	6.13	5.90	8.7 [208/230v, 575v] 9.5 [460 v]	10.2 [208/230v, 575v] 11.8 [460 v]
Motor Frame Size	184T	184T	213T	215T
Nominal Rpm High/Low	-	-	-	-
Fan Rpm Range	873-1021 1025-1200	910-1095 1069-1287	1002-1151 1193-1369	1066-1283 1332-1550
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	1550	1550	1550	1550
Motor Pulley Pitch Diameter	4.9/5.9	4.9/5.9	5.4/6.6	4.9/5.9
Min/Max (in.)	4.9/5.9	4.9/5.9	5.4/6.6	4.9/5.9
Nominal Motor Shaft Diameter (in.)	1 1/8	1 1/8	1 3/8	1 3/8
Fan Pulley Pitch Diameter (in.)	9.4 8.0	9.4 8.0	9.4 7.9	8.0 6.4
Nominal Fan Shaft Diameter (in.)	1 7/16	1 7/16	1 7/16	1 7/16
Belt, Quantity...Type...Length (in.)	1...BX...50 1...BX...48	1...BX...50 1...BX...48	1...BX...53 1...BX...50	2...BX...50 2...BX...47
Pulley Center Line Distance (in.)	13.3-14.8	13.3-14.8	14.6-15.4	14.6-15.4
Speed Change per Full Turn of Movable Pulley Flange (rpm)	37 44	37 34	37 44	36 45
Movable Pulley Maximum Full Turns From Closed Position	4	6	6	6
Factory Speed	3.5	3.5	3.5	3.5
Factory Speed Setting (rpm)	965 1134	1002 1178	1095 1303	1182 1470
Fan Shaft Diameter at Pulley (in.)	1 7/16	1 7/16	1 7/16	1 7/16

**LEGEND**

**BHP** – Brake Horsepower

**TXV** – Thermostatic Expansion Valve

\*Circuit 1 uses the lower portion of the condenser coil and lower portion of the evaporator coils and Circuit 2 uses the upper portion of both coils.

† Rollout switch is manual reset.

\*\*The PGE300 unit requires 2-in. industrial grade filters capable of handling face velocities up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

**NOTE:** The PGE180–300 units have a low-pressure switch (standard) located on the suction side.

**PHYSICAL DATA – PGE180–300 (cont.)**

UNIT PGE	180	210	240 --	300
<b>FURNACE SECTION</b>				
Rollout Switch Cutout Temp (F)†	190	190	190	190
Burner Orifice Diameter (in. ...drill size)	0.1285...30/0.136...29	0.1285...30/0.136...29	0.1285...30/0.136...29	0.1285...30/0.136...29
Natural Gas				
Thermostat Heat Anticipator Setting (amps)				
208/230v, 575v				
Stage 1	0.98	0.98	0.98	0.98
Stage 2	0.44	0.44	0.44	0.44
460 v				
Stage 1	0.80	0.80	0.80 --	0.80
Stage 2	0.44	0.44	0.44	0.44
Gas Input				
Stage 1	206,000/270,000	206,000/270,000	206,000/270,000	206,000/270,000
Stage 2	275,000/360,000	275,000/360,000	275,000/360,000	275,000/360,000
Efficiency (Steady-State) (%)	81	81	81	81
Temperature Rise Range	15-45/20-50	15-45/20-50	15-45/20-50 --	15-45/20-50
Manifold Pressure (in. wg)				
Natural Gas	3.3	3.3	3.3	3.3
Gas Valve Quantity	1	1	1	1
Gas Valve Pressure Range				
in. wg	5.5-13.5	5.5-13.5	5.5-13.5 --	5.5-13.5
psig	0.235-0.487	0.235-0.487	0.235-0.487	0.235-0.487
Field Gas Connection Size (in.-FPT)	3/4	3/4	3/4	3/4
<b>HIGH-PRESSURE SWITCH (psig)</b>				
Cutout			426	
Reset (Auto)			320	
<b>LOW-PRESSURE SWITCH (psig)</b>				
Cutout			27	
Reset (Auto)			44	
<b>FREEZE PROTECTION THERMOSTAT (F)</b>				
Opens			30 ± 5	
Closes			45 ± 5	
<b>OUTDOOR-AIR INLET SCREENS</b>				
Quantity...Size (in.)			Cleanable	
			2...20 x 25 x 1	
			1...20 x 20 x 1	
<b>RETURN-AIR FILTERS</b>				
Quantity...Size (in.)			Throwaway**	
			4...20 x 20 x 2	
			4...16 x20 x 2	
<b>POWER EXHAUST*</b>	1/2 Hp, 208/230-460 v Motor Direct Drive, Propeller-Fan (Factory-Wired for 460 v)			

\* NOTE: DN series Power Exhaust

**LEGEND**

**BHP** – Brake Horsepower

**TXV** – Thermostatic Expansion Valve

\*Circuit 1 uses the lower portion of the condenser coil and lower portion of the evaporator coils and Circuit 2 uses the upper portion of both coils.

† Rollout switch is manual reset.

\*\*The PGE300 unit requires 2-in. industrial grade filters capable of handling face velocities up to 625 ft/min (such as American Air Filter no. 5700 or equivalent).

**NOTE:** The PGE180–300 units have a low–pressure switch (standard) located on the suction side.

**OPERATING WEIGHTS**

UNIT PGE	BASE UNIT OPERATING WEIGHTS*							
	180		210		240		300	
	lb	kg	lb	kg	lb	kg	lb	kg
	1800	816	1850	839	1900	862	2270	1030

\*Base unit weight does not include copper coils, economizer, power exhaust, barometric relief or crating. See Options and Accessories table below for more information.

**NOTE:** For 180 or 210 unit, add 75 lb (34 kg) for domestic crating. For 240 unit, add 135 lb (61 kg). For 300unit, add 175 lb (79 kg) for domestic crating.

# Base Unit Dimensions - PGE180, 210

UNIT	STD. UNIT WEIGHT	UNIT ECONOMIZER HEIGHT	CORNER A	CORNER B	CORNER C	CORNER D	DIM A	DIM B	DIM C
PGE180	1800 LB	50 LB	417 LB	359 LB	481 LB	503 LB	3'-2"	3'-6"	1'-10"
	815 KG	14 KG	181 KG	161 KG	218 KG	226 KG	(961)	(1070)	(552)
	1850 LB	50 LB	409 LB	353 LB	421 LB	498 LB	3'-4"	3'-7"	1'-10"
PGE210	839 KG	41 KG	186 KG	178 KG	191 KG	208 KG	(1016)	(1092)	(552)

**NOTES:**  
 1. Refer to print for roof curb accessory dimensions.  
 2. Dimensions in [ ] are in millimeters.

3. Center of gravity.

4. Direction of airflow.

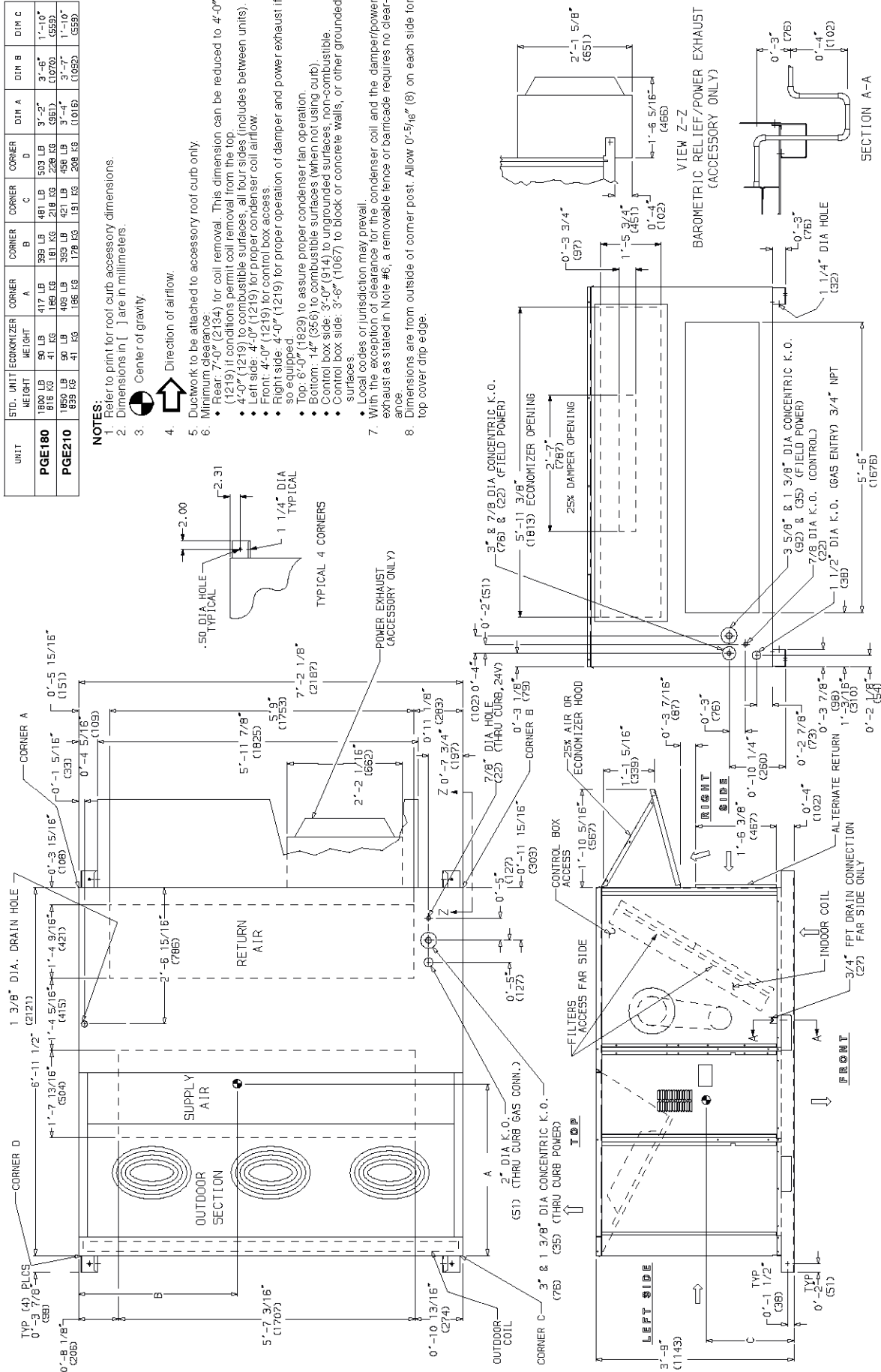
5. Ductwork to be attached to accessory roof curb only.

6. Minimum clearance:  
 • Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" (1219) if conditions permit coil removal from the top.  
 • 4'-0" (1219) to combustible surfaces, all four sides (includes between units).  
 • Left side: 4'-0" (1219) for proper condenser coil airflow.  
 • Front: 4'-0" (1219) for control box access.  
 • Right side: 4'-0" (1219) for proper operation of damper and power exhaust if so equipped.

• Top: 6'-0" (1829) to assure proper condenser fan operation.  
 • Bottom: 14" (356) to combustible surfaces (when not using curb).  
 • Control box side: 3'-0" (914) to ungrounded surfaces, non-combustible.  
 • Control box side: 3'-6" (1067) to block or concrete walls, or other grounded surfaces.  
 • Local codes or jurisdiction may prevail.

7. With the exception of clearance for the condenser coil and the damper/power exhaust as stated in Note #6, a removable fence or barricade requires no clearance.

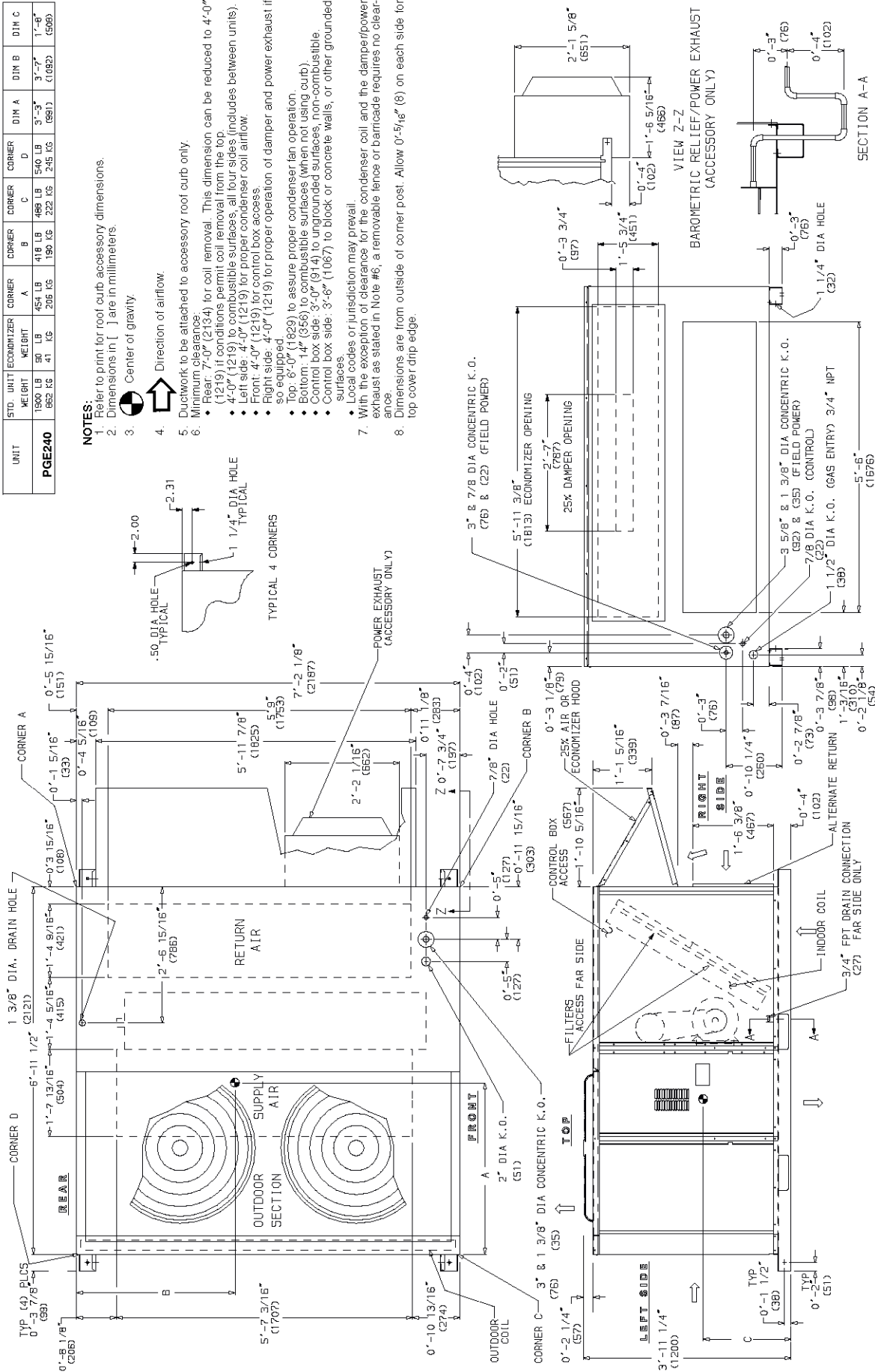
8. Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top cover drip edge.



# Base Unit Dimensions - PGE240

UNIT	STD. WEIGHT	UNITS	ECONOMIZER WEIGHT	CORNER A	CORNER B	CORNER C	CORNER D	DIM A	DIM B	DIM C
PGE240	1800 LB	50 KG	418 LB	454 LB	486 LB	540 LB	540 LB	3'-3"	3'-7"	1'-8"
	852 KG	41 KG	205 KG	222 KG	245 KG	245 KG	245 KG	(991)	(1052)	(565)

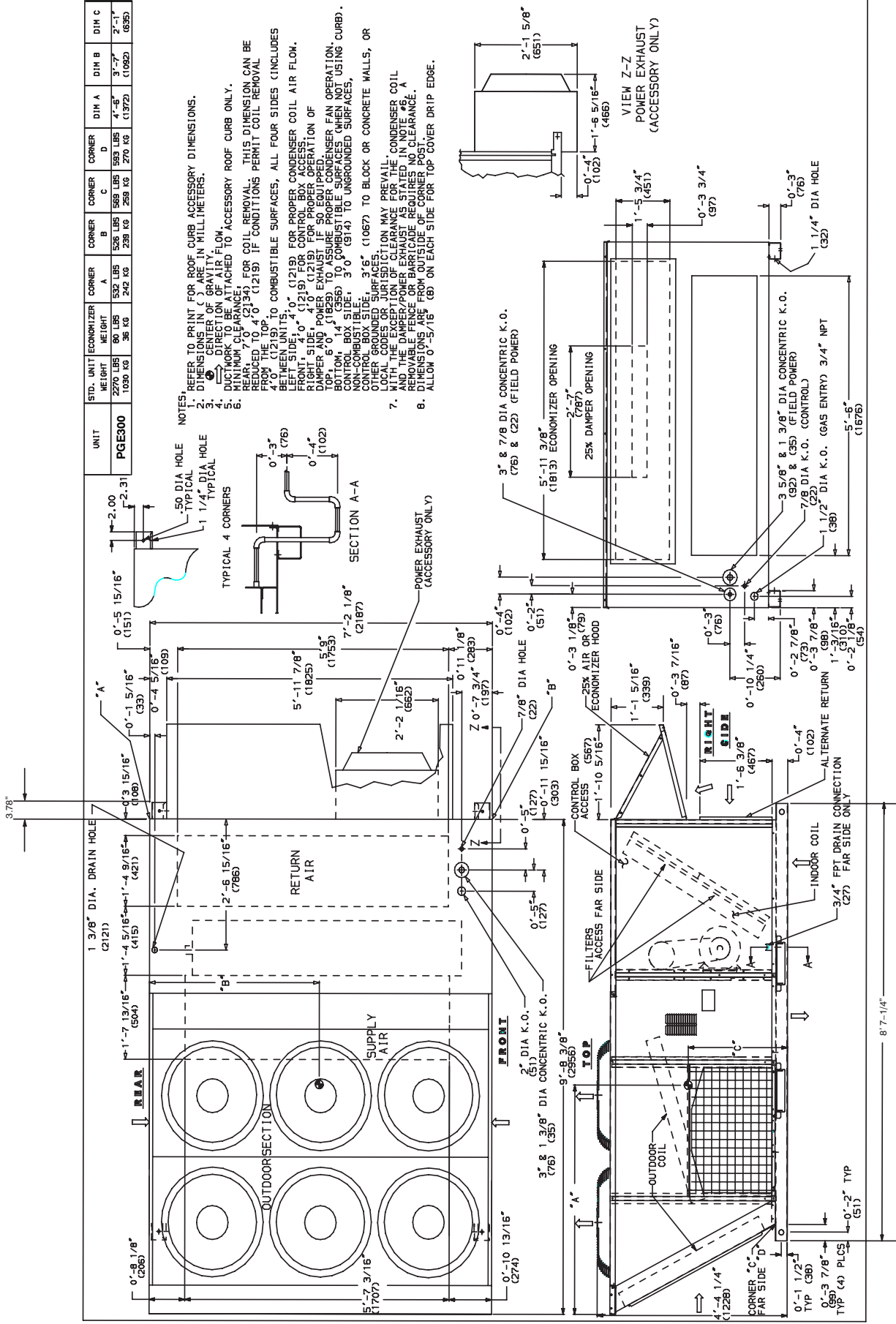
- NOTES:**
1. Refer to print for roof curb accessory dimensions.
  2. Dimensions in [ ] are in millimeters.
  3. Center of gravity.
  4. Direction of airflow.
  5. Ductwork to be attached to accessory roof curb only.
  6. Minimum clearance:
    - Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" (1219) if conditions permit coil removal from the top.
    - 4'-0" (1219) to combustible surfaces, all four sides (includes between units).
    - Left side: 4'-0" (1219) for proper condenser coil airflow.
    - Front: 4'-0" (1219) for control box access.
    - Right side: 4'-0" (1219) for proper operation of damper and power exhaust if so equipped.
    - Top: 8'-0" (1829) to assure proper condenser fan operation.
    - Bottom: 14" (356) to combustible surfaces (when not using curb).
  7. With the exception of clearance for the condenser coil and the damper/power exhaust as stated in Note #6, a removable fence or barricade requires no clearance.
  8. Dimensions are from outside of corner post. Allow 0'-5/16" (8) on each side for top cover drip edge.



BASE UNIT DIMENSIONS - PGE300

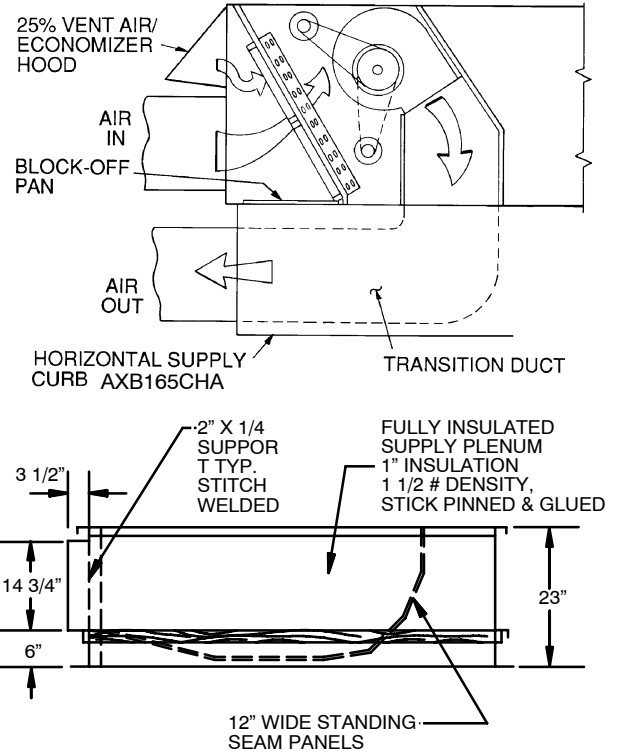
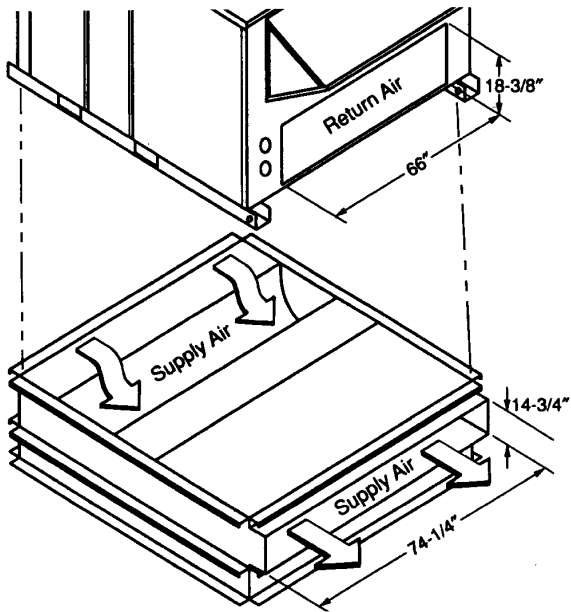
UNIT	STD. UNIT WEIGHT	ECONOMIZER WEIGHT	CORNER A	CORNER B	CORNER C	CORNER D	DIM A	DIM B	DIM C
PGE300	2270 LBS	60 LBS	532 LBS	526 LBS	569 LBS	593 LBS	4'-6"	3'-7"	2'-1"
	1030 KG	28 KG	242 KG	239 KG	259 KG	270 KG	(1372)	(1092)	(635)

- NOTES:
- REFER TO PRINT FOR ROOF CURB ACCESSORY DIMENSIONS.
  - DIMENSIONS IN ( ) ARE IN MILLIMETERS.
  - CENTER OF GRAVITY.
  - SECTION ON AIR FLOW.
  - MINIMUM CLEARANCE TO ACCESSORY ROOF CURB ONLY.
  - REDUCED TO 4" (102) IF CONDITIONS PERMIT COIL REMOVAL.
  - REDUCED TO 4" (102) TO COMBUSTIBLE SURFACES, ALL FOUR SIDES (INCLUDES BETWEEN UNITS).
  - FOR PROPER CONDENSER COIL AIR FLOW, FRONT: 4" (102) FOR CONTROL BOX ACCESS; REAR: 4" (102) FOR CONDENSER COIL ACCESS; DAMPER AND POWER EXHAUST: 1" (25) SEPARATION OF TOP; 6" (152) TO ASSURE PROPER CONDENSER FAN OPERATION; BOTTOM: 14" (355) TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB); CONTROL BOX SIDE: 3' 0" (914) TO UNGROUNDED SURFACES, OTHER GROUNDED SURFACES: 3' 6" (1067) TO BLOCK OR CONCRETE WALLS, OR LOCAL CODES OR JURISDICTION MAY PREVAIL; CONDENSER COIL AND THE DAMPER/POWER EXHAUST SURFACES IN NOTES 6, 7 AND 8.
  - REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE. A DIMENSIONS ARE FROM OUTSIDE OF CORNER POST.
  - ALLOW 0'-5/16" (8) ON EACH SIDE FOR TOP COVER DRIP EDGE.



ACCESSORY DIMENSIONS

HORIZONTAL SUPPLY/RETURN ADAPTER INSTALLATION - PGE180-240

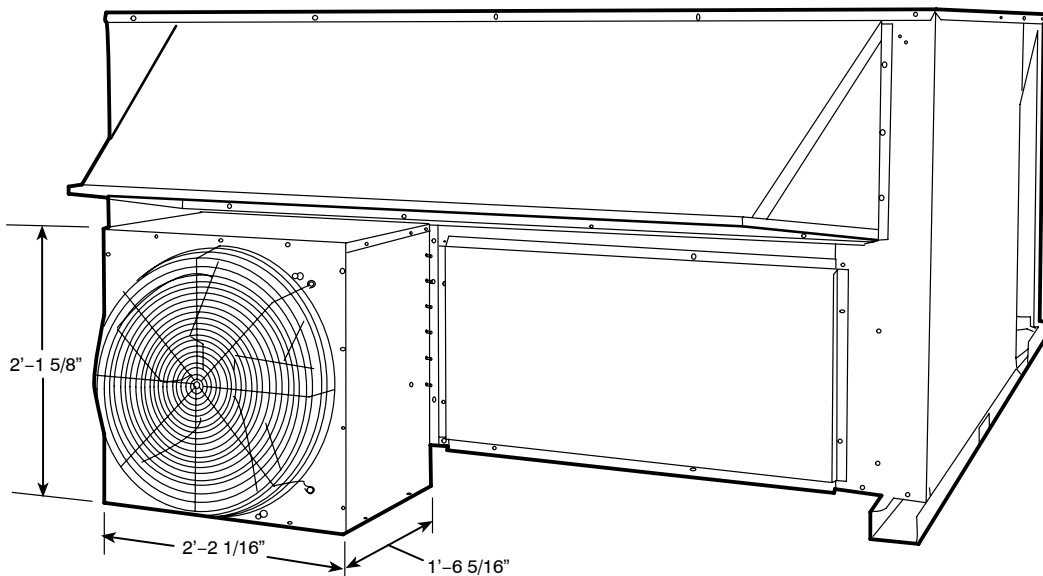


**NOTE:** AXB165CHA is a horizontal adapter and includes an insulated transition duct. The pressure drop through the adapter curb is negligible. Power exhaust and barometric relief accessory are not available with horizontal adapter.

For horizontal return applications: The power exhaust and barometric relief dampers must be installed in the return air duct.

ACCESSORY PACKAGE NO.	CURB HEIGHT	DESCRIPTION
AXB165CHA	1' - 11" (584)	Horizontal Adapter Roof Curb

POWER EXHAUST





**PERFORMANCE DATA – PGE180–300**

**COOLING CAPACITIES**

<b>PGE180 (15 TONS)</b>		<b>Air Entering Evaporator – Cfm/BF</b>														
<b>Temp (F) Air Entering Condenser (Edb)</b>		<b>4,500/0.010</b>			<b>5,250/0.120</b>			<b>6,000/0.140</b>			<b>6,750/0.150</b>			<b>7,500/0.160</b>		
		<b>Air Entering Evaporator – Ewb (F)</b>														
		<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>
<b>75</b>	<b>TC</b>	175.7	191.8	210.9	180.5	196.4	214.9	183.3	201.0	218.9	187.1	203.0	222.9	189.2	205.0	224.9
	<b>SHC</b>	145.5	123.0	99.9	156.2	131.5	104.9	167.8	139.1	110.6	175.3	146.3	115.0	183.7	155.8	119.4
	<b>kW</b>	14.0	14.4	15.0	14.2	14.6	15.1	14.3	14.7	15.2	14.4	14.9	15.4	14.5	14.9	15.4
<b>85</b>	<b>TC</b>	168.8	185.1	203.0	173.3	189.2	207.0	177.1	192.8	210.9	179.7	196.0	214.9	182.3	198.0	216.9
	<b>SHC</b>	141.7	119.8	97.1	151.6	128.6	101.9	162.4	135.9	106.7	171.1	143.1	111.0	179.1	150.2	116.4
	<b>kW</b>	15.2	15.6	16.1	15.3	15.8	16.3	15.5	15.9	16.5	15.6	16.1	16.6	15.7	16.1	16.7
<b>95</b>	<b>TC</b>	161.8	177.5	194.4	166.4	181.5	199.0	169.0	184.7	203.0	171.7	187.7	205.0	174.5	189.4	207.0
	<b>SHC</b>	138.7	116.8	93.9	147.5	125.2	99.1	157.6	132.7	103.3	167.2	139.9	108.3	173.9	146.5	112.2
	<b>kW</b>	16.4	16.9	17.4	16.6	17.0	17.6	16.7	17.2	17.7	16.8	17.3	17.8	16.9	17.4	17.9
<b>105</b>	<b>TC</b>	154.6	169.3	185.3	158.6	173.1	189.2	161.2	175.9	192.0	164.0	178.1	194.6	167.4	179.7	196.2
	<b>SHC</b>	133.9	113.6	90.7	143.7	121.4	95.7	154.2	129.0	100.3	161.8	136.1	104.7	167.2	142.7	108.7
	<b>kW</b>	17.6	18.2	18.7	17.8	18.3	18.8	17.9	18.5	18.9	18.1	18.5	19.1	18.2	18.6	19.1
<b>115</b>	<b>TC</b>	147.1	160.8	175.5	150.4	164.2	179.1	152.4	166.4	181.9	155.8	168.6	184.3	159.6	169.7	185.7
	<b>SHC</b>	130.1	110.2	87.4	139.7	117.8	92.1	149.3	125.4	96.7	155.6	131.9	101.1	159.2	139.1	105.3
	<b>kW</b>	19.0	19.5	20.0	19.1	19.7	20.2	19.2	19.8	20.2	19.4	19.9	20.4	19.5	19.9	20.4
<b>118</b>	<b>TC</b>	144.7	158.0	172.5	147.7	161.2	175.9	150.0	163.4	178.3	153.4	165.4	180.7	157.0	166.8	182.1
	<b>SHC</b>	129.0	109.1	86.4	138.5	116.6	91.1	147.7	124.2	95.5	153.4	130.7	99.9	156.8	137.7	104.1
	<b>kW</b>	19.4	19.9	20.4	19.5	20.0	20.6	19.6	20.2	20.6	19.8	20.2	20.8	19.9	20.4	20.8
<b>120</b>	<b>TC</b>	142.9	156.2	170.5	145.9	159.2	-	148.3	161.2	-	151.8	163.2	-	155.4	164.8	-
	<b>SHC</b>	128	108	86	138	116	-	146	123	-	152	130	-	155	137	-
	<b>kW</b>	19.6	20.2	20.6	19.8	20.2	-	19.9	20.4	-	20.0	20.4	-	20.2	20.6	-

<b>PGE210 (18 TONS)</b>		<b>Air Entering Evaporator – Cfm/BF</b>														
<b>Temp (F) Air Entering Condenser (Edb)</b>		<b>5,400/0.095</b>			<b>6,000/0.105</b>			<b>7,000/0.120</b>			<b>8,000/0.140</b>			<b>9,000/0.150</b>		
		<b>Air Entering Evaporator – Ewb (F)</b>														
		<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>62</b>	<b>67</b>	<b>72</b>
<b>75</b>	<b>TC</b>	227	247	269	232	251	274	237	255	277	241	258	280	248	261	283
	<b>SHC</b>	200	167	134	215	178	141	231	194	152	241	205	160	248	219	167
	<b>kW</b>	15.9	16.5	17.2	16.1	16.7	17.3	16.3	16.8	17.5	16.5	16.9	17.6	16.7	17.0	17.7
<b>85</b>	<b>TC</b>	219	238	259	224	242	265	229	247	269	235	250	272	241	252	273
	<b>SHC</b>	197	164	131	210	175	137	225	188	145	234	200	153	240	214	163
	<b>kW</b>	17.2	17.8	18.5	17.4	17.9	18.6	17.6	18.1	18.8	17.8	18.3	19.0	18.0	18.3	19.0
<b>95</b>	<b>TC</b>	210	229	248	214	233	253	219	237	258	225	239	261	231	242	263
	<b>SHC</b>	192	160	126	205	171	133	218	183	141	225	194	148	231	206	156
	<b>kW</b>	18.5	19.2	19.9	18.7	19.3	20.0	19.0	19.5	20.2	19.2	19.6	20.3	19.4	19.7	20.4
<b>105</b>	<b>TC</b>	200	218	237	205	222	241	210	225	245	216	228	249	221	230	250
	<b>SHC</b>	186	155	123	199	166	129	210	178	136	216	190	143	221	201	150
	<b>kW</b>	19.9	20.5	21.2	20.1	20.7	21.3	20.4	20.8	21.5	20.6	21.0	21.7	20.8	21.0	21.8
<b>115</b>	<b>TC</b>	190	207	225	195	210	228	201	213	232	206	216	235	211	217	236
	<b>SHC</b>	181	151	118	193	161	124	201	173	132	206	185	139	211	196	146
	<b>kW</b>	21.3	21.9	22.6	21.5	22.1	22.8	21.8	22.2	22.9	22.0	22.4	23.1	22.2	22.4	23.1
<b>120</b>	<b>TC</b>	185	200	218	189	205	221	196	207	225	201	209	227	205	210	229
	<b>SHC</b>	179	149	117	189	159	122	196	171	130	201	182	137	205	193	144
	<b>kW</b>	22.1	22.6	-	22.3	22.8	-	22.5	22.9	-	22.7	-	-	22.9	-	-

**LEGEND**

- BF** – Bypass Factor
- Edb** – Entering Dry–Bulb
- Ewb** – Entering Wet–Bulb
- kW** – Compressor Motor Power Input
- SHC** – Sensible Heat Capacity (1000 Btuh) Gross
- TC** – Total Capacity (1000 Btuh) Gross

PERFORMANCE DATA – PGE180–300 (cont.)

COOLING CAPACITIES

PGE240 (20 TONS)		Air Entering Evaporator – Cfm/BF														
Temp (F) Air Entering Condenser (Edb)		6,000/0.04			7,000/0.05			8,000/0.06			9,000/0.07			10,000/0.08		
		Air Entering Evaporator – Ewb (F)														
		62	67	72	62	67	72	62	67	72	62	67	72	62	67	72
75	TC	237	258	282	242	264	288	247	268	291	252	271	295	258	274	298
	SHC	204	171	138	221	184	146	237	199	156	247	210	164	257	221	172
	kW	16.7	17.4	18.1	16.9	17.6	18.3	17.1	17.8	18.5	17.3	17.9	18.6	17.5	18.0	18.7
85	TC	229	249	272	234	254	278	239	260	283	245	262	286	250	265	287
	SHC	201	167	135	216	180	142	231	193	150	240	203	157	250	217	167
	kW	18.1	18.7	19.5	18.3	18.9	19.7	18.5	19.1	19.9	18.7	19.3	20.1	18.8	19.4	20.1
95	TC	220	239	261	225	245	267	230	249	271	235	251	275	241	255	277
	SHC	195	163	130	211	176	138	224	188	145	233	199	152	241	210	160
	kW	19.4	20.2	20.9	19.7	20.4	21.2	19.9	20.6	21.3	20.1	20.6	21.4	20.3	20.8	21.6
105	TC	209	228	249	216	234	254	220	237	259	225	240	262	230	242	263
	SHC	189	159	126	206	171	134	217	183	140	225	195	148	230	205	154
	kW	20.9	21.5	22.3	21.2	21.8	22.5	21.4	22.0	22.7	21.6	22.1	22.9	21.8	22.2	23.0
115	TC	200	217	237	205	222	241	211	225	244	216	227	248	221	229	249
	SHC	185	154	122	199	166	129	209	178	136	216	189	143	221	200	150
	kW	22.5	23.1	23.8	22.7	23.3	24.0	22.9	23.4	24.2	23.2	23.6	24.4	23.4	23.7	24.4
120	TC	194	211	230	199	216	234	205	218	237	210	220	240	214	222	241
	SHC	183	152	121	195	164	126	204	175	134	210	186	141	214	196	148
	kW	23.2	23.8	24.6	23.5	24.0	-	23.7	24.2	-	23.9	24.4	-	24.1	24.4	-

PGE300 (25 TONS) (Continued on Next Page)		Air Entering Evaporator – Cfm/BF											
Temp (F) Air Entering Condenser (Edb)		7,000/0.05				8,000/0.06				9,000/0.07			
		Air Entering Evaporator – Ewb (F)											
		57	62	67	72	57	62	67	72	57	62	67	72
75	TC	256	271	299	327	267	278	305	336	276	283	309	341
	SHC	256	232	196	159	267	249	208	166	276	265	220	173
	kW	18.0	18.3	18.9	19.6	18.3	18.5	19.1	19.8	18.5	18.7	19.2	19.9
85	TC	248	262	288	316	259	267	293	322	267	273	298	328
	SHC	248	228	192	154	259	244	204	161	267	259	216	169
	kW	20.0	20.4	20.9	21.5	20.3	20.4	21	21.7	20.6	20.6	21.2	21.9
95	TC	241	252	277	303	251	257	281	309	259	262	286	314
	SHC	241	223	187	149	251	239	198	157	259	254	210	164
	kW	22.4	22.6	23.1	23.7	22.6	22.7	23.3	23.9	22.8	22.9	23.4	24
105	TC	233	243	266	289	242	247	270	295	250	252	273	299
	SHC	233	218	182	145	242	233	194	152	250	248	206	159
	kW	24.9	25.1	25.6	26.2	25.2	25.3	25.8	26.3	25.4	25.4	25.9	26.5
115	TC	225	232	254	277	234	236	258	281	241	242	261	285
	SHC	225	214	178	140	234	228	189	148	241	241	201	155
	kW	27.9	27.9	28.5	29	28	28.1	28.6	29.2	28.2	28.2	28.7	29.2
125	TC	216	221	241	263	224	225	245	267	231	231	248	269
	SHC	216	208	173	136	223	221	184	142	230	231	196	149
	kW	30.9	31.1	31.6	32	31.2	31.2	31.7	32.2	31.4	31.4	31.7	32.3

**PERFORMANCE DATA – PGE300 (cont.)**

**COOLING CAPACITIES**

<b>PGE300 (25 TONS) (Continued)</b>									
<b>Temp (F) Air Entering Condenser (Edb)</b>		<b>Air Entering Evaporator – Cfm/BF</b>							
		<b>10,000/0.08</b>				<b>11,250/0.09</b>			
		<b>Air Entering Evaporator – Ewb (F)</b>							
		<b>57</b>	<b>62</b>	<b>67</b>	<b>72</b>	<b>57</b>	<b>62</b>	<b>67</b>	<b>72</b>
<b>75</b>	<b>TC</b>	285	286	313	344	294	294	316	347
	<b>SHC</b>	285	281	232	182	294	294	252	198
	<b>kW</b>	18.7	18.8	19.4	20.1	19.0	19.0	19.5	20.2
<b>85</b>	<b>TC</b>	276	276	302	331	284	285	305	336
	<b>SHC</b>	276	274	228	175	284	284	244	187
	<b>kW</b>	20.8	20.8	21.3	22	21	21	21.5	22.1
<b>95</b>	<b>TC</b>	266	267	290	317	274	275	293	321
	<b>SHC</b>	266	265	222	171	274	275	238	180
	<b>kW</b>	23	23	23.5	24.2	23.2	23.2	23.6	24.2
<b>105</b>	<b>TC</b>	256	258	277	303	264	265	280	306
	<b>SHC</b>	256	257	217	166	264	265	232	176
	<b>kW</b>	25.6	25.6	26	26.6	25.8	25.8	26.1	26.7
<b>115</b>	<b>TC</b>	247	247	264	288	254	255	267	291
	<b>SHC</b>	247	247	211	162	253	255	227	171
	<b>kW</b>	28.4	28.4	28.8	29.3	28.7	28.7	28.9	29.5
<b>125</b>	<b>TC</b>	237	236	251	273	243	242	253	276
	<b>SHC</b>	236	236	206	157	243	242	221	166
	<b>kW</b>	31.6	31.6	31.9	32.3	31.7	31.7	31.9	32.5

**LEGEND**

- BF** – Bypass Factor
- Edb** – Entering Dry-Bulb
- Ewb** – Entering Wet-Bulb
- kW** – Compressor Motor Power Input
- SHC** – Sensible Heat Capacity (1000 Btuh) Gross
- TC** – Total Capacity (1000 Btuh) Gross

PERFORMANCE DATA – PGE180–300 (cont.)

FAN PERFORMANCE

PGE180 (15 Ton) Low Heat*															
Air-flow (Cfm)	Available External Static Pressure (in. wg)														
	0.2			0.4			0.6			0.8			1.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
4500	753	1307	1.53	761	1330	1.56	840	1572	1.84	912	1822	2.14	980	2080	2.44
4800	747	1384	1.62	790	1515	1.78	866	1765	2.07	936	2023	2.37	1002	2289	2.68
5100	741	1465	1.72	820	1718	2.01	893	1977	2.32	961	2243	2.63	1280	2516	2.95
5700	810	1911	2.24	882	2182	2.56	950	2459	2.88	1014	2741	3.21	1075	3029	3.55
6000	844	2164	2.54	914	2444	2.87	980	2730	3.20	1042	3021	3.54	1100	3317	3.89
6300	879	2439	2.86	947	2729	3.20	1010	3023	3.55	1070	3322	3.90	1127	3626	4.25
6600	915	2737	3.21	980	3035	3.56	1041	3338	3.91	1099	3645	4.28	1155	3957	4.64
6900	950	3057	3.59	1013	3364	3.95	1072	3675	4.31	1129	3991	4.68	1183	4311	5.06
7200	986	3401	3.99	1047	3717	4.36	1104	4037	4.74	1159	4361	5.11	1211	4689	5.50
7500	1022	3770	4.42	1081	4095	4.80	1136	4423	5.19	1189	4755	5.58	1241	5091	5.97

PGE180 (15 Ton) Low Heat*															
Air-flow (Cfm)	Available External Static Pressure (in. wg)														
	1.2			1.4			1.6			1.8			2.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
4500	1044	2345	2.75	1105	2619	3.07	1163	2899	3.40	1218	3187	3.74	1271	3481	4.08
4800	1065	2561	3.00	1124	2841	3.33	1180	3127	3.67	1235	3420	4.01	1287	3720	4.36
5100	1086	2795	3.28	1144	3082	3.61	1199	3375	3.96	1252	3674	4.31	1304	3979	4.67
5700	1132	3324	3.90	1187	3624	4.25	1240	3929	4.61	1291	4241	4.97	1341	4558	5.35
6000	1157	3619	4.24	1210	3925	4.60	1262	4239	4.97	1312	4557	5.34	1361	4880	5.72
6300	1182	3935	4.62	1234	4249	4.98	1285	4569	5.36	1334	4894	5.74	-	-	-
6600	1208	4274	5.01	1259	4595	5.39	1309	4922	5.77	-	-	-	-	-	-
6900	1235	4636	5.44	1285	4964	5.82	-	-	-	-	-	-	-	-	-
7200	1262	5021	5.89	-	-	-	-	-	-	-	-	-	-	-	-
7500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PGE180 (15 Ton) Low Heat*															
Air-flow (Cfm)	Available External Static Pressure (in. wg)														
	2.2			2.4			2.6			2.8			3.0		
	Rpm	Watts	Bhp	Rpm	Watts	Bhp	Rpm	Watt	Bhp	Rpm	Watts	Bhp	Rpm	Watts	Bhp
4500	1322	3781	4.43	1372	4088	4.79	1419	4400	5.16	1466	4719	5.53	1511	5042	5.91
4800	1337	4280	4.72	1386	4337	5.09	1433	4655	5.46	1479	4978	5.84	-	-	-
5100	1353	4290	5.03	1401	4607	5.40	1448	4930	5.78	-	-	-	-	-	-
5700	1388	4881	5.72	-	-	-	-	-	-	-	-	-	-	-	-
6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LEGEND

**Bhp** – Brake Horsepower  
**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 873 to 1021 rpm. Alternate high–static drive range is 1025 to 1200. Other rpms may require a field–supplied drive.

NOTES:

1. Maximum continuous Bhp for the standard motor is 6.13 and maximum continuous watts are 5180. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.

**PERFORMANCE DATA – PGE180–300 (cont.)**

**FAN PERFORMANCE**

<b>PGE180 (15 Ton) High Heat*</b>															
<b>Air-flow (Cfm)</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>0.2</b>			<b>0.4</b>			<b>0.6</b>			<b>0.8</b>			<b>1.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>4500</b>	753	1307	1.53	786	1404	1.65	861	1644	1.93	932	1893	2.22	997	2150	2.52
<b>4800</b>	747	1384	1.62	818	1603	1.88	890	1852	2.17	958	2108	2.47	1022	2373	2.78
<b>5100</b>	775	1571	1.84	850	1822	2.14	920	2079	2.44	986	2344	2.75	1048	2616	3.07
<b>5700</b>	849	2054	2.41	918	2323	2.73	982	2598	3.05	1044	2879	3.38	1102	3166	3.71
<b>6000</b>	886	2329	2.73	952	2607	3.06	1015	2891	3.39	1074	3180	3.73	1130	3474	4.08
<b>6300</b>	924	2628	3.08	987	2915	3.42	1047	3207	3.76	1105	3504	4.11	1160	3807	4.46
<b>6600</b>	962	2951	3.46	1023	3246	3.81	1081	3547	4.16	1136	3853	4.52	1190	4163	4.88
<b>6900</b>	1000	3298	3.87	1059	3603	4.23	1115	3912	4.59	1168	4225	4.96	1220	4543	5.33
<b>7200</b>	1038	3672	4.31	1095	3986	4.67	1149	4303	5.05	1201	4625	5.42	1251	4950	5.81
<b>7500</b>	1077	4072	4.78	1131	4394	5.15	1184	4720	5.54	1234	5050	5.92	-	-	-

<b>PGE180 (15 Ton) High Heat* (cont)</b>															
<b>Air-flow (Cfm)</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>1.2</b>			<b>1.4</b>			<b>1.6</b>			<b>1.8</b>			<b>2.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>4500</b>	1060	2414	2.83	1119	2685	3.15	1175	2964	3.48	1230	3250	3.81	1282	3542	4.15
<b>4800</b>	1082	2644	3.10	1140	2922	3.43	1195	3207	3.76	1248	3498	4.10	1299	3795	4.45
<b>5100</b>	1106	2894	3.39	1163	3178	3.73	1216	3470	4.07	1268	3767	4.42	1319	4071	4.77
<b>5700</b>	1157	3459	4.06	1211	3757	4.41	1262	4061	4.76	1312	4371	5.13	1360	4686	5.50
<b>6000</b>	1184	3774	4.43	1236	4080	4.79	1287	4391	5.15	1335	4707	5.52	1382	5029	5.90
<b>6300</b>	1212	4114	4.83	1263	4427	5.19	1312	4745	5.57	1359	5067	5.94	-	-	-
<b>6600</b>	1241	4478	5.25	1290	4798	5.63	1338	5122	6.01	-	-	-	-	-	-
<b>6900</b>	1270	4866	5.71	-	-	-	-	-	-	-	-	-	-	-	-
<b>7200</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>7500</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<b>PGE180 (15 Ton) High Heat* (cont)</b>															
<b>Air-flow (Cfm)</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>2.2</b>			<b>2.4</b>			<b>2.6</b>			<b>2.8</b>			<b>3.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt-</b> <b>s</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>4500</b>	1332	3841	4.50	1381	4145	4.86	1428	4456	5.23	1473	4772	5.60	1518	5095	5.98
<b>4800</b>	1349	4100	4.81	1397	4409	5.17	1443	4725	5.54	1488	5046	5.92	-	-	-
<b>5100</b>	1367	4380	5.14	1414	4695	5.51	1460	5180	5.88	-	-	-	-	-	-
<b>5700</b>	1407	5007	5.87	-	-	-	-	-	-	-	-	-	-	-	-
<b>6000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**LEGEND**

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 873 to 1021 rpm. Alternate high–static drive range is 1025 to 1200. Other rpms may require a field–supplied drive.

**NOTES:**

1. Maximum continuous Bhp for the standard motor is 6.13 and maximum continuous watts are 5180. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.

**PERFORMANCE DATA – PGE180–300 (cont.)**

**FAN PERFORMANCE**

<b>PGE210 (18 Ton) Low Heat*</b>																		
Airflow (Cfm)	Available External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt
5,500	755	2.27	1908	831	2.58	2171	901	2.91	2443	968	3.24	2723	1031	3.58	3009	1091	3.93	3302
6,000	810	2.72	2287	881	3.04	2556	947	3.37	2833	1010	3.71	3116	1070	4.05	3406	1127	4.40	3702
6,500	866	3.22	2710	932	3.55	2985	994	3.88	3266	1054	4.23	3554	1111	4.57	3847	1166	4.93	4146
7,000	923	3.78	3177	985	4.11	3458	1044	4.45	3744	1100	4.80	4036	1155	5.15	4333	1207	5.51	4635
7,500	980	4.39	3690	1038	4.73	3976	1094	5.07	4267	1148	5.43	4564	1200	5.78	4864	1250	6.15	5170
8,000	1038	5.06	4251	1093	5.40	4542	1146	5.75	4838	1197	6.11	5138	1246	6.47	5443	1294	6.84	5752
8,500	1096	5.78	4859	1148	6.13	5156	1198	6.49	5456	1247	6.85	5761	1294	7.22	6070	1340	7.59	6382
9,000	1154	6.56	5517	1204	6.92	5818	1251	7.28	6123	1298	7.65	6432	1343	8.02	6745	1388	8.40	7062
9,500	1213	7.40	6224	1260	7.77	6531	1306	8.13	6840	1350	8.51	7154	1394	8.88	7471	1436	9.26	7791
10,000	1272	8.30	6983	1317	8.67	7294	1360	9.05	7608	1403	9.43	7926	1445	9.81	8247	1486	10.19	8570

<b>PGE210 (18 Ton) Low Heat* (cont)</b>															
Airflow (Cfm)	Available External Static Pressure (in. wg)														
	1.4			1.6			1.8			1.9			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watts
5,500	1149	4.28	3602	1204	4.65	3907	1258	5.02	4217	1284	5.20	4375	1309	5.39	4533
6,000	1183	4.76	4003	1236	5.13	4310	1288	5.50	4622	1313	5.68	4780	1337	5.87	4939
6,500	1219	5.29	4450	1270	5.66	4759	1320	6.03	5073	1344	6.22	5232	1368	6.41	5391
7,000	1258	5.88	4942	1307	6.25	5253	1355	6.62	5569	1378	6.81	5729	1402	7.00	5890
7,500	1299	6.52	5480	1346	6.89	5794	1392	7.27	6113	1415	7.46	6273	1437	7.65	6435
8,000	1341	7.21	6065	1387	7.59	6383	1392	7.97	6704	1453	8.16	6866	1475	8.36	7000
8,500	1385	7.97	6699	1429	8.35	7019	1472	8.73	7343	1493	8.93	7506	1514	9.12	7670
9,000	1431	8.78	7382	1473	9.15	7705	1515	9.55	8032	1535	9.75	8196	-	-	-
9,500	1478	9.65	8114	1519	10.04	8441	-	-	-	-	-	-	-	-	-
10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<b>PGE210 (18 Ton) High Heat*</b>																		
Airflow (Cfm)	Available External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watt
5,500	795	2.43	2043	866	2.74	2306	934	3.07	2578	998	3.40	2856	1059	3.74	3142	1117	4.08	3434
6,000	854	2.92	2452	921	3.24	2722	984	3.57	3098	1044	3.90	3281	1102	4.25	3570	1158	4.60	3865
6,500	914	3.46	2909	977	3.79	3184	1036	4.12	3465	1093	4.46	3752	1148	4.81	4045	1201	5.16	4343
7,000	975	4.06	3414	1034	4.39	3695	1090	4.73	3981	1144	5.08	4272	1196	5.43	4569	1246	5.79	4870
7,500	1037	4.72	3969	1092	5.06	4255	1145	5.41	4546	1196	5.76	4842	1256	6.12	5142	1294	6.48	5447
8,000	1099	5.44	4575	1150	5.79	4866	1201	6.14	5162	1249	6.50	5462	1297	6.86	5766	1343	7.22	6075
8,500	1161	6.22	5232	1210	6.57	5529	1258	6.93	5829	1304	7.29	6134	1349	7.66	6443	1393	8.03	6755
9,000	1223	7.07	5943	1270	7.43	6245	1315	7.79	6550	1360	8.16	6869	1403	8.53	7171	1445	8.90	7487
9,500	1286	7.98	6708	1331	8.34	7014	1374	8.71	7324	1416	9.08	7638	1457	9.46	7954	1498	9.84	8274
10,000	1349	8.95	7528	1392	9.32	7839	1433	9.70	8154	1473	10.07	8471	-	-	-	-	-	-

<b>PGE210 (18 Ton) High Heat* (cont)</b>															
Airflow (Cfm)	Available External Static Pressure (in. wg)														
	1.4			1.6			1.8			1.9			2.0		
	Rpm	Bhp	Watts	Rpm	Bhp	Watt	Rpm	Bhp	Watt	Rpm	Bhp	Watts	Rpm	Bhp	Watts
5,500	1173	4.44	3732	1227	4.80	4036	1279	5.17	4345	1304	5.35	4502	1329	5.54	4629
6,000	1211	4.95	4165	1263	5.32	4471	1313	5.69	4782	1337	5.87	4939	1361	6.06	5097
6,500	1252	5.53	4646	1302	5.89	4954	1350	6.26	5267	1373	6.56	5425	1396	6.64	5584
7,000	1295	6.16	5176	1343	6.52	5487	1389	6.90	5802	1412	7.09	5961	1434	7.28	6121
7,500	1340	6.85	5756	1386	7.22	6070	1431	7.60	6387	1452	7.79	6547	1474	7.98	6709
8,000	1388	7.60	6388	1431	7.97	6704	1474	8.35	7260	1495	8.54	7186	1516	8.74	7348
8,500	1436	8.41	7071	1478	8.79	7390	1520	9.17	7713	1540	9.37	7876	-	-	-
9,000	1486	9.28	7807	1527	9.67	8130	-	-	-	-	-	-	-	-	-
9,500	1538	10.22	8597	-	-	-	-	-	-	-	-	-	-	-	-
10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**LEGEND**

**Bhp** – Brake Horsepower  
**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 910 to 1095 rpm. Alternate high–static drive range is 1069 to 1287. Other rpms may require a field–supplied drive.

**NOTES:**

1. Maximum continuous Bhp for the standard motor is 5.90 and maximum continuous watts are 5180. Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.

**PERFORMANCE DATA – PGE180–300 (cont.)**

**FAN PERFORMANCE**

<b>PGE240 (20 TONS) Low Heat*</b>															
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>0.2</b>			<b>0.4</b>			<b>0.6</b>			<b>0.8</b>			<b>1.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>
<b>6,000</b>	824	2607	3.09	894	2844	3.37	961	3085	3.66	1023	3330	3.95	1083	3578	4.24
<b>6,500</b>	881	3030	3.59	947	3266	3.88	1009	3507	4.16	1069	3751	4.45	1126	3998	4.74
<b>7,000</b>	939	3488	4.14	1001	3725	4.42	1060	3965	4.70	1116	4208	4.99	1170	4454	5.28
<b>7,500</b>	998	3982	4.72	1055	4218	5.00	1111	4458	5.29	1165	4701	5.58	1217	4946	5.87
<b>8,000</b>	1056	4512	5.35	1111	4748	5.63	1164	4988	5.92	1215	5230	6.20	1264	5474	6.49
<b>8,500</b>	1116	5077	6.02	1167	5314	6.30	1218	5553	6.59	1266	5795	6.87	1314	6039	7.16
<b>9,000</b>	1175	5678	6.74	1224	5915	7.02	1272	6154	7.30	1319	6395	7.59	1364	6639	7.88
<b>9,500</b>	1235	6315	7.49	1282	6552	7.77	1327	6791	8.06	1372	7033	8.34	1415	7276	8.63
<b>10,000</b>	1295	6988	8.29	1340	7225	8.57	1383	7465	8.86	1426	7706	9.14	1468	7949	9.43

<b>PGE240 (20 TONS) Low Heat* (cont)</b>															
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>1.2</b>			<b>1.4</b>			<b>1.6</b>			<b>1.8</b>			<b>2.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>
<b>6,000</b>	1141	3829	4.54	1196	4082	4.84	1249	4337	5.15	1301	4596	5.45	1351	4856	5.76
<b>6,500</b>	1181	4247	5.04	1234	4499	5.34	1285	4753	5.64	1334	5009	5.94	1383	5267	6.25
<b>7,000</b>	1223	4702	5.58	1274	4953	5.88	1323	5205	6.18	1371	5460	6.48	1417	5716	6.78
<b>7,500</b>	1267	5194	6.16	1316	5443	6.46	1363	5694	6.76	1409	5947	7.06	1454	6202	7.36
<b>8,000</b>	1313	5721	6.79	1359	5970	7.08	1405	6220	7.38	1449	6472	7.68	1493	6726	7.98
<b>8,500</b>	1360	6285	7.46	1405	6533	7.75	1449	6783	8.05	1491	7034	8.34	1533	7286	8.64
<b>9,000</b>	1408	6885	8.17	1451	7132	8.46	1494	7381	8.76	1535	7631	9.05	-	-	-
<b>9,500</b>	1458	7521	8.92	1499	7768	9.22	1540	8180	9.51	-	-	-	-	-	-
<b>10,000</b>	1508	8193	9.72	1549	8440	10.01	-	-	-	-	-	-	-	-	-

<b>PGE240 (20 TONS) Low Heat* (cont)</b>												
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>											
	<b>2.2</b>			<b>2.4</b>			<b>2.6</b>			<b>2.8</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>6,000</b>	1399	5118	6.07	1446	5381	6.38	1492	5647	6.70	1537	5914	7.02
<b>6,500</b>	1429	5527	6.56	1475	5789	6.87	1520	6052	7.18	-	-	-
<b>7,000</b>	1462	5974	7.09	1507	6234	7.40	1550	6495	7.71	-	-	-
<b>7,500</b>	1498	6459	7.66	1540	6717	7.97	-	-	-	-	-	-
<b>8,000</b>	1535	6981	8.28	-	-	-	-	-	-	-	-	-

**LEGEND**

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 1002 to 1151 rpm. Alternate high–static drive range is 1193 to 1369. Other rpms may require a field–supplied drive.

**NOTES:**

1. Maximum continuous Bhp for the standard motor is 8.70 (208/230v and 575v units) and 9.50 (460v units). Maximum continuous watts are 7915 (208/230v and 575v units) and 8640 (460v units). Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.

**PERFORMANCE DATA – PGE180–300 (cont.)**

**FAN PERFORMANCE**

<b>PGE240 (20 TONS) High Heat*</b>															
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>0.2</b>			<b>0.4</b>			<b>0.6</b>			<b>0.8</b>			<b>1.0</b>		
	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>6,000</b>	868	2752	3.26	934	2987	3.54	997	3227	3.83	1058	3470	4.12	1115	3716	4.41
<b>6,500</b>	929	3201	3.80	991	3436	4.08	1051	3675	4.36	1108	3917	4.65	1162	4163	4.94
<b>7,000</b>	991	3687	4.37	1049	3923	4.65	1105	4161	4.94	1159	4403	5.22	1211	4647	5.51
<b>7,500</b>	1054	4211	5.00	1109	4447	5.28	1161	4686	5.56	1213	4926	5.84	1262	5170	6.13
<b>8,000</b>	1117	4773	5.66	1168	5009	5.94	1218	5247	6.22	1267	5488	6.51	1314	5731	6.80
<b>8,500</b>	1180	5373	6.37	1229	5609	6.65	1277	5847	6.94	1323	6088	7.22	1368	6331	7.51
<b>9,000</b>	1244	6011	7.13	1290	6247	7.41	1335	6485	7.69	1380	6726	7.98	1423	6968	8.27
<b>9,500</b>	1308	6687	7.93	1352	6924	8.21	1395	7162	8.50	1437	7402	8.78	1479	7644	9.07
<b>10,000</b>	1372	7401	8.78	1414	7638	9.06	1455	7876	9.34	1496	8117	9.63	1535	8358	9.92

<b>PGE240 (20 TONS) High Heat* (cont)</b>															
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>														
	<b>1.2</b>			<b>1.4</b>			<b>1.6</b>			<b>1.8</b>			<b>2.0</b>		
	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>
<b>6,000</b>	1171	3965	4.70	1224	4216	5.00	1276	4469	5.30	1326	4726	5.61	1374	4983	5.91
<b>6,500</b>	1215	4410	5.23	1266	4659	5.53	1316	4911	5.83	1364	5165	6.13	1411	5421	6.43
<b>7,000</b>	1262	4894	5.81	1311	5142	6.10	1358	5392	6.40	1404	5645	6.70	1449	5899	7.00
<b>7,500</b>	1310	5415	6.42	1357	5663	6.72	1403	5912	7.01	1447	6164	7.31	1490	6416	7.61
<b>8,000</b>	1360	5976	7.09	1405	6222	7.38	1449	6471	7.68	1492	6721	7.97	1533	6973	8.27
<b>8,500</b>	1412	6575	7.80	1455	6821	8.09	1497	7068	8.39	1538	7318	8.68	-	-	-
<b>9,000</b>	1465	7212	8.56	1506	7457	8.85	1547	7705	9.14	-	-	-	-	-	-
<b>9,500</b>	1519	7888	9.36	-	-	-	-	-	-	-	-	-	-	-	-
<b>10,000</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<b>PGE240 (20 TONS) High Heat* (cont)</b>									
<b>Cfm</b>	<b>Available External Static Pressure (in. wg)</b>								
	<b>2.2</b>			<b>2.4</b>			<b>2.6</b>		
	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watts</b>	<b>Bhp</b>	<b>Rpm</b>	<b>Watt</b>	<b>Bhp</b>
<b>6,000</b>	1422	5243	6.22	1468	5505	6.53	1513	5768	6.84
<b>6,500</b>	1456	5679	6.74	1501	5938	7.04	1544	6199	7.35
<b>7,000</b>	1493	6155	7.30	1536	6412	7.61	-	-	-
<b>7,500</b>	1533	6670	7.91	-	-	-	-	-	-
<b>8,000</b>	-	-	-	-	-	-	-	-	-

**LEGEND**

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 1002 to 1151 rpm. Alternate high–static drive range is 1193 to 1369. Other rpms may require a field–supplied drive.

**NOTES:**

1. Maximum continuous Bhp for the standard motor is 8.70 (208/230v and 575v units) and 9.50 (460v units). Maximum continuous watts are 7915 (208/230v and 575v units) and 8640 (460v units). Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.



**PERFORMANCE DATA – PGE180–300 (cont.)**

**FAN PERFORMANCE**

<b>PGE300 (25 TONS) Low Heat*</b>																		
Air-flow (Cfm)	Available External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
7,000	941	3.35	2,769	1002	3.80	3,140	1061	4.27	3528	1117	4.76	3,934	1171	5.27	4,356	1224	5.80	4,794
7,500	999	4.05	3,348	1057	4.53	3,742	1112	5.02	4152	1166	5.54	4,579	1218	6.07	5,210	1268	6.63	5,478
8,000	1058	4.85	4,007	1113	5.35	4,424	1165	5.87	4856	1216	6.41	5,304	1266	6.97	5,766	1314	7.55	6,243
8,500	1117	5.74	4,750	1169	6.28	5,190	1219	6.83	5645	1268	7.40	6,114	1315	7.98	6,597	1361	8.58	7,094
9,000	1177	6.75	5,583	1226	7.31	6,047	1274	7.89	6524	1320	8.48	7,015	1365	9.09	7,520	1410	9.72	8,037
9,500	1237	7.98	6,511	1284	8.46	6,999	1329	9.07	7499	1374	9.69	8,012	1417	10.33	8,538	1459	10.98	9,076
10,000	1297	9.12	7,450	1342	9.74	8,051	1385	10.37	8574	1428	11.02	9,110	1469	11.68	9,657	1510	12.36	10,217
10,500	1358	10.49	8,674	1400	11.14	9,209	1442	11.8	9755	1483	12.47	10,314	1523	13.16	10,883	-	-	-
11,000	1418	12.00	9,919	1459	12.67	10,478	-	-	-	-	-	-	-	-	-	-	-	-
11,250	1449	12.80	10,58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<b>PGE300 (25 TONS) Low Heat* (cont)</b>									
Airflow (Cfm)	Available External Static Pressure (in. wg)								
	1.4			1.6			1.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
7,000	1274	6.35	5248	1323	6.92	5,718	1371	5.54	6204
7,500	1316	7.20	6960	1364	7.79	6,437	1410	6.41	6939
8,000	1360	8.14	6734	1406	8.76	7,239	1450	7.40	7759
8,500	1406	9.20	7605	1449	9.83	8,129	1492	8.48	8666
9,000	1453	10.36	8568	1495	11.02	9,111	1536	9.69	9667
9,500	1501	11.64	9627	154	12.32	10,19	-	-	-

<b>PGE300 (25 TONS) High Heat*</b>																		
Airflow (Cfm)	Available External Static Pressure (in. wg)																	
	0.2			0.4			0.6			0.8			1.0			1.2		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
7,000	992	4.05	3,348	1051	4.44	3,668	1106	4.83	3995	1160	5.24	4331	1212	5.65	4675	1262	6.08	5026
7,500	1055	4.77	3,947	1110	5.17	4,277	1162	5.58	4615	1214	6.00	4960	1263	6.43	5312	1311	6.86	5672
8,000	1118	5.58	4,610	1170	5.99	4,950	1220	6.41	5298	1268	6.84	5653	1315	7.27	6014	1361	7.72	6382
8,500	1182	6.46	5,339	1231	6.88	5,690	1278	7.31	6047	1324	7.75	6411	1369	8.20	6782	1413	8.66	7158
9,000	1246	7.42	6,136	1292	7.86	6,498	1337	8.30	6865	1381	8.75	7239	1424	9.21	7618	1466	9.68	8003
9,500	1310	8.47	7,005	1354	8.92	7,377	1397	9.38	7754	1439	9.84	8137	1480	10.31	8525	1520	10.79	8918
10,000	1374	9.61	7,947	1416	10.07	8,329	1457	10.54	8715	1497	11.02	9107	1537	11.50	9504	-	-	-
10,500	1439	10.84	8,964	1479	11.32	9,356	1518	11.79	9752	-	-	-	-	-	-	-	-	-
11,000	1503	12.17	10,059	1542	12.65	10,460	-	-	-	-	-	-	-	-	-	-	-	-
11,250	1536	12.86	10,636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<b>PGE300 (25 TONS) High Heat* (cont)</b>									
Airflow (Cfm)	Available External Static Pressure (in. wg)								
	1.4			1.6			1.8		
	Rpm	Bhp	Watts	Rpm	Bhp	Watts	Rpm	Bhp	Watts
7,000	1311	6.51	5385	1359	6.96	5751	1405	6.00	6124
7,500	1358	7.30	6039	1403	7.76	6412	1448	6.84	6792
8,000	1406	8.17	6767	1560	8.63	7137	1492	7.75	7524
8,500	1456	9.12	7541	1498	9.59	7929	1539	8.75	8323
9,000	1507	10.15	8393	1548	10.63	8790	-	-	-

**LEGEND**

**Bhp** – Brake Horsepower

**Watts** – Input Watts to Motor

\*Standard low–medium drive range is 1066 to 1283 rpm. Alternate high–static drive range is 1332 to 1550. Other rpms may require a field–supplied drive.

**NOTES:**

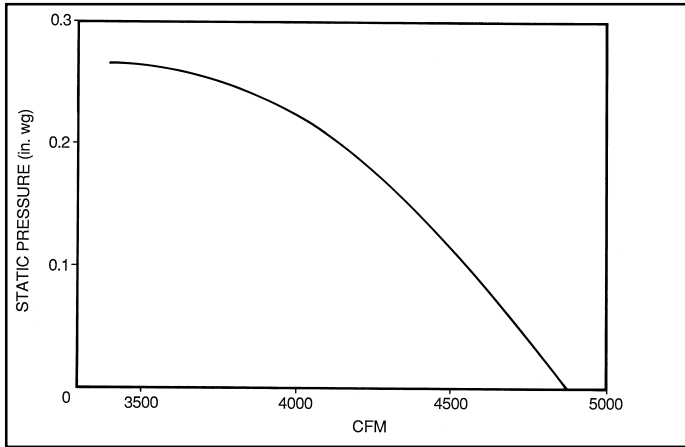
1. Maximum continuous Bhp for the standard motor is 10.20 (208/230v and 575v units) and 11.80 (460v units). Maximum continuous watts are 9150 (208/230v and 575v units) and 11,000 (460v units). Do not adjust motor rpm such that motor maximum bhp and/or watts is exceeded at the maximum operating cfm.
2. See General Notes for Fan Performance following this section.

**GENERAL NOTES FOR FAN PERFORMANCE TABLES:**

1. Static pressure losses must be added to external static pressure before entering Fan Performance table.
2. Interpolation is permissible. Do not extrapolate.
3. Fan performance is based on wet coils, clean filters, and casing losses. (See Accessory/FIOP Static Pressure table)
4. Extensive motor and drive testing on these units ensures that the full horsepower and watts range of the motor can be utilized with confidence. Using fan motors up to the watts or bhp rating shown will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected.
5. Use of a field–supplied motor may affect wire size.

PERFORMANCE DATA – PGE180–300 (cont.)

FAN PERFORMANCE USING ACCESSORY POWER EXHAUST



NOTE: Performance is for the DN series Power Exhaust

ALTITUDE DERATING FACTOR\*

Elevation (ft)	Maximum Heating Value (Btu/ft <sup>3</sup> )
0–2,000	1,100
2,001–3,000	1,050
3,001–4,000	1,000
4,001–5,000	950
5,001–6,000	900

\*Derating of the unit is not required unless the heating value of the gas exceeds the values listed in the table above, or if the elevation exceeds 6000 ft. Derating conditions must be 4% per thousand feet above 2000 ft. For example, at 4000 ft, if the heating value of the gas exceeds 1000 Btu/ft<sup>3</sup>, the unit will require a 16% derating. For elevations above 6000 ft, the same formula applies. For example, at 7000 ft, the unit will require a 28% derating of the maximum heating value per the National Fuel Gas Code.

**IMPORTANT:** Local utility companies may be reducing heat content of gas at altitudes above 2000 ft. If this is being done, changing spuds may not be required.

ALTITUDE COMPENSATION

ELEVATION (ft)	NATURAL GAS ORIFICE SIZE	
	Low Heat	High Heat
0–3,000	30	29
3,000–7,000	31	30
7,000–9,000	32	31
9,000–10,000	33	31
above 10,000	35	32

\*Includes a 4% input reduction per each 1,000 feet.

† Orifice available through dealer.

ALTITUDE COMPENSATION (LP Gas Units)

ELEVATION (ft)	Propane Orifice Size
	Low Heat and High Heat
0–2,000	36
2,000	37
3,000	38
4,000	38
5,000	39
6,000	40
7,000	41
8,000	41
9,000	42
10,000	43

OUTDOOR SOUND POWER

UNIT PGE	SOUND RATING (60 Hz)	A-WEIGHTED (dB)	OCTAVE BANDS							
			63	125	250	500	1000	2000	4000	8000
180	88 dB	87.6	90.8	88.7	86.4	84.3	83.5	78.4	75.6	66.8
210	88 dB	87.8	90.8	88.7	86.4	84.3	83.5	78.4	75.6	66.8
240	94 dB	94.4	99.7	93.0	93.7	91.8	89.7	85.9	80.7	74.4
300	94 dB	94.1	98.7	92.3	93.8	90.9	89.6	85.9	80.3	74.3

LEGEND

Bels – Sound Levels (1 bel = 10 decibels)

**PERFORMANCE DATA – PGE180–300 (cont.)**

**ACCESSORY/FIOP STATIC PRESSURE (in. wg)\***

COMPONENT	CFM								
	4500	5000	5400	6000	7200	7500	9000	10,000	11,250
Economizer	0.040	0.050	0.060	0.070	0.090	0.100	0.110	0.120	0.140

**LEGEND**

**FIOP** – Factory Installed Option

\*The static pressure must be added to external static pressure. The sum and the evaporator entering-air cfm should then be used in conjunction with the Fan Performance tables to determine blower rpm and watts.

**NOTE:** Performance is for the DN series Economizer

**FAN RPM AT MOTOR PULLEY SETTINGS\***

UNIT PGE	MOTOR PULLEY TURNS OPEN												
	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
180 †	††	††	††	††	1021	1002	984	965	947	928	910	891	873
180**	††	††	††	††	1200	1178	1156	1134	1112	1091	1069	1047	1025
210 †	††	††	1095	1077	1058	1040	1021	1002	984	965	947	928	910
210**	††	††	1287	1265	1243	1222	1200	1178	1156	1134	1112	1091	1069
240 †	††	††	††	††	1151	1132	1114	1095	1077	1058	1040	1021	1002
240**	††	††	††	††	1369	1347	1325	1303	1281	1259	1237	1215	1193
300 †	††	††	1283	1269	1247	1225	1203	1182	1160	1138	1116	1095	1066
300**	††	††	††	††	1551	1524	1497	1470	1443	1415	1388	1361	1332

**LEGEND**

\*Approximate fan rpm shown.

† Indicates standard drive package.

\*\*Indicates alternate / high static drive package.

†† Due to belt and pulley size, pulley cannot be set to this number of turns open.

**EVAPORATOR–FAN MOTOR PERFORMANCE**

UNIT PGE	UNIT VOLTAGE	MAXIMUM ACCEPTABLE CONTINUOUS BHP*	MAXIMUM ACCEPTABLE CONTINUOUS BkW*	MAXIMUM ACCEPTABLE OPERATING WATTS	MAXIMUM AMP DRAW
180	208/230	6.13	4.57	5,180	15.8
	460				7.9
	575				6.0
210	208/230	5.90	4.40	5,180	15.8
	460				7.9
	575				6.0
240	208/230	8.70	6.49	7,915	22.0
	460	9.50	7.08	8,640	13.0
	575	8.70	6.49	7,915	10.0
300	208/230	10.20	7.61	9,510	28.0
	460	11.80	8.80	11,000	14.6
	575	10.20	7.61	9,510	13.0

**LEGEND**

**BHP** – Brake Horsepower

**BkW** – Brake Kilowatts

\*Extensive motor and electrical testing on these units ensures that the full horsepower (brake kilowatt) range of the motors can be utilized with confidence. Using your fan motors up to the horsepower (brake kilowatt) ratings shown in this table will not result in nuisance tripping or premature motor failure. Unit warranty will not be affected

**NOTE:** All indoor-fan motors 5 hp and larger meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.

**EVAPORATOR–FAN MOTOR EFFICIENCY**

UNIT PGE	MOTOR EFFICIENCY (%)
5 Hp	87.5
7.5 Hp	88.5
10 Hp	89.5

**NOTE:**

The EPACT (Energy Policy Act of 1992) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (three-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy efficient motor. Variable-speed motors are exempt from EPACT compliance requirements. Therefore, the indoor-fan motors for these units are exempt from these requirements.

ELECTRICAL DATA – PGE180–300

UNIT PGE	Nominal Voltage (3 Ph, 60 Hz)	VOLTAGE RANGE		COMPRESSOR						OFM			IFM		POWER EXHAUST *		COMBUSTION FAN MOTOR	POWER SUPPLY	
				No. 1		No. 1 A		No. 2											
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	Qty	Hp	FLA (ea)	Hp	FLA	FLA	LRA	FLA	MCA	MOCP*
180	208/230	187	253	32.1	195	-	-	20.7	156	3	0.5	1.7	5.0	15.8/15.8	-	-	0.57	82/82	110/110
	460	414	508	16.4	95	-	-	10	70	3	0.5	0.8	5.0	7.9	4.6	18.8	0.57	86/86	110/110
	575	518	633	12	80	-	-	8.2	54	3	0.5	0.75	5.0	6.0	-	-	0.30	41	50
210	208/230	187	253	30.1	225	-	-	28.8	195	3	0.5	1.7	5.0	15.8/15.8	2.3	6.0	0.30	43	50
	460	414	508	15.5	114	-	-	14.7	95	3	0.5	0.8	5.0	7.9	-	-	0.57	31	40
	575	518	632.5	12.1	80	-	-	10.7	80	3	0.5	0.75	5.0	6.0	2.1	4.8	0.57	34	40
240	208/230	187	253	42	239	-	-	33.6	225	2	1	6.6	7.5	25.0/25.0	-	-	0.57	124/124	150/150
	460	414	508	19.2	125	-	-	17.3	114	2	1	3.3	7.5	13.0	4.6	18.8	0.57	129/129	150/150
	575	518	633	13.8	80.0	-	-	13.5	80.0	2	1.0	3.4	7.5	10.0	2.3	6.0	0.30	61	80
300	208/230	187.2	253	20.7	156	20.7	156	47.1	245	6	0.5	1.7	10.0	28.0/28.0	-	-	0.57	138/138	175/175
	460	414	508	10	75	10	75	19.6	125	6	0.5	0.8	10.0	14.6	4.6	18.8	0.57	143/143	150/175
	575	517.5	632.5	8.2	54	8.2	54	15.8	100	6	0.5	0.8	10.0	13.0	-	-	0.30	64	80

\* NOTE: Performance is for the DN series Power Exhaust

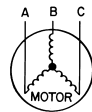
LEGEND

- FLA – Full Load Amps
- HACR – Heating, Air Conditioning and Refrigeration
- IFM – Indoor Fan Motor
- LRA – Locked Rotor Amps
- MCA – Minimum Circuit Amps
- MOCP – Maximum Overcurrent Protection
- NEC – National Electrical Code
- OFM – Outdoor Fan Motor
- RLA – Rated Load Amps

% Voltage Imbalance

$$= 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

Example: Supply voltage is 460–3–60.



AB = 452 v  
BC = 464 v  
AC = 455 v

$$\text{Average Voltage} = \frac{452 + 464 + 455}{3}$$

$$= \frac{3171}{3}$$

$$= 457$$

Determine maximum deviation from average voltage.

- (AB) 457 – 452 = 5 v
- (BC) 464 – 457 = 7 v
- (AC) 457 – 455 = 2 v

Maximum deviation is 7 v.

Determine percent of voltage imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{7}{457} = 1.53\%$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

**IMPORTANT:** If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

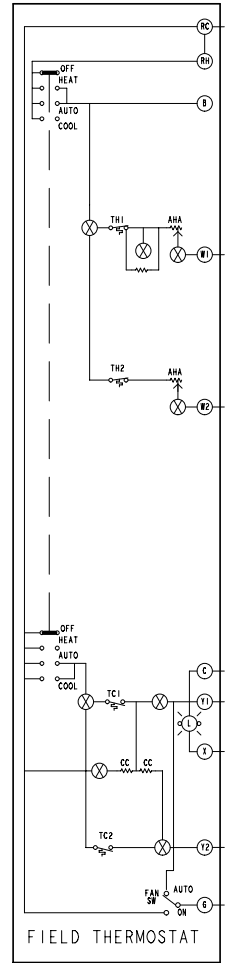
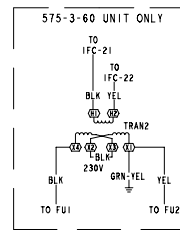
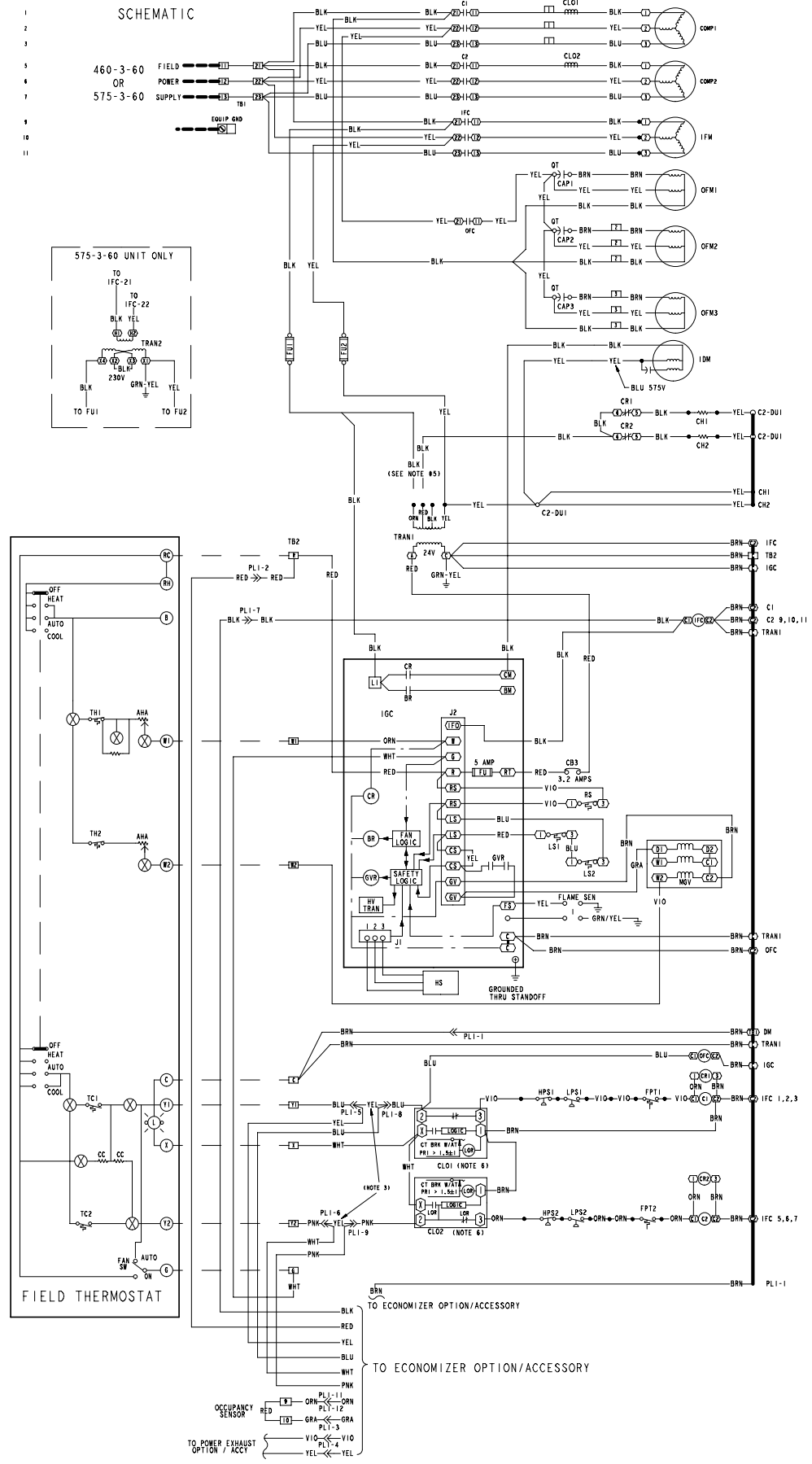
POWER EXHAUST ELECTRICAL DATA

Model	Application Usage	Volt/Phase/Hertz	Unit			
			LRA	FLA	MCA	Fuse Size
AXB060PEH	180-300	208/230/3/60	24.9	10.0	12.6	15
AXB060PEL	180-300	460/3/60	N/A	4.4	5.6	8
AXB060PES	180-300	575/3/60	N/A	3.0	3.8	5

NOTE: AXB power exhaust is wired single phase, drop third leg when installing.

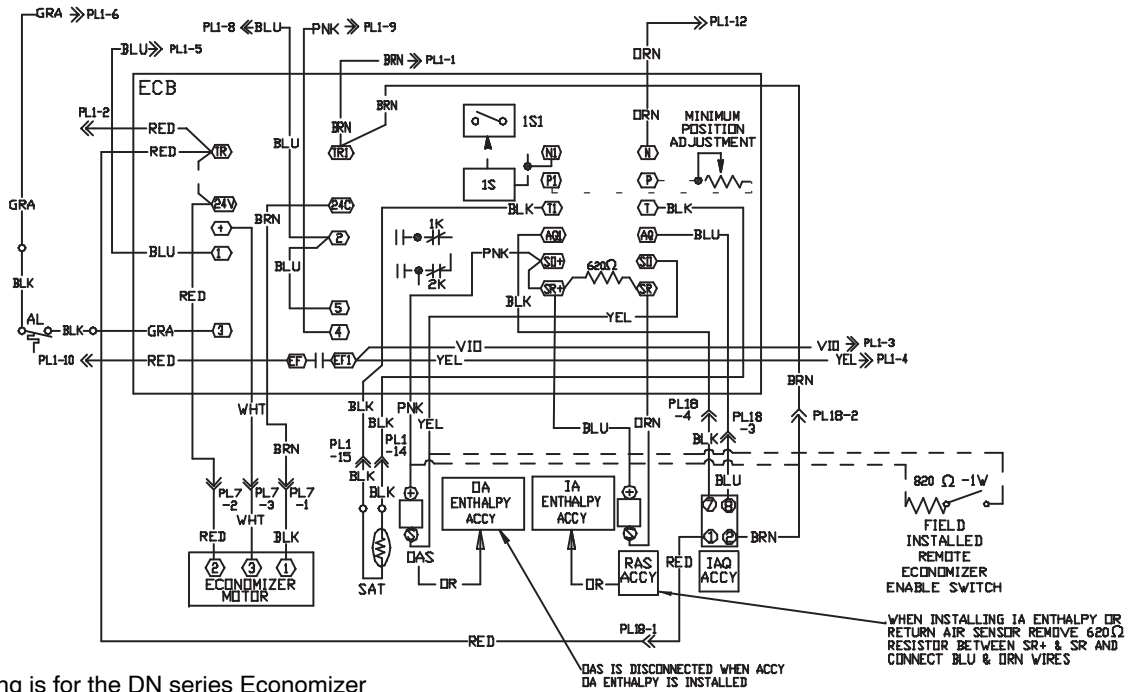
# TYPICAL WIRING SCHEMATIC – PGE180, 460v Shown

- LEGEND**
- AHA — Adjustable Heat Anticipator
  - C — Contactor, Compressor
  - CAP — Capacitor
  - CB — Circuit Breaker
  - CC — Cooling Compensator
  - CH — Crankcase Heater
  - CLO — Compressor Lockout
  - COMP — Compressor Motor
  - CR — Control Relay
  - DU — Dummy Terminal
  - EQUIP — Equipment
  - FPT — Freeze Protection Thermostat
  - FU — Fuse
  - GND — Ground
  - HPS — High-Pressure Switch
  - HS — Hall Effect Sensor
  - HV — High Voltage
  - I — Ignitor
  - IDM — Induced-Draft Motor
  - IFC — Indoor-Fan Contactor
  - IFCB — Indoor-Fan Circuit Breaker
  - IFM — Indoor-Fan Motor
  - IGC — Integrated Gas Unit Controller
  - L — Light
  - LOR — Lockout Relay
  - LPS — Low-Pressure Switch
  - LS — Limit Switch
  - MGV — Main Gas Valve
  - OFC — Outdoor-Fan Contactor
  - OFM — Outdoor-Fan Motor
  - PL — Plug Assembly
  - PRI — Primary
  - QT — Quadruple Terminal
  - R — Relay
  - RS — Rollout Switch
  - SEN — Sensor
  - SW — Switch
  - TB — Terminal Block
  - TC — Thermostat, Cooling
  - TH — Thermostat, Heating
  - TRAN — Transformer
- Terminal (Marked)
  - Terminal (Unmarked)
  - Terminal Block
  - Splice
  - Factory Wiring
  - Field Wiring
  - Option/Accessory Wiring
  - To indicate common potential only, not to represent wiring.

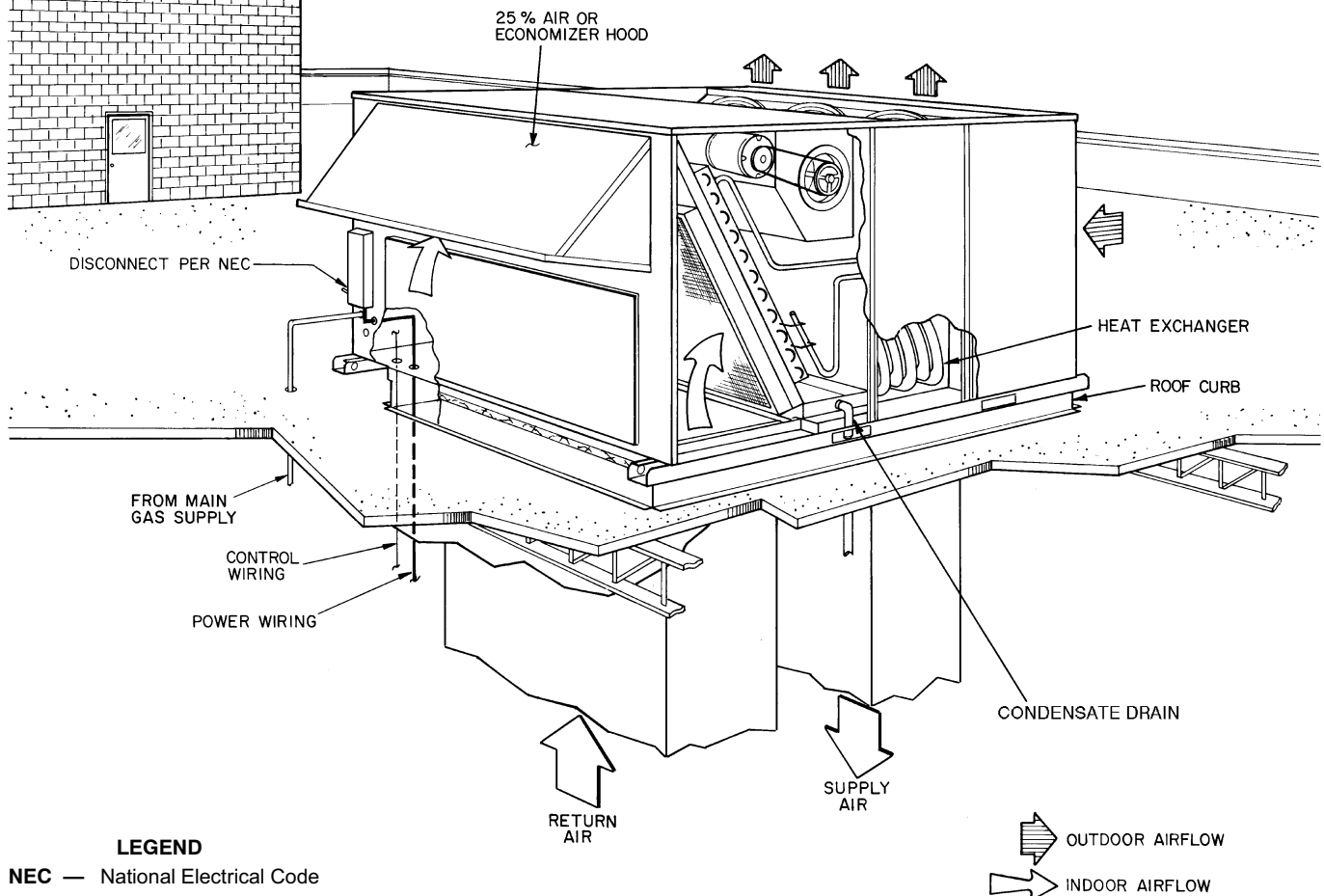


## TYPICAL WIRING SCHEMATIC - PGE180-300

### ECONOMIZER WIRING



## TYPICAL PIPING AND WIRING - PGE180-300



# GUIDE SPECIFICATIONS – PGE180–300

## CONSTANT VOLUME APPLICATION

### PART 1 – GENERAL

#### 1.01 SYSTEM DESCRIPTION

Unit is an outdoor rooftop mounted, electrically controlled heating and cooling unit utilizing scroll hermetic compressors for cooling duty and gas combustion for heating duty. Supply air shall be discharged downward or horizontally (with horizontal supply/return curb adapter assembly), as shown on contract drawings. Standard unit shall include a manual outdoor air inlet.

#### 1.02 QUALITY ASSURANCE

A. Unit shall be rated in accordance with ARI Standards 270 and 360 and all units shall be designed in accordance with UL Standard 1995.

**NOTE:** Size 300 units are beyond the scope of ARI certification guidelines.

B. Unit shall be designed to conform to ASHRAE 15.

C. Unit shall be ETL and ETL, Canada tested and certified in accordance with ANSI Z21.47 Standards as a total package.

D. Roof curb shall be designed to conform to NRCA Standards.

E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

F. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).

G. Unit shall be manufactured in a facility registered to ISO 9001:2000.

#### 1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

### PART 2 – PRODUCTS

#### 2.01 EQUIPMENT (STANDARD)

A. General: Each unit shall be a factory assembled, single piece heating and cooling unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-22), and special features required prior to field start-up.

B. Unit Cabinet:

1. Constructed of galvanized steel (G90 – 1.8 oz. of zinc per square foot of sheet metal), bonderized and primer coated on both sides and coated with a baked polyester thermosetting powdercoating finish on the outer surface.

2. Indoor blower compartment interior surfaces shall be insulated with a minimum 1/2-in. thick, 1 lb density fiberglass insulation. Fiberglass insulation shall be bonded with a thermosetting resin (8 to 12% by weight nominal, phenol formaldehyde typical), and coated with an acrylic or other material that meets the NFPA 90 flame retardance requirements and has an "R" Value of 3.70. Aluminum foil faced fiberglass insulation shall be used in the gas heat compartment.

3. Cabinet panels shall be easily removable for servicing. Cabinet panels are minimum 20 gage. Panels shall have 1/2-in. thick, 1.5-lb. density insulation.

4. Filters shall be accessible through an access panel.

5. Holes shall be provided in the base rails (minimum 12 gage) for rigging shackles to facilitate overhead rigging.

6. Unit shall contain a sloped drain pan, to prevent standing water from accumulating. Pan shall be fabricated of hot dipped zinc coated minimum spangle steel. Zinc coating shall be G90 designation according to ASTM Standard A653. Unit shall contain a factory installed nonferrous main condensate drain connection.

C. Fans:

1. Indoor blower (evaporator fan):

a. Fan shall be belt driven. Belt drive shall include an adjustable pulley. The standard fan drive shall have a factory installed low-medium external static pressure capable fan drive. The alternate fan drive option shall have a factory installed external high static pressure capable fan drive.

b. Fan wheel shall be made from steel with a corrosion resistant finish. It shall be a dynamically balanced, double inlet type with forward curved blades.

2. Condenser fans shall be of the direct driven propeller type, with corrosion resistant blades riveted to corrosion resistant steel supports. They shall be dynamically balanced and discharge air upwards.

3. Induced draft blower shall be of the direct driven, single inlet, forward curved, centrifugal type. It shall be made from steel with a corrosion resistant finish and shall be dynamically balanced.

D. Compressor(s):

1. Fully hermetic, scroll type, internally protected.

2. Factory spring-shock mounted and internally spring mounted for vibration isolation.

3. On electrically and mechanically independent refrigerant circuits.

4. All compressors shall have 70 W crankcase heaters.

E. Coils:

1. Standard evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.

2. Coils shall be leak tested at 150 psig and pressure tested at 450 psig.

F. Heating Section:

1. Induced draft combustion type with energy saving direct spark ignition system and redundant main gas valve.

2. a. The heat exchanger shall be of the tubular section type constructed of a minimum of 20-gage steel coated with a nominal 1.2 mil aluminum silicone alloy for corrosion resistance.

3. Burners shall be of the in-shot type constructed of aluminum coated steel.

4. All gas piping shall enter the unit at a single location.

5. Gas piping shall be capable of being routed through the roof curb directly into unit.

G. Refrigerant Components: Refrigerant circuit components shall include:

1. Thermostatic expansion valve (TXV).

2. Filter driers.

3. Gage port and connections on suction, discharge, and liquid lines.

H. Filter Section: Standard filter section shall consist of 2 sizes of factory installed 2-in. thick throwaway fiberglass filters of commercially available sizes. Filters shall be approximately 10% efficient with an air-side pressure drop of approximately 0.07 in. wg (clean).

I. Controls and Safeties:

1. Unit Controls:

a. Economizer control (optional).

b. Capacity control (2 step).

c. Unit shall be complete with self contained low voltage control circuit.

J. Safeties:

a. Unit shall incorporate a solid state compressor lockout which provides reset capability at the space thermostat, should any of the following safety devices trip and shut off compressor:

1) Compressor lockout protection provided for either internal or external overload.

2) low pressure switch.

3) Dual freeze-stats (evaporator coil). 4) High pressure switch.

## GUIDE SPECIFICATIONS – PGE180–300 (cont.)

- b. Supply air thermostat shall be located in the unit.
  - c. Heating section shall be provided with the following minimum protections:
    - 1) High temperature limit switch.
    - 2) induced draft motor speed sensor.
    - 3) Flame rollout switch.
    - 4) Flame proving controls.
    - 5) Redundant gas valve.
- K. Operating Characteristics:
- 1. Unit shall be capable of starting and running at 120 F ambient outdoor temperature per maximum load criteria of ARI Standard 360.
  - 2. Unit with standard controls will operate in cooling down to an outdoor ambient temperature of 40 F.
  - 3. Unit shall be provided with fan time delay to prevent cold air delivery.
- L. Electrical Requirements:
- All unit power wiring shall enter unit cabinet at a single location.
- M. Motors:
- 1. Compressor motors shall be cooled by refrigerant gas passing through motor windings and shall have line break thermal and current overload protection.
  - 2. All fan motors shall have permanently lubricated, sealed bearings and inherent automatic reset thermal overload protection or manual reset calibrated circuit breakers.
  - 3. All indoor fan motors 5 hp and larger shall meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT) effective October 24, 1997.
- N. Special Features
- 1. Integrated Economizers
    - a. Integrated integral modulating type capable of simultaneous economizer and compressor operation.
    - b. Available as a factory–installed option in vertical supply/return configuration only. (Available as a field–installed accessory for dedicated horizontal and/or vertical supply return configurations.)
    - c. Includes all hardware and controls to provide cooling with outdoor air.
    - d. Equipped with low–leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
    - e. Capable of introducing up to 100% outdoor air.
    - f. Economizer shall be equipped with a barometric relief damper.
  - g. Designed to close damper(s) during loss–of power situations with spring return built into motor.
  - h. Dry bulb outdoor–air temperature sensor shall be provided as standard. Outdoor air sensor set point is adjustable and shall range from 40° to 100° F. For the economizer, the return air sensor, indoor enthalpy sensor, and outdoor enthalpy sensor shall be provided as field installed accessories to provide enthalpy control, differential enthalpy control, and differential dry bulb temperature control.
  - i. Economizer controller shall use a mixed air thermistor mounted on the evaporator fan housing to control economizer operation to a supply air temperature of 55° F.
  - j. The economizer shall have a gear–driven parallel blade design.
  - k. Economizer controller shall provide control of internal building pressure through its accessory power exhaust function. Factory set at 100%, with a range of 0% to 100%.
  - l. Economizer Controller Occupied Minimum Damper Position Setting maintains the minimum airflow into the building during occupied period providing design ventilation rate for full occupancy (damper position during heating). A remote potentiometer may be used to override the set point.
  - m. Economizer Controller Unoccupied Minimum Damper Position Setting – The economizer damper shall be completely closed when the unit is in the occupied mode.
  - n. Economizer Controller IAQ/DCV Maximum Damper Position Setting – Setting the maximum position of the damper prevents the introduction of large amounts of hot or cold air into the space. This position is intended to satisfy the base minimum ventilation rate.
  - o. Economizer controller IAQ/DCV control modulates the outdoor–air damper to provide ventilation based on the optional 2 to 10 vdc CO<sub>2</sub> sensor input.
  - p. Compressor lockout sensor (opens at 35° F, closes at 50° F).
  - q. Actuator shall be direct coupled to economizer gear, eliminating linkage arms and rods.
  - r. Control LEDs:
    - 1. When the outdoor–air damper is capable of providing free cooling, the “Free Cool” LED shall illuminate.
    - 2. The IAQ LED indicates when the module is on the DCV mode.
    - 3. The EXH LED indicates when the exhaust fan contact is closed.
  - s. Remote Minimum Position Control – A field–installed accessory remote potentiometer shall allow the outdoor–air damper to be opened or closed beyond the minimum position in the occupied mode for modified ventilation.



## CONTROLS – PGE072–300

**OPERATING SEQUENCE, SIZE 072–150 UNITS Cooling, Units Without Economizer** – When thermostat calls for cooling, terminals G and Y1 are energized. The indoor fan contactor (IFC) and compressor contactor are energized and indoor fan motor, compressor, and outdoor fan starts. The outdoor fan motor runs continuously while unit is cooling. For units with 2 stages of cooling, if the thermostat calls for a second stage of cooling by energizing Y2, compressor contactor no. 2 (C2) is energized and compressor no. 2 starts. **Heating, Units Without Economizer** – When the thermostat calls for heating, terminal W1 is energized. To prevent thermostat short cycling, the unit is locked into the Heating mode for at least 1 minute when W1 is energized. The induced draft motor is energized and the burner ignition sequence begins.

The indoor (evaporator) fan motor (IFM) is energized 45 seconds after a flame is ignited. On units equipped for two stages of heat, when additional heat is needed, W2 is energized and the high fire solenoid on the main gas valve (MGV) is energized. When the thermostat is satisfied and W1 is deenergized, the IFM stops after a 45 second time off delay.

**Cooling, Units With Economizer** – When free cooling is not available, the compressors will be controlled by the zone thermostat. When free cooling is available, the outdoor air damper is modulated by the Economizer control to provide a 50° to 55°F mixed air temperature into the zone. As the mixed air temperature fluctuates above 55 or below 50 F, the dampers will be modulated (open or close) to bring the mixed air temperature back within control.

If mechanical cooling is utilized with free cooling, the outdoor air damper will maintain its current position at the time the compressor is started. If the increase in cooling capacity causes the mixed air temperature to drop below 45° F, then the outdoor air damper position will be decreased to the minimum position. If the mixed air temperature continues to fall, the outdoor air damper will close. Control returns to normal once the mixed air temperature rises above 48 F.

If optional power exhaust is installed, as the outdoor air damper opens and closes, the power exhaust fans will be energized and deenergized.

If field installed accessory CO<sub>2</sub> sensors are connected to the Economizer control, a demand controlled ventilation strategy will begin to operate. As the CO<sub>2</sub> level in the zone increases above the CO<sub>2</sub> set point, the minimum position of the damper will be increased proportionally. As the CO<sub>2</sub> level decreases because of the increase in fresh air, the outdoor air damper will be proportionally closed.

For Economizer operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed when the thermostat is satisfied.

When the Economizer control is in the occupied mode and a call for cooling exists (Y1 on the thermostat), the control will first check for indoor fan operation. If the fan is not on, then cooling will not be activated. If the fan is on, then the control will open the Economizer damper to the minimum position.

On the initial power to the Economizer control, it will take the damper up to 2½ minutes before it begins to position itself. Any change in damper position will take up to 30 seconds to initiate. Damper movement from full closed to full open (or vice versa) will take between 1½ and 2½ minutes.

If free cooling can be used as determined from the appropriate changeover command (switch, dry bulb, enthalpy curve, differential dry bulb, or differential enthalpy), then the control will modulate the dampers open to maintain the mixed air temperature set point at 50 to 55°F.

If there is a further demand for cooling (cooling second stage – Y2 is energized), then the control will bring on compressor stage 1 to maintain the mixed air temperature set point. The Economizer damper will be open at maximum position. Economizer operation is limited to a single compressor.

### **Heating, Units With Economizer NOTE:**

The units have 2 stages of heat. When the thermostat calls for heating, power is sent to W1 on

the IGC (integrated gas unit controller) board. An LED (light emitting diode) on the IGC board will be on during normal operation. A check is made to ensure that the rollout switch and limit switch are closed and the induced draft motor is running. The induced draft motor is then energized, and when speed is proven with the hall effect sensor on the motor, the ignition activation period begins. The burners will ignite within 5 seconds.

If the burners do not light, there is a 22 second delay before another 5 second attempt. If the burners still do not light, this sequence is repeated for 15 minutes. After the 15 minutes have elapsed, if the burners still have not lit, heating is locked out. To reset the control, break 24v power to the thermostat.

When ignition occurs the IGC board will continue to monitor the condition of the rollout and limit switches, the hall effect sensor, as well as the flame sensor. If the unit is controlled through a room thermostat set for fan auto., 45 seconds after ignition occurs, the indoor fan motor will be energized (and the outdoor air dampers will open to their minimum position). If for some reason the over temperature limit opens prior to the start of the indoor fan blower, on the next attempt, the 45 second delay will be shortened to 5 seconds less than the time from initiation of heat to when the limit tripped. Gas will not be interrupted to the burners and heating will continue. Once modified, the fan on delay will not change back to 45 seconds unless power is reset to the control.

When additional heat is required, W2 closes and initiates power to the second stage of the main gas valve. When the thermostat is satisfied, W1 and W2 open and the gas valve closes, interrupting the flow of gas to the main burners. If the call for W1 lasted less than 1 minute, the heating cycle will not terminate until 1 minute after W1 became active. If the unit is controlled through a room thermostat set for fan auto., the indoor fan motor will continue to operate for an additional 45 seconds then stop (and the outdoor air dampers will close). If the over temperature limit opens after the indoor motor is stopped within 10 minutes of W1 becoming inactive, on the next cycle the time will be extended by 15 seconds. The maximum delay is 3 minutes. Once modified, the fan off delay will not change back to 45 seconds unless power is reset to the control.

When the thermostat is satisfied and W1 and W2 are deenergized, the IFM continues to run and the economizer damper then moves to the minimum position.

**OPERATING SEQUENCE, PGE180–300 Cooling, Units Without Economizer** – When thermostat calls for cooling, terminals G and Y1 are energized. The indoor (evaporator) fan contactor (IFC) and compressor contactor no. 1 (C1) are energized, and evaporator fan motor (IFM), compressor no. 1 and condenser fan(s) start. The condenser fan motor(s) runs continuously while unit is cooling. When the thermostat calls for a second stage of cooling by energizing Y2, compressor contactor no. 2 (C2) is energized and compressor no. 2 starts.

**Heating, Units Without Economizer** – When the thermostat calls for heating, power is sent to W on the IGC (integrated gas unit controller) board. An LED (light emitting diode) on the IGC board will be on during normal operation. A check is made to ensure that the rollout switch and limit switch are closed. The induced draft motor is then energized, and when speed is proven with the hall effect sensor on the motor, the ignition activation period begins. The burners will ignite within 5 seconds.

## CONTROLS – PGE072–300

If the burners do not light, there is a 22 second delay before another 5–second attempt. If the burners still do not light, this sequence is repeated for 15 minutes. After the 15 minutes have elapsed, if the burners still have not lit, heating is locked out. To reset the control, break 24v power to the thermostat.

When ignition occurs the IGC board will continue to monitor the condition of the rollout and limit switches, the hall effect sensor, as well as the flame sensor. If the unit is controlled through a room thermostat set for fan auto, 45 seconds after ignition occurs, the indoor–fan motor will be energized. If for some reason the over temperature limit opens prior to the start of the indoor fan blower, on the next attempt, the 45–second delay will be shortened to 5 seconds less than the time from initiation of heat to when the limit tripped. Gas will not be interrupted to the burners and heating will continue. Once modified, the fan on delay will not change back to 45 seconds unless power is reset to the control.

When additional heat is required, W2 closes and initiates power to the second stage of the main gas valve. When the thermostat is satisfied, W1 and W2 open and the gas valve closes, interrupting the flow of gas to the main burners. If the call for W1 lasted less than 1 minute, the heating cycle will not terminate until 1 minute after W1 became active. If the unit is controlled through a room thermostat set for fan auto., the indoor fan motor will continue to operate for an additional 45 seconds then stop. If the over temperature limit opens after the indoor motor is stopped within 10 minutes of W1 becoming inactive, on the next cycle the time will be extended by 15 seconds. The maximum delay is 3 minutes. Once modified, the fan off delay will not change back to 45 seconds unless power is reset to the control.

An LED indicator is provided on the IGC to monitor operation. The IGC is located by removing the side panel and viewing the IGC through the view port located in the control box access panel. During normal operation, the LED is continuously on.

**Cooling, Units With Economizer** – When free cooling is not available, the compressors will be controlled by the zone thermostat. When free cooling is available, the outdoor air damper is modulated by the Economizer control to provide a 50 to 55°F mixed air temperature into the zone. As the mixed air temperature fluctuates above 55 or below 50 F, the dampers will be modulated (open or close) to bring the mixed air temperature back within control.

If mechanical cooling is utilized with free cooling, the outdoor air damper will maintain its current position at the time the compressor is started. If the increase in cooling capacity causes the mixed air temperature to drop below 45°F, then the outdoor air damper position will be decreased to the minimum position. If the mixed air temperature continues to fall, the outdoor air damper will close. Control returns to normal once the mixed air temperature rises above 48 F.

If optional power exhaust is installed, as the outdoor air damper opens and closes, the power exhaust fans will be energized and deenergized.

If field installed accessory CO<sub>2</sub> sensors are connected to the Economizer control, a demand controlled ventilation strategy will begin to operate. As the CO<sub>2</sub> level in the zone increases above the CO<sub>2</sub> set point, the minimum position of the damper will be increased proportionally. As the CO<sub>2</sub> level decreases because of the increase in fresh air, the outdoor air damper will be proportionally closed.

For Economizer operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed.

When the Economizer control is in the occupied mode and a call for cooling exists (Y1 on the thermostat), the control will first check for indoor fan operation. If the fan is not on, then cooling will not be activated. If the fan is on, then the control will open the Economizer damper to the minimum position.

On the initial power to the Economizer control, it will take the damper up to 2½ minutes before it begins to position itself. Any change in damper position will take up to 30 seconds to initiate. Damper movement from full closed to full open (or vice versa) will take between 1½ and 2½ minutes.

If free cooling can be used as determined from the appropriate changeover command (switch, dry bulb, enthalpy curve, differential dry bulb, or differential enthalpy), then the control will modulate the dampers open to maintain the mixed air temperature set point at 50 to 55°F.

If there is a further demand for cooling (cooling second stage – Y2 is energized), then the control will bring on compressor stage 1 to maintain the mixed air temperature set point. The Economizer damper will be open at maximum position. Economizer operation is limited to a single compressor.

### Heating, Units With Economizer

**NOTE:** The units have 2 stages of heat. When the thermostat calls for heating, power is sent to W1 on the IGC (integrated gas unit controller) board. An LED (light emitting diode) on the IGC board will be on during normal operation. A check is made to ensure that the rollout switch and limit switch are closed and the induced draft motor is running. The induced draft motor is then energized, and when speed is proven with the hall effect sensor on the motor, the ignition activation period begins. The burners will ignite within 5 seconds.

If the burners do not light, there is a 22 second delay before another 5 second attempt. If the burners still do not light, this sequence is repeated for 15 minutes. After the 15 minutes have elapsed, if the burners still have not lit, heating is locked out. To reset the control, break 24v power to the thermostat.

When ignition occurs the IGC board will continue to monitor the condition of the rollout and limit switches, the hall effect sensor, as well as the flame sensor. If the unit is controlled through a room thermostat set for fan auto., 45 seconds after ignition occurs, the indoor fan motor will be energized (and the outdoor air dampers will open to their minimum position). If for some reason the over temperature limit opens prior to the start of the indoor fan blower, on the next attempt, the 45 second delay will be shortened to 5 seconds less than the time from initiation of heat to when the limit tripped. Gas will not be interrupted to the burners and heating will continue. Once modified, the fan on delay will not change back to 45 seconds unless power is reset to the control.

When additional heat is required, W2 closes and initiates power to the second stage of the main gas valve. When the thermostat is satisfied, W1 and W2 open and the gas valve closes, interrupting the flow of gas to the main burners. If the call for W1 lasted less than 1 minute, the heating cycle will not terminate until 1 minute after W1 became active. If the unit is controlled through a room thermostat set for fan auto., the indoor fan motor will continue to operate for an additional 45 seconds then stop (and the outdoor air dampers will close). If the over temperature limit opens after the indoor motor is stopped within 10 minutes of W1 becoming inactive, on the next cycle the time will be extended by 15 seconds. The maximum delay is 3 minutes. Once modified, the fan off delay will not change back to 45 seconds unless power is reset to the control.

When the thermostat is satisfied and W1 and W2 are deenergized, the IFM continues to run and the economizer damper then moves to the minimum position.