

### 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



#### UNIT PERFORMANCE DATA

| UNIT<br>PGE 3-Phase | Nominal<br>TONS | COOLING                   |      |          | GAS HEATING RANGE                |          | Unit Dimensions<br>H x W x L                                                                             | Unit<br>Weight |
|---------------------|-----------------|---------------------------|------|----------|----------------------------------|----------|----------------------------------------------------------------------------------------------------------|----------------|
|                     |                 | Net<br>Capacity<br>(Btuh) | EER  | Total kW | Heating<br>Input Capacity (Btuh) | AFUE (%) |                                                                                                          |                |
|                     |                 |                           | Belt |          |                                  |          |                                                                                                          |                |
| PGE072**A00AA       | 6               | 71,000                    | 10.1 | 7.0      | 74,000 – 150,000                 | 80       | 33 <sup>5</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>8</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>8</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>8</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 91¼" x 86 <sup>5</sup> / <sub>8</sub> "                                                            | 1800           |
| PGE210**A00AA       | 18              | 202,000                   | 9.7  | 21.2     |                                  |          | 45" x 91¼" x 86 <sup>5</sup> / <sub>8</sub> "                                                            | 1850           |
| PGE240**A00AA       | 20              | 236,000                   | 9.5  | 24.8     |                                  |          | 47" x 91¼" x 86 <sup>5</sup> / <sub>8</sub> "                                                            | 1900           |
| PGE300**A00AA       | 25              | 278,000                   | 9.7  | 28.5     |                                  |          | 52¼" x 120¼" x 86 <sup>5</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.

## TABLE OF CONTENTS

---

|                                                        |       |
|--------------------------------------------------------|-------|
| Model Nomenclature .....                               | 3     |
| Features/Benefits .....                                | 4     |
| ARI Capacity Ratings .....                             | 5-6   |
| Options and Accessories .....                          | 7-10  |
| <b>PGE072 – 150</b>                                    |       |
| Physical Data .....                                    | 11-14 |
| Base Unit Dimensions .....                             | 15-16 |
| Performance Data .....                                 | 17-43 |
| Electrical Data .....                                  | 44-45 |
| Typical Wiring Schematics .....                        | 46-47 |
| Typical Piping and Wiring .....                        | 48    |
| Guide Specifications .....                             | 49-50 |
| <b>PGE180 – 300</b>                                    |       |
| Physical Data .....                                    | 51-52 |
| Base Unit Dimensions .....                             | 53-55 |
| Accessory Dimensions .....                             | 56    |
| Performance Data .....                                 | 57-67 |
| Electrical Data .....                                  | 68    |
| Typical Wiring Schematics and Piping .....             | 69-70 |
| Guide Specifications–Constant Volume Application ..... | 71-72 |
| Controls .....                                         | 73-74 |

# 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<br>090 = 90,000<br>102 = 102,000<br>120 = 120,000<br>155 = 155,000<br>180 = 180,000<br>210 = 210,000<br>240 = 240,000<br>300 = 300,000 |          |          |          |                              |          |                                                               |          |           |          |                            |          |
|                                                                                                                                                     |          |          |          | <b>NOMINAL COOLING BTU/h</b> |          |                                                               |          |           |          |                            |          |
| H = 208/230-3-60<br>L = 460-3-60<br>S = 575-3-60                                                                                                    |          |          |          |                              |          | <b>VOLTAGE</b>                                                |          |           |          |                            |          |
| 0 = No Heat<br>D = Low Heat<br>F = High Heat                                                                                                        |          |          |          |                              |          |                                                               |          |           |          |                            |          |
|                                                                                                                                                     |          |          |          |                              |          | <b>HEATING CAPACITY</b> (see spec sheet for actual capacity)  |          |           |          |                            |          |
| A = Standard Motor<br>B = High Static Motor                                                                                                         |          |          |          |                              |          |                                                               |          |           |          |                            |          |
|                                                                                                                                                     |          |          |          |                              |          | <b>MOTOR OPTION</b> (see spec sheet for details)              |          |           |          |                            |          |
| 00 = No Factory Installed Options<br>0A = Economizer<br>0B = Damper<br>XX = See FIOP Selection Guide for Details                                    |          |          |          |                              |          |                                                               |          |           |          |                            |          |
|                                                                                                                                                     |          |          |          |                              |          | <b>FACTORY INSTALLED OPTIONS</b> (see spec sheet for details) |          |           |          |                            |          |
| 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      | 7 <sup>1</sup> / <sub>2</sub>  | 88,000                      | 8.7      | 10.1 | 82                | 10.5 |
| 102      | 8 <sup>1</sup> / <sub>2</sub>  | 100,000                     | 9.9      | 10.1 | 82                | 10.4 |
| 120      | 10                             | 114,000                     | 11.3     | 10.1 | 84                | 11.0 |
| 150      | 12 <sup>1</sup> / <sub>2</sub> | 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<br>PGE | NOMINAL TONS | NET COOLING<br>CAPACITY (Btuh) | TOTAL WATTS | EER | SOUND RATING<br>(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<br>PGE | NOMINAL TONS | NET COOLING<br>CAPACITY (Btuh) | TOTAL WATTS | EER | SOUND RATING<br>(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

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.

### NOTES:

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

## HEATING CAPACITIES AND EFFICIENCIES

| UNIT<br>PGE | HEATING INPUT<br>(Btuh)Stage 2/Stage 1† | OUTPUT CAPACITY<br>(Btuh) | TEMPERATURE RISE<br>(°F) | STEADY-STATE<br>EFFICIENCY (%) | MINIMUM HEATING<br>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

| FLAT ROOF CURBS |                                               |                     |
|-----------------|-----------------------------------------------|---------------------|
| Model Number    | Height                                        | Use With Model Size |
| 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                 |

| ECONOMIZERS           |                                                   |                     |
|-----------------------|---------------------------------------------------|---------------------|
| Model Number          | Description                                       | Use With Model Size |
| 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             |
| ALTERNATE ECONOMIZERS |                                                   |                     |
| Model Number          | Description                                       | P*E Model Size      |
| 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           |

| DAMPERS           |                                  |                     |
|-------------------|----------------------------------|---------------------|
| Model Number      | Description                      | Use With Model Size |
| DNMANDPR001A03    | 50% Open                         | 072                 |
| DNMANDPR002A03    | 50% Open                         | 090–150             |
| DNBARREL001A00    | Barometric Relief Damper         | 180–300             |
| ALTERNATE DAMPERS |                                  |                     |
| 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

### POWER EXHAUST

| Model Number   | Description                                                | Use With Model Size |
|----------------|------------------------------------------------------------|---------------------|
| 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           |

### ALTERNATE POWER EXHAUST

|           |                            |           |
|-----------|----------------------------|-----------|
| 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 |

### LOW AMBIENT CONTROLS

| Model Number   | Description                                            | Use With Model Size |
|----------------|--------------------------------------------------------|---------------------|
| 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                 |

### WINTER START KIT

| Model Number   | Description                             | Use With Model Size |
|----------------|-----------------------------------------|---------------------|
| DNWINSTR001A00 | Low pressure switch bypass (time delay) | ALL                 |

### PHASE MONITOR CONTROL

| Model Number   | Description                                                               | Use With Model Size |
|----------------|---------------------------------------------------------------------------|---------------------|
| DNPHASE3001A01 | Electronic phase monitor breaks “R” control signal if trouble is detected | ALL                 |

### THROUGH-THE-BOTTOM/CURB POWER CONNECTION

| Model Number   | Description                                    | Use With Model Size |
|----------------|------------------------------------------------|---------------------|
| 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

|                                           |  |                                                                      |
|-------------------------------------------|--|----------------------------------------------------------------------|
| UNIT SIZE: PGE                            |  | 072                                                                  |
| NOMINAL CAPACITY (tons)                   |  | 6                                                                    |
| OPERATING WEIGHT (lb)                     |  |                                                                      |
| Unit                                      |  |                                                                      |
| Al/Cu*                                    |  | 626                                                                  |
| COMPRESSOR                                |  |                                                                      |
| Type                                      |  | Scroll                                                               |
| Quantity                                  |  | 1                                                                    |
| No. Cylinders (per Circuit)               |  | 2                                                                    |
| Oil (oz)                                  |  | 60                                                                   |
| REFRIGERANT TYPE                          |  | R-22                                                                 |
| Expansion Device                          |  | Fixed Orifice Metering Device                                        |
| Operating Charge (lb-oz)                  |  |                                                                      |
| Circuit 1 (first stage)                   |  | 11-0                                                                 |
| CONDENSER FAN                             |  | Propeller Type                                                       |
| Nominal Cfm                               |  | 4100                                                                 |
| Quantity...Diameter (in.)                 |  | 1...22.0                                                             |
| Motor Hp...Rpm                            |  | 1/4...1100                                                           |
| Watts Input (Total)                       |  | 320                                                                  |
| CONDENSER COIL                            |  | 3/8" OD Enhanced Copper tubes, Aluminum Lanced Fins                  |
| Rows...Fins/in.                           |  | 2...17                                                               |
| Total Face Area (sq ft)                   |  | 16.5                                                                 |
| EVAPORATOR FAN                            |  | Centrifugal Type                                                     |
| 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             |  | Std 80                                                               |
| Moveable Pulley Flange (rpm)              |  | High-Static 60                                                       |
| Movable Pulley Maximum Full Turns         |  | Std 5                                                                |
| From Closed Position                      |  | 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                                                                  |
| EVAPORATOR COIL                           |  | 3/8" OD Enhanced Copper tubes, Aluminum Double-Wavy Fins, Face Split |
| 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 (Nominal Heating Size) | (74,000)  | 74,000 / –          |
|                                                                         | (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          |
| OPERATING WEIGHT (lb)                                                |  |                               |             |             |              |
| Unit<br>Al/Cu*                                                       |  | 881                           | 896         | 1057        | 1077         |
| COMPRESSOR                                                           |  |                               |             |             |              |
| Type                                                                 |  | Reciprocating                 |             | Scroll      |              |
| Quantity                                                             |  | 2                             | 2           | 2           | 2            |
| No. Cylinders (per Circuit)                                          |  | 2                             | 2           | 2           | 2            |
| Oil (oz)                                                             |  | 42                            | 53          | 50          | 60           |
| REFRIGERANT TYPE                                                     |  |                               |             |             |              |
| R-22                                                                 |  |                               |             |             |              |
| 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          |
| CONDENSER FAN                                                        |  |                               |             |             |              |
| Propeller Type                                                       |  |                               |             |             |              |
| 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          |
| CONDENSER COIL                                                       |  |                               |             |             |              |
| 3/8" OD Enhanced Copper tubes, Aluminum Lanced Fins                  |  |                               |             |             |              |
| Rows...Fins/in.                                                      |  | 2...17                        | 2...17      | 2...17      | 2...17       |
| Total Face Area (sq ft)                                              |  | 20.50                         | 20.50       | 25.00       | 25.00        |
| EVAPORATOR FAN                                                       |  |                               |             |             |              |
| Centrifugal Type                                                     |  |                               |             |             |              |
| 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<br>Moveable Pulley Flange (rpm)        |  | Std                           | 50          | 50          | 50           |
|                                                                      |  | High-Static                   | 60          | 60          | 60           |
| Movable Pulley Maximum Full Turns<br>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            |
| EVAPORATOR COIL                                                      |  |                               |             |             |              |
| 3/8" OD Enhanced Copper tubes, Aluminum Double-Wavy Fins, Face Split |  |                               |             |             |              |
| Rows...Fins/in.                                                      |  | 3...15                        | 3...15      | 3...15      | 4...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             |
|------------------------------------------------------------|-----------|-----------------|------------------------|-----------------|-----------------|
| FURNACE SECTION                                            |           |                 |                        |                 |                 |
| Rollout Switch Cutout Temp ††                              |           | 195             | 195                    | 195             | 195             |
| Burner Orifice Diameter (In...drill size)                  |           |                 |                        |                 |                 |
| Natural Gas (Nominal Htg Size) Std                         | (125,000) | .120...31       | .120...31              | –               | –               |
|                                                            | (180,000) | .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                      | (125,000) | .096...41       | .096...41              | –               | .120...31       |
|                                                            | (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/ –      | 125,000/ –             | –               | –               |
| (Nominal Htg Size) Stage 1 / Stage 2                       | (180,000) | 120,000/180,000 | 120,000/180,000        | 120,000/180,000 | –               |
| Stage 1 / Stage 2                                          | (224,000) | 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 | 250,000/250,000 |
| 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) Psig/ in. wg. |           |                 | 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             |
| HIGH-PRESSURE SWITCH (psig)                                |           |                 |                        |                 |                 |
| Standard Compressor                                        |           | 450 ± 50        |                        |                 | 500 ± 50        |
| Internal Relief (Differential)                             |           |                 |                        |                 |                 |
| Cutout                                                     |           | 428             |                        |                 |                 |
| Reset (Auto)                                               |           | 320             |                        |                 |                 |
| LOW-PRESSURE SWITCH (psig)                                 |           |                 |                        |                 |                 |
| Cutout                                                     |           | 7 ± 3           |                        |                 |                 |
| Reset (Auto)                                               |           | 22 ± 7          |                        |                 |                 |
| FREEZE PROTECTION THERMOSTAT (F)                           |           |                 |                        |                 |                 |
| Opens                                                      |           | 30 ± 5          |                        |                 |                 |
| Closes                                                     |           | 45 ± 5          |                        |                 |                 |
| RETURN AIR FILTERS                                         |           |                 |                        |                 |                 |
| Quantity... Size (in.)                                     |           | 2...16 x 20 x 2 | 4...20 x 20 x 2        |                 |                 |

## LEGEND

Al – Aluminum

Bhp – Brake Horsepower

Cu – Copper

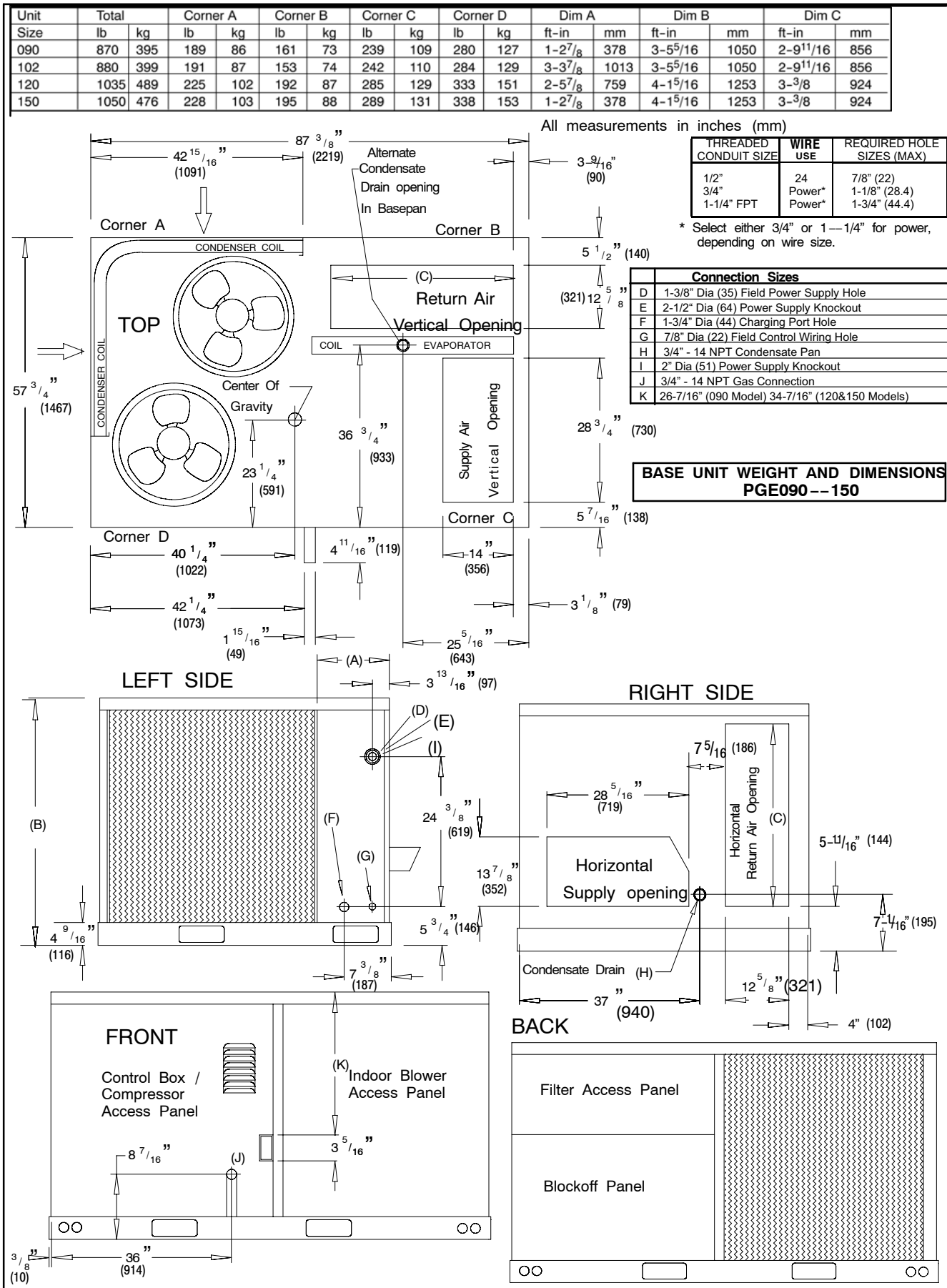
\*Evaporator coil fin material/condenser coil fin material. Contact your local representative for details about coated fins.

†Alternate drive package for size 150.

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



# BASE UNIT DIMENSIONS – PGE090–150



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

**COOLING CAPACITIES**

| PGE072 (6 TONS)                                |     |                                   |      |      |           |      |      |           |      |      |           |      |      |
|------------------------------------------------|-----|-----------------------------------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|
| Temp (F)<br>Air Entering<br>Condenser<br>(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 (7½ TONS)                               |     |                                   |      |      |           |       |      |           |       |      |           |       |      |
|------------------------------------------------|-----|-----------------------------------|------|------|-----------|-------|------|-----------|-------|------|-----------|-------|------|
| Temp (F)<br>Air Entering<br>Condenser<br>(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 (8½ TONS)                               |     |                                  |       |       |           |       |       |           |       |       |           |       |       |
|------------------------------------------------|-----|----------------------------------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|
| Temp (F)<br>Air Entering<br>Condenser<br>(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  | 93.1  |
|                                                | 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)<br>Air Entering<br>Condenser<br>(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)<br>Air Entering<br>Condenser<br>(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<br>FACTOR<br>(BF) | ENTERING AIR DRY-BULB TEMP (°F) |      |      |      |      |                                |
|--------------------------|---------------------------------|------|------|------|------|--------------------------------|
|                          | 79                              | 78   | 77   | 76   | 75   | under 75                       |
|                          | 81                              | 82   | 83   | 84   | 85   | over 85                        |
|                          | Correction Factor               |      |      |      |      |                                |
| .05                      | 1.04                            | 2.07 | 3.11 | 4.14 | 5.18 | Use formula<br>shown at right. |
| .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 =  $1.10 \times (1 - \text{BF}) \times (\text{edb} - 80)$ .

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

**FAN PERFORMANCE VERTICAL DISCHARGE UNITS**

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

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

**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**

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

| <b>PGE072 (6 TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |             |             |              |             |             |              |             |             |              |             |             |              |
|-----------------------------------------------------------------|------------------------------------------|------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                        | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> |
| <b>1800</b>                                                     | 1406                                     | 1.43       | 1268         | 1473        | 1.58        | 1407         | 1535        | 1.74        | 1548         | 1595        | 1.90        | 1690         | 1652        | 2.06        | 1833         |
| <b>1900</b>                                                     | 1438                                     | 1.57       | 1391         | 1504        | 1.73        | 1537         | 1567        | 1.90        | 1685         | 1626        | 2.06        | 1833         | 1682        | 2.23        | 1983         |
| <b>2000</b>                                                     | 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>  |
| <b>2100</b>                                                     | 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>  |
| <b>2200</b>                                                     | 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>  |
| <b>2300</b>                                                     | 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>  | –           | –           | –            |
| <b>2400</b>                                                     | 1607                                     | 2.42       | 2150         | 1669        | 2.63        | 2332         | <b>1729</b> | <b>2.83</b> | <b>2515</b>  | –           | –           | –            | –           | –           | –            |
| <b>2500</b>                                                     | 1642                                     | 2.63       | 2333         | <b>1704</b> | <b>2.84</b> | <b>2523</b>  | –           | –           | –            | –           | –           | –            | –           | –           | –            |
| <b>2600</b>                                                     | 1677                                     | 2.85       | 2527         | –           | –           | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            |
| <b>2700</b>                                                     | –                                        | –          | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            |
| <b>2800</b>                                                     | –                                        | –          | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            |
| <b>2900</b>                                                     | –                                        | –          | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            |
| <b>3000</b>                                                     | –                                        | –          | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            | –           | –           | –            |

**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<br>(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  | –   | –    | –     |
| 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  | –   | –    | –     | –   | –    | –     | –   | –    | –     |

| PGE090 (7½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont) |                                   |      |       |     |      |       |     |     |       |     |     |       |     |     |       |
|--------------------------------------------------------|-----------------------------------|------|-------|-----|------|-------|-----|-----|-------|-----|-----|-------|-----|-----|-------|
| Airflow<br>(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  | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2300                                                   | 844                               | 1.90 | 1773  | 893 | 2.22 | 2073  | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2400                                                   | 854                               | 1.99 | 1855  | 903 | 2.32 | 2159  | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2500                                                   | 865                               | 2.08 | 1940  | –   | –    | –     | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2550                                                   | 870                               | 2.13 | 1985  | –   | –    | –     | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2600                                                   | 875                               | 2.18 | 2031  | –   | –    | –     | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2700                                                   | 886                               | 2.28 | 2126  | –   | –    | –     | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 2800                                                   | 897                               | 2.39 | 2227  | –   | –    | –     | –   | –   | –     | –   | –   | –     | –   | –   | –     |
| 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**

| <b>PGE090 (7½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)*</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|-----------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                  | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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         |

| <b>PGE090 (7½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|------------------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                         | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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**

| <b>PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)*</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|--------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                               | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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                                                   | –                                        | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            |

| <b>PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|---------------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                      | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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**

| <b>PGE102 (8½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)*</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|-----------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                  | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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         | –          | –          | –            | –          | –          | –            |

| <b>PGE102 (8½ TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|------------------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                         | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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**

| <b>PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)*</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|--------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                               | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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         | –          | –          | –            |
| 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                                                   | –                                        | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            |

| <b>PGE120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|---------------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                      | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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         | –          | –          | –            |
| 3300                                                          | 909                                      | 1.88       | 1654         | 954        | 2.06       | 1811         | 998        | 2.24       | 1968         | –          | –          | –            | –          | –          | –            |
| 3400                                                          | 919                                      | 1.99       | 1749         | 964        | 2.18       | 1911         | 1007       | 2.36       | 2073         | –          | –          | –            | –          | –          | –            |
| 3500                                                          | 930                                      | 2.11       | 1848         | 975        | 2.30       | 2015         | –          | –          | –            | –          | –          | –            | –          | –          | –            |
| 3600                                                          | 941                                      | 2.22       | 1951         | –          | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            |
| 3700                                                          | 952                                      | 2.35       | 2058         | –          | –          | –            | –          | –          | –            | –          | –          | –            | –          | –          | –            |
| 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**

| <b>PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)*</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|-----------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                  | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| 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         |

| <b>PGE120 (10 TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |             |             |              |             |             |              |             |             |              |             |             |              |
|------------------------------------------------------------------|------------------------------------------|------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|-------------|-------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                         | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b>  | <b>Bhp</b>  | <b>Watts</b> |
| 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         | <b>1136</b> | <b>3.45</b> | <b>3031</b>  |
| 4000                                                             | 987                                      | 2.74       | 2407         | 1029        | 2.96        | 2598         | 1069        | 3.18        | 2790         | 1108        | 3.40        | 2981         | <b>1146</b> | <b>3.61</b> | <b>3171</b>  |
| 4100                                                             | 999                                      | 2.88       | 2532         | 1041        | 3.11        | 2729         | 1080        | 3.33        | 2925         | 1119        | 3.56        | 3121         | <b>1156</b> | <b>3.78</b> | <b>3316</b>  |
| 4200                                                             | 1012                                     | 3.03       | 2662         | 1052        | 3.26        | 2863         | 1092        | 3.49        | 3065         | 1130        | 3.72        | 3266         | <b>1167</b> | <b>3.95</b> | <b>3466</b>  |
| 4300                                                             | 1024                                     | 3.19       | 2796         | 1064        | 3.42        | 3003         | 1103        | 3.66        | 3210         | <b>1141</b> | <b>3.89</b> | <b>3415</b>  | <b>1177</b> | <b>4.13</b> | <b>3621</b>  |
| 4400                                                             | 1036                                     | 3.35       | 2937         | 1076        | 3.59        | 3148         | 1114        | 3.83        | 3359         | <b>1152</b> | <b>4.07</b> | <b>3570</b>  | <b>1188</b> | <b>4.31</b> | <b>3781</b>  |
| 4500                                                             | 1049                                     | 3.51       | 3082         | 1088        | 3.76        | 3298         | 1126        | 4.00        | 3514         | <b>1163</b> | <b>4.25</b> | <b>3730</b>  | <b>1199</b> | <b>4.50</b> | <b>3945</b>  |
| 4600                                                             | 1062                                     | 3.68       | 3232         | 1100        | 3.94        | 3454         | <b>1138</b> | <b>4.19</b> | <b>3675</b>  | <b>1174</b> | <b>4.44</b> | <b>3895</b>  | <b>1210</b> | <b>4.69</b> | <b>4116</b>  |
| 4700                                                             | 1075                                     | 3.86       | 3387         | 1113        | 4.12        | 3614         | <b>1150</b> | <b>4.38</b> | <b>3840</b>  | <b>1186</b> | <b>4.63</b> | <b>4065</b>  | <b>1221</b> | <b>4.89</b> | <b>4291</b>  |
| 4800                                                             | 1088                                     | 4.04       | 3549         | 1125        | 4.31        | 3780         | <b>1162</b> | <b>4.57</b> | <b>4011</b>  | <b>1198</b> | <b>4.83</b> | <b>4241</b>  | –           | –           | –            |
| 4900                                                             | 1101                                     | 4.23       | 3716         | <b>1138</b> | <b>4.50</b> | <b>3951</b>  | <b>1174</b> | <b>4.77</b> | <b>4188</b>  | –           | –           | –            | –           | –           | –            |
| 5000                                                             | 1114                                     | 4.43       | 3888         | <b>1151</b> | <b>4.70</b> | <b>4129</b>  | <b>1187</b> | <b>4.98</b> | <b>4370</b>  | –           | –           | –            | –           | –           | –            |

**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 (12½ TONS) – STANDARD MOTOR (BELT DRIVE)* |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|--------------------------------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow<br>(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 (12½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont) |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|---------------------------------------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow<br>(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  | –    | –    | –     |
| 3900                                                    | 1031                              | 2.79 | 2605  | 1079 | 3.06 | 2852  | 1126 | 3.33 | 3104  | 1171 | 3.61 | 3362  | –    | –    | –     |
| 4000                                                    | 1042                              | 2.93 | 2733  | 1090 | 3.20 | 2984  | 1136 | 3.48 | 3241  | –    | –    | –     | –    | –    | –     |
| 4100                                                    | 1054                              | 3.07 | 2866  | 1101 | 3.35 | 3122  | 1146 | 3.63 | 3383  | –    | –    | –     | –    | –    | –     |
| 4200                                                    | 1066                              | 3.22 | 3004  | 1112 | 3.50 | 3264  | –    | –    | –     | –    | –    | –     | –    | –    | –     |
| 4300                                                    | 1078                              | 3.38 | 3148  | 1123 | 3.66 | 3413  | –    | –    | –     | –    | –    | –     | –    | –    | –     |
| 4400                                                    | 1090                              | 3.54 | 3297  | –    | –    | –     | –    | –    | –     | –    | –    | –     | –    | –    | –     |
| 4500                                                    | 1103                              | 3.70 | 3451  | –    | –    | –     | –    | –    | –     | –    | –    | –     | –    | –    | –     |
| 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<br>(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<br>(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:

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.)**

**FAN PERFORMANCE HORIZONTAL DISCHARGE UNITS**

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

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

**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<br>(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<br>(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<br>(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<br>(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<br>(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<br>(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  | 891  | 2.12 | 1981  | 941  | 2.46 | 2297  | 988  | 2.82 | 2629  | 1033 | 3.19 | 2976  |
| 2300                                                      | 842                               | 1.84 | 1719  | 895  | 2.17 | 2019  | 944  | 2.51 | 2336  | 992  | 2.86 | 2669  | 1037 | 3.24 | 3018  |
| 2400                                                      | 851                               | 1.92 | 1793  | 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**

| <b>PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)*</b> |                                          |             |              |            |             |              |            |            |              |            |            |              |            |            |              |
|--------------------------------------------------------|------------------------------------------|-------------|--------------|------------|-------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                               | <b>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>Bhp</b>  | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b>  | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| <b>2550</b>                                            | <b>550</b>                               | <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         |
| <b>2600</b>                                            | <b>558</b>                               | <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         |
| <b>2700</b>                                            | <b>574</b>                               | <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         |
| <b>2800</b>                                            | <b>589</b>                               | <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         |
| <b>2900</b>                                            | <b>605</b>                               | <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         |
| <b>3000</b>                                            | <b>621</b>                               | <b>1.03</b> | <b>963</b>   | 688        | 1.29        | 1204         | 749        | 1.57       | 1463         | 806        | 1.87       | 1740         | 859        | 2.18       | 2033         |
| <b>3100</b>                                            | <b>637</b>                               | <b>1.12</b> | <b>1046</b>  | 702        | 1.39        | 1293         | 762        | 1.67       | 1558         | 818        | 1.97       | 1840         | 871        | 2.29       | 2139         |
| <b>3200</b>                                            | <b>654</b>                               | <b>1.22</b> | <b>1135</b>  | 717        | 1.49        | 1388         | 776        | 1.78       | 1658         | 831        | 2.09       | 1946         |            |            |              |
| <b>3300</b>                                            | <b>670</b>                               | <b>1.32</b> | <b>1228</b>  | 732        | 1.60        | 1488         | 789        | 1.89       | 1764         | 843        | 2.21       | 2057         |            |            |              |
| <b>3400</b>                                            | 686                                      | 1.42        | 1328         | 747        | 1.71        | 1593         | 803        | 2.01       | 1876         | 856        | 2.33       | 2174         |            |            |              |
| <b>3500</b>                                            | 703                                      | 1.54        | 1433         | 762        | 1.83        | 1705         | 817        | 2.14       | 1993         |            |            |              |            |            |              |
| <b>3600</b>                                            | 720                                      | 1.66        | 1543         | 777        | 1.95        | 1822         | 832        | 2.27       | 2116         |            |            |              |            |            |              |
| <b>3700</b>                                            | 736                                      | 1.78        | 1660         | 793        | 2.09        | 1944         |            |            |              |            |            |              |            |            |              |
| <b>3750</b>                                            | 745                                      | 1.85        | 1721         | 801        | 2.15        | 2008         |            |            |              |            |            |              |            |            |              |
| <b>3800</b>                                            | 753                                      | 1.91        | 1783         | 808        | 2.22        | 2074         |            |            |              |            |            |              |            |            |              |
| <b>3900</b>                                            | 770                                      | 2.05        | 1912         | 824        | 2.37        | 2209         |            |            |              |            |            |              |            |            |              |
| <b>4000</b>                                            | 787                                      | 2.20        | 2047         |            |             |              |            |            |              |            |            |              |            |            |              |
| <b>4100</b>                                            | 804                                      | 2.35        | 2189         |            |             |              |            |            |              |            |            |              |            |            |              |
| <b>4200</b>                                            |                                          |             |              |            |             |              |            |            |              |            |            |              |            |            |              |
| <b>4250</b>                                            |                                          |             |              |            |             |              |            |            |              |            |            |              |            |            |              |

| <b>PGE102 (8½ TONS) – STANDARD MOTOR (BELT DRIVE)* (cont)</b> |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |
|---------------------------------------------------------------|------------------------------------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|------------|--------------|
| <b>Airflow<br/>(Cfm)</b>                                      | <b>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>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> | <b>Rpm</b> | <b>Bhp</b> | <b>Watts</b> |
| <b>2550</b>                                                   | 865                                      | 2.05       | 1914         | 916        | 2.38       | 2223         |            |            |              |            |            |              |            |            |              |
| <b>2600</b>                                                   | 869                                      | 2.10       | 1957         |            |            |              |            |            |              |            |            |              |            |            |              |
| <b>2700</b>                                                   | 879                                      | 2.19       | 2046         |            |            |              |            |            |              |            |            |              |            |            |              |
| <b>2800</b>                                                   | 889                                      | 2.29       | 2140         |            |            |              |            |            |              |            |            |              |            |            |              |
| <b>2900</b>                                                   | 899                                      | 2.40       | 2239         |            |            |              |            |            |              |            |            |              |            |            |              |
| <b>3000</b>                                                   |                                          |            |              |            |            |              |            |            |              |            |            |              |            |            |              |

**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 (8 <sub>1/2</sub> TONS) -- HIGH STATIC MOTOR (BELT DRIVE)* |                                   |      |       |     |      |       |     |      |       |     |      |       |     |      |       |
|-------------------------------------------------------------------|-----------------------------------|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|
| Airflow<br>(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 (8 <sub>1/2</sub> TONS) – HIGH STATIC MOTOR (BELT DRIVE)* (cont) |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|-------------------------------------------------------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| Airflow<br>(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<br>(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<br>(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<br>(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<br>(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<br>(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<br>(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 $\frac{1}{2}$ TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)* |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|------------------------------------------------------------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| AIRFLOW<br>(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 $\frac{1}{2}$ TONS) – ALTERNATE / HIGH STATIC MOTOR (BELT DRIVE)* (cont) |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|-------------------------------------------------------------------------------------|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| AIRFLOW<br>(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<br>RATING 60<br>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\***

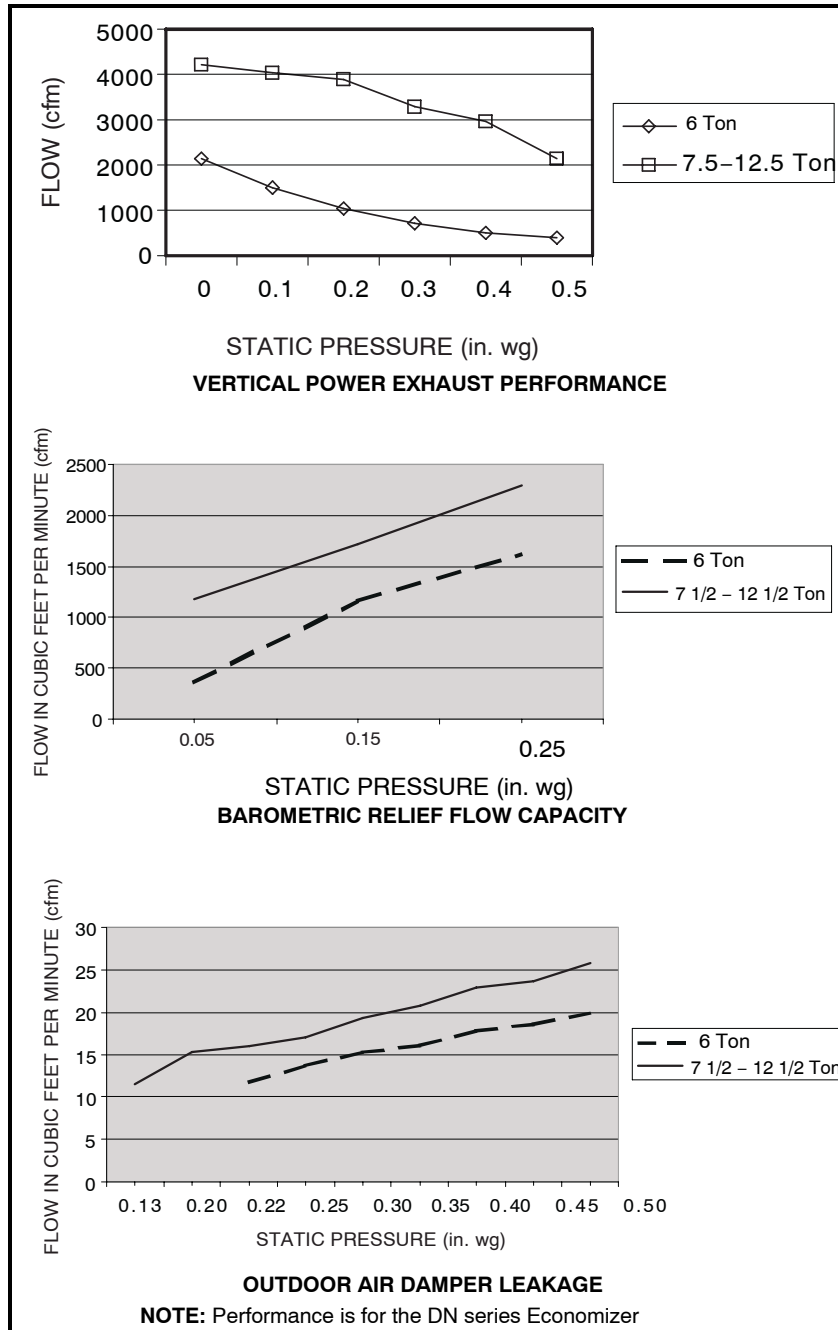
| ELEVATION (ft.) | MAXIMUM HEATING VALUE (Btu/ft <sup>3</sup> ) |
|-----------------|----------------------------------------------|
| 0–2,000         | 1,100                                        |
| 2,001–3,000     | 1,050                                        |
| 3,001–4,000     | 1,000       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



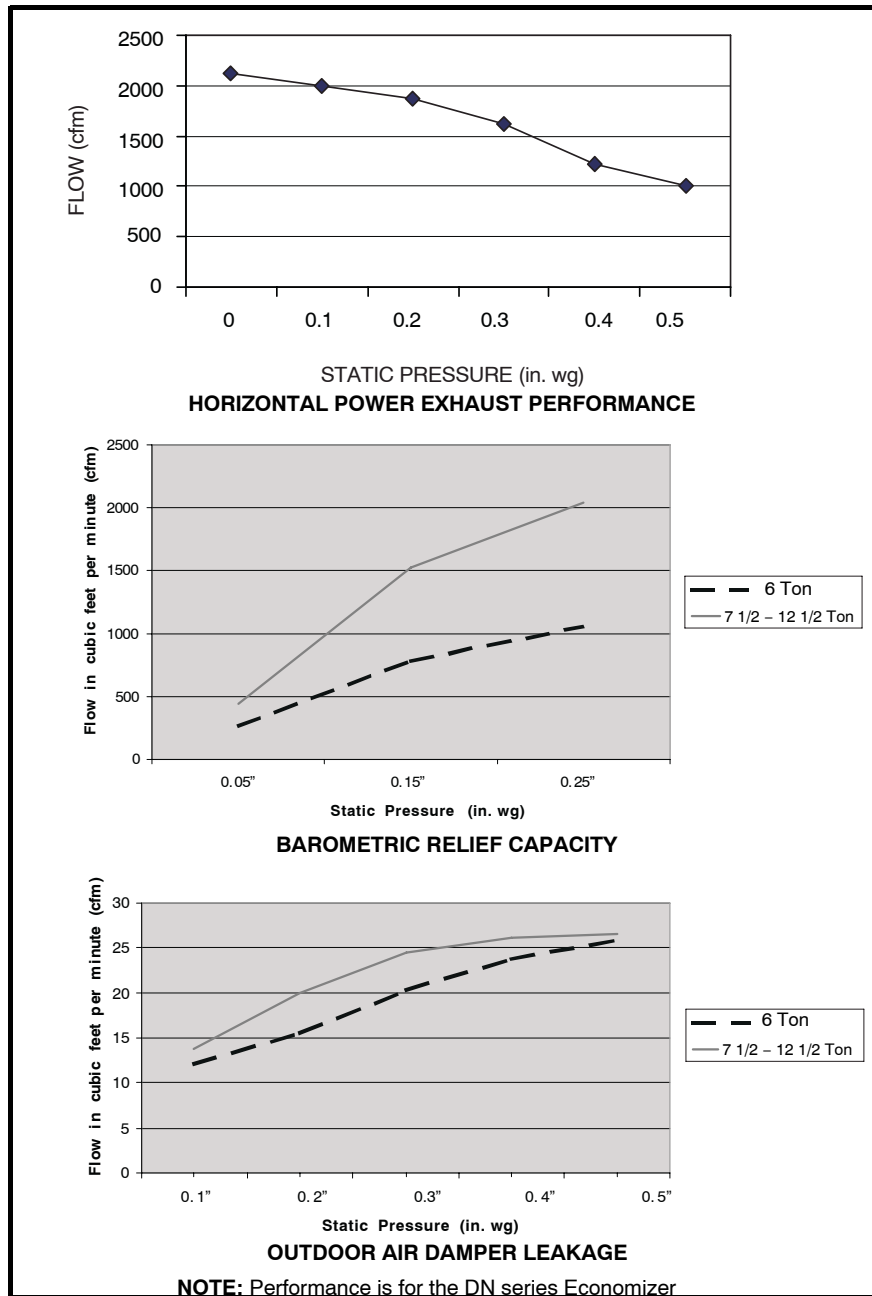
## POWER EXHAUST OPTIONS

| 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<br>PGE | AMPS AT 230 V (2<br>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**

| UNIT<br>PGE | EVAPORATOR FAN<br>MOTOR | UNIT<br>VOLTAGE | MAXIMUM ACCEPTABLE<br>CONTINUOUS BHP* | MAXIMUM ACCEPTABLE<br>OPERATING WATTS | MAXIMUM<br>AMP DRAW |
|-------------|-------------------------|-----------------|---------------------------------------|---------------------------------------|---------------------|
| <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<br>Size<br>PGE | Nominal<br>V– ph–Hz | IFM<br>Type | Voltage<br>Range |     | Compressor<br>(each) |      |     | OFM<br>(each) |     | IFM  | Combustion<br>Fan Motor | Power<br>Supply |      |     | Min. Unit<br>Disconnect<br>Size* |
|---------------------|---------------------|-------------|------------------|-----|----------------------|------|-----|---------------|-----|------|-------------------------|-----------------|------|-----|----------------------------------|
|                     |                     |             | Min              | Max | Qty                  | RLA  | LRA | Qty           | FLA |      |                         | MCA             | MOC  | FLA |                                  |
| 072                 | 208/230<br>–3–60    | STD         | 187              | 254 | 1                    | 20.6 | 146 | 1             | 1.4 | 5.2  | 0.6                     | 32.4            | 40   | 31  | 180                              |
|                     |                     | High        |                  |     |                      |      |     |               |     | 7.5  |                         | 34.7            | 40   | 34  | 205                              |
|                     | 460–3–60            | STD         | 414              | 508 | 1                    | 9.5  | 73  | 1             | 0.9 | 2.6  | 0.3                     | 15.4            | 20   | 15  | 90                               |
|                     |                     | High        |                  |     |                      |      |     |               |     | 3.4  |                         | 16.2            | 20   | 16  | 103                              |
|                     | 575–3–60            | STD         | 518              | 632 | 1                    | 7.6  | 62  | 1             | 0.6 | 1.9  | 0.3                     | 15              | 12.3 | 13  | 75                               |
|                     |                     | High        |                  |     |                      |      |     |               |     | 2.0  |                         | 20              | 13.1 | 14  | 84                               |
| 090                 | 208/230<br>–3–60    | STD         | 187              | 254 | 2                    | 14   | 91  | 2             | 1.4 | 5.8  | 0.6                     | 40.1            | 45   | 42  | 229                              |
|                     |                     | High        |                  |     |                      |      |     |               |     | 10.6 |                         | 44.9            | 50   | 48  | 273                              |
|                     | 460–3–60            | STD         | 414              | 508 | 2                    | 6.4  | 42  | 2             | 0.7 | 2.6  | 0.3                     | 18.4            | 20   | 19  | 108                              |
|                     |                     | High        |                  |     |                      |      |     |               |     | 4.8  |                         | 20.6            | 25   | 22  | 130                              |
|                     | 575–3–60            | STD         | 518              | 632 | 2                    | 5.2  | 39  | 2             | 0.6 | 2.0  | 0.3                     | 20              | 14.9 | 16  | 97                               |
|                     |                     | High        |                  |     |                      |      |     |               |     | 2.8  |                         | 20              | 16.7 | 18  | 114                              |

| Unit<br>Size<br>PGE | Nominal<br>V– ph–Hz | IFM<br>Type | Voltage<br>Range |     | Compressor<br>(each) |      |       | OFM<br>(each) |     | IFM  | Combustion<br>Fan Motor | Power<br>Supply |     |     | Min. Unit<br>Disconnect<br>Size* |
|---------------------|---------------------|-------------|------------------|-----|----------------------|------|-------|---------------|-----|------|-------------------------|-----------------|-----|-----|----------------------------------|
|                     |                     |             | Min              | Max | Qty                  | RLA  | LRA   | Qty           | FLA |      |                         | MCA             | MOC | FLA |                                  |
| 102                 | 208/230<br>–3–60    | STD         | 187              | 254 | 2                    | 17.3 | 120.0 | 2             | 1.4 | 5.8  | 0.6                     | 44.3            | 50  | 46  | 272                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 10.6 |                         | 49.1            | 60  | 52  | 316                              |
|                     | 460–3–60            | STD         | 414              | 508 | 2                    | 7.9  | 70.0  | 2             | 0.7 | 2.6  | 0.3                     | 21.0            | 25  | 22  | 149                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 4.8  |                         | 23.2            | 30  | 24  | 171                              |
|                     | 575–3–60            | STD         | 518              | 632 | 2                    | 5.5  | 50.0  | 2             | 0.6 | 2.0  | 0.3                     | 16.7            | 20  | 17  | 109                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 2.8  |                         | 18.5            | 25  | 19  | 126                              |
| 120                 | 208/230<br>–3–60    | STD         | 187              | 254 | 2                    | 15.8 | 130   | 2             | 1.4 | 5.8  | 0.6                     | 44.6            | 50  | 46  | 307                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 15.0 |                         | 53.8            | 60  | 57  | 374                              |
|                     | 460–3–60            | STD         | 414              | 508 | 2                    | 7.9  | 64    | 2             | 0.7 | 2.6  | 0.3                     | 22.0            | 25  | 23  | 152                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 7.4  |                         | 26.8            | 30  | 28  | 185                              |
|                     | 575–3–60            | STD         | 518              | 632 | 2                    | 6.6  | 52    | 2             | 0.6 | 2.0  | 0.3                     | 18.1            | 20  | 19  | 123                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 3.3  |                         | 21.9            | 25  | 23  | 155                              |
| 150                 | 208/230<br>–3–60    | STD         | 187              | 254 | 2                    | 19   | 156   | 2             | 1.4 | 10.6 | 0.6                     | 56.2            | 70  | 59  | 359                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 15.0 |                         | 60.6            | 70  | 64  | 378                              |
|                     | 460–3–60            | STD         | 414              | 508 | 2                    | 9    | 75    | 2             | 0.7 | 4.8  | 0.3                     | 26.5            | 30  | 28  | 174                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 7.4  |                         | 29.1            | 35  | 31  | 213                              |
|                     | 575–3–60            | STD         | 518              | 632 | 2                    | 7.4  | 54    | 2             | 0.6 | 3.3  | 0.3                     | 21.6            | 25  | 23  | 127                              |
|                     |                     | High        |                  |     |                      |      |       |               |     | 5.6  |                         | 23.7            | 25  | 25  | 159                              |

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.

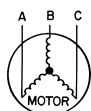
†Fuse or HACR circuit breaker.

### 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.  
 $\% \text{ Voltage Imbalance}$

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

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.

$$(AB) 457 - 452 = 5 \text{ v}$$

$$(BC) 464 - 457 = 7 \text{ v}$$

$$(AC) 457 - 455 = 2 \text{ v}$$

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.

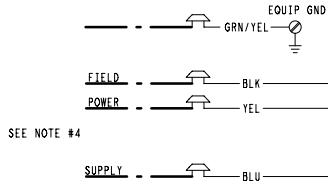
# TYPICAL WIRING SCHEMATICS – PGE072-150

## PGE090 – 208/230v SHOWN

### SCHEMATIC

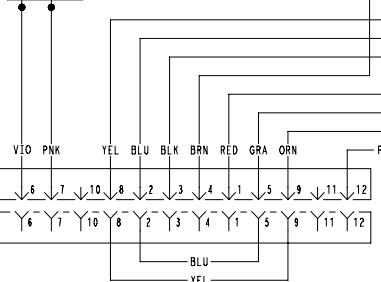
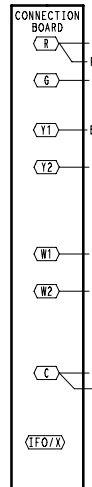
| CIRCUIT BREAKER | VOLTS | MFG. PT. NO.                        | MUST TRIP AMPS |
|-----------------|-------|-------------------------------------|----------------|
| CB              | 24V   | POTTER & BRUMFIELD<br>W28X-1024-3.2 | 3.2            |

208/230-3-60



- 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.

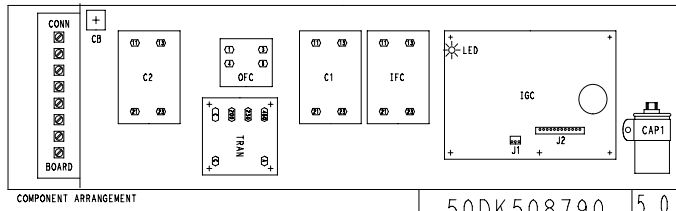
- LEGEND
- C CONTACTOR, COMPRESSOR
  - CB CIRCUIT BREAKER
  - CH CRANKCASE HEATER
  - CLO COMPRESSOR LOCKOUT
  - COMP COMPRESSOR MOTOR
  - EQUIP EQUIPMENT
  - FPT FREEZE UP PROTECTION THERMOSTAT
  - GND GROUND
  - HPS HIGH PRESSURE SWITCH
  - HS HALL EFFECT SEN.
  - I IGNITOR
  - IAO INDOOR AIR QUALITY SEN.
  - IARH INDOOR AIR RELATIVE HUMIDITY SEN.
  - IDM INDUCED DRAFT MOTOR
  - IFC INDOOR FAN CONTACTOR
  - IFM INDOOR FAN MOTOR
  - IFMOVL INDOOR FAN MOTOR OVERLOAD SWITCH
  - IGC INTEGRATED GAS UNIT CONTROLLER
  - 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
  - QT QUADRUPEL TERMINAL
  - RAT RETURN AIR TEMP. SEN.
  - RS ROLLOUT SWITCH
  - SAT SUPPLY AIR TEMP. SEN.
  - SEN SENSOR
  - TRAN TRANSFORMER



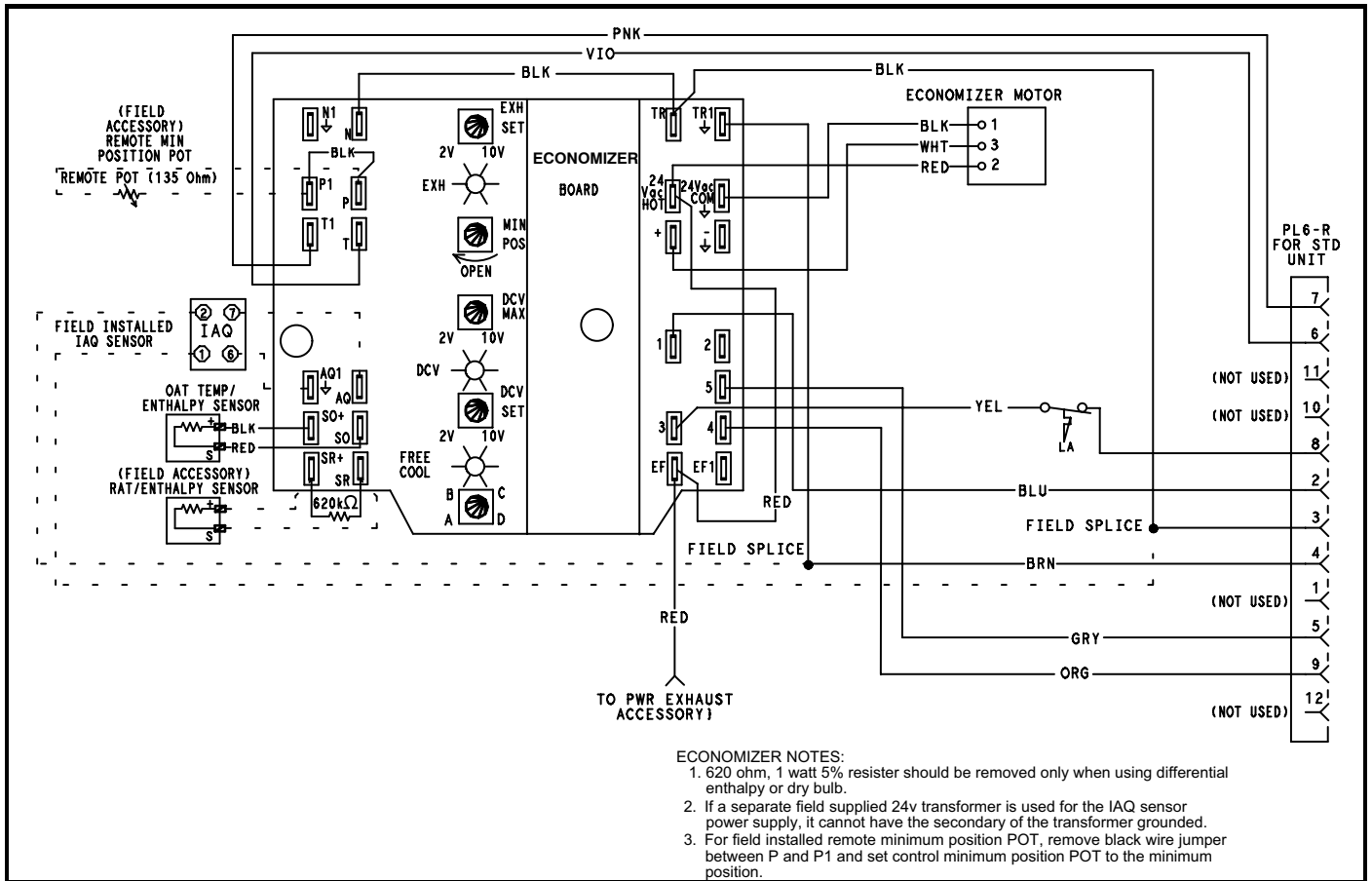
0-10VDC/4-20mA CONTROLLER  
CONNECTION FOR ECONOMIZER  
FACTORY OR FIELD  
INSTALLED

### LEGEND

- FIELD SPICE
- 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



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



**LEGEND**

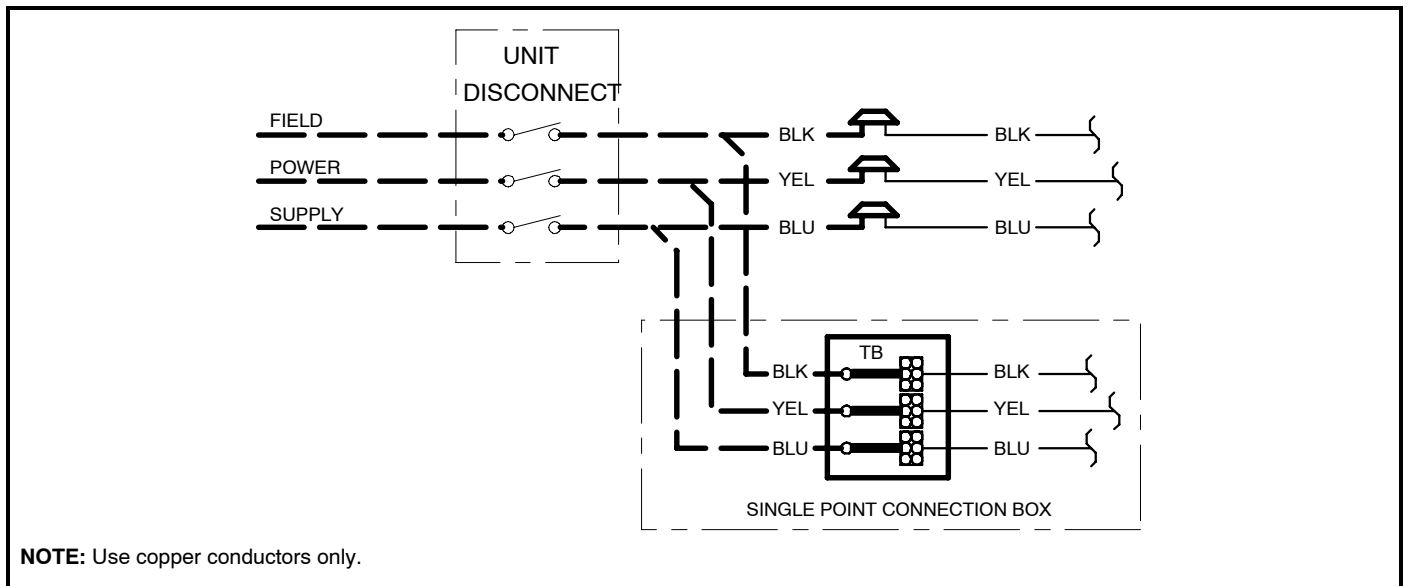
IAQ – Indoor Air Quality  
LA – Low Ambient Lockout Device  
POT – Potentiometer  
OAT – Outdoor Air Temperature  
RAT – Return Air Temperature

**NOTES:**

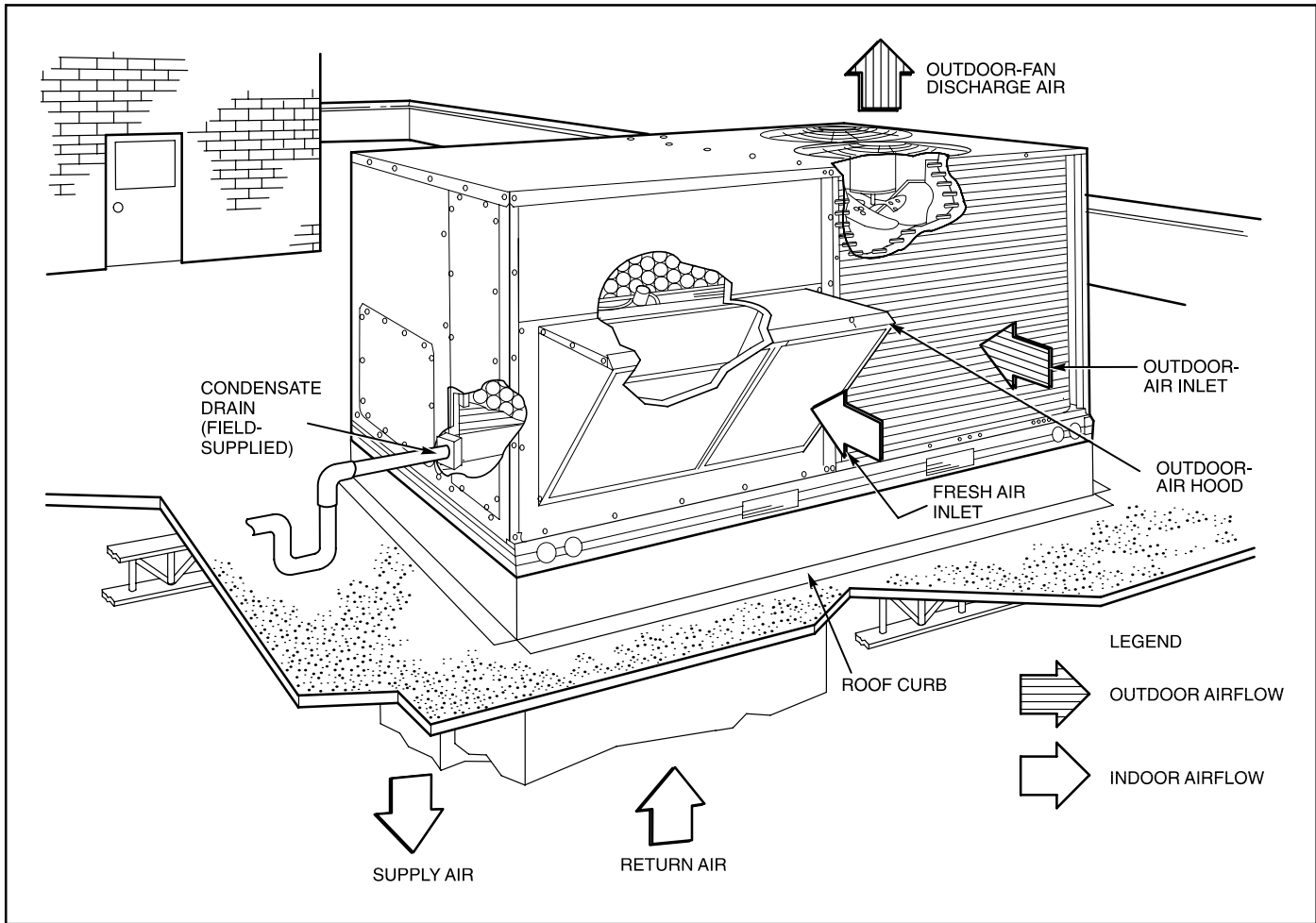
Potentiometer Default Settings:  
Power Exhaust Middle  
Minimum Pos – Fully Closed  
DCV Max. – Middle  
DCV Set – Middle  
Enthalpy C Setting

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

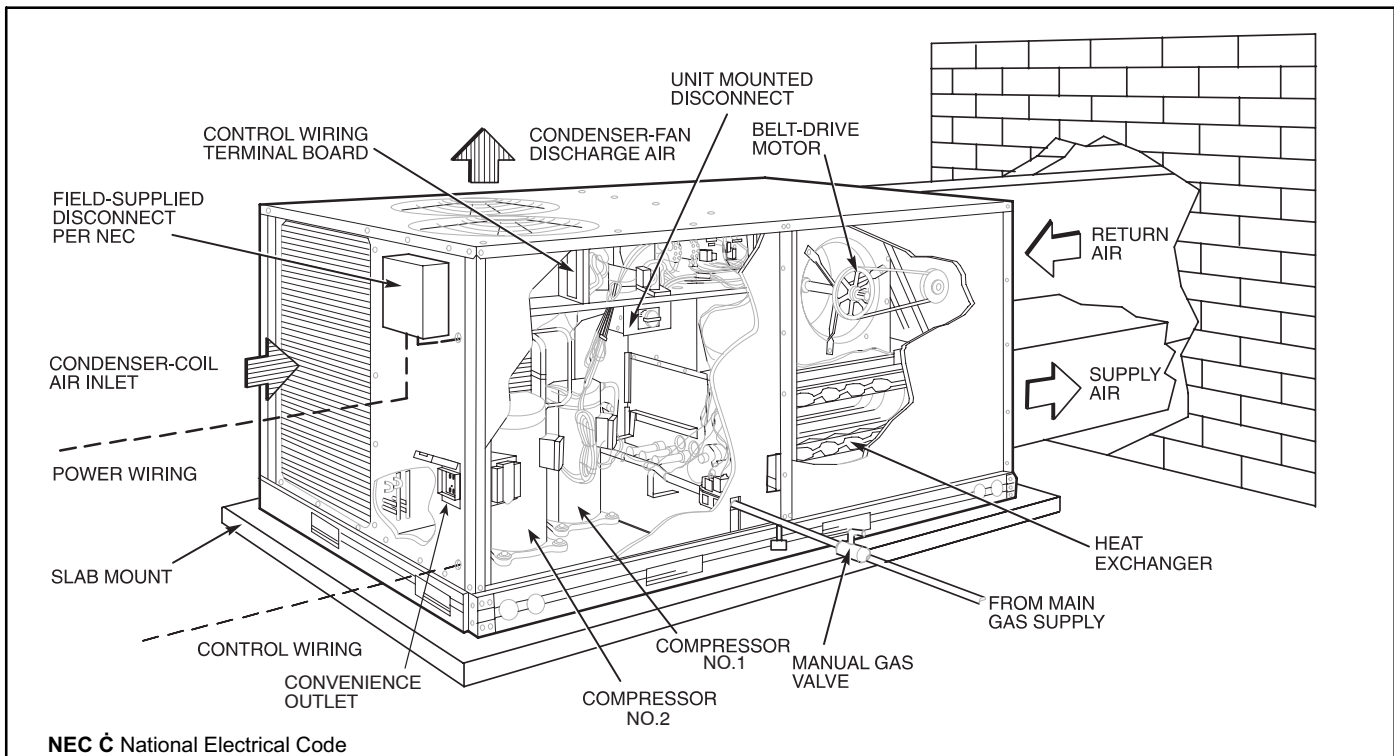
**TYPICAL WIRING SCHEMATICS – PGE072–150 (cont.)  
NON-FUSED DISCONNECT (Optional) – PGE072–150**



VERTICAL DISCHARGE DUCTING



HORIZONTAL DISCHARGE DUCTING



NEC © National Electrical Code

**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 3/8-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,<br>1...ZR72KC                                                                      | 1...ZR108KC,<br>1...ZR94KC | 1...ZR125KC,<br>1...ZR108KC         | 1...ZR4140KC,<br>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]<br>9.5 [460 v] | 10.2 [208/230v, 575v]<br>11.8 [460 v] |
| Motor Frame Size                                          |  | 184T                                                                                           | 184T                       | 213T                                | 215T                                  |
| Nominal Rpm High/Low                                      |  | -                                                                                              | -                          | -                                   | -                                     |
| Fan Rpm Range                                             |  | 873-1021<br>1025-1200                                                                          | 910-1095<br>1069-1287      | 1002-1151<br>1193-1369              | 1066-1283<br>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<br>8.0                                                                                     | 9.4<br>8.0                 | 9.4<br>7.9                          | 8.0<br>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<br>1...BX...48                                                                     | 1...BX...50<br>1...BX...48 | 1...BX...53<br>1...BX...50          | 2...BX...50<br>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<br>44                                                                                       | 37<br>34                   | 37<br>44                            | 36<br>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<br>1134                                                                                    | 1002<br>1178               | 1095<br>1303                        | 1182<br>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 x 20 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<br>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.

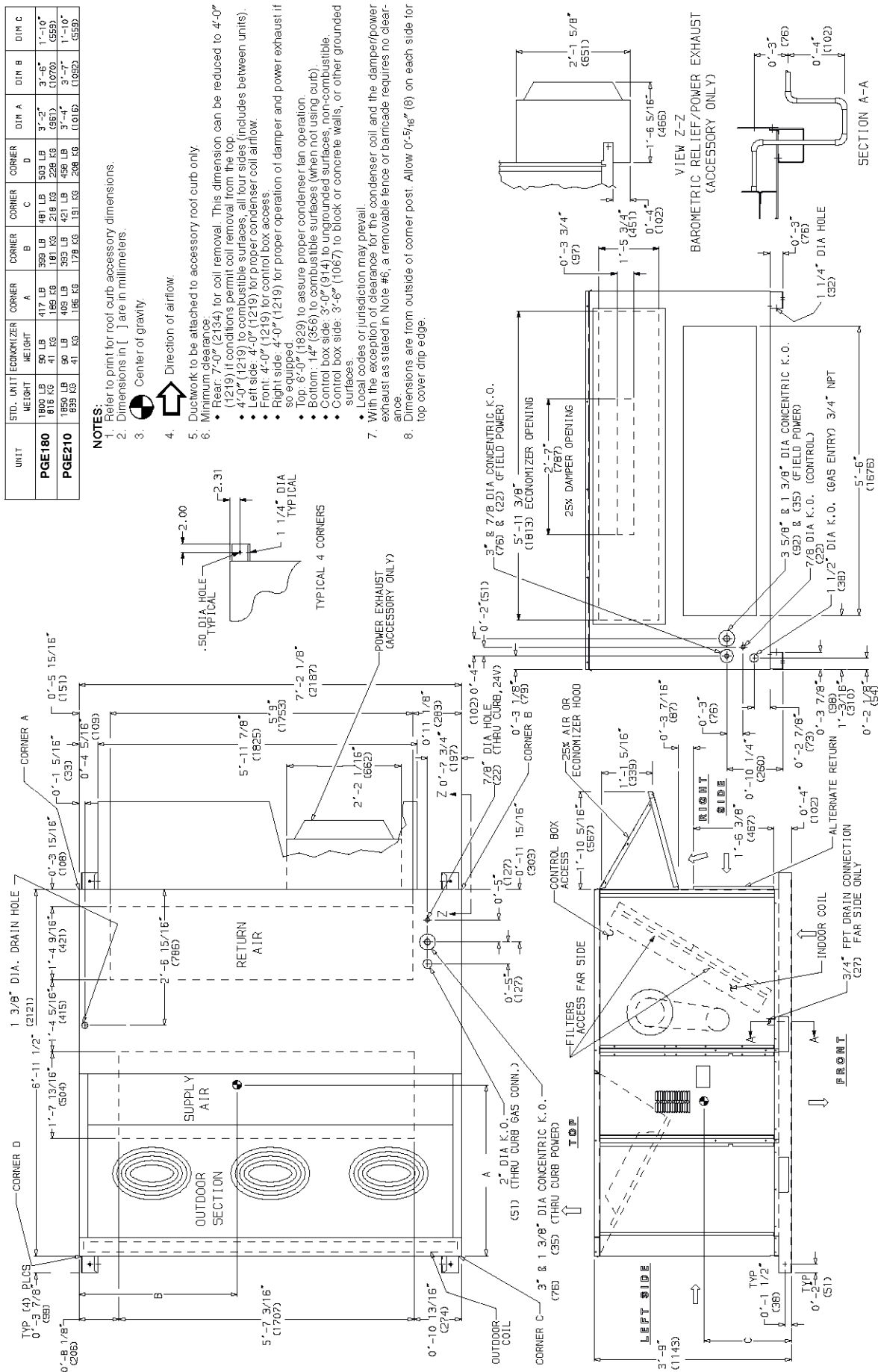
**NOTE:** For 180 or 210 unit, add 75 lb (34 kg) for domestic crating. For 240 unit, add 135 lb (61 kg). For 300unit, add 175 lb (79 kg) for domestic crating.

### Base Unit Dimensions – PGE180, 210

| UNIT          | STD. UNIT WEIGHT  | ECONOMIZER     | CORNER A         | CORNER B         | CORNER C         | CORNER D         | DIM A           | DIM B           | DIM C           |
|---------------|-------------------|----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|
| <b>PGE180</b> | 1800 LB<br>816 G3 | 90 LB<br>41 G3 | 417 LB<br>189 G3 | 399 LB<br>181 G3 | 481 LB<br>218 G3 | 503 LB<br>226 G3 | 3'-2"<br>(961)  | 3'-6"<br>(1070) | 1'-10"<br>(559) |
| <b>PGE210</b> | 1650 LB<br>839 G3 | 90 LB<br>41 G3 | 403 LB<br>186 G3 | 393 LB<br>178 G3 | 421 LB<br>191 G3 | 458 LB<br>208 G3 | 3'-4"<br>(1016) | 3'-7"<br>(1069) | 1'-10"<br>(559) |

**NOTES:**

1. Refer to print for roof 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 clearances:
  - Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" (1219) if conditions permit coil removal from the top.
  - Left side: 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: 1'-4" (356) to combustible surfaces (when not using curb).
7. Control box side: 3'-0" (914) to ungrounded surfaces, non-combustible.
8. Control box side: 3'-6" (1067) to block or concrete walls, or other grounded surfaces.
9. 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 edge of corner post. Allow 0'-5 1/8" (8) on each side for top cover drip edge.



### Base Unit Dimensions – PGE240

| UNIT   | STD. UNIT WEIGHT  | UNIT ECONOMIZER WEIGHT | CORNER A         | CORNER B         | CORNER C         | CORNER D         | DIM A          | DIM B           | DIM C          |
|--------|-------------------|------------------------|------------------|------------------|------------------|------------------|----------------|-----------------|----------------|
| PGE240 | 1900 LB<br>862 KG | 50 LB<br>41 KG         | 454 LB<br>206 KG | 418 LB<br>190 KG | 488 LB<br>222 KG | 540 LB<br>245 KG | 3'-3"<br>(991) | 3'-7"<br>(1092) | 1'-6"<br>(508) |

**NOTES:**

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

3.  Center of gravity.

- 10

4.  Direction of airflow.

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

- Rear: 7'-0" (2134) for coil removal. This dimension can be reduced to 4'-0" for coil removal.

- 4'-0" (1219) to combustible surfaces, all four sides (includes between units)

- Left side: 4'-0" (1219) for proper condenser coil airflow.

- Right side: 4'-0" (1219) for proper operation of damper and power exhaust if

- Ton: 6'0" (1829) to assure proper condenser fan operation so equipped.

- 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

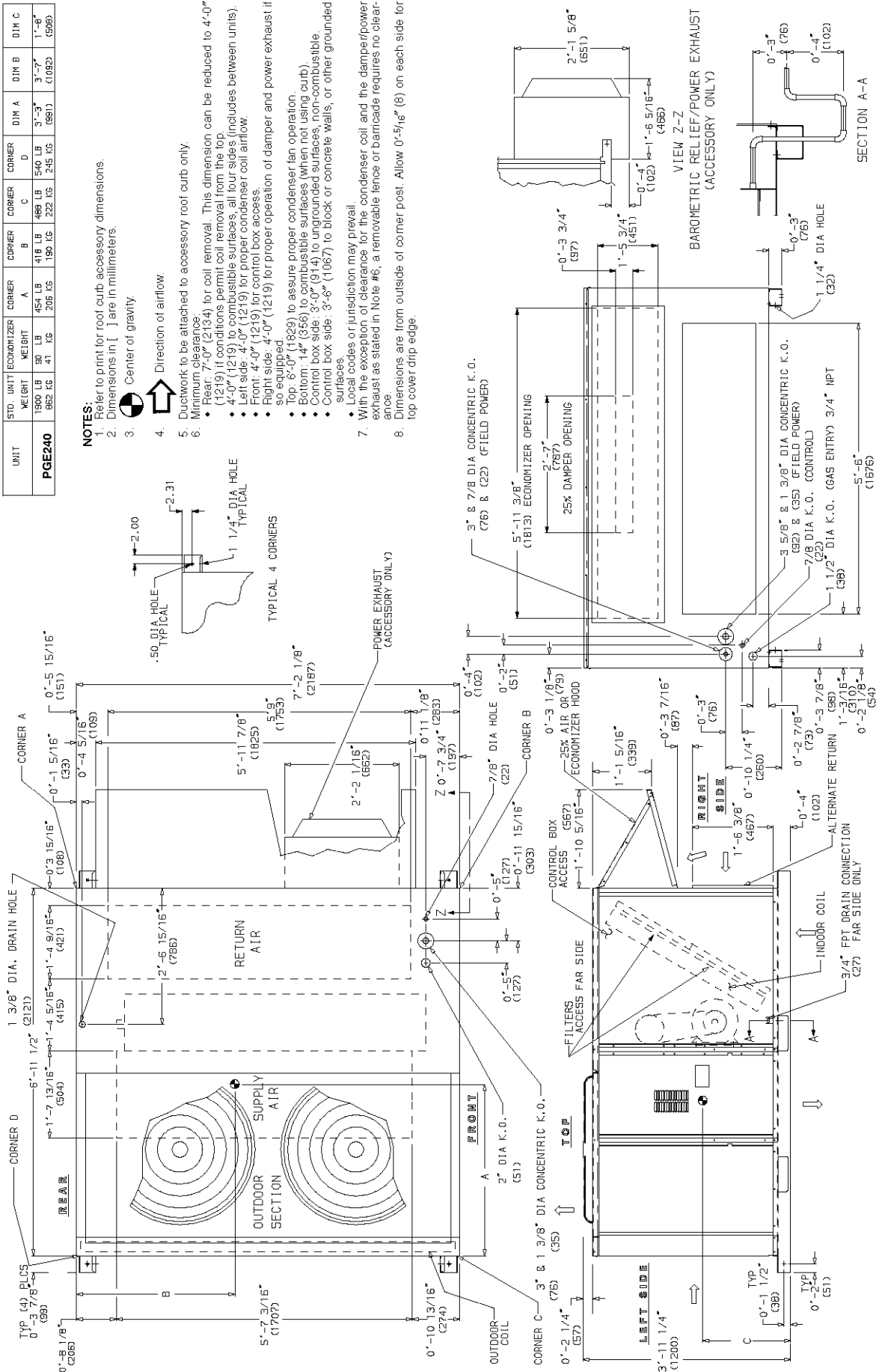
- Local codes or jurisdiction may prevail

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 $\frac{1}{16}$ " (8) on each side for toe, center door, eaves.

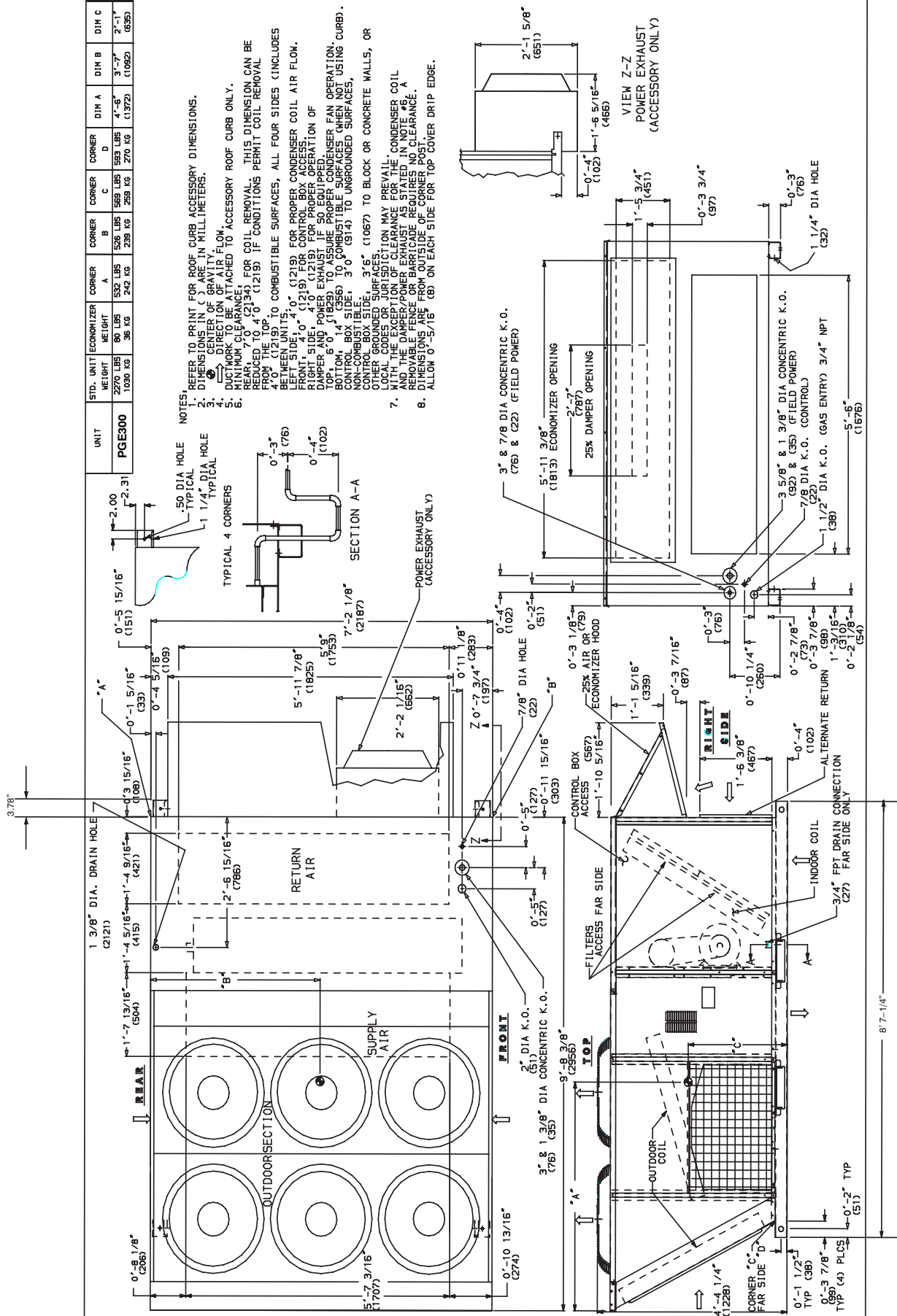
- top cover and edge.



# BASE UNIT DIMENSIONS - PGE300

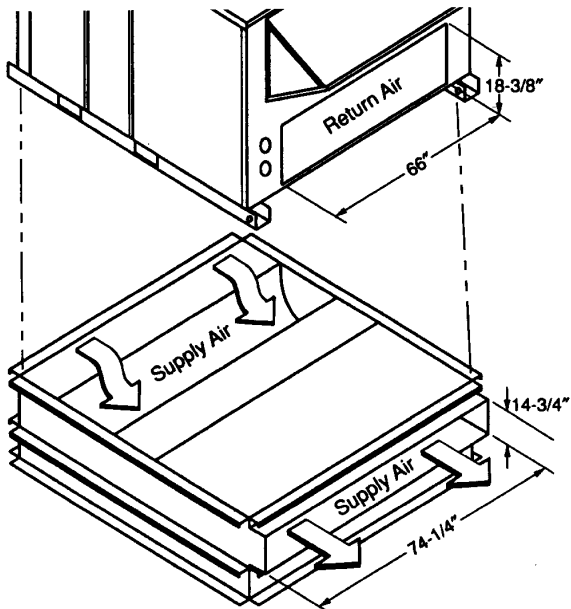
| STD. UNIT | ECONOMIZER | CORNER | CORNER  | CORNER  | CORNER  | DIM A  | DIM B  | DIM C |
|-----------|------------|--------|---------|---------|---------|--------|--------|-------|
| WEIGHT    | 2270 LBS   | 60 LBS | 532 LBS | 593 LBS | 593 LBS | 3'-7"  | 4'-6"  | 2'-1" |
|           | 1030 KG    | 27 KG  | 242 KG  | 269 KG  | 269 KG  | (1092) | (1372) | (635) |
| UNIT      | PGE300     |        |         |         |         |        |        |       |

NOTES:  
 1. REFER TO PRINT FOR ROOF CURB ACCESSORY DIMENSIONS.  
 2. DIMENSIONS IN ( ) ARE IN MILLIMETERS.  
 3. CENTER OF GRAVITY.  
 4. DUCTWORK BE ATTACHED TO ACCESSORY ROOF CURB ONLY.  
 5. MINIMUM CLEARANCE TO ACCESSORY ROOF CURB ONLY.  
 6. REAR 7'-0" (2134) FOR COIL REMOVAL. THIS DIMENSION CAN BE REDUCED TO 4'-0" (1219) IF CONDITIONS PERMIT COIL REMOVAL FROM 15/16" TO COMBUSTIBLE SURFACES, ALL FOUR SIDES (INCLUDES BETWEEN UNITS).  
 7. FRONT 4'-0" (1219) FOR PROPER CONDENSER COIL AIR FLOW. FRONT 5'-0" (1524) FOR CONDENSER COIL AIR FLOW. DAMPER AND POWER EXHAUST IF SO EQUIPPED. TOP 6'-0" (1829) TO ASSURE PROPER CONDENSER FAN OPERATION. BOTTOM 8'-4" (2556) TO COMBUSTIBLE SURFACES (WHEN NOT USING CURB).  
 8. 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 PREVENT CONDENSER COIL FROM BEING INSTALLED IN THIS MANNER. SEE NOTE #6.  
 9. REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE. A DIMENSION IS FROM OUTSIDE OF CORNER POST.  
 10. ALLOW 0'-5/16" (8) ON EACH SIDE FOR TOP COVER DRIP EDGE.



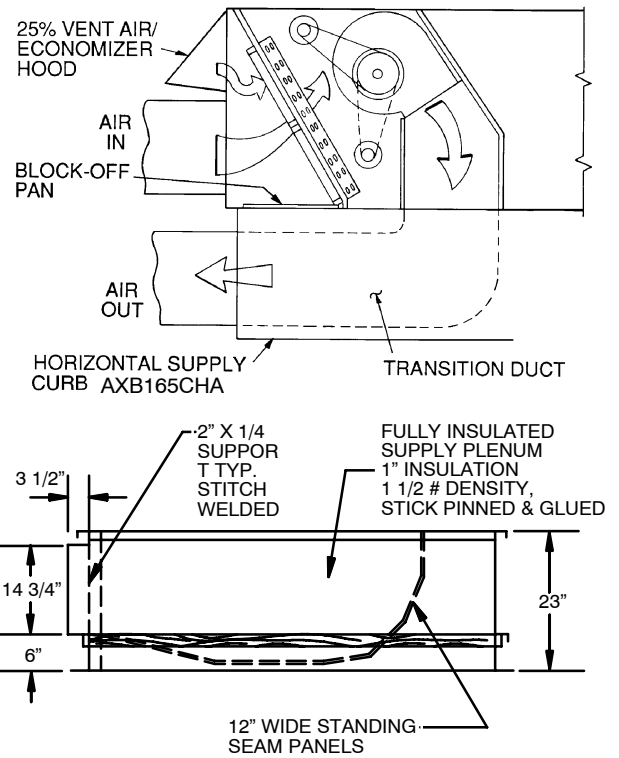
## ACCESSORY DIMENSIONS

### HORIZONTAL SUPPLY/RETURN ADAPTER INSTALLATION – PGE180–240



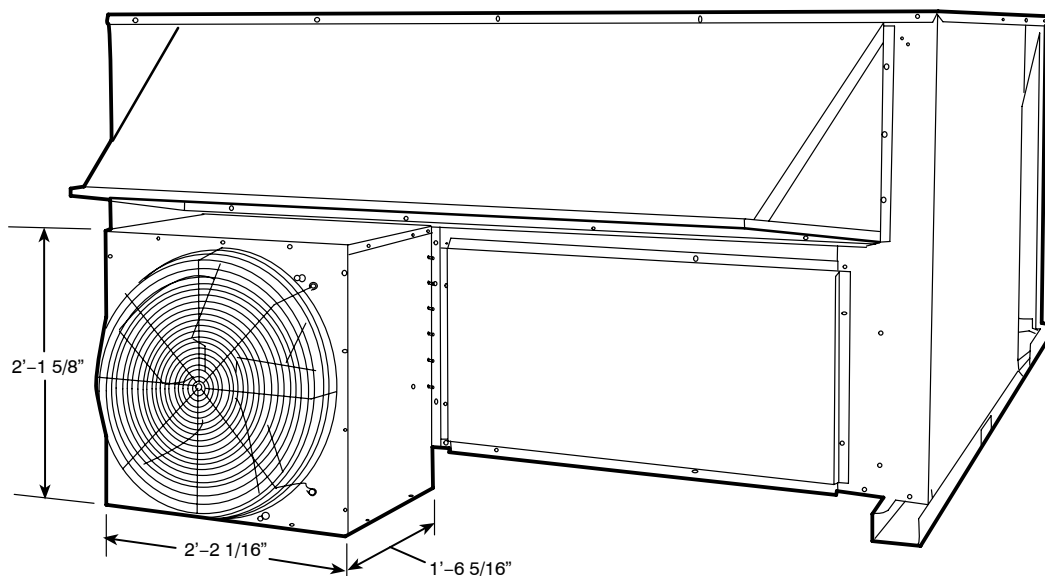
**NOTE:** AXB165CHA is a horizontal adapter and includes an insulated transition duct. The pressure drop through the adapter curb is negligible. Power exhaust and barometric relief accessory are not available with horizontal adapter.

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

| PGE180 (15 TONS)                               |     |                                   |       |       |             |       |       |             |       |       |             |       |       |             |       |       |
|------------------------------------------------|-----|-----------------------------------|-------|-------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|
| Temp (F)<br>Air Entering<br>Condenser<br>(Edb) |     | Air Entering Evaporator – Cfm/BF  |       |       |             |       |       |             |       |       |             |       |       |             |       |       |
|                                                |     | 4,500/0.010                       |       |       | 5,250/0.120 |       |       | 6,000/0.140 |       |       | 6,750/0.150 |       |       | 7,500/0.160 |       |       |
|                                                |     | Air Entering Evaporator – Ewb (F) |       |       |             |       |       |             |       |       |             |       |       |             |       |       |
|                                                |     | 62                                | 67    | 72    | 62          | 67    | 72    | 62          | 67    | 72    | 62          | 67    | 72    | 62          | 67    | 72    |
| 75                                             | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 85                                             | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 95                                             | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 105                                            | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 115                                            | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 118                                            | TC  | 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 |
|                                                | SHC | 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 |
|                                                | kW  | 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  |
| 120                                            | TC  | 142.9                             | 156.2 | 170.5 | 145.9       | 159.2 | –     | 148.3       | 161.2 | –     | 151.8       | 163.2 | –     | 155.4       | 164.8 | –     |
|                                                | SHC | 128                               | 108   | 86    | 138         | 116   | –     | 146         | 123   | –     | 152         | 130   | –     | 155         | 137   | –     |
|                                                | kW  | 19.6                              | 20.2  | 20.6  | 19.8        | 20.2  | –     | 19.9        | 20.4  | –     | 20.0        | 20.4  | –     | 20.2        | 20.6  | –     |

| PGE210 (18 TONS)                               |     |                                   |      |      |             |      |      |             |      |      |             |      |      |             |      |      |
|------------------------------------------------|-----|-----------------------------------|------|------|-------------|------|------|-------------|------|------|-------------|------|------|-------------|------|------|
| Temp (F)<br>Air Entering<br>Condenser<br>(Edb) |     | Air Entering Evaporator – Cfm/BF  |      |      |             |      |      |             |      |      |             |      |      |             |      |      |
|                                                |     | 5,400/0.095                       |      |      | 6,000/0.105 |      |      | 7,000/0.120 |      |      | 8,000/0.140 |      |      | 9,000/0.150 |      |      |
|                                                |     | Air Entering Evaporator – Ewb (F) |      |      |             |      |      |             |      |      |             |      |      |             |      |      |
|                                                |     | 62                                | 67   | 72   | 62          | 67   | 72   | 62          | 67   | 72   | 62          | 67   | 72   | 62          | 67   | 72   |
| 75                                             | TC  | 227                               | 247  | 269  | 232         | 251  | 274  | 237         | 255  | 277  | 241         | 258  | 280  | 248         | 261  | 283  |
|                                                | SHC | 200                               | 167  | 134  | 215         | 178  | 141  | 231         | 194  | 152  | 241         | 205  | 160  | 248         | 219  | 167  |
|                                                | kW  | 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 |
| 85                                             | TC  | 219                               | 238  | 259  | 224         | 242  | 265  | 229         | 247  | 269  | 235         | 250  | 272  | 241         | 252  | 273  |
|                                                | SHC | 197                               | 164  | 131  | 210         | 175  | 137  | 225         | 188  | 145  | 234         | 200  | 153  | 240         | 214  | 163  |
|                                                | kW  | 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 |
| 95                                             | TC  | 210                               | 229  | 248  | 214         | 233  | 253  | 219         | 237  | 258  | 225         | 239  | 261  | 231         | 242  | 263  |
|                                                | SHC | 192                               | 160  | 126  | 205         | 171  | 133  | 218         | 183  | 141  | 225         | 194  | 148  | 231         | 206  | 156  |
|                                                | kW  | 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 |
| 105                                            | TC  | 200                               | 218  | 237  | 205         | 222  | 241  | 210         | 225  | 245  | 216         | 228  | 249  | 221         | 230  | 250  |
|                                                | SHC | 186                               | 155  | 123  | 199         | 166  | 129  | 210         | 178  | 136  | 216         | 190  | 143  | 221         | 201  | 150  |
|                                                | kW  | 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 |
| 115                                            | TC  | 190                               | 207  | 225  | 195         | 210  | 228  | 201         | 213  | 232  | 206         | 216  | 235  | 211         | 217  | 236  |
|                                                | SHC | 181                               | 151  | 118  | 193         | 161  | 124  | 201         | 173  | 132  | 206         | 185  | 139  | 211         | 196  | 146  |
|                                                | kW  | 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 |
| 120                                            | TC  | 185                               | 200  | 218  | 189         | 205  | 221  | 196         | 207  | 225  | 201         | 209  | 227  | 205         | 210  | 229  |
|                                                | SHC | 179                               | 149  | 117  | 189         | 159  | 122  | 196         | 171  | 130  | 201         | 182  | 137  | 205         | 193  | 144  |
|                                                | kW  | 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)                               |     |                                   |      |      |            |      |      |            |      |      |            |      |      |             |      |      |
|------------------------------------------------|-----|-----------------------------------|------|------|------------|------|------|------------|------|------|------------|------|------|-------------|------|------|
| Temp (F)<br>Air Entering<br>Condenser<br>(Edb) |     | Air Entering Evaporator – Cfm/BF  |      |      |            |      |      |            |      |      |            |      |      |             |      |      |
|                                                |     | 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)      |     |                                   |      |      |      |            |      |      |      |            |      |      |      |
|------------------------------------------------|-----|-----------------------------------|------|------|------|------------|------|------|------|------------|------|------|------|
| Temp (F)<br>Air Entering<br>Condenser<br>(Edb) |     | Air Entering Evaporator – Cfm/BF  |      |      |      |            |      |      |      |            |      |      |      |
|                                                |     | 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

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

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

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

| PGE180 (15 Ton) High Heat* (cont) |                                             |       |      |      |       |      |      |            |      |      |       |      |      |       |      |
|-----------------------------------|---------------------------------------------|-------|------|------|-------|------|------|------------|------|------|-------|------|------|-------|------|
| Air-flow<br>(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-<br>s | Bhp  | Rpm  | Watts | Bhp  | Rpm  | Watts | Bhp  |
| 4500                              | 1332                                        | 3841  | 4.50 | 1381 | 4145  | 4.86 | 1428 | 4456       | 5.23 | 1473 | 4772  | 5.60 | 1518 | 5095  | 5.98 |
| 4800                              | 1349                                        | 4100  | 4.81 | 1397 | 4409  | 5.17 | 1443 | 4725       | 5.54 | 1488 | 5046  | 5.92 | –    | –     | –    |
| 5100                              | 1367                                        | 4380  | 5.14 | 1414 | 4695  | 5.51 | 1460 | 5180       | 5.88 | –    | –     | –    | –    | –     | –    |
| 5700                              | 1407                                        | 5007  | 5.87 | –    | –     | –    | –    | –          | –    | –    | –     | –    | –    | –     | –    |
| 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

| PGE210 (18 Ton) Low Heat* |                                             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |
|---------------------------|---------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|
| Airflow<br>(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 |

| PGE210 (18 Ton) Low Heat* (cont) |                                             |      |       |      |       |      |      |      |      |      |      |      |      |      |       |
|----------------------------------|---------------------------------------------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|-------|
| Airflow<br>(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                           | —                                           | —    | —     | —    | —     | —    | —    | —    | —    | —    | —    | —    | —    | —    | —     |

| PGE210 (18 Ton) High Heat* |                                             |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |
|----------------------------|---------------------------------------------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|
| Airflow<br>(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 | 2998 | 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 | —    | —    | —    | —    | —    | —    |

| PGE210 (18 Ton) High Heat* (cont) |                                             |       |       |      |      |      |      |      |      |      |      |       |      |      |       |
|-----------------------------------|---------------------------------------------|-------|-------|------|------|------|------|------|------|------|------|-------|------|------|-------|
| Airflow<br>(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

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

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

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

- 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.
- See General Notes for Fan Performance following this section.

# PERFORMANCE DATA – PGE180–300 (cont.)

## FAN PERFORMANCE

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

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

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

### 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:

- 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.
- See General Notes for Fan Performance following this section.

# PERFORMANCE DATA – PGE180–300 (cont.)

## FAN PERFORMANCE

| PGE300 (25 TONS) Low Heat* |                                             |       |       |      |       |        |      |       |       |      |       |        |      |       |        |      |       |        |
|----------------------------|---------------------------------------------|-------|-------|------|-------|--------|------|-------|-------|------|-------|--------|------|-------|--------|------|-------|--------|
| Air-flow<br>(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 | –    | –     | –      | –    | –     | –     | –    | –     | –      | –    | –     | –      | –    | –     | –      |

| PGE300 (25 TONS) Low Heat* (cont) |                                             |       |       |      |       |       |      |      |       |
|-----------------------------------|---------------------------------------------|-------|-------|------|-------|-------|------|------|-------|
| Airflow<br>(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 | –    | –    | –     |

| PGE300 (25 TONS) High Heat* |                                             |       |        |      |       |        |      |       |       |      |       |       |      |       |       |      |       |       |
|-----------------------------|---------------------------------------------|-------|--------|------|-------|--------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| Airflow<br>(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 | –    | –     | –      | –    | –     | –     | –    | –     | –     | –    | –     | –     | –    | –     | –     |

| PGE300 (25 TONS) High Heat* (cont) |                                             |       |       |      |       |       |      |      |       |
|------------------------------------|---------------------------------------------|-------|-------|------|-------|-------|------|------|-------|
| Airflow<br>(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.

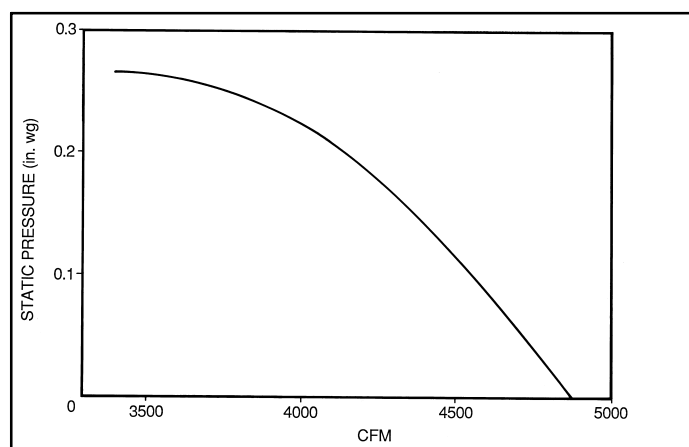
### NOTES:

- 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.
- See General Notes for Fan Performance following this section.

### GENERAL NOTES FOR FAN PERFORMANCE TABLES:

- Static pressure losses must be added to external static pressure before entering Fan Performance table.
- Interpolation is permissible. Do not extrapolate.
- Fan performance is based on wet coils, clean filters, and casing losses. (See Accessory/FIOP Static Pressure table)
- 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.
- Use of a field–supplied motor may affect wire size.

## 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<br>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<br>PGE | UNIT<br>VOLTAGE | MAXIMUM<br>ACCEPTABLE<br>CONTINUOUS<br>BHP* | MAXIMUM<br>ACCEPTABLE<br>CONTINUOUS<br>BkW* | MAXIMUM<br>ACCEPTABLE<br>OPERATING<br>WATTS | MAXIMUM<br>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                 |

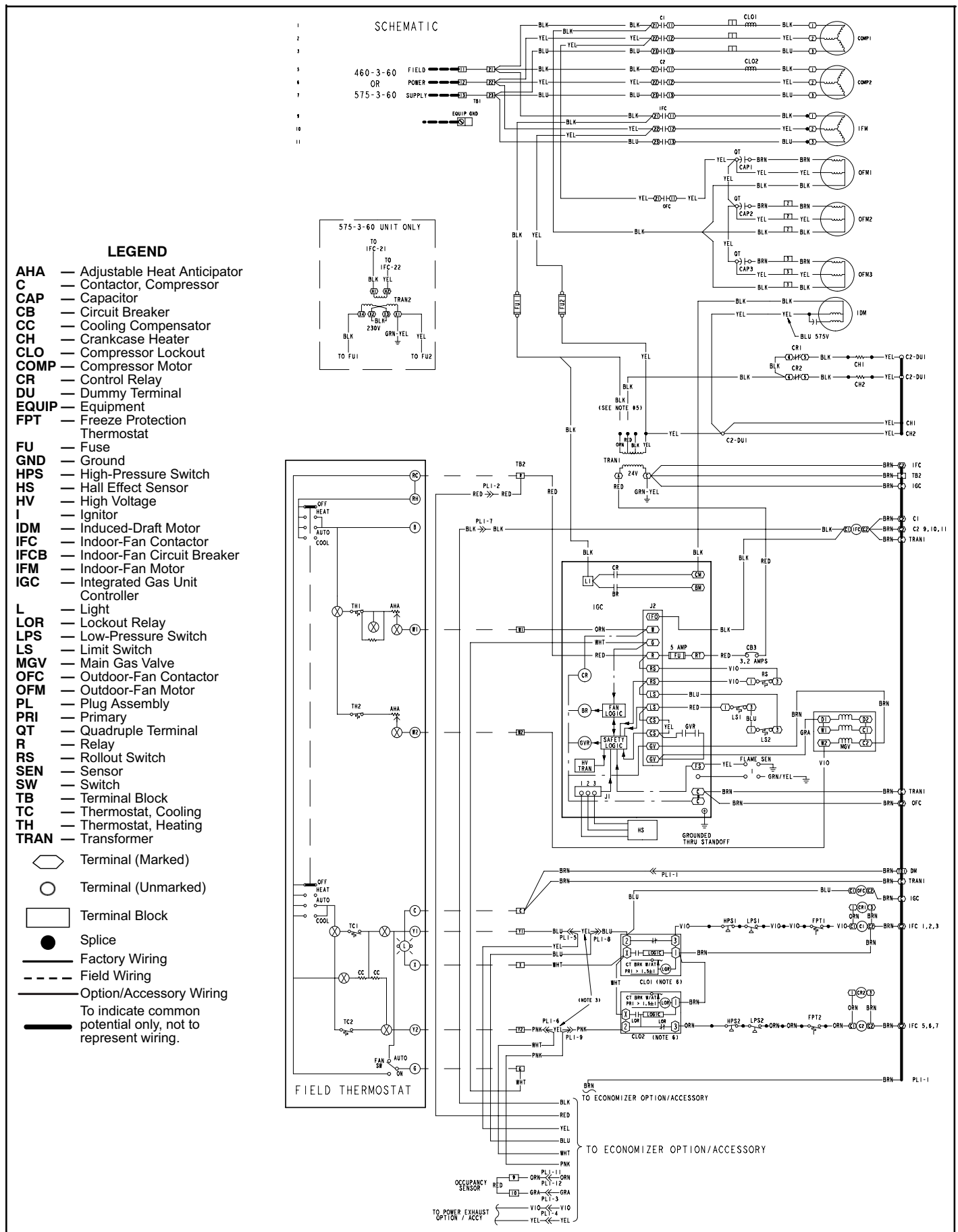
**NOTE:**

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.

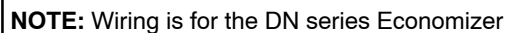
# ELECTRICAL DATA – PGE180–300

| UNIT<br>PGE | Nominal<br>Voltage<br>(3 Ph,<br>60 Hz) | VOLTAGE<br>RANGE |       | COMPRESSOR |      |         |     |       |      | OFM |     |             | IFM  |           | POWER<br>EXHAUST * |      | COMBU<br>STION<br>FAN<br>MOTOR | POWER SUPPLY |         |
|-------------|----------------------------------------|------------------|-------|------------|------|---------|-----|-------|------|-----|-----|-------------|------|-----------|--------------------|------|--------------------------------|--------------|---------|
|             |                                        |                  |       | No. 1      |      | No. 1 A |     | No. 2 |      |     |     |             |      |           |                    |      |                                |              |         |
|             |                                        | Min              | Max   | RLA        | LRA  | RLA     | LRA | RLA   | LRA  | Qty | Hp  | FLA<br>(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 |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 4.6                | 18.8 | 0.57                           | 86/86        | 110/110 |
|             | 460                                    | 414              | 508   | 16.4       | 95   | -       | -   | 10    | 70   | 3   | 0.5 | 0.8         | 5.0  | 7.9       | -                  | -    | 0.30                           | 41           | 50      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.3                | 6.0  | 0.30                           | 43           | 50      |
|             | 575                                    | 518              | 633   | 12         | 80   | -       | -   | 8.2   | 54   | 3   | 0.5 | 0.75        | 5.0  | 6.0       | -                  | -    | 0.57                           | 31           | 40      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.1                | 4.8  | -                              | 34           | 40      |
| 210         | 208/230                                | 187              | 253   | 30.1       | 225  | -       | -   | 28.8  | 195  | 3   | 0.5 | 1.7         | 5.0  | 15.8/15.8 | -                  | -    | 0.57                           | 87/87        | 110/110 |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 4.6                | 18.8 | 0.57                           | 92/92        | 110/110 |
|             | 460                                    | 414              | 508   | 15.5       | 114  | -       | -   | 14.7  | 95   | 3   | 0.5 | 0.8         | 5.0  | 7.9       | -                  | -    | 0.30                           | 44           | 50      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.3                | 6.0  | 0.30                           | 47           | 60      |
|             | 575                                    | 518              | 632.5 | 12.1       | 80   | -       | -   | 10.7  | 80   | 3   | 0.5 | 0.75        | 5.0  | 6.0       | -                  | -    | 0.57                           | 34           | 40      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.1                | 4.8  | -                              | 36           | 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 |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 4.6                | 18.8 | 0.57                           | 129/129      | 150/150 |
|             | 460                                    | 414              | 508   | 19.2       | 125  | -       | -   | 17.3  | 114  | 2   | 1   | 3.3         | 7.5  | 13.0      | -                  | -    | 0.30                           | 61           | 80      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.3                | 6.0  | 0.30                           | 63           | 80      |
|             | 575                                    | 518              | 633   | 13.8       | 80.0 | -       | -   | 13.5  | 80.0 | 2   | 1.0 | 3.4         | 7.5  | 10.0      | -                  | -    | 0.57                           | 48           | 60      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.1                | 4.8  | -                              | 50           | 60      |
| 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 |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 4.6                | 18.8 | 0.57                           | 143/143      | 150/175 |
|             | 460                                    | 414              | 508   | 10         | 75   | 10      | 75  | 19.6  | 125  | 6   | 0.5 | 0.8         | 10.0 | 14.6      | -                  | -    | 0.30                           | 64           | 80      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.3                | 6    | 0.30                           | 66           | 80      |
|             | 575                                    | 517.5            | 632.5 | 8.2        | 54   | 8.2     | 54  | 15.8  | 100  | 6   | 0.5 | 0.8         | 10.0 | 13.0      | -                  | -    | 0.57                           | 54           | 60      |
|             |                                        |                  |       |            |      |         |     |       |      |     |     |             |      |           | 2.1                | 4.8  | -                              | 56           | 70      |

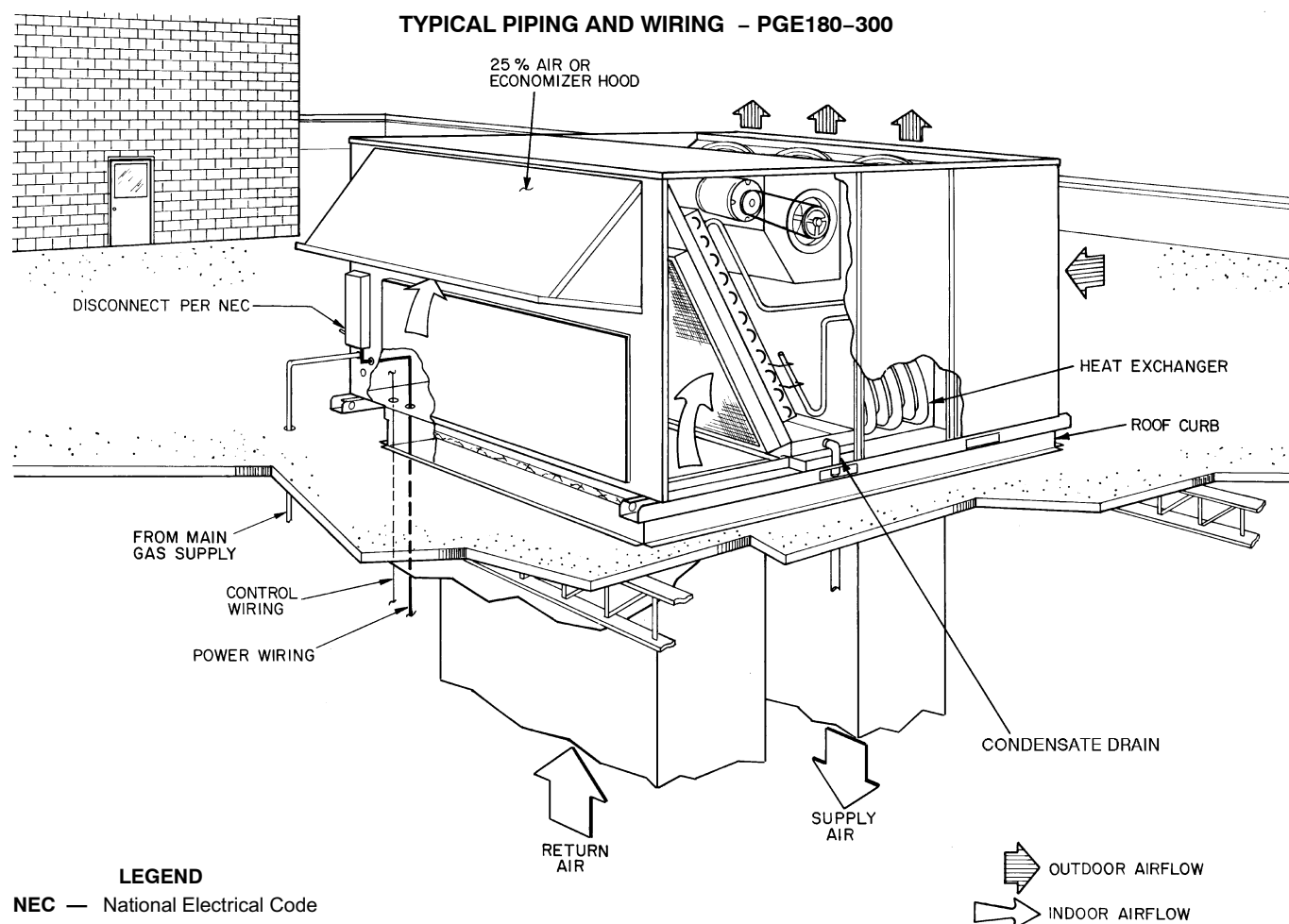
### TYPICAL WIRING SCHEMATIC – PGE180, 460v Shown



## ECONOMIZER WIRING



**AL** — Ambient Limit  
**ECB** — Economizer Control Board  
**IA** — Indoor Air  
**IAQ** — Indoor Air Quality  
**OA** — Outdoor Air  
**OAS** — Outdoor Air Sensor  
**RAS** — Return Air Sensor  
**SAT** — Supply Air Temperature



# 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 (EPA) 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.

International Comfort Products, LLC  
Lewisburg, Tennessee 37091 USA  
www.GoKeeprite.com