

### COMMERCIAL STANDARD EFFICIENCY PACKAGE GAS/ELECTRIC UNIT R-22 SINGLE PACKAGE ROOFTOP 6 – 12.5 TONS (3-Phase)

#### REFRIGERATION CIRCUIT

- Scroll compressors on most models.
- High and low pressure switches and evaporator evaporator freeze thermostat.
- PGS090-150 have two stages of cooling, PGS072 is single stage.
- Anti-cycle timer built into the gas electronic control board.

#### BUILT TO LAST

- Tubular, dimpled heat exchangers.
- Pre-painted galvanized steel cabinet for long life and quality appearance.
- Integral commercial strength base rails. Holes provided for lifting lugs makes rooftop installation easier.
- Non-corrosive, sloped condensate drain pan, meets ASHRAE 62.

#### EASY TO INSTALL AND SERVICE

- Combination gas heating and electric cooling, self contained for year-round comfort. Systems installed on rooftop or ground level.
- Unit is shipped ready for downflow applications and can easily be converted to horizontal.
- Thru-the-bottom utility connection capability allow power, control wiring, and gas to be routed through unit base pan, minimizing roof penetrations.
- Exclusive integrated gas control board with diagnostics.
- Induced-draft fan for gas combustion.
- Direct-spark ignition systems.
- Factory wired to accept economizer.
- Refrigerant filter drier.

#### WARRANTY

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



PGS090-150 Shown



#### UNIT PERFORMANCE DATA

| Model Number | COOLING                |       |      | HEATING                                 |   | Unit Dimensions<br>H X W X L  | Unit Weight |
|--------------|------------------------|-------|------|---|---|-------------------------------|-------------|
|              | Rated Capacity<br>BTUH | E.E.R | IPLV | Input (MBTUH) Std.<br>Stage 2 / Stage 1 | Efficiency<br>(Steady State)<br>(AFUE) Std. |                               |             |
| PGS072*074A  | 72,000                 | 9.0   | n/a  | - / 74,000                              | 80  | 33-5/16" x 45" x 73-11/16"    | 565         |
| PGS072*150A  | 72,000                 | 9.0   | n/a  | 150,000 / 120,000                       | 80  | 33-5/16" x 45" x 73-11/16"    | 565         |
| PGS090*125A  | 84,000                 | 8.9   | 9.3  | - / 125,000                             | 80  | 41-5/16" x 57-3/4" x 87-3/8"  | 870         |
| PGS090*224A  | 84,000                 | 8.9   | 9.3  | 224,000 / 180,000                       | 80  | 41-5/16" x 57-3/4" x 87-3/8"  | 870         |
| PGS120*180A  | 115,000                | 8.9   | 9.3  | 180,000 / 120,000                       | 80  | 49-15/16" x 57-3/4" x 87-3/8" | 1035        |
| PGS120*250A  | 115,000                | 8.9   | 9.3  | 250,000 / 200,000                       | 80  | 49-15/16" x 57-3/4" x 87-3/8" | 1035        |
| PGS150*224A  | 142,000                | 8.8   | 9.1  | 224,000 / 180,000                       | 80  | 49-15/16" x 57-3/4" x 87-3/8" | 1050        |
| PGS150*250A  | 142,000                | 8.8   | 9.1  | 250,000 / 200,000                       | 80  | 49-15/16" x 57-3/4" x 87-3/8" | 1050        |

\* Unit voltage: H = 208/230v, L = 460v  
NOTE: Low heat models available August 2008.

# Table of Contents

|                                 |       |
|---------------------------------|-------|
|                                 | Page  |
| Features/Benefits .....         | 1     |
| Model Number Nomenclature ..... | 2     |
| Unit Specifications .....       | 3-6   |
| Dimensions .....                | 7-8   |
| Performance Data .....          | 9-19  |
| Typical Installation .....      | 20    |
| Accessories .....               | 21-30 |
| Controls .....                  | 31    |
| Guide Specs .....               | 31    |

## MODEL NOMENCLATURE

|                         |          |          |          |                                      |                |                                  |          |
|-------------------------|----------|----------|----------|--------------------------------------|----------------|----------------------------------|----------|
| <b>MODEL SERIES</b>     | <b>P</b> | <b>G</b> | <b>S</b> | <b>090</b>                           | <b>H</b>       | <b>224</b>                       | <b>A</b> |
| P = Package             |          |          |          |                                      |                |                                  |          |
| A = Air Conditioner     |          |          |          |                                      |                |                                  |          |
| H = Heat Pump           |          |          |          |                                      |                |                                  |          |
| G = Gas/Electric        |          |          |          |                                      |                |                                  |          |
| S = Standard Efficiency |          |          |          |                                      |                |                                  |          |
| 072 = 72,000            |          |          |          |                                      |                |                                  |          |
| 090 = 90,000            |          |          |          |                                      |                |                                  |          |
| 120 = 120,000           |          |          |          |                                      |                |                                  |          |
| 150 = 150,000           |          |          |          |                                      |                |                                  |          |
|                         |          |          |          | <b>NOMINAL<br/>COOLING<br/>BTU/h</b> |                |                                  |          |
| H = 208/230-3-60        |          |          |          |                                      |                |                                  |          |
| L = 460-3-60            |          |          |          |                                      | <b>VOLTAGE</b> |                                  |          |
| 000 = N/A               |          |          |          |                                      |                |                                  |          |
| 074 = 74,000            |          |          |          |                                      |                |                                  |          |
| 125 = 125,000           |          |          |          |                                      |                |                                  |          |
| 150 = 150,000           |          |          |          |                                      |                |                                  |          |
| 180 = 180,000           |          |          |          |                                      |                |                                  |          |
| 224 = 224,000           |          |          |          |                                      |                |                                  |          |
| 250 = 250,000           |          |          |          |                                      |                |                                  |          |
|                         |          |          |          |                                      |                | <b>NOMINAL<br/>HEATING BTU/h</b> |          |
| Sales Model Digit       |          |          |          |                                      |                |                                  |          |

| UNIT SPECIFICATIONS (Legend on 6 Page)                    |  | MODELS           |                               |            |  |
|---|--|------------------|-------------------------------|------------|--|
| COOLING   | PGS072H  | PGS072L          | PGS090H                       | PGS090L    |  |
| ARI Rated Capacity Btuh (Net)                             | 72,000   |                  | 84,000                        |            |  |
| Nominal Tons  | 6  |                  | 7-1/2                         |            |  |
| Standard CFM  | 2100   |                  | 2800                          |            |  |
| EER   | 9.0  |                  | 8.9                           |            |  |
| IPLV  | N/A  |                  | 9.25                          |            |  |
| Sound Rating (Bels)                                       | 8.1  |                  | 8.7                           |            |  |
| Unit Weight (lbs. / kg)                                   | 565 / 256  |                  | 870 / 395                     |            |  |
| ELECTRICAL  | PGS072H  | PGS072L          | PGS090H                       | PGS090L    |  |
| Volts/ 3 Phase/ 60Hertz                                   | 208/230  | 460              | 208/230                       | 460        |  |
| Voltage Range Min/Max                                     | 187 / 254  | 414 / 508        | 187 / 254                     | 414 / 508  |  |
| Power Supply MCA  | 32.4 / 32.4                                      | 15.4             | 40.1 / 40.1                   | 18.4       |  |
| Power Supply Circuit Breaker                              | 40 / 40  | 20               | 45 / 45                       | 25         |  |
| COMPRESSOR - QTY  | SCROLL - 1                                       |                  | RECIPROCATING - 2             |            |  |
| Model   | SR(Y,H)752AE*                                    |                  | CR42K6                        |            |  |
| Oil (Oz.)   | 54   |                  | 42 ea                         |            |  |
| RLA / LRA   | 20.6 / 146.0                                     | 9.5 / 73.0       | 14.0 / 91.0                   | 6.4 / 42.0 |  |
| REFRIGERANT TYPE  | R-22   |                  |                               |            |  |
| Expansion Device  | Fixed Orifice Metering Device                    |                  | Fixed Orifice Metering Device |            |  |
| Operating Charge....lb. oz....Circuit 1                   | 9 - 0  |                  | 4 - 13                        |            |  |
| ...Circuit 2  | N/A  |                  | 4 - 14                        |            |  |
| CONDENSER FAN   | Propeller Type                                   |                  |                               |            |  |
| Nominal CFM   | 4000   |                  | 6400                          |            |  |
| Quantity..Diameter (In.)                                  | 1...22   |                  | 2...22                        |            |  |
| Motor Hp...RPM  | 1/4...1100                                       |                  | 1/4...1100                    |            |  |
| Watts Input (Total)                                       | 325  |                  | 600                           |            |  |
| FLA   | 1.4  | 0.9              | 1.4                           | 0.7        |  |
| CONDENSER COIL  | Enhanced Copper Tubes, Aluminum Lanced fins      |                  |                               |            |  |
| Rows...Fin/In.  | 2...17   |                  | 1...17                        |            |  |
| Total Face Area (Sq. Ft.)                                 | 10.42  |                  | 20.50                         |            |  |
| EVAPORATOR COIL   | Enhanced Copper Tubes, Aluminum Double Wavy Fins |                  |                               |            |  |
| Rows...Fins/Inch  | 4...15   |                  | 3...15                        |            |  |
| Total Face Aea (sq. ft.)                                  | 5.5  |                  | 8.0                           |            |  |
| EVAPORATOR FAN  | PGS072H,L  | PGS090H,L        |                               |            |  |
|   | Centrifugal Type                                 | Centrifugal Type |                               |            |  |
| Quantity...Size (in.)                                     | 1...10 x 10                                      | 1...15 x 15      |                               |            |  |
| Type Drive  | Belt   | Belt             |                               |            |  |
| Nominal CFM   | 2100   | 3000             |                               |            |  |
| Max. Continuous Bhp                                       | 2.4  | 2.4              |                               |            |  |
| FLA-208-230/460   | 5.2/2.6/2.6                                      | 5.8/2.6/2.6      |                               |            |  |
| Motor Frame Size  | 56   | 56               |                               |            |  |
| Fan RPM Range   | 1070-1460  | 590-840          |                               |            |  |
| Motor Bearing   | Ball   | Ball             |                               |            |  |
| Maximum Allowable RPM                                     | 2100   | 2100             |                               |            |  |
| Motor Pulley Pitch / Diameter Min/Max. (in.)              | 2.8 / 3.8  | 2.4 / 3.4        |                               |            |  |
| Motor Shaft Diameter (in.)                                | 5/8  | 5/8              |                               |            |  |
| Fan Pulley Pitch Diam (in)                                | 4.5  | 7.0              |                               |            |  |
| Belt, Quantitiy... Type... Length (in.)                   | 1...A...40                                       | 1...A...49       |                               |            |  |
| Pulley Center Line Distance (in)                          | 14.7-15.5  | 16.75-19.25      |                               |            |  |
| Speed Change per Full Turn of Movable Pulley Flange (RPM) | 80   | 50               |                               |            |  |
| Pulley Max. full Turns From Closed Postion                | 5  | 5                |                               |            |  |
| Factory Setting   | 3  | 5                |                               |            |  |
| Factory Speed Setting RPM                                 | 1225   | 590              |                               |            |  |
| Fan Shaft Diam. at Pulley                                 | 5/8  | 1                |                               |            |  |

\* Y = 208/230V, H = 460V

| UNIT SPECIFICATIONS (Legend on 6 Page)                    |  | MODELS  |                |                   |                |
|---|--|---|----------------|-------------------|----------------|
| <b>COOLING</b>  |  | <b>PGS120H</b>  | <b>PGS120L</b> | <b>PGS150H</b>    | <b>PGS150L</b> |
| ARI Rated Capacity Btuh (Net)                             |  | 115,000   |                | 142,000           |                |
| Nominal Tons  |  | 10  |                | 12-1/2            |                |
| Standard CFM  |  | 4000  |                | 4500              |                |
| EER   |  | 8.9   |                | 8.8               |                |
| IPLV  |  | 9.25  |                | 9.1               |                |
| Sound Rating (Bels)                                       |  | 8.8   |                | 8.7               |                |
| Unit Weight (lbs. / kg)                                   |  | 1035 / 469  |                | 1050 / 476        |                |
| <b>ELECTRICAL</b>   |  | <b>PGS120H</b>  | <b>PGS120L</b> | <b>PGS150H</b>    | <b>PGS150L</b> |
| Volts   |  | 208/230-3-60  | 460-3-60       | 208/230-3-60      | 460-3-60       |
| Voltage Range Min/Max                                     |  | 187 / 254   | 414 / 508      | 187 / 254         | 414 / 508      |
| Power Supply MCA  |  | 44.2 / 44.2   | 21.8           | 65.2 / 65.2       | 29.6           |
| Power Supply MOCP*  |  | 50 / 50   | 25             | 80 / 80 **        | 40             |
| <b>COMPRESSOR - QTY</b>                                   |  | <b>RECIPROCATING - 2</b>                                |                | <b>SCROLL - 2</b> |                |
| Model   |  | GB20K   |                | SR(Y,H)752AE *    |                |
| Oil (Oz.)   |  | 54 ea   |                | 54 ea             |                |
| RLA / LRA   |  | 15.8 / 130  | 7.9 / 64.0     | 23 / 146.0        | 10.4 / 73.0    |
| <b>REFRIGERANT TYPE</b>                                   |  | <b>R-22</b>   |                |                   |                |
| Expansion Device  |  | Fixed Orifice Metering Device                           |                |                   |                |
| Operating Charge....lb. oz....Circuit 1                   |  | 7 - 3   |                | 8 - 10            |                |
| ...Circuit 2  |  | 7 - 13  |                | 8 - 6             |                |
| <b>CONDENSER FAN</b>                                      |  | <b>Propeller Type</b>                                   |                |                   |                |
| Nominal CFM   |  | 7000  |                | 7000              |                |
| Quantity..Diameter (In.)                                  |  | 2...22  |                | 2...22            |                |
| Motor Hp...RPM  |  | 1/4...1100  |                | 1/4...1100        |                |
| Watts Input (Total)                                       |  | 600   |                | 600               |                |
| FLA   |  | 1.4   | 0.7            | 1.4               | 0.7            |
| <b>CONDENSER COIL</b>                                     |  | <b>Enhanced Copper Tubes, Aluminum Lanced fins</b>      |                |                   |                |
| Rows...Fin/In.  |  | 2...17  |                | 2...17            |                |
| Total Face Area (Sq. Ft.)                                 |  | 20.47   |                | 25.0              |                |
| <b>EVAPORATOR COIL</b>                                    |  | <b>Enhanced Copper Tubes, Aluminum Double Wavy Fins</b> |                |                   |                |
| Rows...Fins/Inch  |  | 3...15  |                | 4...15            |                |
| Total Face Aea (sq. ft.)                                  |  | 10.0  |                | 11.1              |                |
| <b>EVAPORATOR FAN</b>                                     |  | <b>Centrifugal Type</b>                                 |                |                   |                |
| Quantity...Size (in.)                                     |  | 1...15 x 15   |                | 1...15 x 15       |                |
| Type Drive  |  | Belt  |                | Belt              |                |
| Nominal CFM   |  | 4000  |                | 5000              |                |
| Max. Continuous Bhp                                       |  | 2.4   |                | 5.25              |                |
| FLA-208-230/460   |  | 5.8/2.6/2.6   |                | 15.0/7.4/7.4      |                |
| Motor Frame Size  |  | 56  |                | 56                |                |
| Fan RPM Range   |  | 685-935   |                | 900-1260          |                |
| Motor Bearing   |  | Ball  |                | Ball              |                |
| Maximum Allowable RPM                                     |  | 2100  |                | 2100              |                |
| Motor Pulley Pitch / Diameter Min/Max. (in.)              |  | 2.8 / 3.8   |                | 3.1 / 4.1         |                |
| Motor Shaft Diameter (in.)                                |  | 5/8   |                | 7/8               |                |
| Fan Pulley Pitch Diam (in)                                |  | 7.0   |                | 5.9               |                |
| Belt, Quantity...Type... Length (in.)                     |  | 1...A...49  |                | 1...BX...46       |                |
| Pulley Center Line Distance (in)                          |  | 15.85-17.50   |                | 15.85-17.50       |                |
| Speed Change per Full Turn of Movable Pulley Flange (RPM) |  | 50  |                | 44                |                |
| Pulley Max. full Turns From Closed Postion                |  | 5   |                | 5                 |                |
| Factory Setting   |  | 5   |                | 6                 |                |
| Factory Speed Setting RPM                                 |  | 685   |                | 960               |                |
| Fan Shaft Diam. at Pulley                                 |  | 1   |                | 1                 |                |

| UNIT SPECIFICATIONS (CONT)                       |         | MODELS                |                       |                       |                       |
|--|---------|-----------------------|-----------------------|-----------------------|-----------------------|
| FURNACE SECTION                                  |         | PGS072                | PGS090                | PGS120                | PGS150                |
| Rollout Switch Cutout Temp (F)                   |         | 195                   | 195                   | 195                   | 195                   |
| Burner Orifice Diameter (in. ...drill size)      |         | 074 / 150             | 125 / 224             | 180 / 250             | 224 / 250             |
| BTUH (x1,000)                                    |         |                       |                       |                       |                       |
| Natural Gas                                      |         | .113...33 / .129...30 | .120...31 / .120...31 | .120...31 / .129...30 | .120...31 / .129...30 |
| Liquid Propane                                   |         | .089...43 / .104...37 | .096...41 / .096...41 | .094...41 / .102...38 | .096...41 / .102...38 |
| Thermostat Heat Anticipator Setting (amps)       |         |                       |                       |                       |                       |
| 208/230 v  | Stage 1 | 14                    | 14                    | 14                    | 14                    |
| 208/230 v  | Stage 2 | 14                    | 20                    | 20                    | 20                    |
| 460 v  | Stage 1 | 14                    | 14                    | 14                    | 14                    |
| 460 v  | Stage 2 | 14                    | 20                    | 20                    | 20                    |
| Gas Input (Btuh)                                 |         |                       |                       |                       |                       |
| Stage 2 / Stage 1                                |         | - / 74,000            | - / 125,000           | 180,000 / 120,000     | 224,000 / 180,000     |
| Output Capacity (Btuh)                           |         | 59,200                | 100,000               | 144,000               | 179,200               |
| Stage 2 / Stage 1                                |         | 150,000 / 120,000     | 224,000 / 180,000     | 250,000 / 200,000     | 250,000 / 200,000     |
| Output Capacity (Btuh)                           |         | 120,000               | 179,200               | 200,000               | 200,000               |
| Efficiency (Steady State) (%) AFUE               |         | 80                    | 80                    | 80                    | 80                    |
| Temperature Rise Range BTUH (x1,000)             |         | 074 / 150             | 125 / 224             | 180 / 250             | 224 / 250             |
| Range  |         | 25-55 / 50-80         | 20-50 / 45-75         | 35-65 / 40-70         | 35-65 / 40-70         |
| Manifold Pressure (in. wg)                       |         |                       |                       |                       |                       |
| Natural Gas                                      |         | 3.5                   | 3.5                   | 3.5                   | 3.5                   |
| Liquid Propane                                   |         | 3.5                   | 3.5                   | 3.5                   | 3.5                   |
| Gas Valve Quantity                               |         | 1                     | 1                     | 1                     | 1                     |
| Gas Valve Pressure Range Psig                    |         | 0.180-0.487           | 0.180-0.487           | 0.180-0.487           | 0.180-0.487           |
| in. wg   |         | 5.0-13.5              | 5.0-13.5              | 5.0-13.5              | 5.0-13.5              |
| Field Gas Connection Size (in.)                  |         | 1/2                   | 3/4                   | 3/4                   | 3/4                   |
| <b>HIGH-PRESSURE SWITCH (psig)</b>               |         |                       |                       |                       |                       |
| Standard Compressor                              |         | 450 +/- 50            | 450 +/- 50            | 450 +/- 50            | 500 +/- 50            |
| Internal Relief (Differential) Cutout            |         | 428                   | 428                   | 428                   | 428                   |
| Reset (Auto.)                                    |         | 320                   | 320                   | 320                   | 320                   |
| <b>LOSS-OF-CHARGE SWITCH (psig) (LOW-PRESS.)</b> |         |                       |                       |                       |                       |
| Cutout   |         | 7 +/- 3               | 7 +/- 3               | 7 +/- 3               | 7 +/- 3               |
| Reset (Auto.)                                    |         | 22 +/- 7              | 22 +/- 7              | 22 +/- 7              | 22 +/- 7              |
| <b>FREEZE PROTECTION THERMOSTAT (°F)</b>         |         |                       |                       |                       |                       |
| Opens  |         | 30 +/- 5              | 30 +/- 5              | 30 +/- 5              | 30 +/- 5              |
| Closes   |         | 45 +/- 5              | 45 +/- 5              | 45 +/- 5              | 45 +/- 5              |
| <b>RETURN-AIR FILTERS (THROWAWAY)</b>            |         |                       |                       |                       |                       |
| Quantity...Size (in.)                            |         | 2...16 x 25 x 2       | 4...16 x 20 x 2       | 4...20 x 20 x 2       | 4...20 x 20 x 2       |

## LEGENDS AND NOTES

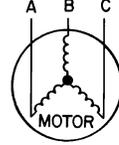
Bhp = Brake Horsepower

### Legend

|      |   |                                 |
|------|---|---------------------------------|
| Bels | - | Sound Levels                    |
| EER  | - | Energy Efficiency Ratio         |
| IPLV | - | Integrated Part Load Values     |
| MCA  | - | Minimum Circuit Amps            |
| MOCP | - | Maximum Over-current Protection |
| FLA  | - | Full Load Amps                  |
| LRA  | - | Locked Rotor Amps               |
| *    | - | Fuse or HACR circuit breaker    |
| RLA  | - | Rated Load Amps                 |

- NOTES: 1. Rated in accordance with ARI Standards 210/240, latest revision (for sizes 090 & 120) or 360, latest revision (for size 150).  
 2. ARI ratings are net values, reflecting the effects of circulating fan heat.  
 3. Ratings are based on:  
 Cooling Standard: 80F db, 67F wb indoor entering air temperature and 95F db air entering outdoor unit.  
 IPLV Standard: 80F db, 67F wb indoor entering air temperature and 80F db entering air temperature.

EXAMPLE: Supply voltage is 460-3-60.



$$\begin{aligned}
 AB &= 452 \text{ v} & \text{Average Voltage} &= \frac{452 + 464 + 455}{3} \\
 BC &= 464 \text{ v} & &= \frac{1371}{3} \\
 AC &= 455 \text{ v} & &= 457
 \end{aligned}$$

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 voltage imbalance.

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

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

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

### NOTES:

- In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the over-current protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.

### 2. 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 voltage imbalance.

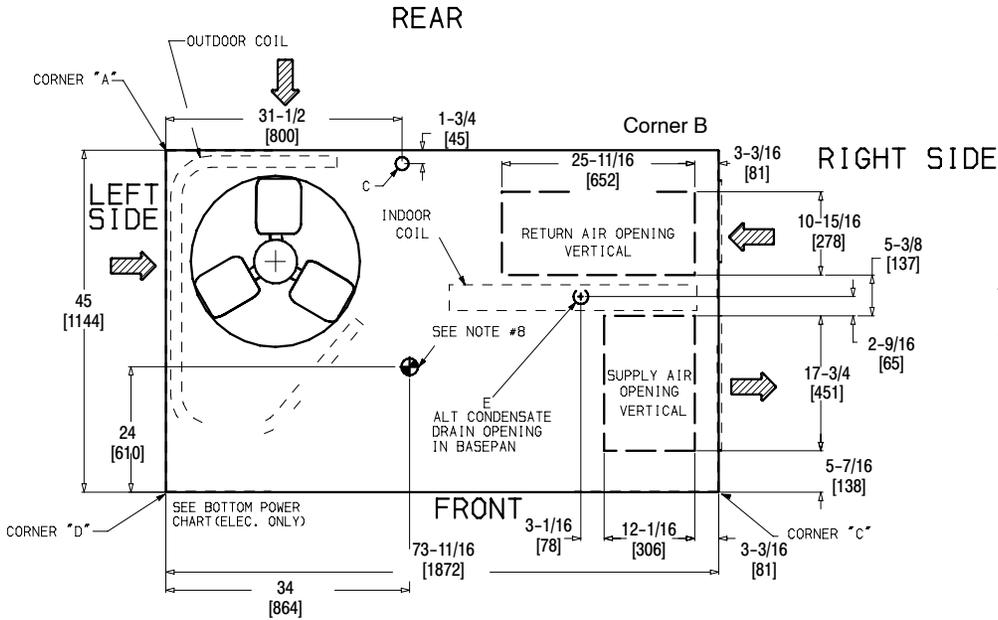
% Voltage Imbalance

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

**BASE UNIT WEIGHT AND DIMENSIONS - PGS072**

| Unit   | Total Weight |     | Corner A |    | Corner B |    | Corner C |    | Corner D |    | Dim K  |     |
|--------|--------------|-----|----------|----|----------|----|----------|----|----------|----|--------|-----|
|        | lb           | kg  | lb       | kg | lb       | kg | lb       | kg | lb       | kg | inches | mm  |
| PGS072 | 565          | 256 | 165      | 75 | 136      | 62 | 200      | 91 | 64       | 29 | 12-3/8 | 315 |

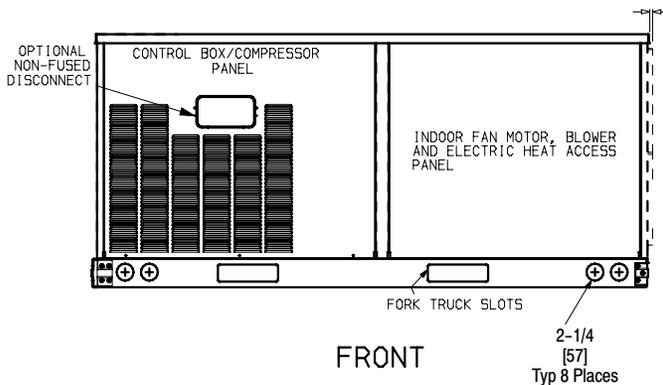
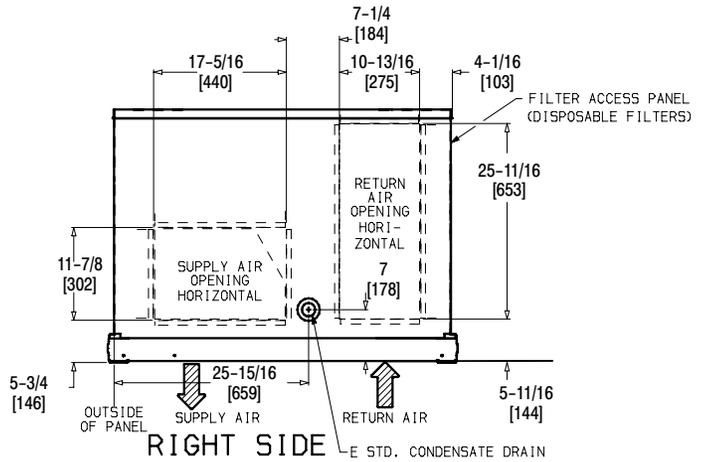
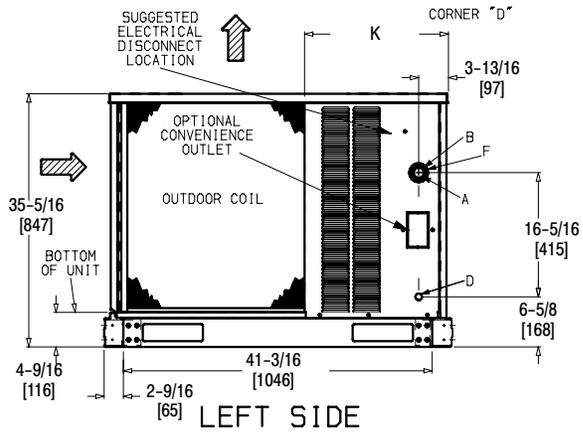
All measurements in inches (mm)



| THREADED CONDUIT SIZE | WIRE USE | REQUIRED HOLE SIZES (MAX.) |
|-----------------------|----------|----------------------------|
| 1/2"                  | ACC      | 7/8" [22]                  |
| 1/2"                  | 24       | 7/8" [22]                  |
| 3/4"                  | Power*   | 1-1/8" [28.4]              |
| 1-1/4" FPT            | Power*   | 1-3/4" [44.4]              |
| 1/2" FPT              | GAS      | 1-1/4" [31.8]              |
| 3/4" FPT              | GAS      | 1-5/8" [41.3]              |

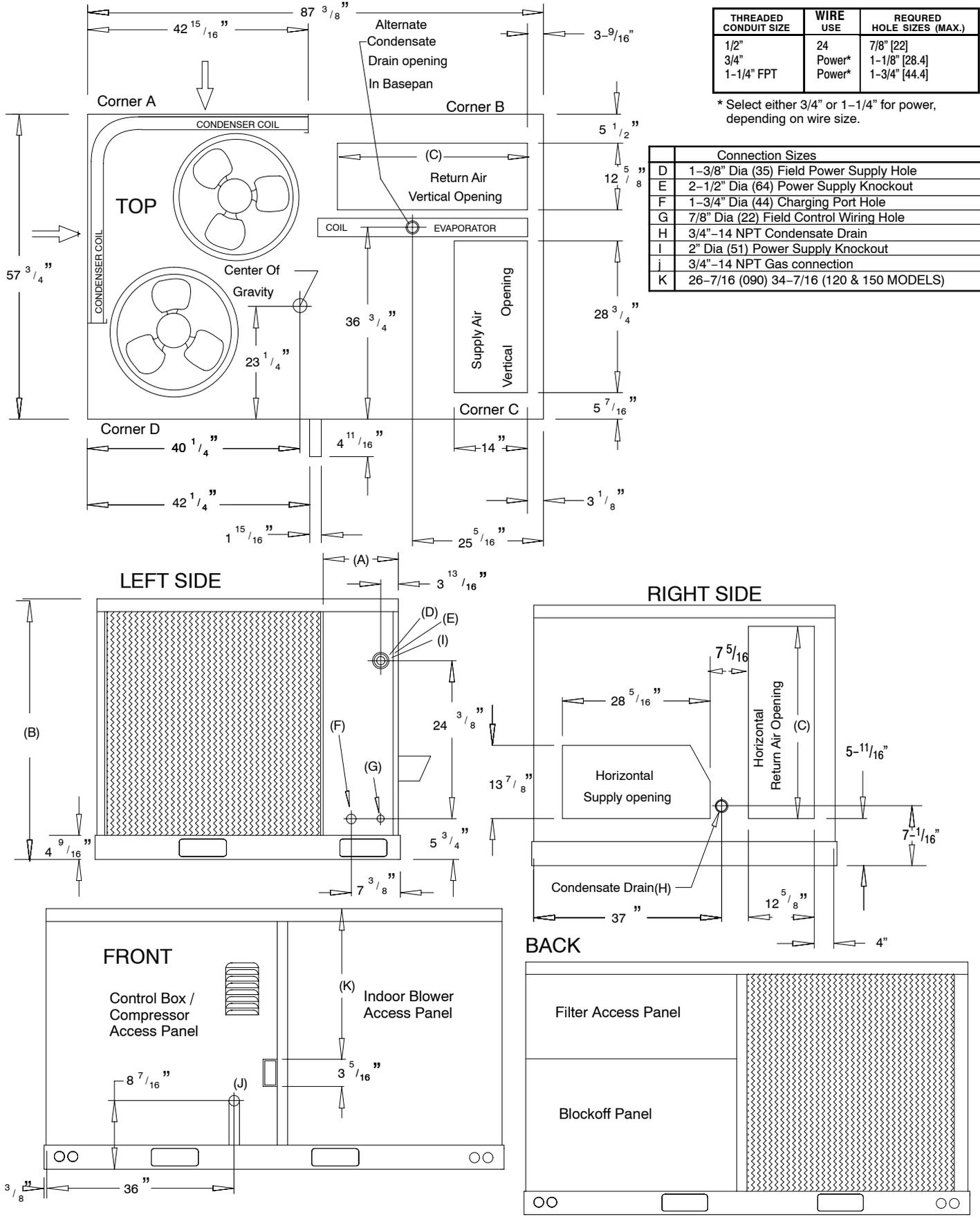
\* Select either 3/4" or 1-1/4" for power, depending on wire size.

| Connection Sizes - PGS072 |   |
|---------------------------|---|
| A                         | 1-3/8" Dia (35) Field Power Supply Hole |
| B                         | 2" Dia (51) Power Supply Knockout       |
| C                         | 2-1/2" Dia (44) Charging Port Hole      |
| D                         | 7/8" Dia (22) Field Control Wiring Hole |
| E                         | 3/4"-14 NPT Condensate Drain            |
| F                         | 1/2"-14 NPT Gas Connection              |



**BASE UNIT DIMENSIONS PGS090-150**

| Unit   | Total |     | Corner A |     | Corner B |    | Corner C |     | Corner D |     | Dim A                          |     | Dim B                            |      | Dim C                            |     |
|--------|-------|-----|----------|-----|----------|----|----------|-----|----------|-----|--------------------------------|-----|----------------------------------|------|----------------------------------|-----|
|        | lb    | kg  | lb       | kg  | lb       | kg | lb       | kg  | lb       | kg  | inches                         | mm  | inches                           | mm   | inches                           | mm  |
| PGS090 | 870   | 395 | 189      | 86  | 161      | 73 | 239      | 109 | 280      | 127 | 14 <sup>7</sup> / <sub>8</sub> | 378 | 41 <sup>5</sup> / <sub>16</sub>  | 1050 | 33 <sup>11</sup> / <sub>16</sub> | 856 |
| PGS120 | 1035  | 489 | 225      | 102 | 192      | 87 | 285      | 129 | 333      | 151 | 29 <sup>7</sup> / <sub>8</sub> | 759 | 49 <sup>15</sup> / <sub>16</sub> | 1253 | 3- <sup>3</sup> / <sub>8</sub>   | 924 |
| PGS150 | 1050  | 476 | 228      | 103 | 195      | 88 | 289      | 131 | 338      | 153 | 14 <sup>7</sup> / <sub>8</sub> | 378 | 49 <sup>15</sup> / <sub>16</sub> | 1253 | 3- <sup>3</sup> / <sub>8</sub>   | 924 |



**EXPANDED PERFORMANCE DATA (COOLING) 6 TON – GROSS DATA**

| Temp (F) Air Entering Condenser (Edb) |        | Air Entering Evaporator — Cfm/BF  |      |      |           |      |       |           |      |      |           |      |      |
|---------------------------------------|--------|-----------------------------------|------|------|-----------|------|-------|-----------|------|------|-----------|------|------|
|                                       |        | 1800/0.06                         |      |      | 2100/0.08 |      |       | 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     | 86.6                              | 80.0 | 73.6 | 87.8      | 80.3 | 73.2  | 90.8      | 84.1 | 77.2 | 93.2      | 86.6 | 79.7 |
|                                       | SHC    | 42.2                              | 52.3 | 62.2 | 43.0      | 53.9 | 65.5  | 46.5      | 59.6 | 71.6 | 50.1      | 66.4 | 78.7 |
|                                       | KW     | 5.48                              | 5.33 | 5.21 | 5.69      | 5.50 | 5.32  | 5.59      | 5.44 | 5.29 | 5.66      | 5.51 | 5.35 |
| 85                                    | TC     | 84.1                              | 77.4 | 71.0 | 84.0      | 77.2 | 69.5  | 87.8      | 81.2 | 74.5 | 90.1      | 83.5 | 77.3 |
|                                       | SHC    | 41.4                              | 51.3 | 61.1 | 41.7      | 53.1 | 64.0  | 45.5      | 58.6 | 70.3 | 49.4      | 65.4 | 76.7 |
|                                       | KW     | 6.17                              | 6.00 | 5.85 | 6.21      | 6.04 | 5.83  | 6.27      | 6.11 | 5.94 | 6.35      | 6.19 | 6.02 |
| 95                                    | TC     | 81.6                              | 74.7 | 68.5 | 81.0      | 73.5 | 66.3  | 84.8      | 78.2 | 71.8 | 87.0      | 80.4 | 74.8 |
|                                       | SHC    | 40.6                              | 50.3 | 60.0 | 40.8      | 51.8 | 62.8  | 44.6      | 57.6 | 69.1 | 48.7      | 64.5 | 74.7 |
|                                       | KW     | 6.86                              | 6.67 | 6.49 | 6.78      | 6.54 | 6.33  | 6.95      | 6.77 | 6.59 | 7.03      | 6.86 | 6.69 |
| 105                                   | TC SHC | 78.4                              | 71.8 | 65.6 | 76.8      | 69.7 | 62.5  | 81.6      | 74.9 | 68.9 | 83.3      | 76.9 | 72.1 |
|                                       | KW     | 39.4                              | 49.2 | 58.7 | 39.4      | 50.3 | 61.1  | 43.5      | 56.4 | 67.4 | 47.4      | 63.1 | 72.0 |
|                                       |        | 7.60                              | 7.39 | 7.20 | 7.30      | 7.05 | 6.80  | 7.72      | 7.50 | 7.31 | 7.77      | 7.59 | 7.41 |
| 115                                   | TC SHC | 75.1                              | 68.7 | 62.5 | 72.5      | 65.5 | 58.75 | 78.0      | 71.5 | 66.1 | 79.5      | 73.3 | 69.3 |
|                                       | KW     | 38.1                              | 47.9 | 57.2 | 37.9      | 48.7 | 8.7   | 42.3      | 55.1 | 65.5 | 46.3      | 61.6 | 69.2 |
|                                       |        | 8.36                              | 8.14 | 7.93 | 7.81      | 7.53 | 7.27  | 8.49      | 8.25 | 8.06 | 8.55      | 8.33 | 8.18 |

**FORMULAS AND NOTES FOR USING EXPANDED PERFORMANCE DATA**

To find leaving wet bulb and dry bulb from the expanded performance charts, use the following formulas.

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:
 
$$t/db = t\ edb - \text{sensible capacity Btuh} / (1.10 \times \text{cfm})$$

$$t/wb = \text{Wet bulb temp. corresponding to enthalpy of air leaving evaporator coil (h/wb)}$$

$$h/wb = h\ ewb - \text{total capacity Btuh} / (4.5 \times \text{cfm})$$
 where h ewb = Enthalpy of air entering evap. coil
3. The SHC is based on 80F edb of air entering evap coil. Below 80F edb, subtract (corr factor x cfm) from SHC. Above 80F edb, add (corr factor x cfm) to SHC.

| LEGEND |                                 |
|--------|---------------------------------|
| MBH    | = Total Capacity (Gross)        |
| S/T    | = Sensible to Total Ratio       |
| KW     | = Compressor Motor Power Input. |
| IDB    | = Indoor DryBulb                |
| edb    | = Entering DryBulb              |
| ewb    | = Entering Wet Bulb             |
| t/db   | = Leaving DryBulb               |
| t/wb   | = Leaving Wet Bulb              |
| h/wb   | = Enthalpy of Leaving Wet Bulb  |
| SHC    | = Sensible Heat Capacity        |
| BF     | = Bypass Factor                 |

| BYPASS FACTOR (BF) | ENTERING AIR DRY BULB |      |      |      |      |                          |
|--------------------|-----------------------|------|------|------|------|--------------------------|
|                    | 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 formulas shown below |
| .10                | 0.98                  | 1.96 | 2.94 | 3.92 | 4.90 |                          |
| .20                | 0.87                  | 1.74 | 2.62 | 3.49 | 4.36 |                          |
| .30                | 0.76                  | 1.53 | 2.29 | 3.05 | 3.82 |                          |

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

**EXPANDED PERFORMANCE DATA (COOLING) 7-1/2 TON – GROSS DATA**

| Temp (F) Air Entering Condenser (Edb) |     | Air Entering Evaporator — Cfm/BF  |      |       |           |       |      |           |       |      |           |       |      |
|---------------------------------------|-----|-----------------------------------|------|-------|-----------|-------|------|-----------|-------|------|-----------|-------|------|
|                                       |     | 2250/0.10                         |      |       | 2800/0.11 |       |      | 3000/0.11 |       |      | 3750/0.14 |       |      |
|                                       |     | Air Entering Evaporator — Ewb (F) |      |       |           |       |      |           |       |      |           |       |      |
|                                       |     | 72                                | 67   | 62    | 72        | 67    | 62   | 72        | 67    | 62   | 72        | 67    | 62   |
| 75                                    | TC  | 105.8                             | 97.6 | 88.7  | 108.9     | 101.1 | 92.6 | 109.5     | 101.9 | 93.5 | 112.4     | 104.6 | 96.4 |
|                                       | SHC | 50.9                              | 63.6 | 75.4  | 54.1      | 69.8  | 84.0 | 55.2      | 71.9  | 86.5 | 59.9      | 79.7  | 94.9 |
|                                       | KW  | 6.34                              | 6.05 | 5.77  | 6.46      | 6.19  | 5.93 | 6.50      | 6.25  | 5.96 | 6.62      | 6.37  | 6.09 |
| 85                                    | TC  | 101.1                             | 92.9 | 84.0  | 104.8     | 96.4  | 87.7 | 105.6     | 97.2  | 88.5 | 107.7     | 99.6  | 92.2 |
|                                       | SHC | 49.4                              | 62.0 | 73.3  | 53.1      | 68.4  | 81.9 | 54.4      | 70.6  | 84.4 | 58.5      | 78.2  | 92.0 |
|                                       | KW  | 6.80                              | 6.51 | 6.21  | 6.94      | 6.66  | 6.37 | 6.98      | 6.69  | 6.41 | 7.08      | 6.82  | 6.57 |
| 95                                    | TC  | 96.6                              | 87.7 | 78.9  | 99.9      | 91.0  | 82.4 | 100.5     | 91.6  | 83.6 | 102.3     | 93.9  | 87.7 |
|                                       | SHC | 47.8                              | 59.9 | 70.8  | 51.7      | 66.5  | 79.5 | 52.9      | 68.8  | 81.3 | 57.2      | 76.6  | 87.7 |
|                                       | KW  | 7.26                              | 6.96 | 6.64  | 7.42      | 7.10  | 6.78 | 7.46      | 7.14  | 6.83 | 7.54      | 7.24  | 7.03 |
| 105                                   | TC  | 91.0                              | 82.1 | 72.96 | 93.7      | 85.2  | 76.8 | 94.3      | 85.9  | 78.2 | 96.6      | 87.9  | 83.0 |
|                                       | SHC | 45.9                              | 57.9 | 7.9   | 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  | 47.8      | 62.2  | 71.6 | 88.1      | 79.7  | 73.1 | 90.2      | 81.7  | 78.2 |
|                                       | SHC | 43.9                              | 55.4 | 65.1  | 8.25      | 7.92  | 71.6 | 49.2      | 64.4  | 73.1 | 54.4      | 72.5  | 78.0 |
|                                       | KW  | 8.13                              | 7.79 | 7.47  | 87.7      | 79.1  | 7.67 | 8.29      | 7.95  | 7.74 | 8.41      | 8.08  | 7.93 |

**FORMULAS AND NOTES FOR USING EXPANDED PERFORMANCE DATA**

To find leaving wet bulb and dry bulb from the expanded performance charts, use the following formulas.

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:  

$$t/db = t\ edb - \text{sensible capacity Btuh} / (1.10 \times \text{cfm})$$

$$t/wb = \text{Wet bulb temp. corresponding to enthalpy of air leaving evaporator coil (h/wb)}$$

$$h/wb = h\ ewb - \text{total capacity Btuh} / (4.5 \times \text{cfm})$$
 where h ewb = Enthalpy of air entering evap. coil
3. The SHC is based on 80F edb of air entering evap coil. Below 80F edb, subtract (corr factor x cfm) from SHC. Above 80F edb, add (corr factor x cfm) to SHC.

**LEGEND**

MBH = Total Capacity (Gross)  
 S/T = Sensible to Total Ratio  
 KW = Compressor Motor Power Input.  
 IDB = Indoor Dry Bulb  
 edb = Entering Dry Bulb  
 ewb = Entering Wet Bulb  
 t/db = Leaving Dry Bulb  
 t/wb = Leaving Wet Bulb  
 h/wb = Enthalpy of Leaving Wet Bulb  
 SHC = Sensible Heat Capacity

| BYPASS FACTOR (BF) | ENTERING AIR DRY BULB |      |      |      |      |                          |
|--------------------|-----------------------|------|------|------|------|--------------------------|
|                    | 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 formulas shown below |
| .10                | 0.98                  | 1.96 | 2.94 | 3.92 | 4.90 |                          |
| .20                | 0.87                  | 1.74 | 2.62 | 3.49 | 4.36 |                          |
| .30                | 0.76                  | 1.53 | 2.29 | 3.05 | 3.82 |                          |

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

**EXPANDED PERFORMANCE (COOLING) 10 TON (GROSS CAPACITY)**

| Temp (F) Air Entering Condenser (Edb) |     | Air Entering Evaporator — Cfm/BF  |       |       |            |       |       |           |       |       |
|---------------------------------------|-----|-----------------------------------|-------|-------|------------|-------|-------|-----------|-------|-------|
|                                       |     | 3000/0.095                        |       |       | 4000/0.125 |       |       | 5000/0.15 |       |       |
|                                       |     | Air Entering Evaporator — Ewb (F) |       |       |            |       |       |           |       |       |
|                                       |     | 72                                | 67    | 62    | 72         | 67    | 62    | 72        | 67    | 62    |
| 75                                    | TC  | 135.8                             | 124.8 | 112.0 | 142.4      | 130.6 | 119.8 | 146.5     | 134.2 | 123.7 |
|                                       | SHC | 66.8                              | 82.6  | 97.4  | 73.2       | 93.4  | 112.7 | 79.7      | 104.4 | 123.1 |
|                                       | kW  | 9.76                              | 9.41  | 9.10  | 10.00      | 9.61  | 9.27  | 10.17     | 9.75  | 9.41  |
| 85                                    | TC  | 130.0                             | 119.6 | 104.0 | 136.0      | 125.0 | 114.5 | 140.0     | 127.9 | 118.8 |
|                                       | SHC | 64.3                              | 80.5  | 93.8  | 71.1       | 91.7  | 110.2 | 77.5      | 101.8 | 118.7 |
|                                       | kW  | 10.41                             | 10.07 | 9.74  | 10.67      | 10.28 | 9.94  | 10.84     | 10.41 | 10.09 |
| 95                                    | TC  | 124.1                             | 113.7 | 96.7  | 129.5      | 118.9 | 106.9 | 132.8     | 122.0 | 114.1 |
|                                       | SHC | 62.2                              | 78.4  | 90.0  | 69.1       | 89.8  | 105.9 | 74.9      | 100.1 | 114.0 |
|                                       | kW  | 11.13                             | 10.78 | 10.40 | 11.38      | 10.99 | 10.63 | 11.52     | 11.14 | 10.83 |
| 105                                   | TC  | 118.1                             | 104.6 | 87.9  | 122.7      | 111.8 | 98.5  | 126.0     | 115.1 | 108.0 |
|                                       | SHC | 60.4                              | 74.9  | 85.2  | 66.9       | 87.7  | 98.5  | 73.1      | 98.3  | 108.0 |
|                                       | kW  | 11.93                             | 11.52 | 11.10 | 12.13      | 11.74 | 11.41 | 12.27     | 11.89 | 11.65 |
| 115                                   | TC  | 115.0                             | 98.0  | 84.2  | 120.0      | 103.8 | 93.4  | 122.6     | 109.8 | 102.8 |
|                                       | SHC | 59.4                              | 72.4  | 83.4  | 66.4       | 84.8  | 93.4  | 72.8      | 96.9  | 102.8 |
|                                       | kW  | 12.26                             | 11.82 | 11.40 | 12.48      | 12.06 | 11.78 | 12.60     | 12.20 | 12.00 |

**FORMULAS AND NOTES FOR USING EXPANDED PERFORMANCE DATA**

To find leaving wet bulb and drybulb from the expanded performance charts, use the following formulas.

1. Direct interpolation is permissible. Do not extrapolate.

2. The following formulas may be used:

$$t/db = t edb - \text{sensible capacity Btuh} / (1.10 \times \text{cfm})$$

$$t/wb = \text{Wet bulb temp. corresponding to enthalpy of air leaving evaporator coil (h/wb)}$$

$$h/wb = h ewb - \text{total capacity Btuh} / (4.5 \times \text{cfm})$$

where h ewb = Enthalpy of air entering evap. coil

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

| LEGEND |                                 |
|--------|---------------------------------|
| MBH    | = Total Capacity (Gross)        |
| S/T    | = Sensible to Total Ratio       |
| KW     | = Compressor Motor Power Input. |
| IDB    | = Indoor Dry Bulb               |
| edb    | = Entering Dry Bulb             |
| ewb    | = Entering Wet Bulb             |
| t/db   | = Leaving Dry Bulb              |
| t/wb   | = Leaving Wet Bulb              |
| h/wb   | = Enthalpy of Leaving Wet Bulb  |
| SHC    | = Sensible Heat Capacity        |

| BYPASS FACTOR (BF) | ENTERING AIR DRY BULB |      |      |      |      |          | Use formulas shown below |
|--------------------|-----------------------|------|------|------|------|----------|--------------------------|
|                    | 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 |          |                          |
| .10                | 0.98                  | 1.96 | 2.94 | 3.92 | 4.90 |          |                          |
| .20                | 0.87                  | 1.74 | 2.62 | 3.49 | 4.36 |          |                          |
| .30                | 0.76                  | 1.53 | 2.29 | 3.05 | 3.82 |          |                          |

$$\text{Correction Factor} = 1.10 \times (1-BF) \times (edb-80).$$

**EXPANDED PERFORMANCE DATA (COOLING) 12-1/2 TON – GROSS DATA**

| Temp (F) Air Entering Condenser (Edb) |     | Air Entering Evaporator — Cfm/BF  |       |       |           |       |       |           |       |       |           |       |       |
|---------------------------------------|-----|-----------------------------------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|
|                                       |     | 3750/0.08                         |       |       | 4500/0.09 |       |       | 5000/0.10 |       |       | 6250/0.12 |       |       |
|                                       |     | Air Entering Evaporator — Ewb (F) |       |       |           |       |       |           |       |       |           |       |       |
|                                       |     | 72                                | 67    | 62    | 72        | 67    | 62    | 72        | 67    | 62    | 72        | 67    | 62    |
| 75                                    | TC  | 175.6                             | 162.2 | 149.2 | 181.0     | 167.5 | 154.2 | 182.9     | 170.2 | 156.4 | 187.2     | 174.7 | 161.8 |
|                                       | SHC | 85.7                              | 107.3 | 128.0 | 91.4      | 116.2 | 140.3 | 94.2      | 122.2 | 146.5 | 102.1     | 135.3 | 160.7 |
|                                       | KW  | 11.16                             | 10.85 | 10.57 | 11.32     | 11.00 | 10.69 | 11.37     | 11.07 | 10.73 | 11.49     | 11.19 | 10.87 |
| 85                                    | TC  | 169.3                             | 155.7 | 140.6 | 174.2     | 160.7 | 147.0 | 176.9     | 163.0 | 149.7 | 181.5     | 167.3 | 155.8 |
|                                       | SHC | 83.9                              | 104.8 | 124.0 | 89.6      | 113.9 | 137.0 | 92.7      | 119.7 | 143.6 | 100.9     | 133.4 | 155.6 |
|                                       | KW  | 12.15                             | 11.78 | 11.42 | 12.31     | 11.94 | 11.58 | 12.39     | 12.01 | 11.63 | 12.53     | 12.14 | 11.82 |
| 95                                    | TC  | 161.9                             | 148.9 | 132.0 | 166.8     | 153.5 | 139.1 | 169.5     | 155.7 | 142.8 | 173.2     | 159.5 | 149.6 |
|                                       | SHC | 81.4                              | 102.0 | 119.8 | 87.0      | 111.1 | 133.2 | 90.7      | 117.3 | 140.2 | 98.3      | 130.8 | 149.6 |
|                                       | KW  | 13.12                             | 12.72 | 12.28 | 13.30     | 12.89 | 12.46 | 13.40     | 12.97 | 12.56 | 13.54     | 13.11 | 12.78 |
| 105                                   | TC  | 154.9                             | 141.3 | 123.0 | 158.8     | 145.4 | 130.2 | 160.9     | 147.6 | 135.0 | 165.3     | 151.2 | 143.2 |
|                                       | SHC | 79.0                              | 99.2  | 115.5 | 84.5      | 108.2 | 128.1 | 87.8      | 114.3 | 134.9 | 96.6      | 127.8 | 143.1 |
|                                       | KW  | 14.16                             | 13.66 | 13.17 | 14.31     | 13.82 | 13.35 | 14.38     | 13.91 | 13.48 | 14.58     | 14.07 | 13.77 |
| 115                                   | TC  | 146.2                             | 132.2 | 113.1 | 150.5     | 137.0 | 122.4 | 152.3     | 139.4 | 127.8 | 155.2     | 142.7 | 136.0 |
|                                       | SHC | 76.1                              | 95.7  | 110.3 | 81.7      | 105.2 | 122.3 | 85.0      | 111.6 | 127.7 | 92.9      | 125.0 | 135.8 |
|                                       | KW  | 15.09                             | 14.57 | 14.07 | 15.30     | 14.76 | 14.25 | 15.37     | 14.87 | 14.43 | 15.49     | 15.02 | 14.73 |

**FORMULAS AND NOTES FOR USING EXPANDED PERFORMANCE DATA**

To find leaving wet bulb and drybulb from the expanded performance charts, use the following formulas.

1. Direct interpolation is permissible. Do not extrapolate.
2. The following formulas may be used:  
 $t/db = t/edb - \text{sensible capacity Btuh} / (1.10 \times \text{cfm})$   
 $t/wb = \text{Wet bulb temp. corresponding to enthalpy of air leaving evaporator coil (h/wb)}$   
 $h/wb = h/ewb - \text{total capacity Btuh} / (4.5 \times \text{cfm})$   
 where h/ewb = Enthalpy of air entering evap. coil
3. The SHC is based on 80F edb of air entering evap coil. Below 80F edb, subtract (corr factor x cfm) from SHC. Above 80F edb, add (corr factor x cfm) to SHC.

**LEGEND**

MBH = Total Capacity (Gross)  
 S/T = Sensible to Total Ratio  
 KW = Compressor Motor Power Input  
 IDB = Indoor Dry Bulb  
 edb = Entering Dry Bulb  
 ewb = Entering Wet Bulb  
 t/db = Leaving Dry Bulb  
 t/wb = Leaving Wet Bulb  
 h/wb = Enthalpy of Leaving Wet Bulb  
 SHC = Sensible Heat Capacity

| BYPASS FACTOR (BF) | ENTERING AIR DRY BULB |      |      |      |      |                          |
|--------------------|-----------------------|------|------|------|------|--------------------------|
|                    | 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 formulas shown below |
| .10                | 0.98                  | 1.96 | 2.94 | 3.92 | 4.90 |                          |
| .20                | 0.87                  | 1.74 | 2.62 | 3.49 | 4.36 |                          |
| .30                | 0.78                  | 1.53 | 2.29 | 3.05 | 3.82 |                          |

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

**PGS Series PERFORMANCE DATA (CONT.)**

**CIRCULATING BLOWER PERFORMANCE - PGS072 - Standard Motor (Belt Drive)\* (Horizontal Discharge)**

| Airflow<br>CFM | EXTERNAL STATIC PRESSURE (in. wg) |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|----------------|-----------------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                | 0.2                               |       | 0.4  |       | 0.6  |       | 0.8  |       | 1.0  |       | 1.2  |       | 1.4  |       | 1.6  |       | 1.8  |       | 2.0  |       |
|                | RPM                               | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts |
| 1800           | 919                               | 561   | 1010 | 663   | 1095 | 771   | 1174 | 886   | 1250 | 1008  | 1321 | 1137  | 1390 | 1273  | 1455 | 1415  | 1518 | 1563  | 1579 | 1718  |
| 1900           | 960                               | 648   | 1047 | 754   | 1129 | 867   | 1206 | 986   | 1279 | 1111  | 1348 | 1243  | 1415 | 1381  | 1479 | 1526  | 1541 | 1677  | 1601 | 1834  |
| 2000           | 1001                              | 744   | 1085 | 855   | 1163 | 972   | 1238 | 1095  | 1309 | 1224  | 1377 | 1359  | 1442 | 1500  | 1505 | 1648  | 1565 | 1801  | 1624 | 1961  |
| 2100           | 1043                              | 850   | 1123 | 965   | 1199 | 1086  | 1271 | 1213  | 1340 | 1346  | 1406 | 1485  | 1470 | 1629  | 1531 | 1780  | 1591 | 1936  | 1648 | 2098  |
| 2200           | 1085                              | 966   | 1162 | 1086  | 1235 | 1211  | 1305 | 1342  | 1372 | 1479  | 1437 | 1621  | 1499 | 1769  | 1559 | 1923  | 1617 | 2082  | -    | -     |
| 2300           | 1127                              | 1092  | 1201 | 1217  | 1272 | 1347  | 1340 | 1482  | 1405 | 1623  | 1468 | 1769  | 1529 | 1920  | 1587 | 2077  | -    | -     | -    | -     |
| 2400           | 1169                              | 1229  | 1241 | 1359  | 1310 | 1493  | 1375 | 1633  | 1439 | 1778  | 1500 | 1928  | 1559 | 2083  | -    | -     | -    | -     | -    | -     |
| 2500           | 1212                              | 1378  | 1281 | 1513  | 1348 | 1652  | 1412 | 1796  | 1473 | 1945  | 1533 | 2098  | -    | -     | -    | -     | -    | -     | -    | -     |
| 2600           | 1255                              | 1539  | 1322 | 1678  | 1386 | 1822  | 1448 | 1970  | 1508 | 2124  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 2700           | 1298                              | 1713  | 1363 | 1857  | 1425 | 2005  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 2800           | 1341                              | 1899  | 1404 | 2048  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 2900           | 1384                              | 2099  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 3000           | -                                 | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |

**LEGEND**

Watts = Input Watts to motor.

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

Maximum continuous bhp is 2.40.

**CIRCULATING BLOWER PERFORMANCE - PGS090 - Standard Motor (Belt Drive)\* (Horizontal Discharge)**

| Airflow<br>CFM | EXTERNAL STATIC PRESSURE (in. wg) |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |
|----------------|-----------------------------------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
|                | 0.2                               |       | 0.4 |       | 0.6 |       | 0.8 |       | 1.0 |       | 1.2 |       | 1.4 |       | 1.6 |       | 1.8 |       | 2.0 |       |
|                | RPM                               | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts |
| 2250           | 505                               | 527   | 586 | 687   | 658 | 859   | 723 | 1044  | 783 | 1242  | 838 | 1451  | 891 | 1673  | 941 | 1906  | 988 | 2150  | -   | -     |
| 2300           | 513                               | 556   | 592 | 718   | 663 | 893   | 728 | 1080  | 787 | 1280  | 843 | 1492  | 895 | 1715  | 944 | 1949  | 991 | 2195  | -   | -     |
| 2400           | 528                               | 617   | 605 | 785   | 675 | 965   | 738 | 1156  | 797 | 1360  | 851 | 1575  | 903 | 1801  | 952 | 2039  | -   | -     | -   | -     |
| 2500           | 543                               | 683   | 618 | 857   | 686 | 1041  | 749 | 1238  | 806 | 1445  | 860 | 1664  | 911 | 1894  | 960 | 2135  | -   | -     | -   | -     |
| 2550           | 550                               | 718   | 625 | 894   | 692 | 1082  | 754 | 1280  | 811 | 1490  | 865 | 1711  | 916 | 1943  | 964 | 2185  | -   | -     | -   | -     |
| 2600           | 558                               | 754   | 632 | 933   | 698 | 1123  | 760 | 1324  | 816 | 1536  | 870 | 1759  | 920 | 1993  | 968 | 2237  | -   | -     | -   | -     |
| 2700           | 574                               | 830   | 646 | 1015  | 711 | 1210  | 771 | 1416  | 827 | 1633  | 879 | 1859  | 929 | 2097  | -   | -     | -   | -     | -   | -     |
| 2800           | 589                               | 912   | 660 | 1103  | 723 | 1303  | 782 | 1514  | 838 | 1735  | 889 | 1966  | 939 | 2207  | -   | -     | -   | -     | -   | -     |
| 2900           | 605                               | 999   | 674 | 1196  | 736 | 1401  | 794 | 1617  | 848 | 1843  | 900 | 2078  | -   | -     | -   | -     | -   | -     | -   | -     |
| 3000           | 621                               | 1092  | 688 | 1295  | 749 | 1506  | 806 | 1727  | 860 | 1957  | 910 | 2197  | -   | -     | -   | -     | -   | -     | -   | -     |
| 3100           | 637                               | 1191  | 702 | 1400  | 763 | 1617  | 819 | 1842  | 871 | 2077  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3200           | 653                               | 1297  | 717 | 1511  | 776 | 1733  | 831 | 1964  | 883 | 2204  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3300           | 670                               | 1408  | 732 | 1629  | 790 | 1857  | 844 | 2093  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3400           | 686                               | 1526  | 747 | 1753  | 804 | 1987  | 857 | 2228  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3500           | 703                               | 1652  | 762 | 1884  | 818 | 2123  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3600           | 719                               | 1783  | 777 | 2022  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3700           | 736                               | 1923  | 793 | 2167  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| 3750           | 744                               | 1995  | 801 | 2243  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |

**LEGEND**

Watts = Input Watts to motor.

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

Maximum continuous bhp is 2.40.

**PGS Series PERFORMANCE DATA (CONT.)**

**CIRCULATING BLOWER PERFORMANCE – PGS120 – Standard Motor (Belt Drive) (Horizontal Discharge)**

| Airflow<br>CFM | EXTERNAL STATIC PRESSURE (in. wg) |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |      |       |      |       |
|----------------|-----------------------------------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|------|-------|------|-------|
|                | 0.2                               |       | 0.4 |       | 0.6 |       | 0.8 |       | 1.0 |       | 1.2 |       | 1.4 |       | 1.6 |       | 1.8  |       | 2.0  |       |
|                | RPM                               | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM | Watts | RPM  | Watts | RPM  | Watts |
| 3000           | 555                               | 630   | 629 | 765   | 696 | 904   | 757 | 1048  | 814 | 1198  | 867 | 1353  | 918 | 1513  | 966 | 1680  | 1012 | 1852  | 1056 | 2029  |
| 3100           | 568                               | 686   | 641 | 825   | 706 | 968   | 766 | 1115  | 823 | 1269  | 876 | 1427  | 926 | 1590  | 973 | 1760  | 1019 | 1934  | -    | -     |
| 3200           | 582                               | 745   | 652 | 888   | 717 | 1035  | 776 | 1186  | 832 | 1343  | 884 | 1504  | 934 | 1671  | 981 | 1843  | 1026 | 2020  | -    | -     |
| 3300           | 595                               | 808   | 664 | 955   | 728 | 1106  | 786 | 1261  | 841 | 1421  | 893 | 1586  | 942 | 1755  | 988 | 1930  | 1033 | 2111  | -    | -     |
| 3400           | 609                               | 874   | 677 | 1026  | 739 | 1181  | 797 | 1340  | 851 | 1503  | 902 | 1671  | 950 | 1844  | 996 | 2022  | -    | -     | -    | -     |
| 3500           | 623                               | 945   | 689 | 1100  | 750 | 1259  | 807 | 1422  | 860 | 1589  | 911 | 1760  | 959 | 1937  | -   | -     | -    | -     | -    | -     |
| 3600           | 636                               | 1019  | 702 | 1179  | 762 | 1341  | 817 | 1508  | 870 | 1679  | 920 | 1854  | 967 | 2033  | -   | -     | -    | -     | -    | -     |
| 3700           | 650                               | 1097  | 714 | 1261  | 773 | 1428  | 828 | 1598  | 880 | 1772  | 929 | 1951  | -   | -     | -   | -     | -    | -     | -    | -     |
| 3800           | 664                               | 1179  | 727 | 1347  | 785 | 1518  | 839 | 1693  | 890 | 1870  | 939 | 2053  | -   | -     | -   | -     | -    | -     | -    | -     |
| 3900           | 678                               | 1266  | 740 | 1438  | 797 | 1613  | 850 | 1791  | 901 | 1973  | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4000           | 693                               | 1356  | 753 | 1533  | 809 | 1712  | 861 | 1894  | 911 | 2080  | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4100           | 707                               | 1451  | 766 | 1632  | 821 | 1816  | 873 | 2002  | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4200           | 721                               | 1551  | 779 | 1736  | 833 | 1924  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4300           | 735                               | 1656  | 792 | 1845  | 846 | 2037  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4400           | 750                               | 1764  | 806 | 1958  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4500           | 764                               | 1879  | 819 | 2077  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4600           | 779                               | 1998  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4700           | -                                 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4800           | -                                 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 4900           | -                                 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |
| 5000           | -                                 | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -    | -     | -    | -     |

**LEGEND**

Watts = Input Watts to motor.

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

Maximum continuous bhp is 2.40.

**CIRCULATING BLOWER PERFORMANCE – PGS150 – Standard Motor (Belt Drive) (Horizontal Discharge)**

| Airflow<br>CFM | EXTERNAL STATIC PRESSURE (in. wg) |       |     |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|----------------|-----------------------------------|-------|-----|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                | 0.2                               |       | 0.4 |       | 0.6  |       | 0.8  |       | 1.0  |       | 1.2  |       | 1.4  |       | 1.6  |       | 1.8  |       | 2.0  |       |
|                | RPM                               | Watts | RPM | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts | RPM  | Watts |
| 3700           | 676                               | 1106  | 747 | 1328  | 811  | 1552  | 871  | 1779  | 927  | 2008  | 981  | 2240  | 1031 | 2473  | 1079 | 2709  | 1125 | 2948  | 1169 | 3189  |
| 3800           | 690                               | 1185  | 760 | 1414  | 823  | 1644  | 882  | 1876  | 938  | 2111  | 990  | 2348  | 1040 | 2587  | 1088 | 2828  | 1133 | 3073  | 1170 | 3319  |
| 3900           | 705                               | 1269  | 773 | 1503  | 835  | 1739  | 894  | 1977  | 948  | 2217  | 1000 | 2459  | 1050 | 2705  | 1097 | 2951  | 1142 | 3201  | 1186 | 3452  |
| 4000           | 719                               | 1357  | 786 | 1597  | 848  | 1838  | 905  | 2082  | 959  | 2328  | 1011 | 2576  | 1059 | 2826  | 1106 | 3079  | 1151 | 3334  | -    | -     |
| 4100           | 734                               | 1449  | 799 | 1695  | 860  | 1942  | 917  | 2192  | 970  | 2443  | 1021 | 2697  | 1069 | 2953  | 1116 | 3210  | -    | -     | -    | -     |
| 4200           | 748                               | 1545  | 813 | 1797  | 872  | 2050  | 928  | 2305  | 981  | 2562  | 1031 | 2822  | 1079 | 3083  | 1125 | 3347  | -    | -     | -    | -     |
| 4300           | 763                               | 1646  | 826 | 1903  | 885  | 2162  | 940  | 2423  | 992  | 2686  | 1042 | 2951  | 1089 | 3218  | -    | -     | -    | -     | -    | -     |
| 4400           | 778                               | 1751  | 840 | 2014  | 898  | 2279  | 952  | 2546  | 1004 | 2814  | 1053 | 3085  | 1100 | 3357  | -    | -     | -    | -     | -    | -     |
| 4500           | 792                               | 1860  | 853 | 2130  | 910  | 2401  | 964  | 2673  | 1015 | 2947  | 1064 | 3224  | -    | -     | -    | -     | -    | -     | -    | -     |
| 4600           | 807                               | 1975  | 867 | 2250  | 923  | 2527  | 976  | 2805  | 1027 | 3085  | 1075 | 3367  | -    | -     | -    | -     | -    | -     | -    | -     |
| 4700           | 822                               | 2094  | 881 | 2375  | 936  | 2658  | 989  | 2942  | 1038 | 3227  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 4800           | 837                               | 2218  | 895 | 2505  | 949  | 2794  | 1001 | 3093  | 1050 | 3375  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 4900           | 852                               | 2347  | 909 | 2640  | 963  | 2935  | 1014 | 3230  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5000           | 867                               | 2482  | 923 | 2781  | 976  | 3081  | 1026 | 3383  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5100           | 882                               | 2622  | 937 | 2926  | 989  | 3232  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5200           | 897                               | 2766  | 951 | 3077  | 1003 | 3389  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5300           | 912                               | 2917  | 966 | 3233  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5400           | 927                               | 3073  | 980 | 3395  | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5500           | 943                               | 3234  | -   | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |
| 5600           | 958                               | 3402  | -   | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     |

**LEGEND**

Watts = Input Watts to motor.

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

Maximum continuous bhp is 3.70.

**PGS Series PERFORMANCE DATA (CONT.)**

**FAN PERFORMANCE VERTICAL DISCHARGE UNITS**

**PGS072 (6 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 |
| 1800             | 967                               | 0.65 | 579   | 1077 | 0.81 | 718   | 1172 | 0.96 | 856   | 1257 | 1.12 | 993   | 1334 | 1.27 | 1130  |
| 1900             | 1007                              | 0.75 | 663   | 1115 | 0.91 | 811   | 1208 | 1.08 | 957   | 1291 | 1.24 | 1101  | 1368 | 1.40 | 1246  |
| 2000             | 1048                              | 0.85 | 757   | 1153 | 1.03 | 913   | 1244 | 1.20 | 1066  | 1326 | 1.37 | 1219  | 1401 | 1.54 | 1371  |
| 2100             | 1090                              | 0.97 | 859   | 1191 | 1.15 | 1023  | 1281 | 1.33 | 1185  | 1361 | 1.51 | 1345  | 1435 | 1.69 | 1505  |
| 2200             | 1131                              | 1.09 | 970   | 1230 | 1.29 | 1143  | 1318 | 1.48 | 1313  | 1397 | 1.67 | 1481  | 1470 | 1.86 | 1649  |
| 2300             | 1173                              | 1.23 | 1091  | 1269 | 1.43 | 1273  | 1355 | 1.63 | 1451  | 1433 | 1.83 | 1627  | 1505 | 2.03 | 1803  |
| 2400             | 1215                              | 1.38 | 1223  | 1309 | 1.59 | 1413  | 1393 | 1.80 | 1600  | 1470 | 2.01 | 1784  | 1540 | 2.21 | 1967  |
| 2500             | 1258                              | 1.54 | 1365  | 1349 | 1.76 | 1564  | 1431 | 1.98 | 1759  | 1506 | 2.20 | 1951  | —    | —    | —     |
| 2600             | 1300                              | 1.71 | 1518  | 1389 | 1.94 | 1726  | 1470 | 2.17 | 1929  | 1544 | 2.40 | 2130  | —    | —    | —     |
| 2700             | 1343                              | 1.90 | 1683  | 1430 | 2.14 | 1899  | 1509 | 2.38 | 2111  | —    | —    | —     | —    | —    | —     |
| 2800             | 1386                              | 2.09 | 1860  | 1471 | 2.35 | 2085  | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2900             | 1429                              | 2.31 | 2050  | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 3000             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |

**PGS072 (6 TONS) – STANDARD MOTOR (BELT DRIVE)\* (cont)**

| 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 |
| 1800             | 1406                              | 1.43 | 1268  | 1473 | 1.58 | 1407  | 1535 | 1.74 | 1548  | 1595 | 1.90 | 1690  | 1652 | 2.06 | 1833  |
| 1900             | 1438                              | 1.57 | 1391  | 1504 | 1.73 | 1537  | 1567 | 1.90 | 1685  | 1626 | 2.06 | 1833  | 1682 | 2.23 | 1983  |
| 2000             | 1471                              | 1.72 | 1523  | 1536 | 1.89 | 1677  | 1598 | 2.06 | 1831  | 1657 | 2.24 | 1986  | —    | —    | —     |
| 2100             | 1504                              | 1.87 | 1665  | 1569 | 2.06 | 1825  | 1630 | 2.24 | 1986  | —    | —    | —     | —    | —    | —     |
| 2200             | 1538                              | 2.04 | 1816  | 1602 | 2.23 | 1984  | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2300             | 1572                              | 2.23 | 1978  | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2400             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2500             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2600             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2700             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2800             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 2900             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 3000             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |

**LEGEND**

**Bhp** – Brake Horsepower input to fan

**Watts** – Input Watts to motor

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

**NOTES:**

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

**PGS Series PERFORMANCE DATA (CONT.)**

**FAN PERFORMANCE VERTICAL DISCHARGE UNITS**

| PGS090 (7-1/2 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                               | 0.58 | 540   | 593 | 0.75 | 702   | 663 | 0.94 | 873   | 726 | 1.13 | 1054  | 783 | 1.34 | 1245  |
| 2300   | 520                               | 0.61 | 570   | 600 | 0.79 | 735   | 669 | 0.97 | 908   | 731 | 1.17 | 1092  | 789 | 1.38 | 1285  |
| 2400   | 535                               | 0.68 | 633   | 613 | 0.86 | 803   | 681 | 1.05 | 983   | 743 | 1.26 | 1171  | 799 | 1.47 | 1369  |
| 2500   | 551                               | 0.75 | 700   | 627 | 0.94 | 877   | 693 | 1.14 | 1062  | 754 | 1.35 | 1256  | 810 | 1.56 | 1459  |
| 2550   | 559                               | 0.79 | 736   | 634 | 0.98 | 916   | 700 | 1.18 | 1104  | 760 | 1.39 | 1301  | 815 | 1.61 | 1506  |
| 2600   | 567                               | 0.83 | 773   | 640 | 1.03 | 956   | 706 | 1.23 | 1147  | 766 | 1.44 | 1346  | 821 | 1.67 | 1554  |
| 2700   | 582                               | 0.91 | 851   | 655 | 1.12 | 1040  | 719 | 1.33 | 1237  | 778 | 1.55 | 1441  | 832 | 1.77 | 1654  |
| 2800   | 598                               | 1.00 | 935   | 669 | 1.21 | 1130  | 732 | 1.43 | 1333  | 790 | 1.65 | 1543  | 844 | 1.89 | 1761  |
| 2900   | 614                               | 1.10 | 1024  | 683 | 1.31 | 1225  | 745 | 1.54 | 1434  | 802 | 1.77 | 1650  | 855 | 2.01 | 1873  |
| 3000   | 630                               | 1.20 | 1119  | 698 | 1.42 | 1327  | 759 | 1.65 | 1542  | 815 | 1.89 | 1763  | 867 | 2.14 | 1992  |
| 3100   | 647                               | 1.31 | 1220  | 713 | 1.54 | 1435  | 773 | 1.78 | 1655  | 828 | 2.02 | 1883  | 879 | 2.27 | 2117  |
| 3200   | 663                               | 1.42 | 1328  | 728 | 1.66 | 1549  | 787 | 1.90 | 1776  | 841 | 2.15 | 2008  | —   | —    | —     |
| 3300   | 680                               | 1.55 | 1442  | 743 | 1.79 | 1669  | 801 | 2.04 | 1902  | 854 | 2.30 | 2141  | —   | —    | —     |
| 3400   | 696                               | 1.68 | 1563  | 758 | 1.93 | 1797  | 815 | 2.18 | 2036  | —   | —    | —     | —   | —    | —     |
| 3500   | 713                               | 1.81 | 1690  | 774 | 2.07 | 1931  | 829 | 2.33 | 2177  | —   | —    | —     | —   | —    | —     |
| 3600   | 730                               | 1.96 | 1825  | 789 | 2.22 | 2073  | —   | —    | —     | —   | —    | —     | —   | —    | —     |
| 3700   | 747                               | 2.11 | 1967  | 805 | 2.38 | 2221  | —   | —    | —     | —   | —    | —     | —   | —    | —     |
| 3750   | 755                               | 2.19 | 2041  | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     |

| PGS090 (7-1/2 TONS) – STANDARD MOTOR (BELT DRIVE)* (cont) |                                   |      |       |     |      |       |     |      |       |     |      |       |     |     |       |
|---|-----------------------------------|------|-------|-----|------|-------|-----|------|-------|-----|------|-------|-----|-----|-------|
| 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  | 837                               | 1.55 | 1445  | 887 | 1.77 | 1655  | 934 | 2.01 | 1874  | 979 | 2.25 | 2102  | —   | —   | —     |
| 2300  | 842                               | 1.60 | 1488  | 891 | 1.82 | 1699  | 938 | 2.06 | 1920  | 983 | 2.31 | 2150  | —   | —   | —     |
| 2400  | 852                               | 1.69 | 1576  | 901 | 1.92 | 1792  | 948 | 2.16 | 2017  | —   | —    | —     | —   | —   | —     |
| 2500  | 862                               | 1.79 | 1670  | 911 | 2.03 | 1890  | 957 | 2.27 | 2119  | —   | —    | —     | —   | —   | —     |
| 2550  | 867                               | 1.84 | 1719  | 916 | 2.08 | 1941  | 962 | 2.33 | 2173  | —   | —    | —     | —   | —   | —     |
| 2600  | 872                               | 1.90 | 1770  | 921 | 2.14 | 1995  | 966 | 2.39 | 2227  | —   | —    | —     | —   | —   | —     |
| 2700  | 883                               | 2.01 | 1875  | 931 | 2.26 | 2104  | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 2800  | 894                               | 2.13 | 1986  | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 2900  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3000  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3100  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3200  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3300  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3400  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3500  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3600  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3700  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |
| 3750  | —                                 | —    | —     | —   | —    | —     | —   | —    | —     | —   | —    | —     | —   | —   | —     |

**LEGEND**

**Bhp** – Brake Horsepower input to fan

**Watts** – Input Watts to motor

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

**NOTES:**

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

**PGS Series PERFORMANCE DATA (CONT.)**

**FAN PERFORMANCE VERTICAL DISCHARGE UNITS**

**PGS120 (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             | 726                               | 0.75 | 656   | 793  | 0.94 | 822   | 853  | 1.14 | 997   | 910  | 1.35 | 1181  | 962  | 1.56 | 1373  |
| 3100             | 746                               | 0.81 | 713   | 811  | 1.01 | 883   | 870  | 1.21 | 1062  | 926  | 1.42 | 1250  | 978  | 1.65 | 1447  |
| 3200             | 766                               | 0.88 | 773   | 829  | 1.08 | 947   | 887  | 1.29 | 1131  | 942  | 1.51 | 1323  | 993  | 1.74 | 1524  |
| 3300             | 786                               | 0.95 | 836   | 847  | 1.16 | 1016  | 905  | 1.37 | 1204  | 958  | 1.60 | 1400  | 1008 | 1.83 | 1604  |
| 3400             | 806                               | 1.03 | 904   | 866  | 1.24 | 1088  | 922  | 1.46 | 1280  | 975  | 1.69 | 1481  | 1024 | 1.92 | 1689  |
| 3500             | 826                               | 1.11 | 975   | 885  | 1.33 | 1163  | 940  | 1.55 | 1360  | 991  | 1.78 | 1565  | 1040 | 2.03 | 1778  |
| 3600             | 846                               | 1.20 | 1050  | 904  | 1.42 | 1243  | 958  | 1.65 | 1444  | 1008 | 1.88 | 1654  | 1056 | 2.13 | 1870  |
| 3700             | 866                               | 1.29 | 1129  | 923  | 1.51 | 1327  | 975  | 1.75 | 1532  | 1025 | 1.99 | 1746  | 1073 | 2.24 | 1967  |
| 3800             | 886                               | 1.38 | 1212  | 942  | 1.61 | 1415  | 994  | 1.85 | 1625  | 1043 | 2.10 | 1843  | 1089 | 2.36 | 2068  |
| 3900             | 907                               | 1.48 | 1299  | 961  | 1.72 | 1507  | 1012 | 1.96 | 1722  | 1060 | 2.21 | 1944  | —    | —    | —     |
| 4000             | 927                               | 1.58 | 1391  | 980  | 1.83 | 1603  | 1030 | 2.08 | 1823  | 1078 | 2.33 | 2049  | —    | —    | —     |
| 4100             | 948                               | 1.69 | 1487  | 1000 | 1.94 | 1704  | 1049 | 2.20 | 1928  | —    | —    | —     | —    | —    | —     |
| 4200             | 968                               | 1.81 | 1588  | 1019 | 2.06 | 1809  | 1067 | 2.32 | 2038  | —    | —    | —     | —    | —    | —     |
| 4300             | 989                               | 1.93 | 1694  | 1039 | 2.19 | 1920  | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4400             | 1009                              | 2.06 | 1804  | 1058 | 2.32 | 2034  | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4500             | 1030                              | 2.19 | 1919  | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4600             | 1051                              | 2.32 | 2039  | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4700             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4800             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 4900             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5000             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |

**PGS120 (10 TONS) – STANDARD MOTOR (BELT DRIVE)\* (cont)**

| 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             | 1012                              | 1.79 | 1574  | 1060 | 2.03 | 1781  | 1105 | 2.28 | 1997  | —   | —   | —     | —   | —   | —     |
| 3100             | 1027                              | 1.88 | 1651  | 1073 | 2.12 | 1863  | 1118 | 2.37 | 2081  | —   | —   | —     | —   | —   | —     |
| 3200             | 1041                              | 1.97 | 1732  | 1088 | 2.22 | 1947  | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3300             | 1056                              | 2.07 | 1817  | 1102 | 2.32 | 2036  | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3400             | 1071                              | 2.17 | 1905  | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3500             | 1087                              | 2.28 | 1998  | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3600             | 1102                              | 2.39 | 2094  | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3700             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3800             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 3900             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4000             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4100             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4200             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4300             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4400             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4500             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4600             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4700             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4800             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 4900             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |
| 5000             | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —   | —   | —     | —   | —   | —     |

**LEGEND**

**Bhp** – Brake Horsepower input to fan

**Watts** – Input Watts to motor

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

**NOTES:**

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

**PGS Series PERFORMANCE DATA (CONT.)**

**FAN PERFORMANCE VERTICAL DISCHARGE UNITS**

| <b>PGS150 (12-1/2 TONS) - STANDARD MOTOR (BELT DRIVE)*</b> |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|--|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| 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   | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 6000   | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |

| <b>PGS150 (12-1/2 TONS) - STANDARD MOTOR (BELT DRIVE)* (cont)</b> |                                   |      |       |      |      |       |      |      |       |      |      |       |      |      |       |
|---|-----------------------------------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|
| 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  | 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  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5100  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5200  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5300  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5400  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5500  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5600  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5700  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5800  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 5900  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |
| 6000  | —                                 | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     | —    | —    | —     |

**LEGEND**

**Bhp** - Brake Horsepower input to fan

**Watts** - Input Watts to motor

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

**NOTES:**

1. **Boldface** indicates field-supplied drive is required.
2. Maximum continuous Bhp is 3.70.
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.
2. Values include losses for filters, unit casing, and wet coils.
3. Use of a field-supplied motor may affect wire sizing.
4. Interpolation is permissible. Do not extrapolate.

**PGS Series PERFORMANCE DATA (CONT.)**

| Evaporator-Fan Motor Efficiency |                      |
|---------------------------------|----------------------|
| Unit PGS                        | Motor Efficiency (%) |
| 072                             | 84                   |
| 090-120                         | 80                   |
| 150                             | 87                   |

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 PERFORMANCE**

| Unit PGS | Evaporator-Fan Motor | Unit Voltage | Max. Acceptable Continuous BHP* | Max. Acceptable Operating Watts | Max. AMP Draw |
|----------|----------------------|--------------|---------------------------------|---------------------------------|---------------|
| 072      | Standard             | 208/230      | 2.40                            | 2120                            | 5.2           |
|          |                      | 460          |                                 |                                 | 3.0           |
| 090      | Standard             | 208/230      | 2.40                            | 2120                            | 6.7           |
|          |                      | 460          |                                 |                                 | 3.0           |
| 120      | Standard             | 208/230      | 2.40                            | 2120                            | 6.7           |
|          |                      | 460          |                                 |                                 | 3.0           |
| 150      | Standard             | 208/230      | 3.70                            | 3313                            | 12.2          |
|          |                      | 460          |                                 |                                 | 5.5           |

**LEGEND**

BHP = Brake Horsepower

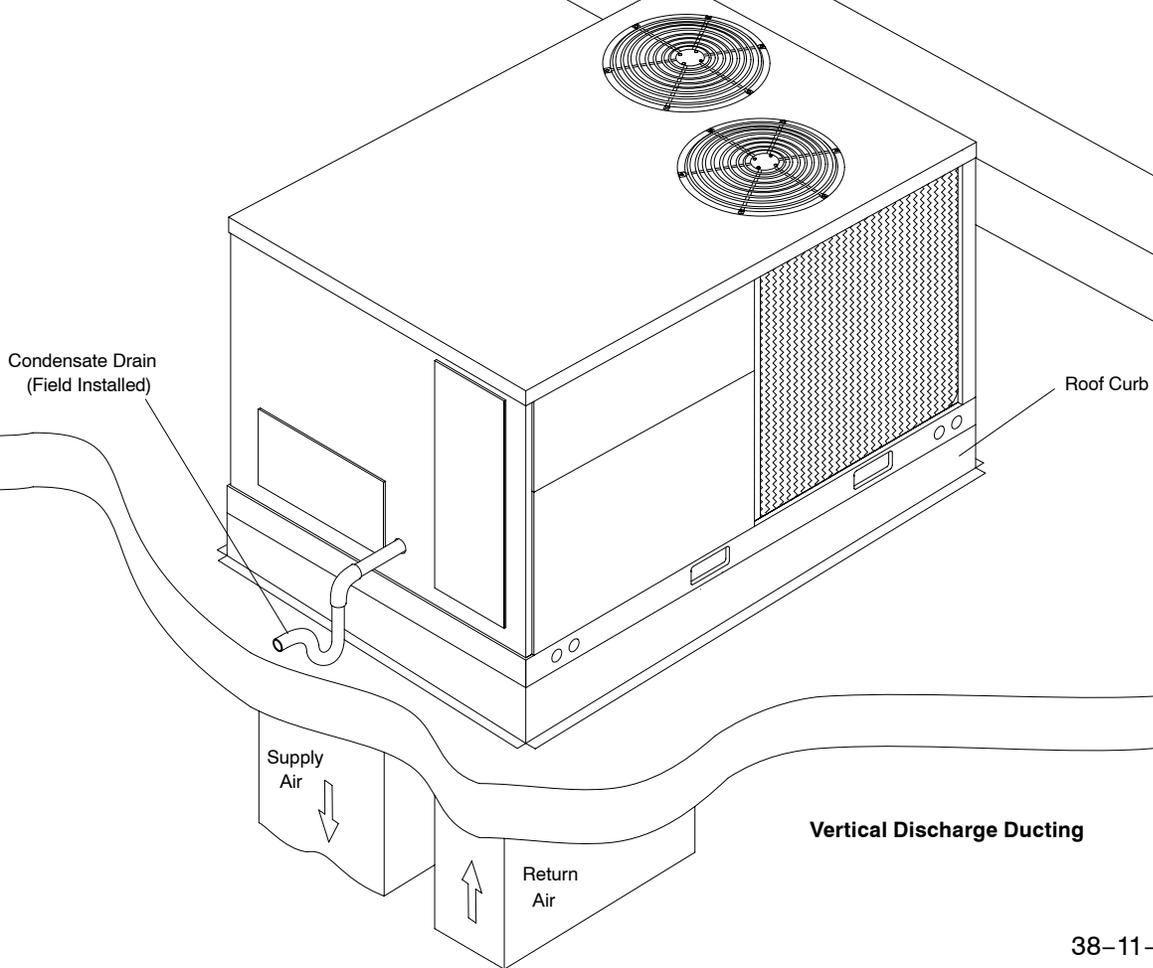
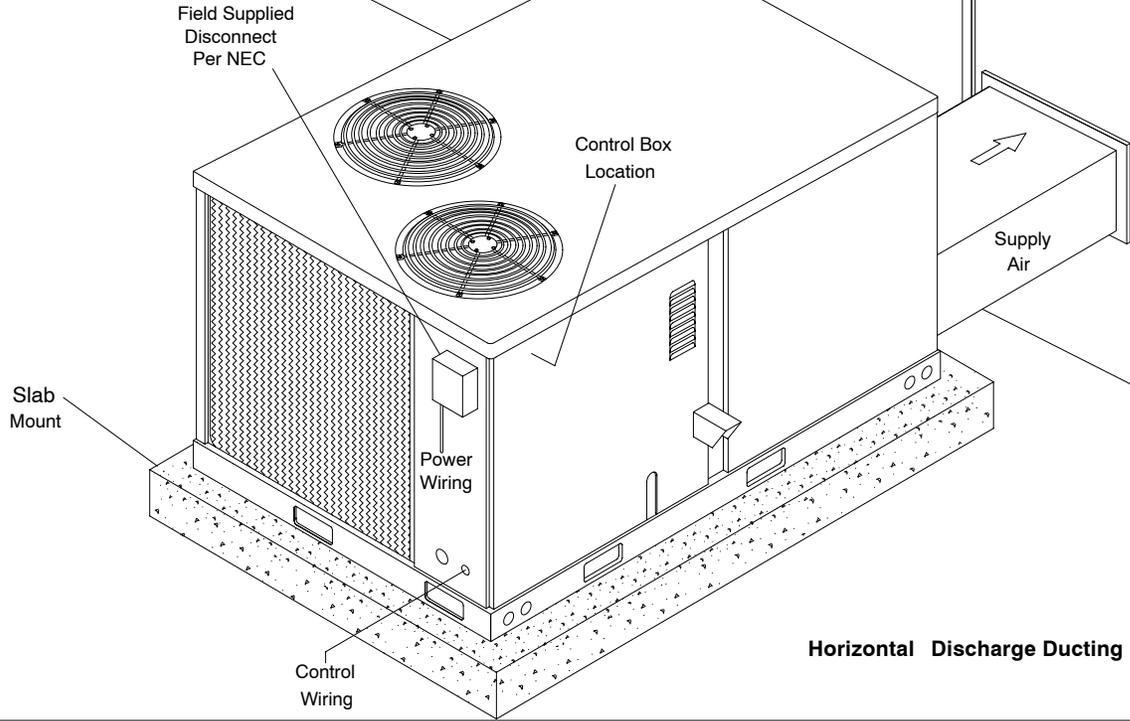
\* Extensive motor and electrical testing on these units ensures that the full horsepower range of the motors can be utilized with confidence. Using your

fan motors up to the horsepower ratings shown in this table will not result in nuisance tripping or premaure motor failure. Unit Warranty will not be affected.

**FAN RPM MOTOR PULLEY SETTINGS**

| Unit PGS | 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                    | 1420 | 1380 | 1345  | 1305 | 1265  | 1225 | 1185  | 1150 | 1110  | 1070 | -     | - |
| 090      | 840                     | 815  | 790  | 765   | 740  | 715   | 690  | 665   | 635  | 615   | 590  | -     | - |
| 120      | 935                     | 910  | 885  | 860   | 835  | 810   | 785  | 760   | 735  | 710   | 685  | -     | - |
| 150      | 1080                    | 1060 | 1035 | 1015  | 990  | 970   | 950  | 925   | 905  | 880   | 860  | -     | - |

# TYPICAL INSTALLATIONS



38-11-37

**PGS072 ACCESSORIES**  
**AXB035C\*A**

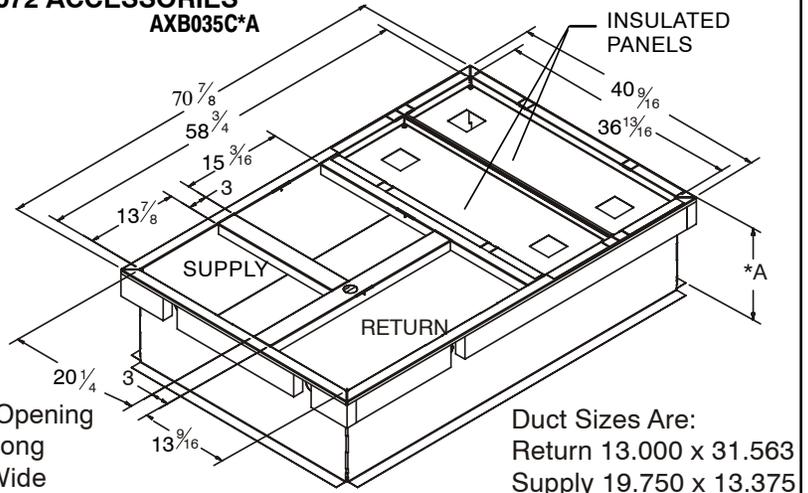
**ROOF CURBS**

| Description | Model Number | Where Used |
|-------------|--------------|------------|
| 8" High *   | AXB035CLA    | 072        |
| 14" High *  | AXB035CMA    | 072        |
| 24" High *  | AXB035CHA    | 072        |

**CURB ADAPTOR**

| Description            | Model Number | Where Used * |
|------------------------|--------------|--------------|
| Curb Adaptor           | AXB035CAA    | 072          |
| Curb Adaptor With Duct | AXB035CBA    | 072          |

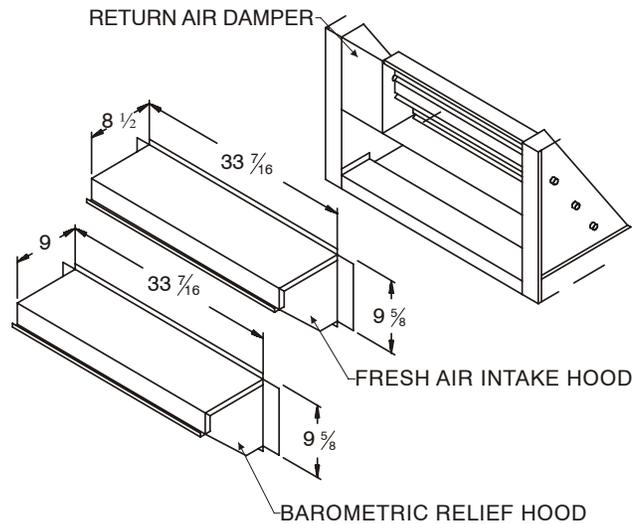
\* Used with AXB030 curbs



**ECONOMIZER - DOWNFLOW**

| Description      | Model Number | Where Used |
|------------------|--------------|------------|
| Fully Modulating | AXB035EMA    | 072        |
| Three Position   | AXB035EPA    | 072        |

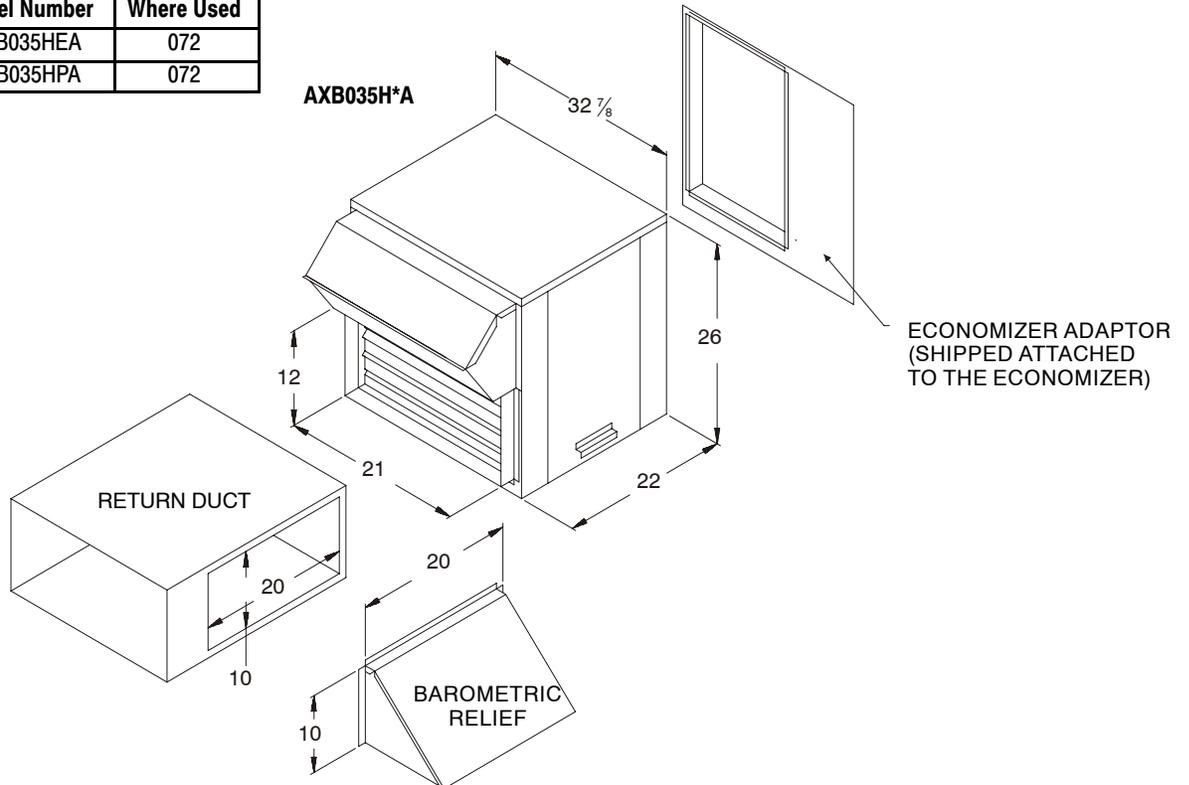
AXB035E\*A



**ECONOMIZER - HORIZONTAL**

| Description      | Model Number | Where Used |
|------------------|--------------|------------|
| Fully Modulating | AXB035HEA    | 072        |
| Three Position   | AXB035HPA    | 072        |

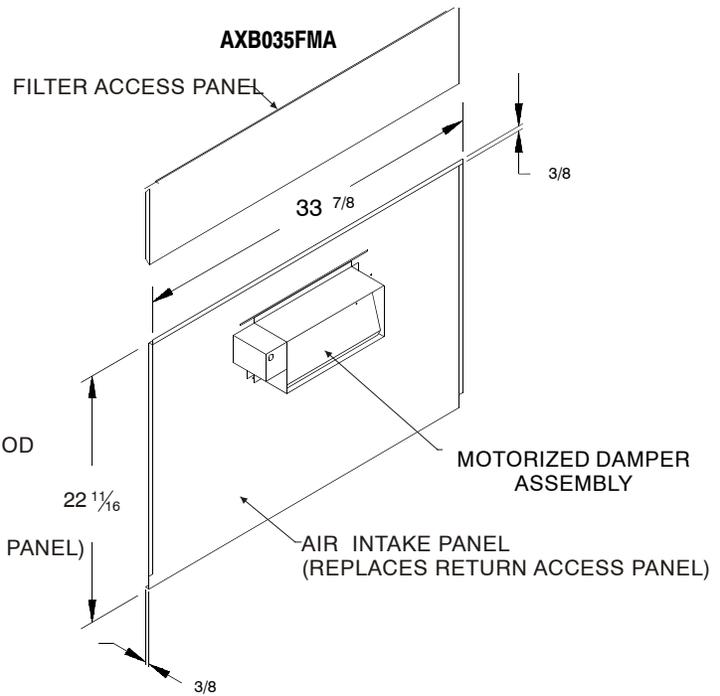
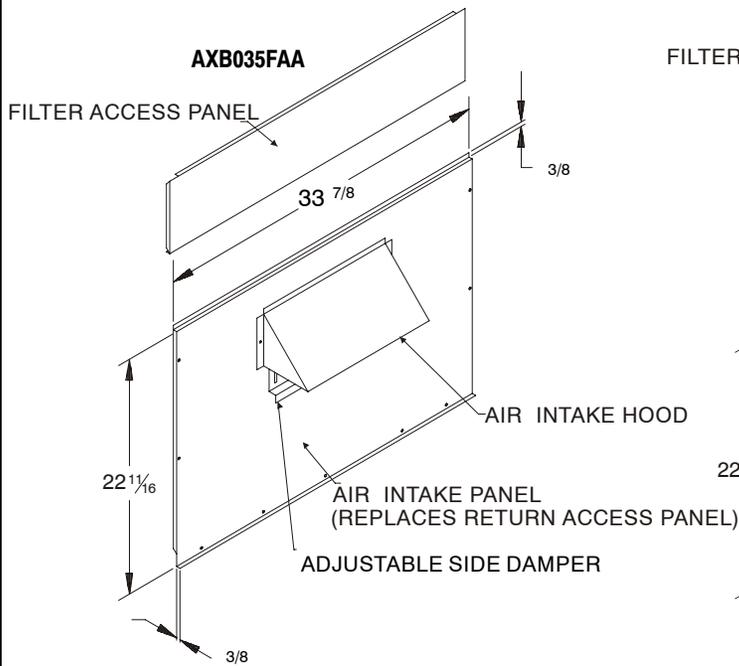
AXB035H\*A



## PGS072 ACCESSORIES (Cont.)

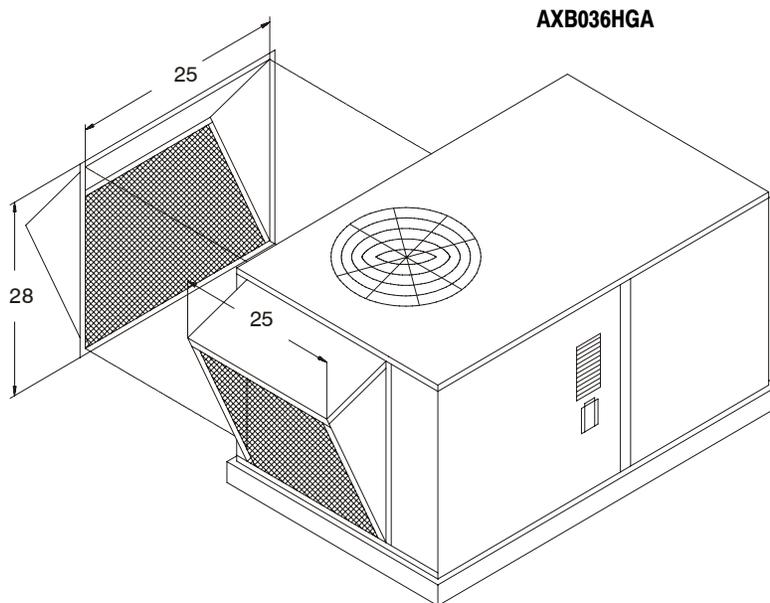
### FRESH AIR DAMPER

| Description | Model Number | Where Used |
|-------------|--------------|------------|
| Manual      | AXB035FAA    | 072        |
| Motorized   | AXB035FMA    | 072        |



### COIL PROTECTION

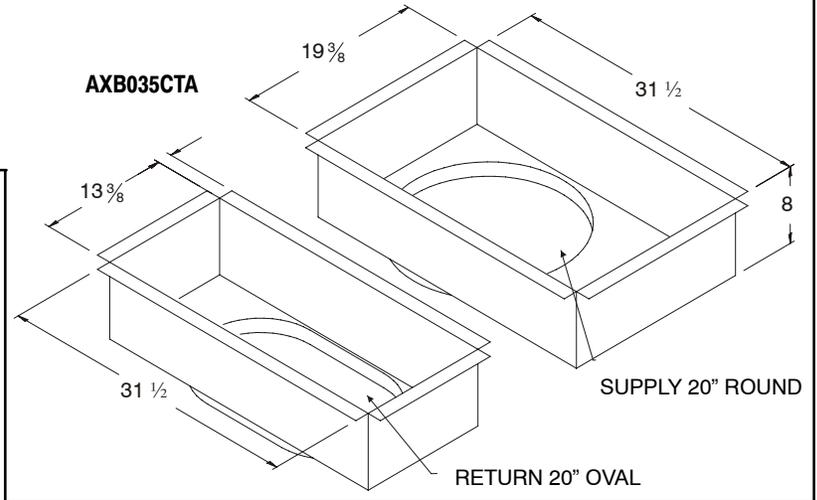
| Description | Model Number | Where Used |
|-------------|--------------|------------|
| Hail Guard  | AXB036HGA    | 072        |



PGS072 ACCESSORIES (Cont.)

**CONCENTRIC DUCT KIT**

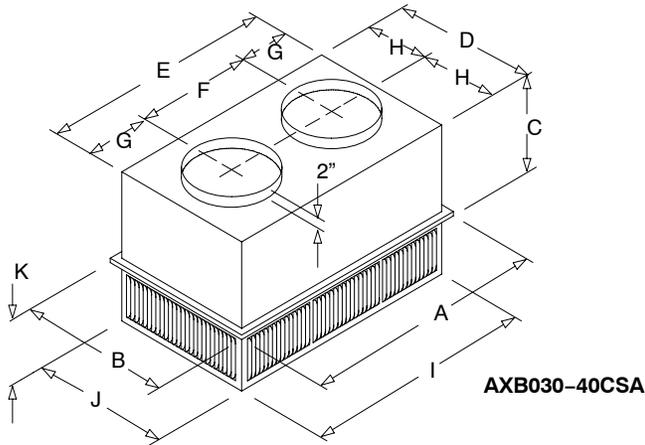
| Description | Model Number | Where Used |
|-------------|--------------|------------|
| 20" Round.  | AXB035CTA    | 072        |



**PERFORMANCE DATA ON NEXT PAGE**

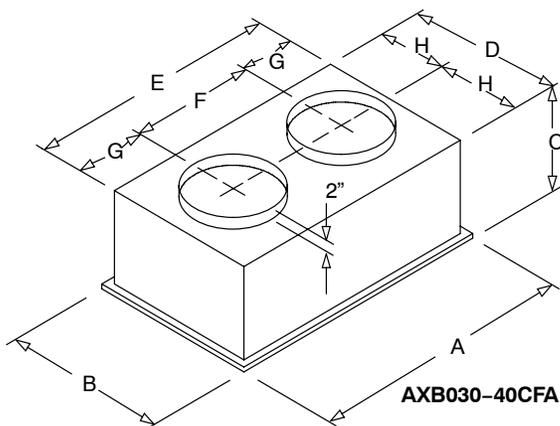
**CONCENTRIC DIFFUSER**

| Description | Model Number | Used With |
|-------------|--------------|-----------|
| Flush Mount | AXB030CFA    | 072       |
| Flush Mount | AXB040CFA    | 072       |
| Step Down   | AXB030CSA    | 072       |
| Step Down   | AXB040CSA    | 072       |



**CONCENTRIC DIFFUSER (Step Down)**

| Model Number | A      | B      | C      | D      | E      | F      | G      | H      | I      | J      | K     | Duct Size |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-----------|
| AXB030CSA    | 47-5/8 | 23-5/8 | 11-3/8 | 21-1/2 | 45-1/2 | 22-1/2 | 11-1/2 | 10-3/4 | 45-1/2 | 21-1/2 | 7-1/8 | 18" RD    |
| AXB040CSA    | 47-5/8 | 29-5/8 | 14-3/8 | 27-1/2 | 45-1/2 | 22-1/2 | 11-1/2 | 13-3/4 | 45-1/2 | 27-1/2 | 8-1/8 | 20" RD    |



**CONCENTRIC DIFFUSER (Flush Mount)**

| Model Number | A      | B      | C      | D  | E  | F      | G      | H      | Duct Size |
|--------------|--------|--------|--------|----|----|--------|--------|--------|-----------|
| AXB030CFA    | 47-5/8 | 23-5/8 | 13-1/2 | 21 | 45 | 22-1/2 | 11-1/4 | 10-1/2 | 18" RD    |
| AXB040CFA    | 47-5/8 | 29-5/8 | 16-5/8 | 27 | 45 | 22-1/2 | 11-1/4 | 13-1/2 | 20" RD    |

**PGS072 ACCESSORIES (Cont.)**

**CSA SERIES STEP-DOWN PERFORMANCE**

| Part No. AXB | CFM  | Static Pressure In. WC | Throw Feet | Neck / Jet Velocity FPM | db Sound Levels |
|--------------|------|------------------------|------------|-------------------------|-----------------|
| 030CSA       | 1200 | .17                    | 11-18      | 421                     | 20              |
|              | 1400 | .20                    | 12-19      | 491                     | 20              |
|              | 1600 | .24                    | 12-20      | 561                     | 20              |
|              | 1800 | .30                    | 13-21      | 632                     | 20              |
|              | 2000 | .36                    | 14-23      | 702                     | 20              |
|              | 2200 | .40                    | 16-25      | 772                     | 20              |
| 040CSA       | 2600 | .17                    | 24-29      | 669                     | 20              |
|              | 2800 | .20                    | 25-30      | 720                     | 25              |
|              | 3000 | .25                    | 27-33      | 772                     | 25              |
|              | 3200 | .31                    | 28-35      | 823                     | 25              |
|              | 3400 | .37                    | 30-37      | 874                     | 30              |

**CFA SERIES FLUSH MOUNT PERFORMANCE**

| Part No. AXB | CFM  | Static Pressure In. WC | Throw Feet | Neck Velocity FPM | Jet Velocity FPM | db Sound Level |
|--------------|------|------------------------|------------|-------------------|------------------|----------------|
| 030CFA       | 1000 | .14                    | 15-20      | 391               | 694              | 20             |
|              | 1200 | .17                    | 16-22      | 469               | 833              | 25             |
|              | 1400 | .20                    | 17-24      | 547               | 972              | 30             |
|              | 1600 | .24                    | 18-25      | 625               | 1111             | 30             |
|              | 1800 | .30                    | 20-28      | 703               | 1250             | 35             |
|              | 2000 | .36                    | 21-29      | 781               | 1389             | 40             |
|              | 2200 | .40                    | 22-30      | 859               | 1528             | 40             |
| 040CFA       | 2600 | .17                    | 19-24      | 663               | 1294             | 30             |
|              | 2800 | .20                    | 20-28      | 714               | 1393             | 35             |
|              | 3000 | .25                    | 21-29      | 765               | 1492             | 35             |
|              | 3200 | .31                    | 22-29      | 816               | 1592             | 40             |
|              | 3400 | .37                    | 22-30      | 867               | 1692             | 40             |

**CSA/CFA NOTES:**

1. All data is based on the Air Diffusion Council guidelines.
2. Throw data is based on Terminal Velocities of 75 FPM using isothermal air.
3. Throw is based on diffuser blades being directed in a straight pattern.
4. Actual sound levels are less than those shown.
5. Minimum height 9' above floor.

**NATURAL TO LP CONVERSION KIT**

| Model Number        | Used With |
|---------------------|-----------|
| AXB035LPA (1175706) | 072†      |

**LOW AMBIENT KIT**

| Model Number | Used With |
|--------------|-----------|
| AXB035LAA    | 072       |

**THRU-THE-BASE POWER KIT**

| Model Number | Used With |
|--------------|-----------|
| AXB035PKA    | 072       |

\* Available thru service parts only

† For high heat models

## PGS072 ACCESSORIES (Cont.)

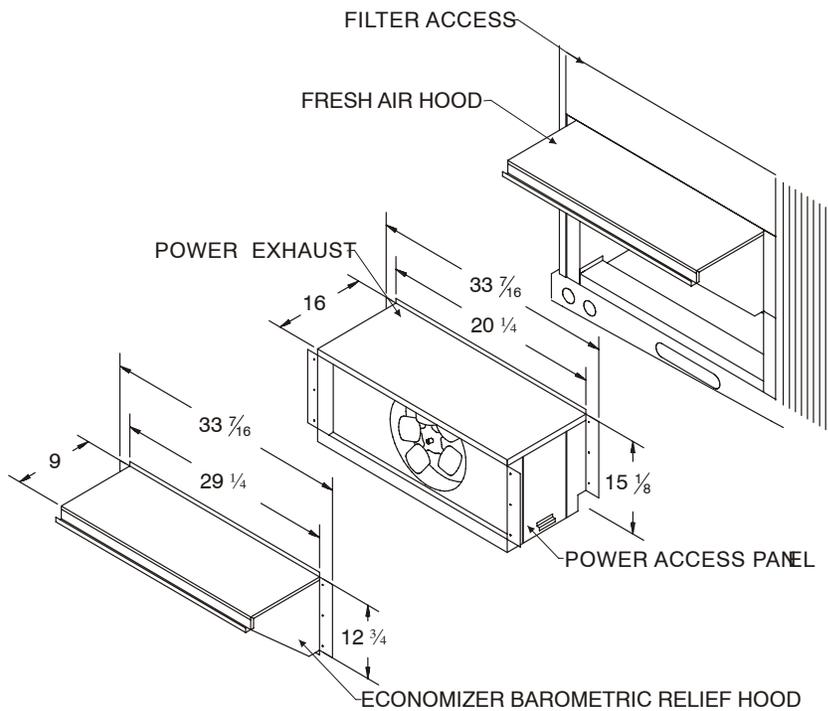
### POWER EXHAUST

| Description  | Model Number | Where Used |
|--------------|--------------|------------|
| 208/230 Volt | AXB035PEH    | 072        |
| 460 Volt     | AXB035PEL    | 072        |

### POWER EXHAUST PERFORMANCE DATA

| Model     | Volt/Phase/<br>Hertz | Motor |    |      | Unit        |      |     |     |              |      |      |      |      |
|-----------|----------------------|-------|----|------|-------------|------|-----|-----|--------------|------|------|------|------|
|           |                      | Qty   | HP | RPM  | Cir.<br>Qty | LRA  | FLA | MCA | Fuse<br>Size | @0.0 |      | @0.3 |      |
|           |                      |       |    |      |             |      |     |     |              | CFM  | RPM  | CFM  | RPM  |
| AXB035PEH | 208-230/1/60         | 1     | 1  | 1725 | 1           | 10.2 | 4.3 | 5.4 | 10           | 2400 | 1725 | 2100 | 1725 |
| AXB035PEL | 460/1/60             | 1     | 1  | 1625 | 1           | 4.1  | 1.7 | 2.2 | 4            | 2300 | 625  | 2000 | 1625 |

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

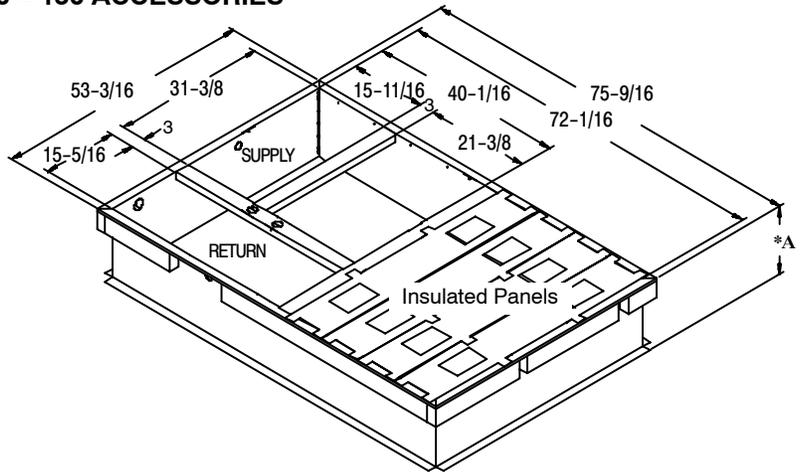


## PGS090 - 150 ACCESSORIES

### ROOF CURBS

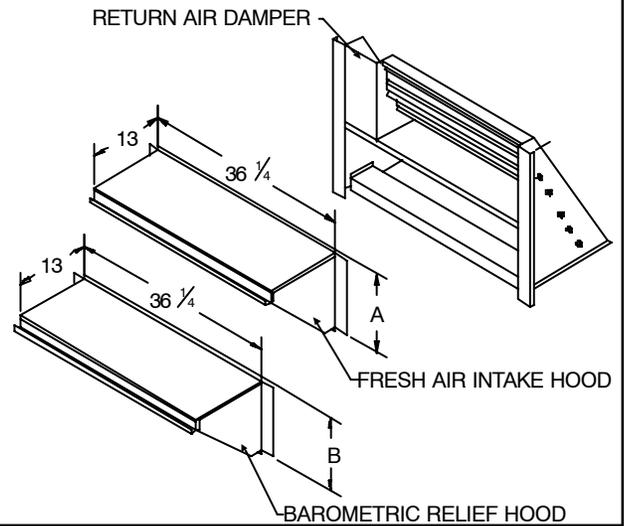
| Description | Model Number | Where Used    |
|-------------|--------------|---------------|
| 8" High *   | AXB045CLA    | 090, 120, 150 |
| 14" High *  | AXB045CMA    | 090, 120, 150 |
| 24" High *  | AXB045CHA    | 090, 120, 150 |

\* A Dimension



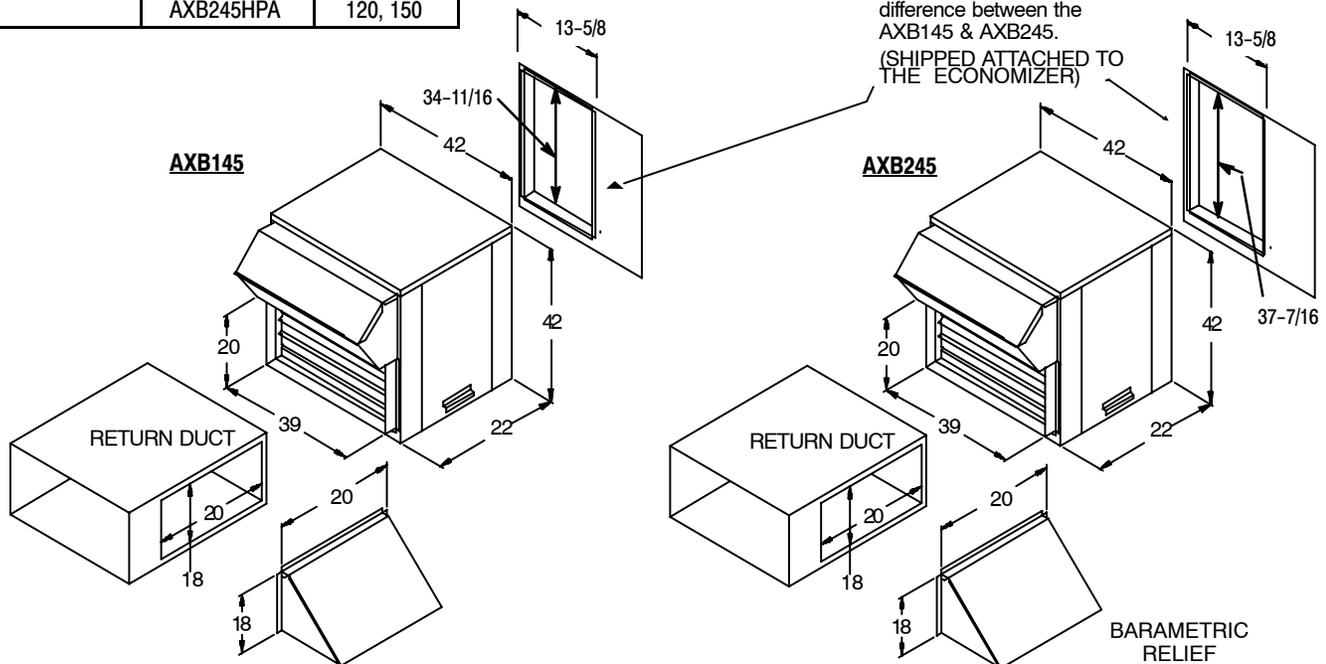
### ECONOMIZER - DOWNFLOW

| Description      | Model Number | A Dimension | B Dimension | Where Used |
|------------------|--------------|-------------|-------------|------------|
| Fully Modulating | AXB145EMA    | 13-3/4"     | 12-3/4"     | 090        |
|                  | AXB245EMA    | 16-1/2"     | 17-3/4"     | 120, 150   |
| Three Position   | AXB145EPA    | 13-3/4"     | 12-3/4"     | 090        |
|                  | AXB245EPA    | 16-1/2"     | 17-3/4"     | 120, 150   |



### ECONOMIZER - HORIZONTAL

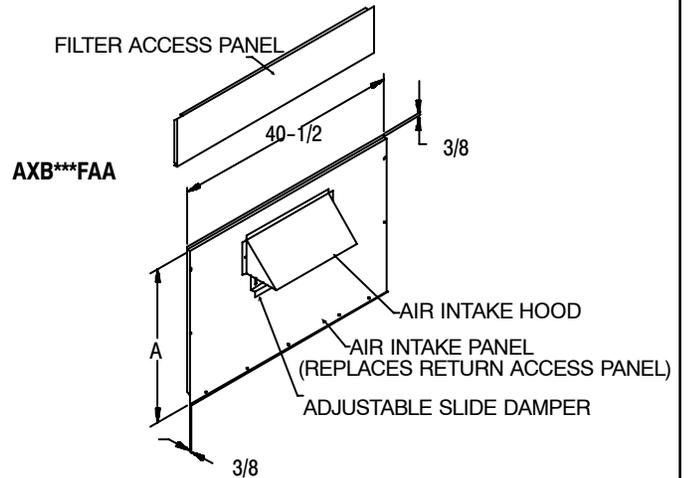
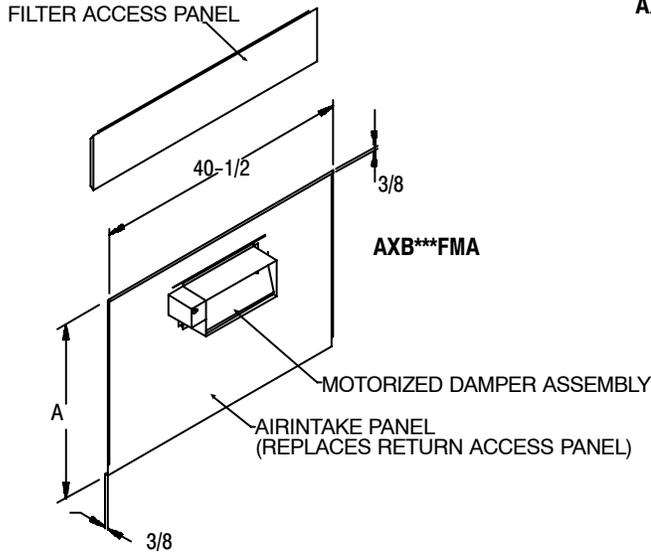
| Description      | Model Number | Where Used |
|------------------|--------------|------------|
| Fully Modulating | AXB145HEA    | 090        |
|                  | AXB245HEA    | 120, 150   |
| Three Position   | AXB145HPA    | 090        |
|                  | AXB245HPA    | 120, 150   |



PGS090 – 150 ACCESSORIES (Cont.)

**FRESH AIR DAMPER**

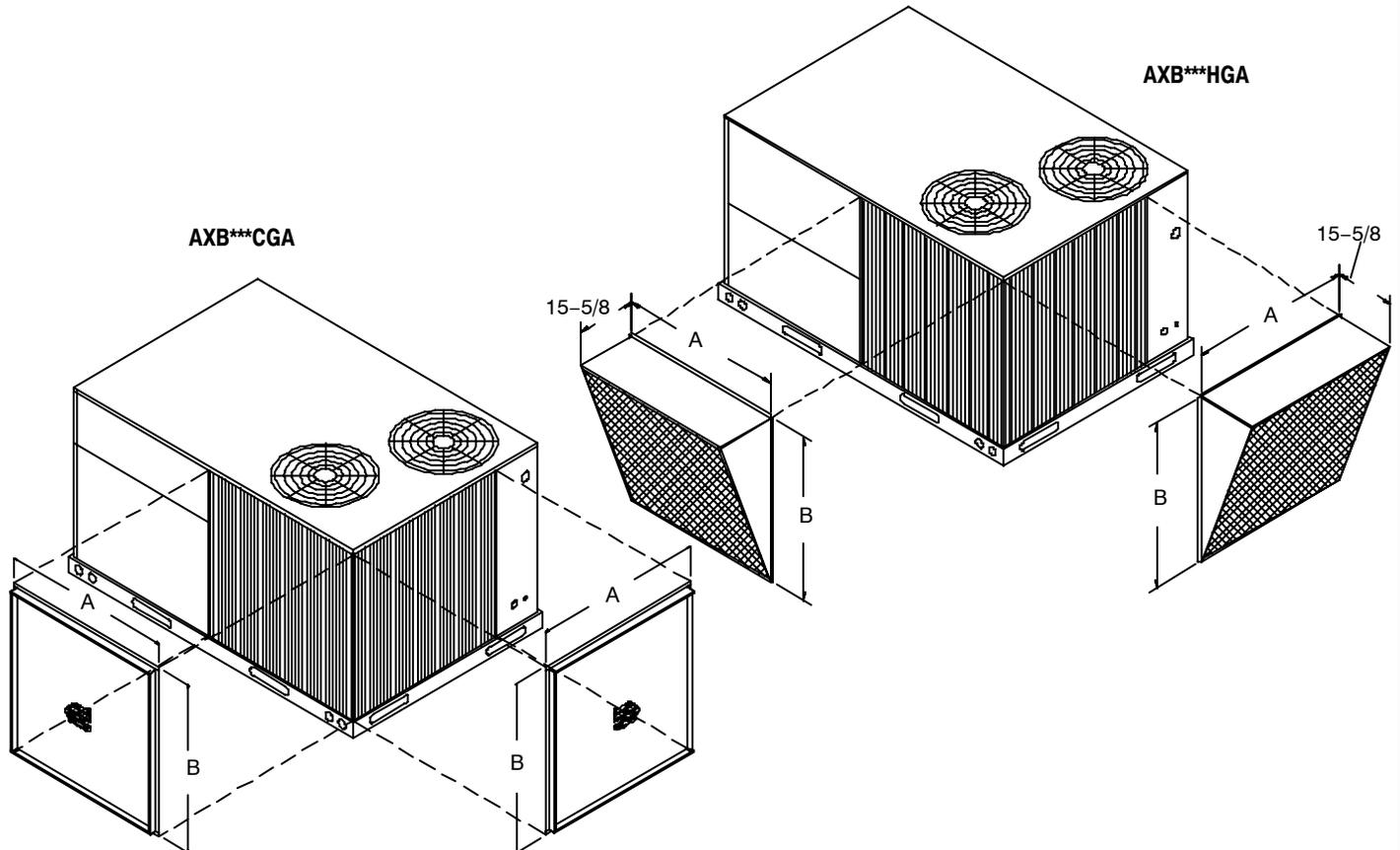
| Description | Model Number | A Dimension | Where Used |
|-------------|--------------|-------------|------------|
| Manual      | AXB145FAA    | 27-15/16    | 90, 102    |
|             | AXB245FAA    | 32-1/2      | 120, 150   |
| Motorized   | AXB145FMA    | 27-15/16    | 090        |
|             | AXB245FMA    | 32-1/2      | 120, 150   |



**COIL PROTECTION**

**DIMENSIONS**

| Description | Model Number | Where Used | A      | B  |
|-------------|--------------|------------|--------|----|
| Coil Guard  | AXB145CGA    | 090        | 44     | 37 |
|             | AXB245CGA    | 120, 150   | 45-3/8 | 45 |
| Hail Guard  | AXB145HGA    | 090        | 42     | 36 |
|             | AXB245HGA    | 120, 150   | 43-3/8 | 44 |

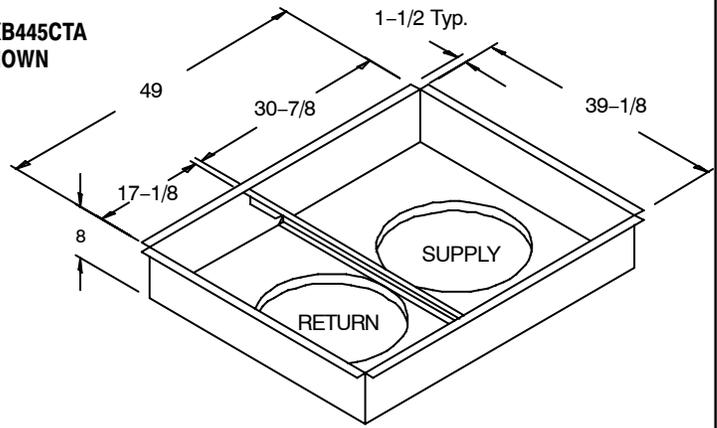


PGS090 - 150 ACCESSORIES (Cont.)

**CONCENTRIC DUCT KIT**

| Description     | Model Number | Where Used |
|-----------------|--------------|------------|
| 20" Round       | AXB445CTA    | 090        |
| 18" x 28" Rect. | AXB545CTA    | 120        |
| 18" x 32" Rect. | AXB645CTA    | 150        |

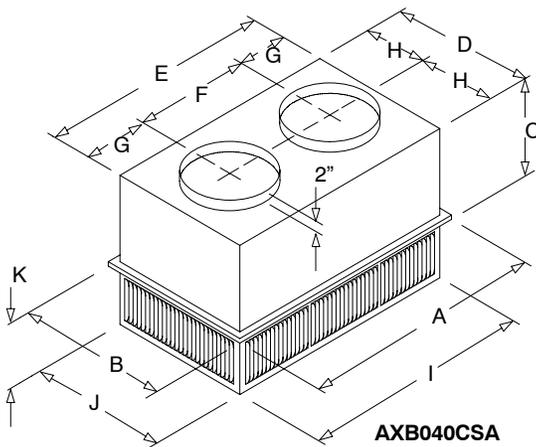
AXB445CTA  
SHOWN



**PERFORMANCE DATA ON NEXT PAGE**

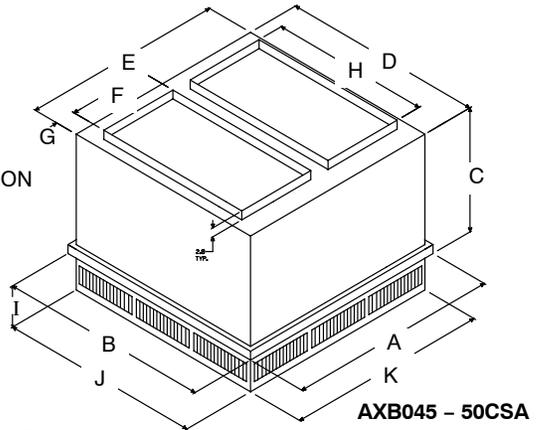
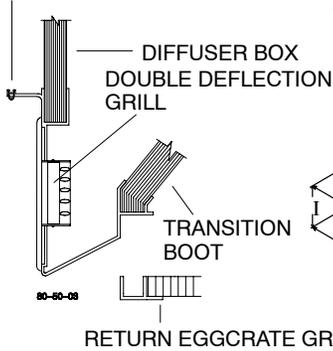
**CONCENTRIC DIFFUSER**

| Description | Model Number | Used With |
|-------------|--------------|-----------|
| Flush Mount | AXB040CFA    | AXB445CTA |
| Flush Mount | AXB045CFA    | AXB545CTA |
| Flush Mount | AXB050CFA    | AXB645CTA |
| Step Down   | AXB040CSA    | AXB445CTA |
| Step Down   | AXB045CSA    | AXB545CTA |
| Step Down   | AXB050CSA    | AXB645CTA |



AXB040CSA

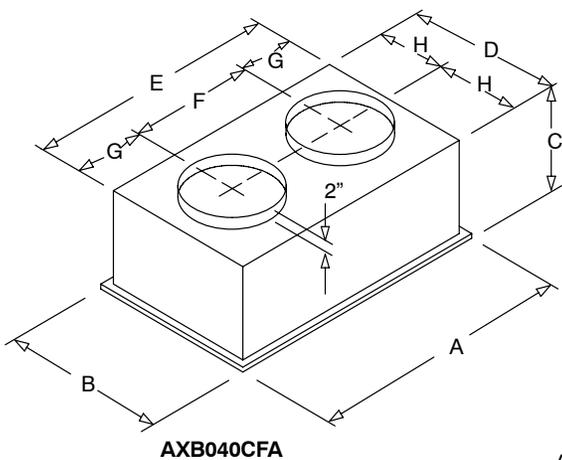
ANTI-SWEAT  
GASKET



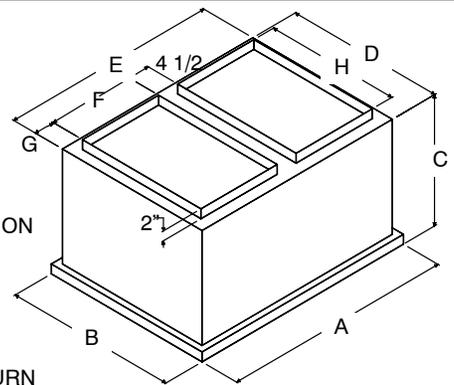
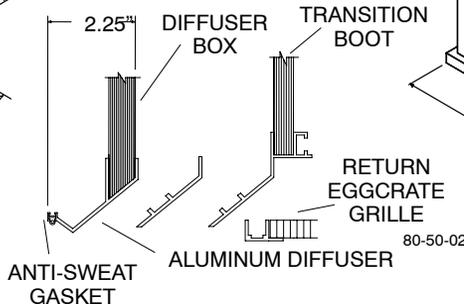
AXB045 - 50CSA

**CONCENTRIC DIFFUSER (Step Down)**

| Model Number | A      | B      | C      | D      | E      | F      | G      | H      | I      | J      | K      | Duct Size |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| AXB040CSA    | 47-5/8 | 29-3/8 | 14-3/8 | 27-1/2 | 45-1/2 | 22-1/2 | 11-1/2 | 13-3/4 | 45-1/2 | 27-1/2 | 8-1/8  | 20" RD    |
| AXB045CSA    | 47-5/8 | 35-5/8 | 20-5/8 | 33-1/2 | 45-1/2 | 18     | 2-1/2  | 28     | 9-1/8  | 33-1/2 | 45-1/2 | 18 x 28   |
| AXB050CSA    | 47-5/8 | 41-5/8 | 25-7/8 | 45-1/2 | 45-1/2 | 18     | 2-1/2  | 32     | 9-1/8  | 39-1/2 | 45-1/2 | 18 x 32   |



AXB040CFA



AXB045 - 50CFA

**CONCENTRIC DIFFUSER (Flush Mount)**

| Model Number | A      | B      | C      | D  | E  | F      | G      | H      | Duct Size |
|--------------|--------|--------|--------|----|----|--------|--------|--------|-----------|
| AXB040CFA    | 47-5/8 | 29-5/8 | 16-5/8 | 27 | 45 | 22-1/2 | 11-1/4 | 13-1/2 | 20" RD    |
| AXB045CFA    | 47-5/8 | 35-5/8 | 21-3/4 | 33 | 45 | 18     | 2-1/4  | 28     | 18 x 28   |
| AXB050CFA    | 47-5/8 | 41-5/8 | 29-1/4 | 39 | 45 | 18     | 2-1/4  | 32     | 18 x 32   |

**PGS090 – 150 ACCESSORIES (Cont.)**

| <b>CSA SERIES STEP-DOWN PERFORMANCE</b> |      |                        |            |                         |                 |
|---|------|------------------------|------------|-------------------------|-----------------|
| Part No. AXB                            | CFM  | Static Pressure In. WC | Throw Feet | Neck / Jet Velocity FPM | db Sound Levels |
| 040CSA                                  | 2600 | .17                    | 24-29      | 669                     | 20              |
|   | 2800 | .20                    | 25-30      | 720                     | 25              |
|   | 3000 | .25                    | 27-33      | 772                     | 25              |
|   | 3200 | .31                    | 28-35      | 823                     | 25              |
|   | 3400 | .37                    | 30-37      | 874                     | 30              |
| 045CSA                                  | 3600 | .17                    | 25-33      | 851                     | 30              |
|   | 3800 | .18                    | 27-35      | 898                     | 30              |
|   | 4000 | .21                    | 29-37      | 946                     | 30              |
|   | 4200 | .24                    | 32-40      | 993                     | 30              |
|   | 4400 | .27                    | 34-42      | 1040                    | 30              |
| 050CSA                                  | 4400 | .29                    | 25-30      | 733                     | 30              |
|   | 4600 | .31                    | 26-31      | 767                     | 30              |
|   | 4800 | .32                    | 27-32      | 800                     | 30              |
|   | 5000 | .34                    | 28-33      | 833                     | 30              |
|   | 5200 | .36                    | 28-34      | 867                     | 30              |
|   | 5400 | .39                    | 29-35      | 900                     | 30              |

| <b>CFA SERIES FLUSH MOUNT PERFORMANCE</b> |      |                        |            |                   |                  |                |
|---|------|------------------------|------------|-------------------|------------------|----------------|
| Part No. AXB                              | CFM  | Static Pressure In. WC | Throw Feet | Neck Velocity FPM | Jet Velocity FPM | db Sound Level |
| 040CFA                                    | 2600 | .17                    | 19-24      | 663               | 1294             | 30             |
|   | 2800 | .20                    | 20-28      | 714               | 1393             | 35             |
|   | 3000 | .25                    | 21-29      | 765               | 1492             | 35             |
|   | 3200 | .31                    | 22-29      | 816               | 1592             | 40             |
|   | 3400 | .37                    | 22-30      | 867               | 1692             | 40             |
| 045CFA                                    | 3600 | .17                    | 22-29      | 844               | 1646             | 35             |
|   | 3800 | .18                    | 22-30      | 891               | 1737             | 40             |
|   | 4000 | .21                    | 24-33      | 938               | 1829             | 40             |
|   | 4200 | .24                    | 26-35      | 985               | 1920             | 40             |
|   | 4400 | .27                    | 28-37      | 1032              | 2011             | 40             |
| 050CFA                                    | 4600 | .31                    | 25-34      | 922               | 1795             | 40             |
|   | 4800 | .32                    | 26-35      | 962               | 1873             | 40             |
|   | 5000 | .34                    | 27-36      | 1002              | 1951             | 40             |
|   | 5200 | .36                    | 30-39      | 1043              | 2029             | 45             |
|   | 5400 | .39                    | 32-41      | 1083              | 2107             | 45             |

**CSA/CFA NOTES:**

1. All data is based on the Air Diffusion Council guidelines.
2. Throw data is based on Terminal Velocities of 75 FPM using isothermal air.
3. Throw is based on diffuser blades being directed in a straight pattern.
4. Actual sound levels are less than those shown.
5. Minimum height 9' above floor.

| <b>NATURAL TO LP CONVERSION KIT</b>         |             |
|---|-------------|
| Model Number                                | Used With   |
| AXB345LPA                                   | 090 - 150 † |
| <b>LOW AMBIENT KIT</b>                      |             |
| Model Number                                | Used With   |
| AXB045LAA                                   | 090 - 150   |
| <b>THRU-THE-BASE POWER KIT</b>              |             |
| Model Number                                | Used With   |
| AXB045PKA                                   | 090 - 150   |
| With 1-1/4" Power and 3/4" Gas Connections. |             |
| † For high heat models                      |             |

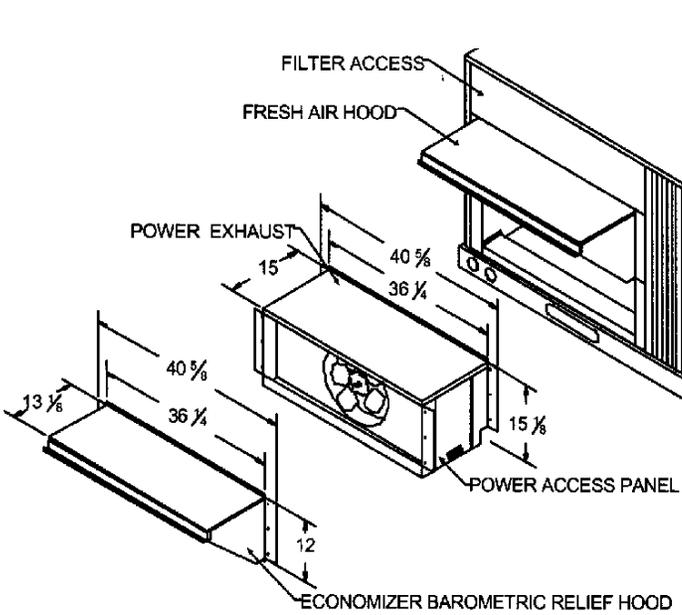
PGS090 – 150 ACCESSORIES (Cont.)

**POWER EXHAUST**

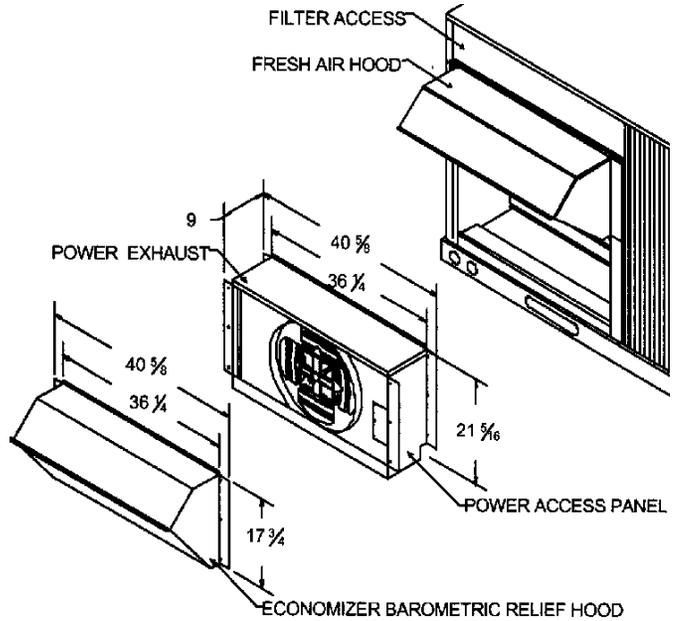
| Description  | Model Number | Where Used |
|--------------|--------------|------------|
| 208/230 Volt | AXB145PEH    | 090        |
| 460 Volt     | AXB145PEL    | 090        |
| 208/230 Volt | AXB245PEH    | 120, 150   |
| 460 Volt     | AXB245PEL    | 120, 150   |

**POWER EXHAUST PERFORMANCE DATA**

| Model     | Volt/Phase/<br>Hertz | Motor |     |      | Unit        |      |     |     |              |      |      |      |      |      |  |
|-----------|----------------------|-------|-----|------|-------------|------|-----|-----|--------------|------|------|------|------|------|--|
|           |                      | Qty   | HP  | RPM  | Cir.<br>Qty | LRA  | FLA | MCA | Fuse<br>Size | @0.0 |      | @0.1 | @0.3 |      |  |
|           |                      |       |     |      |             |      |     |     |              | CFM  | RPM  | CFM  | CFM  | RPM  |  |
| AXB145PEH | 208-230/1/60         | 1     | 1/2 | 1725 | 1           | 10.2 | 4.3 | 5.4 | 8            | 2400 | 1725 | N/A  | 2100 | 1725 |  |
| AXB145PEL | 460/1/60             | 1     | 1/2 | 1625 | 1           | 4.1  | 1.7 | 2.2 | 5            | 2300 | 1625 | N/A  | 2000 | 1625 |  |
| AXB245PEH | 208-230/1/60         | 1     | 3/4 | 1075 | 1           | 24.9 | 5.0 | 6.3 | 10           | N/A  | N/A  | 4800 | N/A  | N/A  |  |
| AXB245PEL | 460/1/60             | 1     | 3/4 | 1075 | 1           | N/A  | 2.2 | 2.8 | 5            | N/A  | N/A  | 4800 | N/A  | N/A  |  |



**POWER EXHAUST DOWNFLOW, MODEL AXB145\*\*\***



**POWER EXHAUST DOWNFLOW, MODEL AXB245\*\*\***

## CONTROLS

### OPERATING SEQUENCE

**Cooling, Units Without Economizer** When thermostat calls for cooling, terminals G and Y1 are energized. The indoor (evaporator) fan contactor (IFC), compressor contactor no. 1 (C1) and outdoor-fan contactor (OFC) are energized, and evaporator-fan motor, compressor no. 1, and both condenser fans start. The condenser-fan motors run continuously while unit is 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.

When the thermostat is satisfied, C1 and C2 are deenergized and the compressors and outdoor (condenser) fan motors (OFM) shut off. After a 30-second delay, the indoor (evaporator) fan motor (IFM) shuts off. If the thermostat fan selector switch is in the ON position, the evaporator-fan motor will run continuously.

**Heating, Units Without Economizer** When the thermostat calls for heating, terminal W1 is energized. In order 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 (IDM) is then 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 and W2 are deenergized, the IFM stops after a 45-second time-off delay.

### APPLICATION DATA

- 1. DUCTWORK** Secure vertical discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit, or field-supplied flanges can be attached to horizontal discharge openings and all ductwork attached to flanges.
- 2. THRU-THE-BOTTOM UTILITY CONNECTIONS** An accessory kit is required for proper installation of thru-the-bottom connections.
- 3. THERMOSTAT** Use of 2-stage cooling thermostat is recommended for all units.
- 4. HEATING-TO-COOLING CHANGEOVER** All units are automatic changeover from heating to cooling when automatic changeover thermostat and subbase are used.
- 5. AIRFLOW** Units are draw-thru on cooling and blow-thru on heating.
- 6. MAXIMUM AIRFLOW** To minimize the possibility of condensate blow-off from evaporator, airflow through units should not exceed 500 cfm/ton.
- 7. MINIMUM AIRFLOW** The minimum airflow for cooling is 300 cfm/ton.
- 8. MINIMUM AMBIENT COOLING OPERATION TEMPERATURE** The cooling temperature for size all units is 25°F.
- 9. MAXIMUM OPERATING OUTDOOR-AIR TEMPERATURE** For cooling, this temperature is 115°F.
- 10. HIGH ALTITUDE** A change to the gas orifice may be required at high altitudes. Refer to Altitude Compensation charts.

**11. MINIMUM TEMPERATURE** Air entering the heat exchanger in heating must be a minimum of 50°F continuous and 45°F intermittent.

**12. INTERNAL UNIT DESIGN** Due to the PGS internal unit design (draw-thru over the motor), air path, and specially designed motors, the full horsepower (maximum continuous bhp) listed in the Physical Data table and the notes following each Fan Performance table can be utilized with extreme confidence.

Using PGS motors with the values listed in the Physical and Fan Performance Data tables will not result in nuisance tripping or premature motor failure. The unit warranty will not be affected.

### GUIDE SPECIFICATIONS: PGS072-150

#### CABINET:

The cabinet shall be made of sturdy baked enamel coated galvanized steel. Base rails shall be 16 gauge steel and have fork lift slots and holes provided for lifting shackles. Unit shall be designed with convertible airflow and shipped ready for downflow applications with conversion to horizontal air flow accomplished by relocating two panels.

Return air compartments shall be insulated with not less than 1/2" of water resistant coated glass fiber and not less than 1/2" of aluminum foil faced glass fiber in the furnace/supply compartments.

#### COOLING SECTION:

Units shall be factory charged and operationally ready. Each refrigeration circuit shall have a compressor, with internal overload protection, high and low pressure switches, filter drier and copper tube/aluminum fin evaporator and condenser coils.

Units shall be capable of cooling operation down to 25°F as shipped from the factory.

#### COILS:

The evaporator and condenser coils shall be fabricated with aluminum fins mechanically bonded to copper tubing. Both coils shall be pressure tested prior to assembly into the unit and electronically leak tested after assembly onto the unit. The evaporator coil shall be protected from dust and debris on the return air side by factory installed 2" air filters.

#### CONDENSER FAN:

The unit shall have a single direct drive propeller fan/motor assembly mounted directly to a vertical-discharge grille panel that is easily removable. Motors shall have permanently lubricated sleeve bearings and inherent overload protection.

#### EVAPORATOR BLOWER:

The units shall have a single belt driven evaporator blower. The motor shall have permanently lubricated ball bearings and internal overload protection. An adjustable motor drive sheave for matching air flow requirements shall be standard.

#### HEATING SECTION:

The units shall have aluminized steel tubular heat exchangers located on the discharge side of the evaporator blower and equipped with a two-stage gas valve. The units shall have in-shot burners that are ignited by an electronic spark with flame proving feature and protected by both a limit switch and flame roll-out switch.