



## TECHNICAL GUIDE

### SINGLE PACKAGE HEAT PUMP/ELECTRIC

14 SEER – R-410A – 3 PHASE

3 THRU 5 NOMINAL TONS - 208/230V

MODELS: PHE4\*36 THRU 60



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

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#### WARRANTY SUMMARY\*

Extended 10-Years limited parts and compressor warranty

\* Extended warranty requires online registration within 90 days of purchase for replacement or closing for new home purchase. See limited warranty certificate in User's Information Manual for details.

## DESCRIPTION

These packaged cooling/heating heat pumps are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

## FEATURES

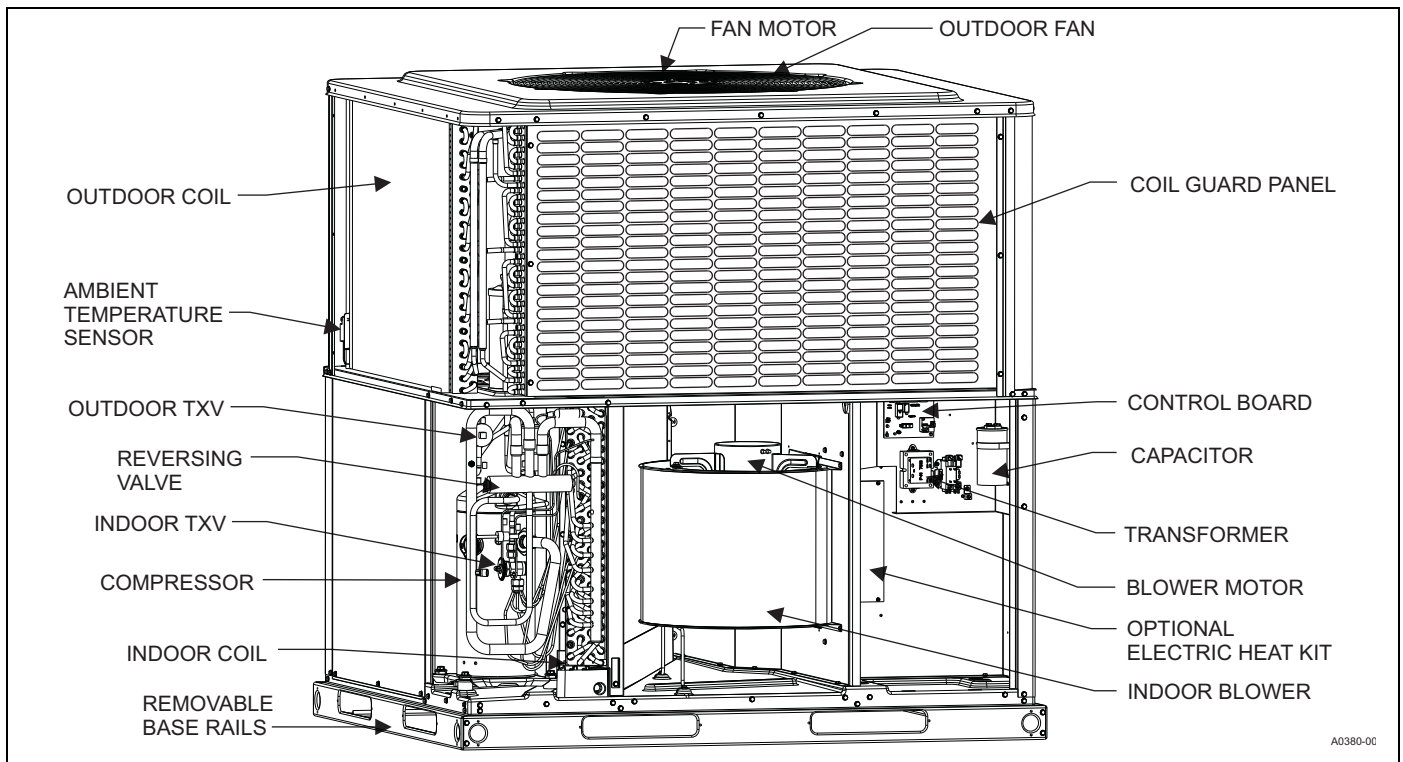
- **Operating Efficiency** - All PHE4 heat pump models are rated at 14.0 SEER, 11.0 EER and 8.0 HSPF for cooling and heating operation.
- **On Site Flexibility** - All model sizes use a compact design cabinet in one of two footprints. This provides installer flexibility for placing the proper capacity unit on curbs or pads with the smallest footprint after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility with less inventory.
- **Lower Installation Cost** - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof. All units are completely wired, charged with R-410A refrigerant and tested prior to shipment. Test stations using a state-of-the-art computerized process system are used to insure product quality. Refrigerant charge and component part numbers are verified via computers during assembly. Vital run test statistics such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties are monitored and recorded by the system to insure unit performance. Equal size side supply and return duct connections allow easy connection of ducts to match low crawl spaces without transition pieces.
- **Utility Connections Made Easy** - Electric utility access provided through the bottom or the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.
- **Convertible Airflow Design** - The bottom duct openings are covered when they leave the factory, ready to be used for a side supply/side return application. If a bottom supply/bottom return application is desired, simply remove the two panels from the bottom of the unit and place them in the side supply/side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **Condensate Pan** - A corrosion-resistant, long-lasting, water-tight pan is positioned below the indoor coil to collect and drain all condensate, preventing build-up of stagnant condensate. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4 inch NPT female connection is rigidly mounted to assure proper fit and leak tight seal.
- **Durable Finish** - The cabinet is made of G90 galvanized steel with a powder paint coating for appearance and protection. The pre-treated galvanized steel provides a better paint-to-steel bond, which resists corrosion and rust creep. Powder paint finish insure less fading when exposed to sunlight, and provides superior corrosion resistance (1000 hour salt spray tested).

Continued on next page.

- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the base rails may be removed by removing 2 screws in each corner.
- **Attractive Appearance** - A single-piece top cover containing a top-discharge outdoor fan arrangement requires less square footage on installation and provides a wider variety of installations. The one-piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance and provide cut protection to the installer
- **Top Discharge** - The top-discharge outdoor fan does not disrupt neighboring areas or dry out vegetation surrounding the unit. The warm air from the top mounted fan is blown up and away from the structure and any landscaping.
- **Outdoor Coil Grille** - All models utilize a stamped slotted design which provides superior impact protection against small objects during transit and after installation.
- **Low Operating Sound Level** - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates noise. Isolator mounted compressor and the rippled fins of the outdoor coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound attenuation with its structural design.
- **Low Maintenance** - Long life, permanently lubricated outdoor and indoor fan motor bearings need no annual maintenance, adding greater reliability to the unit. Slide-out blower assembly and indoor coil assembly can be easily removed for cleaning or service.
- **Fan System** - All models operate over a wide range of design conditions with a standard ECM indoor fan motor. These units easily match all types of applications and provide greater on-site flexibility to match comfort requirements. The cooling speed and heating speeds are factory set at test design conditions but can be field adjusted. This allows maximum comfort capabilities.
- **Simple Control Circuit** - A printed circuit board contains a status/diagnostic indicator light. Field thermostat wiring connects to color coded leads using twist on wire connections. Cooling controls use contactor and relays for simple application and troubleshooting. Mate-n-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted to allow the separate access panel to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Protected Compressor** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of scroll bypass and a temperature thermal overload sensor which protect the compressor if undesirable operating conditions occur.
- **Pressure Switches** - A high pressure switch is standard in all units. When abnormal conditions are sensed through the pressure switch, the unit will lock out preventing any further operation until reset or problem is corrected.
- **Exclusive Coil Design** - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability for long-lasting durability and efficient operation. Indoor coils will use tin-coated copper tubing with aluminum fins for effective heat transfer.
- **Electric Heat** - All electric heat models use 6HK electric heat, which are available in 208/230v/3/60 10kW to 25kW. Kits are stageable above 15 kW.
- **Easy Service Access** - Individual access panels are provided in access to all major components - compressors, indoor coils, blower, controls/electric heat kits, filters, etc. that makes servicing easy. Removing these panels allow easy removal of the components such as the blower assembly for maintenance and ease of troubleshooting.
- **Replacement Parts** - The installer requires no special training to replace any of the components of these units and the number of new components have been reduced to minimize the inventory of unique parts.
- **Controls** - Demand defrost curves pre-loaded into defrost control for optimized performance based on unit capacities.

| PHE                                                                                                                                                                                             | 4 | A | 24                                                                                             | 3 | 1 | A |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|------------------------------------------------------------------------------------------------|---|---|---|
| 1                                                                                                                                                                                               | 2 | 3 | 4                                                                                              | 6 | 8 | 9 |
| <b>1. Model Family</b><br>PHE - packaged heat pump with electric heat,<br>PCG - packaged A/C with gas heat,<br>PHG - packaged heat pump with gas heat,<br>PCE - packaged A/C with electric heat |   |   | <b>5. Gas Heating Input BTU/Hr x 1000</b><br>050 = 50,000 BTU/Hr. input, blank = electric heat |   |   |   |
| <b>2. Nominal Cooling Efficiency</b><br>4 = 14 SEER, 6 = 16 SEER, etc.                                                                                                                          |   |   | <b>6. Voltage-Phase-Frequency</b><br>2 = 208/230-1-60, 3=208/230-3-60, 4 = 460-3-60            |   |   |   |
| <b>3. Cabinet Size</b><br>A = small 35 x 51, B = large 45 x 51                                                                                                                                  |   |   | <b>7. NOx Approval</b><br>X = low-NOx, blank = not low-Nox                                     |   |   |   |
| <b>4. Nominal Air Conditioning Cooling Capacity BTUx1000</b><br>24 = 24,000 BTU, etc.                                                                                                           |   |   | <b>8. Generation Level</b><br>1 = first generation                                             |   |   |   |
| <b>Examples:</b><br>PHE4B4231A is a packaged heat pump, 14 SEER, 3-1/2 ton, large cabinet, 230 volt, three phase model, (first generation, first release).                                      |   |   | <b>9. Revision Level</b><br>A = original release, B = second release                           |   |   |   |

**COMPONENT LOCATION**



**UNIT LIMITATIONS**

| Model     | Unit Voltage | Unit Limitations |     |                 |
|-----------|--------------|------------------|-----|-----------------|
|           |              | Applied Voltage  |     | Outdoor DB Temp |
|           |              | Min              | Max | Max (°F)        |
| PHE4B3631 | 208/230-1-60 | 187              | 252 | 125             |
| PHE4B4831 | 208/230-1-60 | 187              | 252 | 125             |
| PHE4B6031 | 208/230-1-60 | 187              | 252 | 125             |

## ACCESSORIES

- **Economizer for Downflow Applications (S1-2EE04708424, S1-2EE04708524)** - Modulating integrated economizer provides simultaneous operation between mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single/dual enthalpy kits are also available.
- **Economizer for Horizontal Applications (S1-2EE04708624, S1-2EE04708724)** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are available.
- **Single/Dual Enthalpy Sensor (S1-2EC04700624)** - Sensor replaces dry bulb sensor standard in economizer kit. Provides improved economizer operation by sensing the dry bulb temperature from outdoors plus the enthalpy content of the outdoor air.
- **CO2 Sensor Kit (S1-2AQ04700824)** - Sensor kit detects CO2 levels automatically and overrides the economizer when CO2 levels rise above the preset limits.
- **Outdoor Temperature Sensor Kit (S1-2EC04700724S1-2EC04700724v)** - Additional outdoor air temperature sensor kit used with economizers.
- **Filter/Frame Kit (Kit provided) (S1-1FF0602, S1-1FF0601)** - Kit contains the necessary hardware to field install return air filters into the base unit. The filter rack is suitable for either 1" or 2" filters. (filters not supplied).
- **Motorized Fresh Air Damper (S1-2MD04705224, S1-2MD04705124)** - Designed for duct mounted side supply/return and unit mounted down supply/return applications. Damper capable of providing 0% through 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.
- **Rectangle to Round (Horizontal) Adapter (S1-1AK0110, S1-1AK0111)** - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current horizontal duct openings on the base unit. Transition is from rectangle to 12" round for the 1AK0110 kit and from rectangle to 14" round for the 1AK0111 kit.
- **Rectangle to Round (Downflow) Adapter (S1-1AK0108, S1-1AK0109)** - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit into current downflow duct openings on the roof curb. Transition is from rectangle to 16" round for the 1AK0108 kit and from rectangle to 18" round for the 1AK0109 kit.
- **Roof Curbs (S1-1RC0503, S1-1RC0501)** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. Kit also provides seal strip to assure an air tight seal. These are 8 inch high roof curbs.
- **Roof Curbs (S1-1RC0504, S1-1RC0502)** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed for assembly through hinge pins in each corner. Kit also provides seal strip to assure air tight seal. These are 14 inch high roof curbs.
- **Manual Outdoor Damper (S1-1FA0502, S1-1FA0501)** - Provides 0% through 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications and unit mounted down supply/return applications. Includes hood and screen assembly.
- **Low Ambient Kit (S1-2LA04700824)** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0° F. Standard unit operation 45° F.
- **Base Rail Hole Cover Kit (S1-1HC0101)** - Kit provides necessary hardware to close off openings in base rails to block off openings, i.e. prevent animal entrance.
- **Loss of Charge Sensor (S1-2LC00024)** - Kit provides Loss of Charge sensor and wiring to provide safe shutdown of compressor.
- **Transition Curb Kits (S1-1TC01\*)** - Adapter kits to allow field use of pre-existing installed roof curbs to match PHE4 footprint to Affinity roof curbs, Carrier, Trane, or Goodman curb footprints. Curb adapters are optional for current generation Carrier replacements but are recommended for previous generation applications. Refer to the PHE4 price pages for more details.
- **Single-Point Wiring Kits - (S1-2SPWK031 through 036)** - Kit provides terminal block, circuit breaker and wiring to allow units with electric heat to be connected to a single source of incoming power.
- **Fuse Block Kits - (S1-2FBK001, S1-2FBK002)** - Kit provides a three-pole fuse block and associated wiring to be used along with a single-point kit. The fuse block kit is used to provide circuit protection for electric heaters that do not have breakers included in the heater kit. Fuses are not included and must be field-supplied.
- **Wall Thermostat** - The units are designed to operate with standard, 24-volt electronic non power stealing and electro-mechanical thermostats. All units can operate with single stage heat/single stage cool thermostats - with or without the economizer.

\* For additional kit numbers refer to the price pages.

## GUIDE SPECIFICATIONS

### GENERAL

Units shall be manufactured by Unitary Products in an ISO 9001 certified facility. These packaged cooling/heating air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation. Heat pumps provide electric cooling and electric heating, with field installed electric heat kits from 5 kW to 25 kW for backup supplemental heating operation.

### DESCRIPTION

Units shall be factory-assembled, single packaged, Heat Pumps with Electric Cooling/Electric Heating units, designed for outdoor installation. They shall have built in, equal size, field convertible duct connections for downflow supply/return or horizontal supply/return. The units shall be factory wired, piped, and charged with R-410A Refrigerant and factory tested prior to shipment. All models shall be rated in accordance with DOE and AHRI test procedures for both heating and cooling operation. Units shall be CSA listed to the UL 1995/CAN/CSA No. 236-M90 standards.

- **Operating Efficiency** - All heat pump models shall be rated at a minimum of 14.0 SEER, 11.0 EER and 8.0 HSPF for cooling and heating operation.
- **Low Operating Sound Level** - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates noise. Isolator mounted compressor and the rippled fins of the outdoor coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound attenuation with its structural design. Sound ratings as tested under AHRI test procedures shall be less than 77 dbA for all models.

### UNIT CABINET

Unit cabinet shall be a single piece design, with drip edges and no-seam corners to provide optimum water integrity. Unit shall have a rigidly mounted outdoor coil guard to provide protection from objects and personnel after installation. Indoor blower section shall be insulated with foil-faced or foam insulation, fastened to prevent insulation from entering the air stream. Cabinet panels shall be separate, easily removable for servicing and maintenance. Unit shall be built on a formed, design base pan, with embossments at critical points to add strength and rigidity and to aid in minimizing sound. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, for fork truck access and proper sealing on roof curb applications. Base rails shall be easily removable, when required to lower unit height. Filters shall be field installed, furnished and be accessible through a removable access door, sealed airtight. Units vertical discharge and return duct configuration shall be designed to fit between standard 24" O.C. beams without modification to building structure, duct work and base unit.

- **On Site Flexibility** - All model sizes shall use a compact design cabinet in one of two footprints. This provides installer flexibility for placing the proper capacity unit on curbs or pads with the smallest footprint after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility with less inventory.

- **Durable Finish** - The cabinet shall be is made of G90 galvanized steel with a powder paint coating for appearance and protection. The pre-treated galvanized steel shall provide a better paint-to-steel bond, which resists corrosion and rust creep. Powder paint finish insure less fading when exposed to sunlight, and provides superior corrosion resistance (1000 hour salt spray tested).
- **Attractive Appearance** - A single-piece top cover containing a top-discharge outdoor fan arrangement shall be used which requires less square footage on installation and provides a wider variety of installations. The one-piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance and prevent water penetration.
- **Convertible Airflow Design** - The bottom duct openings are covered when they leave the factory, ready to be used for a side supply/side return application. If a bottom supply/bottom return application is desired, simply remove the two panels from the bottom of the unit and place them in the side supply/side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **Utility Connections Made Easy** - Electric utility access shall be provided through the bottom or the side of the unit. Utility connections should be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.
- **Easy Service Access** - Individual access panels are provided in access to all major components - compressors, indoor coils, blower, controls/electric heat kits, filters, etc. that makes servicing easy. Removing these panels allow easy removal of the components such as the blower assembly for maintenance and ease of troubleshooting.
- **Top Discharge** - The top-discharge outdoor fan does not disrupt neighboring areas or dry out vegetation surrounding the unit. The warm air from the top mounted fan is blown up and away from the structure and any landscaping.
- **Outdoor Coil Grille** - All models utilize a stamped slotted design which provides superior impact protection against small objects during transit and after installation.
- **Indoor Blower Assembly** - Blower shall be direct drive design. Blower wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Design shall use constant torque motors. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Fan assembly shall be a slide-out design for easy removal and cleaning. Indoor blower motors shall be equipped with a standard high efficiency brushless DC motor (constant torque) also known as a standard ECM motor.
- **Outdoor Fan Assembly** - The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider bracket and shall be statically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

## **REFRIGERANT COMPONENTS**

- **Protected Compressor** - The compressor shall be a fully hermetic type, direct drive compressor, that is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of operation of scroll bypass valve and a temperature thermal overload sensor which protect the compressor if undesirable operating conditions occur. The hermetic motor shall be suction gas cooled and have a voltage range of +/- 10% of the unit nameplate voltage. Compressors shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.
- **Indoor Coils** - Indoor coils shall be of the direct expansion, draw through design and have aluminum plate fins mechanically bonded to seamless internally enhanced tin-coated copper tubes with all joints brazed.
- **Condensate Pan** - A corrosion-resistant, long-lasting, water-tight pan is positioned below the indoor coil to collect and drain all condensate, preventing build-up of stagnant condensate. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4 inch NPT female connection is rigidly mounted to assure proper fit and leak tight seal.
- **Outdoor Coils** - Outdoor coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed, and be a draw through design.
- **Refrigerant Circuit and Refrigerant Safety Components shall include:** Thermal expansion devices (TXV's) shall be factory mounted and provided, Filter/strainer to eliminate any foreign matter, reversing valves to control refrigerant flow.

## **CONTROLS**

- **Simple Control Circuit** - A printed circuit board contains a status/diagnostic indicator light. Field thermostat wiring connects to color coded leads using twist on wire connections. Cooling controls use contactor and relays for simple application and troubleshooting. Mate-n-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted to allow the separate access panel to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Controls** - Demand defrost curves pre-loaded into defrost control for optimized performance based on unit capacities.
- **Pressure Switches** - A high pressure switch is standard in all units. When abnormal conditions are sensed through the pressure switch, the unit will lock out preventing any further operation until reset or problem is corrected.
- **Factory Testing** - Installation time and costs are reduced by easy power and control wiring connections. All units are completely wired, charged with refrigerant R-410A refrigerant and tested prior to shipment. Test stations using a state-of-the-art computerized process system shall be used to insure product quality. Refrigerant charge and component part numbers are verified via computer bar code scans during assembly. Vital run test statistics such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties are monitored and recorded by the system to insure unit performance. This data could be provided by serial number tracking if necessary.
- **Electric Heat** - All electric heat models use 6HK electric heat, which are available in 208/230v/3/60 10kW to 25kW. Kits are stageable above 15 kW.

**PHYSICAL DATA**

| NOMINAL TONNAGE                        | MODELS                                                                                                                                                                                                                                                                                                               |             |             |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
|                                        | B36                                                                                                                                                                                                                                                                                                                  | B48         | B60         |
|                                        | 3.0                                                                                                                                                                                                                                                                                                                  | 4.0         | 5.0         |
| <b>AHRI Cooling Performance</b>        |                                                                                                                                                                                                                                                                                                                      |             |             |
| Gross Capacity @ AHRI A point (MBH)    | 36.4                                                                                                                                                                                                                                                                                                                 | 48.2        | 59.9        |
| AHRI net capacity (MBH)                | 35.8                                                                                                                                                                                                                                                                                                                 | 47.0        | 58.0        |
| EER                                    | 11.0                                                                                                                                                                                                                                                                                                                 | 11.0        | 11.0        |
| SEER                                   | 14.0                                                                                                                                                                                                                                                                                                                 | 14.0        | 14.0        |
| Nominal CFM                            | 1200                                                                                                                                                                                                                                                                                                                 | 1600        | 1800        |
| System power (KW)                      | 2.8                                                                                                                                                                                                                                                                                                                  | 3.7         | 4.7         |
| Refrigerant type                       | R410A                                                                                                                                                                                                                                                                                                                | R410A       | R410A       |
| Refrigerant charge (lb-oz)             | 11-13                                                                                                                                                                                                                                                                                                                | 12-13       | 15-8        |
| <b>AHRI Heating Performance</b>        |                                                                                                                                                                                                                                                                                                                      |             |             |
| 47 Capacity Rating (MBH)               | 33.8                                                                                                                                                                                                                                                                                                                 | 45.5        | 56.0        |
| System Power (kW/COP)                  | 3.6                                                                                                                                                                                                                                                                                                                  | 3.7         | 3.6         |
| 17 F Capacity Rating (MBH)             | 19.6                                                                                                                                                                                                                                                                                                                 | 26.0        | 32.0        |
| HSPF (BTU/Watts-hr.)                   | 8.0                                                                                                                                                                                                                                                                                                                  | 8.0         | 8.0         |
| <b>Dimensions (inches)</b>             |                                                                                                                                                                                                                                                                                                                      |             |             |
| Length                                 | 51-1/4                                                                                                                                                                                                                                                                                                               | 51-1/4      | 51-1/4      |
| Width                                  | 45-3/4                                                                                                                                                                                                                                                                                                               | 45-3/4      | 45-3/4      |
| Height                                 | 49                                                                                                                                                                                                                                                                                                                   | 53          | 55          |
| <b>Operating WT. (lbs.)</b>            | 448                                                                                                                                                                                                                                                                                                                  | 496         | 523         |
| <b>Compressors</b>                     |                                                                                                                                                                                                                                                                                                                      |             |             |
| Type                                   | Scroll                                                                                                                                                                                                                                                                                                               | Scroll      | Scroll      |
| <b>Outdoor Coil Data</b>               |                                                                                                                                                                                                                                                                                                                      |             |             |
| Face area (Sq. Ft.)                    | 19.4                                                                                                                                                                                                                                                                                                                 | 23.8        | 25.9        |
| Rows                                   | 2                                                                                                                                                                                                                                                                                                                    | 2           | 2           |
| Fins per inch                          | 22                                                                                                                                                                                                                                                                                                                   | 22          | 22          |
| Tube diameter                          | 3/8                                                                                                                                                                                                                                                                                                                  | 3/8         | 3/8         |
| Circuitry Type                         | Interlaced                                                                                                                                                                                                                                                                                                           | Interlaced  | Interlaced  |
| Refrigerant control                    | TXV                                                                                                                                                                                                                                                                                                                  | TXV         | TXV         |
| <b>Indoor Coil Data</b>                |                                                                                                                                                                                                                                                                                                                      |             |             |
| Face area (Sq. Ft.)                    | 6.3                                                                                                                                                                                                                                                                                                                  | 6.3         | 6.3         |
| Rows                                   | 3                                                                                                                                                                                                                                                                                                                    | 3           | 4           |
| Fins per inch                          | 16                                                                                                                                                                                                                                                                                                                   | 16          | 16          |
| Tube diameter                          | 3/8                                                                                                                                                                                                                                                                                                                  | 3/8         | 3/8         |
| Circuitry Type                         | Interlaced                                                                                                                                                                                                                                                                                                           | Interlaced  | Interlaced  |
| Refrigerant control                    | TXV                                                                                                                                                                                                                                                                                                                  | TXV         | TXV         |
| <b>Outdoor Fan Data</b>                |                                                                                                                                                                                                                                                                                                                      |             |             |
| Fan diameter (Inch)                    | 26                                                                                                                                                                                                                                                                                                                   | 26          | 26          |
| Type                                   | Prop                                                                                                                                                                                                                                                                                                                 | Prop        | Prop        |
| Drive type                             | Direct                                                                                                                                                                                                                                                                                                               | Direct      | Direct      |
| No. speeds                             | 1                                                                                                                                                                                                                                                                                                                    | 1           | 1           |
| Motor HP each                          | 1/3                                                                                                                                                                                                                                                                                                                  | 1/3         | 1/3         |
| RPM                                    | 850                                                                                                                                                                                                                                                                                                                  | 850         | 850         |
| Nominal total CFM                      | 3200                                                                                                                                                                                                                                                                                                                 | 3200        | 3200        |
| <b>Direct Drive Indoor Blower Data</b> |                                                                                                                                                                                                                                                                                                                      |             |             |
| Fan Size (Inch)                        | 11 x 10                                                                                                                                                                                                                                                                                                              | 11 x 10     | 11 x 10     |
| Type                                   | Centrifugal                                                                                                                                                                                                                                                                                                          | Centrifugal | Centrifugal |
| Motor HP each                          | 1/2                                                                                                                                                                                                                                                                                                                  | 3/4         | 1           |
| RPM                                    | 1200 Max                                                                                                                                                                                                                                                                                                             | 1200 Max    | 1200 Max    |
| Frame size                             | 48                                                                                                                                                                                                                                                                                                                   | 48          | 48          |
| Quantity size                          | Field-supplied external filters must be sized so as not to exceed 300 fpm air velocity through disposable filters. For internal filter use, a filter rack kit is included with all three phase models. Consult the instructions supplied with that kit for replacement filter sizes. Filter sizes: A=20x20, B=20x30. |             |             |

| <b>COOLING PERFORMANCE DATA - 3 TON</b>           |               |                  |           |           |           |           |             |           |           |           |           |             |           |           |           |           |
|---------------------------------------------------|---------------|------------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| <b>PACKAGED UNIT MODEL NO.</b>                    |               | <b>PHE4B3631</b> |           |           |           |           |             |           |           |           |           |             |           |           |           |           |
| <b>CONDENSER<br/>ENTERING AIR<br/>TEMPERATURE</b> | <b>ID CFM</b> | <b>1000</b>      |           |           |           |           | <b>1200</b> |           |           |           |           | <b>1400</b> |           |           |           |           |
|                                                   |               | <b>80</b>        | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> | <b>80</b>   | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> | <b>80</b>   | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> |
|                                                   |               | <b>57</b>        | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> | <b>57</b>   | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> | <b>57</b>   | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> |
| <b>55 / 45</b>                                    | <b>T.C.</b>   | 40.4             | 43.9      | 43.9      | 47.3      | 46.7      | 43.3        | 45.1      | 45.4      | 47.7      | 47.3      | 46.2        | 46.2      | 46.8      | 48.2      | 47.8      |
|                                                   | <b>S.C.</b>   | 40.0             | 34.9      | 30.5      | 29.3      | 22.4      | 42.9        | 40.4      | 32.6      | 31.2      | 23.3      | 45.9        | 45.9      | 34.6      | 33.0      | 24.3      |
|                                                   | <b>K.W.</b>   | 1.97             | 1.98      | 1.98      | 1.98      | 1.98      | 2.06        | 2.07      | 2.07      | 2.07      | 2.07      | 2.16        | 2.16      | 2.16      | 2.16      | 2.16      |
| <b>65 / 55</b>                                    | <b>T.C.</b>   | 37.9             | 41.2      | 41.4      | 45.1      | 47.2      | 40.4        | 42.4      | 42.6      | 46.0      | 47.8      | 42.8        | 43.7      | 43.8      | 46.9      | 48.5      |
|                                                   | <b>S.C.</b>   | 37.9             | 33.7      | 29.1      | 28.4      | 22.3      | 40.4        | 38.1      | 32.7      | 30.6      | 23.5      | 42.8        | 42.5      | 36.4      | 32.7      | 24.7      |
|                                                   | <b>K.W.</b>   | 2.17             | 2.18      | 2.17      | 2.18      | 2.18      | 2.26        | 2.27      | 2.27      | 2.28      | 2.28      | 2.36        | 2.36      | 2.37      | 2.37      | 2.37      |
| <b>75 / 63</b>                                    | <b>T.C.</b>   | 35.4             | 38.5      | 38.9      | 42.8      | 47.6      | 37.5        | 39.8      | 39.8      | 44.2      | 48.4      | 39.5        | 41.1      | 40.7      | 45.7      | 49.1      |
|                                                   | <b>S.C.</b>   | 35.4             | 32.5      | 27.6      | 27.4      | 22.1      | 37.5        | 35.7      | 32.9      | 29.9      | 23.7      | 39.5        | 39.0      | 38.2      | 32.5      | 25.2      |
|                                                   | <b>K.W.</b>   | 2.36             | 2.39      | 2.36      | 2.39      | 2.39      | 2.46        | 2.48      | 2.47      | 2.48      | 2.48      | 2.56        | 2.57      | 2.58      | 2.58      | 2.58      |
| <b>85 / 69</b>                                    | <b>T.C.</b>   | 33.1             | 35.4      | 35.8      | 39.7      | 44.4      | 34.7        | 36.5      | 36.6      | 40.7      | 45.2      | 36.4        | 37.5      | 37.4      | 41.6      | 46.0      |
|                                                   | <b>S.C.</b>   | 33.1             | 30.8      | 26.1      | 25.9      | 20.7      | 34.7        | 34.0      | 30.0      | 28.2      | 22.3      | 36.4        | 37.1      | 33.9      | 30.6      | 23.9      |
|                                                   | <b>K.W.</b>   | 2.63             | 2.65      | 2.63      | 2.65      | 2.65      | 2.72        | 2.74      | 2.73      | 2.74      | 2.74      | 2.81        | 2.83      | 2.83      | 2.83      | 2.83      |
| <b>95 / 75</b>                                    | <b>T.C.</b>   | 30.7             | 32.2      | 32.7      | 36.6      | 41.1      | 32.0        | 33.1      | 33.4      | 37.1      | 42.1      | 33.4        | 33.9      | 34.1      | 37.6      | 43.0      |
|                                                   | <b>S.C.</b>   | 30.7             | 29.1      | 24.6      | 24.3      | 19.4      | 32.0        | 32.2      | 27.1      | 26.5      | 21.0      | 33.4        | 33.9      | 29.6      | 28.7      | 22.6      |
|                                                   | <b>K.W.</b>   | 2.89             | 2.91      | 2.89      | 2.91      | 2.91      | 2.98        | 3.00      | 2.98      | 3.00      | 3.00      | 3.07        | 3.09      | 3.08      | 3.09      | 3.09      |
| <b>105 / 83</b>                                   | <b>T.C.</b>   | 27.8             | 28.4      | 28.7      | 32.2      | 36.6      | 28.8        | 29.1      | 29.0      | 32.3      | 37.1      | 29.8        | 29.7      | 29.3      | 32.5      | 37.5      |
|                                                   | <b>S.C.</b>   | 27.8             | 26.7      | 22.7      | 22.5      | 17.6      | 28.8        | 28.8      | 24.6      | 24.6      | 19.0      | 29.8        | 29.7      | 26.5      | 26.8      | 20.5      |
|                                                   | <b>K.W.</b>   | 3.26             | 3.28      | 3.27      | 3.28      | 3.28      | 3.35        | 3.37      | 3.36      | 3.37      | 3.37      | 3.44        | 3.46      | 3.45      | 3.46      | 3.46      |
| <b>115 / 89</b>                                   | <b>T.C.</b>   | 25.1             | 24.8      | 24.9      | 27.9      | 32.3      | 25.7        | 25.2      | 24.7      | 27.7      | 32.2      | 26.4        | 25.6      | 24.5      | 27.4      | 32.1      |
|                                                   | <b>S.C.</b>   | 25.1             | 24.3      | 20.9      | 20.7      | 15.8      | 25.7        | 25.2      | 22.2      | 22.8      | 17.1      | 26.4        | 25.6      | 23.6      | 24.9      | 18.5      |
|                                                   | <b>K.W.</b>   | 3.63             | 3.64      | 3.63      | 3.63      | 3.64      | 3.72        | 3.73      | 3.73      | 3.72      | 3.73      | 3.81        | 3.82      | 3.82      | 3.81      | 3.82      |
| <b>125 / 95</b>                                   | <b>T.C.</b>   | 22.3             | 21.1      | 21.1      | 23.7      | 27.9      | 22.6        | 21.3      | 20.5      | 23.0      | 27.3      | 22.9        | 21.5      | 19.8      | 22.4      | 26.8      |
|                                                   | <b>S.C.</b>   | 22.3             | 21.1      | 19.0      | 18.9      | 14.1      | 22.6        | 21.3      | 19.8      | 21.0      | 15.3      | 22.9        | 21.5      | 19.8      | 22.4      | 16.4      |
|                                                   | <b>K.W.</b>   | 3.99             | 4.00      | 4.00      | 3.99      | 4.00      | 4.08        | 4.09      | 4.09      | 4.08      | 4.09      | 4.17        | 4.18      | 4.18      | 4.17      | 4.18      |

| <b>COOLING PERFORMANCE DATA - 4 TON</b>           |               |                  |           |           |           |           |             |           |           |           |           |             |           |           |           |           |
|---------------------------------------------------|---------------|------------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| <b>PACKAGED UNIT MODEL NO.</b>                    |               | <b>PHE4B4831</b> |           |           |           |           |             |           |           |           |           |             |           |           |           |           |
| <b>CONDENSER<br/>ENTERING AIR<br/>TEMPERATURE</b> | <b>ID CFM</b> | <b>1400</b>      |           |           |           |           | <b>1600</b> |           |           |           |           | <b>1800</b> |           |           |           |           |
|                                                   |               | <b>80</b>        | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> | <b>80</b>   | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> | <b>80</b>   | <b>80</b> | <b>75</b> | <b>80</b> | <b>80</b> |
|                                                   |               | <b>57</b>        | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> | <b>57</b>   | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> | <b>57</b>   | <b>62</b> | <b>62</b> | <b>67</b> | <b>72</b> |
| <b>55 / 45</b>                                    | <b>T.C.</b>   | 48.0             | 51.3      | 52.4      | 56.5      | 64.4      | 50.6        | 53.7      | 54.5      | 60.0      | 66.5      | 53.1        | 56.1      | 56.7      | 63.6      | 68.5      |
|                                                   | <b>S.C.</b>   | 48.0             | 44.1      | 37.9      | 40.8      | 33.6      | 50.6        | 47.6      | 40.5      | 42.6      | 35.0      | 53.1        | 51.0      | 43.2      | 44.3      | 36.4      |
|                                                   | <b>K.W.</b>   | 2.63             | 2.64      | 2.63      | 2.66      | 2.70      | 2.77        | 2.77      | 2.77      | 2.80      | 2.82      | 2.91        | 2.90      | 2.90      | 2.93      | 2.95      |
| <b>65 / 55</b>                                    | <b>T.C.</b>   | 45.0             | 48.1      | 48.9      | 54.0      | 60.8      | 47.3        | 50.1      | 50.9      | 56.8      | 62.7      | 49.7        | 52.0      | 53.0      | 59.5      | 64.7      |
|                                                   | <b>S.C.</b>   | 45.0             | 41.5      | 35.6      | 37.5      | 31.0      | 47.3        | 44.8      | 38.1      | 39.6      | 32.6      | 49.7        | 48.0      | 40.6      | 41.7      | 34.2      |
|                                                   | <b>K.W.</b>   | 2.90             | 2.92      | 2.90      | 2.94      | 2.96      | 3.03        | 3.05      | 3.03      | 3.07      | 3.09      | 3.17        | 3.17      | 3.16      | 3.21      | 3.22      |
| <b>75 / 63</b>                                    | <b>T.C.</b>   | 42.0             | 44.9      | 45.4      | 51.6      | 57.2      | 44.1        | 46.4      | 47.3      | 53.5      | 59.0      | 46.2        | 47.9      | 49.3      | 55.4      | 60.8      |
|                                                   | <b>S.C.</b>   | 42.0             | 38.9      | 33.3      | 34.2      | 28.4      | 44.1        | 41.9      | 35.7      | 36.6      | 30.1      | 46.2        | 45.0      | 38.0      | 39.0      | 31.9      |
|                                                   | <b>K.W.</b>   | 3.16             | 3.21      | 3.16      | 3.22      | 3.22      | 3.30        | 3.32      | 3.30      | 3.35      | 3.35      | 3.43        | 3.44      | 3.43      | 3.48      | 3.49      |
| <b>85 / 69</b>                                    | <b>T.C.</b>   | 39.3             | 41.4      | 41.9      | 48.2      | 53.7      | 41.1        | 42.8      | 43.5      | 49.9      | 55.3      | 42.9        | 44.1      | 45.2      | 51.7      | 56.8      |
|                                                   | <b>S.C.</b>   | 39.3             | 36.4      | 31.0      | 32.0      | 26.1      | 41.1        | 39.4      | 33.2      | 34.3      | 27.7      | 42.9        | 42.4      | 35.5      | 36.6      | 29.4      |
|                                                   | <b>K.W.</b>   | 3.53             | 3.56      | 3.52      | 3.57      | 3.58      | 3.66        | 3.68      | 3.65      | 3.70      | 3.72      | 3.79        | 3.81      | 3.79      | 3.84      | 3.85      |
| <b>95 / 75</b>                                    | <b>T.C.</b>   | 36.6             | 37.9      | 38.5      | 44.8      | 50.1      | 38.1        | 39.1      | 39.7      | 46.4      | 51.5      | 39.7        | 40.4      | 41.0      | 48.0      | 52.9      |
|                                                   | <b>S.C.</b>   | 36.6             | 34.0      | 28.6      | 29.8      | 23.8      | 38.1        | 36.9      | 30.8      | 32.0      | 25.3      | 39.7        | 39.8      | 33.0      | 34.2      | 26.9      |
|                                                   | <b>K.W.</b>   | 3.91             | 3.91      | 3.87      | 3.93      | 3.95      | 4.03        | 4.04      | 4.01      | 4.06      | 4.08      | 4.16        | 4.17      | 4.15      | 4.19      | 4.20      |
| <b>105 / 83</b>                                   | <b>T.C.</b>   | 33.2             | 34.2      | 34.7      | 41.0      | 46.0      | 34.4        | 35.4      | 35.9      | 42.2      | 47.3      | 35.7        | 36.5      | 37.0      | 43.4      | 48.6      |
|                                                   | <b>S.C.</b>   | 33.2             | 32.3      | 26.9      | 27.7      | 21.9      | 34.4        | 34.8      | 28.9      | 29.7      | 23.4      | 35.7        | 36.5      | 31.0      | 31.7      | 24.9      |
|                                                   | <b>K.W.</b>   | 4.40             | 4.40      | 4.38      | 4.43      | 4.44      | 4.53        | 4.53      | 4.51      | 4.56      | 4.57      | 4.66        | 4.66      | 4.64      | 4.69      | 4.70      |
| <b>115 / 89</b>                                   | <b>T.C.</b>   | 29.9             | 30.7      | 31.1      | 37.3      | 42.1      | 30.8        | 31.7      | 32.1      | 38.1      | 43.3      | 31.8        | 32.8      | 33.1      | 38.9      | 44.4      |
|                                                   | <b>S.C.</b>   | 29.9             | 30.6      | 25.2      | 25.6      | 20.1      | 30.8        | 31.7      | 27.1      | 27.5      | 21.5      | 31.8        | 32.8      | 29.0      | 29.4      | 22.9      |
|                                                   | <b>K.W.</b>   | 4.89             | 4.89      | 4.87      | 4.91      | 4.92      | 5.02        | 5.01      | 5.00      | 5.04      | 5.05      | 5.15        | 5.14      | 5.12      | 5.17      | 5.18      |
| <b>125 / 95</b>                                   | <b>T.C.</b>   | 26.5             | 27.1      | 27.5      | 33.6      | 38.2      | 27.2        | 28.1      | 28.3      | 34.0      | 39.2      | 27.9        | 29.0      | 29.1      | 34.4      | 40.3      |
|                                                   | <b>S.C.</b>   | 26.5             | 27.1      | 23.5      | 23.6      | 18.3      | 27.2        | 28.1      | 25.2      | 25.3      | 19.7      | 27.9        | 29.0      | 27.0      | 27.1      | 21.0      |
|                                                   | <b>K.W.</b>   | 5.37             | 5.37      | 5.36      | 5.39      | 5.40      | 5.50        | 5.49      | 5.48      | 5.52      | 5.53      | 5.64        | 5.62      | 5.60      | 5.65      | 5.66      |

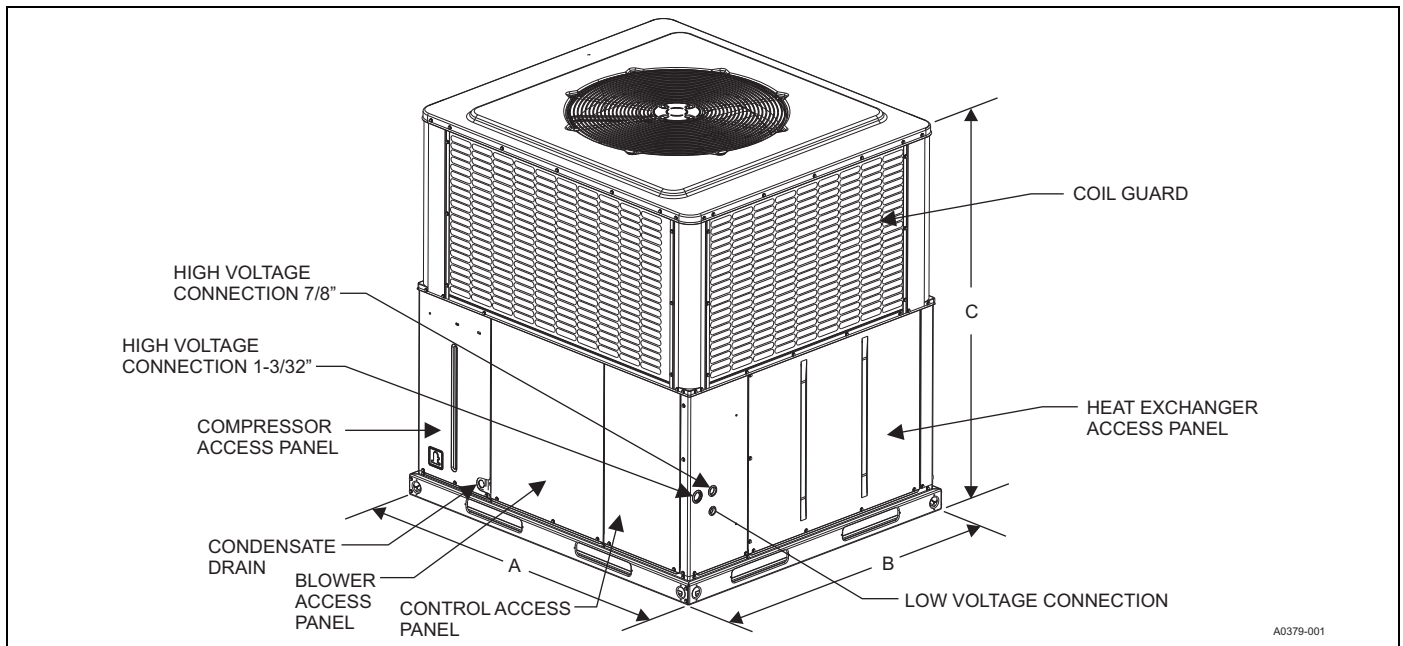


| <b>COOLING PERFORMANCE DATA - 5 TON</b>  |        |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------------------------------------|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PACKAGED UNIT MODEL NO.                  |        | PHE4B6031 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| CONDENSER<br>ENTERING AIR<br>TEMPERATURE | ID CFM | 1600      |      |      |      |      | 1800 |      |      |      |      | 2000 |      |      |      |      |
|                                          |        | 80        | 80   | 75   | 80   | 80   | 80   | 80   | 75   | 80   | 80   | 80   | 80   | 75   | 80   | 80   |
|                                          |        | IDWB      | 57   | 62   | 62   | 67   | 72   | 57   | 62   | 62   | 67   | 72   | 57   | 62   | 62   | 67   |
| 55 / 45                                  | T.C.   | 61.5      | 74.6 | 68.4 | 68.6 | 81.4 | 65.3 | 74.6 | 70.4 | 70.6 | 80.6 | 69.1 | 74.7 | 72.3 | 72.6 | 79.7 |
|                                          | S.C.   | 61.5      | 46.4 | 47.0 | 55.3 | 37.3 | 65.3 | 49.2 | 50.6 | 60.0 | 38.1 | 69.1 | 52.1 | 54.2 | 64.6 | 38.9 |
|                                          | K.W.   | 3.37      | 3.44 | 3.40 | 3.41 | 3.45 | 3.54 | 3.59 | 3.56 | 3.57 | 3.61 | 3.72 | 3.74 | 3.72 | 3.73 | 3.76 |
| 65 / 55                                  | T.C.   | 58.9      | 66.6 | 64.2 | 67.4 | 77.8 | 62.3 | 64.4 | 65.8 | 69.2 | 78.2 | 65.6 | 62.1 | 67.4 | 71.1 | 78.5 |
|                                          | S.C.   | 58.9      | 48.4 | 45.0 | 49.0 | 36.9 | 62.3 | 48.6 | 48.5 | 53.0 | 37.8 | 65.6 | 48.7 | 52.0 | 57.1 | 38.8 |
|                                          | K.W.   | 3.69      | 3.75 | 3.74 | 3.77 | 3.82 | 3.87 | 4.06 | 3.90 | 3.93 | 3.98 | 4.05 | 4.37 | 4.06 | 4.10 | 4.14 |
| 75 / 63                                  | T.C.   | 56.3      | 58.7 | 60.0 | 66.2 | 74.3 | 59.2 | 54.1 | 61.2 | 67.8 | 75.8 | 62.1 | 49.5 | 62.5 | 69.5 | 77.3 |
|                                          | S.C.   | 56.3      | 50.4 | 42.9 | 42.6 | 36.5 | 59.2 | 47.9 | 46.4 | 46.1 | 37.6 | 62.1 | 45.4 | 49.8 | 49.5 | 38.7 |
|                                          | K.W.   | 4.01      | 4.06 | 4.09 | 4.14 | 4.18 | 4.20 | 4.53 | 4.25 | 4.30 | 4.35 | 4.39 | 5.01 | 4.41 | 4.47 | 4.52 |
| 85 / 69                                  | T.C.   | 52.5      | 54.1 | 55.0 | 61.5 | 69.1 | 55.1 | 52.4 | 56.2 | 62.7 | 70.5 | 57.8 | 50.6 | 57.4 | 63.9 | 72.0 |
|                                          | S.C.   | 52.5      | 47.9 | 40.8 | 40.5 | 33.4 | 55.1 | 48.3 | 44.1 | 43.8 | 34.8 | 57.8 | 48.6 | 47.3 | 47.1 | 36.2 |
|                                          | K.W.   | 4.49      | 4.53 | 4.54 | 4.60 | 4.64 | 4.67 | 4.85 | 4.70 | 4.76 | 4.81 | 4.85 | 5.17 | 4.87 | 4.93 | 4.97 |
| 95 / 75                                  | T.C.   | 48.6      | 49.5 | 50.0 | 56.7 | 63.8 | 51.1 | 50.6 | 51.2 | 57.5 | 65.3 | 53.5 | 51.7 | 52.4 | 58.3 | 66.7 |
|                                          | S.C.   | 48.6      | 45.4 | 38.8 | 38.4 | 30.2 | 51.1 | 48.6 | 41.8 | 41.6 | 32.0 | 53.5 | 51.7 | 44.8 | 44.8 | 33.8 |
|                                          | K.W.   | 4.97      | 5.01 | 4.99 | 5.05 | 5.10 | 5.14 | 5.17 | 5.15 | 5.22 | 5.26 | 5.31 | 5.33 | 5.32 | 5.39 | 5.42 |
| 105 / 83                                 | T.C.   | 44.5      | 44.3 | 44.1 | 50.1 | 57.4 | 46.5 | 45.1 | 44.7 | 50.2 | 58.2 | 48.6 | 46.0 | 45.4 | 50.3 | 59.1 |
|                                          | S.C.   | 44.5      | 41.6 | 35.9 | 36.5 | 27.7 | 46.5 | 43.9 | 38.2 | 39.0 | 29.4 | 48.6 | 46.0 | 40.4 | 41.4 | 31.1 |
|                                          | K.W.   | 5.66      | 5.68 | 5.66 | 5.71 | 5.75 | 5.83 | 5.84 | 5.82 | 5.88 | 5.91 | 5.99 | 6.00 | 5.99 | 6.04 | 6.07 |
| 115 / 89                                 | T.C.   | 40.5      | 39.2 | 38.4 | 43.6 | 51.1 | 42.1 | 39.9 | 38.5 | 43.0 | 51.4 | 43.8 | 40.5 | 38.6 | 42.5 | 51.7 |
|                                          | S.C.   | 40.5      | 37.9 | 33.2 | 34.6 | 25.2 | 42.1 | 39.3 | 34.7 | 36.4 | 26.9 | 43.8 | 40.5 | 36.2 | 38.1 | 28.5 |
|                                          | K.W.   | 6.33      | 6.34 | 6.31 | 6.35 | 6.39 | 6.49 | 6.50 | 6.47 | 6.52 | 6.55 | 6.66 | 6.66 | 6.63 | 6.68 | 6.71 |
| 125 / 95                                 | T.C.   | 36.5      | 34.1 | 32.7 | 37.1 | 44.9 | 37.7 | 34.6 | 32.3 | 35.9 | 44.6 | 39.0 | 35.0 | 31.8 | 34.8 | 44.3 |
|                                          | S.C.   | 36.5      | 34.1 | 30.4 | 32.8 | 22.8 | 37.7 | 34.6 | 31.2 | 33.8 | 24.4 | 39.0 | 35.0 | 31.8 | 34.8 | 25.9 |
|                                          | K.W.   | 7.00      | 6.99 | 6.97 | 6.99 | 7.02 | 7.16 | 7.15 | 7.12 | 7.16 | 7.18 | 7.32 | 7.31 | 7.28 | 7.32 | 7.34 |

| <b>HEATING PERFORMANCE DATA - 3 TON</b> |                                      |           |      |      |      |      |      |      |      |      |  |
|-----------------------------------------|--------------------------------------|-----------|------|------|------|------|------|------|------|------|--|
| PACKAGED UNIT MODEL NO.                 |                                      | PHE4B3631 |      |      |      |      |      |      |      |      |  |
| AIR TEMP.<br>ENTERING<br>OUTDOOR COIL   | AIR TEMP.<br>ENTERING<br>INDOOR COIL | ID CFM    |      |      |      |      |      |      |      |      |  |
|                                         |                                      | 1000      |      |      | 1200 |      |      | 1400 |      |      |  |
|                                         |                                      | MBH       | COP  | KW   | MBH  | COP  | KW   | MBH  | COP  | KW   |  |
| 60                                      | 60                                   | 41.6      | 4.67 | 2.60 | 42.7 | 4.87 | 2.56 | 43.8 | 5.08 | 2.52 |  |
|                                         | 70                                   | 39.9      | 4.08 | 2.86 | 40.9 | 4.25 | 2.81 | 41.9 | 4.42 | 2.77 |  |
|                                         | 80                                   | 38.2      | 3.58 | 3.11 | 39.1 | 3.73 | 3.06 | 40.0 | 3.88 | 3.01 |  |
| 47                                      | 60                                   | 35.3      | 4.14 | 2.49 | 35.8 | 4.23 | 2.47 | 36.3 | 4.33 | 2.45 |  |
|                                         | 70                                   | 33.8      | 3.59 | 2.75 | 34.2 | 3.67 | 2.72 | 34.7 | 3.76 | 2.69 |  |
|                                         | 80                                   | 32.3      | 3.13 | 3.01 | 32.7 | 3.21 | 2.97 | 33.0 | 3.29 | 2.93 |  |
| 40                                      | 60                                   | 31.5      | 3.76 | 2.45 | 32.0 | 3.83 | 2.44 | 32.4 | 3.90 | 2.42 |  |
|                                         | 70                                   | 30.1      | 3.26 | 2.70 | 30.5 | 3.33 | 2.68 | 31.0 | 3.40 | 2.66 |  |
|                                         | 80                                   | 28.7      | 2.84 | 2.95 | 29.1 | 2.91 | 2.92 | 29.5 | 2.97 | 2.90 |  |
| 30                                      | 60                                   | 26.8      | 3.29 | 2.38 | 27.0 | 3.31 | 2.38 | 27.2 | 3.33 | 2.39 |  |
|                                         | 70                                   | 25.3      | 2.82 | 2.62 | 25.6 | 2.85 | 2.62 | 25.8 | 2.88 | 2.62 |  |
|                                         | 80                                   | 23.9      | 2.43 | 2.87 | 24.1 | 2.47 | 2.86 | 24.4 | 2.50 | 2.84 |  |
| 17                                      | 60                                   | 20.1      | 2.54 | 2.31 | 20.3 | 2.54 | 2.33 | 20.4 | 2.54 | 2.35 |  |
|                                         | 70                                   | 18.7      | 2.16 | 2.52 | 18.4 | 2.11 | 2.54 | 18.0 | 2.06 | 2.56 |  |
|                                         | 80                                   | 17.3      | 1.84 | 2.74 | 16.5 | 1.75 | 2.76 | 15.7 | 1.65 | 2.77 |  |
| 10                                      | 60                                   | 17.6      | 2.28 | 2.25 | 17.6 | 2.26 | 2.28 | 17.7 | 2.23 | 2.31 |  |
|                                         | 70                                   | 16.1      | 1.90 | 2.48 | 16.3 | 1.89 | 2.50 | 16.4 | 1.89 | 2.52 |  |
|                                         | 80                                   | 14.7      | 1.59 | 2.70 | 14.9 | 1.59 | 2.72 | 15.0 | 1.60 | 2.74 |  |

| HEATING PERFORMANCE DATA - 4 TON      |                                      |           |      |      |      |      |      |      |      |      |
|---------------------------------------|--------------------------------------|-----------|------|------|------|------|------|------|------|------|
| PACKAGED UNIT MODEL NO.               |                                      | PHE4B4831 |      |      |      |      |      |      |      |      |
| AIR TEMP.<br>ENTERING<br>OUTDOOR COIL | AIR TEMP.<br>ENTERING<br>INDOOR COIL | ID CFM    |      |      |      |      |      |      |      |      |
|                                       |                                      | 1400      |      |      | 1600 |      |      | 1800 |      |      |
|                                       |                                      | MBH       | COP  | KW   | MBH  | COP  | KW   | MBH  | COP  | KW   |
| 60                                    | 60                                   | 56.5      | 4.87 | 3.39 | 57.8 | 4.95 | 3.41 | 59.0 | 5.03 | 3.43 |
|                                       | 70                                   | 54.9      | 4.29 | 3.74 | 56.0 | 4.37 | 3.74 | 57.0 | 4.46 | 3.74 |
|                                       | 80                                   | 53.3      | 3.80 | 4.09 | 54.2 | 3.89 | 4.07 | 55.1 | 3.98 | 4.05 |
| 47                                    | 60                                   | 48.4      | 4.33 | 3.27 | 49.2 | 4.37 | 3.29 | 49.9 | 4.42 | 3.30 |
|                                       | 70                                   | 46.7      | 3.77 | 3.62 | 47.4 | 3.82 | 3.62 | 48.1 | 3.87 | 3.63 |
|                                       | 80                                   | 45.0      | 3.32 | 3.97 | 45.6 | 3.36 | 3.96 | 46.2 | 3.41 | 3.95 |
| 40                                    | 60                                   | 43.3      | 3.94 | 3.21 | 43.8 | 3.96 | 3.23 | 44.3 | 3.98 | 3.25 |
|                                       | 70                                   | 40.5      | 3.36 | 3.52 | 41.7 | 3.44 | 3.55 | 42.9 | 3.51 | 3.57 |
|                                       | 80                                   | 37.8      | 2.88 | 3.84 | 39.7 | 3.00 | 3.86 | 41.5 | 3.12 | 3.89 |
| 30                                    | 60                                   | 37.5      | 3.50 | 3.13 | 37.0 | 3.40 | 3.18 | 36.6 | 3.31 | 3.23 |
|                                       | 70                                   | 35.2      | 2.93 | 3.51 | 34.7 | 2.88 | 3.52 | 34.2 | 2.83 | 3.53 |
|                                       | 80                                   | 32.9      | 2.47 | 3.88 | 32.3 | 2.45 | 3.86 | 31.8 | 2.42 | 3.84 |
| 17                                    | 60                                   | 28.4      | 2.71 | 3.06 | 28.2 | 2.66 | 3.09 | 28.0 | 2.61 | 3.13 |
|                                       | 70                                   | 27.2      | 2.33 | 3.41 | 27.0 | 2.30 | 3.43 | 26.9 | 2.27 | 3.46 |
|                                       | 80                                   | 26.0      | 2.02 | 3.76 | 25.9 | 2.00 | 3.77 | 25.8 | 1.99 | 3.79 |
| 10                                    | 60                                   | 25.8      | 2.53 | 2.98 | 25.5 | 2.43 | 3.05 | 25.1 | 2.34 | 3.12 |
|                                       | 70                                   | 24.1      | 2.13 | 3.30 | 24.0 | 2.09 | 3.36 | 24.0 | 2.05 | 3.41 |
|                                       | 80                                   | 22.4      | 1.80 | 3.62 | 22.6 | 1.80 | 3.66 | 22.9 | 1.81 | 3.70 |

| HEATING PERFORMANCE DATA - 5 TON      |                                      |           |      |      |      |      |      |      |      |      |
|---------------------------------------|--------------------------------------|-----------|------|------|------|------|------|------|------|------|
| PACKAGED UNIT MODEL NO.               |                                      | PHE4B6031 |      |      |      |      |      |      |      |      |
| AIR TEMP.<br>ENTERING<br>OUTDOOR COIL | AIR TEMP.<br>ENTERING<br>INDOOR COIL | ID CFM    |      |      |      |      |      |      |      |      |
|                                       |                                      | 1600      |      |      | 1800 |      |      | 2000 |      |      |
|                                       |                                      | MBH       | COP  | KW   | MBH  | COP  | KW   | MBH  | COP  | KW   |
| 60                                    | 60                                   | 70.2      | 4.50 | 4.55 | 71.2 | 4.54 | 4.59 | 72.2 | 4.57 | 4.61 |
|                                       | 70                                   | 67.6      | 3.94 | 5.01 | 68.4 | 3.98 | 5.03 | 69.1 | 4.02 | 5.03 |
|                                       | 80                                   | 65.0      | 3.48 | 5.46 | 65.5 | 3.51 | 5.46 | 66.1 | 3.56 | 5.44 |
| 47                                    | 60                                   | 58.4      | 3.98 | 4.28 | 58.7 | 3.93 | 4.36 | 59.0 | 3.88 | 4.44 |
|                                       | 70                                   | 56.3      | 3.46 | 4.76 | 56.5 | 3.44 | 4.80 | 56.8 | 3.42 | 4.86 |
|                                       | 80                                   | 54.1      | 3.03 | 5.23 | 54.3 | 3.03 | 5.25 | 54.6 | 3.03 | 5.26 |
| 40                                    | 60                                   | 52.5      | 3.69 | 4.17 | 52.8 | 3.61 | 4.28 | 53.0 | 3.54 | 4.38 |
|                                       | 70                                   | 49.8      | 3.15 | 4.63 | 50.4 | 3.13 | 4.71 | 51.1 | 3.13 | 4.78 |
|                                       | 80                                   | 47.0      | 2.70 | 5.09 | 48.1 | 2.73 | 5.13 | 49.1 | 2.77 | 5.17 |
| 30                                    | 60                                   | 38.2      | 2.87 | 3.89 | 38.2 | 2.77 | 4.03 | 38.2 | 2.68 | 4.15 |
|                                       | 70                                   | 39.5      | 2.63 | 4.38 | 37.9 | 2.49 | 4.46 | 36.3 | 2.35 | 4.51 |
|                                       | 80                                   | 40.9      | 2.45 | 4.88 | 37.7 | 2.25 | 4.88 | 34.4 | 2.06 | 4.88 |
| 17                                    | 60                                   | 29.5      | 2.33 | 3.71 | 32.5 | 2.41 | 3.94 | 35.4 | 2.48 | 4.17 |
|                                       | 70                                   | 27.6      | 1.92 | 4.19 | 30.5 | 2.04 | 4.36 | 33.4 | 2.16 | 4.53 |
|                                       | 80                                   | 25.6      | 1.59 | 4.69 | 28.5 | 1.74 | 4.78 | 31.5 | 1.88 | 4.88 |
| 10                                    | 60                                   | 30.1      | 2.31 | 3.79 | 29.9 | 2.21 | 3.96 | 29.8 | 2.12 | 4.11 |
|                                       | 70                                   | 28.4      | 1.98 | 4.19 | 28.2 | 1.90 | 4.32 | 28.0 | 1.83 | 4.46 |
|                                       | 80                                   | 26.8      | 1.71 | 4.57 | 26.5 | 1.65 | 4.69 | 26.2 | 1.59 | 4.82 |



**UNIT DIMENSIONS**

| Model     | Dimensions |        |    |
|-----------|------------|--------|----|
|           | A          | B      | C  |
| PHE4B3631 | 51-1/4     | 45-3/4 | 49 |
| PHE4B4831 | 51-1/4     | 45-3/4 | 53 |
| PHE4B6031 | 51-1/4     | 45-3/4 | 55 |

**UNIT CLEARANCES**

| Direction           | Distance (in.) | Direction             | Distance (in.) |
|---------------------|----------------|-----------------------|----------------|
| Top <sup>1</sup>    | 36             | Right Side            | 36             |
| Side Opposite Ducts | 36             | Left Side             | 24             |
| Duct Panel          | 0              | Bottom <sup>2 3</sup> | 1              |

1. Minimum Clearance of 1inch all sides of supply air duct for the first 3 foot of duct for 20 & 25 kW., zero inches there after. For all other heaters, zero inch clearance all sides for entire length of duct.
2. Units must be installed outdoors. Over hanging structure or shrubs should not obscure outdoor air discharge outlet.
3. Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.  
**Note:** For units applied with a roof curb, the minimum clearance may be reduced from 1 inch to 1/2 inch? between combustible roof curb material and this supply air duct.

**ELECTRIC HEAT MINIMUM SUPPLY AIR**

| Model     | Voltage      | Minimum Blower Speed for Electric Heat |        |        |        |             |         |             |              |              |
|-----------|--------------|----------------------------------------|--------|--------|--------|-------------|---------|-------------|--------------|--------------|
|           |              | Heater kW                              |        |        |        |             |         |             |              |              |
|           |              | 2                                      | 5      | 8      | 10     | 13          | 15      | 18          | 20           | 25           |
| PHE4B3631 | 208/230-3-60 | Low #1                                 | Low #1 | Low #1 | Low #1 | Med. Low #2 | High #5 | --          | --           | --           |
| PHE4B4831 | 208/230-3-60 | --                                     | Low #1 | Low #1 | Low #1 | Low #1      | Low #1  | Med. Low #2 | Med. High #4 | --           |
| PHE4B6031 | 208/230-3-60 | --                                     | Low #1 | Low #1 | Low #1 | Low #1      | Low #1  | Low #1      | Med. Low #2  | Med. High #4 |

**INDOOR BLOWER SPECIFICATIONS**

| Model     | Motor |          |      |     |       |
|-----------|-------|----------|------|-----|-------|
|           | HP    | RPM      | EFF. | SF  | Frame |
| PHE4B3631 | 1/2   | Variable | 0.8  | 1.0 | 48    |
| PHE4B4831 | 3/4   | Variable | 0.8  | 1.0 | 48    |
| PHE4B6021 | 1     | Variable | 0.8  | 1.0 | 48    |

**COOLING SOUND PERFORMANCE**

| Model<br>(Tons) | Sound Rating <sup>1</sup><br>dB (A) | Octave Band Centerline Frequency (Hz) |      |      |      |      |      |      |
|-----------------|-------------------------------------|---------------------------------------|------|------|------|------|------|------|
|                 |                                     | 125                                   | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| PHE4B3621       | 73.2                                | 61.8                                  | 63.2 | 60.5 | 64.4 | 58.9 | 53.4 | 45.9 |
| PHE4B4221       | 73.6                                | 62.4                                  | 59.0 | 61.5 | 64.9 | 60.3 | 55.8 | 50.6 |
| PHE4B6021       | 74.1                                | 65.9                                  | 61.8 | 60.8 | 63.5 | 58.7 | 55.5 | 48.3 |

1. Rated in accordance with AHRI Standard 270.

**HEATING SOUND PERFORMANCE**

| Model<br>(Tons) | Sound Rating <sup>1</sup><br>dB (A) | Octave Band Centerline Frequency (Hz) |      |      |      |      |      |      |
|-----------------|-------------------------------------|---------------------------------------|------|------|------|------|------|------|
|                 |                                     | 125                                   | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| PHE4B3621       | 72.8                                | 60.1                                  | 62.5 | 60.4 | 64.5 | 58.8 | 53.0 | 46.0 |
| PHE4B4821       | 74.6                                | 66.0                                  | 63.3 | 61.1 | 64.6 | 60.2 | 56.4 | 48.9 |
| PHE4B6021       | 73.7                                | 61.6                                  | 59.4 | 60.5 | 63.6 | 58.7 | 55.1 | 51.4 |

1. Rated in accordance with AHRI Standard 270.

**ELECTRICAL DATA - 208/230-3-60 - SINGLE SOURCE POWER**

| Model | Compressor |       |      | OD Fan Motor | Blower Motor | Electric Heat Option |           |      |        |             |      | MCA <sup>1</sup> |      |                  |      | Max Fuse <sup>2</sup> or Breaker <sup>3</sup> Size |      |            |     |                  |     |                  |    |
|-------|------------|-------|------|--------------|--------------|----------------------|-----------|------|--------|-------------|------|------------------|------|------------------|------|----------------------------------------------------|------|------------|-----|------------------|-----|------------------|----|
|       |            |       |      |              |              | Heater Kit           | Heater kW |      | Stages | Heater Amps |      | Total Unit       |      | Unit Less Heater |      | Unit Heater Only                                   |      | Total Unit |     | Unit Less Heater |     | Unit Heater Only |    |
|       | RLA        | LRA   | MCC  | FLA          | FLA          |                      | 208       | 230  |        | 208         | 230  | 208              | 230  | 208              | 230  | 208                                                | 230  | 208        | 230 | 208              | 230 |                  |    |
| B36   | 10.4       | 73.0  | 16.3 | 1.7          | 3.8          | none                 | --        | --   | --     | --          | --   | 18.5             | 18.5 | 18.5             | 18.5 | -                                                  | -    | 25         | 25  | 25               | 25  | -                | -  |
|       |            |       |      |              |              | 6HK06501025          | 7.2       | 8.8  | 1      | 20.0        | 22.1 | 43.5             | 46.1 | 18.5             | 18.5 | 25.0                                               | 27.6 | 45         | 50  | 25               | 25  | 25               | 30 |
|       |            |       |      |              |              | 6HK06501525          | 10.8      | 13.2 | 1      | 30.0        | 33.1 | 56.0             | 59.9 | 18.5             | 18.5 | 37.5                                               | 41.4 | 60         | 60  | 25               | 25  | 40               | 45 |
| B48   | 13.7       | 83.1  | 21.4 | 1.7          | 5.4          | none                 | --        | --   | --     | --          | --   | 24.2             | 24.2 | 24.2             | 24.2 | -                                                  | -    | 35         | 35  | 35               | 35  | -                | -  |
|       |            |       |      |              |              | 6HK06501025          | 7.2       | 8.8  | 1      | 20.0        | 22.1 | 49.2             | 51.8 | 24.2             | 24.2 | 25.0                                               | 27.6 | 50         | 60  | 35               | 35  | 25               | 30 |
|       |            |       |      |              |              | 6HK06501525          | 10.8      | 13.2 | 1      | 30.0        | 33.1 | 61.7             | 65.6 | 24.2             | 24.2 | 37.5                                               | 41.4 | 70         | 70  | 35               | 35  | 40               | 45 |
|       |            |       |      |              |              | 6HK06501825          | 13.0      | 15.9 | 1      | 36.1        | 39.9 | 69.3             | 74.1 | 24.2             | 24.2 | 45.1                                               | 49.9 | 70         | 80  | 35               | 35  | 50               | 50 |
|       |            |       |      |              |              | 6HK16502025          | 14.4      | 17.6 | 2      | 40.0        | 44.2 | 74.2             | 79.4 | 24.2             | 24.2 | 50.0                                               | 55.2 | 80         | 80  | 35               | 35  | *                | *  |
| B60   | 16.0       | 110.0 | 24.9 | 1.7          | 7.0          | none                 | --        | --   | --     | --          | --   | 28.7             | 28.7 | 28.7             | 28.7 | -                                                  | -    | 40         | 40  | 40               | 40  | -                | -  |
|       |            |       |      |              |              | 6HK06501025          | 7.2       | 8.8  | 1      | 20.0        | 22.1 | 53.7             | 56.3 | 28.7             | 28.7 | 25.0                                               | 27.6 | 60         | 60  | 40               | 40  | 25               | 30 |
|       |            |       |      |              |              | 6HK06501525          | 10.8      | 13.2 | 1      | 30.0        | 33.1 | 66.2             | 70.1 | 28.7             | 28.7 | 37.5                                               | 41.4 | 70         | 80  | 40               | 40  | 40               | 45 |
|       |            |       |      |              |              | 6HK06501825          | 13.0      | 15.9 | 1      | 36.1        | 39.9 | 73.8             | 78.6 | 28.7             | 28.7 | 45.1                                               | 49.9 | 80         | 80  | 40               | 40  | 50               | 50 |
|       |            |       |      |              |              | 6HK16502025          | 14.4      | 17.6 | 2      | 40.0        | 44.2 | 78.7             | 83.9 | 28.7             | 28.7 | 50.0                                               | 55.2 | 80         | 90  | 40               | 40  | *                | *  |
|       |            |       |      |              |              | 6HK16502525          | 18.0      | 22.0 | -      | 50.0        | 55.2 | 91.2             | 97.7 | 28.7             | 28.7 | 62.5                                               | 69.0 | 100        | 100 | 40               | 40  | *                | *  |

**NOTE:** Single-source power MCA and MOP requirements are given here only for reference if the unit is to be installed with a field-installed single-point power modification.

\* - Breakers for heaters are included in the 20kW and 25kW heater kits.

1. Minimum Circuit Ampacity.
2. Maximum Over Current Protection per standard UL 1995.
3. Fuse or HACR circuit breaker size installed at factory or field installed.

## ELECTRICAL DATA - 208-3-60 Multi Source Power

| Model                                              | Compressor |       |      | OD Fan Motor | Blower Motor | Electric Heat Option |                               |        | Multi Source |                          |                  |                          |                  |                          |                  |
|----------------------------------------------------|------------|-------|------|--------------|--------------|----------------------|-------------------------------|--------|--------------|--------------------------|------------------|--------------------------|------------------|--------------------------|------------------|
|                                                    |            |       |      |              |              | Heater Kit           | Heater kW                     | Stages | Heater Amps  | 208                      | 208              | 208                      | 208              | 208                      | 208              |
|                                                    | 208        | 208   |      |              |              |                      |                               |        |              |                          |                  |                          |                  |                          |                  |
| Multi Source: Compressor Circuit and Heat Circuits |            |       |      |              |              | Multi Source:        | Circuit #1 Compressor Circuit |        |              | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> |
|                                                    |            |       |      |              |              |                      | Circuit #2 Heat               |        |              |                          |                  |                          |                  |                          |                  |
|                                                    |            |       |      |              |              |                      | Circuit #2 Heat               |        |              |                          |                  |                          |                  |                          |                  |
|                                                    |            |       |      |              |              |                      | Circuit #3 Heat               |        |              |                          |                  |                          |                  |                          |                  |
| B36                                                | 10.4       | 73.0  | 16.3 | 1.7          | 3.8          | none                 | --                            | --     | --           | 18.5                     | 25               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 7.2                           | 1      | 20.0         | 18.5                     | 25               | 25.0                     | 25               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 10.8                          | 1      | 30.0         | 18.5                     | 25               | 37.5                     | 40               | --                       | --               |
| B48                                                | 13.7       | 83.1  | 21.4 | 1.7          | 5.4          | none                 | --                            | --     | --           | 24.2                     | 35               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 7.2                           | 1      | 20.0         | 24.2                     | 35               | 25.0                     | 25               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 10.8                          | 1      | 30.0         | 24.2                     | 35               | 37.5                     | 40               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501825          | 13.0                          | 1      | 36.1         | 24.2                     | 35               | 45.1                     | 50               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK16502025          | 14.4                          | 2      | 40.0         | 24.2                     | 35               | 25.0                     | 25               | 25.0                     | 25               |
| B60                                                | 16.0       | 110.0 | 24.9 | 1.7          | 7.0          | none                 | --                            | --     | --           | 28.7                     | 40               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 7.2                           | 1      | 20.0         | 28.7                     | 40               | 25.0                     | 25               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 10.8                          | 1      | 30.0         | 28.7                     | 40               | 37.5                     | 40               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501825          | 13.0                          | 1      | 36.1         | 28.7                     | 40               | 45.1                     | 50               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK16502025          | 14.4                          | 2      | 40.0         | 28.7                     | 40               | 25.0                     | 25               | 25.0                     | 25               |
|                                                    |            |       |      |              |              | 6HK16502525          | 18.0                          | 2      | 50.0         | 28.7                     | 40               | 31.3                     | 35               | 31.3                     | 35               |

1. MCA = Minimum Circuit Ampacity.

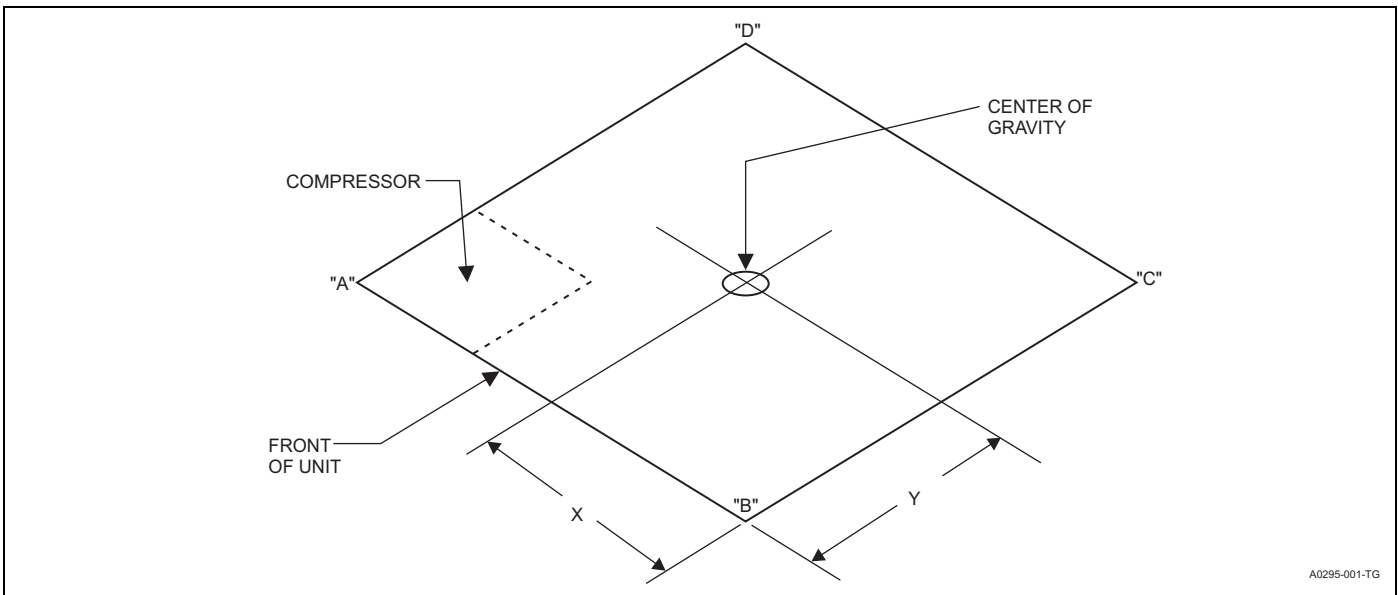
2. MOP = Maximum Over Current Protection device; must be HACR type circuit breaker or time delay fuse.

## ELECTRICAL DATA - 230-3-60 Multi Source Power

| Model                                              | Compressor |       |      | OD Fan Motor | Blower Motor | Electric Heat Option |                               |        | Multi Source |                          |                  |                          |                  |                          |                  |
|----------------------------------------------------|------------|-------|------|--------------|--------------|----------------------|-------------------------------|--------|--------------|--------------------------|------------------|--------------------------|------------------|--------------------------|------------------|
|                                                    |            |       |      |              |              | Heater Kit           | Heater kW                     | Stages | Heater Amps  | 230                      | 230              | 230                      | 230              | 230                      | 230              |
|                                                    | 230        | 230   |      |              |              |                      |                               |        |              |                          |                  |                          |                  |                          |                  |
| Multi Source: Compressor Circuit and Heat Circuits |            |       |      |              |              | Multi Source:        | Circuit #1 Compressor Circuit |        |              | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> | MCA <sup>1</sup><br>Amps | MOP <sup>2</sup> |
|                                                    |            |       |      |              |              |                      | Circuit #2 Heat               |        |              |                          |                  |                          |                  |                          |                  |
|                                                    |            |       |      |              |              |                      | Circuit #2 Heat               |        |              |                          |                  |                          |                  |                          |                  |
|                                                    |            |       |      |              |              |                      | Circuit #3 Heat               |        |              |                          |                  |                          |                  |                          |                  |
| B36                                                | 10.4       | 73.0  | 16.3 | 1.7          | 3.8          | none                 | --                            | --     | --           | 18.5                     | 25               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 8.8                           | 1      | 22.1         | 18.5                     | 25               | 27.6                     | 30               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 13.2                          | 1      | 33.1         | 18.5                     | 25               | 41.4                     | 45               | --                       | --               |
| B48                                                | 13.7       | 83.1  | 21.4 | 1.7          | 5.4          | none                 | --                            | --     | --           | 24.2                     | 35               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 8.8                           | 1      | 22.1         | 24.2                     | 35               | 27.6                     | 30               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 13.2                          | 1      | 33.1         | 24.2                     | 35               | 41.4                     | 45               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501825          | 15.9                          | 1      | 39.9         | 24.2                     | 35               | 49.9                     | 50               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK16502025          | 17.6                          | 2      | 44.2         | 24.2                     | 35               | 27.6                     | 30               | 27.6                     | 30               |
| B60                                                | 16.0       | 110.0 | 24.9 | 1.7          | 7.0          | none                 | --                            | --     | --           | 28.7                     | 40               | --                       | --               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501025          | 8.8                           | 1      | 22.1         | 28.7                     | 40               | 27.6                     | 30               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501525          | 13.2                          | 1      | 33.1         | 28.7                     | 40               | 41.4                     | 45               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK06501825          | 15.9                          | 1      | 39.9         | 28.7                     | 40               | 49.9                     | 50               | --                       | --               |
|                                                    |            |       |      |              |              | 6HK16502025          | 17.6                          | 2      | 44.2         | 28.7                     | 40               | 27.6                     | 30               | 27.6                     | 30               |
|                                                    |            |       |      |              |              | 6HK16502525          | 22.0                          | 2      | 55.2         | 28.7                     | 40               | 34.5                     | 35               | 34.5                     | 35               |

1. MCA = Minimum Circuit Ampacity.

2. MOP = Maximum Over Current Protection device; must be HACR type circuit breaker or time delay fuse.



A0295-001-TG

**WEIGHTS & DIMENSIONS**

| Model     | Weight (lbs.) |           | Center of Gravity |    | 4 Point Load Location (lbs.) |     |     |    |
|-----------|---------------|-----------|-------------------|----|------------------------------|-----|-----|----|
|           | Shipping      | Operating | X                 | Y  | A                            | B   | C   | D  |
| PHE4B3621 | 453           | 448       | 29                | 15 | 158                          | 108 | 101 | 86 |
| PHE4B4821 | 501           | 496       | 29                | 15 | 168                          | 130 | 119 | 84 |
| PHE4B6021 | 528           | 523       | 30                | 15 | 177                          | 136 | 128 | 87 |

**AIRFLOW PERFORMANCE - Side Duct Application**

| Model     | Motor Speed     | External Static Pressure (Inches WC) |      |      |      |      |      |      |      |
|-----------|-----------------|--------------------------------------|------|------|------|------|------|------|------|
|           |                 | 0.1                                  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  |
|           |                 | SCFM                                 | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM |
| PHE4B3621 | Low (1)         | 1108                                 | 1050 | 984  | 921  | 857  | 791  | 726  | 660  |
|           | Low/Medium (2)  | 1283                                 | 1225 | 1168 | 1115 | 1054 | 993  | 924  | 860  |
|           | Medium (3)      | 1362                                 | 1308 | 1252 | 1199 | 1142 | 1079 | 1015 | 979  |
|           | Medium/High (4) | 1403                                 | 1347 | 1290 | 1235 | 1177 | 1118 | 1058 | 995  |
|           | High (5)        | 1623                                 | 1569 | 1519 | 1470 | 1418 | 1362 | 1306 | 1246 |
| PHE4B4821 | Low (1)         | 1620                                 | 1564 | 1517 | 1466 | 1418 | 1360 | 1308 | 1206 |
|           | Low/Medium (2)  | 1694                                 | 1630 | 1580 | 1530 | 1482 | 1430 | 1380 | 1292 |
|           | Medium (3)      | 1798                                 | 1722 | 1669 | 1620 | 1572 | 1527 | 1480 | 1413 |
|           | Medium/High (4) | 1835                                 | 1758 | 1703 | 1653 | 1604 | 1558 | 1511 | 1442 |
|           | High (5)        | 2146                                 | 2085 | 2025 | 1960 | 1872 | 1862 | 1798 | 1735 |
| PHE4B6021 | Low (1)         | 1730                                 | 1682 | 1628 | 1592 | 1552 | 1517 | 1479 | 1439 |
|           | Low/Medium (2)  | 1858                                 | 1807 | 1749 | 1710 | 1667 | 1629 | 1589 | 1546 |
|           | Medium (3)      | 2054                                 | 1998 | 1934 | 1890 | 1843 | 1801 | 1757 | 1710 |
|           | Medium/High (4) | 2195                                 | 2144 | 2098 | 2049 | 2003 | 1955 | 1883 | 1868 |
|           | High (5)        | 2445                                 | 2388 | 2306 | 2293 | 2235 | 2178 | 2129 | 2077 |

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

**AIRFLOW PERFORMANCE - Bottom Duct Application**

| Model     | Motor Speed     | External Static Pressure (Inches WC) |      |      |      |      |      |      |      |
|-----------|-----------------|--------------------------------------|------|------|------|------|------|------|------|
|           |                 | 0.1                                  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  |
|           |                 | SCFM                                 | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM |
| PHE4B3621 | Low (1)         | 1127                                 | 1082 | 1021 | 952  | 889  | 825  | 759  | 689  |
|           | Low/Medium (2)  | 1306                                 | 1265 | 1205 | 1154 | 1094 | 1029 | 963  | 892  |
|           | Medium (3)      | 1354                                 | 1315 | 1259 | 1212 | 1153 | 1093 | 1024 | 990  |
|           | Medium/High (4) | 1397                                 | 1348 | 1297 | 1256 | 1195 | 1135 | 1077 | 1014 |
|           | High (5)        | 1634                                 | 1591 | 1548 | 1497 | 1446 | 1382 | 1309 | 1250 |
| PHE4B4821 | Low (1)         | 1598                                 | 1548 | 1502 | 1454 | 1410 | 1362 | 1307 | 1251 |
|           | Low/Medium (2)  | 1663                                 | 1612 | 1568 | 1522 | 1476 | 1422 | 1370 | 1297 |
|           | Medium (3)      | 1789                                 | 1733 | 1670 | 1650 | 1596 | 1578 | 1535 | 1483 |
|           | Medium/High (4) | 1931                                 | 1814 | 1808 | 1736 | 1673 | 1650 | 1597 | 1519 |
|           | High (5)        | 2131                                 | 2058 | 1998 | 1949 | 1892 | 1840 | 1788 | 1728 |
| PHE4B6021 | Low (1)         | 1655                                 | 1612 | 1596 | 1531 | 1461 | 1462 | 1429 | 1391 |
|           | Low/Medium (2)  | 1766                                 | 1720 | 1667 | 1629 | 1632 | 1539 | 1537 | 1498 |
|           | Medium (3)      | 1987                                 | 1933 | 1861 | 1817 | 1820 | 1715 | 1725 | 1651 |
|           | Medium/High (4) | 2114                                 | 2050 | 2047 | 1974 | 1899 | 1889 | 1920 | 1866 |
|           | High (5)        | 2369                                 | 2308 | 2249 | 2183 | 2126 | 2088 | 2034 | 1990 |

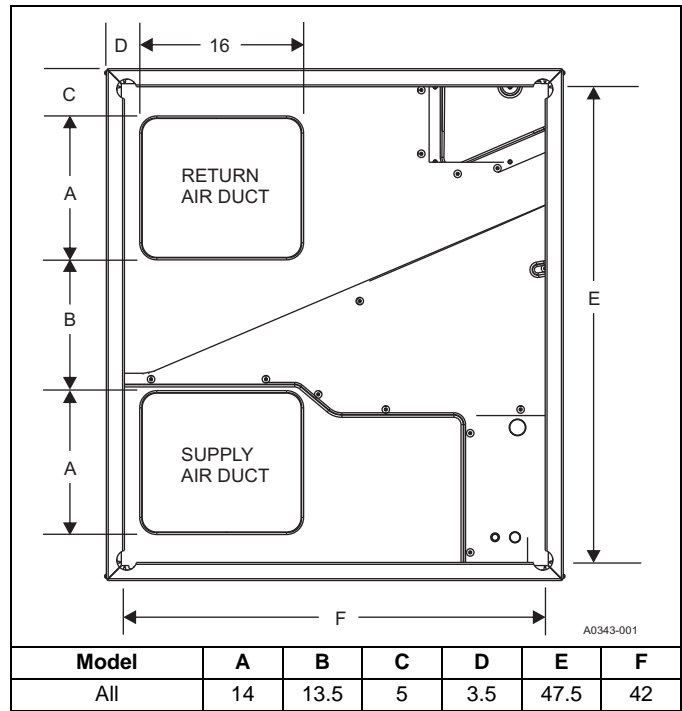
1. Airflow tested with dry coil conditions, without air filters, at 230 volts
2. Applications above 0.8" w.c. external static pressure are not recommended.
3. Brushless DC high efficiency standard ECM blower motor used for all indoor blower assemblies.
4. Minimal variations in airflow performance data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

**ADDITIONAL STATIC RESISTANCE**

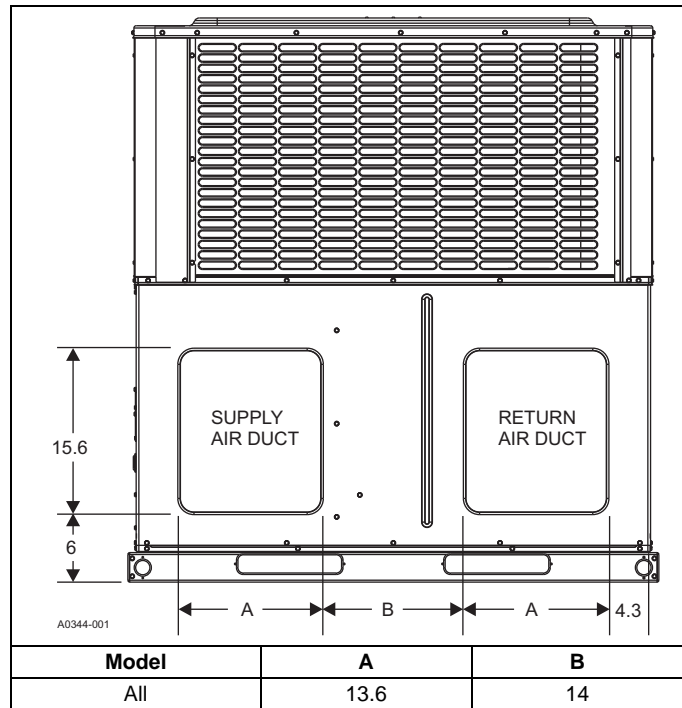
| Size (Tons) | CFM  | Wet Indoor Coil | Economizer <sup>1</sup> | Filter/Frame Kit |
|-------------|------|-----------------|-------------------------|------------------|
| 36 (3.0)    | 700  | 0.01            | 0.00                    | 0.04             |
|             | 800  | 0.02            | 0.01                    | 0.06             |
|             | 900  | 0.03            | 0.01                    | 0.08             |
|             | 1000 | 0.04            | 0.01                    | 0.10             |
|             | 1100 | 0.05            | 0.01                    | 0.13             |
|             | 1200 | 0.06            | 0.02                    | 0.16             |
|             | 1300 | 0.07            | 0.03                    | 0.17             |
|             | 1400 | 0.08            | 0.04                    | 0.18             |
| 48 (4.0)    | 1100 | 0.02            | 0.02                    | 0.04             |
|             | 1200 | 0.03            | 0.02                    | 0.04             |
|             | 1300 | 0.04            | 0.02                    | 0.05             |
|             | 1400 | 0.05            | 0.03                    | 0.05             |
|             | 1500 | 0.06            | 0.04                    | 0.06             |
|             | 1600 | 0.07            | 0.04                    | 0.07             |
|             | 1700 | 0.07            | 0.04                    | 0.08             |
|             | 1800 | 0.08            | 0.04                    | 0.09             |
|             | 1900 | 0.09            | 0.05                    | 0.10             |
| 60 (5.0)    | 1100 | 0.02            | 0.02                    | 0.04             |
|             | 1200 | 0.03            | 0.02                    | 0.04             |
|             | 1300 | 0.04            | 0.02                    | 0.05             |
|             | 1400 | 0.05            | 0.03                    | 0.05             |
|             | 1500 | 0.06            | 0.04                    | 0.06             |
|             | 1600 | 0.07            | 0.04                    | 0.07             |
|             | 1700 | 0.07            | 0.04                    | 0.08             |
|             | 1800 | 0.08            | 0.04                    | 0.09             |
|             | 1900 | 0.09            | 0.05                    | 0.10             |
|             | 2000 | 0.09            | 0.05                    | 0.11             |

1. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit will deliver less CFM during full economizer operation. Filter pressure drop based on standard filter media tested at velocities not to exceed 300 ft/min.

**BOTTOM DUCT DIMENSIONS (Inches)**

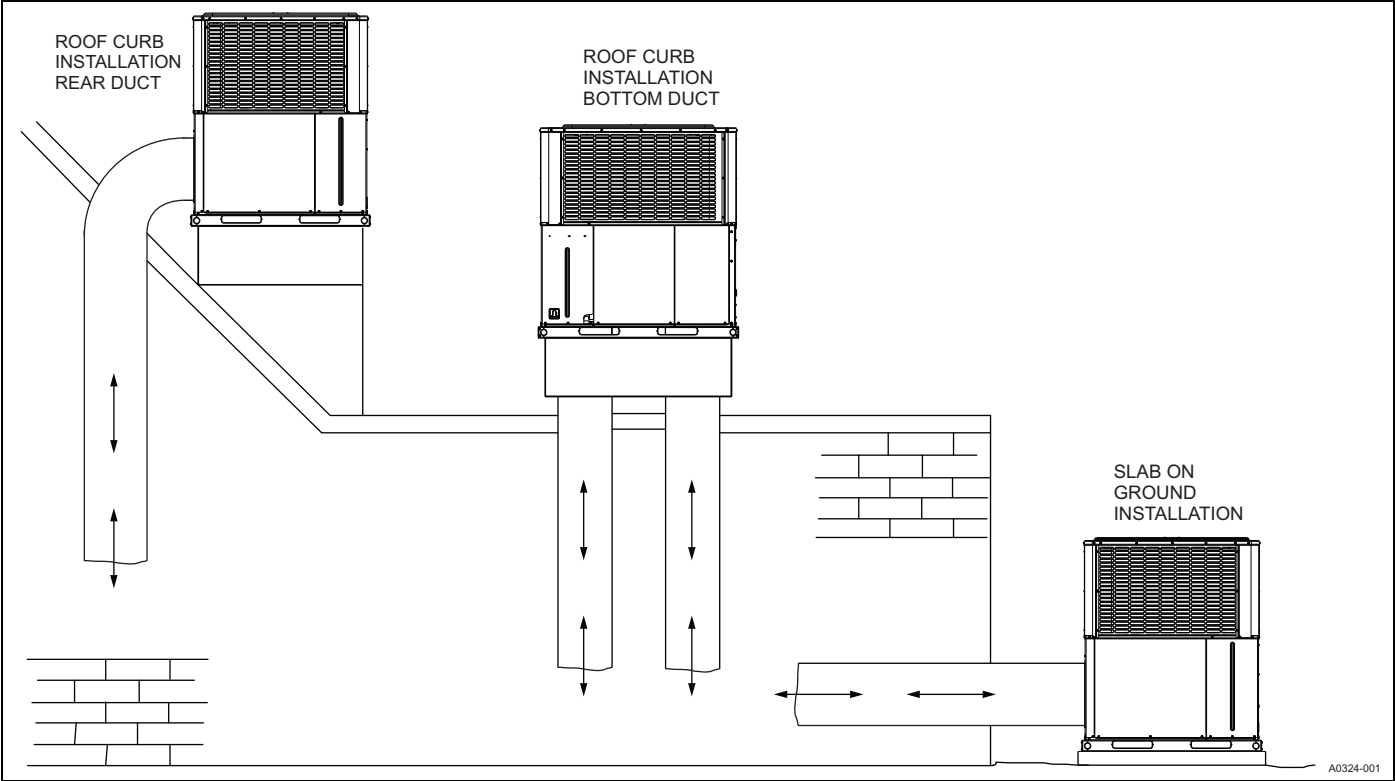


**REAR DUCT DIMENSIONS (Inches)**

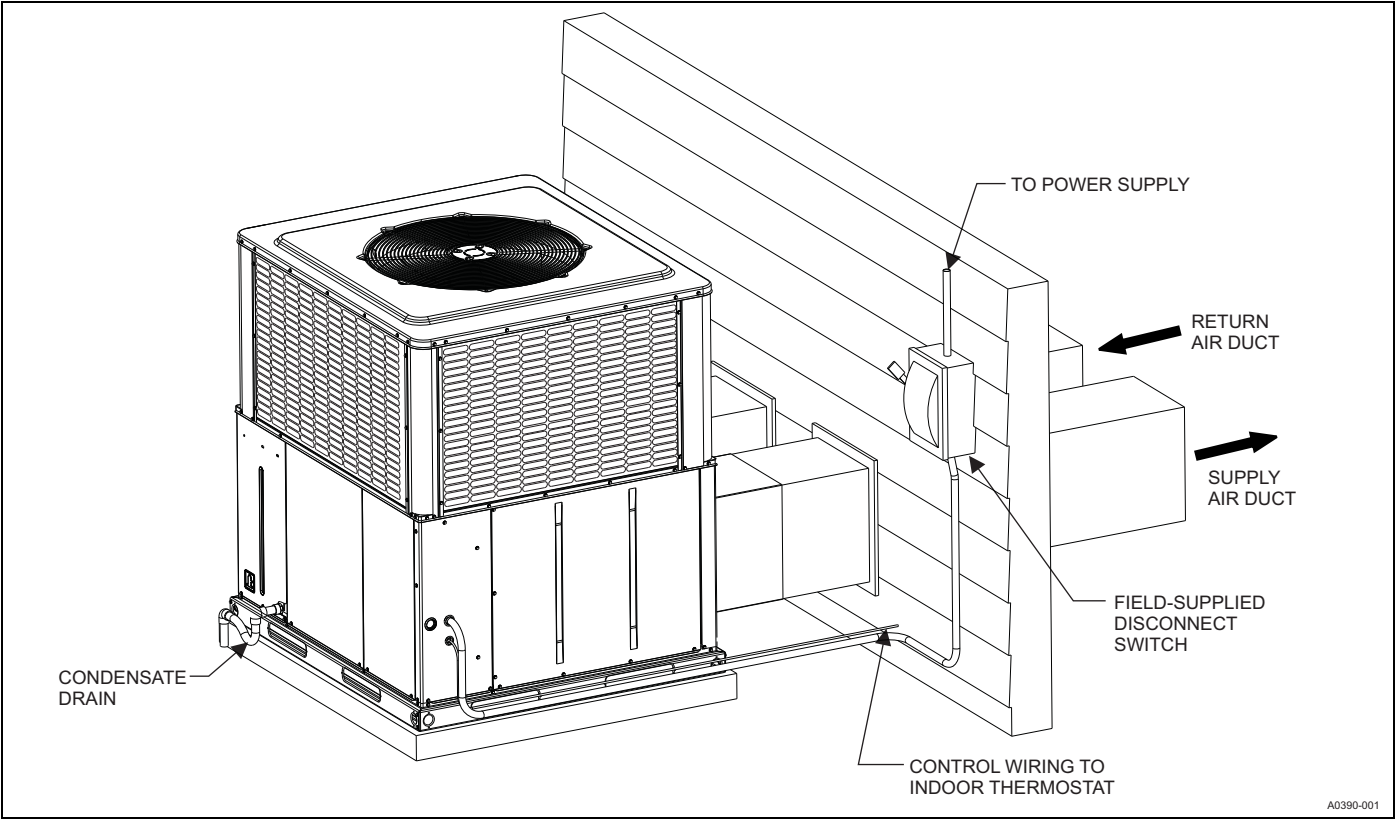




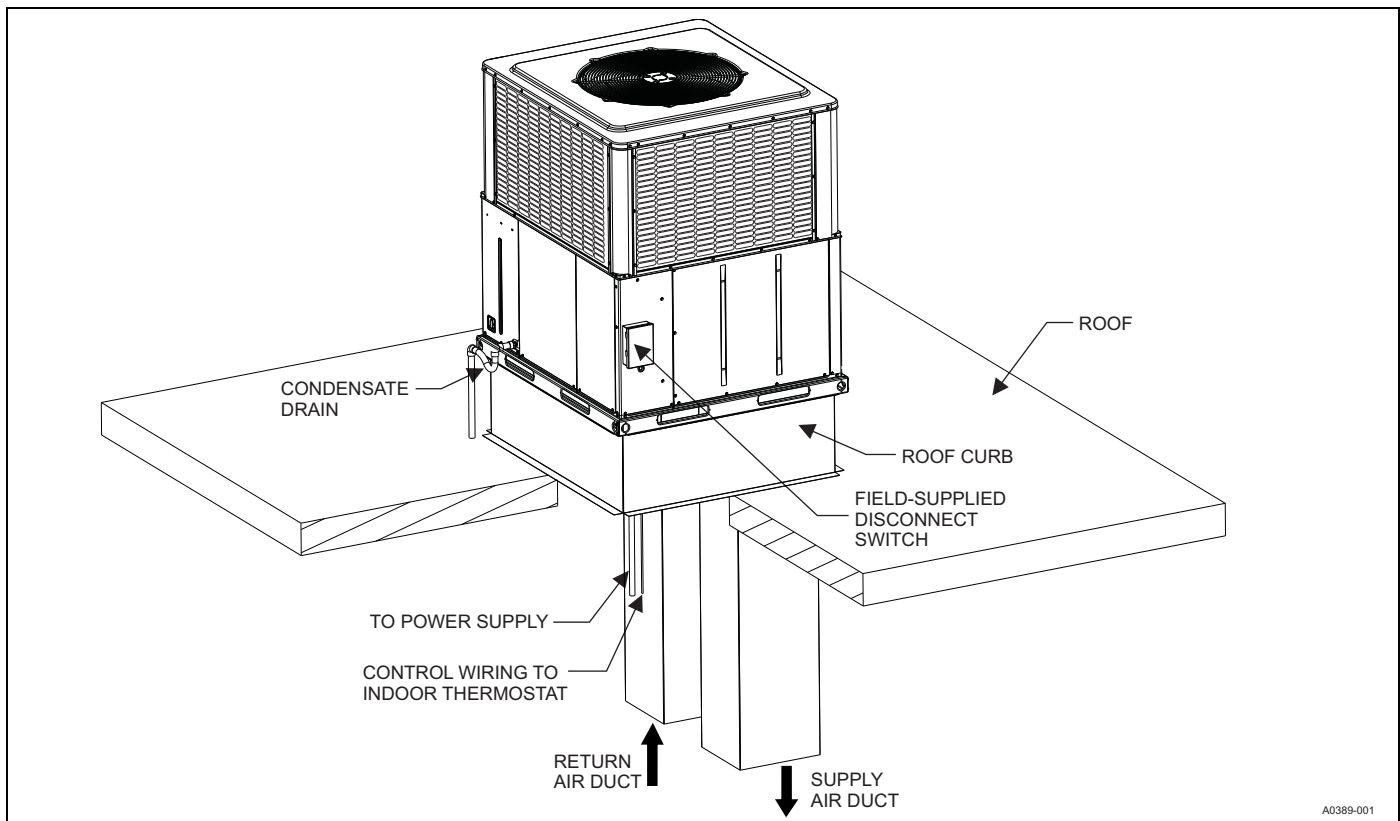
**UNIT TYPICAL DUCT APPLICATIONS**



**UNIT TYPICAL SLAB ON GROUND INSTALLATION**



## UNIT TYPICAL ROOF CURB INSTALLATION



## EXTERNAL STATIC PRESSURE SETUP

To measure external static pressure:

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

