



## TECHNICAL GUIDE

**SINGLE PACKAGE  
HEAT PUMP/ELECTRIC HEAT  
14 SEER – R-410A – 3 PHASE  
3 TO 5 NOMINAL TONS - 460 V  
MODELS: PHE4\*36 TO 60**



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

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### WARRANTY SUMMARY\*

Standard 1-Year limited parts warranty.  
Standard 5-Years limited compressor warranty.  
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 allow 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 before shipment. Test stations using a state-of-the-art computerized process system are used to ensure product quality. Refrigerant charge and component part numbers are verified using 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 ensure 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 is provided through the bottom or 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 required, 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 buildup of stagnant condensate. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4-in. NPT female connection is rigidly mounted to ensure 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. The powder paint finish ensures less fading when exposed to sunlight, and provides superior corrosion resistance (1000 hour salt spray tested).

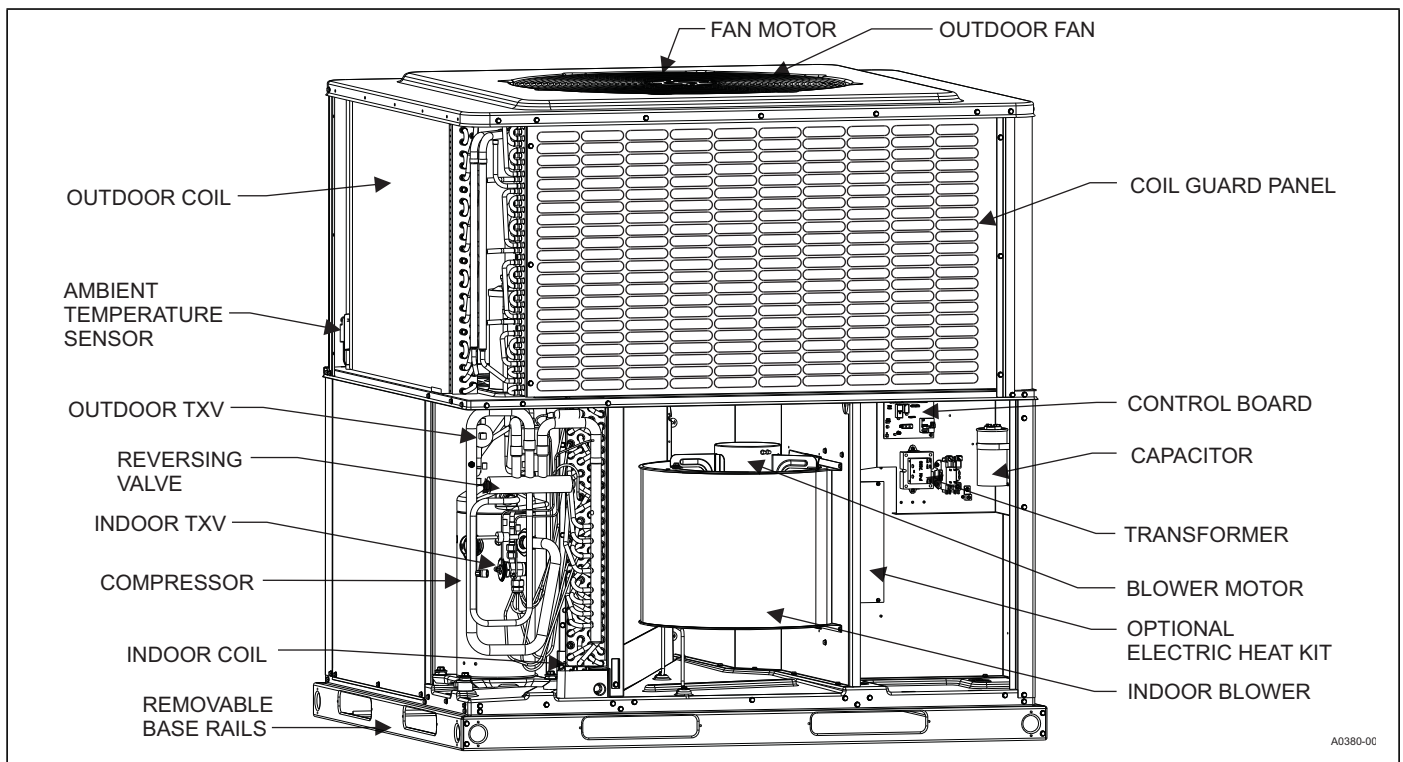
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- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails provide forklift access from all sides, and rigging holes are also provided so an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base keeps the unit off the pad to deter corrosion. On applications where height is limited, the base rails can be removed by removing two 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 use a stamped slotted design that provides superior impact protection against small objects during transit and after installation.
- **Low Operating Sound Level** - The upward airflow 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.
- **Loss of Charge Switch** - All models include a loss of charge switch to provide safe shutdown of the compressor.
- **Simple Control Circuit** - A printed circuit board contains a status/diagnostic indicator light. Field thermostat wiring connects to color coded wire leads using twist on wire connections. Cooling controls use contactor and relays for simple application and troubleshooting. MATE-N-LOK 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 troubleshooting 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 protects 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 locks out, preventing any further operation until it is reset or the problem is corrected.
- **Exclusive Coil Design** - Grooved copper tubes and enhanced aluminum fin construction improve heat transfer for maximum efficiency and durability. Indoor coils use tin-coated copper tubing with aluminum fins for effective heat transfer.
- **Electric Heat** - All electric heat models use 6HK electric heat kits, which are available in 460-3-60 from 10 kW to 25 kW.
- **Easy Service Access** - Individual access panels provide access to all major components, for example, compressors, indoor coils, blowers, controls/electric heat kits, and filters, making servicing easy. Removing these panels allows easy removal of components such as the blower assembly for maintenance and troubleshooting.
- **Replacement Parts** - The installer requires no special training to replace any of the components of these units. The number of new components has been reduced to minimize the inventory of unique parts.
- **Controls** - Demand defrost curves preloaded into defrost control for optimized performance based on unit capacities.
- **Filter Frame Kit** - All PHE units include a filter frame kit that is shipped inside the unit from production. Field installation is required.
- **Filters** - All three-phase units include an applicable number of 1-in. washable filters, which are shipped inside the unit from production. Field installation is required. Two filters are required for A base units. Three filters are required for B base units.

**NOMENCLATURE**

| PHE  | 4 | B | 24 |   | 3  |   | 1 | A |
|--|---|---|----|---|--|---|---|---|
| 1  | 2 | 3 | 4  | 5 | 6  | 7 | 8 | 9 |
| <b>1. Model Family</b><br>PHE - packaged heat pump with electric heat<br>PCG - packaged A/C with gas heat<br>PCE - packaged A/C with electric heat<br>PHG - packaged heat pump with gas heat<br><br><b>2. Nominal Cooling Efficiency</b><br>4 = 14 SEER, 6 = 16 SEER<br><br><b>3. Cabinet Size</b><br>A = small 35 x 51, B = large 45 x 51<br><br><b>4. Nominal Air Conditioning Cooling Capacity BTUx1000</b><br>24 = 24,000 BTU, etc.<br><br><b>Example:</b><br>PHE4B4221A is a packaged heat pump, 14 SEER, large cabinet, 3-1/2 ton, 208/230 V, single-phase model, first generation, first release. |   |   |    |   | <b>5. Gas Heating Input BTU/Hr x 1000</b><br>050 = 50,000 BTU/Hr input, blank = electric heat<br><br><b>6. Voltage-Phase-Frequency</b><br>2 = 208/230-1-60, 3 = 208/230-3-60, 4 = 460-3-60<br><br><b>7. NOx Approval</b><br>X = low-NOx, blank = not low-NOx<br><br><b>8. Generation Level</b><br>1 = first generation<br><br><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 Temperature |
|           |              | Minimum          | Maximum | Maximum (°F)           |
| PHE4B3641 | 460-3-60     | 432              | 504     | 125                    |
| PHE4B4841 |              |                  |         |                        |
| PHE4B6041 |              |                  |         |                        |

## APPLICATIONS AND ACCESSORIES

| Packaged Equipment Series | Application Limitations              |         |         |         |                                     |         |         |         |
|---------------------------|--------------------------------------|---------|---------|---------|-------------------------------------|---------|---------|---------|
|                           | Air Temperature at Outdoor Coil (°F) |         |         |         | Air Temperature at Indoor Coil (°F) |         |         |         |
|                           | Minimum                              |         | Maximum |         | Minimum                             |         | Maximum |         |
|                           | DB Cool                              | DB Heat | DB Cool | DB Heat | WB Cool                             | DB Heat | WB Cool | DB Heat |
| 14 SEER HP                | 55                                   | -10     | 125     | 75      | 57                                  | 50      | 72      | 80      |

- **Anchor Bracket Kit (S1-1HK0601)** - This kit firmly anchors PCG, PCE, PHE, and PHG packaged units to a pad or support structure. When properly installed, the kit is approved for ground-mounted or roof-mounted applications, wind load certified, and listed with the State of Florida. See <https://floridabuilding.org> for this listing.
- **Economizer for Downflow Applications (S1-2EE04710024, S1-2EE04710124)** - Modulating integrated economizer provides simultaneous operation between mechanical cooling and economizer operation. Independent blade design ensures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor, and barometric relief damper. Separate field accessories of single/dual enthalpy kits are also available.
- **Economizer for Horizontal Applications (S1-2EE04710224, S1-2EE04710324)** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design ensures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into hood and dry bulb sensor. Separate field accessories of single enthalpy and dual enthalpy are available.
- **Barometric Relief Hood (S1-1RD0501)** - Used in conjunction with a horizontal economizer, the Barometric Relief Hood helps to equalize the building pressure caused by the fresh air that is introduced through the economizer fresh air hood.
- **Single/Dual Enthalpy Sensor (S1-HE-69630NS-2D)** - 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.
- **Duct/Unit Mount CO<sub>2</sub> Kit (S1-2AQ04700924)** - Sensor kit detects CO<sub>2</sub> levels automatically and overrides the economizer when CO<sub>2</sub> levels rise above the preset limits.
- **Wall Mount CO<sub>2</sub> Kit (S1-2AQ04701024)** - Sensor kit detects CO<sub>2</sub> levels automatically and overrides the economizer when CO<sub>2</sub> levels rise above the preset limits.
- **Supply Air Temperature Sensor Kit (S1-TE-63616E-2D)** - Outdoor supply 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-in. filters or 2-in. filters.
- **Filter (S1-02647812000)** - Washable 1-in. filter. Two filters are required for A base units. Three filters are required for B base units.
- **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-in. round for the 1AK0110 kit and from rectangle to 14-in. 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-in. round for the 1AK0108 kit and from rectangle to 18-in. 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 ensure an airtight seal. These are 8-in. 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 ensure an airtight seal. These are 14-in. 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 (S1-2LA04701024)** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0°F. Standard unit operation is 45°F.
- **Base Rail Hole Cover Kit (S1-1HC0101)** - Kit provides necessary hardware to close off openings in base rails to block off openings and prevent animal entrance.
- **Transition Curb Kits (S1-1TC01\*)** - Adapter kits to allow field use of preexisting 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 037)** - Kit provides terminal block, fuse blocks, and wiring to allow units with electric heat to be connected to a single source of incoming power.
- **Thermostat** - Compatible thermostat controls are available through accessory sourcing. For optimum performance, these outdoor units are fully compatible with our residential Hx™ Touch Screen Thermostat available through Source 1. For more information, see the thermostat section of the Product Equipment Catalog.
- **Wall Thermostat** - The units are designed to operate with standard, 24-V electronic non power stealing and electromechanical 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 Ducted Systems 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 10 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, charged with R-410A refrigerant, and factory tested before 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 airflow 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 dB(A) 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 and 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 aid in minimizing sound. Full perimeter base rails shall be provided to ensure reliable transit of equipment and facilitate overhead rigging, allowing 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 accessible through a removable access door, sealed airtight. The unit's vertical discharge and return duct configuration shall be designed to fit between standard 24-in. 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 allow the installer to have greater flexibility with less inventory.

- **Durable Finish** - The cabinet shall be 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. The powder paint finish ensures 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. This 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 required, 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 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 provide access to all major components, for example, compressors, indoor coils, blowers, controls/electric heat kits, and filters, making servicing easy. Removing these panels allows easy removal of components such as the blower assembly for maintenance and 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 use a stamped slotted design that 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 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 a scroll bypass valve and a temperature thermal overload sensor, which protects 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-in. NPT female connection is rigidly mounted to ensure 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 the following:** thermal expansion devices (TXVs) that are factory mounted and provided, filter/strainer to eliminate any foreign matter, and 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-LOK 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 troubleshooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Controls** - Demand defrost curves preloaded 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 locks out, preventing any further operation until it is reset or the 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 R-410A refrigerant, and tested before shipment. Test stations using a state-of-the-art computerized process system shall be used to ensure product quality. Refrigerant charge and component part numbers are verified using 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 ensure unit performance. This data could be provided by serial number tracking if necessary.
- **Electric Heat** - All electric heat models use 6HK electric heat kits, which are available in 460-3-60 from 10 kW to 25 kW.

## PHYSICAL DATA

| NOMINAL TONNAGE                        | MODELS  |             |             |
|--|---|-------------|-------------|
|  | PHE4B3641   | PHE4B4841   | PHE4B6041   |
|  | 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                       | R-410A  | R-410A      | R-410A      |
| Refrigerant charge (lb-oz)             | 11-13   | 12-13       | 15-8        |
| <b>AHRI Heating Performance</b>        |   |             |             |
| 47°F 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 (in.)</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 Weight (lb)</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 (in.)                     | 26  | 26          | 26          |
| Type                                   | Prop  | Prop        | Prop        |
| Drive type                             | Direct  | Direct      | Direct      |
| Number of 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 (in.)                         | 11 x 10   | 11 x 10     | 11 x 10     |
| Type                                   | Centrifugal   | Centrifugal | Centrifugal |
| Motor HP each                          | 1/2   | 1           | 1           |
| RPM                                    | 1200 Max  | 1200 Max    | 1200 Max    |
| Frame size                             | 48  | 48          | 48          |
| <b>Filters</b>                         |   |             |             |
| Filter size                            | B   | B           | B           |
| Quantity - Size                        | Field-supplied external filters must be sized so as not to exceed 300 FPM air velocity through disposable filters. All three-phase models include an internal filter rack kit and washable filters. Refer to the instructions supplied with the kit for replacement filter sizes. Filter sizes: A = 20 x 20, B = 20 x 30. |             |             |

| <b>COOLING PERFORMANCE DATA - 3 TON</b>           |               |                  |           |           |           |           |             |           |           |           |           |             |           |           |           |           |
|---|---------------|------------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| <b>PACKAGED UNIT MODEL NO.</b>                    |               | <b>PHE4B3641</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> |
| 55 / 45   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 65 / 55   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 75 / 63   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 85 / 69   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 95 / 75   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 105 / 83  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 115 / 89  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 125 / 95  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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>PHE4B4841</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> |
| 55 / 45   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 65 / 55   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 75 / 63   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 85 / 69   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 95 / 75   | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 105 / 83  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 115 / 89  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |
| 125 / 95  | T.C.          | 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      |
|   | S.C.          | 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      |
|   | K.W.          | 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      |

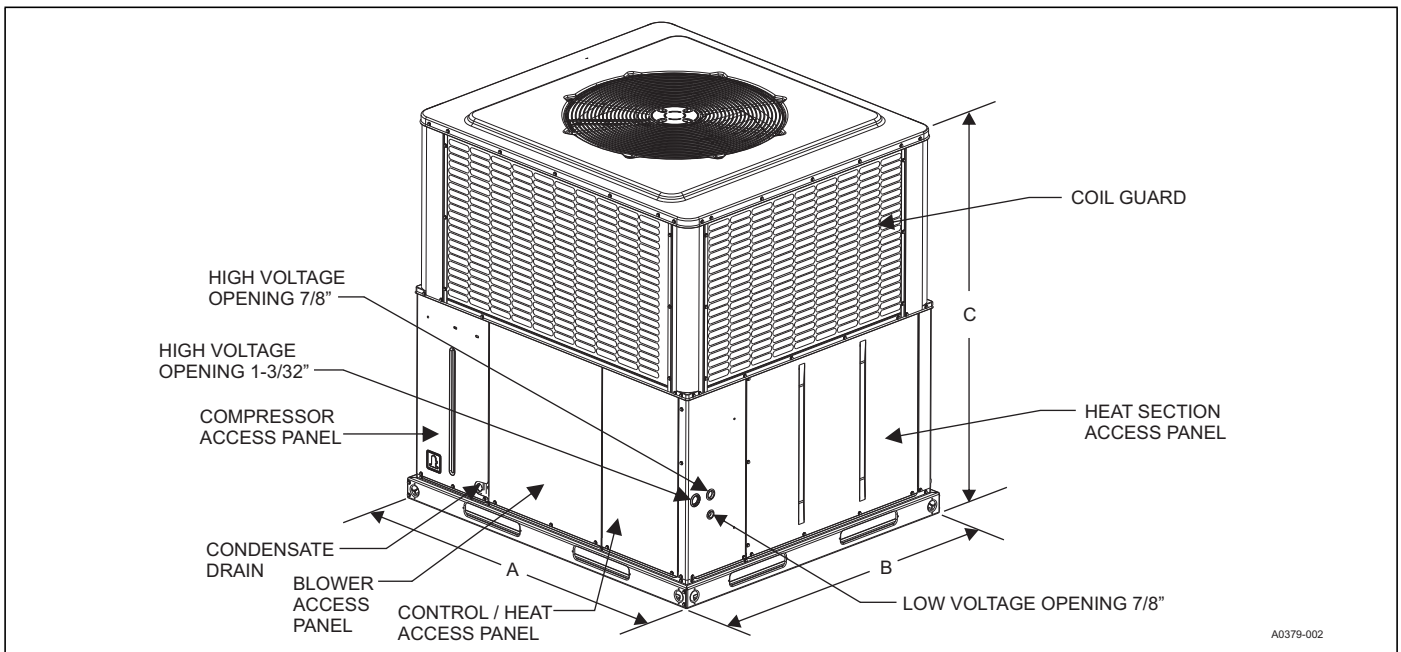


| <b>COOLING PERFORMANCE DATA - 5 TON</b> |        |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---|--------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PACKAGED UNIT MODEL NO.                 |        | PHE4B6041 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| CONDENSER ENTERING AIR 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.                 |                                | PHE4B3641 |      |      |      |      |      |      |      |      |  |
| AIR TEMP. ENTERING OUTDOOR COIL         | AIR TEMP. ENTERING 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.               |                                      | PHE4B4841 |      |      |      |      |      |      |      |      |
| 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.               |                                      | PHE4B6041 |      |      |      |      |      |      |      |      |
| 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 (in.) |        |    |
|-----------|------------------|--------|----|
|           | A                | B      | C  |
| PHE4B3641 | 51-1/4           | 45-3/4 | 49 |
| PHE4B4841 |                  |        | 53 |
| PHE4B6041 |                  |        | 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              |

- There must be a minimum clearance of 1 in. on all sides of the supply air duct for the first 3 ft of the duct for 20 kW and 25 kW heaters (0 in. thereafter). For all other heaters, there must be 0 in. clearance on all sides for the entire length of the supply air duct.
  - Units must be installed outdoors. Overhanging structures or shrubs must not obstruct the outdoor air discharge outlet.
  - Units can be installed on combustible materials made from wood or class A,B, or C roof covering materials if factory base rails are left in place as shipped.
- Note:** For units with a roof curb, the minimum clearance between combustible roof curb material and the supply air duct can be reduced from 1 in. to 1/2 in.

**ELECTRIC HEAT MINIMUM SUPPLY AIR**

| Model     | Voltage  | Minimum Blower Speed for Electric Heat |         |         |         |                |          |                |                 |                 |
|-----------|----------|--|---------|---------|---------|----------------|----------|----------------|-----------------|-----------------|
|           |          | Heater kW                              |         |         |         |                |          |                |                 |                 |
|           |          | 2                                      | 5       | 8       | 10      | 13             | 15       | 18             | 20              | 25              |
| PHE4B3641 | 460-3-60 | Low (1)                                | Low (1) | Low (1) | Low (1) | Medium Low (2) | High (5) | --             | --              | --              |
| PHE4B4841 | 460-3-60 | --                                     | Low (1) | Low (1) | Low (1) | Low (1)        | Low (1)  | Medium Low (2) | Medium High (4) | --              |
| PHE4B6041 | 460-3-60 | --                                     | Low (1) | Low (1) | Low (1) | Low (1)        | Low (1)  | Low (1)        | Medium Low (2)  | Medium High (4) |

**INDOOR BLOWER SPECIFICATIONS**

| Model     | Motor |          |      |     |       |
|-----------|-------|----------|------|-----|-------|
|           | HP    | RPM      | EFF. | SF  | Frame |
| PHE4B3641 | 1/2   | Variable | 0.8  | 1.0 | 48    |
| PHE4B4841 | 1     |          |      |     |       |
| PHE4B6041 | 1     |          |      |     |       |

**HEAT PUMP - COOLING SOUND PERFORMANCE**

| Model (Tons) | Sound Rating <sup>1</sup> dB(A) | Octave Band Centerline Frequency (Hz) |      |      |      |      |      |      |
|--------------|---------------------------------|---------------------------------------|------|------|------|------|------|------|
|              |                                 | 125                                   | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| PHE4B3641    | 73.2                            | 61.8                                  | 63.2 | 60.5 | 64.4 | 58.9 | 53.4 | 45.9 |
| PHE4B4841    | 74.0                            | 62.0                                  | 62.0 | 60.9 | 64.7 | 60.1 | 56.6 | 49.2 |
| PHE4B6041    | 74.1                            | 65.9                                  | 61.8 | 60.8 | 63.5 | 58.7 | 55.5 | 48.3 |

1. Rated in accordance with AHRI Standard 270.

**HEAT PUMP - HEATING SOUND PERFORMANCE**

| Model (Tons) | Sound Rating <sup>1</sup> dB(A) | Octave Band Centerline Frequency (Hz) |      |      |      |      |      |      |
|--------------|---------------------------------|---------------------------------------|------|------|------|------|------|------|
|              |                                 | 125                                   | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| PHE4B3641    | 72.8                            | 60.1                                  | 62.5 | 60.4 | 64.5 | 58.8 | 53.0 | 46.0 |
| PHE4B4841    | 74.6                            | 66.0                                  | 63.3 | 61.1 | 64.6 | 60.2 | 56.4 | 48.9 |
| PHE4B6041    | 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 - 460-3-60 - SINGLE SOURCE POWER**

| Model   | Compressor |      |      | OD Fan Motor | Blower Motor | Electric Heat Option    |           |        |             | MCA <sup>1</sup> (Total Unit) | Max Fuse <sup>2</sup> or Breaker <sup>3</sup> Size (Total Unit) | MCA <sup>1</sup> (Unit Minus Heater) | Max Fuse <sup>2</sup> or Breaker <sup>3</sup> Size (Unit Minus Heater) | MCA <sup>1</sup> (Heater Only) | Max Fuse <sup>2</sup> or Breaker <sup>3</sup> Size (Heater Only) |
|---------|------------|------|------|--------------|--------------|-------------------------|-----------|--------|-------------|-------------------------------|---|--------------------------------------|--|--------------------------------|--|
|         | RLA        | LRA  | MCC  | FLA          | FLA          | Heater Kit <sup>4</sup> | Heater kW | Stages | Heater Amps |                               |   |                                      |  |                                |  |
| PHE4B36 | 5.8        | 38.0 | 9.0  | 0.87         | 1.95         | none                    | --        | --     | --          | 10.1                          | 15  | 10.1                                 | 15   | -                              | -  |
|         |            |      |      |              |              | 6HK06501046             | 8.8       | 1      | 11.0        | 23.9                          | 25  | 10.1                                 | 15   | 13.8                           | 15   |
|         |            |      |      |              |              | 6HK06501546             | 13.2      | 1      | 16.6        | 30.8                          | 35  | 10.1                                 | 15   | 20.7                           | 25   |
| PHE4B48 | 6.2        | 41.0 | 9.7  | 0.87         | 3.15         | none                    | --        | --     | --          | 11.8                          | 15  | 11.8                                 | 15   | -                              | -  |
|         |            |      |      |              |              | 6HK06501046             | 8.8       | 1      | 11.0        | 25.6                          | 30  | 11.8                                 | 15   | 13.8                           | 15   |
|         |            |      |      |              |              | 6HK06501546             | 13.2      | 1      | 16.6        | 32.5                          | 30  | 11.8                                 | 15   | 20.7                           | 25   |
|         |            |      |      |              |              | 6HK06501846             | 15.9      | 1      | 20.0        | 36.7                          | 40  | 11.8                                 | 15   | 25.0                           | 25   |
|         |            |      |      |              |              | 6HK06502046             | 17.6      | 1      | 22.1        | 39.4                          | 40  | 11.8                                 | 15   | 27.6                           | 30   |
| PHE4B60 | 7.8        | 52.0 | 12.1 | 0.87         | 3.15         | none                    | --        | --     | --          | 13.8                          | 20  | 13.8                                 | 20   | -                              | -  |
|         |            |      |      |              |              | 6HK06501046             | 8.8       | 1      | 11.0        | 27.6                          | 30  | 13.8                                 | 20   | 13.8                           | 15   |
|         |            |      |      |              |              | 6HK06501546             | 13.2      | 1      | 16.6        | 34.5                          | 35  | 13.8                                 | 20   | 20.7                           | 25   |
|         |            |      |      |              |              | 6HK06501846             | 15.9      | 1      | 20.0        | 38.7                          | 40  | 13.8                                 | 20   | 25.0                           | 25   |
|         |            |      |      |              |              | 6HK06502046             | 17.6      | 1      | 22.1        | 41.4                          | 45  | 13.8                                 | 20   | 27.6                           | 30   |
|         |            |      |      |              |              | 6HK06502546             | 22.0      | 1      | 27.6        | 48.3                          | 50  | 13.8                                 | 20   | 34.5                           | 35   |

1. Minimum Circuit Ampacity.

2. Maximum Overcurrent Protection per standard UL 1995.

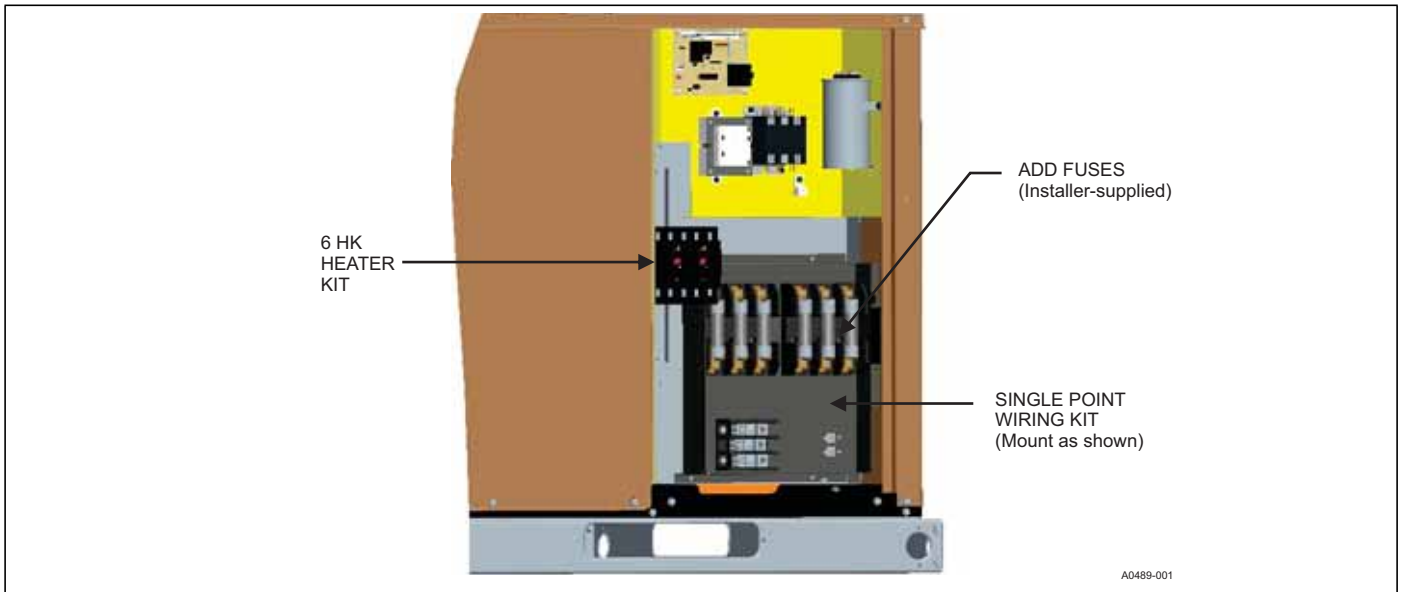
3. Fuse or HACR circuit breaker is field installed.

4. Single-point connection kit required.

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

**SINGLE-POINT WIRING KIT**

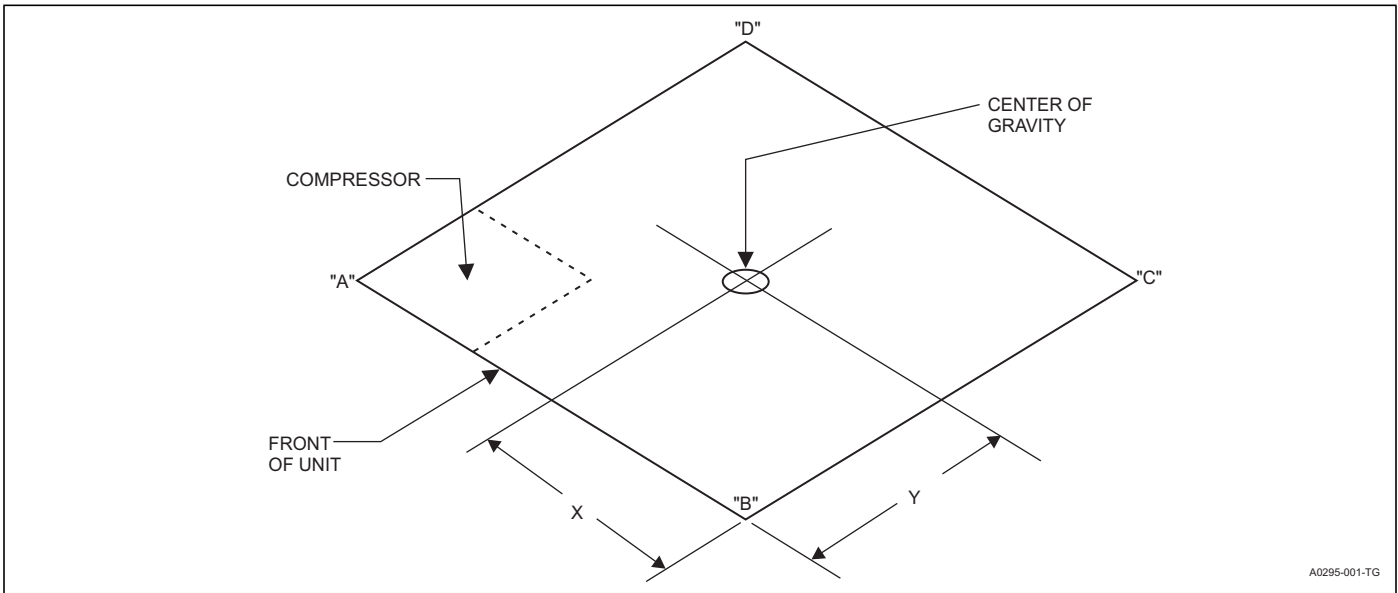
| Unit Model Number | Voltage  | Heater Kit  | Single-Point Kit P/N |
|-------------------|----------|-------------|----------------------|
| PHE4B36           | 460-3-60 | 6HK06501046 | S1-2SPWK036          |
|                   |          | 6HK06501546 | S1-2SPWK036          |
| PHE4B48           |          | 6HK06501046 | S1-2SPWK036          |
|                   |          | 6HK06501546 | S1-2SPWK036          |
|                   |          | 6HK06501846 | S1-2SPWK036          |
|                   |          | 6HK06502046 | S1-2SPWK036          |
| PHE4B60           |          | 6HK06501046 | S1-2SPWK036          |
|                   |          | 6HK06501546 | S1-2SPWK036          |
|                   |          | 6HK06501846 | S1-2SPWK036          |
|                   |          | 6HK06502046 | S1-2SPWK036          |
|                   |          | 6HK06502546 | S1-2SPWK037          |



**ELECTRICAL DATA - 460-3-60 MULTI SOURCE POWER**

| Model   | Compressor |      |      | OD Fan Motor<br>FLA | Blower Motor<br>FLA | Electric Heat Option |                                 |        |                      | MCA <sup>1</sup><br>Amps | Max Fuse <sup>2</sup><br>or<br>Breaker <sup>3</sup><br>Size | MCA <sup>1</sup><br>Amps | Max Fuse <sup>2</sup><br>or<br>Breaker <sup>3</sup><br>Size |
|---------|------------|------|------|---------------------|---------------------|----------------------|---------------------------------|--------|----------------------|--------------------------|---|--------------------------|---|
|         | RLA        | LRA  | MCC  |                     |                     | Heater Kit           | Heater kW                       | Stages | Heater Amps          |                          |   |                          |   |
|         |            |      |      |                     |                     |                      | CIRCUIT 1<br>Unit Minus Heaters |        | CIRCUIT 2<br>Heaters |                          |   |                          |   |
| PHE4B36 | 5.8        | 38.0 | 9.0  | 0.87                | 1.95                | none                 | --                              | --     | --                   | 10.1                     | 15  | --                       | --  |
|         |            |      |      |                     |                     | 6HK06501046          | 8.8                             | 1      | 11.0                 | 10.1                     | 15  | 13.8                     | 15  |
|         |            |      |      |                     |                     | 6HK06501546          | 13.2                            | 1      | 16.6                 | 10.1                     | 15  | 20.7                     | 25  |
| PHE4B48 | 6.2        | 41.0 | 9.7  | 0.87                | 3.15                | none                 | --                              | --     | --                   | 11.8                     | 15  | --                       | --  |
|         |            |      |      |                     |                     | 6HK06501046          | 8.8                             | 1      | 11.0                 | 11.8                     | 15  | 13.8                     | 15  |
|         |            |      |      |                     |                     | 6HK06501546          | 13.2                            | 1      | 16.6                 | 11.8                     | 15  | 20.7                     | 25  |
|         |            |      |      |                     |                     | 6HK06501846          | 15.9                            | 1      | 20.0                 | 11.8                     | 15  | 25.0                     | 25  |
|         |            |      |      |                     |                     | 6HK06502046          | 17.6                            | 1      | 22.1                 | 11.8                     | 15  | 27.6                     | 30  |
| PHE4B60 | 7.8        | 52.0 | 12.1 | 0.87                | 3.15                | none                 | --                              | --     | --                   | 13.8                     | 20  | --                       | --  |
|         |            |      |      |                     |                     | 6HK06501046          | 8.8                             | 1      | 11.0                 | 13.8                     | 20  | 13.8                     | 15  |
|         |            |      |      |                     |                     | 6HK06501546          | 13.2                            | 1      | 16.6                 | 13.8                     | 20  | 20.7                     | 25  |
|         |            |      |      |                     |                     | 6HK06501846          | 15.9                            | 1      | 20.0                 | 13.8                     | 20  | 25.0                     | 25  |
|         |            |      |      |                     |                     | 6HK06502046          | 17.6                            | 1      | 22.1                 | 13.8                     | 20  | 27.6                     | 30  |
|         |            |      |      |                     |                     | 6HK06502546          | 22.0                            | 1      | 27.6                 | 13.8                     | 20  | 34.5                     | 35  |

1. Minimum Circuit Ampacity.  
 2. Maximum Overcurrent Protection per standard UL 1995.  
 3. Fuse or HACR circuit breaker is field installed.



A0295-001-TG

**WEIGHTS AND DIMENSIONS**

| Model     | Weight (lb) |           | Center of Gravity |    | 4 Point Load Location (lb) |     |     |    |
|-----------|-------------|-----------|-------------------|----|----------------------------|-----|-----|----|
|           | Shipping    | Operating | X                 | Y  | A                          | B   | C   | D  |
| PHE4B3641 | 453         | 448       | 29                | 15 | 158                        | 108 | 101 | 86 |
| PHE4B4841 | 501         | 496       | 29                |    | 168                        | 130 | 119 | 84 |
| PHE4B6041 | 528         | 523       | 30                |    | 177                        | 136 | 128 | 87 |

**AIRFLOW PERFORMANCE - SIDE DUCT APPLICATION**

| Model   | Motor Speed     | External Static Pressure (in. W.C.) |      |      |      |      |      |      |      |      |
|---------|-----------------|-------------------------------------|------|------|------|------|------|------|------|------|
|         |                 | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 1.0  |
|         |                 | SCFM                                | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM |
| PHE4B36 | Low (1)         | 1108                                | 1050 | 984  | 921  | 857  | 791  | 726  | 660  | 528  |
|         | Medium Low (2)  | 1283                                | 1225 | 1168 | 1115 | 1054 | 993  | 924  | 860  | 733  |
|         | Medium (3)      | 1362                                | 1308 | 1252 | 1199 | 1142 | 1079 | 1015 | 979  | 905  |
|         | Medium High (4) | 1403                                | 1347 | 1290 | 1235 | 1177 | 1118 | 1058 | 995  | 869  |
|         | High (5)        | 1623                                | 1569 | 1519 | 1470 | 1418 | 1362 | 1306 | 1246 | 1125 |
| PHE4B48 | Low (1)         | 1620                                | 1564 | 1517 | 1466 | 1418 | 1360 | 1308 | 1206 | 1002 |
|         | Medium Low (2)  | 1694                                | 1630 | 1580 | 1530 | 1482 | 1430 | 1380 | 1292 | 1116 |
|         | Medium (3)      | 1798                                | 1722 | 1669 | 1620 | 1572 | 1527 | 1480 | 1413 | 1280 |
|         | Medium High (4) | 1835                                | 1758 | 1703 | 1653 | 1604 | 1558 | 1511 | 1442 | 1304 |
|         | High (5)        | 2146                                | 2085 | 2025 | 1960 | 1872 | 1862 | 1798 | 1735 | 1609 |
| PHE4B60 | Low (1)         | 1730                                | 1682 | 1628 | 1592 | 1552 | 1517 | 1479 | 1439 | 1359 |
|         | Medium Low (2)  | 1858                                | 1807 | 1749 | 1710 | 1667 | 1629 | 1589 | 1546 | 1460 |
|         | Medium (3)      | 2054                                | 1998 | 1934 | 1890 | 1843 | 1801 | 1757 | 1710 | 1616 |
|         | Medium High (4) | 2195                                | 2144 | 2098 | 2049 | 2003 | 1955 | 1883 | 1868 | 1838 |
|         | High (5)        | 2445                                | 2388 | 2306 | 2293 | 2235 | 2178 | 2129 | 2077 | 1973 |

**Notes:**

Airflow tested with dry coil conditions, without air filters, at 460 V.

Applications above 0.8 in. W.C. external static pressure are not recommended.

Brushless DC high efficiency standard ECM blower motor used for all indoor blower assemblies.

Heating applications tested at 0.50 in. W.C. external static pressure, and cooling applications tested at 0.30 in. W.C. external static pressure per standards.

**AIRFLOW PERFORMANCE - BOTTOM DUCT APPLICATION**

| Model   | Motor Speed     | External Static Pressure (in. W.C.) |      |      |      |      |      |      |      |      |
|---------|-----------------|-------------------------------------|------|------|------|------|------|------|------|------|
|         |                 | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 1.0  |
|         |                 | SCFM                                | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM | SCFM |
| PHE4B36 | Low (1)         | 1127                                | 1082 | 1021 | 952  | 889  | 825  | 759  | 689  | 549  |
|         | Medium Low (2)  | 1306                                | 1265 | 1205 | 1154 | 1094 | 1029 | 963  | 892  | 751  |
|         | Medium (3)      | 1354                                | 1315 | 1259 | 1212 | 1153 | 1093 | 1024 | 990  | 920  |
|         | Medium High (4) | 1397                                | 1348 | 1297 | 1256 | 1195 | 1135 | 1077 | 1014 | 888  |
|         | High (5)        | 1634                                | 1591 | 1548 | 1497 | 1446 | 1382 | 1309 | 1250 | 1131 |
| PHE4B48 | Low (1)         | 1598                                | 1548 | 1502 | 1454 | 1410 | 1362 | 1307 | 1251 | 1139 |
|         | Medium Low (2)  | 1663                                | 1612 | 1568 | 1522 | 1476 | 1422 | 1370 | 1297 | 1152 |
|         | Medium (3)      | 1789                                | 1733 | 1670 | 1650 | 1596 | 1578 | 1535 | 1483 | 1379 |
|         | Medium High (4) | 1931                                | 1814 | 1808 | 1736 | 1673 | 1650 | 1597 | 1519 | 1362 |
|         | High (5)        | 2131                                | 2058 | 1998 | 1949 | 1892 | 1840 | 1788 | 1728 | 1608 |
| PHE4B60 | Low (1)         | 1655                                | 1612 | 1596 | 1531 | 1461 | 1462 | 1429 | 1391 | 1316 |
|         | Medium Low (2)  | 1766                                | 1720 | 1667 | 1629 | 1632 | 1539 | 1537 | 1498 | 1421 |
|         | Medium (3)      | 1987                                | 1933 | 1861 | 1817 | 1820 | 1715 | 1725 | 1651 | 1504 |
|         | Medium High (4) | 2114                                | 2050 | 2047 | 1974 | 1899 | 1889 | 1920 | 1866 | 1758 |
|         | High (5)        | 2369                                | 2308 | 2249 | 2183 | 2126 | 2088 | 2034 | 1990 | 1902 |

**Notes:**

Airflow tested with dry coil conditions, without air filters, at 460 V.

Applications above 0.8 in. W.C. external static pressure are not recommended.

Brushless DC high efficiency standard ECM blower motor used for all indoor blower assemblies.

Heating applications tested at 0.50 in. W.C. external static pressure, and cooling applications tested at 0.30 in. W.C. external static pressure per standards.

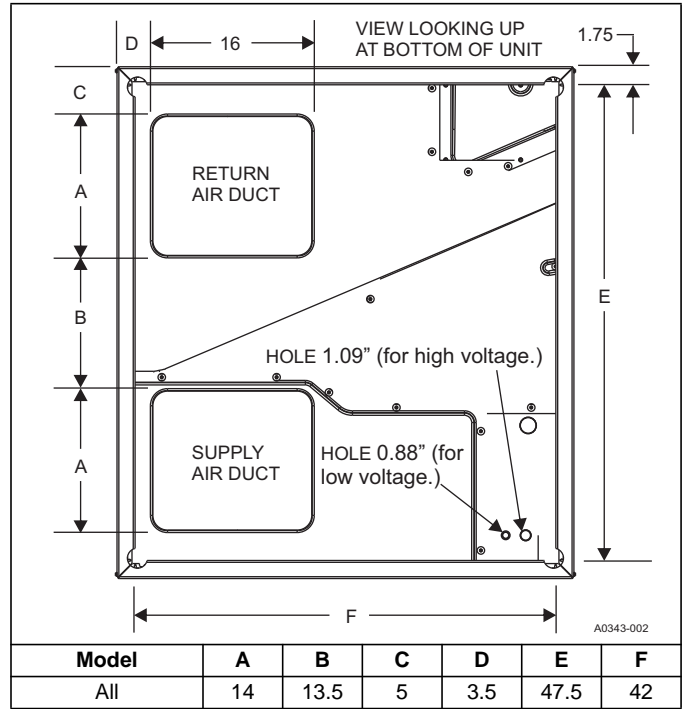
**ADDITIONAL STATIC RESISTANCE**

| 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             |
|             | 2000 | 0.09            | 0.05                    | 0.11             |
| 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                    |                  |

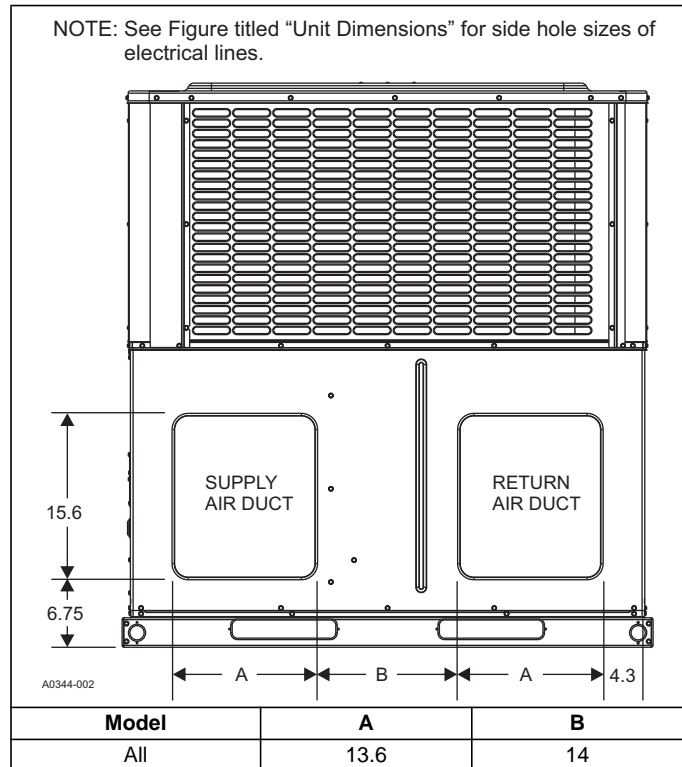
1. The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

**Note:** Filter pressure drop based on standard filter media tested at velocities not to exceed 300 ft/min.

**BOTTOM DUCT DIMENSIONS (in.)**

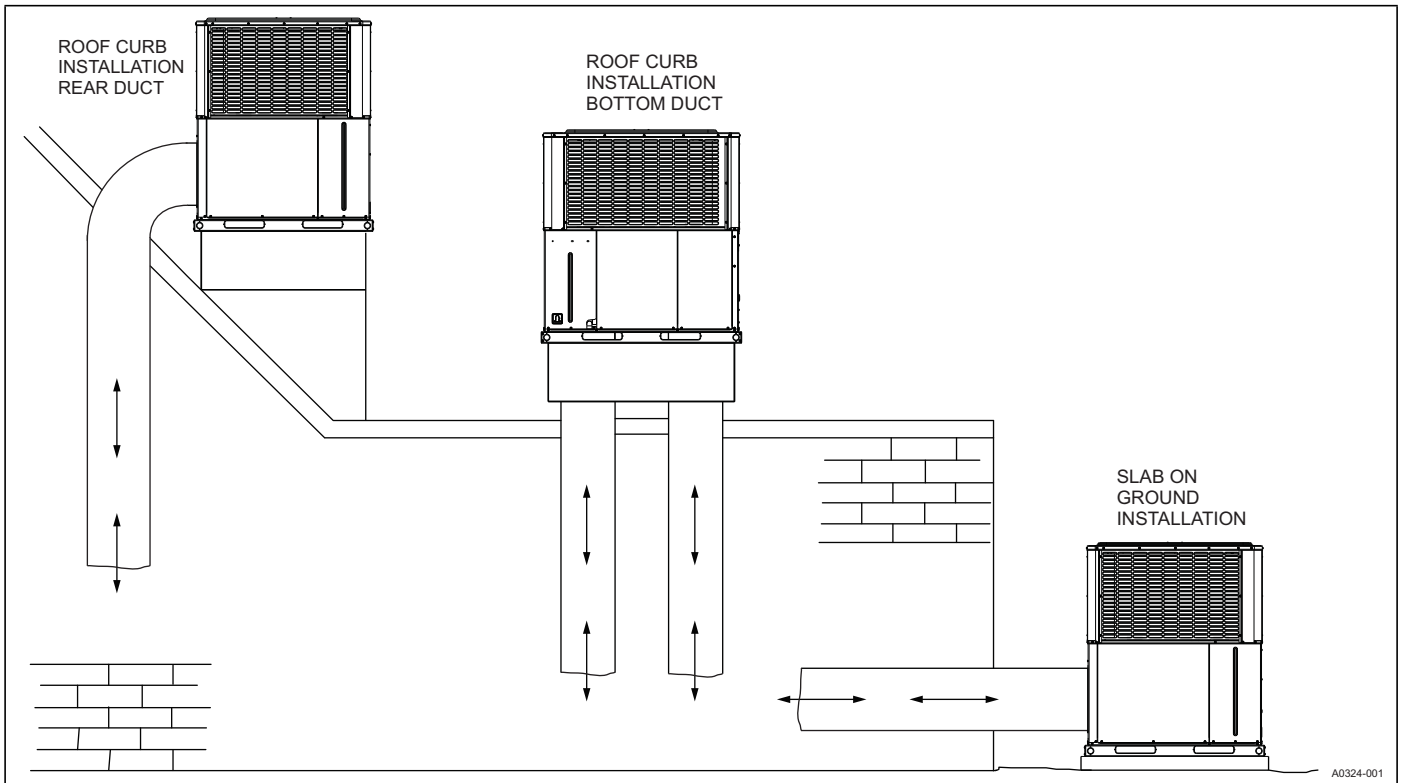


**REAR DUCT DIMENSIONS (in.)**

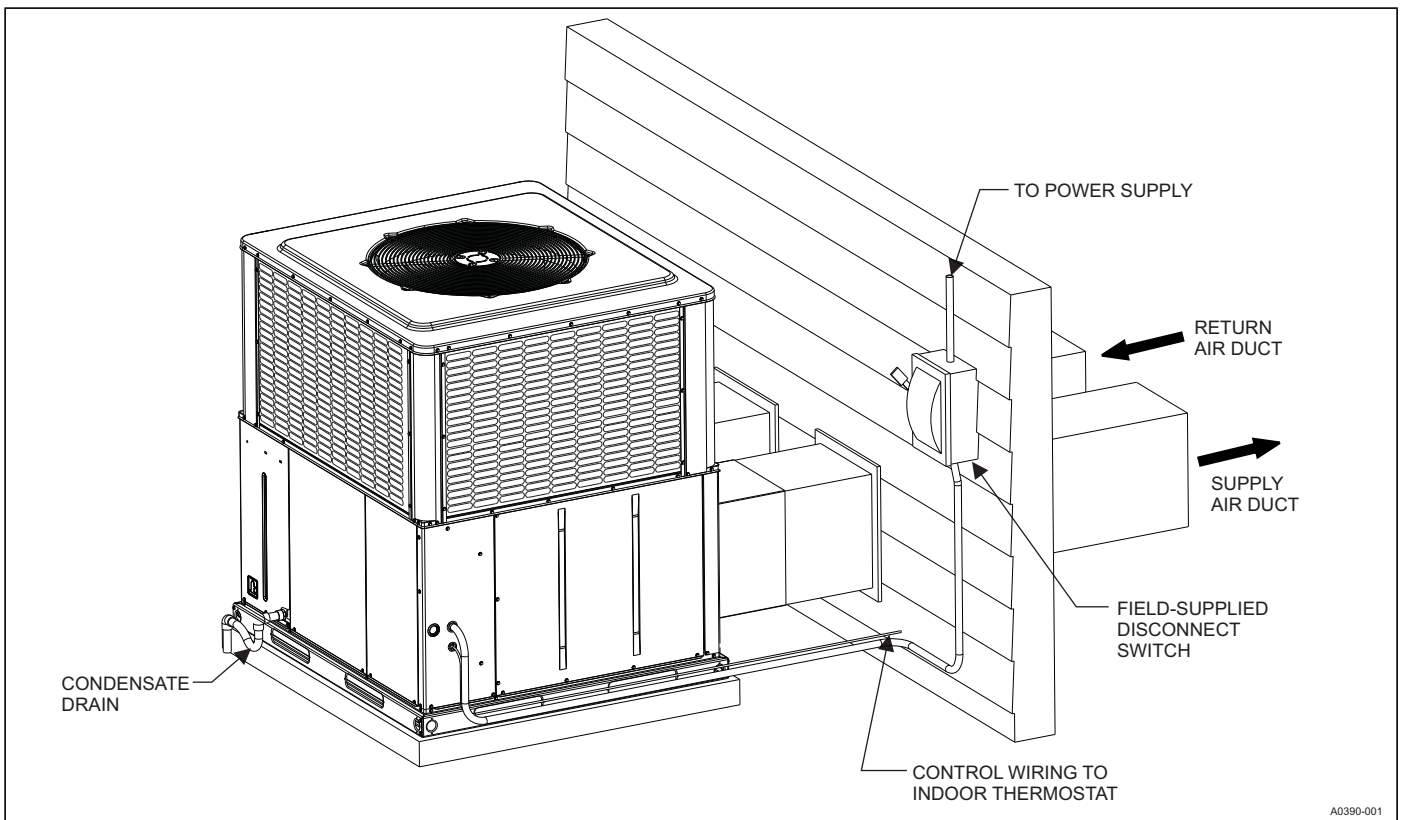




**UNIT TYPICAL DUCT APPLICATIONS**



**UNIT TYPICAL SLAB ON GROUND INSTALLATION**



# UNIT TYPICAL ROOF CURB INSTALLATION

