TECHNICAL GUIDE

SINGLE PACKAGE
HEAT PUMP/ELECTRIC HEAT
14 SEER - R-410A - 3 PHASE
3 TO 5 NOMINAL TON - 208/230 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-year limited compressor warranty.
See the limited warranty certificate in the *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 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 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 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. The convertible airflow design
 allows for maximum field flexibility and minimum inventory.
- Condensate Pan A corrosion-resistant, long-lasting, watertight pan is positioned below the indoor coil to collect and drain all condensate, preventing buildup of stagnant condensate. The condensate pan conforms to ASHRAE 62-19 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 paintto-steel bond, which resists corrosion and rust creep. The powder paint finish ensures less fading when exposed to sunlight, and provides superior corrosion resistance (1,000 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 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. The 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 fan motor bearings and indoor blower motor bearings need no annual maintenance, adding greater reliability to the unit. The 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 blower 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 for maximum comfort capabilities.
- Loss of Charge Switch All models include a loss of charge switch to provide safe shutdown of compressor.
- 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 numbered and color-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 The grooved copper tubes and enhanced aluminum fin construction of the outdoor coils improve heat transfer for maximum efficiency and durability. Indoor tube and fin coils have all aluminum construction for reliability and efficient heat transfer.
- Electric Heat All electric heat models use 6HK electric heat kits, which are available in 208/230-3-60 from 10 kW to 25 kW. Kits are stageable above 15 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 three-phase units include a filter frame kit, which 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	В	36		3		4	Α
1	2	3	4	5	6	7	8	9

1. Model Family

PHE - packaged heat pump with electric heat

PCG - packaged A/C with gas heat

PHG - packaged heat pump with gas heat

PCE - packaged A/C with electric heat

2. Nominal Cooling Efficiency

4 = 14 SEER, 6 = 16 SEER

3. Cabinet Size

A = small 35.75 in. x 51.25 in., B = large 45.75 in. x 51.25 in.

4. Nominal Air Conditioning Cooling Capacity BTU/h x 1000

36 = 36,000 BTU/h, 48 = 48,000 BTU/h

7. NOx Approval X = Low NOx, blank = not Low NOx

5. Gas Heating Input BTU/h x 1000

6. Voltage-Phase-Frequency

050 = 50,000 BTU/h input, blank = electric heat

2 = 208/230-1-60, 3 = 208/230-3-60, 4 = 460-3-60

8. Generation Level

1 = first generation, 2 = second generation

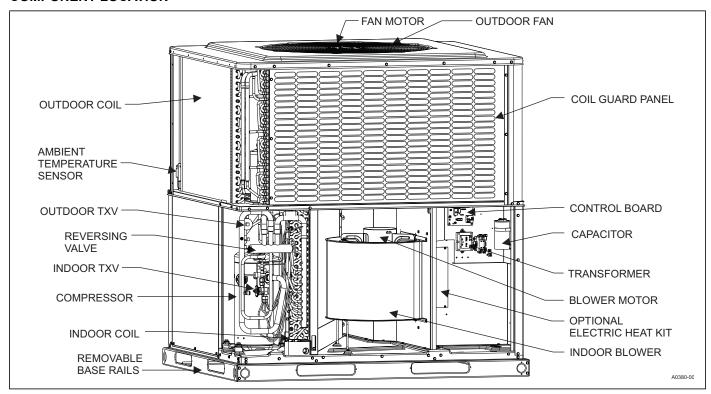
9. Revision Level

A = original release, B = second release

Example:

PHE4B3634A is a packaged heat pump with electric heat, 14 SEER, large cabinet, 3 ton, 208/230 V, three-phase model, fourth generation, original release.

COMPONENT LOCATION



UNIT LIMITATIONS

			Unit Limitations	
Model	Unit Voltage	Applied	Voltage	Outdoor DB Temperature
		Minimum	Maximum	Maximum (°F)
PHE4B3634	208/230-3-60	187	252	125
PHE4B4834	208/230-3-60	187	252	125
PHE4B6034	208/230-3-60	187	252	125

APPLICATIONS AND ACCESSORIES

Application Limitations											
		Air Temperature at				Air Temperature at					
Packaged	Ō	utdoor	Coil (°F)	Indoor Coil (°F)						
Equipment	Mini	mum	Maxi	mum	Mini	mum	Maximum				
Series	DB	DB	DB	DB	WB	DB	WB	DB			
	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat			
14 SEER HP*	55	-10	125	75	57	50	72	80			

Note: *PHE4A24 and PHG4A24 models are restricted to operation of 0°F outdoor air temperature.

- Anchor Bracket Kit (S1-1HK0601) This kit firmly anchors PCG, PCE, PHE, and PHG packaged units to a pad or support structure. When correctly 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) The modulating integrated economizer provides simultaneous operation between mechanical cooling and economizer operation. The 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) - The modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. The 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 introduced through the economizer fresh air hood.
- Single/Dual Enthalpy Sensor (S1-HE-69630NS-2D) The sensor replaces the supply air temperature dry bulb sensor standard in the economizer kit. Provides improved economizer operation by sensing the dry bulb temperature of indoor supply air plus the enthalpy content of the outdoor air.
- Duct/Unit Mount CO2 Kit (S1-2AQ04700924) The sensor kit detects CO₂ levels automatically and overrides the economizer when CO₂ levels rise above the preset limits.
- Wall Mount CO2 Kit (S1-2AQ04701024) The sensor kit detects CO₂ levels automatically and overrides the economizer when CO₂ levels rise above the preset limits.
- Supply Air Temperature Sensor Kit (S1-TE-63616E-2D) The outdoor supply air temperature sensor kit is used with
 economizers.
- Filter/Frame Kit (Kit provided)
 (S1-1FF0602, S1-1FF0601) The kit contains the necessary
 hardware to field install return air filters into the base unit.
 The filter rack is suitable for 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.

- Motorized Fresh Air Damper (S1-2MD04705224, S1-2MD04705124) - Designed for duct mounted side supply/return and unit mounted down supply/ return applications. The damper is capable of providing 0% to 50% of outdoor air (field supplied). Closes on power loss, and includes hood and screen assembly.
- Rectangle to Round (Horizontal) Adapter (S1-1AK0110, S1-1AK0111) - The 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) - The 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. The 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. The 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 (\$1-2LA04701024) The kit provides necessary hardware to convert the unit to operate in cooling cycle down to 0°F. Standard unit operation is 55°F.
- Base Rail Hole Cover Kit (S1-1HC0101) The kit provides necessary hardware to close off openings in base rails to block off openings and prevent animal entrance.
- Transition Curb Kits (S1-1TC01*) These adapter kits allow field use of existing installed roof curbs, matching the PHE4 footprint to Affinity roof curbs or Carrier, Trane, or Goodman roof curbs. 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 038) The kit provides terminal block, circuit breaker, 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, refer to the *Thermostats & Controllers* section of the *Offering 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 singlestage 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 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, charged with R-410A refrigerant, and factory tested before shipment. All models shall be rated in accordance with DOE and AHRI test procedures for 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 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. The 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

The unit cabinet shall be a single-piece design, with drip edges and no-seam corners to provide optimum water integrity. The unit shall have a rigidly mounted outdoor coil guard to provide protection from objects and personnel after installation. The 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. The 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 if their removal is required to lower the 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 (1,000 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. The convertible airflow design
 allows for 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 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 The blower shall be a direct drive design. The blower wheel shall be a double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. The design shall use constant torque motors. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. The blower 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 a 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 aluminum tubes with all joints brazed.
- Condensate Pan A corrosion-resistant, long-lasting, watertight 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 62-19 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 valve (TXV) that is 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 numbered and color-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 208/230-3-60 from 10 kW to 25 kW. Kits are stageable above 15 kW.

PHYSICAL DATA

		MODELS	
NOMINAL TONNAGE	PHE4B3634	PHE4B4834	PHE4B6034
	3.0	4.0	5.0
AHRI Cooling Performance			
Gross Capacity at AHRI A point (MBH)	36.3	49.1	61.3
AHRI net capacity (MBH)	35.8	48.0	59.5
EER	11.6	11.6	11.2
SEER	14.0	14.0	14.0
Nominal CFM	1150	1500	1850
System power (kW)	2.73	3.79	4.73
Refrigerant type	R-410A	R-410A	R-410A
Refrigerant charge (lb-oz)	9-10	14-4	11-10
AHRI Heating Performance			
17°F Capacity Rating (MBH)	34.8	46.5	56.5
System Power (kW/COP)	3.6	3.7	3.6
17°F Capacity Rating (MBH)	19.8	27.0	33.0
HSPF (BTU/Watts-hr.)	8.0	8.0	8.0
Dimensions (in.)	·		
_ength	51 1/4	51 1/4	51 1/4
Vidth	45 3/4	45 3/4	45 3/4
Height	47	53	55
Operating Weight (lb)	420	479	485
Compressors			
Гуре	Scroll	Scroll	Scroll
Outdoor Coil Data		1	1
ace area (ft ²)	17.6	24.2	26.4
Rows	2	2	2
Fins per inch	22	22	22
Tube diameter (mm)	7	7	7
Circuitry type	Interlaced	Interlaced	Interlaced
Refrigerant control	TXV	TXV	TXV
ndoor Coil Data	170	1777	1777
ace area (ft ²)	6.3	6.3	6.3
Rows	3	4	4
	_		•
Fins per inch	16	16	16
Гube diameter (in.)	3/8	3/8	3/8
Circuitry type	Interlaced	Interlaced	Interlaced
Refrigerant control	TXV	TXV	TXV
Outdoor Fan Data		00	1 00
Fan diameter (in.)	26 Prop	26 Dran	26
Type	Prop	Prop	Prop Direct
Drive type	Direct	Direct	
Number of speeds Motor HP each	1	1 1/2	1 1/2
	1/3	1/3	1/3
RPM	850	850	850
Nominal total CFM	3450	4000	4000
Direct Drive Indoor Blower Data	44 :: 40	44 40	14 :: 40
Fan size (in.)	11 x 10	11 x 10	11 x 10
ype Actor LID cook	Centrifugal	Centrifugal	Centrifugal
Motor HP each	1/2	3/4	1000 Mandana
RPM	1200 Maximum	1200 Maximum	1200 Maximum
rame size	48	48	48
Filters			T 5
Filter size	able filters. All three-phase mode	Bst be sized so as not to exceed 300 Is include an internal filter rack kit a for replacement filter sizes. Filter si	and washable filters. Refer to th

COOLING PERFO	COOLING PERFORMANCE DATA - 3 TON															
PACKAGED UNIT M	ODEL NO.	PHE4E	33634													
CONDENSER	ID CFM			1000					1200					1400		
ENTERING AIR	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
TEMPERATURE (°F)	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
	T.C.	38.8	41.2	39.8	45.3	48.0	42.0	43.4	42.0	47.1	49.8	45.2	45.6	44.2	49.0	51.7
55 / 45	S.C.	37.2	34.3	28.1	28.8	22.5	40.3	38.3	31.3	31.1	24.4	43.4	42.2	34.5	33.4	26.3
	K.W.	1.80	1.80	1.81	1.79	1.78	1.86	1.87	1.87	1.85	1.84	1.92	1.93	1.93	1.91	1.91
	T.C.	36.3	38.4	37.8	42.4	45.9	39.4	40.5	40.2	44.1	48.3	42.5	42.7	42.6	45.9	50.7
65 / 55	S.C.	34.9	32.8	27.4	27.7	22.6	37.9	36.4	30.6	30.3	24.4	41.0	40.1	33.7	32.9	26.3
	K.W.	2.00	2.00	2.01	1.99	1.98	2.06	2.06	2.07	2.05	2.04	2.13	2.13	2.13	2.11	2.11
	T.C.	33.8	35.6	35.8	39.5	43.8	36.8	37.6	38.5	41.1	46.7	39.7	39.7	41.1	42.8	49.7
75 / 63	S.C.	32.6	31.2	26.7	26.6	22.6	35.5	34.6	29.8	29.5	24.5	38.5	38.0	33.0	32.4	26.3
	K.W.	2.21	2.20	2.21	2.20	2.18	2.27	2.26	2.27	2.26	2.24	2.33	2.32	2.34	2.32	2.31
	T.C.	32.7	33.7	33.2	37.3	41.6	35.2	35.5	36.6	38.8	44.0	37.8	37.3	40.0	40.4	46.3
85 / 69	S.C.	31.7	30.5	25.3	25.6	21.2	34.4	33.4	28.3	28.6	23.0	37.0	36.4	31.3	31.5	24.8
	K.W.	2.44	2.44	2.44	2.44	2.43	2.51	2.51	2.51	2.50	2.50	2.57	2.57	2.58	2.56	2.56
	T.C.	31.5	31.9	30.6	35.0	39.5	33.7	33.4	34.7	36.5	41.2	35.8	34.9	38.9	38.0	43.0
95 / 75	S.C.	30.9	29.8	23.9	24.7	19.7	33.2	32.3	26.8	27.7	21.5	35.6	34.9	29.6	30.7	23.4
	K.W.	2.68	2.68	2.68	2.68	2.68	2.75	2.75	2.75	2.74	2.75	2.82	2.82	2.82	2.81	2.81
	T.C.	28.5	28.6	27.1	31.5	35.6	30.2	29.9	29.8	32.5	36.6	31.8	31.2	32.6	33.4	37.6
105 / 83	S.C.	28.1	27.2	22.3	23.2	18.2	29.9	29.2	24.3	25.9	19.6	31.7	31.2	26.4	28.6	21.1
	K.W.	2.99	2.99	2.99	2.99	3.00	3.06	3.06	3.06	3.06	3.07	3.13	3.13	3.13	3.13	3.14
	T.C.	25.6	25.4	23.7	28.1	31.9	26.8	26.5	25.1	28.6	32.2	28.0	27.6	26.5	29.0	32.4
115 / 89	S.C.	25.4	24.7	20.6	21.7	16.7	26.7	26.2	22.0	24.1	17.8	27.9	27.6	23.4	26.6	18.9
	K.W.	3.29	3.29	3.29	3.30	3.31	3.36	3.36	3.36	3.37	3.38	3.43	3.44	3.43	3.44	3.45
	T.C.	22.7	22.2	20.3	24.6	28.2	23.4	23.1	20.3	24.6	27.7	24.1	24.0	20.3	24.6	27.3
125 / 95	S.C.	22.7	22.2	19.0	20.2	15.3	23.4	23.1	19.7	22.4	16.0	24.1	24.0	20.3	24.6	16.7
	K.W.	3.59	3.59	3.59	3.61	3.62	3.66	3.67	3.66	3.68	3.69	3.74	3.74	3.73	3.75	3.76

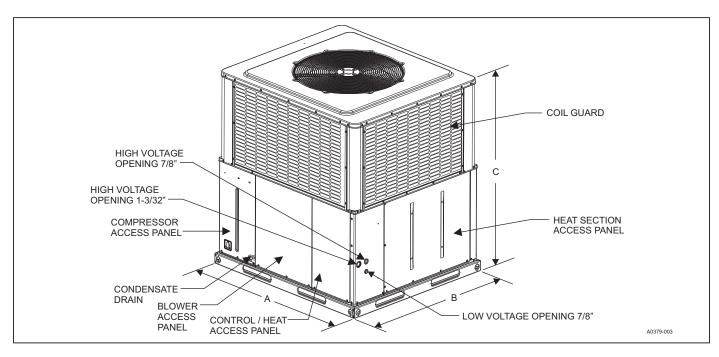
COOLING PERFO	DRMANC	E DA	TA - 4	TON												
PACKAGED UNIT M	PACKAGED UNIT MODEL NO. PHE4B4834															
CONDENSER	ID CFM			1300					1500					1700		
ENTERING AIR	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
TEMPERATURE (°F)	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
	T.C.	49.8	53.9	53.6	58.9	60.3	52.3	55.4	55.0	59.6	60.7	54.9	56.8	56.5	60.3	61.0
55 / 45	S.C.	49.4	45.8	39.1	39.5	36.7	52.3	48.7	41.7	42.1	39.6	54.9	51.7	44.3	44.6	42.5
	K.W.	2.48	2.45	2.45	2.43	2.42	2.53	2.51	2.51	2.49	2.49	2.58	2.57	2.57	2.55	2.55
	T.C.	47.8	50.7	50.8	56.4	58.1	50.4	52.2	52.3	57.3	59.0	52.9	53.8	53.7	58.3	59.9
65 / 55	S.C.	47.8	43.7	37.4	38.0	35.0	50.4	46.6	39.9	40.8	37.3	52.9	49.5	42.4	43.6	39.6
	K.W.	2.74	2.73	2.73	2.72	2.72	2.80	2.79	2.80	2.79	2.78	2.86	2.86	2.86	2.85	2.85
	T.C.	45.9	47.5	48.1	53.9	56.0	48.4	49.1	49.5	55.1	57.3	51.0	50.8	51.0	56.3	58.7
75 / 63	S.C.	45.9	41.6	35.7	36.6	33.2	48.4	44.5	38.1	39.5	35.0	51.0	47.3	40.6	42.5	36.7
	K.W.	3.00	3.01	3.01	3.01	3.01	3.07	3.08	3.08	3.08	3.08	3.14	3.15	3.15	3.15	3.15
	T.C.	43.4	44.6	45.1	50.6	53.5	45.2	45.9	46.4	51.9	54.6	46.9	47.2	47.6	53.1	55.8
85 / 69	S.C.	43.4	40.3	34.0	35.1	32.6	45.2	43.0	36.4	37.7	34.4	46.9	45.6	38.8	40.4	36.1
	K.W.	3.31	3.31	3.32	3.34	3.11	3.23	3.38	3.39	3.41	3.15	3.16	3.46	3.47	3.48	3.19
	T.C.	40.9	41.8	42.2	47.3	51.0	41.9	42.7	43.3	48.6	51.9	42.8	43.6	44.3	49.9	52.9
95 / 75	S.C.	40.9	39.0	32.4	33.6	32.0	41.9	41.5	34.7	36.0	33.8	42.8	43.6	37.0	38.3	35.5
	K.W.	3.61	3.62	3.64	3.66	3.21	3.39	3.69	3.71	3.73	3.22	3.18	3.77	3.78	3.81	3.23
	T.C.	37.4	38.0	37.4	42.6	46.2	38.0	38.5	38.1	43.6	47.1	38.5	39.0	38.9	44.6	48.1
105 / 83	S.C.	37.4	36.2	30.1	31.2	29.1	38.0	37.8	32.1	33.4	30.8	38.5	39.0	34.1	35.7	32.4
	K.W.	3.87	3.88	4.05	4.07	3.78	3.73	3.93	4.12	4.14	3.81	3.59	3.98	4.20	4.22	3.84
	T.C.	34.0	34.3	32.7	38.0	41.5	34.1	34.4	33.1	38.7	42.5	34.3	34.5	33.6	39.4	43.4
115 / 89	S.C.	34.0	33.5	27.9	28.8	26.4	34.1	34.2	29.6	31.0	27.9	34.3	34.5	31.3	33.1	29.4
	K.W.	4.13	4.13	4.44	4.46	4.33	4.06	4.16	4.52	4.54	4.39	3.99	4.19	4.59	4.62	4.44
	T.C.	30.6	30.6	28.0	33.5	36.9	30.3	30.3	28.1	33.8	37.8	30.1	30.1	28.3	34.1	38.7
125 / 95	S.C.	30.6	30.6	25.6	26.5	23.6	30.3	30.3	27.1	28.5	25.0	30.1	30.1	28.3	30.5	26.5
	K.W.	4.38	4.38	4.84	4.86	4.88	4.39	4.39	4.92	4.94	4.96	4.39	4.39	4.99	5.01	5.04

COOLING PERFO	COOLING PERFORMANCE DATA - 5 TON															
PACKAGED UNIT M	ODEL NO.	PHE4E	36034													
CONDENSER	ID CFM			1600					1800					2000		
ENTERING AIR	IDDB	80	80	75	80	80	80	80	75	80	80	80	80	75	80	80
TEMPERATURE (°F)	IDWB	57	62	62	67	72	57	62	62	67	72	57	62	62	67	72
	T.C.	65.6	69.4	68.1	73.1	72.9	69.0	71.4	70.3	74.5	74.5	72.5	73.5	72.5	75.8	76.0
55 / 45	S.C.	64.3	58.0	48.1	47.3	37.1	67.0	62.4	51.6	49.8	41.1	69.7	66.8	55.0	52.3	45.0
	K.W.	3.18	3.16	3.15	3.15	3.13	3.28	3.26	3.24	3.24	3.24	3.37	3.36	3.34	3.34	3.34
	T.C.	61.4	64.7	64.3	69.9	72.4	65.0	67.0	66.8	71.5	74.0	68.6	69.2	69.3	73.1	75.6
65 / 55	S.C.	60.1	55.3	46.5	46.0	36.8	63.3	59.9	50.1	49.0	39.5	66.5	64.5	53.7	51.9	42.2
	K.W.	3.51	3.50	3.50	3.51	3.51	3.61	3.60	3.59	3.60	3.61	3.71	3.69	3.69	3.70	3.70
	T.C.	57.2	60.1	60.4	66.8	72.0	61.0	62.6	63.3	68.6	73.6	64.7	65.0	66.1	70.4	75.3
75 / 63	S.C.	55.9	52.6	44.8	44.8	36.5	59.6	57.4	48.6	48.2	38.0	63.4	62.2	52.3	51.6	39.5
	K.W.	3.84	3.84	3.85	3.87	3.88	3.95	3.93	3.94	3.97	3.97	4.05	4.03	4.04	4.06	4.07
	T.C.	54.8	56.9	56.1	62.3	67.7	58.2	59.1	58.2	64.1	69.1	61.5	61.2	60.4	65.9	70.4
85 / 69	S.C.	54.0	51.4	42.5	42.6	33.5	57.5	55.6	46.1	46.2	35.6	61.0	59.9	49.7	49.7	37.6
	K.W.	4.24	4.24	4.24	4.26	4.29	4.34	4.33	4.33	4.36	4.39	4.45	4.43	4.43	4.46	4.48
	T.C.	52.4	53.8	51.7	57.8	63.4	55.4	55.6	53.2	59.6	64.5	58.4	57.4	54.6	61.4	65.6
95 / 75	S.C.	52.2	50.1	40.1	40.4	30.6	55.4	53.9	43.5	44.1	33.2	58.4	57.4	47.0	47.8	35.8
	K.W.	4.63	4.63	4.63	4.66	4.71	4.73	4.73	4.73	4.76	4.80	4.84	4.83	4.83	4.86	4.90
	T.C.	48.2	48.8	46.6	52.5	57.4	50.5	50.7	47.8	53.6	58.1	52.9	52.6	49.1	54.8	58.8
105 / 83	S.C.	48.1	46.5	37.6	38.1	28.8	50.5	49.7	40.9	41.6	31.0	52.9	52.6	44.2	45.0	33.3
	K.W.	5.15	5.15	5.14	5.18	5.23	5.26	5.26	5.25	5.28	5.33	5.37	5.36	5.35	5.39	5.42
	T.C.	44.1	44.1	41.5	47.3	51.6	45.8	46.0	42.7	47.8	52.0	47.6	47.9	43.8	48.4	52.3
115 / 89	S.C.	44.1	43.0	35.2	35.9	27.0	45.8	45.6	38.3	39.1	28.9	47.6	47.9	41.4	42.3	30.7
	K.W.	5.66	5.65	5.64	5.69	5.74	5.77	5.77	5.75	5.79	5.83	5.88	5.88	5.86	5.89	5.93
	T.C.	40.0	39.3	36.5	42.0	45.8	41.2	41.3	37.5	42.0	45.8	42.4	43.3	38.4	42.0	45.7
125 / 95	S.C.	40.0	39.3	32.8	33.7	25.3	41.2	41.3	35.8	36.7	26.8	42.4	43.3	38.4	39.6	28.2
	K.W.	6.17	6.16	6.14	6.20	6.24	6.28	6.28	6.25	6.30	6.34	6.39	6.39	6.37	6.40	6.44

HEATING PERFO	HEATING PERFORMANCE DATA - 3 TON									
PACKAG	ED UNIT MODEL NO.	PHE4B36	34							
AIR TEMPERATURE	AIR					ID CFM				
ENTERING	TEMPERATURE		1000			1200		1400		
OUTDOOR COIL (°F)	ENTERING INDOOR COIL (°F)	MBH	СОР	kW	МВН	СОР	kW	МВН	СОР	kW
	60	43.0	4.69	2.69	44.6	4.95	2.64	46.1	5.22	2.59
60	70	40.2	3.97	2.97	41.9	4.22	2.91	43.7	4.50	2.85
	80	37.3	3.36	3.25	39.3	3.62	3.18	41.3	3.89	3.11
	60	34.1	3.87	2.58	35.8	4.11	2.55	37.4	4.33	2.53
47	70	33.0	3.42	2.83	34.6	3.62	2.80	36.2	3.84	2.76
	80	31.9	3.03	3.09	33.4	3.22	3.04	34.9	3.41	3.00
	60	30.0	3.49	2.52	31.6	3.69	2.51	33.2	3.91	2.49
40	70	29.5	3.13	2.76	30.9	3.31	2.74	32.4	3.49	2.72
	80	29.0	2.83	3.00	30.2	2.98	2.97	31.5	3.14	2.94
	60	25.0	3.00	2.44	26.4	3.17	2.44	27.8	3.34	2.44
30	70	24.8	2.74	2.65	26.0	2.88	2.65	28.0	3.10	2.65
	80	24.7	2.52	2.87	25.6	2.62	2.86	26.0	2.66	2.86
	60	19.9	2.50	2.33	20.9	2.61	2.35	21.9	2.69	2.38
17	70	19.4	2.26	2.52	20.2	2.33	2.54	21.0	2.39	2.57
	80	18.9	2.05	2.70	19.6	2.10	2.73	20.2	2.15	2.75
	60	17.9	2.31	2.27	18.5	2.35	2.31	19.1	2.39	2.34
10	70	16.9	2.03	2.44	17.4	2.06	2.48	18.0	2.09	2.52
	80	15.8	1.77	2.61	16.3	1.80	2.65	16.8	1.83	2.69

HEATING PERFO	RMANCE DATA -	4 TON											
PACKAG	ED UNIT MODEL NO.	PHE4B48	34										
AIR TEMPERATURE	AIR TEMPERATURE		ID CFM										
ENTERING	ENTERING		1300			1500		1700					
OUTDOOR COIL (°F)	INDOOR COIL (°F)	MBH	COP	kW	MBH	COP	kW	MBH	СОР	kW			
	60	59.8	4.77	3.68	60.1	5.02	3.51	60.4	5.30	3.34			
60	70	57.2	4.07	4.12	57.8	4.30	3.94	58.4	4.55	3.76			
	80	54.6	3.50	4.57	55.5	3.72	4.37	56.5	3.96	4.18			
	60	48.6	4.05	3.52	49.2	4.27	3.38	49.8	4.52	3.23			
47	70	46.4	3.45	3.94	47.0	3.64	3.78	47.6	3.84	3.63			
	80	44.2	2.98	4.35	44.8	3.13	4.19	45.4	3.31	4.02			
	60	43.1	3.67	3.44	43.8	3.88	3.31	44.5	4.10	3.18			
40	70	41.0	3.14	3.83	41.6	3.30	3.70	42.1	3.47	3.56			
	80	39.0	2.70	4.23	39.4	2.82	4.09	39.8	2.96	3.94			
	60	35.7	3.16	3.31	36.5	3.34	3.20	37.3	3.54	3.09			
30	70	33.9	2.69	3.69	34.4	2.82	3.57	34.9	2.96	3.46			
	80	32.1	2.32	4.06	32.3	2.40	3.94	32.5	2.49	3.82			
	60	27.2	2.53	3.15	27.9	2.66	3.07	28.6	2.80	2.99			
17	70	26.8	2.24	3.50	27.4	2.35	3.41	27.8	2.45	3.33			
	80	23.8	1.82	3.84	23.9	1.86	3.76	24.0	1.92	3.67			
	60	23.1	2.21	3.07	23.7	2.32	3.00	24.4	2.44	2.93			
10	70	21.4	1.84	3.40	21.8	1.92	3.33	22.1	1.99	3.26			
	80	19.8	1.56	3.72	19.8	1.59	3.66	19.9	1.62	3.59			

HEATING PERFORMANCE DATA - 5 TON													
PACKAG	ED UNIT MODEL NO.	PHE4B60	34										
AIR TEMPERATURE	AIR TEMPERATURE		ID CFM										
ENTERING	ENTERING		1600			1800			2000				
OUTDOOR COIL (°F)	INDOOR COIL (°F)	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW			
	60	71.8	4.84	4.35	72.1	4.96	4.26	72.3	5.10	4.16			
60	70	67.7	4.14	4.79	69.2	4.33	4.69	70.8	4.53	4.58			
	80	63.5	3.56	5.23	67.0	3.84	5.12	70.4	4.13	5.00			
	60	56.4	3.96	4.17	57.4	4.09	4.11	58.3	4.22	4.05			
47	70	55.5	3.54	4.59	56.8	3.68	4.52	58.1	3.83	4.45			
	80	54.5	3.19	5.01	56.2	3.34	4.93	57.9	3.50	4.85			
	60	49.8	3.59	4.07	51.0	3.71	4.03	52.2	3.84	3.98			
40	70	49.6	3.24	4.48	50.9	3.38	4.42	52.2	3.50	4.37			
	80	49.3	2.95	4.89	50.7	3.08	4.82	52.1	3.21	4.76			
	60	42.2	3.15	3.93	43.4	3.25	3.91	44.5	3.35	3.89			
30	70	41.8	2.84	4.32	42.0	2.87	4.29	44.8	3.07	4.27			
	80	41.5	2.58	4.71	41.0	2.57	4.68	45.1	2.85	4.64			
	60	35.8	2.80	3.75	36.0	2.81	3.76	36.3	2.82	3.77			
17	70	33.2	2.36	4.12	34.5	2.45	4.12	37.1	2.63	4.13			
	80	30.6	2.00	4.48	34.3	2.24	4.49	37.9	2.47	4.49			
	60	32.3	2.59	3.65	32.4	2.58	3.68	32.6	2.58	3.71			
10	70	28.5	2.08	4.01	30.9	2.25	4.03	33.4	2.42	4.05			
	80	24.7	1.66	4.36	29.4	1.97	4.38	34.1	2.27	4.40			



UNIT DIMENSIONS

Model		Dimensions (in.)	
Woder	Α	В	С
PHE4B3634	51 1/4	45 3/4	47
PHE4B4834	51 1/4	45 3/4	53
PHE4B6034	51 1/4	45 3/4	55

UNIT CLEARANCES

Direction	Distance (in.)	Direction	Distance (in.)
Top ¹	36	Right Side	36
Side Opposite Ducts	36	Left Side	24
Duct Panel	0	Bottom ^{2,3}	1

^{1.} Provide 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, make sure that there is 0-in. clearance on all sides for the entire length of the supply air duct.

ELECTRIC HEAT MINIMUM SUPPLY AIR

			Minimum Blower Sp	eed for Electric Heat					
Model	Voltage	Heater (kW)							
		10	15	20	25				
PHE4B3634	208/230-3-60	Medium (3)	High (5)						
PHE4B4834	208/230-3-60	Medium Low (2)	High (5)	High (5)					
PHE4B6034	208/230-3-60	Medium High (4)	Medium High (4)	Medium High (4)	Medium High (4)				

INDOOR BLOWER SPECIFICATIONS

Model		Motor											
Wiodei	HP	RPM	Efficiency	SF	Frame								
PHE4B3634	1/2	Variable	0.8	1.0	48								
PHE4B4834	3/4	Variable	0.8	1.0	48								
PHE4B6034	1	Variable	0.8	1.0	48								

^{2.} Install units outdoors. Make sure that overhanging structures or shrubs do not obstruct the outdoor air discharge outlet.

^{3.} You can install units on combustible materials made from wood or class A, B, or C roof covering materials if the factory base rails are left in place as shipped. **Note:** For units installed on a roof curb, you can reduce the minimum clearance between combustible roof curb material and the supply air duct from 1 in. to 1/2 in

COOLING SOUND PERFORMANCE

Model	Sound Rating ¹			Octave Band	Centerline Fr	equency (Hz)	1	
(ton)	dB(A)	125	250	500	1000	2000	4000	8000
36	72.6	77.9	66.6	64.7	64.4	58.1	54.8	47.4
48	72.4	75.2	66.8	62.9	63.5	58.4	57.3	50.3
60	72.7	73.6	66.2	63.3	63.9	59.6	59.6	52.2

^{1.} Rated in accordance with AHRI Standard 270.

HEATING SOUND PERFORMANCE

Model	Sound Rating ¹			Octave Band	Centerline Fr	equency (Hz)		
(ton)	dB(A)	125	250	500	1000	2000	4000	8000
36	73.7	78.1	67.2	66.1	65.4	58.3	54.8	48.7
48	73.8	72.4	67.4	63.4	64.8	60.4	59.5	55.2
60	74.1	74.9	66.3	65.1	65.5	59.6	59.5	52.8

^{1.} Rated in accordance with AHRI Standard 270.

ELECTRIC HEAT PERFORMANCE DATA: 208/230-3-60

1	N! 1 1-34/		Total	Heat		kW Staging					
Heater Models ¹	Nominal kW at 240 V	k\	W	MI	вн	W1 (Only	W1 + W2			
	at 240 V	208 V	230 V	208 V	230 V	208 V	230 V	208 V	230 V		
6HK06501025	9.6	7.2	8.8	24.6	30.1	7.2	8.8	7.2	8.8		
6HK06501525	14.4	10.8	13.2	36.9	45.1	10.8	13.2	10.8	13.2		
6HK16502025	19.2	14.4	17.6	49.2	60.2	7.2	8.8	14.4	17.6		
6HK16502525	24.0	18.0	22.0	61.5	75.2	9	11	18	22		

^{1. 6}HK0 = no service disconnect. 6HK1 = with service disconnect.

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

				OD	Blower	Ele	ectric I	Heat C	Option			MCA ¹				Max Fuse ² or Breaker ³ Size			aker ³		
Model	Co	mpres	sor	Fan Motor	Motor	Heater Kit ⁴	Heater (kW)		l I		Stages		ater A)		tal nit	Less		Total Unit		Unit Less Heater	
	RLA	LRA	MCC	FLA	FLA		208	230		208	230	208	230	208	230	208	230	208	230		
						none						16.1	16.1	16.1	16.1	20	20	20	20		
PHE4B36	8.5	70	13.3	1.7	3.8	6HK06501025	7.2	8.8	1	20	22.1	41.1	43.8	16.1	16.1	45	45	20	20		
						6HK06501525	10.8	13.2	2	30	33.1	53.6	57.5	16.1	16.1	60	60	20	20		
						none		I		-	-	20.1	20.1	20.1	20.1	25	25	25	25		
PHE4B48	10.4	123	16.2	1.7	5.4	6HK06501025	7.2	8.8	1	20	22.1	45.1	47.7	20.1	20.1	50	50	25	25		
FIIL4D40	10.4	123	10.2	1.7	3.4	6HK06501525	10.8	13.2	2	30	33.1	57.6	61.5	20.1	20.1	60	70	25	25		
						6HK16502025	14.4	17.6	2	40	44.2	70.1	75.4	20.1	20.1	80	80	25	25		
						none						25.2	25.2	25.2	25.2	30	30	30	30		
						6HK06501025	7.2	8.8	1	20	22.1	50.2	52.8	25.2	25.2	60	60	30	30		
PHE4B60	13.2	93	16.5	1.7	7	6HK06501525	10.8	13.2	2	30	33.1	62.7	66.6	25.2	25.2	70	70	30	30		
						6HK16502025	14.4	17.6	2	40	44.2	75.2	80.5	25.2	25.2	80	90	30	30		
						6HK16502525	18	22	2	50	55.2	87.7	94.2	25.2	25.2	90	100	30	30		

^{1.} MCA = minimum circuit ampacity.

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.

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

^{2.} Maximum overcurrent protection per standard UL 1995.

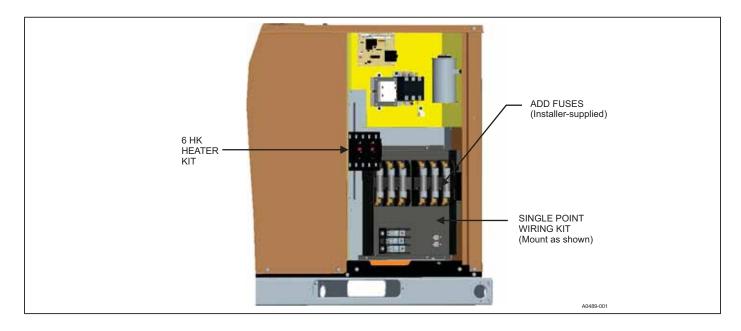
^{3.} Fuse or HACR circuit breaker is field installed.

^{4.} Single-point connection kit is required.

SINGLE-POINT WIRING KIT

Unit Model Number	Voltage	Heater Kit	Single-Point Wiring Kit	Unit Fuse Size (A)	Heater Fuse Size (A)
PHE4B36		6HK06501025	S1-2SPWK031	20	25
PHE4D30		6HK06501525	S1-2SPWK033	20	40
		6HK06501025	S1-2SPWK031	25	25
PHE4B48		6HK06501525	S1-2SPWK033	25	40
	208-3-60	6HK16502025	S1-2SPWK035	25	n/a*
		6HK06501025	S1-2SPWK031	30	25
PHE4B60		6HK06501525	S1-2SPWK033	30	40
PHE4D00		6HK16502025	S1-2SPWK038	30	n/a*
		6HK16502525	S1-2SPWK038	30	n/a*
Unit Model Number	Voltage	Heater Kit	Single-Point Wiring Kit	Unit Fuse Size (A)	Heater Fuse Size (A)
PHE4B36		6HK06501025	S1-2SPWK031	20	30
FTIE4D30		6HK06501525	S1-2SPWK033	20	45
		6HK06501025	S1-2SPWK031	25	30
PHE4B48		6HK06501525	S1-2SPWK033	25	45
	230-3-60	6HK16502025	S1-2SPWK033	25	n/a*
		6HK06501025	S1-2SPWK031	30	30
PHE4B60		6HK06501525	S1-2SPWK033	30	45
		6HK16502025	S1-2SPWK038	30	n/a*
		6HK16502525	S1-2SPWK038	30	n/a*

Note: * The 208/230 V 20 kW and 25 kW heater kits include circuit breakers, so no fuse is needed.



ELECTRICAL DATA - 208-3-60 MULTI SOURCE POWER

	C0	mpres	201	OD Fan	Blower	Ele	ctric Heat Op	tion				Multi	Source		
Model		ilipres	501	Motor	Motor	Heater Kit	Heater (kW)	Stages	Heater (A)			wuiti	Source		
	RLA	LRA	MCC	FLA	FLA	rieatei Kit	208	Stages	208	208	208	208	208	208	208
	Multi Source: Compressor Circuit and Heat Circuits			Multi Source:	Gircuit i Compressor Gircuit		MCA ¹ (A)	Max Fuse ² or Breaker ³ Size	MCA ¹ (A)	Max Fuse ² or Breaker ³ Size		Max Fuse ² or Breaker ³ Size			
										Cir	cuit 1	Cir	cuit 2	Circ	cuit 3
						none				16.1	20				
PHE4B36	8.5	70	13.2	1.7	3.8	6HK06501025	7.2	1	20	16.1	20	25	25		
						6HK06501525	10.8	1	30	16.1	20	37.5	40		
						none				20.1	25				
PHE4A48	10.4	123	16.3	1.7	5.4	6HK06501025	7.2	1	20	20.1	25	25	25		
FIL4A40	10.4	123	10.3	'./	3.4	6HK06501525	10.8	1	30	20.1	25	37.5	40		
						6HK16502025	14.4	2	40	20.1	25	25	25	25	25
						none				25.2	30				
						6HK06501025	7.2	1	20	25.2	30	25	25		
PHE4B60	13.2	93	20.6	1.7	7	6HK06501525 10.8 1		30	25.2	30	37.5	40			
						6HK16502025	14.4	2	40	25.2	30	25	25	25	25
						6HK16502525	18	2	50	25.2	30	31.3	35	31.25	35

^{1.} MCA = minimum circuit ampacity.

ELECTRICAL DATA - 230-3-60 MULTI SOURCE POWER

	C-			OD Fan	Blower	EI	ectric Heat O	ption				NA14:	Source															
Model	Co	mpress	SOF	Motor	Motor	Heater Kit	Heater (kW)	Stages	Heater (A)			Multi	Source															
	RLA	LRA	MCC	FLA	FLA	rieatei Kit	230	Stages	230	230	230	230	230	230	230													
	Multi Source: Compressor Circuit and Heat Circuits			Multi Source:	Circuit 1 Compressor Circuit Circuit 2 Heat Circuit 3 Heat		MCA ¹ (A)	Max Fuse ² or Breaker ³ Size		Max Fuse ² or Breaker ³ Size	MCA ¹ (A)	Max Fuse ² or Breaker ³ Size																
									Circ	cuit 1	Circ	cuit 2	Cir	cuit 3														
						none				16.1	20																	
PHE4B36	8.5	70	13.2	1.7	3.8	6HK06501025	8.8	1	22.1	16.1	20	27.6	30															
						6HK06501525	13.2	1	33.2	16.1	20	41.5	45															
																			none				20.1	25				
PHE4A48	10.4	123	16.3	1.7	5.4	6HK06501025	8.8	1	22.1	20.1	25	27.6	30															
FIL4A40	10.4	123	10.3	1.7	3.4	6HK06501525	13.2	1	33.2	20.1	25	41.5	45															
						6HK16502025	17.6	2	44.3	20.1	25	27.7	30	27.7	30													
						none				25.2	30																	
						6HK06501025	8.8	1	22.1	25.2	30	27.6	30															
PHE4B60	13.2	93	20.6	1.7	1.7	1.7	1.7	1.7	7	6HK06501525	13.2	1	33.2	25.2	30	41.5	45											
						6HK16502025	17.6	2	44.3	25.2	30	27.7	30	27.7	30													
						6HK16502525	22	2	55.3	25.2	30	34.6	35	34.6	35													

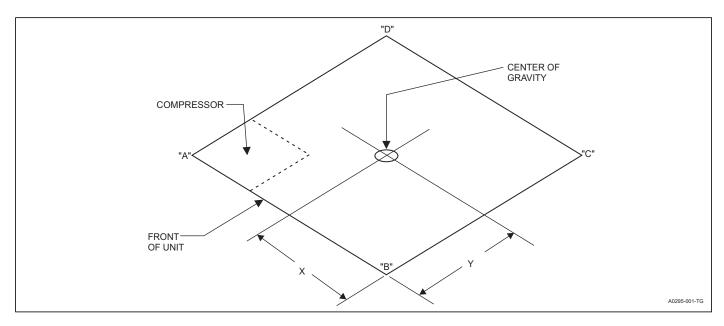
^{1.} MCA = minimum circuit ampacity.

^{2.} Maximum overcurrent protection per standard UL 1995.

^{3.} Fuse or HACR circuit breaker is field installed.

^{2.} Maximum overcurrent protection per standard UL 1995.

^{3.} Fuse or HACR circuit breaker is field installed.



WEIGHTS AND DIMENSIONS

Model	Weig	ht (lb)	Center o	f Gravity	4-Point Load Location (lb)					
Wodei	Shipping	Operating	Х	Y	Α	В	С	D		
PHE4B3634	425	420	29	18	155	90	91	74		
PHE4B4834	484	479	29	19	171	100	100	91		
PHE4B6034	490	485	29	19	174	106	102	94		

AIRFLOW PERFORMANCE - SIDE DUCT APPLICATION

					External Sta	atic Pressu	re (in. W.C.)		
Model	Motor Speed	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
	Low (1)	880	830	770	690	620	550	500	440	200
	Medium Low (2)	1180	1130	1090	1040	990	930	860	780	670
PHE4B3634	Medium (3)	1310	1270	1230	1190	1140	1100	1040	970	840
	Medium High (4)	1520	1480	1440	1410	1360	1320	1270	1230	1110
	High (5)	1700	1660	1620	1590	1550	1500	1460	1420	1340
	Low (1)	1190	1140	1090	1030	970	910	850	790	680
	Medium Low (2)	1420	1380	1350	1300	1250	1210	1160	1100	990
PHE4B4834	Medium (3)	1630	1590	1560	1520	1490	1440	1390	1350	1240
	Medium High (4)	1730	1690	1660	1620	1590	1540	1500	1450	1350
	High (5)	1780	1750	1710	1680	1640	1600	1560	1510	1420
	Low (1)	1340	1290	1240	1190	1140	1110	1050	1000	870
	Medium Low (2)	1660	1620	1580	1540	1500	1470	1430	1390	1310
PHE4B6034	Medium (3)	1900	1870	1840	1800	1760	1730	1690	1650	1580
	Medium High (4)	1970	1940	1910	1870	1830	1800	1750	1720	1640
	High (5)	2020	1990	1960	1920	1880	1850	1810	1770	1700

Notes:

Airflow is tested with dry coil conditions, without air filters, at 230 $\mbox{\ensuremath{\text{V}}}.$

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

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

Minimal variations in airflow performance data result from operating at 208 V. The data in the table can be used in those cases.

Heating applications are tested at 0.50 in. W.C. external static pressure. Cooling applications are tested per AHRI Standard 210/240.

The differences between side duct airflows and bottom duct airflows are insignificant.

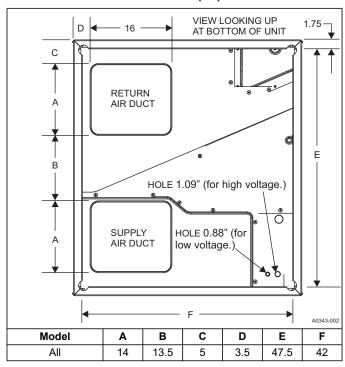
ADDITIONAL STATIC RESISTANCE

Size (ton)	CFM	Wet Indoor Coil	Economizer ¹	Filter/Frame Kit
	700	0.01	0.00	0.04
	800	0.02	0.01	0.06
	900	0.03	0.01	0.08
036 (3.0)	1000	0.04	0.01	0.10
036 (3.0)	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
	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
049 (4.0)	1500	0.06	0.04	0.06
048 (4.0)	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
	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
060 (5.0)	1500	0.06	0.04	0.06
060 (5.0)	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

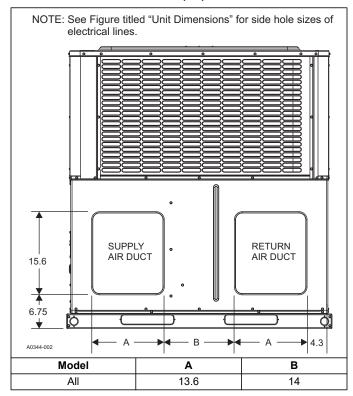
The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

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

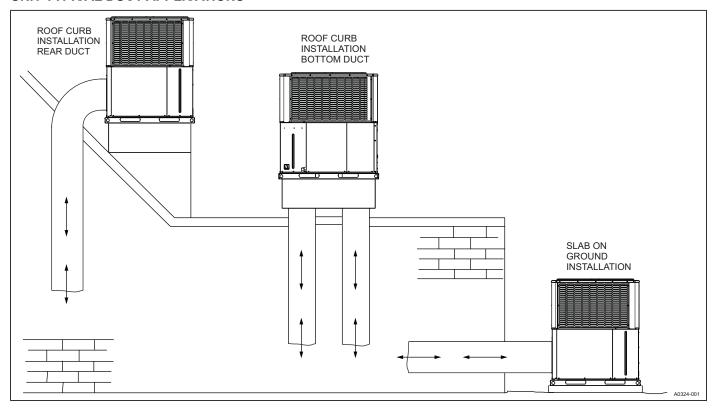
BOTTOM DUCT DIMENSIONS (in.)



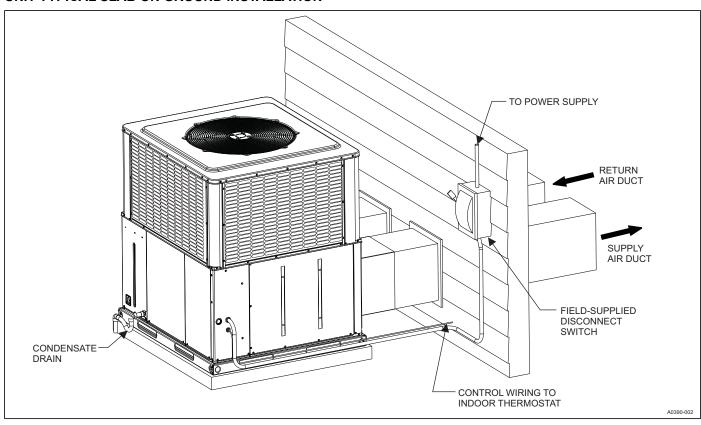
REAR DUCT DIMENSIONS (in.)



UNIT TYPICAL DUCT APPLICATIONS



UNIT TYPICAL SLAB ON GROUND INSTALLATION



UNIT TYPICAL ROOF CURB INSTALLATION

