



Heating and Air Conditioning

TECHNICAL GUIDE

R-410A

AFFINITY™ SERIES

BHX MODELS

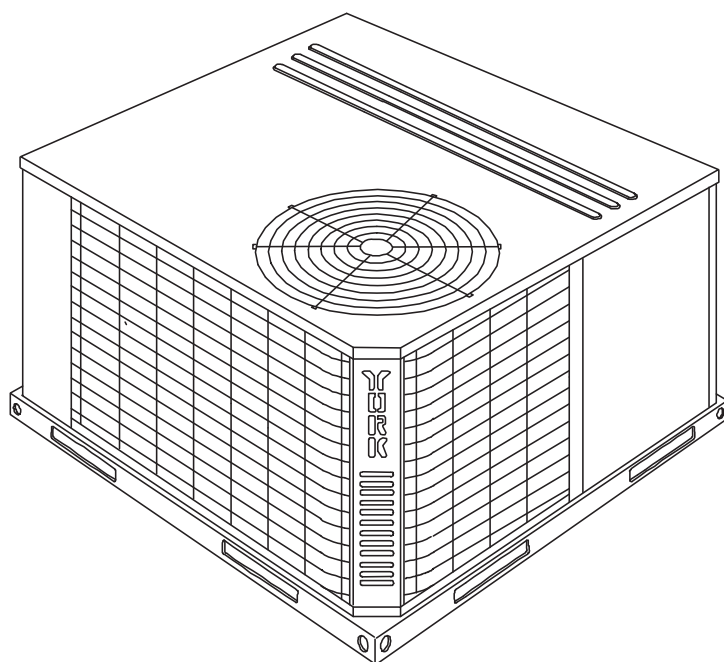
2 - 5 TON

60 Hertz

Description

These York® Affinity™ packaged heat pumps are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

Field-installed electric heater accessories are available to provide electric heat, if required.



Tested in accordance with:



ISO 9001
Certified Quality
Management System

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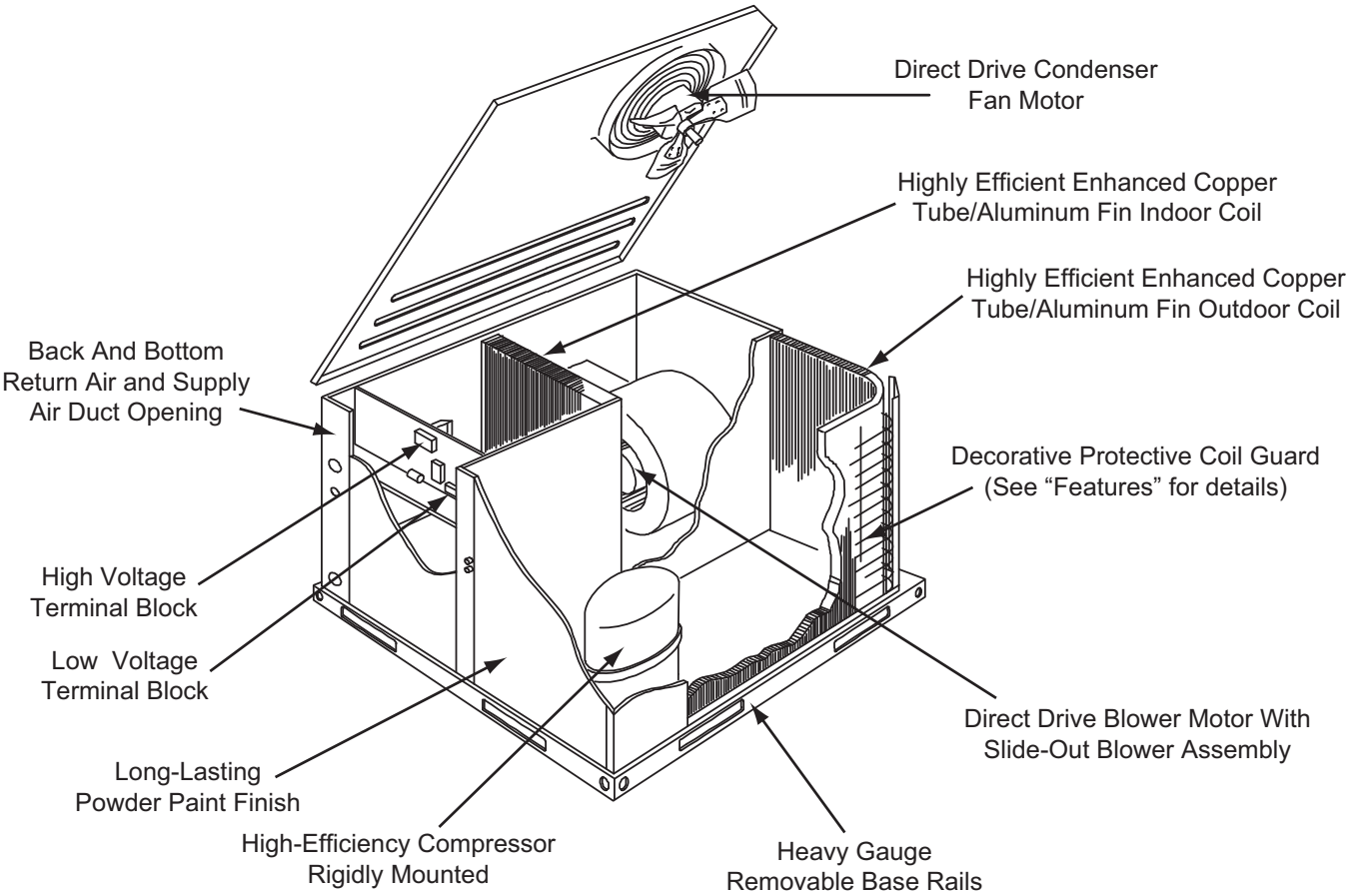
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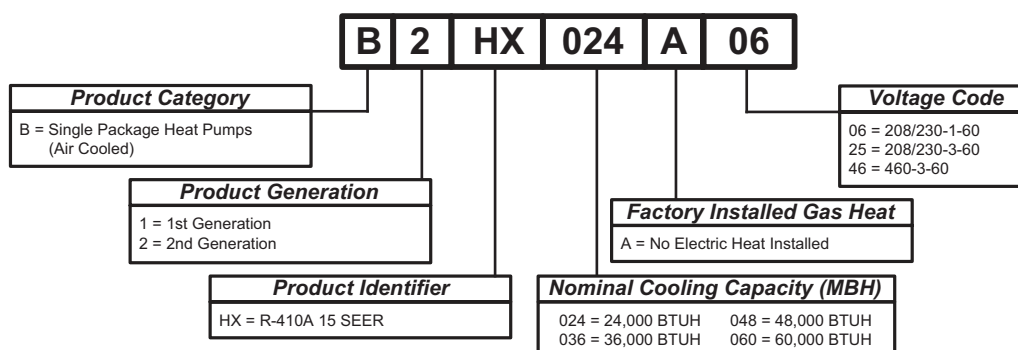
Component Location

Heat Pump



Nomenclature

Heat Pump



Features and Benefits

Standard Features

- **Operating Efficiency** - All heat pump units provide operating efficiencies of 15 SEER and 8.0 HSPF. All efficiencies exceed legislated minimum levels.
- **On Site Flexibility** - All model sizes share a common, compact design cabinet in a single footprint. The installer has the flexibility of setting one curb and placing the proper tonnage unit on that curb after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility with less inventory.
- **Lower Installation Cost** - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof, plus, the installer can fit this unit between the wheel wells of full size pick-up truck.
- All units are completely wired, charged with R-410A and tested prior to shipment. Unique test stations using a new state of the art computerized process system are used to insure product quality. Refrigerant charge and component part numbers are verified via computers at assembly. Vital run test statistics such as system pressure, motor currents, air velocity and temperature, unit vibration, and gas system safeties are monitored and recorded by the system to insure unit performance.
- Equal size, side supply and return duct connections allows easy hook-up of ducts to match low crawl spaces without transition pieces.
- **Utility Connections Made Easy** - Electric utility knockouts are provided through the bottom as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.
- **Convertible Airflow Design** - The bottom duct openings are covered when they leave the factory ready to be used for a side supply/side return application. If a bottom supply/bottom return application is desired, you simply remove the two panels from the bottom of the unit and place them in the side supply/side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.
- **Condensate Pan** - A non-corrosive, long-lasting, water-tight pan is positioned below the evaporator coil to collect and drain all condensate. Less collection of stagnate condensate will build-up. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).
- **Condensate Drain** - The 3/4 inch NPTF connection is rigidly mounted to assure proper fit and leak tight seal.
- **Durable Finish** - The cabinet is made of pre-painted steel. The pre-treated galvanized steel provides a better paint to steel bond, which resists corrosion and rust creep. Special primer formulas and matted-textured finish insure less fading when exposed to sunlight.
- **Full Perimeter Base Rails** - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications where the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the inch high base rails may be removed on location.

- **More Attractive Appearance** - A single piece Water Shed top cover containing a top discharge condenser 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. The cabinet panels have a non-fibrous insulation that will not release insulation fibers into conditioned area.
- **Top Discharge** - The top discharge condenser fan does not disrupt neighboring areas or dry-out vegetation surrounding the unit. The warm air from the top mounted fan is blown up away from the structure and any landscaping. This allows compact location on multi-unit applications.
- **Condenser Coil Grille** - All models utilize a stamped "Louvered" design which provides superior impact protection against smaller objects during transit and after installation.
- **Low Operating Sound Level** - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound alterations with it's Super-Structure design. This design strategically places embossments in the pan for optimum strength and rigidity.
- **Fan System** - All models operate over a wide range of design conditions with an electrically commutated fan motor. These units easily match all types of applications and provide greater on site flexibility to match comfort requirement. The cooling speed is factory set and can be field adjusted to a second speed. The heating speed is factory set to maintain mid point rise at the units heating input, but can be field adjusted. This allows maximum comfort conditions.
- **Simple Control Circuit** - A low voltage printed circuit board contains a diagnostic indicator light and a low voltage terminal strip. An additional set of pin connectors is also provided to simplify the field interface of external controls. Mate-n-lock plug connectors are used. The electrical control box is not located in the compressor compartment. The controls are mounted on a Control-Tilt control panel to allow the access cover to be removed for trouble shooting and maintenance without affecting the normal system operating pressures. All wiring internal to the unit is color/number coded.
- **Protected Compressor** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable operating conditions occur.
- **Pressure Switches** - High pressure and low pressure/loss of charge switches standard in all units. When abnormal conditions are sensed through the pressure switches, the unit will lock out preventing any further operation until reset or problem is corrected.
- **Exclusive Coil Design** - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability.
- **Low Maintenance** - Long life, permanently lubricated condenser and evaporator fan motor bearings need no annual maintenance adding greater reliability to the unit. Blower assembly can be easily cleaned by the unique Slip- Track slide-out blower assembly.
- **Secured Service Access Ports** - Protected, externally mounted, re-usable service access ports are provided on both the high and low lines for ease of evacuating and charging the system. No final field mounting required.
- **Easy Service Access** - A large, single panel covers the electrical and gas controls makes servicing easy. The blower compartment has an additional large panel with a built-in handle tab. Removing this panel will allow the blower assembly to slide-out for easy removal for maintenance and ease of trouble shooting.
- **Replacement Parts** - The installer requires no special training to replace any of the components of these units and does not need to maintain an inventory of unique parts.
- **System Integration** - Each unit has the internal ability to integrate an electronic air cleaner or humidifier to work in conjunction with the base unit.

Field Installed Accessories

- **Economizer Down Discharge/Supply Kit** - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available. A built-in barometric relief of 25% is provided.
- **Single Enthalpy Sensor** - 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.
- **Dual Enthalpy Sensor** - Additional sensor to single enthalpy sensor. Sensor senses both the return air temperature dry bulb and humidity in conjunction with the single enthalpy to determine the most economical mix. Single Enthalpy sensor also required.
- **Hail Guard Kit** - Kit contains protective grilles made of expanded aluminum with full perimeter frame. Sloped hoods are also included to assure maximum protection.
- **Anti Short Cycle Timer (BHZ Units Only)** - Automatically prevents the compressor from restarting for 5 minutes after cycled off. Not required if Thermostat

2ET07700224 and 2ET04700224 are used. Standard in all BHX units.

- **Filter/Frame Kit (Single Phase Only)** - Kit contains the necessary hardware to field install return air filters into the base unit. Pre-cut filter racks and appropriate cleanable standard size filters are shipped in one kit. The filter rack is suitable for either 1" or 2" filters. (1" filter is supplied) This kit is available for single phase horizontal or vertical duct application only. Standard in all 3 Phase models.
- **Motorized Fresh Air Damper** - Designed for duct mounted side supply/return and unit mounted down supply/return applications. Damper capable of providing 0% through 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.
- **Rectangle To Round Adapters** - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current duct openings on the base unit. Transition is from side square duct opening to 14" round duct opening.
- **Roof Curbs** - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. Kit also provides seal strip to assure a water tight seal. 8 and 14 inch high roof curbs are available.
- **Manual Outdoor Damper** - Provides 0% through 50% outdoor air capability (field adjustable). Designed for duct mounted side supply/return applications. Includes hood and screen assembly.
- **Wall Thermostat** - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units can operate with single stage heat/single stage cool thermostats - with or without the economizer.
- **Low Ambient Kit** - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0° F. Standard unit operation 45° F.
- **Transformer Kit** - Kit provides necessary hardware to provide single phase models from factory furnished 40 VA transformer capability to 75 VA transformer capability. (Required on installations with economizer or motorized damper.)

Guide Specifications

General

Units shall be manufactured by York International Unitary Products Group in an ISO 9001 certified facility. YORK's Affinity™ package units give you the flexibility and choices you need in today's market. These packaged heat pumps are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

Description

Units shall be factory-assembled, single packaged, heat pump units, designed for outdoor mounted installation. For SEER

ratings, refer to technical literature. They shall have built in, equal size, field convertible duct connections for down discharge supply/return or horizontal discharge supply/return. The units shall be factory wired, piped, charged with R-410A Refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. All units shall be manufactured in a facility certified to ISO 9001 standards, and the cooling performance shall be rated in accordance with DOE and AHRI test procedures. The heating performance shall be rated to DOE and GAMA test procedures. Units shall be CSA listed and classified to ANSI Z21.47/CAN/CSA 2.3 standards and UL 1995/CAN/CSA No. 236-M90 conditions.

Unit Cabinet

Unit cabinet shall be constructed of G-90, pre-paint textured steel, certified at 500 hours salt spray test per ASTM-B117 standards. The unit top shall be a single piece "Water Shed" design, with drip edges and no-seam corners to provide optimum water integrity. Unit shall have a rigidly mounted condenser coil guard to provide protection from objects and personnel after installation. Indoor blower section shall be insulated with up to 3/4" thick, aluminum, foil faced insulation, fastened to prevent insulation from entering the air stream. Cabinet panels shall be "large" size, easily removable for servicing and maintenance, with built-in lift handles. Unit shall be built on a formed, "Super-Structure" design base pan, with embossments at critical points to add strength, rigidity and aid in minimizing sound. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, for truck access and proper sealing on roof curb applications. Base rails shall be removable, when required, to lower unit height. Filters shall be furnished and be accessible through a removable access door, sealed airtight. Units vertical discharge and return duct configuration shall be designed to fit between standard 24" O.C. beams without modification to building structure, duct work and base unit. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4" NPTI copper, ridged mount connection.

Indoor (Evaporator) Fan Assembly

Fan shall be direct drive design. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Fan assembly shall be "Slip Track" (slide-out) design for easy removal and cleaning.

Outdoor (Condenser) Fan Assembly

The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider bracket and shall be statically balanced for smooth operation. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

Refrigerant ComponentsCompressors:

- a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of +/- 10% of the unit nameplate voltage.
- b. Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

Coils:

- a. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed.

- b. Evaporator coil shall be of the direct expansion, draw through design, while condenser coil shall be draw through design.

Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Independent fixed orifice expansion devices.
- b. Filter/strainer to eliminate any foreign matter.

Electric Heating Section (Field Install Accessory)

An electric heating section, with nickel chromium elements, shall be provided in a range of 5 thru 25 KW. The heating section shall have a primary limit control(s) (automatic reset) to prevent the heating element system from operating at an excessive temperature. The Heating Section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating Sections shall be wired for a single point power supply with branch circuit fusing (where required).

Physical Data

BHX024-060 Physical Data

Component	Models			
	BHX024	BHX036	BHX048	BHX060
Nominal Tonnage	2.0	3.0	4.0	5.0
AHRI COOLING PERFORMANCE				
Gross Capacity @ AHRI A point (Mbh)	24.9	35.3	49.2	58.8
AHRI net capacity (Mbh)	24.4	34.4	47.0	57.0
EER	12.0	11.5	11.3	11.0
SEER	16	15	15	14.25
Nominal CFM	800	1200	1600	1700
System power (KW)	2.0	3.0	4.2	5.2
Refrigerant type	R410A	R410A	R410A	R410A
Refrigerant charge (lb-oz)	7-10	10-4	12-4	12-0
AHRI HEATING PERFORMANCE				
47°F Capacity Rating (Mbh)	19.8	33.0	45.0	55.0
System Power (Kw/COP)	3.5	3.1	3.0	3.1
17°F Capacity Rating (Mbh)	11.1	18.9	27.2	32.4
System Power (Kw/COP)	2.1	2.0	2.1	2.1
HSPF (BTU/Watts-hr.)	8.0	8.0	8.0	8.0
DIMENSIONS (inches)				
Length	49 1/8	49 1/8	49 1/8	49 1/8
Width	47 1/4	47 1/4	47 1/4	47 1/4
Height	33 1/2	33 1/2	41 1/2	41 1/2
OPERATING WT. (lbs.)	350	400	440	460
COMPRESSORS				
Type	Scroll 2-spd	Scroll 2-spd	Scroll 2-spd	Scroll 2-spd
Quantity	1	1	1	1
CONDENSER COIL DATA				
Face area (Sq. Ft.)	12.9	12.9	16.4	16.4
Rows	1	2	2	2
Fins per inch	20	20	20	20
Tube diameter (in.)	3/8	3/8	3/8	3/8
Refrigerant control	Orifice	TXV	TXV	TXV
EVAPORATOR COIL DATA				
Face area (Sq. Ft.)	4.38	4.38	5.63	5.63
Rows	3	3	3	3
Fins per inch	15	15	16	16
Tube diameter	3/8	3/8	3/8	3/8
Refrigerant control	TXV	TXV	TXV	TXV
CONDENSER FAN DATA				
Quantity of fans	1	1	1	1
Fan diameter (Inch)	22	22	22	22
Type	Prop	Prop	Prop	Prop
Drive type	Direct	Direct	Direct	Direct
Quantity of motors	1	1	1	1
Motor HP each	1/3	1/3	1/3	1/2
No. speeds	1	1	1	1
RPM	1100	1100	1100	1100
Nominal total CFM	2000	2400	3200	3400
DIRECT DRIVE EVAP FAN DATA				
Quantity	1	1	1	1
Fan Size (Inch)	10 x 8	11 x 10	11 x 10	11 x 10
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
No. speeds	1	1	1	1
Motor HP each	1/2	3/4	3/4	1
RPM	Variable	Variable	Variable	Variable
Frame size	48	48	48	48
FILTERS				
Quantity - Size	2 - 22 x 14 x 1	2 - 22 x 14 x 1	2 - 22 x 14 x 1	2 - 22 x 14 x 1

BHX Unit Limitations

Size (Tons)	Model	Unit Voltage	Unit Limitations		
			Applied Voltage		Outdoor DB Temp
			Min	Max	Max (°F)
024 (2.0)	BHX	208/230-1-60	187	252	115
036 (3.0)	BHX	208/230-1-60	187	252	115
		208/230-3-60	187	252	115
		460-3-60	432	504	115
048 (4.0)	BHX	208/230-1-60	187	252	115
		208/230-3-60	187	252	115
		460-3-60	432	504	115
060 (5.0)	BHX	208/230-1-60	187	252	115
		208/230-3-60	187	252	115
		460-3-60	432	504	115

Capacity Performance

BHX024-060 Cooling Capacities

BHX024 (2.0 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
CFM	WB (°F)	Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)						Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								85°F							
600	77	26.8	1.1	14.8	11.4	8.4	-	-	-	24.6	1.2	15.2	10.8	7.8	-	-	-
	72	24.1	1.1	18.1	15.0	12.0	9.0	-	-	22.1	1.2	17.4	14.4	11.3	8.3	-	-
	67	21.4	1.0	21.4	18.7	15.6	12.6	9.6	-	19.7	1.2	19.7	17.9	14.9	11.8	8.8	-
	62	19.6	1.1	19.6	19.6	19.1	16.1	13.0	10.0	18.1	1.2	18.1	18.1	17.8	14.7	11.7	8.6
	57	19.4	1.1	19.4	19.4	19.2	16.2	13.1	10.1	17.9	1.2	17.9	17.9	17.7	14.6	11.6	8.5
800	77	34.1	1.8	17.5	15.3	11.6	-	-	-	32.0	1.9	18.3	14.5	10.8	-	-	-
	72	31.3	1.7	23.0	19.3	15.6	12.0	-	-	29.2	1.9	22.3	18.6	14.9	11.2	-	-
	67	28.5	1.6	28.5	23.3	19.7	16.0	12.3	-	26.4	1.8	26.4	22.7	19.0	15.3	11.6	-
	62	25.3	1.6	25.3	25.3	24.8	21.1	17.4	13.8	23.6	1.8	23.6	23.6	23.2	19.5	15.8	12.1
	57	25.0	1.6	25.0	25.0	25.1	21.4	17.8	15.0	23.6	1.8	23.6	23.6	23.4	19.7	16.0	12.7
		95°F								105°F							
600	77	22.4	1.4	15.5	10.2	7.2	-	-	-	20.7	1.6	17.3	12.0	6.6	-	-	-
	72	20.2	1.4	16.8	13.7	10.6	7.5	-	-	18.3	1.6	16.6	13.8	9.9	6.1	-	-
	67	18.0	1.4	18.0	17.2	14.1	11.0	7.9	-	16.0	1.6	16.0	15.5	13.3	9.5	5.6	-
	62	16.7	1.4	16.7	16.7	16.4	13.4	10.3	7.2	15.3	1.6	15.3	15.3	15.2	11.4	7.6	7.2
	57	16.5	1.4	16.5	16.5	16.2	13.1	10.0	7.0	15.0	1.6	15.0	15.0	14.7	10.8	7.0	7.0
800	77	29.8	2.1	19.0	13.8	10.0	-	-	-	27.3	2.4	19.6	13.1	9.1	-	-	-
	72	27.1	2.1	21.7	17.9	14.2	10.4	-	-	24.8	2.3	20.9	17.1	13.3	9.5	-	-
	67	24.4	2.0	24.4	22.1	18.4	14.6	10.8	-	22.3	2.3	22.3	21.1	17.5	13.7	9.9	-
	62	22.0	2.0	22.0	22.0	21.7	17.9	14.1	10.4	20.4	2.3	20.4	20.4	20.1	16.3	12.5	8.7
	57	22.3	2.0	22.3	22.3	21.7	17.9	14.1	10.4	20.7	2.3	20.7	20.7	20.1	16.3	12.5	8.7
		115°F															
600	77	19.0	1.8	19.0	13.8	6.1	-	-	-								
	72	16.5	1.8	16.5	13.8	9.3	4.7	-	-								
	67	13.9	1.8	13.9	13.9	12.5	7.9	3.4	-								
	62	13.9	1.8	13.9	13.9	13.9	9.4	4.8	-								
	57	13.5	1.9	13.5	13.5	13.1	8.6	4.0	-								
800	77	24.8	2.6	20.1	12.4	8.3	-	-	-								
	72	22.5	2.6	20.1	16.3	12.4	8.6	-	-								
	67	20.1	2.6	20.1	20.1	16.6	12.8	8.9	-								
	62	18.8	2.5	18.8	18.8	18.6	14.7	10.9	7.0								
	57	19.1	2.5	19.1	19.1	18.6	14.7	10.9	7.0								

1. These capacities are Net Capacities.

2. These ratings include the compressor, condenser fan and supply air blower motors.

BHX036 (3.0 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
CFM	WB (°F)	Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)						Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								85°F							
900	77	36.8	1.5	20.7	16.2	11.9	-	-	-	34.2	1.7	21.5	15.2	11.0	-	-	-
	72	33.8	1.5	25.7	21.5	17.3	13.1	-	-	31.0	1.8	24.7	20.5	16.3	12.1	-	-
	67	30.8	1.5	30.8	26.8	22.6	18.4	14.2	-	27.9	1.8	27.9	25.8	21.6	17.4	13.2	-
	62	28.3	1.5	28.3	28.3	28.3	24.1	19.8	15.6	26.1	1.8	26.1	26.1	26.1	21.9	17.7	13.5
	57	28.1	1.5	28.1	28.1	28.2	23.9	19.7	15.5	26.3	1.7	26.3	26.3	26.2	22.0	17.8	13.6
1200	77	49.8	2.7	24.5	20.9	15.9	-	-	-	46.0	2.9	24.9	19.4	14.5	-	-	-
	72	44.7	2.6	32.0	27.1	22.1	17.2	-	-	41.5	2.8	30.9	26.0	21.0	16.0	-	-
	67	39.5	2.4	39.5	33.3	28.4	23.4	18.5	-	37.0	2.7	37.0	32.5	27.5	22.5	17.6	-
	62	36.5	2.3	36.5	36.5	35.8	30.9	25.9	21.0	34.2	2.6	34.2	34.2	33.9	28.9	23.9	18.9
	57	36.6	2.3	36.6	36.6	36.5	31.5	26.6	23.9	34.3	2.6	34.3	34.3	34.2	29.2	24.2	20.4
		95°F								105°F							
900	77	31.5	2.0	22.4	14.2	10.1	-	-	-	28.3	2.2	23.1	14.7	9.0	-	-	-
	72	28.2	2.0	23.7	19.5	15.3	11.2	-	-	25.3	2.3	22.8	18.5	14.3	10.1	-	-
	67	25.0	2.0	25.0	24.8	20.6	16.4	12.2	-	22.4	2.3	22.4	22.3	19.6	15.3	11.1	-
	62	24.0	2.0	24.0	24.0	24.0	19.8	15.7	11.5	21.7	2.2	21.7	21.7	21.8	17.5	13.3	9.0
	57	24.5	2.0	24.5	24.5	24.2	20.0	15.8	11.7	22.4	2.2	22.4	22.4	22.0	17.8	13.6	9.3
1200	77	42.1	3.1	25.3	18.0	13.0	-	-	-	37.9	3.4	25.6	17.1	12.2	-	-	-
	72	38.2	3.0	29.9	24.8	19.8	14.8	-	-	34.6	3.4	28.5	23.6	18.7	13.8	-	-
	67	34.4	3.0	34.4	31.7	26.7	21.7	16.7	-	31.4	3.3	31.4	30.0	25.2	20.3	15.4	-
	62	31.9	2.9	31.9	31.9	31.9	26.9	21.9	16.9	29.5	3.2	29.5	29.5	29.5	24.6	19.7	14.8
	57	31.9	2.9	31.9	31.9	31.9	26.9	21.9	16.9	29.6	3.2	29.6	29.6	29.6	24.7	19.8	14.9
		115°F															
900	77	25.0	2.5	23.8	15.2	8.0	-	-	-								
	72	22.5	2.5	21.9	17.6	13.3	9.0	-	-								
	67	19.9	2.5	19.9	19.9	18.5	14.2	9.9	-								
	62	19.5	2.5	19.5	19.5	19.5	15.2	10.9	6.6								
	57	20.4	2.5	20.4	20.4	19.9	15.6	11.3	7.0								
1200	77	33.7	3.8	25.8	16.3	11.4	-	-	-								
	72	31.0	3.7	27.1	22.3	17.5	12.7	-	-								
	67	28.4	3.7	28.4	28.4	23.7	18.9	14.1	-								
	62	27.1	3.6	27.1	27.1	27.1	22.4	17.6	12.8								
	57	27.3	3.6	27.3	27.3	27.3	22.5	17.7	12.9								

1. These capacities are Net Capacities.

2. These ratings include the compressor, condenser fan and supply air blower motors.

BHX048 (4.0 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil																			
CFM	WB (°F)	Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)						Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)									
				Return Dry Bulb (°F)								Return Dry Bulb (°F)									
				90	85	80	75	70	65			90	85	80	75	70	65				
		75°F										85°F									
1050	77	47.4	2.2	25.0	20.4	15.4	-	-	-	43.6	2.4	24.5	19.1	14.1	-	-	-				
	72	42.5	2.2	31.3	26.3	21.3	16.3	-	-	39.6	2.5	30.0	25.0	19.9	14.9	-	-				
	67	37.6	2.3	37.6	32.1	27.1	22.1	17.1	-	35.5	2.6	35.5	30.8	25.8	20.8	15.8	-				
	62	33.3	2.5	33.3	33.3	31.9	26.9	21.9	16.9	31.0	2.8	31.0	31.0	30.1	25.1	20.0	15.0				
	57	34.0	2.3	34.0	34.0	33.7	28.6	23.6	18.6	32.0	2.6	32.0	32.0	31.7	26.7	21.7	16.6				
1600	77	66.1	3.9	29.2	24.8	18.0	-	-	-	62.6	4.1	31.5	24.3	17.4	-	-	-				
	72	60.2	3.7	41.7	34.9	28.0	21.1	-	-	56.7	3.9	41.2	34.2	27.2	20.2	-	-				
	67	54.3	3.5	54.3	44.9	38.0	31.1	24.3	-	50.8	3.8	50.8	44.0	37.0	30.0	23.1	-				
	62	48.4	3.6	48.4	48.4	49.4	42.5	35.6	28.7	46.5	3.9	46.5	46.5	46.5	39.5	32.6	25.6				
	57	53.5	3.6	53.5	53.5	48.8	41.9	35.0	32.8	50.5	3.9	50.5	50.5	46.0	39.0	32.1	27.4				
		95°F										105°F									
1050	77	39.9	2.7	24.0	17.8	12.7	-	-	-	36.8	3.1	23.8	16.4	11.6	-	-	-				
	72	36.6	2.8	28.7	23.7	18.6	13.6	-	-	33.5	3.1	27.0	22.3	17.5	12.8	-	-				
	67	33.4	2.8	33.4	29.6	24.5	19.5	14.5	-	30.1	3.1	30.1	28.1	23.4	18.7	14.0	-				
	62	28.8	3.1	28.8	28.8	28.2	23.2	18.1	13.1	26.6	3.4	26.6	26.6	26.1	21.3	16.6	11.9				
	57	30.1	2.8	30.1	30.1	29.7	24.7	19.7	14.6	27.9	3.2	27.9	27.9	27.5	22.8	18.1	13.4				
1600	77	59.0	4.2	33.8	23.9	16.8	-	-	-	53.4	4.6	34.7	22.5	15.2	-	-	-				
	72	53.2	4.2	40.6	33.5	26.4	19.3	-	-	48.4	4.6	39.1	31.9	24.7	17.6	-	-				
	67	47.4	4.2	47.4	43.1	36.0	29.0	21.9	-	43.5	4.6	43.5	41.3	34.3	27.1	20.0	-				
	62	44.7	4.2	44.7	44.7	43.7	36.6	29.5	22.4	42.1	4.5	42.1	42.1	40.3	33.2	26.0	18.8				
	57	47.5	4.2	47.5	47.5	43.2	36.2	29.1	22.0	44.3	4.5	44.3	44.3	40.1	33.0	25.8	18.7				
		115°F																			
1050	77	33.8	3.4	23.6	15.0	10.5	-	-	-												
	72	30.4	3.4	25.3	20.8	16.4	12.0	-	-												
	67	26.9	3.5	26.9	26.7	22.3	17.9	13.5	-												
	62	24.4	3.7	24.4	24.4	23.9	19.5	15.1	10.7												
	57	25.7	3.5	25.7	25.7	25.3	20.9	16.5	12.1												
1600	77	47.8	4.9	35.5	21.1	13.6	-	-	-												
	72	43.7	4.9	37.5	30.3	23.1	15.8	-	-												
	67	39.5	5.0	39.5	39.5	32.5	25.3	18.1	-												
	62	39.6	4.9	39.6	39.6	37.0	29.7	22.5	15.3												
	57	41.2	4.9	41.2	41.2	37.0	29.8	22.6	15.4												

1. These capacities are Net Capacities.

2. These ratings include the compressor, condenser fan and supply air blower motors.

BHX060 (5.0 Ton)

Air on Evaporator Coil		Temperature of Air on Condenser Coil															
CFM	WB (°F)	Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)						Net Capacity ¹ (MBh)	Total Input (kW) ²	Sensible Capacity (MBh)					
				Return Dry Bulb (°F)								Return Dry Bulb (°F)					
				90	85	80	75	70	65			90	85	80	75	70	65
		75°F								85°F							
1200	77	55.4	2.6	27.9	22.7	17.5	-	-	-	52.0	3.0	26.9	21.7	16.4	-	-	-
	72	50.6	2.7	34.5	29.3	24.1	18.9	-	-	47.3	3.0	33.4	28.1	22.9	17.6	-	-
	67	45.8	2.7	41.0	35.8	30.7	25.5	20.3	-	42.6	3.0	39.8	34.6	29.3	24.1	18.8	-
	62	40.8	2.6	40.8	40.8	37.1	31.9	26.8	21.6	38.3	3.0	38.3	38.3	35.9	30.7	25.4	20.2
	57	40.1	2.6	40.1	40.1	39.4	34.2	29.1	23.9	38.0	3.1	38.0	38.0	37.2	32.0	26.7	21.5
1700	77	77.6	4.5	37.0	30.4	23.7	-	-	-	72.6	4.9	36.1	29.4	22.6	-	-	-
	72	71.5	4.4	46.1	39.5	32.9	26.2	-	-	66.9	4.8	45.0	38.3	31.5	24.8	-	-
	67	65.4	4.2	55.3	48.6	42.0	35.4	28.7	-	61.2	4.7	54.0	47.2	40.5	33.7	27.0	-
	62	59.3	4.1	59.3	59.3	53.5	46.8	40.2	33.6	55.6	4.5	55.6	55.6	51.2	44.4	37.7	30.9
	57	57.6	4.1	57.6	57.6	56.3	49.7	43.1	40.3	54.6	4.6	54.6	54.6	53.3	46.5	39.8	34.9
		95°F								105°F							
1200	77	48.5	3.5	25.9	20.6	15.3	-	-	-	44.5	3.9	23.4	18.6	14.0	-	-	-
	72	44.0	3.4	32.2	26.9	21.6	16.4	-	-	40.2	3.9	29.4	24.8	20.2	15.6	-	-
	67	39.4	3.4	38.6	33.3	28.0	22.7	17.4	-	35.8	3.9	35.4	31.0	26.4	21.8	17.2	-
	62	35.8	3.4	35.8	35.8	34.7	29.4	24.1	18.8	33.0	3.8	33.0	33.0	32.5	27.9	23.3	18.7
	57	35.8	3.5	35.8	35.8	35.0	29.7	24.4	19.1	32.9	4.0	32.9	32.9	32.0	27.4	22.8	18.2
1700	77	67.5	5.3	35.2	28.4	21.5	-	-	-	62.6	6.0	33.7	26.1	19.2	-	-	-
	72	62.3	5.2	44.0	37.1	30.2	23.4	-	-	57.6	5.8	42.1	35.2	28.3	21.5	-	-
	67	57.1	5.1	52.7	45.8	39.0	32.1	25.2	-	52.7	5.7	50.5	44.3	37.4	30.6	23.7	-
	62	51.9	5.0	51.9	51.9	48.9	42.0	35.2	28.3	48.3	5.6	48.3	48.3	46.5	39.7	32.8	25.9
	57	51.6	5.1	51.6	51.6	50.2	43.4	36.5	29.6	48.1	5.7	48.1	48.1	46.8	39.9	33.0	26.1
		115°F															
1200	77	40.5	4.4	21.0	16.6	12.7	-	-	-								
	72	36.3	4.4	26.6	22.7	18.8	14.9	-	-								
	67	32.2	4.3	32.2	28.8	24.9	21.0	17.1	-								
	62	30.2	4.3	30.2	30.2	30.2	26.3	22.4	18.5								
	57	30.0	4.6	30.0	30.0	29.1	25.2	21.3	17.4								
1700	77	57.7	6.7	32.1	23.8	17.0	-	-	-								
	72	53.0	6.5	40.2	33.3	26.4	19.5	-	-								
	67	48.3	6.2	48.3	42.8	35.9	29.0	22.1	-								
	62	44.6	6.1	44.6	44.6	44.2	37.3	30.4	23.5								
	57	44.6	6.3	44.6	44.6	43.3	36.4	29.5	22.6								

1. These capacities are Net Capacities.

2. These ratings include the compressor, condenser fan and supply air blower motors.

Heating Capacities

BHX024-060

Size (Tons)	Air Over Evaporator Coil		Capacity ¹ & kW ²	Outdoor Temperature (°F @ 72% RH)							
	CFM	DB (°F)		-10	0	10	20	30	40	50	60
024 (2.0)	650	55	MBH	5.52	6.55	7.81	9.35	11.24	13.55	16.38	19.85
			KW	0.89	0.90	0.91	0.92	0.93	0.94	0.96	0.97
		70	MBH	4.58	5.61	6.87	8.41	10.30	12.61	15.44	18.91
			KW	1.07	1.08	1.09	1.10	1.11	1.13	1.14	1.15
		80	MBH	3.55	4.58	5.84	7.38	9.27	11.58	14.41	17.88
			KW	1.22	1.23	1.24	1.25	1.26	1.27	1.29	1.30
	800	55	MBH	11.33	12.80	14.53	16.54	18.91	21.67	24.91	28.71
			KW	1.03	1.07	1.13	1.19	1.25	1.31	1.37	1.43
		70	MBH	8.60	10.07	11.79	13.81	16.17	18.94	22.18	25.97
			KW	1.25	1.28	1.34	1.40	1.47	1.53	1.59	1.65
		80	MBH	7.49	8.96	10.68	12.70	15.06	17.83	21.07	24.87
			KW	1.44	1.48	1.54	1.60	1.66	1.72	1.78	1.84
036 (3.0)	900	55	MBH	10.90	12.40	14.14	16.14	18.46	21.15	24.25	27.84
			KW	1.44	1.48	1.53	1.57	1.62	1.67	1.72	1.77
		70	MBH	9.57	11.07	12.80	14.81	17.13	19.81	22.92	26.51
			KW	1.73	1.77	1.82	1.86	1.91	1.96	2.01	2.06
		80	MBH	8.77	10.27	12.01	14.01	16.33	19.01	22.12	25.71
			KW	2.05	2.10	2.14	2.19	2.23	2.28	2.33	2.38
	1100	55	MBH	13.92	16.10	18.68	21.75	25.38	29.69	34.80	40.85
			KW	1.68	1.77	1.86	1.96	2.06	2.16	2.27	2.39
		70	MBH	11.75	13.93	16.51	19.58	23.21	27.52	32.63	38.68
			KW	2.16	2.25	2.34	2.44	2.54	2.64	2.75	2.87
		80	MBH	7.25	9.43	12.02	15.08	18.72	23.02	28.13	34.19
			KW	2.08	2.17	2.27	2.36	2.46	2.57	2.68	2.79
048 (4.0)	1200	55	MBH	13.84	15.99	18.53	21.51	25.01	29.13	33.96	39.65
			KW	1.39	1.56	1.74	1.91	2.08	2.26	2.43	2.60
		70	MBH	12.34	14.50	17.04	20.02	23.52	27.63	32.47	38.15
			KW	1.88	2.06	2.23	2.40	2.58	2.75	2.92	3.09
		80	MBH	11.41	13.57	16.11	19.09	22.59	26.71	31.54	37.22
			KW	2.36	2.53	2.71	2.88	3.05	3.23	3.40	3.57
	1600	55	MBH	15.52	18.56	22.22	26.61	31.88	38.22	45.83	54.96
			KW	1.84	2.05	2.27	2.51	2.77	3.06	3.37	3.70
		70	MBH	15.13	18.17	21.83	26.22	31.49	37.83	45.44	54.57
			KW	2.43	2.63	2.86	3.10	3.36	3.64	3.95	4.28
		80	MBH	14.45	17.49	21.15	25.54	30.81	37.15	44.76	53.89
			KW	3.09	3.30	3.52	3.76	4.02	4.30	4.61	4.95
060 (5.0)	1200	55	MBH	13.78	16.37	19.51	23.30	27.90	33.46	40.20	48.36
			KW	1.59	1.77	1.97	2.18	2.41	2.65	2.91	3.20
		70	MBH	12.28	14.87	18.00	21.80	26.39	31.96	38.69	46.85
			KW	2.32	2.50	2.70	2.91	3.14	3.38	3.64	3.93
		80	MBH	11.43	14.02	17.16	20.95	25.55	31.11	37.85	46.01
			KW	2.98	3.16	3.35	3.56	3.79	4.03	4.30	4.58
	1700	55	MBH	22.93	26.78	31.33	36.69	43.03	50.51	59.34	69.77
			KW	1.37	1.70	2.07	2.49	2.97	3.51	4.12	4.81
		70	MBH	21.30	25.15	29.70	35.06	41.40	48.88	57.71	68.14
			KW	2.49	2.82	3.19	3.61	4.09	4.63	5.24	5.93
		80	MBH	19.88	23.73	28.27	33.64	39.98	47.46	56.29	66.72
			KW	3.43	3.76	4.13	4.55	5.03	5.57	6.18	6.87

1. These Capacities are net capacities - the indoor motor heat has been added.

2. These power inputs are total power inputs - the indoor motor watts have been added.

Airflow Performance

Side Duct Application

BHX024-060

Size (Tons)	Model	Mode		Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)								
							0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
							Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts
024 (2.0)	BHX	Cool	Low	Y1	COOL-A	600	58	74	91	108	126	143	161	179	197
				Y1	COOL-B	450	39	53	68	84	100	117	134	152	170
				Y1	COOL-C	525	47	63	79	95	112	129	146	164	182
				Y1	COOL-D	675	71	89	106	124	143	161	179	198	217
			High	Y1+Y2	COOL-A	800	99	118	137	157	177	197	217	238	259
				Y1+Y2	COOL-B	600	58	74	91	108	126	143	161	179	197
				Y1+Y2	COOL-C	700	76	94	112	130	149	167	186	205	224
				Y1+Y2	COOL-D	900	127	146	167	188	209	231	254	277	301
		Heat	Heat Pump	Y1	COOL-A	800	99	118	137	157	177	197	217	238	259
				Y1	COOL-B	600	58	74	91	108	126	143	161	179	197
				Y1	COOL-C	700	76	94	112	130	149	167	186	205	224
				Y1	COOL-D	900	127	146	167	188	209	231	254	277	301
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	720	80	98	117	135	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	720	80	98	117	135	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	900	127	146	167	188	-	-	-	-	-
036 (3.0)	BHX	Cool	Low	Y1	COOL-A	900	140	165	191	217	245	273	303	333	364
				Y1	COOL-B	750	98	122	146	171	196	222	248	275	302
				Y1	COOL-C	825	118	142	167	192	219	246	273	302	331
				Y1	COOL-D	975	163	190	217	246	275	305	336	368	400
			High	Y1+Y2	COOL-A	1200	245	279	314	349	385	421	457	494	531
				Y1+Y2	COOL-B	1000	171	199	227	256	285	316	347	380	413
				Y1+Y2	COOL-C	1100	206	237	268	300	332	365	399	434	468
				Y1+Y2	COOL-D	1300	286	326	366	405	444	483	522	562	600
		Heat	Heat Pump	Y1	COOL-A	1200	245	279	314	349	385	421	457	494	531
				Y1	COOL-B	1000	171	199	227	256	285	316	347	380	413
				Y1	COOL-C	1100	206	237	268	300	332	365	399	434	468
				Y1	COOL-D	1300	286	326	366	405	444	483	522	562	600
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1080	199	229	259	290	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1100	206	237	268	300	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1300	286	326	366	405	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1300	286	326	366	405	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	1300	286	326	366	405	-	-	-	-	-

BHX024-060 (Continued)

Size (Tons)	Model	Mode		Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)								
							0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
							Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts
048 (4.0)	BHX	Cool	Low	Y1	COOL-A	1050	184	216	248	280	313	346	380	414	448
				Y1	COOL-B	918	138	166	194	224	254	286	318	351	385
				Y1	COOL-C	984	160	190	220	251	282	315	348	381	416
				Y1	COOL-D	1115	210	243	277	311	345	379	414	449	484
			High	Y1+Y2	COOL-A	1600	448	500	551	600	647	693	736	779	819
				Y1+Y2	COOL-B	1400	338	383	426	468	509	549	589	627	664
				Y1+Y2	COOL-C	1500	391	439	486	532	576	618	660	700	739
				Y1+Y2	COOL-D	1700	508	565	620	672	723	772	818	863	905
		Heat	Heat Pump	Y1	COOL-A	1600	448	500	551	600	647	693	736	779	819
				Y1	COOL-B	1400	338	383	426	468	509	549	589	627	664
				Y1	COOL-C	1500	391	439	486	532	576	618	660	700	739
				Y1	COOL-D	1700	508	565	620	672	723	772	818	863	905
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1440	359	405	449	493	535	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1500	391	439	486	532	576	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1700	508	565	620	672	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1700	508	565	620	672	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	1700	508	565	620	672	723	-	-	-	-
060 (5.0)	BHX	Cool	Low	Y1	COOL-A	1200	138	176	211	244	275	303	329	352	374
				Y1	COOL-B	1130	61	98	133	163	190	213	232	247	260
				Y1	COOL-C	1270	208	246	283	318	353	386	418	448	478
				Y1	COOL-D	1340	272	310	348	386	423	460	497	533	570
			High	Y1+Y2	COOL-A	1700	487	531	575	621	668	716	765	816	867
				Y1+Y2	COOL-B	1600	446	487	530	574	619	666	714	763	814
				Y1+Y2	COOL-C	1800	514	560	607	654	701	749	798	847	897
				Y1+Y2	COOL-D	1900	526	576	624	672	720	766	813	859	-
		Heat	Heat Pump	Y1	COOL-A	1700	487	531	575	621	668	716	765	816	867
				Y1	COOL-B	1600	446	487	530	574	619	666	714	763	814
				Y1	COOL-C	1800	514	560	607	654	701	749	798	847	897
				Y1	COOL-D	1900	526	576	624	672	720	766	813	859	-
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	2070	515	570	622	671	716	-	-	-	-

Bottom Duct Application

BHX024-060

Size (Tons)	Model	Mode		Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)								
							0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
							Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts
024 (2.0)	BHX	Cool	Low	Y1	COOL-A	600	58	74	91	108	126	143	161	179	197
				Y1	COOL-B	450	39	53	68	84	100	117	134	152	170
				Y1	COOL-C	525	47	63	79	95	112	129	146	164	182
				Y1	COOL-D	675	71	89	106	124	143	161	179	198	217
			High	Y1+Y2	COOL-A	800	99	118	137	157	177	197	217	238	259
				Y1+Y2	COOL-B	600	58	74	91	108	126	143	161	179	197
				Y1+Y2	COOL-C	700	76	94	112	130	149	167	186	205	224
				Y1+Y2	COOL-D	900	127	146	167	188	209	231	254	277	301
		Heat	Heat Pump	Y1	COOL-A	800	99	118	137	157	177	197	217	238	259
				Y1	COOL-B	600	58	74	91	108	126	143	161	179	197
				Y1	COOL-C	700	76	94	112	130	149	167	186	205	224
				Y1	COOL-D	900	127	146	167	188	209	231	254	277	301
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	720	80	98	117	135	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	720	80	98	117	135	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	880	121	140	160	181	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	800	99	118	137	157	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	900	127	146	167	188	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	900	127	146	167	188	-	-	-	-	-
036 (3.0)	BHX	Cool	Low	Y1	COOL-A	900	140	165	191	217	245	273	303	333	364
				Y1	COOL-B	750	98	122	146	171	196	222	248	275	302
				Y1	COOL-C	825	118	142	167	192	219	246	273	302	331
				Y1	COOL-D	975	163	190	217	246	275	305	336	368	400
			High	Y1+Y2	COOL-A	1200	245	279	314	349	385	421	457	494	531
				Y1+Y2	COOL-B	1000	171	199	227	256	285	316	347	380	413
				Y1+Y2	COOL-C	1100	206	237	268	300	332	365	399	434	468
				Y1+Y2	COOL-D	1300	286	326	366	405	444	483	522	562	600
		Heat	Heat Pump	Y1	COOL-A	1200	245	279	314	349	385	421	457	494	531
				Y1	COOL-B	1000	171	199	227	256	285	316	347	380	413
				Y1	COOL-C	1100	206	237	268	300	332	365	399	434	468
				Y1	COOL-D	1300	286	326	366	405	444	483	522	562	600
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1080	199	229	259	290	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1100	206	237	268	300	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	1200	245	279	314	349	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1300	286	326	366	405	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1300	286	326	366	405	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	1320	295	336	376	417	-	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	1300	286	326	366	405	-	-	-	-	-

BHX024-060 (Continued)

Size (Tons)	Model	Mode		Thermostat Input	Speed Tap	CFM	External Static Pressure (Inch Water Gauge)								
							0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
							Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts	Watts
048 (4.0)	BHX	Cool	Low	Y1	COOL-A	1050	184	216	248	280	313	346	380	414	448
				Y1	COOL-B	918	138	166	194	224	254	286	318	351	385
				Y1	COOL-C	984	160	190	220	251	282	315	348	381	416
				Y1	COOL-D	1115	210	243	277	311	345	379	414	449	484
			High	Y1+Y2	COOL-A	1600	448	500	551	600	647	693	736	779	819
				Y1+Y2	COOL-B	1400	338	383	426	468	509	549	589	627	664
				Y1+Y2	COOL-C	1500	391	439	486	532	576	618	660	700	739
				Y1+Y2	COOL-D	1700	508	565	620	672	723	772	818	863	905
		Heat	Heat Pump	Y1	COOL-A	1600	448	500	551	600	647	693	736	779	819
				Y1	COOL-B	1400	338	383	426	468	509	549	589	627	664
				Y1	COOL-C	1500	391	439	486	532	576	618	660	700	739
				Y1	COOL-D	1700	508	565	620	672	723	772	818	863	905
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1440	359	405	449	493	535	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1500	391	439	486	532	576	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	1600	448	500	551	600	647	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1700	508	565	620	672	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1700	508	565	620	672	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	1760	546	606	663	718	771	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	1700	508	565	620	672	723	-	-	-	-
060 (5.0)	BHX	Cool	Low	Y1	COOL-A	1200	138	176	211	244	275	303	329	352	374
				Y1	COOL-B	1130	61	98	133	163	190	213	232	247	260
				Y1	COOL-C	1270	208	246	283	318	353	386	418	448	478
				Y1	COOL-D	1340	272	310	348	386	423	460	497	533	570
			High	Y1+Y2	COOL-A	1700	487	531	575	621	668	716	765	816	867
				Y1+Y2	COOL-B	1600	446	487	530	574	619	666	714	763	814
				Y1+Y2	COOL-C	1800	514	560	607	654	701	749	798	847	897
				Y1+Y2	COOL-D	1900	526	576	624	672	720	766	813	859	-
		Heat	Heat Pump	Y1	COOL-A	1700	487	531	575	621	668	716	765	816	867
				Y1	COOL-B	1600	446	487	530	574	619	666	714	763	814
				Y1	COOL-C	1800	514	560	607	654	701	749	798	847	897
				Y1	COOL-D	1900	526	576	624	672	720	766	813	859	-
			Heat Pump + Aux. Heat	Y1+W1	COOL-A; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-A; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-A; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-A; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-B; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-B; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-B; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-B; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-C; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-C; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-C; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-C; HEAT-D	2070	515	570	622	671	716	-	-	-	-
				Y1+W1	COOL-D; HEAT-A	1900	526	576	624	672	720	-	-	-	-
				Y1+W1	COOL-D; HEAT-B	1975	526	578	628	677	723	-	-	-	-
				Y1+W1	COOL-D; HEAT-C	2150	495	554	607	656	699	-	-	-	-
				Y1+W1	COOL-D; HEAT-D	2070	515	570	622	671	716	-	-	-	-

Additional Static Resistance

Size (Tons)	Model	CFM	Wet Indoor Coil	Economizer ¹	Filter/Frame Kit	Electric Heat
024 (2.0)	BHX	500	0.01	0.00	0.01	0.02
		600	0.01	0.00	0.02	0.03
		700	0.01	0.00	0.02	0.03
		800	0.01	0.01	0.02	0.03
		900	0.01	0.01	0.02	0.04
		1000	0.02	0.01	0.02	0.04
		1100	0.03	0.01	0.03	0.05
036 (3.0)	BHX	1200	0.04	0.02	0.03	0.06
		700	0.01	0.00	0.02	0.03
		800	0.01	0.01	0.02	0.03
		900	0.01	0.01	0.02	0.04
		1000	0.02	0.01	0.02	0.04
		1100	0.03	0.01	0.03	0.05
		1200	0.04	0.02	0.03	0.06
048 (4.0)	BHX	1300	0.04	0.03	0.03	0.07
		1400	0.04	0.04	0.03	0.08
		1100	0.03	0.01	0.03	0.05
		1200	0.04	0.02	0.03	0.06
		1300	0.04	0.03	0.03	0.07
		1400	0.04	0.04	0.03	0.08
		1500	0.04	0.05	0.04	0.09
		1600	0.04	0.06	0.05	0.10
		1700	0.05	0.07	0.05	0.11
		1800	0.05	0.07	0.06	0.11
060 (5.0)	BHX	1900	0.06	0.08	0.06	0.11
		2000	0.07	0.08	0.07	0.12
		1100	0.03	0.01	0.03	0.05
		1200	0.04	0.02	0.03	0.06
		1300	0.04	0.03	0.03	0.07
		1400	0.04	0.04	0.03	0.08
		1500	0.04	0.05	0.04	0.09
		1600	0.04	0.06	0.05	0.10
		1700	0.05	0.07	0.05	0.11
		1800	0.05	0.07	0.06	0.11

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

Electric Heat Minimum Supply Air

Size (Tons)	Model	Voltage	Minimum Supply Air (CFM) Heater kW					
			3.8/5.0	5.6/7.5	7.5/10.0	11.3/15.0	15.0/20.0	18.8/25.0
024 (2.0)	BHX	208/230-1-60	720	720	720	-	-	-
036 (3.0)	BHX	208/230-1-60	1080	1080	1080	1080	-	-
		208/230-3-60	1080	1080	1080	1080	-	-
		460-3-60	1080	1080	1080	1080	-	-
048 (4.0)	BHX	208/230-1-60	-	-	1440	1440	1440	1440
		208/230-3-60	-	-	1440	1440	1440	1440
		460-3-60	-	-	1440	1440	1440	1440
060 (5.0)	BHX	208/230-1-60	-	-	1900	1900	1900	1900
		208/230-3-60	-	-	1900	1900	1900	1900
		460-3-60	-	-	1900	1900	1900	1900

Indoor Blower Specifications

Size (Tons)	Model	Motor				
		HP	RPM	Eff.	SF	Frame
024 (2.0)	BHX	1/2	Variable	0.8	1.0	48
036 (3.0)	BHX	3/4	Variable	0.8	1.0	48
048 (4.0)	BHX	3/4	Variable	0.8	1.0	48
060 (5.0)	BHX	1	Variable	0.8	1.0	48

Electric Heat Multipliers

Voltage		kW Capacity Multipliers ¹
Nominal	Applied	
240	208	0.75
	230	0.92
480	460	0.92
600	575	0.92

1. Electric heaters are rated at nominal voltage. Use this table to determine the electric heat capacity for heaters applied at lower voltages.

Sound Performance

Outdoor Sound Power Levels

Size (Tons)	Model	Sound Rating ¹ dB (A)	Octave Band Centerline Frequency (Hz)						
			125	250	500	1000	2000	4000	8000
024 (2.0)	BHX	75	65.5	66.5	69	69.5	64	62	57
036 (3.0)	BHX	79	73	71.5	72	71	67	64.5	60
048 (4.0)	BHX	80	70	71	75	74	70	66	67
060 (5.0)	BHX	80	67	69	73.5	77	69	66.5	60

1. Rated in accordance with AHRI 270 standard.

Electrical Data

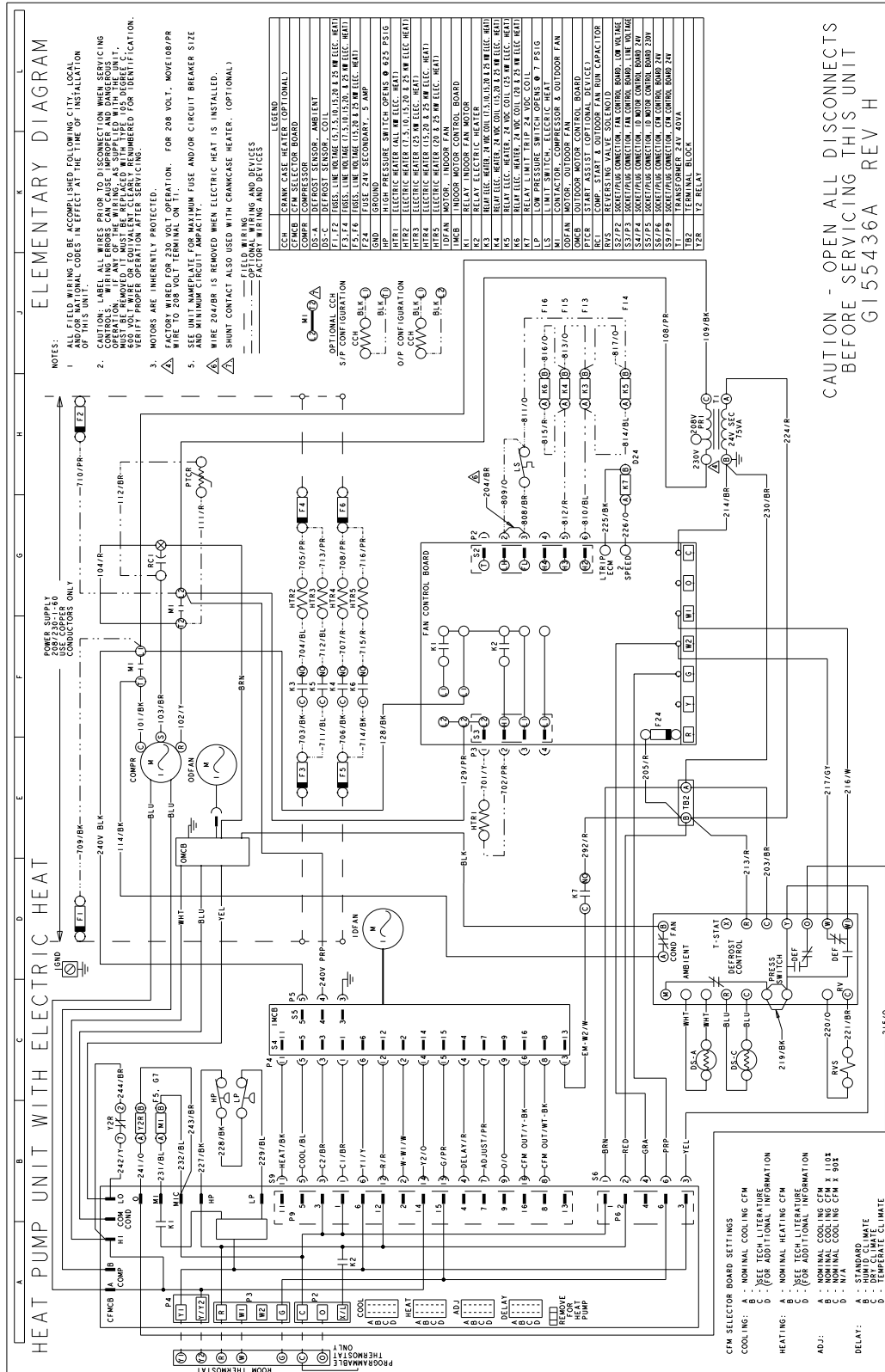
BHX024-060 Heat Pump With/Without Electric Heat

Size (Tons)	Volt	Compressors (each)			OD Fan Motors (each)	Supply Blower Motor	Electric Heat Option				MCA ¹ (Amps)	Max Fuse ² / Breaker ³ Size (Amps)
		RLA	LRA	MCC			Model	kW	Stages	Amps		
024 (2.0)	208/230-1-60	10.2	52	16	0.9	4.3	None	-	-	-	18	25
							2NH04500506	3.8/5	1	18.1/20.8	40.5/44	45/45
							2NH04500706	5.6/7.5	2	27.1/31.3	51.8/57	60/60
							2NH04501006	7.5/10	2	36.1/41.7	63.1/70	70/80
							2NE04500706	5.6 / 7.5	2	27.1 / 31.3	33.9 / 39.1	35 / 40
							2NE04501006	7.5 / 10	2	36.1 / 41.7	45.1 / 52.1	50 / 60
036 (3.0)	208/230-1-60	16.6	82	26	1.1	6.8	None	-	-	-	28.7	35
							2NH04500506	3.8/5	1	18.1/20.8	51.2/54.7	60/60
							2NH04500706	5.6/7.5	2	27.1/31.3	62.5/67.7	70/70
							2NH04501006	7.5/10	2	36.1/41.7	73.8/80.7	80/90
							2NH04501506	11.3/15	2	54.2/62.5	96.4/106.8	100/110
							2NE04500706	5.6 / 7.5	2	27.1 / 31.3	33.9 / 39.1	35 / 40
	208/230-3-60	11.1	58	17	1.1	6.8	2NE04501006	7.5 / 10	2	36.1 / 41.7	45.1 / 52.1	50 / 60
							2NE04501506	11.3 / 15	2	54.2 / 62.5	67.7 / 78.1	70 / 80
							None	-	-	-	21.8	30
	460-3-60	4.5	29	7	0.6	3.4	2NH04501025	7.5/10	1	20.8/24.1	47.8/51.8	50/60
							2NH04501525	11.3/15	1	31.3/36.1	60.9/66.9	70/70
							None	-	-	-	9.6	15
							2NH04501046	10	1	12	24.7	25
							2NH04501546	15	1	18	32.2	35
							None	-	-	-	35.8	45
048 (4.0)	208/230-1-60	21.1	96	33	2.6	6.8	2NP04501006	7.5/10	2	36.1/41.7	80.9/87.9	90/90
							2NP04501506	11.3/15	2	54.2/62.5	103.5/113.9	110/125
							2NP04502006	15/20	2	72.2/83.3	126.1/139.9	150/150
							2NP04502506	18.8/25	2	90.3/104.2	148.6/166	150/175
							2NE04501006	7.5 / 10	2	36.1 / 41.7	45.1 / 52.1	50 / 60
							2NE04501506	11.3 / 15	2	54.2 / 62.5	67.7 / 78.1	70 / 80
							2NE04502006	15 / 20	2	72.2 / 83.3	90.3 / 104.2	100 / 110
							2NE04502506	18.8 / 25	2	90.3 / 104.2	112.8 / 130.2	125 / 150
	208/230-3-60	13.4	88	21	2.6	6.8	None	-	-	-	26.2	35
							2NP04501025	7.5/10	1	20.8/24.1	52.2/56.2	60/60
							2NP04501525	11.3/15	1	31.3/36.1	65.2/71.3	70/80
							2NP04502025	15/20	2	41.7/48.1	78.3/86.3	80/90
	460-3-60	6.4	41	10	1.3	3.4	2NP04502525	18.8/25	2	52.1/60.1	91.3/101.3	100/110
							None	-	-	-	12.7	15
							2NP04501046	10	1	12	27.7	30
							2NP04501546	15	1	18	35.3	40
							2NP04502046	20	2	24.1	42.8	45
							2NP04502546	25	2	30.1	50.3	60
060 (5.0)	208/230-1-60	25.6	118	40	2.5	9.1	None	-	-	-	43.6	60
							2NP04501006	7.5/10	2	36.1/41.7	88.7/95.7	100/110
							2NP04501506	11.3/15	2	54.2/62.5	111.3/121.7	125/125
							2NH04502006	15/20	2	72.2/83.3	133.9/147.8	150/150
							2NP04502506	18.8/25	2	90.3/104.2	156.4/173.8	175/175
							2NE04501006	7.5 / 10	2	36.1 / 41.7	45.1 / 52.1	50 / 60
							2NE04501506	11.3 / 15	2	54.2 / 62.5	67.7 / 78.1	70 / 80
							2NE04502006	15 / 20	2	72.2 / 83.3	90.3 / 104.2	100 / 110
	208/230-3-60	17.6	135	28	2.5	9.1	2NE04502506	18.8 / 25	2	90.3 / 104.2	112.8 / 130.2	125 / 150
							None	-	-	-	33.6	45
							2NH04501025	7.5/10	1	20.8/24.1	59.7/63.7	70/70
							2NH04501525	11.3/15	1	31.3/36.1	72.7/78.7	80/80
	460-3-60	9.0	62	14	1.3	4.6	2NH04502025	15/20	2	41.7/48.1	85.7/93.7	90/100
							2NH04502525	18.8/25	2	52.1/60.1	98.8/108.8	100/110
							None	-	-	-	17.2	25
							2NP04501046	10	1	12	32.2	35
							2NH04501546	15	1	18	39.7	40
							2NH04502046	20	2	24.1	47.2	50
							2NP04502546	25	2	30.1	54.7	60

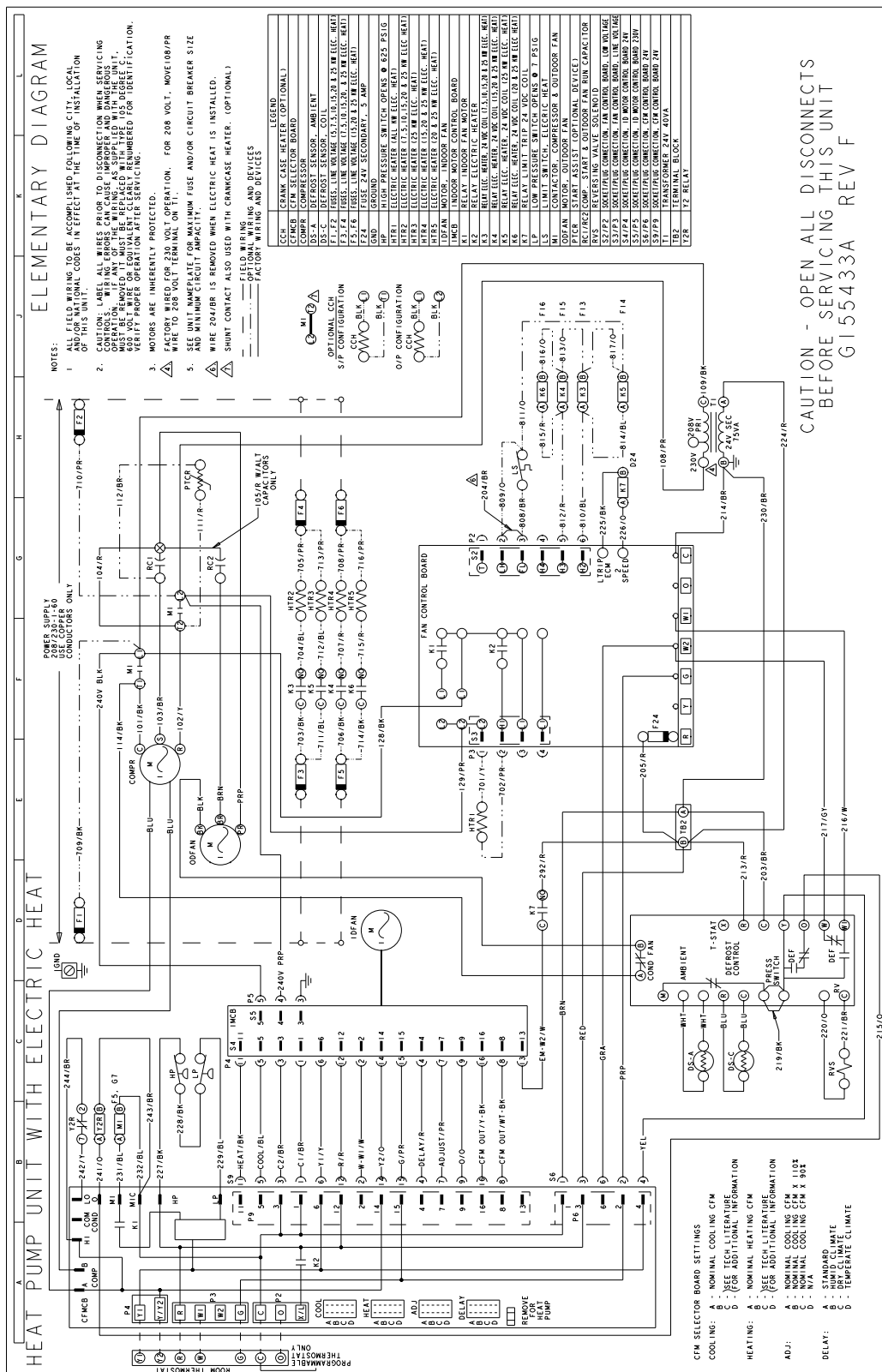
1. Minimum Circuit Ampacity.
2. Maximum Over Current Protection per standard UL 1995.
3. Fuse or HACR circuit breaker size installed at factory or field installed.

Typical BHX024-060 Wiring Diagrams

Typical BHX024, 048 and 060 Heat Pump 208/230-1-60 volt Wiring Diagram

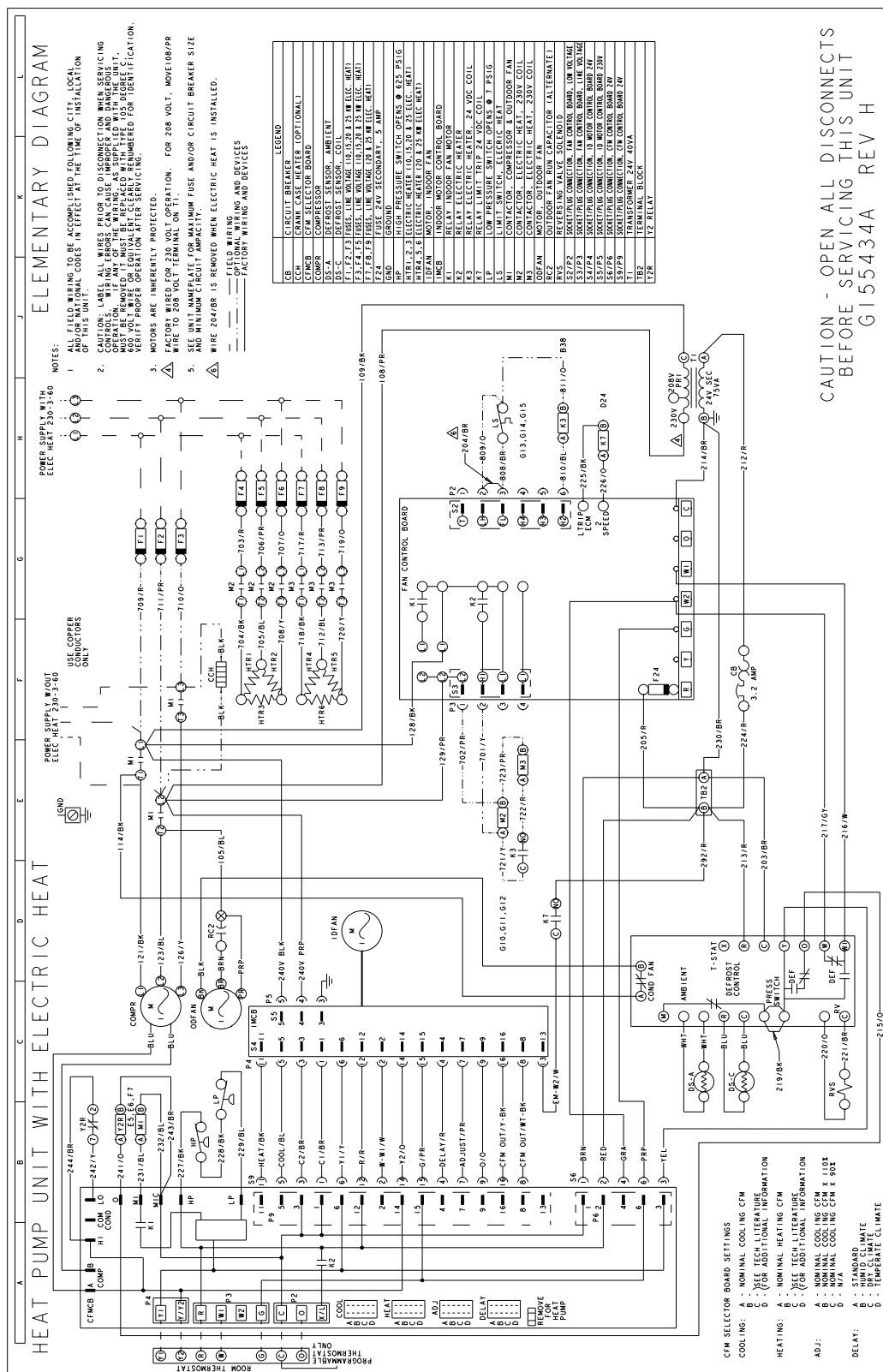


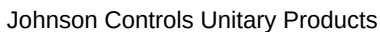
Johnson Controls Unitary Products



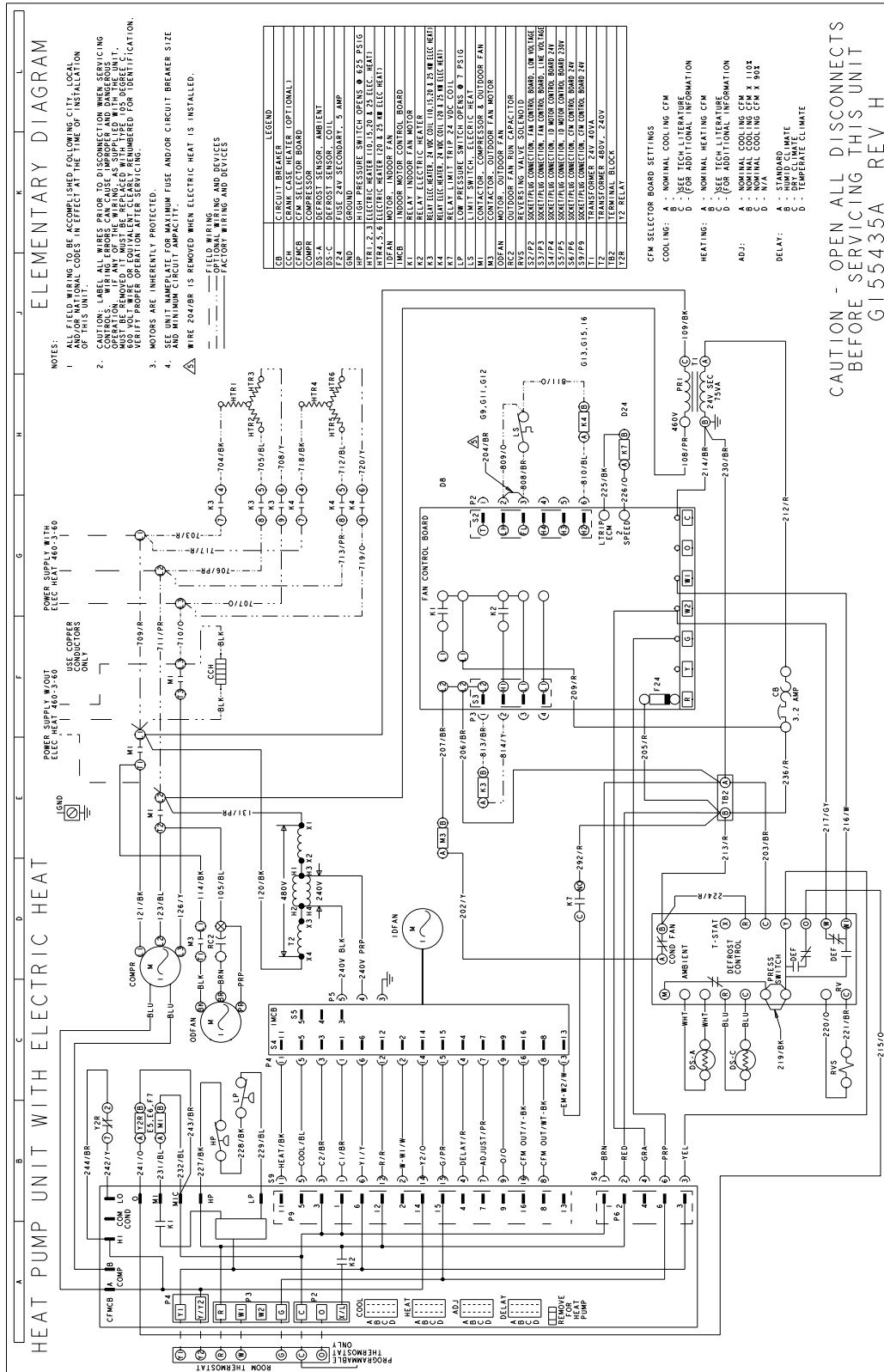


Johnson Controls Unitary Products





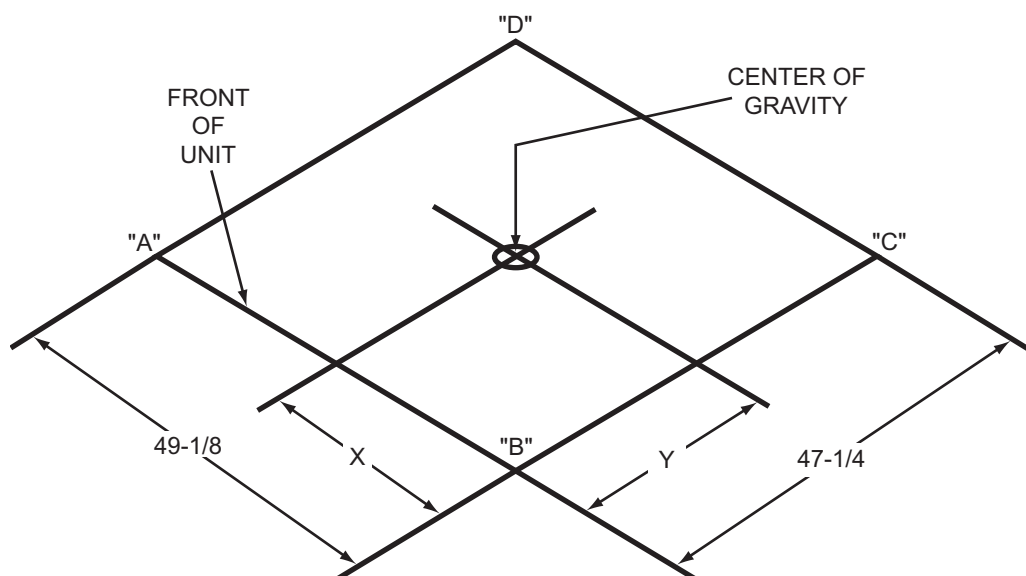
Typical BHX036 Heat Pump 460-3-60 volt Wiring Diagram



Weights and Dimensions

BHX Unit Weights

Unit 4 Point Load Weight



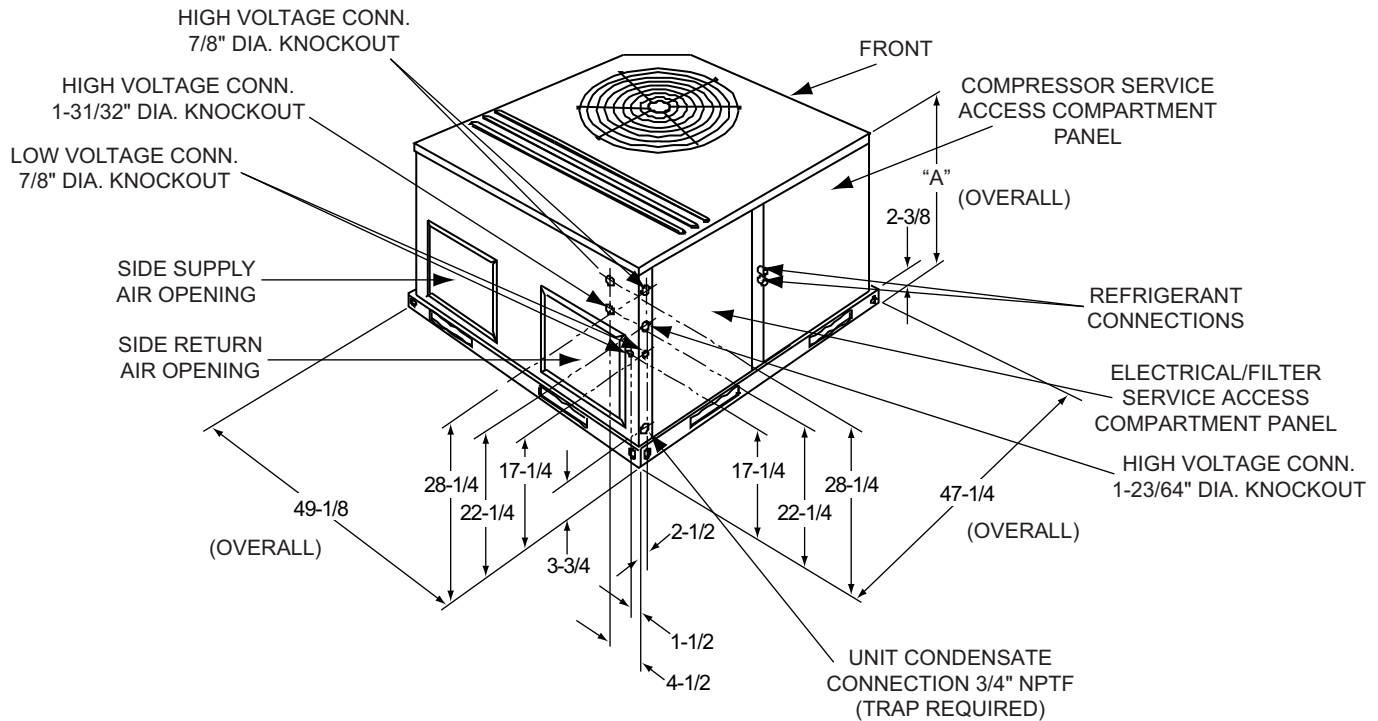
Size (Tons)	Model	Weight (lbs.)		Center of Gravity		4 Point Load Location (lbs.)			
		Shipping	Operating	X	Y	A	B	C	D
024 (2.0)	BHX	385	380	22.25	25	103	90	87	100
036 (3.0)	BHX	405	400	21.75	24.25	108	90	92	110
048 (4.0)	BHX	445	440	22	26	126	107	95	112
060 (5.0)	BHX	465	460	22	26.25	133	113	99	116

Unit Accessory Weights

Unit Accessory	Model	Weight (lbs.)	
		Shipping	Operating
Add Economizer	All	45	40
Add Electric Heat ¹	All	13	12

1. Weight given is for the maximum heater size available (25 kW).

Heat Pump Unit Dimensions



Heat Pump Unit Dimensions

Unit Size	Dimensions
	"A"
024, 036	33-1/2
048, 060	41-1/2

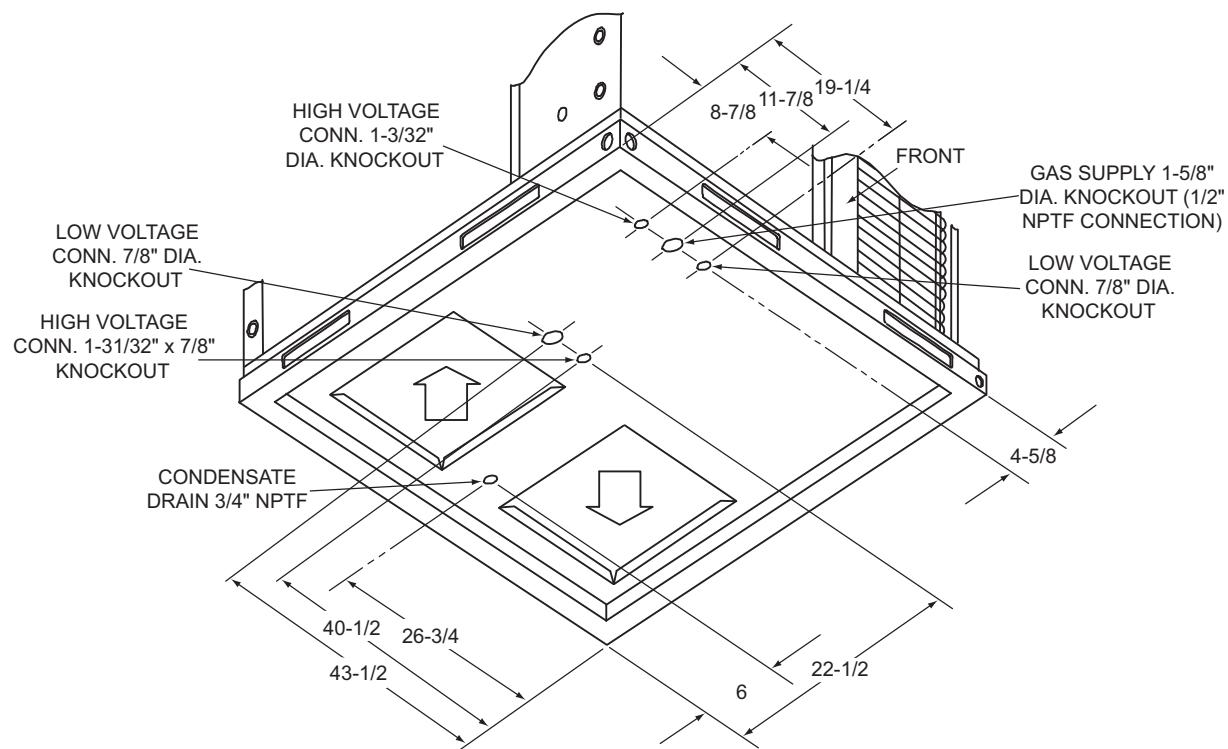
Heat Pump Unit Clearances

Direction	Distance (in.)	Direction	Distance (in.)
Top ¹	36	Right	24
Front	12	Left	24
Rear	0	Bottom ^{2 3}	0

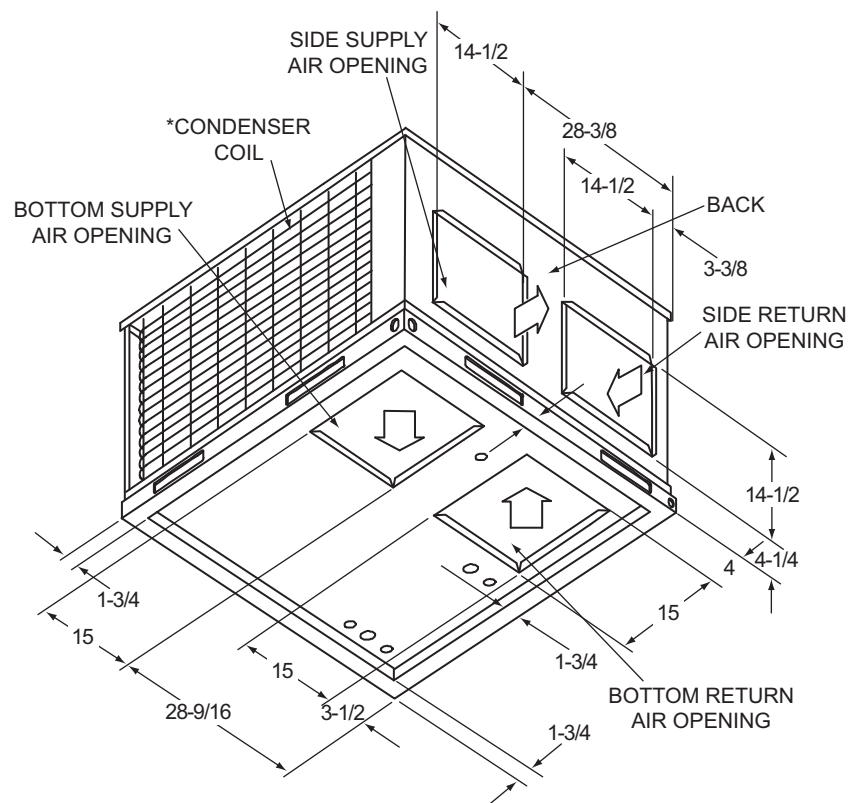
- Units must be installed outdoors. Over hanging structure or shrubs should not obscure condenser air discharge outlet.
- Units may be installed on combustible floors made from wood or class A, B or C roof covering materials.
- Minimum Clearance of 1 inch all sides of supply air duct for the first 3 foot of duct for 20 & 25 kW., zero inches there after. For all other heaters, zero inch clearance all sides for entire length of duct.

Note: For units applied with a roof curb, the minimum clearance may be reduced from 1 inch to 1/2 inch between combustible roof curb material and this supply air duct.

Unit Dimensions Front and Bottom

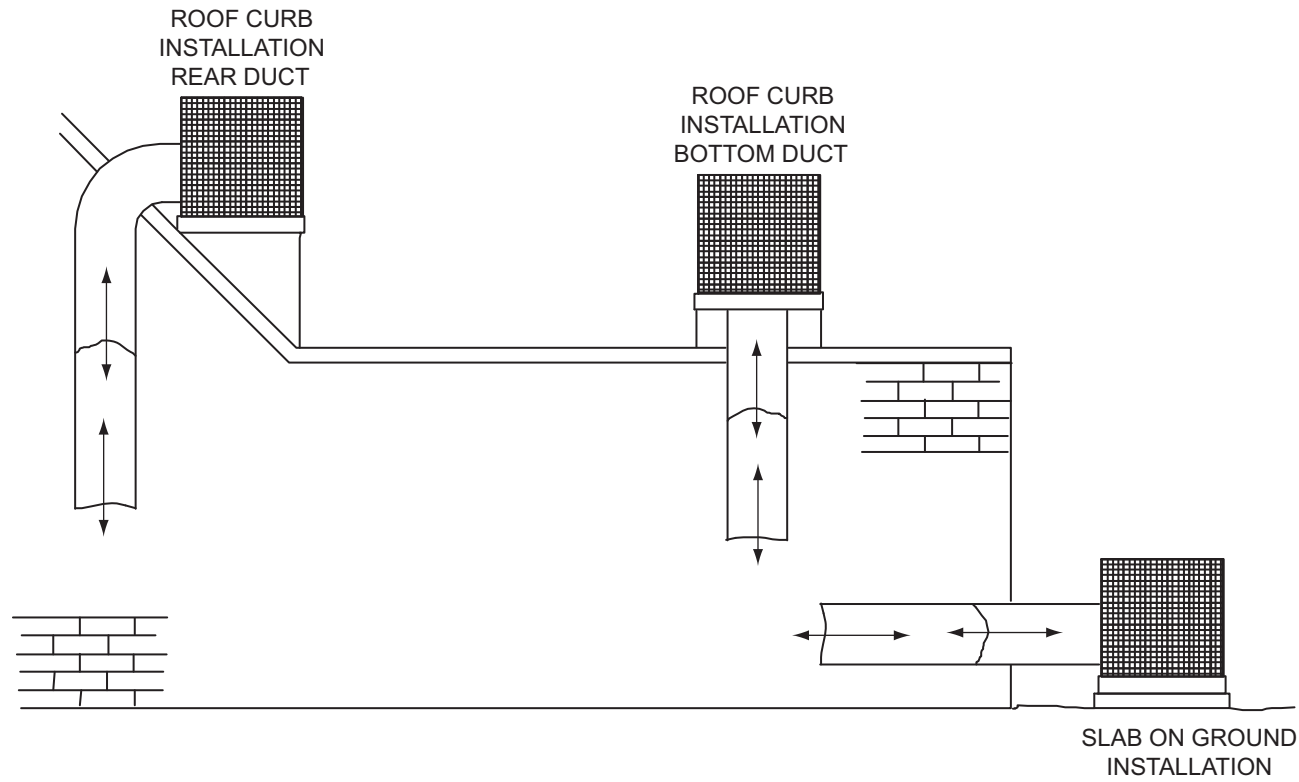


Unit Dimensions Back and Bottom

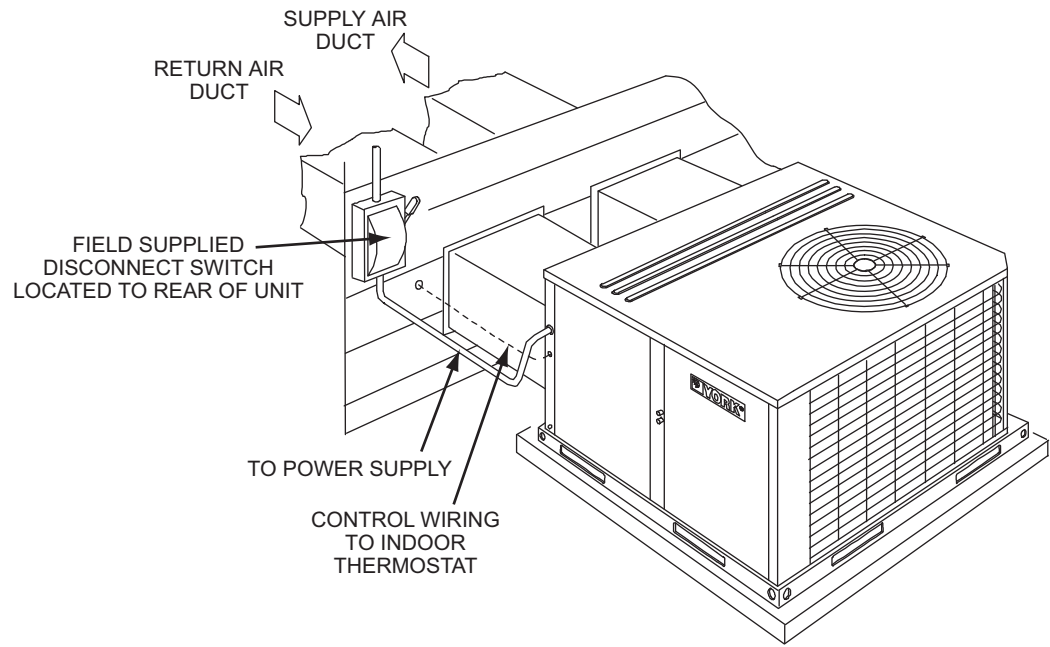


* See Features for details.

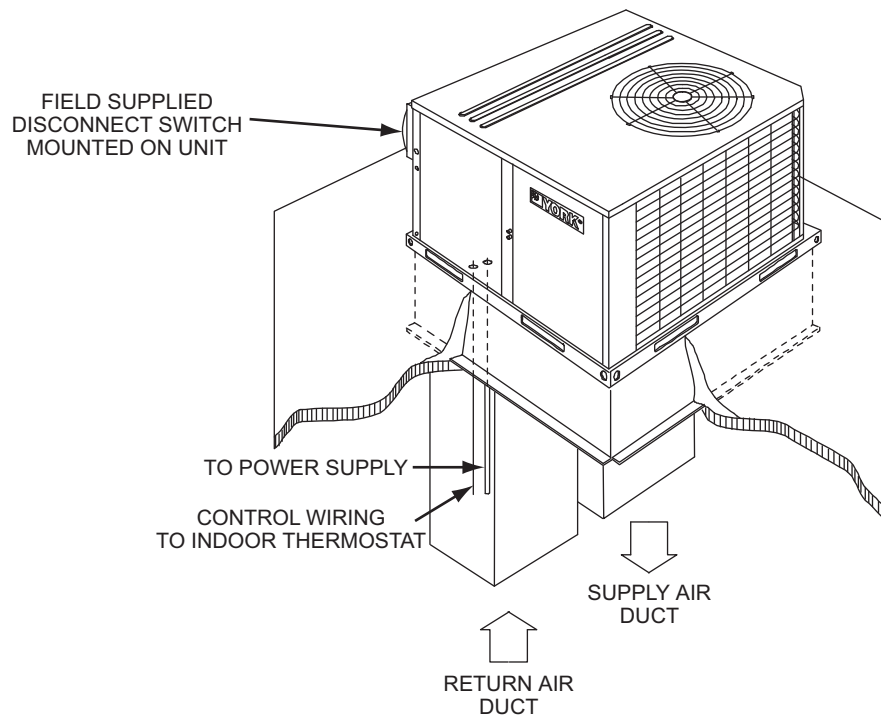
Unit Typical Duct Applications



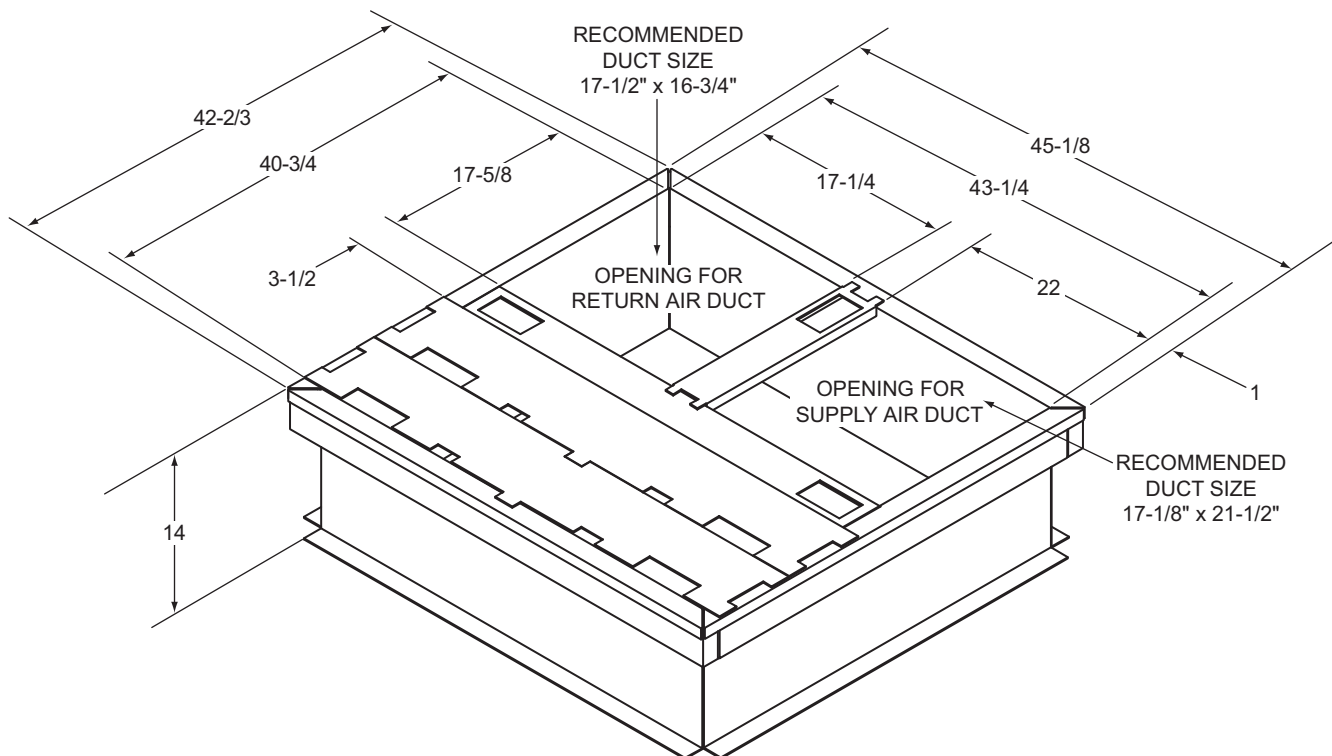
Unit Typical Slab on Ground Installation



Unit Typical Roof Curb Installation



Unit Accessory Dimensions Roof Curb¹



1. 8" Roof Curb also available.

Roof Curb Cross Section

