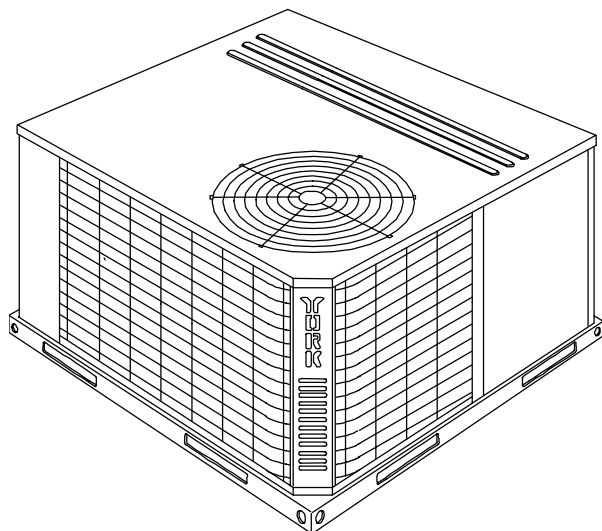


# TECHNICAL GUIDE



## Heating and Air Conditioning



### CHAMPION® ULTRA

### SINGLE PACKAGE HEAT PUMPS

**BHP024 THRU 048  
2 THRU 4 NOMINAL TONS  
13 SEER**

### FACTORY MOUNTED TXV

## DESCRIPTION

These 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.

## STANDARD FEATURES / BENEFITS

### OPERATING EFFICIENCY

All units provide high operating efficiencies of 13 SEER, 3.3 COP or greater, and 7.6 HSPF. All efficiencies exceed legislated minimum levels.

### ON SITE FLEXIBILITY

All model sizes share a common, compact design cabinet with a single footprint. The installer has the flexibility of setting one curb or pad and placing the proper tonnage unit after the internal load has been determined. Field convertible duct connections, from side shot to down shot, allows the installer greater flexibility and the need to carry 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 models are under 500 pounds.

All units are completely wired, charged with R-22 and tested prior to shipment. Unique test stations, are used to insure product quality. Refrigerant charge, and component part numbers are verified via computers at manufacturing point. Vital run test statistics, such as, system pressure, motor currents, air velocity and temperature unit vibration are monitored and recorded by the system to insure unit performance.

Equal size, side supply and return duct connections allow easy hook-up of ducts to match low crawl spaces without transition pieces.

### UTILITY CONNECTIONS MADE EASY

Electrical 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. They are ready 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 heavy duty, 1/2 inch NPTI copper connection is more tolerable during installation and is more durable over time. The connection is rigidly mounted to assure proper fit and leak tight seal.

## DURABLE FINISH

With a heavy duty cabinet made of powder-painted, galvanized steel, the neutral color blends into surrounding areas. The powder paint provides a better paint to steel bond, which resists corrosion and rust creep. The special primer formulas and glossy earth tone finish insure less fading when exposed to sunlight and offers a more attractive on site appearance. This paint finish exceeds ASTM-B117 standards for 750 hours salt spray rating, the highest in the industry.

## 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. Rigging holes are, provided also so that an overhead crane can be used to place the unit on a roof. On applications when 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 2-3/8 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 reduces insulation fibers into conditioned area.

## TOP DISCHARGE

The top discharge condenser fan does not disrupt neighboring areas and does not 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.

## OUTDOOR COIL GRILLE

A multi-piece totally enclosed, rigidly mounted outdoor coil grille provides protection from objects and personnel after installation. It also provides protection during transit and 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 its "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 (E.C.M.) electronically commutated motor that automatically adjusts the blower speed to meet a wide range of static requirements. These units easily match all types of applications and provides greater on site flexibility to match comfort requirements.

## SIMPLE CONTROL CIRCUIT

A low voltage printed circuit board contains a low voltage terminal strip. The electrical control box is not located in the compressor compartment. All wiring internal to the unit is color/number coded.

## CONTROLS

Reliable demand defrost control provides defrost. Defrost control also provides an "X" terminal to provide a 24 volt signal for room thermostat "LED" indication of unit lockout, plus, built in 5 minute anti-short cycle protection.

## **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 protects the compressor, if undesirable operating conditions occur.

## **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. 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.

## **EASY SERVICE ACCESS**

A large, single hinged panel covers the electrical controls and 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 has no need to carry an inventory of unique parts or needs special training to replace any of the components parts for these units. All are easily obtained from Source 1 or other major part houses.

## **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. Sepa-

rate field accessories of single enthalpy and dual enthalpy are also available.

### **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 selects 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.

### **UPGRADE PRESSURE PACKAGE**

Contains screw in type High pressure, Low Pressure/Loss of Charge switch, freeze protection switch and lockout relay. Switches are placed onto existing Schrader ports located in the unit by furnished adapters. When abnormal conditions are sensed through the pressure switches, the unit will lock out, preventing any further operation until reset or problem is corrected. Package agency approved.

### **HAIL GUARD KIT**

Kit contains protected grilles made of expanded aluminum grilles with full perimeter 1-1/2 inch frame. Sloped hoods are also included to assure maximum protection.

### **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 (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 return and unit mounted down shot return applications. Damper capable of providing 0% thru 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 15" square to 14" round.

**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. Eight and 14 inch high roof curbs are available.

**MANUAL OUTDOOR DAMPER**

Provides 0% thru 50% outdoor air capability (field adjustable). Designed for duct mounted side return and

unit mounted down shot 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.

**ELECTRIC HEATERS**

Each heater package provides easy installation of electric heat strips. Slide in design with plug in harness and agency approved. Heaters are available from 5.0 KW sizes and are designed for single point and dual connection.

**TABLE OF CONTENTS**

|   |    |   |    |
|---|----|---|----|
| Description .....                             | 1  | Side & Bot. Sup. Air Blower Perf. (208/230/460 Volts) ..... | 14 |
| Standard Features / Benefits .....            | 1  | Additional Static Resistance .....                          | 14 |
| Field-installed Accessories .....             | 3  | Field Wiring Diagram .....                                  | 15 |
| Unit Cut Away .....                           | 5  | Electrical Data (Basic Unit) .....                          | 16 |
| Ratings .....                                 | 5  | Electrical Data (13 Seer Heat Pump / Electric Heat) .....   | 17 |
| Physical Data .....                           | 5  | Application Data .....                                      | 18 |
| Cooling Capacities - 2 Ton (BHP024) .....     | 6  | Center of Gravity and Weights .....                         | 18 |
| Cooling Capacities - 2-1/2 Ton (BHP030) ..... | 7  | Unit Clearances .....                                       | 18 |
| Cooling Capacities - 3 Ton (BHP036) .....     | 8  | Unit Dimensions .....                                       | 19 |
| Cooling Capacities - 3-1/2 Ton (BHP042) ..... | 9  | Typical Applications .....                                  | 20 |
| Cooling Capacities - 4 Ton (BHP048) .....     | 10 | Roof Curb Dimensions .....                                  | 21 |
| Heating Capacities - 2 Ton (BHP024) .....     | 11 | Typical Wiring Diagram (208/230-1-60 Power Supply) .....    | 22 |
| Heating Capacities - 2-1/2 Ton (BHP030) ..... | 11 | Typical Wiring Diagram (230-3-60 Power Supply) .....        | 23 |
| Heating Capacities - 3 Ton (BHP036) .....     | 12 | Typical Wiring Diagram (460-3-60 Power Supply) .....        | 24 |
| Heating Capacities - 3-1/2 Ton (BHP042) ..... | 12 | Mechanical Specifications .....                             | 25 |
| Heating Capacities - 4 Ton (BHP048) .....     | 13 |   |    |

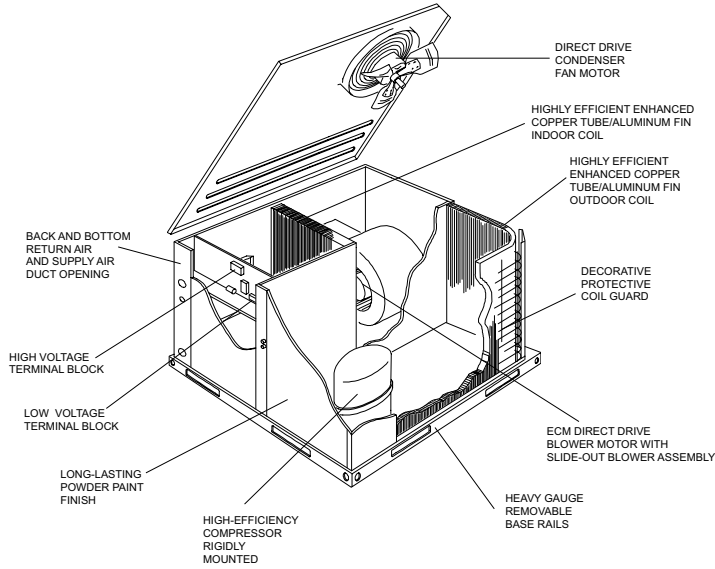


FIGURE 1 - UNIT CUT AWAY

TABLE 1: RATINGS

| MODEL BHP | COOLING CAPACITY <sup>1</sup><br>80 / 67-95°F |      |      | HSPF <sup>1</sup> | SOUND RATING <sup>2</sup><br>(dbels) | NET HEATING CAPACITY |      |       |      | AVAILABLE ELECTRIC HEAT NOMINAL CAPACITY KW |                        |
|-----------|---|------|------|-------------------|--------------------------------------|----------------------|------|-------|------|---|------------------------|
|           | MBH   | SEER | EER  |                   |                                      | @47°F                |      | @17°F |      | SINGLE PHASE                                | THREE PHASE            |
|           |   |      |      |                   |                                      | MBH                  | COP  | MBH   | COP  |   |                        |
| 024       | 24.4  | 13.0 | 11.3 | 7.6               | 79                                   | 21.8                 | 3.40 | 11.0  | 2.00 | 5.0, 7.5, 10.0                              | N / A                  |
| 030       | 30.0  | 13.0 | 11.3 | 7.6               | 77                                   | 28.2                 | 3.40 | 16.5  | 2.20 | 5.0, 7.5, 10.0, 15.0                        | 10.0, 15.0             |
| 036       | 35.5  | 13.0 | 11.3 | 7.6               | 77                                   | 32.0                 | 3.30 | 18.9  | 2.20 | 5.0, 7.5, 10.0, 15.0                        | 10.0, 15.0             |
| 042       | 42.0  | 13.0 | 11.3 | 7.6               | 83                                   | 42.0                 | 3.40 | 23.0  | 2.20 | 10.0, 15.0                                  | 10.0, 15.0             |
| 048       | 47.0  | 13.0 | 11.3 | 7.6               | 82                                   | 45.0                 | 3.30 | 25.8  | 2.20 | 10.0, 15.0, 20.0, 25.0                      | 10.0, 15.0, 20.0, 25.0 |

1. Certified in accordance with the Uniry Small Equipment certification program, which is based on ARI Standard 210/240.

2. Rated in accordance with ARI Standard 270.

SEER = Seasonal Energy Efficiency Ratio - the total cooling output in BTU's during a normal annual usage period for cooling divided by the total electric power input in watt-hours during the same period.

COP = Coefficient of Performance - the total heating capacity provided by the refrigeration system, including circulating fan heat but excluding supplementary resistance (BGU's per hour) divided by the total electric input (watts) x 3.412.

TABLE 2: PHYSICAL DATA

| MODELS        |   | BHP                |                    |                    |                    |                    |
|---------------|---|--------------------|--------------------|--------------------|--------------------|--------------------|
|               |   | 024                | 030                | 036                | 042                | 048                |
| INDOOR BLOWER | CENTRIFUGAL BLOWER (Dia. x Wd. in.)<br>FAN MOTOR HP (ECM) | 10 X 8<br>1/2      | 10 X 8<br>1/2      | 11 x 10<br>3/4     | 11 x 10<br>3/4     | 11 X 10<br>3/4     |
| INDOOR COIL   | ROWS DEEP<br>FINS PER INCH<br>FACE AREA (Sq. Ft.)         | 2<br>15<br>4.38    | 3<br>13<br>4.38    | 3<br>15<br>4.38    | 3<br>16<br>5.63    | 3<br>16<br>5.63    |
| OUTDOOR FAN   | PROPELLER DIA. (in.)<br>FAN MOTOR HP<br>NOM. CFM TOTAL    | 22<br>1/4<br>1,800 | 22<br>1/4<br>1,800 | 22<br>1/4<br>2,400 | 22<br>1/4<br>2,400 | 22<br>1/4<br>3,000 |
| OUTDOOR COIL  | ROWS DEEP<br>FINS PER INCH<br>FACE AREA (Sq. Ft.)         | 1<br>20<br>11.7    | 1<br>20<br>11.7    | 2<br>20<br>11.7    | 2<br>20<br>16.4    | 2<br>20<br>16.4    |
| CHARGE        | REFRIGERANT 22 (lbs./oz.)                                 | 5 / 5              | 5 / 15             | 8 / 4              | 9 / 14             | 12 / 0             |
| FILTER        | FACE AREA (Sq. Ft. / Qty. / Size)                         | 4.28 / 2 / 14 x 22 |                    |                    |                    |                    |
| COMPRESSOR    | Hermetic Type, Qty. = 1                                   | Reciprocating      | Scroll             | Scroll             | Scroll             | Scroll             |

**TABLE 3: COOLING CAPACITIES - 2 TON (BHP024)**

| TEMPERATURE AIR ON<br>OUTDOOR COIL |                                       |                         | TEMPERATURE OF AIR ON INDOOR COIL |      |      |      |         |      |      |      |      |
|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|------|------|------|---------|------|------|------|------|
|                                    |                                       |                         | 800 CFM                           |      |      |      | 900 CFM |      |      |      |      |
|                                    |                                       |                         | WB °F                             |      |      |      |         |      |      |      |      |
|                                    |                                       |                         | 72                                | 67   | 62   | 57   | 72      | 67   | 62   | 57   |      |
| 85 °F                              | NET CAP. MBH                          |                         | 29.1                              | 26.0 | 23.8 | 23.4 | 29.7    | 26.6 | 24.3 | 23.9 |      |
|                                    | POWER INPUT kW                        |                         | 1.93                              | 1.91 | 1.88 | 1.87 | 1.95    | 1.93 | 1.91 | 1.90 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 19.2 | 23.1 | 23.8 | 23.4    | 20.9 | 25.1 | 24.3 | 23.9 |
|                                    |                                       |                         | 83                                | 16.9 | 20.8 | 23.8 | 23.4    | 18.3 | 22.5 | 24.3 | 23.9 |
|                                    |                                       |                         | 80                                | 14.5 | 18.5 | 21.9 | 22.7    | 15.6 | 19.8 | 23.4 | 23.6 |
|                                    |                                       |                         | 77                                | 12.2 | 16.1 | 19.5 | 20.3    | 12.9 | 17.2 | 20.7 | 20.9 |
|                                    |                                       |                         | 74                                | 9.9  | 13.8 | 17.2 | 18.0    | 10.3 | 14.5 | 18.0 | 18.2 |
|                                    |                                       |                         | 71                                | #N/A | 11.5 | 14.9 | 15.7    | #N/A | 11.9 | 15.4 | 15.6 |
|                                    |                                       |                         | 68                                | #N/A | 9.1  | 12.5 | 13.3    | #N/A | 9.2  | 12.7 | 12.9 |
| 95 °F                              | NET CAP. MBH                          |                         | 27.2                              | 24.2 | 22.1 | 22.0 | 27.7    | 24.6 | 22.5 | 22.4 |      |
|                                    | POWER INPUT kW                        |                         | 2.07                              | 2.06 | 2.02 | 2.02 | 2.09    | 2.08 | 2.05 | 2.04 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 18.6 | 22.3 | 22.1 | 22.0    | 20.1 | 23.7 | 22.5 | 22.4 |
|                                    |                                       |                         | 83                                | 16.2 | 20.0 | 22.1 | 22.0    | 17.5 | 21.5 | 22.5 | 22.4 |
|                                    |                                       |                         | 80                                | 13.9 | 17.7 | 20.8 | 21.4    | 14.8 | 18.9 | 21.8 | 22.1 |
|                                    |                                       |                         | 77                                | 11.6 | 15.3 | 18.4 | 19.0    | 12.2 | 16.2 | 19.2 | 19.4 |
|                                    |                                       |                         | 74                                | 9.2  | 13.0 | 16.1 | 16.7    | 9.5  | 13.5 | 16.5 | 16.8 |
|                                    |                                       |                         | 71                                | #N/A | 10.7 | 13.8 | 14.4    | #N/A | 10.9 | 13.8 | 14.1 |
|                                    |                                       |                         | 68                                | #N/A | 8.3  | 11.4 | 12.0    | #N/A | 8.2  | 11.2 | 11.5 |
| 105 °F                             | NET CAP. MBH                          |                         | 23.8                              | 22.4 | 20.5 | 20.6 | 24.2    | 22.8 | 20.8 | 20.9 |      |
|                                    | POWER INPUT kW                        |                         | 2.20                              | 2.21 | 2.17 | 2.16 | 2.24    | 2.24 | 2.20 | 2.19 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 19.5 | 21.5 | 20.5 | 20.6    | 20.4 | 22.3 | 20.8 | 20.9 |
|                                    |                                       |                         | 83                                | 17.2 | 19.2 | 20.5 | 20.6    | 18.5 | 20.7 | 20.8 | 20.9 |
|                                    |                                       |                         | 80                                | 14.9 | 16.9 | 19.7 | 20.0    | 15.9 | 18.1 | 20.4 | 20.6 |
|                                    |                                       |                         | 77                                | 12.6 | 14.6 | 17.4 | 17.7    | 13.3 | 15.4 | 17.8 | 18.0 |
|                                    |                                       |                         | 74                                | 10.2 | 12.2 | 15.1 | 15.3    | 10.6 | 12.7 | 15.1 | 15.3 |
|                                    |                                       |                         | 71                                | #N/A | 9.9  | 12.7 | 13.0    | #N/A | 10.1 | 12.4 | 12.6 |
|                                    |                                       |                         | 68                                | #N/A | 7.6  | 10.4 | 10.7    | #N/A | 7.4  | 9.8  | 10.0 |
| 115 °F                             | NET CAP. MBH                          |                         | 20.4                              | 20.7 | 18.9 | 19.2 | 20.6    | 20.9 | 19.1 | 19.4 |      |
|                                    | POWER INPUT kW                        |                         | 2.34                              | 2.36 | 2.32 | 2.31 | 2.38    | 2.40 | 2.36 | 2.35 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 20.4 | 20.7 | 18.9 | 19.2    | 20.6 | 20.9 | 19.1 | 19.4 |
|                                    |                                       |                         | 83                                | 18.2 | 18.5 | 18.9 | 19.2    | 19.5 | 19.8 | 19.1 | 19.4 |
|                                    |                                       |                         | 80                                | 15.9 | 16.1 | 18.7 | 18.6    | 17.0 | 17.3 | 19.0 | 19.1 |
|                                    |                                       |                         | 77                                | 13.6 | 13.8 | 16.4 | 16.3    | 14.4 | 14.6 | 16.4 | 16.5 |
|                                    |                                       |                         | 74                                | 11.2 | 11.5 | 14.1 | 14.0    | 11.7 | 11.9 | 13.7 | 13.8 |
|                                    |                                       |                         | 71                                | #N/A | 9.1  | 11.7 | 11.6    | #N/A | 9.3  | 11.1 | 11.2 |
|                                    |                                       |                         | 68                                | #N/A | 6.8  | 9.4  | 9.3     | #N/A | 6.6  | 8.4  | 8.5  |
| 125 °F                             | NET CAP. MBH                          |                         | 17.0                              | 18.9 | 17.3 | 17.8 | 17.0    | 19.0 | 17.5 | 17.9 |      |
|                                    | POWER INPUT kW                        |                         | 2.47                              | 2.51 | 2.46 | 2.45 | 2.52    | 2.56 | 2.51 | 2.50 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 21.3 | 19.9 | 17.3 | 17.8    | 20.8 | 19.5 | 17.5 | 17.9 |
|                                    |                                       |                         | 83                                | 19.2 | 17.7 | 17.3 | 17.8    | 20.6 | 18.9 | 17.5 | 17.9 |
|                                    |                                       |                         | 80                                | 16.9 | 15.4 | 17.7 | 17.3    | 18.1 | 16.5 | 17.6 | 17.7 |
|                                    |                                       |                         | 77                                | 14.6 | 13.0 | 15.4 | 15.0    | 15.4 | 13.8 | 15.0 | 15.0 |
|                                    |                                       |                         | 74                                | 12.2 | 10.7 | 13.1 | 12.6    | 12.8 | 11.1 | 12.3 | 12.3 |
|                                    |                                       |                         | 71                                | #N/A | 8.4  | 10.7 | 10.3    | #N/A | 8.5  | 9.7  | 9.7  |
|                                    |                                       |                         | 68                                | #N/A | 6.0  | 8.4  | 8.0     | #N/A | 5.8  | 7.0  | 7.0  |

<sup>1</sup> These capacities are net capacities - indoor fan heat deducted.

 ALL SENSIBLE CAPACITY

**TABLE 4: COOLING CAPACITIES - 2-1/2 TON (BHP030)**

| TEMPERATURE AIR ON<br>OUTDOOR COIL |                                       |                         | TEMPERATURE OF AIR ON INDOOR COIL |      |      |      |          |      |      |      |      |
|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|------|------|------|----------|------|------|------|------|
|                                    |                                       |                         | 1000 CFM                          |      |      |      | 1125 CFM |      |      |      |      |
|                                    |                                       |                         | WB °F                             |      |      |      | WB °F    |      |      |      |      |
|                                    |                                       |                         | 72                                | 67   | 62   | 57   | 72       | 67   | 62   | 57   |      |
| 85 °F                              | NET CAP. MBH                          |                         | 34.1                              | 31.5 | 28.4 | 29.9 | 35.4     | 32.7 | 29.5 | 31.0 |      |
|                                    | POWER INPUT kW                        |                         | 2.52                              | 2.48 | 2.44 | 2.43 | 2.64     | 2.58 | 2.54 | 2.53 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 23.9 | 29.8 | 28.4 | 29.9     | 25.7 | 31.8 | 29.5 | 31.0 |
|                                    |                                       |                         | 83                                | 21.0 | 26.9 | 28.4 | 29.9     | 22.4 | 28.5 | 29.5 | 31.0 |
|                                    |                                       |                         | 80                                | 18.1 | 23.9 | 27.9 | 29.6     | 19.0 | 25.2 | 29.2 | 30.8 |
|                                    |                                       |                         | 77                                | 15.2 | 21.0 | 24.9 | 26.6     | 15.7 | 21.9 | 25.9 | 27.5 |
|                                    |                                       |                         | 74                                | 12.3 | 18.1 | 22.0 | 23.7     | 12.4 | 18.5 | 22.6 | 24.2 |
|                                    |                                       |                         | 71                                | #N/A | 15.2 | 19.1 | 20.8     | #N/A | 15.2 | 19.2 | 20.9 |
| 68                                 | #N/A                                  | 12.3                    | 16.2                              | 17.9 | #N/A | 11.9 | 15.9     | 17.5 |      |      |      |
| 95 °F                              | NET CAP. MBH                          |                         | 32.6                              | 29.4 | 26.8 | 28.9 | 33.7     | 30.4 | 27.7 | 29.8 |      |
|                                    | POWER INPUT kW                        |                         | 2.83                              | 2.81 | 2.71 | 2.70 | 2.93     | 2.91 | 2.81 | 2.79 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 22.8 | 28.2 | 26.8 | 28.9     | 25.0 | 29.7 | 27.7 | 29.8 |
|                                    |                                       |                         | 83                                | 19.9 | 25.3 | 26.8 | 28.9     | 21.7 | 27.5 | 27.7 | 29.8 |
|                                    |                                       |                         | 80                                | 17.0 | 22.4 | 26.6 | 28.3     | 18.3 | 24.2 | 27.5 | 29.5 |
|                                    |                                       |                         | 77                                | 14.1 | 19.5 | 23.6 | 25.4     | 15.0 | 20.8 | 24.2 | 26.2 |
|                                    |                                       |                         | 74                                | 11.1 | 16.5 | 20.7 | 22.5     | 11.7 | 17.5 | 20.9 | 22.9 |
|                                    |                                       |                         | 71                                | #N/A | 13.6 | 17.8 | 19.6     | #N/A | 14.2 | 17.6 | 19.6 |
| 68                                 | #N/A                                  | 10.7                    | 14.9                              | 16.7 | #N/A | 10.9 | 14.3     | 16.2 |      |      |      |
| 105 °F                             | NET CAP. MBH                          |                         | 30.3                              | 27.2 | 25.0 | 26.7 | 31.5     | 28.2 | 26.0 | 27.7 |      |
|                                    | POWER INPUT kW                        |                         | 3.14                              | 3.12 | 3.04 | 3.06 | 3.24     | 3.22 | 3.14 | 3.16 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 21.7 | 26.6 | 25.0 | 26.7     | 23.9 | 27.9 | 26.0 | 27.7 |
|                                    |                                       |                         | 83                                | 18.8 | 24.1 | 25.0 | 26.7     | 20.6 | 26.3 | 26.0 | 27.7 |
|                                    |                                       |                         | 80                                | 15.9 | 21.1 | 25.4 | 26.3     | 17.2 | 22.9 | 26.2 | 27.5 |
|                                    |                                       |                         | 77                                | 13.0 | 18.2 | 22.4 | 23.3     | 13.9 | 19.6 | 22.9 | 24.2 |
|                                    |                                       |                         | 74                                | 10.1 | 15.3 | 19.5 | 20.4     | 10.6 | 16.3 | 19.6 | 20.9 |
|                                    |                                       |                         | 71                                | #N/A | 12.4 | 16.6 | 17.5     | #N/A | 13.0 | 16.2 | 17.6 |
| 68                                 | #N/A                                  | 9.5                     | 13.7                              | 14.6 | #N/A | 9.7  | 12.9     | 14.2 |      |      |      |
| 115 °F                             | NET CAP. MBH                          |                         | 28.0                              | 24.9 | 23.2 | 24.4 | 29.3     | 26.1 | 24.4 | 25.6 |      |
|                                    | POWER INPUT kW                        |                         | 3.45                              | 3.43 | 3.37 | 3.42 | 3.56     | 3.54 | 3.48 | 3.53 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 20.7 | 24.9 | 23.2 | 24.4     | 22.8 | 26.1 | 24.4 | 25.6 |
|                                    |                                       |                         | 83                                | 17.7 | 22.8 | 23.2 | 24.4     | 19.5 | 25.0 | 24.4 | 25.6 |
|                                    |                                       |                         | 80                                | 14.8 | 19.9 | 24.2 | 24.2     | 16.2 | 21.7 | 24.8 | 25.5 |
|                                    |                                       |                         | 77                                | 11.9 | 17.0 | 21.3 | 21.3     | 12.8 | 18.4 | 21.5 | 22.2 |
|                                    |                                       |                         | 74                                | 9.0  | 14.1 | 18.3 | 18.4     | 9.5  | 15.1 | 18.2 | 18.9 |
|                                    |                                       |                         | 71                                | #N/A | 11.2 | 15.4 | 15.4     | #N/A | 11.8 | 14.9 | 15.5 |
| 68                                 | #N/A                                  | 8.3                     | 12.5                              | 12.5 | #N/A | 8.4  | 11.6     | 12.2 |      |      |      |
| 125 °F                             | NET CAP. MBH                          |                         | 25.6                              | 22.7 | 21.4 | 22.2 | 27.2     | 24.0 | 22.7 | 23.5 |      |
|                                    | POWER INPUT kW                        |                         | 3.76                              | 3.74 | 3.70 | 3.78 | 3.87     | 3.85 | 3.82 | 3.89 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 19.6 | 23.3 | 21.4 | 22.2     | 21.7 | 24.3 | 22.7 | 23.5 |
|                                    |                                       |                         | 83                                | 16.7 | 21.6 | 21.4 | 22.2     | 18.4 | 23.8 | 22.7 | 23.5 |
|                                    |                                       |                         | 80                                | 13.7 | 18.7 | 23.0 | 22.1     | 15.1 | 20.5 | 23.5 | 23.5 |
|                                    |                                       |                         | 77                                | 10.8 | 15.8 | 20.1 | 19.2     | 11.7 | 17.2 | 20.2 | 20.2 |
|                                    |                                       |                         | 74                                | 7.9  | 12.9 | 17.1 | 16.3     | 8.4  | 13.9 | 16.8 | 16.8 |
|                                    |                                       |                         | 71                                | #N/A | 10.0 | 14.2 | 13.4     | #N/A | 10.5 | 13.5 | 13.5 |
| 68                                 | #N/A                                  | 7.1                     | 11.3                              | 10.4 | #N/A | 7.2  | 10.2     | 10.2 |      |      |      |

<sup>1</sup> These capacities are net capacities - indoor fan heat deducted.

 ALL SENSIBLE CAPACITY

**TABLE 5: COOLING CAPACITIES - 3 TON (BHP036)**

| TEMPERATURE AIR ON<br>OUTDOOR COIL |                                       |                         | TEMPERATURE OF AIR ON INDOOR COIL |      |      |      |          |      |      |      |      |
|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|------|------|------|----------|------|------|------|------|
|                                    |                                       |                         | 1050 CFM                          |      |      |      | 1200 CFM |      |      |      |      |
|                                    |                                       |                         | WB °F                             |      |      |      | WB °F    |      |      |      |      |
|                                    |                                       |                         | 72                                | 67   | 62   | 57   | 72       | 67   | 62   | 57   |      |
| 85 °F                              | NET CAP. MBH                          |                         | 41.1                              | 37.5 | 34.5 | 34.3 | 42.4     | 38.6 | 35.5 | 35.3 |      |
|                                    | POWER INPUT kW                        |                         | 2.89                              | 2.81 | 2.73 | 2.73 | 3.00     | 2.91 | 2.83 | 2.82 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 25.6 | 32.3 | 34.5 | 34.3     | 28.2 | 35.5 | 35.5 | 35.3 |
|                                    |                                       |                         | 83                                | 22.5 | 29.3 | 33.5 | 33.6     | 24.7 | 32.0 | 35.5 | 35.3 |
|                                    |                                       |                         | 80                                | 19.5 | 26.3 | 31.7 | 32.2     | 21.2 | 28.5 | 34.5 | 35.0 |
|                                    |                                       |                         | 77                                | 16.5 | 23.2 | 28.7 | 29.1     | 17.7 | 25.0 | 31.0 | 31.5 |
|                                    |                                       |                         | 74                                | 13.4 | 20.2 | 25.7 | 26.1     | 14.2 | 21.6 | 27.5 | 28.0 |
|                                    |                                       |                         | 71                                | #N/A | 17.2 | 22.6 | 23.1     | #N/A | 18.1 | 24.0 | 24.5 |
|                                    |                                       |                         | 68                                | #N/A | 14.1 | 19.6 | 20.0     | #N/A | 14.6 | 20.5 | 21.0 |
| 95 °F                              | NET CAP. MBH                          |                         | 38.5                              | 34.9 | 32.5 | 32.6 | 39.4     | 35.8 | 33.3 | 33.4 |      |
|                                    | POWER INPUT kW                        |                         | 3.21                              | 3.15 | 3.05 | 3.06 | 3.31     | 3.25 | 3.15 | 3.16 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 25.0 | 30.9 | 32.5 | 32.6     | 27.5 | 33.9 | 33.3 | 33.4 |
|                                    |                                       |                         | 83                                | 22.0 | 27.9 | 31.9 | 32.0     | 24.0 | 30.4 | 33.3 | 33.4 |
|                                    |                                       |                         | 80                                | 19.0 | 24.8 | 30.5 | 30.6     | 20.5 | 26.9 | 33.0 | 33.1 |
|                                    |                                       |                         | 77                                | 15.9 | 21.8 | 27.5 | 27.5     | 17.0 | 23.4 | 29.5 | 29.6 |
|                                    |                                       |                         | 74                                | 12.9 | 18.8 | 24.4 | 24.5     | 13.5 | 19.9 | 26.0 | 26.1 |
|                                    |                                       |                         | 71                                | #N/A | 15.7 | 21.4 | 21.5     | #N/A | 16.4 | 22.5 | 22.6 |
|                                    |                                       |                         | 68                                | #N/A | 12.7 | 18.4 | 18.5     | #N/A | 12.9 | 19.0 | 19.1 |
| 105 °F                             | NET CAP. MBH                          |                         | 35.6                              | 32.1 | 29.5 | 30.4 | 36.4     | 32.8 | 30.2 | 31.1 |      |
|                                    | POWER INPUT kW                        |                         | 3.61                              | 3.52 | 3.44 | 3.45 | 3.70     | 3.61 | 3.53 | 3.54 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 23.9 | 29.4 | 29.5 | 30.4     | 26.2 | 31.9 | 30.2 | 31.1 |
|                                    |                                       |                         | 83                                | 20.9 | 26.6 | 29.2 | 30.0     | 22.7 | 28.9 | 30.2 | 31.1 |
|                                    |                                       |                         | 80                                | 17.9 | 23.6 | 27.8 | 28.6     | 19.2 | 25.4 | 30.0 | 30.8 |
|                                    |                                       |                         | 77                                | 14.8 | 20.5 | 24.8 | 25.5     | 15.7 | 21.9 | 26.5 | 27.3 |
|                                    |                                       |                         | 74                                | 11.8 | 17.5 | 21.8 | 22.5     | 12.2 | 18.4 | 23.0 | 23.8 |
|                                    |                                       |                         | 71                                | #N/A | 14.5 | 18.7 | 19.5     | #N/A | 14.9 | 19.5 | 20.3 |
|                                    |                                       |                         | 68                                | #N/A | 11.4 | 15.7 | 16.4     | #N/A | 11.4 | 16.0 | 16.8 |
| 115 °F                             | NET CAP. MBH                          |                         | 32.6                              | 29.3 | 26.5 | 28.2 | 33.3     | 29.9 | 27.0 | 28.8 |      |
|                                    | POWER INPUT kW                        |                         | 4.01                              | 3.88 | 3.83 | 3.84 | 4.10     | 3.97 | 3.91 | 3.92 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 22.8 | 27.8 | 26.5 | 28.2     | 25.0 | 29.9 | 27.0 | 28.8 |
|                                    |                                       |                         | 83                                | 19.8 | 25.3 | 26.5 | 28.0     | 21.5 | 27.4 | 27.0 | 28.8 |
|                                    |                                       |                         | 80                                | 16.8 | 22.3 | 25.2 | 26.5     | 18.0 | 23.9 | 27.0 | 28.5 |
|                                    |                                       |                         | 77                                | 13.7 | 19.2 | 22.2 | 23.5     | 14.5 | 20.4 | 23.5 | 25.0 |
|                                    |                                       |                         | 74                                | 10.7 | 16.2 | 19.1 | 20.5     | 11.0 | 16.9 | 20.0 | 21.5 |
|                                    |                                       |                         | 71                                | #N/A | 13.2 | 16.1 | 17.4     | #N/A | 13.4 | 16.5 | 18.0 |
|                                    |                                       |                         | 68                                | #N/A | 10.1 | 13.1 | 14.4     | #N/A | 9.9  | 13.0 | 14.5 |
| 125 °F                             | NET CAP. MBH                          |                         | 29.7                              | 26.4 | 23.5 | 26.0 | 30.2     | 26.9 | 23.9 | 26.4 |      |
|                                    | POWER INPUT kW                        |                         | 4.41                              | 4.25 | 4.21 | 4.22 | 4.49     | 4.33 | 4.29 | 4.30 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 21.7 | 26.3 | 23.5 | 26.0     | 23.7 | 27.9 | 23.9 | 26.4 |
|                                    |                                       |                         | 83                                | 18.7 | 24.0 | 23.8 | 25.9     | 20.2 | 25.9 | 23.9 | 26.4 |
|                                    |                                       |                         | 80                                | 15.7 | 21.0 | 22.6 | 24.5     | 16.7 | 22.4 | 24.1 | 26.2 |
|                                    |                                       |                         | 77                                | 12.6 | 17.9 | 19.5 | 21.5     | 13.2 | 18.9 | 20.6 | 22.7 |
|                                    |                                       |                         | 74                                | 9.6  | 14.9 | 16.5 | 18.4     | 9.7  | 15.4 | 17.1 | 19.2 |
|                                    |                                       |                         | 71                                | #N/A | 11.9 | 13.5 | 15.4     | #N/A | 11.9 | 13.6 | 15.7 |
|                                    |                                       |                         | #78                               | #N/A | 8.8  | 10.4 | 12.4     | #N/A | 8.4  | 10.1 | 12.2 |

<sup>1</sup>. These capacities are net capacities - indoor fan heat deducted.

ALL SENSIBLE CAPACITY



**TABLE 6: COOLING CAPACITIES - 3-1/2 TON (BHP042)**

| TEMPERATURE AIR ON<br>OUTDOOR COIL |                                       |                         | TEMPERATURE OF AIR ON INDOOR COIL |      |      |      |          |      |      |      |      |
|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|------|------|------|----------|------|------|------|------|
|                                    |                                       |                         | 1300 CFM                          |      |      |      | 1400 CFM |      |      |      |      |
|                                    |                                       |                         | WB °F                             |      |      |      | WB °F    |      |      |      |      |
|                                    |                                       |                         | 72                                | 67   | 62   | 57   | 72       | 67   | 62   | 57   |      |
| 85 °F                              | NET CAP. MBH                          |                         | 48.8                              | 44.5 | 40.5 | 40.6 | 49.2     | 44.9 | 40.8 | 41.0 |      |
|                                    | POWER INPUT kW                        |                         | 3.37                              | 3.32 | 3.21 | 3.20 | 3.43     | 3.38 | 3.27 | 3.26 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 31.6 | 39.4 | 40.5 | 40.6     | 33.0 | 41.0 | 40.8 | 41.0 |
|                                    |                                       |                         | 83                                | 27.8 | 35.6 | 40.1 | 40.5     | 28.9 | 36.9 | 40.8 | 41.0 |
|                                    |                                       |                         | 80                                | 24.0 | 31.8 | 38.8 | 40.2     | 24.8 | 32.8 | 40.1 | 41.5 |
|                                    |                                       |                         | 77                                | 20.2 | 27.9 | 35.0 | 36.4     | 20.7 | 28.8 | 36.0 | 37.4 |
|                                    |                                       |                         | 74                                | 16.4 | 24.1 | 31.2 | 32.6     | 16.7 | 24.7 | 31.9 | 33.4 |
|                                    |                                       |                         | 71                                | #N/A | 20.3 | 27.4 | 28.7     | #N/A | 20.6 | 27.9 | 29.3 |
|                                    |                                       |                         | 68                                | #N/A | 16.5 | 23.5 | 24.9     | #N/A | 16.5 | 23.8 | 25.2 |
| 95 °F                              | NET CAP. MBH                          |                         | 45.4                              | 41.5 | 38.3 | 38.5 | 45.7     | 41.9 | 38.6 | 38.8 |      |
|                                    | POWER INPUT kW                        |                         | 3.67                              | 3.66 | 3.54 | 3.54 | 3.72     | 3.71 | 3.60 | 3.60 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 30.7 | 38.2 | 38.3 | 38.5     | 32.0 | 39.8 | 38.6 | 38.8 |
|                                    |                                       |                         | 83                                | 26.9 | 34.4 | 38.1 | 38.3     | 27.9 | 35.7 | 38.6 | 38.8 |
|                                    |                                       |                         | 80                                | 23.0 | 30.6 | 37.5 | 37.9     | 23.9 | 31.6 | 38.8 | 39.2 |
|                                    |                                       |                         | 77                                | 19.2 | 26.8 | 33.6 | 34.0     | 19.8 | 27.6 | 34.7 | 35.1 |
|                                    |                                       |                         | 74                                | 15.4 | 23.0 | 29.8 | 30.2     | 15.7 | 23.5 | 30.6 | 31.0 |
|                                    |                                       |                         | 71                                | #N/A | 19.1 | 26.0 | 26.4     | #N/A | 19.4 | 26.5 | 26.9 |
|                                    |                                       |                         | 68                                | #N/A | 15.3 | 22.2 | 22.6     | #N/A | 15.3 | 22.4 | 22.8 |
| 105 °F                             | NET CAP. MBH                          |                         | 41.9                              | 37.7 | 35.2 | 35.6 | 42.1     | 37.9 | 35.4 | 35.7 |      |
|                                    | POWER INPUT kW                        |                         | 4.01                              | 3.98 | 3.89 | 3.88 | 4.06     | 4.03 | 3.94 | 3.93 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 28.1 | 34.5 | 35.2 | 35.6     | 29.4 | 35.8 | 35.4 | 35.7 |
|                                    |                                       |                         | 83                                | 24.5 | 31.6 | 34.8 | 35.1     | 25.6 | 33.0 | 35.2 | 35.5 |
|                                    |                                       |                         | 80                                | 21.0 | 28.1 | 33.7 | 33.8     | 21.8 | 29.1 | 34.9 | 35.1 |
|                                    |                                       |                         | 77                                | 17.4 | 24.6 | 30.1 | 30.3     | 18.0 | 25.3 | 31.1 | 31.2 |
|                                    |                                       |                         | 74                                | 13.9 | 21.0 | 26.6 | 26.7     | 14.1 | 21.5 | 27.3 | 27.4 |
|                                    |                                       |                         | 71                                | #N/A | 17.5 | 23.0 | 23.2     | #N/A | 17.7 | 23.5 | 23.6 |
|                                    |                                       |                         | 68                                | #N/A | 13.9 | 19.5 | 19.6     | #N/A | 13.9 | 19.7 | 19.8 |
| 115 °F                             | NET CAP. MBH                          |                         | 38.7                              | 34.2 | 32.4 | 32.9 | 38.8     | 34.3 | 32.5 | 33.0 |      |
|                                    | POWER INPUT kW                        |                         | 4.41                              | 4.35 | 4.28 | 4.28 | 4.46     | 4.40 | 4.33 | 4.32 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 26.8 | 32.5 | 32.4 | 32.9     | 28.1 | 33.4 | 32.5 | 33.0 |
|                                    |                                       |                         | 83                                | 23.3 | 30.2 | 32.1 | 32.3     | 24.3 | 31.5 | 32.3 | 32.7 |
|                                    |                                       |                         | 80                                | 19.7 | 26.7 | 31.2 | 31.0     | 20.5 | 27.7 | 32.4 | 32.2 |
|                                    |                                       |                         | 77                                | 16.2 | 23.1 | 27.6 | 27.5     | 16.7 | 23.9 | 28.6 | 28.4 |
|                                    |                                       |                         | 74                                | 12.6 | 19.6 | 24.1 | 24.0     | 12.9 | 20.1 | 24.8 | 24.6 |
|                                    |                                       |                         | 71                                | #N/A | 16.1 | 20.6 | 20.4     | #N/A | 16.3 | 20.9 | 20.8 |
|                                    |                                       |                         | 68                                | #N/A | 12.5 | 17.0 | 16.9     | #N/A | 12.5 | 17.1 | 17.0 |
| 125 °F                             | NET CAP. MBH                          |                         | 35.6                              | 30.7 | 29.6 | 30.3 | 35.5     | 30.6 | 29.6 | 30.2 |      |
|                                    | POWER INPUT kW                        |                         | 4.81                              | 4.73 | 4.68 | 4.67 | 4.85     | 4.77 | 4.72 | 4.71 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 25.5 | 30.4 | 29.6 | 30.3     | 26.8 | 31.0 | 29.6 | 30.2 |
|                                    |                                       |                         | 83                                | 22.0 | 28.8 | 29.4 | 29.6     | 23.0 | 30.1 | 29.5 | 29.9 |
|                                    |                                       |                         | 80                                | 18.5 | 25.3 | 28.7 | 28.3     | 19.2 | 26.3 | 29.8 | 29.4 |
|                                    |                                       |                         | 77                                | 14.9 | 21.7 | 25.1 | 24.8     | 15.4 | 22.5 | 26.0 | 25.6 |
|                                    |                                       |                         | 74                                | 11.4 | 18.2 | 21.6 | 21.2     | 11.6 | 18.6 | 22.2 | 21.8 |
|                                    |                                       |                         | 71                                | #N/A | 14.6 | 18.1 | 17.7     | #N/A | 14.8 | 18.4 | 18.0 |
|                                    |                                       |                         | 68                                | #N/A | 11.1 | 14.5 | 14.1     | #N/A | 11.0 | 14.6 | 14.2 |

<sup>1</sup>. These capacities are net capacities - indoor fan heat deducted.

 ALL SENSIBLE CAPACITY

**TABLE 7: COOLING CAPACITIES - 4 TON (BHP048)**

| TEMPERATURE AIR ON<br>OUTDOOR COIL |                                       |                         | TEMPERATURE OF AIR ON INDOOR COIL |      |      |      |          |      |      |      |      |
|------------------------------------|---------------------------------------|-------------------------|-----------------------------------|------|------|------|----------|------|------|------|------|
|                                    |                                       |                         | 1500 CFM                          |      |      |      | 1600 CFM |      |      |      |      |
|                                    |                                       |                         | WB °F                             |      |      |      | WB °F    |      |      |      |      |
|                                    |                                       |                         | 72                                | 67   | 62   | 57   | 72       | 67   | 62   | 57   |      |
| 85 °F                              | NET CAP. MBH                          |                         | 54.3                              | 50.4 | 45.7 | 48.2 | 54.9     | 51.0 | 46.3 | 48.8 |      |
|                                    | POWER INPUT kW                        |                         | 3.97                              | 3.85 | 3.75 | 3.74 | 4.06     | 3.94 | 3.83 | 3.83 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 35.5 | 45.1 | 45.7 | 48.2     | 37.2 | 47.1 | 46.3 | 48.8 |
|                                    |                                       |                         | 83                                | 31.2 | 40.8 | 45.3 | 47.5     | 32.5 | 42.4 | 46.3 | 48.8 |
|                                    |                                       |                         | 80                                | 26.8 | 36.4 | 43.7 | 45.2     | 27.8 | 37.8 | 45.3 | 46.9 |
|                                    |                                       |                         | 77                                | 22.5 | 32.0 | 39.3 | 40.9     | 23.2 | 33.1 | 40.6 | 42.3 |
|                                    |                                       |                         | 74                                | 18.1 | 27.7 | 35.0 | 36.5     | 18.5 | 28.4 | 36.0 | 37.6 |
|                                    |                                       |                         | 71                                | #N/A | 23.3 | 30.6 | 32.2     | #N/A | 23.8 | 31.3 | 32.9 |
| 68                                 | #N/A                                  | 19.0                    | 26.3                              | 27.8 | #N/A | 19.1 | 26.6     | 28.3 |      |      |      |
| 95 °F                              | NET CAP. MBH                          |                         | 52.0                              | 47.4 | 43.5 | 46.1 | 52.3     | 47.7 | 43.8 | 46.4 |      |
|                                    | POWER INPUT kW                        |                         | 4.33                              | 4.25 | 4.17 | 4.11 | 4.43     | 4.35 | 4.26 | 4.20 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 34.6 | 43.5 | 43.5 | 46.1     | 36.1 | 45.3 | 43.8 | 46.4 |
|                                    |                                       |                         | 83                                | 30.3 | 39.1 | 43.1 | 45.4     | 31.5 | 40.6 | 43.8 | 46.4 |
|                                    |                                       |                         | 80                                | 25.9 | 34.8 | 42.1 | 43.2     | 26.8 | 36.0 | 43.6 | 44.7 |
|                                    |                                       |                         | 77                                | 21.5 | 30.4 | 37.8 | 38.8     | 22.1 | 31.3 | 38.9 | 40.0 |
|                                    |                                       |                         | 74                                | 17.2 | 26.1 | 33.4 | 34.5     | 17.5 | 26.6 | 34.3 | 35.3 |
|                                    |                                       |                         | 71                                | #N/A | 21.7 | 29.1 | 30.1     | #N/A | 22.0 | 29.6 | 30.7 |
| 68                                 | #N/A                                  | 17.3                    | 24.7                              | 25.8 | #N/A | 17.3 | 24.9     | 26.0 |      |      |      |
| 105 °F                             | NET CAP. MBH                          |                         | 48.8                              | 44.2 | 40.1 | 43.2 | 49.0     | 44.5 | 40.3 | 43.5 |      |
|                                    | POWER INPUT kW                        |                         | 4.71                              | 4.62 | 4.52 | 4.47 | 4.81     | 4.71 | 4.61 | 4.56 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 32.0 | 40.2 | 40.1 | 43.2     | 33.5 | 41.8 | 40.3 | 43.5 |
|                                    |                                       |                         | 83                                | 28.0 | 36.5 | 39.7 | 41.8     | 29.2 | 38.0 | 40.1 | 42.7 |
|                                    |                                       |                         | 80                                | 23.9 | 32.4 | 39.6 | 39.3     | 24.8 | 33.6 | 41.0 | 40.8 |
|                                    |                                       |                         | 77                                | 19.9 | 28.4 | 35.5 | 35.3     | 20.5 | 29.3 | 36.7 | 36.4 |
|                                    |                                       |                         | 74                                | 15.9 | 24.3 | 31.5 | 31.2     | 16.1 | 24.9 | 32.3 | 32.0 |
|                                    |                                       |                         | 71                                | #N/A | 20.3 | 27.4 | 27.2     | #N/A | 20.6 | 28.0 | 27.7 |
| 68                                 | #N/A                                  | 16.2                    | 23.4                              | 23.1 | #N/A | 16.2 | 23.6     | 23.3 |      |      |      |
| 115 °F                             | NET CAP. MBH                          |                         | 45.9                              | 41.4 | 37.0 | 40.7 | 46.1     | 41.5 | 37.1 | 40.8 |      |
|                                    | POWER INPUT kW                        |                         | 5.19                              | 5.08 | 4.96 | 4.93 | 5.28     | 5.17 | 5.05 | 5.02 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 31.0 | 38.7 | 37.0 | 40.7     | 32.5 | 40.2 | 37.1 | 40.8 |
|                                    |                                       |                         | 83                                | 26.9 | 35.3 | 37.0 | 39.3     | 28.1 | 36.8 | 37.1 | 40.1 |
|                                    |                                       |                         | 80                                | 22.9 | 31.3 | 38.4 | 36.9     | 23.8 | 32.5 | 39.9 | 38.3 |
|                                    |                                       |                         | 77                                | 18.8 | 27.2 | 34.4 | 32.9     | 19.4 | 28.1 | 35.6 | 34.0 |
|                                    |                                       |                         | 74                                | 14.8 | 23.2 | 30.4 | 28.8     | 15.0 | 23.8 | 31.2 | 29.6 |
|                                    |                                       |                         | 71                                | #N/A | 19.1 | 26.3 | 24.8     | #N/A | 19.4 | 26.8 | 25.3 |
| 68                                 | #N/A                                  | 15.1                    | 22.3                              | 20.7 | #N/A | 15.0 | 22.5     | 20.9 |      |      |      |
| 125 °F                             | NET CAP. MBH                          |                         | 43.1                              | 38.5 | 33.9 | 38.1 | 43.2     | 38.6 | 34.0 | 38.2 |      |
|                                    | POWER INPUT kW                        |                         | 5.66                              | 5.53 | 5.40 | 5.39 | 5.76     | 5.63 | 5.50 | 5.48 |      |
|                                    | Sensible Capacity<br>MBH <sup>1</sup> | Entering Dry<br>Bulb °F | 86                                | 29.9 | 37.3 | 33.9 | 38.1     | 31.4 | 38.6 | 34.0 | 38.2 |
|                                    |                                       |                         | 83                                | 25.9 | 34.2 | 34.2 | 36.8     | 27.0 | 35.7 | 34.1 | 37.5 |
|                                    |                                       |                         | 80                                | 21.8 | 30.1 | 37.3 | 34.5     | 22.7 | 31.3 | 38.8 | 35.9 |
|                                    |                                       |                         | 77                                | 17.8 | 26.1 | 33.3 | 30.5     | 18.3 | 27.0 | 34.5 | 31.5 |
|                                    |                                       |                         | 74                                | 13.7 | 22.0 | 29.3 | 26.4     | 14.0 | 22.6 | 30.1 | 27.2 |
|                                    |                                       |                         | 71                                | #N/A | 18.0 | 25.2 | 22.4     | #N/A | 18.3 | 25.7 | 22.8 |
| 68                                 | #N/A                                  | 14.0                    | 21.2                              | 18.4 | #N/A | 13.9 | 21.4     | 18.5 |      |      |      |

<sup>1</sup>. These capacities are net capacities - indoor fan heat deducted.

 ALL SENSIBLE CAPACITY

**TABLE 8: HEATING CAPACITIES - 2 TON (BHP024)**

| CFM  | RETURN AIR °F | CAP <sup>1</sup> & KW | OUTDOOR AIR TEMPERATURE, °F (72% RH) |        |        |        |        |        |        |        |
|------|---------------|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|      |               |                       | -10                                  | 0      | 10     | 20     | 30     | 40     | 50     | 60     |
| 600  | 55            | MBH                   | 10.216                               | 11.748 | 13.601 | 15.843 | 18.554 | 21.834 | 25.801 | 30.601 |
|      |               | KW                    | 1.214                                | 1.307  | 1.401  | 1.494  | 1.588  | 1.681  | 1.775  | 1.868  |
|      | 70            | MBH                   | 7.317                                | 8.849  | 10.702 | 12.944 | 15.655 | 18.935 | 22.902 | 27.702 |
|      |               | KW                    | 1.363                                | 1.456  | 1.550  | 1.643  | 1.737  | 1.830  | 1.924  | 2.017  |
|      | 80            | MBH                   | 7.205                                | 8.737  | 10.590 | 12.832 | 15.543 | 18.823 | 22.790 | 27.590 |
|      |               | KW                    | 1.423                                | 1.516  | 1.610  | 1.703  | 1.797  | 1.890  | 1.984  | 2.077  |
| 800  | 55            | MBH                   | 10.206                               | 11.738 | 13.591 | 15.833 | 18.544 | 21.824 | 25.791 | 30.591 |
|      |               | KW                    | 1.227                                | 1.320  | 1.414  | 1.507  | 1.601  | 1.694  | 1.788  | 1.881  |
|      | 70            | MBH                   | 7.307                                | 8.839  | 10.692 | 12.934 | 15.645 | 18.925 | 22.892 | 27.692 |
|      |               | KW                    | 1.376                                | 1.469  | 1.563  | 1.656  | 1.750  | 1.843  | 1.937  | 2.030  |
|      | 80            | MBH                   | 7.195                                | 8.727  | 10.580 | 12.822 | 15.533 | 18.813 | 22.780 | 27.580 |
|      |               | KW                    | 1.436                                | 1.529  | 1.623  | 1.716  | 1.810  | 1.903  | 1.997  | 2.090  |
| 1000 | 55            | MBH                   | 11.377                               | 12.909 | 14.762 | 17.004 | 19.715 | 22.995 | 26.962 | 31.762 |
|      |               | KW                    | 1.339                                | 1.432  | 1.526  | 1.619  | 1.713  | 1.806  | 1.900  | 1.993  |
|      | 70            | MBH                   | 8.478                                | 10.010 | 11.863 | 14.105 | 16.816 | 20.096 | 24.063 | 28.863 |
|      |               | KW                    | 1.488                                | 1.581  | 1.675  | 1.768  | 1.862  | 1.955  | 2.049  | 2.142  |
|      | 80            | MBH                   | 8.366                                | 9.898  | 11.751 | 13.993 | 16.704 | 19.984 | 23.951 | 28.751 |
|      |               | KW                    | 1.548                                | 1.641  | 1.735  | 1.828  | 1.922  | 2.015  | 2.109  | 2.202  |

<sup>1</sup>. These capacities are net capacities - the indoor motor heat has been added. These power inputs are total power inputs - the indoor motor watts have been added.

**TABLE 9: HEATING CAPACITIES - 2-1/2 TON (BHP030)**

| CFM  | RETURN AIR °F | CAP <sup>1</sup> & KW | OUTDOOR AIR TEMPERATURE, °F (72% RH) |        |        |        |        |        |        |        |
|------|---------------|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|      |               |                       | -10                                  | 0      | 10     | 20     | 30     | 40     | 50     | 60     |
| 750  | 55            | MBH                   | 10.876                               | 12.808 | 15.078 | 17.744 | 20.877 | 24.556 | 28.879 | 33.958 |
|      |               | KW                    | 1.847                                | 1.917  | 1.987  | 2.057  | 2.127  | 2.198  | 2.268  | 2.338  |
|      | 70            | MBH                   | 10.046                               | 11.978 | 14.248 | 16.914 | 20.047 | 23.726 | 28.049 | 33.128 |
|      |               | KW                    | 2.135                                | 2.205  | 2.275  | 2.345  | 2.415  | 2.486  | 2.556  | 2.626  |
|      | 80            | MBH                   | 9.054                                | 10.986 | 13.256 | 15.922 | 19.055 | 22.734 | 27.057 | 32.136 |
|      |               | KW                    | 2.377                                | 2.447  | 2.517  | 2.587  | 2.657  | 2.728  | 2.798  | 2.868  |
| 1000 | 55            | MBH                   | 11.886                               | 13.818 | 16.088 | 18.754 | 21.887 | 25.566 | 29.889 | 34.968 |
|      |               | KW                    | 1.731                                | 1.801  | 1.871  | 1.941  | 2.011  | 2.082  | 2.152  | 2.222  |
|      | 70            | MBH                   | 11.056                               | 12.988 | 15.258 | 17.924 | 21.057 | 24.736 | 29.059 | 34.138 |
|      |               | KW                    | 2.019                                | 2.089  | 2.159  | 2.229  | 2.299  | 2.370  | 2.440  | 2.510  |
|      | 80            | MBH                   | 10.064                               | 11.996 | 14.266 | 16.932 | 20.065 | 23.744 | 28.067 | 33.146 |
|      |               | KW                    | 2.261                                | 2.331  | 2.401  | 2.471  | 2.541  | 2.612  | 2.682  | 2.752  |
| 1250 | 55            | MBH                   | 13.978                               | 15.910 | 18.180 | 20.846 | 23.979 | 27.658 | 31.981 | 37.060 |
|      |               | KW                    | 1.881                                | 1.951  | 2.021  | 2.091  | 2.161  | 2.232  | 2.302  | 2.372  |
|      | 70            | MBH                   | 13.148                               | 15.080 | 17.350 | 20.016 | 23.149 | 26.828 | 31.151 | 36.230 |
|      |               | KW                    | 2.169                                | 2.239  | 2.309  | 2.379  | 2.449  | 2.520  | 2.590  | 2.660  |
|      | 80            | MBH                   | 12.156                               | 14.088 | 16.358 | 19.024 | 22.157 | 25.836 | 30.159 | 35.238 |
|      |               | KW                    | 2.411                                | 2.481  | 2.551  | 2.621  | 2.691  | 2.762  | 2.832  | 2.902  |

<sup>1</sup>. These capacities are net capacities - the indoor motor heat has been added. These power inputs are total power inputs - the indoor motor watts have been added.

**TABLE 10: HEATING CAPACITIES - 3 TON (BHP036)**

| CFM  | RETURN AIR °F | CAP <sup>1</sup> & KW | OUTDOOR AIR TEMPERATURE, °F (72% RH) |        |        |        |        |        |        |        |
|------|---------------|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|      |               |                       | -10                                  | 0      | 10     | 20     | 30     | 40     | 50     | 60     |
| 900  | 55            | MBH                   | 10.597                               | 12.792 | 15.448 | 18.660 | 22.545 | 27.244 | 32.929 | 39.804 |
|      |               | KW                    | 1.791                                | 1.898  | 2.005  | 2.112  | 2.219  | 2.326  | 2.433  | 2.540  |
|      | 70            | MBH                   | 9.420                                | 11.615 | 14.271 | 17.483 | 21.368 | 26.067 | 31.752 | 38.627 |
|      |               | KW                    | 2.198                                | 2.305  | 2.412  | 2.519  | 2.626  | 2.733  | 2.840  | 2.947  |
|      | 80            | MBH                   | 7.543                                | 9.738  | 12.394 | 15.606 | 19.491 | 24.190 | 29.875 | 36.750 |
|      |               | KW                    | 2.476                                | 2.583  | 2.690  | 2.797  | 2.904  | 3.011  | 3.118  | 3.225  |
| 1200 | 55            | MBH                   | 11.652                               | 13.847 | 16.503 | 19.715 | 23.600 | 28.299 | 33.984 | 40.859 |
|      |               | KW                    | 1.825                                | 1.932  | 2.039  | 2.146  | 2.253  | 2.360  | 2.467  | 2.574  |
|      | 70            | MBH                   | 10.475                               | 12.670 | 15.326 | 18.538 | 22.423 | 27.122 | 32.807 | 39.682 |
|      |               | KW                    | 2.232                                | 2.339  | 2.446  | 2.553  | 2.660  | 2.767  | 2.874  | 2.981  |
|      | 80            | MBH                   | 8.598                                | 10.793 | 13.449 | 16.661 | 20.546 | 25.245 | 30.930 | 37.805 |
|      |               | KW                    | 2.510                                | 2.617  | 2.724  | 2.831  | 2.938  | 3.045  | 3.152  | 3.259  |
| 1500 | 55            | MBH                   | 12.282                               | 14.477 | 17.133 | 20.345 | 24.230 | 28.929 | 34.614 | 41.489 |
|      |               | KW                    | 1.779                                | 1.886  | 1.993  | 2.100  | 2.207  | 2.314  | 2.421  | 2.528  |
|      | 70            | MBH                   | 11.105                               | 13.300 | 15.956 | 19.168 | 23.053 | 27.752 | 33.437 | 40.312 |
|      |               | KW                    | 2.186                                | 2.293  | 2.400  | 2.507  | 2.614  | 2.721  | 2.828  | 2.935  |
|      | 80            | MBH                   | 9.228                                | 11.423 | 14.079 | 17.291 | 21.176 | 25.875 | 31.560 | 38.435 |
|      |               | KW                    | 2.464                                | 2.571  | 2.678  | 2.785  | 2.892  | 2.999  | 3.106  | 3.213  |

<sup>1</sup>. These capacities are net capacities - the indoor motor heat has been added. These power inputs are total power inputs - the indoor motor watts have been added.

**TABLE 11: HEATING CAPACITIES - 3-1/2 TON (BHP042)**

| CFM  | RETURN AIR °F | CAP <sup>1</sup> & KW | OUTDOOR AIR TEMPERATURE, °F (72% RH) |        |        |        |        |        |        |        |
|------|---------------|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|      |               |                       | -10                                  | 0      | 10     | 20     | 30     | 40     | 50     | 60     |
| 1050 | 55            | MBH                   | 15.404                               | 17.988 | 20.968 | 24.404 | 28.369 | 32.941 | 38.215 | 44.298 |
|      |               | KW                    | 2.410                                | 2.505  | 2.599  | 2.694  | 2.789  | 2.883  | 2.978  | 3.073  |
|      | 70            | MBH                   | 14.342                               | 16.926 | 19.906 | 23.342 | 27.307 | 31.879 | 37.153 | 43.236 |
|      |               | KW                    | 2.835                                | 2.930  | 3.024  | 3.119  | 3.214  | 3.308  | 3.403  | 3.498  |
|      | 80            | MBH                   | 13.669                               | 16.253 | 19.233 | 22.669 | 26.634 | 31.206 | 36.480 | 42.563 |
|      |               | KW                    | 3.143                                | 3.238  | 3.332  | 3.427  | 3.522  | 3.616  | 3.711  | 3.806  |
| 1400 | 55            | MBH                   | 17.901                               | 20.485 | 23.465 | 26.901 | 30.866 | 35.438 | 40.712 | 46.795 |
|      |               | KW                    | 2.419                                | 2.514  | 2.608  | 2.703  | 2.798  | 2.892  | 2.987  | 3.082  |
|      | 70            | MBH                   | 16.839                               | 19.423 | 22.403 | 25.839 | 29.804 | 34.376 | 39.650 | 45.733 |
|      |               | KW                    | 2.844                                | 2.939  | 3.033  | 3.128  | 3.223  | 3.317  | 3.412  | 3.507  |
|      | 80            | MBH                   | 16.166                               | 18.750 | 21.730 | 25.166 | 29.131 | 33.703 | 38.977 | 45.060 |
|      |               | KW                    | 3.152                                | 3.247  | 3.341  | 3.436  | 3.531  | 3.625  | 3.720  | 3.815  |
| 1750 | 55            | MBH                   | 18.901                               | 21.485 | 24.465 | 27.901 | 31.866 | 36.438 | 41.712 | 47.795 |
|      |               | KW                    | 2.463                                | 2.558  | 2.652  | 2.747  | 2.842  | 2.936  | 3.031  | 3.126  |
|      | 70            | MBH                   | 17.839                               | 20.423 | 23.403 | 26.839 | 30.804 | 35.376 | 40.650 | 46.733 |
|      |               | KW                    | 2.888                                | 2.983  | 3.077  | 3.172  | 3.267  | 3.361  | 3.456  | 3.551  |
|      | 80            | MBH                   | 17.166                               | 19.750 | 22.730 | 26.166 | 30.131 | 34.703 | 39.977 | 46.060 |
|      |               | KW                    | 3.196                                | 3.291  | 3.385  | 3.480  | 3.575  | 3.669  | 3.764  | 3.859  |

<sup>1</sup>. These capacities are net capacities - the indoor motor heat has been added. These power inputs are total power inputs - the indoor motor watts have been added.

**TABLE 12: HEATING CAPACITIES - 4 TON (BHP048)**

| CFM  | RETURN AIR °F | CAP <sup>1</sup> & KW | OUTDOOR AIR TEMPERATURE, °F (72% RH) |        |        |        |        |        |        |        |
|------|---------------|-----------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|      |               |                       | -10                                  | 0      | 10     | 20     | 30     | 40     | 50     | 60     |
| 1200 | 55            | MBH                   | 13.911                               | 17.096 | 21.021 | 25.859 | 31.821 | 39.170 | 48.226 | 59.388 |
|      |               | KW                    | 2.342                                | 2.568  | 2.795  | 3.022  | 3.249  | 3.476  | 3.703  | 3.930  |
|      | 70            | MBH                   | 11.264                               | 14.449 | 18.374 | 23.212 | 29.174 | 36.523 | 45.579 | 56.741 |
|      |               | KW                    | 2.726                                | 2.952  | 3.179  | 3.406  | 3.633  | 3.860  | 4.087  | 4.314  |
|      | 80            | MBH                   | 9.676                                | 12.861 | 16.786 | 21.624 | 27.586 | 34.935 | 43.991 | 55.153 |
|      |               | KW                    | 3.067                                | 3.293  | 3.520  | 3.747  | 3.974  | 4.201  | 4.428  | 4.655  |
| 1600 | 55            | MBH                   | 16.349                               | 19.534 | 23.459 | 28.297 | 34.259 | 41.608 | 50.664 | 61.826 |
|      |               | KW                    | 2.408                                | 2.634  | 2.861  | 3.088  | 3.315  | 3.542  | 3.769  | 3.996  |
|      | 70            | MBH                   | 13.702                               | 16.887 | 20.812 | 25.650 | 31.612 | 38.961 | 48.017 | 59.179 |
|      |               | KW                    | 2.792                                | 3.018  | 3.245  | 3.472  | 3.699  | 3.926  | 4.153  | 4.380  |
|      | 80            | MBH                   | 12.114                               | 15.299 | 19.224 | 24.062 | 30.024 | 37.373 | 46.429 | 57.591 |
|      |               | KW                    | 3.133                                | 3.359  | 3.586  | 3.813  | 4.040  | 4.267  | 4.494  | 4.721  |
| 2000 | 55            | MBH                   | 17.629                               | 20.814 | 24.739 | 29.577 | 35.539 | 42.888 | 51.944 | 63.106 |
|      |               | KW                    | 2.502                                | 2.728  | 2.955  | 3.182  | 3.409  | 3.636  | 3.863  | 4.090  |
|      | 70            | MBH                   | 14.982                               | 18.167 | 22.092 | 26.930 | 32.892 | 40.241 | 49.297 | 60.459 |
|      |               | KW                    | 2.886                                | 3.112  | 3.339  | 3.566  | 3.793  | 4.020  | 4.247  | 4.474  |
|      | 80            | MBH                   | 13.394                               | 16.579 | 20.504 | 25.342 | 31.304 | 38.653 | 47.709 | 58.871 |
|      |               | KW                    | 3.227                                | 3.453  | 3.680  | 3.907  | 4.134  | 4.361  | 4.588  | 4.815  |

<sup>1</sup>. These capacities are net capacities - the indoor motor heat has been added. These power inputs are total power inputs - the indoor motor watts have been added.

**TABLE 13: SIDE & BOTTOM SUPPLY AIR BLOWER PERFORMANCE (208/230/460 VOLT<sup>1</sup>)**

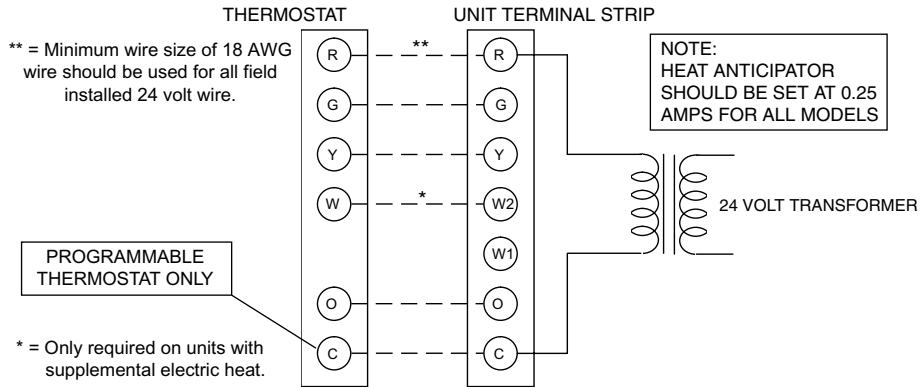
| MODEL NO.<br>BHP | MOTOR SPEED<br>SETTING                      | UNIT<br>AIRFLOW | EXTERNAL STATIC PRESSURE - IWG |      |      |      |      |
|------------------|---|-----------------|--------------------------------|------|------|------|------|
|                  |   |                 | 0.15                           | 0.30 | 0.50 | 0.70 | 0.90 |
|                  |   |                 | WATTS                          |      |      |      |      |
| B1HP024          | Cooling TB2-A, Heating TB2-A, Electric Heat | 800 CFM         | 91                             | 125  | 161  | 206  | 240  |
| B1HP024          | Cooling TB2-B, Heating TB2-B                | 900 CFM         | 118                            | 148  | 199  | 243  | 285  |
| B1HP030          | Cooling TB2-A, Heating TB2-A, Electric Heat | 1000 CFM        | 280                            | 321  | 389  | 449  | 500  |
| B1HP030          | Cooling TB2-B, Heating TB2-B                | 1125 CFM        | 356                            | 413  | 490  | 557  | 620  |
| B1HP036          | Cooling TB2-A, Heating TB2-A                | 1050 CFM        | 209                            | 261  | 319  | 372  | 438  |
| B1HP036          | Cooling TB2-B, Heating TB2-B, Electric Heat | 1200 CFM        | 273                            | 324  | 392  | 480  | 541  |
| B1HP042          | Electric Heat                               | 1225 CFM        | 306                            | 341  | 412  | 494  | 577  |
| B1HP042          | Cooling TB2-A                               | 1300 CFM        | 338                            | 395  | 470  | 551  | 640  |
| B1HP042          | Cooling TB2-B                               | 1400 CFM        | 393                            | 466  | 544  | 642  | 734  |
| B1HP042          | Heating TB2-A, TB2-B                        | 1500 CFM        | 500                            | 554  | 665  | 752  | 835  |
| B1HP048          | Heating TB2-A                               | 1400 CFM        | 377                            | 427  | 504  | 597  | 683  |
| B1HP048          | Cooling TB2-A                               | 1500 CFM        | 455                            | 516  | 601  | 703  | 788  |
| B1HP048          | Cooling TB2-B, Heating TB2-B, Electric Heat | 1600 CFM        | 530                            | 608  | 707  | 800  | 873  |

<sup>1</sup>: All units are factory set to TB2-A.

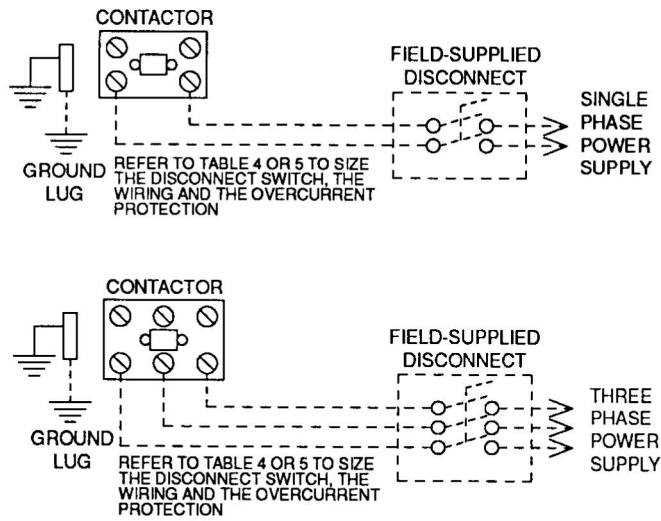
NOTE: Above data includes allowances for a dry indoor coil and no filters. For additional pressure drops, refer to the "Additional Static Pressure Resistance" table.

**TABLE 14: ADDITIONAL STATIC RESISTANCE**

| DESCRIPTION      | RESISTANCE, IWG |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
|------------------|-----------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                  | CFM             |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
|                  | 500             | 600  | 700  | 800  | 900  | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | 1,600 | 1,700 | 1,800 | 1,900 | 2,000 |
| Wet Indoor Coil  | 0.01            | 0.01 | 0.01 | 0.02 | 0.01 | 0.02  | 0.03  | 0.04  | 0.04  | 0.03  | 0.04  | 0.04  | 0.05  | 0.05  | 0.06  | 0.07  |
| Economizer       | 0.00            | 0.00 | 0.00 | 0.01 | 0.01 | 0.01  | 0.01  | 0.02  | 0.03  | 0.04  | 0.05  | 0.06  | 0.07  | 0.07  | 0.08  | 0.08  |
| Filter/Frame Kit | 0.01            | 0.02 | 0.02 | 0.02 | 0.02 | 0.02  | 0.03  | 0.03  | 0.03  | 0.03  | 0.04  | 0.05  | 0.05  | 0.06  | 0.06  | 0.07  |
| Electric Heat    | 0.02            | 0.03 | 0.03 | 0.03 | 0.04 | 0.04  | 0.05  | 0.06  | 0.07  | 0.08  | 0.09  | 0.10  | 0.01  | 0.11  | 0.11  | 0.12  |



CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.



**FIGURE 2 - FIELD WIRING DIAGRAM**

**TABLE 15: ELECTRICAL DATA (BASIC UNIT)**

| MODEL BHP | POWER SUPPLY | VOLTAGE LIMITATIONS <sup>1</sup> |      | COMPRESSOR |       | OUTDOOR FAN MOTOR, FLA | SUPPLY AIR BLOWER MOTOR, FLA | MINIMUM CIRCUIT AMPACITY | MAX FUSE SIZE, AMPS <sup>2</sup> | MAX. HACR BREAKER SIZE, AMPS | UNIT POWER FACTOR | TRANSFORMER SIZE (VA) |
|-----------|--------------|----------------------------------|------|------------|-------|------------------------|------------------------------|--------------------------|----------------------------------|------------------------------|-------------------|-----------------------|
|           |              | MIN.                             | MAX. | RLA        | LRA   |                        |                              |                          |                                  |                              |                   |                       |
| 024       | 208/230-1-60 | 187                              | 253  | 9.3        | 57.0  | 1.1                    | 5.0                          | 17.7                     | 25                               | 25                           | 0.96              | 40                    |
| 030       | 208/230-1-60 | 187                              | 253  | 15.0       | 72.5  | 1.1                    | 5.0                          | 24.9                     | 35                               | 35                           | 0.96              | 40                    |
|           | 208/230-3-60 | 187                              | 253  | 10.0       | 63.0  | 1.1                    | 5.0                          | 18.6                     | 25                               | 25                           | 0.96              | 75                    |
|           | 460-3-60     | 414                              | 504  | 5.0        | 31.0  | 0.6                    | 5.0                          | 11.9                     | 15                               | 15                           | 0.96              | 75                    |
| 036       | 208/230-1-60 | 187                              | 253  | 17.2       | 94.0  | 1.1                    | 7.3                          | 29.9                     | 45                               | 45                           | 0.96              | 40                    |
|           | 208/230-3-60 | 187                              | 253  | 11.4       | 78.0  | 1.1                    | 7.3                          | 22.7                     | 30                               | 30                           | 0.96              | 75                    |
|           | 460-3-60     | 414                              | 504  | 5.7        | 40.0  | 0.6                    | 7.3                          | 15.4                     | 20                               | 20                           | 0.96              | 75                    |
| 042       | 208/230-1-60 | 187                              | 253  | 20.0       | 104.0 | 1.1                    | 7.3                          | 33.4                     | 50                               | 50                           | 0.96              | 40                    |
|           | 208/230-3-60 | 187                              | 253  | 13.9       | 88.0  | 1.1                    | 7.3                          | 25.8                     | 35                               | 35                           | 0.96              | 75                    |
|           | 460-3-60     | 414                              | 504  | 6.4        | 44.0  | 0.6                    | 7.3                          | 16.1                     | 20                               | 20                           | 0.96              | 75                    |
| 048       | 208/230-1-60 | 187                              | 253  | 23.4       | 126.0 | 1.5                    | 7.3                          | 38.1                     | 60                               | 60                           | 0.96              | 40                    |
|           | 208/230-3-60 | 187                              | 253  | 13.0       | 93.0  | 1.5                    | 7.3                          | 25.1                     | 35                               | 35                           | 0.96              | 75                    |
|           | 460-3-60     | 414                              | 504  | 6.4        | 46.5  | 0.8                    | 7.3                          | 16.3                     | 20                               | 20                           | 0.96              | 75                    |

1. Rated in accordance with ARI Standard 100, utilization range "A".

2. Dual element, time delay type.

| ELECTRIC HEAT CORRECTION FACTORS | NOMINAL VOLTAGE | VOLTAGE | KW CAP. MULTIPLIER |
|----------------------------------|-----------------|---------|--------------------|
|                                  | 240             | 208     | 0.75               |
|                                  |                 | 230     | 0.92               |
| 480                              | 460             | 0.92    |                    |



**TABLE 16: ELECTRICAL DATA (13 SEER HEAT PUMP / ELECTRIC HEAT)**

| MODEL BHP | POWER SUPPLY | COMPRESSOR |       | COND FAN MOTOR FLA | SUPPLY AIR BLOWER MOTOR FLA | ELECTRIC HEAT ACCESSORY |               |              | MINIMUM CIRCUIT AMPACITY | MAX. FUSE/ SIZE, <sup>1</sup> AMPS | MAX HACR <sup>2</sup> BREAKER SIZE |
|-----------|--------------|------------|-------|--------------------|-----------------------------|-------------------------|---------------|--------------|--------------------------|------------------------------------|------------------------------------|
|           |              | RLA        | LRA   |                    |                             | MODEL NO.               | KW            | TOTAL AMPS   |                          |                                    |                                    |
| 024       | 208/230-1-60 | 9.3        | 57.0  | 1.1                | 5.0                         | 2NH04500506             | 3.8 / 5.0 *   | 18.1 / 20.8  | 40.3 / 43.8              | 45 / 45                            | 45 / 45                            |
|           |              |            |       |                    |                             | 2NH04500706             | 5.6 / 7.5 *   | 27.1 / 31.3  | 51.6 / 56.8              | 60 / 60                            | 60 / 60                            |
|           |              |            |       |                    |                             | 2NH04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 62.9 / 69.8              | 70 / 70                            | 70 / 70                            |
| 030       | 208/230-1-60 | 15.0       | 72.5  | 1.1                | 5.0                         | 2NH04500506             | 3.8 / 5.0 *   | 18.1 / 20.8  | 47.4 / 50.9              | 50 / 60                            | 50 / 60                            |
|           |              |            |       |                    |                             | 2NH04500706             | 5.6 / 7.5 *   | 27.3 / 31.3  | 58.7 / 63.9              | 60 / 70                            | 60 / 70                            |
|           |              |            |       |                    |                             | 2NH04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 70.0 / 76.9              | 70 / 80                            | 70 / 80                            |
| 036       | 208/230-1-60 | 17.2       | 94.0  | 1.1                | 7.3                         | 2NH04500506             | 3.8 / 5.0 *   | 18.1 / 20.8  | 52.5 / 55.9              | 60 / 60                            | 60 / 60                            |
|           |              |            |       |                    |                             | 2NH04500706             | 5.6 / 7.5 *   | 27.1 / 31.3  | 63.8 / 69.0              | 70 / 70                            | 70 / 70                            |
|           |              |            |       |                    |                             | 2NH04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 75.0 / 82.0              | 80 / 90                            | 80 / 90                            |
| 042       | 208/230-1-60 | 20.0       | 104.0 | 1.1                | 7.3                         | 2NP04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 78.5 / 85.5              | 80 / 90                            | 80 / 90                            |
|           |              |            |       |                    |                             | 2NP04501506             | 11.3 / 15.0 * | 54.2 / 62.5  | 101.1 / 111.5            | 110 / 125                          | 110 / 125                          |
|           |              |            |       |                    |                             | 2NP04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 83.2 / 90.1              | 90 / 100                           | 90 / 100                           |
| 048       | 208/230-1-60 | 23.4       | 126.0 | 1.5                | 7.3                         | 2NP04501506             | 11.3 / 15.0 * | 54.2 / 62.5  | 105.8 / 116.2            | 110 / 125                          | 110 / 125                          |
|           |              |            |       |                    |                             | 2NP04502006             | 15.0 / 20.0 * | 72.2 / 83.3  | 128.3 / 142.2            | 150 / 150                          | 150 / 150                          |
|           |              |            |       |                    |                             | 2NP04502506             | 18.8 / 25.0 * | 90.3 / 104.2 | 150.9 / 168.3            | 175 / 175                          | 175 / 175                          |
|           |              |            |       |                    |                             | 2NP04501006             | 7.5 / 10.0 *  | 36.1 / 41.7  | 83.2 / 90.1              | 90 / 100                           | 90 / 100                           |
| 030       | 208/230-3-60 | 10.0       | 63.0  | 1.1                | 5.0                         | 2NH04501025             | 7.5 / 10.0 *  | 20.8 / 24.1  | 44.7 / 48.7              | 45 / 50                            | 45 / 50                            |
|           |              |            |       |                    |                             | 2NH04501525             | 11.3 / 15.0 * | 31.3 / 36.1  | 57.7 / 63.7              | 60 / 70                            | 60 / 70                            |
| 036       | 208/230-3-60 | 11.4       | 78.0  | 1.1                | 7.3                         | 2NH04501025             | 7.5 / 10.0 *  | 20.8 / 24.1  | 48.7 / 52.7              | 50 / 60                            | 50 / 60                            |
|           |              |            |       |                    |                             | 2NH04501525             | 11.3 / 15.0 * | 31.3 / 36.1  | 61.7 / 67.8              | 70 / 70                            | 70 / 70                            |
| 042       | 208/230-3-60 | 13.9       | 88.0  | 1.1                | 7.3                         | 2NP04501025             | 7.5 / 10.0 *  | 20.8 / 24.1  | 51.8 / 55.8              | 60 / 60                            | 60 / 60                            |
|           |              |            |       |                    |                             | 2NP04501525             | 11.3 / 15.0 * | 31.3 / 36.1  | 64.9 / 70.9              | 70 / 80                            | 70 / 80                            |
| 048       | 208/230-3-60 | 13.0       | 93.0  | 1.5                | 7.3                         | 2NP04501025             | 7.5 / 10.0 *  | 20.8 / 24.1  | 51.1 / 55.1              | 60 / 60                            | 60 / 60                            |
|           |              |            |       |                    |                             | 2NP04501525             | 11.3 / 15.0 * | 31.3 / 36.1  | 64.1 / 70.2              | 70 / 80                            | 70 / 80                            |
|           |              |            |       |                    |                             | 2NP04502025             | 15.0 / 20.0 * | 41.7 / 48.1  | 77.2 / 85.2              | 80 / 90                            | 80 / 90                            |
|           |              |            |       |                    |                             | 2NP04502525             | 18.8 / 25.0 * | 52.1 / 60.1  | 90.2 / 100.2             | 100 / 110                          | 100 / 110                          |
| 030       | 460-3-60     | 5.0        | 31.0  | 0.6                | 5.0                         | 2NH04501046             | 10.0 **       | 12.0         | 27.5                     | 30                                 | 30                                 |
|           |              |            |       |                    |                             | 2NH04501546             | 15.0 **       | 18.0         | 35.4                     | 40                                 | 40                                 |
| 036       | 460-3-60     | 5.7        | 40.0  | 0.6                | 7.3                         | 2NH04501046             | 10.0 **       | 12.0         | 30.7                     | 35                                 | 35                                 |
|           |              |            |       |                    |                             | 2NH04501546             | 15.0 **       | 18.0         | 38.6                     | 40                                 | 40                                 |
| 042       | 460-3-60     | 6.4        | 44.0  | 0.6                | 7.3                         | 2NP04501046             | 10.0 **       | 12.0         | 31.6                     | 35                                 | 35                                 |
|           |              |            |       |                    |                             | 2NP04501546             | 15.0 **       | 18.0         | 39.4                     | 40                                 | 40                                 |
| 048       | 460-3-60     | 6.4        | 46.5  | 0.8                | 7.3                         | 2NP04501046             | 10.0 **       | 12.0         | 31.8                     | 35                                 | 35                                 |
|           |              |            |       |                    |                             | 2NP04501546             | 15.0 **       | 18.0         | 39.6                     | 40                                 | 40                                 |
|           |              |            |       |                    |                             | 2NH04502046             | 20.0 **       | 24.1         | 47.5                     | 50                                 | 50                                 |
|           |              |            |       |                    |                             | 2NH04502546             | 25.0 **       | 30.1         | 55.3                     | 60                                 | 60                                 |

1. Dual element, time delay type.

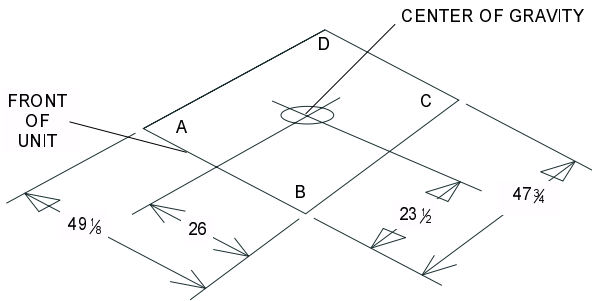
2. Standard circuit breakers may be used in Canada and on applications over 60 amps where the heaters are separately fused.

\* KW listed is for 240 volts, use Table 15 for 208 or 230 volts.

\*\* KW listed is for 480 volts, use Table 15 for 460 volts.

**TABLE 17: APPLICATION DATA**

| MODEL   |         | BHP     |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|
|   |         | 024     | 030     | 036     | 042     | 048     |
| MINIMUM AIR FLOW (CFM)                                      | COOLING | 800     | 1000    | 1050    | 1300    | 1500    |
|   | HEATING | 800     | 1000    | 1050    | 1400    | 1400    |
| MAXIMUM AIR FLOW (CFM)                                      | COOLING | 900     | 1125    | 1200    | 1400    | 1600    |
|   | HEATING | 900     | 1125    | 1200    | 1500    | 1600    |
| MINIMUM OPERATING TEMPERATURE IN COOLING MODE (AMBIENT, °F) |         | 45      | 45      | 45      | 45      | 45      |
| MINIMUM MIXED AIR IN COOLING MODE (RETURN AIR, DB °F/WB °F) |         | 68 / 57 | 68 / 57 | 68 / 57 | 68 / 57 | 68 / 57 |
| MINIMUM MIXED AIR IN HEATING MODE (RETURN AIR, °F)          |         | 55      | 55      | 55      | 55      | 55      |



| B1HP UNIT SIZE | SHIPPING WEIGHT | OPERATING WEIGHT | CORNER WEIGHTS |     |     |     |
|----------------|-----------------|------------------|----------------|-----|-----|-----|
|                |                 |                  | A              | B   | C   | D   |
| 024            | 356             | 351              | 97             | 93  | 81  | 84  |
| 030            | 353             | 348              | 96             | 93  | 81  | 84  |
| 036            | 388             | 383              | 106            | 102 | 89  | 92  |
| 042            | 440             | 435              | 120            | 115 | 101 | 104 |
| 048            | 485             | 480              | 132            | 127 | 111 | 115 |

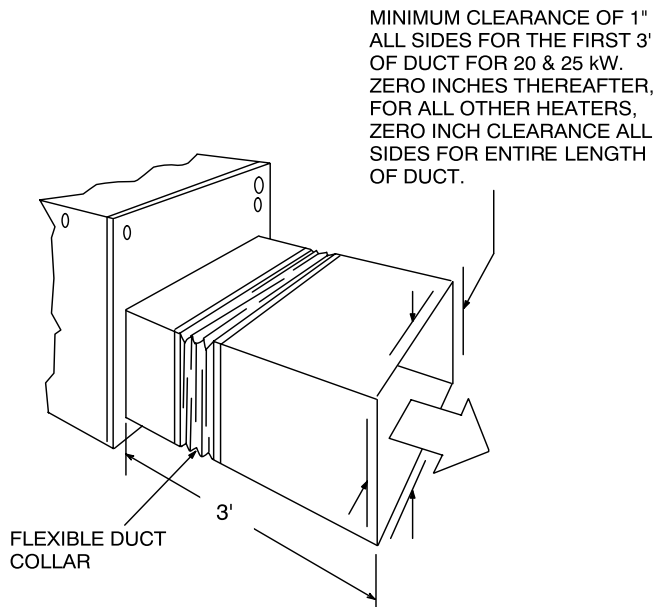
**FIGURE 3 - CENTER OF GRAVITY AND WEIGHTS**

**CLEARANCES**

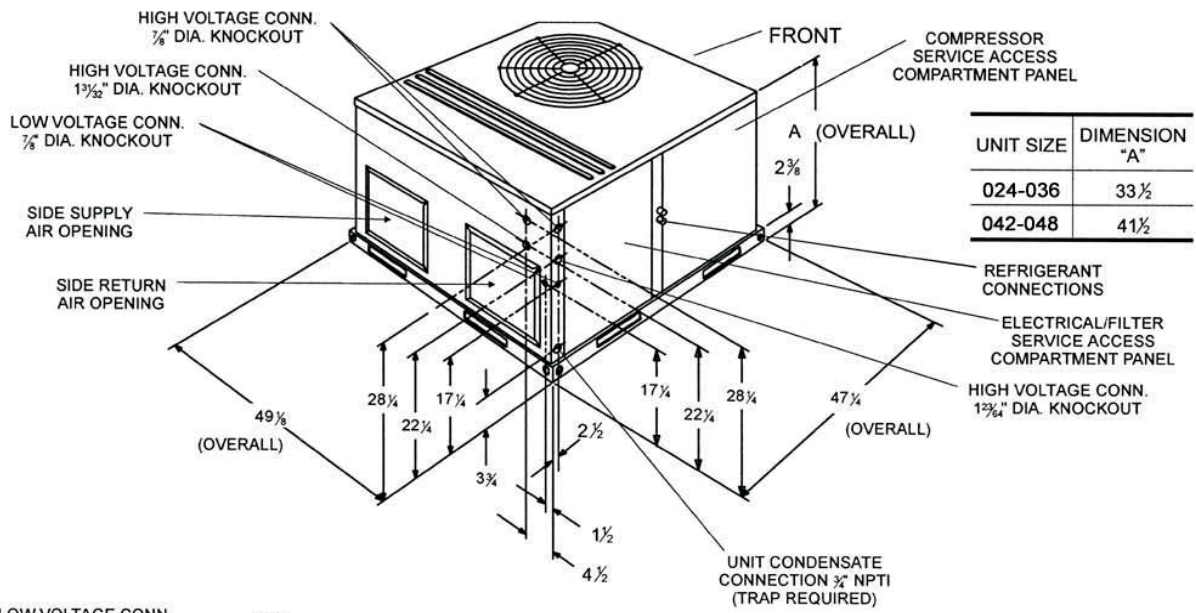
| UNIT CLEARANCES (MINIMUM) |                                   |
|---------------------------|-----------------------------------|
| Front                     | 12"                               |
| Back                      | 0"                                |
| Left Side (Filter Access) | 24"                               |
| Right Side                | 24"                               |
| Below Unit <sup>1</sup>   | 0"                                |
| Above Unit <sup>2</sup>   | 36" (For Condenser Air Discharge) |

- Units may be installed on combustible floors made from wood or class A, B or C roof covering.
- Units must be installed outdoors. Overhanging structures or shrubs should not obstruct outdoor air discharge outlet.

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 THE SUPPLY DUCT.



**FIGURE 4 - UNIT CLEARANCES**



| UNIT SIZE | DIMENSION "A" |
|-----------|---------------|
| 024-036   | 33 1/2        |
| 042-048   | 41 1/2        |

All dimensions are in inches. They are subject to change without notice. Certified dimensions will be provided upon request.

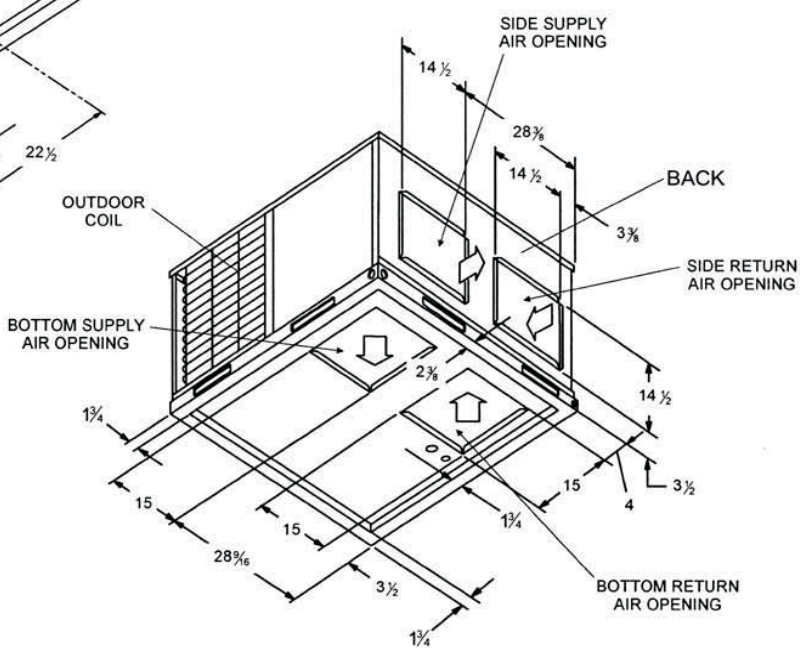
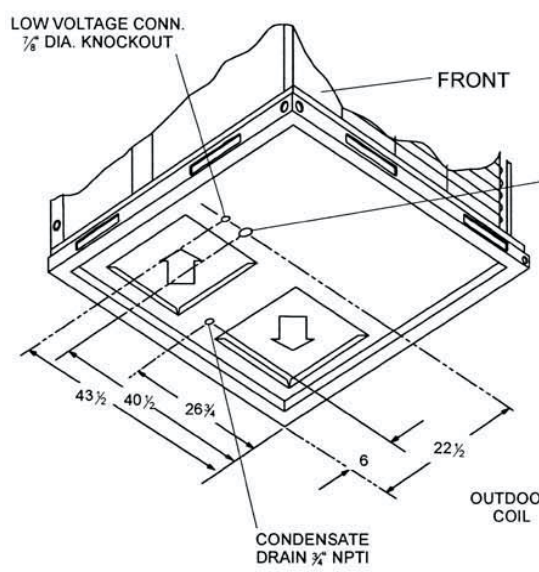
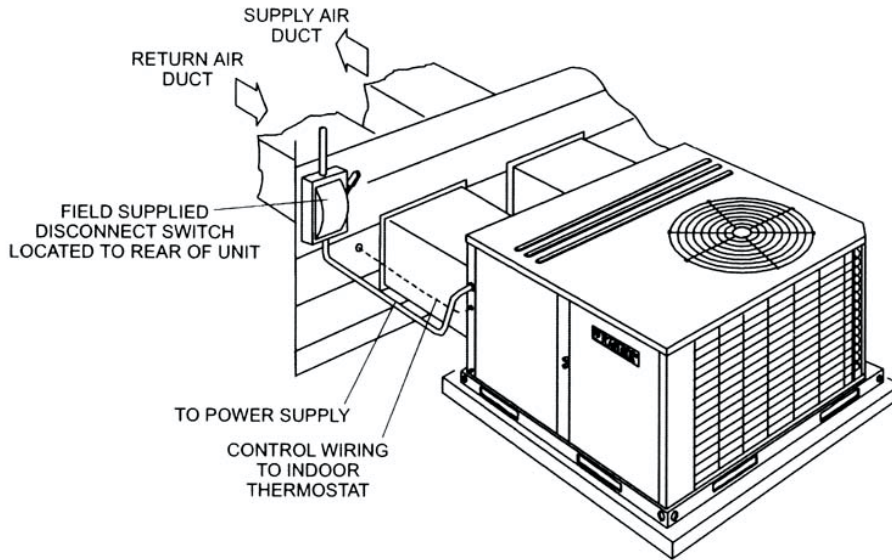


FIGURE 5 - UNIT DIMENSIONS

### TYPICAL SLAB ON GROUND INSTALLATION



### TYPICAL ROOF CURB INSTALLATION

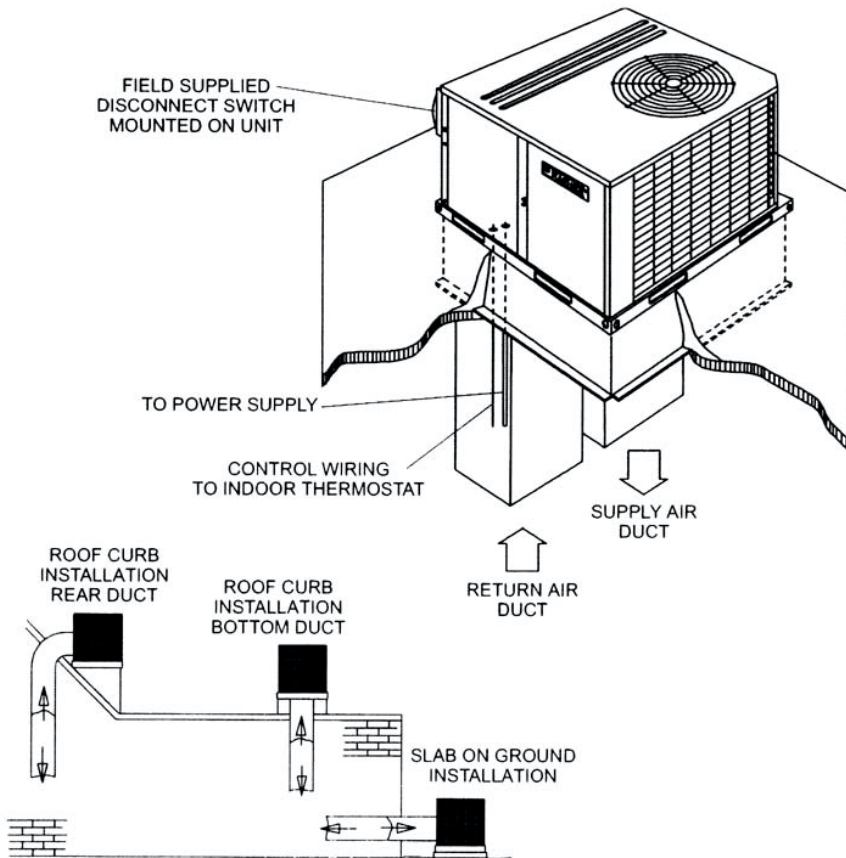
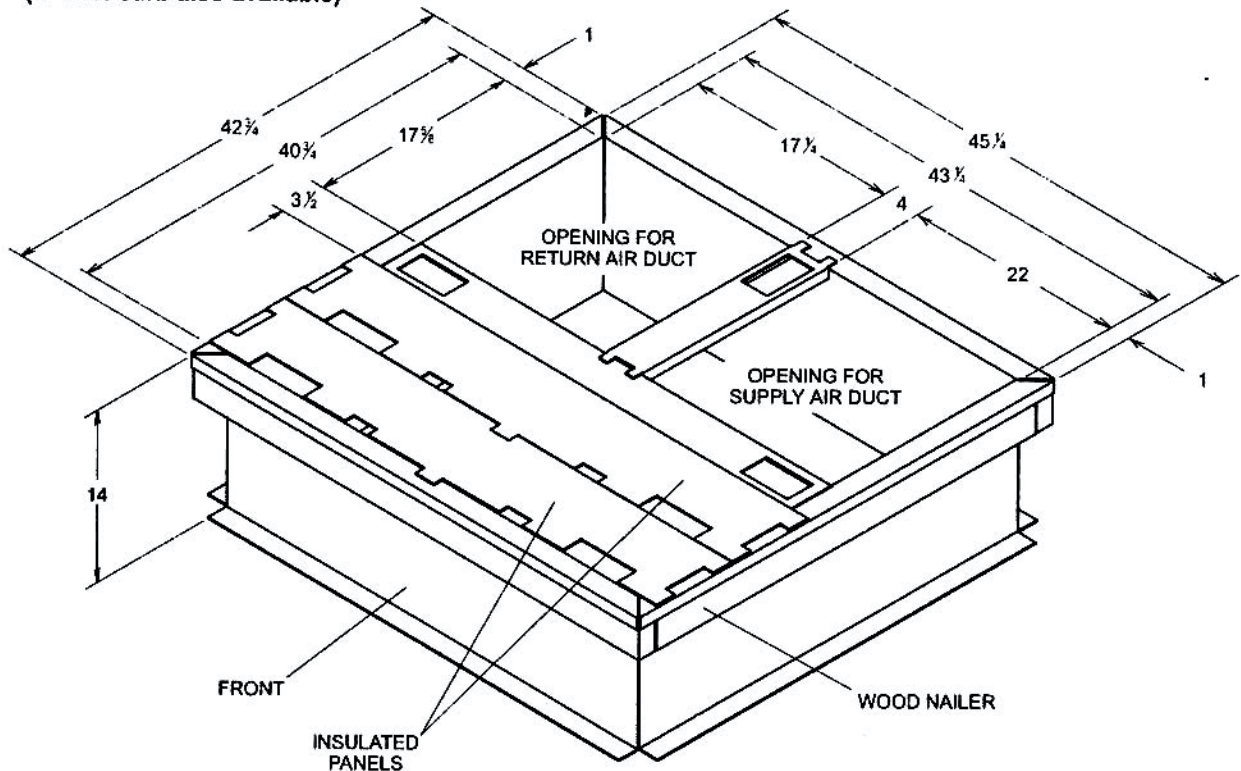


FIGURE 6 - TYPICAL APPLICATIONS

(8" roof curb also available)



| RECOMMENDED DUCT SIZE |                   |
|-----------------------|-------------------|
| SUPPLY AIR DUCT       | 17 1/2" x 21 1/2" |
| RETURN AIR DUCT       | 17 1/2" x 16 3/4" |

### ROOF CURB APPLICATION

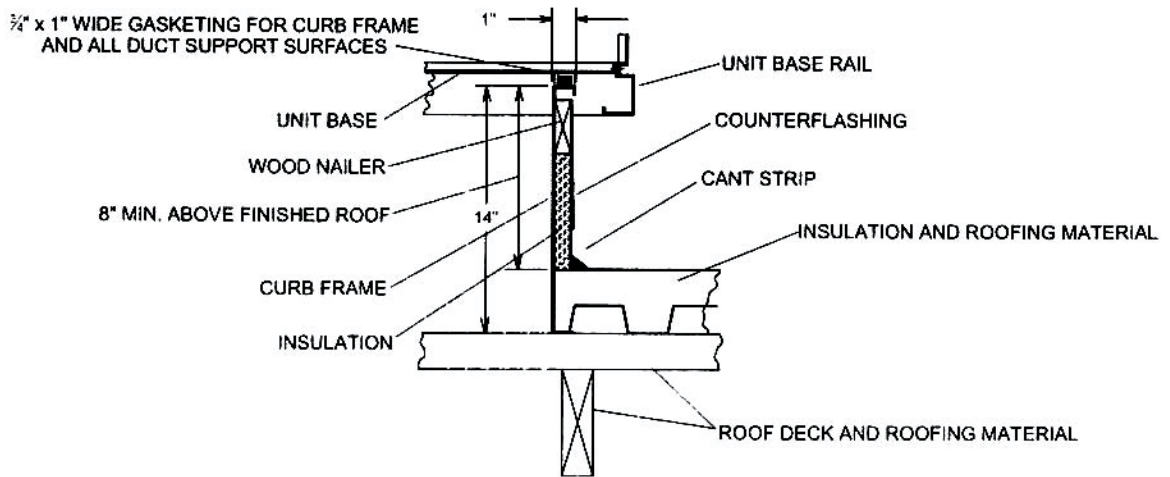


FIGURE 7 - ROOF CURB DIMENSIONS





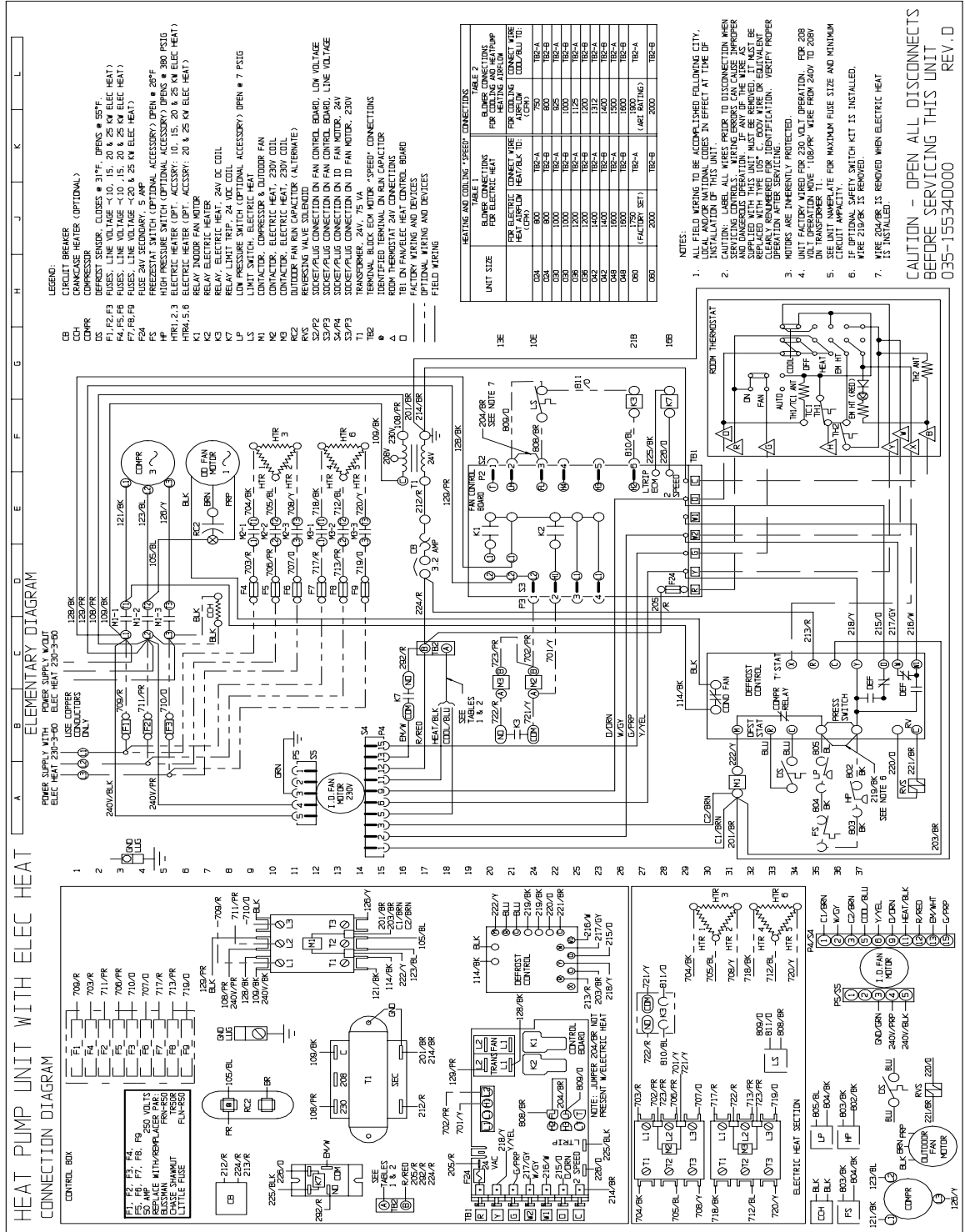


FIGURE 9 - TYPICAL WIRING DIAGRAM (230-3-60 POWER SUPPLY)

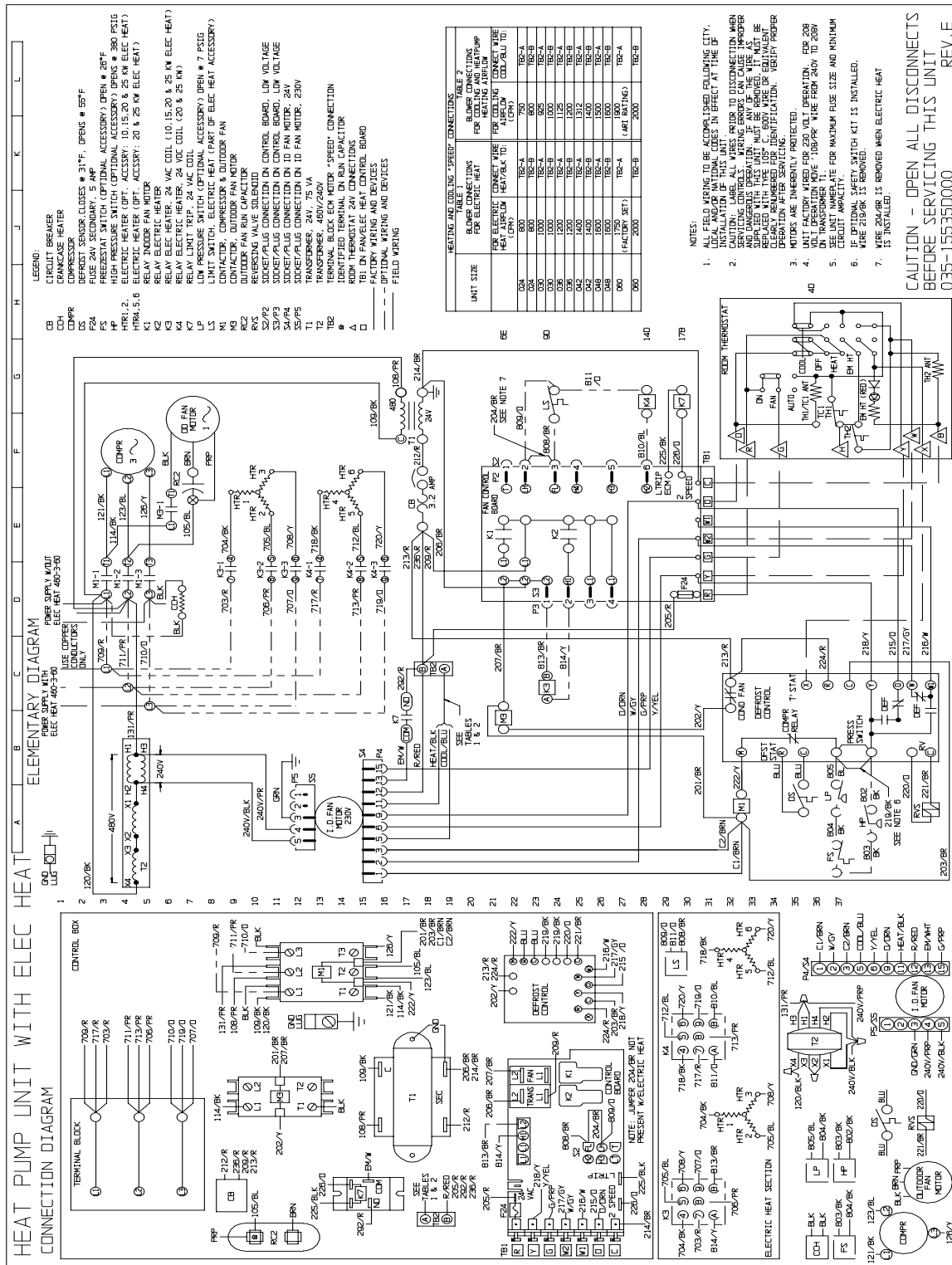


FIGURE 10 - TYPICAL WIRING DIAGRAM (460-3-60 POWER SUPPLY)



## MECHANICAL SPECIFICATIONS

### GENERAL DESCRIPTION

Units shall be factory-assembled, single packaged, Heat Pumps, designed for outdoor mounted installation. Units shall have minimum SEER ratings of 13.0. 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-22 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 ARI test procedures. Units shall be classified to UL 1995/CAN/CSA No. 236-M90 conditions.

### UNIT CABINET

1. Unit cabinet shall be constructed of G90 galvanized steel, with exterior surfaces coated with a non-chalking, powered paint finish, certified at 750 hours salt spray test per ASTM-B117 standards.
2. The unit top shall be a single piece "Water Shed" design, with drip edges and no-seam corners to provide optimum water integrity.
3. Unit shall have a rigidly mounted condenser coil guard to provide protection from objects and personnel after installation.
4. 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.
5. Cabinet panels shall be "large" size, easily removable for servicing and maintenance, with built-in lift handles.
6. 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.
7. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, fork truck access and proper sealing on roof curb applications. Base rails shall be removable, when required, to lower unit height.

8. Filters shall be furnished and be accessible through a removable access door, sealed air tight. (Single phase models - accessory kit available. Three phase models - standard from factory.)
9. 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.
10. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4" NPTI copper, ridged mount connection.

### INDOOR (SUPPLY) FAN ASSEMBLY

1. Fan shall be direct drive, constant CFM, ECM design. Job site selected (BHP) brake horse power shall not exceed the motors nameplate horse power rating.
2. 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.
3. Bearings shall be sealed and permanently lubricated for longer life and no maintenance.
4. Fan assembly shall be "Slip Track" (slide-out) design for easy removal and cleaning.

### OUTDOOR FAN ASSEMBLY

1. 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.
2. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

### REFRIGERANT COMPONENTS

1. Compressors:
  - 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 + or - 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.
2. 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 and Condenser coils shall be of the direct expansion, draw-thru design.
3. Refrigerant Circuit and Refrigerant Safety Components shall include:
- A. Independent thermal expansion devices (TXV).
  - B. Solid-core filter dryer to eliminate any foreign matter.
  - C. Accessible service gage connections on both suction and discharge lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge and without disrupting condenser or evaporator air flow.
  - D. The refrigeration system shall provide at least 10° F of liquid sub-cooling at design conditions.
  - E. Unit shall have a suction line accumulator and automatic reversing valve.
4. Unit Controls:
- A. Unit shall contain a large, low voltage Terminal Board for easy connection of field low voltage wiring.
  - B. Controls shall be mounted in a large control box with tilt-out, hinged access door, allowing easy access for trouble shooting and maintenance without affecting the normal system operation pressures.
  - C. Unit shall contain a reliable demand defrost control to provide defrost. The defrost control shall also have an "X" terminal to provide a 24 volt signal for

room thermostat "LED" indication of unit lockout. Plus a built in 5 minute anti-short cycle protection.

- D. Unit shall have large, easily removable panels, covering electrical controls and compressor, allowing easy access for any maintenance or servicing.

## **ELECTRIC HEATING SECTION**

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

## **UNIT OPERATING CHARACTERISTICS**

1. Unit shall be capable of starting and running at 125° F outdoor temperature, exceeding maximum load criteria of ARI Standard 210/240.
2. The compressor, with standard controls, shall be capable of operation down to 45° F outdoor temperature.

## **ELECTRICAL REQUIREMENTS**

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry. This will minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.





This product was manufactured in a plant whose quality system is certified/registered as being in conformity with ISO 9001.

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