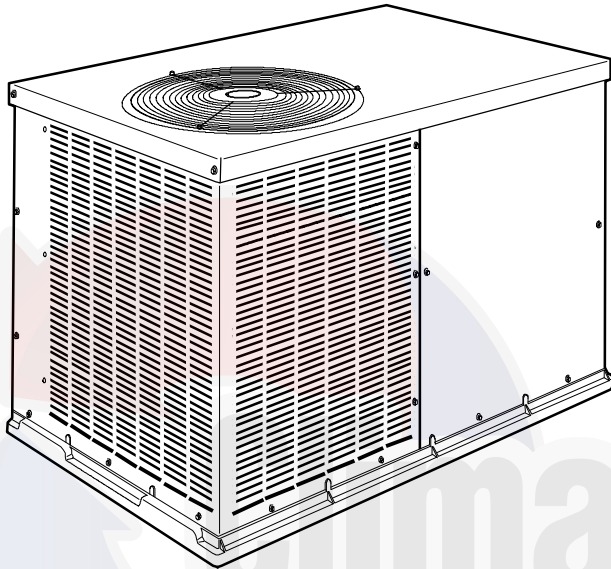


**50ZPC, 50ZPD**  
**Single-Packaged Air Conditioner System**  
**With Puron® (R-410A) Refrigerant Single Phase**  
**2 to 5 Nominal Tons (Sizes 024-060)**



## Product Data



**Unit 50ZPC, 50ZPD**

A10165

This unit is a packaged air conditioner for manufactured housing, residential, and light commercial applications. The unit design is the result of our firm commitment to the development of the finest air conditioners that modern technology can offer.

The unit is built in one basic cabinet size and features a round or rectangular side-by-side duct configuration.

### FEATURES/BENEFITS

**FACTORY-ASSEMBLED PACKAGE** is a compact, fully self-contained, electric cooling unit with horizontal supply and return ducts. The unit is available in a variety of standard cooling sizes to meet residential and light commercial requirements. Unit installs easily on a ground level pad.

**EASY TO INSTALL** - The unit is small, compact, and easy to handle. Every unit has an identical 32 x 51-in. (813 x 1295 mm) footprint to make planning simple. The concise design uses less sheet metal and makes the unit lighter than other units. The unit can be easily positioned on the job site with the hand holds built into the unit basepan.

**AERODYNAMIC FAN BLADE DESIGN** reduces the overall sound now as low as 71dBA.

**SERVICE ACCESS** makes installation and maintenance quicker and easier. This unit is designed to be serviced from both the side and front. The design allows easy access for installation and maintenance procedures on the unit. Routine maintenance tasks such as coil cleaning are sped up with the multiple access side panels.

**NO-RUST BASEPAN WITH INTEGRATED DRAIN PAN** is standard on all units. The unit features a tough, hightech, composite material basepan with integrated drain pan. The composite material eliminates the potential problems of rust and premature replacement which are common with standard metal basepans.

**DURABLE PRE-PAINTED STEEL CABINET** protects against harsh weather. The watertight construction and corrosion-resistant finish will keep it looking like new for years. The paint treatment process ensures quality protection against the elements. A compact, low-profile design utilizes a louvered coil enclosure for protection against vandalism and hail damage.

**INDOOR AIR QUALITY** is designed into the unit. A sloped drain pan minimizes the amount of standing water inside the unit, which limits mold and mildew growth. The drain pan is made of a rust-proof material and will not deteriorate or release foreign matter into the airstream.

**LIGHTWEIGHT, COMPACT CONSTRUCTION** is ideal for manufactured housing and residential applications. This unit is one of the lightest, most compact packaged units ever designed. It's light weight (230 lb [104 kg]) for the 024 size) makes the unit easier to handle. The low height keeps ductwork connections to a minimum and makes units less visible.

This unit utilizes a structural beam design to form the four sides of the cabinet. Only 12 different pieces of sheet metal are used in the unit construction to simplify the unit for greater reliability.

**EFFICIENT, DEPENDABLE PERFORMANCE** with durable compressors designed for efficiency. The unit offers up to 14.5 SEER (Seasonal Energy Efficiency Ratio) cooling performance efficiencies. This performance level can reduce cooling expenses by as much as 30% compared to older cooling equipment.

**DURABLE, DEPENDABLE, COMPRESSORS** are designed for high efficiency. Each compressor is hermetically sealed against contamination to help promote longer life and dependable operation. Vibration isolation provides quiet operation. Compressors have internal overcurrent protection.

**DIRECT-DRIVE MULTISPEED, BLOWER MOTOR** is standard on all models. It's high efficiency design ensures high performance with most duct systems.

**DIRECT-DRIVE, PSC CONDENSER-FAN MOTORS** are designed to help reduce energy consumption and provide for cooling operation down to 40°F (4.4° C).

**REFRIGERANT SYSTEM** is designed to provide dependability. Liquid refrigerant filter driers are used to promote clean, unrestricted operation. Each unit leaves the factory with a full refrigerant charge. Refrigerant service connections make checking operating pressures easier.

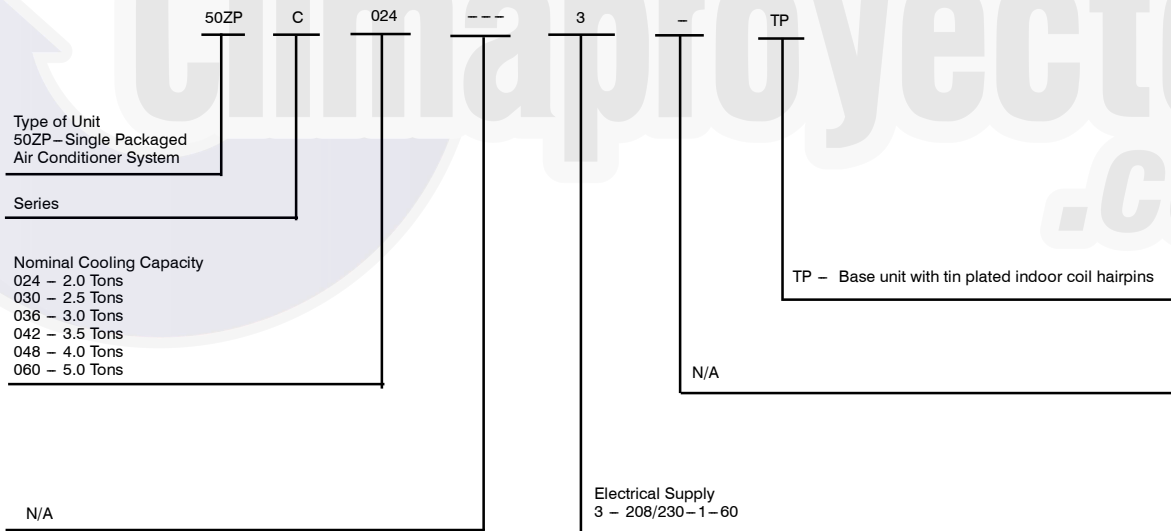
**ACCESSORY ELECTRIC HEATERS** — A variety of accessory electric heaters are available. These heaters are comprised of a separate heater module mounted on the blower inlet and remote mounted controls located in the unit control box. Single point electrical connections are available for powering both the heater and the unit.

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## MODEL NUMBER NOMENCLATURE



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).



# AHRI\* CAPACITY RATINGS

## Cooling Capacities and Efficiencies

| UNIT SIZE | NOMINAL TONS | STANDARD CFM | NET COOLING CAPACITY AT 95° F (35° c) (Btuh) | EER† | SEER** |
|-----------|--------------|--------------|--|------|--------|
| 024       | 2            | 800          | 22400  | 11.5 | 14     |
| 030       | 2.5          | 1000         | 28600  | 11.5 | 14     |
| 036       | 3            | 1200         | 34200  | 11.5 | 14     |
| 042       | 3.5          | 1400         | 41000  | 11.5 | 14.5   |
| 048       | 4            | 1600         | 47000  | 11.5 | 14     |
| 060       | 5            | 1850         | 54000  | 11.3 | 14     |

### LEGEND

dB---Sound Levels (decibels)  
 db—Dry Bulb  
 SEER—Seasonal Energy Efficiency Ratio  
 wb—Wet Bulb  
 COP---Coefficient of Performance  
 \* Air Conditioning Heating & Refrigeration Institute  
 † At "A" conditions—80° F (26.7° C) indoor db/67° F (19.4° C) indoor wb & 95° F (35° C) outdoor db.  
 \*\* Rated in accordance with U.S. Government DOE Department of Energy) test procedures and/or AHRI Standards 210/240---08, 270-1995.

### Notes:

1. Ratings are net values, reflecting the effects of circulating fan heat. Ratings are based on:  
 Cooling Standard: 80° F (26.7° C) db, 67° F wb (19.4° C) indoor entering---air temperature and 95° F db (35° C) outdoor entering---air temperature.  
 2. Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

50ZP(C, D)

## A-Weighted Sound Power Level (dBA)

| UNIT SIZE | STANDARD RATING (dBA) | TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment) |      |      |      |      |      |      |  |
|-----------|-----------------------|--|------|------|------|------|------|------|--|
|           |                       | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |  |
| 024       | 71                    | 51.7   | 55.2 | 58.2 | 62.0 | 55.6 | 49.4 | 44.0 |  |
| 030       | 73                    | 60.4   | 56.6 | 61.7 | 64.0 | 57.4 | 54.9 | 46.4 |  |
| 036       | 75                    | 57.7   | 61.6 | 63.9 | 65.5 | 60.0 | 54.4 | 49.5 |  |
| 042       | 77                    | 64.8   | 68.3 | 72.9 | 72.2 | 68.2 | 62.6 | 53.1 |  |
| 048       | 76                    | 58.4   | 61.9 | 65.3 | 65.5 | 59.7 | 55.0 | 47.4 |  |
| 060       | 80                    | 72.9   | 65.4 | 68.8 | 70.5 | 65.2 | 60.5 | 50.9 |  |

## PHYSICAL DATA

| UNIT SIZE  | 024                               | 030                                | 036                                | 042                                | 048                                 | 060                               |
|--|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------------------|
| NOMINAL CAPACITY (ton)   | 2                                 | 2.5                                | 3                                  | 3.5                                | 4                                   | 5                                 |
| SHIPPING WEIGHT (lb)<br>(kg)   | 286<br>130                        | 298<br>136                         | 329<br>150                         | 352<br>160                         | 368<br>167                          | 402<br>183                        |
| COMPRESSOR TYPE  | SCROLL                            |                                    |                                    |                                    |                                     |                                   |
| REFRIGERANT  | R-410A                            |                                    |                                    |                                    |                                     |                                   |
| REFRIGERANT QUANTITY (lb)<br>QUANTITY (kg)   | 4.5<br>2.0                        | 4.8<br>2.1                         | 6.8<br>3.0                         | 5.7<br>2.6                         | 6.3<br>2.9                          | 7.5<br>3.4                        |
| METERING DEVICE ID   | Piston                            |                                    |                                    |                                    |                                     | TXV                               |
| ORIFICE OD (in.)<br>(mm)   | 0.057<br>1.45                     | 0.063<br>1.60                      | 0.073<br>1.85                      | 0.076<br>1.93                      | 0.080<br>2.03                       | N/A                               |
| OUTDOOR COIL<br>ROWS..FINS/in.<br>FACE AREA (sq. ft)   | 1...20<br>9.1                     | 1...20<br>9.1                      | 2...20<br>9.1                      | 2...20<br>10.2                     | 2...20<br>13.0                      | 2...20<br>15.5                    |
| OUTDOOR FAN<br>NOMINAL AIRFLOW (CFM)<br>DIAMETER (in.)<br>DIAMETER (mm)<br>MOTOR HP (RPM)        | 2400<br>20<br>508<br>1/8 (825)    | 2400<br>20<br>508<br>1/8 (825)     | 2700<br>20<br>508<br>1/4 (1100)    | 2700<br>20<br>508<br>1/4 (1100)    | 2700<br>20<br>508<br>1/4 (1100)     | 3000<br>20<br>508<br>1/3 (1110)   |
| INDOOR COIL<br>ROWS..FINS/in.<br>FACE AREA (sq. ft)  | 2...12<br>4.3                     | 3...12<br>4.3                      | 3...12<br>4.3                      | 3...12<br>4.9                      | 3...15<br>4.9                       | 3...15<br>6.1                     |
| INDOOR BLOWER<br>NOMINAL COOLING AIRFLOW (CFM)<br>NOMINAL SIZE W x D (in.)<br>(mm)<br>MOTOR (HP) | 800<br>8 x 11<br>254 x 203<br>1/3 | 1000<br>8 x 11<br>254 x 203<br>1/3 | 1200<br>9 x 12<br>279 x 229<br>1/2 | 1400<br>9 x 12<br>279 x 229<br>1/2 | 1600<br>11 x 12<br>279 x 229<br>3/4 | 1850<br>11 x 12<br>267 x 305<br>1 |
| HIGH-PRESSURE SWITCH (psig)<br>CUTOUT<br>RESET (AUTO)  | 650 +/- 15<br>420 +/- 25          |                                    |                                    |                                    |                                     |                                   |
| RETURN-AIR FILTERS<br>THROWAWAY (in.)<br>(mm)  | 20x20x1<br>508x508x25             | 20x24x1<br>508x610x25              | 24x30x1<br>610x762x25              |                                    | 24x36x1<br>610x914x25               |                                   |

\*Required filter sizes shown are based on the AHRI (Air Conditioning, Heating and Refrigeration Institute) rated airflow at a velocity of 300 ft/min for throwaway type or 450 ft/min for high capacity type. Recommended filters are 1-in. (25.4 mm) thick.

## OPTIONS AND ACCESSORIES

| ITEM                  | DESCRIPTION   | FIELD INSTALLED ACCESSORY |
|-----------------------|---|---------------------------|
| Compressor Start Kit  | Compressor Start Kit assists compressor start-up by providing additional starting torque on sing phase units only.  | X                         |
| Corporate Thermostats | Thermostats provide control for the system heating and cooling functions.   | X                         |
| Crankcase Heater      | Crankcase Heater provides anti-floodback protection for low-load cooling applications.  | X*                        |
| Electric Heaters      | Electric Heat Supplement  | X                         |
| Low Ambient Kit       | Low Ambient Kit (Motormaster II Control) allows the use of mechanical cooling down to outdoor temperatures as low as 0°F (-18°C) when properly installed.                                       | X                         |
| Time Guard II         | Automatically prevents the compressor from restarting for at least 4 minutes and 45 seconds after shutdown of the compressor. Not required when a corporate programmable thermostat is applied. | X                         |

\*Refer to Price Page for application detail.

### Accessory Electric Heaters

| CATALOG ORDERING NO.                                  | NOMINAL CAPACITY (kW) | USED WITH SIZES          |        |     |     |     |     |     |     |
|---|-----------------------|--------------------------|--------|-----|-----|-----|-----|-----|-----|
|   |                       | CIRCUIT BREAKER (Yes/No) | STAGES | 024 | 030 | 036 | 042 | 048 | 060 |
| <b>ELECTRIC HEATERS (208/230--SINGLE PHASE--60Hz)</b> |                       |                          |        |     |     |     |     |     |     |
| CPHEATER125A0*  | 3.8 / 5.0             | No                       | 1      | √   | √   | √   | √   | √   | √   |
| CPHEATER126A0*  | 3.8 / 5.0             | Yes                      | 1      | √   | √   | √   | √   | √   | √   |
| CPHEATER127A0*  | 5.6 / 7.5             | No                       | 2      | √   | √   | √   | √   | √   | √   |
| CPHEATER128A0*  | 5.6 / 7.5             | Yes                      | 2      | √   | √   | √   | √   | √   | √   |
| CPHEATER129A0*  | 7.5 / 10.0            | No                       | 2      | √   | √   | √   | √   | √   |     |
| CPHEATER130A0*  | 7.5 / 10.0            | Yes                      | 2      | √   | √   | √   | √   | √   | √   |
| CPHEATER131A0*  | 11.3 / 15.0           | Yes                      | 2      |     |     | √   | √   | √   | √   |
| CPHEATER132A0*  | 15.0 / 20.0           | Yes                      | 2      |     |     |     |     | √   | √   |

√ = Approved combination

### Multiplication Factors

| HEATER kW RATING | VOLTAGE DISTRIBUTION | MULTIPLICATION FACTOR |
|------------------|----------------------|-----------------------|
| <b>240</b>       | 200                  | .69                   |
|                  | 208                  | .75                   |
|                  | 230                  | .92                   |
|                  | 240                  | 1.00                  |

Example: 15.0 kW (at 240v) heater on 208v  
 = 15.0 (.75 mult factor)  
 = 11.25 capacity at 208v

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# DIMENSIONAL DRAWINGS — 024-036

| UNIT     | ELECTRICAL CHARACTERISTICS |       | UNIT WT. |       | UNIT HEIGHT |     |    |     | CENTER OF GRAVITY IN (MM) |       |       |       |
|----------|----------------------------|-------|----------|-------|-------------|-----|----|-----|---------------------------|-------|-------|-------|
|          | ---30                      | ---60 | ---30    | ---60 | A           | X   | Y  | Z   | ---30                     | ---60 | ---30 | ---60 |
| 50ZP0024 | 217                        | 98    | 30-1/8   | 1765  | 14          | 356 | 19 | 483 | 14                        | 356   | 14    | 356   |
| 50ZP0030 | 234                        | 106   | 30-1/8   | 1765  | 14          | 356 | 19 | 483 | 14                        | 356   | 14    | 356   |
| 50ZP0036 | 255                        | 116   | 30-1/8   | 1765  | 14          | 356 | 19 | 483 | 14                        | 356   | 14    | 356   |

**REQUIRED CLEARANCES TO COMBUSTIBLE MATL.**

TOP OF UNIT..... 0  
 BOTTOM OF UNIT..... 0  
 SIDE OF UNIT WITH DUCT OPENINGS..... 0  
 SIDE OF UNIT OPPOSITE DUCT OPENINGS..... 0

**REQ. REQUIRED CLEARANCES**

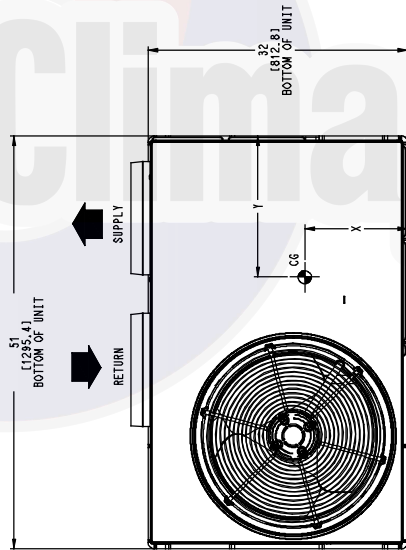
BETWEEN UNITS, POWER ENTRY SIDE..... 42.0 (1067)  
 BETWEEN UNITS, OPPOSITE POWER ENTRY SIDE..... 38.0 (914)  
 BETWEEN UNITS, SIDE OF UNIT OPPOSITE DUCT OPENINGS AND BLOC OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... 42.0 (1067)

**REQUIRED CLEARANCE FOR SERVICING**

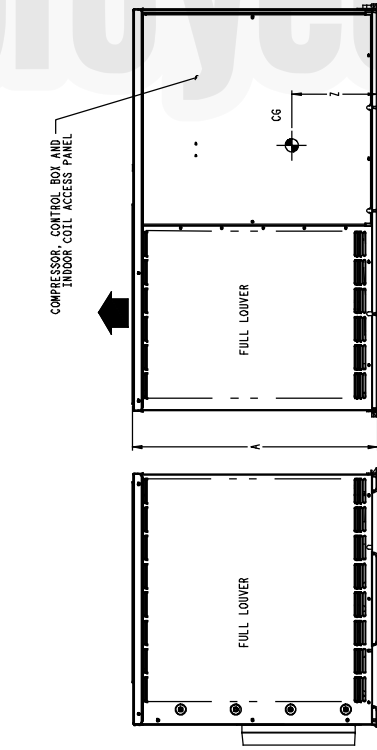
TOP OF UNIT..... 36.0 (914)  
 SIDE OF UNIT OPPOSITE DUCT OPENINGS..... 30.0 (762)  
 SIDE OF UNIT WITH DUCT OPENINGS..... 30.0 (762)  
 (EXCEPT FOR NEC REQUIREMENTS)

**NOTE: CLEARANCES MUST BE MAINTAINED TO PREVENT RECIRCULATION OF AIR FROM OUTDOOR FAN DISCHARGE. A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.**

DIMENSIONS IN [ ] ARE IN MM

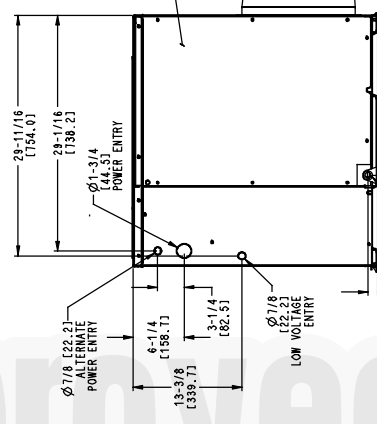


TOP VIEW

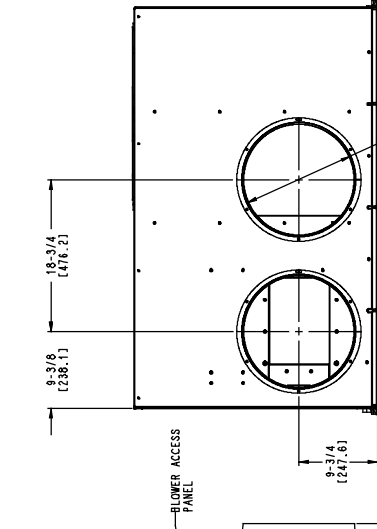


FRONT VIEW

LEFT SIDE VIEW



RIGHT SIDE VIEW



REAR VIEW

344647-4

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| UNIT          | ELECTRICAL CHARACTERISTICS | UNIT WT. |     |               | UNIT HEIGHT |          |              | CENTER OF GRAVITY IN [MM] |  |  |
|---------------|----------------------------|----------|-----|---------------|-------------|----------|--------------|---------------------------|--|--|
|               |                            | LBS.     | KG. | A             | X           | Y        | Z            |                           |  |  |
| 50ZPC042---30 | 208/230-1-60               | 275      | 125 | 34-1/8 [867]  | 14 [356]    | 19 [483] | 16 [406]     |                           |  |  |
| 50ZPC048---30 | 208/230-1-60               | 318      | 144 | 42-1/8 [1070] | 14 [356]    | 19 [483] | 19-3/4 [503] |                           |  |  |
| 50ZPC060---30 | 208/230-1-60               | 344      | 156 | 42-1/8 [1070] | 14 [356]    | 19 [483] | 19-3/4 [503] |                           |  |  |

**REQUIRED CLEARANCES TO COMBUSTIBLE MATL.**

|  |             |
|--|-------------|
| TOP OF UNIT.....                         | INCHES [MM] |
| BOTTOM OF UNIT.....                      | 0           |
| SIDE OF UNIT WITH DUCT OPENINGS.....     | 0           |
| SIDE OF UNIT OPPOSITE DUCT OPENINGS..... | 0           |

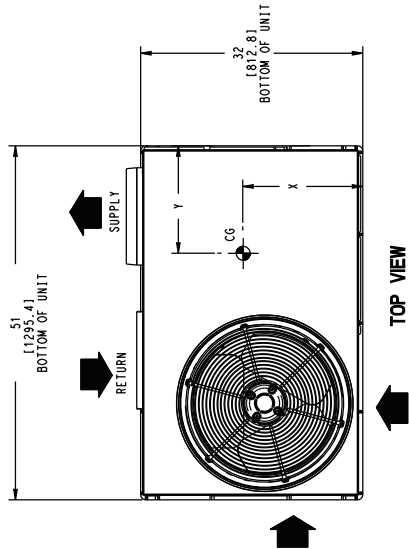
**NEC. REQUIRED CLEARANCES**

|   |             |
|---|-------------|
| BETWEEN UNITS, POWER ENTRY SIDE.....  | INCHES [MM] |
| UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....                                 | 42.0 [1067] |
| UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... | 36.0 [914]  |
| UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... | 42.0 [1067] |

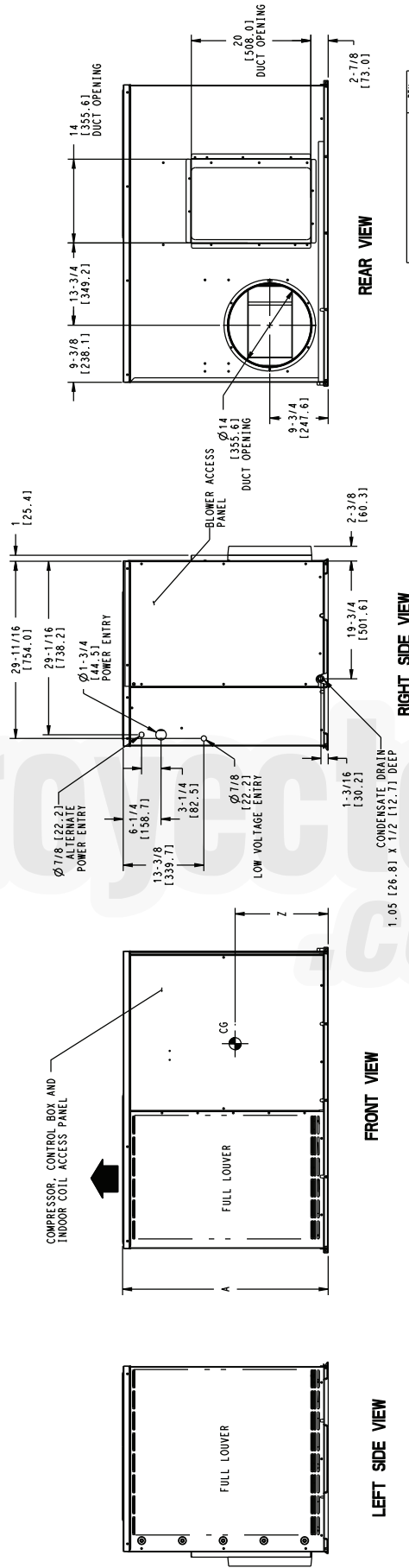
**REQUIRED CLEARANCE FOR SERVICING**

|  |             |
|--|-------------|
| TOP OF UNIT.....                         | INCHES [MM] |
| SIDE OF UNIT OPPOSITE DUCT OPENINGS..... | 36.0 [914]  |
| SIDE OF UNIT WITH POWER ENTRY.....       | 30.0 [762]  |
| (EXCEPT FOR NEC REQUIREMENTS)            | 30.0 [762]  |

NOTE: CLEARANCES MUST BE MAINTAINED TO PREVENT RECIRCULATION OF AIR FROM OUTDOOR FAN DISCHARGE. A REMOVABLE FENCE OR BARRICADE REQUIRES NO CLEARANCE.



TOP VIEW



FRONT VIEW

LEFT SIDE VIEW

RIGHT SIDE VIEW

DIMENSIONS IN [ ] ARE IN MM

|            |   |
|------------|---|
| REV        | - |
| 50ZP501042 | - |

## SELECTION PROCEDURE

### A. DETERMINE COOLING AND HEATING REQUIREMENTS AT DESIGN CONDITIONS.

Given:

Required Cooling Capacity (TC) ..... 34,000 Btuh  
Sensible Heat Capacity (SHC) ..... 25,000 Btuh  
Required Heating Capacity ..... 15,000 Btuh  
Outdoor Entering-Air Temperature ..... 95° F (35° C)  
Indoor Entering-Air Temperature ... 80° F edb (26.7° C);  
67° F (19.4° C) ewb  
Indoor-Air Quantity ..... 1200 CFM  
External Static Pressure ..... 0.20 IN. W.C.  
Electrical Characteristics (V-Ph-Hz) ..... 230-1-60

### B. SELECT UNIT BASED ON REQUIRED COOLING CAPACITY (3-TON EXAMPLE)

Enter Cooling Capacities table at condenser entering temperature of 95° F (35° C), indoor air entering at 1200 CFM and 67° F (19.4° C) ewb. The 036 unit provides a total cooling capacity of 34,500 Btuh and a sensible heat capacity of 26,040 Btuh.

For indoor-air temperature other than 80° F (26.7° C) edb, calculate sensible heat capacity correction, as required, using the formula found following the Cooling Capacities tables.

**NOTE:** Unit ratings are net capacities.

### C. SELECT ELECTRIC HEAT.

The required heating capacity is 15,000 Btuh (given). Determine the electric heat capacity in kW.

$$\frac{15,000 \text{ Btuh}}{3414 \text{ Btuh/kW}} = 3.8 \text{ kW of heat required}$$

Enter the Accessory Electric Heater table on page 4 for 208/230, single-phase, 036 unit. The 5-kW heater at 240v most closely satisfies the heating required. To calculate kW at 230 V, multiply the heater kW by multiplication factor 0.92 found in the Multiplication Factors table on page 4.

$$5 \text{ kW} \times 0.92 = 4.6 \text{ kW}$$

$$4.6 \text{ kW} \times 3414 \text{ Btuh/kW} = 15,704 \text{ Btuh}$$

### D. DETERMINE FAN SPEED AND POWER REQUIREMENTS AT DESIGN CONDITIONS.

Before entering the air delivery tables, calculate the total static pressure required. From the given, Filter Pressure Drop table, and the Accessory Electric Heat Pressure Drop table find:

|                          |                      |
|--------------------------|----------------------|
| External static pressure | 0.20 IN. W.C.        |
| Filter                   | 0.10 IN. W.C.        |
| Electric Heat            | <u>0.04</u> IN. W.C. |
| Total static pressure    | 0.34 IN. W.C.        |

Enter the table for Dry Coil Air Delivery — Horizontal Discharge. At 0.4 IN. W.C. external static pressure and medium speed, the motor delivers 1236 CFM.

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**PERFORMANCE DATA**  
Cooling Capacities

024

| EVAPORATOR AIR |             | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |      |      |
|----------------|-------------|---|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|------|------|
|                |             | 75 (23.9)                                     |       |                |       | 85 (29.4)      |       |                |       | 95 (35)        |       |                |       | 105 (40.6)     |       |                |       | 115 (46.1)     |       |                |       |      |      |
|                |             | Capacity MBtuh                                |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       |      |      |
| CFM            | EWB °F (°C) | Total   | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† |      |      |
| 700            | 57 (13.9)   | 21.11   | 21.11 | 20.33          | 20.33 | 1.80           | 1.80  | 19.44          | 19.44 | 2.00           | 2.00  | 18.39          | 18.39 | 2.22           | 2.22  | 16.99          | 16.99 | 2.45           | 2.45  | 2.45           | 2.45  | 2.45 | 2.45 |
|                | 62 (16.7)   | 21.97   | 20.56 | 20.12          | 20.12 | 1.80           | 1.80  | 19.92          | 19.58 | 2.01           | 2.01  | 18.62          | 18.89 | 2.23           | 2.23  | 16.85          | 16.85 | 2.45           | 2.45  | 2.45           | 2.45  | 2.45 | 2.45 |
|                | 63* (17.2)  | 22.40   | 16.82 | 21.41          | 16.39 | 1.81           | 1.81  | 20.31          | 15.89 | 2.01           | 2.01  | 18.95          | 15.25 | 2.27           | 2.27  | 17.10          | 14.40 | 2.45           | 2.45  | 2.45           | 2.45  | 2.45 | 2.45 |
|                | 67 (19.4)   | 24.12   | 17.41 | 23.11          | 16.98 | 1.81           | 1.81  | 20.98          | 16.51 | 2.03           | 2.03  | 20.69          | 15.99 | 2.27           | 2.27  | 19.08          | 15.31 | 2.53           | 2.53  | 2.53           | 2.53  | 2.53 | 2.53 |
|                | 71 (21.7)   | 25.87   | 14.83 | 24.84          | 14.43 | 1.83           | 1.83  | 23.69          | 13.97 | 2.04           | 2.04  | 22.40          | 13.46 | 2.29           | 2.29  | 20.92          | 12.89 | 2.56           | 2.56  | 2.56           | 2.56  | 2.56 | 2.56 |
| 800            | 57 (13.9)   | 22.00   | 22.00 | 21.20          | 21.20 | 1.81           | 1.81  | 20.32          | 20.32 | 2.03           | 2.03  | 19.24          | 19.24 | 2.26           | 2.26  | 17.84          | 17.84 | 2.49           | 2.49  | 2.49           | 2.49  | 2.49 | 2.49 |
|                | 62 (16.7)   | 22.51   | 21.92 | 21.54          | 21.49 | 1.82           | 1.82  | 20.47          | 20.95 | 2.03           | 2.03  | 19.27          | 19.27 | 2.26           | 2.26  | 17.87          | 17.87 | 2.49           | 2.49  | 2.49           | 2.49  | 2.49 | 2.49 |
|                | 63* (17.2)  | 22.88   | 17.76 | 21.86          | 17.34 | 1.82           | 1.82  | 20.73          | 16.85 | 2.03           | 2.03  | 19.36          | 16.24 | 2.26           | 2.26  | 17.53          | 15.41 | 2.48           | 2.48  | 2.48           | 2.48  | 2.48 | 2.48 |
|                | 67 (19.4)   | 24.61   | 18.36 | 23.57          | 17.97 | 1.83           | 1.83  | 22.40          | 17.50 | 2.04           | 2.04  | 21.09          | 16.99 | 2.29           | 2.29  | 19.53          | 16.40 | 2.56           | 2.56  | 2.56           | 2.56  | 2.56 | 2.56 |
|                | 71 (21.7)   | 26.33   | 15.46 | 25.29          | 15.08 | 1.84           | 1.84  | 24.10          | 14.63 | 2.06           | 2.06  | 22.78          | 14.13 | 2.31           | 2.31  | 21.28          | 13.57 | 2.58           | 2.58  | 2.58           | 2.58  | 2.58 | 2.58 |
| 900            | 57 (13.9)   | 22.74   | 22.74 | 21.92          | 21.92 | 1.83           | 1.83  | 21.01          | 21.01 | 2.05           | 2.05  | 19.95          | 19.95 | 2.29           | 2.29  | 18.58          | 18.58 | 2.54           | 2.54  | 2.54           | 2.54  | 2.54 | 2.54 |
|                | 62 (16.7)   | 22.99   | 23.16 | 22.01          | 22.69 | 1.83           | 1.83  | 21.02          | 21.02 | 2.05           | 2.05  | 19.97          | 19.97 | 2.29           | 2.29  | 18.61          | 18.61 | 2.54           | 2.54  | 2.54           | 2.54  | 2.54 | 2.54 |
|                | 63* (17.2)  | 23.26   | 18.63 | 22.21          | 18.21 | 1.83           | 1.83  | 21.06          | 17.74 | 2.05           | 2.05  | 19.70          | 17.18 | 2.29           | 2.29  | 17.88          | 16.36 | 2.51           | 2.51  | 2.51           | 2.51  | 2.51 | 2.51 |
|                | 67 (19.4)   | 24.98   | 19.24 | 23.91          | 18.86 | 1.84           | 1.84  | 22.71          | 18.43 | 2.06           | 2.06  | 21.39          | 17.90 | 2.30           | 2.30  | 19.82          | 17.35 | 2.58           | 2.58  | 2.58           | 2.58  | 2.58 | 2.58 |
|                | 71 (21.7)   | 26.69   | 16.04 | 25.63          | 15.67 | 1.86           | 1.86  | 24.42          | 15.24 | 2.08           | 2.08  | 23.06          | 14.74 | 2.32           | 2.32  | 21.55          | 14.19 | 2.60           | 2.60  | 2.60           | 2.60  | 2.60 | 2.60 |

See Legend and Notes on page 11.

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| EVAPORATOR AIR |            | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |                |       |      |      |
|----------------|------------|---|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|------|------|
|                |            | 75 (23.9)                                     |       |                |       | 85 (29.4)      |       |                |       | 95 (35)        |       |                |       | 105 (40.6)     |       |                |       | 115 (46.1)     |       |                |       |      |      |
|                |            | Capacity MBtuh                                |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       | Capacity MBtuh |       | Total Sys KW** |       |      |      |
| CFM            | EWB        | Total   | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† | Total          | Sens† |      |      |
| 875            | 57 (13.9)  | 27.60   | 27.60 | 26.50          | 26.50 | 1.98           | 1.98  | 26.50          | 26.50 | 2.19           | 2.19  | 25.24          | 25.24 | 2.42           | 2.42  | 23.71          | 23.71 | 2.93           | 2.93  | 2.93           | 2.93  | 2.93 | 2.93 |
|                | 62 (16.7)  | 28.34   | 26.09 | 26.97          | 25.48 | 1.98           | 1.98  | 26.97          | 25.48 | 2.19           | 2.19  | 25.44          | 24.73 | 2.43           | 2.43  | 23.76          | 23.76 | 2.93           | 2.93  | 2.93           | 2.93  | 2.93 | 2.93 |
|                | 63* (17.2) | 28.82   | 21.14 | 27.42          | 20.55 | 1.99           | 1.99  | 27.42          | 20.55 | 2.20           | 2.20  | 25.85          | 19.89 | 2.44           | 2.44  | 23.90          | 19.03 | 2.91           | 2.91  | 2.91           | 2.91  | 2.91 | 2.91 |
|                | 67 (19.4)  | 31.10   | 21.94 | 29.67          | 21.41 | 2.00           | 2.00  | 29.67          | 21.41 | 2.22           | 2.22  | 28.08          | 20.78 | 2.46           | 2.46  | 26.22          | 20.05 | 3.00           | 3.00  | 3.00           | 3.00  | 3.00 | 3.00 |
|                | 71 (21.7)  | 33.50   | 18.60 | 32.03          | 18.06 | 2.03           | 2.03  | 32.03          | 18.06 | 2.24           | 2.24  | 30.40          | 17.48 | 2.48           | 2.48  | 28.60          | 16.81 | 3.08           | 3.08  | 3.08           | 3.08  | 3.08 | 3.08 |
| 1000           | 57 (13.9)  | 28.80   | 28.80 | 27.65          | 27.65 | 2.01           | 2.01  | 27.65          | 27.65 | 2.22           | 2.22  | 26.38          | 26.38 | 2.47           | 2.47  | 24.84          | 24.84 | 2.99           | 2.99  | 2.99           | 2.99  | 2.99 | 2.99 |
|                | 62 (16.7)  | 29.07   | 27.98 | 27.73          | 27.50 | 2.01           | 2.01  | 27.73          | 27.50 | 2.22           | 2.22  | 26.42          | 26.42 | 2.47           | 2.47  | 24.88          | 24.88 | 2.99           | 2.99  | 2.99           | 2.99  | 2.99 | 2.99 |
|                | 63* (17.2) | 29.43   | 22.47 | 27.98          | 21.90 | 2.02           | 2.02  | 27.98          | 21.90 | 2.22           | 2.22  | 26.39          | 21.24 | 2.47           | 2.47  | 24.44          | 20.41 | 2.95           | 2.95  | 2.95           | 2.95  | 2.95 | 2.95 |
|                | 67 (19.4)  | 31.71   | 23.32 | 30.24          | 22.82 | 2.03           | 2.03  | 30.24          | 22.82 | 2.24           | 2.24  | 28.60          | 22.20 | 2.49           | 2.49  | 26.75          | 21.50 | 3.05           | 3.05  | 3.05           | 3.05  | 3.05 | 3.05 |
|                | 71 (21.7)  | 34.11   | 19.53 | 32.60          | 19.03 | 2.05           | 2.05  | 32.60          | 19.03 | 2.27           | 2.27  | 30.92          | 18.43 | 2.51           | 2.51  | 29.06          | 17.77 | 3.11           | 3.11  | 3.11           | 3.11  | 3.11 | 3.11 |
| 1125           | 57 (13.9)  | 29.76   | 29.76 | 28.59          | 28.59 | 2.04           | 2.04  | 28.59          | 28.59 | 2.25           | 2.25  | 27.28          | 27.28 | 2.50           | 2.50  | 25.75          | 25.75 | 3.05           | 3.05  | 3.05           | 3.05  | 3.05 | 3.05 |
|                | 62 (16.7)  | 29.80   | 29.80 | 28.63          | 28.63 | 2.04           | 2.04  | 28.63          | 28.63 | 2.25           | 2.25  | 27.32          | 27.32 | 2.50           | 2.50  | 25.78          | 25.78 | 3.05           | 3.05  | 3.05           | 3.05  | 3.05 | 3.05 |
|                | 63* (17.2) | 29.89   | 23.71 | 28.42          | 23.16 | 2.04           | 2.04  | 28.42          | 23.16 | 2.25           | 2.25  | 26.81          | 22.52 | 2.49           | 2.49  | 24.85          | 21.71 | 2.99           | 2.99  | 2.99           | 2.99  | 2.99 | 2.99 |
|                | 67 (19.4)  | 32.18   | 24.61 | 30.66          | 24.12 | 2.06           | 2.06  | 30.66          | 24.12 | 2.27           | 2.27  | 29.01          | 23.55 | 2.51           | 2.51  | 27.14          | 22.85 | 3.09           | 3.09  | 3.09           | 3.09  | 3.09 | 3.09 |
|                | 71 (21.7)  | 34.59   | 20.40 | 33.04          | 19.89 | 2.08           | 2.08  | 33.04          | 19.89 | 2.29           | 2.29  | 31.31          | 19.33 | 2.54           | 2.54  | 29.40          | 18.68 | 3.14           | 3.14  | 3.14           | 3.14  | 3.14 | 3.14 |

See Legend and Notes on page 11.



# COOLING CAPACITIES (CONT)

036

| EVAPORATOR AIR |            | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |       |                |       |                |       |                |       |                |       |                |      |                |       |                |     |                |       |                |     |
|----------------|------------|---|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|------|----------------|-------|----------------|-----|----------------|-------|----------------|-----|
|                |            | 75 (23.9)                                     |       |                |       | 85 (29.4)      |       |                |       | 95 (35)        |       |                |      | 105 (40.6)     |       |                |     | 115 (46.1)     |       |                |     |
|                |            | Capacity MBtuh                                |       | Total Sys KW** | EWB   | Capacity MBtuh |       | Total Sys KW** | EWB   | Capacity MBtuh |       | Total Sys KW** | EWB  | Capacity MBtuh |       | Total Sys KW** | EWB | Capacity MBtuh |       | Total Sys KW** | EWB |
| Total          | Sens†      | Total   | Sens† | Total          |       | Sens†          | Total | Sens†          |       | Total          | Sens† | Total          |      | Sens†          | Total | Sens†          |     | Total          | Sens† |                |     |
| 1050           | 57 (13.9)  | 33.44   | 33.44 | 2.35           | 31.96 | 31.96          | 2.59  | 29.97          | 29.97 | 2.84           | 27.67 | 27.67          | 3.12 | 25.22          | 25.22 | 3.45           |     |                |       |                |     |
|                | 62 (16.7)  | 34.22   | 31.29 | 2.36           | 30.45 | 30.45          | 2.60  | 30.12          | 29.15 | 2.84           | 27.72 | 27.72          | 3.12 | 25.24          | 25.24 | 3.45           |     |                |       |                |     |
|                | 63* (17.2) | 34.84   | 25.34 | 2.36           | 32.94 | 24.51          | 2.60  | 30.42          | 23.42 | 2.85           | 27.34 | 22.11          | 3.11 | 24.16          | 20.79 | 3.42           |     |                |       |                |     |
|                | 67 (19.4)  | 37.73   | 26.43 | 2.41           | 35.79 | 25.64          | 2.66  | 33.57          | 24.74 | 2.93           | 30.40 | 23.49          | 3.18 | 27.11          | 22.21 | 3.49           |     |                |       |                |     |
|                | 71 (21.7)  | 40.85   | 22.45 | 2.44           | 38.88 | 21.72          | 2.71  | 36.70          | 20.91 | 3.00           | 33.78 | 19.82          | 3.27 | 30.28          | 18.55 | 3.57           |     |                |       |                |     |
| 1200           | 57 (13.9)  | 34.88   | 34.88 | 2.40           | 33.34 | 33.34          | 2.65  | 31.45          | 31.45 | 2.91           | 28.98 | 28.98          | 3.18 | 26.41          | 26.41 | 3.51           |     |                |       |                |     |
|                | 62 (16.7)  | 35.12   | 33.55 | 2.40           | 33.20 | 33.20          | 2.64  | 31.51          | 31.51 | 2.91           | 29.02 | 29.02          | 3.18 | 26.46          | 26.46 | 3.51           |     |                |       |                |     |
|                | 63* (17.2) | 35.55   | 26.89 | 2.40           | 33.61 | 26.06          | 2.65  | 31.13          | 25.01 | 2.90           | 28.00 | 23.71          | 3.16 | 24.74          | 22.34 | 3.47           |     |                |       |                |     |
|                | 67 (19.4)  | 38.47   | 28.10 | 2.45           | 36.47 | 27.30          | 2.70  | 34.20          | 26.40 | 2.97           | 31.08 | 25.20          | 3.23 | 27.68          | 23.88 | 3.54           |     |                |       |                |     |
|                | 71 (21.7)  | 41.59   | 23.57 | 2.48           | 39.58 | 22.87          | 2.75  | 37.38          | 22.07 | 3.04           | 34.48 | 21.01          | 3.33 | 30.86          | 19.72 | 3.62           |     |                |       |                |     |
| 1350           | 57 (13.9)  | 36.08   | 36.08 | 2.45           | 34.48 | 34.48          | 2.70  | 32.64          | 32.64 | 2.97           | 30.06 | 30.06          | 3.24 | 27.39          | 27.39 | 3.56           |     |                |       |                |     |
|                | 62 (16.7)  | 36.12   | 36.12 | 2.45           | 34.54 | 34.54          | 2.70  | 32.69          | 32.69 | 2.97           | 30.11 | 30.11          | 3.24 | 27.44          | 27.44 | 3.56           |     |                |       |                |     |
|                | 63* (17.2) | 36.10   | 28.35 | 2.44           | 34.12 | 27.53          | 2.69  | 31.76          | 26.55 | 2.95           | 28.50 | 25.18          | 3.20 | 25.21          | 23.76 | 3.51           |     |                |       |                |     |
|                | 67 (19.4)  | 39.04   | 29.64 | 2.48           | 36.98 | 28.88          | 2.74  | 34.70          | 27.99 | 3.02           | 31.57 | 26.78          | 3.27 | 28.16          | 25.44 | 3.58           |     |                |       |                |     |
|                | 71 (21.7)  | 42.15   | 24.61 | 2.51           | 40.11 | 23.92          | 2.78  | 37.87          | 23.13 | 3.08           | 35.02 | 22.12          | 3.38 | 31.28          | 20.82 | 3.67           |     |                |       |                |     |

See Legend and Notes on page 11.

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| EVAPORATOR AIR |         | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |       |              |               |                |       |              |               |                |       |              |               |                |       |              |               |                |      |              |               |
|----------------|---------|---|-------|--------------|---------------|----------------|-------|--------------|---------------|----------------|-------|--------------|---------------|----------------|-------|--------------|---------------|----------------|------|--------------|---------------|
|                |         | 75 (24)                                       |       |              |               | 85 (29)        |       |              |               | 95 (35)        |       |              |               | 105 (41)       |       |              |               | 115 (46)       |      |              |               |
|                |         | Capacity MBtuh                                |       | Total Sys KW | EWB ° F (° C) | Capacity MBtuh |       | Total Sys KW | EWB ° F (° C) | Capacity MBtuh |       | Total Sys KW | EWB ° F (° C) | Capacity MBtuh |       | Total Sys KW | EWB ° F (° C) | Capacity MBtuh |      | Total Sys KW | EWB ° F (° C) |
| Total          | Sens    | Total   | Sens  | Total        |               | Sens           | Total | Sens         |               | Total          | Sens  | Total        |               | Sens           | Total | Sens         |               | Total          | Sens |              |               |
| 1225           | 57 (14) | 41.68   | 41.68 | 2.75         | 38.94         | 38.94          | 3.11  | 35.98        | 35.98         | 3.49           | 32.25 | 32.25        | 3.87          | 28.66          | 28.66 | 4.32         |               |                |      |              |               |
|                | 62 (17) | 42.95   | 38.93 | 2.75         | 39.78         | 36.79          | 3.12  | 36.43        | 34.57         | 3.50           | 32.28 | 32.28        | 3.87          | 28.71          | 28.71 | 4.32         |               |                |      |              |               |
|                | 63 (17) | 43.70   | 31.61 | 2.75         | 40.44         | 29.72          | 3.12  | 36.99        | 27.79         | 3.51           | 32.43 | 25.38        | 3.87          | 27.98          | 23.06 | 4.30         |               |                |      |              |               |
|                | 67 (19) | 47.16   | 32.78 | 2.77         | 43.74         | 30.91          | 3.13  | 40.27        | 29.04         | 3.52           | 36.10 | 26.97        | 3.96          | 31.37          | 24.61 | 4.39         |               |                |      |              |               |
|                | 71 (22) | 51.59   | 26.51 | 2.78         | 47.98         | 24.89          | 3.15  | 44.33        | 23.26         | 3.55           | 40.57 | 21.60        | 3.99          | 36.10          | 19.78 | 4.49         |               |                |      |              |               |
| 1400           | 57 (14) | 43.43   | 43.43 | 2.79         | 40.56         | 40.56          | 3.15  | 37.56        | 37.56         | 3.55           | 33.84 | 33.84        | 3.94          | 30.06          | 30.06 | 4.39         |               |                |      |              |               |
|                | 62 (17) | 44.02   | 41.66 | 2.79         | 40.84         | 39.39          | 3.16  | 37.60        | 37.60         | 3.55           | 33.90 | 33.90        | 3.94          | 30.11          | 30.11 | 4.40         |               |                |      |              |               |
|                | 63 (17) | 44.60   | 33.50 | 2.79         | 41.26         | 31.57          | 3.16  | 37.77        | 29.61         | 3.55           | 33.24 | 27.21        | 3.92          | 28.66          | 24.78 | 4.36         |               |                |      |              |               |
|                | 67 (19) | 48.06   | 34.74 | 2.81         | 44.57         | 32.83          | 3.17  | 41.00        | 30.90         | 3.56           | 37.08 | 28.93        | 4.01          | 32.09          | 26.48 | 4.45         |               |                |      |              |               |
|                | 71 (22) | 52.46   | 27.65 | 2.82         | 48.78         | 26.00          | 3.19  | 45.03        | 24.35         | 3.59           | 41.21 | 22.67        | 4.03          | 36.86          | 20.91 | 4.53         |               |                |      |              |               |
| 1575           | 57 (14) | 44.86   | 44.86 | 2.83         | 41.89         | 41.89          | 3.19  | 38.82        | 38.82         | 3.59           | 35.20 | 35.20        | 4.02          | 31.25          | 31.25 | 4.47         |               |                |      |              |               |
|                | 62 (17) | 45.00   | 44.04 | 2.83         | 41.94         | 41.94          | 3.20  | 38.88        | 38.88         | 3.59           | 35.25 | 35.25        | 4.02          | 31.28          | 31.28 | 4.47         |               |                |      |              |               |
|                | 63 (17) | 45.28   | 35.25 | 2.83         | 41.88         | 33.29          | 3.20  | 38.36        | 31.31         | 3.59           | 33.90 | 28.93        | 4.02          | 29.21          | 26.39 | 4.41         |               |                |      |              |               |
|                | 67 (19) | 48.74   | 36.57 | 2.84         | 45.17         | 34.62          | 3.21  | 41.56        | 32.62         | 3.60           | 37.71 | 30.65        | 4.05          | 32.66          | 28.22 | 4.50         |               |                |      |              |               |
|                | 71 (22) | 53.13   | 28.71 | 2.86         | 49.38         | 27.04          | 3.23  | 45.55        | 25.35         | 3.63           | 41.66 | 23.65        | 4.07          | 37.49          | 21.93 | 4.58         |               |                |      |              |               |

See Legend and Notes on page 11.

COOLING CAPACITIES (CONT)

048

| EVAPORATOR AIR |         | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |               |                |       |              |                |       |              |                |       |              |                |          |              |                |  |              |  |  |  |
|----------------|---------|---|---------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|----------|--------------|----------------|--|--------------|--|--|--|
|                |         | 75 (24)                                       |               |                |       | 85 (29)      |                |       |              | 95 (35)        |       |              |                | 105 (41) |              |                |  | 115 (46)     |  |  |  |
|                |         | CFM   | EWB ° F (° C) | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |          | Total Sys KW | Capacity MBtuh |  | Total Sys KW |  |  |  |
| Total          | Sens    |   |               | Total          | Sens  |              | Total          | Sens  |              | Total          | Sens  |              | Total          | Sens     |              |                |  |              |  |  |  |
| 1400           | 57 (14) | 46.69   | 46.69         | 3.18           | 43.96 | 43.96        | 3.55           | 41.20 | 41.20        | 3.97           | 38.15 | 38.15        | 4.45           | 34.26    | 34.26        | 4.96           |  |              |  |  |  |
|                | 62 (17) | 48.24   | 40.86         | 3.19           | 45.07 | 40.07        | 3.56           | 41.86 | 39.18        | 3.99           | 38.39 | 38.02        | 4.46           | 34.32    | 34.32        | 4.97           |  |              |  |  |  |
|                | 63 (17) | 49.13   | 33.18         | 3.19           | 45.86 | 32.38        | 3.57           | 42.55 | 31.50        | 4.00           | 38.89 | 30.43        | 4.47           | 34.04    | 28.78        | 4.95           |  |              |  |  |  |
|                | 67 (19) | 53.03   | 34.45         | 3.21           | 49.63 | 33.69        | 3.59           | 46.16 | 32.87        | 4.03           | 42.51 | 31.94        | 4.54           | 38.08    | 30.67        | 5.10           |  |              |  |  |  |
|                | 71 (22) | 58.07   | 27.87         | 3.25           | 54.53 | 27.15        | 3.63           | 50.89 | 26.37        | 4.07           | 47.09 | 25.48        | 4.58           | 43.08    | 24.48        | 5.17           |  |              |  |  |  |
| 1600           | 57 (14) | 48.69   | 48.69         | 3.24           | 45.86 | 45.86        | 3.62           | 42.97 | 42.97        | 4.06           | 39.87 | 39.87        | 4.56           | 35.98    | 35.98        | 5.08           |  |              |  |  |  |
|                | 62 (17) | 49.45   | 43.78         | 3.24           | 46.24 | 42.96        | 3.62           | 43.08 | 42.83        | 4.06           | 39.93 | 39.93        | 4.56           | 36.04    | 36.04        | 5.08           |  |              |  |  |  |
|                | 63 (17) | 50.14   | 35.19         | 3.25           | 46.79 | 34.40        | 3.62           | 43.38 | 33.54        | 4.06           | 39.71 | 32.52        | 4.55           | 34.85    | 30.91        | 5.04           |  |              |  |  |  |
|                | 67 (19) | 54.04   | 36.51         | 3.27           | 50.57 | 35.78        | 3.65           | 47.00 | 35.00        | 4.09           | 43.31 | 34.10        | 4.60           | 39.07    | 33.00        | 5.18           |  |              |  |  |  |
|                | 71 (22) | 59.08   | 29.08         | 3.31           | 55.45 | 28.38        | 3.69           | 51.71 | 27.61        | 4.13           | 47.83 | 26.75        | 4.64           | 43.74    | 25.74        | 5.24           |  |              |  |  |  |
| 1800           | 57 (14) | 50.32   | 50.32         | 3.30           | 47.39 | 47.39        | 3.68           | 44.38 | 44.38        | 4.12           | 41.24 | 41.24        | 4.63           | 37.45    | 37.45        | 5.19           |  |              |  |  |  |
|                | 62 (17) | 50.52   | 46.35         | 3.30           | 47.46 | 47.46        | 3.68           | 44.44 | 44.44        | 4.12           | 41.29 | 41.29        | 4.63           | 37.50    | 37.50        | 5.19           |  |              |  |  |  |
|                | 63 (17) | 50.90   | 37.05         | 3.30           | 47.50 | 36.30        | 3.68           | 44.02 | 35.46        | 4.12           | 40.35 | 34.49        | 4.62           | 35.52    | 32.90        | 5.12           |  |              |  |  |  |
|                | 67 (19) | 54.81   | 38.44         | 3.33           | 51.26 | 37.75        | 3.70           | 47.64 | 36.98        | 4.14           | 43.89 | 36.11        | 4.65           | 39.74    | 35.07        | 5.24           |  |              |  |  |  |
|                | 71 (22) | 59.83   | 30.17         | 3.37           | 56.13 | 29.51        | 3.75           | 52.32 | 28.76        | 4.19           | 48.35 | 27.90        | 4.70           | 44.21    | 26.91        | 5.30           |  |              |  |  |  |

See Legend and Notes on page 11.

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| EVAPORATOR AIR |         | CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |               |                |       |              |                |       |              |                |       |              |                |          |              |                |  |              |  |  |  |
|----------------|---------|---|---------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|----------|--------------|----------------|--|--------------|--|--|--|
|                |         | 75 (24)                                       |               |                |       | 85 (29)      |                |       |              | 95 (35)        |       |              |                | 105 (41) |              |                |  | 115 (46)     |  |  |  |
|                |         | CFM   | EWB ° F (° C) | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |       | Total Sys KW | Capacity MBtuh |          | Total Sys KW | Capacity MBtuh |  | Total Sys KW |  |  |  |
| Total          | Sens    |   |               | Total          | Sens  |              | Total          | Sens  |              | Total          | Sens  |              | Total          | Sens     |              |                |  |              |  |  |  |
| 1500           | 57 (14) | 52.95   | 52.95         | 3.74           | 50.23 | 50.23        | 4.14           | 47.43 | 47.43        | 4.61           | 44.47 | 44.47        | 5.15           | 41.30    | 41.30        | 5.78           |  |              |  |  |  |
|                | 62 (17) | 55.05   | 45.97         | 3.75           | 51.84 | 44.39        | 4.16           | 48.53 | 42.78        | 4.62           | 45.08 | 41.06        | 5.16           | 41.48    | 39.18        | 5.78           |  |              |  |  |  |
|                | 63 (17) | 56.01   | 37.50         | 3.76           | 52.73 | 36.05        | 4.17           | 49.33 | 34.54        | 4.63           | 45.76 | 32.97        | 5.17           | 42.01    | 31.33        | 5.79           |  |              |  |  |  |
|                | 67 (19) | 59.99   | 38.77         | 3.80           | 56.43 | 37.29        | 4.20           | 52.75 | 35.77        | 4.67           | 48.90 | 34.18        | 5.21           | 44.88    | 32.53        | 5.83           |  |              |  |  |  |
|                | 71 (22) | 65.50   | 31.45         | 3.84           | 61.58 | 30.06        | 4.25           | 57.53 | 28.62        | 4.72           | 53.33 | 27.13        | 5.26           | 48.93    | 25.58        | 5.89           |  |              |  |  |  |
| 1700           | 57 (14) | 54.98   | 54.98         | 3.81           | 52.11 | 52.11        | 4.21           | 49.12 | 49.12        | 4.68           | 45.98 | 45.98        | 5.23           | 42.63    | 42.63        | 5.85           |  |              |  |  |  |
|                | 62 (17) | 56.20   | 49.14         | 3.82           | 52.89 | 47.48        | 4.22           | 49.49 | 45.72        | 4.69           | 46.04 | 46.04        | 5.23           | 42.69    | 42.69        | 5.86           |  |              |  |  |  |
|                | 63 (17) | 57.05   | 39.66         | 3.83           | 53.64 | 38.16        | 4.23           | 50.11 | 36.61        | 4.70           | 46.43 | 34.99        | 5.23           | 42.56    | 33.29        | 5.85           |  |              |  |  |  |
|                | 67 (19) | 61.05   | 41.09         | 3.86           | 57.35 | 39.56        | 4.26           | 53.53 | 37.99        | 4.73           | 49.57 | 36.36        | 5.27           | 45.42    | 34.64        | 5.89           |  |              |  |  |  |
|                | 71 (22) | 66.61   | 32.86         | 3.91           | 62.53 | 31.43        | 4.31           | 58.37 | 29.96        | 4.78           | 54.02 | 28.44        | 5.33           | 49.49    | 26.85        | 5.95           |  |              |  |  |  |
| 1850           | 57 (14) | 56.30   | 56.30         | 3.86           | 53.30 | 53.30        | 4.27           | 50.20 | 50.20        | 4.74           | 46.93 | 46.93        | 5.28           | 43.46    | 43.46        | 5.91           |  |              |  |  |  |
|                | 62 (17) | 56.95   | 51.37         | 3.87           | 53.60 | 49.58        | 4.27           | 50.27 | 50.27        | 4.74           | 46.99 | 46.99        | 5.28           | 43.52    | 43.52        | 5.91           |  |              |  |  |  |
|                | 63 (17) | 57.68   | 41.23         | 3.87           | 54.17 | 39.68        | 4.27           | 50.58 | 38.10        | 4.74           | 46.82 | 36.45        | 5.28           | 42.89    | 34.72        | 5.90           |  |              |  |  |  |
|                | 67 (19) | 61.67   | 42.77         | 3.90           | 57.88 | 41.20        | 4.31           | 54.00 | 39.60        | 4.78           | 49.95 | 37.93        | 5.32           | 45.73    | 36.18        | 5.94           |  |              |  |  |  |
|                | 71 (22) | 67.25   | 33.87         | 3.95           | 63.10 | 32.42        | 4.36           | 58.84 | 30.93        | 4.83           | 54.41 | 29.38        | 5.37           | 49.81    | 27.77        | 6.00           |  |              |  |  |  |

See Legend and Notes on page 11.

\* At TVA rating indoor condition (75°F edb/ 63°F ewb).; All other indoor air temperatures are at 80°F edb.  
 † Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).  
 \*\* System KW is total of indoor and outdoor unit kilowatts.

**LEGEND**

- BF — Bypass Factor
- Ewb — Entering Wet-Bulb
- KW — Total Unit Power Input
- SHC — Sensible Heat Capacity (1000 Btuh)
- TC — Total Capacity (1000 Btuh) (net)

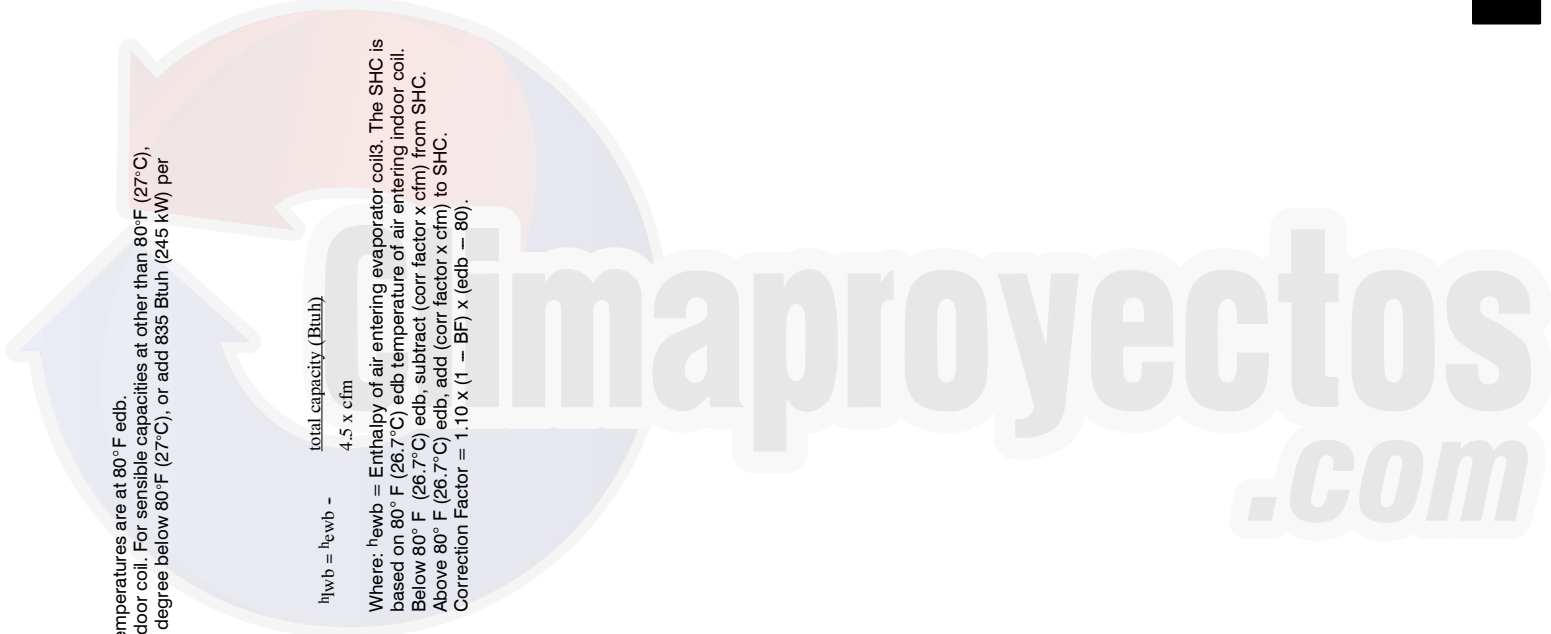
**NOTES:**  
 1. Direct interpolation is permissible. Do not extrapolate.  
 2. The following formulas may be used:

$$t_{ldb} = t_{edb} - \frac{\text{Sensible capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$t_{lwb} = \text{Wet-bulb temperature corresponding to enthalpy air leaving evaporator coil (} t_{lwb} \text{)}$$

$$h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where:  $h_{ewb}$  = Enthalpy of air entering evaporator coils. The SHC is based on 80°F (26.7°C) edb temperature of air entering indoor coil. Below 80°F (26.7°C) edb, subtract (corr factor x cfm) from SHC. Above 80°F (26.7°C) edb, add (corr factor x cfm) to SHC.  
 Correction Factor =  $1.10 \times (1 - BF) \times (edb - 80)$ .



### Filter Pressure Drop (IN. W.C.)

| FILTER SIZE<br>in. (mm) | CFM  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                         | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 |
| 20X20X1<br>(508X508X25) | 0.05 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | —    | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| 20X24X1<br>(508X610x25) | —    | —    | —    | 0.08 | 0.09 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | —    | —    | —    | —    | —    | —    | —    |
| 24X30X1<br>(610X762x25) | —    | —    | —    | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.10 | —    | —    | —    | —    | —    | —    | —    |
| 24X36X1<br>(610X914X25) | —    | —    | —    | —    | —    | —    | —    | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 |

### Accessory Electric Heat Pressure Drop (IN. W.C.)

| HEATER kW | CFM   |       |       |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
|           | 800   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  |
| 5-20      | 0.033 | 0.037 | 0.042 | 0.047 | 0.052 | 0.060 | 0.067 | 0.075 |

### Wet Coil Delivery\*— (Deduct 10% for 208-Volt Operation)

| UNIT SIZE | SPEED TAP | AIR DELIVERY <sup>2</sup> | EXTERNAL STATIC PRESSURE (in. W.C.) |      |      |      |      |      |      |      |      |      |
|-----------|-----------|---------------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|
|           |           |                           | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
| 024       | 1         | SCFM                      | 965                                 | 818  | 777  | 731  | 670  | 617  | 563  | 489  | 451  | 391  |
|           | 2         | SCFM                      | 1003                                | 921  | 890  | 850  | 809  | 756  | 700  | 659  | 597  | 539  |
|           | 3         | SCFM                      | 1103                                | 1068 | 1034 | 996  | 962  | 930  | 892  | 821  | 791  | 742  |
| 030       | 1         | SCFM                      | 1052                                | 1018 | 984  | 943  | 914  | 879  | 833  | 795  | 732  | 678  |
|           | 2         | SCFM                      | 1141                                | 1107 | 1069 | 1036 | 1006 | 974  | 932  | 899  | 856  | 784  |
|           | 3         | SCFM                      | 1246                                | 1213 | 1181 | 1144 | 1108 | 1078 | 1043 | 1015 | 973  | 931  |
| 036       | 1         | SCFM                      | 1281                                | 1225 | 1178 | 1142 | 1098 | 1053 | 1008 | 935  | 878  | 840  |
|           | 2         | SCFM                      | 1359                                | 1321 | 1278 | 1236 | 1201 | 1160 | 1109 | 1068 | 992  | 941  |
|           | 3         | SCFM                      | 1476                                | 1441 | 1403 | 1366 | 1323 | 1289 | 1245 | 1201 | 1159 | 1117 |
| 042       | 1         | SCFM                      | 1453                                | 1408 | 1373 | 1337 | 1295 | 1255 | 1215 | 1177 | 1134 | 1068 |
|           | 2         | SCFM                      | 1544                                | 1507 | 1475 | 1436 | 1397 | 1359 | 1326 | 1290 | 1246 | 1201 |
|           | 3         | SCFM                      | 1614                                | 1575 | 1542 | 1509 | 1467 | 1430 | 1395 | 1358 | 1323 | 1267 |
| 048       | 1         | SCFM                      | 1657                                | 1625 | 1590 | 1554 | 1517 | 1486 | 1448 | 1417 | 1381 | 1340 |
|           | 2         | SCFM                      | 1707                                | 1673 | 1644 | 1614 | 1586 | 1549 | 1515 | 1479 | 1449 | 1407 |
|           | 3         | SCFM                      | 1931                                | 1900 | 1870 | 1840 | 1809 | 1778 | 1749 | 1714 | 1683 | 1646 |
| 060       | 1         | SCFM                      | 1931                                | 1881 | 1833 | 1787 | 1746 | 1698 | 1670 | 1622 | 1577 | 1514 |
|           | 2         | SCFM                      | 2038                                | 1994 | 1935 | 1894 | 1851 | 1811 | 1774 | 1738 | 1691 | 1648 |
|           | 3         | SCFM                      | 2144                                | 2113 | 2052 | 2001 | 1974 | 1928 | 1898 | 1860 | 1824 | 1773 |

\*Air delivery values are based on operating voltage of 230v, wet coil, without filter or electric heater. Deduct filter and electric heater pressure drops to obtain static pressure available for ducting.

NOTES:

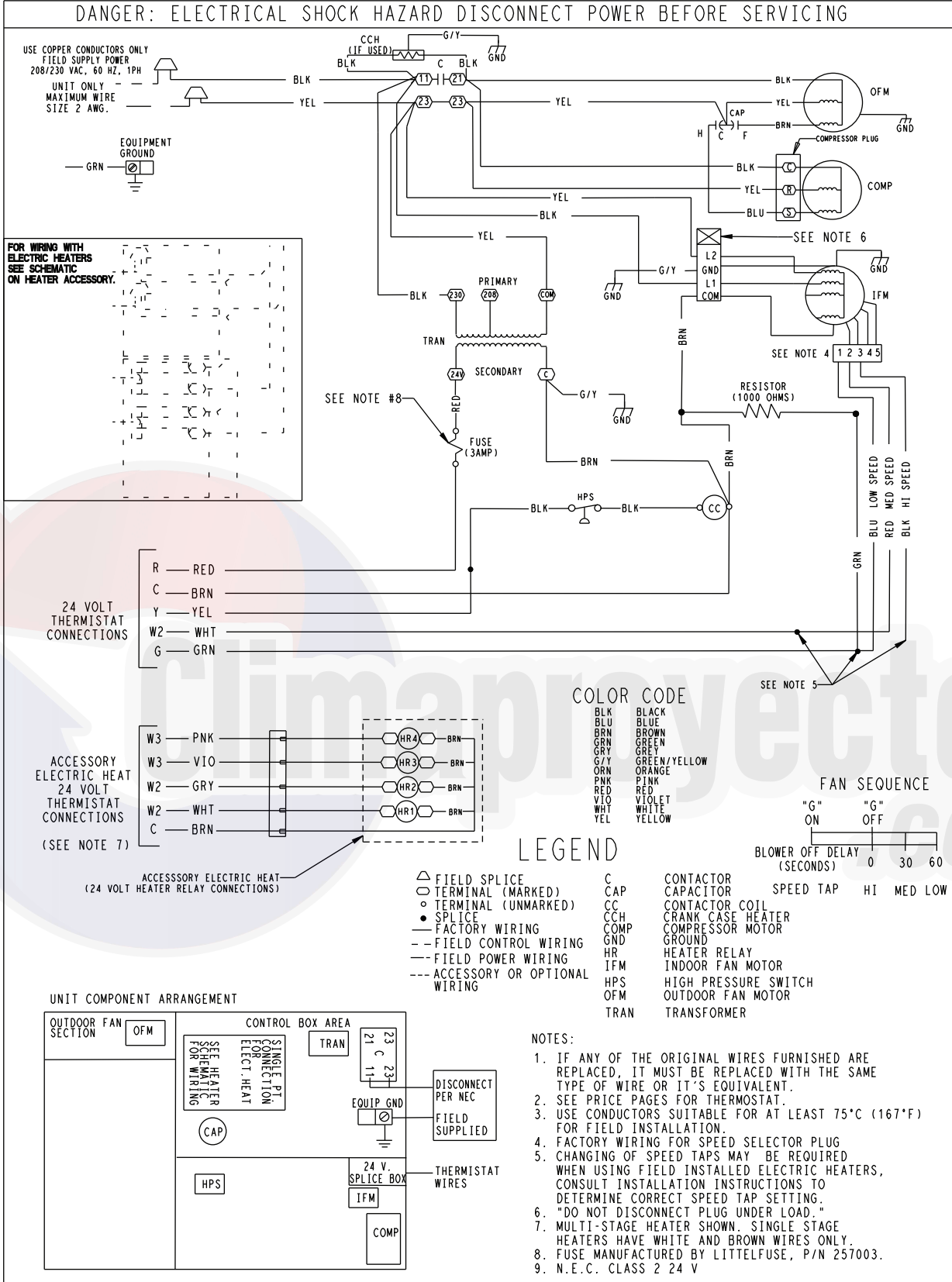
1. Do not operate the unit at a cooling airflow that is less than 350 cfm for each 12,000 Btuh of rated cooling capacity. Evaporator coil frosting may occur at airflows below this point.
2. Standard Cubic Feet per Minute.

50ZP(C, D)

**TYPICAL CONNECTION WIRING SCHEMATIC—208/230-1-60 024-060**

**CONNECTION WIRING DIAGRAM**

**DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING**

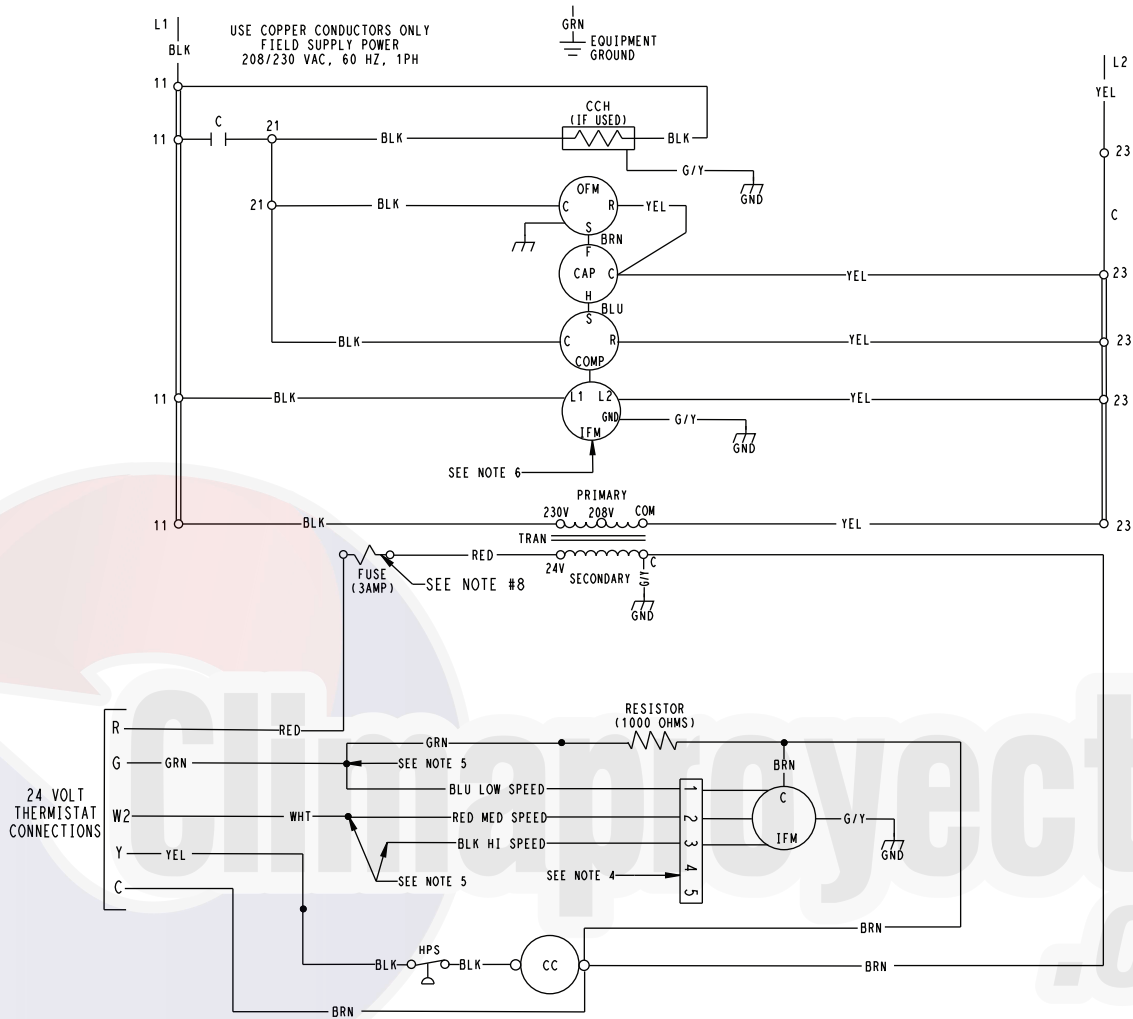


**50ZP(C, D)**

# TYPICAL LADDER WIRING SCHEMATIC—208/230-1-60 024-060

## LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

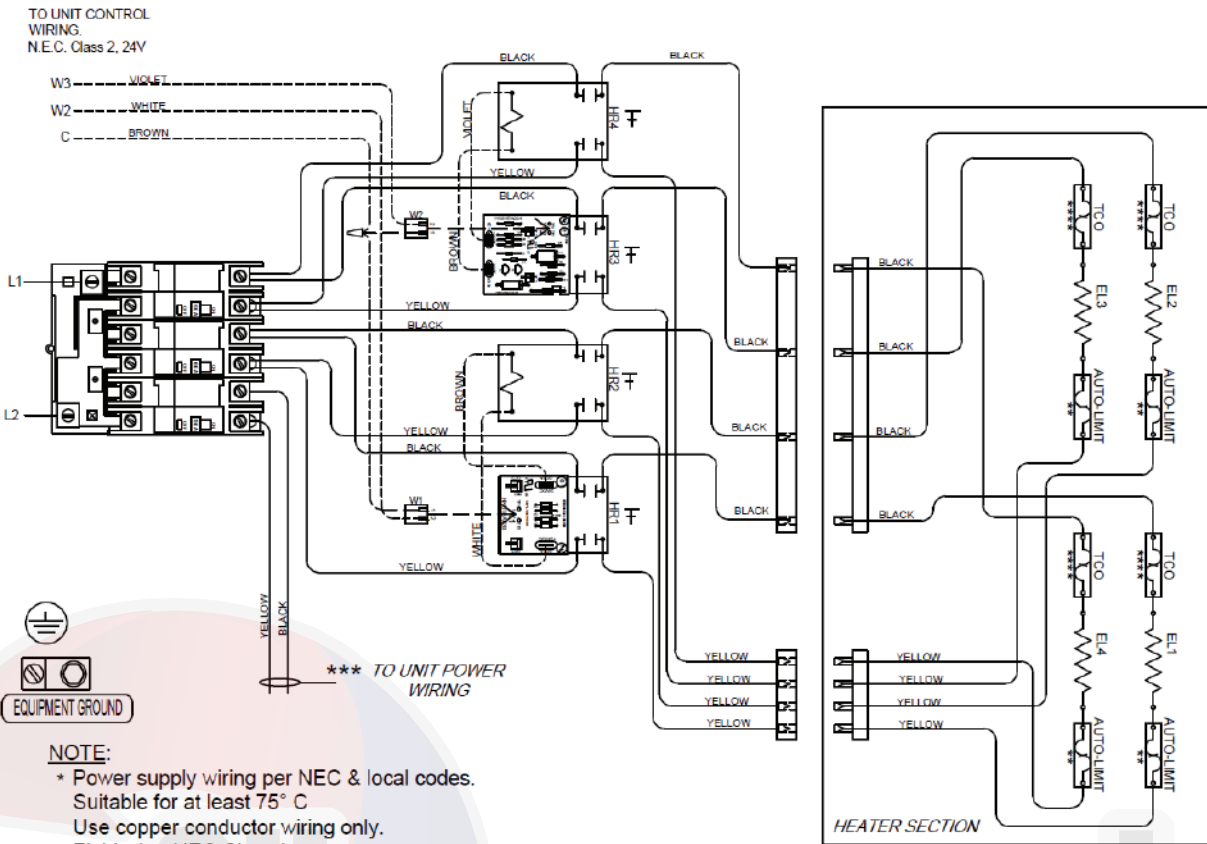


50ZP500775 B

A14549

50ZP(C, D)

# TYPICAL FIELD WIRING



- NOTE:**
- \* Power supply wiring per NEC & local codes. Suitable for at least 75° C. Use copper conductor wiring only. Field wire, NEC Class I
  - \*\* Replace Auto Reset with Therm-O-Disc type 60TX01-L160
  - \*\*\* Wires for single point connection only. Remove wires for dual point connection.
  - \*\*\*\* Replace TCO with Therm-O-Disc type G8AM0402121C
  - † Replace Relay with T92 22VDC

NOTE: 20kW Heater shown. Smaller heaters have fewer elements and controls

## Single-Phase Accessory Electric Heater Wiring

50ZP(C, D)

A190069

## Electrical Data

| Model | Nominal V-PH-HZ | Voltage Range |     | Compressor |       | OFM | IFM | Nominal kW* | Heater FLA |      | MCA  |       | MOCP**  |
|-------|-----------------|---------------|-----|------------|-------|-----|-----|-------------|------------|------|------|-------|---------|
|       |                 | Min           | Max | RLA        | LRA   | FLA | FLA |             | 208/240    | 208  | 240  | 208   | 230     |
| 024   | 208/230-1-60    | 197           | 253 | 10.3       | 61.6  | 0.9 | 2.8 | -/-         | -          | -    | 16.6 | 16.6  | 25      |
|       |                 |               |     |            |       |     |     | 3.8/5       | 18.0       | 20.8 | 26.0 | 29.5  | 30/30   |
|       |                 |               |     |            |       |     |     | 5.6/7.5     | 27.0       | 31.3 | 37.3 | 42.6  | 40/45   |
|       |                 |               |     |            |       |     |     | 7.5/10      | 36.1       | 41.7 | 48.6 | 55.6  | 50/60   |
| 030   | 208/230-1-60    | 197           | 253 | 13.5       | 72.5  | 0.9 | 2.8 | -/-         | -          | -    | 20.6 | 20.6  | 30      |
|       |                 |               |     |            |       |     |     | 3.8/5       | 18.0       | 20.8 | 26.0 | 29.5  | 30/30   |
|       |                 |               |     |            |       |     |     | 5.6/7.5     | 27.0       | 31.3 | 37.3 | 42.6  | 40/45   |
|       |                 |               |     |            |       |     |     | 7.5/10      | 36.1       | 41.7 | 48.6 | 55.6  | 50/60   |
| 036   | 208/230-1-60    | 197           | 253 | 14.1       | 77.0  | 1.5 | 4.1 | -/-         | -          | -    | 23.2 | 23.2  | 35      |
|       |                 |               |     |            |       |     |     | 3.8/5       | 18.0       | 20.8 | 27.6 | 31.1  | 35/35   |
|       |                 |               |     |            |       |     |     | 5.6/7.5     | 27.0       | 31.3 | 38.9 | 44.3  | 40/45   |
|       |                 |               |     |            |       |     |     | 7.5/10      | 36.1       | 41.7 | 50.3 | 57.3  | 60/60   |
| 042   | 208/230-1-60    | 197           | 253 | 15.9       | 112.3 | 1.7 | 4.1 | 11.3/15     | 54.1       | 62.5 | 72.8 | 83.3  | 80/90   |
|       |                 |               |     |            |       |     |     | -/-         | -          | -    | 25.7 | 25.7  | 40      |
|       |                 |               |     |            |       |     |     | 3.8/5       | 18.0       | 20.8 | 27.6 | 31.1  | 40/40   |
|       |                 |               |     |            |       |     |     | 5.6/7.5     | 27.0       | 31.3 | 38.9 | 44.3  | 40/45   |
| 048   | 208/230-1-60    | 197           | 253 | 19.6       | 130   | 1.7 | 6.0 | 7.5/10      | 36.1       | 41.7 | 52.6 | 59.6  | 60/60   |
|       |                 |               |     |            |       |     |     | 11.3/15     | 54.1       | 62.5 | 75.1 | 85.6  | 80/90   |
|       |                 |               |     |            |       |     |     | 15/20       | 72.1       | 83.3 | 97.6 | 111.6 | 100/125 |
|       |                 |               |     |            |       |     |     | -/-         | -          | -    | 32.2 | 32.2  | 50      |
| 060   | 208/230-1-60    | 197           | 253 | 23.7       | 152.5 | 1.9 | 7.6 | 3.8/5       | 18.0       | 20.8 | 39.1 | 39.1  | 60/60   |
|       |                 |               |     |            |       |     |     | 5.6/7.5     | 27.0       | 31.3 | 43.3 | 48.6  | 60/60   |
|       |                 |               |     |            |       |     |     | 7.5/10      | 36.1       | 41.7 | 54.6 | 61.6  | 60/70   |
|       |                 |               |     |            |       |     |     | 11.3/15     | 54.1       | 62.5 | 77.1 | 87.6  | 80/90   |
|       |                 |               |     |            |       |     |     | 15/20       | 72.1       | 83.3 | 99.6 | 113.6 | 100/125 |

\*\* HACR Type Circuit breaker

### LEGEND

FLA – Full Load Amps

LRA – Locked Rotor Amps

MCA – Minimum Circuit Amps

MOCP – Maximum Overcurrent Protection

RLA – Rated Load Amps

### NOTES:

- In compliance with NEC (National Electrical Code) requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be Power Supply fuse or circuit breaker.
- Minimum wire size is based on 60°C copper wire. If other than 60°C wire is used, or if length exceeds wire length in table, determine size from NEC.

\*Heater capacity (kW) based on heater voltage of 208v & 240v. If power distribution voltage to unit varies from rated heater voltage, heater kW will vary accordingly.

## OPERATING SEQUENCE

### Cooling Operation

With a call for cooling (Y/G), the contactor is energized which brings on the compressor and outdoor fan. The indoor fan is also energized. When the cooling demand is met, Y and G are de-energized shutting off the contactor. The indoor fan stops after a 60 second delay.

### Heating Operation

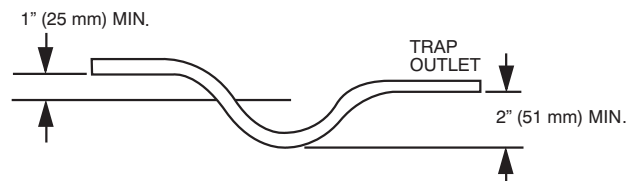
With a call for heating (W2), the auxiliary or electric heat energizes along with the indoor blower. In case of staged heating, W3 is energized if the demand is not met. The highest airflow selected is run while the electric heat is in operation. When heating demand is met, W3 and W2 sequentially de-energize shutting off the indoor fan and the electric heater.

### Continuous Fan

With the continuous indoor fan option selected on the thermostat, G is continuously energized keeping the indoor fan running at all times.

## APPLICATION DATA

Condensate trap — A 2-in. (51 mm) condensate trap must be field supplied.



A08001

**Maximum cooling airflow** — To minimize the possibility of condensate blow-off from the evaporator, airflow through the units should not exceed 450 CFM/ton.

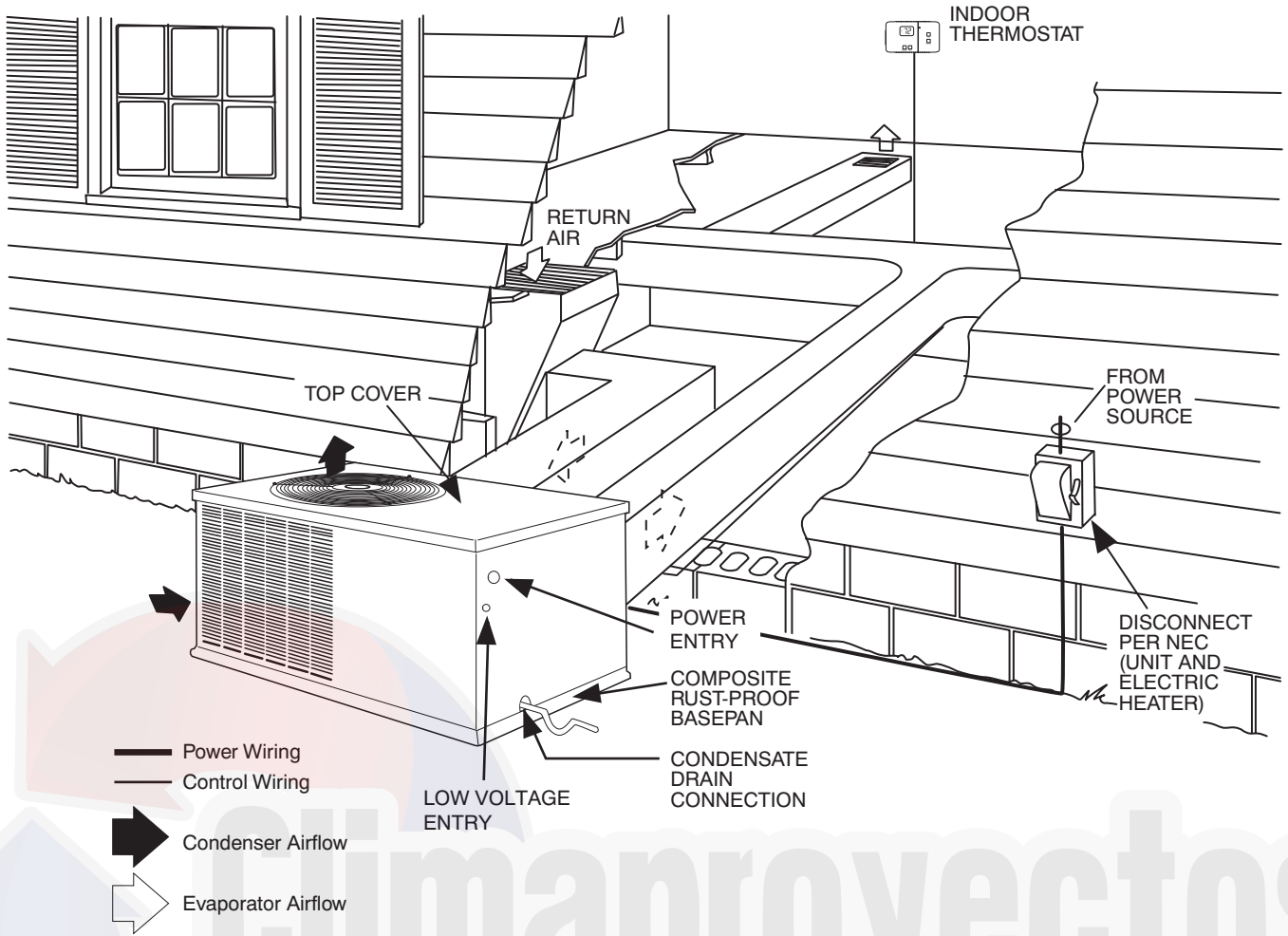
**Minimum cooling airflow** — The minimum cooling airflow is 350 cfm/ton.

**Minimum cooling operating outdoor air temperature** — All standard units have a minimum ambient operating temperature of 40°F (4.4°C). With accessory low ambient temperature kit, units can operate at temperatures down to 0°F (-17.8°C).

**Maximum operating outdoor air temperature** — Maximum outdoor operating air temperature for cooling is 125°F (51.7°C).



# TYPICAL INSTALLATION



## GUIDE SPECIFICATIONS

### GENERAL

Furnish and install outdoor package, electrically controlled, air conditioner utilizing a reciprocating or scroll compressor for cooling duty. Unit shall discharge supply air horizontally as shown on contract drawings.

Nominal unit electrical characteristics shall be \_\_\_\_\_ v, \_\_\_\_\_ ph, 60 Hz. The unit shall be capable of satisfactory operation within voltage limits of \_\_\_\_\_ v to \_\_\_\_\_ v. Unit power wiring shall enter unit cabinet at a single location.

Separate power supply shall not be required for electric heat.

### COOLING CAPACITY

Total cooling capacity of the unit shall be \_\_\_\_\_ Btuh or greater, and sensible capacity shall be \_\_\_\_\_ Btuh or greater at conditions of \_\_\_\_\_ cfm indoor air entering unit at \_\_\_\_\_ F dry bulb, \_\_\_\_\_ F wet bulb and outdoor entering air of \_\_\_\_\_ F dry bulb. Total design conditions shall be a minimum of \_\_\_\_\_ Btuh/Watt. The unit shall be capable of cooling operation down to 40°F (4.4°C) as shipped from the factory.

### CABINET

Unit cabinet shall be constructed of phosphated, bonderized, zinc-coated, prepainted steel. Basepan shall be made of a single-piece non-corrosive, composite material.

Evaporator-fan compartment interior cabinet surfaces shall be insulated with a minimum 1/2-in. (12.7 mm) thick, flexible fiberglass insulation, coated on the air side with aluminum foil.

Cabinet panels shall be easily removable for servicing.

Outdoor coil shall be protected by metal louvered panels.

### COMPRESSOR

Compressor shall be fully hermetic type with external vibration isolation.

### CONDENSER SECTION

Condenser fan shall be of the direct-driven propeller type blades, riveted to corrosion-resistant spiders, and shall be dynamically balanced and discharge air vertically upwards.

Condenser coils shall have aluminum-plate fins mechanically bonded to copper tubes with all joints brazed.

Tube sheet openings shall be belled to prevent tube wear.

### EVAPORATOR SECTION

Fan shall be multi-speed with direct drive motor as shown on the equipment drawings.

Fan wheel shall be made from steel, be double-inlet type with forward-curved blades with a corrosion-resistant finish and dynamically balanced.

Evaporator coils shall have aluminum-plate fins mechanically bonded to copper tubes with all joints brazed.

Tube sheet openings shall be belled to prevent tube wear.

### MOTORS

Compressor motors shall be of the refrigerant cooled type with line break thermal and current overload protection.

All fan motors shall have permanently lubricated bearings, and inherent automatic reset thermal overload protection.

Condenser fan motor shall be totally enclosed.

### REFRIGERANT SYSTEM

Refrigerant system shall include fixed orifice or TXV metering system.

### CONTROLS

Unit shall be complete with self-contained low voltage control circuit.

### APPROVALS

Unit shall be UL listed as a total package for safety requirements. All wiring shall be in accordance with NEC.

Unit shall be rated in accordance with AHRI Standards 210/240.

Cabinet insulation shall conform to ASHRAE Standard 62.2

Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

Unit shall have a sloped drain pan that conforms to ASHRAE Standard 62.2.

### ACCESSORIES

Field-installed accessories shall include solid-state compressor short-cycle device, outdoor thermostat, room thermostats, electric heaters with single-point connection, crankcase heater, and low-ambient kit.



