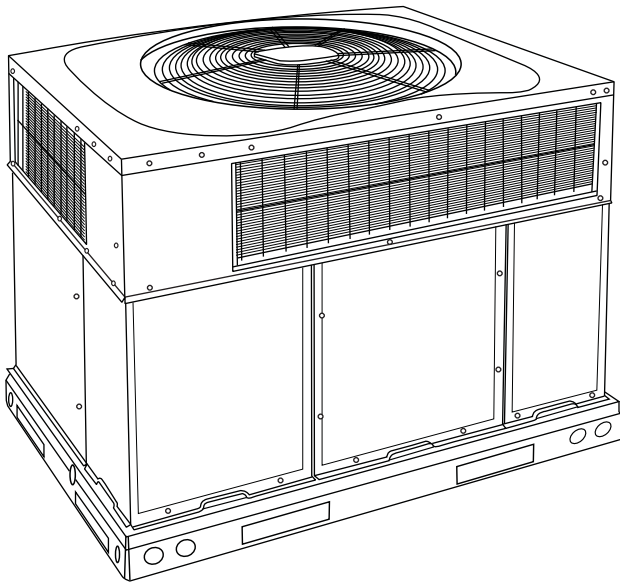


50EZ-A
Comfort™ 13 SEER Single-Packaged Heat Pump
System
with Puron® (R-410A) Refrigerant
Single and Three Phase
2 to 5 Nominal Tons (Sizes 24-60)



Product Data



A09034

Fig. 1 - Unit 50EZ-A

Single-Packaged Products with Energy-Saving Features and Puron® refrigerant.

- Up to 13.5 SEER
- Up to 7.7 HSPF
- Up to 11.5 EER at 95°F OD
- Factory-Installed TXV
- ECM Motor-Standard
- Dehumidification Feature

FEATURES/BENEFITS

One-piece Heat Pump unit with optional electric heater, low installation cost, dependable performance and easy maintenance.

Efficient operation High-efficiency design with SEERs (Seasonal Energy Efficiency Ratio) of up to 13.5.

Puron Environmentally Sound Refrigerant is Carrier's unique refrigerant designed to help protect the environment. Puron is an HFC refrigerant which does not contain chlorine that can harm the ozone layer. Puron refrigerant is in service in millions of systems, proving highly reliable, environmentally sound performance.

Easy Installation

Factory-assembled package is a compact, fully self-contained, heat pump unit that is prewired, pre-piped, and pre-charged for minimum installation expense. These units are available in a variety of standard capacity ranges with voltage options to meet residential and light commercial requirements. Units are lightweight and install easily on a rooftop or at ground level. The high tech composite base eliminates rust problems associated with ground level applications.

Innovative Unit Base Design

On the inside a high-tech composite material will not rust and incorporates a sloped drain pan which improves drainage and helps inhibit mold, algae and bacterial growth. On the outside metal base rails provide added stability as well as easier handling and rigging.

Durable, dependable components Compressors are designed for high efficiency. Each compressor is hermetically sealed against contamination to help promote longer life and dependable operation. Each compressor also has vibration isolation to provide quieter operation. All compressors have internal high pressure and overcurrent protection.

ECM Motor is standard on all 50EZ-A models. Direct-drive, PSC (Permanent Split Capacitor) condenser-fan motors are designed to help reduce energy consumption and provide for cooling operation down to 40°F (4.4°C) outdoor temperature. Motormaster® II low ambient kit is available as a field installed accessory.

Thermostat controls designed to work as a system with Carrier's small packaged product.

Thermostatic Expansion Valve - A hard shutoff, balance port TXV maintains a constant superheat at the evaporator exit (cooling cycle) resulting in higher overall system efficiency.

Refrigerant system is designed to provide dependability. Liquid 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.

High and Low Pressure Switches provide added reliability for the compressor.

Indoor and Outdoor coils are computer-designed for optimum heat transfer and efficiency. The indoor coil is fabricated from copper tube and aluminum fins and is located inside the unit for protection against damage. The outdoor coil is internally mounted on the top tier of the unit.

Low sound ratings ensure a quiet indoor and outdoor environment with sound ratings as low as 74dBA.

Easy to service cabinets provide easy 3-panel accessibility to serviceable components during maintenance and installation. The base with integrated drain pan provides easy ground level installation with a mounting pad. A nesting feature ensures a positive basepan to roof curb seal when the unit is roof mounted. A convenient 3/4-in. (19.05 mm) wide perimeter flange makes frame mounting on a rooftop easy.

Convertible duct configuration

Unit is designed for use in either downflow or horizontal applications. Each unit is converted from horizontal to downflow and includes two horizontal duct covers. Downflow operation is provided in the field to allow vertical ductwork connections. The basepan seals on the bottom openings to ensure a positive seal in the vertical airflow mode.

Cabinets are constructed of heavyduty, phosphated, zinc-coated prepainted steel capable of withstanding 500 hours in salt spray. Interior surfaces of the evaporator and electric heater compartments are insulated with cleanable semi-rigid insulation board, which keeps the conditioned air from being affected by the outdoor ambient temperature and provides improved indoor air quality. (Conforms to American Society of Heating, Refrigeration and Air Conditioning Engineers No. 62P.) The sloped drain pan minimizes standing water in the drain. An external drain is provided.

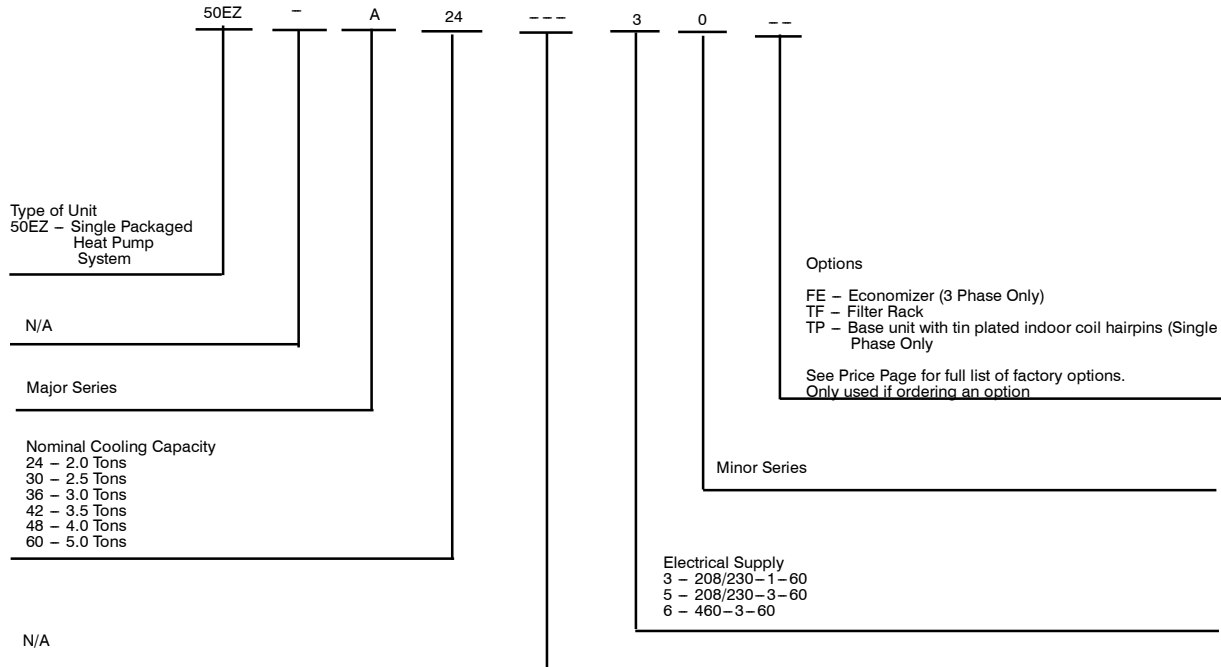
Short-Cycling protection for the compressor is incorporated into our defrost control board ensuring a five minute delay (+/-2 minutes) before restarting compressor after shutdown for any reason.

50EZ--A

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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.



AHRI* CAPACITIES

COOLING CAPACITIES AND EFFICIENCIES

| UNIT 50EZ-A | NOMINAL TONS | STANDARD CFM | COOLING CAPACITIES (Btuh) | EER** | SEER† |
|-------------|--------------|--------------|---------------------------|-------|-------|
| 24---30 | 2 | 800 | 23,800 | 11.5 | 13.5 |
| 30---30/50 | 2-1/2 | 1000 | 29,000 | 11.5 | 13.5 |
| 36---30/50 | 3 | 1200 | 35,000 | 11.5 | 13.5 |
| 42---30/50 | 3-1/2 | 1400 | 40,000 | 11.5 | 13.2 |
| 48---30/50 | 4 | 1600 | 47,000 | 11.5 | 13.5 |
| 60---30/50 | 5 | 1850 | 57,000 | 11.5 | 13.5 |

HEAT PUMP HEATING CAPACITIES AND EFFICIENCIES

| UNIT 50EZ-A | HEATING CAPACITY (Btuh) @ 47°F (8.3°C) | COP @ 47°F (8.3°C) | HEATING CAPACITY (Btuh) @ 17°F (-8.3°C) | COP @ 17°F (-8.3°C) | HSPF† |
|---------------|--|--------------------|---|---------------------|-------|
| 24---30 | 23,400 | 3.5 | 10,800 | 2.2 | 7.7 |
| 30---30/50 | 29,000 | 3.5 | 15,900 | 2.2 | 7.7 |
| 36---30/50/60 | 35,000 | 3.4 | 20,400 | 2.3 | 7.7 |
| 42---30/50/60 | 40,000 | 3.4 | 22,000 | 2.2 | 7.7 |
| 48---30/50/60 | 46,500 | 3.6 | 26,200 | 2.3 | 7.7 |
| 60---30/50/60 | 57,000 | 3.5 | 31,000 | 2.3 | 7.7 |

LEGEND

dB—Sound Levels (decibels)

db—Dry Bulb

SEER—Seasonal Energy Efficiency Ratio

wb—Wet Bulb

COP—Coefficient of Performance

HSPF—Heating Season Performance Factor

* 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.

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 (19.4°C) wb indoor entering—air temperature and 95°F (35°C) db outdoor entering—air temperature.

2. Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

50EZ--A

PHYSICAL DATA - UNIT 50EZ-A

| UNIT SIZE | 50EZ-A24 | 50EZ-A30 | 50EZ-A36 | 50EZ-A42 | 50EZ-A48 | 50EZ-A60 |
|---|-------------------|------------|------------|-----------------------|------------|------------|
| NOMINAL CAPACITY (ton) | 2 | 2.5 | 3 | 3.5 | 4 | 5 |
| SHIPPING WEIGHT† (lb) | 327 | 340 | 343 | 419 | 437 | 462 |
| (kg) | 148 | 154 | 156 | 190 | 198 | 210 |
| COMPRESSOR QUANTITY | 1 | | | | | |
| TYPE | SCROLL COMPRESSOR | | | | | |
| REFRIGERANT | R-410A | | | | | |
| Refrigerant (R-410A) Quantity (lb) | 9.6 | 10.2 | 7.9 | 10.0 | 9.6 | 12.3 |
| Quantity (kg) | 4.4 | 4.6 | 3.6 | 4.5 | 4.4 | 5.6 |
| METERING DEVICE ID | TXV | | | | | |
| ORIFICE OD (in.) | 0.032 (2) | 0.035 (2) | 0.037 (2) | 0.038 (Left OD Coil) | 0.046 (2) | 0.052 (2) |
| (mm) | .81 | .89 | .94 | 0.040 (Right OD Coil) | 1.2 | 1.3 |
| | | | | .97/1.02 | | |
| OUTDOOR COIL | | | | | | |
| Rows... Fins/in. | 2...21 | 2...21 | 2...21 | 2...21 | 2...21 | 2...21 |
| face area (sq. ft.) | 11.9 | 11.9 | 11.9 | 13.6 | 13.6 | 17.5 |
| OUTDOOR FAN | | | | | | |
| Nominal Airflow (CFM) | 2700 | 2700 | 2700 | 3100 | 3100 | 3100 |
| Fan Diameter (in.) | 24 | 24 | 24 | 26 | 26 | 26 |
| Fan Diameter (mm) | 610 | 610 | 610 | 660 | 660 | 660 |
| Diameter Motor HP (RPM) | 1/5 (810) | 1/5 (810) | 1/5 (810) | 1/5 (810) | 1/5 (810) | 1/5 (810) |
| INDOOR COIL | | | | | | |
| Rows... Fins/in. | 3...17 | 3...17 | 3...17 | 3...17 | 3...17 | 3...17 |
| face area (sq. ft.) | 3.7 | 3.7 | 3.7 | 4.7 | 4.7 | 5.7 |
| INDOOR BLOWER | | | | | | |
| Nominal Cooling Airflow (CFM) | 800 | 1000 | 1200 | 1400 | 1600 | 1850 |
| Size (In.) | 10x10 | 10x10 | 11x10 | 11x10 | 11x10 | 11x10 |
| (mm) | 254x254 | 254x254 | 279x254 | 279x254 | 279x254 | 279x254 |
| Motor (HP) | 1/2 | 1/2 | 3/4 | 3/4 | 1.0 | 1.0 |
| HIGH-PRESSURE SWITCH (psig) | 650±15 | | | | | |
| Cutout | 420±25 | | | | | |
| Reset (Auto) | | | | | | |
| LOSS-OF-CHARGE/LOW-PRESSURE SWITCH | 20±5 | | | | | |
| (Liquid Line) (psig) | 45±10 | | | | | |
| Cutout | 20±5 | | | | | |
| Reset (Auto) | 45±10 | | | | | |
| RETURN-AIR FILTERS*† | 24x36x1 | | | | | |
| throwaway (in.) | 20x20x1 | 20x24x1 | 24x30x1 | 24x30x1 | 24x36x1 | 24x36x1 |
| (mm) | 508x508x25 | 508x610x25 | 610x762x25 | 610x762x25 | 610x914x25 | 610x914x25 |

*Required filter sizes shown are based on the larger of the AHRI (Air Conditioning, Heating and Refrigeration Institute) rated cooling airflow or the heating airflow velocity of 300 ft/minute for throwaway type or 450 ft/minute for high-capacity type. Air filter pressure drop for non-standard filters must not exceed 0.08 IN. W.C.

† If using accessory filter rack refer to the filter rack installation instructions for correct filter size and quantity.

‡ For 460 volt units, add 14 lb (6.4 kg) to the weight.

A-Weighted Sound Power Level (dBA)

| MODEL 50EZ-A | STANDARD RATING (dBA) | TYPICAL OCTAVE BAND SPECTRUM (dBA) (without tone adjustment) | | | | | | |
|--------------|-----------------------|--|------|------|------|------|------|------|
| | | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 24 --- 30 | 76 | 57.0 | 65.5 | 72.0 | 71.0 | 67.0 | 62.0 | 53.0 |
| 30 --- 30/50 | 76 | 60.5 | 67.5 | 72.0 | 70.0 | 67.0 | 61.0 | 51.5 |
| 36 --- 30/50 | 77 | 63.0 | 68.0 | 73.0 | 71.0 | 67.0 | 62.0 | 55.0 |
| 42 --- 30/50 | 78 | 65.0 | 68.5 | 74.5 | 72.5 | 69.5 | 64.5 | 56.5 |
| 48 --- 30/50 | 78 | 62.0 | 68.5 | 74.0 | 72.5 | 70.0 | 64.0 | 56.0 |
| 60 --- 30/50 | 76 | 63.0 | 66.5 | 69.5 | 71.0 | 66.0 | 65.0 | 59.0 |

NOTE: Tested in accordance with AHRI Standard 270 (not listed in AHRI).

50EZ-A

OPTIONS AND ACCESSORIES

| ITEM | DESCRIPTION | FACTORY INSTALLED OPTION | FIELD INSTALLED ACCESSORY |
|-------------------------------------|--|--------------------------|---------------------------|
| Coil Options | Base unit with tin plated indoor coil hairpins | X | |
| 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* |
| Economizer | Horizontal Economizer with solid state controls and barometric relief dampers includes filter racks and provide outdoor air during cooling and reduce compressor operation. | | X |
| | Vertical Economizer with solid state controls and barometric relief dampers includes filter racks and provide outdoor air during cooling and reduce compressor operation. | X | X |
| Electric Heaters | Electric Heat Supplement | | X |
| Filter Rack | Filter Rack features easy installation, serviceability, and high-filtering performance for vertical applications. Includes 1-in. filter. | X | X |
| Flat Roof Curbs | Flat Roof Curbs in both 11-in (279 mm) and 14-in. (356 mm) sizes are available for roof mounted applications. | | 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 |
| Louver Metal Outdoor Coil Grilles | Louver Metal Outdoor Coil Grilles provides hail and vandalism protection. | | X |
| Manual Outside Air Damper | Manual Outside Air Damper includes hood and filter rack with adjustable damper blade for up to 25% outdoor air. | | X |
| Square-to-Round Duct Transition Kit | Square-to-Round Duct Transition Kit enable 24-48 size units to be fitted to 14 in. (356 mm) round ductwork. | | 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 or with a RTU-MP control. | | X |
| Dual Point Electric Heaters | Allows you to power the electric heater and unit contactor separately by having two individual field power supply circuits connected respectively. | | X |

*Refer to Price Page for application detail.

50EZ-A

ELECTRIC HEATERS

| ORDERING NO. | NOMINAL CAPACITY (kW @ 240 or 480 VOLTS) | USED WITH SIZES | | | | | |
|--------------------------------|--|-----------------|----|----|----|----|----|
| | | 24 | 30 | 36 | 42 | 48 | 60 |
| 208/230 – SINGLE PHASE – 60 HZ | | | | | | | |
| CPHEATER052A00 | 5.0 | X | X | X | | | |
| CPHEATER064A00 | 5.0 | X | X | X | X | X | X |
| CPHEATER070A00 | 7.2 | X | X | X | X | X | X |
| CPHEATER050A00 | 10.0 | X | X | X | X | X | X |
| CPHEATER066A00 | 15.0 | | X | X | X | X | X |
| CPHEATER054A00 | 20.0 | | | | X | X | X |
| 208/230 – THREE PHASE – 60 HZ | | | | | | | |
| CPHEATER055A00 | 5.0 | | X | X | X | X | X |
| CPHEATER056A00 | 10.0 | | X | X | X | X | |
| CPHEATER068A00 | 10.0 | | X | X | X | X | X |
| CPHEATER058A00 | 15.0 | | X | X | X | X | X |
| CPHEATER059A01 | 20.0 | | | | X | X | X |
| 460 – THREE PHASE – 60 HZ | | | | | | | |
| CPHEATER060A00 | 5.0 | | | X | X | X | X |
| CPHEATER061A00 | 10.0 | | | X | X | X | X |
| CPHEATER062A00 | 15.0 | | | X | X | X | X |
| CPHEATER063A00 | 20.0 | | | | X | X | X |

NOTE: Electric heaters are rated at 240v. Refer to Multiplication Factors table for other voltages.

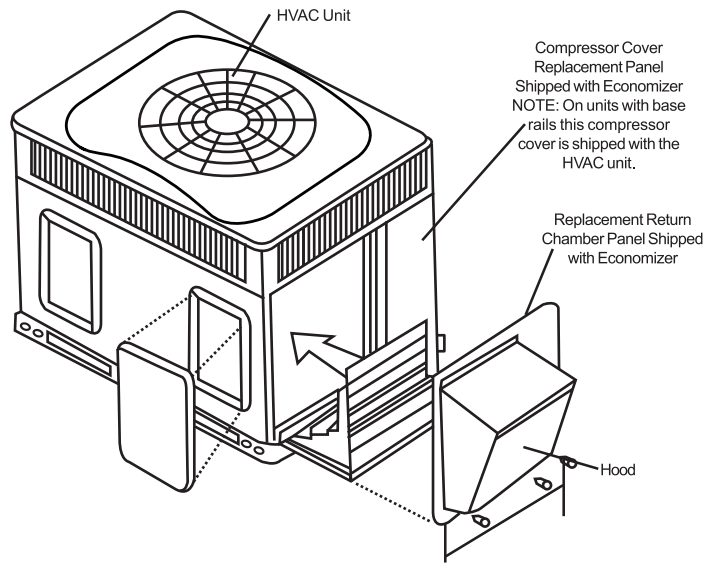
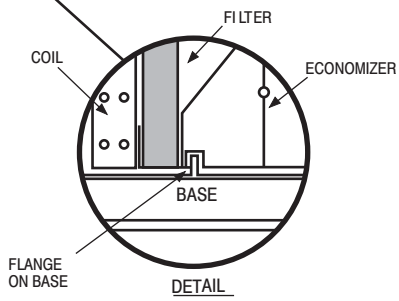
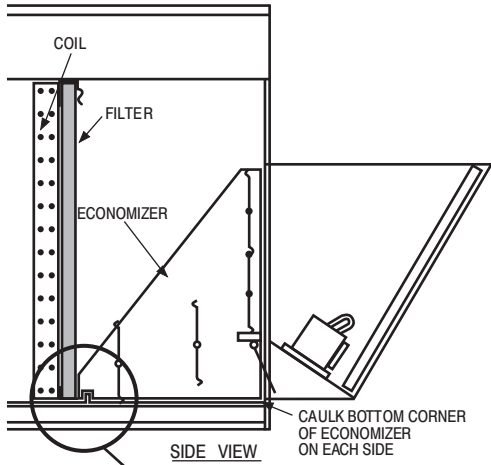
X = Approved combination

Minimum Airflow for Reliable Electric Heater Operation (CFM)

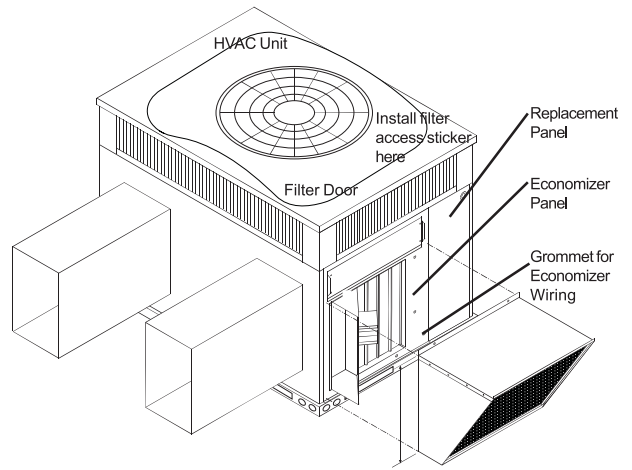
| SIZE | 50EZ-A24 | 50EZ-A30 | 50EZ-A36 | 50EZ-A42 | 50EZ-A48 | 50EZ-A60 |
|----------------------|----------|----------|----------|----------|----------|----------|
| AIRFLOW (CFM) | 800 | 1025 | 1250 | 1400 | 1710 | 1800 |

ECONOMIZER

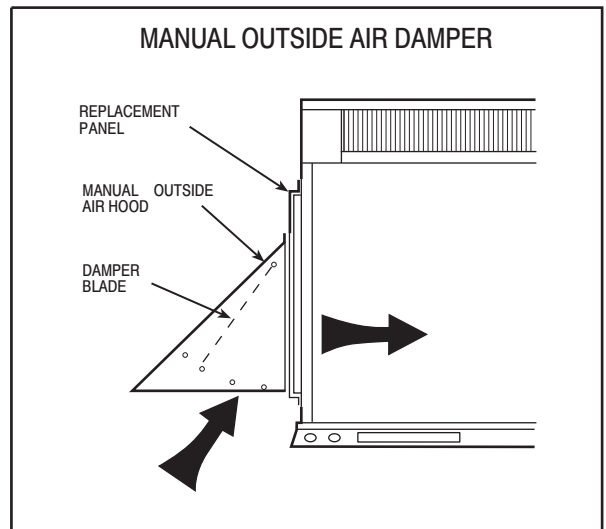
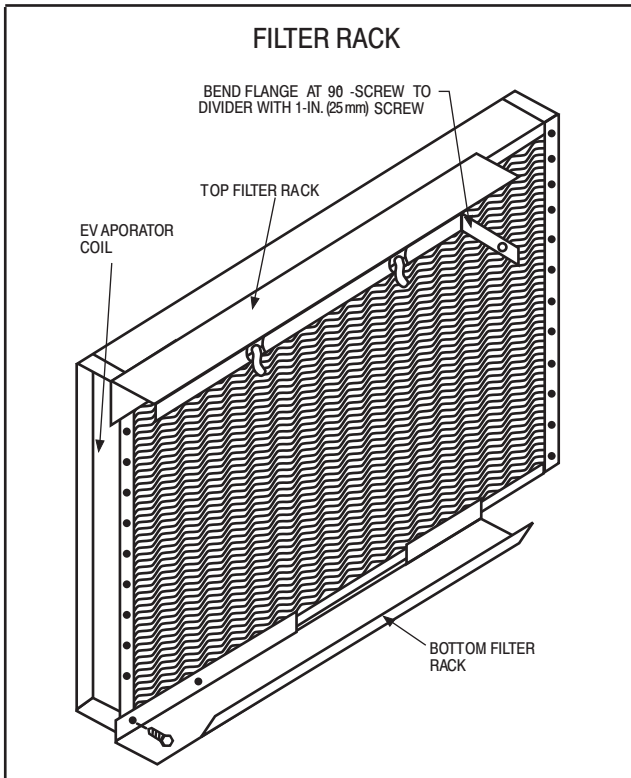
50EZ--A



Vertical Economizer



Horizontal Economizer



A09375

UNIT DIMENSIONS - 50EZ-A24-36

| UNIT | ELECTRICAL CHARACTERISTICS | UNIT WT. LB. KG. | UNIT HEIGHT IN/MM | | | CENTER OF GRAVITY IN/MM | | |
|-------------|----------------------------|------------------|-------------------|----------------|----------------|-------------------------|---|---|
| | | | "A" | X | Y | Z | X | Y |
| 50EZ-A24-30 | 208/230-1-60 | 320 145.0 | 42-1/8 (1070) | 19-3/4 (501.7) | 14-3/4 (374.7) | 16 (406.4) | | |
| 50EZ-A30-36 | 208/230-1-208/230-3-60 | 332 150.7 | 42-1/8 (1070) | 19-3/4 (501.7) | 14-3/4 (374.7) | 16 (406.4) | | |
| 50EZ-A36-48 | 208/230-1-208/230-3-60 | 336 152.3 | 42-1/8 (1070) | 19-3/4 (501.7) | 14-3/4 (374.7) | 16 (406.4) | | |
| 50EZ-A36-60 | 460-3-60 | 350 158.6 | 42-1/8 (1070) | 19-3/4 (501.7) | 14-3/4 (374.7) | 16 (406.4) | | |

| UNITS | CORNER WEIGHT LBS/KG | | |
|-------------|----------------------|-------------|-------------|
| | "1" | "2" | "3" |
| 50EZ-A24-30 | 208/230 64.0 (29.0) | 51.2 (23.2) | 76.7 (34.8) |
| 50EZ-A30-36 | 208/230 66.5 (30.2) | 53.2 (24.1) | 79.7 (36.2) |
| 50EZ-A36-48 | 208/230 67.2 (30.5) | 53.7 (24.4) | 80.6 (36.6) |
| 50EZ-A36-60 | 460 67.2 (30.5) | 53.7 (24.4) | 89.6 (40.7) |

NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT CONDENSER

REQUIRED CLEARANCES TO COMBUSTIBLE MATL.

| | INCHES (MM) |
|--------------------------|-------------|
| TOP OF UNIT..... | 14 (355.6) |
| RIGHT SIDE..... | 14 (355.6) |
| SIDE OPPOSITE DUCTS..... | 14 (355.6) |
| BOTTOM OF UNIT..... | 0 (0.0) |
| ELECTRICAL PANEL..... | 36 (914.4) |

NEC REQUIRED CLEARANCES

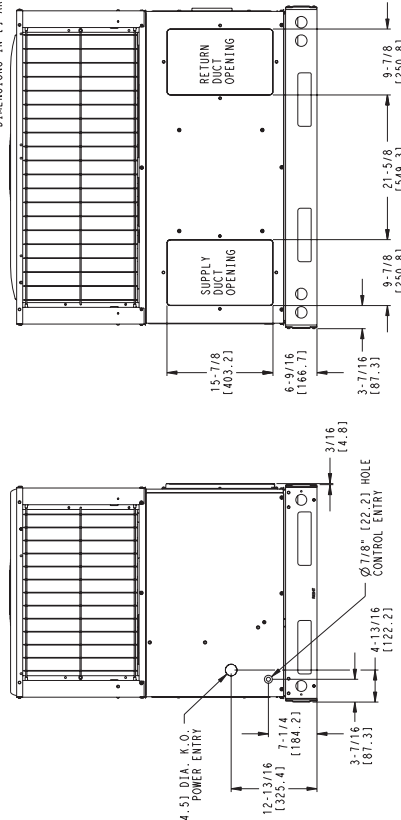
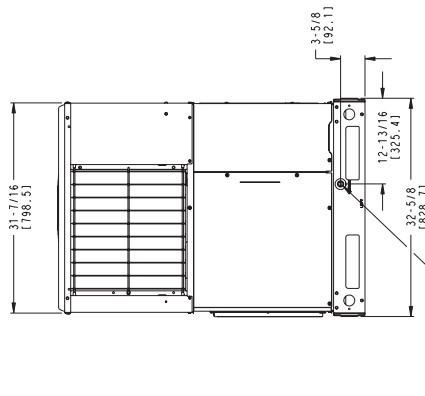
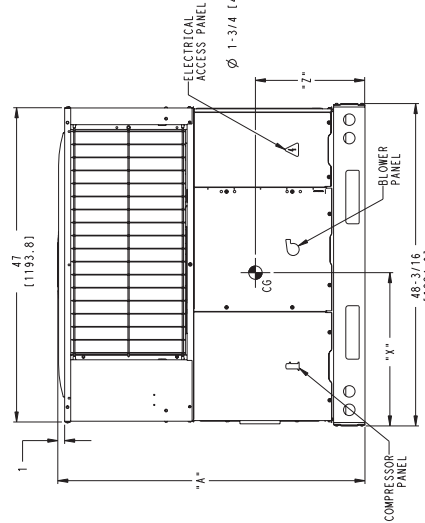
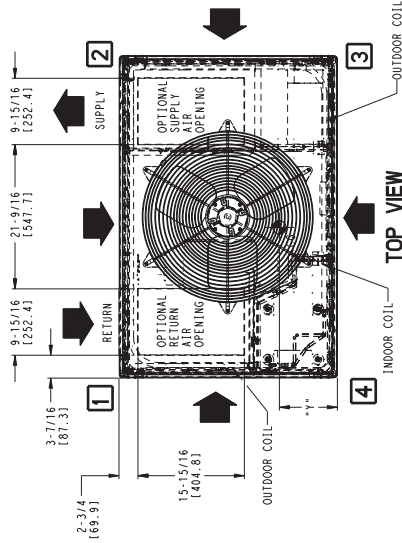
| | INCHES (MM) |
|---|-------------|
| BETWEEN UNITS, POWER ENTRY SIDE..... | 42 (1066.8) |
| UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE..... | 36 (914.0) |
| UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... | 42 (1066.8) |

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

| | INCHES (MM) |
|---|-------------|
| EMER. COIL ACCESS SIDE..... | 42 (1066.8) |
| POWER ENTRY SIDE (EXCEPT FOR NEC REQUIREMENTS)..... | 48 (1219.2) |
| UNIT TOP..... | 48 (1219.2) |
| SIDE OPPOSITE DUCTS..... | 36 (914.0) |
| DUCT PANEL..... | 12 (304.8) |

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 (304.8) FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN () ARE IN MM

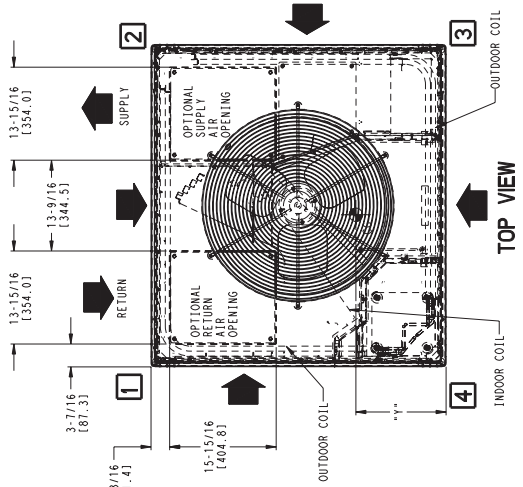


REV 3.0
50EZ500357

50EZ--A

UNIT DIMENSIONS - 50EZ-A42-60

50EZ--A



| UNIT | ELECTRICAL CHARACTERISTICS | UNIT WT. | | UNIT HEIGHT IN/MM | | CENTER OF GRAVITY IN/MM | | | | | |
|------------------|----------------------------|----------|-------|-------------------|------|-------------------------|-------|--------|-------|----|-------|
| | | LB | KG | "A" | "K" | X | Y | Z | | | |
| 50EZ-A42--(3/5)0 | 208/230-1, 208/230-3-60 | 411 | 186.3 | 44-3/4 | 1137 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 17 | 431.8 |
| 50EZ-A42--(3/5)0 | 460-3-60 | 425 | 192.7 | 44-3/4 | 1137 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 17 | 431.8 |
| 50EZ-A48--(3/5)0 | 208/230-1, 208/230-3-60 | 429 | 194.7 | 44-3/4 | 1137 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 17 | 431.8 |
| 50EZ-A48--(3/5)0 | 460-3-60 | 443 | 201.1 | 44-3/4 | 1137 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 17 | 431.8 |
| 50EZ-A60--(3/5)0 | 208/230-1, 208/230-3-60 | 454 | 206.0 | 48-3/4 | 1238 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 18 | 457.2 |
| 50EZ-A60--(3/5)0 | 460-3-60 | 468 | 212.4 | 48-3/4 | 1238 | 19-1/2 | 495.3 | 16-1/2 | 419.1 | 18 | 457.2 |

| UNITS | CORNER WEIGHT LB/KG | | | |
|------------------|---------------------|-------|------|------|
| | "1" | "2" | "3" | "4" |
| 50EZ-A42--(3/5)0 | 208/230 82.1 | 137.3 | 65.7 | 29.8 |
| 50EZ-A42--(3/5)0 | 460 82.1 | 137.3 | 65.7 | 29.8 |
| 50EZ-A48--(3/5)0 | 208/230 85.8 | 39.0 | 88.7 | 31.2 |
| 50EZ-A48--(3/5)0 | 460 85.8 | 39.0 | 88.7 | 31.2 |
| 50EZ-A60--(3/5)0 | 208/230 90.8 | 41.2 | 72.7 | 33.0 |
| 50EZ-A60--(3/5)0 | 460 90.8 | 41.2 | 72.7 | 33.0 |

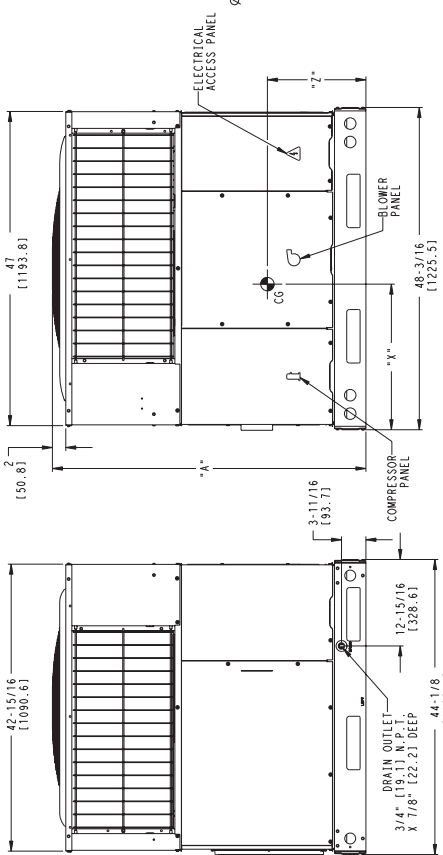
NOTE: ALL TABLE DATA RELEVANT FOR ALL FACTORY INSTALLED OPTIONS EXCEPT ECONOMIZER

| REQUIRED CLEARANCES TO COMBUSTIBLE MATL. | INCHES (MM) |
|--|-------------|
| TOP OF UNIT | 14 (355.6) |
| DUCT SIDE OF UNIT | 12 (304.8) |
| DUCT OPPOSITE DUCTS | 14 (355.6) |
| BOTTOM OF UNIT | 0 (0.0) |
| ELECTRICAL PANEL | 36 (914.4) |

| REQ. REQUIRED CLEARANCES | INCHES (MM) |
|---|-------------|
| BETWEEN UNITS, POWER ENTRY SIDE | 32 (812.8) |
| UNIT AND GROUNDING SURFACES, POWER ENTRY SIDE | 38 (965.2) |
| UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDING SURFACES, POWER ENTRY SIDE | 42 (1066.8) |

| REQUIRED CLEARANCE FOR OPERATION AND SERVICING | INCHES (MM) |
|--|-------------|
| EVAP. COIL ACCESS SIDE | 36 (914.4) |
| POWER ENTRY SIDE | 42 (1066.8) |
| LEAVE TOP OR NEC REQUIREMENTS | 48 (1219.2) |
| DUCT OPPOSITE DUCTS | 36 (914.4) |
| DUCT PANEL | 12 (304.8) |

*MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 (304.8) FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.



REAR VIEW

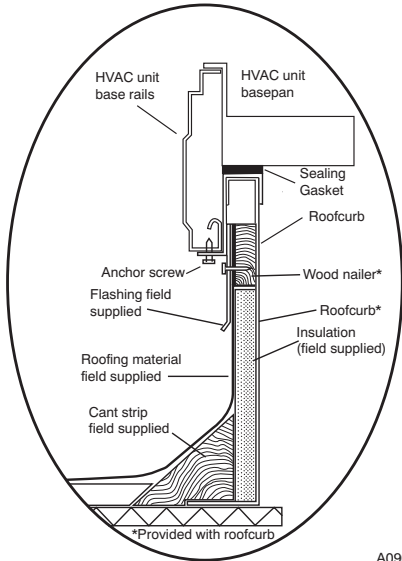
RIGHT SIDE VIEW

FRONT VIEW

LEFT SIDE VIEW

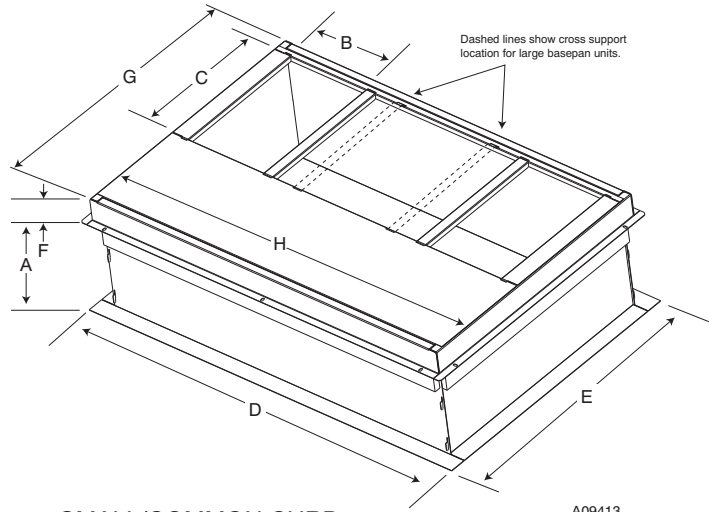
REV 3.0
50EZ500358

ROOF CURB ACCESSORY DIMENSIONS



A09090

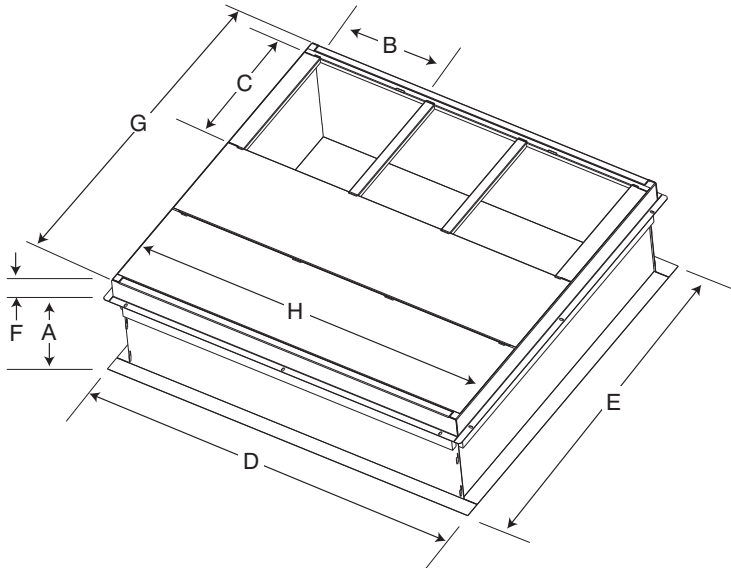
ROOF CURB DETAIL



SMALL/COMMON CURB

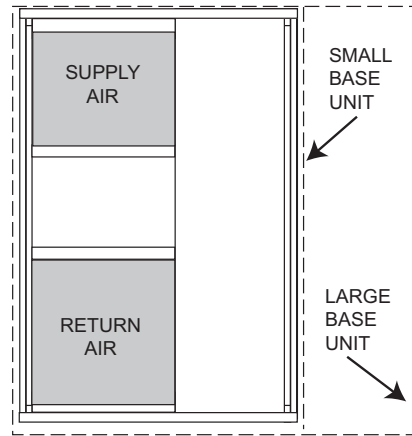
A09413

50EZ--A



LARGE CURB

A09415



UNIT PLACEMENT ON COMMON CURB

A09094

SMALL OR LARGE BASE UNIT

A09414

| UNIT SIZE | CATALOG NUMBER | A IN. (mm) | B (small/common base) IN. (mm)* | B (large base) IN. (mm)* | C IN. (mm) | D IN. (mm) | E IN. (mm) | F IN. (mm) | G IN. (mm) | H IN. (mm) |
|----------------|----------------|------------|---------------------------------|--------------------------|------------|-------------|-------------|------------|-------------|-------------|
| Small or Large | CPRFCURB010A00 | 11 (279) | 10 (254) | 14 (356) | 16 (406) | 47.8 (1214) | 32.4 (822) | 2.7 (69) | 30.6 (778) | 46.1 (1170) |
| | CPRFCURB011A00 | 14 (356) | | | | | | | | |
| Large | CPRFCURB012A00 | 11 (279) | 14 (356) | 14 (356) | 16 (406) | 47.8 (1214) | 43.9 (1116) | 2.7 (69) | 42.2 (1072) | 46.1 (1170) |
| | CPRFCURB013A00 | 14 (356) | | | | | | | | |

* Part Numbers CPRFCURB010A00 and CPRFCURB011A00 can be used on both small and large basepan units. The cross supports must be located based on whether the unit is a small basepan or a large basepan.

NOTES:

1. Roof curb must be set up for unit being installed.
2. Seal strip must be applied, as required, to unit being installed.
3. Roof curb is made of 16-gauge steel.
4. Attach ductwork to curb (flanges of duct rest on curb).
5. Insulated panels: 1-in. (25.4 mm) thick fiberglass 1 lb. density.

SELECTION PROCEDURE (WITH EXAMPLE)

1. Determine cooling and heating requirements at design conditions:

Given:

Required Cooling Capacity (TC) 34,500 Btuh
Sensible Heat Capacity (SHC) 26,000 Btuh
Required Heating Capacity 60,000 Btuh
Condenser Entering Air Temperature 95°F (35°C)
Indoor-Air Temperature 80°F (27°C) edb 67°F (19°C) ewb
Evaporator Air Quantity 1200 CFM
External Static Pressure 0.200 IN.W.C.
Electrical Characteristics 208-1-60

2. Select unit based on required cooling capacity.

Enter Net Cooling Capacities table at condenser entering temperature of 95°F (35°C). Unit 036 at 1200 cfm and 67°F (19°C) ewb (entering wet bulb) will provide a total capacity of 35,000 Btuh and a SHC of 26,200 Btuh. Calculate SHC correction, if required, using Note 4 under Cooling Capacities tables.

3. Select heating capacity of unit to provide design condition requirement.

In the Heating Capacities and Efficiencies table, note that the 36 size unit will deliver 35,000 BTUH at the ARI high temp rating point. To achieve 60,000 BTUH, accessory electric heat will be required. Use the Balance Point Worksheet to plot the load line with the unit capacity. The difference between the load line and unit capacity at the design heating temperature is the amount of electric heat that will be required.

4. Determine fan speed and power requirements at design conditions.

Before entering the air delivery tables, calculate the total static pressure required. From the given example, the Wet Coil Pressure Drop Table, and the Filter Pressure Drop Table:

| | |
|--------------------------|----------------------|
| External Static Pressure | 0.200 IN. W.C. |
| Filter | 0.130 IN. W.C. |
| Wet Coil Pressure Drop | <u>0.18</u> IN. W.C. |
| Total Static Pressure | 0.51 IN. W.C. |

Enter the table for Dry Coil Air Delivery— At 0.50 IN. W.C. ESP (external static pressure) and MEDIUM speed the motor delivers 1209 cfm.

5. Select unit that corresponds to power source available.

The Electrical Data Table shows that the unit is designed to operate at 208/230-1-60.

PERFORMANCE DATA

24 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|-------------|---|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|--|--|
| CFM / BF | EWB °F (°C) | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | 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 | 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 | Total | Sens | Total | Sens | Total | Sens | | |
| 700 / 0.11 | 57 (13.9) | 22.38 | 22.38 | 21.54 | 1.78 | 20.63 | 20.63 | 19.64 | 19.64 | 2.01 | 2.27 | 18.54 | 18.54 | 2.56 | 17.33 | 17.33 | 2.88 | | |
| | 62 (16.7) | 23.32 | 21.00 | 20.45 | 1.79 | 21.13 | 19.85 | 19.92 | 19.18 | 2.02 | 2.27 | 18.63 | 18.50 | 2.56 | 17.36 | 17.36 | 2.88 | | |
| | 63* (17.2) | 23.73 | 17.21 | 16.69 | 1.79 | 21.47 | 16.14 | 20.21 | 15.55 | 2.02 | 2.27 | 18.82 | 14.89 | 2.56 | 14.19 | 14.19 | 2.88 | | |
| | 67 (19.4) | 25.65 | 17.94 | 24.48 | 1.81 | 23.23 | 16.87 | 21.88 | 16.28 | 2.04 | 2.30 | 20.41 | 15.64 | 2.58 | 18.80 | 14.93 | 2.89 | | |
| | 72 (13.9) | 28.26 | 14.67 | 26.98 | 1.86 | 25.61 | 13.68 | 24.14 | 13.14 | 2.08 | 2.34 | 22.52 | 12.55 | 2.62 | 20.77 | 11.88 | 2.93 | | |
| | 57 (13.9) | 23.50 | 23.50 | 22.59 | 1.81 | 21.61 | 21.61 | 20.54 | 20.54 | 2.04 | 2.30 | 19.37 | 19.37 | 2.58 | 18.07 | 18.07 | 2.90 | | |
| | 62 (16.7) | 24.02 | 22.63 | 22.02 | 1.81 | 21.77 | 21.32 | 20.58 | 20.58 | 2.04 | 2.30 | 19.40 | 19.40 | 2.58 | 18.10 | 18.10 | 2.90 | | |
| 800 / 0.15 | 63* (17.2) | 24.39 | 18.39 | 17.85 | 1.81 | 22.02 | 17.28 | 20.69 | 16.67 | 2.04 | 2.30 | 19.25 | 15.98 | 2.58 | 17.68 | 15.23 | 2.90 | | |
| | 67 (19.4) | 26.34 | 19.21 | 18.67 | 1.84 | 23.80 | 18.10 | 22.38 | 17.48 | 2.07 | 2.32 | 20.84 | 16.81 | 2.60 | 19.17 | 16.06 | 2.92 | | |
| | 72 (13.9) | 29.00 | 15.54 | 15.04 | 1.89 | 26.19 | 14.53 | 24.66 | 13.93 | 2.12 | 2.37 | 22.98 | 13.29 | 2.65 | 21.15 | 12.59 | 2.95 | | |
| | 57 (13.9) | 24.45 | 24.45 | 23.48 | 1.84 | 22.45 | 22.45 | 21.31 | 21.31 | 2.07 | 2.32 | 20.06 | 20.06 | 2.61 | 18.69 | 18.69 | 2.93 | | |
| | 62 (16.7) | 24.64 | 24.10 | 23.54 | 1.84 | 22.49 | 22.49 | 21.34 | 21.34 | 2.07 | 2.32 | 20.10 | 20.10 | 2.61 | 18.71 | 18.71 | 2.93 | | |
| | 63* (17.2) | 24.92 | 19.53 | 18.97 | 1.84 | 22.45 | 18.37 | 21.07 | 17.72 | 2.07 | 2.32 | 19.58 | 17.01 | 2.60 | 17.97 | 16.22 | 2.92 | | |
| | 67 (19.4) | 26.89 | 20.43 | 19.87 | 1.87 | 24.25 | 19.27 | 22.78 | 18.63 | 2.10 | 2.35 | 21.18 | 17.93 | 2.63 | 19.46 | 17.14 | 2.94 | | |
| 72 (13.9) | 29.56 | 16.36 | 15.83 | 1.92 | 26.67 | 15.26 | 25.07 | 14.65 | 2.15 | 2.40 | 23.33 | 13.99 | 2.67 | 21.45 | 13.27 | 2.98 | | | |

*At 75°F (23.9°C) entering dry bulb—Tennessee Valley Authority [IVA] rating conditions; all others at 80°F (26.7°C) entering dry bulb. See Legend and Notes.

24 Heating Extended Performance Table -10-60 (-23.3-15.6°C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-----|--|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|-------|------|
| EDB °F (°C) | CFM | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | 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 | 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 | Capacity MBtuh | Total Sys KW | | |
| | | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | | |
| 65 | 700 | 7.81 | 7.18 | 1.51 | 10.21 | 9.39 | 1.62 | 13.03 | 11.96 | 1.71 | 15.49 | 14.05 | 1.76 | 18.20 | 15.95 | 1.81 | 21.29 | 21.29 | 1.87 | 24.98 | 24.98 | 1.97 | 29.37 | 29.37 | 2.13 |
| | 800 | 7.93 | 7.29 | 1.51 | 10.35 | 9.52 | 1.62 | 13.17 | 12.09 | 1.70 | 15.63 | 14.18 | 1.74 | 18.38 | 16.11 | 1.78 | 21.53 | 21.53 | 1.83 | 25.30 | 25.30 | 1.92 | 29.63 | 29.63 | 2.05 |
| | 900 | 8.02 | 7.38 | 1.52 | 10.45 | 9.62 | 1.62 | 13.28 | 12.19 | 1.89 | 15.76 | 14.29 | 1.73 | 18.54 | 16.24 | 1.76 | 21.73 | 21.73 | 1.80 | 25.52 | 25.52 | 1.89 | 29.60 | 29.60 | 2.02 |
| 70 | 700 | 7.49 | 6.89 | 1.59 | 9.88 | 9.10 | 1.70 | 12.47 | 11.44 | 1.79 | 15.29 | 13.87 | 1.86 | 17.96 | 15.74 | 1.91 | 20.99 | 20.99 | 1.97 | 24.59 | 24.59 | 2.07 | 28.92 | 28.92 | 2.23 |
| | 800 | 7.61 | 7.00 | 1.59 | 10.04 | 9.24 | 1.70 | 12.72 | 11.68 | 1.78 | 15.43 | 14.00 | 1.83 | 18.14 | 15.89 | 1.87 | 21.22 | 21.22 | 1.93 | 24.90 | 24.90 | 2.02 | 29.27 | 29.27 | 2.16 |
| | 900 | 7.71 | 7.09 | 1.59 | 10.16 | 9.35 | 1.70 | 12.88 | 11.82 | 1.77 | 15.55 | 14.10 | 1.85 | 18.28 | 16.02 | 1.85 | 21.42 | 21.42 | 1.90 | 25.15 | 25.15 | 1.99 | 29.31 | 29.31 | 2.12 |
| 75 | 700 | 7.14 | 6.57 | 1.67 | 9.56 | 8.80 | 1.79 | 12.14 | 11.14 | 1.88 | 15.07 | 13.67 | 1.96 | 17.72 | 15.52 | 2.01 | 20.69 | 20.69 | 2.08 | 24.22 | 24.22 | 2.18 | 28.47 | 28.47 | 2.34 |
| | 800 | 7.25 | 6.67 | 1.67 | 9.71 | 8.93 | 1.78 | 12.31 | 11.30 | 1.86 | 15.22 | 13.81 | 1.93 | 17.89 | 15.68 | 1.98 | 20.92 | 20.92 | 2.03 | 24.53 | 24.53 | 2.12 | 28.86 | 28.86 | 2.28 |
| | 900 | 7.37 | 6.78 | 1.67 | 9.83 | 9.04 | 1.78 | 12.46 | 11.43 | 1.86 | 15.35 | 13.92 | 1.92 | 18.04 | 15.81 | 1.95 | 21.11 | 21.11 | 2.00 | 24.76 | 24.76 | 2.09 | 28.98 | 28.98 | 2.22 |

PERFORMANCE DATA (CONT)
30 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|------------|---|-------------|----------------|-----------|--------------|----------------|---------|--------------|----------------|------------|--------------|----------------|------------|--------------|----------------|------------|--------------|------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | CFM / BF | 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 | | | | | |
| 875 / 0.13 | 57 (13.9) | 27.44 | 27.44 | 2.00 | 26.40 | 26.40 | 2.22 | 25.31 | 25.31 | 2.47 | 24.13 | 24.13 | 2.75 | 22.83 | 22.83 | 3.07 | 21.42 | 21.42 | 3.44 |
| | 62 (16.7) | 28.39 | 25.49 | 2.00 | 24.83 | 24.83 | 2.22 | 25.75 | 24.11 | 2.47 | 24.34 | 23.30 | 2.75 | 22.88 | 22.88 | 3.07 | 21.45 | 21.45 | 3.44 |
| | 68* (17.2) | 28.86 | 20.79 | 2.00 | 20.17 | 20.17 | 2.22 | 26.13 | 19.52 | 2.47 | 24.63 | 18.84 | 2.75 | 23.00 | 18.09 | 3.07 | 21.25 | 17.29 | 3.44 |
| | 67 (19.4) | 31.27 | 21.73 | 2.02 | 21.10 | 21.10 | 2.24 | 28.33 | 20.46 | 2.49 | 26.73 | 19.77 | 2.76 | 25.00 | 19.04 | 3.08 | 23.14 | 18.24 | 3.45 |
| | 72 (13.9) | 34.57 | 17.68 | 2.04 | 17.10 | 17.10 | 2.26 | 31.32 | 16.50 | 2.51 | 29.56 | 15.87 | 2.79 | 27.68 | 15.20 | 3.10 | 25.66 | 14.44 | 3.46 |
| | 57 (13.9) | 28.78 | 28.78 | 2.04 | 27.67 | 27.67 | 2.26 | 26.49 | 26.49 | 2.50 | 25.23 | 25.23 | 2.78 | 23.84 | 23.84 | 3.11 | 22.33 | 22.33 | 3.47 |
| | 62 (16.7) | 29.25 | 27.45 | 2.04 | 26.71 | 26.71 | 2.26 | 26.55 | 26.55 | 2.50 | 25.27 | 25.27 | 2.79 | 23.88 | 23.88 | 3.11 | 22.37 | 22.37 | 3.47 |
| 1000 / 0.17 | 63* (17.2) | 29.64 | 22.24 | 2.04 | 21.59 | 21.59 | 2.26 | 26.76 | 20.92 | 2.51 | 20.20 | 20.20 | 2.78 | 23.51 | 19.42 | 3.10 | 21.69 | 18.56 | 3.47 |
| | 67 (19.4) | 32.09 | 23.29 | 2.05 | 22.64 | 22.64 | 2.28 | 29.00 | 21.96 | 2.52 | 27.32 | 21.25 | 2.80 | 25.54 | 20.48 | 3.12 | 23.60 | 19.64 | 3.48 |
| | 72 (13.9) | 35.47 | 18.74 | 2.08 | 18.14 | 18.14 | 2.30 | 32.02 | 17.52 | 2.55 | 30.20 | 16.83 | 2.82 | 28.25 | 16.11 | 3.14 | 26.14 | 15.32 | 3.49 |
| | 57 (13.9) | 29.95 | 29.95 | 2.07 | 28.75 | 28.75 | 2.29 | 27.50 | 27.50 | 2.54 | 26.15 | 26.15 | 2.82 | 24.69 | 24.69 | 3.14 | 23.10 | 23.10 | 3.51 |
| | 62 (16.7) | 30.03 | 30.03 | 2.07 | 28.81 | 28.81 | 2.30 | 27.55 | 27.55 | 2.54 | 26.20 | 26.20 | 2.82 | 24.73 | 24.73 | 3.14 | 23.14 | 23.14 | 3.51 |
| | 63* (17.2) | 30.27 | 23.63 | 2.07 | 22.96 | 22.96 | 2.29 | 27.27 | 22.26 | 2.54 | 25.65 | 21.50 | 2.82 | 23.91 | 20.68 | 3.14 | 22.05 | 19.77 | 3.50 |
| | 67 (19.4) | 32.74 | 24.80 | 2.09 | 24.11 | 24.11 | 2.31 | 29.54 | 23.41 | 2.56 | 27.80 | 22.67 | 2.83 | 25.95 | 21.86 | 3.15 | 23.97 | 20.96 | 3.51 |
| 72 (13.9) | 36.13 | 19.76 | 2.11 | 19.10 | 19.10 | 2.34 | 32.80 | 18.43 | 2.58 | 30.70 | 17.73 | 2.86 | 28.69 | 16.98 | 3.17 | 26.51 | 16.17 | 3.53 | |

*AT 75°F (23.9 °C) entering dry bulb—ennessee Valley Authority [IVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

30 Heating Extended Performance Table -10-60 (-23.3-15.6 °C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------|--|------|----------------|-----------|--------------|----------------|------------|--------------|----------------|-----------|--------------|----------------|-----------|--------------|----------------|----------|--------------|----------------|---------|--------------|------|-----------|-------|------|
| | | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | EDB °F (°C) | CFM | 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 | Capacity MBtuh | | Total Sys KW | | | | |
| Total | Integ | | | Total | Integ | | Total | Integ | | Total | Integ | | Total | Integ | | Total | Integ | | Total | Integ | | | | | |
| 65 | 875 | 8.58 | 7.89 | 1.91 | 11.60 | 10.67 | 1.98 | 14.83 | 13.61 | 2.04 | 18.37 | 16.66 | 2.12 | 22.35 | 19.58 | 2.21 | 26.08 | 26.08 | 2.29 | 30.29 | 30.29 | 2.39 | 35.28 | 35.28 | 2.52 |
| | 1000 | 8.75 | 8.05 | 1.92 | 11.81 | 10.87 | 1.99 | 15.07 | 13.83 | 2.05 | 18.71 | 16.97 | 2.11 | 22.60 | 19.80 | 2.19 | 26.39 | 26.39 | 2.26 | 30.70 | 30.70 | 2.35 | 35.83 | 35.83 | 2.47 |
| | 1125 | 8.92 | 8.20 | 1.95 | 11.99 | 11.04 | 2.00 | 15.28 | 14.02 | 2.06 | 19.32 | 17.52 | 2.12 | 22.81 | 19.98 | 2.18 | 26.65 | 26.65 | 2.24 | 31.04 | 31.04 | 2.32 | 36.29 | 36.29 | 2.43 |
| 70 | 875 | 8.06 | 7.42 | 1.98 | 11.12 | 10.23 | 2.06 | 14.37 | 13.19 | 2.13 | 17.90 | 16.23 | 2.21 | 22.07 | 19.33 | 2.31 | 25.74 | 25.74 | 2.40 | 29.87 | 29.87 | 2.50 | 34.73 | 34.73 | 2.64 |
| | 1000 | 8.24 | 7.58 | 2.00 | 11.33 | 10.42 | 2.07 | 14.62 | 13.42 | 2.14 | 18.19 | 16.49 | 2.20 | 22.30 | 19.54 | 2.29 | 26.03 | 26.03 | 2.36 | 30.27 | 30.27 | 2.46 | 35.27 | 35.27 | 2.58 |
| | 1125 | 8.40 | 7.73 | 2.02 | 11.51 | 10.59 | 2.09 | 14.83 | 13.61 | 2.15 | 18.43 | 16.71 | 2.21 | 22.51 | 19.72 | 2.28 | 26.29 | 26.29 | 2.35 | 30.57 | 30.57 | 2.43 | 35.70 | 35.70 | 2.54 |
| 75 | 875 | 7.50 | 6.90 | 2.06 | 10.60 | 9.76 | 2.15 | 13.88 | 12.74 | 2.22 | 17.41 | 15.79 | 2.31 | 21.72 | 19.03 | 2.42 | 25.38 | 25.38 | 2.51 | 29.46 | 29.46 | 2.62 | 34.18 | 34.18 | 2.75 |
| | 1000 | 7.68 | 7.06 | 2.08 | 10.81 | 9.95 | 2.16 | 14.13 | 12.97 | 2.23 | 17.69 | 16.05 | 2.30 | 21.99 | 19.27 | 2.40 | 25.68 | 25.68 | 2.48 | 29.83 | 29.83 | 2.57 | 34.70 | 34.70 | 2.69 |
| | 1125 | 7.84 | 7.21 | 2.11 | 11.00 | 10.12 | 2.18 | 14.34 | 13.16 | 2.24 | 17.94 | 16.27 | 2.30 | 22.21 | 19.46 | 2.39 | 25.93 | 25.93 | 2.46 | 30.13 | 30.13 | 2.54 | 35.14 | 35.14 | 2.66 |

PERFORMANCE DATA (CONT)

36 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|---------------|---|-----------------|-------|-------------------|-----------------|-------|-------------------|-----------------|-------|-------------------|-----------------|-------|-------------------|-----------------|-------|-------------------|-----------------|------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens |
| 1050 / 0.12 | 57 (13.9) | 33.59 | 2.41 | 32.25 | 2.67 | 30.82 | 2.96 | 29.24 | 29.24 | 29.24 | 29.24 | 27.50 | 3.66 | 25.58 | 25.58 | 25.58 | 25.58 | 25.58 | 4.08 |
| | 62 (16.7) | 34.77 | 2.42 | 29.87 | 2.67 | 28.94 | 2.96 | 29.46 | 29.46 | 29.46 | 29.46 | 27.56 | 3.66 | 25.82 | 25.82 | 25.82 | 25.82 | 25.82 | 4.08 |
| | 63* (17.2) | 35.34 | 2.42 | 24.23 | 2.68 | 23.40 | 2.96 | 29.83 | 29.83 | 29.83 | 29.83 | 21.55 | 3.66 | 25.33 | 25.33 | 25.33 | 25.33 | 25.33 | 4.08 |
| | 67 (19.4) | 38.13 | 2.44 | 25.28 | 2.70 | 24.46 | 2.99 | 32.20 | 32.20 | 32.20 | 32.20 | 22.59 | 3.68 | 27.36 | 27.36 | 27.36 | 27.36 | 27.36 | 4.10 |
| | 72 (13.9) | 41.96 | 2.47 | 39.94 | 2.74 | 37.75 | 3.03 | 35.39 | 35.39 | 35.39 | 35.39 | 17.81 | 3.71 | 30.05 | 30.05 | 30.05 | 30.05 | 30.05 | 4.12 |
| | 57 (13.9) | 35.11 | 2.47 | 33.69 | 2.73 | 32.14 | 3.02 | 30.45 | 30.45 | 30.45 | 30.45 | 28.57 | 3.71 | 26.49 | 26.49 | 26.49 | 26.49 | 26.49 | 4.14 |
| | 62 (16.7) | 35.71 | 2.47 | 33.97 | 2.73 | 32.20 | 3.02 | 30.50 | 30.50 | 30.50 | 30.50 | 28.61 | 3.71 | 26.53 | 26.53 | 26.53 | 26.53 | 26.53 | 4.14 |
| 1200 / 0.18 | 63* (17.2) | 36.21 | 2.47 | 26.69 | 2.73 | 25.03 | 3.02 | 30.40 | 30.40 | 30.40 | 24.10 | 3.34 | 28.14 | 28.14 | 28.14 | 28.14 | 28.14 | 28.14 | 4.13 |
| | 67 (19.4) | 38.99 | 2.50 | 37.07 | 2.76 | 35.00 | 3.04 | 32.76 | 32.76 | 32.76 | 25.27 | 3.37 | 30.32 | 30.32 | 30.32 | 30.32 | 30.32 | 4.15 | |
| | 72 (13.9) | 42.86 | 2.53 | 40.74 | 2.79 | 38.42 | 3.08 | 35.93 | 35.93 | 35.93 | 19.82 | 3.40 | 33.26 | 33.26 | 33.26 | 33.26 | 33.26 | 4.17 | |
| | 57 (13.9) | 36.41 | 2.52 | 34.89 | 2.78 | 33.23 | 3.07 | 31.42 | 31.42 | 31.42 | 31.42 | 29.41 | 3.77 | 27.22 | 27.22 | 27.22 | 27.22 | 4.19 | |
| | 62 (16.7) | 36.54 | 2.53 | 34.95 | 2.79 | 33.28 | 3.07 | 31.47 | 31.47 | 31.47 | 31.47 | 29.45 | 3.77 | 27.25 | 27.25 | 27.25 | 27.25 | 4.19 | |
| | 63* (17.2) | 36.85 | 2.53 | 34.96 | 2.78 | 32.97 | 3.07 | 30.82 | 30.82 | 30.82 | 25.61 | 3.39 | 28.48 | 28.48 | 28.48 | 28.48 | 28.48 | 4.18 | |
| | 67 (19.4) | 39.63 | 2.55 | 37.64 | 2.81 | 35.49 | 3.10 | 33.16 | 33.16 | 33.16 | 26.89 | 3.42 | 30.65 | 30.65 | 30.65 | 30.65 | 30.65 | 4.20 | |
| 72 (13.9) | 43.50 | 2.58 | 41.27 | 2.85 | 38.89 | 3.13 | 36.32 | 36.32 | 36.32 | 20.81 | 3.45 | 33.56 | 33.56 | 33.56 | 33.56 | 33.56 | 4.22 | | |

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

36 Heating Extended Performance Table -10-60 (-23.3-15.6 °C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------|--|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|------|
| | | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens | Capacity MBtuh | Total Sys KW | Sens |
| 65 | 1050 | 12.15 | 11.18 | 2.30 | 15.31 | 14.08 | 2.39 | 19.19 | 17.61 | 2.49 | 22.68 | 20.57 | 2.58 | 26.68 | 23.38 | 2.68 | 31.28 | 28.00 | 2.80 | 36.70 | 36.70 | 2.96 | 42.99 | 42.99 | 3.16 |
| | 1200 | 12.38 | 11.39 | 2.32 | 15.57 | 14.32 | 2.40 | 19.41 | 17.82 | 2.50 | 22.96 | 20.82 | 2.58 | 27.01 | 23.66 | 2.67 | 31.68 | 28.38 | 2.78 | 37.20 | 37.20 | 2.94 | 43.06 | 43.06 | 3.12 |
| | 1350 | 12.59 | 11.58 | 2.35 | 15.79 | 14.53 | 2.43 | 19.62 | 18.01 | 2.52 | 23.19 | 21.03 | 2.59 | 27.29 | 23.91 | 2.67 | 32.01 | 28.71 | 2.78 | 37.51 | 37.51 | 2.93 | 42.82 | 42.82 | 3.10 |
| 70 | 1050 | 11.71 | 10.77 | 2.41 | 14.88 | 13.69 | 2.50 | 18.76 | 17.22 | 2.61 | 22.39 | 20.31 | 2.70 | 26.32 | 23.06 | 2.80 | 30.81 | 28.00 | 2.93 | 36.14 | 36.14 | 3.09 | 42.42 | 42.42 | 3.31 |
| | 1200 | 11.94 | 10.99 | 2.44 | 15.13 | 13.93 | 2.52 | 19.13 | 17.55 | 2.62 | 22.65 | 20.54 | 2.70 | 26.63 | 23.34 | 2.79 | 31.21 | 28.41 | 2.91 | 36.62 | 36.62 | 3.06 | 42.62 | 42.62 | 3.25 |
| | 1350 | 12.15 | 11.18 | 2.47 | 15.37 | 14.14 | 2.54 | 19.35 | 17.76 | 2.64 | 22.88 | 20.75 | 2.71 | 26.91 | 23.58 | 2.80 | 31.54 | 28.74 | 2.91 | 37.00 | 37.00 | 3.06 | 42.49 | 42.49 | 3.24 |
| 75 | 1050 | 11.23 | 10.33 | 2.53 | 14.42 | 13.27 | 2.62 | 18.01 | 16.53 | 2.72 | 22.09 | 20.03 | 2.84 | 25.96 | 22.75 | 2.94 | 30.36 | 28.00 | 3.06 | 35.58 | 35.58 | 3.23 | 41.77 | 41.77 | 3.46 |
| | 1200 | 11.46 | 10.55 | 2.56 | 14.68 | 13.51 | 2.64 | 18.31 | 16.81 | 2.73 | 22.36 | 20.27 | 2.83 | 26.27 | 23.02 | 2.92 | 30.74 | 28.38 | 3.04 | 36.04 | 36.04 | 3.19 | 42.15 | 42.15 | 3.40 |
| | 1350 | 11.67 | 10.74 | 2.59 | 14.91 | 13.72 | 2.67 | 18.61 | 17.08 | 2.75 | 22.59 | 20.48 | 2.84 | 26.53 | 23.24 | 2.93 | 31.07 | 28.63 | 3.03 | 36.43 | 36.43 | 3.19 | 42.11 | 42.11 | 3.38 |

PERFORMANCE DATA (CONT)
42 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|-------------|---|-----------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | 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 | Capacity MBtuh | | Total Sys KW |
| CFM / BF | EWB °F (°C) | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens | Total | Sens |
| | | 1225 / 0.14 | 57 (13.9) | 38.29 | 38.29 | 2.70 | 36.78 | 36.78 | 3.00 | 35.17 | 35.17 | 3.35 | 33.43 | 33.43 | 3.76 | 31.55 | 31.55 | 4.23 | 29.53 |
| 62 (16.7) | 39.60 | | 35.26 | 2.71 | 37.74 | 34.27 | 3.01 | 35.79 | 33.19 | 3.36 | 33.74 | 32.00 | 3.76 | 31.62 | 31.62 | 4.24 | 29.58 | 29.58 | 4.78 |
| 63* (17.2) | 40.17 | | 28.70 | 2.72 | 38.23 | 27.80 | 3.02 | 36.20 | 26.84 | 3.37 | 34.04 | 25.81 | 3.77 | 31.75 | 24.73 | 4.24 | 29.30 | 23.57 | 4.77 |
| 67 (19.4) | 43.43 | | 29.99 | 2.76 | 41.34 | 29.07 | 3.07 | 39.13 | 28.10 | 3.42 | 36.80 | 27.07 | 3.83 | 34.33 | 25.98 | 4.30 | 31.69 | 24.82 | 4.85 |
| 72 (13.9) | 47.71 | | 24.52 | 2.83 | 45.36 | 23.64 | 3.14 | 42.91 | 22.89 | 3.50 | 40.34 | 21.70 | 3.91 | 37.63 | 20.65 | 4.40 | 34.75 | 19.54 | 4.95 |
| 57 (13.9) | 40.11 | | 40.11 | 2.76 | 38.48 | 38.48 | 3.06 | 36.73 | 36.73 | 3.42 | 34.85 | 34.85 | 3.83 | 32.83 | 32.83 | 4.31 | 30.65 | 30.65 | 4.86 |
| 62 (16.7) | 40.77 | | 37.93 | 2.77 | 38.83 | 36.81 | 3.07 | 36.82 | 36.82 | 3.42 | 34.91 | 34.91 | 3.83 | 32.88 | 32.88 | 4.31 | 30.69 | 30.69 | 4.86 |
| 1400 / 0.17 | 63* (17.2) | 41.23 | 30.65 | 2.77 | 39.19 | 29.70 | 3.07 | 37.04 | 28.70 | 3.42 | 34.77 | 27.63 | 3.83 | 32.38 | 26.48 | 4.29 | 29.83 | 25.25 | 4.83 |
| | 67 (19.4) | 44.54 | 32.09 | 2.82 | 42.33 | 31.12 | 3.12 | 40.00 | 30.10 | 3.48 | 37.55 | 29.02 | 3.89 | 34.97 | 27.89 | 4.37 | 32.23 | 26.64 | 4.91 |
| | 72 (13.9) | 48.87 | 25.87 | 2.89 | 46.39 | 24.92 | 3.20 | 43.82 | 23.93 | 3.56 | 41.13 | 22.89 | 3.98 | 38.30 | 21.80 | 4.46 | 35.30 | 20.64 | 5.02 |
| | 57 (13.9) | 41.67 | 41.67 | 2.82 | 39.92 | 39.92 | 3.13 | 38.04 | 38.04 | 3.48 | 36.04 | 36.04 | 3.90 | 33.89 | 33.89 | 4.38 | 31.57 | 31.57 | 4.93 |
| | 62 (16.7) | 41.78 | 41.78 | 2.82 | 40.00 | 40.00 | 3.13 | 38.10 | 38.10 | 3.49 | 36.09 | 36.09 | 3.90 | 33.94 | 33.94 | 4.38 | 31.61 | 31.61 | 4.94 |
| | 63* (17.2) | 42.07 | 32.53 | 2.83 | 39.93 | 31.53 | 3.13 | 37.70 | 30.48 | 3.48 | 35.35 | 29.35 | 3.88 | 32.87 | 28.13 | 4.35 | 30.26 | 26.81 | 4.89 |
| | 67 (19.4) | 45.42 | 34.11 | 2.87 | 43.10 | 33.11 | 3.18 | 40.66 | 32.04 | 3.53 | 38.14 | 30.89 | 3.95 | 35.47 | 29.68 | 4.43 | 32.65 | 28.36 | 4.97 |
| 72 (13.9) | 49.79 | 27.12 | 2.95 | 47.20 | 26.14 | 3.26 | 44.53 | 25.11 | 3.62 | 41.74 | 24.03 | 4.04 | 38.81 | 22.90 | 4.53 | 35.71 | 21.70 | 5.08 | |

*AT 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

42 Heating Extended Performance Table -10-60 (-23.3-15.6°C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-------|--|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|----------------|-------|--------------|
| | | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | 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 | Capacity MBtuh | | Total Sys KW | Capacity MBtuh | | Total Sys KW | Capacity MBtuh | | Total Sys KW |
| EDB °F (°C) | CFM | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | Total | Integ | | |
| | | 65 | 1225 | 13.54 | 12.46 | 2.47 | 17.47 | 16.08 | 2.63 | 21.96 | 21.78 | 2.78 | 25.98 | 23.56 | 2.88 | 30.54 | 26.76 | 2.98 | 35.78 | 35.78 | 3.11 | 42.01 | 42.01 | 3.30 | 48.77 |
| 1400 | 13.72 | | 12.62 | 2.48 | 17.88 | 16.26 | 2.64 | 22.14 | 20.32 | 2.77 | 26.21 | 23.77 | 2.86 | 30.85 | 27.03 | 2.95 | 36.18 | 36.18 | 3.07 | 42.43 | 42.43 | 3.24 | 48.15 | 48.15 | 3.46 |
| 1575 | 13.88 | | 12.77 | 2.50 | 17.85 | 16.43 | 2.65 | 22.30 | 20.47 | 2.78 | 26.41 | 23.95 | 2.86 | 31.10 | 27.25 | 2.95 | 36.50 | 36.50 | 3.07 | 42.12 | 42.12 | 3.22 | 47.19 | 47.19 | 3.42 |
| 70 | 1225 | 13.21 | 12.15 | 2.61 | 17.11 | 15.75 | 2.77 | 21.74 | 19.96 | 2.82 | 25.70 | 23.30 | 3.02 | 30.15 | 26.42 | 3.12 | 35.27 | 35.27 | 3.25 | 41.37 | 41.37 | 3.44 | 48.32 | 48.32 | 3.70 |
| | 1400 | 13.40 | 12.33 | 2.62 | 17.33 | 15.95 | 2.78 | 21.94 | 20.14 | 2.91 | 25.93 | 23.52 | 3.00 | 30.45 | 26.68 | 3.10 | 35.67 | 35.67 | 3.22 | 41.86 | 41.86 | 3.40 | 47.84 | 47.84 | 3.62 |
| | 1575 | 13.57 | 12.48 | 2.64 | 17.52 | 16.12 | 2.79 | 22.13 | 20.31 | 2.92 | 26.14 | 23.71 | 3.09 | 30.72 | 26.91 | 3.09 | 35.97 | 35.97 | 3.21 | 41.84 | 41.84 | 3.37 | 47.03 | 47.03 | 3.59 |
| 75 | 1225 | 12.79 | 11.77 | 2.75 | 16.70 | 15.37 | 2.91 | 21.03 | 19.31 | 3.05 | 25.41 | 23.05 | 3.17 | 29.76 | 26.07 | 3.27 | 34.76 | 34.76 | 3.41 | 40.75 | 40.75 | 3.61 | 47.80 | 47.80 | 3.89 |
| | 1400 | 12.99 | 11.95 | 2.76 | 16.93 | 15.58 | 2.92 | 21.59 | 19.82 | 3.05 | 25.64 | 23.25 | 3.15 | 30.06 | 26.34 | 3.24 | 35.15 | 35.15 | 3.37 | 41.24 | 41.24 | 3.56 | 47.49 | 47.49 | 3.80 |
| | 1575 | 13.17 | 12.12 | 2.79 | 17.13 | 15.76 | 2.93 | 21.86 | 20.07 | 3.08 | 25.85 | 23.44 | 3.15 | 30.31 | 26.56 | 3.23 | 35.46 | 35.46 | 3.35 | 41.48 | 41.48 | 3.53 | 46.79 | 46.79 | 3.76 |

PERFORMANCE DATA (CONT)

48 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|------------|---|-------------|----------------|-----------|--------------|----------------|---------|--------------|----------------|------------|--------------|----------------|------------|--------------|----------------|------------|--------------|------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | CFM / BF | 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 / 0.15 | 57 (13.9) | 45.56 | 45.56 | 3.20 | 43.64 | 43.64 | 3.58 | 41.62 | 41.62 | 3.98 | 39.47 | 39.47 | 4.41 | 37.15 | 37.15 | 4.90 | 34.64 | 34.64 | 5.46 |
| | 62 (16.7) | 47.12 | 41.32 | 3.21 | 44.75 | 40.06 | 3.59 | 42.33 | 38.74 | 3.99 | 39.81 | 37.27 | 4.42 | 37.23 | 37.23 | 4.91 | 34.69 | 34.69 | 5.46 |
| | 63* (17.2) | 47.82 | 33.66 | 3.21 | 45.36 | 32.52 | 3.59 | 42.84 | 31.34 | 3.99 | 40.19 | 30.11 | 4.42 | 37.38 | 28.81 | 4.91 | 34.39 | 27.41 | 5.46 |
| | 67 (19.4) | 51.57 | 35.10 | 3.22 | 48.88 | 33.93 | 3.62 | 46.13 | 32.74 | 4.02 | 43.25 | 31.49 | 4.46 | 40.21 | 30.17 | 4.95 | 36.94 | 28.75 | 5.49 |
| | 72 (13.9) | 56.55 | 28.57 | 3.23 | 53.52 | 27.50 | 3.64 | 50.45 | 26.34 | 4.06 | 47.26 | 25.12 | 4.51 | 43.85 | 23.83 | 4.99 | 40.27 | 22.48 | 5.53 |
| | 57 (13.9) | 47.60 | 47.60 | 3.26 | 45.50 | 45.50 | 3.65 | 43.31 | 43.31 | 4.05 | 40.98 | 40.98 | 4.49 | 38.48 | 38.48 | 4.98 | 35.76 | 35.76 | 5.53 |
| | 62 (16.7) | 48.40 | 44.34 | 3.26 | 45.91 | 42.93 | 3.65 | 43.41 | 43.41 | 4.05 | 41.04 | 41.04 | 4.49 | 38.53 | 38.53 | 4.98 | 35.81 | 35.81 | 5.53 |
| 1600 / 0.18 | 63* (17.2) | 48.97 | 35.87 | 3.27 | 46.36 | 34.67 | 3.65 | 43.69 | 33.44 | 4.05 | 40.92 | 32.15 | 4.49 | 37.98 | 30.76 | 4.97 | 34.88 | 29.27 | 5.52 |
| | 67 (19.4) | 52.75 | 37.49 | 3.27 | 49.90 | 36.26 | 3.68 | 47.00 | 35.00 | 4.09 | 43.98 | 33.69 | 4.52 | 40.79 | 32.28 | 5.01 | 37.41 | 30.77 | 5.55 |
| | 72 (13.9) | 57.75 | 30.14 | 3.28 | 54.58 | 28.93 | 3.70 | 51.36 | 27.71 | 4.13 | 48.01 | 26.44 | 4.57 | 44.45 | 25.09 | 5.06 | 40.74 | 23.89 | 5.59 |
| | 57 (13.9) | 49.32 | 49.32 | 3.32 | 47.06 | 47.06 | 3.71 | 44.71 | 44.71 | 4.12 | 42.23 | 42.23 | 4.56 | 39.55 | 39.55 | 5.05 | 36.65 | 36.65 | 5.59 |
| | 62 (16.7) | 49.55 | 49.16 | 3.32 | 47.14 | 47.14 | 3.71 | 44.77 | 44.77 | 4.12 | 42.28 | 42.28 | 4.56 | 39.60 | 39.60 | 5.05 | 36.70 | 36.70 | 5.59 |
| | 63* (17.2) | 49.85 | 38.00 | 3.32 | 47.12 | 36.74 | 3.71 | 44.35 | 35.44 | 4.11 | 41.47 | 34.07 | 4.55 | 38.44 | 32.60 | 5.03 | 35.24 | 30.98 | 5.57 |
| | 67 (19.4) | 53.64 | 39.78 | 3.32 | 50.67 | 38.49 | 3.73 | 47.66 | 37.17 | 4.15 | 44.52 | 35.78 | 4.59 | 41.22 | 34.28 | 5.07 | 37.75 | 32.65 | 5.60 |
| 72 (13.9) | 58.69 | 31.53 | 3.33 | 55.39 | 30.29 | 3.76 | 52.04 | 29.02 | 4.18 | 48.54 | 27.70 | 4.63 | 44.88 | 26.31 | 5.12 | 41.06 | 24.85 | 5.65 | |

*At 75°F (23.9°C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7°C) entering dry bulb. See Legend and Notes.

48 Heating Extended Performance Table -10-60 (-23.3-15.6°C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------|--|-------|----------------|-----------|--------------|----------------|------------|--------------|----------------|-----------|--------------|----------------|-----------|--------------|----------------|----------|--------------|----------------|---------|--------------|------|-----------|-------|------|
| | | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | EDB °F (°C) | CFM | 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 | Capacity MBtuh | | Total Sys KW | | | | |
| Total | Integ | | | Total | Integ | | Total | Integ | | Total | Integ | | Total | Integ | | Total | Integ | | | | | | | | |
| 65 (18.3) | 1400 | 15.76 | 14.50 | 2.95 | 20.36 | 18.74 | 3.07 | 25.22 | 23.15 | 3.20 | 31.05 | 28.16 | 3.36 | 36.22 | 31.73 | 3.50 | 41.94 | 41.94 | 3.65 | 48.55 | 48.55 | 3.83 | 56.41 | 56.41 | 4.05 |
| | 1800 | 16.01 | 14.73 | 2.98 | 20.64 | 18.99 | 3.09 | 25.55 | 23.46 | 3.21 | 31.36 | 28.44 | 3.35 | 36.59 | 32.06 | 3.48 | 42.42 | 42.42 | 3.61 | 49.17 | 49.17 | 3.77 | 57.12 | 57.12 | 3.95 |
| | 1800 | 16.24 | 14.94 | 3.02 | 20.90 | 19.23 | 3.12 | 25.85 | 23.73 | 3.23 | 31.63 | 28.69 | 3.38 | 36.92 | 32.35 | 3.48 | 42.84 | 42.84 | 3.60 | 49.72 | 49.72 | 3.74 | 57.48 | 57.48 | 3.90 |
| 70 (21.1) | 1400 | 15.26 | 14.04 | 3.08 | 19.85 | 18.27 | 3.20 | 24.68 | 22.85 | 3.33 | 30.13 | 27.92 | 3.48 | 35.80 | 31.37 | 3.65 | 41.40 | 41.40 | 3.81 | 47.87 | 47.87 | 4.00 | 55.58 | 55.58 | 4.24 |
| | 1800 | 15.52 | 14.28 | 3.11 | 20.14 | 18.53 | 3.22 | 25.04 | 22.98 | 3.34 | 30.99 | 28.11 | 3.50 | 36.16 | 31.68 | 3.63 | 41.87 | 41.87 | 3.78 | 48.48 | 48.48 | 3.94 | 56.38 | 56.38 | 4.15 |
| | 1800 | 15.76 | 14.50 | 3.15 | 20.41 | 18.78 | 3.25 | 25.33 | 23.25 | 3.36 | 31.28 | 28.37 | 3.51 | 36.49 | 31.97 | 3.63 | 42.28 | 42.28 | 3.76 | 49.01 | 49.01 | 3.91 | 56.82 | 56.82 | 4.09 |
| 75 (23.9) | 1400 | 14.68 | 13.51 | 3.22 | 19.29 | 17.74 | 3.34 | 24.12 | 22.14 | 3.47 | 29.34 | 26.61 | 3.63 | 35.38 | 31.00 | 3.82 | 40.85 | 40.85 | 3.98 | 47.21 | 47.21 | 4.18 | 54.77 | 54.77 | 4.43 |
| | 1800 | 14.95 | 13.76 | 3.25 | 19.59 | 18.03 | 3.36 | 24.47 | 22.46 | 3.48 | 29.76 | 26.99 | 3.62 | 35.73 | 31.31 | 3.79 | 41.31 | 41.31 | 3.94 | 47.80 | 47.80 | 4.12 | 55.56 | 55.56 | 4.35 |
| | 1800 | 15.19 | 13.98 | 3.29 | 19.85 | 18.27 | 3.39 | 24.78 | 22.74 | 3.51 | 30.19 | 27.38 | 3.63 | 36.07 | 31.60 | 3.79 | 41.72 | 41.72 | 3.93 | 48.30 | 48.30 | 4.09 | 56.12 | 56.12 | 4.28 |

PERFORMANCE DATA (CONT)
60 Cooling Extended Performance Table

| EVAPORATOR AIR | | CONDENSER ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | |
|----------------|------------|---|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|
| | | 75 (23.9) | | | 85 (29.4) | | | 95 (35) | | | 105 (40.5) | | | 115 (46.1) | | | 125 (51.7) | | |
| | | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW |
| 1750 / 0.19 | 57 (13.9) | 56.42 | 3.97 | 54.09 | 4.39 | 4.86 | 51.60 | 4.89 | 4.89 | 48.89 | 5.40 | 45.87 | 6.01 | 42.60 | 6.70 | | | | |
| | 62 (16.7) | 58.00 | 3.99 | 55.15 | 4.40 | 4.87 | 52.19 | 48.67 | 49.10 | 48.72 | 5.40 | 45.94 | 6.01 | 42.66 | 6.70 | | | | |
| | 63* (17.2) | 58.78 | 4.00 | 55.87 | 4.41 | 4.88 | 52.77 | 39.25 | 49.45 | 37.72 | 5.41 | 45.84 | 6.01 | 42.01 | 6.69 | | | | |
| | 67 (19.4) | 63.34 | 4.05 | 60.17 | 4.47 | 4.94 | 56.78 | 41.02 | 53.14 | 39.45 | 5.46 | 49.23 | 6.06 | 45.09 | 6.74 | | | | |
| | 72 (13.9) | 69.39 | 4.13 | 65.81 | 4.55 | 5.02 | 62.02 | 32.72 | 57.99 | 31.19 | 5.54 | 53.69 | 6.13 | 49.14 | 6.80 | | | | |
| | 57 (13.9) | 56.94 | 3.99 | 54.57 | 4.41 | 4.88 | 52.03 | 49.27 | 49.27 | 49.27 | 5.42 | 46.23 | 6.03 | 42.88 | 6.72 | | | | |
| | 62 (16.7) | 58.33 | 4.01 | 55.44 | 4.42 | 4.89 | 52.47 | 49.35 | 49.36 | 49.36 | 5.42 | 46.30 | 6.03 | 42.94 | 6.72 | | | | |
| | 63* (17.2) | 59.07 | 4.02 | 56.12 | 4.43 | 4.90 | 53.00 | 39.80 | 49.63 | 38.25 | 5.42 | 45.98 | 6.03 | 42.13 | 6.71 | | | | |
| | 67 (19.4) | 63.63 | 4.08 | 60.42 | 4.49 | 4.96 | 57.00 | 41.60 | 53.31 | 40.02 | 5.48 | 49.37 | 6.08 | 45.20 | 6.75 | | | | |
| | 72 (13.9) | 69.68 | 4.15 | 66.07 | 4.57 | 5.04 | 62.25 | 33.07 | 58.17 | 31.52 | 5.56 | 53.84 | 6.15 | 49.25 | 6.82 | | | | |
| 1850 / 0.20 | 57 (13.9) | 60.87 | 4.19 | 58.14 | 4.61 | 5.08 | 55.23 | 52.05 | 52.05 | 52.05 | 5.62 | 48.61 | 6.22 | 44.88 | 6.90 | | | | |
| | 62 (16.7) | 60.95 | 4.19 | 58.23 | 4.61 | 5.08 | 55.31 | 52.12 | 52.12 | 52.12 | 5.62 | 48.67 | 6.22 | 44.93 | 6.90 | | | | |
| | 63* (17.2) | 61.07 | 4.19 | 57.83 | 4.61 | 5.07 | 54.45 | 44.43 | 50.81 | 42.69 | 5.60 | 46.95 | 6.19 | 42.89 | 6.87 | | | | |
| | 67 (19.4) | 65.61 | 4.25 | 62.14 | 4.67 | 5.13 | 58.42 | 46.60 | 54.47 | 44.84 | 5.66 | 50.28 | 6.25 | 45.90 | 6.92 | | | | |
| | 72 (13.9) | 71.73 | 4.33 | 67.82 | 4.75 | 5.21 | 63.70 | 36.05 | 59.34 | 34.41 | 5.74 | 54.72 | 6.32 | 49.88 | 6.98 | | | | |

*At 75°F (23.9 °C) entering dry bulb—Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (26.7 °C) entering dry bulb. See Legend and Notes.

60 Heating Extended Performance Table - 10-60 (-23.3-15.6 °C)

| INDOOR AIR | | OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C) | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------|--|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|
| | | -10 (-23.3) | | | 0 (-17.8) | | | 10 (-12.2) | | | 20 (-6.7) | | | 30 (-1.1) | | | 40 (4.4) | | | 50 (10) | | | 60 (15.6) | | |
| | | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW | Capacity MBtuh | Total Sys KW | Total Sys KW |
| 65 | 1750 | 19.26 | 17.72 | 3.62 | 24.88 | 22.89 | 3.77 | 30.79 | 28.26 | 3.91 | 37.20 | 33.74 | 4.06 | 44.98 | 39.41 | 4.26 | 51.96 | 47.43 | 4.43 | 60.02 | 60.02 | 4.64 | 69.62 | 69.62 | 4.91 |
| | 1800 | 19.34 | 17.79 | 3.63 | 24.98 | 22.98 | 3.78 | 30.90 | 28.37 | 3.92 | 37.33 | 33.85 | 4.07 | 45.09 | 39.50 | 4.26 | 52.09 | 47.42 | 4.42 | 60.19 | 60.19 | 4.62 | 69.84 | 69.84 | 4.89 |
| | 2250 | 20.06 | 18.45 | 3.75 | 25.74 | 23.69 | 3.88 | 31.75 | 29.14 | 4.00 | 38.31 | 34.75 | 4.12 | 45.93 | 40.25 | 4.28 | 53.12 | 47.41 | 4.41 | 61.48 | 61.48 | 4.58 | 71.51 | 71.51 | 4.81 |
| 70 | 1750 | 18.37 | 16.90 | 3.77 | 24.01 | 22.09 | 3.92 | 30.00 | 27.54 | 4.08 | 36.36 | 32.98 | 4.24 | 44.47 | 38.96 | 4.46 | 51.32 | 47.43 | 4.63 | 59.22 | 59.22 | 4.85 | 68.63 | 68.63 | 5.12 |
| | 1800 | 18.45 | 16.97 | 3.78 | 24.11 | 22.18 | 3.93 | 30.11 | 27.64 | 4.09 | 36.49 | 33.09 | 4.24 | 44.58 | 39.06 | 4.45 | 51.43 | 47.43 | 4.63 | 59.39 | 59.39 | 4.85 | 68.85 | 68.85 | 5.10 |
| | 2250 | 19.15 | 17.62 | 3.90 | 24.92 | 22.93 | 4.04 | 30.96 | 28.41 | 4.17 | 37.44 | 33.95 | 4.30 | 45.42 | 39.80 | 4.47 | 52.45 | 47.43 | 4.63 | 60.65 | 60.65 | 4.79 | 70.47 | 70.47 | 5.02 |
| 75 | 1750 | 17.44 | 16.04 | 3.93 | 23.12 | 21.27 | 4.09 | 29.18 | 26.78 | 4.26 | 35.57 | 32.26 | 4.43 | 43.08 | 37.74 | 4.63 | 50.66 | 47.43 | 4.84 | 58.44 | 58.44 | 5.07 | 67.67 | 67.67 | 5.35 |
| | 1800 | 17.52 | 16.12 | 3.94 | 23.22 | 21.36 | 4.10 | 29.28 | 26.88 | 4.27 | 35.70 | 32.37 | 4.43 | 43.34 | 37.97 | 4.64 | 50.78 | 47.43 | 4.84 | 58.60 | 58.60 | 5.05 | 67.87 | 67.87 | 5.33 |
| | 2250 | 18.19 | 16.73 | 4.06 | 23.99 | 22.07 | 4.21 | 30.13 | 27.65 | 4.35 | 36.62 | 33.31 | 4.48 | 44.87 | 39.31 | 4.68 | 51.79 | 47.43 | 4.82 | 59.83 | 59.83 | 5.00 | 69.45 | 69.45 | 5.24 |

LEGEND

- BF — Bypass Factor
- edb — Entering Dry – Bulb
- ewb — Entering Wet – Bulb
- kw — Total Unit Power Input
- SHC — Sensible Heat Capacity (1000 Btuh)
- TC — Total Capacity (1000 Btuh) (net)
- rh — Relative Humidity

COOLING NOTES:

1. Ratings are net; they account for the effects of the evaporator – fan motor power and heat.
2. Direct interpolation is permissible. Do not extrapolate.
3. The following formulas may be used:

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

$$t_{wb} = \text{Wet-bulb temperature corresponding to enthalpy air leaving evaporator coil (} t_{lwb} \text{)} \quad h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{cfm}}$$

Where: h_{ewb} = Enthalpy of air entering evaporator coil

4. The SHC is based on 80°F (26.7 °C) edb temperature of air entering evaporator 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 x (1 + BF) x (edb + 80).
5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.
4. The SHC is based on 80°F (26.7 °C) edb temperature of air entering evaporator 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 x (1 + BF) x (edb – 80).
5. Integrated capacity is maximum (instantaneous) capacity less the effect of frost on the outdoor coil and the heat required to defrost it.

PERFORMANCE DATA (CONT)

Multiplication Factors

| HEATER KW RATING | | VOLTAGE DISTRIBUTION | | | | | MULTIPLICATION FACTOR | | | | |
|------------------|-----|----------------------|-----|-----|-----|-----|-----------------------|------|------|------|------|
| 240 | 480 | 200 | 208 | 230 | 240 | 460 | 0.69 | 0.75 | 0.92 | 1.00 | 0.92 |

Dry Coil Air Delivery* - Horizontal - Unit 50EZ-A24-60 Series A

| UNIT | MOTOR SPEED | WIRE COLOR | EXTERNAL STATIC PRESSURE (IN. W.C.) | | | | | | | | | | | |
|----------|-----------------------|------------|-------------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|
| | | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | | | |
| 50EZ-A24 | Low | Blue | 754 | 650 | 538 | 429 | 591 | --- | --- | --- | --- | --- | --- | --- |
| | Med-Low | Pink | 851 | 777 | 675 | 591 | 475 | --- | --- | --- | --- | --- | --- | --- |
| | Medium ¹ | Red | 941 | 851 | 774 | 684 | 576 | 479 | --- | --- | --- | --- | --- | --- |
| | Med-High | Orange | 1009 | 917 | 840 | 759 | 667 | 577 | 447 | --- | --- | --- | --- | --- |
| | High | Black | 1241 | 1167 | 1111 | 1036 | 969 | 881 | 818 | 731 | 640 | --- | --- | --- |
| 50EZ-A30 | Low | Blue | 741 | 638 | 547 | 415 | --- | --- | --- | --- | --- | --- | --- | --- |
| | Med-Low | Pink | 873 | 887 | 823 | 733 | 665 | 538 | 451 | --- | --- | --- | --- | --- |
| | Medium | Red | 1088 | 1023 | 954 | 881 | 800 | 723 | 658 | 563 | 461 | --- | --- | --- |
| | Med-High ¹ | Orange | 1140 | 1064 | 996 | 915 | 840 | 758 | 687 | 564 | 480 | --- | --- | --- |
| | High | Black | 1202 | 1140 | 1082 | 1015 | 961 | 881 | 810 | 732 | 631 | --- | --- | --- |
| 50EZ-A36 | Low | Blue | 1234 | 1168 | 1093 | 1021 | 961 | 894 | 825 | 759 | 687 | --- | --- | --- |
| | Med-Low | Pink | 1290 | 1223 | 1154 | 1090 | 1027 | 977 | 894 | 828 | 762 | --- | --- | --- |
| | Medium ¹ | Red | 1354 | 1290 | 1226 | 1158 | 1102 | 1046 | 981 | 918 | 843 | --- | --- | --- |
| | Med-High | Orange | 1606 | 1546 | 1489 | 1430 | 1371 | 1316 | 1258 | 1208 | 1140 | --- | --- | --- |
| | High | Black | 1630 | 1580 | 1517 | 1463 | 1407 | 1339 | 1277 | 1210 | 1131 | --- | --- | --- |
| 50EZ-A42 | Low | Blue | 1295 | 1234 | 1182 | 1126 | 1075 | 1016 | 955 | 898 | 857 | --- | --- | --- |
| | Med-Low | Pink | 1345 | 1282 | 1235 | 1194 | 1140 | 1095 | 1027 | 974 | 921 | --- | --- | --- |
| | Medium | Red | 1505 | 1452 | 1413 | 1358 | 1323 | 1282 | 1234 | 1169 | 1130 | --- | --- | --- |
| | Med-High ¹ | Orange | 1545 | 1492 | 1449 | 1411 | 1362 | 1313 | 1278 | 1231 | 1188 | --- | --- | --- |
| | High | Black | 1705 | 1643 | 1607 | 1568 | 1518 | 1483 | 1448 | 1404 | 1360 | --- | --- | --- |
| 50EZ-A48 | Low | Blue | 1402 | 1351 | 1311 | 1263 | 1224 | 1172 | 1136 | 1080 | 1041 | --- | --- | --- |
| | Med-Low | Pink | 1457 | 1404 | 1367 | 1318 | 1284 | 1233 | 1197 | 1144 | 1104 | --- | --- | --- |
| | Medium ¹ | Red | 1736 | 1695 | 1642 | 1601 | 1553 | 1512 | 1465 | 1427 | 1381 | --- | --- | --- |
| | Med-High | Orange | 2149 | 2111 | 2062 | 2026 | 1980 | 1945 | 1905 | 1864 | 1824 | --- | --- | --- |
| | High | Black | 2344 | 2306 | 2259 | 2203 | 2141 | 2070 | 1991 | 1902 | 1803 | --- | --- | --- |
| 50EZ-A60 | Low | Blue | 1445 | 1389 | 1341 | 1281 | 1236 | 1189 | 1139 | 1072 | 1027 | --- | --- | --- |
| | Med-Low | Pink | 1678 | 1635 | 1602 | 1558 | 1513 | 1474 | 1438 | 1404 | 1349 | --- | --- | --- |
| | Medium ¹ | Red | 1927 | 1893 | 1858 | 1824 | 1791 | 1759 | 1720 | 1699 | 1640 | --- | --- | --- |
| | Med-High | Orange | 2131 | 2088 | 2065 | 2013 | 1982 | 1941 | 1888 | 1860 | 1785 | --- | --- | --- |
| | High | Black | 2461 | 2409 | 2339 | 2286 | 2192 | 2140 | 2062 | 1968 | 1874 | --- | --- | --- |

* Air delivery values are without air filter and are for dry coil (See 50EZ-A Wet Coil Pressure Drop Table).

¹ Factory-shipped cooling speed

NOTE: Duct field-supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting.

Shaded areas indicate speed/static combinations that are not permitted for dehumidification speed.

NOTE: Deduct 10% for 208 volt operation.

Dry Coil Air Delivery - Downflow Discharge

| UNIT | MOTOR SPEED | WIRE COLOR | | EXTERNAL STATIC PRESSURE (IN. W.C.) | | | | | | | | | | | | | | | | | |
|----------------------|---------------------|------------|-------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|
| | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.0 | | | | | | | | |
| 50EZA24 | Low | Blue | CFM | 809 | 664 | 554 | 447 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | WATTS | 85 | 82 | 87 | 95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | MedLow | Pink | BHP | 0.09 | 0.09 | 0.09 | 0.10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | CFM | 875 | 787 | 693 | 612 | 498 | 392 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | WATTS | 101 | 111 | 115 | 125 | 131 | 142 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | BHP | 0.11 | 0.12 | 0.12 | 0.13 | 0.14 | 0.15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Medium ¹ | Red | CFM | 939 | 860 | 748 | 663 | 591 | 472 | 399 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | WATTS | 119 | 124 | 134 | 138 | 147 | 155 | 164 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | | BHP | 0.13 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | | CFM | 1026 | 949 | 873 | 786 | 694 | 604 | 516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | MedHigh | Orange | WATTS | 146 | 151 | 161 | 167 | 177 | 183 | 195 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| | | | BHP | 0.16 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| High | Black | CFM | 1264 | 1202 | 1134 | 1070 | 1002 | 931 | 870 | 806 | 699 | 610 | -- | -- | -- | -- | -- | -- | -- | | |
| | | WATTS | 250 | 261 | 274 | 279 | 290 | 296 | 308 | 319 | 328 | 332 | -- | -- | -- | -- | -- | -- | -- | | |
| | | | BHP | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.32 | 0.33 | 0.34 | 0.35 | 0.36 | -- | -- | -- | -- | -- | | |
| | | | CFM | 756 | 669 | 548 | 457 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Low | Blue | WATTS | 84 | 90 | 96 | 106 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| | | BHP | 0.09 | 0.10 | 0.10 | 0.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| MedLow | Pink | CFM | 1002 | 928 | 842 | 733 | 660 | 560 | 450 | -- | -- | -- | -- | -- | -- | -- | -- | -- | | | |
| | | WATTS | 144 | 155 | 161 | 173 | 185 | 192 | 203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| | | | BHP | 0.15 | 0.17 | 0.17 | 0.19 | 0.20 | 0.21 | 0.22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| | | | CFM | 1110 | 1025 | 967 | 879 | 814 | 706 | 611 | 509 | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Medium | Red | WATTS | 188 | 195 | 205 | 211 | 223 | 236 | 243 | 255 | -- | -- | -- | -- | -- | -- | -- | -- | | | |
| | | BHP | 0.20 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | -- | -- | -- | -- | -- | -- | -- | -- | | | |
| MedHigh ¹ | Orange | CFM | 1160 | 1091 | 1004 | 945 | 866 | 804 | 699 | 615 | 496 | -- | -- | -- | -- | -- | -- | -- | | | |
| | | WATTS | 213 | 225 | 232 | 243 | 249 | 261 | 273 | 285 | 291 | -- | -- | -- | -- | -- | -- | -- | | | |
| High | Black | BHP | 0.23 | 0.24 | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.31 | 0.31 | -- | -- | -- | -- | -- | -- | -- | | | |
| | | CFM | 1240 | 1173 | 1110 | 1031 | 966 | 902 | 821 | 726 | 626 | -- | -- | -- | -- | -- | -- | -- | | | |
| | | | WATTS | 254 | 266 | 274 | 284 | 295 | 302 | 315 | 327 | 331 | -- | -- | -- | -- | -- | -- | | | |
| | | | BHP | 0.27 | 0.29 | 0.29 | 0.30 | 0.32 | 0.32 | 0.34 | 0.35 | 0.35 | -- | -- | -- | -- | -- | -- | | | |

Dry Coil Air Delivery - Downflow Discharge

| UNIT | MOTOR SPEED | WIRE COLOR | EXTERNAL STATIC PRESSURE (IN. W.C.) | | | | | | | | | | |
|---------|----------------------|------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|
| | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.0 | |
| 50EZA36 | Low | Blue | CFM | 1277 | 1215 | 1147 | 1094 | 1045 | 992 | 932 | 874 | 826 | 757 |
| | | | WATTS | 285 | 289 | 299 | 305 | 314 | 319 | 328 | 335 | 347 | 352 |
| | | | BHP | 0.31 | 0.31 | 0.32 | 0.33 | 0.34 | 0.34 | 0.35 | 0.36 | 0.37 | 0.38 |
| | MedLow | Pink | CFM | 1312 | 1260 | 1203 | 1153 | 1095 | 1050 | 995 | 943 | 889 | 829 |
| | | | WATTS | 314 | 324 | 329 | 340 | 344 | 355 | 361 | 372 | 382 | 387 |
| | | | BHP | 0.34 | 0.35 | 0.35 | 0.36 | 0.37 | 0.38 | 0.39 | 0.40 | 0.41 | 0.42 |
| | Medium ¹ | Red | CFM | 1381 | 1326 | 1269 | 1212 | 1161 | 1121 | 1070 | 1019 | 974 | 912 |
| | | | WATTS | 358 | 365 | 375 | 383 | 391 | 395 | 406 | 418 | 424 | 434 |
| | | | BHP | 0.38 | 0.39 | 0.40 | 0.41 | 0.42 | 0.42 | 0.44 | 0.45 | 0.45 | 0.47 |
| | MedHigh | Orange | CFM | 1631 | 1579 | 1525 | 1477 | 1423 | 1372 | 1336 | 1284 | 1233 | 1166 |
| | | | WATTS | 567 | 576 | 581 | 592 | 598 | 609 | 617 | 619 | 613 | 598 |
| | | | BHP | 0.61 | 0.62 | 0.62 | 0.63 | 0.64 | 0.65 | 0.66 | 0.66 | 0.66 | 0.64 |
| High | Black | CFM | 1681 | 1633 | 1575 | 1526 | 1478 | 1415 | 1366 | 1312 | 1249 | 1159 | |
| | | WATTS | 618 | 626 | 636 | 644 | 652 | 653 | 649 | 642 | 627 | 602 | |
| | | BHP | 0.66 | 0.67 | 0.68 | 0.69 | 0.70 | 0.70 | 0.70 | 0.69 | 0.67 | 0.65 | |
| 50EZA42 | Low | Blue | CFM | 1365 | 1324 | 1284 | 1233 | 1181 | 1127 | 1084 | 1039 | 984 | 939 |
| | | | WATTS | 177 | 189 | 201 | 210 | 222 | 236 | 248 | 261 | 269 | 281 |
| | | | BHP | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.30 |
| | MedLow | Pink | CFM | 1425 | 1384 | 1339 | 1301 | 1254 | 1199 | 1151 | 1104 | 1065 | 1015 |
| | | | WATTS | 197 | 210 | 223 | 235 | 248 | 257 | 271 | 284 | 296 | 305 |
| | | | BHP | 0.21 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 |
| | Medium | Red | CFM | 1582 | 1549 | 1509 | 1469 | 1433 | 1392 | 1346 | 1300 | 1249 | 1213 |
| | | | WATTS | 267 | 280 | 294 | 308 | 322 | 336 | 344 | 359 | 374 | 387 |
| | | | BHP | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.36 | 0.37 | 0.38 | 0.40 | 0.42 |
| | MedHigh ¹ | Orange | CFM | 1623 | 1586 | 1553 | 1511 | 1470 | 1433 | 1393 | 1350 | 1309 | 1261 |
| | | | WATTS | 285 | 299 | 312 | 324 | 335 | 349 | 363 | 378 | 393 | 407 |
| | | | BHP | 0.31 | 0.32 | 0.33 | 0.35 | 0.36 | 0.37 | 0.39 | 0.41 | 0.42 | 0.44 |
| High | Black | CFM | 1775 | 1736 | 1696 | 1660 | 1622 | 1588 | 1557 | 1516 | 1472 | 1426 | |
| | | WATTS | 371 | 386 | 401 | 410 | 424 | 439 | 453 | 468 | 483 | 497 | |
| | | BHP | 0.40 | 0.41 | 0.43 | 0.44 | 0.45 | 0.47 | 0.49 | 0.50 | 0.52 | 0.53 | |

Dry Coil Air Delivery - Downflow Discharge

| UNIT | MOTOR SPEED | WIRE COLOR | | EXTERNAL STATIC PRESSURE (IN. W.C.) | | | | | | | | | |
|---------|---------------------|------------|-------|-------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 | 0.60 | 0.70 | 0.80 | 0.90 | 1.0 |
| 50EZA48 | Low | Blue | CFM | 1503 | 1457 | 1423 | 1374 | 1330 | 1287 | 1241 | 1199 | 1153 | 1111 |
| | | | WATTS | 225 | 233 | 246 | 254 | 269 | 282 | 292 | 307 | 314 | 329 |
| | | | BHP | 0.24 | 0.25 | 0.26 | 0.27 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.35 |
| | MedLow | Pink | CFM | 1556 | 1508 | 1461 | 1432 | 1388 | 1346 | 1302 | 1256 | 1221 | 1168 |
| | | | WATTS | 244 | 261 | 268 | 281 | 290 | 305 | 319 | 330 | 345 | 353 |
| | | | BHP | 0.26 | 0.28 | 0.29 | 0.30 | 0.31 | 0.33 | 0.34 | 0.35 | 0.37 | 0.38 |
| | Medium ¹ | Red | CFM | 1861 | 1822 | 1786 | 1758 | 1716 | 1688 | 1660 | 1619 | 1583 | 1539 |
| | | | WATTS | 400 | 417 | 426 | 441 | 452 | 467 | 482 | 492 | 507 | 519 |
| | | | BHP | 0.43 | 0.45 | 0.46 | 0.47 | 0.48 | 0.50 | 0.52 | 0.53 | 0.54 | 0.56 |
| | MedHigh | Orange | CFM | 2319 | 2291 | 2255 | 2230 | 2193 | 2166 | 2118 | 2057 | 1992 | 1887 |
| | | | WATTS | 758 | 769 | 787 | 799 | 808 | 823 | 822 | 805 | 780 | 737 |
| | | | BHP | 0.81 | 0.82 | 0.84 | 0.86 | 0.87 | 0.88 | 0.88 | 0.86 | 0.84 | 0.79 |
| High | Black | CFM | 2532 | 2487 | 2444 | 2391 | 2330 | 2259 | 2179 | 2111 | 2033 | 1949 | |
| | | WATTS | 1014 | 1022 | 1015 | 994 | 965 | 935 | 898 | 858 | 823 | 786 | |
| | | BHP | 1.09 | 1.10 | 1.09 | 1.07 | 1.03 | 1.00 | 0.96 | 0.92 | 0.88 | 0.84 | |
| 50EZA60 | Low | Blue | CFM | 1479 | 1436 | 1387 | 1346 | 1298 | 1253 | 1206 | 1160 | 1114 | 1061 |
| | | | WATTS | 224 | 239 | 247 | 262 | 270 | 284 | 300 | 307 | 319 | 330 |
| | | | BHP | 0.24 | 0.26 | 0.26 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 | 0.34 | 0.35 |
| | MedLow | Pink | CFM | 1841 | 1796 | 1761 | 1724 | 1690 | 1651 | 1616 | 1578 | 1527 | 1478 |
| | | | WATTS | 425 | 434 | 453 | 460 | 476 | 485 | 501 | 508 | 525 | 542 |
| | | | BHP | 0.46 | 0.47 | 0.49 | 0.49 | 0.51 | 0.52 | 0.54 | 0.54 | 0.56 | 0.58 |
| | Medium ¹ | Red | CFM | 2045 | 2009 | 1970 | 1933 | 1905 | 1868 | 1829 | 1802 | 1751 | 1683 |
| | | | WATTS | 569 | 579 | 597 | 607 | 623 | 639 | 648 | 665 | 674 | 663 |
| | | | BHP | 0.61 | 0.62 | 0.64 | 0.65 | 0.67 | 0.69 | 0.69 | 0.71 | 0.72 | 0.71 |
| | MedHigh | Orange | CFM | 2178 | 2148 | 2105 | 2073 | 2036 | 2002 | 1967 | 1919 | 1845 | 1751 |
| | | | WATTS | 674 | 691 | 703 | 717 | 733 | 743 | 758 | 754 | 734 | 701 |
| | | | BHP | 0.72 | 0.74 | 0.75 | 0.77 | 0.79 | 0.80 | 0.81 | 0.81 | 0.79 | 0.75 |
| High | Black | CFM | 2480 | 2432 | 2375 | 2322 | 2236 | 2161 | 2085 | 2006 | 1917 | 1808 | |
| | | WATTS | 1029 | 1012 | 995 | 975 | 941 | 908 | 869 | 836 | 796 | 751 | |
| | | BHP | 1.10 | 1.09 | 1.07 | 1.05 | 1.01 | 0.97 | 0.93 | 0.90 | 0.85 | 0.81 | |

*Air delivery values are without air filter and are for dry coil (See 50EZ-A Wet Coil Pressure Drop table).

¹ Factory-shipped cooling speed.

NOTE: Duct field-supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting. Shaded areas indicate speed/static combinations that are not permitted.

Wet Coil Pressure Drop (IN. W.C.)

| UNIT SIZE | STANDARD CFM (SCFM) | | | | | | | | | | | | | | | | |
|-----------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 |
| 24 | 0.03 | 0.04 | 0.04 | 0.05 | 0.06 | | | | | | | | | | | | |
| 30 | | | | 0.05 | 0.06 | 0.07 | 0.08 | 0.11 | | | | | | | | | |
| 36 | | | | 0.06 | 0.06 | 0.09 | 0.10 | 0.11 | 0.14 | | | | | | | | |
| 42 | | | | | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.11 | | | | |
| 48 | | | | | | | 0.04 | 0.06 | 0.09 | 0.10 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | | |
| 60 | | | | | | | | 0.06 | 0.09 | 0.10 | 0.07 | 0.01 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 |

Economizer with 1-in. Filter Pressure Drop (IN. W.C.)

| FILTER SIZE IN. (MM) | COOLING TONS | STANDARD CFM (SCFM) | | | | | | | | | | | | | | | | |
|---|--------------|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 |
| 600-1400 CFM 12x20x1 + 12x20x1 (305x508x25 + 305x508x25) | 2.0, | - | - | 0.09 | 0.14 | 0.16 | 0.18 | 0.25 | 0.28 | 0.3 | - | - | - | - | - | - | - | - |
| | 2.5, | | | | | | | | | | | | | | | | | |
| | 3.0 | | | | | | | | | | | | | | | | | |
| 1200-1800 CFM 16x24x1 + 14x24x1 (406x610x25 + 356x610x25) | 3.5, | - | - | - | - | - | - | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.16 | 0.16 | - | - | - | - |
| | 4.0 | | | | | | | | | | | | | | | | | |
| 1500-2200 CFM 16x24x1 + 18x24x1 (406x610x25 + 457x610x25) | 5.0 | - | - | - | - | - | - | - | - | - | 0.15 | 0.17 | 0.18 | 0.20 | 0.21 | 0.22 | 0.23 | 0.23 |
| | | | | | | | | | | | | | | | | | | |

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

| FILTER SIZE IN. (MM) | COOLING TONS | STANDARD CFM (SCFM) | | | | | | | | | | | | | | | | |
|---|--------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 |
| 600-1400 CFM 12x20x1 + 12x20x1 (305x508x25 + 305x508x25) | 2.0, | 0.03 | 0.05 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.16 | - | - | - | - | - | - | - | - |
| | 2.5, | | | | | | | | | | | | | | | | | |
| | 3.0 | | | | | | | | | | | | | | | | | |
| 1200-1800 CFM 16x24x1 + 14x24x1 (406x610x25 + 356x610x25) | 3.5, | - | - | - | - | - | - | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | - | - | - | - |
| | 4.0 | | | | | | | | | | | | | | | | | |
| 1500-2200 CFM 16x24x1 + 18x24x1 (406x610x25 + 457x610x25) | 5.0 | - | - | - | - | - | - | - | - | - | 0.04 | 0.06 | 0.08 | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 |
| | | | | | | | | | | | | | | | | | | |

**Electric Heat Pressure Drop Table (IN. W.C.)
Small Cabinet: 24-36**

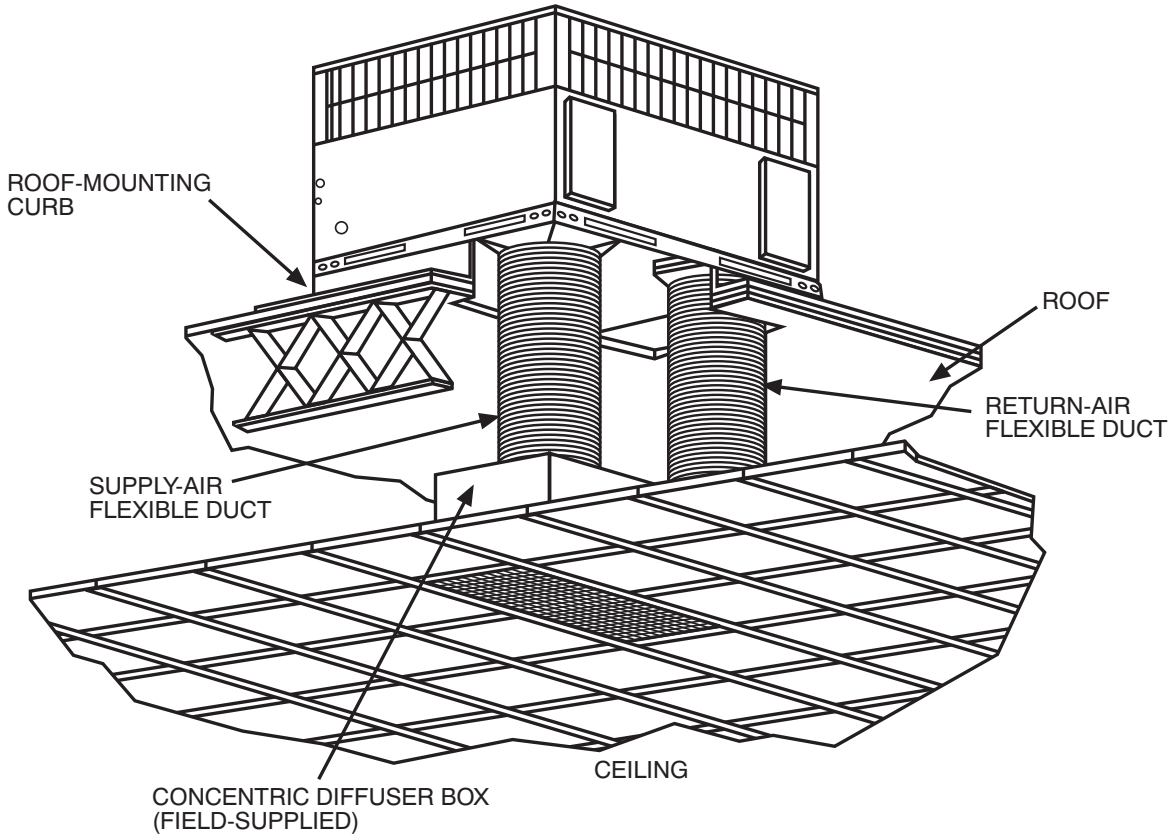
| | STANDARD CFM (SCFM) | | | | | | | | | | | | | | |
|--------|---------------------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|
| | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | | | |
| 5kw | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 | 0.06 | 0.07 | | | |
| 7.5 kw | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.03 | 0.05 | 0.07 | 0.08 | 0.09 | | | |
| 10 kw | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.11 | | | |
| 15 kw | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 | 0.06 | 0.08 | 0.10 | 0.12 | 0.14 | 0.16 | 0.18 | | | |
| 20 kw | 0.00 | 0.00 | 0.02 | 0.04 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.15 | 0.17 | 0.19 | | | |

**Electric Heat Pressure Drop Table (IN. W.C.)
Large Cabinet 42-60**

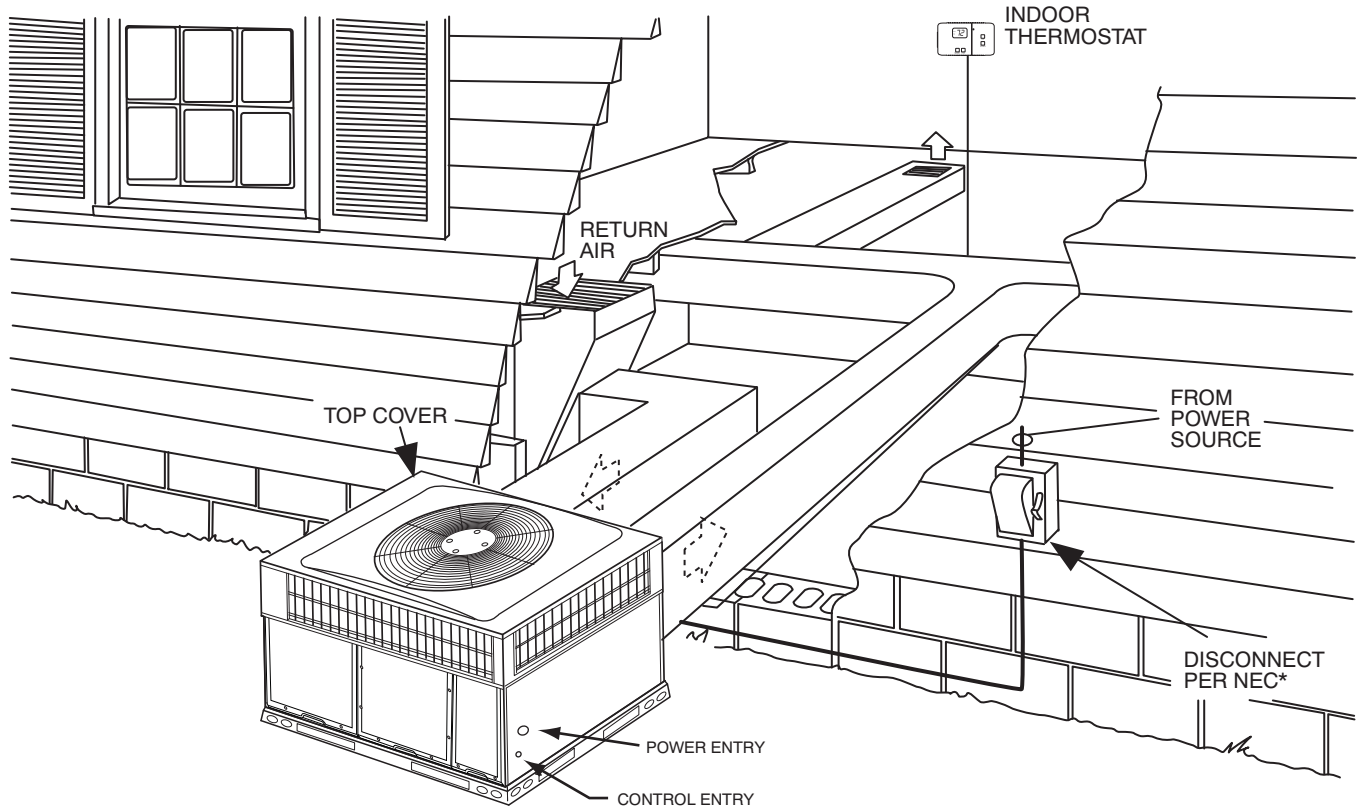
| | STANDARD CFM (SCFM) | | | | | | | | | | | | | | |
|--------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 |
| 5kw | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 |
| 7.5 kw | 0.00 | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 |
| 10 kw | 0.00 | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 |
| 15 kw | 0.00 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 |
| 20 kw | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 |

TYPICAL PIPING AND WIRING

50EZ--A



A09230



*NEC - National Electrical Code

A09240

APPLICATION DATA

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

Ductwork — Secure downflow discharge ductwork to roof curb. For horizontal discharge applications, attach ductwork to unit with flanges.

To convert a unit to downflow discharge — Units are equipped with factory-installed inserts in the downflow openings. Removal of the inserts is similar to removing an electrical knock-out. Units installed in horizontal discharge orientation do not require duct covers.

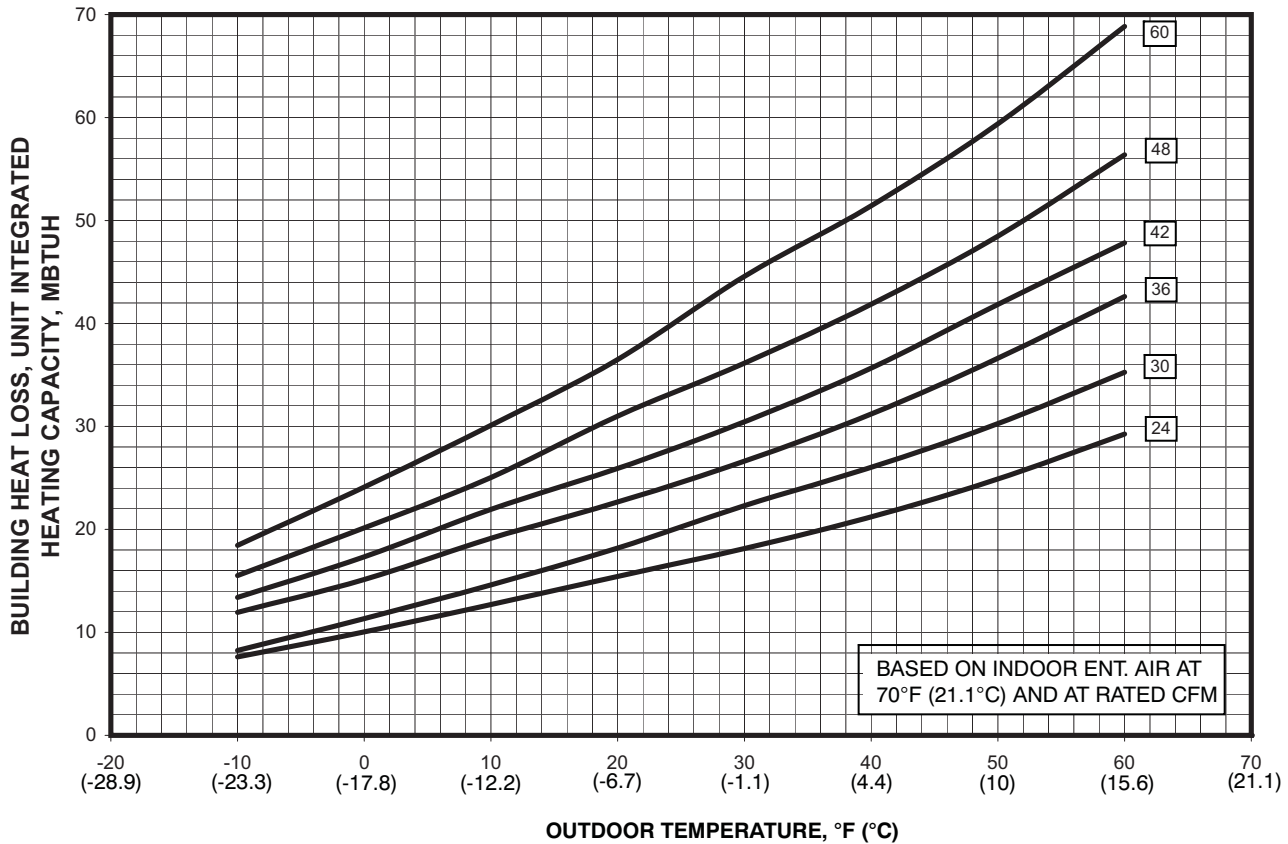
Maximum cooling airflow — To minimize the possibility of condensate blow-off from the evaporator, airflow through the units should not exceed 450 cfm per ton.

Minimum cooling airflow — Minimum cooling airflow is 350 cfm per ton in cooling mode. Airflow can be lower in certain modes when humidity removal is an issue.

Minimum ambient cooling operation temperature — All standard units have a minimum ambient cooling 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 for cooling is 125°F (51.7°C).

BALANCE POINT WORKSHEET



50EZ--A

A09269

ELECTRICAL DATA

50EZ--A

| UNIT | NOMINAL V-PH-HZ | VOLTAGE RANGE | | COMPRESSOR | | | OFM | IFM | ELECTRIC HEAT | | POWER SUPPLY | |
|-----------------|--------------------|------------------|-----|------------|------|------|-----|-----|---------------|-----------|--------------|---------|
| | | MIN | MAX | RLA | LRA | MCC | FLA | FLA | NOMINAL KW | FLA | MCA | MOCP |
| 50EZ-A24---30-- | 208/230-1-60 | 197 | 253 | 13.5 | 58.3 | 20.0 | 1.2 | 4.1 | -/- | -/- | 22.2 | 30 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 44.8/48.2 | 45/50 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 54.6/59.7 | 60/60 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 67.3/74.3 | 70/80 |
| 50EZ-A30---30-- | 208/230-1-60 | 197 | 253 | 16 | 73 | 22.0 | 1.2 | 4.1 | -/- | -/- | 25.3 | 40 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 47.9/51.3 | 50/60 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 57.7/62.8 | 60/70 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 70.4/77.4 | 80/80 |
| 50EZ-A30---50-- | 208/230-3-60 | 197 | 253 | 10.9 | 58 | 13.9 | 1.2 | 4.1 | -/- | -/- | 18.9 | 25 |
| | | | | | | | | | 3.8/5 | 10.4/12 | 31.9/33.9 | 35/35 |
| | | | | | | | | | 7.5/10 | 20.8/24.1 | 44.9/49.1 | 45/50 |
| | | | | | | | | | 11.3/15 | 31.2/36.1 | 57.9/64.1 | 60/70 |
| 50EZ-A36---30-- | 208/230-1-60 | 197 | 253 | 19.3 | 79 | 26.0 | 1.2 | 6.0 | -/- | -/- | 31.3 | 45 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 54/57.3 | 60/60 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 63.7/68.8 | 70/70 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 76.5/83.5 | 80/90 |
| 50EZ-A36---50-- | 208/230-3-60 | 197 | 253 | 13 | 73 | 16.3 | 1.2 | 6.0 | -/- | -/- | 23.5 | 30 |
| | | | | | | | | | 3.8/5 | 10.4/12 | 36.5/38.5 | 40/40 |
| | | | | | | | | | 7.5/10 | 20.8/24.1 | 49.5/53.6 | 50/60 |
| | | | | | | | | | 11.3/15 | 31.2/36.1 | 62.5/68.6 | 70/70 |
| 50EZ-A36---60-- | 460-3-60 | 414 | 506 | 6 | 38 | 9.0 | 0.5 | 3.0 | -/- | -/- | 11 | 15 |
| | | | | | | | | | 3.8/5 | 6 | 18.5/18.5 | 20 |
| | | | | | | | | | 7.5/10 | 12 | 26/26 | 30 |
| | | | | | | | | | 11.3/15 | 18 | 33.5/33.5 | 35 |
| 50EZ-A42---30-- | 208/230-1-60 | 197 | 253 | 20.9 | 112 | 28.0 | 1.2 | 6.0 | -/- | -/- | 33.3 | 50 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 56/59.3 | 60/60 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 65.7/70.8 | 70/80 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 78.5/85.5 | 80/90 |
| | | | | | | | | | 11.3/15 | 54.2/62.5 | 101.1/111.5 | 110/125 |
| 50EZ-A42---50-- | 208/230-3-60 | 197 | 253 | 13.5 | 88 | 21.1 | 1.2 | 6.0 | -/- | -/- | 24.1 | 35 |
| | | | | | | | | | 3.8/5 | 10.4/12 | 37.1/39.1 | 40/40 |
| | | | | | | | | | 7.5/10 | 20.8/24.1 | 50.1/54.2 | 60/60 |
| | | | | | | | | | 11.3/15 | 31.2/36.1 | 63.1/69.2 | 70/70 |
| | | | | | | | | | 15/20 | 41.4/47.9 | 75.8/84 | 80/90 |
| 50EZ-A42---60-- | 460-3-60 | 414 | 506 | 6.2 | 44 | 9.3 | 0.5 | 3.0 | -/- | -/- | 11.3 | 15 |
| | | | | | | | | | 3.8/5 | 6 | 18.8/18.8 | 20 |
| | | | | | | | | | 7.5/10 | 12 | 26.3/26.3 | 30 |
| | | | | | | | | | 11.3/15 | 18 | 33.8/33.8 | 35 |
| | | | | | | | | | 15/20 | 24.1 | 41.4/41.4 | 45 |
| 50EZ-A48---30-- | 208/230-1-60 | 197 | 253 | 23.5 | 117 | 34.0 | 1.2 | 7.6 | -/- | -/- | 38.2 | 50 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 60.8/64.2 | 70/70 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 70.6/75.7 | 80/80 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 83.3/90.3 | 90/100 |
| | | | | | | | | | 11.3/15 | 54.2/62.5 | 105.9/116.3 | 110/125 |
| 50EZ-A48---50-- | 208/230-3-60 | 197 | 253 | 14.8 | 83.1 | 21.4 | 1.2 | 7.6 | -/- | -/- | 27.3 | 40 |
| | | | | | | | | | 3.8/5 | 10.4/12 | 40.3/42.3 | 45/45 |
| | | | | | | | | | 7.5/10 | 20.8/24.1 | 53.3/57.4 | 60/60 |
| | | | | | | | | | 11.3/15 | 31.2/36.1 | 66.3/72.4 | 70/80 |
| | | | | | | | | | 15/19.91 | 41.4/47.9 | 79.1/87.2 | 80/90 |
| 50EZ-A48---60-- | 460-3-60 | 414 | 506 | 6.5 | 41 | 9.7 | 0.5 | 3.8 | -/- | -/- | 12.4 | 15 |
| | | | | | | | | | 3.8/5 | 6 | 19.9/19.9 | 20 |
| | | | | | | | | | 7.5/10 | 12 | 27.4/27.4 | 30 |
| | | | | | | | | | 11.3/15 | 18 | 34.9/34.9 | 35 |
| | | | | | | | | | 15/20 | 24.1 | 42.6/42.6 | 45 |

ELECTRICAL DATA (CONT)

| UNIT | NOMINAL V-PH-HZ | VOLTAGE RANGE | | COMPRESSOR | | | OFM | IFM | ELECTRIC HEAT | | POWER SUPPLY | |
|-----------------|--------------------|------------------|-----|------------|-----|------|-----|-----|---------------|-----------|--------------|---------|
| | | MIN | MAX | RLA | LRA | MCC | FLA | FLA | NOMINAL kW | FLA | MCA | MOCP |
| 50EZ-A60---30-- | 208/230-1-60 | 197 | 253 | 27.4 | 134 | 41.2 | 1.2 | 7.6 | -/- | -/- | 43.1 | 60 |
| | | | | | | | | | 3.8/5 | 18.1/20.8 | 65.7/69.1 | 70/70 |
| | | | | | | | | | 5.4/7.2 | 25.9/30 | 75.4/80.6 | 80/90 |
| | | | | | | | | | 7.5/10 | 36.1/41.7 | 88.2/95.2 | 90/100 |
| | | | | | | | | | 11.3/15 | 54.2/62.5 | 110.8/121.2 | 125/125 |
| 50EZ-A60---50-- | 208/230-3-60 | 197 | 253 | 18.4 | 110 | 24.9 | 1.2 | 7.6 | -/- | -/- | 31.8 | 45 |
| | | | | | | | | | 3.8/5 | 10.4/12 | 44.8/46.8 | 45/50 |
| | | | | | | | | | 7.5/10 | 20.8/24.1 | 57.8/61.9 | 60/70 |
| | | | | | | | | | 11.3/15 | 31.2/36.1 | 70.8/76.9 | 80/80 |
| | | | | | | | | | 15/19.91 | 41.4/47.9 | 83.6/91.7 | 90/100 |
| 50EZ-A60---60-- | 460-3-60 | 414 | 506 | 8 | 52 | 12.1 | 0.5 | 3.8 | -/- | -/- | 14.3 | 20 |
| | | | | | | | | | 3.8/5 | 6 | 21.8/21.8 | 25 |
| | | | | | | | | | 7.5/10 | 12 | 29.3/29.3 | 30 |
| | | | | | | | | | 11.3/15 | 18 | 36.8/36.8 | 40 |
| | | | | | | | | | 15/20 | 24.1 | 44.4/44.4 | 45 |

See Legend and Notes below.

LEGEND

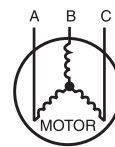
- FLA -- Full Load Amps
- LRA -- Locked Rotor Amps
- MCA -- Minimum Circuit Amps
- MOCP -- Maximum Overcurrent Protection
- RLA -- Rated Load Amps

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.
- Unbalanced 3-Phase Supply Voltage
Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance

$$\% \text{ Voltage imbalance} = 100 \times \frac{\text{max voltage deviation from average voltage}}{\text{average voltage}}$$

EXAMPLE: Supply voltage is 230-3-60.



- AB = 228 v
- BC = 231 v
- AC = 227 v

$$\begin{aligned} \text{Average Voltage} &= \frac{228 + 231 + 227}{3} \\ &= \frac{686}{3} \\ &= 229 \end{aligned}$$

Determine maximum deviation from average voltage.

- (AB) 229 - 228 = 1 v
- (BC) 231 - 229 = 2 v
- (AC) 229 - 227 = 2 v

Maximum deviation is 2 v.

Determine percent of voltage imbalance

$$\begin{aligned} \% \text{ Voltage Imbalance} &= 100 \times \frac{2}{229} \\ &= 0.8\% \end{aligned}$$

This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%.

IMPORTANT: If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.

50EZ--A

CONNECTION WIRING SCHEMATICS 208/230-1-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
208/230-1-60

NOTES:

1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
2. SEE PRICE PAGES FOR THERMOSTATS.
3. USE 75 DEG. COPPER CONDUCTORS FOR FIELD INSTALLATION.
4. SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
5. CCH NOT USED ON ALL UNITS.
6. THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003.
7. UNIT FACTORY-SHIPED IN STD MODE.

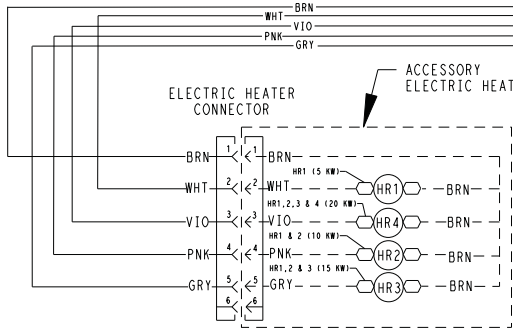
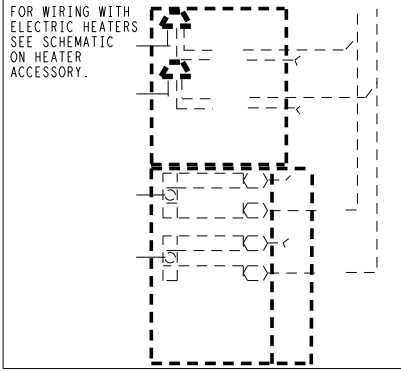
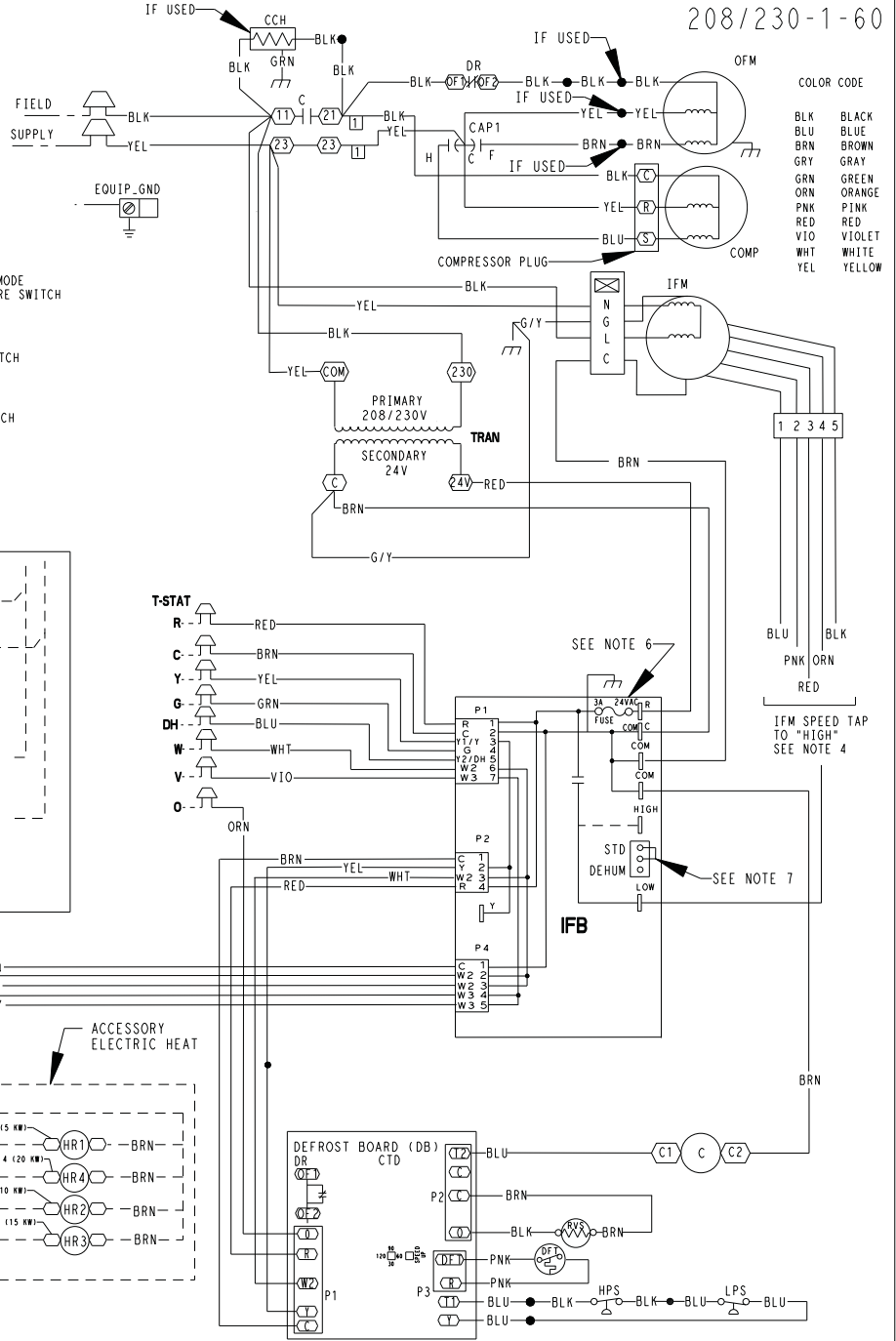
LEGEND

- FIELD SPlice
- TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- SPlice (IF USED)
- SPlice (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- ACCESSORY OR OPTIONAL WIRING
- TO INDICATE COMMON POTENTIAL ONLY
- NOT TO REPRESENT WIRING

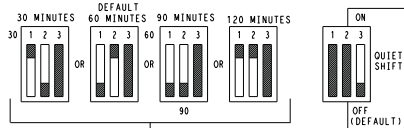
- COMP COMPRESSOR MOTOR
- DB DEFROST BOARD
- DEHUM DEHUMIDIFICATION MODE
- DFT DEFROST TEMPERATURE SWITCH
- DR DEFROST RELAY
- EQUIP EQUIPMENT
- GND GROUND
- HPS HIGH PRESSURE SWITCH
- HR HEATER RELAY
- IFB INDOOR FAN BOARD
- IFM INDOOR FAN MOTOR
- LPS LOW PRESSURE SWITCH
- OFM OUTDOOR FAN MOTOR
- RVS REVERSING VALVE
- STD STANDARD MODE
- TRAN TRANSFORMER
- T-STAT THERMOSTAT

- C CONTACTOR
- CAP 1 CAPACITOR, COMP
- CCH CRANK CASE HEATER

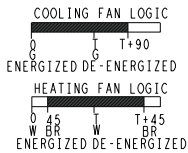
50EZ--A



DIP SWITCH SETTINGS



FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES)



SPEED UP JUMPED TEST PINS (USE METAL OBJECT) FIELD SPEED-UP CYCLE

- 1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
- 2) SHORT FOR 5+ SEC. AND RELEASE FOR FORCED DEFROST.
- 3) PERMANENT SHORT WILL BE IGNORED.

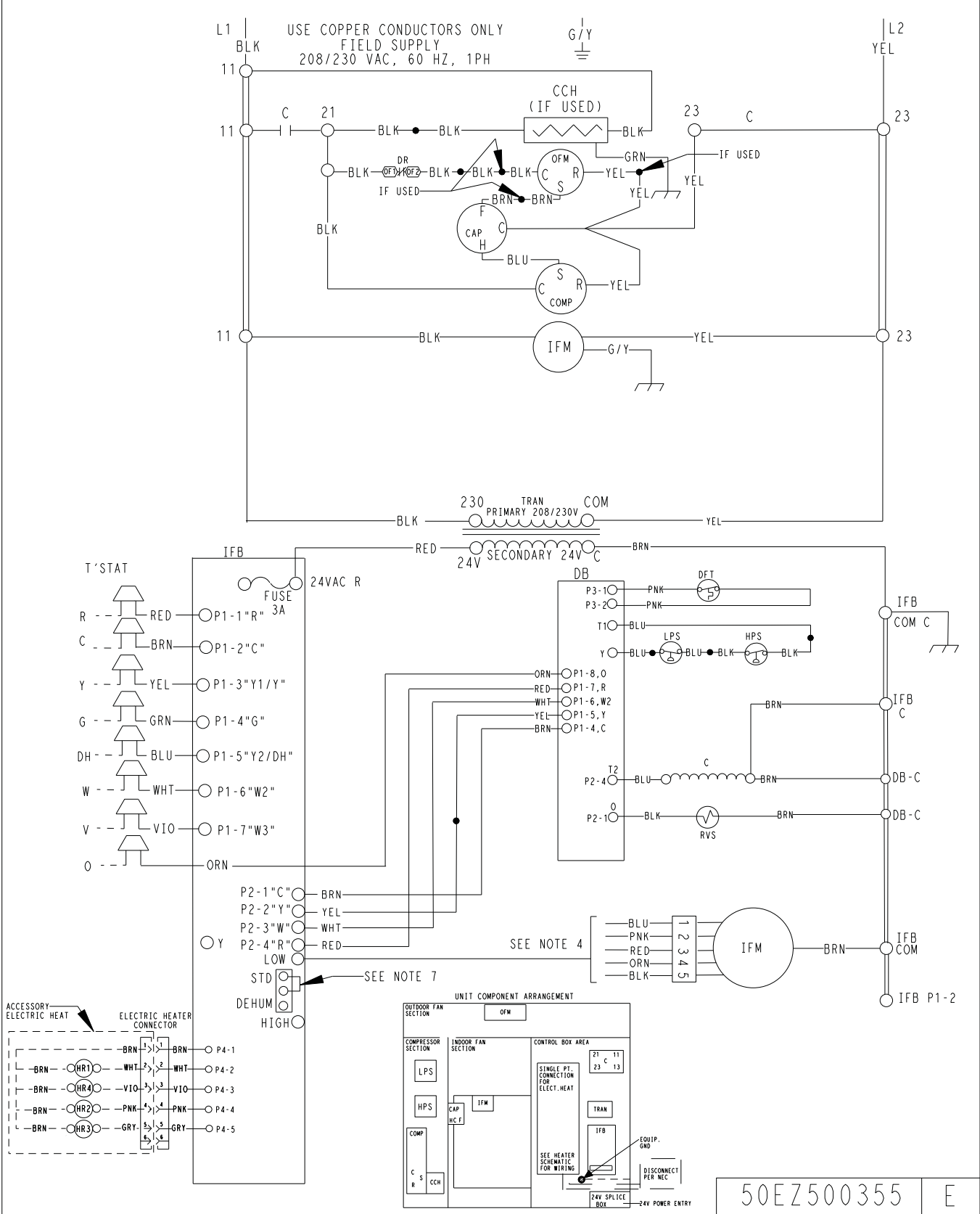
DEFROST WILL TERMINATE IN 30 SEC. IF DFT OPEN. DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.

THE COMPRESSOR WILL SHUT OFF FOR 30 SEC. ON DEFROST INITIATION AND TERMINATION IN THE "QUIET SHIFT" ON POSITION

LADDER WIRING SCHEMATICS 208/230-1-60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ--A

A11001

CONNECTION WIRING SCHEMATICS - 208/230-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

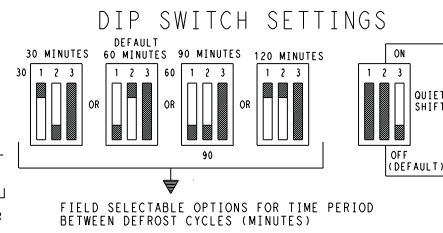
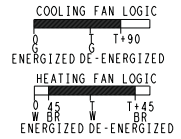
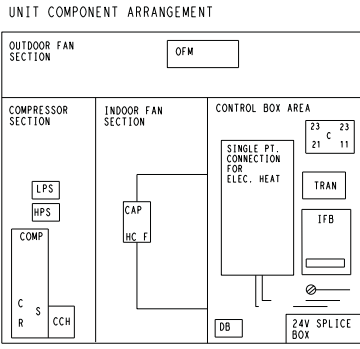
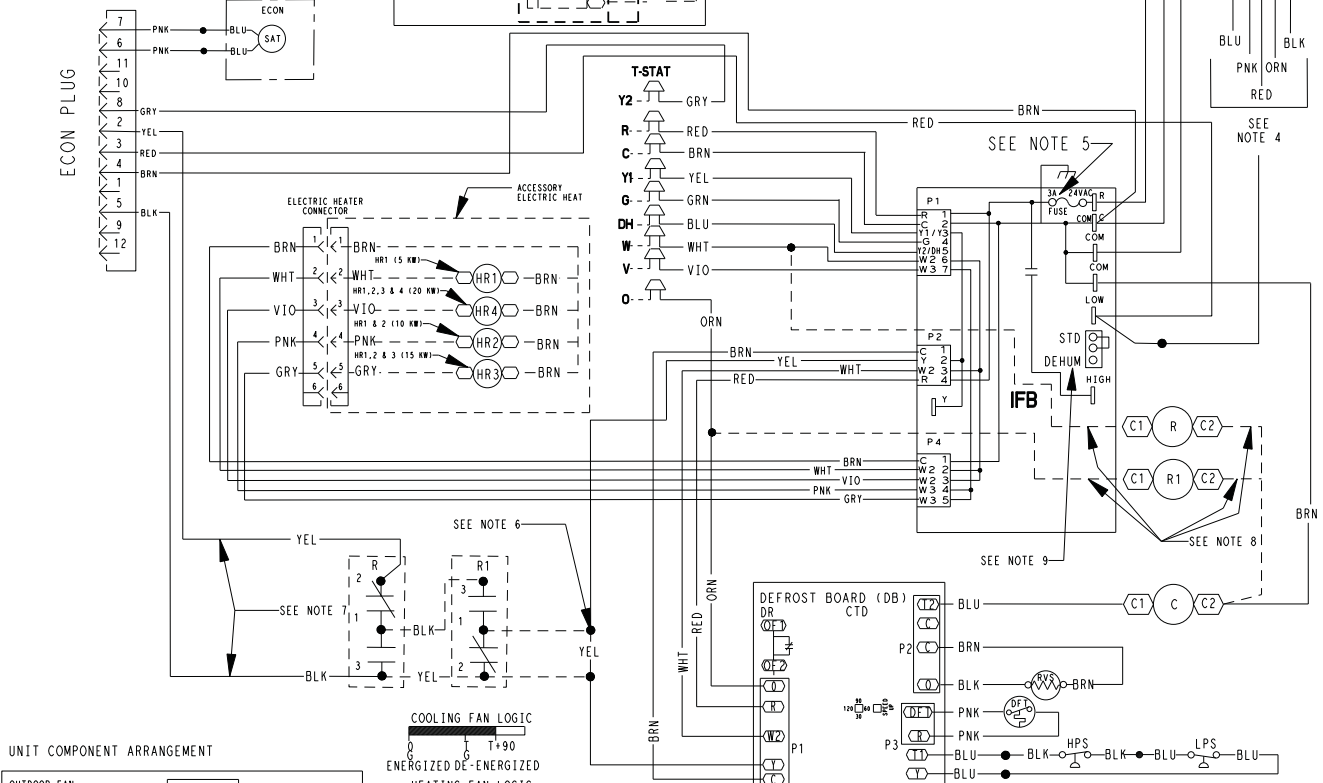
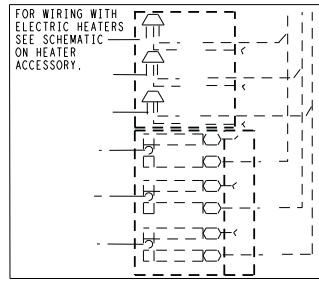
SCHEMATIC
208/230-3-60

- NOTES:
- IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, THEY MUST BE REPLACED WITH THE SAME WIRE OR ITS EQUIVALENT.
 - SEE PRICE PAGES FOR THERMOSTATS.
 - USE 75 DEG. COPPER CONDUCTORS FOR FIELD INSTALLATION.
 - SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
 - THIS FUSE IS MANUFACTURED BY LITTEL FUSE, P/N 251003.
 - REMOVE YELLOW SPlice WIRE WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED AND CONNECT TO RELAY R1 AS SHOWN.
 - WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED, CONNECT THE YELLOW AND BLACK WIRES TO RELAY R AS SHOWN. RELAY KIT REQUIRED WITH ECONOMIZER AND HEAT PUMP/DUAL FUEL UNITS.
 - WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED, INSTALL WIRES AS SHOWN ONTO THE COILS OF RELAY R AND RELAY R1.
 - DEHUM FEATURE CANNOT BE USED WHEN ECONOMIZER IS INSTALLED. UNIT FACTORY-SHIPPED IN STD MODE.

COLOR CODE

| | |
|-----|--------|
| BLK | BLACK |
| BLU | BLUE |
| BRN | BROWN |
| GRY | GRAY |
| GRN | GREEN |
| ORN | ORANGE |
| PNK | PINK |
| RED | RED |
| VIO | VIOLET |
| WHT | WHITE |
| YEL | YELLOW |

- LEGEND
- | | |
|--------|------------------------------|
| △ | FIELD SPlice |
| ○ | TERMINAL (MARKED) |
| ● | TERMINAL (UNMARKED) |
| ○ | SPlice (IF USED) |
| ○ | SPlice (MARKED) |
| --- | FACTORY WIRING |
| --- | FIELD CONTROL WIRING |
| --- | FIELD POWER WIRING |
| --- | ACCESSORY OR OPTIONAL WIRING |
| C | CONTACTOR |
| CAP 1 | CAPACITOR, COMP |
| CCH | CRANK CASE HEATER |
| COMP | COMPRESSOR MOTOR |
| DB | DEFROST BOARD |
| DH | DEHUMIDIFICATION MODE |
| DEHUM | DEHUMIDIFICATION MODE |
| DFT | DEFROST TEMPERATURE SWITCH |
| DR | DEFROST RELAY |
| ECON | ECONOMIZER |
| EQUIP | EQUIPMENT |
| GND | GROUND |
| HPS | HIGH PRESSURE SWITCH |
| HR | HEATER RELAY |
| IFB | INDOOR FAN BOARD |
| IFM | INDOOR FAN MOTOR |
| LPS | LOW PRESSURE SWITCH |
| OFM | OUTDOOR FAN MOTOR |
| RVS | REVERSING VALVE |
| TRAN | TRANSFORMER |
| T-STAT | THERMOSTAT |
| R | ECON RELAY |
| R1 | ECON RELAY |
| STD | STANDARD MODE |



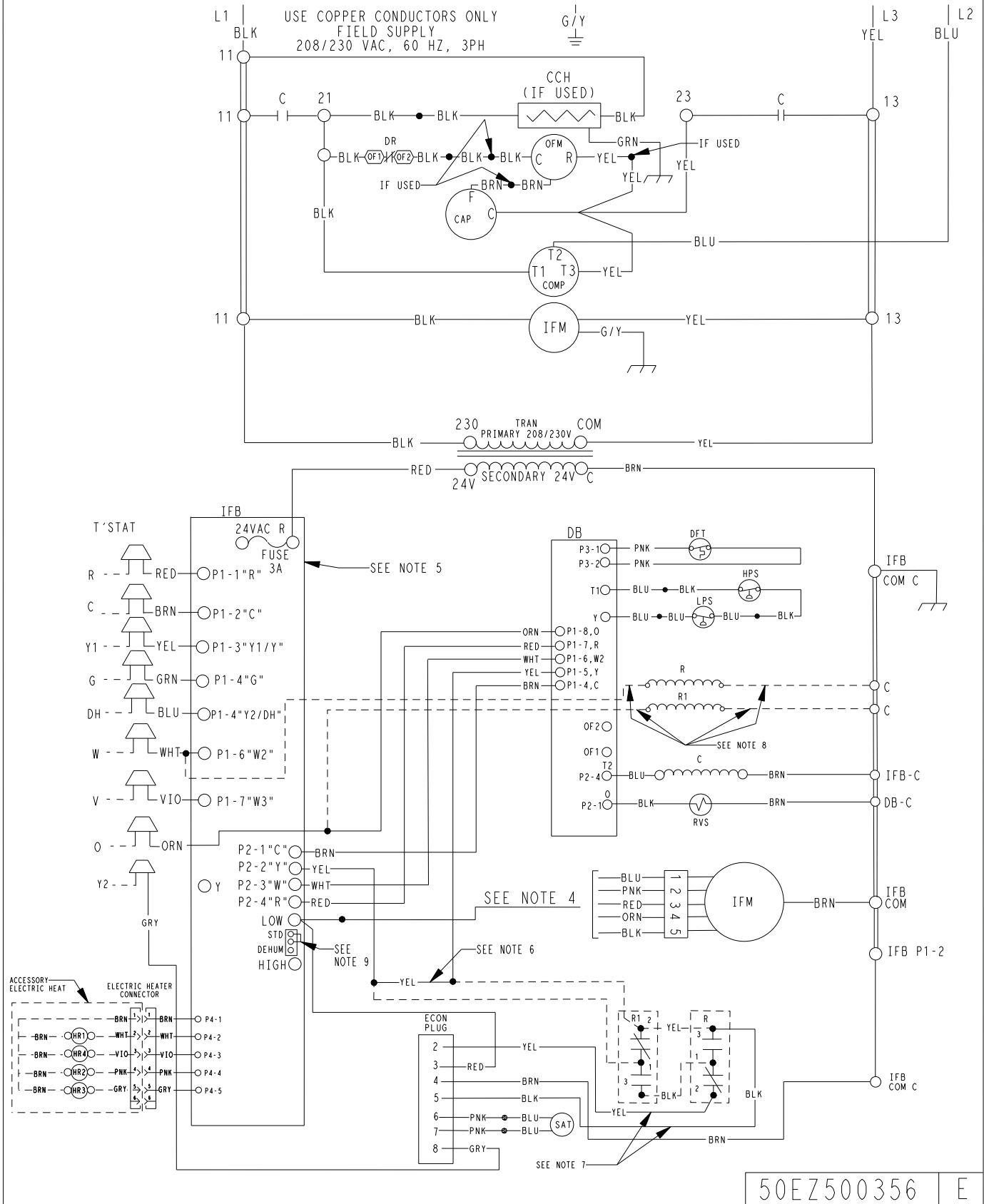
- SPEED UP JUMPED TEST PINS (USE METAL OBJECT) FIELD SPEED-UP CYCLE
- MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
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 - PERMANENT SHORT WILL BE IGNORED.
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50EZ-A

LADDER WIRING SCHEMATICS - 208/230-3-60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ--A

CONNECTION WIRING DIAGRAM 460-3-60

CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC
460-3-60

NOTES:

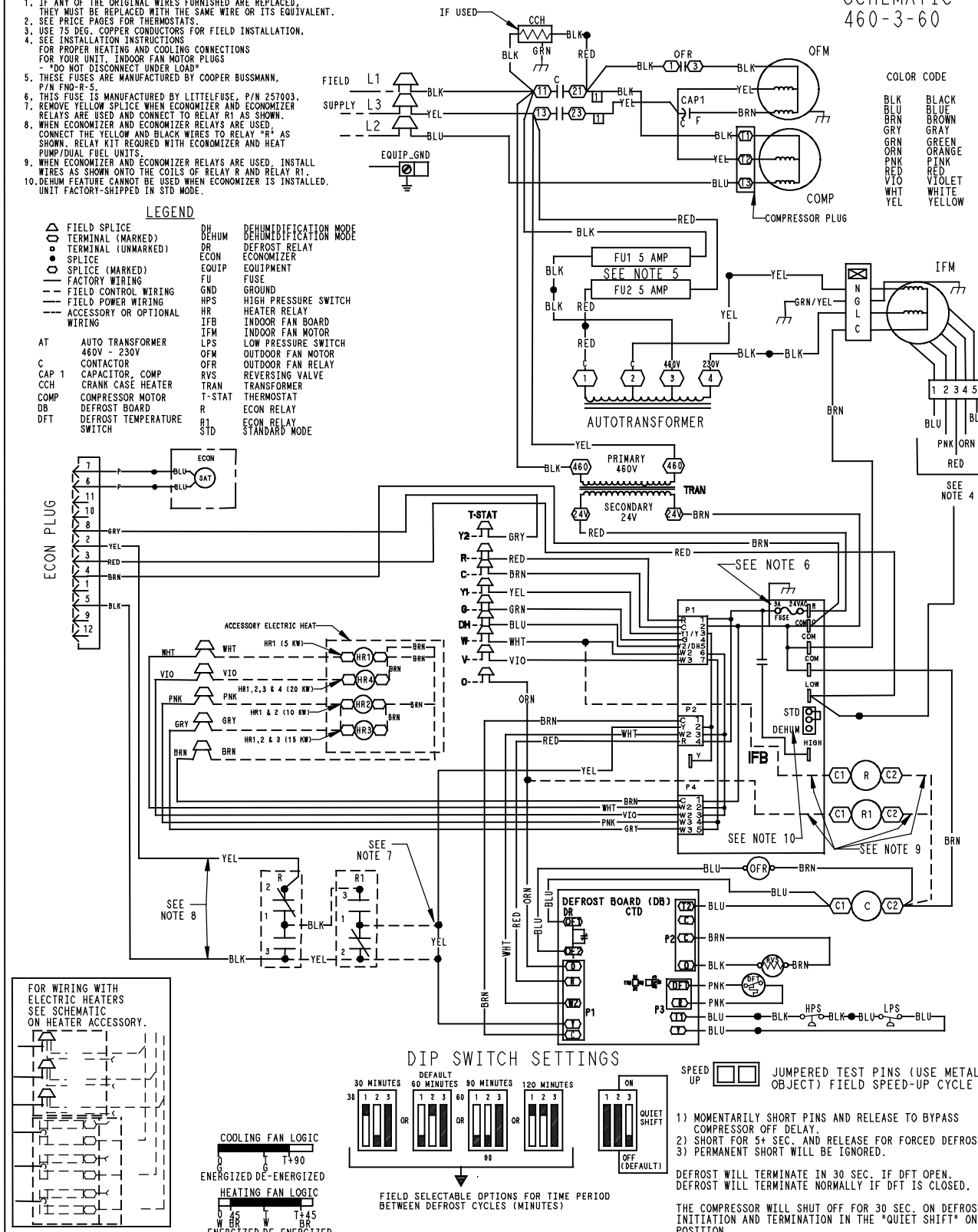
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- SEE PRICE PAGES FOR THERMOSTATS.
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- SEE INSTALLATION INSTRUCTIONS FOR PROPER HEATING AND COOLING CONNECTIONS FOR YOUR UNIT. INDOOR FAN MOTOR PLUGS - "DO NOT DISCONNECT UNDER LOAD"
- THESE FUSES ARE MANUFACTURED BY COOPER BUSSMANN, P/N FMO-R-5.
- THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003.
- REMOVE YELLOW SPLICE WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED AND CONNECT TO RELAY R1 AS SHOWN.
- WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED, CONNECT THE YELLOW AND BLACK WIRES TO RELAY "R" AS SHOWN. RELAY KIT REQUIRED WITH ECONOMIZER AND HEAT PUMP/DUAL FUEL UNITS.
- WHEN ECONOMIZER AND ECONOMIZER RELAYS ARE USED, INSTALL WIRES AS SHOWN ONTO THE COILS OF RELAY R AND RELAY R1.
- DEHUM FEATURE CANNOT BE USED WHEN ECONOMIZER IS INSTALLED. UNIT FACTORY-SHIPPED IN STD MODE.

LEGEND

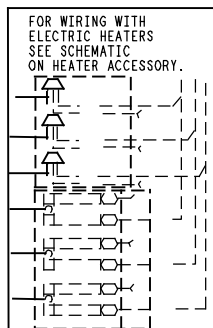
| | | | |
|-------|------------------------------|--------|-----------------------|
| △ | FIELD SPLICE | DH | DEHUMIDIFICATION MODE |
| ○ | TERMINAL (MARKED) | DR | DEFROST RELAY |
| ○ | TERMINAL (UNMARKED) | ECON | ECONOMIZER |
| ○ | SPLICE | EQUIP | EQUIPMENT |
| ○ | SPLICE (MARKED) | FU | FUSE |
| --- | FACTORY WIRING | GND | GROUND |
| --- | FIELD CONTROL WIRING | HPS | HIGH PRESSURE SWITCH |
| --- | FIELD POWER WIRING | HR | HEATER RELAY |
| --- | ACCESSORY OR OPTIONAL WIRING | IFB | INDOOR FAN BOARD |
| AT | AUTO TRANSFORMER | IFM | INDOOR FAN MOTOR |
| C | CONTACTOR | LPS | LOW PRESSURE SWITCH |
| CAP 1 | CAPACITOR, COMP | OFM | OUTDOOR FAN MOTOR |
| CCH | CRANK CASE HEATER | OFR | OUTDOOR FAN RELAY |
| COMP | COMPRESSOR MOTOR | RVS | REVERSING VALVE |
| DB | DEFROST BOARD | TRAN | TRANSFORMER |
| DFT | DEFROST TEMPERATURE SWITCH | T-STAT | THERMOSTAT |
| | | R | ECON RELAY |
| | | R1 | ECON RELAY |
| | | STD | STANDARD MODE |

COLOR CODE

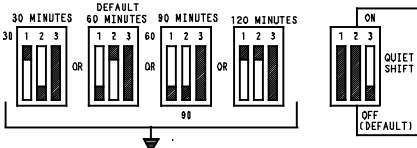
| | |
|-----|--------|
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| BLU | BLUE |
| BRN | BROWN |
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| GRN | GREEN |
| ORN | ORANGE |
| PNK | PINK |
| RED | RED |
| VIO | VIOLET |
| WHT | WHITE |
| YEL | YELLOW |



50EZ--A



DIP SWITCH SETTINGS



SPEED UP **JUMPERED TEST PINS (USE METAL OBJECT) FIELD SPEED-UP CYCLE**

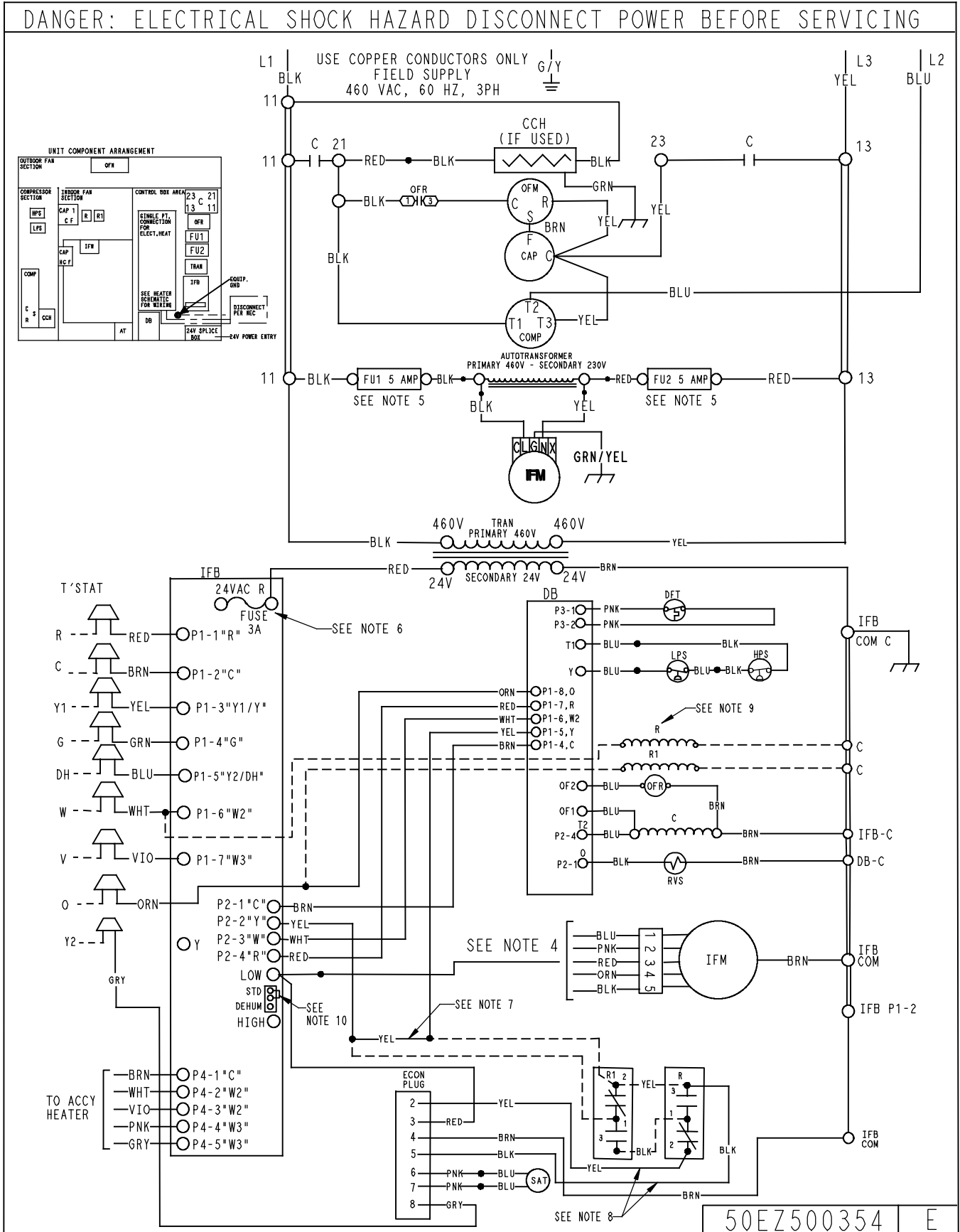
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THE COMPRESSOR WILL SHUT OFF FOR 30 SEC. ON DEFROST INITIATION AND TERMINATION IN THE "QUIET SHIFT" ON POSITION

LADDER WIRING DIAGRAM 460-3-60

LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50EZ--A

CONTROLS

Operating sequence

When power is supplied to unit, the transformer (TRAN) is energized.

On units with crankcase heater, heater is also energized.

Cooling — With the thermostat in the cooling position, the thermostat makes circuit “R” to “O”. This energizes the reversing valve solenoid (RVS) and places the unit in standby condition for cooling.

As the space temperature rises, the thermostat closes circuit “R” to “Y”. A circuit is made to contactor (C), starting the compressor (COMP) and outdoor-fan motor (OFM). Circuit “R” to “G” is made at the same time and starts the indoor-fan motor (IFM).

When the thermostat is satisfied, contacts open, deenergizing C. The COMP and OFM stop, and the IFM stops after the preselected time delay.

On the loss of the thermostat call for cooling, 24 V is removed from both the “Y1/Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de-energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 90-second delay, the IFM shuts off. If the thermostat fan selector switch is in the “ON” position, the IFM will run continuously.

Heating — On a call for heat, thermostat makes circuits “R” to “Y” and “R” to “G”.

A circuit is made to C, starting COMP and OFM. Circuit “R” to “G” also is completed, energizing IFR and starting IFM after the selected time delay.

Should room temperature continue to fall, circuit “R” to “W” is made through second-stage thermostat. If optional electric heat package is used, a relay is energized, bringing on first bank of supplemental electric heat. When thermostat is satisfied, contacts open, deenergizing contactor and relay; motors and heaters deenergize.

Defrost — Defrost board (DB) is a time and temperature control, which includes a field-selectable time period (dip switch 1 and 2 on the board) between checks for defrost (30, 60, 90, or 120 minutes). Electronic timer and defrost cycle start only when contactor is energized and defrost thermostat (DFT) is closed.

The defrost board is also equipped with a third dip switch for selecting Quiet Shift operation. The Quiet Shift operation turns compressor off at defrost initiation and termination. Unit is factory shipped with quiet shift turned off.

Defrost mode is identical to cooling mode, except outdoor fan motor stops and a bank of optional electric heat turns on to warm air supplying the conditioned space.

NOTE:

1. Compressor time delay occurs through the defrost control board.
2. Defrost control board has built in 5 minute compressor delay; once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

GUIDE SPECIFICATIONS

Packaged Heat Pumps

HVAC Guide Specifications

Size Range: **2 to 5 Tons, Nominal Cooling**

Carrier Model Number: **50EZ-A**

Part 1—General

SYSTEM DESCRIPTION

Outdoor, packaged, air-to-air heat pump unit utilizing a hermetic scroll compressor for cooling duty and optional electric heating. Unit shall discharge supply air vertically or horizontally as shown on contract drawings. Outdoor fan/coil section shall have a draw-thru design with vertical discharge for minimum sound levels.

QUALITY ASSURANCE

- A. Unit shall be rated in accordance with AHRI Standards 210/240 and 270.
- B. Unit shall be designed in accordance with UL Standard 1995.
- C. Unit shall be manufactured in a facility registered to ISO 9001 manufacturing quality standard.
- D. Unit shall be UL listed and c-UL certified as a total package for safety requirements.
- E. Roof curb shall be designed to conform to NRCA Standards.
- F. Insulation and adhesives shall meet NFPA 90A requirements for flame spread and smoke generation.
- G. Cabinet insulation shall meet ASHRAE Standard 62P.

DELIVERY, STORAGE AND HANDLING

Unit shall be stored and handled per manufacturer's recommendations.

Part 2 — Products

EQUIPMENT

A. General:

Factory-assembled, single-piece, heat pump unit. Contained within the enclosure shall be all factory wiring, piping, controls, refrigerant charge (R-410A), and special features required prior to field start-up.

B. Unit Cabinet:

- 1. Unit cabinet shall be constructed of phosphated, zinc-coated, pre-painted steel capable of withstanding 500 hours of salt spray.
- 2. Normal service shall be through a single removable cabinet panel.
- 3. The unit shall be constructed on a rust proof unit base that has an externally trapped, integrated sloped drain.
- 4. Indoor fan compartment top surface shall be insulated with a minimum 1/2-in. (12.7 mm) thick, flexible fiberglass insulation, coated on the air side and retained by adhesive and mechanical means. The indoor wall sections will be insulated with a minimum semi-rigid, foil-faced board capable of being wiped clean. Aluminum foil-faced fiberglass insulation shall be used in the entire indoor air cavity section.
- 5. Unit shall have a field-supplied condensate trap.
- 6. Metal Insulated Duct Covers for side discharge will be standard on all sizes.
- 7. Unit insulation conforms to ASHRAE 62P.

C. Fans:

- 1. The indoor fan shall be 5-speed, direct-drive, as shown on equipment drawings.
- 2. Fan wheel shall be made from steel and shall be double-inlet type with forward-curved blades with

corrosion resistant finish. Fan wheel shall be dynamically balanced.

- 3. Outdoor fan shall be direct-drive, propeller-type with aluminum blades riveted to corrosion resistant steel spiders, be dynamically balanced, and discharge air vertically.

D. Compressor:

- 1. Fully hermetic compressors with factory-installed vibration isolation.
- 2. Scroll compressors shall be standard on all units.
- 3. Compressor Protection:
Defrost control shall protect compressor by preventing "short cycling."

E. Coils:

Indoor and outdoor coils shall have aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed. Tube sheet openings shall be belled to prevent tube wear.

F. Refrigerant Metering Device:

Refrigerant metering device shall be thermostatic expansion valve for cooling, and fixed orifice for heating.

G. Filters:

Filter section shall consist of field-installed, throwaway, 1-in. (25 mm) - thick fiberglass filters of commercially available sizes.

H. Controls and Safeties:

- 1. Unit controls shall be complete with a self-contained, low-voltage control circuit.
- 2. Units shall incorporate an internal compressor protector that provides reset capability.

I. Operating Characteristics:

- 1. Unit shall be capable of starting and running at 125°F (51.7°C) ambient outdoor temperature.
- 2. Compressor with standard controls shall be capable of operation down to 40°F (4.4°C) ambient outdoor temperature in cooling mode.
- 3. Unit shall be provided with 60-second fan time delay after the thermostat is satisfied.

J. Electrical Requirements:

All unit power wiring shall enter the unit cabinet at a single location.

K. Motors:

- 1. Compressor motors shall be of the refrigerant-cooled type with line-break thermal and current overload protection.
- 2. All fan motors shall have permanently lubricated bearings, and inherent, automatic reset, thermal overload protection.
- 3. Condenser fan motor shall be totally enclosed.
- 4. Evaporator Fan Motor to be ECM Motor.
- 5. Condenser fan motor shall be totally enclosed.

L. Special Features Available:

- 1. Coil Options:
Base unit with tin plated indoor coil hairpins.
- 2. Compressor Start Kit (single phase units only)
Shall provide additional starting torque for single-phase compressors.
- 3. Thermostat:
To provide for two-stage heating and one-stage cooling in addition manual or automatic changeover and indoor fan control.
- 4. Crankcase Heater:
Shall provide anti-floodback protection for lowload cooling applications.

50EZ-A

GUIDE SPECIFICATIONS (CONT)

5. Economizer:

(Horizontal - Field installed accessory)

(Vertical - Field installed accessory or factory installed option)

- a. Economizer controls capable of providing free cooling using outside air.
- b. Equipped with low leakage dampers not to exceed 3% leakage, at 1.0 in. W.C. pressure differential.
- c. Spring return motor shuts off outdoor damper on power failure.

6. Electric Heaters:

- a. Electric heater shall be available as a field installed option.
- b. Heater elements shall be open wire type, adequately supported and insulated with ceramic bushings.
- c. Electric heater packages must provide single point power connection capability.

7. Filter Rack Kit:

Shall provide filter mounting for downflow applications. Offered as an accessory or as a factory installed option.

8. Flat Roof Curb:

Curbs shall have seal strip and a wood nailer for flashing and shall be installed per manufacturer's instructions.

9. Low Ambient Package:

Shall consist of a solid-state control and outdoor coil tem-

perature sensor for controlling outdoor-fan motor operation, which shall allow unit to operate down to 0°F (-17.7°C) outdoor ambient temperature.

10. Louvered Grille:

Wire grille shall be standard on all units. Louvered grille shall be available as a field-installed option to provide hail guard and vandalism protection.

11. Manual Outdoor Air Damper:

Package shall consist of damper, birdscreen, and rainhood which can be preset to admit outdoor air for year-round ventilation.

12. Square-To-Round Duct Transitions (24-48 size):

Shall have the ability to convert the supply and return openings from rectangular to round.

13. 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 or with a RTU-MP control.

14. Dual Point Electric Heaters

Allows you to power the electric heater and unit contactor separately by having two individual field power supply circuits connected respectively.