



# PAD3

## Product Specifications

### 13 SEER PACKAGE AIR CONDITIONER, 2.5 to 5 TONS

208/230-3-60, 460-3-60

#### REFRIGERATION CIRCUIT

- Environmentally sound R-410A refrigerant
- Scroll compressor standard on all models
- Copper tube/aluminum fin condenser and evaporator coils
- Dehumidification mode (airflow reduction) on all models

#### EASY TO INSTALL AND SERVICE

- Installs easily on a rooftop or at ground level
- Easy three-panel accessibility for maintenance and installation
- Easily converts to down discharge applications

#### BUILT TO LAST

- 2" spacing wire grilles standard on all models
- Pre-painted steel cabinet
- High efficiency ECM indoor blower motor on all models
- Vertical condenser fan discharge
- Full perimeter steel base rails
- High and Low pressure switches provide added reliability for the compressor

#### WARRANTY

- 5 year compressor limited warranty
- 1 year parts limited warranty



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

| UNIT PERFORMANCE DATA |                |      |      |                                                                                     |                              |
|-----------------------|----------------|------|------|-------------------------------------------------------------------------------------|------------------------------|
| Model Number          | COOLING        |      |      | Unit Dimensions<br>Height x Width x Depth<br>in (mm)                                | Operating Weight<br>lbs (kg) |
|                       | Capacity BTU/h | SEER | EER  |                                                                                     |                              |
| PAD330000H000C        | 28,600         | 13.5 | 11.2 | 42x48 <sup>3</sup> / <sub>16</sub> x32 <sup>5</sup> / <sub>8</sub> (1067x1224x829)  | 277 (125)                    |
| PAD336000*000C        | 34,400         | 13.0 | 11.0 | 46x48 <sup>3</sup> / <sub>16</sub> x32 <sup>5</sup> / <sub>8</sub> (1168x1224x829)  | 283 (128)                    |
| PAD342000*000C        | 40,500         | 13.2 | 11.2 | 40x48 <sup>3</sup> / <sub>16</sub> x44 <sup>1</sup> / <sub>8</sub> (1016x1224x1123) | 369 (167)                    |
| PAD348000*000C        | 46,500         | 13.2 | 11.2 | 41x48 <sup>3</sup> / <sub>16</sub> x44 <sup>1</sup> / <sub>8</sub> (1041x1224x1123) | 375 (170)                    |
| PAD360000*000C        | 57,000         | 13.4 | 11.0 | 41x48 <sup>3</sup> / <sub>16</sub> x44 <sup>1</sup> / <sub>8</sub> (1041x1224x1123) | 397 (180)                    |

\* H = 208/230-3-60, L = 460-3-60

| MODEL NOMENCLATURE           |   |   |   |   |     |       |    |       |    |    |    |
|------------------------------|---|---|---|---|-----|-------|----|-------|----|----|----|
| MODEL SERIES                 | 1 | 2 | 3 | 4 | 5,6 | 7,8,9 | 10 | 11,12 | 13 | 14 | 15 |
|                              | P | A | D | 3 | 36  | 000   | H  | 00    | 0  | C  | 1  |
| P = Package                  |   |   |   |   |     |       |    |       |    |    |    |
| A = Air Conditioner          |   |   |   |   |     |       |    |       |    |    |    |
| D = Standard                 |   |   |   |   |     |       |    |       |    |    |    |
| TIER                         |   |   |   |   |     |       |    |       |    |    |    |
| 3 = 13                       |   |   |   |   |     |       |    |       |    |    |    |
| 4 = 14                       |   |   |   |   |     |       |    |       |    |    |    |
| SEER                         |   |   |   |   |     |       |    |       |    |    |    |
| 30 = 30,000 BTUH = 2.5 Tons  |   |   |   |   |     |       |    |       |    |    |    |
| 36 = 36,000 BTUH = 3 Tons    |   |   |   |   |     |       |    |       |    |    |    |
| 42 = 42,000 BTUH = 3.5 Tons  |   |   |   |   |     |       |    |       |    |    |    |
| 48 = 48,000 BTUH = 4 Tons    |   |   |   |   |     |       |    |       |    |    |    |
| 60 = 60,000 BTUH = 5 Tons    |   |   |   |   |     |       |    |       |    |    |    |
| NOMINAL COOLING CAPACITY     |   |   |   |   |     |       |    |       |    |    |    |
| 000 = no factory heat        |   |   |   |   |     |       |    |       |    |    |    |
| NOMINAL HEATING BTUH (input) |   |   |   |   |     |       |    |       |    |    |    |
| H = 208/230-3-60             |   |   |   |   |     |       |    |       |    |    |    |
| L = 460-3-60                 |   |   |   |   |     |       |    |       |    |    |    |
| VOLTAGE                      |   |   |   |   |     |       |    |       |    |    |    |
| 00 = No options              |   |   |   |   |     |       |    |       |    |    |    |
| FACTORY INSTALLED OPTIONS    |   |   |   |   |     |       |    |       |    |    |    |
| 0 = Standard                 |   |   |   |   |     |       |    |       |    |    |    |
| FEATURE CODE                 |   |   |   |   |     |       |    |       |    |    |    |
| Sales Model Digit            |   |   |   |   |     |       |    |       |    |    |    |
| Engineering Digit            |   |   |   |   |     |       |    |       |    |    |    |

## AHRI\* CAPACITIES

| COOLING CAPACITIES AND EFFICIENCIES – PAD3 |              |              |                               |       |       |
|--------------------------------------------|--------------|--------------|-------------------------------|-------|-------|
| Unit PAD3                                  | Nominal Tons | Standard CFM | Net Cooling Capacities (Btuh) | EER** | SEER† |
| 30                                         | 2-1/2        | 1000         | 28,600                        | 11.2  | 13.5  |
| 36                                         | 3            | 1200         | 34,400                        | 11.0  | 13.0  |
| 42                                         | 3-1/2        | 1400         | 40,500                        | 11.2  | 13.2  |
| 48                                         | 4            | 1600         | 46,500                        | 11.2  | 13.2  |
| 60                                         | 5            | 1750         | 57,000                        | 11.0  | 13.4  |

### LEGEND

dB – Sound Levels (decibels)

db – Dry Bulb

SEER – Seasonal Energy Efficiency Ratio

wb – Wet Bulb

COP – Coefficient of Performance

\* Air Conditioning, Heating & Refrigeration Institute.

\*\*At "A" conditions—80°F (26.7°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor db.

† Rated in accordance with U.S. Government DOE (Department of Energy) test procedures and/or AHRI Standards 210/240-08.

Notes:

1. Ratings are net values, reflecting the effects of circulating fan heat.

Ratings are based on:

**Cooling Standard:** 80°F (26.7°C) db, 67°F wb (19.4°C) indoor entering-air temperature and 95°F db (35°C) outdoor entering-air temperature.

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

# ELECTRICAL DATA PAD3

208/230V – 3 Ph – 60 Hz

| UNIT<br>PAD3 | Nominal<br>V-PH-HZ | Voltage<br>Range |     | Compressor |       | OFM | IFM | Nominal kW<br>208v/230v | FLA<br>208/230 | MCA<br>208/230 | MOCP*<br>208/230 |
|--------------|--------------------|------------------|-----|------------|-------|-----|-----|-------------------------|----------------|----------------|------------------|
|              |                    | Min              | Max | RLA        | LRA   | FLA | FLA |                         |                |                |                  |
| 30           | 208/230-3-60       | 197              | 253 | 8.4        | 58.0  | 1.2 | 4.1 | -/-                     | -              | 15.8           | 20               |
|              |                    |                  |     |            |       |     |     | 3.8/5                   | 10.4/12.0      | 18.1/20.1      | 20/25            |
|              |                    |                  |     |            |       |     |     | 7.5/10                  | 20.8/24.1      | 31.1/35.3      | 35/40            |
|              |                    |                  |     |            |       |     |     | 11.3/15                 | 31.3/36.1      | 44.3/50.3      | 45/60            |
| 36           | 208/230-3-60       | 197              | 253 | 10.4       | 88.0  | 1.2 | 6.0 | -/-                     | -              | 20.3           | 30               |
|              |                    |                  |     |            |       |     |     | 3.8/5                   | 10.4/12.0      | 20.5/22.5      | 30/30            |
|              |                    |                  |     |            |       |     |     | 7.5/10                  | 20.8/24.1      | 33.5/37.6      | 35/40            |
|              |                    |                  |     |            |       |     |     | 11.3/15                 | 31.3/36.1      | 46.6/52.6      | 50/60            |
| 42           | 208/230-3-60       | 197              | 253 | 13.5       | 88.0  | 1.2 | 6.0 | -/-                     | -              | 24.1           | 35               |
|              |                    |                  |     |            |       |     |     | 3.8/5                   | 10.4/12.0      | 24.1/24.1      | 35/35            |
|              |                    |                  |     |            |       |     |     | 7.5/10                  | 20.8/24.1      | 33.5/37.6      | 35/40            |
|              |                    |                  |     |            |       |     |     | 11.3/15                 | 31.3/36.1      | 46.6/52.6      | 50/60            |
| 48           | 208/230-3-60       | 197              | 253 | 13.7       | 83.1  | 1.2 | 7.6 | 15/20                   | 41.4/47.9      | 59.3/67.4      | 60/70            |
|              |                    |                  |     |            |       |     |     | -/-                     | -              | 25.9           | 35               |
|              |                    |                  |     |            |       |     |     | 3.8/5                   | 10.4/12.0      | 25.9/25.9      | 35/35            |
|              |                    |                  |     |            |       |     |     | 7.5/10                  | 20.8/24.1      | 35.5/39.6      | 40/40            |
| 60           | 208/230-3-60       | 197              | 253 | 16.0       | 110.0 | 1.2 | 7.6 | 11.3/15                 | 31.3/36.1      | 48.6/54.6      | 50/60            |
|              |                    |                  |     |            |       |     |     | 15/20                   | 41.4/47.9      | 61.3/69.4      | 70/70            |
|              |                    |                  |     |            |       |     |     | -/-                     | -              | 28.8           | 40               |
|              |                    |                  |     |            |       |     |     | 3.8/5                   | 10.4/12.0      | 28.8/28.8      | 40/40            |

460V – 3 Ph – 60 Hz

|    |          |     |     |     |      |     |     |    |      |      |    |
|----|----------|-----|-----|-----|------|-----|-----|----|------|------|----|
| 36 | 460-3-60 | 414 | 506 | 5.8 | 38.0 | 0.5 | 3.0 | -  | -    | 10.7 | 15 |
|    |          |     |     |     |      |     |     | 5  | 6.0  | 11.3 | 15 |
|    |          |     |     |     |      |     |     | 10 | 12.0 | 18.8 | 20 |
|    |          |     |     |     |      |     |     | 15 | 18.0 | 26.3 | 30 |
| 42 | 460-3-60 | 414 | 506 | 6.0 | 44.0 | 0.5 | 3.0 | -  | -    | 11.0 | 15 |
|    |          |     |     |     |      |     |     | 5  | 6.0  | 11.3 | 15 |
|    |          |     |     |     |      |     |     | 10 | 12.0 | 18.8 | 20 |
|    |          |     |     |     |      |     |     | 15 | 18.0 | 26.3 | 30 |
| 48 | 460-3-60 | 414 | 506 | 6.2 | 41.0 | 0.5 | 3.8 | 20 | 24.1 | 33.9 | 35 |
|    |          |     |     |     |      |     |     | -  | -    | 12.1 | 15 |
|    |          |     |     |     |      |     |     | 5  | 6.0  | 12.3 | 15 |
|    |          |     |     |     |      |     |     | 10 | 12.0 | 19.8 | 20 |
| 60 | 460-3-60 | 414 | 506 | 7.8 | 52.0 | 0.5 | 3.8 | 15 | 18.0 | 27.3 | 30 |
|    |          |     |     |     |      |     |     | 20 | 24.1 | 34.9 | 35 |
|    |          |     |     |     |      |     |     | -  | -    | 14.0 | 20 |
|    |          |     |     |     |      |     |     | 5  | 6.0  | 14.0 | 20 |

\* FUSE OR CIRCUIT BREAKER  
LEGEND

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

Notes:

1. 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. The CGA (Canadian Gas Association) units may be fuse or circuit breaker.

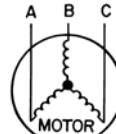
2. Minimum wire size is based on 60°C copper wire. If other than 60°C wire is used, or if length exceeds wire length in table, determine size from NEC.

3. 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 percent of voltage imbalance.*

% 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

$$\text{Average Voltage} = \frac{228 + 231 + 227}{3}$$

$$= \frac{686}{3}$$

$$= 229$$

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.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{2}{229}$$

$$= 0.8\%$$

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.

| UNIT SPECIFICATIONS – UNIT PAD3                                                       |                          |            |            |            |            |
|---------------------------------------------------------------------------------------|--------------------------|------------|------------|------------|------------|
| UNIT SIZE                                                                             | 30                       | 36         | 42         | 48         | 60         |
| NOMINAL CAPACITY (ton)                                                                | 2–1/2                    | 3          | 3–1/2      | 4          | 5          |
| SHIPPING WEIGHT lb.                                                                   | 284                      | 290        | 378        | 384        | 406        |
| SHIPPING WEIGHT (kg)                                                                  | 129                      | 132        | 171        | 174        | 184        |
| COMPRESSORS                                                                           | Scroll                   |            |            |            |            |
| Quantity                                                                              | 1                        |            |            |            |            |
| REFRIGERANT (R-410A)                                                                  |                          |            |            |            |            |
| Quantity lb                                                                           | 6.2                      | 6.4        | 6.1        | 6.4        | 10.0       |
| Quantity (kg)                                                                         | 2.8                      | 2.9        | 2.7        | 2.9        | 4.5        |
| REFRIGERANT METERING DEVICE                                                           | TXV                      |            |            |            |            |
| OUTDOOR COIL                                                                          |                          |            |            |            |            |
| Rows...Fins/in.                                                                       | 1...21                   | 1...21     | 1...21     | 1...21     | 2...21     |
| Face Area (sq ft)                                                                     | 11.9                     | 15.4       | 13.6       | 15.5       | 15.5       |
| OUTDOOR FAN                                                                           |                          |            |            |            |            |
| Nominal Cfm                                                                           | 3000                     | 3200       | 3600       | 4000       | 3200       |
| Diameter in.                                                                          | 24                       | 24         | 26         | 26         | 26         |
| Diameter (mm)                                                                         | 610                      | 610        | 660        | 660        | 660        |
| Motor Hp (Rpm)                                                                        | 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     |
| Face Area (sq ft)                                                                     | 3.7                      | 3.7        | 4.7        | 4.7        | 5.7        |
| INDOOR BLOWER                                                                         |                          |            |            |            |            |
| Nominal Cooling Airflow (Cfm)                                                         | 1000                     | 1200       | 1400       | 1600       | 1750       |
| Size in.                                                                              | 10x10                    | 11x10      | 11x10      | 11x10      | 11x10      |
| Size (mm.)                                                                            | 254x254                  | 279.4x254  | 279.4x254  | 279.4x254  | 279.4x254  |
| Motor HP (RPM)                                                                        | 1/2 (1050)               | 3/4 (1000) | 3/4 (1075) | 1.0 (1075) | 1.0 (1040) |
| HIGH-PRESSURE SWITCH<br>(psig) Cut-out<br>Reset (auto)                                | 650 +/- 15<br>420 +/- 25 |            |            |            |            |
| LOSS-OF-CHARGE/LOW-PRESSURE SWITCH<br>(Liquid Line) (psig)<br>Cut-out<br>Reset (auto) | 20 +/- 5<br>45 +/- 10    |            |            |            |            |
| RETURN-AIR FILTERS†‡                                                                  |                          |            |            |            |            |
| Throwaway Size in.                                                                    | 20x24x1                  | 24x30x1    | 24x36x1    |            |            |
| Throwaway Size (mm)                                                                   | 508x610x25               | 610x762x25 | 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 sizes and quantity.

## PERFORMANCE DATA – PAD3

| DRY COIL AIR DELIVERY* — HORIZONTAL AND DOWNFLOW DISCHARGE (CFM) |                       |            |     |      |      |      |      |      |      |      |      |      |
|------------------------------------------------------------------|-----------------------|------------|-----|------|------|------|------|------|------|------|------|------|
| UNIT                                                             | MOTOR SPEED           | WIRE COLOR |     | 0.1  | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  |
| PAD330                                                           | Low                   | Blue       | CFM | 741  | 638  | 547  | 415  | ---  | ---  | ---  | ---  | ---  |
|                                                                  | Med-Low               | Pink       | CFM | 973  | 887  | 823  | 733  | 665  | 538  | 451  | ---  | ---  |
|                                                                  | Medium                | Red        | CFM | 1088 | 1023 | 954  | 881  | 800  | 723  | 658  | 563  | 461  |
|                                                                  | Med-High <sup>1</sup> | Orange     | CFM | 1140 | 1064 | 996  | 915  | 840  | 758  | 687  | 564  | 480  |
|                                                                  | High                  | Black      | CFM | 1202 | 1140 | 1082 | 1015 | 961  | 881  | 810  | 732  | 631  |
| PAD336                                                           | Low                   | Blue       | CFM | 1234 | 1168 | 1093 | 1021 | 961  | 894  | 825  | 759  | 687  |
|                                                                  | Med-Low               | Pink       | CFM | 1290 | 1223 | 1154 | 1090 | 1027 | 977  | 894  | 828  | 762  |
|                                                                  | Medium <sup>1</sup>   | Red        | CFM | 1354 | 1290 | 1226 | 1158 | 1102 | 1046 | 981  | 918  | 843  |
|                                                                  | Med-High              | Orange     | CFM | 1606 | 1546 | 1489 | 1430 | 1371 | 1316 | 1258 | 1208 | 1140 |
|                                                                  | High                  | Black      | CFM | 1630 | 1580 | 1517 | 1463 | 1407 | 1339 | 1277 | 1210 | 1131 |
| PAD342                                                           | Low                   | Blue       | CFM | 1295 | 1234 | 1182 | 1126 | 1075 | 1016 | 955  | 898  | 857  |
|                                                                  | Med-Low               | Pink       | CFM | 1345 | 1282 | 1235 | 1194 | 1140 | 1095 | 1027 | 974  | 921  |
|                                                                  | Medium                | Red        | CFM | 1505 | 1452 | 1413 | 1358 | 1323 | 1282 | 1234 | 1169 | 1130 |
|                                                                  | Med-High <sup>1</sup> | Orange     | CFM | 1545 | 1492 | 1449 | 1411 | 1362 | 1313 | 1278 | 1231 | 1188 |
|                                                                  | High                  | Black      | CFM | 1705 | 1643 | 1607 | 1568 | 1518 | 1483 | 1448 | 1404 | 1360 |
| PAD348                                                           | Low                   | Blue       | CFM | 1402 | 1351 | 1311 | 1263 | 1224 | 1172 | 1136 | 1080 | 1041 |
|                                                                  | Med-Low               | Pink       | CFM | 1457 | 1404 | 1367 | 1318 | 1284 | 1233 | 1197 | 1144 | 1104 |
|                                                                  | Medium <sup>1</sup>   | Red        | CFM | 1736 | 1695 | 1642 | 1601 | 1553 | 1512 | 1465 | 1427 | 1381 |
|                                                                  | Med-High              | Orange     | CFM | 2149 | 2111 | 2062 | 2026 | 1980 | 1945 | 1905 | 1864 | 1793 |
|                                                                  | High                  | Black      | CFM | 2344 | 2306 | 2259 | 2203 | 2141 | 2070 | 1991 | 1902 | 1803 |
| PAD360                                                           | Med-Low               | Pink       | CFM | 1678 | 1635 | 1602 | 1558 | 1513 | 1474 | 1438 | 1404 | 1349 |
|                                                                  | Medium <sup>1</sup>   | Red        | CFM | 1962 | 1915 | 1880 | 1843 | 1794 | 1753 | 1711 | 1675 | 1628 |
|                                                                  | Med-High              | Orange     | CFM | 2131 | 2088 | 2065 | 2013 | 1982 | 1941 | 1888 | 1860 | 1785 |
|                                                                  | High                  | Black      | CFM | 2461 | 2409 | 2339 | 2286 | 2192 | 2140 | 2062 | 1968 | 1874 |

\* Air delivery values are without air filter and are for dry coil (See PAD3–A Horizontal Wet Coil Pressure Drop table).

<sup>1</sup> Factory-shipped cooling speed

Note: For horizontal applications deduct field-supplied air filter pressure drop and wet coil pressure drop to obtain external static pressure available for ducting. For downflow applications see Wet Coil Air Delivery Downflow-Height Speed with 1-in Filter and Economizer Table for available static including wet coil, 1-in. filter and economizer. Shaded areas indicate airflows that are not recommended for dehumidification control.

| HORIZONTAL WET COIL PRESSURE DROP (in wc) |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------------------------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| UNIT<br>PAD3                              | STANDARD CFM (S.C.F.M.) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                                           | 600                     | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000  |
| 30                                        | -                       | 0.037 | 0.044 | 0.053 | 0.063 | 0.072 | 0.081 | 0.105 | -     | -     | -     | -     | -     | -     | -     |
| 36                                        | -                       | -     | -     | 0.055 | 0.060 | 0.090 | 0.100 | 0.110 | 0.140 | -     | -     | -     | -     | -     | -     |
| 42                                        | -                       | -     | -     | -     | 0.045 | 0.050 | 0.060 | 0.065 | 0.075 | 0.080 | 0.090 | 0.094 | 0.110 | -     | -     |
| 48                                        | -                       | -     | -     | -     | -     | -     | 0.041 | 0.063 | 0.085 | 0.100 | 0.104 | 0.110 | 0.120 | 0.130 | -     |
| 60                                        | -                       | -     | -     | -     | -     | -     | -     | -     | -     | 0.060 | 0.065 | 0.072 | 0.077 | 0.085 | 0.100 |

| DOWNFLOW - WET COIL AIR DELIVERY (CFM) - HIGH SPEED WITH 1-IN. (25 MM) FILTER AND ECONOMIZER |                                  |      |      |      |      |      |      |      |      |      |
|----------------------------------------------------------------------------------------------|----------------------------------|------|------|------|------|------|------|------|------|------|
| UNIT PAD3                                                                                    | EXTERNAL STATIC PRESSURE (in wc) |      |      |      |      |      |      |      |      |      |
|                                                                                              | 0.1                              | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
| 36                                                                                           | 1333                             | 1289 | 1256 | 1214 | 1152 | 1118 | 1076 | 1035 | 997  | 950  |
| 42                                                                                           | 1612                             | 1569 | 1527 | 1481 | 1451 | 1393 | 1351 | 1317 | 1278 | 1242 |
| 48                                                                                           | 2166                             | 2085 | 2002 | 1919 | 1798 | 1709 | 1582 | 1467 | 1270 | 988  |
| 60                                                                                           | 2298                             | 2239 | 2180 | 2110 | 2044 | 1951 | 1862 | 1777 | 1697 | 1591 |

| FILTER PRESSURE DROP TABLE (in wc) PAD3 |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| FILTER SIZE<br>in. (mm)                 | CFM |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                                         | 500 | 600 | 700 | 800  | 900  | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 |
| 20X24X1<br>(508X610x25)                 | —   | —   | —   | .09  | .10  | .11  | .13  | .14  | .15  | .16  | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| 24X30X1<br>(610X762x25)                 | —   | —   | —   | 0.04 | 0.05 | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.1  | —    | —    | —    | —    | —    | —    | —    | —    |
| 24X36X1<br>(610X914X25)                 | —   | —   | —   | —    | —    | —    | —    | 0.06 | 0.07 | 0.07 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.14 |

| ECONOMIZER 1-IN. (25 MM) FILTER PRESSURE DROP (in wc) |  |  |  |  |               |  |  |  |  |
|-------------------------------------------------------|--|--|--|--|---------------|--|--|--|--|
| UNIT PAD                                              |  |  |  |  | PRESSURE DROP |  |  |  |  |
| 24-36                                                 |  |  |  |  | 0.20          |  |  |  |  |
| 42-60                                                 |  |  |  |  | 0.25          |  |  |  |  |

| MULTIPLICATION FACTORS |  |  |  |                             |  |  |  |                       |  |
|------------------------|--|--|--|-----------------------------|--|--|--|-----------------------|--|
| HEATER KW RATING       |  |  |  | VOLTAGE DISTRIBUTION V/3/60 |  |  |  | MULTIPLICATION FACTOR |  |
| 240                    |  |  |  | 200                         |  |  |  | 0.69                  |  |
|                        |  |  |  | 208                         |  |  |  | 0.75                  |  |
|                        |  |  |  | 230                         |  |  |  | 0.92                  |  |
|                        |  |  |  | 240                         |  |  |  | 1.00                  |  |

## ELECTRIC HEAT PRESSURE DROP TABLES (in wc)

| SMALL CABINET: PAD330-36 |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                          | 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 | 0.00 | 0.02 | 0.03 | 0.05 | 0.07 | 0.09 |
| 10 kw                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.04 | 0.06 | 0.07 | 0.09 | 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 |

| LARGE CABINET: PAD342-60 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                          | 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 |

| MINIMUM AIRFLOW FOR SAFE ELECTRIC HEATER OPERATION (CFM) |      |      |      |      |      |      |
|----------------------------------------------------------|------|------|------|------|------|------|
| SIZE                                                     | 30   | 36   | 36   | 42   | 48   | 60   |
| CFM                                                      | 1000 | 1000 | 1200 | 1400 | 1600 | 1750 |

| A-WEIGHTED SOUND POWER LEVEL (DBA) |                          |                                                            |      |      |      |      |      |      |
|------------------------------------|--------------------------|------------------------------------------------------------|------|------|------|------|------|------|
| UNIT PAD3                          | STANDARD<br>RATING (dBA) | TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment) |      |      |      |      |      |      |
|                                    |                          | 125                                                        | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| 30                                 | 75                       | 66.0                                                       | 63.5 | 68.0 | 68.5 | 67.5 | 61.5 | 55.0 |
| 36                                 | 75                       | 64.0                                                       | 63.5 | 68.0 | 70.5 | 64.5 | 61.0 | 61.0 |
| 42                                 | 77                       | 67.0                                                       | 67.0 | 69.5 | 70.5 | 68.0 | 65.5 | 61.0 |
| 48                                 | 78                       | 71.5                                                       | 66.5 | 73.0 | 71.5 | 68.0 | 64.0 | 57.0 |
| 60                                 | 78                       | 74.5                                                       | 66.5 | 70.0 | 70.0 | 66.5 | 64.0 | 57.0 |

\* Tested in accordance with ARI Standard 270 (not listed in AHRI) physical data.

| PAD330 COOLING EXTENDED PERFORMANCE TABLE     |                |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |
|-----------------------------------------------|----------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
| CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |                |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |
| EVAPORATOR AIR                                |                | 75 (23.9)      |       |                    | 85 (29.4)      |       |                    | 95 (35)        |       |                    | 105 (40.6)     |       |                    | 115 (46.1)     |       |                    | 125 (51.7)     |       |                    |
| CFM/BF                                        | EWB<br>°F (°C) | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW |
|                                               |                | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    |
| 875/0.03                                      | 57 (13.8)      | 29.20          | 29.20 | 2.09               | 27.20          | 27.20 | 2.30               | 25.19          | 25.19 | 2.52               | 23.18          | 23.18 | 2.77               | 21.16          | 21.16 | 3.04               | 19.13          | 19.13 | 3.32               |
|                                               | 62 (16.6)      | 30.09          | 26.44 | 2.09               | 27.78          | 25.28 | 2.30               | 25.48          | 24.10 | 2.52               | 23.22          | 23.12 | 2.77               | 21.16          | 21.16 | 3.04               | 19.12          | 19.12 | 3.32               |
|                                               | 63* (17.2)     | 30.75          | 21.65 | 2.09               | 28.36          | 20.61 | 2.30               | 25.99          | 19.56 | 2.52               | 23.63          | 18.51 | 2.77               | 21.26          | 17.45 | 3.04               | 18.90          | 16.38 | 3.32               |
|                                               | 67 (19.4)      | 33.12          | 22.39 | 2.08               | 30.58          | 21.34 | 2.29               | 28.05          | 20.29 | 2.52               | 25.52          | 19.23 | 2.77               | 23.00          | 18.16 | 3.04               | 20.48          | 17.08 | 3.32               |
|                                               | 72 (22.2)      | 36.50          | 18.28 | 2.08               | 33.73          | 17.33 | 2.29               | 30.97          | 16.37 | 2.52               | 28.22          | 15.41 | 2.77               | 25.48          | 14.44 | 3.04               | 22.73          | 13.46 | 3.32               |
| 1000/0.03                                     | 57 (13.8)      | 30.51          | 30.51 | 2.12               | 28.39          | 28.39 | 2.33               | 26.27          | 26.27 | 2.56               | 24.14          | 24.14 | 2.80               | 22.01          | 22.01 | 3.07               | 19.87          | 19.87 | 3.35               |
|                                               | 62 (16.6)      | 30.85          | 28.45 | 2.12               | 28.49          | 28.24 | 2.33               | 26.26          | 26.26 | 2.56               | 24.14          | 24.14 | 2.80               | 22.01          | 22.01 | 3.07               | 19.86          | 19.86 | 3.35               |
|                                               | 63* (17.2)     | 31.44          | 23.11 | 2.12               | 28.97          | 22.02 | 2.33               | 26.51          | 20.93 | 2.56               | 24.07          | 19.84 | 2.81               | 21.63          | 18.73 | 3.07               | 19.21          | 17.60 | 3.35               |
|                                               | 67 (19.4)      | 33.86          | 23.94 | 2.12               | 31.22          | 22.85 | 2.33               | 28.60          | 21.75 | 2.55               | 25.99          | 20.65 | 2.80               | 23.40          | 19.53 | 3.07               | 20.80          | 18.40 | 3.35               |
|                                               | 72 (22.2)      | 37.30          | 19.27 | 2.11               | 34.43          | 18.29 | 2.32               | 31.58          | 17.30 | 2.55               | 28.74          | 16.31 | 2.80               | 25.91          | 15.31 | 3.07               | 23.07          | 14.29 | 3.35               |
| 1125/0.04                                     | 57 (13.8)      | 31.61          | 31.61 | 2.15               | 29.39          | 29.39 | 2.36               | 27.17          | 27.17 | 2.59               | 24.95          | 24.95 | 2.84               | 22.72          | 22.72 | 3.10               | 20.48          | 20.48 | 3.39               |
|                                               | 62 (16.6)      | 31.61          | 31.61 | 2.15               | 29.39          | 29.39 | 2.36               | 27.17          | 27.17 | 2.59               | 24.95          | 24.95 | 2.84               | 22.72          | 22.72 | 3.10               | 20.48          | 20.48 | 3.39               |
|                                               | 63* (17.2)     | 31.97          | 24.51 | 2.15               | 29.43          | 23.38 | 2.36               | 26.91          | 22.25 | 2.59               | 24.41          | 21.10 | 2.84               | 21.92          | 19.95 | 3.10               | 19.45          | 18.75 | 3.39               |
|                                               | 67 (19.4)      | 34.42          | 25.44 | 2.15               | 31.71          | 24.30 | 2.36               | 29.02          | 23.16 | 2.59               | 26.35          | 22.01 | 2.84               | 23.69          | 20.84 | 3.10               | 21.05          | 19.65 | 3.39               |
|                                               | 72 (22.2)      | 37.91          | 20.22 | 2.14               | 34.96          | 19.20 | 2.35               | 32.03          | 18.19 | 2.58               | 29.12          | 17.17 | 2.83               | 26.22          | 16.14 | 3.10               | 23.32          | 15.10 | 3.39               |
| CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |                |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |
| EVAPORATOR AIR                                |                | 75 (23.9)      |       |                    | 85 (29.4)      |       |                    | 95 (35)        |       |                    | 105 (40.6)     |       |                    | 115 (46.1)     |       |                    | 125 (51.7)     |       |                    |
| CFM/BF                                        | EWB<br>°F (°C) | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW |
|                                               |                | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    |
| 1050/0.04                                     | 57 (13.8)      | 35.66          | 35.66 | 2.38               | 32.84          | 32.84 | 2.71               | 30.06          | 30.06 | 3.07               | 27.32          | 27.32 | 3.47               | 24.62          | 24.62 | 3.91               | 21.93          | 21.93 | 4.39               |
|                                               | 62 (16.6)      | 37.06          | 32.25 | 2.39               | 33.82          | 30.46 | 2.71               | 30.65          | 28.68 | 3.07               | 27.56          | 26.88 | 3.47               | 24.62          | 24.62 | 3.91               | 21.93          | 21.93 | 4.39               |
|                                               | 63* (17.2)     | 37.87          | 26.52 | 2.39               | 34.55          | 24.93 | 2.71               | 31.28          | 23.37 | 3.08               | 28.09          | 21.82 | 3.48               | 24.95          | 20.29 | 3.91               | 21.88          | 18.77 | 4.39               |
|                                               | 67 (19.4)      | 40.79          | 27.41 | 2.39               | 37.23          | 25.80 | 2.72               | 33.74          | 24.21 | 3.08               | 30.32          | 22.64 | 3.48               | 26.96          | 21.09 | 3.92               | 23.65          | 19.54 | 4.39               |
|                                               | 72 (22.2)      | 44.91          | 22.49 | 2.39               | 41.02          | 21.04 | 2.72               | 37.19          | 19.62 | 3.09               | 33.45          | 18.21 | 3.49               | 29.78          | 16.82 | 3.93               | 26.16          | 15.44 | 4.40               |
| 1200/0.04                                     | 57 (13.8)      | 37.24          | 37.24 | 2.43               | 34.27          | 34.27 | 2.76               | 31.33          | 31.33 | 3.12               | 28.44          | 28.44 | 3.52               | 25.58          | 25.58 | 3.96               | 22.76          | 22.76 | 4.44               |
|                                               | 62 (16.6)      | 37.97          | 34.65 | 2.43               | 34.64          | 32.72 | 2.76               | 31.35          | 31.35 | 3.12               | 28.43          | 28.43 | 3.52               | 25.58          | 25.58 | 3.96               | 22.75          | 22.75 | 4.44               |
|                                               | 63* (17.2)     | 38.73          | 28.25 | 2.43               | 35.29          | 26.59 | 2.76               | 31.91          | 24.95 | 3.12               | 28.60          | 23.33 | 3.52               | 25.37          | 21.73 | 3.96               | 22.21          | 20.12 | 4.44               |
|                                               | 67 (19.4)      | 41.71          | 29.24 | 2.44               | 38.02          | 27.56 | 2.76               | 34.40          | 25.90 | 3.13               | 30.86          | 24.26 | 3.53               | 27.40          | 22.63 | 3.97               | 24.00          | 21.00 | 4.44               |
|                                               | 72 (22.2)      | 45.90          | 23.65 | 2.44               | 41.86          | 22.16 | 2.77               | 37.91          | 20.68 | 3.13               | 34.05          | 19.23 | 3.54               | 30.26          | 17.79 | 3.98               | 26.53          | 16.36 | 4.45               |
| 1350/0.05                                     | 57 (13.8)      | 38.59          | 38.59 | 2.48               | 35.47          | 35.47 | 2.81               | 32.40          | 32.40 | 3.17               | 29.37          | 29.37 | 3.57               | 26.39          | 26.39 | 4.01               | 23.43          | 23.43 | 4.49               |
|                                               | 62 (16.6)      | 38.77          | 36.79 | 2.48               | 35.46          | 35.46 | 2.81               | 32.39          | 32.39 | 3.17               | 29.37          | 29.37 | 3.57               | 26.38          | 26.38 | 4.01               | 23.43          | 23.43 | 4.49               |
|                                               | 63* (17.2)     | 39.40          | 29.91 | 2.48               | 35.85          | 28.18 | 2.81               | 32.38          | 26.47 | 3.17               | 28.99          | 24.78 | 3.57               | 25.69          | 23.09 | 4.01               | 22.46          | 21.40 | 4.49               |
|                                               | 67 (19.4)      | 42.41          | 31.01 | 2.48               | 38.61          | 29.26 | 2.81               | 34.89          | 27.52 | 3.18               | 31.27          | 25.81 | 3.58               | 27.72          | 24.10 | 4.02               | 24.26          | 22.39 | 4.49               |
|                                               | 72 (22.2)      | 46.65          | 24.77 | 2.49               | 42.51          | 23.22 | 2.82               | 38.45          | 21.70 | 3.18               | 34.49          | 20.20 | 3.58               | 30.61          | 18.72 | 4.03               | 26.80          | 17.24 | 4.50               |

See Legend and Notes following tables.

| PAD342 COOLING EXTENDED PERFORMANCE TABLE     |                  |                |       |                    |                |           |                    |                |       |                    |                |       |                    |                |       |                    |                |            |                    |                |      |                    |       |      |  |
|-----------------------------------------------|------------------|----------------|-------|--------------------|----------------|-----------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|------------|--------------------|----------------|------|--------------------|-------|------|--|
| CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |                  |                |       |                    |                |           |                    |                |       |                    |                |       |                    |                |       |                    |                |            |                    |                |      |                    |       |      |  |
| EVAPORATOR AIR                                |                  | 75 (23.9)      |       |                    |                | 85 (29.4) |                    |                |       | 95 (35)            |                |       |                    | 105 (40.6)     |       |                    |                | 115 (46.1) |                    |                |      | 125 (51.7)         |       |      |  |
| CFM/BF                                        | EWB<br>° F (° C) | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |           | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |            | Total<br>Sys<br>KW | Capacity MBtuh |      | Total<br>Sys<br>KW |       |      |  |
|                                               |                  | Total          | Sens  |                    | Total          | Sens      |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens       |                    | Total          | Sens |                    | Total | Sens |  |
| 1225/0.03                                     | 57 (13.8)        | 40.45          | 40.45 | 3.00               | 37.98          | 37.98     | 3.37               | 35.49          | 35.49 | 3.78               | 32.98          | 32.98 | 4.20               | 30.44          | 30.44 | 4.65               | 27.84          | 27.84      | 5.10               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 42.06          | 37.63 | 2.94               | 39.15          | 35.73     | 3.33               | 36.25          | 33.83 | 3.74               | 33.37          | 31.92 | 4.18               | 30.48          | 30.39 | 4.64               | 27.88          | 27.88      | 5.10               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 42.93          | 30.96 | 2.91               | 39.95          | 29.27     | 3.31               | 36.96          | 27.59 | 3.72               | 33.97          | 25.92 | 4.17               | 30.95          | 24.26 | 4.63               | 27.90          | 22.59      | 5.10               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 46.12          | 31.94 | 2.80               | 42.92          | 30.23     | 3.19               | 39.72          | 28.52 | 3.61               | 36.53          | 26.83 | 4.05               | 33.31          | 25.15 | 4.52               | 30.04          | 23.46      | 4.99               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 50.58          | 26.16 | 2.65               | 47.09          | 24.61     | 3.04               | 43.59          | 23.08 | 3.46               | 40.11          | 21.56 | 3.90               | 36.60          | 20.05 | 4.37               | 33.04          | 18.53      | 4.84               |                |      |                    |       |      |  |
| 1400/0.04                                     | 57 (13.8)        | 42.24          | 42.24 | 2.98               | 39.61          | 39.61     | 3.35               | 36.97          | 36.97 | 3.76               | 34.32          | 34.32 | 4.18               | 31.63          | 31.63 | 4.63               | 28.88          | 28.88      | 5.08               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 43.11          | 40.44 | 2.95               | 40.11          | 38.38     | 3.34               | 37.15          | 36.28 | 3.75               | 34.31          | 34.31 | 4.18               | 31.62          | 31.62 | 4.63               | 28.88          | 28.88      | 5.08               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 43.91          | 32.97 | 2.92               | 40.81          | 31.21     | 3.32               | 37.71          | 29.45 | 3.73               | 34.61          | 27.70 | 4.18               | 31.49          | 25.96 | 4.64               | 28.35          | 24.21      | 5.12               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 47.15          | 34.07 | 2.81               | 43.82          | 32.28     | 3.20               | 40.50          | 30.50 | 3.62               | 37.19          | 28.73 | 4.06               | 33.86          | 26.97 | 4.53               | 30.50          | 25.20      | 5.00               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 51.67          | 27.51 | 2.65               | 48.05          | 25.91     | 3.05               | 44.42          | 24.32 | 3.46               | 40.81          | 22.75 | 3.91               | 37.19          | 21.19 | 4.38               | 33.51          | 19.62      | 4.85               |                |      |                    |       |      |  |
| 1575/0.05                                     | 57 (13.8)        | 43.75          | 43.75 | 2.97               | 40.99          | 40.99     | 3.34               | 38.22          | 38.22 | 3.75               | 35.43          | 35.43 | 4.17               | 32.62          | 32.62 | 4.62               | 29.74          | 29.74      | 5.07               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 44.02          | 42.95 | 2.96               | 41.01          | 41.01     | 3.34               | 38.21          | 38.21 | 3.75               | 35.43          | 35.43 | 4.17               | 32.61          | 32.61 | 4.62               | 29.74          | 29.74      | 5.07               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 44.67          | 34.90 | 2.94               | 41.47          | 33.06     | 3.33               | 38.28          | 31.23 | 3.75               | 35.10          | 29.41 | 4.20               | 31.91          | 27.58 | 4.66               | 28.70          | 25.74      | 5.14               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 47.93          | 36.13 | 2.82               | 44.51          | 34.26     | 3.21               | 41.09          | 32.40 | 3.63               | 37.69          | 30.56 | 4.08               | 34.28          | 28.71 | 4.54               | 30.85          | 26.85      | 5.02               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 52.51          | 28.80 | 2.67               | 48.78          | 27.15     | 3.06               | 45.05          | 25.51 | 3.48               | 41.34          | 23.89 | 3.93               | 37.63          | 22.28 | 4.39               | 33.86          | 20.67      | 4.87               |                |      |                    |       |      |  |
| PAD348 COOLING EXTENDED PERFORMANCE TABLE     |                  |                |       |                    |                |           |                    |                |       |                    |                |       |                    |                |       |                    |                |            |                    |                |      |                    |       |      |  |
| CONDENSER ENTERING AIR TEMPERATURES ° F (° C) |                  |                |       |                    |                |           |                    |                |       |                    |                |       |                    |                |       |                    |                |            |                    |                |      |                    |       |      |  |
| EVAPORATOR AIR                                |                  | 75 (23.9)      |       |                    |                | 85 (29.4) |                    |                |       | 95 (35)            |                |       |                    | 105 (40.6)     |       |                    |                | 115 (46.1) |                    |                |      | 125 (51.7)         |       |      |  |
| CFM/BF                                        | EWB<br>° F (° C) | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |           | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |            | Total<br>Sys<br>KW | Capacity MBtuh |      | Total<br>Sys<br>KW |       |      |  |
|                                               |                  | Total          | Sens  |                    | Total          | Sens      |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens       |                    | Total          | Sens |                    | Total | Sens |  |
| 1400/0.04                                     | 57 (13.8)        | 46.51          | 46.51 | 3.29               | 43.60          | 43.60     | 3.68               | 40.66          | 40.66 | 4.11               | 37.70          | 37.70 | 4.56               | 34.70          | 34.70 | 5.05               | 31.64          | 31.64      | 5.55               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 48.43          | 41.91 | 3.29               | 45.02          | 40.09     | 3.68               | 41.60          | 38.24 | 4.10               | 38.19          | 36.35 | 4.56               | 34.81          | 34.56 | 5.05               | 31.64          | 31.64      | 5.55               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 49.45          | 34.51 | 3.29               | 45.95          | 32.87     | 3.68               | 42.43          | 31.22 | 4.10               | 38.89          | 29.56 | 4.56               | 35.34          | 27.89 | 5.05               | 31.75          | 26.19      | 5.55               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 53.14          | 35.61 | 3.29               | 49.39          | 33.95     | 3.68               | 45.62          | 32.29 | 4.10               | 41.85          | 30.61 | 4.55               | 38.05          | 28.93 | 5.04               | 34.20          | 27.21      | 5.55               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 58.33          | 29.19 | 3.28               | 54.23          | 27.68     | 3.67               | 50.11          | 26.15 | 4.09               | 46.00          | 24.62 | 4.55               | 41.85          | 23.08 | 5.03               | 37.64          | 21.51      | 5.54               |                |      |                    |       |      |  |
| 1600/0.05                                     | 57 (13.8)        | 48.55          | 48.55 | 3.35               | 45.46          | 45.46     | 3.74               | 42.35          | 42.35 | 4.16               | 39.21          | 39.21 | 4.61               | 36.04          | 36.04 | 5.10               | 32.81          | 32.81      | 5.60               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 49.82          | 44.99 | 3.35               | 46.10          | 43.02     | 3.74               | 42.60          | 40.97 | 4.16               | 39.21          | 39.21 | 4.61               | 36.04          | 36.04 | 5.10               | 32.80          | 32.80      | 5.60               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 50.57          | 36.73 | 3.35               | 46.92          | 35.02     | 3.74               | 43.27          | 33.30 | 4.16               | 39.61          | 31.57 | 4.61               | 35.94          | 29.83 | 5.10               | 32.24          | 28.05      | 5.60               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 54.31          | 37.96 | 3.34               | 50.41          | 36.23     | 3.73               | 46.50          | 34.50 | 4.15               | 42.59          | 32.76 | 4.61               | 38.66          | 30.99 | 5.09               | 34.70          | 29.20      | 5.60               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 59.58          | 30.68 | 3.34               | 55.32          | 29.12     | 3.73               | 51.05          | 27.54 | 4.15               | 46.80          | 25.97 | 4.60               | 42.51          | 24.38 | 5.08               | 38.17          | 22.76      | 5.59               |                |      |                    |       |      |  |
| 1800/0.06                                     | 57 (13.8)        | 50.26          | 50.26 | 3.40               | 47.02          | 47.02     | 3.79               | 43.76          | 43.76 | 4.21               | 40.47          | 40.47 | 4.66               | 37.15          | 37.15 | 5.15               | 33.76          | 33.76      | 5.65               |                |      |                    |       |      |  |
|                                               | 62 (16.6)        | 50.64          | 47.75 | 3.40               | 47.06          | 47.06     | 3.79               | 43.75          | 43.75 | 4.21               | 40.46          | 40.46 | 4.66               | 37.14          | 37.14 | 5.15               | 33.76          | 33.76      | 5.65               |                |      |                    |       |      |  |
|                                               | 63* (17.2)       | 51.44          | 38.88 | 3.40               | 47.67          | 37.10     | 3.79               | 43.92          | 35.31 | 4.21               | 40.16          | 33.51 | 4.67               | 36.40          | 31.68 | 5.15               | 32.62          | 29.81      | 5.66               |                |      |                    |       |      |  |
|                                               | 67 (19.4)        | 55.22          | 40.25 | 3.40               | 51.19          | 38.45     | 3.79               | 47.17          | 36.64 | 4.21               | 43.16          | 34.83 | 4.66               | 39.13          | 32.98 | 5.14               | 35.08          | 31.10      | 5.65               |                |      |                    |       |      |  |
|                                               | 72 (22.2)        | 60.54          | 32.12 | 3.40               | 56.16          | 30.51     | 3.78               | 51.77          | 28.89 | 4.20               | 47.40          | 27.27 | 4.65               | 43.00          | 25.64 | 5.13               | 36.55          | 23.98      | 5.64               |                |      |                    |       |      |  |

See Legend and Notes following tables.

PAD360 – COOLING EXTENDED PERFORMANCE TABLE

| CONDENSER ENTERING AIR TEMPERATURES °F (°C) |                |                    |                |       |                    |                |       |                    |                |       |                    |                |       |                    |
|---------------------------------------------|----------------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
| EVAPORATOR AIR                              |                |                    | 75 (23.9)      |       |                    | 85 (29.4)      |       |                    | 95 (35)        |       |                    | 105 (40.6)     |       |                    |
| CFM/BF                                      | EWB<br>°F (°C) | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW | Capacity MBtuh |       | Total<br>Sys<br>KW |
|                                             |                |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    | Total          | Sens  |                    |
| 1750/0.02                                   | 57 (13.8)      | 4.22               | 57.89          | 57.89 | 4.22               | 54.53          | 54.53 | 4.64               | 51.13          | 51.13 | 5.08               | 47.68          | 47.68 | 5.56               |
|                                             | 62 (16.6)      | 4.24               | 59.66          | 51.98 | 4.24               | 55.71          | 49.84 | 4.65               | 51.77          | 47.68 | 5.09               | 47.84          | 45.44 | 5.56               |
|                                             | 63* (17.2)     | 4.25               | 60.79          | 42.58 | 4.25               | 56.72          | 40.64 | 4.66               | 52.64          | 38.69 | 5.10               | 48.53          | 36.74 | 5.57               |
|                                             | 67 (19.4)      | 4.28               | 65.28          | 43.94 | 4.28               | 60.89          | 41.97 | 4.70               | 56.50          | 40.00 | 5.14               | 52.08          | 38.03 | 5.61               |
|                                             | 72 (22.2)      | 4.34               | 71.52          | 35.78 | 4.34               | 66.71          | 33.95 | 4.75               | 61.88          | 32.13 | 5.19               | 57.02          | 30.30 | 5.66               |
| 2000/0.02                                   | 57 (13.8)      | 4.33               | 60.39          | 60.39 | 4.33               | 56.80          | 56.80 | 4.74               | 53.18          | 53.18 | 5.18               | 49.50          | 49.50 | 5.66               |
|                                             | 62 (16.6)      | 4.33               | 61.11          | 55.94 | 4.33               | 57.07          | 53.59 | 4.74               | 53.18          | 53.18 | 5.18               | 49.50          | 49.50 | 5.66               |
|                                             | 63* (17.2)     | 4.34               | 62.07          | 45.41 | 4.34               | 57.83          | 43.39 | 4.75               | 53.59          | 41.36 | 5.19               | 49.33          | 39.33 | 5.66               |
|                                             | 67 (19.4)      | 4.38               | 66.60          | 46.95 | 4.38               | 62.04          | 44.89 | 4.79               | 57.48          | 42.84 | 5.23               | 52.89          | 40.78 | 5.69               |
|                                             | 72 (22.2)      | 4.43               | 72.91          | 37.66 | 4.43               | 67.90          | 35.78 | 4.85               | 62.90          | 33.90 | 5.28               | 57.85          | 32.01 | 5.75               |
| 2250/0.03                                   | 57 (13.8)      | 4.43               | 62.47          | 62.47 | 4.43               | 58.69          | 58.69 | 4.84               | 54.87          | 54.87 | 5.28               | 51.00          | 51.00 | 5.75               |
|                                             | 62 (16.6)      | 4.43               | 62.48          | 62.48 | 4.43               | 58.68          | 58.68 | 4.84               | 54.86          | 54.86 | 5.28               | 50.99          | 50.99 | 5.75               |
|                                             | 63* (17.2)     | 4.43               | 63.04          | 48.14 | 4.43               | 58.67          | 46.04 | 4.84               | 54.31          | 43.93 | 5.28               | 49.93          | 41.81 | 5.74               |
|                                             | 67 (19.4)      | 4.47               | 67.60          | 49.85 | 4.47               | 62.90          | 47.72 | 4.88               | 58.21          | 45.59 | 5.32               | 53.50          | 43.44 | 5.78               |
|                                             | 72 (22.2)      | 4.53               | 73.95          | 39.47 | 4.53               | 68.79          | 37.54 | 4.94               | 63.63          | 35.61 | 5.37               | 58.45          | 33.68 | 5.84               |

\* At 75°F (24°C) entering dry bulb – Tennessee Valley Authority [TVA] rating conditions; all others at 80°F (27°C) entering dry bulb.

LEGEND:

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Total Unit Power Input
- SHC — Sensible Heat Capacity (x1000 Btuh)
- TC — Total Capacity (x1000 Btuh) (net)
- rh — Relative Humidity

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:

$$t_{Ldb} = t_{Edb} - \frac{\text{Sensible Capacity (Btuh)}}{1.10 \times \text{cfm}}$$

$$h_{Lwb} = h_{Ewb} - \frac{\text{Total Capacity (Btuh)}}{4.5 \times \text{cfm}}$$

$t_{Lwb}$  = Wet bulb temperature corresponding to enthalpy of air leaving evaporator coil

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

4. The SHC is based on 80°F Edb temperature of air entering evaporator coil.

Below 80°F Edb, subtract (corr factor x cfm) from SHC.

Above 80°F 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.



UNIT DIMENSIONS – PAD330–36

| PADS | ELECTRICAL CHARACTERISTICS | UNIT WT.<br>LB | UNIT HEIGHT<br>"A" | CENTER OF GRAVITY IN/MM |                |                  |
|------|----------------------------|----------------|--------------------|-------------------------|----------------|------------------|
|      |                            | KG             |                    | X                       | Y              | Z                |
| 30   | 208/230-3-60               | 277 [125.5]    | 42 [1066.8]        | 20-1/2 [520.7]          | 15-3/4 [400.1] | 16-13/16 [427.0] |
|      | 208/230-3-60               | 283 [128.3]    | 46 [1168.4]        | 20-1/2 [520.7]          | 15-3/4 [400.1] | 17 [431.8]       |
| 36   | 460-3-60                   | 297 [134.6]    | 46 [1168.4]        | 20-1/2 [520.7]          | 15-3/4 [400.1] | 17 [431.8]       |

| PADS | VOLTAGE | CORNER WEIGHT LB/KG |             |             |
|------|---------|---------------------|-------------|-------------|
|      |         | "1"                 | "2"         | "4"         |
| 30   | 208/230 | 55.4 [25.1]         | 44.3 [20.1] | 66.4 [30.2] |
|      |         | 110.7 [50.3]        |             |             |
| 36   | 208/230 | 56.6 [25.7]         | 45.2 [20.5] | 67.9 [30.8] |
|      |         | 113.1 [51.3]        |             |             |
|      | 460     | 56.6 [25.7]         | 45.2 [20.5] | 76.9 [34.9] |
|      |         | 118.1 [53.6]        |             |             |

REQUIRED CLEARANCES TO COMBUSTIBLE MTL

| INCHES (MM)                        |
|------------------------------------|
| TOP OF UNIT.....14 [355.6]         |
| DUCT SIDE OF UNIT.....2 [50.8]     |
| SIDE OPPOSITE DUCTS.....14 [355.6] |
| BOTTOM OF UNIT.....0 [0.0]         |
| ELECTRICAL PANEL.....36 [914.4]    |

NEC REQUIRED CLEARANCES

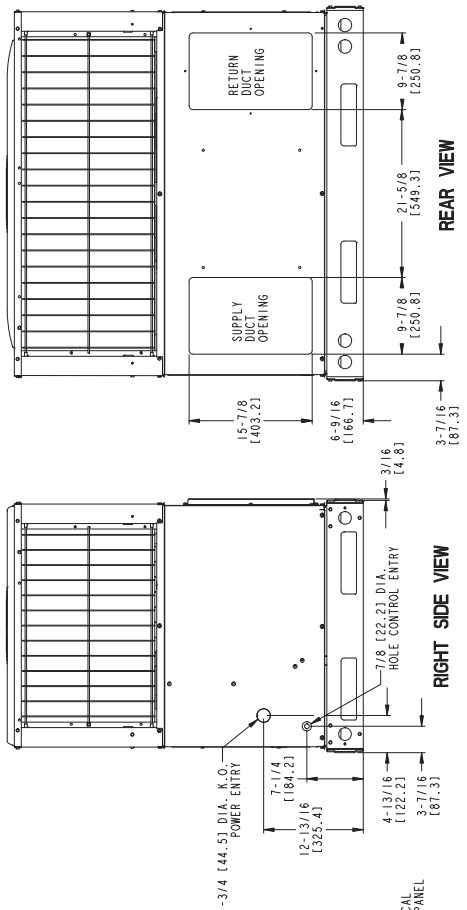
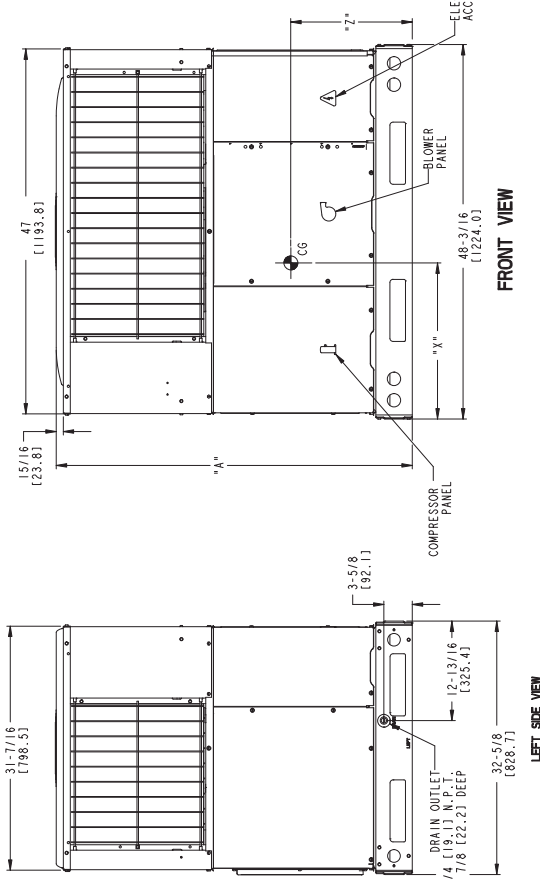
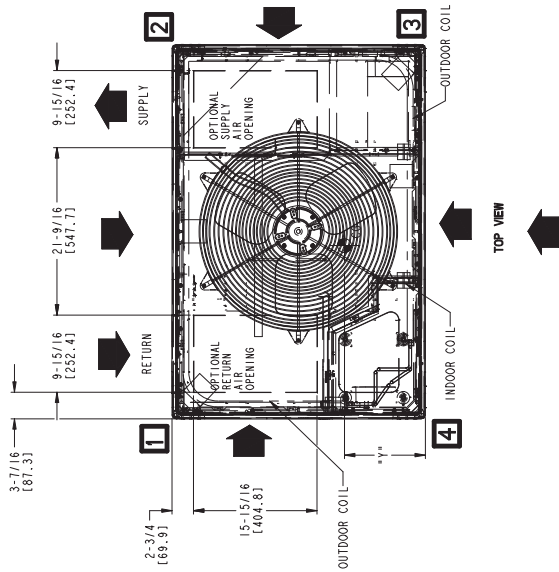
| INCHES (MM)                                             |
|---------------------------------------------------------|
| BETWEEN UNITS, POWER ENTRY SIDE.....42 [1066.8]         |
| UNIT AND BLOWER COILS, POWER ENTRY SIDE.....36 [914.0]  |
| UNIT AND BLOWER COILS, POWER ENTRY SIDE.....42 [1066.8] |

REQUIRED CLEARANCE FOR OPERATION AND SERVICING

| INCHES (MM)                                   |
|-----------------------------------------------|
| EMP. COIL ACCESS SIDE.....42 [1066.8]         |
| POWER ENTRY SIDE.....42 [1066.8]              |
| (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 MILLIMETERS



|            |     |     |
|------------|-----|-----|
| 50ES500151 | REV | 2.0 |
|------------|-----|-----|

## UNIT DIMENSIONS – PAD342-60

| PAD3 | ELECTRICAL CHARACTERISTICS | CENTER OF GRAVITY IN MM |          |          |        |        |        |        |        |        |       |
|------|----------------------------|-------------------------|----------|----------|--------|--------|--------|--------|--------|--------|-------|
|      |                            | UNIT WT.                | UNIT HG  | *A       | X      | Y      | Z      |        |        |        |       |
| 42   | LB                         | 167.5                   | 39-15/16 | 1014.4   | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-1/8 | 435.0  |       |
|      | 208/230-3-60               | 369                     | 167.5    | 39-15/16 | 1014.4 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-1/8 | 435.0 |
|      | 460-3-60                   | 383                     | 173.8    | 39-15/16 | 1014.4 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-1/8 | 435.0 |
| 48   | 208/230-3-60               | 375                     | 170.2    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-3/8 | 441.3 |
|      | 460-3-60                   | 389                     | 176.6    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-3/8 | 441.3 |
|      | 208/230-3-60               | 391                     | 180.2    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-5/8 | 447.7 |
| 60   | 208/230-3-60               | 417                     | 186.5    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-5/8 | 447.7 |
|      | 460-3-60                   | 431                     | 186.5    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-5/8 | 447.7 |
|      | 208/230-3-60               | 431                     | 186.5    | 41-15/16 | 1065.2 | 20-1/4 | 514.4  | 17-1/2 | 444.5  | 17-5/8 | 447.7 |

| PAD3 | VOLTAGE | CORNER WEIGHT LB/ING |      |      |      |       |      |       |      |
|------|---------|----------------------|------|------|------|-------|------|-------|------|
|      |         | *1*                  | *2*  | *3*  | *4*  | *5*   | *6*  |       |      |
| 42   | 208/220 | 73.8                 | 33.5 | 59.1 | 26.8 | 88.6  | 40.2 | 47.7  | 67.1 |
|      | 460     | 73.8                 | 33.5 | 59.1 | 26.8 | 97.8  | 44.3 | 152.7 | 69.3 |
| 48   | 208/220 | 75.0                 | 34.1 | 60.0 | 27.3 | 90.1  | 40.9 | 150.1 | 68.1 |
|      | 460     | 75.0                 | 34.1 | 60.0 | 27.3 | 99.1  | 45.0 | 155.1 | 70.4 |
| 60   | 208/220 | 79.4                 | 36.1 | 63.6 | 28.9 | 95.3  | 43.3 | 158.9 | 72.1 |
|      | 460     | 79.4                 | 36.1 | 63.6 | 28.9 | 104.1 | 47.4 | 163.9 | 74.4 |

|                         | INCHES [MM] |
|-------------------------|-------------|
| TOP OF UNIT.....        | 14 [355.6]  |
| DUCT SIDE OF UNIT.....  | 2 [50.8]    |
| SIDE OPPOSITE DUCT..... | 14 [355.6]  |
| BOTTOM OF UNIT.....     | 0 [0.0]     |
| ELECTRICAL PANEL.....   | 36 [914.4]  |

NEC. REQUIRED CLEARANCES.

|                                                                                     |             |
|-------------------------------------------------------------------------------------|-------------|
| BETWEEN UNITS, POWER ENTRY SIDE.....                                                | 42 [1066.8] |
| UNIT AND UNGROUNDED SURFACES, POWER ENTRY SIDE.....                                 | 36 [914.0]  |
| UNIT AND BLOCK OR CONCRETE WALLS AND OTHER GROUNDED SURFACES, POWER ENTRY SIDE..... | 42 [1066.8] |

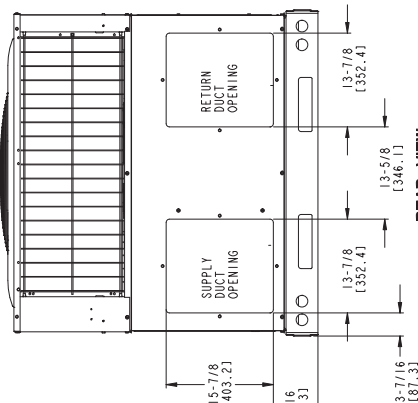
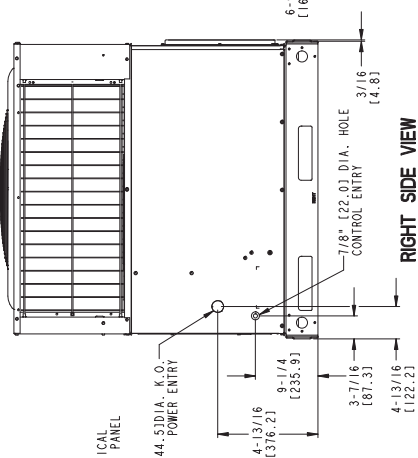
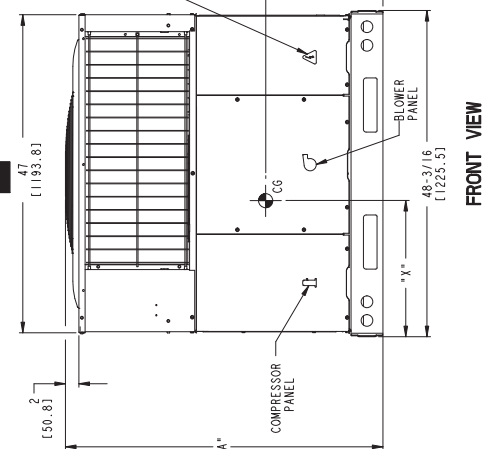
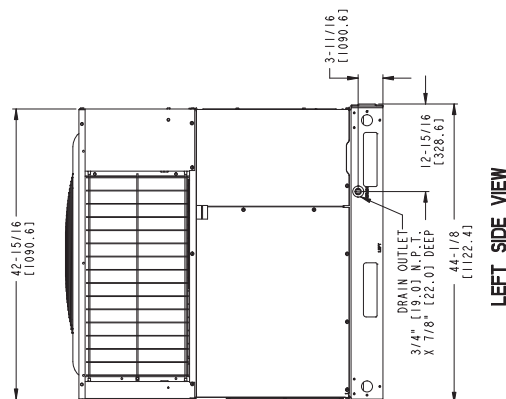
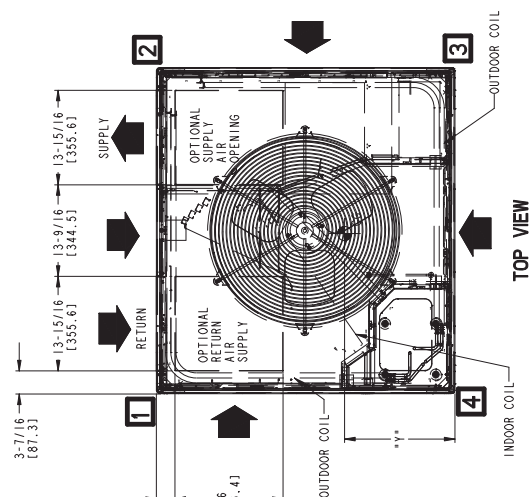
| REQUIRED CLEARANCE FOR OPERATION AND SERVICING |    | INCHES (MM) |
|------------------------------------------------|----|-------------|
| EVAP. COIL ACCESS SIDE.....                    | 36 | [914.0]     |
| POWER ENTRY SIDE.....                          | 42 | [1066.8]    |
| (EXCEPT FOR NEC REQUIREMENTS)                  |    |             |

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.

■MINIMUM DISTANCES: IF UNIT IS PLACED LESS THAN 12 [304.8] FROM WALL SYSTEM, THEN SYSTEM PERFORMANCE MAYBE COMPROMISED.

DIMENSIONS IN [ ] ARE IN MILLIMETERS



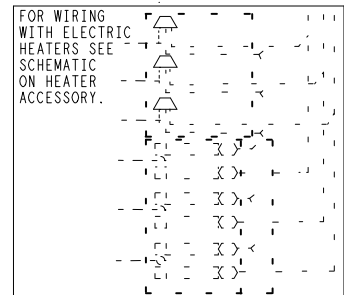
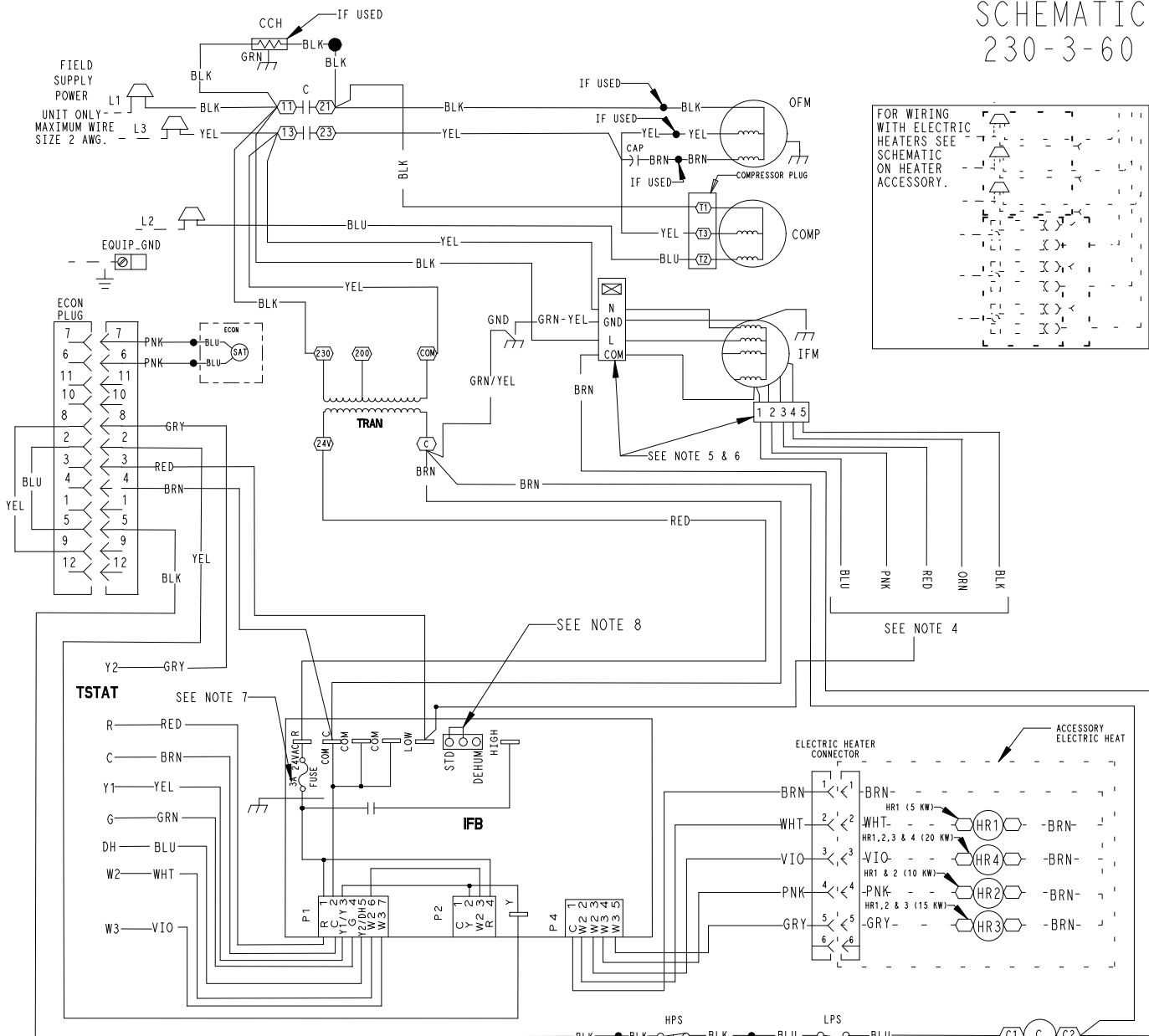
|            |         |
|------------|---------|
| 50ES500152 | REV 2.0 |
|------------|---------|

# TYPICAL WIRING SCHEMATIC 208/230-3-60

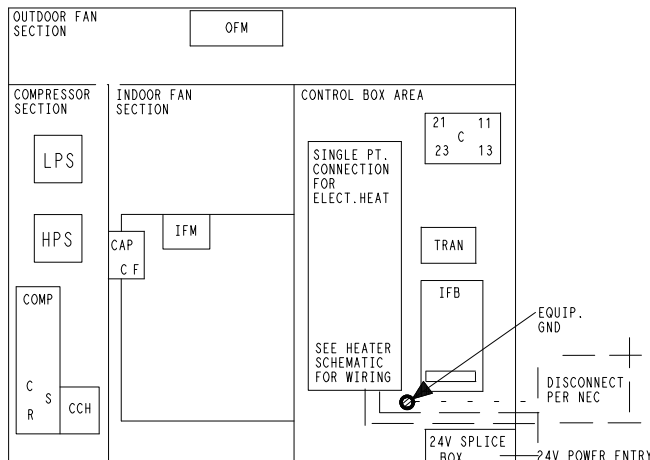
## CONNECTION WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC  
230-3-60



### UNIT COMPONENT ARRANGEMENT



### LEGEND

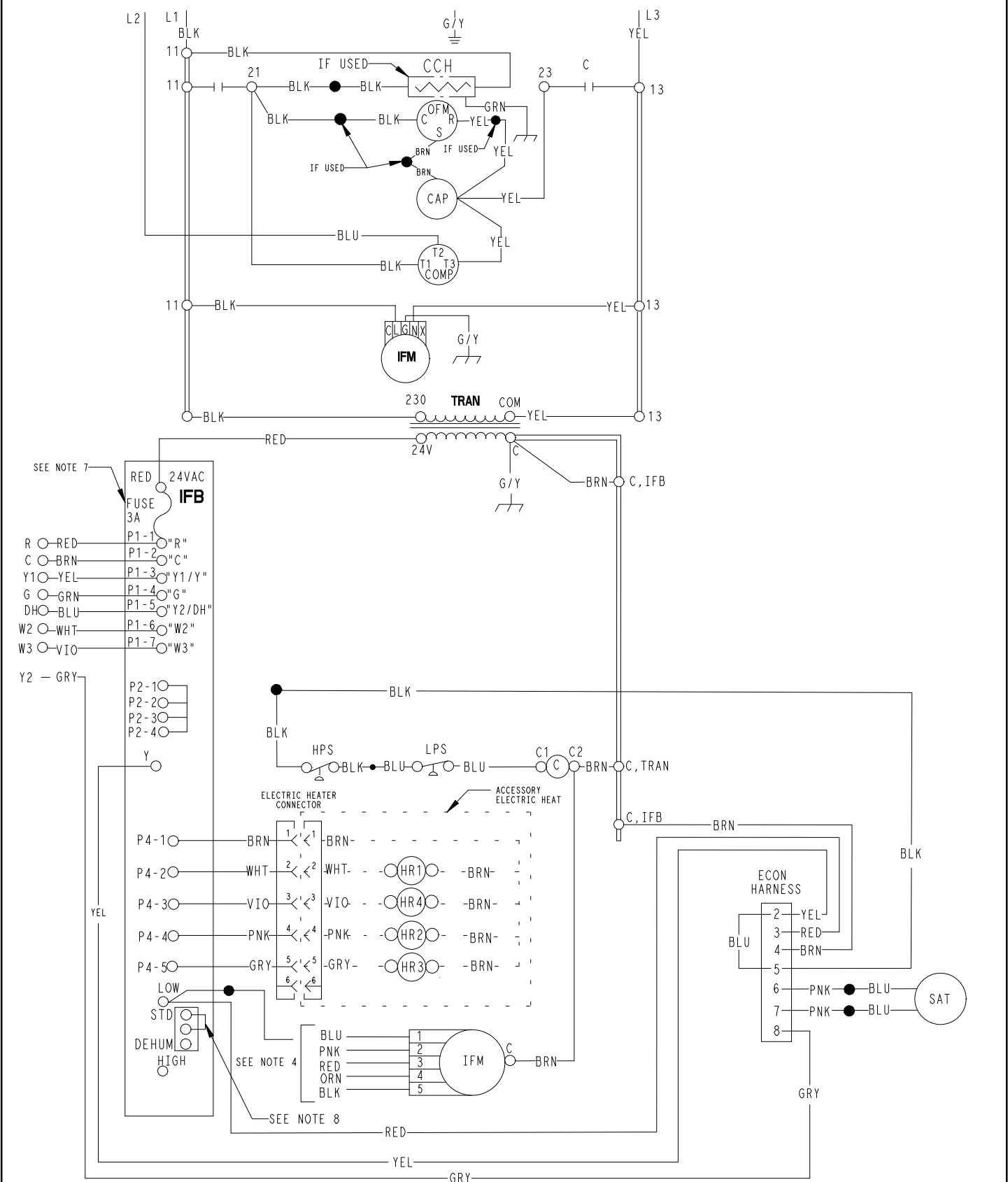
|     |                              |       |                       |
|-----|------------------------------|-------|-----------------------|
| △   | FIELD SPICE                  | C     | CONTACTOR             |
| ○   | TERMINAL (MARKED) ENERGIZED  | CAP   | CAPACITOR             |
| ○   | TERMINAL (UNMARKED)          | CCH   | CRANK CASE HEATER     |
| ●   | SPLICE (IF USED)             | COMP  | COMPRESSOR MOTOR      |
| ○   | SPLICE (MARKED)              | DH    | DEHUMIDIFICATION MODE |
| --- | FACTORY WIRING               | DEHUM | DEHUMIDIFICATION MODE |
| --- | FIELD CONTROL WIRING         | ECON  | ECONOMIZER            |
| --- | FIELD POWER WIRING           | GND   | GROUND                |
| --- | ACCESSORY OR OPTIONAL WIRING | HPS   | HIGH PRESSURE SWITCH  |
| --- | TO INDICATE COMMON           | HR    | HEATER RELAY          |
| --- | POTENTIAL ONLY:              | IFB   | INTERFACE FAN BOARD   |
| --- | NOT TO REPRESENT WIRING      | IFM   | INDOOR FAN MOTOR      |
|     |                              | LPS   | LOW PRESSURE SWITCH   |
|     |                              | OFM   | OUTDOOR FAN MOTOR     |
|     |                              | STD   | STANDARD MODE         |
|     |                              | TRAN  | TRANSFORMER           |

- NOTES:
1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90 DEGREE C WIRE OR IT'S EQUIVALENT.
  2. USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
  3. REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION OF IFM.
  4. RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS, CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
  5. "DO NOT DISCONNECT PLUG UNDER LOAD."
  6. THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003.
  7. UNIT FACTORY-SHIPED IN STD MODE.

## TYPICAL WIRING SCHEMATIC 208/230-3-60

# LADDER WIRING DIAGRAM

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



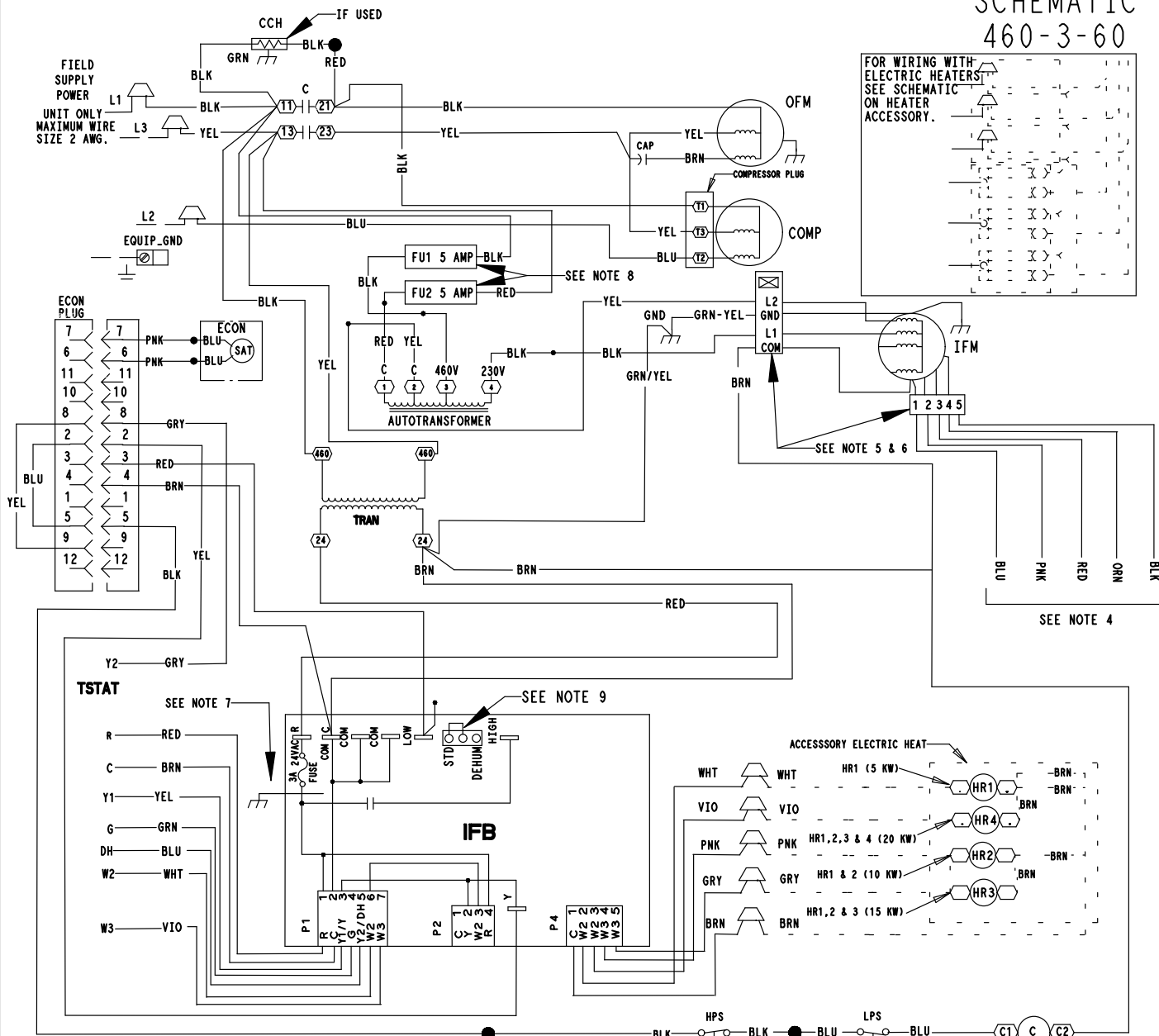
|            |   |
|------------|---|
| 50VL500270 | E |
|------------|---|

F

# TYPICAL WIRING SCHEMATIC 460-3-60

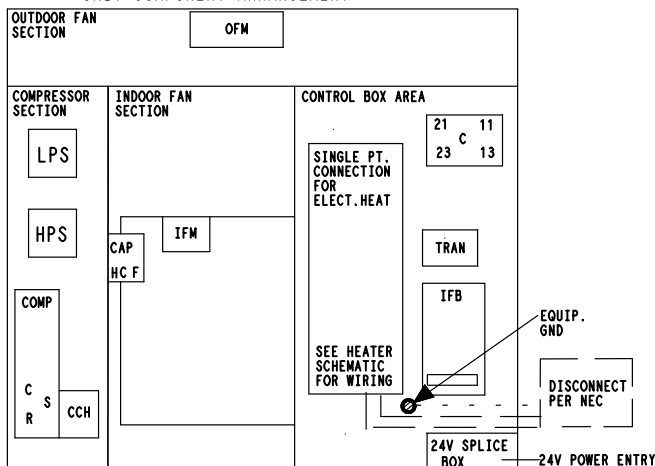
DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING

SCHEMATIC  
460-3-60



TSTAT

## UNIT COMPONENT ARRANGEMENT



## LEGEND

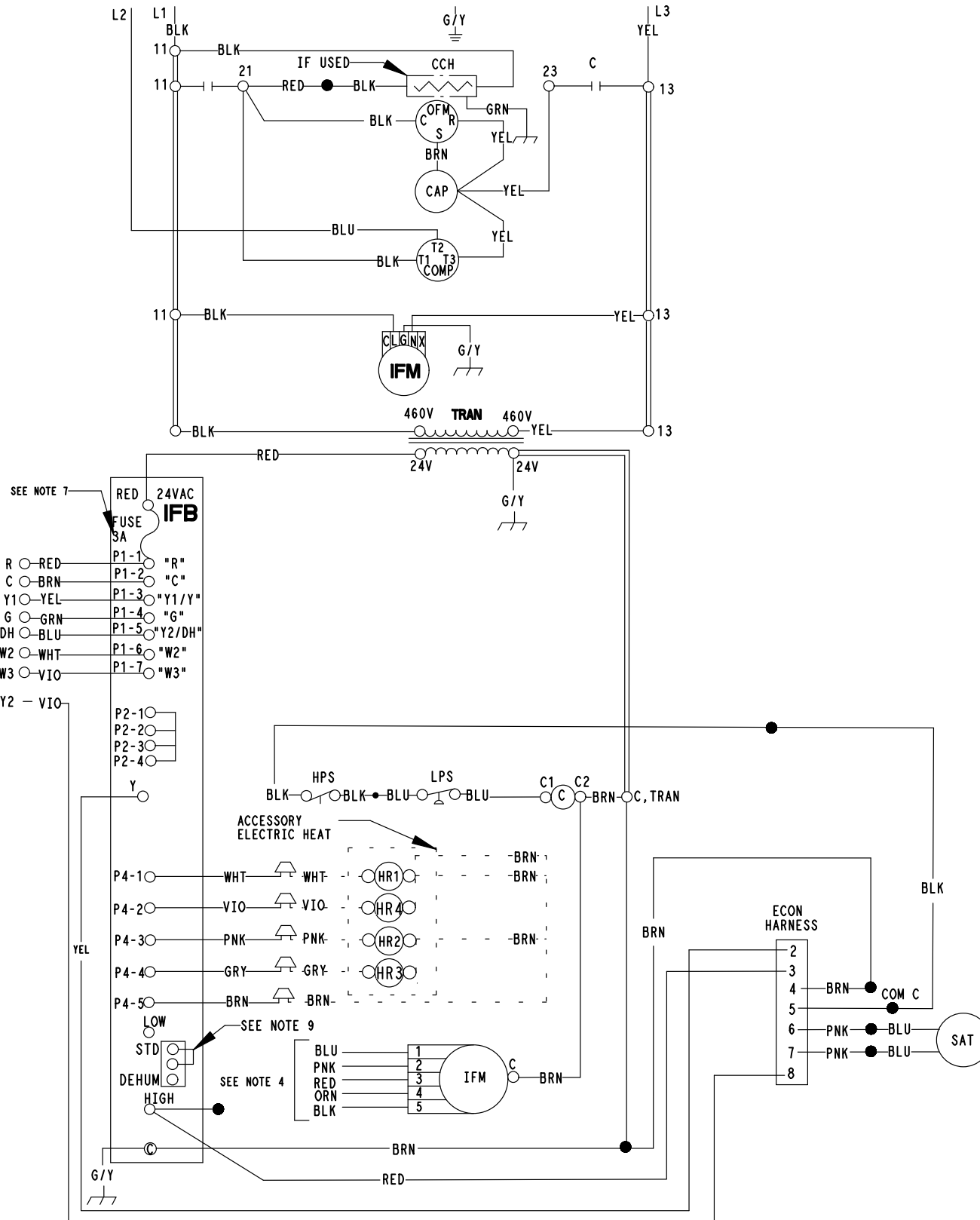
| COLOR | CODE   |     |                              |
|-------|--------|-----|------------------------------|
| BLK   | BLACK  | △   | FIELD SPICE                  |
| BLU   | BLUE   | ○   | TERMINAL (MARKED) ENERGIZED  |
| BRN   | BROWN  | ○   | TERMINAL (UNMARKED)          |
| GRY   | GRAY   | ●   | SPLICE (IF USED)             |
| GRN   | GREEN  | ○   | SPLICE (MARKED)              |
| ORN   | ORANGE | --- | FACTORY WIRING               |
| PNK   | PINK   | --- | FIELD CONTROL WIRING         |
| RED   | RED    | --- | FIELD POWER WIRING           |
| VIO   | VIOLET | --- | ACCESSORY OR OPTIONAL WIRING |
| WHT   | WHITE  | --- | TO INDICATE COMMON           |
| YEL   | YELLOW | --- | POTENTIAL ONLY:              |
|       |        | --- | NOT TO REPRESENT WIRING      |

### NOTES:

1. IF ANY OF THE ORIGINAL WIRES FURNISHED ARE REPLACED, IT MUST BE REPLACED WITH TYPE 90 DEGREE C WIRE OR IT'S EQUIVALENT.
2. USE 75 DEGREE COPPER CONDUCTORS FOR FIELD INSTALLATION.
3. REFER TO INSTALLATION INSTRUCTIONS FOR CORRECT SPEED SELECTION OF IFM.
4. RELOCATION OF SPEED TAPS MAY BE REQUIRED WHEN USING FIELD INSTALLED ELECTRIC HEATERS, CONSULT INSTALLATION INSTRUCTIONS TO DETERMINE CORRECT SPEED TAP SETTING.
5. "DO NOT DISCONNECT PLUG UNDER LOAD."
6. THIS FUSE IS MANUFACTURED BY LITTELFUSE, P/N 257003.
7. UNIT FACTORY-SHIPED IN STD MODE.

## TYPICAL WIRING SCHEMATIC 460-3-60

DANGER: ELECTRICAL SHOCK HAZARD DISCONNECT POWER BEFORE SERVICING



50VL500271

D

## CONTROLS

### Operating sequence

**Cooling** — When the system thermostat calls for cooling, 24 V is supplied to the “Y” and “G” terminals of the thermostat. This completes the circuit to the contactor coil (C) and indoor (evaporator) fan motor (IFM). The normally open contacts of C close and complete the circuit through compressor motor (COMP) to outdoor (condenser) fan motor (OFM). Both motors start instantly. Simultaneously, 24 volts is supplied through G to the Interface Fan Board (IFB) and to the IFM. The IFM starts instantly.

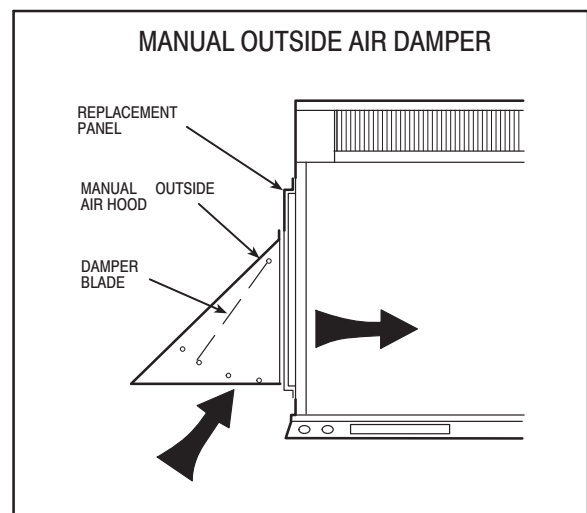
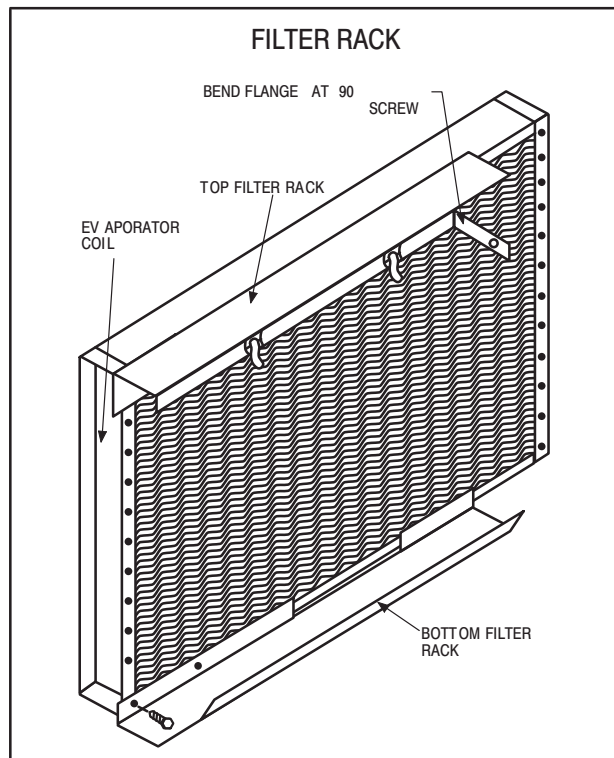
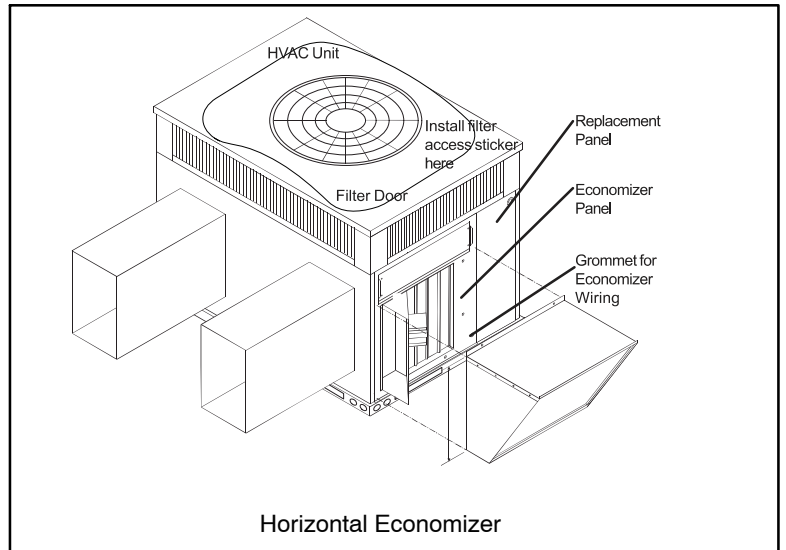
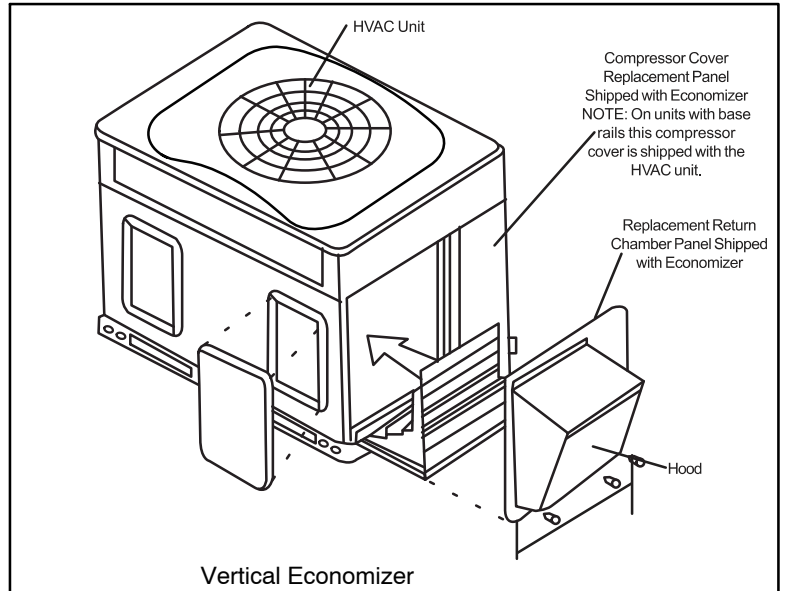
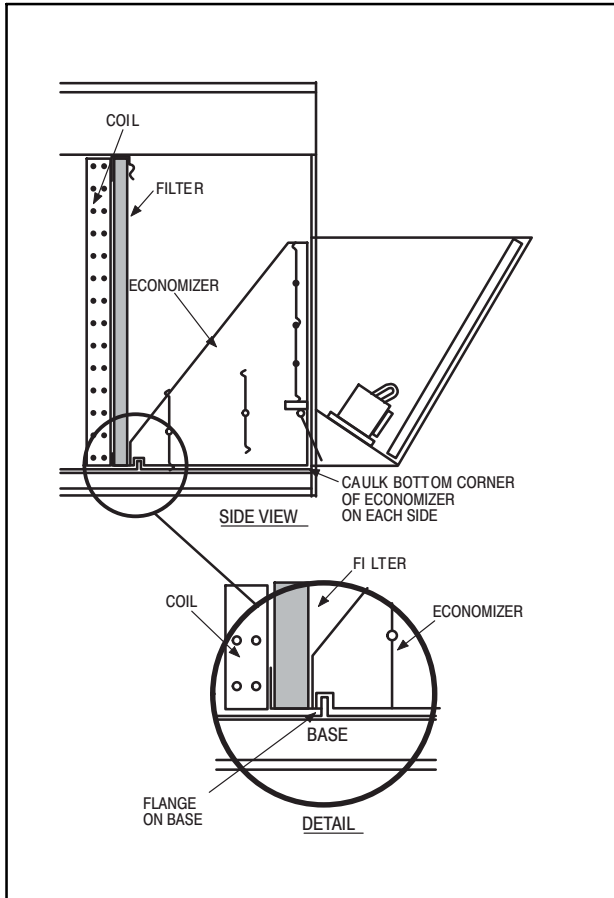
On the loss of the thermostat call for cooling, 24 V is removed from both the “Y” and “G” terminals (provided the fan switch is in the “AUTO” position) de-energizing the compressor contactor and opening the contacts supplying power to compressor/OFM. After a 60-second delay, the IFM shuts off. If the thermostat fan selector switch is in the “ON” position, the IFM will run continuously. For the 460 V units there is a step down autotransformer supplying 230 V to the Indoor Fan Motor.

**NOTE:** On units with an anti-cycle timer: Once the compressor has started and then stopped, it cannot be restarted again until 5 minutes have elapsed.

**Heating** — If accessory electric heaters are installed, on a call for heat, circuit R-W is made through the thermostat contacts. Circuit R-G is made which energizes the IFM. If the heaters are staged, then the thermostat closes a second set of contacts (W2) when second stage is required. When thermostat is satisfied, contacts open, deenergizing the heater relay and the IFM.

## ACCESSORIES

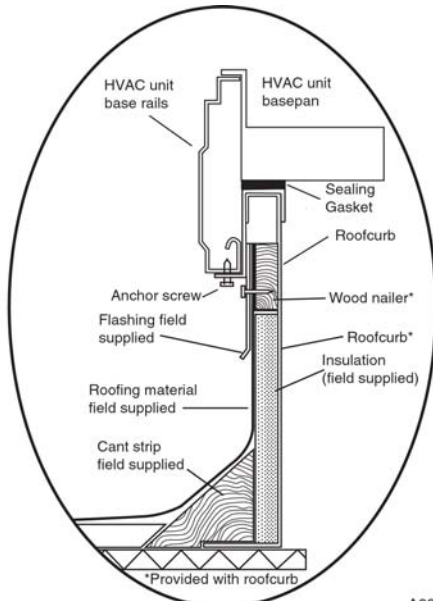
### ECONOMIZER





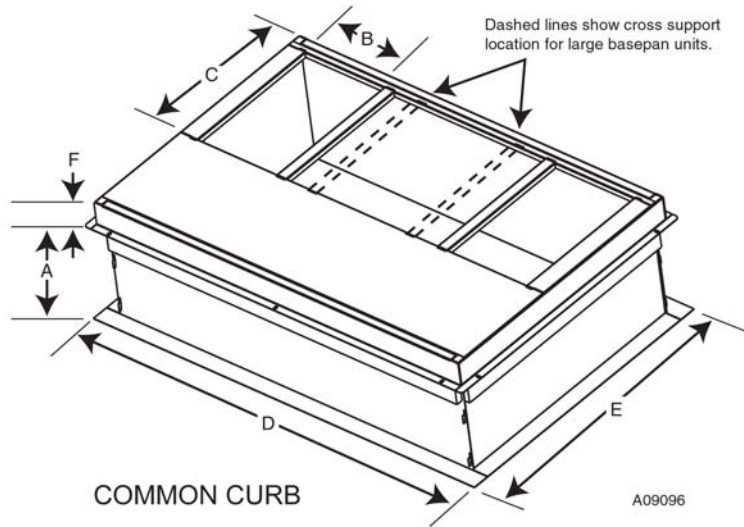
## ACCESSORIES

### ROOF CURB – PAD330–60



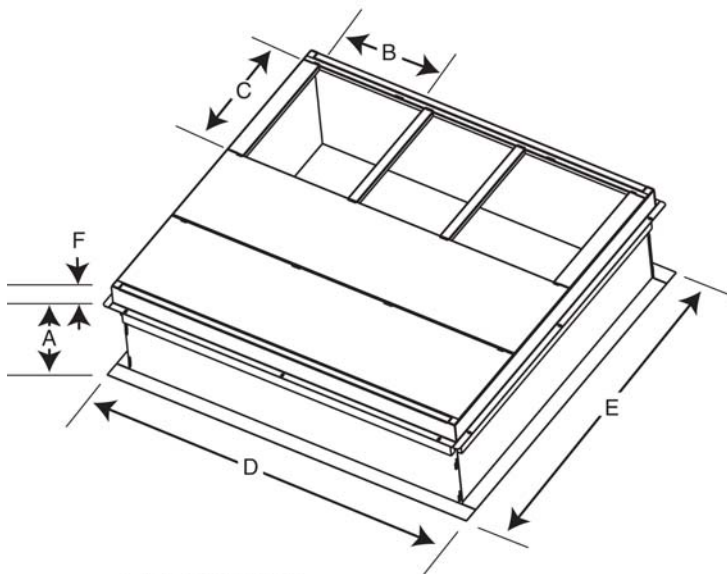
ROOF CURB DETAIL

A09090



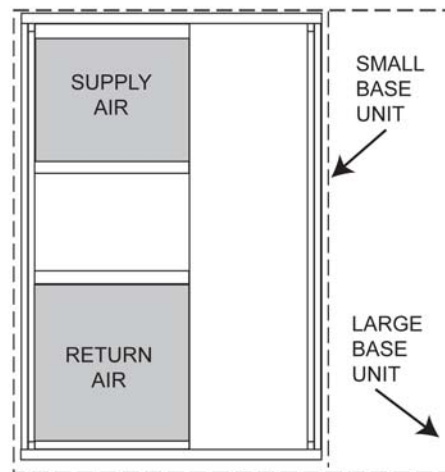
COMMON CURB

A09096



LARGE CURB

A09095



UNIT PLACEMENT ON  
COMMON CURB

A09094

SMALL OR LARGE BASE UNIT

| UNIT SIZE      | CATALOG NUMBER | A<br>IN. (mm) | B (small base)<br>IN. (mm)* | B (large base)<br>IN. (mm)* | C<br>IN. (mm) | D<br>IN. (mm) | E<br>IN. (mm) | F<br>IN. (mm) |
|----------------|----------------|---------------|-----------------------------|-----------------------------|---------------|---------------|---------------|---------------|
| Small or Large | CPRFCURB010A00 | 11 (279)      | 10 (254)                    | 14 (356)                    | 16 (406)      | 47.8 (1214)   | 32.4 (822)    | 2.7 (69)      |
|                | CPRFCURB011A00 | 14 (356)      |                             |                             |               |               |               |               |
| Large          | CPRFCURB012A00 | 11 (279)      | N/A                         | 14 (356)                    | 16 (406)      | 47.8 (1214)   | 43.9 (1116)   | 2.7 (69)      |
|                | 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.

## PAD3 ACCESSORIES (continued)

### ROOF CURBS

| Model Number   | Description         | Use With Model Size |
|----------------|---------------------|---------------------|
| CPRFCURB010A00 | Roof Curb, 11" High | 30 – 60             |
| CPRFCURB011A00 | Roof Curb, 14" High | 30 – 60             |
| CPRFCURB012A00 | Roof Curb, 11" High | 42 – 60             |
| CPRFCURB013A00 | Roof Curb, 14" High | 42 – 60             |

**Note:** CPRFCURB010A00 AND CPRFCURB011A00 can be used with 42–60 size units with some overhang.

### ADAPTER CURBS\*

|                |                                                           |         |
|----------------|-----------------------------------------------------------|---------|
| CPADCURB001A00 | Adapter Curb for use with NPRFCURB006A00 & NPRFCURB007A00 | 30 – 36 |
| CPADCURB002A00 | Adapter Curb for use with NPRFCURB008A00 & NPRFCURB009A00 | 42 – 60 |

\* Can also be used when replacing other manufacturer's older generation units that contain a composite base without a metal base rail.

### CONCENTRIC ADAPTERS – (Use with curb only)

|                |                                                                    |            |
|----------------|--------------------------------------------------------------------|------------|
| NPCONADP001A00 | For 18" round duct (use with curbs CPRFCURB010A00, CPRFCURB011A00) | Small Curb |
| NPCONADP002A00 | For 18" round duct (use with curbs CPRFCURB012A00, CPRFCURB013A00) | Large Curb |

### CONCENTRIC DIFFUSERS – (Ceiling or under roof)

|            |                                                                                     |         |
|------------|-------------------------------------------------------------------------------------|---------|
| AXB020CSA* | Step Down Diffuser – Fits 2' x 4' Ceiling Grid (16" round collars for flex conn.)   | 30 – 42 |
| AXB020CFA* | Flush Mount Diffuser – Fits 2' x 4' Ceiling Grid (16" round collars for flex conn.) | 30 – 42 |
| AXB030CSA  | Step Down Diffuser – Fits 2' x 4' Ceiling Grid (18" round collars for flex conn.)   | 30 – 60 |
| AXB030CFA  | Flush Mount Diffuser – Fits 2' x 4' Ceiling Grid (18" round collars for flex conn.) | 30 – 60 |

\* A field supplied 18" to 16" round reducer required when used with NP concentric adaptor

### ECONOMIZERS

| Model Number   | Description                                                                                                                                                                                                                                                      | Use With Model Size |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| CPECOMZR007A00 | Dedicated Vertical Economizer – Internal with solid state controller, gear driven, fully modulating damper, spring return actuator, up to 50% barometric relief, supply and dry bulb outdoor air sensors. Includes filter rack with 1" filters*.                 | 30,36               |
| CPECOMZR008A00 |                                                                                                                                                                                                                                                                  | 42,48               |
| CPECOMZR009A00 |                                                                                                                                                                                                                                                                  | 60                  |
| CPECOMZR010A00 | Dedicated Horizontal Economizer – Internal with solid state controller, fully modulating damper, spring return actuator, supply and dry bulb outdoor air sensor, and low ambient compressor lock-out switch included. Includes filter rack with 1–inch filters*. | 30,36               |
| CPECOMZR011A00 |                                                                                                                                                                                                                                                                  | 42,48               |
| CPECOMZR012A00 |                                                                                                                                                                                                                                                                  | 60                  |
| AXB078ENT      | Outdoor Enthalpy Control                                                                                                                                                                                                                                         | ALL                 |

\* Outdoor enthalpy available as field installed accessory; Filter rack and 1" filter, same as CPFILTRK kit

### MANUAL FRESH AIR DAMPERS

| Model Number   | Description                                                                            | Use With Model Size |
|----------------|----------------------------------------------------------------------------------------|---------------------|
| CPMANDPR007A00 | Manual Outside Air Damper – (Includes filter rack and 1" filter, same as CPFILTRK kit) | 30,36               |
| CPMANDPR008A00 |                                                                                        | 42,48               |
| CPMANDPR009A00 |                                                                                        | 60                  |

### INTERNAL FILTER RACK and FILTER (shipped with 1" filters)

| Model Number   | Description          | Use With Model Size |
|----------------|----------------------|---------------------|
| CPFILTRK007A00 | Internal Filter Rack | 30,36               |
| CPFILTRK008A00 |                      | 42,48               |
| CPFILTRK009A00 |                      | 60                  |

### LOW AMBIENT, ANTI-CYCLE TIMER

| Model Number   | Description                                                                                                  | Use With Model Size |
|----------------|--------------------------------------------------------------------------------------------------------------|---------------------|
| CPLOWAMB001A00 | Low ambient Control – enables cooling system to operate down to 0 Deg. F by cycling condenser fan on and off | ALL                 |
| NRTIMEGD001A00 | 5 minute anti-cycle timer (Note: many thermostats have inherent anti-cycle timer logic)                      | ALL                 |

## PAD3 ACCESSORIES (continued)

### CRANKCASE HEATER – BELLY BAND TYPE

| Model Number   | Description                                          | Use With Model Size |
|----------------|------------------------------------------------------|---------------------|
| NPCRKHTR008A00 | 240V Crankcase Heater                                | 30, 36              |
| NPCRKHTR004A00 | 240V Crankcase Heater (included with 60 size models) | 42, 48              |
| NPCRKHTR009A00 | 460V Crankcase Heater                                | 36                  |
| NPCRKHTR005A00 | 460V Crankcase Heater (included with 60 size models) | 42, 48              |

### HAIL GUARDS / COIL PROTECTION

|             |                                 |         |
|-------------|---------------------------------|---------|
| NAPA00501GR | 3/8" spacing dense wire grilles | 30      |
| NAPA00901GR | 3/8" spacing dense wire grilles | 36      |
| NAPA00601GR | 3/8" spacing dense wire grilles | 42      |
| NAPA00801GR | 3/8" spacing dense wire grilles | 48 – 60 |

### ELECTRIC HEATERS

| 208/240V  |                                      |       |         |        |          |
|-----------|--------------------------------------|-------|---------|--------|----------|
| PART NO.  | NOMINAL CAPACITY (kW)<br>208V / 240V | FUSED | # FUSES | STAGES | Use With |
| EHNA05H0N | 3.8 / 5.0                            | NO    | 0       | 1      | ALL      |
| EHNA10H0N | 7.5 / 10.0                           | NO    | 0       | 2      | ALL      |
| EHNA10H6F | 7.5 / 10.0                           | YES   | 6       | 2      | ALL      |
| EHNA15H0N | 11.3 / 15.0                          | NO    | 0       | 2      | ALL      |
| EHNA15H6F | 11.3 / 15.0                          | YES   | 6       | 2      | ALL      |
| EHNA20H6F | 15.0 / 20.0                          | YES   | 6       | 2      | 42 – 60  |
| 460V      |                                      |       |         |        |          |
| EHNA05L0N | 5.0                                  | NO    | 0       | 1      | ALL      |
| EHNA10L0N | 10.0                                 | NO    | 0       | 2      | ALL      |
| EHNA15L0N | 15.0                                 | NO    | 0       | 2      | ALL      |
| EHNA20L0N | 20.0                                 | NO    | 0       | 2      | 42 – 60  |

### DUAL POINT WIRING KIT

| Model Number   | Description                           | Use With Model Size |
|----------------|---------------------------------------|---------------------|
| CPDUALPT001A00 | Dual Point Wiring kit, 5–20kW Heaters | ALL                 |

### DUCT TRANSITIONS

|                |                                                                         |         |
|----------------|-------------------------------------------------------------------------|---------|
| NPDUCFLG002A00 | Square to 14" Round (1 set of 2, use with horizontal duct flanges only) | 30 – 48 |
|----------------|-------------------------------------------------------------------------|---------|