



Turn to the experts

## Product Data

WeatherExpert®

Single Packaged Rooftop

6 to 10 Nominal Tons



WeatherExpert®



50LC\*\*07, 08, 09, 12  
Electric Cooling Rooftop Units with Optional Electric Heat  
with Puron® Refrigerant (R-410A)

**Carrier’s Electric Heat/Electric Cooling WeatherExpert® 6 to 10 ton Commercial Package Rooftop models are designed to provide total low cost of ownership by providing some of the highest cooling efficiencies in the industry with low installation costs, low maintenance costs, and high reliability.**

These models focus on providing high IEERs (Integrated Energy Efficiency Ratios), which are a measurement of cooling part load performance and where actual buildings operate most of the time. These high part load values are achieved by using logic that strategically sequences compressor stages and indoor fan motor and condenser fan motor speeds. These models are in addition to the 3 to 5 ton models with SEERs (Seasonal Energy Efficiency Ratios) up to 17.5 and 12.5 to 23 ton models with IEERs up to 19.3 to provide a full range offering.

**Ultra high efficiency**

With IEERs up to 21.0, these WeatherExpert models help to contribute in LEED (Leadership in Energy and Environmental Design) credits and help qualify for rebates. The high IEER efficiencies are achieved by utilizing a proven staged compressor design on a single refrigerant circuit that provides 3 stages of cooling capacity control. The indoor fan motors are high efficiency belt drive, controlled by a VFD (Variable Frequency Drive) that matches the cooling capacity stages for optimum comfort and efficient control. Models also have multiple heat capacities for each size.

**Easy to install**

All WeatherExpert units have full perimeter base rails with built in rigging capability. They are fully factory tested, refrigerant charged, and assembled at the factory for easy installation. Units are easily field-convertible to horizontal airflow, which makes it easy to adjust to unexpected jobsite complications. Many factory options and field-installed accessories are also available that are pre-engineered and tested.

**Easy to maintain**

Easy access door handles by Carrier provide quick access to all normally serviced components. Our “no-strip” screw system has superior holding power and guides screws into position while preventing the screw from stripping the unit’s metal. Units come with accessible 2 in. filters that have a dedicated access door for easy replacement. Optional hinged panels allow easy access with pull tabs and quarter turn latches.

**Reliable**

Carrier conducts rigorous testing to insure your unit will perform as designed. Extensive rain testing is conducted in specially designed test areas and under conditions that simulate actual jobsites. In addition, units are both shake-tested and driven around the country to make sure that both the packaging and the unit components within hold up. Condensate pans are made of non-corrosive composite material, motors are permanently lubricated, and compressors use crankcase heaters, all to further strengthen the unit’s reliability.

Unit features include:

- Three-stage cooling capacity control with staged scroll compressor design. Each cooling stage is different in capacity output to better match typical building load profiles.
- Single refrigerant circuit design with precision-sized TXV (thermostatic expansion valve) refrigerant metering devices to provide optimum operation through the entire operating range.
- Single full faced evaporator coil for full surface utilization, even at part load operation.
- Crankcase heater on each compressor designed to cycle off during the on cycle.
- IEERs up to 21.0 and EERs up to 13.7.
- High-efficiency, permanently lubricated, belt-driven evaporator-fan motor with VFD (Variable Frequency Drive) controller.
- Electromechanical Integrated Staging Control (ISC) board that provides:
  - Thermostat controls
  - Compressor staging
  - Indoor fan motor staging
  - Field and factory wiring connections
  - Outdoor fan motor staging
  - Crankcase heater control
- Sound levels as low as 82 dB.
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design, side or bottom drain.
- Single point electrical connections.

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## Features/Benefits (cont)



- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection.
- Fully insulated with foil faced insulation throughout the entire airstream of the cabinet.
- High ambient cooling operation and ratings up to 125°F (52°C).
- Low ambient mechanical cooling operation down to 40°F (4°C). An economizer shall be the source of cooling in low ambient temperature conditions. When the outside air temperature is below 40°F (4°C), to reduce operating costs, mechanical cooling shall not be utilized.
- Access panels with easy grip handles.
- Innovative, easy starting, no-strip screw feature on unit access panels.
- 2 in. disposable return air filters.
- Tool-less filter access door.
- Field convertible airflow capability on all models. On 07 size, switch panels within the units. On 08-12 sizes, a simple field-installed supply duct kit is required.
- Provisions for thru-the-bottom power entry capability as standard.
- Full perimeter base rail with built-in rigging adapters and fork truck slots.
- 24 volt control circuit protected with resettable circuit breaker.
- Totally enclosed high-efficiency ECM (electronically commutated motor) outdoor fan motor with permanently lubricated bearings.
- Low-pressure switch and high-pressure switch protection.
- High capacity liquid line filter drier.
- Factory-installed Humidi-MiZer® Adaptive Dehumidification System on all sizes.
- Factory-installed SystemVu™ controller with LCD (liquid crystal display) user display
- Standard Limited Parts Warranty: 5 year Electric heaters, 5 year compressor, 3 year SystemVu controller, 1 year parts.



# Model number nomenclature



|           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |
|-----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|
| Position: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Example:  | 5 | 0 | L | C | D | 0 | 1 | 2 | A | 1  | A  | 5  | -  | 0  | A  | 0  | A  | 0  |

### Unit Heat Type

50 - Electric Cooling/Heating  
Packaged Rooftop

### Model Series - WeatherExpert®

LC - Ultra High Efficiency

### Heat Options

0 = Standard - No Electric Heat  
D = Low Electric Heat  
E = Medium Electric Heat  
F = High Electric Heat

### Refrig. Systems Options

0 = Three stage cooling capacity control with TXV  
A = Three stage cooling capacity control with TXV  
and Humidi-MiZer® System

### Cooling Tons

07 - 6 ton  
08 - 7.5 ton  
09 - 8.5 ton  
12 - 10 ton

### Sensor Options

A = None  
B = RA Smoke Detector  
C = SA Smoke Detector  
D = RA + SA Smoke Detector  
E = CO<sub>2</sub>  
F = RA Smoke Detector and CO<sub>2</sub>  
G = SA Smoke Detector and CO<sub>2</sub>  
H = RA + SA Smoke Detector and CO<sub>2</sub>  
J = Condensate Overflow Switch  
K = Condensate Overflow Switch and RA Smoke Detector  
L = Condensate Overflow Switch and  
RA + SA Smoke Detectors

### Indoor Fan Options

1 = Standard Static Belt Drive with VFD controller  
2 = Medium Static Belt Drive with VFD controller  
3 = High Static Belt Drive with VFD controller  
4 = Ultra High Static Belt Drive with VFD controller (08, 09 only)

### Coil Options: Fin/Tube (Condenser – Evaporator – Hail Guard)

A = Al/Cu – Al/Cu  
B = Precoat Al/Cu – Al/Cu  
C = E-coat Al/Cu – Al/Cu  
D = E-coat Al/Cu – E-coat Al/Cu  
E = Cu/Cu – Al/Cu  
F = Cu/Cu – Cu/Cu  
M = Al/Cu – Al/Cu – Louvered Hail Guard  
N = Precoat Al/Cu – Al/Cu – Louvered Hail Guard  
P = E-coat Al/Cu – Al/Cu – Louvered Hail Guard  
Q = E-coat Al/Cu – E-coat Al/Cu – Louvered Hail Guard  
R = Cu/Cu – Al/Cu – Louvered Hail Guard  
S = Cu/Cu – Cu/Cu – Louvered Hail Guard

### Packaging

0 = Standard  
1 = LTL

### Electrical Options

A = None  
B = HACR Circuit Breaker  
C = Non-Fused Disconnect  
D = Thru-The-Base Connections  
E = HACR Circuit Breaker  
and Thru-The Base Connections  
F = Non-Fused Disconnect and  
Thru-The-Base Connections

### Service Options

0 = None  
1 = Unpowered Convenience Outlet  
2 = Powered Convenience Outlet  
3 = Hinged Panels  
4 = Hinged Panels and  
Unpowered Convenience Outlet  
5 = Hinged Panels and  
Powered Convenience Outlet

### Intake / Exhaust Options

A = None  
B = Low Leak Temperature Economizer  
with Barometric Relief  
E = Low Leak Enthalpy Economizer  
with Barometric Relief  
N = Ultra Low Leak Temperature Economizer  
with Barometric Relief  
R = Ultra Low Leak Enthalpy Economizer  
with Barometric Relief

### Base Unit Controls

0 = Electro-mechanical Controls  
1 = RTU Open Multi-Protocol Controller  
4 = SystemVu™ Controller

### Design Revision

- = Factory Design Revision

### Voltage

1 = 575/3/60  
5 = 208-230/3/60  
6 = 460/3/60

## 50LC\*\*07-12 COOLING RATINGS (208V)<sup>a, b, c</sup>

| 50LC UNIT | NOMINAL CAPACITY (TONS) | COOLING STAGES | ELECTRIC HEAT OPTION | MOTOR OPTION | NOM COOLING CAPACITY | TOTAL POWER (kW) | EER  | SEER/IEER |
|-----------|-------------------------|----------------|----------------------|--------------|----------------------|------------------|------|-----------|
| 07        | 6.0                     | 3              | All                  | —            | 70.0                 | 5.3              | 13.1 | 20.7      |
| 08        | 7.5                     | 3              | All                  | Standard     | 89.0                 | 6.8              | 13.1 | 19.7      |
|           |                         |                |                      | Medium       | 89.0                 | 6.9              | 13.0 | 19.4      |
|           |                         |                |                      | High         | 89.0                 | 7.0              | 12.9 | 19.3      |
|           |                         |                |                      | Ultra High   | 89.0                 | 6.9              | 13.0 | 19.4      |
| 09        | 8.5                     | 3              | All                  | Standard     | 102.0                | 7.6              | 13.7 | 21.0      |
|           |                         |                |                      | Medium       | 102.0                | 7.6              | 13.7 | 21.0      |
|           |                         |                |                      | High         | 102.0                | 7.7              | 13.6 | 20.8      |
|           |                         |                |                      | Ultra High   | 102.0                | 7.7              | 13.6 | 20.8      |
| 12        | 10.0                    | 3              | All                  | —            | 116.0                | 8.9              | 13.1 | 20.8      |

## 50LC\*\*07-12 COOLING RATINGS (230v/460v/575v)<sup>a, b, c</sup>

| 50LC UNIT | NOMINAL CAPACITY (TONS) | COOLING STAGES | ELECTRIC HEAT OPTION | MOTOR OPTION | NOM COOLING CAPACITY | TOTAL POWER (kW) | EER  | SEER/IEER |
|-----------|-------------------------|----------------|----------------------|--------------|----------------------|------------------|------|-----------|
| 07        | 6.0                     | 3              | All                  | —            | 70.0                 | 5.3              | 13.1 | 20.5      |
| 08        | 7.5                     | 3              | All                  | Standard     | 89.0                 | 6.8              | 13.0 | 19.5      |
|           |                         |                |                      | Medium       | 89.0                 | 6.9              | 12.9 | 19.2      |
|           |                         |                |                      | High         | 89.0                 | 7.0              | 12.8 | 19.1      |
|           |                         |                |                      | Ultra High   | 89.0                 | 6.9              | 12.9 | 19.2      |
| 09        | 8.5                     | 3              | All                  | Standard     | 102.0                | 7.6              | 13.4 | 19.9      |
|           |                         |                |                      | Medium       | 102.0                | 7.6              | 13.4 | 19.9      |
|           |                         |                |                      | High         | 102.0                | 7.7              | 13.3 | 19.7      |
|           |                         |                |                      | Ultra High   | 102.0                | 7.7              | 13.3 | 19.7      |
| 12        | 10.0                    | 3              | All                  | —            | 116.0                | 8.9              | 13.1 | 20.5      |

**NOTE(S):**

- a. Rated in accordance with AHRI Standards 340/360.
- b. Ratings are based on: Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temperature.
- c. 50LC units comply with US Energy Policy Act. To evaluate code compliance requirements, refer to state and local codes.

**LEGEND**

- AHRI** — Air-Conditioning, Heating and Refrigeration Institute Test Standard
- ASHRAE** — American Society of Heating, Refrigerating and Air-Conditioning Engineers
- EER** — Energy Efficiency Ratio
- IEER** — Integrated Energy Efficiency Ratio



## COOLING MINIMUM — MAXIMUM OPERATION CFM

| 50LC UNIT | COOLING STAGE | MINIMUM CFM | MAXIMUM CFM | MINIMUM OD AMBIENT TEMPERATURE (°F) | MAXIMUM OD AMBIENT TEMPERATURE (°F) |
|-----------|---------------|-------------|-------------|-------------------------------------|-------------------------------------|
| 07        | Stage-3       | 1500        | 3000        | 40                                  | 125                                 |
|           | Stage-2       | 1000        | 2000        |                                     |                                     |
|           | Stage-1       | 1000        | 2000        |                                     |                                     |
| 08        | Stage-3       | 1900        | 3750        | 40                                  | 125                                 |
|           | Stage-2       | 1250        | 2500        |                                     |                                     |
|           | Stage-1       | 1250        | 2500        |                                     |                                     |
| 09        | Stage-3       | 2150        | 4250        | 40                                  | 125                                 |
|           | Stage-2       | 1400        | 2800        |                                     |                                     |
|           | Stage-1       | 1400        | 2800        |                                     |                                     |
| 12        | Stage-3       | 2500        | 5000        | 40                                  | 125                                 |
|           | Stage-2       | 1500        | 3000        |                                     |                                     |
|           | Stage-1       | 1000        | 2000        |                                     |                                     |

## SOUND PERFORMANCE<sup>a, b, c</sup>

| 50LC UNIT | COOLING STAGES | OUTDOOR SOUND (dB) AT 60 Hz |      |      |      |      |      |      |      |      |
|-----------|----------------|-----------------------------|------|------|------|------|------|------|------|------|
|           |                | A-WEIGHTED                  | 63   | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| 07        | 3              | 82.0                        | 88.6 | 85.0 | 81.6 | 79.5 | 77.4 | 74.1 | 71.0 | 66.3 |
| 08        | 3              | 83.0                        | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |
| 09        | 3              | 83.0                        | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |
| 12        | 3              | 83.0                        | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |

NOTE(S):

- a. Outdoor sound data is measured in accordance with AHRI standard 270.
- b. Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
- c. A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of the "average" human ear. A-weighted measurements for Carrier units are taken in accordance with AHRI standard 270.

LEGEND

dB — Decibel

## PHYSICAL DATA (COOLING) 6 TO 10 TONS

|  |                            | 50LC**07      | 50LC**08      | 50LC**09      | 50LC**12      |
|--|----------------------------|---------------|---------------|---------------|---------------|
| <b>REFRIGERATION SYSTEM</b>                        |                            |               |               |               |               |
| No. Circuits/No. Comp./Type                        |                            | 1/2/Scroll    | 1/2/Scroll    | 1/2/Scroll    | 1/2/Scroll    |
| RTPF Models R-410A Charge A/B (lb-oz)              |                            | 15-8          | 22-5          | 25-11         | 24-15         |
| Alternate (Humidi-MiZer) R-410A Charge A/B (lb-oz) |                            | 23-5          | 27-6          | 34-0          | 31-8          |
| Oil A/B (oz)                                       |                            | 25/42         | 42/42         | 42/42         | 42/42         |
| Metering Device                                    |                            | TXV           | TXV           | TXV           | TXV           |
| High-Press. Trip/Reset (psig)                      |                            | 630/505       | 630/505       | 630/505       | 630/505       |
| Low-Press. Trip/Reset (psig)                       |                            | —             | —             | 54/117        | 54/117        |
| Loss of Charge Trip/Reset (psig)                   |                            | 27/44         | 27/44         | —             | —             |
| <b>EVAP. COIL</b>                                  |                            |               |               |               |               |
| Material   |                            | Cu/Al         | Cu/Al         | Cu/Al         | Cu/Al         |
| Coil Type  |                            | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Coil Length (in.)                                  |                            | 40            | 52.5          | 52.5          | 52.5          |
| Coil Height (in.)                                  |                            | 40            | 48            | 48            | 48            |
| Rows/FPI   |                            | 4/15          | 4/15          | 4/15          | 4/15          |
| Total Face Area (ft <sup>2</sup> )                 |                            | 11.1          | 17.5          | 17.5          | 17.5          |
| Condensate Drain Conn. Size                        |                            | 3/4 in.       | 3/4 in.       | 3/4 in.       | 3/4 in.       |
| <b>HUMIDI-MIZER COIL</b>                           |                            |               |               |               |               |
| Material   |                            | Cu/Al         | Cu/Al         | Cu/Al         | Cu/Al         |
| Coil Type  |                            | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Coil Length (in.)                                  |                            | 38            | 49.5          | 49.5          | 49.5          |
| Coil Height (in.)                                  |                            | 32            | 40            | 40            | 40            |
| Rows/FPI   |                            | 2/18          | 1/18          | 1/18          | 1/18          |
| Total Face Area (ft <sup>2</sup> )                 |                            | 8.4           | 13.8          | 13.8          | 13.8          |
| <b>EVAP. FAN AND MOTOR</b>                         |                            |               |               |               |               |
| Standard Static 3-Phase                            | Motor Qty/Drive Type       | 1/Belt        | 1/Belt        | 1/Belt        | 1/Belt        |
|  | Max bhp                    | 1.7           | 1.7           | 1.7           | 2.4           |
|  | Rpm Range                  | 356-534       | 338-507       | 338-507       | 375-563       |
|  | Motor Frame Size           | 56            | 56            | 56            | 56Z           |
|  | Fan Qty/Type               | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal |
|  | Fan Diameter (in.)         | 15.5 x 15     | 18.5 x 18     | 18.5 x 18     | 18.5 x 18     |
| Medium Static 3-Phase                              | Motor Qty/Drive Type       | 1/Belt        | 1/Belt        | 1/Belt        | 1/Belt        |
|  | Max bhp                    | 1.7           | 1.7           | 1.7           | 2.9           |
|  | Rpm Range                  | 539-809       | 488-675       | 488-675       | 547-757       |
|  | Motor Frame Size           | 56            | 56            | 56            | 56            |
|  | Fan Qty/Type               | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal |
|  | Fan Diameter (in.)         | 15.5 x 15     | 18.5 x 18     | 18.5 x 18     | 18.5 X 18     |
| High Static 3-Phase                                | Motor Qty/Drive Type       | 1/Belt        | 1/Belt        | 1/Belt        | 1/Belt        |
|  | Max bhp                    | 2.9           | 2.9           | 3.7           | 4.9           |
|  | Rpm Range                  | 799-1054      | 623-863       | 675-863       | 760-960       |
|  | Motor Frame Size           | 56            | 56            | 56HZ          | 145TZ         |
|  | Fan Qty/Type               | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal | 1/Centrifugal |
|  | Fan Diameter (in.)         | 15.5 x 15     | 18.5 x 18     | 18.5 x 18     | 18.5 X 18     |
| Ultra High Static 3-Phase                          | Motor Qty/Drive Type       | —             | 1/Belt        | 1/Belt        | —             |
|  | Max bhp (208/230/460/575v) | —             | 3.7           | 4.9           | —             |
|  | Rpm Range                  | —             | 847-1150      | 832-1021      | —             |
|  | Motor Frame Size           | —             | 56HZ          | 145TZ         | —             |
|  | Fan Qty/Type               | —             | 1/Centrifugal | 1/Centrifugal | —             |
|  | Fan Diameter (in.)         | —             | 18.5 x 18     | 18.5 x 18     | —             |
| <b>COND. COIL 1</b>                                |                            |               |               |               |               |
| Material   |                            | Cu/Al         | Cu/Al         | Cu/Al         | Cu/Al         |
| Coil Type  |                            | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Coil Length (in.)                                  |                            | 82            | 100           | 64            | 64            |
| Coil Height (in.)                                  |                            | 44            | 52            | 52            | 52            |
| Rows/FPI   |                            | 2/18          | 2/18          | 2/18          | 2/18          |
| Total Face Area (ft <sup>2</sup> )                 |                            | 25.1          | 36.1          | 23.1          | 23.1          |
| <b>COND. COIL 2</b>                                |                            |               |               |               |               |
| Material   |                            | —             | —             | Cu/Al         | Cu/Al         |
| Coil Type  |                            | —             | —             | 5/16 in. RTPF | 5/16 in. RTPF |
| Coil Length (in.)                                  |                            | —             | —             | 64            | 64            |
| Coil Height (in.)                                  |                            | —             | —             | 52            | 52            |
| Rows/FPI   |                            | —             | —             | 2/18          | 2/18          |
| Total Face Area (ft <sup>2</sup> )                 |                            | —             | —             | 23.1          | 23.1          |

## PHYSICAL DATA (COOLING) 6 TO 10 TONS (cont)

|                                | 50LC**07                          | 50LC**08                          | 50LC**09                          | 50LC**12                          |
|--------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>COND. FAN/MOTOR</b>         |                                   |                                   |                                   |                                   |
| Qty/Motor Drive Type           | 2/direct                          | 3/direct                          | 3/direct                          | 3/direct                          |
| Motor HP/rpm                   | 1/3/1000                          | 1/3/1000                          | 1/3/1000                          | 1/3/1000                          |
| Fan Diameter (in.)             | 22                                | 22                                | 22                                | 22                                |
| <b>FILTERS</b>                 |                                   |                                   |                                   |                                   |
| RA Filter No./Size (in.)       | 4/20 x 20 x 2                     | 6/18 x 24 x 2                     | 6/18 x 24 x 2                     | 6/18 x 24 x 2                     |
| OA Inlet Screen No./Size (in.) | V 2/24 x 27 x 1<br>H 1/30 x 39 x1 | V 2/24 x 27 x 1<br>H 1/30 x 39 x1 | V 2/24 x 27 x 1<br>H 1/30 x 39 x2 | V 2/24 x 27 x 1<br>H 1/30 x 39 x2 |





## FACTORY-INSTALLED OPTIONS AND FIELD-INSTALLED ACCESSORIES

| CATEGORY                                   | ITEM   | FACTORY-INSTALLED OPTION | FIELD-INSTALLED ACCESSORY |
|--|--|--------------------------|---------------------------|
| <b>CABINET</b>                             | Thru-the-base electrical connections   | X                        | X                         |
|  | Hinged access panels   | X                        |                           |
| <b>COIL OPTIONS</b>                        | Cu/Cu indoor and/or outdoor coils  | X                        |                           |
|  | Pre-coated outdoor coils   | X                        |                           |
|  | Premium, E-coated outdoor coils  | X                        |                           |
| <b>CONDENSER PROTECTION</b>                | Condenser coil hail guard (louvered design)  | X                        | X                         |
| <b>HUMIDITY CONTROL</b>                    | Humidi-MiZer® Adaptive Dehumidification System   | X                        |                           |
| <b>CONTROLS</b>                            | Thermostats, temperature sensors, and subbases   |                          | X                         |
|  | Smoke detector (supply and/or return air)  | X                        |                           |
|  | Horn/Strobe Annunciator <sup>a</sup>   |                          | X                         |
|  | Time Guard II compressor delay control circuit   |                          | X                         |
|  | Phase Monitor  |                          | X                         |
|  | SystemVu™ Controller <sup>b</sup>  | X                        |                           |
| <b>ECONOMIZERS AND OUTDOOR AIR DAMPERS</b> | EconoMi\$er X for electromechanical controls, complies with FDD. (Low and Ultra Low Leak air damper models) <sup>c</sup> | X                        | X                         |
|  | EconoMi\$er2 for DDC controls, complies with FDD. (Low and Ultra Low Leak air damper models) <sup>d</sup>                | X                        | X                         |
|  | Barometric relief <sup>e</sup>   | X                        | X                         |
|  | Power exhaust  |                          | X                         |
| <b>ECONOMIZER SENSORS AND IAQ DEVICES</b>  | Single dry bulb temperature sensors <sup>f</sup>   | X                        | X                         |
|  | Differential dry bulb temperature sensors <sup>f</sup>   |                          | X                         |
|  | Single enthalpy sensors <sup>f</sup>   | X                        | X                         |
|  | Differential enthalpy sensors <sup>f</sup>   |                          | X                         |
|  | CO <sub>2</sub> sensor (wall, duct, or unit mounted) <sup>f</sup>  | X                        | X                         |
| <b>ELECTRIC HEAT</b>                       | Electric Resistance Heaters  | X                        | X                         |
|  | Single Point Kit   | X                        | X                         |
| <b>INDOOR MOTOR AND DRIVE</b>              | Multiple motor and drive packages  | X                        |                           |
| <b>POWER OPTIONS</b>                       | Convenience outlet (powered)   | X                        |                           |
|  | Convenience outlet (unpowered)   | X                        |                           |
|  | HACR Circuit Breaker <sup>d, g</sup>   | X                        |                           |
|  | Non-fused disconnect <sup>h</sup>  | X                        |                           |
| <b>ROOF CURBS</b>                          | Roof curb 14 in. (356 mm)  |                          | X                         |
|  | Roof curb 24 in. (610 mm)  |                          | X                         |

NOTE(S):

- Requires a field-supplied 24v transformer for each application. See price pages for details.
- SystemVu controller is not available on units with factory-installed Standard Leak Economizers (field-installed only).
- On 575v applications, HACR breaker can only be used with WYE power distribution systems. Using on Delta power distribution systems is prohibited.
- FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
- Included with economizer.
- Sensors used to optimize economizer performance.
- When selecting a factory-installed HACR breaker or non-fused disconnect, note they are sized for the unit as ordered from the factory. The sizing of these does not accommodate any field items, such as power exhaust devices, etc.
- On 208/230-460 units with FIOP Non-Fused Disconnect, a Single Point Box accessory may be required. Refer to Electric Heat — Electrical Data Table for more information.

## Economizer

Economizers can reduce operating costs. They bring in fresh, outside air for ventilation and provide cool outside air to cool your building. This also is the preferred method of low ambient cooling. When coupled to CO<sub>2</sub> sensors, economizers can limit the ventilation air to only the amount required.

Economizers are available, installed and tested by the factory, with either enthalpy or temperature dry-bulb inputs. There are also models for electromechanical and direct digital controllers. Additional sensors are available as accessories to optimize the economizer.

Economizers include gravity-controlled barometric relief that helps equalize building pressure and ambient air pressures. This can be a cost effective solution to prevent building pressurization. Economizers are available in ultra low leak and low leak versions.

## CO<sub>2</sub> Sensor

The CO<sub>2</sub> sensor works with the economizer to intake only the correct amount of outside air for ventilation. As occupants fill your building, the CO<sub>2</sub> sensor detects their presence through increasing CO<sub>2</sub> levels and opens the economizer appropriately.

When the occupants leave, the CO<sub>2</sub> levels decrease, and the sensor appropriately closes the economizer. This intelligent control of the ventilation air, called Demand Controlled Ventilation (DCV), reduces the overall load on the rooftop, saving money.

## Smoke Detectors

Trust the experts. Smoke detectors make your application safer and your job easier. Carrier smoke detectors immediately shut down the rooftop unit when smoke is detected. They are available, installed by the factory, for supply air, return air, or both.

## Louvered Hail Guards

Sleek, louvered panels protect the condenser coil from hail damage, foreign objects, and incidental contact.

## Convenience Outlet (Powered or Unpowered)

Reduce service and/or installation costs by including a convenience outlet in your specification. Carrier will install this service feature at our factory. It provides a convenient, 15 amp, 115v GFCI receptacle with "Wet in Use" cover. The "powered" option allows the installer to power the outlet from the line side of the disconnect or load side, as required by code. The "unpowered" option is to be powered from a separate 115/120v power source.

## Non-Fused Disconnect

This OSHA-compliant factory-installed safety switch allows a service technician to locally secure power to the rooftop. When selecting a factory-installed non-fused disconnect, note they are sized for the unit as ordered from the factory. The sizing of these do not accommodate any field items, such as power exhaust devices, etc.

## Power Exhaust

This allows superior internal building pressure control. This field-installed accessory may eliminate the need for costly external pressure control fans.

## Time Guard II Control Circuit

This accessory protects your compressor by preventing short-cycling in the event of some other failure, preventing the compressor from restarting for 30 seconds after stopping. Not required if built into thermostat or building management system.

## Hinged Access Panels

Allow access to the unit's major components with specifically designed hinged access panels. Panels are: filter, control box, fan motor, and compressor. Comes with quarter turn latches and lift tabs.

## Alternate Motors and Drives

Some applications need larger horsepower motors, some need more airflow, and some need both. Regardless of the case, your Carrier expert has a factory-installed combination to meet your application. A wide selection of motors and pulleys (drives) are available, factory-installed, to handle nearly any application.

## Thru-the-Base Connections

Thru-the-base connections, available as either an accessory or as a factory option, are necessary to ensure proper connection and seal when routing wire and piping through the rooftop's basepan and curb. These couplings eliminate roof penetration and should be considered for gas lines, main power lines, and control power.

## Electric Heaters

Carrier offers a full line of field-installed accessory heaters. The heaters are very easy to use and install, and are all pre-engineered and certified.

## HACR Breaker

These manual reset devices provide overload and short circuit protection for the unit. They are factory-wired and mounted with the units with access cover to help provide environment protection.

When selecting a factory-installed non-fused disconnect, note they are sized for the unit as ordered from the factory. Their sizing does not accommodate any field items, such as power exhaust devices, etc.

On 575v applications, HACR (Heating, Air Conditioning, and Refrigeration) breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.

## Thermostat

Due to the 3-stage cooling capacity design of these units, a 3-stage cooling thermostat is required for the unit to perform at listed operating efficiencies.

Carrier offers a Honeywell branded T7350D (3 Cool/3 Heat) Commercial Programmable Thermostat.

This provides:

- 7-day programmable
- 365-day clock with holiday programming
- Automatic Daylight Saving Time adjustment
- Backlit display
- Changeover selections: automatic or manual
- Fan configurable: continuous or intermittent during occupied

## SystemVu™ Controller



Carrier's new SystemVu unit controller is an optional factory-installed and tested controller designed specifically for use with the WeatherExpert rooftop units.

This new controller takes on a whole new approach to provide an intuitive, intelligent controller that not only monitors and controls the unit but also provides linkage to multiple building automation systems.

Each SystemVu controller makes it easy to set up, service, troubleshoot, gain historical data, generate reports, and provide the comfort for which Carrier is noted.

Some of the key features include:

- Easy to read back-lit 4 line text screen for superior visibility.
- Quick operational condition LEDs of: Run, Alert, and Fault.
- Simple navigation with large keypad buttons of: Navigation arrows, Test, Back, Enter, and Menu.
- Capable of being controlled with a conventional thermostat, a space sensor, or building automation systems (BAS).
- Service capabilities include:
  - Auto run test
  - Manual run test
  - Component run hours and starts
  - Commissioning reports
  - Data logging

- Full range of diagnosis:
  - Read refrigerant pressures without the need of gauges
  - Sensor faults
  - Compressor reverse rotation
  - Economizer diagnostics that meet California Title 24 requirements
- Quick data transfer via USB port:
  - Unit configuration uploading/downloading
  - Data logging
  - Software upgrades
- Built in capability for:
  - i-Vu® open systems
  - BACnet<sup>1</sup> systems
  - CCN systems
- Configuration and alarms point capability
  - Contain over 100 alarm codes
  - Contain over 260 status, troubleshooting, diagnostic, and maintenance points
  - Contain over 270 control configuration setpoints

NOTE: SystemVu controller is not available on units equipped with Standard Leak Economizers.

## Optional Humidi-MiZer® Adaptive Dehumidification System

Carrier's Humidi-MiZer adaptive dehumidification system is an all-inclusive, factory-installed option that can be ordered with any 50LC WeatherExpert rooftop unit.

This system expands the envelope of operation of Carrier's WeatherExpert rooftop products to provide unprecedented flexibility to meet year round comfort conditions.

The Humidi-MiZer adaptive dehumidification system has a unique dual operational mode setting. The Humidi-MiZer system provides greater dehumidification of the occupied space by 2 modes of dehumidification operations in addition to its normal design cooling mode.

The 50LC WeatherExpert rooftop coupled with the Humidi-MiZer system is capable of operating in normal design cooling mode, subcooling mode, and hot gas reheat mode. Normal design cooling mode is when the unit will operate under its normal sequence of operation by cycling compressors to maintain comfort conditions.

Subcooling mode will operate to satisfy part load type conditions when the space requires combined sensible and a higher proportion of latent load control. Hot Gas Reheat mode will operate when outdoor temperatures diminish and the need for latent capacity is required for sole humidity control. Hot Gas Reheat mode will provide neutral air for maximum dehumidification operation.

1. BACnet is a trademark of ASHRAE.

## OPTION AND ACCESSORY WEIGHTS

| OPTION/ACCESSORY  | WEIGHTS (lb) |          |          |          |
|---|--------------|----------|----------|----------|
|   | 50LC**07     | 50LC**08 | 50LC**09 | 50LC**12 |
| Humidi-MiZer System                                       | 80           | 90       | 90       | 90       |
| Low Electric Heat   | 57           | 49       | 49       | 49       |
| Medium Electric Heat                                      | 69           | 62       | 62       | 62       |
| High Electric Heat  | 105          | 65       | 65       | 65       |
| Return Smoke Detector                                     | 5            | 5        | 5        | 5        |
| Supply Smoke Detector                                     | 5            | 5        | 5        | 5        |
| RA and SA Smoke Detector                                  | 10           | 10       | 10       | 10       |
| CO2 Sensor  | 5            | 5        | 5        | 5        |
| RA Smoke Detector and CO2 Sensor                          | 10           | 10       | 10       | 10       |
| SA Smoke Detector and CO2 Sensor                          | 10           | 10       | 10       | 10       |
| RA + SA Smoke Detector and CO2 Sensor                     | 15           | 15       | 15       | 15       |
| Medium Static Option — Belt Drive                         | 15           | 45       | 45       | 45       |
| High Static Option — Belt Drive                           | 15           | 45       | 45       | 45       |
| Cu/Cu Cond and Al/Cu Evap                                 | 23           | 25       | 25       | 25       |
| Cu/Cu Cond and Cu/Cu Evap                                 | 49           | 47       | 47       | 47       |
| Al/Cu Cond and Al/Cu Evap + Hail Guard                    | 34           | 45       | 45       | 45       |
| Pre-coat Al/Cu Cond and Al/Cu Evap + Hail Guard           | 34           | 45       | 45       | 45       |
| E-coat Al/Cu Cond and Al/Cu Evap + Hail Guard             | 34           | 45       | 45       | 45       |
| E-coat Al/Cu Cond and E-coat Al/Cu Evap + Hail Guard      | 34           | 45       | 45       | 45       |
| Cu/Cu Cond and Al/Cu Evap + Hail Guard                    | 57           | 70       | 70       | 70       |
| Cu/Cu Cond and Cu/Cu Evap + Hail Guard                    | 83           | 92       | 92       | 92       |
| Temp Ultra Low Leak Economizer with Barometric Relief     | 74           | 103      | 103      | 103      |
| Enthalpy Ultra Low Leak Economizer with Barometric Relief | 74           | 103      | 103      | 103      |
| Unpowered Convenience Outlet                              | 5            | 5        | 5        | 5        |
| Powered Convenience Outlet                                | 35           | 35       | 35       | 35       |
| Hinged Panels   | 5            | 5        | 5        | 5        |
| Hinged Panels with Unpowered Convenience Outlet           | 10           | 10       | 10       | 10       |
| Hinged Panels with Powered Convenience Outlet             | 40           | 40       | 40       | 40       |
| HACR Breaker  | 10           | 10       | 10       | 10       |
| Non-Fused Disconnect                                      | 15           | 15       | 15       | 15       |
| Thru-the-Base Connections                                 | 4            | 4        | 4        | 4        |
| HACR Breaker and Thru-the-Base Connections                | 14           | 14       | 14       | 14       |
| Non-Fused Disconnect and Thru-the-Base Connections        | 19           | 19       | 19       | 19       |

### 50LC\*\*07 UNIT DIMENSIONS

- NOTES:
1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN ( ) ARE IN MILLIMETERS.
  2. CENTER OF GRAVITY
  3. DIRECTION OF AIR FLOW
  4. ALL VIEW DRAWN USING 3RD ANGLE



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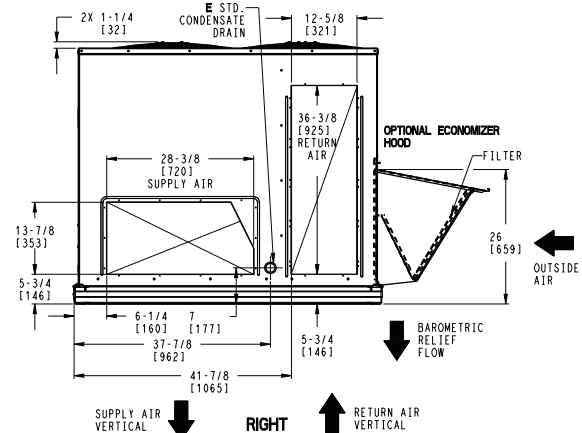
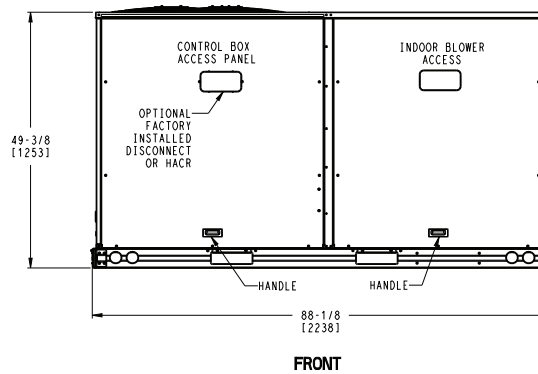
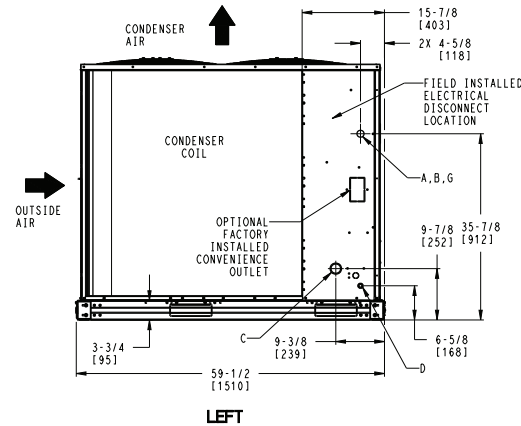
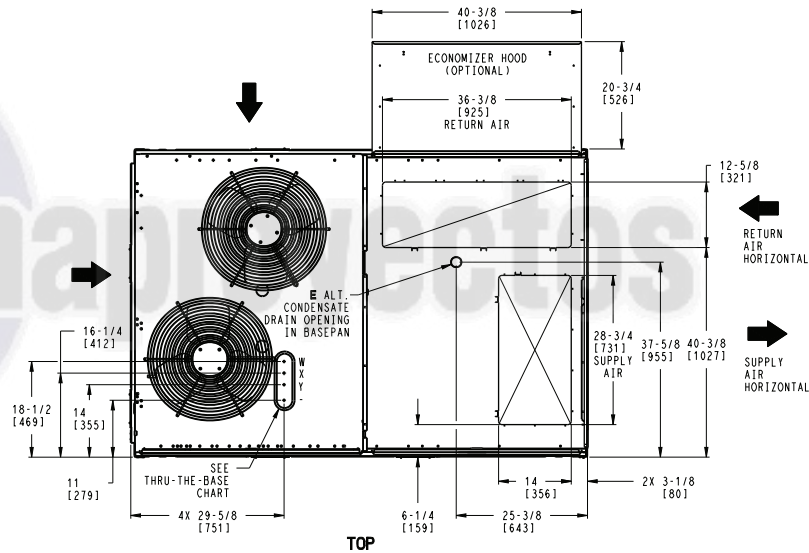
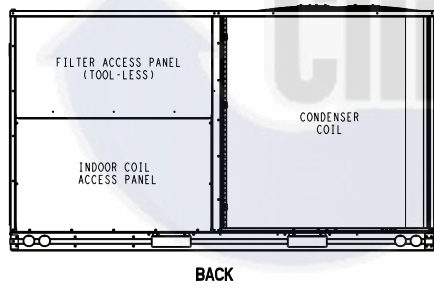
| CONNECTION SIZES |             |     |                           |
|------------------|-------------|-----|---------------------------|
| A                | 1 3/8" [35] | DIA | FIELD POWER SUPPLY HOLE   |
| B                | 2 1/2" [64] | DIA | POWER SUPPLY KNOCKOUT     |
| C                | 1 3/4" [51] | DIA | GAUGE ACCESS PLUG         |
| D                | 7/8" [22]   | DIA | FIELD CONTROL WIRING HOLE |
| E                | 3/4"-14 NPT |     | CONDENSATE DRAIN          |
| G                | 2" [51]     | DIA | POWER SUPPLY KNOCK-OUT    |

**THRU-THE-BASE CHART (FIELD INST)**  
 THESE HOLES REQUIRED FOR USE WITH ACCY KITS:  
 CRBTMPW002A01

|   | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
|---|-----------------------|----------|-------------------------|
| W | 1/2"                  | ACC.     | 7/8" [22.2]             |
| X | 1/2"                  | 24V      | 7/8" [22.2]             |
| Y | 1 1/4" (002)          | POWER    | 1 3/4" [44.4]           |

**THRU-THE-BASE CHART (FIOP)**

FOR "THRU-THE-BASE" FACTORY OPTION, FITTINGS FOR ONLY X & Y ARE PROVIDED:  
 (1) 1/2" & (1) 1 1/4" ELECTRICAL FITTINGS.



|                    |        |          |            |   |            |     |
|--------------------|--------|----------|------------|---|------------|-----|
| ITC CLASSIFICATION | SHEET  | DATE     | SUPERCEDES | 50LC 07 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500392 | REV |
| U.S. ECCN: NSR     | 1 OF 3 | 03/07/22 | 07/11/14   |   |            | C   |

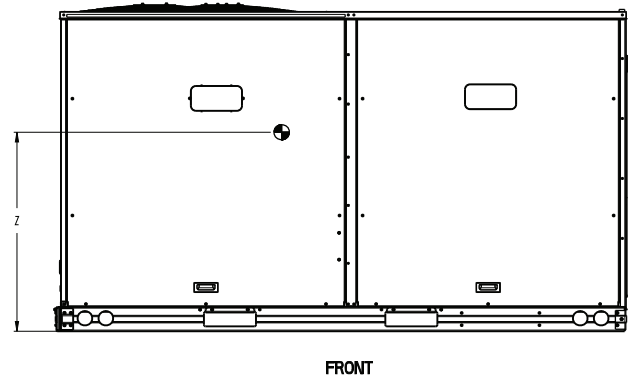
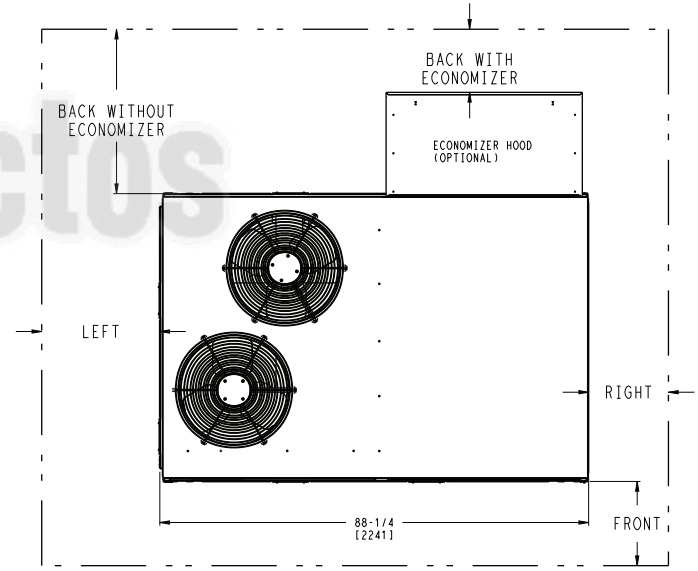
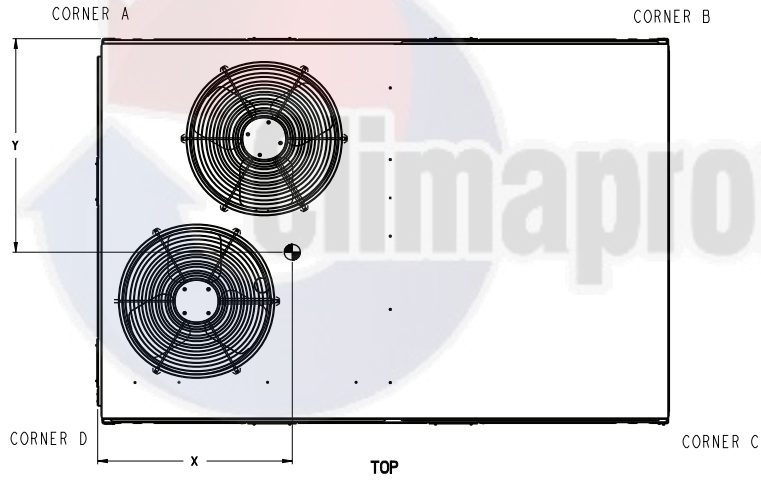


### 50LC\*\*07 UNIT DIMENSIONS (cont)

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| UNIT    | OUTDOOR COIL TYPE | STD. UNIT WEIGHT *** |     | CORNER WEIGHT (A) |     | CORNER WEIGHT (B) |     | CORNER WEIGHT (C) |     | CORNER WEIGHT (D) |     | C.G.   |        |        |       |        |       |
|---------|-------------------|----------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|--------|--------|--------|-------|--------|-------|
|         |                   | LBS.                 | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | X      | Y      | Z      |       |        |       |
| 50LC 07 | RTPF              | 967                  | 439 | 211               | 96  | 191               | 87  | 268               | 122 | 297               | 135 | 41 3/4 | [1060] | 24 3/4 | [629] | 20 3/4 | [527] |

\*\*\* STANDARD UNIT WEIGHT IS WITH NO HEAT AND WITHOUT PACKAGING. FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



NOTE:  
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

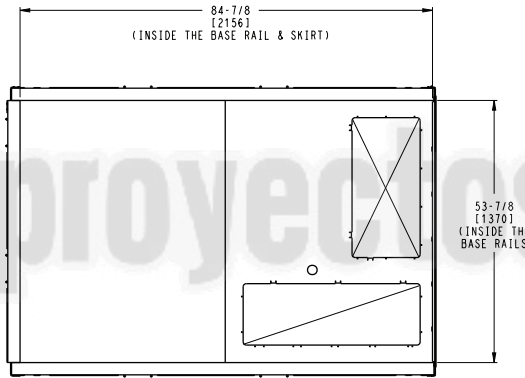
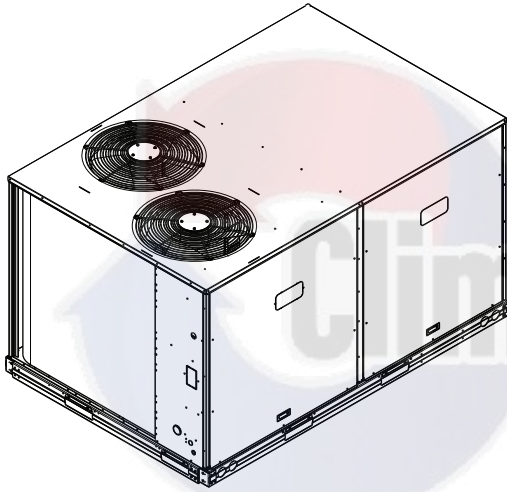
| SURFACE       | CLEARANCE                       |                                    | OPERATING CLEARANCE |
|---------------|---------------------------------|------------------------------------|---------------------|
|               | SERVICE WITH CONDUCTIVE BARRIER | SERVICE WITH NONCONDUCTIVE BARRIER |                     |
| FRONT         | 48 [1219mm]                     | 36 [914mm]                         | 18 [457mm]          |
| LEFT          | 48 [1219mm]                     | 42 [1067mm]                        | 18 [457mm]          |
| BACK W/O ECON | 48 [1219mm]                     | 42 [1067mm]                        | 18 [457mm]          |
| BACK W/ECON   | 36 [914mm]                      | 36 [914mm]                         | 18 [457mm]          |
| RIGHT         | 36 [914mm]                      | 36 [914mm]                         | 18 [457mm]          |
| TOP           | 72 [1829mm]                     | 72 [1829mm]                        | 72 [1829mm]         |

|                                      |                 |                  |                        |   |            |          |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>2 OF 3 | DATE<br>03/07/22 | SUPERCEDES<br>07/11/14 | 50LC 07 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500392 | REV<br>C |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

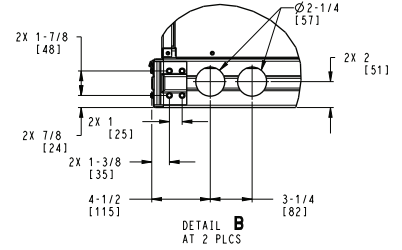


50LC\*\*07 UNIT DIMENSIONS (cont)

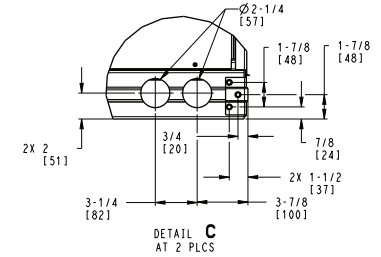
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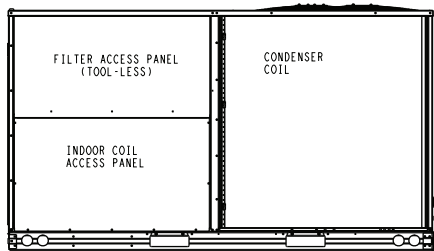
INSIDE BASERAIL DIMENSIONS  
**BOTTOM**



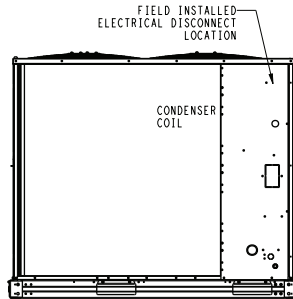
**DETAIL B**  
AT 2 PLCS



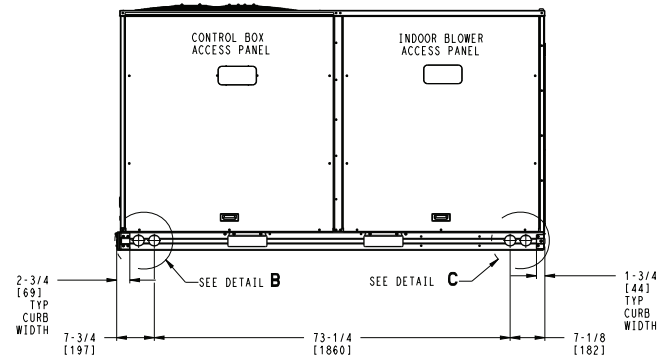
**DETAIL C**  
AT 2 PLCS



**BACK**



**LEFT**



**FRONT**

|                                      |                 |                  |                        |  |            |          |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>3 OF 3 | DATE<br>03/07/22 | SUPERCEDES<br>07/11/14 | 50LC 07 SINGLE ZONE ELECTRICAL<br>COOLING WITH ELECTRIC HEAT | 48LC500392 | REV<br>C |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|

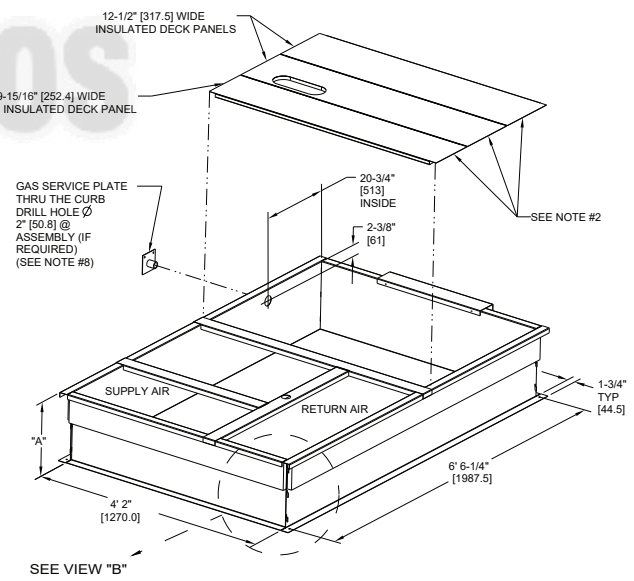
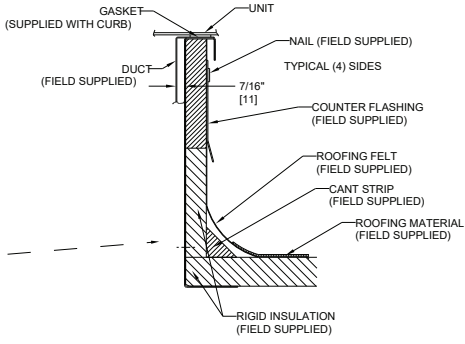
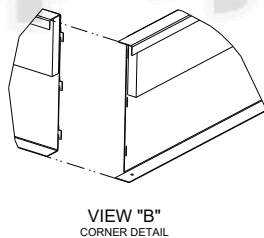
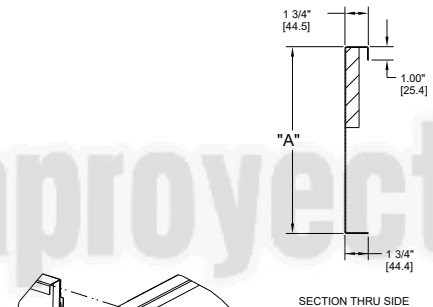
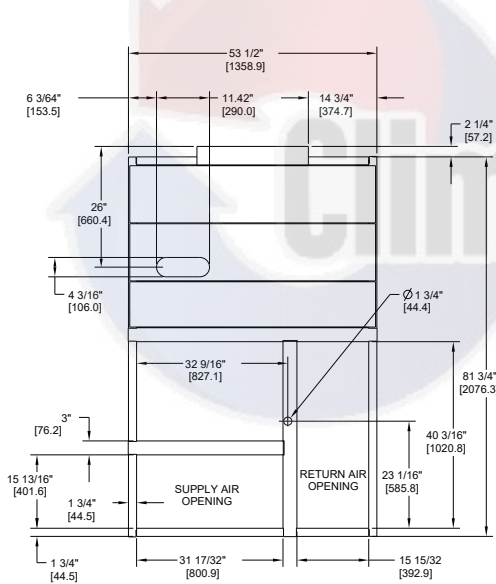


### 50LC\*\*07 ROOF CURB DETAILS

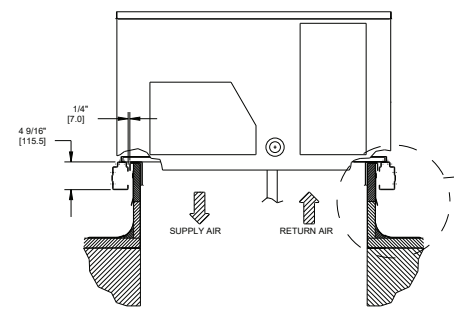
| ROOF CURB ACCESSORY # | A            |
|-----------------------|--------------|
| CRRFCURB003A01        | 14"<br>[356] |
| CRRFCURB004A01        | 24"<br>[610] |

- NOTES:  
 1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.  
 2. INSULATED PANELS: 25.4 [1"] THK. POLYURETHANE FOAM, 44.5 [1-3/4] # DENSITY.  
 3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.  
 4. ROOFCURB: 18 GAGE STEEL.  
 5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).  
 6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.  
 7. DIRECTION OF AIR FLOW.  
 8. CONNECTOR PACKAGE CRBTMPWR002A01 IS FOR THRU-THE-CURB GAS TYPE PACKAGE CRBTMPWR004A01 IS FOR THRU-THE-BOTTOM TYPE GAS CONNECTIONS.

| CONNECTOR PKG. ACC. | GAS CONNECTION TYPE | GAS FITTING   | POWER WIRING FITTING | CONTROL WIRING FITTING | ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR |
|---------------------|---------------------|---------------|----------------------|------------------------|---|
| CRBTMPWR002A01      | THRU THE CURB       | 3/4" [19] NPT | 1 1/4" [31.7] NPT    | 1/2" [12.7] NPT        | 1/2" [12.7] NPT                               |
| CRBTMPWR004A01      | THRU THE BOTTOM     |               |                      |                        |   |



CERTIFIED DRAWING



| REV | REVISION RECORD   | DATE    | BY  | CHKD | APPD | ECN NO. |
|-----|---|---------|-----|------|------|---------|
| C   | 6' 61/4" WAS 6' 7 1/6", 4' 2" WAS 4' 2 13/16"; 18 GA WAS 18 GA.; 15 13/16" WAS 15 15/16"; NAIL FIELD SUPPLIED WAS WITH CURB | 4/22/13 | MMC | -    | -    | 1067898 |

|  |              |  |               |  |              |
|--|--------------|--|---------------|--|--------------|
| DRAWING RELEASE LEVEL: <b>PRODUCTION</b> |              | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: |               | THIS DOCUMENT AND THE INFORMATION CONTAINED THEREIN IS PROPRIETARY TO CARRIER CORPORATION AND SHALL NOT BE USED OR DISCLOSED TO OTHERS IN WHOLE OR IN PART WITHOUT THE WRITTEN AUTHORIZATION OF CARRIER CORPORATION. |              |
| THIRD ANGLE PROJECTION                   |              | 1 DEC ±  | 2 DEC ±       | 3 DEC ±  | ANG ±        |
| MATERIAL                                 | -            | AUTHORIZATION NUMBER   |               | TITLE  |              |
| -  | -            | 1029120  |               | CURB ASY, ROOF   |              |
| ENGINEERING REQUIREMENTS                 | T-005, Y-002 | ENGINEERING  | MANUFACTURING | SIZE   | REV          |
| WEIGHT: -                                | DRAFTER: MMC | 12/16/09   | CHECKER: -    | D  | 50HJ405012   |
| SURFACE FINISH                           | MFG/PURCH    | MODEL (INTERNAL USE ONLY)  |               | NEXT DRAWING   | DISTRIBUTION |
| -  | PURCH        | -  |               | SCALE  | N/A          |
|  |              |  |               | SHEET 5 OF 5   | C            |





# 50LC\*\*08 UNIT DIMENSIONS

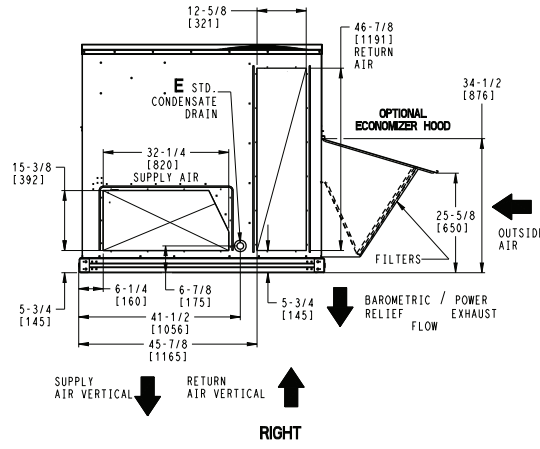
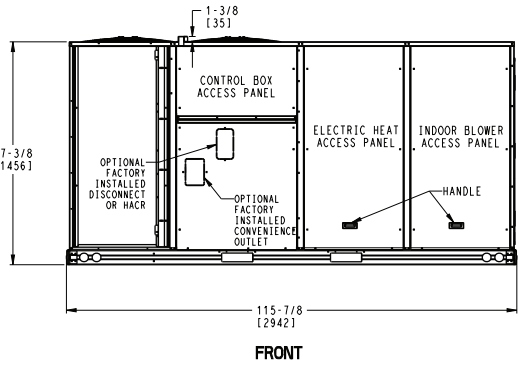
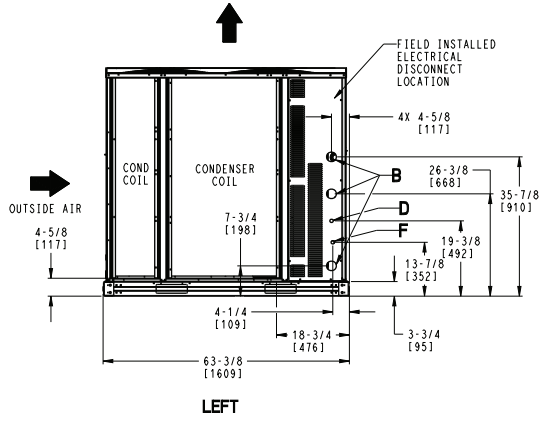
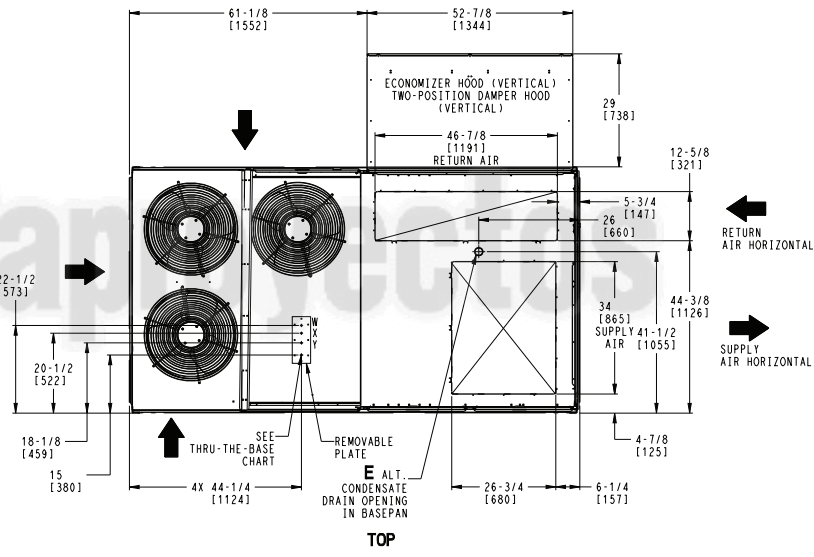
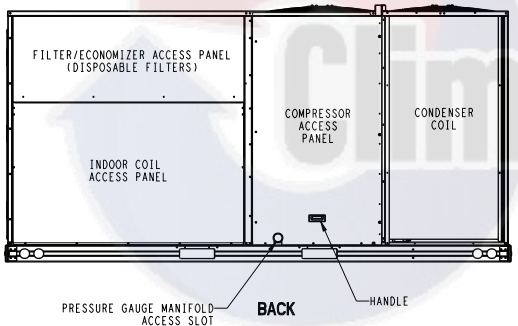
- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
  2. CENTER OF GRAVITY
  3. DIRECTION OF AIR FLOW
  4. ALL VIEW DRAWN USING 3RD ANGLE

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| CONNECTION SIZES |   |
|------------------|---|
| B                | 2 1/2" [64] DIA POWER SUPPLY HOLE           |
| D                | 7/8" [22] DIA FIELD CONTROL WIRING HOLE     |
| E                | 3/4"-14 NPT CONDENSATE DRAIN                |
| F                | 7/8" [22] DIA FIELD CONVENIENCE OUTLET HOLE |

| THRU-THE-BASE CHART<br>THESE HOLES REQUIRED FOR USE<br>CRBTMPNR005A00, 006A00, 007A00 |   |                       |          |                         |
|---|---|-----------------------|----------|-------------------------|
| ACCESSORY NO.   |   | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| 005   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 1 1/4"                | POWER    | 1 1/2" [38.1]           |
| 006   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 1 1/2"                | POWER    | 2" [50.8]               |
| 007   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 2"                    | POWER    | 2 1/2" [63.5]           |

FOR "THRU-THE-BASE" FACTORY OPTION, FITTINGS FOR X & Y ARE PROVIDED AS SPECIFIED ON "006".



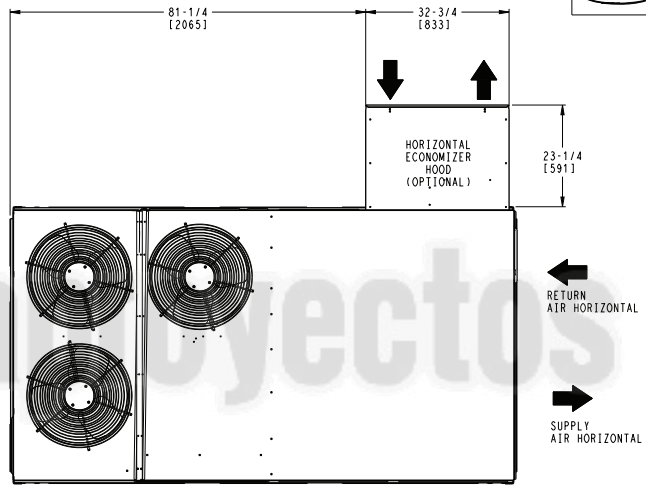
|                    |        |          |            |   |            |     |
|--------------------|--------|----------|------------|---|------------|-----|
| ITC CLASSIFICATION | SHEET  | DATE     | SUPERCEDES | 50LC 08 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500407 | REV |
| U.S. ECCN:NSR      | 1 OF 4 | 03/07/22 | 05/08/13   |   |            | B   |

Dimensions (cont)

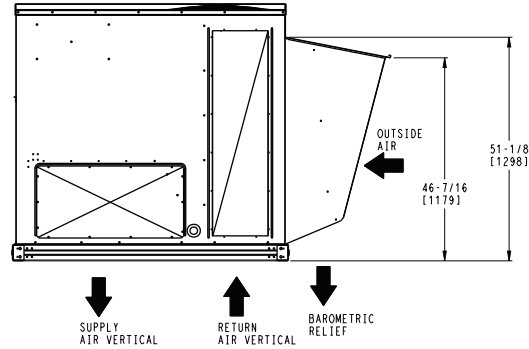


### 50LC\*\*08 UNIT DIMENSIONS (cont)

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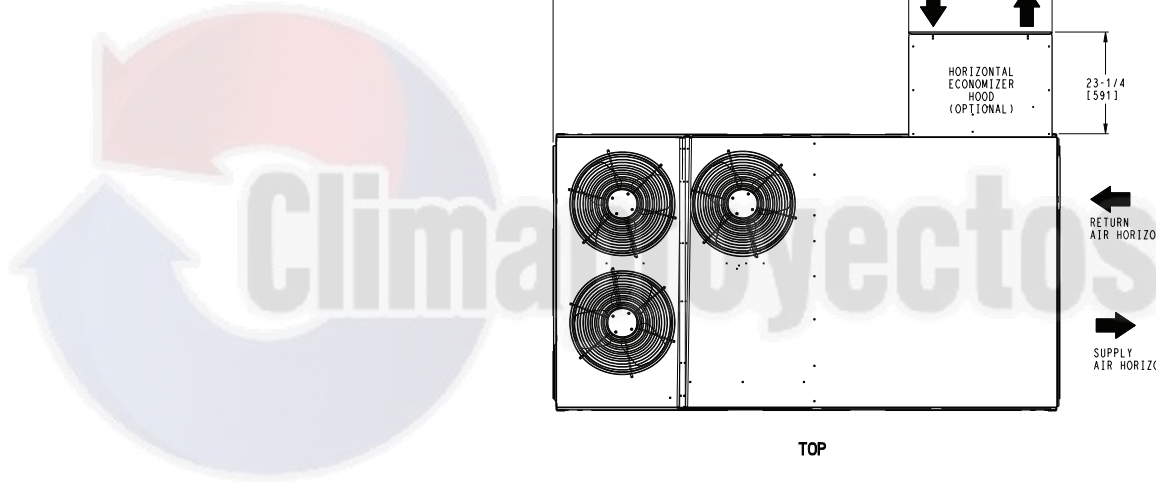
TOP



RIGHT

### HORIZONTAL ECONOMIZER

|                                      |                 |                  |                        |   |            |          |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>2 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 08 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500407 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

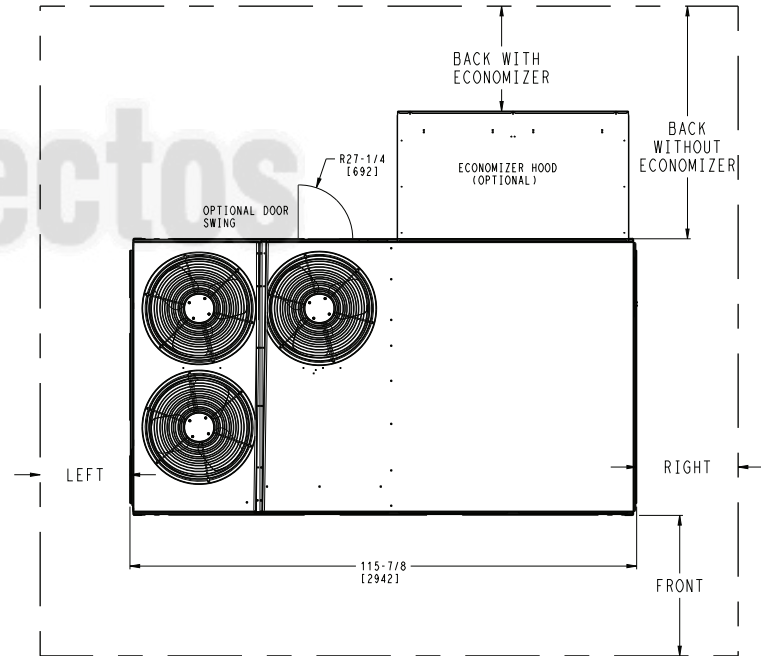
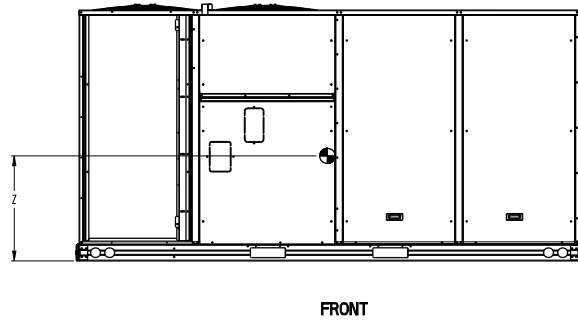
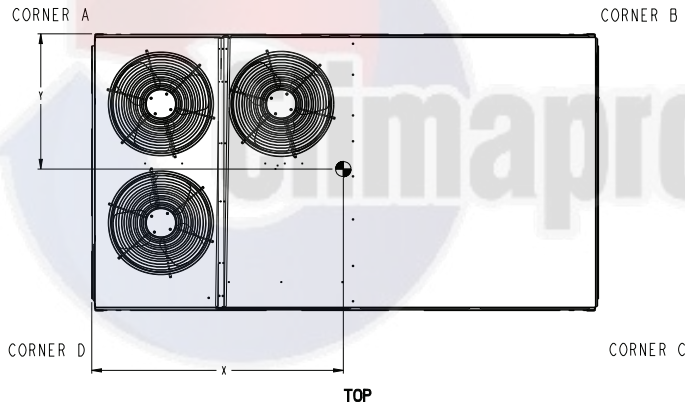


### 50LC\*\*08 UNIT DIMENSIONS (cont)

| UNIT    | STD UNIT WEIGHT |     | CORNER WEIGHT (A) |     | CORNER WEIGHT (B) |     | CORNER WEIGHT (C) |     | CORNER WEIGHT (D) |     | C.G.      |          |              |
|---------|-----------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-----------|----------|--------------|
|         | LBS.            | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | X         | Y        | Z            |
| 50LC 08 | 1535            | 696 | 407               | 185 | 397               | 180 | 361               | 164 | 370               | 168 | 57 [1448] | 33 [838] | 20 5/8 [524] |

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STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT & WITHOUT PACKAGING. FOR OPTIONS & ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



NOTE:  
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

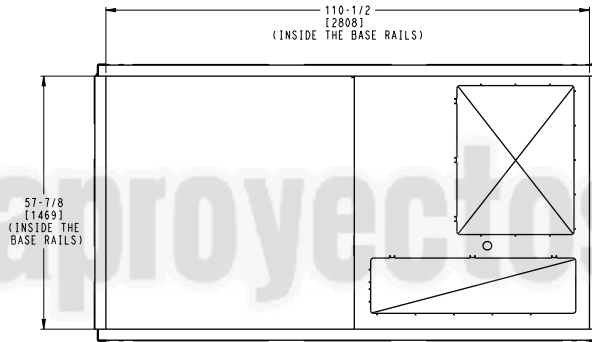
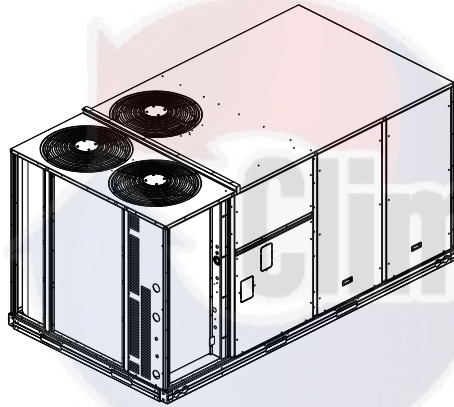
| SURFACE       | CLEARANCE                       |                                    | OPERATING CLEARANCE |
|---------------|---------------------------------|------------------------------------|---------------------|
|               | SERVICE WITH CONDUCTIVE BARRIER | SERVICE WITH NONCONDUCTIVE BARRIER |                     |
| FRONT         | 48 [1219mm]                     | 36 [914mm]                         | 18 [457mm]          |
| LEFT          | 48 [1219mm]                     | 42 [1067mm]                        | 18 [457mm]          |
| BACK W/O ECON | 48 [1219mm]                     | 42 [1067mm]                        | 18 [457mm]          |
| BACK W/ECON   | 36 [914mm]                      | 36 [914mm]                         | 18 [457mm]          |
| RIGHT         | 36 [914mm]                      | 36 [914mm]                         | 18 [457mm]          |
| TOP           | 72 [1829mm]                     | 72 [1829mm]                        | 72 [1829mm]         |

|                                      |                 |                  |                        |   |            |          |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>3 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 08 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500407 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|---|------------|----------|

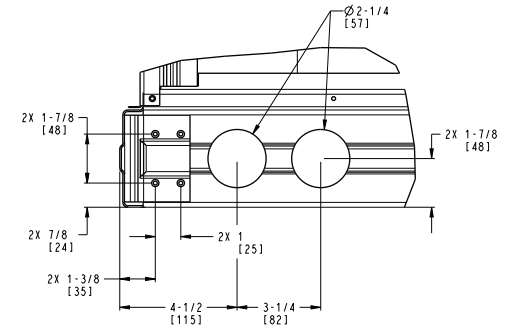


### 50LC\*\*08 UNIT DIMENSIONS (cont)

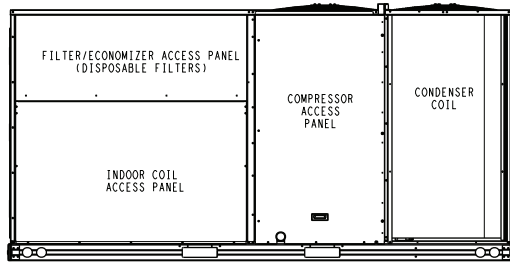
**Carrier** THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.



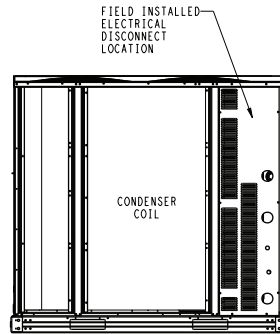
INSIDE BASERAIL DIMENSIONS  
**BOTTOM**



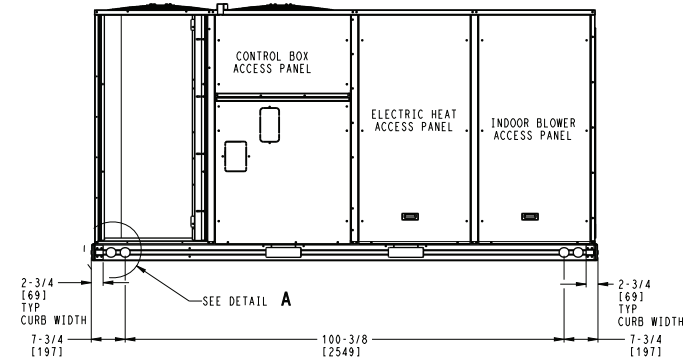
**DETAIL A**  
TYP 4 PLCS



**BACK**



**LEFT**



**FRONT**

|                                     |                 |                  |                        |  |            |          |
|-------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN:NSR | SHEET<br>4 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 08 SINGLE ZONE ELECTRICAL<br>COOLING WITH ELECTRIC HEAT | 48LC500407 | REV<br>B |
|-------------------------------------|-----------------|------------------|------------------------|--|------------|----------|



### 50LC\*\*09-12 UNIT DIMENSIONS

- NOTES:
1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
  2. CENTER OF GRAVITY
  3. DIRECTION OF AIR FLOW
  4. ALL VIEW DRAWN USING 3RD ANGLE

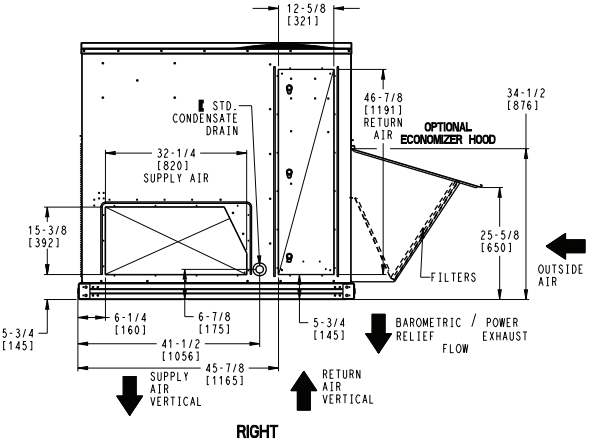
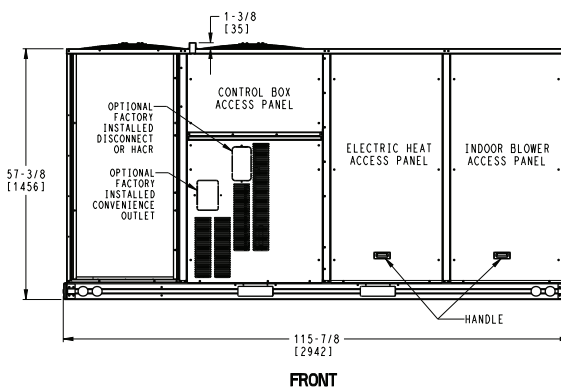
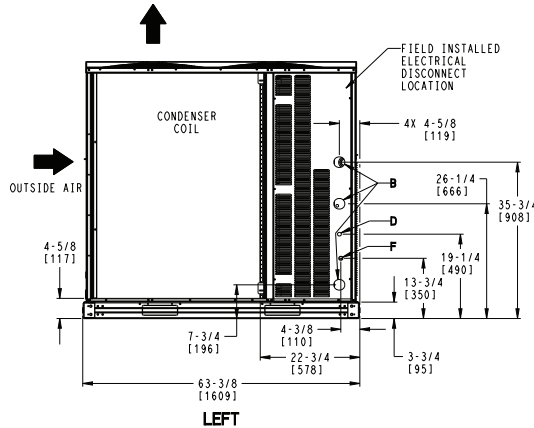
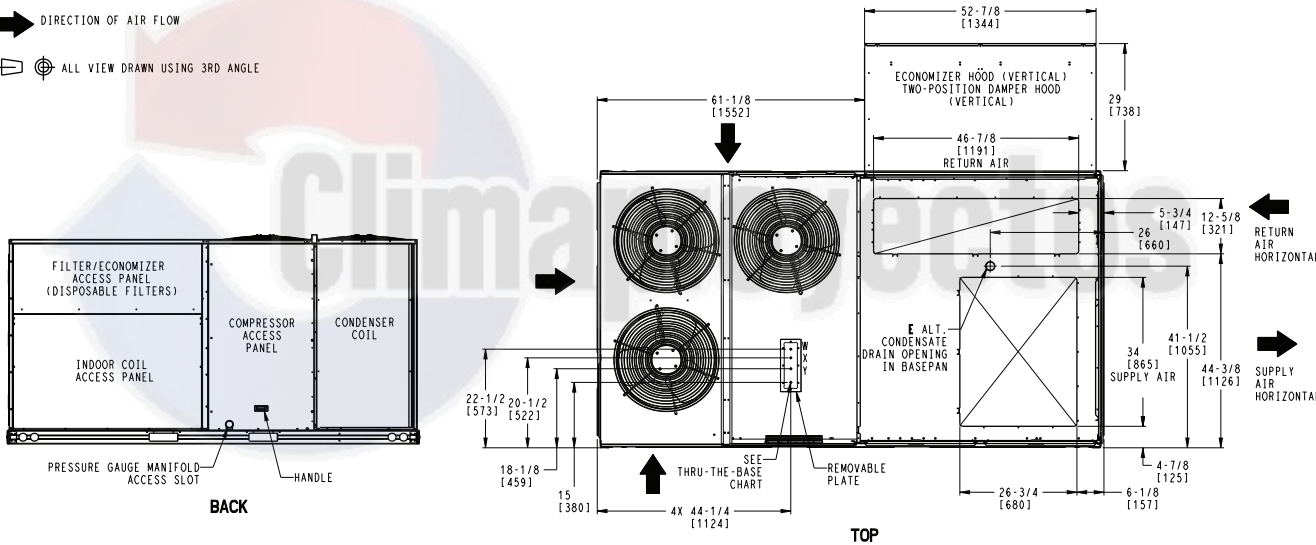


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SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.

| CONNECTION SIZES |   |
|------------------|---|
| B                | 2 1/2" [64] DIA POWER SUPPLY HOLE           |
| D                | 7/8" [22] DIA FIELD CONTROL WIRING HOLE     |
| E                | 3/4"-14 NPT CONDENSATE DRAIN                |
| F                | 7/8" [22] DIA FIELD CONVENIENCE OUTLET HOLE |

| THRU-THE-BASE CHART<br>THESE HOLES REQUIRED FOR USE<br>CRBTMPRO05A00, 006A00, 007A00          |   |                       |          |                         |
|---|---|-----------------------|----------|-------------------------|
| ACCESSORY NO.   |   | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| 005   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 1 1/4"                | POWER    | 1 1/2" [38.1]           |
| 006   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 1 1/2"                | POWER    | 2" [50.8]               |
| 007   | W | 1/2"                  | ACC.     | 7/8" [22.2]             |
|   | X | 1/2"                  | 24V      | 7/8" [22.2]             |
|   | Y | 2"                    | POWER    | 2 1/2" [63.5]           |
| FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR X & Y ARE PROVIDED AS SPECIFIED ON "006". |   |                       |          |                         |



|                    |        |          |            |  |            |     |
|--------------------|--------|----------|------------|--|------------|-----|
| ITC CLASSIFICATION | SHEET  | DATE     | SUPERCEDES | 50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500389 | REV |
| U.S. ECCN: NSR     | 1 OF 4 | 03/07/22 | 05/08/13   |  |            | B   |

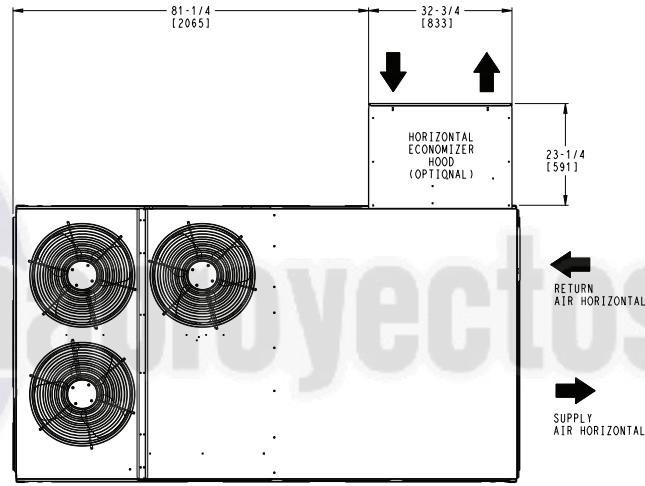


50LC\*\*09-12 UNIT DIMENSIONS (cont)

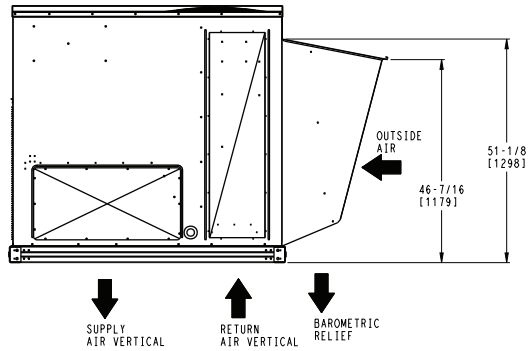


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TOP



RIGHT

HORIZONTAL ECONOMIZER

|                                      |                 |                  |                        |  |            |          |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>2 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500389 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|

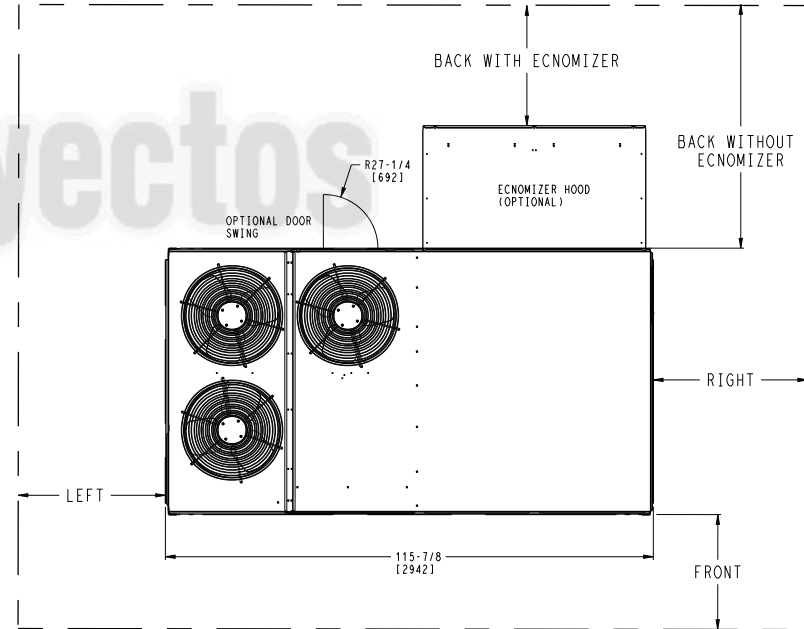
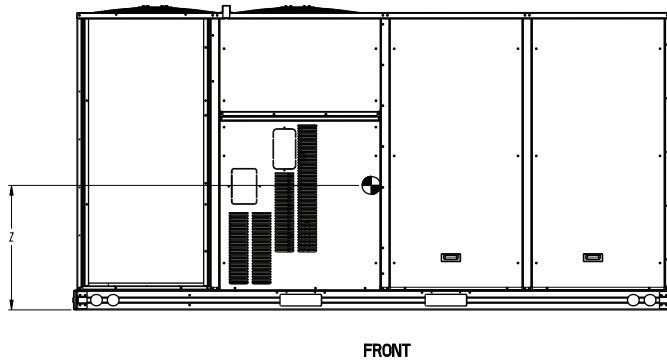
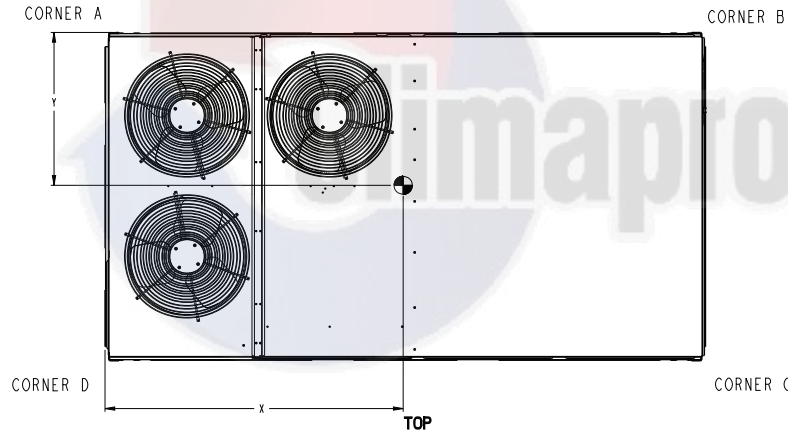


### 50LC\*\*09-12 UNIT DIMENSIONS (cont)

| UNIT    | STD UNIT WEIGHT |     | CORNER WEIGHT (A) |     | CORNER WEIGHT (B) |     | CORNER WEIGHT (C) |     | CORNER WEIGHT (D) |     | C.G.      |          |              |
|---------|-----------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-----------|----------|--------------|
|         | LBS.            | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | X         | Y        | Z            |
| 50LC 09 | 1536            | 697 | 388               | 174 | 392               | 178 | 380               | 172 | 374               | 171 | 58 [1473] | 32 [812] | 20 5/8 [524] |
| 50LC 12 | 1536            | 697 | 388               | 174 | 392               | 178 | 380               | 172 | 374               | 171 | 58 [1473] | 32 [812] | 20 5/8 [524] |

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STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT & WITHOUT PACKAGING. FOR OPTIONS & ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



| SURFACE       | CLEARANCE                        |                                     | OPERATING CLEARANCE |
|---------------|----------------------------------|-------------------------------------|---------------------|
|               | SERVICE WITH: CONDUCTIVE BARRIER | SERVICE WITH: NONCONDUCTIVE BARRIER |                     |
| FRONT         | 48 [1219mm]                      | 36 [914mm]                          | 18 [457mm]          |
| LEFT          | 48 [1219mm]                      | 42 [1067mm]                         | 18 [457mm]          |
| BACK W/O ECON | 48 [1219mm]                      | 42 [1067mm]                         | 18 [457mm]          |
| BACK W/ECON   | 36 [914mm]                       | 36 [914mm]                          | 18 [457mm]          |
| RIGHT         | 36 [914mm]                       | 36 [914mm]                          | 18 [457mm]          |
| TOP           | 72 [1829mm]                      | 72 [1829mm]                         | 72 [1829mm]         |

|                                      |                 |                  |                        |  |            |          |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>3 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500389 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|

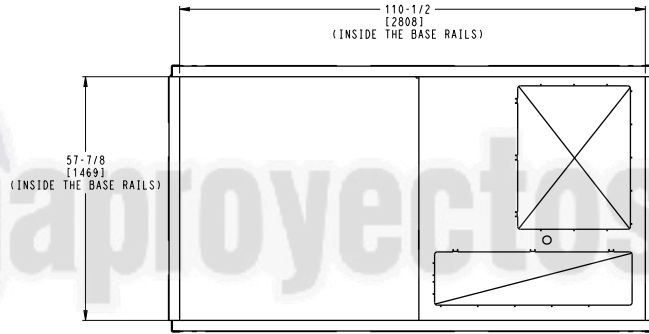
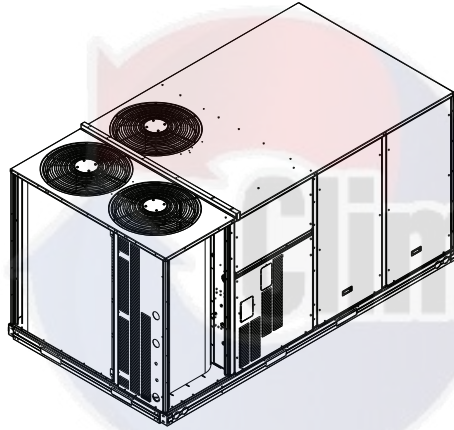


### 50LC\*\*09-12 UNIT DIMENSIONS (cont)

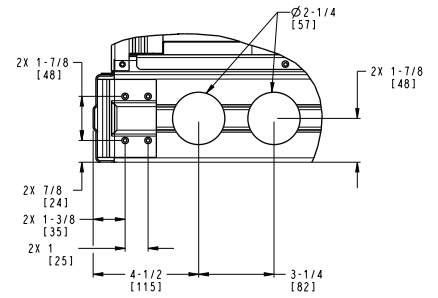


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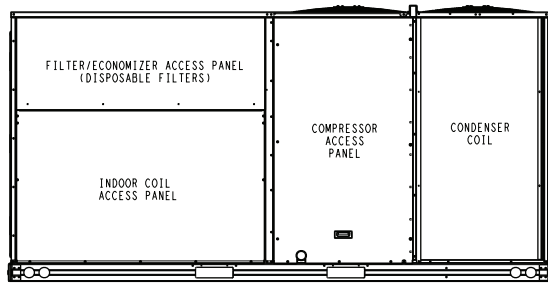
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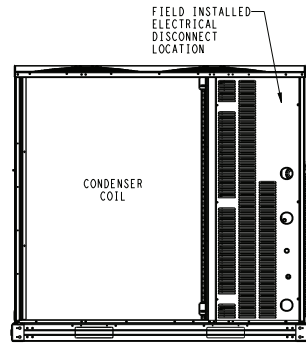
INSIDE BASERAIL DIMENSIONS  
BOTTOM



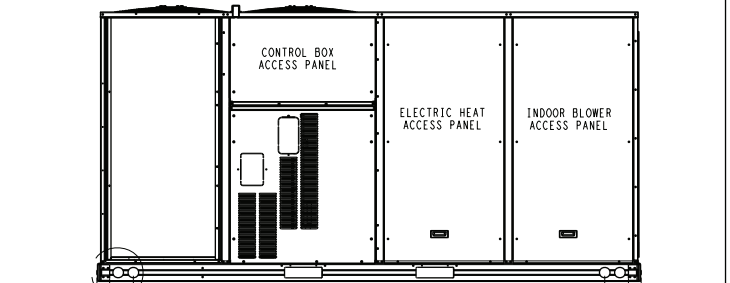
DETAIL A  
TYP 4 PLCS



BACK



LEFT



FRONT

|                                      |                 |                  |                        |  |            |          |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>4 OF 4 | DATE<br>03/07/22 | SUPERCEDES<br>05/08/13 | 50LC 09-12 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT | 48LC500389 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|





# 50LC\*\*08-12 ROOF CURB DETAILS

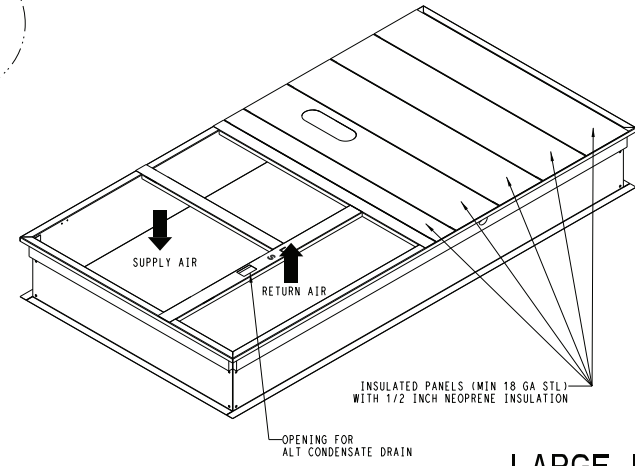
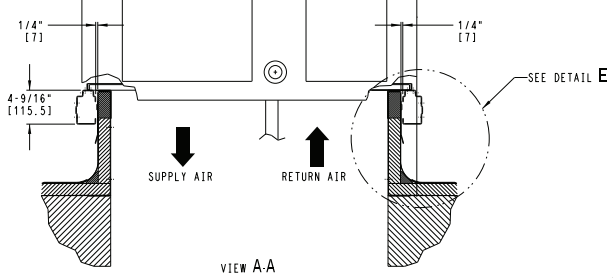
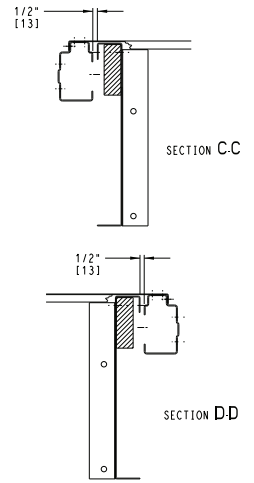
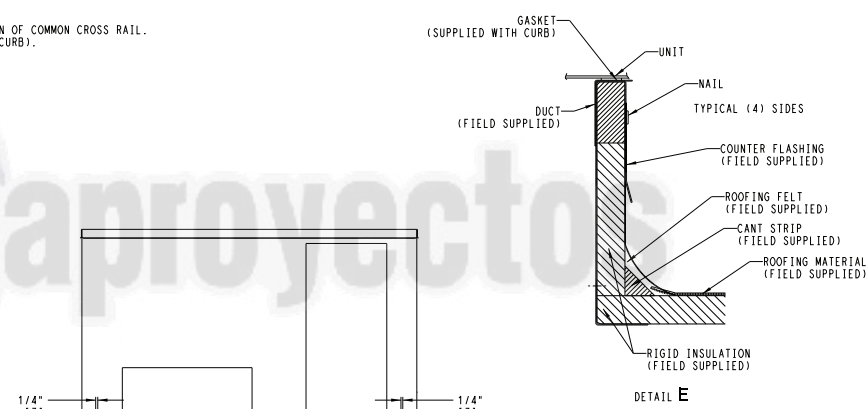
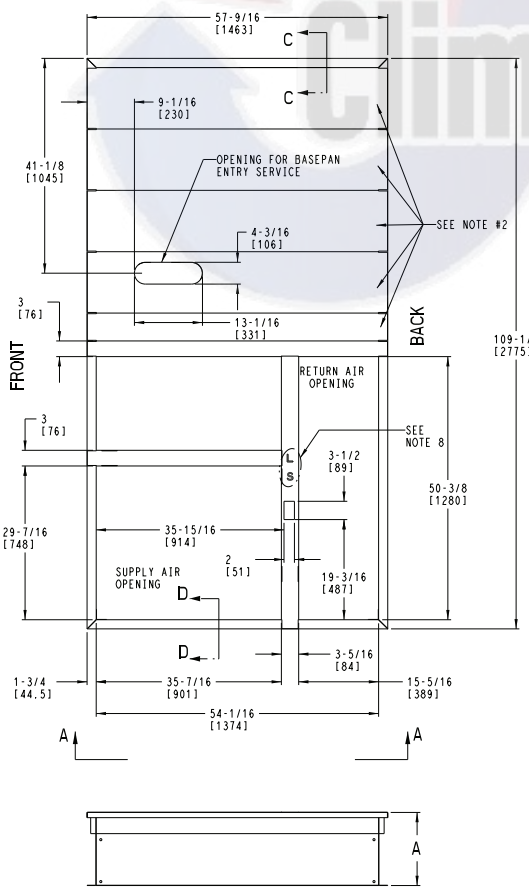
| ROOF CURB ACCESSORY # | A            |
|-----------------------|--------------|
| CRRFCURB074A00        | 14"<br>[356] |
| CRRFCURB075A00        | 24"<br>[610] |

- NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
  2. INSULATED PANELS: 1/2" THK. NEOPRENE FOAM, 1.0# DENSITY.
  3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
  4. ROOFCURB SIDEWALLS: 16 GAGE STEEL.
  5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).
  6. SERVICE CLEARANCE 4 FT ON EACH SIDE.
  7. DIRECTION OF AIR FLOW.
  8. "L" & "S" DESIGNATIONS DENOTE LOCATION OF COMMON CROSS RAIL. (POSITION "L" FOR LARGE DUCT OPENING CURB).

**Carrier**  
United Technologies

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## LARGE DUCT OPENINGS

|                                      |                 |                  |                        |  |            |          |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|
| ITC CLASSIFICATION<br>U.S. ECCN: NSR | SHEET<br>1 OF 1 | DATE<br>12/19/17 | SUPERCEDES<br>02/15/13 | 48/50HCD14 / 48/50TCD16 / 48/50LC08,09,12<br>ROOF CURB | 50TM500780 | REV<br>B |
|--------------------------------------|-----------------|------------------|------------------------|--|------------|----------|

Dimensions (cont)



## 50LC\*\*07 COOLING CAPACITIES — FIRST STAGE, PART LOAD

| 50LC**07    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1200<br>cfm | EAT<br>(wb) | 58          | THC  | 36.7                     | 36.7 | 40.8 | 36.8     | 36.8 | 40.7 | 36.8     | 36.8 | 40.5 | 36.6     | 36.6 | 40.2 | 36.3     | 36.3 | 39.7 |      |
|             |             |             | SHC  | 32.6                     | 36.7 | 40.8 | 32.9     | 36.8 | 40.7 | 33.1     | 36.8 | 40.5 | 33.1     | 36.6 | 40.2 | 33.0     | 36.3 | 39.7 |      |
|             | 62          | THC         | 36.7 | 36.7                     | 42.1 | 36.8 | 36.8     | 42.0 | 36.8 | 36.8     | 41.7 | 36.7 | 36.7     | 41.3 | 36.3 | 36.3     | 40.8 |      |      |
|             |             | SHC         | 31.2 | 36.7                     | 42.1 | 31.6 | 36.8     | 42.0 | 31.8 | 36.8     | 41.7 | 31.9 | 36.7     | 41.3 | 31.9 | 36.3     | 40.8 |      |      |
|             | 67          | THC         | 38.1 | 38.1                     | 38.3 | 37.9 | 37.9     | 39.1 | 37.6 | 37.6     | 39.8 | 37.2 | 37.2     | 40.5 | 36.7 | 36.7     | 41.0 |      |      |
|             |             | SHC         | 25.9 | 32.1                     | 38.3 | 26.7 | 32.9     | 39.1 | 27.5 | 33.6     | 39.8 | 28.2 | 34.3     | 40.5 | 28.8 | 34.9     | 41.0 |      |      |
|             | 72          | THC         | 40.8 | 40.8                     | 40.8 | 40.5 | 40.5     | 40.5 | 40.0 | 40.0     | 40.0 | 39.4 | 39.4     | 39.4 | 38.6 | 38.6     | 38.6 |      |      |
|             |             | SHC         | 19.1 | 25.4                     | 31.6 | 19.9 | 26.1     | 32.4 | 20.7 | 26.9     | 33.2 | 21.5 | 27.7     | 33.8 | 22.1 | 28.4     | 34.5 |      |      |
|             | 76          | THC         | —    | 43.2                     | 43.2 | —    | 42.7     | 42.7 | —    | 42.1     | 42.1 | —    | 41.3     | 41.3 | —    | 40.5     | 40.5 |      |      |
|             |             | SHC         | —    | 19.8                     | 26.0 | —    | 20.6     | 26.9 | —    | 21.4     | 27.7 | —    | 22.1     | 28.4 | —    | 22.8     | 29.1 |      |      |
|             | 1400<br>cfm | EAT<br>(wb) | 58   | THC                      | 37.6 | 37.6 | 41.8     | 37.6 | 37.6 | 41.7     | 37.5 | 37.5 | 41.4     | 37.2 | 37.2 | 41.0     | 36.9 | 36.9 | 40.4 |
|             |             |             |      | SHC                      | 33.3 | 37.6 | 41.8     | 33.5 | 37.6 | 41.7     | 33.6 | 37.5 | 41.4     | 33.6 | 37.2 | 41.0     | 33.4 | 36.9 | 40.4 |
| 62          |             | THC         | 37.6 | 37.6                     | 43.3 | 37.6 | 37.6     | 43.1 | 37.5 | 37.5     | 42.7 | 37.2 | 37.2     | 42.2 | 36.9 | 36.9     | 41.5 |      |      |
|             |             | SHC         | 32.0 | 37.6                     | 43.3 | 32.2 | 37.6     | 43.1 | 32.4 | 37.5     | 42.7 | 32.4 | 37.2     | 42.2 | 32.3 | 36.9     | 41.5 |      |      |
| 67          |             | THC         | 38.5 | 38.5                     | 41.3 | 38.3 | 38.3     | 42.1 | 37.9 | 37.9     | 42.7 | 37.5 | 37.5     | 43.2 | 37.0 | 37.0     | 43.5 |      |      |
|             |             | SHC         | 27.2 | 34.2                     | 41.3 | 28.0 | 35.0     | 42.1 | 28.7 | 35.7     | 42.7 | 29.3 | 36.3     | 43.2 | 29.8 | 36.7     | 43.5 |      |      |
| 72          |             | THC         | 41.1 | 41.1                     | 41.1 | 40.8 | 40.8     | 40.8 | 40.3 | 40.3     | 40.3 | 39.6 | 39.6     | 39.6 | 38.7 | 38.7     | 38.7 |      |      |
|             |             | SHC         | 19.5 | 26.6                     | 33.8 | 20.3 | 27.5     | 34.6 | 21.1 | 28.2     | 35.4 | 21.8 | 29.0     | 36.1 | 22.5 | 29.6     | 36.8 |      |      |
| 76          |             | THC         | —    | 43.6                     | 43.6 | —    | 43.1     | 43.1 | —    | 42.4     | 42.4 | —    | 41.6     | 41.6 | —    | 40.7     | 40.7 |      |      |
|             |             | SHC         | —    | 20.4                     | 27.6 | —    | 21.2     | 28.4 | —    | 21.9     | 29.2 | —    | 22.7     | 29.9 | —    | 23.4     | 30.6 |      |      |
| 1600<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 38.4 | 38.4 | 42.8     | 38.3 | 38.3 | 42.5     | 38.1 | 38.1 | 42.1     | 37.8 | 37.8 | 41.6     | 37.3 | 37.3 | 41.0 |
|             |             |             |      | SHC                      | 34.0 | 38.4 | 42.8     | 34.1 | 38.3 | 42.5     | 34.1 | 38.1 | 42.1     | 34.0 | 37.8 | 41.6     | 33.8 | 37.3 | 41.0 |
|             | 62          | THC         | 38.4 | 38.4                     | 44.3 | 38.3 | 38.3     | 44.0 | 38.1 | 38.1     | 43.5 | 37.8 | 37.8     | 42.9 | 37.3 | 37.3     | 42.1 |      |      |
|             |             | SHC         | 32.6 | 38.4                     | 44.3 | 32.8 | 38.3     | 44.0 | 32.8 | 38.1     | 43.5 | 32.8 | 37.8     | 42.9 | 32.6 | 37.3     | 42.1 |      |      |
|             | 67          | THC         | 38.9 | 38.9                     | 44.3 | 38.6 | 38.6     | 44.9 | 38.3 | 38.3     | 45.2 | 37.8 | 37.8     | 45.4 | 37.3 | 37.3     | 44.6 |      |      |
|             |             | SHC         | 28.4 | 36.3                     | 44.3 | 29.2 | 37.0     | 44.9 | 29.7 | 37.5     | 45.2 | 30.2 | 37.8     | 45.4 | 30.2 | 37.3     | 44.6 |      |      |
|             | 72          | THC         | 41.4 | 41.4                     | 41.4 | 41.0 | 41.0     | 41.0 | 40.5 | 40.5     | 40.5 | 39.7 | 39.7     | 39.7 | 38.8 | 38.8     | 38.9 |      |      |
|             |             | SHC         | 19.9 | 28.0                     | 36.1 | 20.7 | 28.8     | 36.9 | 21.5 | 29.5     | 37.5 | 22.2 | 30.2     | 38.3 | 22.8 | 30.9     | 38.9 |      |      |
|             | 76          | THC         | —    | 44.0                     | 44.0 | —    | 43.4     | 43.4 | —    | 42.6     | 42.6 | —    | 41.8     | 41.8 | —    | 40.8     | 40.8 |      |      |
|             |             | SHC         | —    | 21.0                     | 29.2 | —    | 21.8     | 29.9 | —    | 22.6     | 30.7 | —    | 23.3     | 31.4 | —    | 24.0     | 32.1 |      |      |
|             | 1800<br>cfm | EAT<br>(wb) | 58   | THC                      | 39.0 | 39.0 | 43.6     | 38.9 | 38.9 | 43.2     | 38.7 | 38.7 | 42.8     | 38.3 | 38.3 | 42.2     | 37.7 | 37.7 | 41.4 |
|             |             |             |      | SHC                      | 34.5 | 39.0 | 43.6     | 34.6 | 38.9 | 43.2     | 34.6 | 38.7 | 42.8     | 34.4 | 38.3 | 42.2     | 34.1 | 37.7 | 41.4 |
| 62          |             | THC         | 39.1 | 39.1                     | 45.0 | 38.9 | 38.9     | 44.8 | 38.7 | 38.7     | 44.2 | 38.3 | 38.3     | 43.5 | 37.8 | 37.8     | 42.7 |      |      |
|             |             | SHC         | 33.1 | 39.1                     | 45.0 | 33.2 | 38.9     | 44.8 | 33.2 | 38.7     | 44.2 | 33.2 | 38.3     | 43.5 | 32.9 | 37.8     | 42.7 |      |      |
| 67          |             | THC         | 39.3 | 39.3                     | 46.8 | 39.1 | 39.1     | 46.2 | 38.7 | 38.7     | 47.0 | 38.3 | 38.3     | 46.1 | 37.8 | 37.8     | 45.1 |      |      |
|             |             | SHC         | 29.4 | 38.1                     | 46.8 | 29.7 | 38.0     | 46.2 | 30.5 | 38.7     | 47.0 | 30.5 | 38.3     | 46.1 | 30.5 | 37.8     | 45.1 |      |      |
| 72          |             | THC         | 41.7 | 41.7                     | 41.7 | 41.1 | 41.1     | 41.1 | 40.6 | 40.6     | 40.6 | 39.9 | 39.9     | 40.5 | 38.9 | 38.9     | 41.0 |      |      |
|             |             | SHC         | 20.3 | 29.3                     | 38.2 | 21.1 | 30.0     | 39.0 | 21.8 | 30.8     | 39.7 | 22.6 | 31.5     | 40.5 | 23.2 | 32.2     | 41.0 |      |      |
| 76          |             | THC         | —    | 44.2                     | 44.2 | —    | 43.6     | 43.6 | —    | 42.8     | 42.8 | —    | 41.9     | 41.9 | —    | 40.9     | 40.9 |      |      |
|             |             | SHC         | —    | 21.6                     | 30.6 | —    | 22.4     | 31.4 | —    | 23.2     | 32.2 | —    | 23.9     | 32.9 | —    | 24.6     | 33.5 |      |      |
| 2000<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 39.6 | 39.6 | 44.3     | 39.4 | 39.4 | 43.9     | 39.1 | 39.1 | 43.4     | 38.7 | 38.7 | 42.7     | 38.1 | 38.1 | 41.8 |
|             |             |             |      | SHC                      | 35.0 | 39.6 | 44.3     | 35.0 | 39.4 | 43.9     | 34.9 | 39.1 | 43.4     | 34.7 | 38.7 | 42.7     | 34.4 | 38.1 | 41.8 |
|             | 62          | THC         | 39.6 | 39.6                     | 45.8 | 39.5 | 39.5     | 45.3 | 39.2 | 39.2     | 44.8 | 38.7 | 38.7     | 44.1 | 38.1 | 38.1     | 43.1 |      |      |
|             |             | SHC         | 33.4 | 39.6                     | 45.8 | 33.5 | 39.5     | 45.3 | 33.5 | 39.2     | 44.8 | 33.4 | 38.7     | 44.1 | 33.2 | 38.1     | 43.1 |      |      |
|             | 67          | THC         | 39.7 | 39.7                     | 48.8 | 39.5 | 39.5     | 48.4 | 39.2 | 39.2     | 47.6 | 38.7 | 38.7     | 46.7 | 38.1 | 38.1     | 45.6 |      |      |
|             |             | SHC         | 30.4 | 39.7                     | 48.8 | 30.6 | 39.5     | 48.4 | 30.7 | 39.2     | 47.6 | 30.8 | 38.7     | 46.7 | 30.7 | 38.1     | 45.6 |      |      |
|             | 72          | THC         | 41.8 | 41.8                     | 41.8 | 41.3 | 41.3     | 41.3 | 40.7 | 40.7     | 41.8 | 40.0 | 40.0     | 42.5 | 39.0 | 39.0     | 43.1 |      |      |
|             |             | SHC         | 20.8 | 30.5                     | 40.4 | 21.5 | 31.3     | 41.0 | 22.2 | 32.1     | 41.8 | 23.0 | 32.8     | 42.5 | 23.6 | 33.3     | 43.1 |      |      |
|             | 76          | THC         | —    | 44.5                     | 44.5 | —    | 43.8     | 43.8 | —    | 43.0     | 43.0 | —    | 42.0     | 42.0 | —    | 41.0     | 41.0 |      |      |
|             |             | SHC         | —    | 22.2                     | 32.1 | —    | 23.0     | 32.9 | —    | 23.8     | 33.5 | —    | 24.5     | 34.3 | —    | 25.2     | 34.9 |      |      |

**LEGEND**  
 — Do not operate  
 cfm — Cubic Feet per Minute (Supply Air)  
 EAT (db) — Entering Air Temperature (Dry Bulb)  
 EAT (wb) — Entering Air Temperature (Wet Bulb)  
 SHC — Sensible Heat Capacity (1000 Btuh) Gross  
 THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*07 COOLING CAPACITIES — SECOND STAGE, PART LOAD

| 50LC**07    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1200<br>cfm | EAT<br>(wb) | 58          | THC  | 42.3                     | 42.3 | 47.6 | 41.0     | 41.0 | 46.1 | 39.7     | 39.7 | 44.5 | 38.1     | 38.1 | 42.7 | 36.6     | 36.6 | 40.9 |      |
|             |             |             | SHC  | 37.1                     | 42.3 | 47.6 | 36.1     | 41.0 | 46.1 | 34.9     | 39.7 | 44.5 | 33.6     | 38.1 | 42.7 | 32.2     | 36.6 | 40.9 |      |
|             |             | 62          | THC  | 43.4                     | 43.4 | 46.6 | 41.7     | 41.7 | 45.9 | 40.1     | 40.1 | 45.1 | 38.3     | 38.3 | 44.1 | 36.6     | 36.6 | 42.3 |      |
|             |             |             | SHC  | 34.2                     | 40.4 | 46.6 | 33.5     | 39.8 | 45.9 | 32.9     | 39.0 | 45.1 | 32.1     | 38.1 | 44.1 | 30.8     | 36.6 | 42.3 |      |
|             |             | 67          | THC  | 47.0                     | 47.0 | 47.0 | 45.1     | 45.1 | 45.1 | 43.2     | 43.2 | 43.2 | 41.0     | 41.0 | 41.0 | 38.8     | 38.8 | 38.8 |      |
|             |             |             | SHC  | 27.9                     | 34.1 | 40.5 | 27.3     | 33.5 | 39.9 | 26.7     | 33.0 | 39.2 | 26.0     | 32.3 | 38.5 | 25.4     | 31.6 | 37.8 |      |
|             | 72          | THC         | 51.1 | 51.1                     | 51.1 | 49.0 | 49.0     | 49.0 | 46.9 | 46.9     | 46.9 | 44.6 | 44.6     | 44.6 | 42.0 | 42.0     | 42.0 |      |      |
|             |             | SHC         | 21.4 | 27.7                     | 34.0 | 20.9 | 27.1     | 33.4 | 20.3 | 26.5     | 32.9 | 19.6 | 25.8     | 32.2 | 18.9 | 25.2     | 31.4 |      |      |
|             | 76          | THC         | —    | 54.6                     | 54.6 | —    | 52.5     | 52.5 | —    | 50.0     | 50.0 | —    | 47.5     | 47.5 | —    | 44.8     | 44.8 |      |      |
|             |             | SHC         | —    | 22.4                     | 28.9 | —    | 21.9     | 28.3 | —    | 21.4     | 27.7 | —    | 20.7     | 27.0 | —    | 20.0     | 26.3 |      |      |
|             | 1400<br>cfm | EAT<br>(wb) | 58   | THC                      | 44.3 | 44.3 | 49.7     | 42.9 | 42.9 | 48.2     | 41.3 | 41.3 | 46.3     | 39.7 | 39.7 | 44.5     | 37.9 | 37.9 | 42.4 |
|             |             |             |      | SHC                      | 38.8 | 44.3 | 49.7     | 37.6 | 42.9 | 48.2     | 36.4 | 41.3 | 46.3     | 34.9 | 39.7 | 44.5     | 33.3 | 37.9 | 42.4 |
| 62          |             |             | THC  | 44.6                     | 44.6 | 50.7 | 43.0     | 43.0 | 49.7 | 41.4     | 41.4 | 48.1 | 39.7     | 39.7 | 46.1 | 37.9     | 37.9 | 43.9 |      |
|             |             |             | SHC  | 36.6                     | 43.6 | 50.7 | 35.8     | 42.7 | 49.7 | 34.7     | 41.4 | 48.1 | 33.3     | 39.7 | 46.1 | 31.9     | 37.9 | 43.9 |      |
| 67          |             |             | THC  | 48.0                     | 48.0 | 48.0 | 46.0     | 46.0 | 46.0 | 44.0     | 44.0 | 44.0 | 41.7     | 41.7 | 41.9 | 39.4     | 39.4 | 41.1 |      |
|             |             |             | SHC  | 29.4                     | 36.7 | 43.9 | 28.9     | 36.1 | 43.3 | 28.3     | 35.4 | 42.6 | 27.5     | 34.7 | 41.9 | 26.8     | 33.9 | 41.1 |      |
| 72          |             | THC         | 52.2 | 52.2                     | 52.2 | 50.0 | 50.0     | 50.0 | 47.7 | 47.7     | 47.7 | 45.2 | 45.2     | 45.2 | 42.7 | 42.7     | 42.7 |      |      |
|             |             | SHC         | 22.0 | 29.3                     | 36.6 | 21.5 | 28.7     | 36.0 | 20.9 | 28.1     | 35.3 | 20.2 | 27.4     | 34.6 | 19.5 | 26.7     | 33.8 |      |      |
| 76          |             | THC         | —    | 55.7                     | 55.7 | —    | 53.3     | 53.3 | —    | 50.9     | 50.9 | —    | 48.3     | 48.3 | —    | 45.4     | 45.4 |      |      |
|             |             | SHC         | —    | 23.2                     | 30.6 | —    | 22.7     | 30.0 | —    | 22.0     | 29.3 | —    | 21.5     | 28.7 | —    | 20.7     | 28.0 |      |      |
| 1600<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 45.8 | 45.8 | 51.6     | 44.4 | 44.4 | 49.8     | 42.7 | 42.7 | 47.9     | 41.0 | 41.0 | 45.8     | 39.0 | 39.0 | 43.7 |
|             |             |             |      | SHC                      | 40.2 | 45.8 | 51.6     | 38.9 | 44.4 | 49.8     | 37.5 | 42.7 | 47.9     | 36.0 | 41.0 | 45.8     | 34.3 | 39.0 | 43.7 |
|             | 62          |             | THC  | 45.9                     | 45.9 | 53.5 | 44.4     | 44.4 | 51.7 | 42.7     | 42.7 | 49.7 | 41.0     | 41.0 | 47.6 | 39.0     | 39.0 | 45.2 |      |
|             |             |             | SHC  | 38.3                     | 45.9 | 53.5 | 37.1     | 44.4 | 51.7 | 35.8     | 42.7 | 49.7 | 34.4     | 41.0 | 47.6 | 32.9     | 39.0 | 45.2 |      |
|             | 67          |             | THC  | 48.8                     | 48.8 | 48.8 | 46.7     | 46.7 | 46.7 | 44.7     | 44.7 | 45.9 | 42.3     | 42.3 | 45.1 | 40.0     | 40.0 | 44.2 |      |
|             |             |             | SHC  | 30.9                     | 39.1 | 47.3 | 30.3     | 38.5 | 46.6 | 29.7     | 37.8 | 45.9 | 29.0     | 37.1 | 45.1 | 28.2     | 36.2 | 44.2 |      |
|             | 72          | THC         | 52.9 | 52.9                     | 52.9 | 50.7 | 50.7     | 50.7 | 48.4 | 48.4     | 48.4 | 45.8 | 45.8     | 45.8 | 43.1 | 43.1     | 43.1 |      |      |
|             |             | SHC         | 22.6 | 30.8                     | 38.9 | 22.0 | 30.1     | 38.3 | 21.4 | 29.5     | 37.6 | 20.8 | 28.9     | 37.0 | 20.0 | 28.1     | 36.2 |      |      |
|             | 76          | THC         | —    | 56.5                     | 56.5 | —    | 54.0     | 54.0 | —    | 51.5     | 51.5 | —    | 48.8     | 48.8 | —    | 45.8     | 45.8 |      |      |
|             |             | SHC         | —    | 24.0                     | 32.3 | —    | 23.4     | 31.7 | —    | 22.8     | 31.0 | —    | 22.1     | 30.2 | —    | 21.5     | 29.4 |      |      |
|             | 1800<br>cfm | EAT<br>(wb) | 58   | THC                      | 47.2 | 47.2 | 53.0     | 45.6 | 45.6 | 51.2     | 43.9 | 43.9 | 49.2     | 41.9 | 41.9 | 47.0     | 39.9 | 39.9 | 44.7 |
|             |             |             |      | SHC                      | 41.3 | 47.2 | 53.0     | 40.0 | 45.6 | 51.2     | 38.5 | 43.9 | 49.2     | 36.9 | 41.9 | 47.0     | 35.1 | 39.9 | 44.7 |
| 62          |             |             | THC  | 47.2                     | 47.2 | 55.1 | 45.6     | 45.6 | 53.1 | 43.9     | 43.9 | 51.0 | 42.0     | 42.0 | 48.8 | 40.0     | 40.0 | 46.3 |      |
|             |             |             | SHC  | 39.4                     | 47.2 | 55.1 | 38.1     | 45.6 | 53.1 | 36.8     | 43.9 | 51.0 | 35.2     | 42.0 | 48.8 | 33.5     | 40.0 | 46.3 |      |
| 67          |             |             | THC  | 49.3                     | 49.3 | 50.4 | 47.3     | 47.3 | 49.7 | 45.1     | 45.1 | 49.0 | 42.8     | 42.8 | 48.2 | 40.5     | 40.5 | 47.1 |      |
|             |             |             | SHC  | 32.4                     | 41.4 | 50.4 | 31.8     | 40.8 | 49.7 | 31.1     | 40.1 | 49.0 | 30.3     | 39.2 | 48.2 | 29.4     | 38.3 | 47.1 |      |
| 72          |             | THC         | 53.5 | 53.5                     | 53.5 | 51.3 | 51.3     | 51.3 | 48.8 | 48.8     | 48.8 | 46.2 | 46.2     | 46.2 | 43.5 | 43.5     | 43.5 |      |      |
|             |             | SHC         | 23.1 | 32.2                     | 41.2 | 22.5 | 31.6     | 40.7 | 21.9 | 30.9     | 40.0 | 21.3 | 30.2     | 39.2 | 20.5 | 29.4     | 38.4 |      |      |
| 76          |             | THC         | —    | 57.0                     | 57.0 | —    | 54.6     | 54.6 | —    | 52.0     | 52.0 | —    | 49.1     | 49.1 | —    | 46.2     | 46.2 |      |      |
|             |             | SHC         | —    | 24.7                     | 33.8 | —    | 24.1     | 33.2 | —    | 23.5     | 32.5 | —    | 22.8     | 31.8 | —    | 22.0     | 31.0 |      |      |
| 2000<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 48.4 | 48.4 | 54.3     | 46.6 | 46.6 | 52.4     | 44.9 | 44.9 | 50.3     | 42.8 | 42.8 | 48.0     | 40.7 | 40.7 | 45.5 |
|             |             |             |      | SHC                      | 42.3 | 48.4 | 54.3     | 40.9 | 46.6 | 52.4     | 39.3 | 44.9 | 50.3     | 37.6 | 42.8 | 48.0     | 35.8 | 40.7 | 45.5 |
|             | 62          |             | THC  | 48.4                     | 48.4 | 56.4 | 46.7     | 46.7 | 54.4 | 44.9     | 44.9 | 52.2 | 42.9     | 42.9 | 49.8 | 40.8     | 40.8 | 47.2 |      |
|             |             |             | SHC  | 40.4                     | 48.4 | 56.4 | 39.0     | 46.7 | 54.4 | 37.5     | 44.9 | 52.2 | 36.0     | 42.9 | 49.8 | 34.2     | 40.8 | 47.2 |      |
|             | 67          |             | THC  | 49.9                     | 49.9 | 53.5 | 47.9     | 47.9 | 52.7 | 45.6     | 45.6 | 51.9 | 43.3     | 43.3 | 50.9 | 40.9     | 40.9 | 49.5 |      |
|             |             |             | SHC  | 33.7                     | 43.6 | 53.5 | 33.1     | 42.9 | 52.7 | 32.4     | 42.1 | 51.9 | 31.6     | 41.2 | 50.9 | 30.6     | 40.1 | 49.5 |      |
|             | 72          | THC         | 54.0 | 54.0                     | 54.0 | 51.7 | 51.7     | 51.7 | 49.1 | 49.1     | 49.1 | 46.5 | 46.5     | 46.5 | 43.7 | 43.7     | 43.7 |      |      |
|             |             | SHC         | 23.7 | 33.5                     | 43.5 | 23.1 | 33.0     | 42.8 | 22.4 | 32.3     | 42.1 | 21.7 | 31.6     | 41.4 | 21.0 | 30.8     | 40.6 |      |      |
|             | 76          | THC         | —    | 57.5                     | 57.5 | —    | 55.0     | 55.0 | —    | 52.4     | 52.4 | —    | 49.5     | 49.5 | —    | 46.5     | 46.5 |      |      |
|             |             | SHC         | —    | 25.4                     | 35.3 | —    | 24.8     | 34.7 | —    | 24.2     | 34.0 | —    | 23.4     | 33.2 | —    | 22.7     | 32.4 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*07 COOLING CAPACITIES — THIRD STAGE, FULL LOAD

| 50LC**07    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1800<br>cfm | EAT<br>(wb) | 58          | THC  | 63.9                     | 63.9 | 72.2 | 61.1     | 61.1 | 69.1 | 58.1     | 58.1 | 65.8 | 55.0     | 55.0 | 62.2 | 51.6     | 51.6 | 58.4 |      |
|             |             |             | SHC  | 55.6                     | 63.9 | 72.2 | 53.1     | 61.1 | 69.1 | 50.5     | 58.1 | 65.8 | 47.7     | 55.0 | 62.2 | 44.7     | 51.6 | 58.4 |      |
|             |             | 62          | THC  | 66.4                     | 66.4 | 68.9 | 63.0     | 63.0 | 67.1 | 59.5     | 59.5 | 65.0 | 55.7     | 55.7 | 63.0 | 51.8     | 51.8 | 60.4 |      |
|             |             |             | SHC  | 50.2                     | 59.6 | 68.9 | 48.5     | 57.7 | 67.1 | 46.5     | 55.8 | 65.0 | 44.5     | 53.7 | 63.0 | 42.2     | 51.3 | 60.4 |      |
|             |             | 67          | THC  | 72.8                     | 72.8 | 72.8 | 69.0     | 69.0 | 69.0 | 65.0     | 65.0 | 65.0 | 60.7     | 60.7 | 60.7 | 56.4     | 56.4 | 56.4 |      |
|             |             |             | SHC  | 41.1                     | 50.6 | 60.0 | 39.4     | 48.8 | 58.1 | 37.5     | 46.9 | 56.3 | 35.6     | 44.9 | 54.3 | 33.5     | 42.9 | 52.3 |      |
|             | 72          | THC         | 80.0 | 80.0                     | 80.0 | 75.9 | 75.9     | 75.9 | 71.6 | 71.6     | 71.6 | 67.0 | 67.0     | 67.0 | 62.0 | 62.0     | 62.0 |      |      |
|             |             | SHC         | 31.9 | 41.3                     | 50.8 | 30.1 | 39.6     | 49.0 | 28.3 | 37.7     | 47.1 | 26.4 | 35.8     | 45.1 | 24.4 | 33.7     | 43.1 |      |      |
|             | 76          | THC         | —    | 85.9                     | 85.9 | —    | 81.5     | 81.5 | —    | 76.9     | 76.9 | —    | 72.0     | 72.0 | —    | 66.8     | 66.8 |      |      |
|             |             | SHC         | —    | 33.8                     | 43.5 | —    | 32.1     | 41.7 | —    | 30.2     | 39.9 | —    | 28.4     | 37.9 | —    | 26.3     | 35.8 |      |      |
|             | 2100<br>cfm | EAT<br>(wb) | 58   | THC                      | 67.5 | 67.5 | 76.1     | 64.4 | 64.4 | 72.8     | 61.2 | 61.2 | 69.2     | 57.8 | 57.8 | 65.4     | 54.1 | 54.1 | 61.3 |
|             |             |             |      | SHC                      | 58.7 | 67.5 | 76.1     | 56.1 | 64.4 | 72.8     | 53.2 | 61.2 | 69.2     | 50.2 | 57.8 | 65.4     | 46.9 | 54.1 | 61.3 |
| 62          |             |             | THC  | 68.6                     | 68.6 | 75.7 | 65.1     | 65.1 | 73.6 | 61.5     | 61.5 | 71.3 | 57.9     | 57.9 | 68.1 | 54.2     | 54.2 | 63.8 |      |
|             |             |             | SHC  | 54.2                     | 64.9 | 75.7 | 52.4     | 63.0 | 73.6 | 50.2     | 60.7 | 71.3 | 47.7     | 57.9 | 68.1 | 44.6     | 54.2 | 63.8 |      |
| 67          |             |             | THC  | 74.7                     | 74.7 | 74.7 | 70.8     | 70.8 | 70.8 | 66.6     | 66.6 | 66.6 | 62.2     | 62.2 | 62.2 | 57.5     | 57.5 | 57.5 |      |
|             |             |             | SHC  | 43.8                     | 54.6 | 65.4 | 41.9     | 52.7 | 63.6 | 40.0     | 50.8 | 61.6 | 38.0     | 48.8 | 59.6 | 36.0     | 46.7 | 57.4 |      |
| 72          |             | THC         | 81.9 | 81.9                     | 81.9 | 77.6 | 77.6     | 77.6 | 73.1 | 73.1     | 73.1 | 68.3 | 68.3     | 68.3 | 63.3 | 63.3     | 63.3 |      |      |
|             |             | SHC         | 33.1 | 43.9                     | 54.8 | 31.3 | 42.1     | 52.9 | 29.3 | 40.2     | 51.0 | 27.4 | 38.2     | 48.9 | 25.4 | 36.1     | 46.9 |      |      |
| 76          |             | THC         | —    | 87.8                     | 87.8 | —    | 83.3     | 83.3 | —    | 78.5     | 78.5 | —    | 73.3     | 73.3 | —    | 68.0     | 68.0 |      |      |
|             |             | SHC         | —    | 35.2                     | 46.3 | —    | 33.4     | 44.5 | —    | 31.6     | 42.5 | —    | 29.5     | 40.5 | —    | 27.5     | 38.4 |      |      |
| 2400<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 70.4 | 70.4 | 79.5     | 67.2 | 67.2 | 75.9     | 63.8 | 63.8 | 72.1     | 60.2 | 60.2 | 68.1     | 56.3 | 56.3 | 63.7 |
|             |             |             |      | SHC                      | 61.3 | 70.4 | 79.5     | 58.5 | 67.2 | 75.9     | 55.5 | 63.8 | 72.1     | 52.3 | 60.2 | 68.1     | 48.8 | 56.3 | 63.7 |
|             | 62          |             | THC  | 70.7                     | 70.7 | 81.6 | 67.3     | 67.3 | 78.9 | 63.9     | 63.9 | 75.0 | 60.2     | 60.2 | 70.8 | 56.3     | 56.3 | 66.2 |      |
|             |             |             | SHC  | 57.8                     | 69.7 | 81.6 | 55.6     | 67.3 | 78.9 | 52.7     | 63.9 | 75.0 | 49.6     | 60.2 | 70.8 | 46.3     | 56.3 | 66.2 |      |
|             | 67          |             | THC  | 76.2                     | 76.2 | 76.2 | 72.2     | 72.2 | 72.2 | 67.9     | 67.9 | 67.9 | 63.4     | 63.4 | 64.5 | 58.6     | 58.6 | 62.3 |      |
|             |             |             | SHC  | 46.2                     | 58.4 | 70.6 | 44.3     | 56.5 | 68.6 | 42.4     | 54.5 | 66.7 | 40.4     | 52.5 | 64.5 | 38.2     | 50.3 | 62.3 |      |
|             | 72          | THC         | 83.5 | 83.5                     | 83.5 | 79.0 | 79.0     | 79.0 | 74.4 | 74.4     | 74.4 | 69.4 | 69.4     | 69.4 | 64.2 | 64.2     | 64.2 |      |      |
|             |             | SHC         | 34.0 | 46.3                     | 58.5 | 32.3 | 44.5     | 56.6 | 30.3 | 42.5     | 54.6 | 28.4 | 40.5     | 52.6 | 26.3 | 38.3     | 50.4 |      |      |
|             | 76          | THC         | —    | 89.4                     | 89.4 | —    | 84.6     | 84.6 | —    | 79.7     | 79.7 | —    | 74.4     | 74.4 | —    | 68.8     | 68.8 |      |      |
|             |             | SHC         | —    | 36.5                     | 48.9 | —    | 34.7     | 47.0 | —    | 32.8     | 45.0 | —    | 30.7     | 42.9 | —    | 28.7     | 40.8 |      |      |
|             | 2700<br>cfm | EAT<br>(wb) | 58   | THC                      | 72.8 | 72.8 | 82.2     | 69.5 | 69.5 | 78.5     | 65.9 | 65.9 | 74.5     | 62.1 | 62.1 | 70.2     | 58.0 | 58.0 | 65.6 |
|             |             |             |      | SHC                      | 63.5 | 72.8 | 82.2     | 60.5 | 69.5 | 78.5     | 57.3 | 65.9 | 74.5     | 53.9 | 62.1 | 70.2     | 50.3 | 58.0 | 65.6 |
| 62          |             |             | THC  | 72.9                     | 72.9 | 85.4 | 69.5     | 69.5 | 81.6 | 65.9     | 65.9 | 77.4 | 62.1     | 62.1 | 73.0 | 58.0     | 58.0 | 68.3 |      |
|             |             |             | SHC  | 60.4                     | 72.9 | 85.4 | 57.5     | 69.5 | 81.6 | 54.5     | 65.9 | 77.4 | 51.3     | 62.1 | 73.0 | 47.8     | 58.0 | 68.3 |      |
| 67          |             |             | THC  | 77.4                     | 77.4 | 77.4 | 73.3     | 73.3 | 73.6 | 68.9     | 68.9 | 71.5 | 64.3     | 64.3 | 69.3 | 59.5     | 59.5 | 67.0 |      |
|             |             |             | SHC  | 48.5                     | 62.0 | 75.6 | 46.6     | 60.1 | 73.6 | 44.6     | 58.0 | 71.5 | 42.5     | 56.0 | 69.3 | 40.4     | 53.6 | 67.0 |      |
| 72          |             | THC         | 84.6 | 84.6                     | 84.6 | 80.0 | 80.0     | 80.0 | 75.3 | 75.3     | 75.3 | 70.3 | 70.3     | 70.3 | 64.9 | 64.9     | 64.9 |      |      |
|             |             | SHC         | 35.0 | 48.6                     | 62.0 | 33.2 | 46.6     | 60.2 | 31.2 | 44.7     | 58.1 | 29.3 | 42.6     | 56.0 | 27.1 | 40.5     | 53.8 |      |      |
| 76          |             | THC         | —    | 90.6                     | 90.6 | —    | 85.7     | 85.7 | —    | 80.6     | 80.6 | —    | 75.2     | 75.2 | —    | 69.4     | 69.4 |      |      |
|             |             | SHC         | —    | 37.6                     | 51.3 | —    | 35.8     | 49.4 | —    | 33.8     | 47.4 | —    | 31.8     | 45.2 | —    | 29.6     | 42.9 |      |      |
| 3000<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 74.9 | 74.9 | 84.5     | 71.4 | 71.4 | 80.6     | 67.7 | 67.7 | 76.4     | 63.7 | 63.7 | 72.1     | 59.4 | 59.4 | 67.3 |
|             |             |             |      | SHC                      | 65.2 | 74.9 | 84.5     | 62.1 | 71.4 | 80.6     | 58.9 | 67.7 | 76.4     | 55.4 | 63.7 | 72.1     | 51.6 | 59.4 | 67.3 |
|             | 62          |             | THC  | 75.0                     | 75.0 | 87.8 | 71.5     | 71.5 | 83.8 | 67.7     | 67.7 | 79.5 | 63.8     | 63.8 | 74.9 | 59.5     | 59.5 | 69.9 |      |
|             |             |             | SHC  | 62.1                     | 75.0 | 87.8 | 59.1     | 71.5 | 83.8 | 56.0     | 67.7 | 79.5 | 52.6     | 63.8 | 74.9 | 49.0     | 59.5 | 69.9 |      |
|             | 67          |             | THC  | 78.5                     | 78.5 | 80.2 | 74.2     | 74.2 | 78.3 | 69.8     | 69.8 | 76.1 | 65.1     | 65.1 | 73.8 | 60.3     | 60.3 | 71.3 |      |
|             |             |             | SHC  | 50.7                     | 65.4 | 80.2 | 48.8     | 63.5 | 78.3 | 46.7     | 61.4 | 76.1 | 44.6     | 59.2 | 73.8 | 42.3     | 56.7 | 71.3 |      |
|             | 72          | THC         | 85.6 | 85.6                     | 85.6 | 80.9 | 80.9     | 80.9 | 76.1 | 76.1     | 76.1 | 70.9 | 70.9     | 70.9 | 65.5 | 65.5     | 65.5 |      |      |
|             |             | SHC         | 35.9 | 50.7                     | 65.4 | 34.0 | 48.8     | 63.5 | 32.1 | 46.8     | 61.4 | 30.0 | 44.7     | 59.3 | 27.9 | 42.5     | 57.0 |      |      |
|             | 76          | THC         | —    | 91.5                     | 91.5 | —    | 86.6     | 86.6 | —    | 81.3     | 81.3 | —    | 75.9     | 75.9 | —    | 70.0     | 70.0 |      |      |
|             |             | SHC         | —    | 38.8                     | 53.6 | —    | 36.9     | 51.7 | —    | 34.9     | 49.5 | —    | 32.9     | 47.4 | —    | 30.6     | 45.0 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*A07 REHEAT MODE NO. 1 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-1<br>(SUBCOOLER MODE) |     | AIR ENTERING EVAPORATOR — SCFM/BF (80°F db) |      |      |           |      |      |           |      |      |
|------------------------------|-----|---|------|------|-----------|------|------|-----------|------|------|
|                              |     | 1800/0.04                                   |      |      | 2400/0.07 |      |      | 3000/0.12 |      |      |
| OUTDOOR AIR<br>TEMP (°F)     |     | AIR ENTERING EVAPORATOR — Ewb (°F)          |      |      |           |      |      |           |      |      |
|                              |     | 72  | 67   | 62   | 72        | 67   | 62   | 72        | 67   | 62   |
| 75                           | TC  | 82.0  | 74.0 | 64.0 | 86.0      | 75.0 | 71.0 | 89.0      | 81.0 | 72.0 |
|                              | SHC | 37.0  | 46.0 | 52.0 | 43.0      | 51.0 | 66.0 | 48.0      | 62.0 | 72.0 |
|                              | kW  | 3.5   | 3.4  | 3.4  | 3.5       | 3.4  | 3.4  | 3.5       | 3.5  | 3.4  |
| 85                           | TC  | 77.0  | 69.0 | 62.0 | 81.0      | 73.0 | 66.0 | 84.0      | 72.0 | 66.0 |
|                              | SHC | 33.0  | 42.0 | 51.0 | 38.0      | 49.0 | 61.0 | 43.0      | 53.0 | 66.0 |
|                              | kW  | 3.9   | 3.9  | 3.9  | 4.0       | 3.9  | 3.9  | 4.0       | 3.9  | 3.9  |
| 95                           | TC  | 72.0  | 64.0 | 58.0 | 76.0      | 68.0 | 61.0 | 78.0      | 70.0 | 65.0 |
|                              | SHC | 28.0  | 37.0 | 47.0 | 33.0      | 45.0 | 57.0 | 38.0      | 52.0 | 65.0 |
|                              | kW  | 4.5   | 4.4  | 4.4  | 4.5       | 4.5  | 4.4  | 4.5       | 4.5  | 4.4  |
| 105                          | TC  | 66.0  | 58.0 | 53.0 | 70.0      | 62.0 | 56.0 | 72.0      | 65.0 | 60.0 |
|                              | SHC | 23.0  | 32.0 | 42.0 | 28.0      | 40.0 | 52.0 | 33.0      | 47.0 | 60.0 |
|                              | kW  | 5.1   | 5.0  | 5.0  | 5.1       | 5.0  | 5.0  | 5.1       | 5.1  | 5.0  |
| 115                          | TC  | 60.0  | 52.0 | 47.0 | 64.0      | 55.0 | 51.0 | 66.0      | 59.0 | 54.0 |
|                              | SHC | 18.0  | 27.0 | 38.0 | 23.0      | 34.0 | 47.0 | 27.0      | 42.0 | 54.0 |
|                              | kW  | 5.7   | 5.7  | 5.7  | 5.8       | 5.7  | 5.7  | 5.8       | 5.7  | 5.7  |
| 125                          | TC  | 54.0  | 48.0 | 42.0 | 57.0      | 51.0 | 45.0 | 59.0      | 52.0 | 48.0 |
|                              | SHC | 13.0  | 23.0 | 33.0 | 17.0      | 30.0 | 42.0 | 21.0      | 36.0 | 48.0 |
|                              | kW  | 6.5   | 6.5  | 6.4  | 6.5       | 6.5  | 6.4  | 6.5       | 6.5  | 6.4  |

## 50LC\*A07 REHEAT MODE NO. 2 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-2 (HOT GAS<br>REHEAT MODE) |     | AIR ENTERING EVAPORATOR — SCFM/BF (80°F db) |      |      |           |      |      |           |      |      |
|-----------------------------------|-----|---|------|------|-----------|------|------|-----------|------|------|
|                                   |     | 1800/0.04                                   |      |      | 2400/0.07 |      |      | 3000/0.10 |      |      |
| OUTDOOR AIR<br>TEMP (°F)          |     | AIR ENTERING EVAPORATOR — Ewb (°F)          |      |      |           |      |      |           |      |      |
|                                   |     | 62.5  | 64   | 65.3 | 62.5      | 64   | 65.3 | 62.5      | 64   | 65.3 |
| 80                                | TC  | 27.0  | 28.0 | 29.0 | 28.0      | 29.0 | 30.0 | 29.0      | 30.0 | 31.0 |
|                                   | SHC | 5.0   | 1.0  | -2.0 | 10.0      | 6.0  | 2.0  | 16.0      | 10.0 | 6.0  |
|                                   | kW  | 4.4   | 4.5  | 4.5  | 4.5       | 4.5  | 4.5  | 4.5       | 4.5  | 4.6  |
| 75                                | TC  | 28.0  | 29.0 | 31.0 | 30.0      | 31.0 | 32.0 | 31.0      | 32.0 | 33.0 |
|                                   | SHC | 7.0   | 3.0  | 0.0  | 12.0      | 8.0  | 4.0  | 17.0      | 12.0 | 8.0  |
|                                   | kW  | 4.2   | 4.2  | 4.3  | 4.2       | 4.3  | 4.3  | 4.3       | 4.3  | 4.3  |
| 70                                | TC  | 30.0  | 31.0 | 32.0 | 32.0      | 33.0 | 34.0 | 33.0      | 34.0 | 35.0 |
|                                   | SHC | 8.0   | 5.0  | 2.0  | 14.0      | 9.0  | 6.0  | 19.0      | 14.0 | 10.0 |
|                                   | kW  | 4.0   | 4.0  | 4.0  | 4.0       | 4.0  | 4.1  | 4.0       | 4.1  | 4.1  |
| 60                                | TC  | 34.0  | 35.0 | 36.0 | 36.0      | 37.0 | 38.0 | 37.0      | 38.0 | 39.0 |
|                                   | SHC | 12.0  | 9.0  | 6.0  | 18.0      | 13.0 | 10.0 | 23.0      | 18.0 | 14.0 |
|                                   | kW  | 3.6   | 3.6  | 3.6  | 3.6       | 3.6  | 3.7  | 3.6       | 3.7  | 3.7  |
| 50                                | TC  | 38.0  | 39.0 | 41.0 | 40.0      | 41.0 | 43.0 | 41.0      | 42.0 | 44.0 |
|                                   | SHC | 16.0  | 13.0 | 10.0 | 22.0      | 18.0 | 14.0 | 28.0      | 23.0 | 19.0 |
|                                   | kW  | 3.2   | 3.3  | 3.3  | 3.2       | 3.3  | 3.3  | 3.3       | 3.3  | 3.3  |
| 40                                | TC  | 42.0  | 44.0 | 45.0 | 44.0      | 46.0 | 47.0 | 46.0      | 47.0 | 49.0 |
|                                   | SHC | 22.0  | 19.0 | 17.0 | 28.0      | 24.0 | 21.0 | 33.0      | 29.0 | 25.0 |
|                                   | kW  | 2.9   | 3.0  | 3.0  | 3.0       | 3.0  | 3.1  | 3.0       | 3.0  | 3.1  |

### LEGEND

**kW** — Compressor Power Input  
**SHC** — Sensible Capacity (1000 Btuh) Gross  
**TC** — Total Capacity (1000 Btuh) Gross

## 50LC\*\*08 COOLING CAPACITIES — FIRST STAGE, PART LOAD

| 50LC**08    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1500<br>cfm | EAT<br>(wb) | 58          | THC  | 39.3                     | 39.3 | 45.0 | 36.1     | 36.1 | 41.5 | 32.7     | 32.7 | 37.8 | 29.2     | 29.2 | 34.0 | 25.4     | 25.4 | 30.0 |      |
|             |             |             | SHC  | 33.6                     | 39.3 | 45.0 | 30.6     | 36.1 | 41.5 | 27.5     | 32.7 | 37.8 | 24.2     | 29.2 | 34.0 | 20.8     | 25.4 | 30.0 |      |
|             |             | 62          | THC  | 39.4                     | 39.4 | 47.0 | 36.1     | 36.1 | 43.4 | 32.7     | 32.7 | 39.7 | 29.2     | 29.2 | 35.8 | 25.4     | 25.4 | 31.7 |      |
|             |             |             | SHC  | 31.8                     | 39.4 | 47.0 | 28.9     | 36.1 | 43.4 | 25.7     | 32.7 | 39.7 | 22.6     | 29.2 | 35.8 | 19.3     | 25.4 | 31.7 |      |
|             |             | 67          | THC  | 43.9                     | 43.9 | 43.9 | 39.9     | 39.9 | 39.9 | 35.8     | 35.8 | 36.1 | 31.5     | 31.5 | 33.3 | 27.1     | 27.1 | 30.7 |      |
|             |             |             | SHC  | 25.4                     | 33.2 | 41.1 | 22.8     | 30.7 | 38.6 | 20.2     | 28.1 | 36.1 | 17.6     | 25.5 | 33.3 | 14.9     | 22.8 | 30.7 |      |
|             | 72          | THC         | 49.3 | 49.3                     | 49.3 | 45.1 | 45.1     | 45.1 | 40.8 | 40.8     | 40.8 | 36.3 | 36.3     | 36.3 | 31.6 | 31.6     | 31.6 |      |      |
|             |             | SHC         | 18.3 | 26.2                     | 34.2 | 15.8 | 23.8     | 31.7 | 13.3 | 21.2     | 29.2 | 10.6 | 18.6     | 26.5 | 8.0  | 16.0     | 23.9 |      |      |
|             | 76          | THC         | —    | 53.9                     | 53.9 | —    | 49.6     | 49.6 | —    | 45.0     | 45.0 | —    | 40.4     | 40.4 | —    | 35.5     | 35.5 |      |      |
|             |             | SHC         | —    | 20.6                     | 28.6 | —    | 18.0     | 26.1 | —    | 15.5     | 23.5 | —    | 13.0     | 21.0 | —    | 10.3     | 18.3 |      |      |
|             | 1750<br>cfm | EAT<br>(wb) | 58   | THC                      | 41.8 | 41.8 | 47.8     | 38.3 | 38.3 | 44.1     | 34.8 | 34.8 | 40.2     | 31.1 | 31.1 | 36.2     | 27.2 | 27.2 | 32.0 |
|             |             |             |      | SHC                      | 35.9 | 41.8 | 47.8     | 32.7 | 38.3 | 44.1     | 29.3 | 34.8 | 40.2     | 25.9 | 31.1 | 36.2     | 22.3 | 27.2 | 32.0 |
| 62          |             |             | THC  | 41.8                     | 41.8 | 49.8 | 38.4     | 38.4 | 46.0 | 34.8     | 34.8 | 42.0 | 31.1     | 31.1 | 37.9 | 27.2     | 27.2 | 33.6 |      |
|             |             |             | SHC  | 33.9                     | 41.8 | 49.8 | 30.8     | 38.4 | 46.0 | 27.6     | 34.8 | 42.0 | 24.3     | 31.1 | 37.9 | 20.8     | 27.2 | 33.6 |      |
| 67          |             |             | THC  | 45.0                     | 45.0 | 45.9 | 41.0     | 41.0 | 43.3 | 36.8     | 36.8 | 40.7 | 32.4     | 32.4 | 37.8 | 27.9     | 27.9 | 35.0 |      |
|             |             |             | SHC  | 27.6                     | 36.8 | 45.9 | 25.1     | 34.1 | 43.3 | 22.4     | 31.5 | 40.7 | 19.7     | 28.8 | 37.8 | 17.0     | 26.0 | 35.0 |      |
| 72          |             | THC         | 50.5 | 50.5                     | 50.5 | 46.1 | 46.1     | 46.1 | 41.7 | 41.7     | 41.7 | 37.1 | 37.1     | 37.1 | 32.3 | 32.3     | 32.3 |      |      |
|             |             | SHC         | 19.3 | 28.6                     | 37.7 | 16.8 | 26.0     | 35.2 | 14.2 | 23.4     | 32.6 | 11.6 | 20.8     | 29.9 | 8.9  | 18.0     | 27.2 |      |      |
| 76          |             | THC         | —    | 55.2                     | 55.2 | —    | 50.7     | 50.7 | —    | 46.0     | 46.0 | —    | 41.2     | 41.2 | —    | 36.2     | 36.2 |      |      |
|             |             | SHC         | —    | 21.8                     | 31.1 | —    | 19.3     | 28.6 | —    | 16.8     | 25.9 | —    | 14.1     | 23.3 | —    | 11.4     | 20.7 |      |      |
| 2000<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 43.9 | 43.9 | 50.0     | 40.3 | 40.3 | 46.1     | 36.5 | 36.5 | 42.1     | 32.7 | 32.7 | 37.9     | 28.6 | 28.6 | 33.5 |
|             |             |             |      | SHC                      | 37.7 | 43.9 | 50.0     | 34.3 | 40.3 | 46.1     | 30.9 | 36.5 | 42.1     | 27.3 | 32.7 | 37.9     | 23.6 | 28.6 | 33.5 |
|             | 62          |             | THC  | 43.9                     | 43.9 | 52.1 | 40.3     | 40.3 | 48.2 | 36.6     | 36.6 | 44.1 | 32.7     | 32.7 | 39.8 | 28.7     | 28.7 | 35.3 |      |
|             |             |             | SHC  | 35.7                     | 43.9 | 52.1 | 32.5     | 40.3 | 48.2 | 29.1     | 36.6 | 44.1 | 25.6     | 32.7 | 39.8 | 22.0     | 28.7 | 35.3 |      |
|             | 67          |             | THC  | 45.9                     | 45.9 | 50.3 | 41.8     | 41.8 | 47.7 | 37.5     | 37.5 | 44.9 | 33.2     | 33.2 | 41.9 | 28.8     | 28.8 | 38.3 |      |
|             |             |             | SHC  | 29.7                     | 40.1 | 50.3 | 27.1     | 37.3 | 47.7 | 24.5     | 34.7 | 44.9 | 21.6     | 31.8 | 41.9 | 18.6     | 28.5 | 38.3 |      |
|             | 72          | THC         | 51.3 | 51.3                     | 51.3 | 46.9 | 46.9     | 46.9 | 42.4 | 42.4     | 42.4 | 37.6 | 37.6     | 37.6 | 32.8 | 32.8     | 32.8 |      |      |
|             |             | SHC         | 20.3 | 30.7                     | 41.1 | 17.7 | 28.1     | 38.5 | 15.1 | 25.4     | 35.9 | 12.4 | 22.8     | 33.2 | 9.8  | 20.1     | 30.5 |      |      |
|             | 76          | THC         | —    | 56.1                     | 56.1 | —    | 51.5     | 51.5 | —    | 46.7     | 46.7 | —    | 41.8     | 41.8 | —    | 36.8     | 36.8 |      |      |
|             |             | SHC         | —    | 23.0                     | 33.5 | —    | 20.5     | 30.9 | —    | 17.8     | 28.3 | —    | 15.2     | 25.6 | —    | 12.5     | 22.9 |      |      |
|             | 2250<br>cfm | EAT<br>(wb) | 58   | THC                      | 45.5 | 45.5 | 51.9     | 41.8 | 41.8 | 47.9     | 37.9 | 37.9 | 43.7     | 33.9 | 33.9 | 39.4     | 29.7 | 29.7 | 34.9 |
|             |             |             |      | SHC                      | 39.2 | 45.5 | 51.9     | 35.8 | 41.8 | 47.9     | 32.2 | 37.9 | 43.7     | 28.6 | 33.9 | 39.4     | 24.7 | 29.7 | 34.9 |
| 62          |             |             | THC  | 45.5                     | 45.5 | 54.0 | 41.8     | 41.8 | 49.9 | 38.0     | 38.0 | 45.6 | 34.0     | 34.0 | 41.2 | 29.8     | 29.8 | 36.7 |      |
|             |             |             | SHC  | 37.1                     | 45.5 | 54.0 | 33.7     | 41.8 | 49.9 | 30.3     | 38.0 | 45.6 | 26.7     | 34.0 | 41.2 | 23.0     | 29.8 | 36.7 |      |
| 67          |             |             | THC  | 46.7                     | 46.7 | 54.6 | 42.6     | 42.6 | 51.7 | 38.3     | 38.3 | 48.7 | 34.1     | 34.1 | 44.6 | 29.8     | 29.8 | 40.1 |      |
|             |             |             | SHC  | 31.7                     | 43.1 | 54.6 | 29.0     | 40.4 | 51.7 | 26.2     | 37.4 | 48.7 | 23.0     | 33.8 | 44.6 | 19.7     | 29.8 | 40.1 |      |
| 72          |             | THC         | 52.0 | 52.0                     | 52.0 | 47.6 | 47.6     | 47.6 | 42.9 | 42.9     | 42.9 | 38.1 | 38.1     | 38.1 | 33.2 | 33.2     | 33.5 |      |      |
|             |             | SHC         | 21.2 | 32.8                     | 44.4 | 18.5 | 30.1     | 41.7 | 15.9 | 27.5     | 39.1 | 13.3 | 24.8     | 36.4 | 10.5 | 22.0     | 33.5 |      |      |
| 76          |             | THC         | —    | 56.7                     | 56.7 | —    | 52.2     | 52.2 | —    | 47.3     | 47.3 | —    | 42.3     | 42.3 | —    | 37.1     | 37.1 |      |      |
|             |             | SHC         | —    | 24.2                     | 35.8 | —    | 21.5     | 33.2 | —    | 18.9     | 30.5 | —    | 16.3     | 27.8 | —    | 13.6     | 25.1 |      |      |
| 2500<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 46.9 | 46.9 | 53.4     | 43.1 | 43.1 | 49.3     | 39.2 | 39.2 | 45.0     | 35.1 | 35.1 | 40.6     | 30.8 | 30.8 | 36.0 |
|             |             |             |      | SHC                      | 40.5 | 46.9 | 53.4     | 37.0 | 43.1 | 49.3     | 33.2 | 39.2 | 45.0     | 29.5 | 35.1 | 40.6     | 25.5 | 30.8 | 36.0 |
|             | 62          |             | THC  | 47.0                     | 47.0 | 55.7 | 43.2     | 43.2 | 51.4 | 39.2     | 39.2 | 47.1 | 35.1     | 35.1 | 42.5 | 30.8     | 30.8 | 37.7 |      |
|             |             |             | SHC  | 38.3                     | 47.0 | 55.7 | 34.9     | 43.2 | 51.4 | 31.4     | 39.2 | 47.1 | 27.7     | 35.1 | 42.5 | 23.9     | 30.8 | 37.7 |      |
|             | 67          |             | THC  | 47.5                     | 47.5 | 58.3 | 43.5     | 43.5 | 54.6 | 39.4     | 39.4 | 50.7 | 35.1     | 35.1 | 46.2 | 30.8     | 30.8 | 41.2 |      |
|             |             |             | SHC  | 33.5                     | 45.9 | 58.3 | 30.5     | 42.5 | 54.6 | 27.4     | 39.0 | 50.7 | 24.1     | 35.1 | 46.2 | 20.5     | 30.8 | 41.2 |      |
|             | 72          | THC         | 52.6 | 52.6                     | 52.6 | 48.0 | 48.0     | 48.0 | 43.3 | 43.3     | 43.3 | 38.5 | 38.5     | 39.4 | 33.4 | 33.4     | 36.6 |      |      |
|             |             | SHC         | 21.9 | 34.7                     | 47.5 | 19.4 | 32.1     | 44.9 | 16.7 | 29.4     | 42.1 | 14.0 | 26.7     | 39.4 | 11.2 | 23.9     | 36.6 |      |      |
|             | 76          | THC         | —    | 57.3                     | 57.3 | —    | 52.7     | 52.7 | —    | 47.8     | 47.8 | —    | 42.7     | 42.7 | —    | 37.4     | 37.4 |      |      |
|             |             | SHC         | —    | 25.2                     | 38.0 | —    | 22.6     | 35.4 | —    | 19.9     | 32.7 | —    | 17.3     | 29.9 | —    | 14.4     | 27.1 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*08 COOLING CAPACITIES — SECOND STAGE, PART LOAD

| 50LC**08    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1500<br>cfm | EAT<br>(wb) | 58          | THC  | 45.7                     | 45.7 | 52.3 | 42.4     | 42.4 | 48.7 | 39.0     | 39.0 | 44.9 | 35.3     | 35.3 | 41.0 | 31.5     | 31.5 | 37.0 |      |
|             |             |             | SHC  | 39.2                     | 45.7 | 52.3 | 36.2     | 42.4 | 48.7 | 33.0     | 39.0 | 44.9 | 29.6     | 35.3 | 41.0 | 26.1     | 31.5 | 37.0 |      |
|             |             | 62          | THC  | 47.1                     | 47.1 | 52.2 | 43.2     | 43.2 | 49.5 | 39.2     | 39.2 | 46.8 | 35.4     | 35.4 | 43.0 | 31.6     | 31.6 | 38.8 |      |
|             |             |             | SHC  | 36.2                     | 44.2 | 52.2 | 33.6     | 41.5 | 49.5 | 30.9     | 38.8 | 46.8 | 27.8     | 35.4 | 43.0 | 24.4     | 31.6 | 38.8 |      |
|             |             | 67          | THC  | 53.1                     | 53.1 | 53.1 | 48.8     | 48.8 | 48.8 | 44.5     | 44.5 | 44.5 | 40.0     | 40.0 | 40.0 | 35.2     | 35.2 | 35.2 |      |
|             |             |             | SHC  | 29.3                     | 37.2 | 45.2 | 26.6     | 34.7 | 42.7 | 24.0     | 32.1 | 40.1 | 21.4     | 29.3 | 37.3 | 18.6     | 26.6 | 34.6 |      |
|             | 72          | THC         | 59.7 | 59.7                     | 59.7 | 55.2 | 55.2     | 55.2 | 50.5 | 50.5     | 50.5 | 45.7 | 45.7     | 45.7 | 40.7 | 40.7     | 40.7 |      |      |
|             |             | SHC         | 22.1 | 30.1                     | 38.2 | 19.5 | 27.6     | 35.6 | 17.0 | 25.0     | 33.1 | 14.2 | 22.3     | 30.3 | 11.6 | 19.6     | 27.7 |      |      |
|             | 76          | THC         | —    | 65.3                     | 65.3 | —    | 60.6     | 60.6 | —    | 55.8     | 55.8 | —    | 50.7     | 50.7 | —    | 45.3     | 45.3 |      |      |
|             |             | SHC         | —    | 24.4                     | 32.4 | —    | 21.8     | 29.8 | —    | 19.2     | 27.3 | —    | 16.6     | 24.6 | —    | 13.8     | 21.9 |      |      |
|             | 1750<br>cfm | EAT<br>(wb) | 58   | THC                      | 48.9 | 48.9 | 55.9     | 45.4 | 45.4 | 52.1     | 41.7 | 41.7 | 48.1     | 37.9 | 37.9 | 43.9     | 33.9 | 33.9 | 39.5 |
|             |             |             |      | SHC                      | 42.1 | 48.9 | 55.9     | 38.8 | 45.4 | 52.1     | 35.5 | 41.7 | 48.1     | 32.0 | 37.9 | 43.9     | 28.3 | 33.9 | 39.5 |
| 62          |             |             | THC  | 49.1                     | 49.1 | 58.2 | 45.5     | 45.5 | 54.3 | 41.8     | 41.8 | 50.2 | 38.0     | 38.0 | 46.0 | 33.9     | 33.9 | 41.5 |      |
|             |             |             | SHC  | 39.9                     | 49.0 | 58.2 | 36.7     | 45.5 | 54.3 | 33.4     | 41.8 | 50.2 | 30.0     | 38.0 | 46.0 | 26.4     | 33.9 | 41.5 |      |
| 67          |             |             | THC  | 54.8                     | 54.8 | 54.8 | 50.4     | 50.4 | 50.4 | 45.9     | 45.9 | 45.9 | 41.1     | 41.1 | 42.3 | 36.3     | 36.3 | 39.5 |      |
|             |             |             | SHC  | 31.7                     | 41.0 | 50.4 | 29.1     | 38.4 | 47.8 | 26.4     | 35.8 | 45.0 | 23.7     | 33.1 | 42.3 | 20.9     | 30.2 | 39.5 |      |
| 72          |             | THC         | 61.5 | 61.5                     | 61.5 | 56.8 | 56.8     | 56.8 | 52.0 | 52.0     | 52.0 | 47.0 | 47.0     | 47.0 | 41.7 | 41.7     | 41.7 |      |      |
|             |             | SHC         | 23.3 | 32.7                     | 42.0 | 20.7 | 30.0     | 39.5 | 18.0 | 27.4     | 36.8 | 15.3 | 24.7     | 34.0 | 12.6 | 21.9     | 31.3 |      |      |
| 76          |             | THC         | —    | 67.3                     | 67.3 | —    | 62.3     | 62.3 | —    | 57.2     | 57.2 | —    | 52.0     | 52.0 | —    | 46.5     | 46.5 |      |      |
|             |             | SHC         | —    | 25.8                     | 35.2 | —    | 23.2     | 32.7 | —    | 20.6     | 29.9 | —    | 17.9     | 27.3 | —    | 15.1     | 24.6 |      |      |
| 2000<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 51.7 | 51.7 | 58.9     | 48.0 | 48.0 | 54.8     | 44.1 | 44.1 | 50.6     | 40.1 | 40.1 | 46.3     | 35.9 | 35.9 | 41.7 |
|             |             |             |      | SHC                      | 44.5 | 51.7 | 58.9     | 41.0 | 48.0 | 54.8     | 37.5 | 44.1 | 50.6     | 33.8 | 40.1 | 46.3     | 30.0 | 35.9 | 41.7 |
|             | 62          |             | THC  | 51.8                     | 51.8 | 61.3 | 48.1     | 48.1 | 57.2 | 44.2     | 44.2 | 52.9 | 40.2     | 40.2 | 48.5 | 35.9     | 35.9 | 43.7 |      |
|             |             |             | SHC  | 42.2                     | 51.8 | 61.3 | 38.8     | 48.1 | 57.2 | 35.4     | 44.2 | 52.9 | 31.8     | 40.2 | 48.5 | 28.1     | 35.9 | 43.7 |      |
|             | 67          |             | THC  | 56.2                     | 56.2 | 56.2 | 51.6     | 51.6 | 52.7 | 47.0     | 47.0 | 49.9 | 42.1     | 42.1 | 47.1 | 37.1     | 37.1 | 44.2 |      |
|             |             |             | SHC  | 34.1                     | 44.7 | 55.3 | 31.4     | 42.0 | 52.7 | 28.7     | 39.3 | 49.9 | 25.9     | 36.5 | 47.1 | 23.1     | 33.6 | 44.2 |      |
|             | 72          | THC         | 62.8 | 62.8                     | 62.8 | 58.0 | 58.0     | 58.0 | 53.0 | 53.0     | 53.0 | 47.9 | 47.9     | 47.9 | 42.5 | 42.5     | 42.5 |      |      |
|             |             | SHC         | 24.4 | 35.1                     | 45.7 | 21.7 | 32.4     | 43.1 | 19.0 | 29.7     | 40.4 | 16.3 | 27.0     | 37.6 | 13.5 | 24.2     | 34.8 |      |      |
|             | 76          | THC         | —    | 68.6                     | 68.6 | —    | 63.6     | 63.6 | —    | 58.4     | 58.4 | —    | 52.9     | 52.9 | —    | 47.3     | 47.3 |      |      |
|             |             | SHC         | —    | 27.2                     | 37.9 | —    | 24.6     | 35.3 | —    | 21.9     | 32.7 | —    | 19.2     | 29.8 | —    | 16.4     | 27.1 |      |      |
|             | 2250<br>cfm | EAT<br>(wb) | 58   | THC                      | 53.9 | 53.9 | 61.3     | 50.1 | 50.1 | 57.1     | 46.0 | 46.0 | 52.8     | 41.8 | 41.8 | 48.3     | 37.4 | 37.4 | 43.5 |
|             |             |             |      | SHC                      | 46.5 | 53.9 | 61.3     | 43.0 | 50.1 | 57.1     | 39.3 | 46.0 | 52.8     | 35.5 | 41.8 | 48.3     | 31.5 | 37.4 | 43.5 |
| 62          |             |             | THC  | 54.0                     | 54.0 | 64.0 | 50.1     | 50.1 | 59.7 | 46.1     | 46.1 | 55.2 | 41.9     | 41.9 | 50.5 | 37.5     | 37.5 | 45.5 |      |
|             |             |             | SHC  | 44.1                     | 54.0 | 64.0 | 40.7     | 50.1 | 59.7 | 37.1     | 46.1 | 55.2 | 33.3     | 41.9 | 50.5 | 29.4     | 37.5 | 45.5 |      |
| 67          |             |             | THC  | 57.2                     | 57.2 | 60.1 | 52.6     | 52.6 | 57.3 | 47.9     | 47.9 | 54.6 | 43.0     | 43.0 | 51.7 | 37.9     | 37.9 | 48.6 |      |
|             |             |             | SHC  | 36.4                     | 48.3 | 60.1 | 33.6     | 45.5 | 57.3 | 30.9     | 42.7 | 54.6 | 28.1     | 39.9 | 51.7 | 25.2     | 36.9 | 48.6 |      |
| 72          |             | THC         | 63.9 | 63.9                     | 63.9 | 59.0 | 59.0     | 59.0 | 53.9 | 53.9     | 53.9 | 48.7 | 48.7     | 48.7 | 43.1 | 43.1     | 43.1 |      |      |
|             |             | SHC         | 25.4 | 37.3                     | 49.3 | 22.7 | 34.6     | 46.6 | 20.0 | 31.9     | 43.9 | 17.3 | 29.2     | 41.0 | 14.4 | 26.3     | 38.2 |      |      |
| 76          |             | THC         | —    | 69.7                     | 69.7 | —    | 64.5     | 64.5 | —    | 59.2     | 59.2 | —    | 53.7     | 53.7 | —    | 48.0     | 48.0 |      |      |
|             |             | SHC         | —    | 28.5                     | 40.5 | —    | 25.8     | 37.8 | —    | 23.1     | 35.1 | —    | 20.4     | 32.3 | —    | 17.6     | 29.4 |      |      |
| 2500<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 55.9 | 55.9 | 63.6     | 51.9 | 51.9 | 59.2     | 47.7 | 47.7 | 54.7     | 43.4 | 43.4 | 50.0     | 38.8 | 38.8 | 45.0 |
|             |             |             |      | SHC                      | 48.3 | 55.9 | 63.6     | 44.6 | 51.9 | 59.2     | 40.8 | 47.7 | 54.7     | 36.9 | 43.4 | 50.0     | 32.7 | 38.8 | 45.0 |
|             | 62          |             | THC  | 56.0                     | 56.0 | 66.2 | 52.0     | 52.0 | 61.7 | 47.8     | 47.8 | 57.0 | 43.5     | 43.5 | 52.3 | 38.9     | 38.9 | 47.2 |      |
|             |             |             | SHC  | 45.7                     | 56.0 | 66.2 | 42.2     | 52.0 | 61.7 | 38.5     | 47.8 | 57.0 | 34.7     | 43.5 | 52.3 | 30.6     | 38.9 | 47.2 |      |
|             | 67          |             | THC  | 58.1                     | 58.1 | 64.7 | 53.4     | 53.4 | 61.9 | 48.7     | 48.7 | 58.9 | 44.0     | 44.0 | 55.2 | 39.1     | 39.1 | 50.9 |      |
|             |             |             | SHC  | 38.5                     | 51.6 | 64.7 | 35.8     | 48.8 | 61.9 | 33.0     | 45.9 | 58.9 | 29.8     | 42.5 | 55.2 | 26.4     | 38.7 | 50.9 |      |
|             | 72          | THC         | 64.7 | 64.7                     | 64.7 | 59.7 | 59.7     | 59.7 | 54.5 | 54.5     | 54.5 | 49.1 | 49.1     | 49.1 | 43.6 | 43.6     | 43.6 |      |      |
|             |             | SHC         | 26.3 | 39.5                     | 52.7 | 23.6 | 36.9     | 50.0 | 20.9 | 34.0     | 47.3 | 18.0 | 31.3     | 44.5 | 15.2 | 28.4     | 41.5 |      |      |
|             | 76          | THC         | —    | 70.6                     | 70.6 | —    | 65.3     | 65.3 | —    | 60.0     | 60.0 | —    | 54.3     | 54.3 | —    | 48.5     | 48.5 |      |      |
|             |             | SHC         | —    | 29.6                     | 42.9 | —    | 27.0     | 40.3 | —    | 24.2     | 37.4 | —    | 21.5     | 34.6 | —    | 18.6     | 31.8 |      |      |

**LEGEND**

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*08 COOLING CAPACITIES — THIRD STAGE, FULL LOAD

| 50LC**08    |             |             |       | AMBIENT TEMPERATURE (°F) |       |       |          |       |      |          |       |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|-------|--------------------------|-------|-------|----------|-------|------|----------|-------|------|----------|------|------|----------|------|------|------|
|             |             |             |       | 85                       |       |       | 95       |       |      | 105      |       |      | 115      |      |      | 125      |      |      |      |
|             |             |             |       | EAT (db)                 |       |       | EAT (db) |       |      | EAT (db) |       |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |       | 75                       | 80    | 85    | 75       | 80    | 85   | 75       | 80    | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 2250<br>cfm | EAT<br>(wb) | 58          | THC   | 77.4                     | 77.4  | 88.3  | 72.3     | 72.3  | 82.9 | 67.0     | 67.0  | 77.1 | 61.4     | 61.4 | 71.0 | 55.6     | 55.6 | 64.6 |      |
|             |             |             | SHC   | 66.5                     | 77.4  | 88.3  | 61.8     | 72.3  | 82.9 | 56.9     | 67.0  | 77.1 | 51.9     | 61.4 | 71.0 | 46.5     | 55.6 | 64.6 |      |
|             | 62          | THC         | 82.3  | 82.3                     | 83.8  | 76.1  | 76.1     | 79.8  | 69.6 | 69.6     | 75.7  | 63.0 | 63.0     | 71.5 | 56.1 | 56.1     | 67.1 |      |      |
|             |             | SHC         | 59.8  | 71.8                     | 83.8  | 55.8  | 67.8     | 79.8  | 51.7 | 63.7     | 75.7  | 47.6 | 59.5     | 71.5 | 43.2 | 55.2     | 67.1 |      |      |
|             | 67          | THC         | 92.3  | 92.3                     | 92.3  | 85.7  | 85.7     | 85.7  | 78.8 | 78.8     | 78.8  | 71.5 | 71.5     | 71.5 | 64.0 | 64.0     | 64.0 |      |      |
|             |             | SHC         | 49.2  | 61.2                     | 73.2  | 45.2  | 57.2     | 69.2  | 41.1 | 53.1     | 65.1  | 37.0 | 49.0     | 61.0 | 32.8 | 44.8     | 56.7 |      |      |
|             | 72          | THC         | 103.3 | 103.3                    | 103.3 | 96.1  | 96.1     | 96.1  | 88.7 | 88.7     | 88.7  | 81.0 | 81.0     | 81.0 | 72.9 | 72.9     | 72.9 |      |      |
|             |             | SHC         | 38.4  | 50.5                     | 62.5  | 34.4  | 46.5     | 58.6  | 30.4 | 42.4     | 54.5  | 26.2 | 38.3     | 50.4 | 22.0 | 34.0     | 46.1 |      |      |
|             | 76          | THC         | —     | 112.4                    | 112.4 | —     | 104.9    | 104.9 | —    | 97.1     | 97.1  | —    | 89.0     | 89.0 | —    | 80.4     | 80.4 |      |      |
|             |             | SHC         | —     | 41.6                     | 53.6  | —     | 37.6     | 49.7  | —    | 33.6     | 45.6  | —    | 29.4     | 41.5 | —    | 25.3     | 37.3 |      |      |
|             | 2650<br>cfm | EAT<br>(wb) | 58    | THC                      | 83.5  | 83.5  | 95.1     | 78.0  | 78.0 | 89.1     | 72.2  | 72.2 | 83.0     | 66.3 | 66.3 | 76.4     | 60.1 | 60.1 | 69.6 |
|             |             |             |       | SHC                      | 71.9  | 83.5  | 95.1     | 66.9  | 78.0 | 89.1     | 61.6  | 72.2 | 83.0     | 56.2 | 66.3 | 76.4     | 50.5 | 60.1 | 69.6 |
| 62          |             | THC         | 85.9  | 85.9                     | 94.1  | 79.5  | 79.5     | 89.9  | 72.8 | 72.8     | 85.6  | 66.4 | 66.4     | 80.0 | 60.2 | 60.2     | 72.9 |      |      |
|             |             | SHC         | 66.0  | 80.0                     | 94.1  | 61.9  | 76.0     | 89.9  | 57.7 | 71.7     | 85.6  | 52.8 | 66.4     | 80.0 | 47.4 | 60.2     | 72.9 |      |      |
| 67          |             | THC         | 95.8  | 95.8                     | 95.8  | 88.8  | 88.8     | 88.8  | 81.6 | 81.6     | 81.6  | 74.0 | 74.0     | 74.0 | 66.2 | 66.2     | 66.2 |      |      |
|             |             | SHC         | 53.3  | 67.5                     | 81.6  | 49.2  | 63.4     | 77.5  | 45.1 | 59.2     | 73.3  | 40.9 | 55.0     | 69.0 | 36.6 | 50.6     | 64.6 |      |      |
| 72          |             | THC         | 106.9 | 106.9                    | 106.9 | 99.4  | 99.4     | 99.4  | 91.7 | 91.7     | 91.7  | 83.6 | 83.6     | 83.6 | 75.1 | 75.1     | 75.1 |      |      |
|             |             | SHC         | 40.5  | 54.6                     | 68.8  | 36.4  | 50.5     | 64.7  | 32.3 | 46.4     | 60.5  | 28.0 | 42.2     | 56.4 | 23.7 | 37.8     | 52.0 |      |      |
| 76          |             | THC         | —     | 116.1                    | 116.1 | —     | 108.2    | 108.2 | —    | 100.0    | 100.0 | —    | 91.6     | 91.6 | —    | 82.7     | 82.7 |      |      |
|             |             | SHC         | —     | 44.1                     | 58.2  | —     | 40.0     | 54.2  | —    | 35.9     | 50.1  | —    | 31.7     | 45.9 | —    | 27.4     | 41.6 |      |      |
| 3000<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 87.9  | 87.9  | 100.0    | 82.1  | 82.1 | 93.8     | 76.1  | 76.1 | 87.3     | 69.8 | 69.8 | 80.3     | 63.3 | 63.3 | 73.2 |
|             |             |             |       | SHC                      | 75.8  | 87.9  | 100.0    | 70.5  | 82.1 | 93.8     | 65.0  | 76.1 | 87.3     | 59.3 | 69.8 | 80.3     | 53.3 | 63.3 | 73.2 |
|             | 62          | THC         | 88.6  | 88.6                     | 102.6 | 82.3  | 82.3     | 97.7  | 76.2 | 76.2     | 91.1  | 70.0 | 70.0     | 84.0 | 63.4 | 63.4     | 76.6 |      |      |
|             |             | SHC         | 71.2  | 86.9                     | 102.6 | 66.7  | 82.2     | 97.7  | 61.4 | 76.2     | 91.1  | 55.9 | 70.0     | 84.0 | 50.1 | 63.4     | 76.6 |      |      |
|             | 67          | THC         | 98.2  | 98.2                     | 98.2  | 91.0  | 91.0     | 91.0  | 83.5 | 83.5     | 83.5  | 75.8 | 75.8     | 75.8 | 67.7 | 67.7     | 71.4 |      |      |
|             |             | SHC         | 56.7  | 72.6                     | 88.5  | 52.7  | 68.5     | 84.4  | 48.4 | 64.3     | 80.1  | 44.1 | 60.0     | 75.9 | 39.7 | 55.5     | 71.4 |      |      |
|             | 72          | THC         | 109.2 | 109.2                    | 109.2 | 101.6 | 101.6    | 101.6 | 93.6 | 93.6     | 93.6  | 85.2 | 85.2     | 85.2 | 76.5 | 76.5     | 76.5 |      |      |
|             |             | SHC         | 42.0  | 58.0                     | 74.0  | 37.9  | 53.9     | 69.8  | 33.7 | 49.6     | 65.6  | 29.4 | 45.3     | 61.3 | 25.1 | 41.0     | 56.9 |      |      |
|             | 76          | THC         | —     | 118.5                    | 118.5 | —     | 110.4    | 110.4 | —    | 102.0    | 102.0 | —    | 93.2     | 93.2 | —    | 84.0     | 84.0 |      |      |
|             |             | SHC         | —     | 45.9                     | 62.0  | —     | 41.9     | 58.0  | —    | 37.7     | 53.7  | —    | 33.4     | 49.4 | —    | 29.1     | 45.0 |      |      |
|             | 3400<br>cfm | EAT<br>(wb) | 58    | THC                      | 92.2  | 92.2  | 104.8    | 86.2  | 86.2 | 98.2     | 79.9  | 79.9 | 91.4     | 73.3 | 73.3 | 84.1     | 66.4 | 66.4 | 76.6 |
|             |             |             |       | SHC                      | 79.7  | 92.2  | 104.8    | 74.1  | 86.2 | 98.2     | 68.3  | 79.9 | 91.4     | 62.4 | 73.3 | 84.1     | 56.1 | 66.4 | 76.6 |
| 62          |             | THC         | 92.3  | 92.3                     | 109.2 | 86.3  | 86.3     | 102.4 | 80.0 | 80.0     | 95.4  | 73.4 | 73.4     | 87.9 | 66.5 | 66.5     | 80.1 |      |      |
|             |             | SHC         | 75.6  | 92.3                     | 109.2 | 70.2  | 86.3     | 102.4 | 64.5 | 80.0     | 95.4  | 58.8 | 73.4     | 87.9 | 52.7 | 66.5     | 80.1 |      |      |
| 67          |             | THC         | 100.3 | 100.3                    | 100.3 | 92.9  | 92.9     | 92.9  | 85.2 | 85.2     | 87.8  | 77.3 | 77.3     | 83.4 | 69.1 | 69.1     | 78.7 |      |      |
|             |             | SHC         | 60.5  | 78.4                     | 96.2  | 56.3  | 74.2     | 92.0  | 52.0 | 69.8     | 87.8  | 47.6 | 65.4     | 83.4 | 43.1 | 60.9     | 78.7 |      |      |
| 72          |             | THC         | 111.3 | 111.3                    | 111.3 | 103.4 | 103.4    | 103.4 | 95.3 | 95.3     | 95.3  | 86.7 | 86.7     | 86.7 | 77.8 | 77.8     | 77.8 |      |      |
|             |             | SHC         | 43.7  | 61.6                     | 79.7  | 39.5  | 57.5     | 75.5  | 35.3 | 53.2     | 71.2  | 30.9 | 48.8     | 66.8 | 26.5 | 44.5     | 62.3 |      |      |
| 76          |             | THC         | —     | 120.6                    | 120.6 | —     | 112.3    | 112.3 | —    | 103.6    | 103.6 | —    | 94.7     | 94.7 | —    | 85.2     | 85.2 |      |      |
|             |             | SHC         | —     | 48.0                     | 66.1  | —     | 43.9     | 61.9  | —    | 39.6     | 57.6  | —    | 35.3     | 53.2 | —    | 30.8     | 48.7 |      |      |
| 3750<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 95.5  | 95.5  | 108.4    | 89.2  | 89.2 | 101.6    | 82.7  | 82.7 | 94.5     | 75.9 | 75.9 | 87.0     | 68.6 | 68.6 | 79.2 |
|             |             |             |       | SHC                      | 82.5  | 95.5  | 108.4    | 76.7  | 89.2 | 101.6    | 70.8  | 82.7 | 94.5     | 64.6 | 75.9 | 87.0     | 58.1 | 68.6 | 79.2 |
|             | 62          | THC         | 95.6  | 95.6                     | 112.9 | 89.3  | 89.3     | 105.9 | 82.8 | 82.8     | 98.6  | 76.0 | 76.0     | 90.9 | 68.7 | 68.7     | 82.9 |      |      |
|             |             | SHC         | 78.3  | 95.6                     | 112.9 | 72.7  | 89.3     | 105.9 | 67.0 | 82.8     | 98.6  | 60.9 | 76.0     | 90.9 | 54.7 | 68.7     | 82.9 |      |      |
|             | 67          | THC         | 101.9 | 101.9                    | 102.9 | 94.4  | 94.4     | 98.6  | 86.6 | 86.6     | 94.2  | 78.5 | 78.5     | 89.6 | 70.2 | 70.2     | 84.9 |      |      |
|             |             | SHC         | 63.5  | 83.2                     | 102.9 | 59.3  | 78.9     | 98.6  | 55.0 | 74.6     | 94.2  | 50.5 | 70.1     | 89.6 | 46.0 | 65.4     | 84.9 |      |      |
|             | 72          | THC         | 112.8 | 112.8                    | 112.8 | 104.8 | 104.8    | 104.8 | 96.4 | 96.4     | 96.4  | 87.8 | 87.8     | 87.8 | 78.7 | 78.7     | 78.7 |      |      |
|             |             | SHC         | 44.9  | 64.7                     | 84.4  | 40.8  | 60.5     | 80.2  | 36.6 | 56.2     | 75.9  | 32.2 | 51.8     | 71.5 | 27.7 | 47.3     | 67.0 |      |      |
|             | 76          | THC         | —     | 122.1                    | 122.1 | —     | 113.6    | 113.6 | —    | 104.7    | 104.7 | —    | 95.6     | 95.6 | —    | 86.0     | 86.0 |      |      |
|             |             | SHC         | —     | 49.6                     | 69.4  | —     | 45.4     | 65.2  | —    | 41.1     | 60.8  | —    | 36.8     | 56.4 | —    | 32.2     | 51.6 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross



## 50LC\*A08 REHEAT MODE NO. 1 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-1<br>(SUBCOOLER MODE) |     | AIR ENTERING EVAPORATOR — SCFM/BF (80°F db) |      |      |           |       |      |           |       |      |
|------------------------------|-----|---|------|------|-----------|-------|------|-----------|-------|------|
|                              |     | 2250/0.01                                   |      |      | 3000/0.02 |       |      | 3750/0.05 |       |      |
| OUTDOOR AIR<br>TEMP (°F)     |     | AIR ENTERING EVAPORATOR — Ewb (°F)          |      |      |           |       |      |           |       |      |
|                              |     | 72  | 67   | 62   | 72        | 67    | 62   | 72        | 67    | 62   |
| 75                           | TC  | 109.0                                       | 97.0 | 86.0 | 113.0     | 101.0 | 93.0 | 116.0     | 108.0 | 99.0 |
|                              | SHC | 48.0  | 58.0 | 69.0 | 53.0      | 68.0  | 84.0 | 60.0      | 81.0  | 96.0 |
|                              | kW  | 4.5   | 4.5  | 4.5  | 5.3       | 5.1   | 4.5  | 5.3       | 4.6   | 4.5  |
| 85                           | TC  | 101.0                                       | 89.0 | 79.0 | 108.0     | 95.0  | 85.0 | 109.0     | 100.0 | 91.0 |
|                              | SHC | 41.0  | 52.0 | 62.0 | 48.0      | 62.0  | 77.0 | 53.0      | 73.0  | 88.0 |
|                              | kW  | 5.2   | 5.1  | 5.1  | 5.2       | 5.1   | 5.1  | 5.1       | 5.1   | 5.1  |
| 95                           | TC  | 93.0  | 82.0 | 72.0 | 99.0      | 87.0  | 77.0 | 102.0     | 91.0  | 82.0 |
|                              | SHC | 34.0  | 45.0 | 56.0 | 41.0      | 56.0  | 70.0 | 47.0      | 65.0  | 82.0 |
|                              | kW  | 5.8   | 5.8  | 5.8  | 5.8       | 5.8   | 5.8  | 5.8       | 5.8   | 5.8  |
| 105                          | TC  | 84.0  | 74.0 | 64.0 | 90.0      | 79.0  | 69.0 | 93.0      | 82.0  | 75.0 |
|                              | SHC | 27.0  | 38.0 | 49.0 | 33.0      | 48.0  | 63.0 | 39.0      | 58.0  | 72.0 |
|                              | kW  | 6.6   | 6.6  | 6.5  | 6.6       | 6.6   | 6.5  | 6.6       | 6.6   | 6.5  |
| 115                          | TC  | 76.0  | 66.0 | 56.0 | 80.0      | 70.0  | 61.0 | 83.0      | 73.0  | 66.0 |
|                              | SHC | 19.0  | 31.0 | 42.0 | 25.0      | 40.0  | 56.0 | 31.0      | 50.0  | 64.0 |
|                              | kW  | 7.5   | 7.4  | 7.4  | 7.5       | 7.4   | 7.4  | 7.5       | 7.4   | 7.4  |
| 125                          | TC  | 67.0  | 57.0 | 48.0 | 71.0      | 61.0  | 53.0 | 73.0      | 63.0  | 57.0 |
|                              | SHC | 11.0  | 23.0 | 35.0 | 17.0      | 32.0  | 48.0 | 22.0      | 41.0  | 57.0 |
|                              | kW  | 8.5   | 8.5  | 8.4  | 8.5       | 8.5   | 8.4  | 8.5       | 8.5   | 8.4  |

## 50LC\*A08 REHEAT MODE NO. 2 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-2 (HOT GAS<br>REHEAT MODEL) |     | AIR ENTERING EVAPORATOR — SCFM/BF (80°F db) |      |      |           |      |      |           |      |      |
|------------------------------------|-----|---|------|------|-----------|------|------|-----------|------|------|
|                                    |     | 2250/0.01                                   |      |      | 3000/0.02 |      |      | 3750/0.05 |      |      |
| OUTDOOR AIR<br>TEMP (°F)           |     | AIR ENTERING EVAPORATOR — Ewb (°F)          |      |      |           |      |      |           |      |      |
|                                    |     | 62.5  | 64   | 65.3 | 62.5      | 64   | 65.3 | 62.5      | 64   | 65.3 |
| 80                                 | TC  | 31.0  | 33.0 | 35.0 | 33.0      | 34.0 | 36.0 | 33.0      | 35.0 | 36.0 |
|                                    | SHC | 3.0   | -1.0 | -5.0 | 10.0      | 4.0  | -1.0 | 16.0      | 10.0 | 4.0  |
|                                    | kW  | 6.8   | 6.8  | 6.9  | 6.8       | 6.8  | 6.9  | 6.8       | 6.8  | 6.9  |
| 75                                 | TC  | 35.0  | 36.0 | 38.0 | 36.0      | 38.0 | 39.0 | 37.0      | 39.0 | 40.0 |
|                                    | SHC | 6.0   | 2.0  | -2.0 | 13.0      | 7.0  | 2.0  | 20.0      | 13.0 | 7.0  |
|                                    | kW  | 6.4   | 6.5  | 6.5  | 6.4       | 6.5  | 6.5  | 6.5       | 6.5  | 6.6  |
| 70                                 | TC  | 38.0  | 40.0 | 41.0 | 40.0      | 41.0 | 43.0 | 40.0      | 42.0 | 44.0 |
|                                    | SHC | 10.0  | 5.0  | 2.0  | 16.0      | 11.0 | 6.0  | 23.0      | 16.0 | 11.0 |
|                                    | kW  | 6.1   | 6.1  | 6.2  | 6.1       | 6.2  | 6.2  | 6.1       | 6.2  | 6.2  |
| 60                                 | TC  | 44.0  | 46.0 | 48.0 | 46.0      | 48.0 | 50.0 | 47.0      | 49.0 | 51.0 |
|                                    | SHC | 16.0  | 12.0 | 8.0  | 22.0      | 17.0 | 12.0 | 30.0      | 23.0 | 18.0 |
|                                    | kW  | 5.5   | 5.6  | 5.6  | 5.5       | 5.6  | 5.6  | 5.6       | 5.6  | 5.7  |
| 50                                 | TC  | 51.0  | 53.0 | 54.0 | 53.0      | 55.0 | 57.0 | 54.0      | 56.0 | 58.0 |
|                                    | SHC | 22.0  | 18.0 | 15.0 | 29.0      | 24.0 | 19.0 | 37.0      | 30.0 | 25.0 |
|                                    | kW  | 5.0   | 5.0  | 5.1  | 5.0       | 5.1  | 5.1  | 5.1       | 5.1  | 5.2  |
| 40                                 | TC  | 57.0  | 59.0 | 61.0 | 60.0      | 62.0 | 64.0 | 61.0      | 63.0 | 65.0 |
|                                    | SHC | 29.0  | 25.0 | 22.0 | 36.0      | 31.0 | 27.0 | 44.0      | 38.0 | 32.0 |
|                                    | kW  | 4.6   | 4.6  | 4.7  | 4.6       | 4.7  | 4.7  | 4.6       | 4.7  | 4.7  |

### LEGEND

**kW** — Compressor Power Input  
**SHC** — Sensible Capacity (1000 Btuh) Gross  
**TC** — Total Capacity (1000 Btuh) Gross

## 50LC\*\*09 COOLING CAPACITIES — FIRST STAGE, PART LOAD

| 50LC**09    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1700<br>cfm | EAT<br>(wb) | 58          | THC  | 45.6                     | 45.6 | 51.5 | 43.5     | 43.5 | 49.1 | 41.2     | 41.2 | 46.6 | 38.8     | 38.8 | 43.9 | 36.3     | 36.3 | 41.0 |      |
|             |             |             | SHC  | 39.7                     | 45.6 | 51.5 | 37.8     | 43.5 | 49.1 | 35.8     | 41.2 | 46.6 | 33.6     | 38.8 | 43.9 | 31.4     | 36.3 | 41.0 |      |
|             |             | 62          | THC  | 45.6                     | 45.6 | 53.5 | 43.5     | 43.5 | 51.1 | 41.2     | 41.2 | 48.5 | 38.8     | 38.8 | 45.7 | 36.3     | 36.3 | 42.7 |      |
|             |             |             | SHC  | 37.7                     | 45.6 | 53.5 | 36.0     | 43.5 | 51.1 | 34.0     | 41.2 | 48.5 | 32.0     | 38.8 | 45.7 | 29.8     | 36.3 | 42.7 |      |
|             |             | 67          | THC  | 48.8                     | 48.8 | 48.8 | 46.0     | 46.0 | 47.6 | 43.2     | 43.2 | 46.3 | 40.2     | 40.2 | 44.9 | 37.1     | 37.1 | 43.4 |      |
|             |             |             | SHC  | 31.0                     | 39.9 | 48.8 | 29.7     | 38.6 | 47.6 | 28.5     | 37.3 | 46.3 | 27.1     | 36.0 | 44.9 | 25.7     | 34.5 | 43.4 |      |
|             | 72          | THC         | 53.7 | 53.7                     | 53.7 | 50.8 | 50.8     | 50.8 | 47.8 | 47.8     | 47.8 | 44.5 | 44.5     | 44.5 | 41.0 | 41.0     | 41.0 |      |      |
|             |             | SHC         | 22.3 | 31.3                     | 40.3 | 21.1 | 30.1     | 39.1 | 19.8 | 28.9     | 37.8 | 18.5 | 27.5     | 36.5 | 17.2 | 26.1     | 35.1 |      |      |
|             | 76          | THC         | —    | 58.1                     | 58.1 | —    | 55.0     | 55.0 | —    | 51.8     | 51.8 | —    | 48.3     | 48.3 | —    | 44.7     | 44.7 |      |      |
|             |             | SHC         | —    | 24.3                     | 33.3 | —    | 23.1     | 32.2 | —    | 21.8     | 30.9 | —    | 20.6     | 29.5 | —    | 19.2     | 28.3 |      |      |
|             | 2000<br>cfm | EAT<br>(wb) | 58   | THC                      | 47.9 | 47.9 | 54.0     | 45.5 | 45.5 | 51.5     | 43.2 | 43.2 | 48.8     | 40.6 | 40.6 | 45.9     | 37.8 | 37.8 | 42.9 |
|             |             |             |      | SHC                      | 41.6 | 47.9 | 54.0     | 39.7 | 45.5 | 51.5     | 37.5 | 43.2 | 48.8     | 35.2 | 40.6 | 45.9     | 32.9 | 37.8 | 42.9 |
| 62          |             |             | THC  | 47.9                     | 47.9 | 56.2 | 45.6     | 45.6 | 53.5 | 43.2     | 43.2 | 50.7 | 40.7     | 40.7 | 47.8 | 37.9     | 37.9 | 44.7 |      |
|             |             |             | SHC  | 39.7                     | 47.9 | 56.2 | 37.7     | 45.6 | 53.5 | 35.7     | 43.2 | 50.7 | 33.4     | 40.7 | 47.8 | 31.2     | 37.9 | 44.7 |      |
| 67          |             |             | THC  | 49.7                     | 49.7 | 54.2 | 47.0     | 47.0 | 52.8 | 44.1     | 44.1 | 51.5 | 41.0     | 41.0 | 49.9 | 38.0     | 38.0 | 47.9 |      |
|             |             |             | SHC  | 33.4                     | 43.8 | 54.2 | 32.2     | 42.5 | 52.8 | 30.8     | 41.1 | 51.5 | 29.4     | 39.7 | 49.9 | 27.8     | 37.8 | 47.9 |      |
| 72          |             | THC         | 54.7 | 54.7                     | 54.7 | 51.8 | 51.8     | 51.8 | 48.6 | 48.6     | 48.6 | 45.2 | 45.2     | 45.2 | 41.7 | 41.7     | 41.7 |      |      |
|             |             | SHC         | 23.3 | 33.8                     | 44.3 | 22.1 | 32.6     | 43.1 | 20.9 | 31.3     | 41.7 | 19.5 | 29.9     | 40.5 | 18.1 | 28.6     | 39.1 |      |      |
| 76          |             | THC         | —    | 59.1                     | 59.1 | —    | 56.0     | 56.0 | —    | 52.6     | 52.6 | —    | 49.0     | 49.0 | —    | 45.3     | 45.3 |      |      |
|             |             | SHC         | —    | 25.5                     | 36.2 | —    | 24.4     | 34.9 | —    | 23.1     | 33.6 | —    | 21.8     | 32.4 | —    | 20.5     | 30.9 |      |      |
| 2250<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 49.3 | 49.3 | 55.8     | 47.0 | 47.0 | 53.1     | 44.5 | 44.5 | 50.3     | 41.8 | 41.8 | 47.3     | 39.0 | 39.0 | 44.2 |
|             |             |             |      | SHC                      | 43.0 | 49.3 | 55.8     | 41.0 | 47.0 | 53.1     | 38.7 | 44.5 | 50.3     | 36.3 | 41.8 | 47.3     | 33.8 | 39.0 | 44.2 |
|             | 62          |             | THC  | 49.4                     | 49.4 | 57.9 | 47.1     | 47.1 | 55.2 | 44.6     | 44.6 | 52.3 | 41.8     | 41.8 | 49.1 | 39.0     | 39.0 | 45.9 |      |
|             |             |             | SHC  | 41.0                     | 49.4 | 57.9 | 38.9     | 47.1 | 55.2 | 36.8     | 44.6 | 52.3 | 34.5     | 41.8 | 49.1 | 32.1     | 39.0 | 45.9 |      |
|             | 67          |             | THC  | 50.5                     | 50.5 | 58.4 | 47.7     | 47.7 | 56.9 | 44.8     | 44.8 | 55.3 | 41.9     | 41.9 | 52.7 | 39.0     | 39.0 | 49.4 |      |
|             |             |             | SHC  | 35.3                     | 46.9 | 58.4 | 34.0     | 45.4 | 56.9 | 32.6     | 43.9 | 55.3 | 30.8     | 41.8 | 52.7 | 28.7     | 39.0 | 49.4 |      |
|             | 72          | THC         | 55.4 | 55.4                     | 55.4 | 52.3 | 52.3     | 52.3 | 49.0 | 49.0     | 49.0 | 45.6 | 45.6     | 45.6 | 42.1 | 42.1     | 42.2 |      |      |
|             |             | SHC         | 24.1 | 35.8                     | 47.5 | 22.9 | 34.6     | 46.2 | 21.6 | 33.2     | 44.9 | 20.3 | 32.0     | 43.6 | 18.9 | 30.5     | 42.2 |      |      |
|             | 76          | THC         | —    | 59.8                     | 59.8 | —    | 56.6     | 56.6 | —    | 53.1     | 53.1 | —    | 49.4     | 49.4 | —    | 45.7     | 45.7 |      |      |
|             |             | SHC         | —    | 26.6                     | 38.4 | —    | 25.4     | 37.1 | —    | 24.2     | 35.9 | —    | 22.8     | 34.5 | —    | 21.5     | 33.2 |      |      |
|             | 2550<br>cfm | EAT<br>(wb) | 58   | THC                      | 50.9 | 50.9 | 57.4     | 48.5 | 48.5 | 54.7     | 45.8 | 45.8 | 51.8     | 43.0 | 43.0 | 48.7     | 40.1 | 40.1 | 45.3 |
|             |             |             |      | SHC                      | 44.4 | 50.9 | 57.4     | 42.2 | 48.5 | 54.7     | 39.9 | 45.8 | 51.8     | 37.3 | 43.0 | 48.7     | 34.7 | 40.1 | 45.3 |
| 62          |             |             | THC  | 51.0                     | 51.0 | 59.7 | 48.5     | 48.5 | 56.8 | 45.8     | 45.8 | 53.8 | 43.0     | 43.0 | 50.6 | 40.1     | 40.1 | 47.2 |      |
|             |             |             | SHC  | 42.2                     | 51.0 | 59.7 | 40.1     | 48.5 | 56.8 | 37.8     | 45.8 | 53.8 | 35.5     | 43.0 | 50.6 | 33.0     | 40.1 | 47.2 |      |
| 67          |             |             | THC  | 51.3                     | 51.3 | 62.9 | 48.6     | 48.6 | 60.8 | 45.9     | 45.9 | 57.4 | 43.1     | 43.1 | 54.4 | 40.1     | 40.1 | 50.7 |      |
|             |             |             | SHC  | 37.4                     | 50.1 | 62.9 | 35.9     | 48.4 | 60.8 | 33.8     | 45.6 | 57.4 | 31.8     | 43.1 | 54.4 | 29.5     | 40.1 | 50.7 |      |
| 72          |             | THC         | 55.9 | 55.9                     | 55.9 | 52.8 | 52.8     | 52.8 | 49.5 | 49.5     | 49.5 | 46.0 | 46.0     | 47.3 | 42.4 | 42.4     | 45.8 |      |      |
|             |             | SHC         | 25.0 | 38.1                     | 51.2 | 23.8 | 36.9     | 49.9 | 22.5 | 35.6     | 48.7 | 21.2 | 34.2     | 47.3 | 19.8 | 32.8     | 45.8 |      |      |
| 76          |             | THC         | —    | 60.4                     | 60.4 | —    | 57.0     | 57.0 | —    | 53.6     | 53.6 | —    | 49.9     | 49.9 | —    | 46.0     | 46.0 |      |      |
|             |             | SHC         | —    | 27.8                     | 41.0 | —    | 26.6     | 39.7 | —    | 25.4     | 38.4 | —    | 24.0     | 37.1 | —    | 22.6     | 35.7 |      |      |
| 2800<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 52.0 | 52.0 | 58.7     | 49.4 | 49.4 | 55.9     | 46.7 | 46.7 | 52.8     | 43.9 | 43.9 | 49.6     | 40.9 | 40.9 | 46.2 |
|             |             |             |      | SHC                      | 45.3 | 52.0 | 58.7     | 43.1 | 49.4 | 55.9     | 40.7 | 46.7 | 52.8     | 38.1 | 43.9 | 49.6     | 35.4 | 40.9 | 46.2 |
|             | 62          |             | THC  | 52.1                     | 52.1 | 60.9 | 49.5     | 49.5 | 58.0 | 46.8     | 46.8 | 54.9 | 43.9     | 43.9 | 51.6 | 40.9     | 40.9 | 48.1 |      |
|             |             |             | SHC  | 43.1                     | 52.1 | 60.9 | 41.0     | 49.5 | 58.0 | 38.6     | 46.8 | 54.9 | 36.2     | 43.9 | 51.6 | 33.6     | 40.9 | 48.1 |      |
|             | 67          |             | THC  | 52.2                     | 52.2 | 65.1 | 49.6     | 49.6 | 61.9 | 46.8     | 46.8 | 59.0 | 44.0     | 44.0 | 55.5 | 40.9     | 40.9 | 51.7 |      |
|             |             |             | SHC  | 38.6                     | 51.9 | 65.1 | 36.6     | 49.2 | 61.9 | 34.6     | 46.8 | 59.0 | 32.5     | 44.0 | 55.5 | 30.1     | 40.9 | 51.7 |      |
|             | 72          | THC         | 56.3 | 56.3                     | 56.3 | 53.1 | 53.1     | 53.1 | 49.8 | 49.8     | 51.6 | 46.3 | 46.3     | 50.2 | 42.7 | 42.7     | 48.8 |      |      |
|             |             | SHC         | 25.7 | 40.0                     | 54.2 | 24.5 | 38.7     | 52.9 | 23.2 | 37.4     | 51.6 | 21.8 | 36.1     | 50.2 | 20.5 | 34.6     | 48.8 |      |      |
|             | 76          | THC         | —    | 60.7                     | 60.7 | —    | 57.4     | 57.4 | —    | 53.9     | 53.9 | —    | 50.2     | 50.2 | —    | 46.3     | 46.3 |      |      |
|             |             | SHC         | —    | 28.8                     | 43.1 | —    | 27.5     | 41.8 | —    | 26.2     | 40.5 | —    | 24.9     | 39.1 | —    | 23.5     | 37.7 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*09 COOLING CAPACITIES — SECOND STAGE, PART LOAD

| 50LC**09    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 1700<br>cfm | EAT<br>(wb) | 58          | THC  | 57.8                     | 57.8 | 65.3 | 55.3     | 55.3 | 62.6 | 52.7     | 52.7 | 59.7 | 49.8     | 49.8 | 56.5 | 46.7     | 46.7 | 53.0 |      |
|             |             |             | SHC  | 50.2                     | 57.8 | 65.3 | 48.0     | 55.3 | 62.6 | 45.6     | 52.7 | 59.7 | 43.1     | 49.8 | 56.5 | 40.4     | 46.7 | 53.0 |      |
|             | 62          | THC         | 59.7 | 59.7                     | 64.0 | 56.6 | 56.6     | 62.2 | 53.4 | 53.4     | 60.5 | 50.0 | 50.0     | 58.4 | 46.8 | 46.8     | 55.3 |      |      |
|             |             | SHC         | 46.0 | 55.0                     | 64.0 | 44.4 | 53.3     | 62.2 | 42.6 | 51.5     | 60.5 | 40.8 | 49.5     | 58.4 | 38.2 | 46.8     | 55.3 |      |      |
|             | 67          | THC         | 65.8 | 65.8                     | 65.8 | 62.5 | 62.5     | 62.5 | 59.0 | 59.0     | 59.0 | 55.2 | 55.2     | 55.2 | 51.2 | 51.2     | 51.2 |      |      |
|             |             | SHC         | 37.5 | 46.6                     | 55.6 | 36.0 | 44.9     | 53.9 | 34.2 | 43.2     | 52.3 | 32.5 | 41.4     | 50.4 | 30.5 | 39.5     | 48.6 |      |      |
|             | 72          | THC         | 72.6 | 72.6                     | 72.6 | 69.1 | 69.1     | 69.1 | 65.3 | 65.3     | 65.3 | 61.3 | 61.3     | 61.3 | 56.9 | 56.9     | 56.9 |      |      |
|             |             | SHC         | 29.0 | 37.9                     | 47.0 | 27.3 | 36.4     | 45.4 | 25.6 | 34.6     | 43.7 | 23.9 | 32.9     | 41.9 | 21.9 | 31.0     | 40.1 |      |      |
|             | 76          | THC         | —    | 78.6                     | 78.6 | —    | 74.9     | 74.9 | —    | 70.8     | 70.8 | —    | 66.5     | 66.5 | —    | 61.9     | 61.9 |      |      |
|             |             | SHC         | —    | 30.9                     | 40.0 | —    | 29.3     | 38.4 | —    | 27.6     | 36.8 | —    | 25.8     | 35.0 | —    | 24.1     | 33.2 |      |      |
|             | 2000<br>cfm | EAT<br>(wb) | 58   | THC                      | 61.2 | 61.2 | 69.2     | 58.6 | 58.6 | 66.3     | 55.8 | 55.8 | 63.1     | 52.7 | 52.7 | 59.8     | 49.3 | 49.3 | 56.1 |
|             |             |             |      | SHC                      | 53.3 | 61.2 | 69.2     | 50.9 | 58.6 | 66.3     | 48.4 | 55.8 | 63.1     | 45.6 | 52.7 | 59.8     | 42.7 | 49.3 | 56.1 |
| 62          |             | THC         | 61.8 | 61.8                     | 70.8 | 58.8 | 58.8     | 68.7 | 55.8 | 55.8     | 65.7 | 52.7 | 52.7     | 62.2 | 49.4 | 49.4     | 58.3 |      |      |
|             |             | SHC         | 50.1 | 60.5                     | 70.8 | 48.3 | 58.5     | 68.7 | 45.9 | 55.8     | 65.7 | 43.3 | 52.7     | 62.2 | 40.5 | 49.4     | 58.3 |      |      |
| 67          |             | THC         | 67.7 | 67.7                     | 67.7 | 64.3 | 64.3     | 64.3 | 60.5 | 60.5     | 60.5 | 56.6 | 56.6     | 56.6 | 52.5 | 52.5     | 54.0 |      |      |
|             |             | SHC         | 40.3 | 50.8                     | 61.3 | 38.6 | 49.1     | 59.7 | 36.9 | 47.4     | 57.9 | 35.1 | 45.5     | 56.1 | 33.2 | 43.6     | 54.0 |      |      |
| 72          |             | THC         | 74.7 | 74.7                     | 74.7 | 71.0 | 71.0     | 71.0 | 67.0 | 67.0     | 67.0 | 62.8 | 62.8     | 62.8 | 58.2 | 58.2     | 58.2 |      |      |
|             |             | SHC         | 30.1 | 40.7                     | 51.3 | 28.5 | 39.0     | 49.6 | 26.7 | 37.3     | 47.9 | 25.0 | 35.5     | 46.0 | 23.1 | 33.6     | 44.2 |      |      |
| 76          |             | THC         | —    | 80.6                     | 80.6 | —    | 76.7     | 76.7 | —    | 72.5     | 72.5 | —    | 68.1     | 68.1 | —    | 63.2     | 63.2 |      |      |
|             |             | SHC         | —    | 32.5                     | 43.1 | —    | 30.8     | 41.4 | —    | 29.1     | 39.8 | —    | 27.3     | 37.9 | —    | 25.4     | 36.1 |      |      |
| 2250<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 63.7 | 63.7 | 72.0     | 60.8 | 60.8 | 68.8     | 57.9 | 57.9 | 65.5     | 54.7 | 54.7 | 62.0     | 51.2 | 51.2 | 58.1 |
|             |             |             |      | SHC                      | 55.5 | 63.7 | 72.0     | 52.9 | 60.8 | 68.8     | 50.2 | 57.9 | 65.5     | 47.4 | 54.7 | 62.0     | 44.3 | 51.2 | 58.1 |
|             | 62          | THC         | 63.8 | 63.8                     | 74.9 | 60.9 | 60.9     | 71.6 | 58.0 | 58.0     | 68.2 | 54.8 | 54.8     | 64.4 | 51.3 | 51.3     | 60.5 |      |      |
|             |             | SHC         | 52.7 | 63.8                     | 74.9 | 50.3 | 60.9     | 71.6 | 47.8 | 58.0     | 68.2 | 45.0 | 54.8     | 64.4 | 42.0 | 51.3     | 60.5 |      |      |
|             | 67          | THC         | 68.9 | 68.9                     | 68.9 | 65.3 | 65.3     | 65.3 | 61.6 | 61.6     | 62.4 | 57.6 | 57.6     | 60.5 | 53.3 | 53.3     | 58.5 |      |      |
|             |             | SHC         | 42.4 | 54.2                     | 65.9 | 40.8 | 52.5     | 64.3 | 39.0 | 50.7     | 62.4 | 37.1 | 48.8     | 60.5 | 35.2 | 46.8     | 58.5 |      |      |
|             | 72          | THC         | 76.0 | 76.0                     | 76.0 | 72.1 | 72.1     | 72.1 | 68.1 | 68.1     | 68.1 | 63.7 | 63.7     | 63.7 | 59.1 | 59.1     | 59.1 |      |      |
|             |             | SHC         | 31.0 | 42.8                     | 54.7 | 29.3 | 41.1     | 52.9 | 27.7 | 39.4     | 51.2 | 25.8 | 37.6     | 49.3 | 23.9 | 35.7     | 47.4 |      |      |
|             | 76          | THC         | —    | 82.0                     | 82.0 | —    | 77.9     | 77.9 | —    | 73.6     | 73.6 | —    | 69.0     | 69.0 | —    | 64.1     | 64.1 |      |      |
|             |             | SHC         | —    | 33.6                     | 45.5 | —    | 32.0     | 43.9 | —    | 30.2     | 42.1 | —    | 28.4     | 40.3 | —    | 26.5     | 38.3 |      |      |
|             | 2550<br>cfm | EAT<br>(wb) | 58   | THC                      | 66.2 | 66.2 | 74.8     | 63.2 | 63.2 | 71.5     | 60.1 | 60.1 | 68.0     | 56.7 | 56.7 | 64.3     | 53.0 | 53.0 | 60.2 |
|             |             |             |      | SHC                      | 57.6 | 66.2 | 74.8     | 55.0 | 63.2 | 71.5     | 52.2 | 60.1 | 68.0     | 49.1 | 56.7 | 64.3     | 45.9 | 53.0 | 60.2 |
| 62          |             | THC         | 66.3 | 66.3                     | 77.7 | 63.3 | 63.3     | 74.3 | 60.2 | 60.2     | 70.7 | 56.7 | 56.7     | 66.9 | 53.1 | 53.1     | 62.7 |      |      |
|             |             | SHC         | 54.8 | 66.3                     | 77.7 | 52.3 | 63.3     | 74.3 | 49.6 | 60.2     | 70.7 | 46.7 | 56.7     | 66.9 | 43.6 | 53.1     | 62.7 |      |      |
| 67          |             | THC         | 70.1 | 70.1                     | 71.2 | 66.5 | 66.5     | 69.5 | 62.6 | 62.6     | 67.7 | 58.6 | 58.6     | 65.6 | 54.2 | 54.2     | 63.5 |      |      |
|             |             | SHC         | 44.9 | 58.0                     | 71.2 | 43.2 | 56.4     | 69.5 | 41.3 | 54.5     | 67.7 | 39.5 | 52.6     | 65.6 | 37.4 | 50.5     | 63.5 |      |      |
| 72          |             | THC         | 77.1 | 77.1                     | 77.1 | 73.1 | 73.1     | 73.1 | 69.0 | 69.0     | 69.0 | 64.5 | 64.5     | 64.5 | 59.9 | 59.9     | 59.9 |      |      |
|             |             | SHC         | 32.1 | 45.3                     | 58.5 | 30.4 | 43.6     | 56.8 | 28.7 | 41.8     | 55.1 | 26.8 | 40.0     | 53.2 | 24.9 | 38.0     | 51.3 |      |      |
| 76          |             | THC         | —    | 83.3                     | 83.3 | —    | 79.1     | 79.1 | —    | 74.6     | 74.6 | —    | 69.9     | 69.9 | —    | 64.8     | 64.8 |      |      |
|             |             | SHC         | —    | 34.9                     | 48.3 | —    | 33.2     | 46.5 | —    | 31.5     | 44.8 | —    | 29.6     | 42.9 | —    | 27.8     | 41.0 |      |      |
| 2800<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 68.0 | 68.0 | 76.7     | 64.9 | 64.9 | 73.3     | 61.6 | 61.6 | 69.7     | 58.2 | 58.2 | 65.9     | 54.4 | 54.4 | 61.7 |
|             |             |             |      | SHC                      | 59.2 | 68.0 | 76.7     | 56.5 | 64.9 | 73.3     | 53.5 | 61.6 | 69.7     | 50.5 | 58.2 | 65.9     | 47.1 | 54.4 | 61.7 |
|             | 62          | THC         | 68.1 | 68.1                     | 79.8 | 64.9 | 64.9     | 76.2 | 61.7 | 61.7     | 72.5 | 58.2 | 58.2     | 68.5 | 54.4 | 54.4     | 64.2 |      |      |
|             |             | SHC         | 56.3 | 68.1                     | 79.8 | 53.6 | 64.9     | 76.2 | 50.9 | 61.7     | 72.5 | 48.0 | 58.2     | 68.5 | 44.8 | 54.4     | 64.2 |      |      |
|             | 67          | THC         | 71.0 | 71.0                     | 75.5 | 67.3 | 67.3     | 73.7 | 63.4 | 63.4     | 71.8 | 59.3 | 59.3     | 69.7 | 54.9 | 54.9     | 67.3 |      |      |
|             |             | SHC         | 46.9 | 61.1                     | 75.5 | 45.1 | 59.4     | 73.7 | 43.3 | 57.5     | 71.8 | 41.3 | 55.5     | 69.7 | 39.2 | 53.2     | 67.3 |      |      |
|             | 72          | THC         | 77.9 | 77.9                     | 77.9 | 73.9 | 73.9     | 73.9 | 69.7 | 69.7     | 69.7 | 65.1 | 65.1     | 65.1 | 60.4 | 60.4     | 60.4 |      |      |
|             |             | SHC         | 32.9 | 47.3                     | 61.7 | 31.2 | 45.5     | 60.0 | 29.4 | 43.8     | 58.2 | 27.6 | 41.9     | 56.3 | 25.6 | 40.0     | 54.3 |      |      |
|             | 76          | THC         | —    | 84.0                     | 84.0 | —    | 79.8     | 79.8 | —    | 75.3     | 75.3 | —    | 70.5     | 70.5 | —    | 65.3     | 65.3 |      |      |
|             |             | SHC         | —    | 36.0                     | 50.4 | —    | 34.2     | 48.8 | —    | 32.5     | 46.9 | —    | 30.6     | 45.0 | —    | 28.7     | 43.0 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*09 COOLING CAPACITIES — THIRD STAGE, FULL LOAD

| 50LC**09    |             |             |       | AMBIENT TEMPERATURE (°F) |       |       |          |       |       |          |       |       |          |       |       |          |      |      |      |
|-------------|-------------|-------------|-------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|------|------|------|
|             |             |             |       | 85                       |       |       | 95       |       |       | 105      |       |       | 115      |       |       | 125      |      |      |      |
|             |             |             |       | EAT (db)                 |       |       | EAT (db) |       |       | EAT (db) |       |       | EAT (db) |       |       | EAT (db) |      |      |      |
|             |             |             |       | 75                       | 80    | 85    | 75       | 80    | 85    | 75       | 80    | 85    | 75       | 80    | 85    | 75       | 80   | 85   |      |
| 2250<br>cfm | EAT<br>(wb) | 58          | THC   | 89.1                     | 89.1  | 101.2 | 84.4     | 84.4  | 96.1  | 79.5     | 79.5  | 90.7  | 74.2     | 74.2  | 84.9  | 68.6     | 68.6 | 78.9 |      |
|             |             |             | SHC   | 77.0                     | 89.1  | 101.2 | 72.8     | 84.4  | 96.1  | 68.3     | 79.5  | 90.7  | 63.6     | 74.2  | 84.9  | 58.5     | 68.6 | 78.9 |      |
|             |             | 62          | THC   | 93.6                     | 93.6  | 96.3  | 87.9     | 87.9  | 92.9  | 81.9     | 81.9  | 89.3  | 75.7     | 75.7  | 85.5  | 69.1     | 69.1 | 81.4 |      |
|             |             |             | SHC   | 69.4                     | 82.9  | 96.3  | 66.0     | 79.5  | 92.9  | 62.4     | 75.9  | 89.3  | 58.7     | 72.1  | 85.5  | 54.8     | 68.1 | 81.4 |      |
|             |             | 67          | THC   | 103.5                    | 103.5 | 103.5 | 97.5     | 97.5  | 97.5  | 91.1     | 91.1  | 91.1  | 84.3     | 84.3  | 84.3  | 77.1     | 77.1 | 77.1 |      |
|             |             |             | SHC   | 56.8                     | 70.4  | 83.9  | 53.4     | 67.0  | 80.5  | 49.9     | 63.5  | 76.9  | 46.3     | 59.8  | 73.3  | 42.5     | 56.0 | 69.5 |      |
|             | 72          | THC         | 114.6 | 114.6                    | 114.6 | 108.1 | 108.1    | 108.1 | 101.2 | 101.2    | 101.2 | 94.0  | 94.0     | 94.0  | 86.3  | 86.3     | 86.3 |      |      |
|             |             | SHC         | 44.1  | 57.7                     | 71.3  | 40.8  | 54.3     | 67.9  | 37.2  | 50.8     | 64.4  | 33.6  | 47.2     | 60.7  | 29.8  | 43.4     | 56.9 |      |      |
|             | 76          | THC         | —     | 124.0                    | 124.0 | —     | 117.2    | 117.2 | —     | 110.0    | 110.0 | —     | 102.3    | 102.3 | —     | 94.1     | 94.1 |      |      |
|             |             | SHC         | —     | 47.3                     | 60.9  | —     | 43.9     | 57.6  | —     | 40.5     | 54.1  | —     | 36.9     | 50.5  | —     | 33.2     | 46.8 |      |      |
|             | 3000<br>cfm | EAT<br>(wb) | 58    | THC                      | 95.2  | 95.2  | 107.9    | 90.1  | 90.1  | 102.4    | 84.8  | 84.8  | 96.6     | 79.2  | 79.2  | 90.5     | 73.2 | 73.2 | 83.9 |
|             |             |             |       | SHC                      | 82.4  | 95.2  | 107.9    | 77.8  | 90.1  | 102.4    | 72.9  | 84.8  | 96.6     | 67.9  | 79.2  | 90.5     | 62.5 | 73.2 | 83.9 |
| 62          |             |             | THC   | 97.1                     | 97.1  | 107.3 | 91.3     | 91.3  | 103.7 | 85.2     | 85.2  | 99.7  | 79.4     | 79.4  | 94.4  | 73.3     | 73.3 | 87.6 |      |
|             |             |             | SHC   | 76.0                     | 91.7  | 107.3 | 72.4     | 88.0  | 103.7 | 68.6     | 84.1  | 99.7  | 64.3     | 79.3  | 94.4  | 59.0     | 73.3 | 87.6 |      |
| 67          |             |             | THC   | 106.9                    | 106.9 | 106.9 | 100.5    | 100.5 | 100.5 | 93.8     | 93.8  | 93.8  | 86.8     | 86.8  | 86.8  | 79.4     | 79.4 | 79.4 |      |
|             |             |             | SHC   | 61.1                     | 76.9  | 92.7  | 57.7     | 73.5  | 89.3  | 54.1     | 69.8  | 85.6  | 50.3     | 66.1  | 81.9  | 46.5     | 62.2 | 78.0 |      |
| 72          |             | THC         | 118.0 | 118.0                    | 118.0 | 111.2 | 111.2    | 111.2 | 104.0 | 104.0    | 104.0 | 96.5  | 96.5     | 96.5  | 88.5  | 88.5     | 88.5 |      |      |
|             |             | SHC         | 46.1  | 61.9                     | 77.8  | 42.6  | 58.5     | 74.4  | 39.1  | 54.9     | 70.8  | 35.4  | 51.2     | 67.1  | 31.6  | 47.4     | 63.2 |      |      |
| 76          |             | THC         | —     | 127.5                    | 127.5 | —     | 120.3    | 120.3 | —     | 112.8    | 112.8 | —     | 104.7    | 104.7 | —     | 96.2     | 96.2 |      |      |
|             |             | SHC         | —     | 49.7                     | 65.8  | —     | 46.3     | 62.4  | —     | 42.8     | 58.8  | —     | 39.1     | 55.0  | —     | 35.2     | 51.1 |      |      |
| 3400<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 99.5  | 99.5  | 112.8    | 94.3  | 94.3  | 107.1    | 88.7  | 88.7  | 100.9    | 82.8  | 82.8  | 94.5     | 76.5 | 76.5 | 87.7 |
|             |             |             |       | SHC                      | 86.2  | 99.5  | 112.8    | 81.4  | 94.3  | 107.1    | 76.4  | 88.7  | 100.9    | 71.1  | 82.8  | 94.5     | 65.4 | 76.5 | 87.7 |
|             | 62          |             | THC   | 99.9                     | 99.9  | 116.3 | 94.4     | 94.4  | 111.5 | 88.8     | 88.8  | 105.2 | 82.9     | 82.9  | 98.6  | 76.6     | 76.6 | 91.5 |      |
|             |             |             | SHC   | 81.3                     | 98.9  | 116.3 | 77.3     | 94.4  | 111.5 | 72.4     | 88.8  | 105.2 | 67.3     | 82.9  | 98.6  | 61.8     | 76.6 | 91.5 |      |
|             | 67          |             | THC   | 109.1                    | 109.1 | 109.1 | 102.6    | 102.6 | 102.6 | 95.7     | 95.7  | 95.7  | 88.4     | 88.4  | 88.4  | 80.8     | 80.8 | 85.2 |      |
|             |             |             | SHC   | 64.7                     | 82.5  | 100.3 | 61.2     | 79.0  | 96.7  | 57.5     | 75.3  | 93.0  | 53.8     | 71.5  | 89.2  | 49.9     | 67.6 | 85.2 |      |
|             | 72          | THC         | 120.3 | 120.3                    | 120.3 | 113.3 | 113.3    | 113.3 | 106.0 | 106.0    | 106.0 | 98.2  | 98.2     | 98.2  | 90.0  | 90.0     | 90.0 |      |      |
|             |             | SHC         | 47.7  | 65.5                     | 83.4  | 44.2  | 62.0     | 79.8  | 40.6  | 58.4     | 76.1  | 36.9  | 54.6     | 72.3  | 33.1  | 50.7     | 68.4 |      |      |
|             | 76          | THC         | —     | 129.9                    | 129.9 | —     | 122.5    | 122.5 | —     | 114.7    | 114.7 | —     | 106.4    | 106.4 | —     | 97.6     | 97.6 |      |      |
|             |             | SHC         | —     | 51.7                     | 69.7  | —     | 48.3     | 66.2  | —     | 44.6     | 62.5  | —     | 40.9     | 58.6  | —     | 37.0     | 54.6 |      |      |
|             | 3850<br>cfm | EAT<br>(wb) | 58    | THC                      | 103.7 | 103.7 | 117.5    | 98.2  | 98.2  | 111.4    | 92.3  | 92.3  | 105.1    | 86.2  | 86.2  | 98.3     | 79.7 | 79.7 | 91.1 |
|             |             |             |       | SHC                      | 89.9  | 103.7 | 117.5    | 84.9  | 98.2  | 111.4    | 79.7  | 92.3  | 105.1    | 74.1  | 86.2  | 98.3     | 68.3 | 79.7 | 91.1 |
| 62          |             |             | THC   | 103.8                    | 103.8 | 122.3 | 98.3     | 98.3  | 116.0 | 92.4     | 92.4  | 109.4 | 86.3     | 86.3  | 102.4 | 79.8     | 79.8 | 95.0 |      |
|             |             |             | SHC   | 85.4                     | 103.8 | 122.3 | 80.5     | 98.3  | 116.0 | 75.5     | 92.4  | 109.4 | 70.1     | 86.3  | 102.4 | 64.4     | 79.8 | 95.0 |      |
| 67          |             |             | THC   | 111.2                    | 111.2 | 111.2 | 104.5    | 104.5 | 104.8 | 97.4     | 97.4  | 101.0 | 90.1     | 90.1  | 97.1  | 82.3     | 82.3 | 93.0 |      |
|             |             |             | SHC   | 68.5                     | 88.5  | 108.4 | 65.0     | 84.9  | 104.8 | 61.2     | 81.1  | 101.0 | 57.4     | 77.3  | 97.1  | 53.5     | 73.2 | 93.0 |      |
| 72          |             | THC         | 122.3 | 122.3                    | 122.3 | 115.1 | 115.1    | 115.1 | 107.6 | 107.6    | 107.6 | 99.6  | 99.6     | 99.6  | 91.4  | 91.4     | 91.4 |      |      |
|             |             | SHC         | 49.3  | 69.2                     | 89.2  | 45.8  | 65.7     | 85.7  | 42.1  | 62.1     | 82.0  | 38.4  | 58.2     | 78.1  | 34.5  | 54.3     | 74.1 |      |      |
| 76          |             | THC         | —     | 131.9                    | 131.9 | —     | 124.3    | 124.3 | —     | 116.2    | 116.2 | —     | 107.7    | 107.7 | —     | 98.7     | 98.7 |      |      |
|             |             | SHC         | —     | 53.7                     | 73.8  | —     | 50.2     | 70.2  | —     | 46.5     | 66.4  | —     | 42.6     | 62.4  | —     | 38.6     | 58.2 |      |      |
| 4250<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 106.9 | 106.9 | 121.0    | 101.1 | 101.1 | 114.8    | 95.1  | 95.1  | 108.1    | 88.7  | 88.7  | 101.1    | 82.0 | 82.0 | 93.7 |
|             |             |             |       | SHC                      | 92.7  | 106.9 | 121.0    | 87.6  | 101.1 | 114.8    | 82.1  | 95.1  | 108.1    | 76.3  | 88.7  | 101.1    | 70.3 | 82.0 | 93.7 |
|             | 62          |             | THC   | 107.0                    | 107.0 | 125.9 | 101.2    | 101.2 | 119.4 | 95.2     | 95.2  | 112.6 | 88.8     | 88.8  | 105.4 | 82.1     | 82.1 | 97.7 |      |
|             |             |             | SHC   | 88.1                     | 107.0 | 125.9 | 83.1     | 101.2 | 119.4 | 77.8     | 95.2  | 112.6 | 72.2     | 88.8  | 105.4 | 66.4     | 82.1 | 97.7 |      |
|             | 67          |             | THC   | 112.6                    | 112.6 | 115.4 | 105.9    | 105.9 | 111.7 | 98.7     | 98.7  | 107.8 | 91.3     | 91.3  | 103.8 | 83.5     | 83.5 | 99.5 |      |
|             |             |             | SHC   | 71.8                     | 93.6  | 115.4 | 68.2     | 90.0  | 111.7 | 64.4     | 86.1  | 107.8 | 60.5     | 82.2  | 103.8 | 56.6     | 78.0 | 99.5 |      |
|             | 72          | THC         | 123.7 | 123.7                    | 123.7 | 116.5 | 116.5    | 116.5 | 108.8 | 108.8    | 108.8 | 100.7 | 100.7    | 100.7 | 92.2  | 92.2     | 92.2 |      |      |
|             |             | SHC         | 50.7  | 72.4                     | 94.3  | 47.1  | 68.9     | 90.7  | 43.5  | 65.2     | 87.0  | 39.7  | 61.3     | 83.0  | 35.7  | 57.3     | 79.0 |      |      |
|             | 76          | THC         | —     | 133.4                    | 133.4 | —     | 125.6    | 125.6 | —     | 117.3    | 117.3 | —     | 108.6    | 108.6 | —     | 99.5     | 99.5 |      |      |
|             |             | SHC         | —     | 55.4                     | 77.3  | —     | 51.8     | 73.5  | —     | 48.1     | 69.6  | —     | 44.1     | 65.5  | —     | 40.0     | 61.1 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*A09 REHEAT MODE NO. 1 NO. 2 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-1<br>(SUBCOOLER MODE) |     | AIR ENTERING EVAPORATOR – SCFM/BF (80°F db) |       |      |           |       |       |           |       |       |
|------------------------------|-----|---|-------|------|-----------|-------|-------|-----------|-------|-------|
|                              |     | 2550/0.03                                   |       |      | 3400/0.05 |       |       | 4250/0.08 |       |       |
| OUTDOOR AIR<br>TEMP (°F)     |     | AIR ENTERING EVAPORATOR – Ewb (°F)          |       |      |           |       |       |           |       |       |
|                              |     | 72  | 67    | 62   | 72        | 67    | 62    | 72        | 67    | 62    |
| 75                           | TC  | 121.0                                       | 108.0 | 96.0 | 128.0     | 115.0 | 104.0 | 133.0     | 120.0 | 111.0 |
|                              | SHC | 55.0  | 67.0  | 78.0 | 64.0      | 79.0  | 95.0  | 71.0      | 91.0  | 107.0 |
|                              | kW  | 5.3   | 5.2   | 5.1  | 5.3       | 5.2   | 5.2   | 5.3       | 5.2   | 5.2   |
| 85                           | TC  | 113.0                                       | 101.0 | 90.0 | 120.0     | 108.0 | 97.0  | 124.0     | 112.0 | 103.0 |
|                              | SHC | 48.0  | 60.0  | 72.0 | 56.0      | 72.0  | 88.0  | 64.0      | 84.0  | 101.0 |
|                              | kW  | 6.0   | 5.9   | 5.8  | 6.0       | 5.9   | 5.9   | 6.0       | 6.0   | 5.9   |
| 95                           | TC  | 105.0                                       | 94.0  | 83.0 | 112.0     | 100.0 | 89.0  | 115.0     | 104.0 | 95.0  |
|                              | SHC | 41.0  | 54.0  | 66.0 | 49.0      | 65.0  | 82.0  | 56.0      | 76.0  | 95.0  |
|                              | kW  | 6.7   | 6.7   | 6.6  | 6.8       | 6.7   | 6.6   | 6.8       | 6.7   | 6.7   |
| 105                          | TC  | 97.0  | 86.0  | 76.0 | 103.0     | 92.0  | 82.0  | 107.0     | 95.0  | 88.0  |
|                              | SHC | 34.0  | 47.0  | 60.0 | 41.0      | 58.0  | 75.0  | 48.0      | 69.0  | 85.0  |
|                              | kW  | 7.6   | 7.5   | 7.5  | 7.7       | 7.6   | 7.5   | 7.7       | 7.6   | 7.6   |
| 115                          | TC  | 89.0  | 78.0  | 69.0 | 94.0      | 83.0  | 74.0  | 97.0      | 87.0  | 81.0  |
|                              | SHC | 27.0  | 40.0  | 53.0 | 34.0      | 51.0  | 68.0  | 40.0      | 61.0  | 73.0  |
|                              | kW  | 8.7   | 8.6   | 8.5  | 8.7       | 8.6   | 8.5   | 8.7       | 8.6   | 8.6   |
| 125                          | TC  | 80.0  | 70.0  | 61.0 | 85.0      | 75.0  | 66.0  | 88.0      | 78.0  | 72.0  |
|                              | SHC | 19.0  | 33.0  | 46.0 | 26.0      | 43.0  | 60.0  | 32.0      | 53.0  | 69.0  |
|                              | kW  | 9.8   | 9.7   | 9.7  | 9.8       | 9.8   | 9.7   | 9.9       | 9.8   | 9.7   |

## 50LC\*A09 REHEAT MODE NO. 2 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-2 (HOT GAS<br>REHEAT MODE) |     | AIR ENTERING EVAPORATOR – SCFM/BF (80°F db) |      |      |           |      |      |           |      |      |
|-----------------------------------|-----|---|------|------|-----------|------|------|-----------|------|------|
|                                   |     | 2550/0.03                                   |      |      | 3400/0.05 |      |      | 4250/0.08 |      |      |
| OUTDOOR AIR<br>TEMP (°F)          |     | AIR ENTERING EVAPORATOR – Ewb (°F)          |      |      |           |      |      |           |      |      |
|                                   |     | 62.5  | 64   | 65.3 | 62.5      | 64   | 65.3 | 62.5      | 64   | 65.3 |
| 80                                | TC  | 39.0  | 41.0 | 42.0 | 40.0      | 42.0 | 43.0 | 41.0      | 43.0 | 44.0 |
|                                   | SHC | 8.0   | 3.0  | -1.0 | 15.0      | 9.0  | 3.0  | 22.0      | 15.0 | 8.0  |
|                                   | kW  | 7.8   | 7.8  | 7.9  | 7.8       | 7.8  | 7.9  | 7.8       | 7.8  | 7.9  |
| 75                                | TC  | 43.0  | 44.0 | 45.0 | 43.0      | 45.0 | 46.0 | 44.0      | 46.0 | 47.0 |
|                                   | SHC | 12.0  | 6.0  | 2.0  | 18.0      | 12.0 | 6.0  | 25.0      | 18.0 | 11.0 |
|                                   | kW  | 7.4   | 7.4  | 7.5  | 7.4       | 7.4  | 7.5  | 7.4       | 7.4  | 7.5  |
| 70                                | TC  | 46.0  | 48.0 | 48.0 | 46.0      | 48.0 | 50.0 | 48.0      | 49.0 | 51.0 |
|                                   | SHC | 15.0  | 10.0 | 5.0  | 21.0      | 14.0 | 9.0  | 29.0      | 21.0 | 14.0 |
|                                   | kW  | 7.0   | 7.0  | 7.1  | 7.0       | 7.0  | 7.1  | 7.0       | 7.1  | 7.1  |
| 60                                | TC  | 51.0  | 56.0 | 57.0 | 56.0      | 55.0 | 57.0 | 55.0      | 56.0 | 57.0 |
|                                   | SHC | 20.0  | 18.0 | 13.0 | 30.0      | 21.0 | 16.0 | 35.0      | 27.0 | 21.0 |
|                                   | kW  | 6.3   | 6.4  | 6.4  | 6.4       | 6.4  | 6.4  | 6.3       | 6.4  | 6.5  |
| 50                                | TC  | 60.0  | 61.0 | 64.0 | 61.0      | 64.0 | 66.0 | 63.0      | 65.0 | 67.0 |
|                                   | SHC | 28.0  | 23.0 | 20.0 | 35.0      | 30.0 | 25.0 | 44.0      | 36.0 | 30.0 |
|                                   | kW  | 5.7   | 5.8  | 5.8  | 5.8       | 5.8  | 5.9  | 5.8       | 5.8  | 5.9  |
| 40                                | TC  | 66.0  | 68.0 | 69.0 | 68.0      | 71.0 | 71.0 | 70.0      | 72.0 | 72.0 |
|                                   | SHC | 34.0  | 30.0 | 25.0 | 42.0      | 37.0 | 30.0 | 50.0      | 43.0 | 36.0 |
|                                   | kW  | 5.2   | 5.3  | 5.3  | 5.3       | 5.3  | 5.4  | 5.3       | 5.4  | 5.4  |

### LEGEND

**kW** — Compressor Power Input  
**SHC** — Sensible Capacity (1000 Btuh) Gross  
**TC** — Total Capacity (1000 Btuh) Gross

## 50LC\*\*12 COOLING CAPACITIES — FIRST STAGE, PART LOAD

| 50LC**12    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 2000<br>cfm | EAT<br>(wb) | 58          | THC  | 53.4                     | 53.4 | 60.3 | 51.2     | 51.2 | 57.7 | 48.8     | 48.8 | 55.0 | 46.2     | 46.2 | 52.1 | 43.4     | 43.4 | 48.9 |      |
|             |             |             | SHC  | 46.7                     | 53.4 | 60.3 | 44.8     | 51.2 | 57.7 | 42.6     | 48.8 | 55.0 | 40.3     | 46.2 | 52.1 | 37.8     | 43.4 | 48.9 |      |
|             | 62          | THC         | 53.5 | 53.5                     | 62.6 | 51.3 | 51.3     | 60.0 | 48.8 | 48.8     | 57.1 | 46.2 | 46.2     | 54.1 | 43.5 | 43.5     | 50.8 |      |      |
|             |             | SHC         | 44.5 | 53.5                     | 62.6 | 42.6 | 51.3     | 60.0 | 40.6 | 48.8     | 57.1 | 38.4 | 46.2     | 54.1 | 36.1 | 43.5     | 50.8 |      |      |
|             | 67          | THC         | 56.6 | 56.6                     | 58.1 | 53.6 | 53.6     | 56.9 | 50.6 | 50.6     | 55.6 | 47.4 | 47.4     | 54.2 | 44.0 | 44.0     | 52.7 |      |      |
|             |             | SHC         | 36.9 | 47.5                     | 58.1 | 35.7 | 46.3     | 56.9 | 34.5 | 45.0     | 55.6 | 33.2 | 43.7     | 54.2 | 31.8 | 42.2     | 52.7 |      |      |
|             | 72          | THC         | 62.3 | 62.3                     | 62.3 | 59.2 | 59.2     | 59.2 | 55.9 | 55.9     | 55.9 | 52.4 | 52.4     | 48.6 | 48.6 | 48.6     | 48.6 |      |      |
|             |             | SHC         | 26.5 | 37.2                     | 47.9 | 25.4 | 36.1     | 46.7 | 24.2 | 34.8     | 45.5 | 22.9 | 33.5     | 44.3 | 21.5 | 32.3     | 42.9 |      |      |
|             | 76          | THC         | —    | 67.3                     | 67.3 | —    | 64.1     | 64.1 | —    | 60.5     | 60.5 | —    | 56.7     | 56.7 | —    | 52.7     | 52.7 |      |      |
|             |             | SHC         | —    | 28.8                     | 39.5 | —    | 27.7     | 38.4 | —    | 26.5     | 37.2 | —    | 25.3     | 36.0 | —    | 24.0     | 34.7 |      |      |
|             | 2300<br>cfm | EAT<br>(wb) | 58   | THC                      | 55.7 | 55.7 | 62.8     | 53.3 | 53.3 | 60.1     | 50.7 | 50.7 | 57.1     | 48.0 | 48.0 | 54.1     | 45.0 | 45.0 | 50.7 |
|             |             |             |      | SHC                      | 48.7 | 55.7 | 62.8     | 46.5 | 53.3 | 60.1     | 44.3 | 50.7 | 57.1     | 41.8 | 48.0 | 54.1     | 39.3 | 45.0 | 50.7 |
| 62          |             | THC         | 55.8 | 55.8                     | 65.1 | 53.3 | 53.3     | 62.4 | 50.8 | 50.8     | 59.4 | 48.1 | 48.1     | 56.2 | 45.0 | 45.0     | 52.7 |      |      |
|             |             | SHC         | 46.3 | 55.8                     | 65.1 | 44.4 | 53.3     | 62.4 | 42.2 | 50.8     | 59.4 | 39.9 | 48.1     | 56.2 | 37.3 | 45.0     | 52.7 |      |      |
| 67          |             | THC         | 57.5 | 57.5                     | 63.7 | 54.6 | 54.6     | 62.4 | 51.5 | 51.5     | 60.9 | 48.3 | 48.3     | 59.4 | 45.1 | 45.1     | 56.6 |      |      |
|             |             | SHC         | 39.5 | 51.6                     | 63.7 | 38.2 | 50.3     | 62.4 | 37.0 | 48.9     | 60.9 | 35.6 | 47.5     | 59.4 | 33.6 | 45.0     | 56.6 |      |      |
| 72          |             | THC         | 63.3 | 63.3                     | 63.3 | 60.1 | 60.1     | 60.1 | 56.6 | 56.6     | 56.6 | 53.0 | 53.0     | 53.0 | 49.1 | 49.1     | 49.1 |      |      |
|             |             | SHC         | 27.6 | 39.8                     | 52.0 | 26.4 | 38.6     | 50.8 | 25.3 | 37.4     | 49.6 | 23.9 | 36.1     | 48.3 | 22.6 | 34.8     | 46.9 |      |      |
| 76          |             | THC         | —    | 68.3                     | 68.3 | —    | 64.9     | 64.9 | —    | 61.3     | 61.3 | —    | 57.5     | 57.5 | —    | 53.4     | 53.4 |      |      |
|             |             | SHC         | —    | 30.1                     | 42.5 | —    | 29.1     | 41.3 | —    | 27.9     | 40.2 | —    | 26.6     | 38.9 | —    | 25.3     | 37.5 |      |      |
| 2650<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 57.8 | 57.8 | 65.1     | 55.3 | 55.3 | 62.3     | 52.6 | 52.6 | 59.3     | 49.6 | 49.6 | 56.0     | 46.5 | 46.5 | 52.5 |
|             |             |             |      | SHC                      | 50.5 | 57.8 | 65.1     | 48.3 | 55.3 | 62.3     | 45.9 | 52.6 | 59.3     | 43.3 | 49.6 | 56.0     | 40.6 | 46.5 | 52.5 |
|             | 62          | THC         | 57.9 | 57.9                     | 67.7 | 55.4 | 55.4     | 64.7 | 52.7 | 52.7     | 61.5 | 49.7 | 49.7     | 58.1 | 46.6 | 46.6     | 54.5 |      |      |
|             |             | SHC         | 48.1 | 57.9                     | 67.7 | 46.0 | 55.4     | 64.7 | 43.7 | 52.7     | 61.5 | 41.2 | 49.7     | 58.1 | 38.6 | 46.6     | 54.5 |      |      |
|             | 67          | THC         | 58.6 | 58.6                     | 69.7 | 55.7 | 55.7     | 68.3 | 52.8 | 52.8     | 65.5 | 49.7 | 49.7     | 62.4 | 46.6 | 46.6     | 58.5 |      |      |
|             |             | SHC         | 42.2 | 56.0                     | 69.7 | 41.0 | 54.6     | 68.3 | 39.2 | 52.4     | 65.5 | 37.1 | 49.7     | 62.4 | 34.8 | 46.6     | 58.5 |      |      |
|             | 72          | THC         | 64.1 | 64.1                     | 64.1 | 60.8 | 60.8     | 60.8 | 57.3 | 57.3     | 57.3 | 53.6 | 53.6     | 53.6 | 49.7 | 49.7     | 51.6 |      |      |
|             |             | SHC         | 28.8 | 42.7                     | 56.6 | 27.6 | 41.5     | 55.5 | 26.3 | 40.3     | 54.3 | 25.1 | 39.0     | 52.9 | 23.7 | 37.6     | 51.6 |      |      |
|             | 76          | THC         | —    | 69.1                     | 69.1 | —    | 65.7     | 65.7 | —    | 62.1     | 62.1 | —    | 58.2     | 58.2 | —    | 54.0     | 54.0 |      |      |
|             |             | SHC         | —    | 31.7                     | 45.7 | —    | 30.6     | 44.7 | —    | 29.3     | 43.5 | —    | 28.1     | 42.1 | —    | 26.8     | 40.9 |      |      |
|             | 2950<br>cfm | EAT<br>(wb) | 58   | THC                      | 59.4 | 59.4 | 66.9     | 56.7 | 56.7 | 63.9     | 53.9 | 53.9 | 60.7     | 50.9 | 50.9 | 57.3     | 47.7 | 47.7 | 53.7 |
|             |             |             |      | SHC                      | 51.8 | 59.4 | 66.9     | 49.5 | 56.7 | 63.9     | 47.0 | 53.9 | 60.7     | 44.4 | 50.9 | 57.3     | 41.5 | 47.7 | 53.7 |
| 62          |             | THC         | 59.4 | 59.4                     | 69.4 | 56.7 | 56.7     | 66.3 | 53.9 | 53.9     | 63.1 | 50.9 | 50.9     | 59.6 | 47.7 | 47.7     | 55.8 |      |      |
|             |             | SHC         | 49.3 | 59.4                     | 69.4 | 47.2 | 56.7     | 66.3 | 44.8 | 53.9     | 63.1 | 42.2 | 50.9     | 59.6 | 39.6 | 47.7     | 55.8 |      |      |
| 67          |             | THC         | 59.6 | 59.6                     | 73.7 | 56.9 | 56.9     | 70.6 | 54.0 | 54.0     | 67.7 | 51.0 | 51.0     | 63.9 | 47.7 | 47.7     | 59.9 |      |      |
|             |             | SHC         | 44.2 | 59.0                     | 73.7 | 42.2 | 56.5     | 70.6 | 40.4 | 54.0     | 67.7 | 38.0 | 51.0     | 63.9 | 35.6 | 47.7     | 59.9 |      |      |
| 72          |             | THC         | 64.6 | 64.6                     | 64.6 | 61.3 | 61.3     | 61.3 | 57.8 | 57.8     | 58.1 | 54.0 | 54.0     | 56.8 | 50.1 | 50.1     | 55.4 |      |      |
|             |             | SHC         | 29.7 | 45.1                     | 60.5 | 28.6 | 44.0     | 59.4 | 27.3 | 42.7     | 58.1 | 26.0 | 41.4     | 56.8 | 24.7 | 40.0     | 55.4 |      |      |
| 76          |             | THC         | —    | 69.7                     | 69.7 | —    | 66.3     | 66.3 | —    | 62.6     | 62.6 | —    | 58.6     | 58.6 | —    | 54.3     | 54.3 |      |      |
|             |             | SHC         | —    | 33.0                     | 48.6 | —    | 31.9     | 47.4 | —    | 30.6     | 46.2 | —    | 29.3     | 44.9 | —    | 28.1     | 43.5 |      |      |
| 3300<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 60.8 | 60.8 | 68.5     | 58.1 | 58.1 | 65.4     | 55.2 | 55.2 | 62.2     | 52.1 | 52.1 | 58.7     | 48.7 | 48.7 | 54.9 |
|             |             |             |      | SHC                      | 53.1 | 60.8 | 68.5     | 50.7 | 58.1 | 65.4     | 48.2 | 55.2 | 62.2     | 45.4 | 52.1 | 58.7     | 42.5 | 48.7 | 54.9 |
|             | 62          | THC         | 60.8 | 60.8                     | 71.2 | 58.1 | 58.1     | 68.0 | 55.2 | 55.2     | 64.5 | 52.1 | 52.1     | 60.9 | 48.8 | 48.8     | 57.0 |      |      |
|             |             | SHC         | 50.6 | 60.8                     | 71.2 | 48.4 | 58.1     | 68.0 | 45.8 | 55.2     | 64.5 | 43.3 | 52.1     | 60.9 | 40.5 | 48.8     | 57.0 |      |      |
|             | 67          | THC         | 60.9 | 60.9                     | 76.2 | 58.2 | 58.2     | 72.9 | 55.3 | 55.3     | 69.2 | 52.2 | 52.2     | 65.3 | 48.8 | 48.8     | 61.1 |      |      |
|             |             | SHC         | 45.5 | 60.9                     | 76.2 | 43.5 | 58.2     | 72.9 | 41.2 | 55.3     | 69.2 | 38.9 | 52.2     | 65.3 | 36.4 | 48.8     | 61.1 |      |      |
|             | 72          | THC         | 65.1 | 65.1                     | 65.1 | 61.8 | 61.8     | 63.9 | 58.2 | 58.2     | 62.6 | 54.4 | 54.4     | 61.1 | 50.4 | 50.4     | 59.7 |      |      |
|             |             | SHC         | 30.8 | 47.9                     | 65.0 | 29.6 | 46.7     | 63.9 | 28.4 | 45.4     | 62.6 | 27.1 | 44.2     | 61.1 | 25.7 | 42.7     | 59.7 |      |      |
|             | 76          | THC         | —    | 70.2                     | 70.2 | —    | 66.8     | 66.8 | —    | 63.0     | 63.0 | —    | 59.0     | 59.0 | —    | 54.7     | 54.7 |      |      |
|             |             | SHC         | —    | 34.4                     | 51.7 | —    | 33.3     | 50.5 | —    | 32.1     | 49.3 | —    | 30.8     | 48.0 | —    | 29.4     | 46.6 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*12 COOLING CAPACITIES — SECOND STAGE, PART LOAD

| 50LC**12    |             |             |      | AMBIENT TEMPERATURE (°F) |      |      |          |      |      |          |      |      |          |      |      |          |      |      |      |
|-------------|-------------|-------------|------|--------------------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|------|
|             |             |             |      | 85                       |      |      | 95       |      |      | 105      |      |      | 115      |      |      | 125      |      |      |      |
|             |             |             |      | EAT (db)                 |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      | EAT (db) |      |      |      |
|             |             |             |      | 75                       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   | 75       | 80   | 85   |      |
| 2000<br>cfm | EAT<br>(wb) | 58          | THC  | 65.2                     | 65.2 | 74.2 | 61.4     | 61.4 | 70.1 | 57.3     | 57.3 | 65.7 | 52.9     | 52.9 | 60.9 | 48.2     | 48.2 | 55.8 |      |
|             |             |             | SHC  | 56.2                     | 65.2 | 74.2 | 52.7     | 61.4 | 70.1 | 48.9     | 57.3 | 65.7 | 44.9     | 52.9 | 60.9 | 40.7     | 48.2 | 55.8 |      |
|             | 62          | THC         | 67.8 | 67.8                     | 72.4 | 63.3 | 63.3     | 69.6 | 58.4 | 58.4     | 66.6 | 53.2 | 53.2     | 63.3 | 48.3 | 48.3     | 58.4 |      |      |
|             |             | SHC         | 51.2 | 61.8                     | 72.4 | 48.4 | 59.0     | 69.6 | 45.3 | 56.0     | 66.6 | 42.1 | 52.7     | 63.3 | 38.2 | 48.3     | 58.4 |      |      |
|             | 67          | THC         | 75.9 | 75.9                     | 75.9 | 71.1 | 71.1     | 71.1 | 65.9 | 65.9     | 65.9 | 60.3 | 60.3     | 60.3 | 54.2 | 54.2     | 54.2 |      |      |
|             |             | SHC         | 41.6 | 52.4                     | 63.0 | 38.8 | 49.5     | 60.2 | 35.9 | 46.6     | 57.2 | 32.8 | 43.5     | 54.1 | 29.5 | 40.2     | 50.9 |      |      |
|             | 72          | THC         | 84.8 | 84.8                     | 84.8 | 79.9 | 79.9     | 79.9 | 74.4 | 74.4     | 74.4 | 68.4 | 68.4     | 68.4 | 62.0 | 62.0     | 62.0 |      |      |
|             |             | SHC         | 31.9 | 42.6                     | 53.3 | 29.2 | 39.9     | 50.6 | 26.2 | 37.0     | 47.7 | 23.2 | 33.9     | 44.7 | 20.0 | 30.7     | 41.4 |      |      |
|             | 76          | THC         | —    | 92.5                     | 92.5 | —    | 87.4     | 87.4 | —    | 81.7     | 81.7 | —    | 75.5     | 75.5 | —    | 68.7     | 68.7 |      |      |
|             |             | SHC         | —    | 34.6                     | 45.3 | —    | 31.9     | 42.6 | —    | 29.1     | 39.8 | —    | 26.0     | 36.8 | —    | 22.9     | 33.6 |      |      |
|             | 2300<br>cfm | EAT<br>(wb) | 58   | THC                      | 69.2 | 69.2 | 78.8     | 65.2 | 65.2 | 74.5     | 60.9 | 60.9 | 69.8     | 56.4 | 56.4 | 64.7     | 51.4 | 51.4 | 59.3 |
|             |             |             |      | SHC                      | 59.8 | 69.2 | 78.8     | 56.1 | 65.2 | 74.5     | 52.2 | 60.9 | 69.8     | 48.0 | 56.4 | 64.7     | 43.5 | 51.4 | 59.3 |
| 62          |             | THC         | 70.2 | 70.2                     | 80.0 | 65.6 | 65.6     | 77.0 | 61.1 | 61.1     | 72.8 | 56.5 | 56.5     | 67.7 | 51.5 | 51.5     | 62.0 |      |      |
|             |             | SHC         | 55.8 | 68.0                     | 80.0 | 52.8 | 64.9     | 77.0 | 49.3 | 61.1     | 72.8 | 45.2 | 56.5     | 67.7 | 40.9 | 51.5     | 62.0 |      |      |
| 67          |             | THC         | 78.2 | 78.2                     | 78.2 | 73.2 | 73.2     | 73.2 | 67.9 | 67.9     | 67.9 | 62.0 | 62.0     | 62.0 | 55.8 | 55.8     | 56.8 |      |      |
|             |             | SHC         | 44.7 | 56.9                     | 69.1 | 41.8 | 54.0     | 66.3 | 38.8 | 51.1     | 63.3 | 35.7 | 47.9     | 60.2 | 32.4 | 44.7     | 56.8 |      |      |
| 72          |             | THC         | 87.3 | 87.3                     | 87.3 | 82.1 | 82.1     | 82.1 | 76.4 | 76.4     | 76.4 | 70.3 | 70.3     | 70.3 | 63.7 | 63.7     | 63.7 |      |      |
|             |             | SHC         | 33.3 | 45.6                     | 57.9 | 30.5 | 42.9     | 55.2 | 27.6 | 39.9     | 52.2 | 24.5 | 36.9     | 49.1 | 21.3 | 33.5     | 45.8 |      |      |
| 76          |             | THC         | —    | 95.0                     | 95.0 | —    | 89.6     | 89.6 | —    | 83.8     | 83.8 | —    | 77.4     | 77.4 | —    | 70.4     | 70.4 |      |      |
|             |             | SHC         | —    | 36.4                     | 48.8 | —    | 33.6     | 46.0 | —    | 30.8     | 43.1 | —    | 27.7     | 40.1 | —    | 24.5     | 36.9 |      |      |
| 2650<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 73.2 | 73.2 | 83.3     | 69.0 | 69.0 | 78.7     | 64.5 | 64.5 | 73.8     | 59.7 | 59.7 | 68.4     | 54.5 | 54.5 | 62.7 |
|             |             |             |      | SHC                      | 63.3 | 73.2 | 83.3     | 59.5 | 69.0 | 78.7     | 55.4 | 64.5 | 73.8     | 50.9 | 59.7 | 68.4     | 46.2 | 54.5 | 62.7 |
|             | 62          | THC         | 73.3 | 73.3                     | 86.7 | 69.2 | 69.2     | 82.0 | 64.6 | 64.6     | 77.0 | 59.8 | 59.8     | 71.5 | 54.5 | 54.5     | 65.6 |      |      |
|             |             | SHC         | 60.1 | 73.3                     | 86.7 | 56.4 | 69.2     | 82.0 | 52.4 | 64.6     | 77.0 | 48.1 | 59.8     | 71.5 | 43.5 | 54.5     | 65.6 |      |      |
|             | 67          | THC         | 80.2 | 80.2                     | 80.2 | 75.2 | 75.2     | 75.2 | 69.6 | 69.6     | 70.1 | 63.7 | 63.7     | 66.9 | 57.2 | 57.2     | 63.6 |      |      |
|             |             | SHC         | 48.0 | 62.0                     | 76.1 | 45.1 | 59.2     | 73.2 | 42.1 | 56.2     | 70.1 | 38.9 | 52.9     | 66.9 | 35.6 | 49.5     | 63.6 |      |      |
|             | 72          | THC         | 89.3 | 89.3                     | 89.3 | 84.0 | 84.0     | 84.0 | 78.2 | 78.2     | 78.2 | 71.9 | 71.9     | 71.9 | 65.0 | 65.0     | 65.0 |      |      |
|             |             | SHC         | 34.9 | 48.9                     | 63.1 | 32.1 | 46.1     | 60.3 | 29.1 | 43.2     | 57.3 | 25.9 | 40.1     | 54.1 | 22.6 | 36.8     | 50.9 |      |      |
|             | 76          | THC         | —    | 97.2                     | 97.2 | —    | 91.7     | 91.7 | —    | 85.6     | 85.6 | —    | 79.0     | 79.0 | —    | 71.9     | 71.9 |      |      |
|             |             | SHC         | —    | 38.3                     | 52.6 | —    | 35.6     | 49.7 | —    | 32.7     | 46.8 | —    | 29.5     | 43.8 | —    | 26.3     | 40.5 |      |      |
|             | 2950<br>cfm | EAT<br>(wb) | 58   | THC                      | 76.1 | 76.1 | 86.5     | 71.9 | 71.9 | 81.8     | 67.2 | 67.2 | 76.7     | 62.1 | 62.1 | 71.2     | 56.6 | 56.6 | 65.2 |
|             |             |             |      | SHC                      | 65.8 | 76.1 | 86.5     | 61.9 | 71.9 | 81.8     | 57.6 | 67.2 | 76.7     | 53.0 | 62.1 | 71.2     | 48.2 | 56.6 | 65.2 |
| 62          |             | THC         | 76.2 | 76.2                     | 90.1 | 72.0 | 72.0     | 85.2 | 67.3 | 67.3     | 80.0 | 62.2 | 62.2     | 74.3 | 56.7 | 56.7     | 68.2 |      |      |
|             |             | SHC         | 62.5 | 76.2                     | 90.1 | 58.7 | 72.0     | 85.2 | 54.6 | 67.3     | 80.0 | 50.1 | 62.2     | 74.3 | 45.4 | 56.7     | 68.2 |      |      |
| 67          |             | THC         | 81.6 | 81.6                     | 81.8 | 76.4 | 76.4     | 78.9 | 70.9 | 70.9     | 75.9 | 64.7 | 64.7     | 72.5 | 58.3 | 58.3     | 69.0 |      |      |
|             |             | SHC         | 50.7 | 66.3                     | 81.8 | 47.9 | 63.4     | 78.9 | 44.8 | 60.3     | 75.9 | 41.5 | 57.0     | 72.5 | 38.1 | 53.6     | 69.0 |      |      |
| 72          |             | THC         | 90.8 | 90.8                     | 90.8 | 85.3 | 85.3     | 85.3 | 79.4 | 79.4     | 79.4 | 72.9 | 72.9     | 72.9 | 65.9 | 65.9     | 65.9 |      |      |
|             |             | SHC         | 36.1 | 51.7                     | 67.4 | 33.2 | 48.8     | 64.5 | 30.2 | 45.9     | 61.5 | 27.1 | 42.7     | 58.3 | 23.8 | 39.4     | 55.0 |      |      |
| 76          |             | THC         | —    | 98.6                     | 98.6 | —    | 93.0     | 93.0 | —    | 86.8     | 86.8 | —    | 80.1     | 80.1 | —    | 72.8     | 72.8 |      |      |
|             |             | SHC         | —    | 39.9                     | 55.7 | —    | 37.1     | 52.8 | —    | 34.1     | 49.8 | —    | 31.0     | 46.8 | —    | 27.7     | 43.5 |      |      |
| 3300<br>cfm |             | EAT<br>(wb) | 58   | THC                      | 79.1 | 79.1 | 89.7     | 74.6 | 74.6 | 84.8     | 69.8 | 69.8 | 79.6     | 64.5 | 64.5 | 73.9     | 58.9 | 58.9 | 67.7 |
|             |             |             |      | SHC                      | 68.4 | 79.1 | 89.7     | 64.4 | 74.6 | 84.8     | 60.0 | 69.8 | 79.6     | 55.2 | 64.5 | 73.9     | 50.1 | 58.9 | 67.7 |
|             | 62          | THC         | 79.2 | 79.2                     | 93.4 | 74.7 | 74.7     | 88.4 | 69.9 | 69.9     | 83.0 | 64.6 | 64.6     | 77.1 | 59.0 | 59.0     | 70.7 |      |      |
|             |             | SHC         | 64.9 | 79.2                     | 93.4 | 61.0 | 74.7     | 88.4 | 56.7 | 69.9     | 83.0 | 52.2 | 64.6     | 77.1 | 47.3 | 59.0     | 70.7 |      |      |
|             | 67          | THC         | 83.0 | 83.0                     | 88.3 | 77.8 | 77.8     | 85.4 | 72.1 | 72.1     | 82.2 | 65.9 | 65.9     | 78.8 | 59.5 | 59.5     | 75.1 |      |      |
|             |             | SHC         | 53.8 | 71.1                     | 88.3 | 50.9 | 68.2     | 85.4 | 47.8 | 65.0     | 82.2 | 44.5 | 61.6     | 78.8 | 41.0 | 58.0     | 75.1 |      |      |
|             | 72          | THC         | 92.0 | 92.0                     | 92.0 | 86.5 | 86.5     | 86.5 | 80.4 | 80.4     | 80.4 | 73.9 | 73.9     | 73.9 | 66.8 | 66.8     | 66.8 |      |      |
|             |             | SHC         | 37.4 | 54.8                     | 72.2 | 34.5 | 52.0     | 69.3 | 31.5 | 48.9     | 66.3 | 28.4 | 45.7     | 63.1 | 25.1 | 42.4     | 59.8 |      |      |
|             | 76          | THC         | —    | 99.9                     | 99.9 | —    | 94.2     | 94.2 | —    | 87.9     | 87.9 | —    | 81.1     | 81.1 | —    | 73.7     | 73.7 |      |      |
|             |             | SHC         | —    | 41.5                     | 59.1 | —    | 38.7     | 56.3 | —    | 35.8     | 53.2 | —    | 32.7     | 50.1 | —    | 29.3     | 46.8 |      |      |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross

## 50LC\*\*12 COOLING CAPACITIES — THIRD STAGE, FULL LOAD

| 50LC**12    |             |             |       | AMBIENT TEMPERATURE (°F) |       |       |          |       |       |          |       |       |          |       |       |          |       |      |       |
|-------------|-------------|-------------|-------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|------|-------|
|             |             |             |       | 85                       |       |       | 95       |       |       | 105      |       |       | 115      |       |       | 125      |       |      |       |
|             |             |             |       | EAT (db)                 |       |       | EAT (db) |       |       | EAT (db) |       |       | EAT (db) |       |       | EAT (db) |       |      |       |
|             |             |             |       | 75                       | 80    | 85    | 75       | 80    | 85    | 75       | 80    | 85    | 75       | 80    | 85    | 75       | 80    | 85   |       |
| 3000<br>cfm | EAT<br>(wb) | 58          | THC   | 103.3                    | 103.3 | 117.3 | 97.4     | 97.4  | 111.0 | 91.1     | 91.1  | 104.1 | 84.4     | 84.4  | 96.8  | 77.2     | 77.2  | 89.0 |       |
|             |             |             | SHC   | 89.1                     | 103.3 | 117.3 | 83.8     | 97.4  | 111.0 | 78.1     | 91.1  | 104.1 | 72.0     | 84.4  | 96.8  | 65.5     | 77.2  | 89.0 |       |
|             | 62          | THC         | 108.2 | 108.2                    | 112.1 | 101.2 | 101.2    | 107.7 | 93.6  | 93.6     | 103.1 | 85.7  | 85.7     | 98.3  | 77.5  | 77.5     | 92.8  |      |       |
|             |             | SHC         | 80.4  | 96.2                     | 112.1 | 76.1  | 91.8     | 107.7 | 71.5  | 87.3     | 103.1 | 66.8  | 82.5     | 98.3  | 61.6  | 77.2     | 92.8  |      |       |
|             | 67          | THC         | 120.1 | 120.1                    | 120.1 | 112.6 | 112.6    | 112.6 | 104.6 | 104.6    | 104.6 | 96.0  | 96.0     | 96.0  | 86.9  | 86.9     | 86.9  |      |       |
|             |             | SHC         | 65.9  | 81.8                     | 97.7  | 61.5  | 77.5     | 93.4  | 57.0  | 72.9     | 88.8  | 52.5  | 68.3     | 84.2  | 47.6  | 63.5     | 79.4  |      |       |
|             | 72          | THC         | 133.3 | 133.3                    | 133.3 | 125.5 | 125.5    | 125.5 | 116.9 | 116.9    | 116.9 | 107.8 | 107.8    | 107.8 | 98.2  | 98.2     | 98.2  |      |       |
|             |             | SHC         | 51.1  | 67.1                     | 83.1  | 46.8  | 62.8     | 78.8  | 42.4  | 58.4     | 74.4  | 37.8  | 53.7     | 69.7  | 33.1  | 48.9     | 64.9  |      |       |
|             | 76          | THC         | —     | 144.6                    | 144.6 | —     | 136.4    | 136.4 | —     | 127.6    | 127.6 | —     | 118.0    | 118.0 | —     | 107.8    | 107.8 |      |       |
|             |             | SHC         | —     | 55.0                     | 71.1  | —     | 50.8     | 66.9  | —     | 46.5     | 62.6  | —     | 41.9     | 58.0  | —     | 37.1     | 53.2  |      |       |
|             | 3500<br>cfm | EAT<br>(wb) | 58    | THC                      | 110.0 | 110.0 | 124.9    | 103.7 | 103.7 | 118.1    | 97.1  | 97.1  | 110.9    | 90.0  | 90.0  | 103.1    | 82.5  | 82.5 | 94.8  |
|             |             |             |       | SHC                      | 95.2  | 110.0 | 124.9    | 89.4  | 103.7 | 118.1    | 83.4  | 97.1  | 110.9    | 77.0  | 90.0  | 103.1    | 70.1  | 82.5 | 94.8  |
| 62          |             | THC         | 112.2 | 112.2                    | 124.4 | 105.1 | 105.1    | 119.7 | 97.5  | 97.5     | 114.8 | 90.2  | 90.2     | 107.5 | 82.6  | 82.6     | 99.0  |      |       |
|             |             | SHC         | 87.8  | 106.1                    | 124.4 | 83.4  | 101.6    | 119.7 | 78.6  | 96.6     | 114.8 | 72.7  | 90.2     | 107.5 | 66.1  | 82.6     | 99.0  |      |       |
| 67          |             | THC         | 123.8 | 123.8                    | 123.8 | 116.1 | 116.1    | 116.1 | 107.7 | 107.7    | 107.7 | 98.9  | 98.9     | 98.9  | 89.4  | 89.4     | 89.4  |      |       |
|             |             | SHC         | 70.7  | 89.1                     | 107.5 | 66.3  | 84.7     | 103.2 | 61.8  | 80.2     | 98.7  | 57.0  | 75.5     | 93.9  | 52.1  | 70.5     | 88.9  |      |       |
| 72          |             | THC         | 137.2 | 137.2                    | 137.2 | 129.0 | 129.0    | 129.0 | 120.1 | 120.1    | 120.1 | 110.8 | 110.8    | 110.8 | 100.7 | 100.7    | 100.7 |      |       |
|             |             | SHC         | 53.3  | 71.9                     | 90.4  | 49.0  | 67.6     | 86.1  | 44.6  | 63.1     | 81.5  | 39.9  | 58.4     | 76.9  | 35.0  | 53.5     | 72.1  |      |       |
| 76          |             | THC         | —     | 148.6                    | 148.6 | —     | 140.0    | 140.0 | —     | 130.8    | 130.8 | —     | 121.0    | 121.0 | —     | 110.5    | 110.5 |      |       |
|             |             | SHC         | —     | 57.8                     | 76.5  | —     | 53.5     | 72.2  | —     | 49.1     | 67.9  | —     | 44.6     | 63.2  | —     | 39.7     | 58.4  |      |       |
| 4000<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 115.6 | 115.6 | 131.1    | 109.1 | 109.1 | 124.0    | 102.1 | 102.1 | 116.4    | 94.7  | 94.7  | 108.2    | 86.7  | 86.7 | 99.5  |
|             |             |             |       | SHC                      | 100.1 | 115.6 | 131.1    | 94.2  | 109.1 | 124.0    | 87.8  | 102.1 | 116.4    | 81.1  | 94.7  | 108.2    | 73.9  | 86.7 | 99.5  |
|             | 62          | THC         | 116.0 | 116.0                    | 135.5 | 109.3 | 109.3    | 129.2 | 102.3 | 102.3    | 121.3 | 94.8  | 94.8     | 112.9 | 86.8  | 86.8     | 103.9 |      |       |
|             |             | SHC         | 94.6  | 115.1                    | 135.5 | 89.3  | 109.3    | 129.2 | 83.2  | 102.3    | 121.3 | 76.6  | 94.8     | 112.9 | 69.7  | 86.8     | 103.9 |      |       |
|             | 67          | THC         | 126.8 | 126.8                    | 126.8 | 118.8 | 118.8    | 118.8 | 110.3 | 110.3    | 110.3 | 101.1 | 101.1    | 103.2 | 91.5  | 91.5     | 98.1  |      |       |
|             |             | SHC         | 75.3  | 96.1                     | 117.1 | 70.9  | 91.7     | 112.6 | 66.2  | 87.2     | 108.0 | 61.4  | 82.3     | 103.2 | 56.5  | 77.2     | 98.1  |      |       |
|             | 72          | THC         | 140.1 | 140.1                    | 140.1 | 131.7 | 131.7    | 131.7 | 122.8 | 122.8    | 122.8 | 112.9 | 112.9    | 112.9 | 102.6 | 102.6    | 102.6 |      |       |
|             |             | SHC         | 55.4  | 76.3                     | 97.4  | 51.1  | 72.1     | 93.0  | 46.6  | 67.6     | 88.5  | 41.8  | 62.8     | 83.8  | 36.9  | 57.8     | 78.8  |      |       |
|             | 76          | THC         | —     | 151.5                    | 151.5 | —     | 142.7    | 142.7 | —     | 133.4    | 133.4 | —     | 123.3    | 123.3 | —     | 112.5    | 112.5 |      |       |
|             |             | SHC         | —     | 60.4                     | 81.5  | —     | 56.1     | 77.2  | —     | 51.6     | 72.7  | —     | 46.9     | 68.1  | —     | 42.1     | 63.2  |      |       |
|             | 4500<br>cfm | EAT<br>(wb) | 58    | THC                      | 120.3 | 120.3 | 136.4    | 113.6 | 113.6 | 129.0    | 106.3 | 106.3 | 121.1    | 98.6  | 98.6  | 112.5    | 90.3  | 90.3 | 103.4 |
|             |             |             |       | SHC                      | 104.3 | 120.3 | 136.4    | 98.1  | 113.6 | 129.0    | 91.6  | 106.3 | 121.1    | 84.5  | 98.6  | 112.5    | 77.0  | 90.3 | 103.4 |
| 62          |             | THC         | 120.5 | 120.5                    | 142.0 | 113.7 | 113.7    | 134.4 | 106.5 | 106.5    | 126.2 | 98.7  | 98.7     | 117.4 | 90.4  | 90.4     | 108.0 |      |       |
|             |             | SHC         | 99.1  | 120.5                    | 142.0 | 93.0  | 113.7    | 134.4 | 86.7  | 106.5    | 126.2 | 80.0  | 98.7     | 117.4 | 72.7  | 90.4     | 108.0 |      |       |
| 67          |             | THC         | 129.1 | 129.1                    | 129.1 | 120.9 | 120.9    | 121.8 | 112.2 | 112.2    | 117.0 | 103.0 | 103.0    | 112.0 | 93.1  | 93.1     | 106.9 |      |       |
|             |             | SHC         | 79.6  | 102.9                    | 126.3 | 75.1  | 98.5     | 121.8 | 70.5  | 93.8     | 117.0 | 65.6  | 88.8     | 112.0 | 60.5  | 83.7     | 106.9 |      |       |
| 72          |             | THC         | 142.4 | 142.4                    | 142.4 | 133.9 | 133.9    | 133.9 | 124.6 | 124.6    | 124.6 | 114.6 | 114.6    | 114.6 | 104.0 | 104.0    | 104.0 |      |       |
|             |             | SHC         | 57.2  | 80.7                     | 104.1 | 52.9  | 76.3     | 99.7  | 48.4  | 71.8     | 95.2  | 43.6  | 67.0     | 90.4  | 38.6  | 62.0     | 85.4  |      |       |
| 76          |             | THC         | —     | 154.0                    | 154.0 | —     | 145.0    | 145.0 | —     | 135.4    | 135.4 | —     | 125.1    | 125.1 | —     | 114.0    | 114.0 |      |       |
|             |             | SHC         | —     | 62.7                     | 86.3  | —     | 58.4     | 82.0  | —     | 53.9     | 77.5  | —     | 49.2     | 72.7  | —     | 44.4     | 67.9  |      |       |
| 5000<br>cfm |             | EAT<br>(wb) | 58    | THC                      | 124.3 | 124.3 | 140.9    | 117.3 | 117.3 | 133.2    | 109.8 | 109.8 | 125.0    | 101.8 | 101.8 | 116.2    | 93.2  | 93.2 | 106.8 |
|             |             |             |       | SHC                      | 107.8 | 124.3 | 140.9    | 101.5 | 117.3 | 133.2    | 94.7  | 109.8 | 125.0    | 87.5  | 101.8 | 116.2    | 79.8  | 93.2 | 106.8 |
|             | 62          | THC         | 124.5 | 124.5                    | 146.5 | 117.5 | 117.5    | 138.6 | 110.0 | 110.0    | 130.2 | 101.9 | 101.9    | 121.1 | 93.3  | 93.3     | 111.4 |      |       |
|             |             | SHC         | 102.4 | 124.5                    | 146.5 | 96.2  | 117.5    | 138.6 | 89.7  | 110.0    | 130.2 | 82.7  | 101.9    | 121.1 | 75.3  | 93.3     | 111.4 |      |       |
|             | 67          | THC         | 131.0 | 131.0                    | 135.1 | 122.8 | 122.8    | 130.6 | 113.9 | 113.9    | 125.7 | 104.5 | 104.5    | 120.6 | 94.7  | 94.7     | 115.0 |      |       |
|             |             | SHC         | 83.8  | 109.4                    | 135.1 | 79.3  | 104.9    | 130.6 | 74.5  | 100.1    | 125.7 | 69.6  | 95.1     | 120.6 | 64.4  | 89.7     | 115.0 |      |       |
|             | 72          | THC         | 144.2 | 144.2                    | 144.2 | 135.5 | 135.5    | 135.5 | 126.2 | 126.2    | 126.2 | 115.9 | 115.9    | 115.9 | 105.3 | 105.3    | 105.3 |      |       |
|             |             | SHC         | 59.1  | 84.9                     | 110.8 | 54.7  | 80.5     | 106.3 | 50.1  | 75.9     | 101.7 | 45.2  | 71.1     | 96.8  | 40.3  | 66.0     | 91.8  |      |       |
|             | 76          | THC         | —     | 155.9                    | 155.9 | —     | 146.8    | 146.8 | —     | 137.0    | 137.0 | —     | 126.6    | 126.6 | —     | 115.3    | 115.3 |      |       |
|             |             | SHC         | —     | 64.9                     | 91.0  | —     | 60.6     | 86.7  | —     | 56.2     | 82.1  | —     | 51.4     | 77.3  | —     | 46.5     | 72.3  |      |       |

### LEGEND

- Do not operate
- cfm — Cubic Feet per Minute (Supply Air)
- EAT (db) — Entering Air Temperature (Dry Bulb)
- EAT (wb) — Entering Air Temperature (Wet Bulb)
- SHC — Sensible Heat Capacity (1000 Btuh) Gross
- THC — Total Capacity (1000 Btuh) Gross



## 50LC\*A12 REHEAT MODE NO.NO. 11 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-1<br>(SUBCOOLER MODE) |     | AIR ENTERING EVAPORATOR – SCFM/BF (80°F db) |       |       |           |       |       |           |       |       |
|------------------------------|-----|---|-------|-------|-----------|-------|-------|-----------|-------|-------|
|                              |     | 3000/0.02                                   |       |       | 4000/0.04 |       |       | 5000/0.07 |       |       |
| OUTDOOR AIR<br>TEMP (°F)     |     | AIR ENTERING EVAPORATOR– Ewb (°F)           |       |       |           |       |       |           |       |       |
|                              |     | 72  | 67    | 62    | 72        | 67    | 62    | 72        | 67    | 62    |
| 75                           | TC  | 129.0                                       | 119.0 | 106.0 | 142.0     | 127.0 | 114.0 | 147.0     | 132.0 | 121.0 |
|                              | SHC | 54.0  | 72.0  | 85.0  | 68.0      | 86.0  | 104.0 | 77.0      | 100.0 | 121.0 |
|                              | kW  | 7.6   | 7.6   | 7.6   | 7.7       | 7.6   | 7.6   | 7.8       | 7.7   | 7.6   |
| 85                           | TC  | 124.0                                       | 110.0 | 97.0  | 132.0     | 117.0 | 105.0 | 137.0     | 122.0 | 113.0 |
|                              | SHC | 50.0  | 63.0  | 77.0  | 59.0      | 77.0  | 96.0  | 68.0      | 91.0  | 110.0 |
|                              | kW  | 8.4   | 8.3   | 8.3   | 8.4       | 8.3   | 8.3   | 8.5       | 8.4   | 8.3   |
| 95                           | TC  | 114.0                                       | 101.0 | 89.0  | 122.0     | 108.0 | 96.0  | 126.0     | 112.0 | 102.0 |
|                              | SHC | 41.0  | 55.0  | 69.0  | 50.0      | 69.0  | 88.0  | 58.0      | 82.0  | 102.0 |
|                              | kW  | 9.2   | 9.1   | 9.1   | 9.2       | 9.2   | 9.1   | 9.2       | 9.2   | 9.1   |
| 105                          | TC  | 104.0                                       | 91.0  | 79.0  | 111.0     | 98.0  | 86.0  | 115.0     | 102.0 | 92.0  |
|                              | SHC | 32.0  | 47.0  | 61.0  | 40.0      | 60.0  | 79.0  | 48.0      | 72.0  | 92.0  |
|                              | kW  | 10.1  | 10.0  | 10.0  | 10.1      | 10.1  | 10.0  | 10.1      | 10.1  | 10.0  |
| 115                          | TC  | 94.0  | 81.0  | 70.0  | 99.0      | 87.0  | 76.0  | 103.0     | 91.0  | 82.0  |
|                              | SHC | 23.0  | 38.0  | 53.0  | 30.0      | 50.0  | 70.0  | 37.0      | 62.0  | 82.0  |
|                              | kW  | 11.2  | 11.1  | 11.0  | 11.2      | 11.1  | 11.1  | 11.2      | 11.1  | 11.1  |
| 125                          | TC  | 83.0  | 71.0  | 60.0  | 88.0      | 76.0  | 66.0  | 91.0      | 79.0  | 71.0  |
|                              | SHC | 13.0  | 29.0  | 44.0  | 20.0      | 41.0  | 60.0  | 27.0      | 52.0  | 71.0  |
|                              | kW  | 12.3  | 12.3  | 12.2  | 12.3      | 12.3  | 12.2  | 12.3      | 12.3  | 12.2  |

## 50LC\*A12 REHEAT MODE NO. 2 CAPACITIES (MBTUH), STANDARD UNITS

| REHEAT-2 (HOT GAS<br>REHEAT MODE) |     | AIR ENTERING EVAPORATOR – SCFM/BF (80°F db) |      |      |           |      |      |           |      |      |
|-----------------------------------|-----|---|------|------|-----------|------|------|-----------|------|------|
|                                   |     | 3000/0.02                                   |      |      | 4000/0.04 |      |      | 5000/0.06 |      |      |
| OUTDOOR AIR<br>TEMP (°F)          |     | AIR ENTERING EVAPORATOR– Ewb (°F)           |      |      |           |      |      |           |      |      |
|                                   |     | 62.5  | 64   | 65.3 | 62.5      | 64   | 65.3 | 62.5      | 64   | 65.3 |
| 80                                | TC  | 43.0  | 45.0 | 47.0 | 44.0      | 46.0 | 48.0 | 45.0      | 47.0 | 49.0 |
|                                   | SHC | 7.0   | 1.0  | -4.0 | 15.0      | 8.0  | 2.0  | 24.0      | 15.0 | 8.0  |
|                                   | kW  | 8.6   | 8.6  | 8.7  | 8.6       | 8.6  | 8.7  | 8.6       | 8.6  | 8.7  |
| 75                                | TC  | 46.0  | 49.0 | 51.0 | 48.0      | 50.0 | 52.0 | 49.0      | 52.0 | 54.0 |
|                                   | SHC | 11.0  | 5.0  | 0.0  | 19.0      | 12.0 | 5.0  | 28.0      | 19.0 | 12.0 |
|                                   | kW  | 8.2   | 8.2  | 8.3  | 8.2       | 8.2  | 8.3  | 8.2       | 8.2  | 8.3  |
| 70                                | TC  | 50.0  | 52.0 | 55.0 | 52.0      | 54.0 | 57.0 | 53.0      | 56.0 | 58.0 |
|                                   | SHC | 14.0  | 9.0  | 4.0  | 23.0      | 16.0 | 9.0  | 32.0      | 23.0 | 16.0 |
|                                   | kW  | 7.8   | 7.9  | 7.9  | 7.8       | 7.9  | 7.9  | 7.8       | 7.9  | 7.9  |
| 60                                | TC  | 58.0  | 60.0 | 62.0 | 60.0      | 63.0 | 65.0 | 62.0      | 64.0 | 66.0 |
|                                   | SHC | 22.0  | 16.0 | 12.0 | 30.0      | 23.0 | 17.0 | 40.0      | 32.0 | 24.0 |
|                                   | kW  | 7.1   | 7.2  | 7.3  | 7.1       | 7.2  | 7.3  | 7.2       | 7.2  | 7.3  |
| 50                                | TC  | 67.0  | 68.0 | 70.0 | 69.0      | 71.0 | 73.0 | 70.0      | 72.0 | 75.0 |
|                                   | SHC | 31.0  | 24.0 | 20.0 | 39.0      | 32.0 | 26.0 | 48.0      | 40.0 | 33.0 |
|                                   | kW  | 6.6   | 6.6  | 6.7  | 6.6       | 6.7  | 6.7  | 6.6       | 6.7  | 6.7  |
| 40                                | TC  | 74.0  | 76.0 | 81.0 | 79.0      | 81.0 | 82.0 | 79.0      | 81.0 | 84.0 |
|                                   | SHC | 38.0  | 33.0 | 31.0 | 50.0      | 43.0 | 37.0 | 58.0      | 50.0 | 44.0 |
|                                   | kW  | 6.1   | 6.2  | 6.2  | 6.1       | 6.2  | 6.3  | 6.2       | 6.2  | 6.3  |

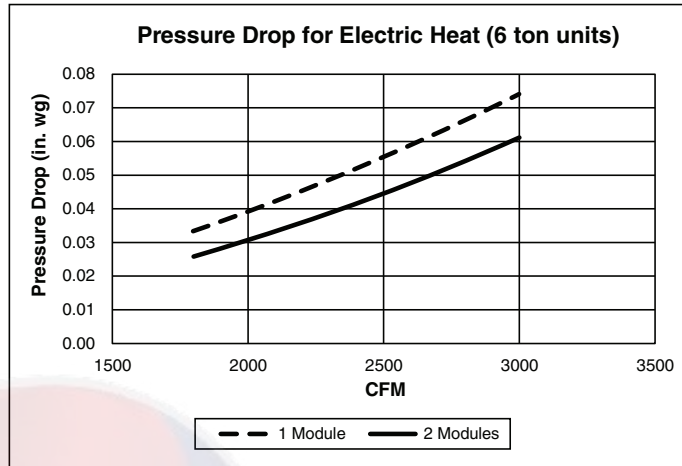
### LEGEND

**kW** — Compressor Power Input  
**SHC** — Sensible Capacity (1000 Btuh) Gross  
**TC** — Total Capacity (1000 Btuh) Gross

## ELECTRIC HEATERS

### PRESSURE DROP FOR ELECTRIC HEAT (6 TON UNITS)

| AIRFLOW (CFM)             | 1800  | 1950  | 2100  | 2250  | 2400  | 2550  | 2700  | 2850  | 3000  |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 Electric Heater Module  | 0.026 | 0.029 | 0.033 | 0.037 | 0.042 | 0.046 | 0.051 | 0.056 | 0.061 |
| 2 Electric Heater Modules | 0.033 | 0.038 | 0.042 | 0.047 | 0.052 | 0.057 | 0.063 | 0.068 | 0.074 |



### PRESSURE DROP FOR ELECTRIC HEAT (7.5-10 TON UNITS)

| AIRFLOW (CFM)                               | 2000  | 2500  | 3000  | 3500  | 4000  | 4500  | 5000  |
|---|-------|-------|-------|-------|-------|-------|-------|
| Vertical-1 Elec. Heat Module <sup>a</sup>   | 0.008 | 0.011 | 0.014 | 0.017 | 0.020 | 0.024 | 0.027 |
| Vertical-2 Elec. Heat Module <sup>a</sup>   | 0.013 | 0.018 | 0.024 | 0.030 | 0.037 | 0.044 | 0.052 |
| Horizontal-1 Elec. Heat Module <sup>a</sup> | 0.019 | 0.025 | 0.031 | 0.038 | 0.046 | 0.054 | 0.063 |
| Horizontal-2 Elec. Heat Module <sup>a</sup> | 0.019 | 0.025 | 0.031 | 0.038 | 0.046 | 0.054 | 0.063 |

**NOTE(S):**

- a. Use 2 heater module pressure drop for CRHEATER367A00-370A00, 374A00-377A00, and 381A00-384A00. Prior to the release of the CRHEATER367A00-370A00, 374A00-377A00, 381A00-384A00, the necessary kW's were achieved with 2 separate heater modules. Now the heat capacity is achieved with a single module.

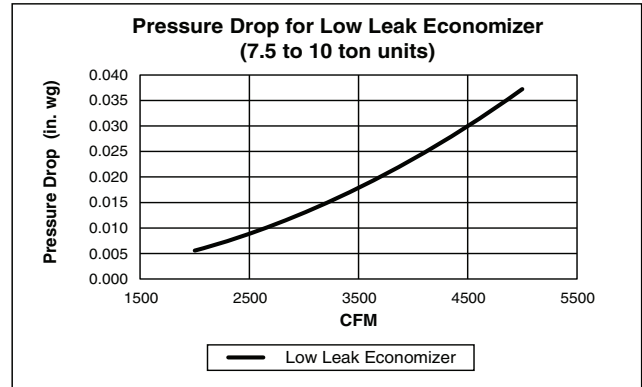
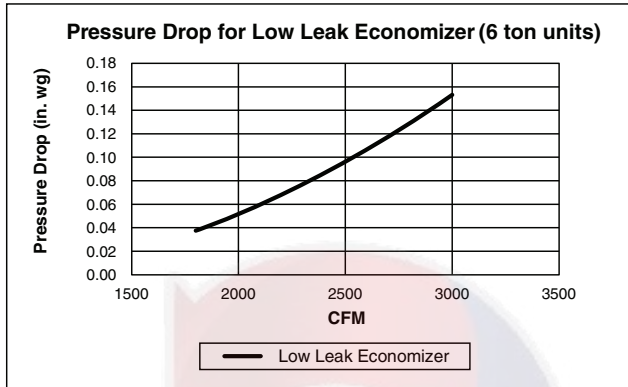
## LOW LEAK ECONOMIZER AND HUMIDI-MIZER COIL

### PRESSURE DROP FOR LOW LEAK ECONOMIZER (6 TON UNITS)

| AIRFLOW (CFM)       | 1800  | 1950  | 2100  | 2250  | 2400  | 2550  | 2700  | 2850  | 3000  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Low Leak Economizer | 0.038 | 0.048 | 0.060 | 0.072 | 0.086 | 0.101 | 0.117 | 0.135 | 0.153 |

### PRESSURE DROP FOR LOW LEAK ECONOMIZER (7.5 TO 10 TON UNITS)

| AIRFLOW (CFM)       | 2000  | 2500  | 3000  | 3500  | 4000  | 4500  | 5000  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Low Leak Economizer | 0.006 | 0.009 | 0.013 | 0.018 | 0.024 | 0.030 | 0.037 |



### PRESSURE DROP FOR HUMIDI-MIZER (6 TON UNITS)

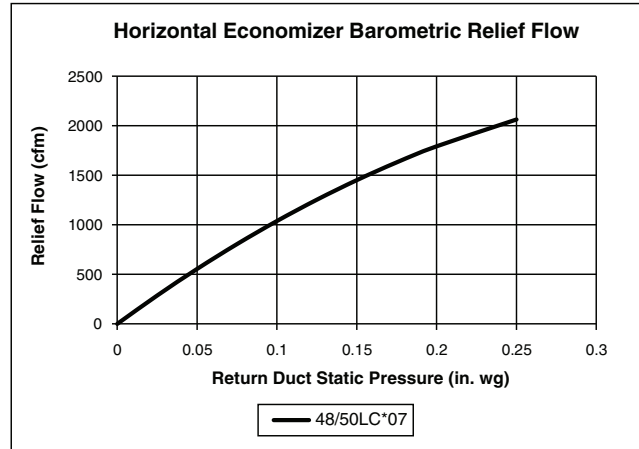
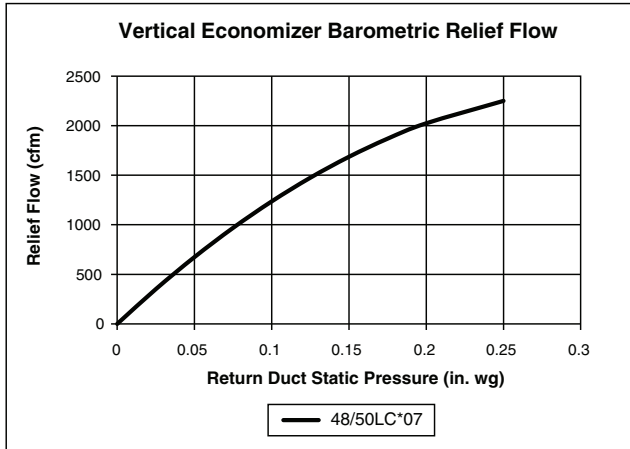
| AIRFLOW (CFM)                       | 1800  | 1950  | 2100  | 2250  | 2400  | 2550  | 2700  | 2850  | 3000  |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pressure Drop (in. wg) Humidi-MiZer | 0.073 | 0.081 | 0.090 | 0.099 | 0.108 | 0.118 | 0.129 | 0.139 | 0.150 |

### PRESSURE DROP FOR HUMIDI-MIZER (7.5 TO 10 TON UNITS)

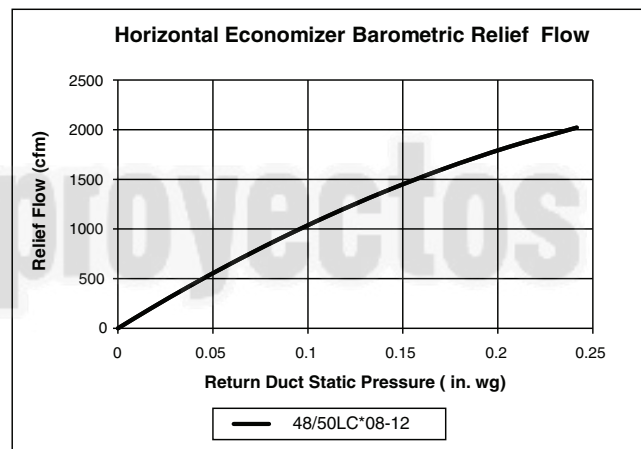
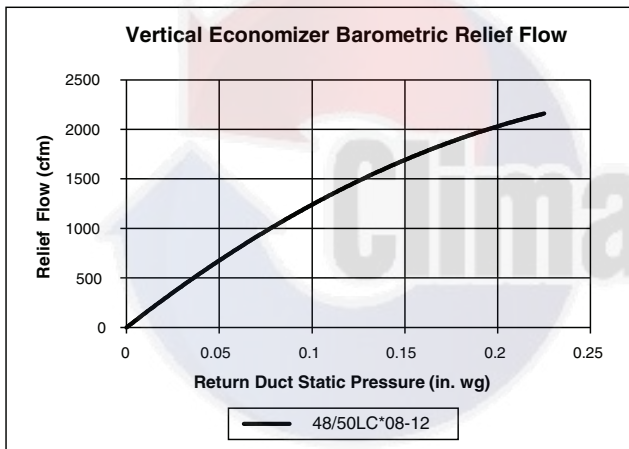
| AIRFLOW (CFM)                       | 2000  | 2500  | 3000  | 3500  | 4000  | 4500  | 5000  |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Pressure Drop (in. wg) Humidi-MiZer | 0.022 | 0.029 | 0.037 | 0.046 | 0.056 | 0.066 | 0.077 |

## ECONOMIZER BAROMETRIC RELIEF AND STATIC PRESSURE

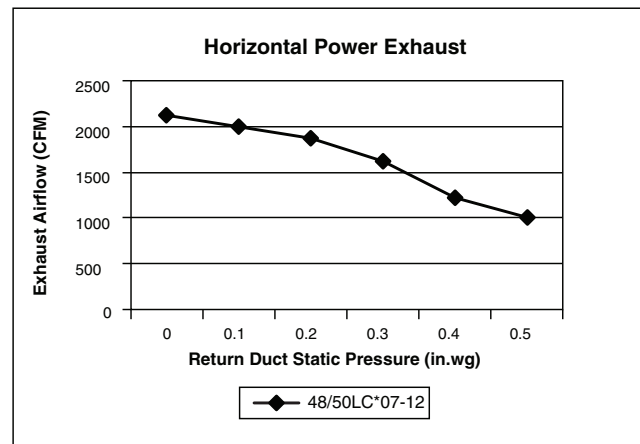
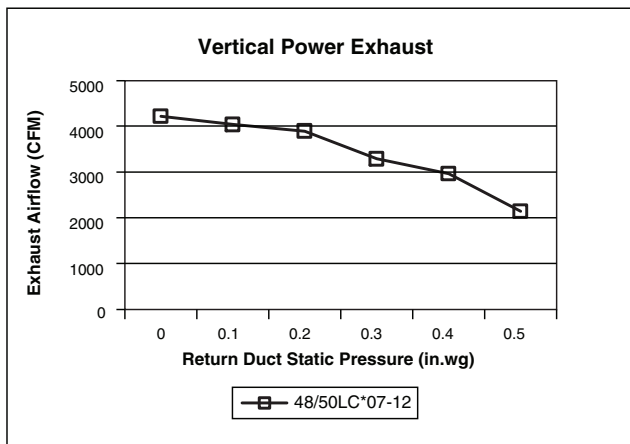
### 6 TON UNITS



### 7.5 TO 10 TON UNITS



## POWER EXHAUST PERFORMANCE



## GENERAL FAN PERFORMANCE NOTES:

1. Interpolation is permissible. Do not extrapolate.
2. External static pressure is the static pressure difference between the return duct and the supply duct plus the static pressure caused by any FIOPs or accessories.
3. Tabular data accounts for pressure loss due to clean filters, unit casing, and wet coils. Factory options and accessories may add static pressure losses. Selection software is available, through your salesperson, to help you select the best motor/drive combination for your application.
4. The Fan Performance tables offer motor/drive recommendations. In cases when 2 motor/drive combinations would work, Carrier recommends the lower horsepower option.
5. For information on the electrical properties of Carrier motors, please see the Electrical Data section of this book.
6. For more information on the performance limits of Carrier motors, see the Application Data section of this book.
7. The EPACT (Energy Policy Act) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (3-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy-efficient motor. Variable-speed motors are exempt from EPACT compliance requirements.

### 50LC\*\*07 HORIZONTAL SUPPLY (6 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 1800 | 366   | 0.19 | 466 | 0.30 | 555 | 0.42 | 635 | 0.55 | 707 | 0.69 |
| 1950 | 379   | 0.22 | 474 | 0.33 | 560 | 0.46 | 638 | 0.60 | 709 | 0.75 |
| 2100 | 394   | 0.26 | 483 | 0.38 | 566 | 0.51 | 642 | 0.65 | 711 | 0.80 |
| 2250 | 409   | 0.31 | 493 | 0.43 | 573 | 0.56 | 647 | 0.71 | 715 | 0.87 |
| 2400 | 426   | 0.36 | 505 | 0.48 | 581 | 0.62 | 652 | 0.77 | 719 | 0.94 |
| 2550 | 443   | 0.41 | 517 | 0.54 | 590 | 0.68 | 659 | 0.84 | 724 | 1.01 |
| 2700 | 460   | 0.48 | 531 | 0.61 | 600 | 0.75 | 667 | 0.92 | 730 | 1.09 |
| 2850 | 478   | 0.55 | 545 | 0.68 | 611 | 0.83 | 675 | 1.00 | 737 | 1.17 |
| 3000 | 497   | 0.62 | 560 | 0.76 | 623 | 0.92 | 685 | 1.09 | 744 | 1.27 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |      |      |
|------|---|------|-----|------|-----|------|-----|------|------|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0  |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm  | bhp  |
| 1800 | 772   | 0.84 | 833 | 1.00 | 890 | 1.16 | 943 | 1.33 | 994  | 1.50 |
| 1950 | 774   | 0.90 | 834 | 1.06 | 891 | 1.23 | 944 | 1.40 | 995  | 1.58 |
| 2100 | 776   | 0.96 | 836 | 1.13 | 892 | 1.31 | 945 | 1.49 | 995  | 1.67 |
| 2250 | 778   | 1.03 | 838 | 1.21 | 894 | 1.39 | 946 | 1.57 | 996  | 1.76 |
| 2400 | 782   | 1.11 | 840 | 1.29 | 895 | 1.47 | 948 | 1.66 | 998  | 1.86 |
| 2550 | 785   | 1.19 | 843 | 1.37 | 898 | 1.56 | 950 | 1.76 | 999  | 1.96 |
| 2700 | 790   | 1.27 | 847 | 1.46 | 901 | 1.66 | 952 | 1.86 | 1001 | 2.07 |
| 2850 | 795   | 1.36 | 851 | 1.56 | 904 | 1.76 | 955 | 1.97 | 1004 | 2.18 |
| 3000 | 802   | 1.46 | 856 | 1.66 | 909 | 1.87 | 959 | 2.08 | 1007 | 2.30 |

Standard static: 356-534 rpm, 1.7 max bhp

Medium static: 539-809 rpm, 1.7 max bhp

High static: 799-1054 rpm, 2.9 max bhp

## 50LC\*\*07 VERTICAL SUPPLY (6 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 1800 | 392   | 0.22 | 492 | 0.33 | 580 | 0.46 | 658 | 0.59 | 729 | 0.74 |
| 1950 | 408   | 0.25 | 502 | 0.37 | 587 | 0.51 | 664 | 0.65 | 733 | 0.80 |
| 2100 | 425   | 0.30 | 514 | 0.42 | 596 | 0.56 | 670 | 0.71 | 739 | 0.87 |
| 2250 | 442   | 0.35 | 526 | 0.48 | 605 | 0.62 | 678 | 0.78 | 745 | 0.94 |
| 2400 | 460   | 0.41 | 540 | 0.54 | 616 | 0.69 | 686 | 0.85 | 752 | 1.02 |
| 2550 | 479   | 0.47 | 555 | 0.61 | 627 | 0.77 | 696 | 0.93 | 760 | 1.11 |
| 2700 | 499   | 0.55 | 570 | 0.69 | 640 | 0.85 | 706 | 1.02 | 768 | 1.20 |
| 2850 | 519   | 0.63 | 587 | 0.77 | 653 | 0.94 | 717 | 1.12 | 778 | 1.30 |
| 3000 | 539   | 0.71 | 604 | 0.87 | 667 | 1.04 | 729 | 1.22 | 788 | 1.41 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |      |      |
|------|---|------|-----|------|-----|------|-----|------|------|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0  |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm  | bhp  |
| 1800 | 793   | 0.89 | 854 | 1.05 | 910 | 1.22 | 963 | 1.39 | 1013 | 1.57 |
| 1950 | 798   | 0.96 | 857 | 1.13 | 913 | 1.30 | 966 | 1.48 | 1016 | 1.66 |
| 2100 | 802   | 1.04 | 861 | 1.21 | 917 | 1.39 | 969 | 1.57 | 1019 | 1.76 |
| 2250 | 807   | 1.12 | 866 | 1.30 | 921 | 1.48 | 973 | 1.67 | 1022 | 1.87 |
| 2400 | 813   | 1.20 | 871 | 1.39 | 926 | 1.58 | 977 | 1.78 | 1026 | 1.98 |
| 2550 | 820   | 1.29 | 877 | 1.49 | 931 | 1.68 | 982 | 1.89 | 1031 | 2.10 |
| 2700 | 827   | 1.39 | 883 | 1.59 | 936 | 1.79 | 987 | 2.00 | 1035 | 2.22 |
| 2850 | 835   | 1.50 | 890 | 1.70 | 943 | 1.91 | 993 | 2.13 | 1040 | 2.35 |
| 3000 | 844   | 1.61 | 898 | 1.82 | 949 | 2.04 | 999 | 2.26 | 1046 | 2.49 |

Standard static: 356-534 rpm, 1.7 max bhp  
 Medium static: 539-809 rpm, 1.7 max bhp  
 High static: 799-1054 rpm, 2.9 max bhp



## 50LC\*\*08 HORIZONTAL SUPPLY (7.5 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2250 | 317   | 0.21 | 426 | 0.41 | 511 | 0.65 | 583 | 0.91 | 644 | 1.18 |
| 2438 | 323   | 0.24 | 429 | 0.44 | 515 | 0.69 | 587 | 0.95 | 649 | 1.24 |
| 2625 | 331   | 0.27 | 433 | 0.48 | 519 | 0.73 | 591 | 1.00 | 654 | 1.30 |
| 2813 | 339   | 0.30 | 438 | 0.51 | 522 | 0.77 | 595 | 1.05 | 658 | 1.36 |
| 3000 | 348   | 0.34 | 443 | 0.55 | 526 | 0.82 | 598 | 1.11 | 662 | 1.42 |
| 3188 | 358   | 0.38 | 448 | 0.60 | 530 | 0.87 | 602 | 1.17 | 666 | 1.49 |
| 3375 | 369   | 0.43 | 455 | 0.65 | 534 | 0.92 | 606 | 1.23 | 669 | 1.56 |
| 3563 | 380   | 0.48 | 462 | 0.71 | 539 | 0.98 | 610 | 1.29 | 673 | 1.63 |
| 3750 | 392   | 0.54 | 469 | 0.77 | 544 | 1.04 | 614 | 1.36 | 677 | 1.70 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2250 | 700   | 1.48 | 750 | 1.78 | 797 | 2.11 | 840 | 2.44 | 881 | 2.79 |
| 2438 | 705   | 1.54 | 756 | 1.86 | 803 | 2.19 | 847 | 2.54 | 888 | 2.90 |
| 2625 | 710   | 1.61 | 762 | 1.94 | 809 | 2.28 | 853 | 2.64 | 895 | 3.01 |
| 2813 | 715   | 1.68 | 767 | 2.02 | 814 | 2.38 | 859 | 2.74 | 901 | 3.12 |
| 3000 | 719   | 1.76 | 771 | 2.11 | 819 | 2.47 | 864 | 2.84 | 906 | 3.23 |
| 3188 | 723   | 1.83 | 776 | 2.19 | 824 | 2.56 | 869 | 2.95 | 912 | 3.35 |
| 3375 | 727   | 1.91 | 780 | 2.28 | 828 | 2.66 | 874 | 3.05 | 916 | 3.46 |
| 3563 | 731   | 1.99 | 783 | 2.36 | 832 | 2.76 | 878 | 3.16 | 921 | 3.58 |
| 3750 | 734   | 2.07 | 787 | 2.46 | 836 | 2.86 | 882 | 3.27 | 926 | 3.70 |

- Standard static: 338-507 rpm, 1.7 max bhp
- Medium static: 488-675 rpm, 1.7 max bhp
- High static: 623-863 rpm, 2.9 max bhp
- Ultra high static: 847-1150 rpm, 3.7 max bhp

**Boldface** Indicates field-supplied drive is required (standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308-462 rpm.



## 50LC\*\*08 VERTICAL SUPPLY (7.5 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |             |     |      |     |      |     |      |     |      |
|------|---|-------------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |             | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp         | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2250 | 328   | <b>0.23</b> | 438 | 0.44 | 521 | 0.68 | 588 | 0.93 | 647 | 1.19 |
| 2438 | 335   | <b>0.25</b> | 443 | 0.48 | 527 | 0.73 | 596 | 0.99 | 655 | 1.27 |
| 2625 | 342   | 0.28        | 448 | 0.51 | 533 | 0.77 | 602 | 1.05 | 662 | 1.34 |
| 2813 | 349   | 0.32        | 454 | 0.56 | 538 | 0.83 | 608 | 1.12 | 669 | 1.42 |
| 3000 | 358   | 0.36        | 459 | 0.60 | 543 | 0.88 | 614 | 1.18 | 675 | 1.50 |
| 3188 | 367   | 0.40        | 465 | 0.65 | 548 | 0.94 | 620 | 1.25 | 681 | 1.58 |
| 3375 | 378   | 0.45        | 471 | 0.70 | 554 | 1.00 | 625 | 1.32 | 687 | 1.66 |
| 3563 | 388   | 0.50        | 477 | 0.75 | 559 | 1.06 | 630 | 1.39 | 693 | 1.75 |
| 3750 | 400   | 0.56        | 484 | 0.82 | 564 | 1.13 | 635 | 1.47 | 698 | 1.83 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2250 | 699   | 1.47 | 746 | 1.76 | 790 | 2.06 | 830 | 2.36 | 869 | 2.68 |
| 2438 | 707   | 1.56 | 755 | 1.86 | 799 | 2.17 | 840 | 2.49 | 879 | 2.81 |
| 2625 | 715   | 1.64 | 764 | 1.96 | 808 | 2.28 | 850 | 2.61 | 889 | 2.95 |
| 2813 | 723   | 1.73 | 772 | 2.06 | 817 | 2.40 | 859 | 2.74 | 898 | 3.09 |
| 3000 | 730   | 1.83 | 779 | 2.16 | 825 | 2.51 | 867 | 2.87 | 907 | 3.24 |
| 3188 | 737   | 1.92 | 786 | 2.27 | 832 | 2.63 | 875 | 3.00 | 915 | 3.38 |
| 3375 | 743   | 2.01 | 793 | 2.38 | 840 | 2.75 | 883 | 3.14 | 923 | 3.53 |
| 3563 | 749   | 2.11 | 800 | 2.49 | 846 | 2.88 | 890 | 3.27 | 931 | 3.68 |
| 3750 | 754   | 2.21 | 806 | 2.60 | 853 | 3.00 | 897 | 3.41 | 938 | 3.83 |

- Standard static: 338-507 rpm, 1.7 max bhp
- Medium static: 488-675 rpm, 1.7 max bhp
- High static: 623-863 rpm, 2.9 max bhp
- Ultra high static: 847-1150 rpm, 3.7 max bhp

**Boldface** Indicates field-supplied drive is required (standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308-462 rpm.

**Italics** Indicates field-supplied motor and drive are required (motor = HD60FK658, motor pulley = KR11HY213, blower pulley = KR11AK215, belt = KR29AF048) 836-1006 rpm.



## 50LC\*\*09 HORIZONTAL SUPPLY (8.5 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2550 | 328   | 0.25 | 432 | 0.46 | 517 | 0.71 | 589 | 0.98 | 652 | 1.28 |
| 2763 | 337   | 0.29 | 437 | 0.50 | 521 | 0.76 | 594 | 1.04 | 657 | 1.34 |
| 2975 | 347   | 0.33 | 442 | 0.55 | 526 | 0.81 | 598 | 1.10 | 661 | 1.42 |
| 3188 | 358   | 0.38 | 448 | 0.60 | 530 | 0.87 | 602 | 1.17 | 666 | 1.49 |
| 3400 | 371   | 0.44 | 456 | 0.66 | 535 | 0.93 | 606 | 1.24 | 670 | 1.57 |
| 3613 | 384   | 0.50 | 464 | 0.72 | 541 | 1.00 | 611 | 1.31 | 674 | 1.65 |
| 3825 | 397   | 0.57 | 473 | 0.79 | 547 | 1.07 | 615 | 1.39 | 678 | 1.74 |
| 4038 | 411   | 0.64 | 483 | 0.87 | 554 | 1.15 | 621 | 1.48 | 683 | 1.83 |
| 4250 | 426   | 0.73 | 493 | 0.96 | 561 | 1.24 | 626 | 1.57 | 687 | 1.93 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2550 | 708   | 1.59 | 759 | 1.91 | 807 | 2.25 | 851 | 2.60 | 892 | 2.96 |
| 2763 | 714   | 1.67 | 765 | 2.00 | 813 | 2.35 | 857 | 2.71 | 899 | 3.09 |
| 2975 | 719   | 1.75 | 771 | 2.09 | 819 | 2.46 | 863 | 2.83 | 906 | 3.22 |
| 3188 | 723   | 1.83 | 776 | 2.19 | 824 | 2.56 | 869 | 2.95 | 912 | 3.35 |
| 3400 | 727   | 1.92 | 780 | 2.29 | 829 | 2.67 | 874 | 3.07 | 917 | 3.48 |
| 3613 | 732   | 2.01 | 785 | 2.39 | 834 | 2.78 | 879 | 3.19 | 922 | 3.61 |
| 3825 | 736   | 2.11 | 789 | 2.49 | 838 | 2.90 | 884 | 3.32 | 927 | 3.75 |
| 4038 | 740   | 2.21 | 793 | 2.60 | 842 | 3.02 | 888 | 3.45 | 932 | 3.89 |
| 4250 | 744   | 2.31 | 797 | 2.72 | 846 | 3.14 | 893 | 3.58 | 936 | 4.03 |

- Standard static: 338-507 rpm, 1.7 max bhp
- Medium static: 488-675 rpm, 1.7 max bhp
- High static: 675-863 rpm, 3.7 max bhp
- Ultra high static: 832-1021 rpm, 4.9 max bhp
- Boldface** Indicates field-supplied drive is required (standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308-462 rpm.



## 50LC\*\*09 VERTICAL SUPPLY (8.5 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2550 | 339   | 0.27 | 446 | 0.50 | 530 | 0.76 | 600 | 1.03 | 659 | 1.31 |
| 2763 | 347   | 0.31 | 452 | 0.54 | 537 | 0.81 | 607 | 1.10 | 667 | 1.40 |
| 2975 | 357   | 0.35 | 458 | 0.59 | 543 | 0.87 | 613 | 1.17 | 675 | 1.49 |
| 3188 | 367   | 0.40 | 465 | 0.65 | 548 | 0.94 | 620 | 1.25 | 681 | 1.58 |
| 3400 | 379   | 0.46 | 471 | 0.71 | 554 | 1.01 | 626 | 1.33 | 688 | 1.67 |
| 3613 | 391   | 0.52 | 479 | 0.77 | 560 | 1.08 | 631 | 1.41 | 694 | 1.77 |
| 3825 | 405   | 0.59 | 488 | 0.84 | 566 | 1.16 | 637 | 1.50 | 700 | 1.87 |
| 4038 | 418   | 0.66 | 497 | 0.92 | 573 | 1.24 | 643 | 1.60 | 706 | 1.98 |
| 4250 | 432   | 0.75 | 507 | 1.01 | 580 | 1.33 | 649 | 1.70 | 712 | 2.09 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 2550 | 712   | 1.61 | 760 | 1.92 | 805 | 2.23 | 846 | 2.56 | 885 | 2.90 |
| 2763 | 721   | 1.71 | 770 | 2.03 | 815 | 2.36 | 856 | 2.71 | 895 | 3.06 |
| 2975 | 729   | 1.81 | 778 | 2.15 | 824 | 2.50 | 866 | 2.85 | 906 | 3.22 |
| 3188 | 737   | 1.92 | 786 | 2.27 | 832 | 2.63 | 875 | 3.00 | 915 | 3.38 |
| 3400 | 744   | 2.03 | 794 | 2.39 | 841 | 2.77 | 884 | 3.15 | 924 | 3.55 |
| 3613 | 750   | 2.14 | 801 | 2.52 | 848 | 2.91 | 892 | 3.31 | 933 | 3.72 |
| 3825 | 757   | 2.25 | 808 | 2.65 | 855 | 3.05 | 899 | 3.47 | 941 | 3.89 |
| 4038 | 763   | 2.37 | 814 | 2.78 | 862 | 3.20 | 907 | 3.63 | 948 | 4.06 |
| 4250 | 769   | 2.49 | 821 | 2.92 | 869 | 3.35 | 913 | 3.79 | 955 | 4.24 |

- Standard static: 338-507 rpm, 1.7 max bhp
- Medium static: 488-675 rpm, 1.7 max bhp
- High static: 675-863 rpm, 3.7 max bhp
- Ultra high static: 832-1021 rpm, 4.9 max bhp



## 50LC\*\*12 HORIZONTAL SUPPLY (10 TONS)

| CFM         | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |             |     |      |     |      |     |      |     |      |
|-------------|---|-------------|-----|------|-----|------|-----|------|-----|------|
|             | 0.2   |             | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|             | rpm   | bhp         | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| <b>3000</b> | <b>348</b>                                  | <b>0.34</b> | 443 | 0.55 | 526 | 0.82 | 598 | 1.11 | 662 | 1.42 |
| <b>3250</b> | <b>362</b>                                  | <b>0.40</b> | 450 | 0.62 | 532 | 0.88 | 603 | 1.19 | 667 | 1.51 |
| <b>3500</b> | 377   | 0.46        | 459 | 0.69 | 538 | 0.96 | 608 | 1.27 | 672 | 1.61 |
| <b>3750</b> | 392   | 0.54        | 469 | 0.77 | 544 | 1.04 | 614 | 1.36 | 677 | 1.70 |
| <b>4000</b> | 409   | 0.63        | 481 | 0.86 | 552 | 1.14 | 620 | 1.46 | 682 | 1.81 |
| <b>4250</b> | 426   | 0.73        | 493 | 0.96 | 561 | 1.24 | 626 | 1.57 | 687 | 1.93 |
| <b>4500</b> | 443   | 0.84        | 506 | 1.07 | 571 | 1.36 | 634 | 1.69 | 693 | 2.05 |
| <b>4750</b> | 461   | 0.96        | 521 | 1.20 | 582 | 1.49 | 642 | 1.82 | 700 | 2.19 |
| <b>5000</b> | 480   | 1.10        | 536 | 1.34 | 594 | 1.64 | 651 | 1.97 | 708 | 2.34 |

| CFM         | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|-------------|---|------|-----|------|-----|------|-----|------|-----|------|
|             | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|             | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| <b>3000</b> | 719   | 1.76 | 771 | 2.11 | 819 | 2.47 | 864 | 2.84 | 906 | 3.23 |
| <b>3250</b> | 724   | 1.86 | 777 | 2.22 | 825 | 2.59 | 871 | 2.98 | 913 | 3.39 |
| <b>3500</b> | 729   | 1.96 | 782 | 2.34 | 831 | 2.72 | 877 | 3.13 | 920 | 3.54 |
| <b>3750</b> | 734   | 2.07 | 787 | 2.46 | 836 | 2.86 | 882 | 3.27 | 926 | 3.70 |
| <b>4000</b> | 739   | 2.19 | 792 | 2.58 | 841 | 3.00 | 888 | 3.42 | 931 | 3.86 |
| <b>4250</b> | 744   | 2.31 | 797 | 2.72 | 846 | 3.14 | 893 | 3.58 | 936 | 4.03 |
| <b>4500</b> | 749   | 2.45 | 802 | 2.86 | 851 | 3.29 | 897 | 3.74 | 941 | 4.21 |
| <b>4750</b> | 755   | 2.59 | 807 | 3.01 | 856 | 3.45 | 902 | 3.91 | 946 | 4.39 |
| <b>5000</b> | 761   | 2.75 | 813 | 3.18 | 861 | 3.63 | 907 | 4.09 | 951 | 4.58 |

Standard static: 375-563 rpm, 2.4 max bhp  
Medium static: 547-757 rpm, 2.9 max bhp  
High static: 760-960 rpm, 4.9 max bhp  
 \*At 575v, bhp is 4.7  
**Boldface** Indicates field-supplied drive is required (standard motor, motor pulley = KR11HY161, blower pulley = AK134 1 3/16, belt = KR30AE051) 340-470 rpm.



## 50LC\*\*12 VERTICAL SUPPLY (10 TONS)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 0.2   |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 3000 | 358   | 0.36 | 459 | 0.60 | 543 | 0.88 | 614 | 1.18 | 675 | 1.50 |
| 3250 | 371   | 0.42 | 467 | 0.66 | 550 | 0.96 | 621 | 1.27 | 683 | 1.61 |
| 3500 | 385   | 0.48 | 475 | 0.74 | 557 | 1.04 | 628 | 1.37 | 691 | 1.72 |
| 3750 | 400   | 0.56 | 484 | 0.82 | 564 | 1.13 | 635 | 1.47 | 698 | 1.83 |
| 4000 | 416   | 0.65 | 495 | 0.91 | 572 | 1.23 | 642 | 1.58 | 705 | 1.96 |
| 4250 | 432   | 0.75 | 507 | 1.01 | 580 | 1.33 | 649 | 1.70 | 712 | 2.09 |
| 4500 | 450   | 0.86 | 519 | 1.13 | 590 | 1.45 | 657 | 1.82 | 719 | 2.22 |
| 4750 | 468   | 0.99 | 533 | 1.26 | 600 | 1.58 | 665 | 1.96 | 726 | 2.37 |
| 5000 | 486   | 1.13 | 547 | 1.40 | 611 | 1.73 | 674 | 2.11 | 733 | 2.53 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |     |      |     |      |     |      |     |      |
|------|---|------|-----|------|-----|------|-----|------|-----|------|
|      | 1.2   |      | 1.4 |      | 1.6 |      | 1.8 |      | 2.0 |      |
|      | rpm   | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  | rpm | bhp  |
| 3000 | 730   | 1.83 | 779 | 2.16 | 825 | 2.51 | 867 | 2.87 | 907 | 3.24 |
| 3250 | 739   | 1.95 | 789 | 2.31 | 835 | 2.67 | 878 | 3.05 | 918 | 3.43 |
| 3500 | 747   | 2.08 | 798 | 2.45 | 844 | 2.83 | 887 | 3.23 | 928 | 3.63 |
| 3750 | 754   | 2.21 | 806 | 2.60 | 853 | 3.00 | 897 | 3.41 | 938 | 3.83 |
| 4000 | 762   | 2.35 | 813 | 2.76 | 861 | 3.17 | 905 | 3.60 | 947 | 4.03 |
| 4250 | 769   | 2.49 | 821 | 2.92 | 869 | 3.35 | 913 | 3.79 | 955 | 4.24 |
| 4500 | 775   | 2.65 | 828 | 3.08 | 876 | 3.53 | 921 | 3.99 | 963 | 4.46 |
| 4750 | 782   | 2.80 | 834 | 3.25 | 883 | 3.72 | 928 | 4.19 | 971 | 4.68 |
| 5000 | 789   | 2.97 | 841 | 3.44 | 890 | 3.91 | 936 | 4.40 | 978 | 4.90 |

- Standard static: 375-563 rpm, 2.4 max bhp
- Medium static: 547-757 rpm, 2.9 max bhp
- High static: 760-960 rpm, 4.9 max bhp
- \*At 575v, bhp is 4.7

**Boldface** Indicates field-supplied drive is required (standard motor, motor pulley = KR11HY161, blower pulley = AK134 1 3/16, belt = KR30AE051) 340-470 rpm

*Italics* Indicate field-supplied drive and motor are required (high static motor, motor pulley = KR11HY213, blower pulley = KR51BH615, belt = KR29BF047) 880-1080 rpm.

### PULLEY ADJUSTMENT

| 50LC UNIT | MOTOR/DRIVE COMBO | MOTOR PULLEY TURNS OPEN |      |      |      |      |      |      |      |     |     |     |     |     |     |
|-----------|-------------------|-------------------------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
|           |                   | 0                       | 0.5  | 1    | 1.5  | 2    | 2.5  | 3    | 3.5  | 4   | 4.5 | 5   | 5.5 | 6   |     |
| 07        | 3 phase           | Standard Static         | 534  | 516  | 498  | 481  | 463  | 445  | 427  | 409 | 392 | 374 | 356 | —   | —   |
|           |                   | Medium Static           | 809  | 782  | 755  | 728  | 701  | 674  | 647  | 620 | 593 | 566 | 539 | —   | —   |
|           |                   | High Static             | —    | —    | 1054 | 1022 | 990  | 958  | 927  | 895 | 863 | 831 | 799 | —   | —   |
| 08        | 3 phase           | Standard Static         | 507  | 490  | 473  | 456  | 439  | 423  | 406  | 389 | 372 | 355 | 338 | —   | —   |
|           |                   | Medium Static           | 675  | 656  | 638  | 619  | 600  | 582  | 563  | 544 | 525 | 507 | 488 | —   | —   |
|           |                   | High Static             | 863  | 839  | 815  | 791  | 767  | 743  | 719  | 695 | 671 | 647 | 623 | —   | —   |
|           |                   | Ultra Static            | —    | —    | 1150 | 1120 | 1089 | 1059 | 1029 | 999 | 968 | 938 | 908 | 877 | 847 |
| 09        | 3 phase           | Standard Static         | 507  | 490  | 473  | 456  | 439  | 423  | 406  | 389 | 372 | 355 | 338 | —   | —   |
|           |                   | Medium Static           | 675  | 656  | 638  | 619  | 600  | 582  | 563  | 544 | 525 | 507 | 488 | —   | —   |
|           |                   | High Static             | 863  | 844  | 825  | 807  | 788  | 769  | 750  | 731 | 713 | 694 | 675 | —   | —   |
|           |                   | Ultra Static            | 1021 | 1002 | 983  | 964  | 945  | 927  | 908  | 889 | 870 | 851 | 832 | —   | —   |
| 12        | 3 phase           | Standard Static         | 563  | 544  | 525  | 507  | 488  | 469  | 450  | 431 | 413 | 394 | 375 | —   | —   |
|           |                   | Medium Static           | 757  | 736  | 715  | 694  | 673  | 652  | 631  | 610 | 589 | 568 | 547 | —   | —   |
|           |                   | High Static             | —    | —    | 960  | 940  | 920  | 900  | 880  | 860 | 840 | 820 | 800 | 780 | 760 |

Factory setting

## COOLING ELECTRICAL DATA

| 50LC UNIT | V-Ph-Hz  | VOLTAGE RANGE |     | COMP 1 |     | COMP 2 |     | OFM (ea) |      | IFM   |                  |      |
|-----------|----------|---------------|-----|--------|-----|--------|-----|----------|------|-------|------------------|------|
|           |          | MIN           | MAX | RLA    | LRA | RLA    | LRA | WATTS    | FLA  | TYPE  | EFF AT FULL LOAD | FLA  |
| 07        | 208-3-60 | 187           | 253 | 8.3    | 58  | 13.2   | 88  | 195      | 1.8  | STD   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 8.6  |
|           | 230-3-60 | 187           | 253 | 8.3    | 58  | 13.2   | 88  | 195      | 1.8  | STD   | 81.5%            | 5.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 7.8  |
|           | 460-3-60 | 414           | 506 | 5.1    | 28  | 6.0    | 44  | 195      | 1.8  | STD   | 81.5%            | 2.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 2.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 3.8  |
|           | 575-3-60 | 518           | 633 | 3.3    | 24  | 4.2    | 30  | 195      | 1.8  | STD   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 4.5  |
| 08        | 208-3-60 | 187           | 253 | 13.2   | 88  | 13.7   | 83  | 195      | 1.8  | STD   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 8.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 84.5%            | 10.8 |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 5.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.6  |
|           | 230-3-60 | 187           | 253 | 13.2   | 88  | 13.7   | 83  | 195      | 1.8  | HIGH  | 84.5%            | 7.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 84.5%            | 9.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 5.6  |
|           | 460-3-60 | 414           | 506 | 6.0    | 44  | 6.2    | 41  | 195      | 1.8  | MED   | 81.5%            | 2.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 3.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 84.5%            | 4.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 2.8  |
|           | 575-3-60 | 518           | 633 | 4.2    | 30  | 4.8    | 33  | 195      | 1.8  | MED   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 4.5  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 84.5%            | 4.5  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 2.8  |
| 195       |          |               |     |        |     |        |     | 1.8      | HIGH | 84.5% | 4.5              |      |
| 09        | 208-3-60 | 187           | 253 | 13.2   | 88  | 15.9   | 110 | 195      | 1.8  | STD   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 10.8 |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 82.0%            | 13.6 |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 5.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 5.6  |
|           | 230-3-60 | 187           | 253 | 13.2   | 88  | 15.9   | 110 | 195      | 1.8  | HIGH  | 84.5%            | 9.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 82.0%            | 12.7 |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 2.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 2.9  |
|           | 460-3-60 | 414           | 506 | 6.0    | 44  | 7.7    | 52  | 195      | 1.8  | HIGH  | 84.5%            | 4.9  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 82.0%            | 6.4  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 2.8  |
|           | 575-3-60 | 518           | 633 | 4.2    | 30  | 5.7    | 39  | 195      | 1.8  | MED   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 84.5%            | 4.5  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | SUPER | 82.0%            | 6.2  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | STD   | 81.5%            | 2.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 81.5%            | 2.8  |
| 195       |          |               |     |        |     |        |     | 1.8      | HIGH | 84.5% | 4.5              |      |
| 12        | 208-3-60 | 187           | 253 | 13.1   | 83  | 19.6   | 136 | 195      | 1.8  | STD   | 80.0%            | 7.1  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 84.5%            | 8.6  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 82.0%            | 13.6 |
|           | 230-3-60 | 187           | 253 | 13.1   | 83  | 19.6   | 136 | 195      | 1.8  | STD   | 80.0%            | 6.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 84.5%            | 7.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 82.0%            | 12.7 |
|           | 460-3-60 | 414           | 506 | 6.1    | 41  | 8.2    | 66  | 195      | 1.8  | STD   | 80.0%            | 3.4  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 84.5%            | 3.8  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 82.0%            | 6.4  |
|           | 575-3-60 | 518           | 633 | 4.4    | 33  | 6.6    | 55  | 195      | 1.8  | STD   | 80.0%            | 3.5  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | MED   | 84.5%            | 4.5  |
|           |          |               |     |        |     |        |     | 195      | 1.8  | HIGH  | 82.0%            | 6.2  |

See Legend and Notes on page 77.

## 50LC\*\*07 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |                            |            |         |                        |                            |            |         |
|----------------|-------------|-----------------|-------------|-----------|-------------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE             |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |
|                |             |                 |             |           | MCA               | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |           |                   |                            |            |         |                        |                            |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 35/34             | 45/45                      | 36/35      | 173     | 38/38                  | 50/50                      | 40/40      | 177     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 35/34             | 45/45                      | 36/35      | 173/173 | 38/38                  | 50/50                      | 40/40      | 177/177 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 49/56             | 50/60                      | 45/51      | 173/173 | 54/60                  | 60/60                      | 49/55      | 177/177 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 72/82             | 80/90                      | 66/75      | 173/173 | 77/87                  | 80/90                      | 70/79      | 177/177 |
|                | MED         | NONE            | —           | —         | 35/34             | 45/45                      | 36/35      | 173     | 38/38                  | 50/50                      | 40/40      | 177     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 35/34             | 45/45                      | 36/35      | 173/173 | 38/38                  | 50/50                      | 40/40      | 177/177 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 49/56             | 50/60                      | 45/51      | 173/173 | 54/60                  | 60/60                      | 49/55      | 177/177 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 72/82             | 80/90                      | 66/75      | 173/173 | 77/87                  | 80/90                      | 70/79      | 177/177 |
|                | HIGH        | NONE            | —           | —         | 37/37             | 50/45                      | 39/38      | 203     | 41/40                  | 50/50                      | 43/42      | 207     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 37/37             | 50/45                      | 39/38      | 203/203 | 41/40                  | 50/50                      | 43/42      | 207/207 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 53/58             | 60/60                      | 48/53      | 203/203 | 58/63                  | 60/70                      | 53/58      | 207/207 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 76/85             | 80/90                      | 69/78      | 203/203 | 81/90                  | 90/90                      | 74/82      | 207/207 |
| 460-3-60       | STD         | NONE            | —           | —         | 20                | 25                         | 20         | 87      | 21                     | 25                         | 22         | 89      |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25                         | 20         | 87      | 21                     | 25                         | 22         | 89      |
|                |             | 320A            | 14.0        | 16.8      | 25                | 25                         | 23         | 87      | 27                     | 30                         | 25         | 89      |
|                |             | 321A            | 25.5        | 30.7      | 42                | 45                         | 39         | 87      | 45                     | 45                         | 41         | 89      |
|                | MED         | NONE            | —           | —         | 20                | 25                         | 20         | 87      | 21                     | 25                         | 22         | 89      |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25                         | 20         | 87      | 21                     | 25                         | 22         | 89      |
|                |             | 320A            | 14.0        | 16.8      | 25                | 25                         | 23         | 87      | 27                     | 30                         | 25         | 89      |
|                |             | 321A            | 25.5        | 30.7      | 42                | 45                         | 39         | 87      | 45                     | 45                         | 41         | 89      |
|                | HIGH        | NONE            | —           | —         | 20                | 25                         | 21         | 103     | 22                     | 25                         | 23         | 105     |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25                         | 21         | 103     | 22                     | 25                         | 23         | 105     |
|                |             | 320A            | 14.0        | 16.8      | 26                | 30                         | 24         | 103     | 28                     | 30                         | 26         | 105     |
|                |             | 321A            | 25.5        | 30.7      | 44                | 45                         | 40         | 103     | 46                     | 50                         | 42         | 105     |
| 575-3-60       | STD         | NONE            | —           | —         | 15                | 20                         | 16         | 67      | 19                     | 20                         | 20         | 71      |
|                |             | 308A            | 18.0        | 17.3      | 26                | 30                         | 23         | 67      | 30                     | 30                         | 27         | 71      |
|                |             | 299A            | 28.0        | 26.9      | 38                | 40                         | 34         | 67      | 42                     | 45                         | 39         | 71      |
|                | MED         | NONE            | —           | —         | 15                | 20                         | 16         | 67      | 19                     | 20                         | 20         | 71      |
|                |             | 308A            | 18.0        | 17.3      | 26                | 30                         | 23         | 67      | 30                     | 30                         | 27         | 71      |
|                |             | 299A            | 28.0        | 26.9      | 38                | 40                         | 34         | 67      | 42                     | 45                         | 39         | 71      |
|                | HIGH        | NONE            | —           | —         | 17                | 20                         | 18         | 80      | 21                     | 25                         | 22         | 84      |
|                |             | 308A            | 18.0        | 17.3      | 28                | 30                         | 25         | 80      | 32                     | 35                         | 29         | 84      |
|                |             | 299A            | 28.0        | 26.9      | 40                | 40                         | 36         | 80      | 44                     | 45                         | 40         | 84      |

See Legend and Notes on page 77.

## 50LC\*\*07 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |                            |            |         |                        |                            |            |         |
|----------------|-------------|-----------------|-------------|-----------|--------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |
|                |             |                 |             |           | MCA          | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |           |              |                            |            |         |                        |                            |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 39/39        | 50/50                      | 41/41      | 178     | 43/43                  | 50/50                      | 45/45      | 182     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 39/39        | 50/50                      | 41/41      | 178/178 | 43/43                  | 50/50                      | 45/45      | 182/182 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 55/62        | 60/70                      | 51/56      | 178/178 | 60/66                  | 60/70                      | 55/61      | 182/182 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 78/88        | 80/90                      | 72/81      | 178/178 | 83/93                  | 90/100                     | 76/85      | 182/182 |
|                | MED         | NONE            | —           | —         | 39/39        | 50/50                      | 41/41      | 178     | 43/43                  | 50/50                      | 45/45      | 182     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 39/39        | 50/50                      | 41/41      | 178/178 | 43/43                  | 50/50                      | 45/45      | 182/182 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 55/62        | 60/70                      | 51/56      | 178/178 | 60/66                  | 60/70                      | 55/61      | 182/182 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 78/88        | 80/90                      | 72/81      | 178/178 | 83/93                  | 90/100                     | 76/85      | 182/182 |
|                | HIGH        | NONE            | —           | —         | 42/41        | 50/50                      | 44/43      | 208     | 46/45                  | 50/50                      | 49/48      | 212     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 42/41        | 50/50                      | 44/43      | 208/208 | 46/45                  | 50/50                      | 49/48      | 212/212 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 59/64        | 60/70                      | 54/59      | 208/208 | 64/69                  | 70/70                      | 58/63      | 212/212 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 82/91        | 90/100                     | 75/83      | 208/208 | 87/96                  | 90/100                     | 79/88      | 212/212 |
| 460-3-60       | STD         | NONE            | —           | —         | 22           | 25                         | 23         | 89      | 24                     | 25                         | 25         | 91      |
|                |             | 319A            | 6.0         | 7.2       | 22           | 25                         | 23         | 89      | 24                     | 25                         | 25         | 91      |
|                |             | 320A            | 14.0        | 16.8      | 28           | 30                         | 25         | 89      | 30                     | 30                         | 27         | 91      |
|                |             | 321A            | 25.5        | 30.7      | 45           | 45                         | 41         | 89      | 47                     | 50                         | 43         | 91      |
|                | MED         | NONE            | —           | —         | 22           | 25                         | 23         | 89      | 24                     | 25                         | 25         | 91      |
|                |             | 319A            | 6.0         | 7.2       | 22           | 25                         | 23         | 89      | 24                     | 25                         | 25         | 91      |
|                |             | 320A            | 14.0        | 16.8      | 28           | 30                         | 25         | 89      | 30                     | 30                         | 27         | 91      |
|                |             | 321A            | 25.5        | 30.7      | 45           | 45                         | 41         | 89      | 47                     | 50                         | 43         | 91      |
|                | HIGH        | NONE            | —           | —         | 23           | 25                         | 24         | 105     | 24                     | 30                         | 26         | 107     |
|                |             | 319A            | 6.0         | 7.2       | 23           | 25                         | 24         | 105     | 24                     | 30                         | 26         | 107     |
|                |             | 320A            | 14.0        | 16.8      | 29           | 30                         | 26         | 105     | 31                     | 35                         | 28         | 107     |
|                |             | 321A            | 25.5        | 30.7      | 46           | 50                         | 42         | 105     | 49                     | 50                         | 44         | 107     |
| 575-3-60       | STD         | NONE            | —           | —         | 17           | 20                         | 18         | 69      | 21                     | 25                         | 22         | 73      |
|                |             | 308A            | 18.0        | 17.3      | 28           | 30                         | 25         | 69      | 32                     | 35                         | 29         | 73      |
|                |             | 299A            | 28.0        | 26.9      | 40           | 40                         | 36         | 69      | 44                     | 45                         | 40         | 73      |
|                | MED         | NONE            | —           | —         | 17           | 20                         | 18         | 69      | 21                     | 25                         | 22         | 73      |
|                |             | 308A            | 18.0        | 17.3      | 28           | 30                         | 25         | 69      | 32                     | 35                         | 29         | 73      |
|                |             | 299A            | 28.0        | 26.9      | 40           | 40                         | 36         | 69      | 44                     | 45                         | 40         | 73      |
|                | HIGH        | NONE            | —           | —         | 19           | 20                         | 20         | 82      | 23                     | 25                         | 24         | 86      |
|                |             | 308A            | 18.0        | 17.3      | 30           | 30                         | 27         | 82      | 35                     | 35                         | 31         | 86      |
|                |             | 299A            | 28.0        | 26.9      | 42           | 45                         | 38         | 82      | 47                     | 50                         | 42         | 86      |

See Legend and Notes on page 77.

## 50LC\*\*08 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |                            |            |         |                        |                            |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|-------------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|-----|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE             |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |     |
|                |             |                 |             |           | MCA               | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |     |
| FLA            | LRA         | FLA             | LRA         |           |                   |                            |            |         |                        |                            |            |         |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 42/42             | 50/50                      | 44/44      | 200     | 46/46                  | 50/50                      | 48/48      | 204     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 42/42             | 50/50                      | 44/44      | 200/200 | 46/46                  | 50/50                      | 48/48      | 204/204 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                      | 46/52      | 200/200 | 55/62                  | 60/70                      | 51/56      | 204/204 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                    | 87/99      | 200/200 | 100/113                | 100/125                    | 91/104     | 204/204 |     |
|                | MED         | NONE            | —           | —         | 42/42             | 50/50                      | 44/44      | 200     | 46/46                  | 50/50                      | 48/48      | 204     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 42/42             | 50/50                      | 44/44      | 200/200 | 46/46                  | 50/50                      | 48/48      | 204/204 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                      | 46/52      | 200/200 | 55/62                  | 60/70                      | 51/56      | 204/204 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                    | 87/99      | 200/200 | 100/113                | 100/125                    | 91/104     | 204/204 |     |
|                | HIGH        | NONE            | —           | —         | 45/44             | 50/50                      | 47/46      | 230     | 49/48                  | 60/60                      | 51/50      | 234     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/44             | 50/50                      | 47/46      | 230/230 | 49/48                  | 60/60                      | 51/50      | 234/234 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 54/60             | 60/60                      | 49/55      | 230/230 | 59/65                  | 60/70                      | 54/59      | 234/234 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 99/111            | 100/125                    | 90/102     | 230/230 | 103/116                | 110/125                    | 95/106     | 234/234 |     |
|                | SUPER       | NONE            | —           | —         | 47/46             | 60/50                      | 50/48      | 254     | 51/50                  | 60/60                      | 54/53      | 258     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/46             | 60/50                      | 50/48      | 254/254 | 51/50                  | 60/60                      | 54/53      | 258/258 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/62             | 60/70                      | 52/57      | 254/254 | 62/67                  | 70/70                      | 56/61      | 258/258 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/113           | 110/125                    | 93/104     | 254/254 | 106/118                | 110/125                    | 97/108     | 258/258 |     |
|                | 460-3-60    | STD             | NONE        | —         | —                 | 23                         | 25         | 24      | 102                    | 24                         | 30         | 26      | 104 |
|                |             |                 | 289A        | 10.0      | 12.0              | 23                         | 25         | 24      | 102                    | 24                         | 30         | 26      | 104 |
|                |             |                 | 292A        | 16.5      | 19.9              | 29                         | 30         | 26      | 102                    | 31                         | 35         | 28      | 104 |
|                |             |                 | 295A        | 33.5      | 40.3              | 54                         | 60         | 50      | 102                    | 57                         | 60         | 52      | 104 |
| MED            |             | NONE            | —           | —         | 23                | 25                         | 24         | 102     | 24                     | 30                         | 26         | 104     |     |
|                |             | 289A            | 10.0        | 12.0      | 23                | 25                         | 24         | 102     | 24                     | 30                         | 26         | 104     |     |
|                |             | 292A            | 16.5        | 19.9      | 29                | 30                         | 26         | 102     | 31                     | 35                         | 28         | 104     |     |
|                |             | 295A            | 33.5        | 40.3      | 54                | 60                         | 50         | 102     | 57                     | 60                         | 52         | 104     |     |
| HIGH           |             | NONE            | —           | —         | 23                | 25                         | 25         | 118     | 25                     | 30                         | 27         | 120     |     |
|                |             | 289A            | 10.0        | 12.0      | 23                | 25                         | 25         | 118     | 25                     | 30                         | 27         | 120     |     |
|                |             | 292A            | 16.5        | 19.9      | 30                | 30                         | 27         | 118     | 32                     | 35                         | 29         | 120     |     |
|                |             | 295A            | 33.5        | 40.3      | 56                | 60                         | 51         | 118     | 58                     | 60                         | 53         | 120     |     |
| SUPER          |             | NONE            | —           | —         | 25                | 30                         | 26         | 130     | 26                     | 30                         | 28         | 132     |     |
|                |             | 289A            | 10.0        | 12.0      | 25                | 30                         | 26         | 130     | 26                     | 30                         | 28         | 132     |     |
|                |             | 292A            | 16.5        | 19.9      | 31                | 35                         | 29         | 130     | 34                     | 35                         | 31         | 132     |     |
|                |             | 295A            | 33.5        | 40.3      | 57                | 60                         | 52         | 130     | 59                     | 60                         | 54         | 132     |     |
| 575-3-60       |             | STD             | NONE        | —         | —                 | 19                         | 20         | 20      | 78                     | 23                         | 25         | 24      | 82  |
|                |             |                 | 293A        | 16.5      | 15.9              | 24                         | 25         | 22      | 78                     | 29                         | 30         | 26      | 82  |
|                |             |                 | 296A        | 33.5      | 32.2              | 44                         | 45         | 40      | 78                     | 49                         | 50         | 45      | 82  |
|                |             | MED             | NONE        | —         | —                 | 19                         | 20         | 20      | 78                     | 23                         | 25         | 24      | 82  |
|                | 293A        |                 | 16.5        | 15.9      | 24                | 25                         | 22         | 78      | 29                     | 30                         | 26         | 82      |     |
|                | 296A        |                 | 33.5        | 32.2      | 44                | 45                         | 40         | 78      | 49                     | 50                         | 45         | 82      |     |
|                | HIGH        | NONE            | —           | —         | 21                | 25                         | 22         | 91      | 24                     | 30                         | 26         | 95      |     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30                         | 23         | 91      | 31                     | 35                         | 28         | 95      |     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50                         | 42         | 91      | 51                     | 60                         | 47         | 95      |     |
|                | SUPER       | NONE            | —           | —         | 21                | 25                         | 22         | 91      | 24                     | 30                         | 26         | 95      |     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30                         | 23         | 91      | 31                     | 35                         | 28         | 95      |     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50                         | 42         | 91      | 51                     | 60                         | 47         | 95      |     |

See Legend and Notes on page 77.



## 50LC\*\*08 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |                            |            |         |                        |                            |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|--------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|-----|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |     |
|                |             |                 |             |           | MCA          | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |     |
| FLA            | LRA         | FLA             | LRA         |           |              |                            |            |         |                        |                            |            |         |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 47/47        | 60/50                      | 49/49      | 205     | 51/50                  | 60/60                      | 54/53      | 209     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/47        | 60/50                      | 49/49      | 205/205 | 51/50                  | 60/60                      | 54/53      | 209/209 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/63        | 60/70                      | 52/58      | 205/205 | 61/68                  | 70/70                      | 56/62      | 209/209 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/114      | 110/125                    | 93/105     | 205/205 | 106/119                | 110/125                    | 97/109     | 209/209 |     |
|                | MED         | NONE            | —           | —         | 47/47        | 60/50                      | 49/49      | 205     | 51/50                  | 60/60                      | 54/53      | 209     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/47        | 60/50                      | 49/49      | 205/205 | 51/50                  | 60/60                      | 54/53      | 209/209 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/63        | 60/70                      | 52/58      | 205/205 | 61/68                  | 70/70                      | 56/62      | 209/209 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/114      | 110/125                    | 93/105     | 205/205 | 106/119                | 110/125                    | 97/109     | 209/209 |     |
|                | HIGH        | NONE            | —           | —         | 50/49        | 60/60                      | 53/52      | 235     | 53/53                  | 60/60                      | 57/56      | 239     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/49        | 60/60                      | 53/52      | 235/235 | 53/53                  | 60/60                      | 57/56      | 239/239 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 60/66        | 60/70                      | 55/60      | 235/235 | 65/71                  | 70/80                      | 59/65      | 239/239 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 105/117      | 110/125                    | 96/107     | 235/235 | 109/122                | 110/125                    | 100/112    | 239/239 |     |
|                | SUPER       | NONE            | —           | —         | 52/51        | 60/60                      | 55/54      | 259     | 56/55                  | 60/60                      | 59/58      | 263     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 52/51        | 60/60                      | 55/54      | 259/259 | 56/55                  | 60/60                      | 59/58      | 263/263 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/68        | 70/70                      | 58/62      | 259/259 | 68/73                  | 70/80                      | 62/67      | 263/263 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 107/119      | 110/125                    | 98/109     | 259/259 | 112/124                | 125/125                    | 103/114    | 263/263 |     |
|                | 460-3-60    | STD             | NONE        | —         | —            | 25                         | 30         | 26      | 104                    | 27                         | 30         | 28      | 106 |
|                |             |                 | 289A        | 10.0      | 12.0         | 25                         | 30         | 26      | 104                    | 27                         | 30         | 28      | 106 |
|                |             |                 | 292A        | 16.5      | 19.9         | 32                         | 35         | 29      | 104                    | 34                         | 35         | 31      | 106 |
|                |             |                 | 295A        | 33.5      | 40.3         | 57                         | 60         | 52      | 104                    | 59                         | 60         | 54      | 106 |
| MED            |             | NONE            | —           | —         | 25           | 30                         | 26         | 104     | 27                     | 30                         | 28         | 106     |     |
|                |             | 289A            | 10.0        | 12.0      | 25           | 30                         | 26         | 104     | 27                     | 30                         | 28         | 106     |     |
|                |             | 292A            | 16.5        | 19.9      | 32           | 35                         | 29         | 104     | 34                     | 35                         | 31         | 106     |     |
|                |             | 295A            | 33.5        | 40.3      | 57           | 60                         | 52         | 104     | 59                     | 60                         | 54         | 106     |     |
| HIGH           |             | NONE            | —           | —         | 26           | 30                         | 27         | 120     | 27                     | 30                         | 29         | 122     |     |
|                |             | 289A            | 10.0        | 12.0      | 26           | 30                         | 27         | 120     | 27                     | 30                         | 29         | 122     |     |
|                |             | 292A            | 16.5        | 19.9      | 33           | 35                         | 30         | 120     | 35                     | 35                         | 32         | 122     |     |
|                |             | 295A            | 33.5        | 40.3      | 58           | 60                         | 53         | 120     | 61                     | 70                         | 55         | 122     |     |
| SUPER          |             | NONE            | —           | —         | 27           | 30                         | 28         | 132     | 29                     | 30                         | 30         | 134     |     |
|                |             | 289A            | 10.0        | 12.0      | 27           | 30                         | 28         | 132     | 29                     | 30                         | 30         | 134     |     |
|                |             | 292A            | 16.5        | 19.9      | 34           | 35                         | 31         | 132     | 36                     | 40                         | 33         | 134     |     |
|                |             | 295A            | 33.5        | 40.3      | 60           | 60                         | 55         | 132     | 62                     | 70                         | 57         | 134     |     |
| 575-3-60       |             | STD             | NONE        | —         | —            | 21                         | 25         | 22      | 80                     | 24                         | 30         | 26      | 84  |
|                |             |                 | 293A        | 16.5      | 15.9         | 26                         | 30         | 23      | 80                     | 31                         | 35         | 28      | 84  |
|                |             |                 | 296A        | 33.5      | 32.2         | 46                         | 50         | 42      | 80                     | 51                         | 60         | 47      | 84  |
|                |             | MED             | NONE        | —         | —            | 21                         | 25         | 22      | 80                     | 24                         | 30         | 26      | 84  |
|                | 293A        |                 | 16.5        | 15.9      | 26           | 30                         | 23         | 80      | 31                     | 35                         | 28         | 84      |     |
|                | 296A        |                 | 33.5        | 32.2      | 46           | 50                         | 42         | 80      | 51                     | 60                         | 47         | 84      |     |
|                | HIGH        | NONE            | —           | —         | 22           | 25                         | 24         | 93      | 26                     | 30                         | 28         | 97      |     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30                         | 25         | 93      | 33                     | 35                         | 30         | 97      |     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50                         | 44         | 93      | 53                     | 60                         | 49         | 97      |     |
|                | SUPER       | NONE            | —           | —         | 22           | 25                         | 24         | 93      | 26                     | 30                         | 28         | 97      |     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30                         | 25         | 93      | 33                     | 35                         | 30         | 97      |     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50                         | 44         | 93      | 53                     | 60                         | 49         | 97      |     |

See Legend and Notes on page 77.

## 50LC\*\*09 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |                            |            |         |                        |                            |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|-------------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|-----|
|                |             |                 |             |           | NO PE             |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |     |
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | MCA               | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |     |
|                |             |                 |             |           |                   |                            | FLA        | LRA     |                        |                            | FLA        | LRA     |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 45/45             | 60/50                      | 46/46      | 227     | 49/48                  | 60/60                      | 51/50      | 231     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/50                      | 46/46      | 227/227 | 49/48                  | 60/60                      | 51/50      | 231/231 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                      | 46/52      | 227/227 | 55/62                  | 60/70                      | 51/56      | 231/231 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                    | 87/99      | 227/227 | 100/113                | 100/125                    | 91/104     | 231/231 |     |
|                | MED         | NONE            | —           | —         | 45/45             | 60/50                      | 46/46      | 227     | 49/48                  | 60/60                      | 51/50      | 231     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/50                      | 46/46      | 227/227 | 49/48                  | 60/60                      | 51/50      | 231/231 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                      | 46/52      | 227/227 | 55/62                  | 60/70                      | 51/56      | 231/231 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                    | 87/99      | 227/227 | 100/113                | 100/125                    | 91/104     | 231/231 |     |
|                | HIGH        | NONE            | —           | —         | 50/49             | 60/60                      | 52/51      | 281     | 54/53                  | 60/60                      | 56/55      | 285     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/49             | 60/60                      | 52/51      | 281/281 | 54/53                  | 60/60                      | 56/55      | 285/285 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/62             | 60/70                      | 52/57      | 281/281 | 62/67                  | 70/70                      | 56/61      | 285/285 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/113           | 110/125                    | 93/104     | 281/281 | 106/118                | 110/125                    | 97/108     | 285/285 |     |
|                | SUPER       | NONE            | —           | —         | 53/52             | 60/60                      | 55/54      | 292     | 56/55                  | 60/60                      | 60/59      | 296     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 53/52             | 60/60                      | 55/54      | 292/292 | 56/55                  | 60/60                      | 60/59      | 296/296 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 60/66             | 60/70                      | 55/60      | 292/292 | 65/71                  | 70/80                      | 60/65      | 296/296 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 105/117           | 110/125                    | 96/107     | 292/292 | 110/122                | 110/125                    | 100/112    | 296/296 |     |
|                | 460-3-60    | STD             | NONE        | —         | —                 | 24                         | 30         | 25      | 113                    | 26                         | 30         | 27      | 115 |
|                |             |                 | 289A        | 10.0      | 12.0              | 24                         | 30         | 25      | 113                    | 26                         | 30         | 27      | 115 |
|                |             |                 | 292A        | 16.5      | 19.9              | 29                         | 30         | 26      | 113                    | 31                         | 35         | 28      | 115 |
|                |             |                 | 295A        | 33.5      | 40.3              | 54                         | 60         | 50      | 113                    | 57                         | 60         | 52      | 115 |
| MED            |             | NONE            | —           | —         | 24                | 30                         | 25         | 113     | 26                     | 30                         | 27         | 115     |     |
|                |             | 289A            | 10.0        | 12.0      | 24                | 30                         | 25         | 113     | 26                     | 30                         | 27         | 115     |     |
|                |             | 292A            | 16.5        | 19.9      | 29                | 30                         | 26         | 113     | 31                     | 35                         | 28         | 115     |     |
|                |             | 295A            | 33.5        | 40.3      | 54                | 60                         | 50         | 113     | 57                     | 60                         | 52         | 115     |     |
| HIGH           |             | NONE            | —           | —         | 26                | 30                         | 28         | 141     | 28                     | 30                         | 30         | 143     |     |
|                |             | 289A            | 10.0        | 12.0      | 26                | 30                         | 28         | 141     | 28                     | 30                         | 30         | 143     |     |
|                |             | 292A            | 16.5        | 19.9      | 31                | 35                         | 29         | 141     | 34                     | 35                         | 31         | 143     |     |
|                |             | 295A            | 33.5        | 40.3      | 57                | 60                         | 52         | 141     | 59                     | 60                         | 54         | 143     |     |
| SUPER          |             | NONE            | —           | —         | 28                | 30                         | 29         | 146     | 30                     | 35                         | 31         | 148     |     |
|                |             | 289A            | 10.0        | 12.0      | 28                | 30                         | 29         | 146     | 30                     | 35                         | 31         | 148     |     |
|                |             | 292A            | 16.5        | 19.9      | 33                | 35                         | 30         | 146     | 36                     | 40                         | 32         | 148     |     |
|                |             | 295A            | 33.5        | 40.3      | 59                | 60                         | 54         | 146     | 61                     | 70                         | 56         | 148     |     |
| 575-3-60       |             | STD             | NONE        | —         | —                 | 20                         | 25         | 21      | 84                     | 24                         | 25         | 25      | 88  |
|                |             |                 | 293A        | 16.5      | 15.9              | 24                         | 25         | 22      | 84                     | 29                         | 30         | 26      | 88  |
|                |             |                 | 296A        | 33.5      | 32.2              | 44                         | 45         | 40      | 84                     | 49                         | 50         | 45      | 88  |
|                |             | MED             | NONE        | —         | —                 | 20                         | 25         | 21      | 84                     | 24                         | 25         | 25      | 88  |
|                | 293A        |                 | 16.5        | 15.9      | 24                | 25                         | 22         | 84      | 29                     | 30                         | 26         | 88      |     |
|                | 296A        |                 | 33.5        | 32.2      | 44                | 45                         | 40         | 84      | 49                     | 50                         | 45         | 88      |     |
|                | HIGH        | NONE            | —           | —         | 22                | 25                         | 23         | 97      | 25                     | 30                         | 27         | 101     |     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30                         | 23         | 97      | 31                     | 35                         | 28         | 101     |     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50                         | 42         | 97      | 51                     | 60                         | 47         | 101     |     |
|                | SUPER       | NONE            | —           | —         | 24                | 25                         | 25         | 111     | 27                     | 30                         | 29         | 115     |     |
|                |             | 293A            | 16.5        | 15.9      | 28                | 30                         | 25         | 111     | 33                     | 35                         | 30         | 115     |     |
|                |             | 296A            | 33.5        | 32.2      | 48                | 50                         | 44         | 111     | 53                     | 60                         | 49         | 115     |     |

See Legend and Notes on page 77.

## 50LC\*\*09 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |                            |            |         |                        |                            |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|--------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|-----|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |     |
|                |             |                 |             |           | MCA          | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |     |
| FLA            | LRA         | FLA             | LRA         |           |              |                            |            |         |                        |                            |            |         |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 50/49        | 60/60                      | 52/52      | 232     | 53/53                  | 60/60                      | 56/56      | 236     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/49        | 60/60                      | 52/52      | 232/232 | 53/53                  | 60/60                      | 56/56      | 236/236 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/63        | 60/70                      | 52/58      | 232/232 | 61/68                  | 70/70                      | 56/62      | 236/236 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/114      | 110/125                    | 93/105     | 232/232 | 106/119                | 110/125                    | 97/109     | 236/236 |     |
|                | MED         | NONE            | —           | —         | 50/49        | 60/60                      | 52/52      | 232     | 53/53                  | 60/60                      | 56/56      | 236     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/49        | 60/60                      | 52/52      | 232/232 | 53/53                  | 60/60                      | 56/56      | 236/236 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/63        | 60/70                      | 52/58      | 232/232 | 61/68                  | 70/70                      | 56/62      | 236/236 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 101/114      | 110/125                    | 93/105     | 232/232 | 106/119                | 110/125                    | 97/109     | 236/236 |     |
|                | HIGH        | NONE            | —           | —         | 55/54        | 60/60                      | 58/56      | 286     | 58/57                  | 70/70                      | 62/61      | 290     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 55/54        | 60/60                      | 58/56      | 286/286 | 58/57                  | 70/70                      | 62/61      | 290/290 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/68        | 70/70                      | 58/62      | 286/286 | 68/73                  | 70/80                      | 62/67      | 290/290 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 107/119      | 110/125                    | 98/109     | 286/286 | 112/124                | 125/125                    | 103/114    | 290/290 |     |
|                | SUPER       | NONE            | —           | —         | 57/56        | 70/60                      | 61/60      | 297     | 61/60                  | 70/70                      | 65/64      | 301     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 57/56        | 70/60                      | 61/60      | 297/297 | 61/60                  | 70/70                      | 65/64      | 301/301 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 66/72        | 70/80                      | 61/66      | 297/297 | 71/77                  | 80/80                      | 65/70      | 301/301 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 111/123      | 125/125                    | 102/113    | 297/297 | 116/128                | 125/150                    | 106/117    | 301/301 |     |
|                | 460-3-60    | STD             | NONE        | —         | —            | 27                         | 30         | 28      | 115                    | 28                         | 30         | 30      | 117 |
|                |             |                 | 289A        | 10.0      | 12.0         | 27                         | 30         | 28      | 115                    | 28                         | 30         | 30      | 117 |
|                |             |                 | 292A        | 16.5      | 19.9         | 32                         | 35         | 29      | 115                    | 34                         | 35         | 31      | 117 |
|                |             |                 | 295A        | 33.5      | 40.3         | 57                         | 60         | 52      | 115                    | 59                         | 60         | 54      | 117 |
| MED            |             | NONE            | —           | —         | 27           | 30                         | 28         | 115     | 28                     | 30                         | 30         | 117     |     |
|                |             | 289A            | 10.0        | 12.0      | 27           | 30                         | 28         | 115     | 28                     | 30                         | 30         | 117     |     |
|                |             | 292A            | 16.5        | 19.9      | 32           | 35                         | 29         | 115     | 34                     | 35                         | 31         | 117     |     |
|                |             | 295A            | 33.5        | 40.3      | 57           | 60                         | 52         | 115     | 59                     | 60                         | 54         | 117     |     |
| HIGH           |             | NONE            | —           | —         | 29           | 35                         | 30         | 143     | 30                     | 35                         | 32         | 145     |     |
|                |             | 289A            | 10.0        | 12.0      | 29           | 35                         | 30         | 143     | 30                     | 35                         | 32         | 145     |     |
|                |             | 292A            | 16.5        | 19.9      | 34           | 35                         | 31         | 143     | 36                     | 40                         | 33         | 145     |     |
|                |             | 295A            | 33.5        | 40.3      | 60           | 60                         | 55         | 143     | 62                     | 70                         | 57         | 145     |     |
| SUPER          |             | NONE            | —           | —         | 30           | 35                         | 32         | 148     | 32                     | 35                         | 34         | 150     |     |
|                |             | 289A            | 10.0        | 12.0      | 30           | 35                         | 32         | 148     | 32                     | 35                         | 34         | 150     |     |
|                |             | 292A            | 16.5        | 19.9      | 36           | 40                         | 33         | 148     | 38                     | 40                         | 35         | 150     |     |
|                |             | 295A            | 33.5        | 40.3      | 62           | 70                         | 56         | 148     | 64                     | 70                         | 58         | 150     |     |
| 575-3-60       |             | STD             | NONE        | —         | —            | 22                         | 25         | 23      | 86                     | 25                         | 30         | 27      | 90  |
|                |             |                 | 293A        | 16.5      | 15.9         | 26                         | 30         | 23      | 86                     | 31                         | 35         | 28      | 90  |
|                |             |                 | 296A        | 33.5      | 32.2         | 46                         | 50         | 42      | 86                     | 51                         | 60         | 47      | 90  |
|                |             | MED             | NONE        | —         | —            | 22                         | 25         | 23      | 86                     | 25                         | 30         | 27      | 90  |
|                | 293A        |                 | 16.5        | 15.9      | 26           | 30                         | 23         | 86      | 31                     | 35                         | 28         | 90      |     |
|                | 296A        |                 | 33.5        | 32.2      | 46           | 50                         | 42         | 86      | 51                     | 60                         | 47         | 90      |     |
|                | HIGH        | NONE            | —           | —         | 23           | 25                         | 25         | 99      | 27                     | 30                         | 29         | 103     |     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30                         | 25         | 99      | 33                     | 35                         | 30         | 103     |     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50                         | 44         | 99      | 53                     | 60                         | 49         | 103     |     |
|                | SUPER       | NONE            | —           | —         | 25           | 30                         | 27         | 113     | 29                     | 35                         | 31         | 117     |     |
|                |             | 293A            | 16.5        | 15.9      | 30           | 30                         | 27         | 113     | 35                     | 35                         | 32         | 117     |     |
|                |             | 296A            | 33.5        | 32.2      | 51           | 60                         | 46         | 113     | 55                     | 60                         | 50         | 117     |     |

See Legend and Notes on page 77.

## 50LC\*\*12 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |             | NO CO or UNPWR CO |                            |            |         |                        |                            |            |         |
|----------------|-------------|-----------------|-------------|-------------|-------------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA         | NO PE             |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |
|                |             |                 |             |             | MCA               | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |             |                   |                            |            |         |                        |                            |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —           | 51/50             | 60/60                      | 52/52      | 252     | 54/54                  | 60/60                      | 56/56      | 256     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 51/50             | 60/60                      | 52/52      | 252/252 | 54/54                  | 60/60                      | 56/56      | 256/256 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 52/59             | 60/60                      | 52/53      | 252/252 | 57/63                  | 60/70                      | 56/58      | 256/256 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 97/110            | 100/110                    | 89/101     | 252/252 | 101/114                | 110/125                    | 93/105     | 256/256 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 140/129           | 150/150                    | 128/146    | 252/252 | 144/134                | 150/150                    | 132/151    | 256/256 |
|                | MED         | NONE            | —           | —           | 52/51             | 60/60                      | 54/53      | 278     | 56/55                  | 70/60                      | 58/57      | 282     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 52/51             | 60/60                      | 54/53      | 278/278 | 56/55                  | 70/60                      | 58/57      | 282/282 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 54/60             | 60/60                      | 54/55      | 278/278 | 59/65                  | 70/70                      | 58/59      | 282/282 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 99/111            | 100/125                    | 90/102     | 278/278 | 103/116                | 110/125                    | 95/106     | 282/282 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 142/131           | 150/150                    | 130/147    | 278/278 | 146/135                | 150/150                    | 134/152    | 282/282 |
|                | HIGH        | NONE            | —           | —           | 57/56             | 70/70                      | 59/58      | 313     | 61/60                  | 80/70                      | 64/63      | 317     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 57/56             | 70/70                      | 59/58      | 313/313 | 61/60                  | 80/70                      | 64/63      | 317/317 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 60/66             | 70/70                      | 59/60      | 313/313 | 65/71                  | 80/80                      | 64/65      | 317/317 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 105/117           | 110/125                    | 96/107     | 313/313 | 110/122                | 110/125                    | 100/112    | 317/317 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 148/137           | 150/150                    | 136/153    | 313/313 | 153/141                | 175/175                    | 140/157    | 317/317 |
|                | 460-3-60    | STD             | NONE        | —           | —                 | 26                         | 30         | 27      | 126                    | 27                         | 30         | 29      |
| 289A           |             |                 | 10.0        | 12.0        | 26                | 30                         | 27         | 126     | 27                     | 30                         | 29         | 128     |
| 292A           |             |                 | 16.5        | 19.9        | 30                | 30                         | 27         | 126     | 32                     | 35                         | 29         | 128     |
| 295A           |             |                 | 33.5        | 40.3        | 55                | 60                         | 50         | 126     | 57                     | 60                         | 52         | 128     |
| 375A           |             |                 | 50.0        | 60.2        | 65                | 70                         | 73         | 126     | 67                     | 70                         | 75         | 128     |
| MED            |             | NONE            | —           | —           | 26                | 30                         | 27         | 140     | 28                     | 30                         | 29         | 142     |
|                |             | 289A            | 10.0        | 12.0        | 26                | 30                         | 27         | 140     | 28                     | 30                         | 29         | 142     |
|                |             | 292A            | 16.5        | 19.9        | 30                | 30                         | 27         | 140     | 32                     | 35                         | 29         | 142     |
|                |             | 295A            | 33.5        | 40.3        | 56                | 60                         | 51         | 140     | 58                     | 60                         | 53         | 142     |
|                |             | 375A            | 50.0        | 60.2        | 65                | 70                         | 74         | 140     | 68                     | 80                         | 76         | 142     |
| HIGH           |             | NONE            | —           | —           | 29                | 35                         | 30         | 157     | 30                     | 35                         | 32         | 159     |
|                |             | 289A            | 10.0        | 12.0        | 29                | 35                         | 30         | 157     | 30                     | 35                         | 32         | 159     |
|                |             | 292A            | 16.5        | 19.9        | 33                | 35                         | 30         | 157     | 36                     | 40                         | 32         | 159     |
|                |             | 295A            | 33.5        | 40.3        | 59                | 60                         | 54         | 157     | 61                     | 70                         | 56         | 159     |
|                |             | 375A            | 50.0        | 60.2        | 69                | 80                         | 77         | 157     | 71                     | 80                         | 79         | 159     |
| 575-3-60       |             | STD             | NONE        | —           | —                 | 22                         | 25         | 23      | 107                    | 26                         | 30         | 27      |
|                | 293A        |                 | 16.5        | 15.9        | 25                | 25                         | 23         | 107     | 29                     | 30                         | 27         | 111     |
|                | 296A        |                 | 33.5        | 32.2        | 45                | 45                         | 41         | 107     | 50                     | 50                         | 45         | 111     |
|                | 382A        |                 | 50.0        | 48.1        | 53                | 60                         | 59         | 107     | 58                     | 60                         | 64         | 111     |
|                | MED         | NONE            | —           | —           | 23                | 25                         | 24         | 116     | 27                     | 30                         | 28         | 120     |
|                |             | 293A            | 16.5        | 15.9        | 26                | 30                         | 24         | 116     | 31                     | 35                         | 28         | 120     |
|                |             | 296A            | 33.5        | 32.2        | 46                | 50                         | 42         | 116     | 51                     | 60                         | 47         | 120     |
|                |             | 382A            | 50.0        | 48.1        | 54                | 60                         | 60         | 116     | 59                     | 60                         | 65         | 120     |
|                | HIGH        | NONE            | —           | —           | 25                | 30                         | 26         | 130     | 29                     | 30                         | 30         | 134     |
|                |             | 293A            | 16.5        | 15.9        | 28                | 30                         | 26         | 130     | 33                     | 35                         | 30         | 134     |
|                |             | 296A            | 33.5        | 32.2        | 48                | 50                         | 44         | 130     | 53                     | 60                         | 49         | 134     |
|                |             | 382A            | 50.0        | 48.1        | 56                | 60                         | 62         | 130     | 61                     | 70                         | 67         | 134     |

See Legend and Notes on page 77.

## 50LC\*\*12 UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |             | WITH PWRD CO |                            |            |         |                        |                            |            |         |
|----------------|-------------|-----------------|-------------|-------------|--------------|----------------------------|------------|---------|------------------------|----------------------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA         | NO PE        |                            |            |         | WITH PE (PWRD FR/UNIT) |                            |            |         |
|                |             |                 |             |             | MCA          | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE<br>OR<br>HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |             |              |                            |            |         |                        |                            |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —           | 55/55        | 60/60                      | 58/57      | 257     | 59/59                  | 70/70                      | 62/62      | 261     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 55/55        | 60/60                      | 58/57      | 257/257 | 59/59                  | 70/70                      | 62/62      | 261/261 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 58/65        | 60/70                      | 58/59      | 257/257 | 63/69                  | 70/70                      | 62/63      | 261/261 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 103/116      | 110/125                    | 94/106     | 257/257 | 107/120                | 110/125                    | 98/110     | 261/261 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 146/135      | 150/150                    | 134/152    | 257/257 | 150/140                | 175/150                    | 138/156    | 261/261 |
|                | MED         | NONE            | —           | —           | 57/56        | 70/70                      | 59/58      | 283     | 61/60                  | 70/70                      | 64/63      | 287     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 57/56        | 70/70                      | 59/58      | 283/283 | 61/60                  | 70/70                      | 64/63      | 287/287 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 60/66        | 70/70                      | 59/60      | 283/283 | 65/71                  | 70/80                      | 64/65      | 287/287 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 105/117      | 110/125                    | 96/107     | 283/283 | 109/122                | 110/125                    | 100/112    | 287/287 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 148/137      | 150/150                    | 135/153    | 283/283 | 152/141                | 175/150                    | 140/157    | 287/287 |
|                | HIGH        | NONE            | —           | —           | 62/61        | 80/80                      | 65/64      | 318     | 66/65                  | 80/80                      | 69/68      | 322     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 62/61        | 80/80                      | 65/64      | 318/318 | 66/65                  | 80/80                      | 69/68      | 322/322 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 66/72        | 80/80                      | 65/66      | 318/318 | 71/77                  | 80/80                      | 69/70      | 322/322 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 111/123      | 125/125                    | 102/113    | 318/318 | 116/128                | 125/150                    | 106/117    | 322/322 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 154/143      | 175/175                    | 141/158    | 318/318 | 159/147                | 175/175                    | 145/163    | 322/322 |
| 460-3-60       | STD         | NONE            | —           | —           | 28           | 30                         | 29         | 128     | 30                     | 35                         | 31         | 130     |
|                |             | 289A            | 10.0        | 12.0        | 28           | 30                         | 29         | 128     | 30                     | 35                         | 31         | 130     |
|                |             | 292A            | 16.5        | 19.9        | 32           | 35                         | 29         | 128     | 35                     | 35                         | 31         | 130     |
|                |             | 295A            | 33.5        | 40.3        | 58           | 60                         | 53         | 128     | 60                     | 60                         | 55         | 130     |
|                |             | 375A            | 50.0        | 60.2        | 68           | 80                         | 76         | 128     | 70                     | 80                         | 78         | 130     |
|                | MED         | NONE            | —           | —           | 28           | 30                         | 30         | 142     | 30                     | 35                         | 32         | 144     |
|                |             | 289A            | 10.0        | 12.0        | 28           | 30                         | 30         | 142     | 30                     | 35                         | 32         | 144     |
|                |             | 292A            | 16.5        | 19.9        | 33           | 35                         | 30         | 142     | 35                     | 35                         | 32         | 144     |
|                |             | 295A            | 33.5        | 40.3        | 58           | 60                         | 53         | 142     | 61                     | 70                         | 55         | 144     |
|                |             | 375A            | 50.0        | 60.2        | 68           | 80                         | 76         | 142     | 70                     | 80                         | 78         | 144     |
|                | HIGH        | NONE            | —           | —           | 31           | 35                         | 33         | 159     | 33                     | 40                         | 35         | 161     |
|                |             | 289A            | 10.0        | 12.0        | 31           | 35                         | 33         | 159     | 33                     | 40                         | 35         | 161     |
|                |             | 292A            | 16.5        | 19.9        | 36           | 40                         | 33         | 159     | 38                     | 40                         | 35         | 161     |
|                |             | 295A            | 33.5        | 40.3        | 62           | 70                         | 56         | 159     | 64                     | 70                         | 58         | 161     |
|                |             | 375A            | 50.0        | 60.2        | 71           | 80                         | 79         | 159     | 74                     | 80                         | 81         | 161     |
| 575-3-60       | STD         | NONE            | —           | —           | 24           | 25                         | 25         | 109     | 28                     | 30                         | 29         | 113     |
|                |             | 293A            | 16.5        | 15.9        | 27           | 30                         | 25         | 109     | 32                     | 35                         | 29         | 113     |
|                |             | 296A            | 33.5        | 32.2        | 47           | 50                         | 43         | 109     | 52                     | 60                         | 47         | 113     |
|                |             | 382A            | 50.0        | 48.1        | 55           | 60                         | 61         | 109     | 60                     | 60                         | 66         | 113     |
|                |             | NONE            | —           | —           | 25           | 30                         | 26         | 118     | 29                     | 30                         | 30         | 122     |
|                | MED         | 293A            | 16.5        | 15.9        | 28           | 30                         | 26         | 118     | 33                     | 35                         | 30         | 122     |
|                |             | 296A            | 33.5        | 32.2        | 48           | 50                         | 44         | 118     | 53                     | 60                         | 49         | 122     |
|                |             | 382A            | 50.0        | 48.1        | 56           | 60                         | 62         | 118     | 61                     | 70                         | 67         | 122     |
|                |             | NONE            | —           | —           | 26           | 30                         | 28         | 132     | 30                     | 35                         | 32         | 136     |
|                | HIGH        | 293A            | 16.5        | 15.9        | 30           | 30                         | 28         | 132     | 35                     | 35                         | 32         | 136     |
|                |             | 296A            | 33.5        | 32.2        | 51           | 60                         | 46         | 132     | 55                     | 60                         | 50         | 136     |
|                |             | 382A            | 50.0        | 48.1        | 58           | 60                         | 64         | 132     | 63                     | 70                         | 69         | 136     |
|                |             | NONE            | —           | —           | 26           | 30                         | 28         | 132     | 30                     | 35                         | 32         | 136     |

See Legend and Notes on page 77.

## 50LC\*\*07 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |              |            |         |                        |              |            |         |
|----------------|-------------|-----------------|-------------|-----------|-------------------|--------------|------------|---------|------------------------|--------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE             |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |
|                |             |                 |             |           | MCA               | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |           |                   |              |            |         |                        |              |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 35/35             | 45/45        | 36/35      | 173     | 38/38                  | 50/50        | 40/40      | 177     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 35/35             | 45/45        | 36/35      | 173/173 | 38/38                  | 50/50        | 40/40      | 177/177 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 56/56             | 60/60        | 45/51      | 173/173 | 60/60                  | 60/60        | 49/55      | 177/177 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 82/82             | 90/90        | 66/75      | 173/173 | 87/87                  | 90/90        | 70/79      | 177/177 |
|                | MED         | NONE            | —           | —         | 35/35             | 45/45        | 36/35      | 173     | 38/38                  | 50/50        | 40/40      | 177     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 35/35             | 45/45        | 36/35      | 173/173 | 38/38                  | 50/50        | 40/40      | 177/177 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 56/56             | 60/60        | 45/51      | 173/173 | 60/60                  | 60/60        | 49/55      | 177/177 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 82/82             | 90/90        | 66/75      | 173/173 | 87/87                  | 90/90        | 70/79      | 177/177 |
|                | HIGH        | NONE            | —           | —         | 37/37             | 50/50        | 39/38      | 203     | 41/41                  | 50/50        | 43/42      | 207     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 37/37             | 50/50        | 39/38      | 203/203 | 41/41                  | 50/50        | 43/42      | 207/207 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 58/58             | 60/60        | 48/53      | 203/203 | 63/63                  | 70/70        | 53/58      | 207/207 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 85/85             | 90/90        | 69/78      | 203/203 | 90/90                  | 90/90        | 74/82      | 207/207 |
| 460-3-60       | STD         | NONE            | —           | —         | 20                | 25           | 20         | 87      | 21                     | 25           | 22         | 89      |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25           | 20         | 87      | 21                     | 25           | 22         | 89      |
|                |             | 320A            | 14.0        | 16.8      | 25                | 25           | 23         | 87      | 27                     | 30           | 25         | 89      |
|                |             | 321A            | 25.5        | 30.7      | 42                | 45           | 39         | 87      | 45                     | 45           | 41         | 89      |
|                | MED         | NONE            | —           | —         | 20                | 25           | 20         | 87      | 21                     | 25           | 22         | 89      |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25           | 20         | 87      | 21                     | 25           | 22         | 89      |
|                |             | 320A            | 14.0        | 16.8      | 25                | 25           | 23         | 87      | 27                     | 30           | 25         | 89      |
|                |             | 321A            | 25.5        | 30.7      | 42                | 45           | 39         | 87      | 45                     | 45           | 41         | 89      |
|                | HIGH        | NONE            | —           | —         | 20                | 25           | 21         | 103     | 22                     | 25           | 23         | 105     |
|                |             | 319A            | 6.0         | 7.2       | 20                | 25           | 21         | 103     | 22                     | 25           | 23         | 105     |
|                |             | 320A            | 14.0        | 16.8      | 26                | 30           | 24         | 103     | 28                     | 30           | 26         | 105     |
|                |             | 321A            | 25.5        | 30.7      | 44                | 45           | 40         | 103     | 46                     | 50           | 42         | 105     |
| 575-3-60       | STD         | NONE            | —           | —         | 15                | 20           | 16         | 67      | 19                     | 20           | 20         | 71      |
|                |             | 308A            | 18.0        | 17.3      | 26                | 30           | 23         | 67      | 30                     | 30           | 27         | 71      |
|                |             | 299A            | 28.0        | 26.9      | 38                | 40           | 34         | 67      | 42                     | 45           | 39         | 71      |
|                | MED         | NONE            | —           | —         | 15                | 20           | 16         | 67      | 19                     | 20           | 20         | 71      |
|                |             | 308A            | 18.0        | 17.3      | 26                | 30           | 23         | 67      | 30                     | 30           | 27         | 71      |
|                |             | 299A            | 28.0        | 26.9      | 38                | 40           | 34         | 67      | 42                     | 45           | 39         | 71      |
|                | HIGH        | NONE            | —           | —         | 17                | 20           | 18         | 80      | 21                     | 25           | 22         | 84      |
|                |             | 308A            | 18.0        | 17.3      | 28                | 30           | 25         | 80      | 32                     | 35           | 29         | 84      |
|                |             | 299A            | 28.0        | 26.9      | 40                | 40           | 36         | 80      | 44                     | 45           | 40         | 84      |

See Legend and Notes on page 77.

## 50LC\*\*07 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |              |            |         |                        |              |            |         |
|----------------|-------------|-----------------|-------------|-----------|--------------|--------------|------------|---------|------------------------|--------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |
|                |             |                 |             |           | MCA          | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         | FLA       | LRA          |              |            |         |                        |              |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 39/39        | 50/50        | 41/41      | 178     | 43/43                  | 50/50        | 45/45      | 182     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 39/39        | 50/50        | 41/41      | 178/178 | 43/43                  | 50/50        | 45/45      | 182/182 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 62/62        | 70/70        | 51/56      | 178/178 | 66/66                  | 70/70        | 55/61      | 182/182 |
|                |             | 318A            | 18.6/24.8   | 51.7/59.7 | 88/88        | 90/90        | 72/81      | 178/178 | 93/93                  | 100/100      | 76/85      | 182/182 |
|                | MED         | NONE            | —           | —         | 39/39        | 50/50        | 41/41      | 178     | 43/43                  | 50/50        | 45/45      | 182     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 39/39        | 50/50        | 41/41      | 178/178 | 43/43                  | 50/50        | 45/45      | 182/182 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 62/62        | 70/70        | 51/56      | 178/178 | 66/66                  | 70/70        | 55/61      | 182/182 |
|                | HIGH        | 318A            | 18.6/24.8   | 51.7/59.7 | 88/88        | 90/90        | 72/81      | 178/178 | 93/93                  | 100/100      | 76/85      | 182/182 |
|                |             | NONE            | —           | —         | 42/42        | 50/50        | 44/43      | 208     | 46/46                  | 50/50        | 49/48      | 212     |
|                |             | 316A            | 4.9/6.5     | 13.6/15.6 | 42/42        | 50/50        | 44/43      | 208/208 | 46/46                  | 50/50        | 49/48      | 212/212 |
|                |             | 317A            | 12.0/16.0   | 33.4/38.5 | 64/64        | 70/70        | 54/59      | 208/208 | 69/69                  | 70/70        | 58/63      | 212/212 |
|                | 460-3-60    | STD             | 318A        | 18.6/24.8 | 51.7/59.7    | 91/91        | 100/100    | 75/83   | 208/208                | 96/96        | 100/100    | 79/88   |
| NONE           |             |                 | —           | —         | 22           | 25           | 23         | 89      | 24                     | 25           | 25         | 91      |
| 319A           |             |                 | 6.0         | 7.2       | 22           | 25           | 23         | 89      | 24                     | 25           | 25         | 91      |
| 320A           |             |                 | 14.0        | 16.8      | 28           | 30           | 25         | 89      | 30                     | 30           | 27         | 91      |
| MED            |             | 321A            | 25.5        | 30.7      | 45           | 45           | 41         | 89      | 47                     | 50           | 43         | 91      |
|                |             | NONE            | —           | —         | 22           | 25           | 23         | 89      | 24                     | 25           | 25         | 91      |
|                |             | 319A            | 6.0         | 7.2       | 22           | 25           | 23         | 89      | 24                     | 25           | 25         | 91      |
| HIGH           |             | 320A            | 14.0        | 16.8      | 28           | 30           | 25         | 89      | 30                     | 30           | 27         | 91      |
|                |             | 321A            | 25.5        | 30.7      | 45           | 45           | 41         | 89      | 47                     | 50           | 43         | 91      |
|                |             | NONE            | —           | —         | 23           | 25           | 24         | 105     | 24                     | 30           | 26         | 107     |
|                |             | 319A            | 6.0         | 7.2       | 23           | 25           | 24         | 105     | 24                     | 30           | 26         | 107     |
| 575-3-60       |             | STD             | 320A        | 14.0      | 16.8         | 29           | 30         | 26      | 105                    | 31           | 35         | 28      |
|                | 321A        |                 | 25.5        | 30.7      | 46           | 50           | 42         | 105     | 49                     | 50           | 44         | 107     |
|                | NONE        |                 | —           | —         | 17           | 20           | 18         | 69      | 21                     | 25           | 22         | 73      |
|                | 308A        |                 | 18.0        | 17.3      | 28           | 30           | 25         | 69      | 32                     | 35           | 29         | 73      |
|                | MED         | 299A            | 28.0        | 26.9      | 40           | 40           | 36         | 69      | 44                     | 45           | 40         | 73      |
|                |             | NONE            | —           | —         | 17           | 20           | 18         | 69      | 21                     | 25           | 22         | 73      |
|                |             | 308A            | 18.0        | 17.3      | 28           | 30           | 25         | 69      | 32                     | 35           | 29         | 73      |
|                | HIGH        | 299A            | 28.0        | 26.9      | 40           | 40           | 36         | 69      | 44                     | 45           | 40         | 73      |
|                |             | NONE            | —           | —         | 19           | 20           | 20         | 82      | 23                     | 25           | 24         | 86      |
|                |             | 308A            | 18.0        | 17.3      | 30           | 30           | 27         | 82      | 35                     | 35           | 31         | 86      |
|                |             | 299A            | 28.0        | 26.9      | 42           | 45           | 38         | 82      | 47                     | 50           | 42         | 86      |

See Legend and Notes on page 77.

## 50LC\*\*08 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |              |            |         |                        |              |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|-------------------|--------------|------------|---------|------------------------|--------------|------------|---------|-----|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE             |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |     |
|                |             |                 |             |           | MCA               | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |     |
|                |             |                 |             |           |                   |              | FLA        | LRA     |                        |              | FLA        | LRA     |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 42/42             | 50/50        | 44/44      | 200     | 46/46                  | 50/50        | 48/48      | 204     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 42/42             | 50/50        | 44/44      | 200/200 | 46/46                  | 50/50        | 48/48      | 204/204 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/57             | 60/60        | 46/52      | 200/200 | 62/62                  | 70/70        | 51/56      | 204/204 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 108/108           | 110/110      | 87/99      | 200/200 | 113/113                | 125/125      | 91/104     | 204/204 |     |
|                | MED         | NONE            | —           | —         | 42/42             | 50/50        | 44/44      | 200     | 46/46                  | 50/50        | 48/48      | 204     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 42/42             | 50/50        | 44/44      | 200/200 | 46/46                  | 50/50        | 48/48      | 204/204 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/57             | 60/60        | 46/52      | 200/200 | 62/62                  | 70/70        | 51/56      | 204/204 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 108/108           | 110/110      | 87/99      | 200/200 | 113/113                | 125/125      | 91/104     | 204/204 |     |
|                | HIGH        | NONE            | —           | —         | 45/45             | 50/50        | 47/46      | 230     | 49/49                  | 60/60        | 51/50      | 234     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/45             | 50/50        | 47/46      | 230/230 | 49/49                  | 60/60        | 51/50      | 234/234 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 60/60             | 60/60        | 49/55      | 230/230 | 65/65                  | 70/70        | 54/59      | 234/234 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 111/111           | 125/125      | 90/102     | 230/230 | 116/116                | 125/125      | 95/106     | 234/234 |     |
|                | SUPER       | NONE            | —           | —         | 47/47             | 60/60        | 50/48      | 254     | 51/51                  | 60/60        | 54/53      | 258     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/47             | 60/60        | 50/48      | 254/254 | 51/51                  | 60/60        | 54/53      | 258/258 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 62/62             | 70/70        | 52/57      | 254/254 | 67/67                  | 70/70        | 56/61      | 258/258 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 113/113           | 125/125      | 93/104     | 254/254 | 118/118                | 125/125      | 97/108     | 258/258 |     |
|                | 460-3-60    | STD             | NONE        | —         | —                 | 23           | 25         | 24      | 102                    | 24           | 30         | 26      | 104 |
|                |             |                 | 289A        | 10.0      | 12.0              | 23           | 25         | 24      | 102                    | 24           | 30         | 26      | 104 |
|                |             |                 | 292A        | 16.5      | 19.9              | 29           | 30         | 26      | 102                    | 31           | 35         | 28      | 104 |
|                |             |                 | 295A        | 33.5      | 40.3              | 54           | 60         | 50      | 102                    | 57           | 60         | 52      | 104 |
| MED            |             | NONE            | —           | —         | 23                | 25           | 24         | 102     | 24                     | 30           | 26         | 104     |     |
|                |             | 289A            | 10.0        | 12.0      | 23                | 25           | 24         | 102     | 24                     | 30           | 26         | 104     |     |
|                |             | 292A            | 16.5        | 19.9      | 29                | 30           | 26         | 102     | 31                     | 35           | 28         | 104     |     |
|                |             | 295A            | 33.5        | 40.3      | 54                | 60           | 50         | 102     | 57                     | 60           | 52         | 104     |     |
| HIGH           |             | NONE            | —           | —         | 23                | 25           | 25         | 118     | 25                     | 30           | 27         | 120     |     |
|                |             | 289A            | 10.0        | 12.0      | 23                | 25           | 25         | 118     | 25                     | 30           | 27         | 120     |     |
|                |             | 292A            | 16.5        | 19.9      | 30                | 30           | 27         | 118     | 32                     | 35           | 29         | 120     |     |
|                |             | 295A            | 33.5        | 40.3      | 56                | 60           | 51         | 118     | 58                     | 60           | 53         | 120     |     |
| SUPER          |             | NONE            | —           | —         | 25                | 30           | 26         | 130     | 26                     | 30           | 28         | 132     |     |
|                |             | 289A            | 10.0        | 12.0      | 25                | 30           | 26         | 130     | 26                     | 30           | 28         | 132     |     |
|                |             | 292A            | 16.5        | 19.9      | 31                | 35           | 29         | 130     | 34                     | 35           | 31         | 132     |     |
|                |             | 295A            | 33.5        | 40.3      | 57                | 60           | 52         | 130     | 59                     | 60           | 54         | 132     |     |
| 575-3-60       |             | STD             | NONE        | —         | —                 | 19           | 20         | 20      | 78                     | 23           | 25         | 24      | 82  |
|                |             |                 | 293A        | 16.5      | 15.9              | 24           | 25         | 22      | 78                     | 29           | 30         | 26      | 82  |
|                |             |                 | 296A        | 33.5      | 32.2              | 44           | 45         | 40      | 78                     | 49           | 50         | 45      | 82  |
|                |             | MED             | NONE        | —         | —                 | 19           | 20         | 20      | 78                     | 23           | 25         | 24      | 82  |
|                | 293A        |                 | 16.5        | 15.9      | 24                | 25           | 22         | 78      | 29                     | 30           | 26         | 82      |     |
|                | 296A        |                 | 33.5        | 32.2      | 44                | 45           | 40         | 78      | 49                     | 50           | 45         | 82      |     |
|                | HIGH        | NONE            | —           | —         | 21                | 25           | 22         | 91      | 24                     | 30           | 26         | 95      |     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30           | 23         | 91      | 31                     | 35           | 28         | 95      |     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50           | 42         | 91      | 51                     | 60           | 47         | 95      |     |
|                | SUPER       | NONE            | —           | —         | 21                | 25           | 22         | 91      | 24                     | 30           | 26         | 95      |     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30           | 23         | 91      | 31                     | 35           | 28         | 95      |     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50           | 42         | 91      | 51                     | 60           | 47         | 95      |     |

See Legend and Notes on page 77.



## 50LC\*\*08 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |              |            |         |                        |              |            |         |     |
|----------------|-------------|-----------------|-------------|-----------|--------------|--------------|------------|---------|------------------------|--------------|------------|---------|-----|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |     |
|                |             |                 |             |           | MCA          | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |     |
| FLA            | LRA         | FLA             | LRA         | FLA       | LRA          |              |            |         |                        |              |            |         |     |
| 208/230-3-60   | STD         | NONE            | —           | —         | 47/47        | 60/60        | 49/49      | 205     | 51/51                  | 60/60        | 54/53      | 209     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/47        | 60/60        | 49/49      | 205/205 | 51/51                  | 60/60        | 54/53      | 209/209 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/63        | 70/70        | 52/58      | 205/205 | 68/68                  | 70/70        | 56/62      | 209/209 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 114/114      | 125/125      | 93/105     | 205/205 | 119/119                | 125/125      | 97/109     | 209/209 |     |
|                | MED         | NONE            | —           | —         | 47/47        | 60/60        | 49/49      | 205     | 51/51                  | 60/60        | 54/53      | 209     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 47/47        | 60/60        | 49/49      | 205/205 | 51/51                  | 60/60        | 54/53      | 209/209 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/63        | 70/70        | 52/58      | 205/205 | 68/68                  | 70/70        | 56/62      | 209/209 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 114/114      | 125/125      | 93/105     | 205/205 | 119/119                | 125/125      | 97/109     | 209/209 |     |
|                | HIGH        | NONE            | —           | —         | 50/50        | 60/60        | 53/52      | 235     | 53/53                  | 60/60        | 57/56      | 239     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/50        | 60/60        | 53/52      | 235/235 | 53/53                  | 60/60        | 57/56      | 239/239 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 66/66        | 70/70        | 55/60      | 235/235 | 71/71                  | 80/80        | 59/65      | 239/239 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 117/117      | 125/125      | 96/107     | 235/235 | 122/122                | 125/125      | 100/112    | 239/239 |     |
|                | SUPER       | NONE            | —           | —         | 52/52        | 60/60        | 55/54      | 259     | 56/56                  | 60/60        | 59/58      | 263     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 52/52        | 60/60        | 55/54      | 259/259 | 56/56                  | 60/60        | 59/58      | 263/263 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 68/68        | 70/70        | 58/62      | 259/259 | 73/73                  | 80/80        | 62/67      | 263/263 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 119/119      | 125/125      | 98/109     | 259/259 | 124/124                | 125/125      | 103/114    | 263/263 |     |
|                | 460-3-60    | STD             | NONE        | —         | —            | 25           | 30         | 26      | 104                    | 27           | 30         | 28      | 106 |
|                |             |                 | 289A        | 10.0      | 12.0         | 25           | 30         | 26      | 104                    | 27           | 30         | 28      | 106 |
|                |             |                 | 292A        | 16.5      | 19.9         | 32           | 35         | 29      | 104                    | 34           | 35         | 31      | 106 |
|                |             |                 | 295A        | 33.5      | 40.3         | 57           | 60         | 52      | 104                    | 59           | 60         | 54      | 106 |
| MED            |             | NONE            | —           | —         | 25           | 30           | 26         | 104     | 27                     | 30           | 28         | 106     |     |
|                |             | 289A            | 10.0        | 12.0      | 25           | 30           | 26         | 104     | 27                     | 30           | 28         | 106     |     |
|                |             | 292A            | 16.5        | 19.9      | 32           | 35           | 29         | 104     | 34                     | 35           | 31         | 106     |     |
|                |             | 295A            | 33.5        | 40.3      | 57           | 60           | 52         | 104     | 59                     | 60           | 54         | 106     |     |
| HIGH           |             | NONE            | —           | —         | 26           | 30           | 27         | 120     | 27                     | 30           | 29         | 122     |     |
|                |             | 289A            | 10.0        | 12.0      | 26           | 30           | 27         | 120     | 27                     | 30           | 29         | 122     |     |
|                |             | 292A            | 16.5        | 19.9      | 33           | 35           | 30         | 120     | 35                     | 35           | 32         | 122     |     |
|                |             | 295A            | 33.5        | 40.3      | 58           | 60           | 53         | 120     | 61                     | 70           | 55         | 122     |     |
| SUPER          |             | NONE            | —           | —         | 27           | 30           | 28         | 132     | 29                     | 30           | 30         | 134     |     |
|                |             | 289A            | 10.0        | 12.0      | 27           | 30           | 28         | 132     | 29                     | 30           | 30         | 134     |     |
|                |             | 292A            | 16.5        | 19.9      | 34           | 35           | 31         | 132     | 36                     | 40           | 33         | 134     |     |
|                |             | 295A            | 33.5        | 40.3      | 60           | 60           | 55         | 132     | 62                     | 70           | 57         | 134     |     |
| 575-3-60       |             | STD             | NONE        | —         | —            | 21           | 25         | 22      | 80                     | 24           | 30         | 26      | 84  |
|                |             |                 | 293A        | 16.5      | 15.9         | 26           | 30         | 23      | 80                     | 31           | 35         | 28      | 84  |
|                |             |                 | 296A        | 33.5      | 32.2         | 46           | 50         | 42      | 80                     | 51           | 60         | 47      | 84  |
|                |             | MED             | NONE        | —         | —            | 21           | 25         | 22      | 80                     | 24           | 30         | 26      | 84  |
|                | 293A        |                 | 16.5        | 15.9      | 26           | 30           | 23         | 80      | 31                     | 35           | 28         | 84      |     |
|                | 296A        |                 | 33.5        | 32.2      | 46           | 50           | 42         | 80      | 51                     | 60           | 47         | 84      |     |
|                | HIGH        | NONE            | —           | —         | 22           | 25           | 24         | 93      | 26                     | 30           | 28         | 97      |     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30           | 25         | 93      | 33                     | 35           | 30         | 97      |     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50           | 44         | 93      | 53                     | 60           | 49         | 97      |     |
|                | SUPER       | NONE            | —           | —         | 22           | 25           | 24         | 93      | 26                     | 30           | 28         | 97      |     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30           | 25         | 93      | 33                     | 35           | 30         | 97      |     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50           | 44         | 93      | 53                     | 60           | 49         | 97      |     |

See Legend and Notes on page 77.

## 50LC\*\*09 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | NO CO or UNPWR CO |              |            |         |                        |              |            |         |
|----------------|-------------|-----------------|-------------|-----------|-------------------|--------------|------------|---------|------------------------|--------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE             |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |
|                |             |                 |             |           | MCA               | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         | FLA       | LRA               |              |            |         |                        |              |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 45/45             | 60/60        | 46/46      | 227     | 49/49                  | 60/60        | 51/50      | 231     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/60        | 46/46      | 227/227 | 49/49                  | 60/60        | 51/50      | 231/231 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/57             | 60/60        | 46/52      | 227/227 | 62/62                  | 70/70        | 51/56      | 231/231 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 108/108           | 110/110      | 87/99      | 227/227 | 113/113                | 125/125      | 91/104     | 231/231 |
|                | MED         | NONE            | —           | —         | 45/45             | 60/60        | 46/46      | 227     | 49/49                  | 60/60        | 51/50      | 231     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/60        | 46/46      | 227/227 | 49/49                  | 60/60        | 51/50      | 231/231 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 57/57             | 60/60        | 46/52      | 227/227 | 62/62                  | 70/70        | 51/56      | 231/231 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 108/108           | 110/110      | 87/99      | 227/227 | 113/113                | 125/125      | 91/104     | 231/231 |
|                | HIGH        | NONE            | —           | —         | 50/50             | 60/60        | 52/51      | 281     | 54/54                  | 60/60        | 56/55      | 285     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/50             | 60/60        | 52/51      | 281/281 | 54/54                  | 60/60        | 56/55      | 285/285 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 62/62             | 70/70        | 52/57      | 281/281 | 67/67                  | 70/70        | 56/61      | 285/285 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 113/113           | 125/125      | 93/104     | 281/281 | 118/118                | 125/125      | 97/108     | 285/285 |
|                | SUPER       | NONE            | —           | —         | 53/53             | 60/60        | 55/54      | 292     | 56/56                  | 60/60        | 60/59      | 296     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 53/53             | 60/60        | 55/54      | 292/292 | 56/56                  | 60/60        | 60/59      | 296/296 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 66/66             | 70/70        | 55/60      | 292/292 | 71/71                  | 80/80        | 60/65      | 296/296 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 117/117           | 125/125      | 96/107     | 292/292 | 122/122                | 125/125      | 100/112    | 296/296 |
| 460-3-60       | STD         | NONE            | —           | —         | 24                | 30           | 25         | 113     | 26                     | 30           | 27         | 115     |
|                |             | 289A            | 10.0        | 12.0      | 24                | 30           | 25         | 113     | 26                     | 30           | 27         | 115     |
|                |             | 292A            | 16.5        | 19.9      | 29                | 30           | 26         | 113     | 31                     | 35           | 28         | 115     |
|                |             | 295A            | 33.5        | 40.3      | 54                | 60           | 50         | 113     | 57                     | 60           | 52         | 115     |
|                | MED         | NONE            | —           | —         | 24                | 30           | 25         | 113     | 26                     | 30           | 27         | 115     |
|                |             | 289A            | 10.0        | 12.0      | 24                | 30           | 25         | 113     | 26                     | 30           | 27         | 115     |
|                |             | 292A            | 16.5        | 19.9      | 29                | 30           | 26         | 113     | 31                     | 35           | 28         | 115     |
|                |             | 295A            | 33.5        | 40.3      | 54                | 60           | 50         | 113     | 57                     | 60           | 52         | 115     |
|                | HIGH        | NONE            | —           | —         | 26                | 30           | 28         | 141     | 28                     | 30           | 30         | 143     |
|                |             | 289A            | 10.0        | 12.0      | 26                | 30           | 28         | 141     | 28                     | 30           | 30         | 143     |
|                |             | 292A            | 16.5        | 19.9      | 31                | 35           | 29         | 141     | 34                     | 35           | 31         | 143     |
|                |             | 295A            | 33.5        | 40.3      | 57                | 60           | 52         | 141     | 59                     | 60           | 54         | 143     |
|                | SUPER       | NONE            | —           | —         | 28                | 30           | 29         | 146     | 30                     | 35           | 31         | 148     |
|                |             | 289A            | 10.0        | 12.0      | 28                | 30           | 29         | 146     | 30                     | 35           | 31         | 148     |
|                |             | 292A            | 16.5        | 19.9      | 33                | 35           | 30         | 146     | 36                     | 40           | 32         | 148     |
|                |             | 295A            | 33.5        | 40.3      | 59                | 60           | 54         | 146     | 61                     | 70           | 56         | 148     |
| 575-3-60       | STD         | NONE            | —           | —         | 20                | 25           | 21         | 84      | 24                     | 25           | 25         | 88      |
|                |             | 293A            | 16.5        | 15.9      | 24                | 25           | 22         | 84      | 29                     | 30           | 26         | 88      |
|                |             | 296A            | 33.5        | 32.2      | 44                | 45           | 40         | 84      | 49                     | 50           | 45         | 88      |
|                | MED         | NONE            | —           | —         | 20                | 25           | 21         | 84      | 24                     | 25           | 25         | 88      |
|                |             | 293A            | 16.5        | 15.9      | 24                | 25           | 22         | 84      | 29                     | 30           | 26         | 88      |
|                |             | 296A            | 33.5        | 32.2      | 44                | 45           | 40         | 84      | 49                     | 50           | 45         | 88      |
|                | HIGH        | NONE            | —           | —         | 22                | 25           | 23         | 97      | 25                     | 30           | 27         | 101     |
|                |             | 293A            | 16.5        | 15.9      | 26                | 30           | 23         | 97      | 31                     | 35           | 28         | 101     |
|                |             | 296A            | 33.5        | 32.2      | 46                | 50           | 42         | 97      | 51                     | 60           | 47         | 101     |
|                | SUPER       | NONE            | —           | —         | 24                | 25           | 25         | 111     | 27                     | 30           | 29         | 115     |
|                |             | 293A            | 16.5        | 15.9      | 28                | 30           | 25         | 111     | 33                     | 35           | 30         | 115     |
|                |             | 296A            | 33.5        | 32.2      | 48                | 50           | 44         | 111     | 53                     | 60           | 49         | 115     |

See Legend and Notes on page 77.

## 50LC\*\*09 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |           | WITH PWRD CO |              |            |         |                        |              |            |         |
|----------------|-------------|-----------------|-------------|-----------|--------------|--------------|------------|---------|------------------------|--------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA       | NO PE        |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |
|                |             |                 |             |           | MCA          | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         |           |              |              |            |         |                        |              |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —         | 50/50        | 60/60        | 52/52      | 232     | 53/53                  | 60/60        | 56/56      | 236     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/50        | 60/60        | 52/52      | 232/232 | 53/53                  | 60/60        | 56/56      | 236/236 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/63        | 70/70        | 52/58      | 232/232 | 68/68                  | 70/70        | 56/62      | 236/236 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 114/114      | 125/125      | 93/105     | 232/232 | 119/119                | 125/125      | 97/109     | 236/236 |
|                | MED         | NONE            | —           | —         | 50/50        | 60/60        | 52/52      | 232     | 53/53                  | 60/60        | 56/56      | 236     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 50/50        | 60/60        | 52/52      | 232/232 | 53/53                  | 60/60        | 56/56      | 236/236 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 63/63        | 70/70        | 52/58      | 232/232 | 68/68                  | 70/70        | 56/62      | 236/236 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 114/114      | 125/125      | 93/105     | 232/232 | 119/119                | 125/125      | 97/109     | 236/236 |
|                | HIGH        | NONE            | —           | —         | 55/55        | 60/60        | 58/56      | 286     | 58/58                  | 70/70        | 62/61      | 290     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 55/55        | 60/60        | 58/56      | 286/286 | 58/58                  | 70/70        | 62/61      | 290/290 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 68/68        | 70/70        | 58/62      | 286/286 | 73/73                  | 80/80        | 62/67      | 290/290 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 119/119      | 125/125      | 98/109     | 286/286 | 124/124                | 125/125      | 103/114    | 290/290 |
|                | SUPER       | NONE            | —           | —         | 57/57        | 70/70        | 61/60      | 297     | 61/61                  | 70/70        | 65/64      | 301     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1 | 57/57        | 70/70        | 61/60      | 297/297 | 61/61                  | 70/70        | 65/64      | 301/301 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7 | 72/72        | 80/80        | 61/66      | 297/297 | 77/77                  | 80/80        | 65/70      | 301/301 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6 | 123/123      | 125/125      | 102/113    | 297/297 | 128/128                | 150/150      | 106/117    | 301/301 |
| 460-3-60       | STD         | NONE            | —           | —         | 27           | 30           | 28         | 115     | 28                     | 30           | 30         | 117     |
|                |             | 289A            | 10.0        | 12.0      | 27           | 30           | 28         | 115     | 28                     | 30           | 30         | 117     |
|                |             | 292A            | 16.5        | 19.9      | 32           | 35           | 29         | 115     | 34                     | 35           | 31         | 117     |
|                |             | 295A            | 33.5        | 40.3      | 57           | 60           | 52         | 115     | 59                     | 60           | 54         | 117     |
|                | MED         | NONE            | —           | —         | 27           | 30           | 28         | 115     | 28                     | 30           | 30         | 117     |
|                |             | 289A            | 10.0        | 12.0      | 27           | 30           | 28         | 115     | 28                     | 30           | 30         | 117     |
|                |             | 292A            | 16.5        | 19.9      | 32           | 35           | 29         | 115     | 34                     | 35           | 31         | 117     |
|                |             | 295A            | 33.5        | 40.3      | 57           | 60           | 52         | 115     | 59                     | 60           | 54         | 117     |
|                | HIGH        | NONE            | —           | —         | 29           | 35           | 30         | 143     | 30                     | 35           | 32         | 145     |
|                |             | 289A            | 10.0        | 12.0      | 29           | 35           | 30         | 143     | 30                     | 35           | 32         | 145     |
|                |             | 292A            | 16.5        | 19.9      | 34           | 35           | 31         | 143     | 36                     | 40           | 33         | 145     |
|                |             | 295A            | 33.5        | 40.3      | 60           | 60           | 55         | 143     | 62                     | 70           | 57         | 145     |
|                | SUPER       | NONE            | —           | —         | 30           | 35           | 32         | 148     | 32                     | 35           | 34         | 150     |
|                |             | 289A            | 10.0        | 12.0      | 30           | 35           | 32         | 148     | 32                     | 35           | 34         | 150     |
|                |             | 292A            | 16.5        | 19.9      | 36           | 40           | 33         | 148     | 38                     | 40           | 35         | 150     |
|                |             | 295A            | 33.5        | 40.3      | 62           | 70           | 56         | 148     | 64                     | 70           | 58         | 150     |
| 575-3-60       | STD         | NONE            | —           | —         | 22           | 25           | 23         | 86      | 25                     | 30           | 27         | 90      |
|                |             | 293A            | 16.5        | 15.9      | 26           | 30           | 23         | 86      | 31                     | 35           | 28         | 90      |
|                |             | 296A            | 33.5        | 32.2      | 46           | 50           | 42         | 86      | 51                     | 60           | 47         | 90      |
|                | MED         | NONE            | —           | —         | 22           | 25           | 23         | 86      | 25                     | 30           | 27         | 90      |
|                |             | 293A            | 16.5        | 15.9      | 26           | 30           | 23         | 86      | 31                     | 35           | 28         | 90      |
|                |             | 296A            | 33.5        | 32.2      | 46           | 50           | 42         | 86      | 51                     | 60           | 47         | 90      |
|                | HIGH        | NONE            | —           | —         | 23           | 25           | 25         | 99      | 27                     | 30           | 29         | 103     |
|                |             | 293A            | 16.5        | 15.9      | 28           | 30           | 25         | 99      | 33                     | 35           | 30         | 103     |
|                |             | 296A            | 33.5        | 32.2      | 48           | 50           | 44         | 99      | 53                     | 60           | 49         | 103     |
|                | SUPER       | NONE            | —           | —         | 25           | 30           | 27         | 113     | 29                     | 35           | 31         | 117     |
|                |             | 293A            | 16.5        | 15.9      | 30           | 30           | 27         | 113     | 35                     | 35           | 32         | 117     |
|                |             | 296A            | 33.5        | 32.2      | 51           | 60           | 46         | 113     | 55                     | 60           | 50         | 117     |

See Legend and Notes on page 77.

## 50LC\*\*12 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |             | NO CO or UNPWR CO |              |            |         |                        |              |            |         |     |
|----------------|-------------|-----------------|-------------|-------------|-------------------|--------------|------------|---------|------------------------|--------------|------------|---------|-----|
|                |             |                 |             |             | NO PE             |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |     |
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA         | MCA               | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |     |
|                |             |                 |             |             |                   |              | FLA        | LRA     |                        |              | FLA        | LRA     |     |
| 208/230-3-60   | STD         | NONE            | —           | —           | 51/51             | 60/60        | 52/52      | 252     | 54/54                  | 60/60        | 56/56      | 256     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 51/51             | 60/60        | 52/52      | 252/252 | 54/54                  | 60/60        | 56/56      | 256/256 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 59/59             | 60/60        | 52/53      | 252/252 | 63/63                  | 70/70        | 56/58      | 256/256 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 110/110           | 110/110      | 89/101     | 252/252 | 114/114                | 125/125      | 93/105     | 256/256 |     |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 140/140           | 150/150      | 128/146    | 252/252 | 144/144                | 150/150      | 132/151    | 256/256 |     |
|                | MED         | NONE            | —           | —           | 52/52             | 60/60        | 54/53      | 278     | 56/56                  | 70/70        | 58/57      | 282     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 52/52             | 60/60        | 54/53      | 278/278 | 56/56                  | 70/70        | 58/57      | 282/282 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 60/60             | 60/60        | 54/55      | 278/278 | 65/65                  | 70/70        | 58/59      | 282/282 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 111/111           | 125/125      | 90/102     | 278/278 | 116/116                | 125/125      | 95/106     | 282/282 |     |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 142/142           | 150/150      | 130/147    | 278/278 | 146/146                | 150/150      | 134/152    | 282/282 |     |
|                | HIGH        | NONE            | —           | —           | 57/57             | 70/70        | 59/58      | 313     | 61/61                  | 80/80        | 64/63      | 317     |     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 57/57             | 70/70        | 59/58      | 313/313 | 61/61                  | 80/80        | 64/63      | 317/317 |     |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 66/66             | 70/70        | 59/60      | 313/313 | 71/71                  | 80/80        | 64/65      | 317/317 |     |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 117/117           | 125/125      | 96/107     | 313/313 | 122/122                | 125/125      | 100/112    | 317/317 |     |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 148/148           | 150/150      | 136/153    | 313/313 | 153/153                | 175/175      | 140/157    | 317/317 |     |
|                | 460-3-60    | STD             | NONE        | —           | —                 | 26           | 30         | 27      | 126                    | 27           | 30         | 29      | 128 |
|                |             |                 | 289A        | 10.0        | 12.0              | 26           | 30         | 27      | 126                    | 27           | 30         | 29      | 128 |
|                |             |                 | 292A        | 16.5        | 19.9              | 30           | 30         | 27      | 126                    | 32           | 35         | 29      | 128 |
| 295A           |             |                 | 33.5        | 40.3        | 55                | 60           | 50         | 126     | 57                     | 60           | 52         | 128     |     |
| 375A           |             |                 | 50.0        | 60.2        | 65                | 70           | 73         | 126     | 67                     | 70           | 75         | 128     |     |
| MED            |             | NONE            | —           | —           | 26                | 30           | 27         | 140     | 28                     | 30           | 29         | 142     |     |
|                |             | 289A            | 10.0        | 12.0        | 26                | 30           | 27         | 140     | 28                     | 30           | 29         | 142     |     |
|                |             | 292A            | 16.5        | 19.9        | 30                | 30           | 27         | 140     | 32                     | 35           | 29         | 142     |     |
|                |             | 295A            | 33.5        | 40.3        | 56                | 60           | 51         | 140     | 58                     | 60           | 53         | 142     |     |
|                |             | 375A            | 50.0        | 60.2        | 65                | 70           | 74         | 140     | 68                     | 80           | 76         | 142     |     |
| HIGH           |             | NONE            | —           | —           | 29                | 35           | 30         | 157     | 30                     | 35           | 32         | 159     |     |
|                |             | 289A            | 10.0        | 12.0        | 29                | 35           | 30         | 157     | 30                     | 35           | 32         | 159     |     |
|                |             | 292A            | 16.5        | 19.9        | 33                | 35           | 30         | 157     | 36                     | 40           | 32         | 159     |     |
|                |             | 295A            | 33.5        | 40.3        | 59                | 60           | 54         | 157     | 61                     | 70           | 56         | 159     |     |
|                |             | 375A            | 50.0        | 60.2        | 69                | 80           | 77         | 157     | 71                     | 80           | 79         | 159     |     |
| 575-3-60       |             | STD             | NONE        | —           | —                 | 22           | 25         | 23      | 107                    | 26           | 30         | 27      | 111 |
|                |             |                 | 293A        | 16.5        | 15.9              | 25           | 25         | 23      | 107                    | 29           | 30         | 27      | 111 |
|                |             |                 | 296A        | 33.5        | 32.2              | 45           | 45         | 41      | 107                    | 50           | 50         | 45      | 111 |
|                | 382A        |                 | 50.0        | 48.1        | 53                | 60           | 59         | 107     | 58                     | 60           | 64         | 111     |     |
|                | 382A        |                 | 50.0        | 48.1        | 53                | 60           | 59         | 107     | 58                     | 60           | 64         | 111     |     |
|                | MED         | NONE            | —           | —           | 23                | 25           | 24         | 116     | 27                     | 30           | 28         | 120     |     |
|                |             | 293A            | 16.5        | 15.9        | 26                | 30           | 24         | 116     | 31                     | 35           | 28         | 120     |     |
|                |             | 296A            | 33.5        | 32.2        | 46                | 50           | 42         | 116     | 51                     | 60           | 47         | 120     |     |
|                |             | 382A            | 50.0        | 48.1        | 54                | 60           | 60         | 116     | 59                     | 60           | 65         | 120     |     |
|                |             | 382A            | 50.0        | 48.1        | 54                | 60           | 60         | 116     | 59                     | 60           | 65         | 120     |     |
|                | HIGH        | NONE            | —           | —           | 25                | 30           | 26         | 130     | 29                     | 30           | 30         | 134     |     |
|                |             | 293A            | 16.5        | 15.9        | 28                | 30           | 26         | 130     | 33                     | 35           | 30         | 134     |     |
|                |             | 296A            | 33.5        | 32.2        | 48                | 50           | 44         | 130     | 53                     | 60           | 49         | 134     |     |
|                |             | 382A            | 50.0        | 48.1        | 56                | 60           | 62         | 130     | 61                     | 70           | 67         | 134     |     |
|                |             | 382A            | 50.0        | 48.1        | 56                | 60           | 62         | 130     | 61                     | 70           | 67         | 134     |     |

See Legend and Notes on page 77.

## 50LC\*\*12 UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (cont)

| NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER |             |             | WITH PWRD CO |              |            |         |                        |              |            |         |
|----------------|-------------|-----------------|-------------|-------------|--------------|--------------|------------|---------|------------------------|--------------|------------|---------|
|                |             | CRHEATER***A00  | NOM<br>(kW) | FLA         | NO PE        |              |            |         | WITH PE (PWRD FR/UNIT) |              |            |         |
|                |             |                 |             |             | MCA          | HACR<br>BRKR | DISC. SIZE |         | MCA                    | HACR<br>BRKR | DISC. SIZE |         |
| FLA            | LRA         | FLA             | LRA         | FLA         | LRA          | FLA          | LRA        |         |                        |              |            |         |
| 208/230-3-60   | STD         | NONE            | —           | —           | 55/55        | 60/60        | 58/57      | 257     | 59/59                  | 70/70        | 62/62      | 261     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 55/55        | 60/60        | 58/57      | 257/257 | 59/59                  | 70/70        | 62/62      | 261/261 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 65/65        | 70/70        | 58/59      | 257/257 | 69/69                  | 70/70        | 62/63      | 261/261 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 116/116      | 125/125      | 94/106     | 257/257 | 120/120                | 125/125      | 98/110     | 261/261 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 146/146      | 150/150      | 134/152    | 257/257 | 150/150                | 175/175      | 138/156    | 261/261 |
|                | MED         | NONE            | —           | —           | 57/57        | 70/70        | 59/58      | 283     | 61/61                  | 70/70        | 64/63      | 287     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 57/57        | 70/70        | 59/58      | 283/283 | 61/61                  | 70/70        | 64/63      | 287/287 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 66/66        | 70/70        | 59/60      | 283/283 | 71/71                  | 80/80        | 64/65      | 287/287 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 117/117      | 125/125      | 96/107     | 283/283 | 122/122                | 125/125      | 100/112    | 287/287 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 148/148      | 150/150      | 135/153    | 283/283 | 152/152                | 175/175      | 140/157    | 287/287 |
|                | HIGH        | NONE            | —           | —           | 62/62        | 80/80        | 65/64      | 318     | 66/66                  | 80/80        | 69/68      | 322     |
|                |             | 288A            | 7.5/10.0    | 20.9/24.1   | 62/62        | 80/80        | 65/64      | 318/318 | 66/66                  | 80/80        | 69/68      | 322/322 |
|                |             | 291A            | 12.4/16.5   | 34.4/39.7   | 72/72        | 80/80        | 65/66      | 318/318 | 77/77                  | 80/80        | 69/70      | 322/322 |
|                |             | 294A            | 25.2/33.5   | 69.9/80.6   | 123/123      | 125/125      | 102/113    | 318/318 | 128/128                | 150/150      | 106/117    | 322/322 |
|                |             | 368A            | 37.6/50.0   | 104.3/120.3 | 154/154      | 175/175      | 141/158    | 318/318 | 159/159                | 175/175      | 145/163    | 322/322 |
|                | 460-3-60    | STD             | NONE        | —           | —            | 28           | 30         | 29      | 128                    | 30           | 35         | 31      |
| 289A           |             |                 | 10.0        | 12.0        | 28           | 30           | 29         | 128     | 30                     | 35           | 31         | 130     |
| 292A           |             |                 | 16.5        | 19.9        | 32           | 35           | 29         | 128     | 35                     | 35           | 31         | 130     |
| 295A           |             |                 | 33.5        | 40.3        | 58           | 60           | 53         | 128     | 60                     | 60           | 55         | 130     |
| 375A           |             |                 | 50.0        | 60.2        | 68           | 80           | 76         | 128     | 70                     | 80           | 78         | 130     |
| MED            |             | NONE            | —           | —           | 28           | 30           | 30         | 142     | 30                     | 35           | 32         | 144     |
|                |             | 289A            | 10.0        | 12.0        | 28           | 30           | 30         | 142     | 30                     | 35           | 32         | 144     |
|                |             | 292A            | 16.5        | 19.9        | 33           | 35           | 30         | 142     | 35                     | 35           | 32         | 144     |
|                |             | 295A            | 33.5        | 40.3        | 58           | 60           | 53         | 142     | 61                     | 70           | 55         | 144     |
|                |             | 375A            | 50.0        | 60.2        | 68           | 80           | 76         | 142     | 70                     | 80           | 78         | 144     |
| HIGH           |             | NONE            | —           | —           | 31           | 35           | 33         | 159     | 33                     | 40           | 35         | 161     |
|                |             | 289A            | 10.0        | 12.0        | 31           | 35           | 33         | 159     | 33                     | 40           | 35         | 161     |
|                |             | 292A            | 16.5        | 19.9        | 36           | 40           | 33         | 159     | 38                     | 40           | 35         | 161     |
|                |             | 295A            | 33.5        | 40.3        | 62           | 70           | 56         | 159     | 64                     | 70           | 58         | 161     |
|                |             | 375A            | 50.0        | 60.2        | 71           | 80           | 79         | 159     | 74                     | 80           | 81         | 161     |
| 575-3-60       |             | STD             | NONE        | —           | —            | 24           | 25         | 25      | 109                    | 28           | 30         | 29      |
|                | 293A        |                 | 16.5        | 15.9        | 27           | 30           | 25         | 109     | 32                     | 35           | 29         | 113     |
|                | 296A        |                 | 33.5        | 32.2        | 47           | 50           | 43         | 109     | 52                     | 60           | 47         | 113     |
|                | 382A        |                 | 50.0        | 48.1        | 55           | 60           | 61         | 109     | 60                     | 60           | 66         | 113     |
|                | NONE        |                 | —           | —           | 25           | 30           | 26         | 118     | 29                     | 30           | 30         | 122     |
|                | MED         | 293A            | 16.5        | 15.9        | 28           | 30           | 26         | 118     | 33                     | 35           | 30         | 122     |
|                |             | 296A            | 33.5        | 32.2        | 48           | 50           | 44         | 118     | 53                     | 60           | 49         | 122     |
|                |             | 382A            | 50.0        | 48.1        | 56           | 60           | 62         | 118     | 61                     | 70           | 67         | 122     |
|                | HIGH        | NONE            | —           | —           | 26           | 30           | 28         | 132     | 30                     | 35           | 32         | 136     |
|                |             | 293A            | 16.5        | 15.9        | 30           | 30           | 28         | 132     | 35                     | 35           | 32         | 136     |
|                |             | 296A            | 33.5        | 32.2        | 51           | 60           | 46         | 132     | 55                     | 60           | 50         | 136     |
|                |             | 382A            | 50.0        | 48.1        | 58           | 60           | 64         | 132     | 63                     | 70           | 69         | 136     |

See Legend and Notes on page 77.

## ELECTRIC HEAT

| 50LC UNIT | NOM V-PH-Hz  | IFM TYPE     | ELECTRIC HEATER PART NUMBER CRHEATER***** | NOM POWER (kW) | APP POWER (kW) | APP OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT PART NUMBER |                        |           |                        |     |
|-----------|--------------|--------------|---|----------------|----------------|------------------|--|------------------------|-----------|------------------------|-----|
|           |              |              |   |                |                |                  | NO CO OR UNPOWERED CO                    |                        | w/PWRD CO |                        |     |
|           |              |              |   |                |                |                  | NO PE                                    | WITH PE (PWRD FR/UNIT) | NO PE     | WITH PE (PWRD FR/UNIT) |     |
| 07        | 208/230-3-60 | STD          | 316A00                                    | 6.5            | 4.9/6.0        | 16.7/20.4        | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 317A00                                    | 16.0           | 12.0/14.7      | 41.0/50.1        | 047                                      | 047                    | 049       | 049                    |     |
|           |              |              | 318A00                                    | 24.8           | 18.6/22.8      | 63.6/77.7        | 049                                      | 049                    | 049       | 049                    |     |
|           |              | MED          | 316A00                                    | 6.5            | 4.9/6.0        | 16.7/20.4        | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 317A00                                    | 16.0           | 12.0/14.7      | 41.0/50.1        | 047                                      | 047                    | 049       | 049                    |     |
|           |              |              | 318A00                                    | 24.8           | 18.6/22.8      | 63.6/77.7        | 049                                      | 049                    | 049       | 049                    |     |
|           |              | HIGH         | 316A00                                    | 6.5            | 4.9/6.0        | 16.7/20.4        | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 317A00                                    | 16.0           | 12.0/14.7      | 41.0/50.1        | 047                                      | 049                    | 049       | 049                    |     |
|           |              |              | 318A00                                    | 24.8           | 18.6/22.8      | 63.6/77.7        | 049                                      | 049                    | 049       | 049                    |     |
|           | 460-3-60     | STD          | 319A00                                    | 6.0            | 5.5            | 18.8             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 320A00                                    | 14.0           | 12.9           | 43.9             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 321A00                                    | 25.5           | 23.4           | 79.9             | 047                                      | 047                    | 047       | 047                    |     |
|           |              | MED          | 319A00                                    | 6.0            | 5.5            | 18.8             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 320A00                                    | 14.0           | 12.9           | 43.9             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 321A00                                    | 25.5           | 23.4           | 79.9             | 047                                      | 047                    | 047       | 047                    |     |
|           |              | HIGH         | 319A00                                    | 6.0            | 5.5            | 18.8             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 320A00                                    | 14.0           | 12.9           | 43.9             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 321A00                                    | 25.5           | 23.4           | 79.9             | 047                                      | 047                    | 047       | 047                    |     |
|           | 575-3-60     | STD          | 308A00                                    | 18.0           | 16.5           | 56.4             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 299A00                                    | 28.0           | 25.7           | 87.7             | 047                                      | 047                    | 047       | 047                    |     |
|           |              | MED          | 308A00                                    | 18.0           | 16.5           | 56.4             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 299A00                                    | 28.0           | 25.7           | 87.7             | 047                                      | 047                    | 047       | 047                    |     |
|           |              | HIGH         | 308A00                                    | 18.0           | 16.5           | 56.4             | 047                                      | 047                    | 047       | 047                    |     |
|           |              |              | 299A00                                    | 28.0           | 25.7           | 87.7             | 047                                      | 047                    | 047       | 047                    |     |
|           | 08           | 208/230-3-60 | STD                                       | 288A00         | 10.0           | 7.5/9.2          | 25.6/31.3                                | —                      | —         | —                      | —   |
|           |              |              |   | 291A00         | 16.5           | 12.4/15.2        | 42.3/51.7                                | —                      | 049       | 049                    | 049 |
|           |              |              |   | 294A00         | 33.5           | 25.2/30.8        | 85.9/105.0                               | 049                    | 049       | 049                    | 049 |
| MED       |              |              | 288A00                                    | 10.0           | 7.5/9.2        | 25.6/31.3        | —  | —                      | —         | —                      |     |
|           |              |              | 291A00                                    | 16.5           | 12.4/15.2      | 42.3/51.7        | —  | 049                    | 049       | 049                    |     |
|           |              |              | 294A00                                    | 33.5           | 25.2/30.8      | 85.9/105.0       | 049                                      | 049                    | 049       | 049                    |     |
| HIGH      |              |              | 288A00                                    | 10.0           | 7.5/9.2        | 25.6/31.3        | —  | —                      | —         | —                      |     |
|           |              |              | 291A00                                    | 16.5           | 12.4/15.2      | 42.3/51.7        | —  | 049                    | 049       | 049                    |     |
|           |              |              | 294A00                                    | 33.5           | 25.2/30.8      | 85.9/105.0       | 049                                      | 049                    | 049       | 049                    |     |
| SUPER     |              |              | 288A00                                    | 10.0           | 7.5/9.2        | 25.6/31.3        | —  | —                      | —         | —                      |     |
|           |              |              | 291A00                                    | 16.5           | 12.4/15.2      | 42.3/51.7        | 049                                      | 049                    | 049       | 049                    |     |
|           |              |              | 294A00                                    | 33.5           | 25.2/30.8      | 85.9/105.0       | 049                                      | 049                    | 049       | 049                    |     |
| 460-3-60  |              |              | STD                                       | 289A00         | 10.0           | 9.2              | 31.3                                     | —                      | -         | —                      | —   |
|           |              |              |   | 292A00         | 16.5           | 15.2             | 51.7                                     | —                      | -         | —                      | —   |
|           |              |              |   | 295A00         | 33.5           | 30.8             | 105.0                                    | 047                    | 047       | 047                    | 047 |
|           |              | MED          | 289A00                                    | 10.0           | 9.2            | 31.3             | —  | —                      | —         | —                      |     |
|           |              |              | 292A00                                    | 16.5           | 15.2           | 51.7             | —  | —                      | —         | —                      |     |
|           |              |              | 295A00                                    | 33.5           | 30.8           | 105.0            | 047                                      | 047                    | 047       | 047                    |     |
|           |              | HIGH         | 289A00                                    | 10.0           | 9.2            | 31.3             | —  | —                      | —         | —                      |     |
|           |              |              | 292A00                                    | 16.5           | 15.2           | 51.7             | —  | —                      | —         | —                      |     |
|           |              |              | 295A00                                    | 33.5           | 30.8           | 105.0            | 047                                      | 047                    | 047       | 050                    |     |
|           |              | SUPER        | 289A00                                    | 10.0           | 9.2            | 31.3             | —  | —                      | —         | —                      |     |
|           |              |              | 292A00                                    | 16.5           | 15.2           | 51.7             | —  | —                      | —         | —                      |     |
|           |              |              | 295A00                                    | 33.5           | 30.8           | 105.0            | 047                                      | 047                    | 047       | 050                    |     |
| 575-3-60  |              | STD          | 293A00                                    | 16.5           | 15.2           | 51.7             | —  | —                      | —         | —                      |     |
|           |              |              | 296A00                                    | 33.5           | 30.8           | 105.0            | 047                                      | 047                    | 047       | 047                    |     |
|           |              | MED          | 293A00                                    | 16.5           | 15.2           | 51.7             | —  | —                      | —         | —                      |     |
|           | 296A00       |              | 33.5                                      | 30.8           | 105.0          | 047              | 047                                      | 047                    | 047       |                        |     |
|           | HIGH         | 293A00       | 16.5                                      | 15.2           | 51.7           | —                | —  | —                      | —         |                        |     |
|           |              | 296A00       | 33.5                                      | 30.8           | 105.0          | 047              | 047                                      | 047                    | 047       |                        |     |
| SUPER     | 293A00       | 16.5         | 15.2                                      | 51.7           | —              | —                | —  | —                      |           |                        |     |
|           | 296A00       | 33.5         | 30.8                                      | 105.0          | 047            | 047              | 047                                      | 047                    |           |                        |     |

## ELECTRIC HEAT (cont)

| 50L.C<br>UNIT | NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC<br>HEATER<br>PART<br>NUMBER<br>CRHEATER***** | NOM<br>POWER<br>(kW) | APP<br>POWER<br>(kW) | APP<br>OUTPUT<br>(MBH) | SINGLE POINT OR JUNCTION KIT PART NUMBER |                           |           |                           |
|---------------|----------------|-------------|---|----------------------|----------------------|------------------------|--|---------------------------|-----------|---------------------------|
|               |                |             |   |                      |                      |                        | NO CO OR UNPOWERED CO                    |                           | w/PWRD CO |                           |
|               |                |             |   |                      |                      |                        | NO PE                                    | WITH PE<br>(PWRD FR/UNIT) | NO PE     | WITH PE<br>(PWRD FR/UNIT) |
| 09            | 208/230-3-60   | STD         | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | —                         | —         | —                         |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | —  | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                | MED         | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | —                         | —         | —                         |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | —  | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                | HIGH        | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | —                         | —         | 049                       |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                | SUPER       | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | —                         | 049       | 049                       |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               | 460-3-60       | STD         | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                | MED         | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                | HIGH        | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 050                       |
|               |                | SUPER       | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 050                       | 050       | 050                       |
|               | 575-3-60       | STD         | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                | MED         | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
| HIGH          |                | 293A00      | 16.5  | 15.2                 | 51.7                 | —                      | —  | —                         | —         |                           |
|               |                | 296A00      | 33.5  | 30.8                 | 105.0                | 047                    | 047                                      | 047                       | 047       |                           |
|               |                | 293A00      | 16.5  | 15.2                 | 51.7                 | —                      | —  | —                         | —         |                           |
| SUPER         | 296A00         | 33.5        | 30.8  | 105.0                | 047                  | 047                    | 047                                      | 047                       |           |                           |
|               | 293A00         | 16.5        | 15.2  | 51.7                 | —                    | —                      | —  | —                         |           |                           |
|               | 296A00         | 33.5        | 30.8  | 105.0                | 047                  | 047                    | 047                                      | 047                       |           |                           |

## ELECTRIC HEAT (cont)

| 50L.C<br>UNIT | NOM<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC<br>HEATER<br>PART<br>NUMBER<br>CRHEATER***** | NOM<br>POWER<br>(kW) | APP<br>POWER<br>(kW) | APP<br>OUTPUT<br>(MBH) | SINGLE POINT OR JUNCTION KIT PART NUMBER |                           |           |                           |
|---------------|----------------|-------------|---|----------------------|----------------------|------------------------|--|---------------------------|-----------|---------------------------|
|               |                |             |   |                      |                      |                        | NO CO OR UNPOWERED CO                    |                           | w/PWRD CO |                           |
|               |                |             |   |                      |                      |                        | NO PE                                    | WITH PE<br>(PWRD FR/UNIT) | NO PE     | WITH PE<br>(PWRD FR/UNIT) |
| 12            | 208/230-3-60   | STD         | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | —                         | —         | 049                       |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | —  | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 368A00  | 50.0                 | 37.6/45.9            | 128.1/156.7            | 051                                      | 051                       | 051       | 051                       |
|               |                | MED         | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | —  | 049                       | 049       | 049                       |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | —  | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 368A00  | 50.0                 | 37.6/45.9            | 128.1/156.7            | 051                                      | 051                       | 051       | 051                       |
|               |                | HIGH        | 288A00  | 10.0                 | 7.5/9.2              | 25.6/31.3              | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 291A00  | 16.5                 | 12.4/15.2            | 42.3/51.7              | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 294A00  | 33.5                 | 25.2/30.8            | 85.9/105.0             | 049                                      | 049                       | 049       | 049                       |
|               |                |             | 368A00  | 50.0                 | 37.6/45.9            | 128.1/156.7            | 051                                      | 051                       | 051       | 051                       |
|               | 460-3-60       | STD         | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 375A00  | 50.0                 | 45.9                 | 156.7                  | 050                                      | 050                       | 050       | 050                       |
|               |                | MED         | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 050                       |
|               |                |             | 375A00  | 50.0                 | 45.9                 | 156.7                  | 050                                      | 050                       | 050       | 050                       |
|               |                | HIGH        | 289A00  | 10.0                 | 9.2                  | 31.3                   | —  | —                         | —         | —                         |
|               |                |             | 292A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 295A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 050                       | 050       | 050                       |
|               |                |             | 375A00  | 50.0                 | 45.9                 | 156.7                  | 050                                      | 050                       | 050       | 050                       |
|               | 575-3-60       | STD         | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 382A00  | 50.0                 | 45.9                 | 156.7                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                | MED         | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 382A00  | 50.0                 | 45.9                 | 156.7                  | 047                                      | 047                       | 047       | 050                       |
|               |                |             | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                | HIGH        | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |
|               |                |             | 296A00  | 33.5                 | 30.8                 | 105.0                  | 047                                      | 047                       | 047       | 047                       |
|               |                |             | 382A00  | 50.0                 | 45.9                 | 156.7                  | 047                                      | 050                       | 047       | 050                       |
|               |                |             | 293A00  | 16.5                 | 15.2                 | 51.7                   | —  | —                         | —         | —                         |

See Legend and Notes on page 77.



## 3-STAGE COOLING WITH 3-SPEED INDOOR FAN MOTOR, SIZES 07-12 — HIGH SCCR

| 50LC<br>UNIT SIZE | V-Ph-Hz  | VOLTAGE RANGE |     | COMP 1 |      | COMP 2 |      | OFM (ea) |     | HIGH<br>SCCR kA | IFM               |                     |       |      |
|-------------------|----------|---------------|-----|--------|------|--------|------|----------|-----|-----------------|-------------------|---------------------|-------|------|
|                   |          | MIN           | MAX | RLA    | LRA  | RLA    | LRA  | WATTS    | FLA |                 | TYPE <sup>a</sup> | EFF at<br>Full Load | FLA   |      |
| 07                | 208-3-60 | 187           | 253 | 8.3    | 58   | 13.2   | 88   | 195      | 1.8 | 10              | STD               | 0.815               | 5.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 5.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.845               | 8.6   |      |
|                   | 230-3-60 | 187           | 253 | 8.3    | 58   | 13.2   | 88   | 195      | 1.8 | 10              | STD               | 0.815               | 5.6   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 5.6   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.845               | 7.8   |      |
|                   | 460-3-60 | 414           | 506 | 5.1    | 28   | 6.0    | 44   | 195      | 1.8 | 10              | STD               | 0.815               | 2.9   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 2.9   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.845               | 3.8   |      |
| 08                | 208-3-60 | 187           | 253 | 13.2   | 88   | 13.7   | 83   | 195      | 1.8 | 10              | STD               | 0.815               | 5.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 5.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.845               | 8.6   |      |
|                   | 230-3-60 | 187           | 253 | 13.2   | 88   | 13.7   | 83   | 195      | 1.8 | 10              | SUPER             | 0.845               | 10.8  |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | STD               | 0.815               | 5.6   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 5.6   |      |
|                   | 460-3-60 | 414           | 506 | 6.0    | 44   | 6.2    | 41   | 195      | 1.8 | 10              | HIGH              | 0.845               | 7.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | SUPER             | 0.845               | 9.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | STD               | 0.815               | 2.9   |      |
|                   | 09       | 208-3-60      | 187 | 253    | 13.2 | 88     | 15.9 | 110      | 195 | 1.8             | 10                | STD                 | 0.815 | 5.8  |
|                   |          |               |     |        |      |        |      |          | 195 | 1.8             | 10                | MED                 | 0.815 | 5.8  |
|                   |          |               |     |        |      |        |      |          | 195 | 1.8             | 10                | HIGH                | 0.845 | 10.8 |
| 230-3-60          |          | 187           | 253 | 13.2   | 88   | 15.9   | 110  | 195      | 1.8 | 10              | SUPER             | 0.82                | 13.6  |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | STD               | 0.815               | 5.6   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.815               | 5.6   |      |
| 460-3-60          |          | 414           | 506 | 6.0    | 44   | 7.7    | 52   | 195      | 1.8 | 10              | HIGH              | 0.845               | 9.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | SUPER             | 0.82                | 12.7  |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | STD               | 0.815               | 2.9   |      |
| 12                |          | 208-3-60      | 187 | 253    | 13.1 | 83     | 19.6 | 136      | 195 | 1.8             | 10                | MED                 | 0.815 | 2.9  |
|                   |          |               |     |        |      |        |      |          | 195 | 1.8             | 10                | HIGH                | 0.845 | 4.9  |
|                   |          |               |     |        |      |        |      |          | 195 | 1.8             | 10                | SUPER               | 0.82  | 6.4  |
|                   | 230-3-60 | 187           | 253 | 13.1   | 83   | 19.6   | 136  | 195      | 1.8 | 10              | STD               | 0.8                 | 7.1   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.845               | 8.6   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.82                | 13.6  |      |
|                   | 460-3-60 | 414           | 506 | 6.1    | 41   | 8.2    | 66   | 195      | 1.8 | 10              | STD               | 0.8                 | 6.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | MED               | 0.845               | 7.8   |      |
|                   |          |               |     |        |      |        |      | 195      | 1.8 | 10              | HIGH              | 0.82                | 12.7  |      |
| 460-3-60          | 414      | 506           | 6.1 | 41     | 8.2  | 66     | 195  | 1.8      | 10  | STD             | 0.8               | 3.4                 |       |      |
|                   |          |               |     |        |      |        | 195  | 1.8      | 10  | MED             | 0.845             | 3.8                 |       |      |
|                   |          |               |     |        |      |        | 195  | 1.8      | 10  | HIGH            | 0.82              | 6.4                 |       |      |

NOTE(S):

a. High SCCR is not available for units with 575v.

See Legend and Notes on page 77.

## UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZES 07-12 — HIGH SCCR

| 50LC<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz <sup>a</sup> | IFM<br>TYPE | HIGH<br>SCCR<br>kA | ELEC. HTR          |             |           | NO CO OR UNPWR CO |                         |            |         |                        |                         |            |         |        |         |
|----------------------|------------------------------|-------------|--------------------|--------------------|-------------|-----------|-------------------|-------------------------|------------|---------|------------------------|-------------------------|------------|---------|--------|---------|
|                      |                              |             |                    | CRHEATER<br>***A00 | NOM<br>(kW) | FLA       | NO PE             |                         |            |         | WITH PE (PWRD FR/UNIT) |                         |            |         |        |         |
|                      |                              |             |                    |                    |             |           | MCA               | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         |        |         |
|                      |                              |             |                    |                    |             |           |                   |                         | FLA        | LRA     |                        |                         | FLA        | LRA     |        |         |
| 07                   | 208/230-3-60                 | STD         | 10                 | —                  | —           | —         | 35/34             | 45/45                   | 36/35      | 173     | 38/38                  | 50/50                   | 40/40      | 177     |        |         |
|                      |                              |             |                    | 316A               | 4.9/6.5     | 13.6/15.6 | 35/34             | 45/45                   | 36/35      | 173/173 | 38/38                  | 50/50                   | 40/40      | 177/177 |        |         |
|                      |                              |             |                    | 317A               | 12.0/16.0   | 33.4/38.5 | 49/56             | 50/60                   | 45/51      | 173/173 | 54/60                  | 60/60                   | 49/55      | 177/177 |        |         |
|                      |                              |             |                    | 318A               | 18.6/24.8   | 51.7/59.7 | 72/82             | 80/90                   | 66/75      | 173/173 | 77/87                  | 80/90                   | 70/79      | 177/177 |        |         |
|                      |                              | MED         | 10                 | —                  | —           | —         | 35/34             | 45/45                   | 36/35      | 173     | 38/38                  | 50/50                   | 40/40      | 177     |        |         |
|                      |                              |             |                    | 316A               | 4.9/6.5     | 13.6/15.6 | 35/34             | 45/45                   | 36/35      | 173/173 | 38/38                  | 50/50                   | 40/40      | 177/177 |        |         |
|                      |                              |             |                    | 317A               | 12.0/16.0   | 33.4/38.5 | 49/56             | 50/60                   | 45/51      | 173/173 | 54/60                  | 60/60                   | 49/55      | 177/177 |        |         |
|                      |                              |             |                    | 318A               | 18.6/24.8   | 51.7/59.7 | 72/82             | 80/90                   | 66/75      | 173/173 | 77/87                  | 80/90                   | 70/79      | 177/177 |        |         |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 37/37             | 50/45                   | 39/38      | 203     | 41/40                  | 50/50                   | 43/42      | 207     |        |         |
|                      |                              |             |                    | 316A               | 4.9/6.5     | 13.6/15.6 | 37/37             | 50/45                   | 39/38      | 203/203 | 41/40                  | 50/50                   | 43/42      | 207/207 |        |         |
|                      |                              |             |                    | 317A               | 12.0/16.0   | 33.4/38.5 | 53/58             | 60/60                   | 48/53      | 203/203 | 58/63                  | 60/70                   | 53/58      | 207/207 |        |         |
|                      |                              |             |                    | 318A               | 18.6/24.8   | 51.7/59.7 | 76/85             | 80/90                   | 69/78      | 203/203 | 81/90                  | 90/90                   | 74/82      | 207/207 |        |         |
|                      | 460-3-60                     | STD         | 10                 | —                  | —           | —         | 20                | 25                      | 20         | 87      | 21                     | 25                      | 22         | 89      |        |         |
|                      |                              |             |                    | 319A               | 6.0         | 7.2       | 20                | 25                      | 20         | 87      | 21                     | 25                      | 22         | 89      |        |         |
|                      |                              |             |                    | 320A               | 14.0        | 16.8      | 25                | 25                      | 23         | 87      | 27                     | 30                      | 25         | 89      |        |         |
|                      |                              |             |                    | 321A               | 25.5        | 30.7      | 42                | 45                      | 39         | 87      | 45                     | 45                      | 41         | 89      |        |         |
|                      |                              | MED         | 10                 | —                  | —           | —         | 20                | 25                      | 20         | 87      | 21                     | 25                      | 22         | 89      |        |         |
|                      |                              |             |                    | 319A               | 6.0         | 7.2       | 20                | 25                      | 20         | 87      | 21                     | 25                      | 22         | 89      |        |         |
|                      |                              |             |                    | 320A               | 14.0        | 16.8      | 25                | 25                      | 23         | 87      | 27                     | 30                      | 25         | 89      |        |         |
|                      |                              |             |                    | 321A               | 25.5        | 30.7      | 42                | 45                      | 39         | 87      | 45                     | 45                      | 41         | 89      |        |         |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 20                | 25                      | 21         | 103     | 22                     | 25                      | 23         | 105     |        |         |
|                      |                              |             |                    | 319A               | 6.0         | 7.2       | 20                | 25                      | 21         | 103     | 22                     | 25                      | 23         | 105     |        |         |
|                      |                              |             |                    | 320A               | 14.0        | 16.8      | 26                | 30                      | 24         | 103     | 28                     | 30                      | 26         | 105     |        |         |
|                      |                              |             |                    | 321A               | 25.5        | 30.7      | 44                | 45                      | 40         | 103     | 46                     | 50                      | 42         | 105     |        |         |
| 08                   | 208/230-3-60                 | STD         | 10                 | —                  | —           | —         | 42/42             | 50/50                   | 44/44      | 200     | 46/46                  | 50/50                   | 48/48      | 204     |        |         |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 42/42             | 50/50                   | 44/44      | 200/200 | 46/46                  | 50/50                   | 48/48      | 204/204 |        |         |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                   | 46/52      | 200/200 | 55/62                  | 60/70                   | 51/56      | 204/204 |        |         |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                 | 87/99      | 200/200 | 100/113                | 100/125                 | 91/104     | 204/204 |        |         |
|                      |                              |             |                    | MED                | 10          | —         | —                 | —                       | 42/42      | 50/50   | 44/44                  | 200                     | 46/46      | 50/50   | 48/48  | 204     |
|                      |                              |             |                    |                    |             | 288A      | 7.5/10.0          | 20.9/24.1               | 42/42      | 50/50   | 44/44                  | 200/200                 | 46/46      | 50/50   | 48/48  | 204/204 |
|                      |                              |             |                    |                    |             | 291A      | 12.4/16.5         | 34.4/39.7               | 51/57      | 60/60   | 46/52                  | 200/200                 | 55/62      | 60/70   | 51/56  | 204/204 |
|                      |                              |             |                    |                    |             | 294A      | 25.2/33.5         | 69.9/80.6               | 95/108     | 100/110 | 87/99                  | 200/200                 | 100/113    | 100/125 | 91/104 | 204/204 |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 45/44             | 50/50                   | 47/46      | 230     | 49/48                  | 60/60                   | 51/50      | 234     |        |         |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 45/44             | 50/50                   | 47/46      | 230/230 | 49/48                  | 60/60                   | 51/50      | 234/234 |        |         |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 54/60             | 60/60                   | 49/55      | 230/230 | 59/65                  | 60/70                   | 54/59      | 234/234 |        |         |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 99/111            | 100/125                 | 90/102     | 230/230 | 103/116                | 110/125                 | 95/106     | 234/234 |        |         |
|                      |                              | SUPER       | 10                 | —                  | —           | —         | 47/46             | 60/50                   | 50/48      | 254     | 51/50                  | 60/60                   | 54/53      | 258     |        |         |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 47/46             | 60/50                   | 50/48      | 254/254 | 51/50                  | 60/60                   | 54/53      | 258/258 |        |         |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 57/62             | 60/70                   | 52/57      | 254/254 | 62/67                  | 70/70                   | 56/61      | 258/258 |        |         |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 101/113           | 110/125                 | 93/104     | 254/254 | 106/118                | 110/125                 | 97/108     | 258/258 |        |         |
|                      |                              | 460-3-60    | STD                | 10                 | —           | —         | —                 | 23                      | 25         | 24      | 102                    | 24                      | 30         | 26      | 104    |         |
|                      |                              |             |                    |                    | 289A        | 10.0      | 12.0              | 23                      | 25         | 24      | 102                    | 24                      | 30         | 26      | 104    |         |
|                      |                              |             |                    |                    | 292A        | 16.5      | 19.9              | 29                      | 30         | 26      | 102                    | 31                      | 35         | 28      | 104    |         |
|                      |                              |             |                    |                    | 295A        | 33.5      | 40.3              | 54                      | 60         | 50      | 102                    | 57                      | 60         | 52      | 104    |         |
|                      |                              |             |                    | MED                | 10          | —         | —                 | —                       | 23         | 25      | 24                     | 102                     | 24         | 30      | 26     | 104     |
|                      |                              |             |                    |                    |             | 289A      | 10.0              | 12.0                    | 23         | 25      | 24                     | 102                     | 24         | 30      | 26     | 104     |
|                      |                              |             |                    |                    |             | 292A      | 16.5              | 19.9                    | 29         | 30      | 26                     | 102                     | 31         | 35      | 28     | 104     |
|                      |                              |             |                    |                    |             | 295A      | 33.5              | 40.3                    | 54         | 60      | 50                     | 102                     | 57         | 60      | 52     | 104     |
|                      | HIGH                         |             | 10                 | —                  | —           | —         | 23                | 25                      | 25         | 118     | 25                     | 30                      | 27         | 120     |        |         |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 23                | 25                      | 25         | 118     | 25                     | 30                      | 27         | 120     |        |         |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 30                | 30                      | 27         | 118     | 32                     | 35                      | 29         | 120     |        |         |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 56                | 60                      | 51         | 118     | 58                     | 60                      | 53         | 120     |        |         |
|                      | SUPER                        |             | 10                 | —                  | —           | —         | 25                | 30                      | 26         | 130     | 26                     | 30                      | 28         | 132     |        |         |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 25                | 30                      | 26         | 130     | 26                     | 30                      | 28         | 132     |        |         |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 31                | 35                      | 29         | 130     | 34                     | 35                      | 31         | 132     |        |         |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 57                | 60                      | 52         | 130     | 59                     | 60                      | 54         | 132     |        |         |

## UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZES 07-12 — HIGH SCCR (cont)

| 50LC<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz <sup>a</sup> | IFM<br>TYPE | HIGH<br>SCCR<br>KA | ELEC. HTR          |             |           | NO CO OR UNPWR CO |                         |            |         |                        |                         |            |         |
|----------------------|------------------------------|-------------|--------------------|--------------------|-------------|-----------|-------------------|-------------------------|------------|---------|------------------------|-------------------------|------------|---------|
|                      |                              |             |                    | CRHEATER<br>***A00 | NOM<br>(kW) | FLA       | NO PE             |                         |            |         | WITH PE (PWRD FR/UNIT) |                         |            |         |
|                      |                              |             |                    |                    |             |           | MCA               | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         |
|                      |                              |             |                    |                    |             |           |                   |                         | FLA        | LRA     |                        |                         | FLA        | LRA     |
| 09                   | 208/230-3-60                 | STD         | 10                 | —                  | —           | —         | 45/45             | 60/50                   | 46/46      | 227     | 49/48                  | 60/60                   | 51/50      | 231     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/50                   | 46/46      | 227/227 | 49/48                  | 60/60                   | 51/50      | 231/231 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                   | 46/52      | 227/227 | 55/62                  | 60/70                   | 51/56      | 231/231 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                 | 87/99      | 227/227 | 100/113                | 100/125                 | 91/104     | 231/231 |
|                      |                              | MED         | 10                 | —                  | —           | —         | 45/45             | 60/50                   | 46/46      | 227     | 49/48                  | 60/60                   | 51/50      | 231     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 45/45             | 60/50                   | 46/46      | 227/227 | 49/48                  | 60/60                   | 51/50      | 231/231 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 51/57             | 60/60                   | 46/52      | 227/227 | 55/62                  | 60/70                   | 51/56      | 231/231 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 95/108            | 100/110                 | 87/99      | 227/227 | 100/113                | 100/125                 | 91/104     | 231/231 |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 50/49             | 60/60                   | 52/51      | 281     | 54/53                  | 60/60                   | 56/55      | 285     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 50/49             | 60/60                   | 52/51      | 281/281 | 54/53                  | 60/60                   | 56/55      | 285/285 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 57/62             | 60/70                   | 52/57      | 281/281 | 62/67                  | 70/70                   | 56/61      | 285/285 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 101/113           | 110/125                 | 93/104     | 281/281 | 106/118                | 110/125                 | 97/108     | 285/285 |
|                      |                              | SUPER       | 10                 | —                  | —           | —         | 53/52             | 60/60                   | 55/54      | 292     | 56/55                  | 60/60                   | 60/59      | 296     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 53/52             | 60/60                   | 55/54      | 292/292 | 56/55                  | 60/60                   | 60/59      | 296/296 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 60/66             | 60/70                   | 55/60      | 292/292 | 65/71                  | 70/80                   | 60/65      | 296/296 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 105/117           | 110/125                 | 96/107     | 292/292 | 110/122                | 110/125                 | 100/112    | 296/296 |
|                      | 460-3-60                     | STD         | 10                 | —                  | —           | —         | 24                | 30                      | 25         | 113     | 26                     | 30                      | 27         | 115     |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 24                | 30                      | 25         | 113     | 26                     | 30                      | 27         | 115     |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 29                | 30                      | 26         | 113     | 31                     | 35                      | 28         | 115     |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 54                | 60                      | 50         | 113     | 57                     | 60                      | 52         | 115     |
|                      |                              | MED         | 10                 | —                  | —           | —         | 24                | 30                      | 25         | 113     | 26                     | 30                      | 27         | 115     |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 24                | 30                      | 25         | 113     | 26                     | 30                      | 27         | 115     |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 29                | 30                      | 26         | 113     | 31                     | 35                      | 28         | 115     |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 54                | 60                      | 50         | 113     | 57                     | 60                      | 52         | 115     |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 26                | 30                      | 28         | 141     | 28                     | 30                      | 30         | 143     |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 26                | 30                      | 28         | 141     | 28                     | 30                      | 30         | 143     |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 31                | 35                      | 29         | 141     | 34                     | 35                      | 31         | 143     |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 57                | 60                      | 52         | 141     | 59                     | 60                      | 54         | 143     |
| SUPER                |                              | 10          | —                  | —                  | —           | 28        | 30                | 29                      | 146        | 30      | 35                     | 31                      | 148        |         |
|                      |                              |             | 289A               | 10.0               | 12.0        | 28        | 30                | 29                      | 146        | 30      | 35                     | 31                      | 148        |         |
|                      |                              |             | 292A               | 16.5               | 19.9        | 33        | 35                | 30                      | 146        | 36      | 40                     | 32                      | 148        |         |
|                      |                              |             | 295A               | 33.5               | 40.3        | 59        | 60                | 54                      | 146        | 61      | 70                     | 56                      | 148        |         |

## UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZES 07-12 — HIGH SCCR (cont)

| 50LC<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz <sup>a</sup> | IFM<br>TYPE | HIGH<br>SCCR<br>KA | ELEC. HTR          |             |           | NO CO OR UNPWR CO |                         |            |         |                        |                         |            |         |
|----------------------|------------------------------|-------------|--------------------|--------------------|-------------|-----------|-------------------|-------------------------|------------|---------|------------------------|-------------------------|------------|---------|
|                      |                              |             |                    | CRHEATER<br>***A00 | NOM<br>(kW) | FLA       | NO PE             |                         |            |         | WITH PE (PWRD FR/UNIT) |                         |            |         |
|                      |                              |             |                    |                    |             |           | MCA               | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         | MCA                    | FUSE or<br>HACR<br>BRKR | DISC. SIZE |         |
|                      |                              |             |                    |                    |             |           |                   |                         | FLA        | LRA     |                        |                         | FLA        | LRA     |
| 12                   | 208/230-3-60                 | STD         | 10                 | —                  | —           | —         | 51/50             | 60/60                   | 52/52      | 252     | 54/54                  | 60/60                   | 56/56      | 256     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 51/50             | 60/60                   | 52/52      | 252/252 | 54/54                  | 60/60                   | 56/56      | 256/256 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 52/59             | 60/60                   | 52/53      | 252/252 | 57/63                  | 60/70                   | 56/58      | 256/256 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 97/110            | 100/110                 | 89/101     | 252/252 | 101/114                | 110/125                 | 93/105     | 256/256 |
|                      |                              | 368A        | 37.6/50.0          | 104.3/120.3        | 140/129     | 150/150   | 128/146           | 252/252                 | 144/134    | 150/150 | 132/151                | 256/256                 |            |         |
|                      |                              | MED         | 10                 | —                  | —           | —         | 52/51             | 60/60                   | 54/53      | 278     | 56/55                  | 70/60                   | 58/57      | 282     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 52/51             | 60/60                   | 54/53      | 278/278 | 56/55                  | 70/60                   | 58/57      | 282/282 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 54/60             | 60/60                   | 54/55      | 278/278 | 59/65                  | 70/70                   | 58/59      | 282/282 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 99/111            | 100/125                 | 90/102     | 278/278 | 103/116                | 110/125                 | 95/106     | 282/282 |
|                      |                              | 368A        | 37.6/50.0          | 104.3/120.3        | 142/131     | 150/150   | 130/147           | 278/278                 | 146/135    | 150/150 | 134/152                | 282/282                 |            |         |
|                      |                              | HIGH        | 10                 | —                  | —           | —         | 57/56             | 70/70                   | 59/58      | 313     | 61/60                  | 80/70                   | 64/63      | 317     |
|                      |                              |             |                    | 288A               | 7.5/10.0    | 20.9/24.1 | 57/56             | 70/70                   | 59/58      | 313/313 | 61/60                  | 80/70                   | 64/63      | 317/317 |
|                      |                              |             |                    | 291A               | 12.4/16.5   | 34.4/39.7 | 60/66             | 70/70                   | 59/60      | 313/313 | 65/71                  | 80/80                   | 64/65      | 317/317 |
|                      |                              |             |                    | 294A               | 25.2/33.5   | 69.9/80.6 | 105/117           | 110/125                 | 96/107     | 313/313 | 110/122                | 110/125                 | 100/112    | 317/317 |
|                      |                              | 368A        | 37.6/50.0          | 104.3/120.3        | 148/137     | 150/150   | 136/153           | 313/313                 | 153/141    | 175/175 | 140/157                | 317/317                 |            |         |
|                      |                              | 460-3-60    | STD                | 10                 | —           | —         | —                 | 26                      | 30         | 27      | 126                    | 27                      | 30         | 29      |
|                      | 289A                         |             |                    |                    | 10.0        | 12.0      | 26                | 30                      | 27         | 126     | 27                     | 30                      | 29         | 128     |
|                      | 292A                         |             |                    |                    | 16.5        | 19.9      | 30                | 30                      | 27         | 126     | 32                     | 35                      | 29         | 128     |
|                      | 295A                         |             |                    |                    | 33.5        | 40.3      | 55                | 60                      | 50         | 126     | 57                     | 60                      | 52         | 128     |
|                      | 375A                         |             | 50.0               | 60.2               | 65          | 70        | 73                | 126                     | 67         | 70      | 75                     | 128                     |            |         |
|                      | MED                          |             | 10                 | —                  | —           | —         | 26                | 30                      | 27         | 140     | 28                     | 30                      | 29         | 142     |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 26                | 30                      | 27         | 140     | 28                     | 30                      | 29         | 142     |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 30                | 30                      | 27         | 140     | 32                     | 35                      | 29         | 142     |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 56                | 60                      | 51         | 140     | 58                     | 60                      | 53         | 142     |
|                      | 375A                         |             | 50.0               | 60.2               | 65          | 70        | 74                | 140                     | 68         | 80      | 76                     | 142                     |            |         |
|                      | HIGH                         |             | 10                 | —                  | —           | —         | 29                | 35                      | 30         | 157     | 30                     | 35                      | 32         | 159     |
|                      |                              |             |                    | 289A               | 10.0        | 12.0      | 29                | 35                      | 30         | 157     | 30                     | 35                      | 32         | 159     |
|                      |                              |             |                    | 292A               | 16.5        | 19.9      | 33                | 35                      | 30         | 157     | 36                     | 40                      | 32         | 159     |
|                      |                              |             |                    | 295A               | 33.5        | 40.3      | 59                | 60                      | 54         | 157     | 61                     | 70                      | 56         | 159     |
|                      | 375A                         |             | 50.0               | 60.2               | 69          | 80        | 77                | 157                     | 71         | 80      | 79                     | 159                     |            |         |

NOTE(S):

a. High SCCR is not available for units with 575v.

See Legend and Notes on page 77.

## LEGEND AND NOTES for Electrical Data Tables on pages 53-76.

### LEGEND

|                     |  |
|---------------------|--|
| <b>BRKR</b>         | — Circuit Breaker                              |
| <b>CO</b>           | — Convenience Outlet                           |
| <b>DISC</b>         | — Disconnect                                   |
| <b>FLA</b>          | — Full Load Amps                               |
| <b>HACR</b>         | — Heating, Air Conditioning, and Refrigeration |
| <b>IFM</b>          | — Indoor Fan Motor                             |
| <b>LRA</b>          | — Locked Rotor Amps                            |
| <b>MCA</b>          | — Minimum Circuit Amps                         |
| <b>PE</b>           | — Power Exhaust                                |
| <b>PWRD FR/UNIT</b> | — Powered from Unit                            |
| <b>PWRD CO</b>      | — Powered Convenience Outlet                   |
| <b>SCCR</b>         | — Short Circuit Current Rating                 |
| <b>UNPWR CO</b>     | — Unpowered Convenience Outlet                 |

### NOTES:

1. In compliance with NEC requirements for multimotor and combination load equipment (refer to NEC Articles 430 and 440), the over-current protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. For 208/230 v units, where one value is shown it is the same for either 208 or 230 volts.
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 percentage of voltage imbalance.

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

Example: Supply voltage is 230-3-60



AB = 224 v  
BC = 231 v  
AC = 226 v

$$\text{Average Voltage} = \frac{(224 + 231 + 226)}{3} = \frac{681}{3} = 227$$

Determine maximum deviation from average voltage.

(AB) 227-224 = 3 v

(BC) 231-227 = 4 v

(AC) 227-226 = 1 v

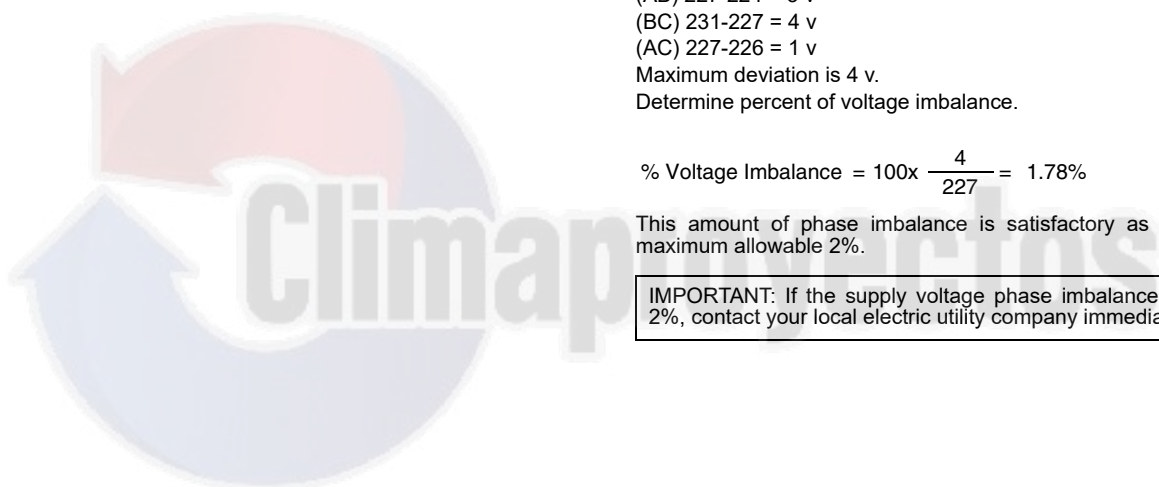
Maximum deviation is 4 v.

Determine percent of voltage imbalance.

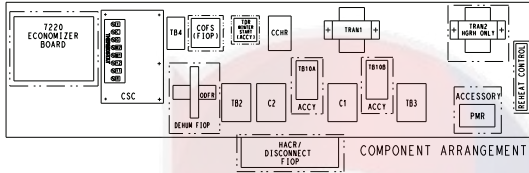
$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.78\%$$

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

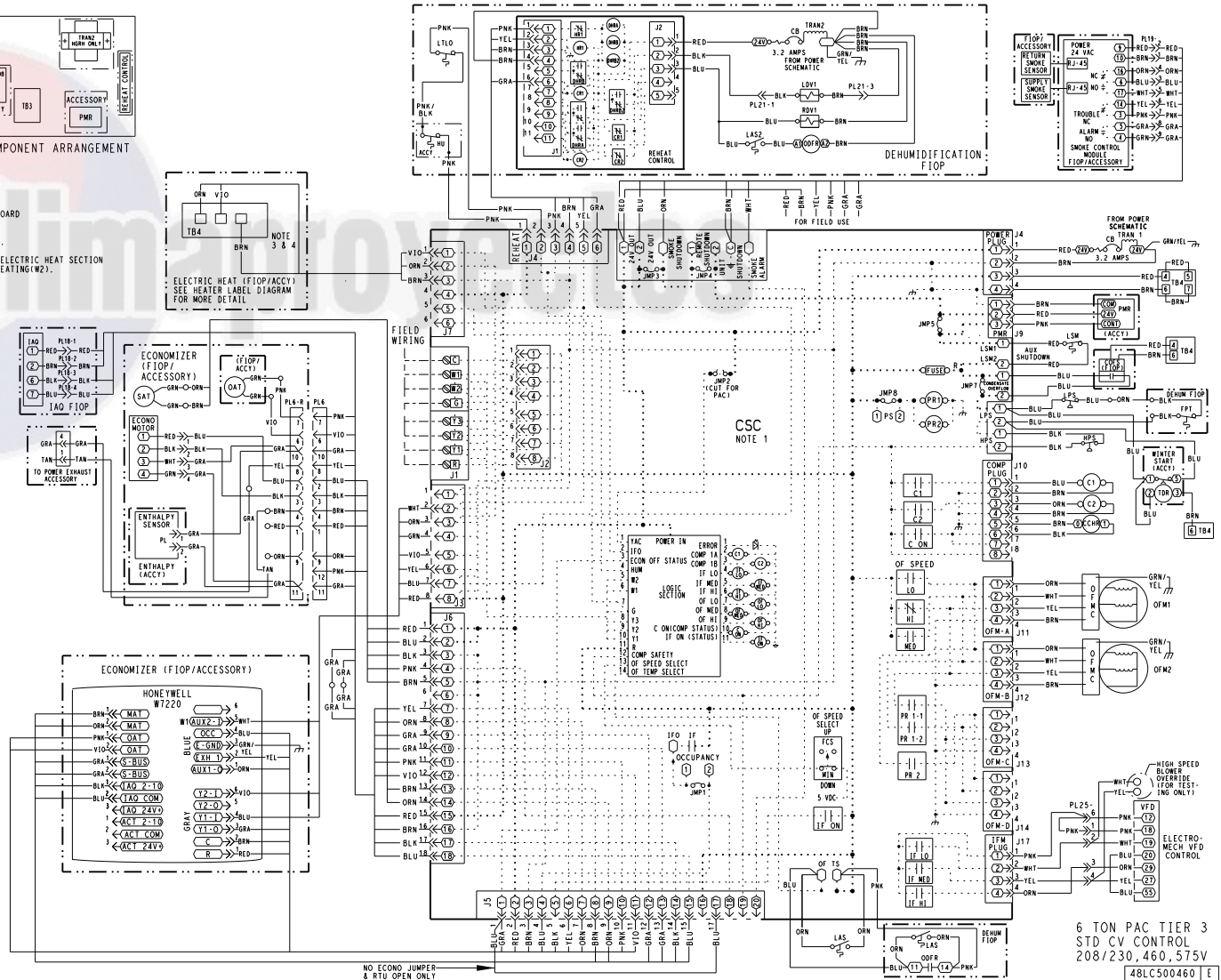
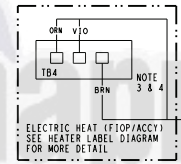
**IMPORTANT:** If the supply voltage phase imbalance is more than 2%, contact your local electric utility company immediately.



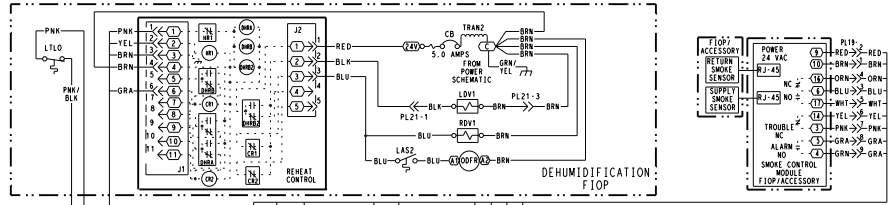
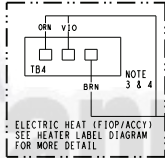
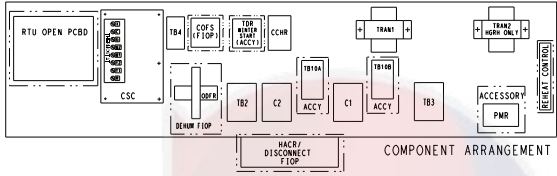
## TYPICAL 50LC\*\*07 ELECTROMECHANICAL CONTROL WIRING DIAGRAM



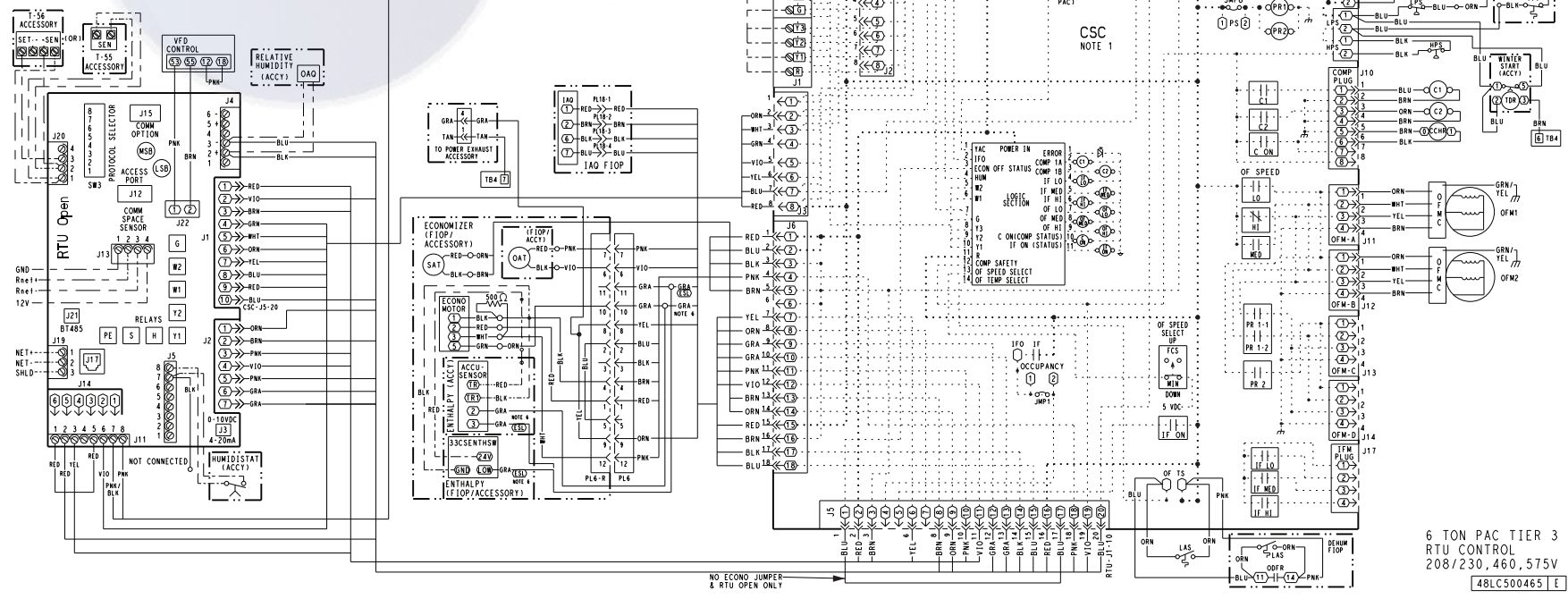
- NOTES:
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD TO SIMPLIFY CIRCUIT TRACES.
  2. ENSURE DESIGNATED JUMPERS ON TERMINAL BOARD ARE CUT WHEN ADDING SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING(W1) AND TO V10 ON TB4 FOR SECOND STAGE HEATING(W2). SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
  5. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.



TYPICAL 50LC\*\*07 RTU OPEN CONTROL WIRING DIAGRAM



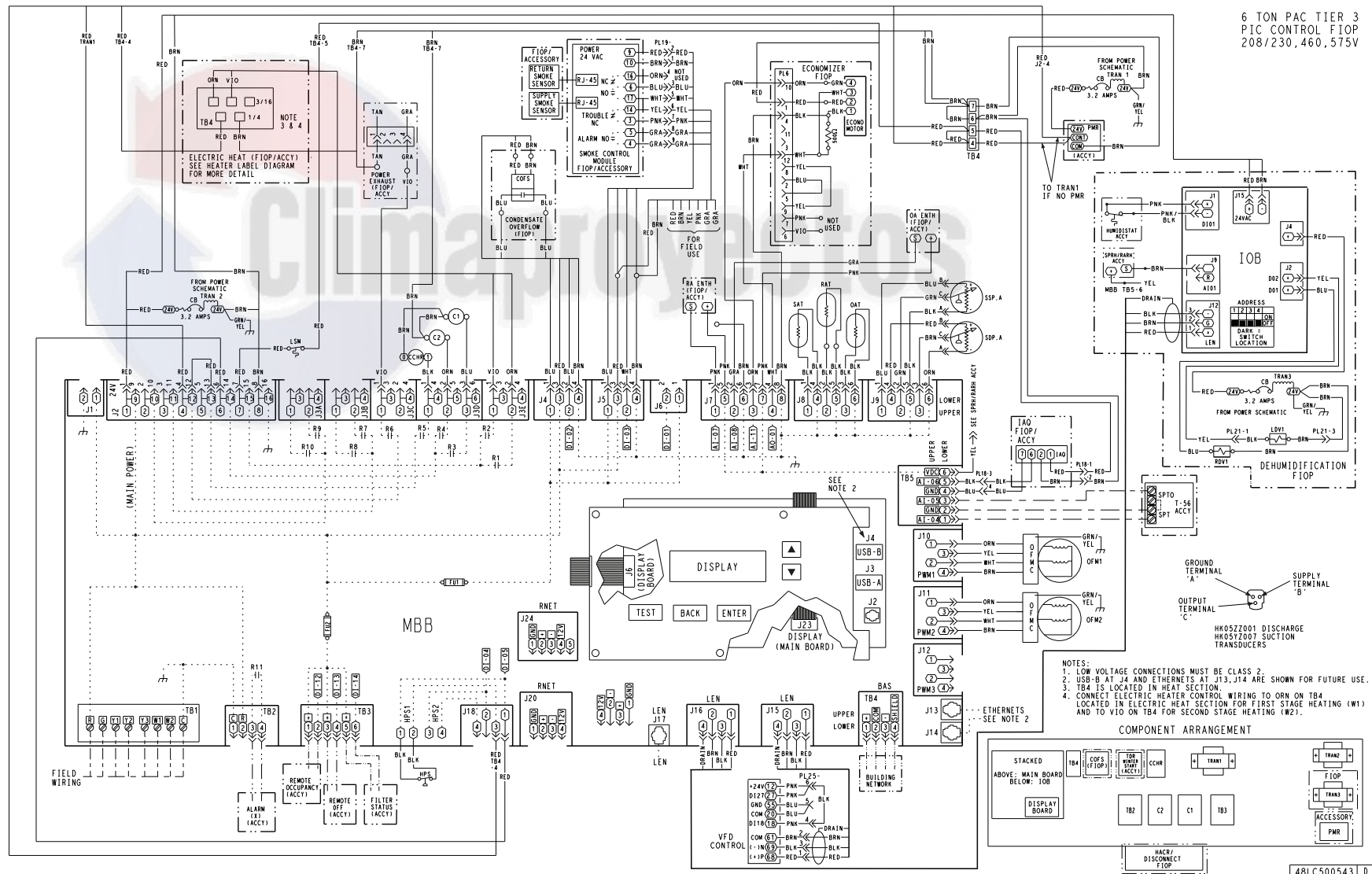
- NOTES:
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD TO SIMPLIFY CIRCUIT TRACES.
  2. ENSURE DESIGNATED JUMPERS ON TERMINAL BOARD ARE CUT WHEN ADDING SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING(W1) AND TO V10 ON TB4 FOR SECOND STAGE HEATING(W2). SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
  5. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.
  6. FOR ENTHALPY SENSOR CONNECTION, DISCONNECT GRAY WIRE(S) FROM PLUG HARNESS AND CONNECT AS SHOWN.



6 TON PAC TIER 3  
RTU CONTROL  
208/230, 460, 575V  
48LC500465 | E



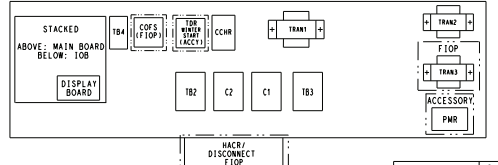
# TYPICAL 50LC\*\*07 SYSTEMVU CONTROL WIRING DIAGRAM



6 TON PAC TIER 3  
PIC CONTROL FIOP  
208/230, 460, 575V

- NOTES:
1. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.
  2. USB-B AT J4 AND ETHERNETS AT J13, J14 ARE SHOWN FOR FUTURE USE.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING (W1) AND TO VIO ON TB4 FOR SECOND STAGE HEATING (W2).

COMPONENT ARRANGEMENT



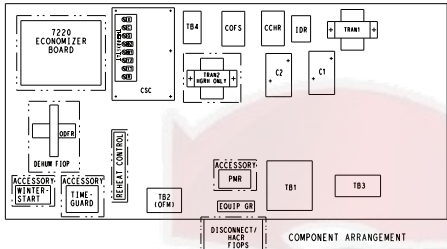
48LC500543 D

Typical wiring diagrams (cont)

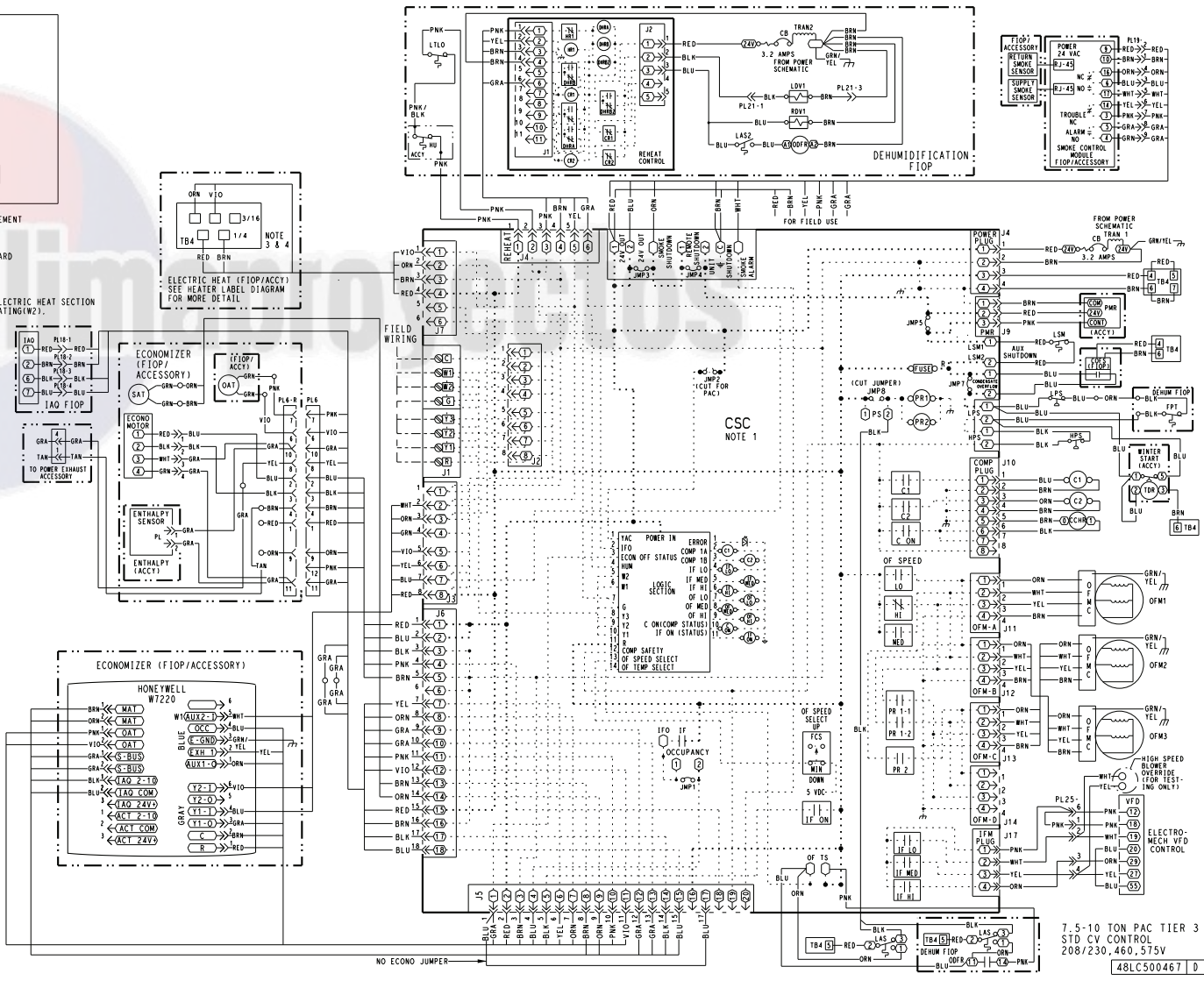




TYPICAL 50LC\*\*08-12 ELECTROMECHANICAL CONTROL WIRING DIAGRAM

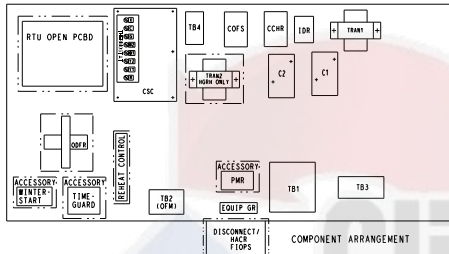


- NOTES:
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD TO SIMPLIFY CIRCUIT TRACES.
  2. ENSURE DESIGNATED JUMPERS ON TERMINAL BOARD ARE CUT WHEN ADDING SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING(W1) AND TO VIO ON TB4 FOR SECOND STAGE HEATING(W2). SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
  5. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.

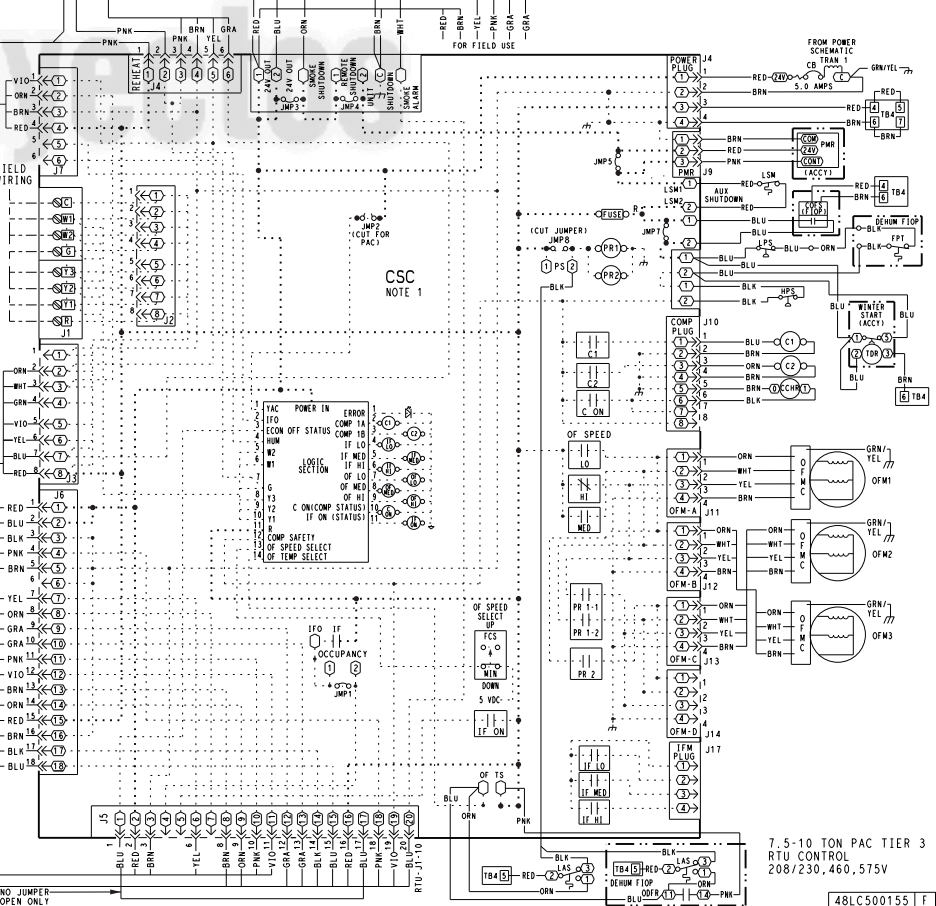
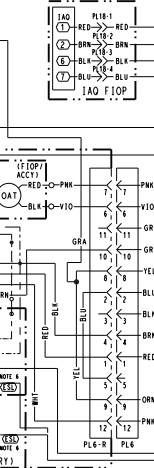
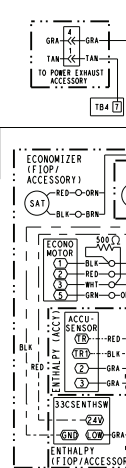
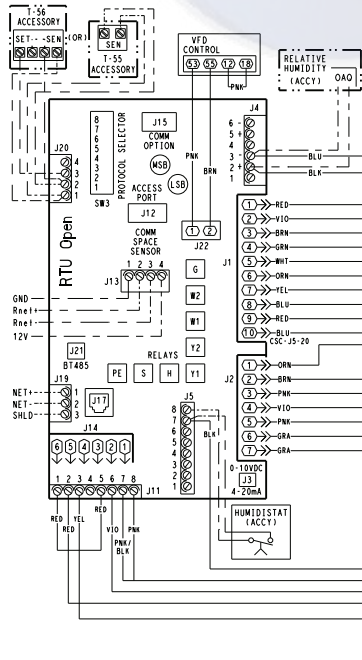
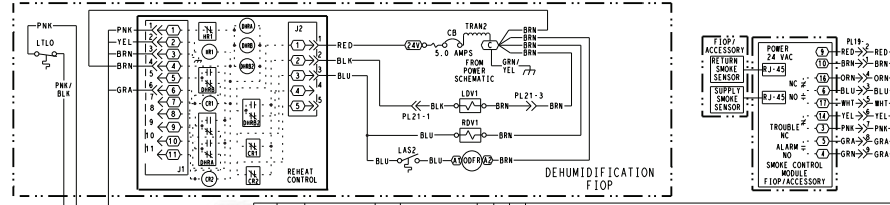
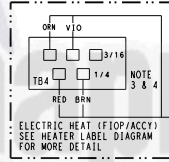


7.5-10 TON PAC TIER 3  
 STD CV CONTROL  
 208/230, 460, 575V  
 48LC500467 | D

# TYPICAL 50LC\*\*08-12 RTU OPEN CONTROL WIRING DIAGRAM



- NOTES:**
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD TO SIMPLIFY CIRCUIT TRACES.
  2. ENSURE DESIGNATED JUMPERS ON TERMINAL BOARD ARE CUT WHEN ADDING SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING(W1) AND TO VIO ON TB4 FOR SECOND STAGE HEATING(W2). SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
  5. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.
  6. FOR ENTHALPY SENSOR CONNECTION, DISCONNECT GRAY WIRE(S) FROM PLUG HARNESS AND CONNECT AS SHOWN.



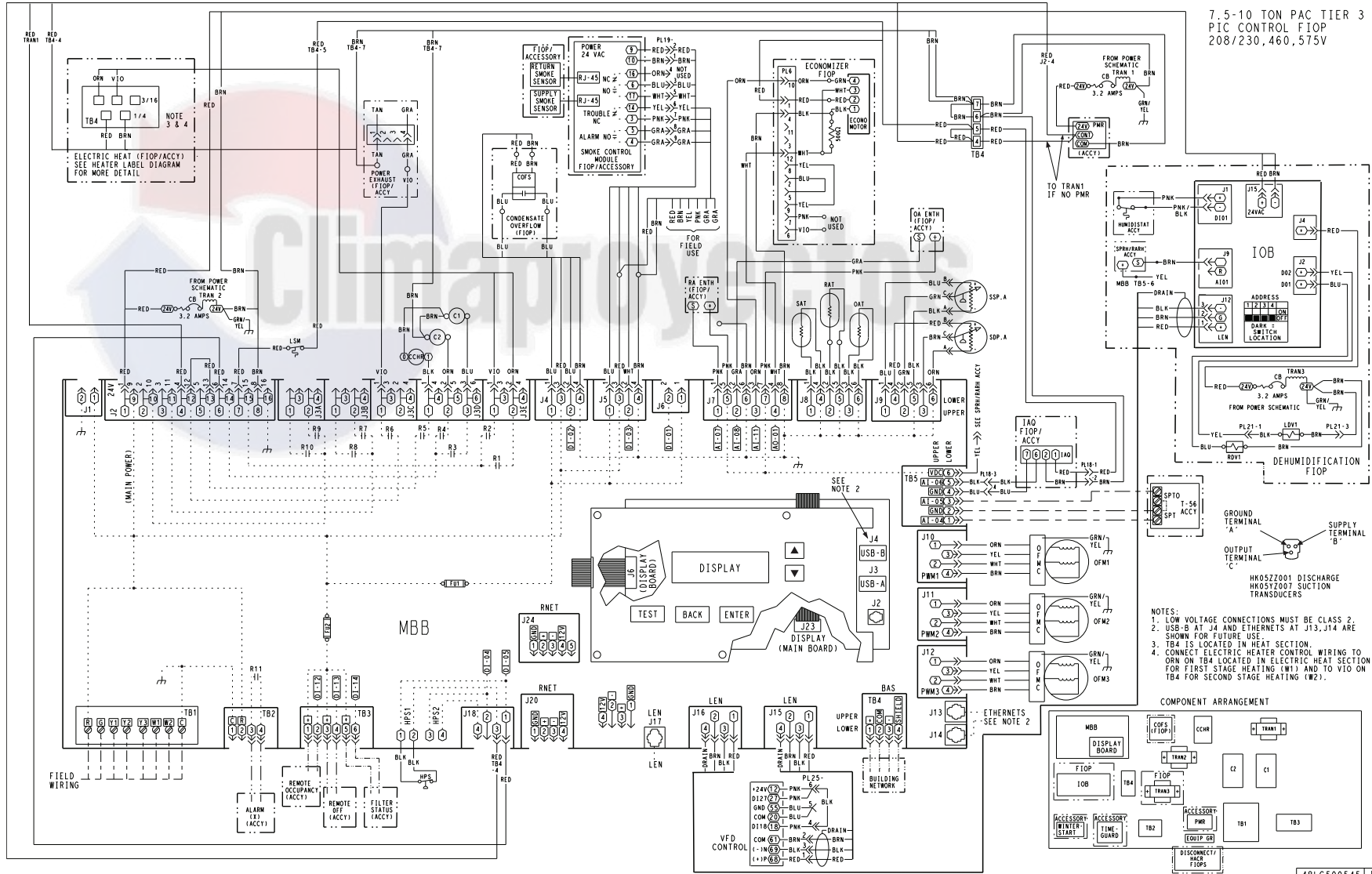
7.5-10 TON PAC TIER 3  
RTU CONTROL  
208/230, 460, 575V

48LC500155 F

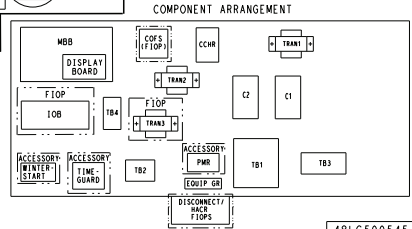


# TYPICAL 50LC\*\*08-12 SYSTEMVU CONTROL WIRING DIAGRAM

7.5-10 TON PAC TIER 3  
PIC CONTROL FIOP  
208/230,460,575V



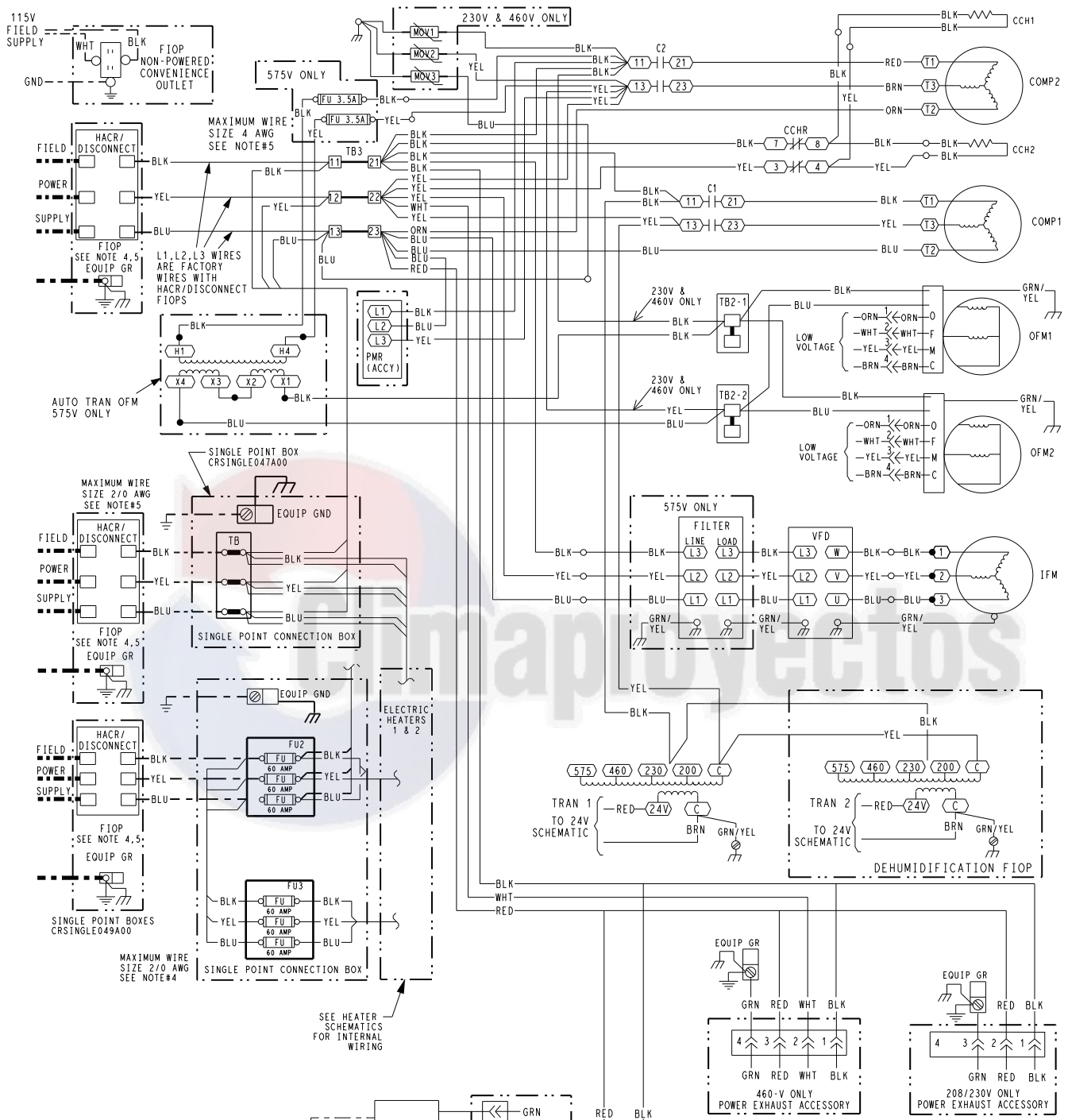
- NOTES:
1. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.
  2. USB-B AT J4 AND ETHERNETS AT J13, J14 ARE SHOWN FOR FUTURE USE.
  3. TB4 IS LOCATED IN HEAT SECTION.
  4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TB4 LOCATED IN ELECTRIC HEAT SECTION FOR FIRST STAGE HEATING (W1) AND TO VIO ON TB4 FOR SECOND STAGE HEATING (W2).



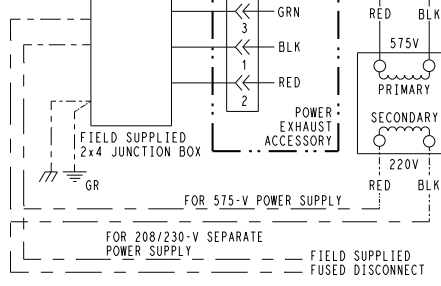
48LC500545 | D



## TYPICAL 50LC\*\*07 ELECTROMECHANICAL AND RTU OPEN POWER WIRING DIAGRAM

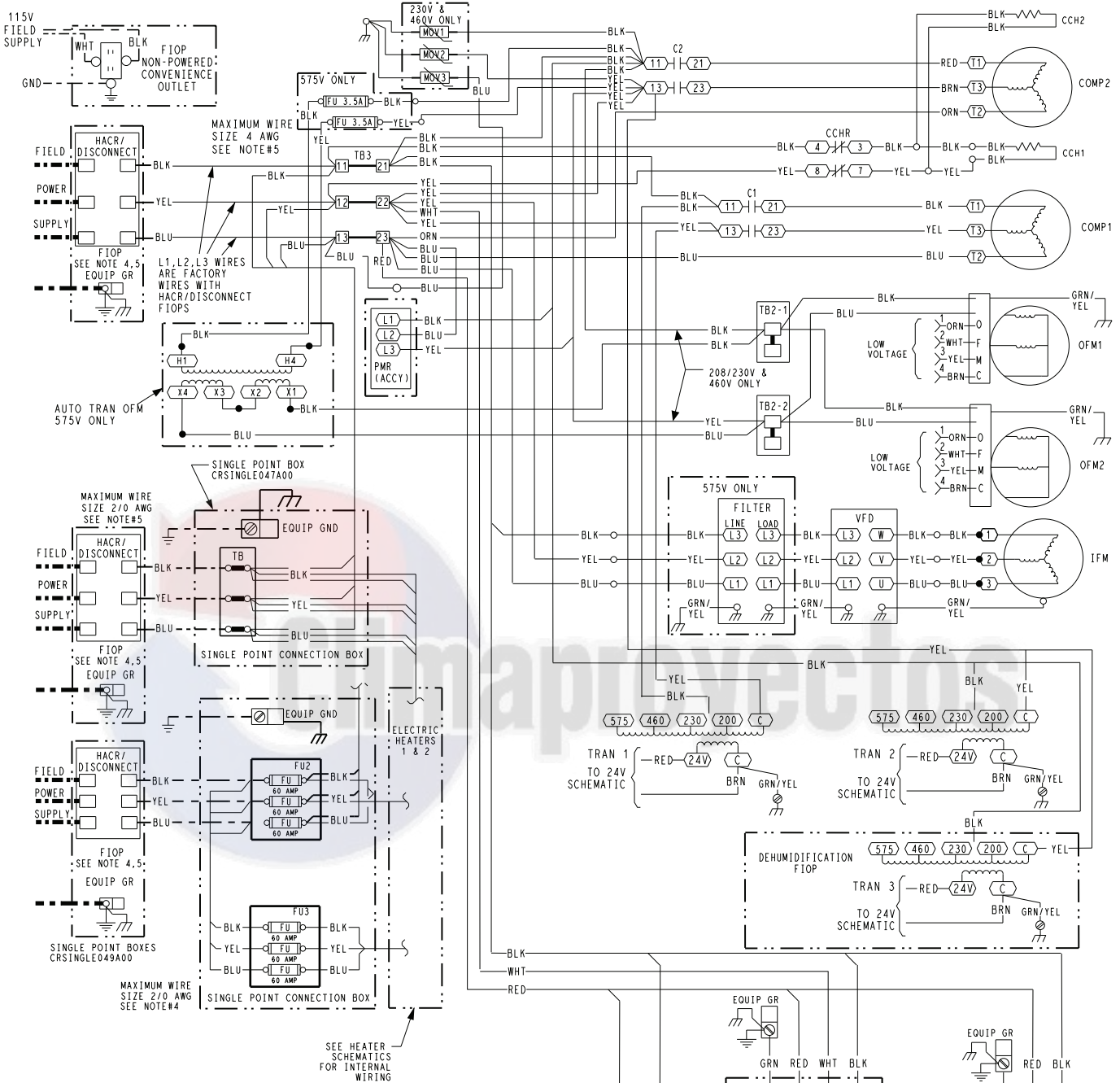


- NOTES**
- IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
  - COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
  - ON 208/230V UNITS, TRAN IS WIRED FOR 230V. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY, DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 200V TAP. 230V, 200V TAPS ON TRAN DO NOT APPEAR ON 575V TRAN AND 575V TAP DOES NOT APPEAR ON 208/230/460V TRAN.
  - USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS. MAX 1/0 AT HACR. (1/2 ONLY).
  - USE COPPER CONDUCTOR ONLY. MAX 1/0 AT DISCONNECT.

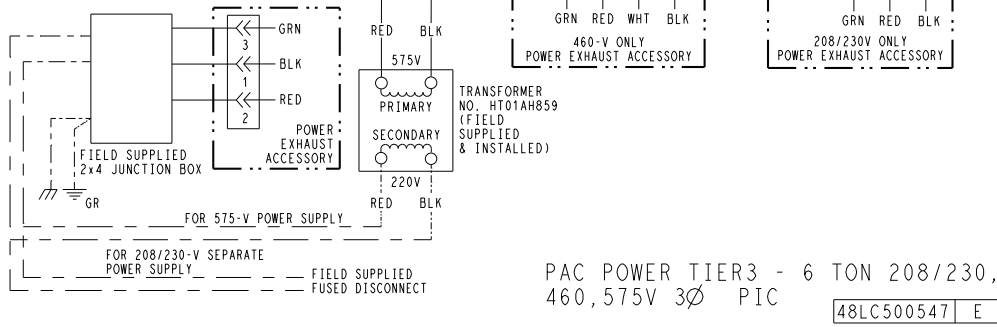


PAC POWER TIER3 - 6 TON 208/230, 460, 575V 3Ø  
 48LC500462 | E

## TYPICAL 50LC\*\*07 SYSTEMVU POWER WIRING DIAGRAM

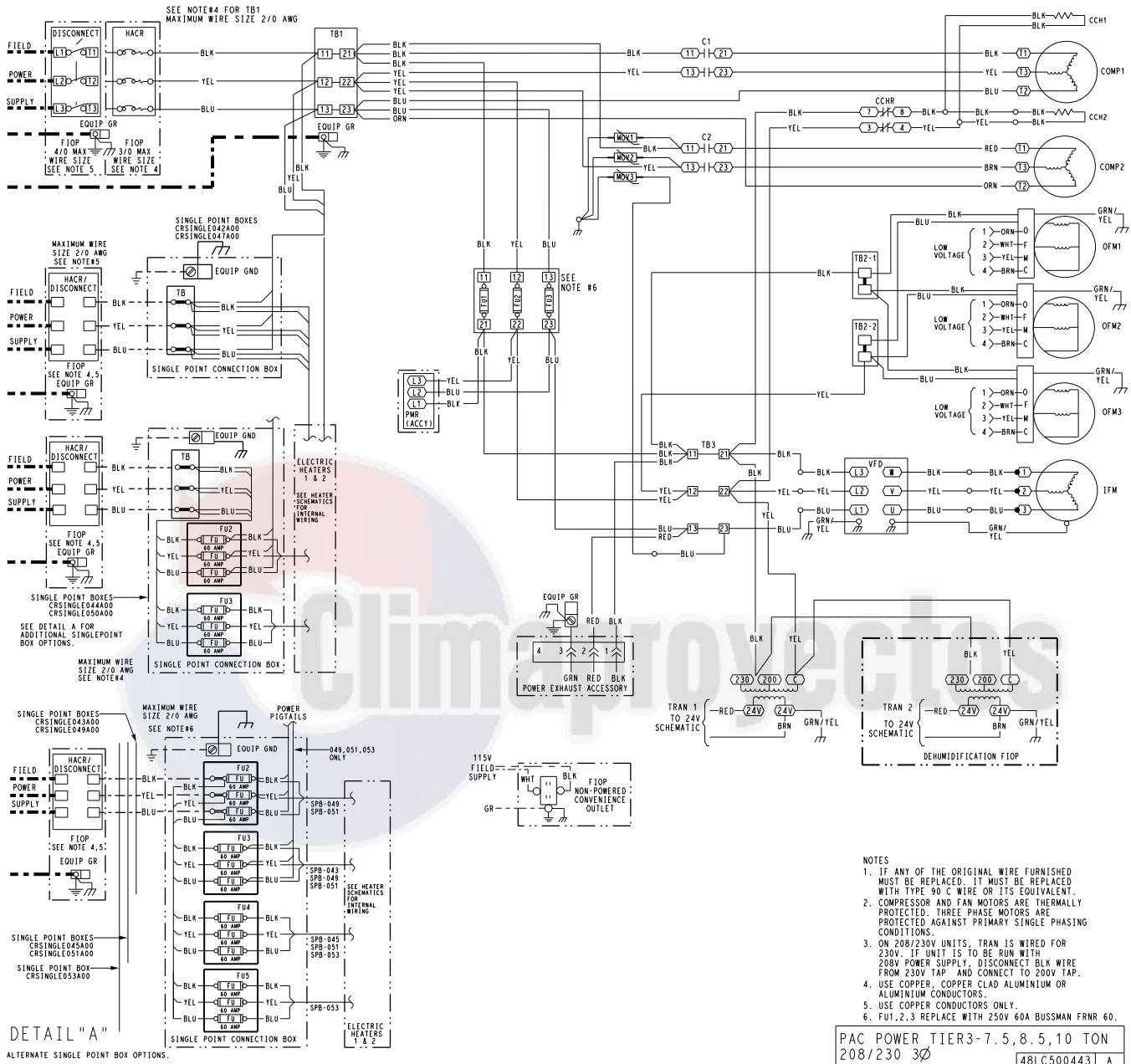


- NOTES**
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
  2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
  3. ON 208/230V UNITS, TRAN IS WIRED FOR 230V. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY, DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 200V TAP. 230V, 200V TAPS ON TRAN DO NOT APPEAR ON 575V TRAN AND 575V TAP DOES NOT APPEAR ON 208/230/460V TRAN.
  4. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS, MAX 1/0 AT HACR. (T2 ONLY).
  5. USE COPPER CONDUCTOR ONLY, MAX 1/0 AT DISCONNECT.

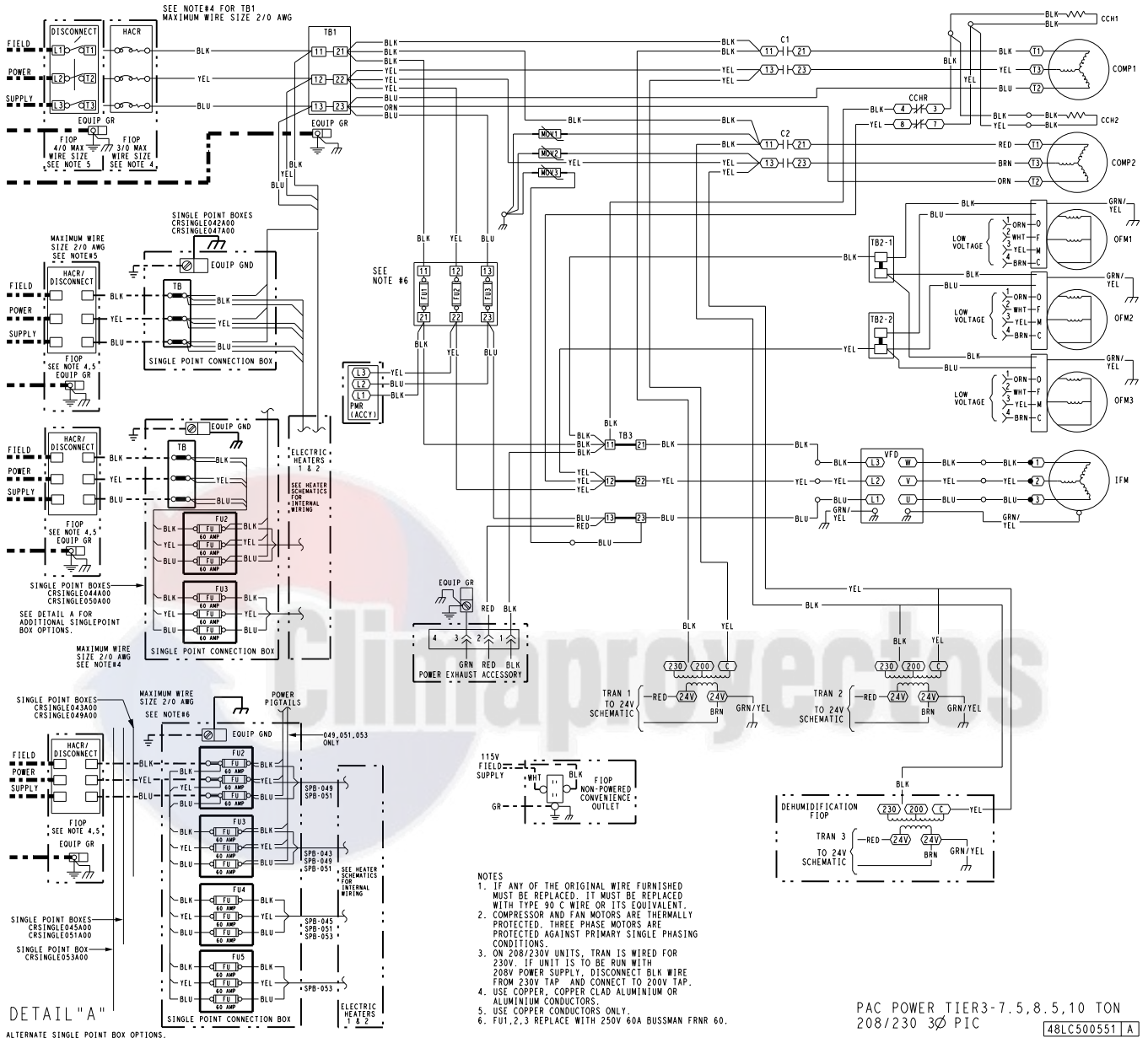


PAC POWER TIER3 - 6 TON 208/230, 460, 575V 3Ø PIC  
 48LC500547 E

## TYPICAL 50LC\*\*08-12 ELECTROMECHANICAL AND RTU OPEN POWER WIRING DIAGRAM (208/230-3-60 UNIT SHOWN)



## TYPICAL 50LC\*\*08-12 SYSTEMVU POWER WIRING DIAGRAM (208/230-3-60 UNIT SHOWN)



## General

The Integrated Staging Controller (ISC) is intended for use with a standard thermostat capable of 3 cooling stages. After initial power to the board, a Green LED (light-emitting diode) will blink with a 1 second duty cycle, indicating the unit is running properly. When the unit is not running properly, the Green LED will blink along with Red LED lights. The Red LED light configuration will indicate the type of error the board has identified.

The ISC board can be remotely shutdown by removing Jumper 4 and wiring to the Remote Shutdown terminal. The Smoke Control Module can shut down the unit by removing Jumper 3 and wiring to the Smoke Shutdown terminal. A smoke alarm can be obtained by wiring to the Smoke Alarm terminal.

The crankcase heater will run at all times except when the compressors are running. An auxiliary power supply (24 vac) available at TB-4 Terminal is provided to power auxiliary equipment. An optional Phase Monitor Relay can be wired to the PMR terminal by removing Jumper 5.

## Ventilation

In the Ventilation/Fan Mode (G on the thermostat), the indoor fan will run at low speed and the damper will operate at minimum position.

## Cooling

In cooling mode, the small and large compressors will be sequenced to maintain the thermostat/DDC (Direct Digital Controls) temperature setpoint. The cooling operation table below shows the cooling operation based on the following conditions.

The outdoor fan and VFD-controlled indoor fan will operate at low and high speed. The indoor fan speed (rpm) is factory set by the cfm and static pressure requirements for the unit installed.

## Humidi-MiZer (Optional)

In dehumidification mode, both compressors will run and indoor airflow will rise to high speed.

In subcooling mode (reheat-1), during part load conditions, when the room temperature and humidity are above the set point, the unit initiates the sub-cooling mode of operation: a call for cooling and dehumidification. RDV (Reheat Discharge Valve) and TWV (Three Way Valve) close; indoor and outdoor airflow will rise until reaching 100% of speed.

In hot gas reheat mode (reheat-2), when there is a call for dehumidification without a call for cooling, a portion of the hot gas from the compressor bypasses the condenser coil when the RDV opens and hot gas is fed into the liquid line. The TWV closes in this mode, and the system provides mainly latent cooling. Indoor airflow will rise until reaching 100% of speed. Outdoor airflow will run at high speed as long as outdoor temperature is above 80°F (26.7°C); when operating in this mode below 80°F (26.7°C) OAT (outside air temperature), the system outdoor fan will operate as shown in the table below, based on size.

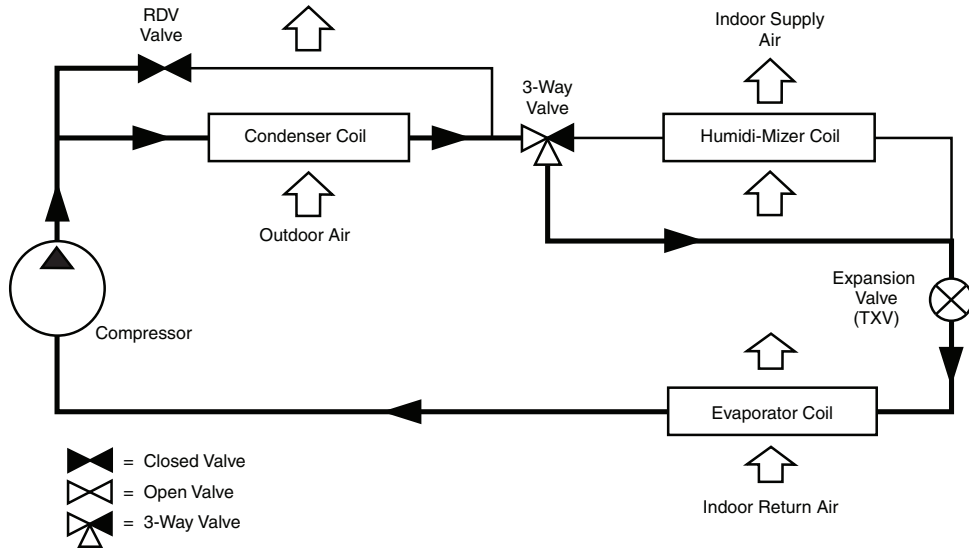
| 50LC UNIT | RPM | NUMBER OF FANS ON | NUMBER OF FANS OFF |
|-----------|-----|-------------------|--------------------|
| 07        | 250 | 2                 | 0                  |
| 08        | 160 | 2                 | 1                  |
| 09        | 160 | 2                 | 1                  |
| 12        | 160 | 2                 | 1                  |

## COOLING OPERATION

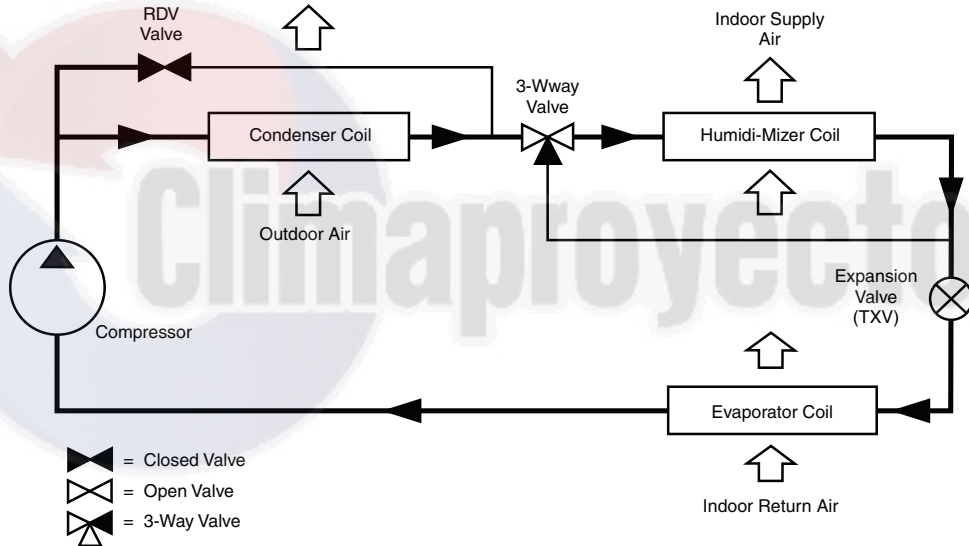
| INPUT                     | OUTPUT        |               |                  |                   |
|---------------------------|---------------|---------------|------------------|-------------------|
| THERMOSTAT                | COMPRESSOR C1 | COMPRESSOR C2 | INDOOR FAN SPEED | OUTDOOR FAN SPEED |
| First Stage Cooling (Y1)  | On            | Off           | Low              | Low (700 rpm)     |
| Second Stage Cooling (Y2) | Off           | On            | Low              | Medium (800 rpm)  |
| Third Stage Cooling (Y3)  | On            | On            | High             | High (1000 rpm)   |



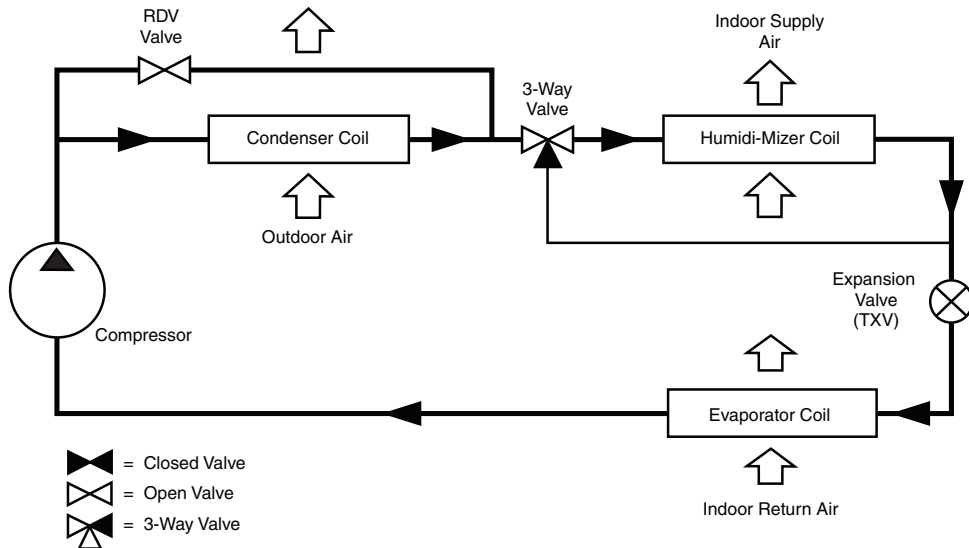
## HUMIDI-MIZER PIPING SCHEMATIC (NORMAL COOLING)



## HUMIDI-MIZER PIPING SCHEMATIC SUBCOOLING MODE (REHEAT 1)



## HUMIDI-MIZER PIPING SCHEMATIC HOT GAS REHEAT MODE (REHEAT 2)



## Economizer (Optional)

When the economizer is in Free Cooling Mode and a demand for cooling exists (Y1 on the thermostat), the economizer will modulate the outdoor air damper to provide a 50°F (10°C) to 55°F (13°C) mixed air temperature into the zone and run the indoor fan at high speed. As mixed air temperature fluctuates above 55°F (13°C) or below 50°F (10°C), dampers will be modulated (opened or closed) to bring the mixed air temperature back within control. Upon more call for cooling (Y2 on the thermostat), the outdoor air damper will maintain its current position, compressor C1 will run, and the outdoor fan will run at low speed. If there is further demand for cooling, then the outdoor air damper will maintain its current position, only compressor C2 will run, and the outdoor fan will run at medium speed. The VFD-controlled indoor fan will operate at high speed regardless of the cooling demand.

If the increase in cooling capacity causes the mixed air temperature to drop below 45°F (7°C), then the outdoor air damper will return to the minimum position. If the mixed air temperature continues to fall, then the outdoor air damper will close. Once the mixed air temperature rises above 48°F (9°C), the control returns to normal. The power exhaust fans will be energized and de-energized, if installed, as the outdoor air damper opens and closes.

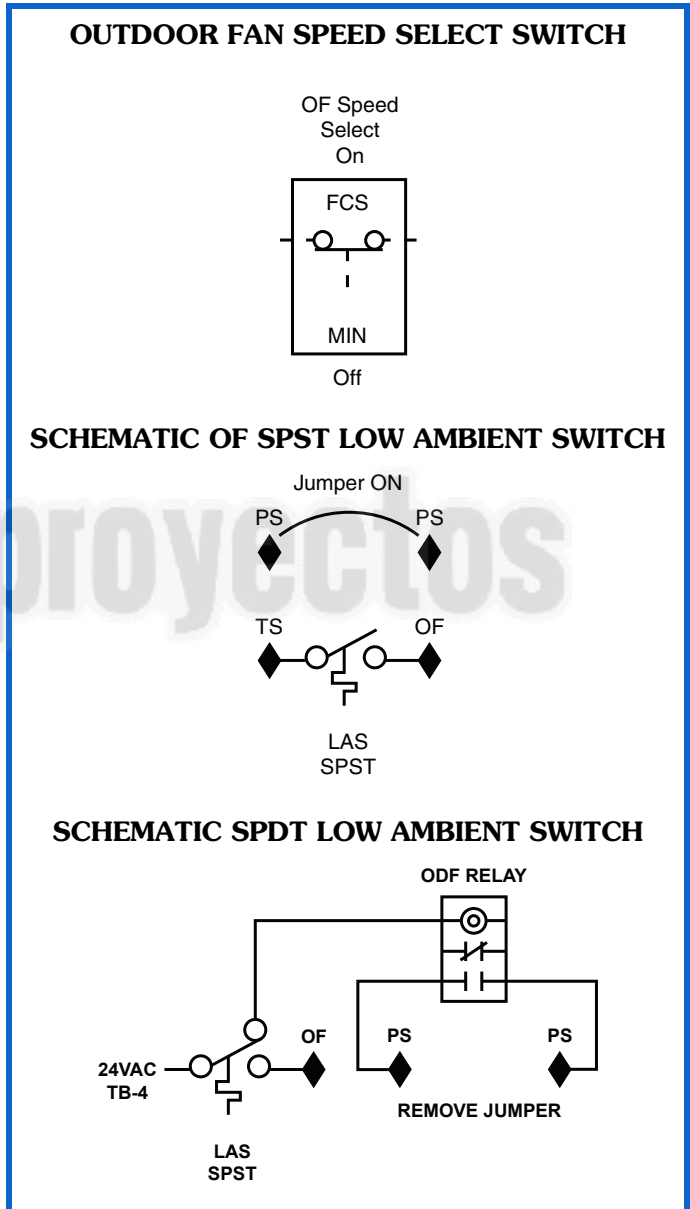
If field-installed accessory CO<sub>2</sub> sensors are connected to the economizer, then a demand controlled ventilation strategy will begin to operate. As the CO<sub>2</sub> level in the zone increases above the CO<sub>2</sub> setpoint, the minimum position of the damper will be increased proportionally. As the CO<sub>2</sub> level decreases because of the increase of fresh air, the outdoor air damper will be proportionally closed. For economizer operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed.

## Low Ambient

In Low Ambient RTU (rooftop unit) conditions, when the temperature is less than 55°F (13°C), the Low Ambient Switch (LAS) will be active and the outdoor fans will run to the preset factory outdoor fan speed. When the temperature is greater than 65°F (18°C), the LAS will deactivate and the outdoor fans will run in the standard cooling mode. If the outdoor fan select switch is in the up position, then the outdoor fans will run in the Fan Cycle Speed Mode (FCS), set to 250 rpm. If the outdoor fan select switch is in the down position, then the outdoor fans will run in the Minimum Fan Speed Mode (MIN), set to 160 rpm, regardless of the cooling demand.

50LC 07 units have a SPST normally open LAS wired across the TS and OF terminal and a jumper placed across the PS terminal (see the art on the right). When the LAS is active, the switch will close, making contact with the OF terminal. This is done for units that require all outdoor fans to run at the same preset factory low ambient speed.

50LC 08-12 units have a SPDT LAS wired to the OF terminal and the outdoor fan relay (see the art below). The jumper across the PS terminal will be removed. When the LAS is active, the switch will close, making contact with the OF terminal, and will drop connection to the ODF relay. When electrical connection is removed from the ODF relay, the PS connection will be opened. This will place the third outdoor fan electrically isolated from receiving any speed command, which will then turn the motor off. This is done for units that only require 2 outdoor fans to run at the same preset factory low ambient speed.



# Sequence of operation (cont)



The table below shows the operation of the outdoor fans for each unit.

## LOW AMBIENT TEMPERATURE OUTDOOR FAN CONTROL

| 50LC UNIT | NO. OF FANS ON | NO. OF FANS OFF | SWITCH   | OUTDOOR FAN SELECT SWITCH | RPM |
|-----------|----------------|-----------------|----------|---------------------------|-----|
| 07        | 2              | 0               | (1) SPST | Up                        | 250 |
| 08        | 2              | 1               | (1) SPDT | Down                      | 160 |
| 09        | 2              | 1               | (1) SPDT | Down                      | 160 |
| 12        | 2              | 1               | (1) SPDT | Down                      | 160 |

### Heating

In the Heating Mode (W1 on the thermostat), power is applied to the G and W1 terminal at the ISC board and energizes the first state of electric heat. Upon more call for heat (W2 at the thermostat), power is applied to the G and

W2 terminal at the ISC board and energizes the second state of electric heat. The VFD-controlled indoor fan will operate at high speed regardless of the heating demand.

### SystemVu Control (Factory Option)

For details on operating 50LC units equipped with the factory-installed SystemVu controls option, refer to *48/50LC 07-26 Single Package Rooftop Units with SystemVu Controls Version 1.X and Puron (R-410A) Refrigerant Controls, Start-Up, Operation, and Troubleshooting*.

### RTU Open (Factory Option)

For details on operating 50LC units equipped with the factory-installed RTU Open option refer to *48/50LC 07-26 Factory Installed Option RTU Open Multi-Protocol Controller Controls, Start-Up, Operation, and Troubleshooting*.



## Minimum Operating Ambient Temperature (Cooling)

In mechanical cooling mode, your Carrier rooftop can safely operate down to an outdoor ambient temperature of 40°F (4°C).

An economizer shall be the source of cooling in low ambient conditions. When the outside air temperature is below 40°F (4°C), to improve system reliability, reduce energy usage, and improve system efficiency, mechanical cooling shall not be utilized. Therefore, an economizer shall be used in these conditions to provide efficient low ambient cooling. Using an economizer for low ambient cooling merely requires fan energy to satisfy space requirements. The compressors shall not be required to run, which will provide exceptional energy savings due to less power draw, improved system reliability due to fewer compressor run hours, improved reliability through fewer starts/stops, and lower life cycle costs due to reduced compressor maintenance.

## Maximum Operating Ambient Temperature (Cooling)

The maximum operating ambient temperature for cooling mode is 125°F (52°C). While cooling operation above 125°F (52°C) may be possible, it could cause either a reduction in performance or reliability or a protective action by the unit's internal safety devices.

## Minimum and Maximum Airflow (Cooling Mode)

To maintain safe and reliable operation of your rooftop, operate within the cooling airflow limits. Operating above the maximum may cause blow-off, undesired airflow noise, or airflow-related problems with the rooftop unit. Operating below the minimum may cause problems with coil freeze-up. For proper minimum and maximum cfm values, see page 6.

## Airflow

All units are draw-thru in cooling mode and blow-thru in heating mode.

## Outdoor Air Application Strategies

Economizers reduce operating expenses and compressor run time by providing a free source of cooling and a means of ventilation to match the application's changing needs. In fact, they should be considered for most applications. Also, consider the various economizer control methods and their benefits, as well as sensors required to accomplish your application goals. Please contact your local Carrier representative for assistance.

## Motor Limits, Break Horsepower (bhp)

Due to Carrier's internal unit design, air path, and specially designed motors, the full horsepower (maximum continuous bhp) band, as listed in the physical data table on pages 7 to 8, can be used with the utmost confidence. There is no need for extra safety factors, as Carrier's motors are designed and rigorously tested to use the entire, listed bhp range without either nuisance tripping or premature motor failure.

## Sizing a Rooftop

Bigger isn't necessarily better. While an air conditioner needs to have enough capacity to meet the design loads, it doesn't need excess capacity. In fact, excess capacity typically results in very poor part load performance and humidity control.

Using higher design temperatures than ASHRAE recommends for your location, adding "safety factors" to the calculated load, and rounding up to the next largest unit are all signs of oversizing air conditioners.

Oversizing can cause short-cycling, and short cycling leads to poor humidity control, reduced efficiency, higher utility bills, drastic indoor temperature swings, excessive noise, and increased wear and tear on the air conditioner.

Rather than oversizing an air conditioner, wise contractors and engineers "right-size," or even slightly undersize, air conditioners. Correctly sizing an air conditioner controls humidity better, promotes efficiency, reduces utility bills, extends equipment life, and maintains even, comfortable temperatures.

Note about this specification:

This specification is in the “Masterformat” as published by the Construction Specification Institute. Please feel free to copy this specification directly into your building spec.

## **Weather Expert® Ultra High-Efficiency Cooling Only/Electric Heat Packaged Rooftop**

HVAC Guide Specifications:

Size Range: **6 to 10 Nominal Tons**

Carrier Model Number: **50LC\*\*07-12**

### **Part 1 — 23 06 80 Schedules for Decentralized HVAC Equipment**

1.01 23 06 80.13 Decentralized Unitary HVAC Equipment Schedule

A. 23 06 80.13.A. Rooftop unit schedule:

Schedule is per the project specification requirements.

### **Part 2 — 23 07 16 HVAC Equipment Insulation**

2.01 23 07 16.13 Decentralized, Rooftop Units:

A. 23 07 16.13.A. Evaporator fan compartment:

1. Interior cabinet surfaces shall be insulated with a minimum 1/2 in. thick, minimum 1-1/2 lb density aluminum foil-faced insulation on the air side.
2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
3. Unit internal insulation linings shall be resistant to mold growth in accordance with “mold growth and humidity” test in ASTM C1338, G21, and UL 181 or comparable test method. Air stream surfaces shall be evaluated in accordance with the “Erosion Test” in UL 181, as part of ASTM C1071.

B. 23 07 16.13.B. Electric heat compartment:

1. Aluminum foil-faced fiberglass insulation shall be used.
2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

### **Part 3 — 23 09 13 Instrumentation and Control Devices for HVAC**

3.01 23 09 13.23 Sensors and Transmitters

A. 23 09 13.23.A. Thermostats:

1. Thermostat must:
  - a. energize both “W” and “G” when calling for heat.
  - b. have capability to energize 3 different stages of cooling, and 1 and 2 different stages of heating.
  - c. include capability for occupancy scheduling.

### **Part 4 — 23 09 23 Direct Digital Control (DDC) System for HVAC**

4.01 23 09 23.13 Decentralized, Rooftop Units:

A. 23 09 23.13.A. SystemVu™ intelligent integrated Direct Digital Control (DDC) shall provide:

1. Integrated unit operation for comfort cooling, heating ventilation as well as all monitoring, recording and reporting capabilities. Controller shall also provide diagnostics and alarms of abnormal unit operation through the controller. Controller shall have an intuitive user display and be able to be used in a standalone operation or via building automation system (BAS).
2. Quick Unit Status LEDs of: Run — meaning all systems are go, ALERT — indicates there is currently a non-critical issue with the unit, like filters need to be replaced and FAULT — indicates the unit has a critical issue and will possibly shut down.
3. Six large navigation keys for easy access. Navigation keys shall consist of: TEST, BACK, ENTER, and MENU along with UP and DOWN arrows.
4. Full back lit user display with 4 line by 30 character text capabilities. Display menu shall be designed to provide guided major menus and sub menus main menus provided below:
  - a. Shutdown Unit
  - b. Run Status
  - c. Settings
  - d. Alerts/Faults
  - e. Service
  - f. Inputs
  - g. Outputs
  - h. USB
5. The capability for standalone operation with conventional thermostat/sensor or use with building automation systems (BAS) of Carrier i-Vu®, BACnet<sup>1</sup> and Carrier Comfort Network® (CCN) systems. No special modules or boards are required for these capabilities.
6. The ability to read refrigerant pressures at display or via BAS network of Discharge Pressure and Suction Pressure. The need for traditional refrigerant gauges is not required.
7. USB Data Port for flash drive interaction. This will allow the transfer of data for uploads, downloads, perform software upgrades, backup and restore data and file transfer data such as component number of starts and run hours.
8. Reverse Rotation Protection of compressors if field 3 phase wiring is misapplied.
9. Provide Service Capabilities of:
  - a. Auto run test

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1. BACnet is a trademark of ASHRAE.

- b. Manual run test
- c. Component run hours and starts
- d. Commissioning reports
- e. Data logging
- f. Alarm history
- 10. Economizer control and diagnostics. Set up economizer operation, receive feedback from actuator. Also meets the most recent California Title 24 Fault Detection and Diagnostic (FDD) requirements.
- 11. Unit cooling operation down to 0°F (–18°C).
- 12. Controller shall have easy access connections around the controller perimeter area and consist of Mate-N-Lok<sup>1</sup>, terminal block and RJ style modular jack connections.
- 13. 365 day real time clock, 20 holiday schedules along with occupied and unoccupied scheduling.
- 14. Auto-Recognition for easy installation and commissioning of devices like economizers, space sensors etc.
- 15. A 5°F temperature difference between cooling and heating setpoints to meet the latest ASHRAE 90.1-2013 Energy Standard.
- 16. Contain return air sensor, supply air sensor and outdoor air sensor to help monitor and provide data for the unit comfort operation, diagnostic and alarms.
- 17. Use of Carrier's field accessory hand-held Navigator™ display.
- 18. Control of the operation of unit VFD (Variable Frequency Drive) to work in conjunction with the cooling, heating and ventilation modes.
- 19. 3-year limited part warranty
- B. 23 09 23.13.B. RTU Open — multi-protocol, direct digital controller:
  - 1. Shall be ASHRAE 62 compliant.
  - 2. Shall accept 18-30VAC, 50-60Hz, and consume 15VA or less power.
  - 3. Shall have an operating temperature range from –40°F (–40°C) to 130°F (54°C), 10%-90% RH (non-condensing).
  - 4. Shall include built-in protocol for BACnet (MS/TP and PTP modes), Modbus<sup>2</sup> (RTU and ASCII), Johnson N2 and LonWorks. LonWorks<sup>3</sup> Echelon processor required for all Lon applications shall be contained in separate communication board.
  - 5. Shall allow access of up to 62 network variables (SNVT). Shall be compatible with all open controllers.
  - 6. Baud rate controller shall be selectable using a dipswitch.

- 7. Shall have an LED display independently showing the status of serial communication, running, errors, power, all digital outputs, and all analog inputs.
- 8. Shall accept the following inputs: space temperature, setpoint adjustment, outdoor air temperature, indoor air quality, outdoor air quality, compressor lock-out, fire shutdown, enthalpy switch, and fan status/filter status/humidity/remote occupancy.
- 9. Shall provide the following outputs: economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, heat stage 3/exhaust/reversing valve.
- 10. Shall have built-in surge protection circuitry through solid state polyswitches. Polyswitches shall be used on incoming power and network connections. Polyswitches will return to normal when the “trip” condition clears.
- 11. Shall have a battery back-up capable of a minimum of 10,000 hours of data and time clock retention during power outages.
- 12. Shall have built-in support for Carrier technician tool.
- 13. Shall include an RS-485 protocol communication port, an access port for connection of either a computer or a Carrier technician tool, an EIA-485 port for network communication to intelligent space sensors and displays, and a port to connect an optional LonWorks communications card.
- 14. Software upgrades will be accomplished by either local or remote download. No software upgrades through chip replacements are allowed.

## Part 5 — 23 09 33 Integrated Staging Control (ISC) Board System for HVAC (Electro-Mechanical units)

### 5.01 23 09 33.13 Decentralized, Rooftop Units:

#### A. 23 09 33.13.A. General:

- 1. Shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24 v transformer side. Transformer shall have 75VA capability.
- 2. Shall utilize color-coded wiring.
- 3. Shall include an ISC electro-mechanical control board, to conveniently and safely provide connection points for vital control functions such as: smoke detectors, phase monitor, gas controller, economizer, thermostat, and safety switches. Shall control all 3 stages of compressor logic, 2 or 3 stages of the indoor fan motor logic as well as staging of the outdoor fan motor. Shall also have a green LED indicator to indicate GO operation as well as a fault LED indicator for thermostat mis-wiring, no fan operation and safety switches.

NOTE: Does not apply to units equipped with SystemVu controls.

1. Mate-N-Lok is a registered trademark of The Whitaker Corporation.  
 2. Modbus is a registered trademark of Schneider Electric.  
 3. LonWorks is a registered trademark of Echelon Corporation.

4. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.
- B. 23 09 33.13.B. Safeties:
  1. Compressor over-temperature, over current.
  2. Low-pressure protection:

Low-pressure switch shall use different color wire than the high-pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.

NOTE: Does not apply to units equipped with SystemVu controls.
  3. High-pressure protection:

High-pressure switch shall use different color wire than the low-pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
  4. Automatic reset, motor thermal overload protector.

## Part 6 — 23 09 93 Sequence of Operations for HVAC Controls

- 6.01 23 09 93.13 Decentralized, Rooftop Units:
  - A. 23 09 93.13.A. INSERT SEQUENCE OF OPERATION

## Part 7 — 23 40 13 Panel Air Filters

- 7.01 23 40 13.13 Decentralized, Rooftop Units:
  - A. 23 40 13.13.A. Standard filter section
    1. Shall consist of factory-installed, low velocity, throwaway 2 in. thick fiberglass filters of commercially available sizes.
    2. Unit shall use only one filter size. Multiple sizes are not acceptable.
    3. Filters shall be accessible through an access panel with “no-tool” removal as described in the unit cabinet section of this specification (23 81 19.13.G).

## Part 8 — 23 81 19 Self-Contained Air Conditioners

- 8.01 23 81 19.13 Small-Capacity Self-Contained Air Conditioners (50LC\*\*07-12)
  - A. 23 81 19.13.A. General
    1. Outdoor, rooftop mounted, ISC electrically controlled, heating and cooling unit utilizing hermetic scroll compressors for cooling duty and optional electric heat for heating duty.
    2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
    3. Unit shall use Puron® (R-410A) refrigerant.
    4. Unit shall be installed in accordance with the manufacturer’s instructions.

5. Unit must be selected and installed in compliance with local, state, and federal codes.
- B. 23 81 19.13.B. Quality Assurance:
  1. Unit meets and exceeds ASHRAE 90.1-2013 minimum efficiency requirements.
  2. Unit shall be rated in accordance with AHRI Standards 340/360.
  3. Unit shall be designed to conform to ASHRAE 15, 2001.
  4. Unit shall be ETL/UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
  5. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
  6. Unit internal insulation linings shall be resistant to mold growth in accordance with “mold growth and humidity” test in ASTM C1338, G21, and UL 181 or comparable test method. Air stream surfaces shall be evaluated in accordance with the “Erosion Test” in UL 181, as part of ASTM C1071.
  7. Unit casing shall be capable of withstanding 500 hour salt spray exposure per ASTM B117 (scribed specimen).
  8. Roof curb shall be designed to conform to NRCA Standards.
  9. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request.
  10. Unit shall be designed in accordance with UL Standard 1995, including tested to withstand rain.
  11. Unit shall be constructed to prevent intrusion of snow and tested to prevent snow intrusion into the control box up to 40 mph.
  12. Unit shake tested to assurance level 1, ASTM D4169 to ensure shipping reliability.
  13. High-Efficiency Motors listed shall meet section 313 of the Energy Independence and Security Act of 2007 (EISA 2007).
- C. 23 81 19.13.C. Delivery, Storage, and Handling:
  1. Unit shall be stored and handled per manufacturer’s recommendations.
  2. Lifted by crane requires either shipping top panel or spreader bars.
  3. Unit shall only be stored or positioned in the upright position.
- D. 23 81 19.13.D. Project Conditions:

As specified in the contract.
- E. 23 81 19.13.E. Operating Characteristics:
  1. Unit shall be capable of starting and running at 125°F (52°C) ambient outdoor temperature,

meeting maximum load criteria of AHRI Standard 340/360 at  $\pm 10\%$  voltage.

2. Compressor with standard controls shall be capable of operation down to 40°F (4°C) ambient outdoor temperatures. For lower operation an integrated economizer shall be utilized to allow lower temperatures and accommodate indoor air quality initiatives.
  3. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
  4. Unit shall be factory configured for vertical supply and return configurations.
  5. Unit shall be field convertible from vertical to horizontal airflow on all models. No special kit required on 07 models. Field-installed supply duct kit required for 08-12 size models only.
  6. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.
- F. 23 81 19.13.F. Electrical Requirements:  
Main power supply voltage, phase, and frequency must match those required by the manufacturer.
- G. 23 81 19.13.G. Unit Cabinet:
1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
  2. Unit cabinet exterior paint shall be: film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60°F/16°C): 60, Hardness: H-2H Pencil hardness.
  3. Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 340/360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 1/2 in. thick, 1 lb density, aluminum foil-faced fiberglass insulation, Aluminum foil-faced fiberglass insulation shall also be used in the heat compartment.
  4. Unit internal insulation linings shall be resistant to mold growth in accordance with “mold growth and humidity” test in ASTM C1338, G21, and UL 181 or comparable test method. Air stream surfaces shall be evaluated in accordance with the “Erosion Test” in UL 181, as part of ASTM C1071.
  5. Base of unit shall have a minimum of 4 locations for thru-the-base gas and electrical connections (factory-installed or field-installed), standard.
  6. Base Rail:
    - a. Unit shall have base rails on a minimum of 4 sides.
    - b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
    - c. Holes shall be provided in the base rail for moving the rooftop by fork truck.
    - d. Base rail shall be a minimum of 16 gauge thickness.
  7. Condensate pan and connections:
    - a. Shall be an internally sloped condensate drain pan made of a non-corrosive material.
    - b. Shall comply with ASHRAE Standard 62.
    - c. Shall use a 3/4 in. 14 NPT drain connection, possible either through the bottom or end of the drain pan. Connection shall be made per manufacturer’s recommendations.
  8. Top panel:  
Shall be a single piece top panel on 07 sizes, 2 piece on 08-12 sizes.
  9. Electrical Connections:
    - a. All unit power wiring shall enter unit cabinet at a single, factory-prepared, knockout location.
    - b. Thru-the-base capability:
      - 1) Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
      - 2) Optional, factory-approved, water-tight connection method must be used for thru-the-base electrical connections.
      - 3) No basepan penetration, other than those authorized by the manufacturer, is permitted.
  10. Component access panels (standard):
    - a. Cabinet panels shall be easily removable for servicing.
    - b. Unit shall have one factory-installed, tool-less, removable, filter access panel.
    - c. Panels covering control box, indoor fan, indoor fan motor, gas components (where applicable), and compressors shall have molded composite handles.
    - d. Handles shall be UV modified, composite, permanently attached, and recessed into the panel.
    - e. Screws on the vertical portion of all removable access panel shall engage into heat resistant, molded composite collars.
    - f. Collars shall be removable and easily replaceable using manufacturer recommended parts.
- H. 23 81 19.13.H. Coils:
1. Standard Aluminum Fin/Copper Tube Coils:
    - a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved 5/16 in. diameter copper tubes with all joints brazed.
    - b. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig.



- c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.
2. Optional Pre-coated aluminum-fin condenser coils:
  - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
  - b. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.
  - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
  - d. Corrosion durability of fin stock shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90.
  - e. Corrosion durability of fin stock shall be confirmed through testing to have no visible corrosion after 48 hour immersion in a room temperature solution of 5% salt, 1% acetic acid.
  - f. Fin stock coating shall pass 2000 hours of the following: one week exposure in the prohesion chamber followed by one week of accelerated ultraviolet light testing. Prohesion chamber: the solution shall contain 3.5% sodium chloride and 0.35% ammonium sulfate. The exposure cycle is one hour of salt fog application at ambient followed by one hour drying at 95°F (35°C).
3. Optional Copper-fin evaporator and condenser coils:
  - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
  - b. Galvanized steel tube sheets shall not be acceptable.
  - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
4. Optional E-coated aluminum-fin evaporator and condenser coils:
  - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.
  - b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
  - c. Color shall be high gloss black with gloss per ASTM D523-89.
  - d. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges.
  - e. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93.
  - f. Impact resistance shall be up to 160 in. lb (ASTM D2794-93).
  - g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92).
  - h. Corrosion durability shall be confirmed through testing to be no less than 6000 hours salt spray per ASTM B117-90.
- I. 23 81 19.13.I. Refrigerant Components:
  1. Refrigerant circuit shall include the following control, safety, and maintenance features:
    - a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range. Shall contain removable power element to allow change out of power element and bulb without removing the valve body.
    - b. Refrigerant filter drier.
    - c. Service gauge connections on suction and discharge lines.
    - d. Single circuit design with tandem compressor and fully activated evaporator coil.
  2. Compressors:
    - a. Models shall use fully hermetic tandem scroll compressors optimized for comfort staging and IEER energy savings.
    - b. Models shall be available with a single refrigerant circuit and 3 stages of cooling operation on all models.
    - c. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
    - d. Compressors shall be internally protected from high discharge temperature conditions.
    - e. Compressors shall be protected from an over-temperature and over-ampereage conditions by an internal, motor overload device.
    - f. Compressor shall be factory mounted on rubber grommets.
    - g. Compressor motors shall have internal line break thermal, current overload and high pressure differential protection.
    - h. Crankcase heater shall be standard on each compressor and deactivated whenever a compressor is in operation.
- J. 23 81 19.13.J. Filter Section:
  1. Filters access is specified in the unit cabinet section of this specification.
  2. Filters shall be held in place by a pivoting filter tray, facilitating easy removal and installation.
  3. Shall consist of factory-installed, low velocity, throw-away 2 in. thick fiberglass filters.
  4. Filters shall be standard, commercially available sizes.

5. Only one size filter per unit is allowed.
- K. 23 81 19.13.K. Evaporator Fan and Motor:
  1. Evaporator fan motor:
    - a. Shall have permanently lubricated bearings.
    - b. Shall have inherent automatic-reset thermal overload protection or circuit breaker.
    - c. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.
    - d. Shall be Variable Frequency duty to match the 3-stage compression logic.
    - e. Shall contain motor shaft grounding ring to prevent electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground.
  2. Variable Frequency Drive (VFD). For indoor fan motor Staged Air Volume (SAV™) operation:
    - a. Shall be installed inside the unit cabinet, mounted, wired and tested.
    - b. Shall contain Electromagnetic Interference (EMI) frequency protection.
    - c. Insulated Gate Bi-Polar Transistors (IGBT) used to produce the output pulse width modulated (PWM) waveform, allowing for quiet motor operation.
    - d. Self diagnostics with fault and power code LED indicator. Field accessory Display Kit available for further diagnostics and special setup applications.
    - e. RS485 capability standard.
    - f. Electronic thermal overload protection.
    - g. 5% swinging chokes for harmonic reduction and improved power factor.
    - h. All printed circuit boards shall be conformal coated.
    - i. Shall not contain visual display to adjust internal setting. Only available as field-installed kit.
  3. Belt-driven Evaporator Fan:
    - a. Belt drive shall include an adjustable-pitch motor pulley.
    - b. Shall use sealed, permanently lubricated ball-bearing type.
    - c. Blower fan shall be double-inlet type with forward-curved blades.
    - d. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
- L. 23 81 19.13.L. Condenser Fans and Motors:
  1. Condenser fan motors:
    - a. Shall be a totally enclosed, multi-speed ECM motor.
    - b. Shall use permanently lubricated bearings.
    - c. Shall have inherent thermal overload protection with an automatic reset feature.
    - d. Shall use a shaft-down design on 07 models and shaft-up on 08-12 models with rain shield.
  2. Condenser Fans:
    - a. Shall be a direct-driven propeller type fan.
    - b. Shall have galvanized aluminum (galvalume) blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.
- M. 23 81 19.13.M. Special Features, Options and Accessories:
  1. Low Leak Economizers:
    - a. Available as factory-installed option (vertical only) or field-installed accessory (vertical or horizontal) on all electro-mechanical and RTU Open models. SystemVu field-installed accessory (vertical or horizontal) also available.
    - b. Low leak economizers are available with EconoMi\$er X controls for electromechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.
    - c. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
    - d. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
    - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
    - f. Standard leak rate models shall be equipped with leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
    - g. Shall be capable of introducing up to 100% outdoor air.
    - h. Economizer's barometric relief dampers shall be sized to allow up to 100% relief (actual results will be based on specific job conditions).
  2. Ultra-Low Leak Economizers:
    - a. Available as a factory-installed option (vertical only) or field-installed accessory (vertical or horizontal) on all models including: electromechanical, RTU Open, and SystemVu.
    - b. Ultra-Low Leak economizer dampers meet California's Title 24 section 140.4 prescriptive requirements for leakage, reliability testing, etc., and ASHRAE 90.1 requirements for damper leakage.
    - c. Economizers are available with EconoMi\$er X controls for electro-mechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.

- d. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
  - e. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
  - f. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
  - g. Shall be capable of introducing up to 100% outdoor air.
  - h. Economizer's barometric relief dampers shall be sized to allow up to 100% relief (actual results will be based on specific job conditions).
3. EconoMi\$er X Economizer Controls:
- a. For units with factory-installed (vertical only) or field-installed accessory (vertical or horizontal) on electro-mechanical units with low leak or ultra-low leak economizers.
  - b. Meets California's Title 24 section 120.2 mandatory requirements for economizer Fault Detection and Diagnosis (FDD).
  - c. Economizer controller shall be Honeywell W7220 that provides:
    - 1) 2-line LCD interface screen for setup, configuration and troubleshooting.
    - 2) On-board FDD detects and alerts when economizer is not operating properly.
    - 3) Sensor failure loss of communication identification.
    - 4) Automatic sensor detection.
    - 5) Capabilities for use with multi-speed indoor fan units.
  - d. Compressor lockout temperature on W7220 is adjustable from -45°F to 80°F, set at a factory default of 32°F.
  - e. Shall be designed to spring return close outside air damper during loss of power.
  - f. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
  - g. Utilizes digital dry bulb or enthalpy outside air sensors. Factory-installed economizers available with dry bulb or enthalpy. Dry bulb sensors installed on all field-installed economizer accessories.
4. EconoMi\$er2 Economizer Controls:
- a. For use with factory-installed (vertical only) or field-installed accessory (vertical or horizontal) on RTU Open or SystemVu units with low leak or ultra-low leak economizers.  
NOTE: Factory-installed EconoMi\$er2 is available on SystemVu units with ultra-low leak economizers only.
  - b. EconoMi\$er2 economizers are controlled by RTU Open or SystemVu unit controllers, which shall be 4-20 mA design.
  - c. RTU Open and SystemVu controls meet California's Title 24 section 120.2 mandatory requirements for economizer Fault Detection and Diagnosis.
  - d. Available on factory-installed (vertical only) economizers with dry bulb or enthalpy outside air sensors. Field-installed accessories (vertical or horizontal) are available with dry bulb outside air sensors only.
  - e. Outdoor air sensor setpoint shall be adjustable and shall range from 40°F to 100°F (4°C to 38°C). Additional sensor options shall be available as accessories.
  - f. Shall be designed to spring return close outside air damper during loss of power.
  - g. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
  - h. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 100%, with a range of 0% to 100%.
  - i. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.
  - j. Controller shall drive outside air dampers completely closed when the unit is in the unoccupied mode.
  - k. Economizer controller shall accept a 4 to 20mA CO<sub>2</sub> sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
  - l. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
5. Condenser Coil Hail Guard Assembly (Factory or field-installed):
- a. Shall protect against damage from hail.
  - b. Shall be louvered design.
6. Unit-Mounted, Non-Fused Disconnect Switch:
- a. Switch shall be factory-installed, internally mounted.
  - b. National Electric Code (NEC) and ETL/UL approved non-fused switch shall provide unit power shutoff.
  - c. Shall be accessible from outside the unit
  - d. Shall provide local shutdown and lockout capability.
  - e. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.

7. HACR Breaker:
  - a. These manual reset devices provide overload and short circuit protection for the unit. Factory-wired and mounted with the units, with access cover to help provide environmental protection. On 575V applications, HACR breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.
  - b. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
8. Convenience Outlet:
  - a. Powered convenience outlet:
    - 1) Outlet shall be powered from main line power to the rooftop unit.
    - 2) Outlet shall be powered from line side or load side of disconnect by installing contractor, as required by code. If outlet is powered from load side of disconnect, unit electrical ratings shall be ETL/UL certified and rated for additional outlet amperage.
    - 3) Outlet shall be factory-installed and internally mounted with easily accessible 115 v female receptacle.
    - 4) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
    - 5) Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer.
    - 6) Outlet shall be accessible from outside the unit.
    - 7) Outlet shall include a field-installed "Wet in Use" cover.
  - b. Non-powered convenience outlet:
    - 1) Outlet shall be powered from a separate 115/120v power source.
    - 2) A transformer shall not be included.
    - 3) Outlet shall be factory-installed and internally mounted with easily accessible 115 v female receptacle.
    - 4) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
    - 5) Outlet shall be accessible from outside the unit.
    - 6) Outlet shall include a field-installed "Wet in Use" cover.
9. Thru-the-Base Connectors (07 models only):
  - a. Kit shall provide connectors to permit electrical connections to be brought to the unit through the unit basepan. Kit include fittings for thru-the-curb gas connection which is not used on 50LC units.
    - b. Maximum of 3 connection locations per unit.
10. Propeller Power Exhaust:
  - a. Power exhaust shall be used in conjunction with an integrated economizer.
  - b. Independent modules for vertical or horizontal return configurations shall be available.
  - c. Horizontal power exhaust is shall be mounted in return ductwork.
  - d. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.
11. Roof Curbs (Vertical):
  - a. Full perimeter roof curb with exhaust capability providing separate air streams for energy recovery from the exhaust air without supply air contamination.
  - b. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
  - c. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
12. High-Static Indoor Fan Motor(s) and Drive(s):

High-static motor(s) and drive(s) shall be factory-installed to provide additional performance range.
13. Thru-the-Bottom Utility Connectors:

Kit shall provide connectors to permit electrical connections to be brought to the unit through the basepan.
14. Outdoor Air Enthalpy Sensor:

The outdoor air enthalpy sensor shall be used to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.
15. Return Air Enthalpy Sensor:

The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
16. Indoor Air Quality (CO<sub>2</sub>) Sensor:
  - a. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
  - b. The IAQ sensor shall be available in duct mount, wall mount, or wall mount with LED display. The setpoint shall have adjustment capability.
17. Smoke detectors (factory-installed only):
  - a. Shall be a 45-wire controller and detector.
  - b. Shall be environmental compensated with differential sensing for reliable, stable, and drift-free sensitivity.
  - c. Shall use magnet-activated test/reset sensor switches.

- d. Shall have tool-less connection terminal access.
  - e. Shall have a recessed momentary switch for testing and resetting the detector.
  - f. Controller shall include:
    - 1) One set of normally open alarm initiation contacts for connection to an initiating device circuit on a fire alarm control panel.
    - 2) Two Form-C auxiliary alarm relays for interface with rooftop unit or other equipment.
    - 3) One Form-C supervision (trouble) relay to control the operation of the Trouble LED on a remote test/reset station.
    - 4) Capable of direct connection to 2 individual detector modules.
    - 5) Can be wired to up to 14 other duct smoke detectors for multiple fan shutdown applications.
18. Horn/Strobe Annunciator:
- a. Provides an audible/visual signaling device for use with factory-installed option or field-installed accessory smoke detectors:
    - 1) Requires installation of a field-supplied 24 v transformer suitable for 4.2 VA (AC) or 3.0 VA (DC) per horn/strobe accessory.
    - 2) Requires field-supplied electrical box, North American 1-gang box, 2 in. (51 mm) x 4 in. (102 mm).
    - 3) Shall have a clear colored lens.
19. Time Guard:
- a. Shall prevent compressor short cycling by providing a 5 minute delay ( $\pm 2$  minutes) before restarting a compressor after shutdown for any reason.
  - b. One device shall be required per compressor.
20. Electric Heat:
- a. Heating Section:
    - 1) Heater element open coil resistance wire, nickel-chrome alloy, 0.29 inches inside diameter, strung through ceramic insulators mounted on metal frame. Coil ends are staked and welded to terminal screw slots.
    - 2) Heater assemblies are provided with integral fusing for protection of internal heater circuits not exceeding 48 amps each. Auto reset thermo limit controls, magnetic heater contactors (24 v coil) and terminal block all mounted in electric heater control box (minimum 18 ga galvanized steel) attached to end of heater assembly.
21. Hinged access panels:
- a. Shall provide easy access through integrated quarter turn latches.
  - b. Shall be on major panels of; filter, control box, fan motor and compressor.
22. Display Kit for Variable Frequency Drive:
- a. Kit allows the ability to access the VFD controller programs to provide special setup capabilities and diagnostics.
  - b. Kit contains display module and communication cable.
  - c. Display Kit can be permanently installed in the unit or used on any SAV system VFD controller as needed.
23. Supply Duct Kit:
- On 08-12 models, a supply air duct cover kit is required when field converting the factory standard vertical duct supply to horizontal duct supply configuration. One required per unit.
24. Thermostat:
- a. Due to the 3-stage cooling capacity design of these units, a 3-stage cooling thermostat is required for the unit to perform at listed operating efficiencies.
  - b. Carrier offers a Honeywell branded T7350D (3 Cool/3 Heat) Commercial Programmable Thermostat. This provides:
    - 1) 7-day programmable 365-day clock with holiday programming
    - 2) Automatic Daylight Saving Time adjustment
    - 3) Backlit display
    - 4) Changeover selections: automatic or manual
    - 5) Fan configurable: continuous or intermittent during occupied
25. Humidi-MiZer Adaptive Dehumidification System:
- a. The Humidi-MiZer Adaptive Dehumidification System shall be factory-installed, certified and tested to provide greater dehumidification of the occupied space by providing 2 distinct modes of dehumidification operation in addition to its normal design cooling mode:
    - 1) Subcooling mode further sub cools the hot liquid refrigerant leaving the condenser coil as well as reheat leaving air stream. It can provide both better cooling capacity as well as dehumidification process when both temperature and humidity in the space are not satisfied.

## Guide specifications (cont)



- 2) Hot gas reheat mode shall mix a portion of the hot gas from the discharge of compressor with the hot liquid refrigerant leaving the condenser coil to create a 2-phase warm refrigerant in the reheat coil which results in a neutral leaving air temperature

when only humidity in the space is not satisfied.

26. High Short Circuit Current Rating (SCCR):
  - a. An optional SCCR of 10 kA shall be provided for 208/230v and 460v units.





