



## Product Data

# WeatherMaker® Single Package Heat Pump Rooftop

3 to 6 Nominal Tons

ecoblue™  technology



50FCQ\*04, 05, 06, 07  
Single-Packaged Heat Pump with Optional Electric Heat  
and Puron® Refrigerant (R-410A)

## The New Carrier WeatherMaker® packaged heat pump rooftop units (RTU) with EcoBlue™ Technology were designed by customers for customers and integrate new technology to provide value added benefits never seen in this type of equipment before.

New major design features include:

- Patented, industry's first efficient indoor fan system using Vane Axial fan with electronically commutated variable speed motor
- Reliable fixed speed scroll compressor on 3-5 ton sizes and 2 stage scroll technology on 6 ton sizes
- Upgraded unit control board with intuitive indoor fan adjustment
- Reliable copper tube/aluminum fin condenser coil with 5/16 in. tubing to help reduce refrigerant charge versus prior designs
- New outdoor fan system with rugged — lightweight high impact composite fan blade

WeatherMaker® 50FCQ units up to 6 tons are specifically designed to fit on Carrier roof curbs that were installed back to 1989, which makes replacement easy and eliminates the need for curb adapters or changing utility connections.

Single-stage units deliver efficiencies of up to 14.3 SEER and 8.2 HSPF on 3-phase products and 13.4 SEER2 and 7.0 HSPF2 on single-phase products. Two-stage units deliver up to

15.0 IEER. All models are capable of either vertical or horizontal airflow.

The Carrier rooftop unit (RTU) was designed by customers for customers. With “no-strip” screw collars, handled access panels, and more, the unit is easy to install, easy to maintain, and easy to use. Precisely sized Suction Line Accumulator to help insure reliable operation at unit operation conditions.

Value-added features include:

- Puron® refrigerant (R-410A)
- Single point electrical connections
- Optional fully integrated SystemVu™ controls
- RTU Open controller for BACnet™<sup>1</sup>, LonWorks®<sup>1</sup>, Modbus®<sup>1</sup> and Johnson Controls N2
- 3 to 5 ton models use fixed refrigerant metering devices and 6 ton models use a TXV
- Scroll compressors with internal line-break overload protection
- Easy access tool-less filter door. Filter track tilts out for filter removal and replacement. All filters are the same size in each unit.

### Installation ease

All WeatherMaker units are field-convertible to horizontal airflow, which makes it easy to adjust to unexpected jobsite complications. Lighter units make for easy replace. Simple, fast plug-in connections to the standard integrated unit control board (UCB). Clearly labeled connections points to reduce installation time. Also, a large control box provides room to work and

room to mount Carrier accessory controls.

### Easy to maintain

With the new EcoBlue Vane Axial fan system and direct drive ECM motor, there is no longer a need to adjust belts or pulleys as in past designs. This frees up maintenance and installation time.

Easy access handles by Carrier provide quick and easy 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.

Sloped, corrosion resistant composite drain pan sheds water and will not rust.

### Easy to use

The newly re-designed Unit Control Board by Carrier puts all connections and troubleshooting points in one convenient place. Most low voltage connections are made to the same board and make it easy to access it. Setting up the fan is simple by an intuitive switch and rotary dial arrangement. Carrier rooftops have high and low pressure switches, a filter drier, and 2-in. filters standard.

### EcoBlue™ Technology

Direct drive EcoBlue Technology indoor fan system uses Vane Axial fan design and direct drive electronically commutated motors.

This new Vane Axial design over past belt drive systems has 75% fewer moving parts, uses up to 40% less energy and has no fan belts, blower bearings and shaft.

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## Streamlined control and integration

Carrier controllers make connecting WeatherMaker® rooftops into existing building automation systems easy. The units are compatible with conventional thermostat controls, SystemVu™ controls and Carrier RTU Open multi-protocol controller.

## Operating efficiency and flexibility

The 50FCQ rooftops meet ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) 90.1-2016, IECC®<sup>1</sup>-2018 (International Energy Conservation Code) minimum efficiency requirements.

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## Field convertible airflow

All WeatherMaker 3 to 6 ton units are field-convertible to horizontal airflow, which makes it easy to adjust to unexpected jobsite complications.

## Comfort control

Carrier's Round Tube Plate Fin coil design helps maximize heat transfer and reliable operation.



## 50FCQ 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 | F | C | Q | A | 0 | 4 | A | 2  | A  | 5  | -  | 0  | A  | 0  | A  | 0  |

### Unit/Series/Model

50FCQ – Packaged Rooftop Heat Pump  
 14.3 SEER Standard Efficiency, sizes 04-06  
 13.4 SEER2 Standard Efficiency, sizes 04-06  
 15.0 IEER Standard Efficiency, size 07

### Refrig. Systems Options

A = Standard One Stage Cooling Models<sup>1,2</sup>  
 C = Standard One Stage Cooling Models, 1-phase voltage (size 05 only)<sup>3</sup>  
 M = Single Circuit, Two Stage Cooling Models<sup>4</sup>

### Cooling Tons

04 = 3 tons  
 05 = 4 tons  
 06 = 5 tons  
 07 = 6 tons

### Sensor Options

A = None  
 B = Return Air (RA) Smoke Detector  
 C = Supply Air (SA) Smoke Detector  
 D = RA + SA Smoke Detector  
 E = CO<sub>2</sub> Sensor  
 F = RA Smoke Detector and CO<sub>2</sub> Sensor  
 G = SA Smoke Detector and CO<sub>2</sub> Sensor  
 H = RA + SA Smoke Detector and CO<sub>2</sub> Sensor  
 J = Condensate Overflow Switch (Electromechanical controls only)  
 K = Condensate Overflow Switch and RA Smoke Detector  
 L = Condensate Overflow Switch and RA and SA Smoke Detectors  
 M = Condensate Overflow Switch and SA Smoke Detector

### Indoor Fan Options

1 = Direct Drive – EcoBlue – Standard Static  
 2 = Direct Drive – EcoBlue – Medium Static  
 3 = Direct Drive – EcoBlue – High Static

### Coil Options – (Outdoor - Indoor — 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

### Voltage

1 = 575-3-60  
 3 = 208/230-1-60<sup>1,5</sup>  
 5 = 208/230-3-60  
 6 = 460-3-60

### Packaging & Seismic Compliance

0 = Standard  
 1 = LTL

### Electrical Options

A = None  
 C = Non-Fused Disconnect (NFD)  
 D = Thru-The-Base Connections (TTB)  
 F = Non-Fused Disconnect and TTB Connections  
 N = Phase Monitor Protection  
 Q = Phase Monitor Protection and NFD  
 R = Phase Monitor Protection and TTB Conn.  
 T = Phase Monitor Protection, NFD, and TTB Connections

### Service Options

0 = None  
 1 = Unpowered Convenience Outlet (CO)  
 2 = Powered Convenience Outlet  
 3 = Hinged Access Panels  
 4 = Hinged Access Panels and Unpowered CO  
 5 = Hinged Access Panels and Powered CO  
 6 = MERV-8 High Efficiency (HE) Filters  
 7 = Unpowered CO and MERV-8 HE Filters  
 8 = Powered CO and MERV-8 HE Filters  
 9 = Hinged Access Panels and MERV-8 HE Filters  
 A = Hinged Access Panels, Unpowered CO, and MERV-8 HE Filters  
 B = Hinged Access Panels, Powered CO, and MERV-8 HE Filters

### Intake / Exhaust Options

A = None  
 B = Temperature Economizer w/ Barometric Relief  
 F = Enthalpy Economizer w/ Barometric Relief  
 K = Two-Position Damper  
 U = Temperature Ultra Low Leak Economizer with Barometric Relief  
 W = Enthalpy Ultra Low Leak Economizer with Barometric Relief

### Base Unit Controls

0 = Electromechanical Controls (allows for use of field-installed economizers)  
 2 = RTU Open Multi-Protocol Controller  
 3 = SystemVu™ Controls  
 8 = Electromechanical Controls with POL224 EconomizerONE (with Fault Detection and Diagnostic)

### Design Revision

- = Factory Design Revision

<sup>1</sup> Size 04/05/06 models only.

<sup>2</sup> Size 04 and 06 single-phase voltage units meet Department of Energy SEER2 requirements.

<sup>3</sup> Units meet Department of Energy 2023 SEER2 requirements; available on size 05 single-phase voltage models only.

<sup>4</sup> Size 07 units only.

<sup>5</sup> The following are not available as a factory-installed options for models with this voltage code: Coated Coils or Cu Fin Coils, Louvered Hail Guards, Economizer or Two-Position Damper, Powered 115 Volt Convenience Outlet.

## 50FCQA/C 1-Phase AHRI Ratings — Cooling Mode<sup>a,b,c,d</sup>

| UNIT     | VOLTAGE | COOLING STAGES | NOMINAL CAPACITY (tons) | NET COOLING CAPACITY 2 (MBtuh) | TOTAL POWER 2 (kW) | SEER2 | EER2 |
|----------|---------|----------------|-------------------------|--------------------------------|--------------------|-------|------|
| 50FCQA04 | 3       | 1              | 3                       | 35.0                           | 3.0                | 13.4  | 11.5 |
| 50FCQC05 | 3       | 1              | 4                       | 47.0                           | 4.2                | 13.4  | 11.2 |
| 50FCQA06 | 3       | 1              | 5                       | 59.5                           | 5.3                | 13.4  | 11.2 |

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size).
- Rating 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.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum SEER2 and EER2 requirements.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

## 50FCQA/M 3-Phase AHRI Ratings — Cooling Mode<sup>a,b,c,d</sup>

| UNIT     | VOLTAGE | COOLING STAGES | NOM. CAPACITY (tons) | NET COOLING CAPACITY (MBtuh) | TOTAL POWER (kW) | SEER | EER  | IEER WITH 2-SPEED |
|----------|---------|----------------|----------------------|------------------------------|------------------|------|------|-------------------|
| 50FCQA04 | 1, 5, 6 | 1              | 3                    | 36.2                         | 3.1              | 14.3 | 11.8 | —                 |
| 50FCQA05 | 1, 5, 6 | 1              | 4                    | 49.5                         | 4.2              | 14.3 | 11.8 | —                 |
| 50FCQA06 | 1, 5, 6 | 1              | 5                    | 60.5                         | 5.1              | 14.3 | 11.8 | —                 |
| 50FCQM07 | 1, 5, 6 | 2              | 6                    | 70.0                         | 6.3              | —    | 11.0 | 15.0              |

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size) and 340/360 (07 size).
- Rating 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.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) requirements, as well as DOE-2018 (Department of Energy) Energy Standard for minimum SEER and EER and DOE-2023 Energy Standards for minimum SEER2 and EER2 requirements. ASHRAE 90.1 requires M1 ratings on 3-phase models.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

### LEGEND

**AHRI** — Air Conditioning, Heating and Refrigeration Institute  
**EER** — Energy Efficiency Ratio  
**IEER** — Integrated Energy Efficiency Ratio  
**MBtuh** — Btuh in Thousands  
**SEER** — Seasonal Energy Efficiency Ratio



## 50FCQA/C 1-Phase AHRI Ratings — Heating Mode<sup>a,b,c,d</sup>

| UNIT     | VOLTAGE | HSPF2 | HIGH HEATING CAPACITY 2 (MBtuh) | HIGH HEAT COP 2 | LOW HEATING CAPACITY 2 (MBtuh) | LOW HEAT COP 2 |
|----------|---------|-------|---------------------------------|-----------------|--------------------------------|----------------|
| 50FCQA04 | 3       | 6.7   | 34.0                            | 3.6             | 17.0                           | 2.10           |
| 50FCQC05 | 3       | 7.0   | 46.0                            | 3.6             | 24.0                           | 2.28           |
| 50FCQA06 | 3       | 7.0   | 56.5                            | 3.7             | 30.0                           | 2.30           |

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size).
- Rating 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.  
 High Temperature Heating Ratings: 47°F (8°C) db, 43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.  
 Low Temperature Heating Ratings: 17°F (–8°C) db, 15°F (–9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum SEER2 and EER2 requirements.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

## 50FCQA/M 3-Phase AHRI Ratings — Heating Mode<sup>a,b,c,d</sup>

| UNIT     | VOLTAGE | HSPF | HIGH HEATING CAPACITY (MBtuh) | HIGH HEAT COP | LOW HEATING CAPACITY (MBtuh) | LOW HEAT COP |
|----------|---------|------|-------------------------------|---------------|------------------------------|--------------|
| 50FCQA04 | 1, 5, 6 | 8.2  | 34.0                          | 3.7           | 17.0                         | 2.25         |
| 50FCQA05 | 1, 5, 6 | 8.2  | 46.0                          | 3.7           | 23.6                         | 2.28         |
| 50FCQA06 | 1, 5, 6 | 8.2  | 56.5                          | 3.8           | 30.0                         | 2.30         |
| 50FCQM07 | 1, 5, 6 | —    | 64.5                          | 3.6           | 35.0                         | 2.40         |

NOTE(S):

- Rated in accordance with AHRI Standards 210/240 (04-06 size) and 340/360 (07 size).
- Rating 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.  
 High Temperature Heating Ratings: 47°F (8°C) db, 43°F (6°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.  
 Low Temperature Heating Ratings: 17°F (–8°C) db, 15°F (–9°C) wb outdoor air temperature and 70°F (21°C) entering indoor coil air.
- Units comply with ASHRAE 90.1-2016 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) requirements, as well as DOE-2018 (Department of Energy) Energy Standard for minimum SEER and EER and DOE-2023 Energy Standards for minimum SEER2 and EER2 requirements. ASHRAE 90.1 requires M1 ratings on 3-phase models.
- 50FCQ units comply with US Energy Policy Act (2005). To evaluate code compliance requirements, refer to state and local codes.

### LEGEND

- AHRI** — Air Conditioning, Heating and Refrigeration Institute  
**COP** — Coefficient of Performance  
**EER** — Energy Efficiency Ratio  
**HSPF** — Heating Seasonal Performance Factor  
**MBtuh** — Btuh in Thousands  
**SEER** — Seasonal Energy Efficiency Ratio



**Sound Ratings Table<sup>a,b,c</sup>**

| UNIT     | COOLING STAGES | OUTDOOR SOUND (dB) AT 60 Hz |      |      |      |      |      |      |      |      |
|----------|----------------|-----------------------------|------|------|------|------|------|------|------|------|
|          |                | A-WEIGHTED                  | 63   | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
| 50FCQ*04 | 1              | 75.4                        | 81.8 | 81.8 | 77.0 | 72.6 | 69.9 | 64.6 | 59.3 | 55.6 |
| 50FCQ*05 | 1              | 79.0                        | 85.6 | 84.7 | 80.5 | 76.0 | 72.4 | 68.0 | 62.8 | 59.3 |
| 50FCQ*06 | 1              | 79.0                        | 85.6 | 84.7 | 80.5 | 76.0 | 72.4 | 68.0 | 62.8 | 59.3 |
| 50FCQ*07 | 2              | 79.0                        | 85.6 | 84.7 | 80.5 | 76.0 | 72.4 | 68.0 | 62.8 | 59.3 |

NOTE(S):

- Outdoor sound data is measured in accordance with AHRI.
- 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.
- A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Carrier units are taken in accordance with AHRI.

LEGEND

**dB** — Decibel

**Minimum - Maximum Airflow Ratings (cfm) — Cooling Units and Accessory Electric Heat**

| UNIT     | COOLING               |                                     |                                      |                       | ELECTRIC HEAT <sup>a</sup> |                       |
|----------|-----------------------|-------------------------------------|--------------------------------------|-----------------------|----------------------------|-----------------------|
|          | Minimum Airflow (cfm) | Minimum 2-Speed Airflow (low speed) | Minimum 2-Speed Airflow (high speed) | Maximum Airflow (cfm) | Minimum Airflow (cfm)      | Maximum Airflow (cfm) |
| 50FCQ*04 | 900                   | —                                   | —                                    | 1500                  | 900                        | 1500                  |
| 50FCQ*05 | 1200                  | —                                   | —                                    | 2000                  | 1200                       | 2000                  |
| 50FCQ*06 | 1500                  | —                                   | —                                    | 2500                  | 1500                       | 2500                  |
| 50FCQ*07 | 1800                  | 1200                                | 1800                                 | 3000                  | 1800                       | 3000                  |

NOTE(S):

- Electric heat modules are available as field-installed accessories for 50FCQ units.

## 50FCQ Physical Data

| 50FCQ UNIT                               | 50FCQA04      | 50FCQA05      | 50FCQC05       | 50FCQA06       | 50FCQM07               |
|------------------------------------------|---------------|---------------|----------------|----------------|------------------------|
| NOMINAL TONS                             | 3             | 4             | 4              | 5              | 6                      |
| BASE UNIT OPERATING WT (lb) <sup>a</sup> | 467           | 473           | 473            | 584            | 589                    |
| <b>REFRIGERATION SYSTEM</b>              |               |               |                |                |                        |
| No. Circuits/No. Compressors/Type        | 1 / 1/ Scroll | 1 / 1/ Scroll | 1 / 1 / Scroll | 1 / 1 / Scroll | 1 / 1 / 2-Stage Scroll |
| Puron® (R-410A) Charge (lb-oz)           | 8-0           | 11-13         | 11-12.8        | 14-13          | 16-0                   |
| Metering Device                          | Acutrol       | Acutrol       | Acutrol        | Acutrol        | TXV                    |
| High-Pressure Trip/Reset (psig)          | 630/505       | 630/505       | 630/505        | 630/505        | 630/505                |
| Low-Pressure Trip/Reset (psig)           | 54/117        | 54/117        | 54/117         | 54/117         | 54/117                 |
| <b>EVAPORATOR COIL (Indoor)</b>          |               |               |                |                |                        |
| Material (Tube/Fin)                      | Cu/Al         | Cu/Al         | Cu/Al          | Cu/Al          | Cu/Al                  |
| Coil Type                                | 3/8 in. RTPF  | 3/8 in. RTPF  | 3/8 in. RTPF   | 3/8 in. RTPF   | 3/8 in. RTPF           |
| Rows/FPI                                 | 3/15          | 3/15          | 3/15           | 4/15           | 4/15                   |
| Total Face Area (ft²)                    | 5.5           | 5.5           | 5.5            | 7.3            | 7.3                    |
| Condensate Drain Connection Size         | 3/4 in.       | 3/4 in.       | 3/4 in.        | 3/4 in.        | 3/4 in.                |
| <b>CONDENSER COIL (Outdoor)</b>          |               |               |                |                |                        |
| Material                                 | Cu/Al         | 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  | 5/16 in. RTPF          |
| Rows/FPI                                 | 2/18          | 2/18          | 2/18           | 2/18           | 2/18                   |
| Total Face Area (ft²)                    | 10.7          | 15.9          | 15.9           | 18.8           | 20.5                   |
| <b>EVAPORATOR FAN AND MOTOR (Indoor)</b> |               |               |                |                |                        |
| <b>Standard Static 1 Phase</b>           |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | —             | 1/Direct       | 1/Direct       | —                      |
| Max Cont Bhp                             | 0.44          | —             | 0.72           | 1.06           | —                      |
| Rpm Range                                | 189-1890      | —             | 190-1900       | 215-2150       | —                      |
| Fan Qty/Type                             | 1/Vane Axial  | —             | 1/Vane Axial   | 1/Vane Axial   | —                      |
| Fan Diameter (in.)                       | 16.6          | —             | 16.6           | 16.6           | —                      |
| <b>Medium Static 1 Phase</b>             |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | —             | 1/Direct       | 1/Direct       | —                      |
| Max Cont Bhp                             | 0.71          | —             | 1.06           | 1.44           | —                      |
| Rpm Range                                | 219-2190      | —             | 217 - 2170     | 239-2390       | —                      |
| Fan Qty/Type                             | 1/Vane Axial  | —             | 1/Vane Axial   | 1/Vane Axial   | —                      |
| Fan Diameter (in.)                       | 16.6          | —             | 16.6           | 16.6           | —                      |
| <b>High Static 1 Phase</b>               |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | —             | 1/Direct       | —              | —                      |
| Max Cont Bhp                             | 1.07          | —             | 1.53           | —              | —                      |
| Rpm Range                                | 249-2490      | —             | 246-2460       | —              | —                      |
| Fan Qty/Type                             | 1/Vane Axial  | —             | 1/Vane Axial   | —              | —                      |
| Fan Diameter (in.)                       | 16.6          | —             | 16.6           | —              | —                      |
| <b>Standard Static 3 Phase</b>           |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | 1/Direct      | —              | 1/Direct       | 1/Direct               |
| Max Cont Bhp                             | 0.44          | 0.72          | —              | 1.06           | 1.31                   |
| Rpm Range                                | 189-1890      | 190-1900      | —              | 215-2150       | 230-2300               |
| Fan Qty/Type                             | 1/Vane Axial  | 1/Vane Axial  | —              | 1/Vane Axial   | 1/Vane Axial           |
| Fan Diameter (in.)                       | 16.6          | 16.6          | —              | 16.6           | 16.6                   |
| <b>Medium Static 3 Phase</b>             |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | 1/Direct      | —              | 1/Direct       | 1/Direct               |
| Max Cont Bhp                             | 0.71          | 1.06          | —              | 1.44           | 1.76                   |
| Rpm Range                                | 219-2190      | 217-2170      | —              | 239-2390       | 253-2530               |
| Fan Qty/Type                             | 1/Vane Axial  | 1/Vane Axial  | —              | 1/Vane Axial   | 1/Vane Axial           |
| Fan Diameter (in.)                       | 16.6          | 16.6          | —              | 16.6           | 16.6                   |
| <b>High Static 3 Phase</b>               |               |               |                |                |                        |
| Motor Qty/Drive Type                     | 1/Direct      | 1/Direct      | —              | 1/Direct       | 1/Direct               |
| Max Cont Bhp                             | 1.07          | 1.96          | —              | 2.43           | 2.43                   |
| Rpm Range                                | 249-2490      | 266-2660      | —              | 284-2836       | 284-2836               |
| Fan Qty/Type                             | 1/Vane Axial  | 1/Vane Axial  | —              | 1/Vane Axial   | 1/Vane Axial           |
| Fan Diameter (in.)                       | 16.6          | 16.6          | —              | 16.6           | 16.6                   |

## 50FCQ Physical Data (cont)

| 50FCQ UNIT                               | 50FCQA04    | 50FCQA05    | 50FCQC05    | 50FCQA06    | 50FCQM07    |
|------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>CONDENSER FAN AND MOTOR (Outdoor)</b> |             |             |             |             |             |
| Qty / Motor Drive Type                   | 1 / Direct  | 1 / Direct  | 1 / Direct  | 1 / Direct  | 1 / Direct  |
| Motor Hp/Rpm                             | 1/4 / 1100  | 1/4 / 1100  | 1/4 / 1100  | 1/4 / 1100  | 1/4 / 1100  |
| Fan Diameter (in.)                       | 23          | 23          | 23          | 23          | 23          |
| <b>FILTERS</b>                           |             |             |             |             |             |
| RA Filter Qty / Size (in.)               | 2 / 16x25x2 | 2 / 16x25x2 | 2 / 16x25x2 | 4 / 16x16x2 | 4 / 16x16x2 |
| OA Inlet Screen Qty / Size (in.)         | 1 / 20x24x1 | 1 / 20x24x1 | 1 / 20x24x1 | 1 / 20x24x1 | 1 / 20x24x1 |

NOTE(S):

- a. Base unit operating weight does not include weight of options.

# Options and accessories



| ITEM                                                                                                                          | FACTORY-<br>INSTALLED<br>OPTION | FIELD-<br>INSTALLED<br>ACCESSORY |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------|
| <b>ELECTRIC HEAT</b>                                                                                                          |                                 |                                  |
| Electric Resistance Heaters                                                                                                   |                                 | X                                |
| Single Point Kits                                                                                                             |                                 | X                                |
| <b>CABINET</b>                                                                                                                |                                 |                                  |
| Thru-the-Base Electrical Connections                                                                                          | X                               | X                                |
| Hinged Access Panels                                                                                                          | X                               |                                  |
| MERV-8 Filters                                                                                                                | X                               |                                  |
| <b>COIL OPTIONS</b>                                                                                                           |                                 |                                  |
| Cu/Cu Indoor and/or Outdoor Coils <sup>a</sup>                                                                                | X                               |                                  |
| Pre-Coated Outdoor Coils <sup>a</sup>                                                                                         | X                               |                                  |
| Premium, E-Coated Outdoor Coils <sup>a</sup>                                                                                  | X                               |                                  |
| <b>CONDENSER PROTECTION</b>                                                                                                   |                                 |                                  |
| Condenser Coil Hail Guard (louvered design) <sup>a</sup>                                                                      | X                               | X                                |
| <b>CONTROLS</b>                                                                                                               |                                 |                                  |
| Thermostats, Temperature Sensors, and Subbases                                                                                |                                 | X                                |
| SystemVu™ DDC Communicating Controller                                                                                        | X                               |                                  |
| RTU Open Multi-Protocol Controller                                                                                            | X                               |                                  |
| Smoke Detector (supply and/or return air)                                                                                     | X                               | X                                |
| Horn Strobe Annunciator <sup>b</sup>                                                                                          |                                 | X                                |
| Time Guard II Compressor Delay Control Circuit                                                                                |                                 | X                                |
| Phase Monitor <sup>a</sup>                                                                                                    | X                               | X                                |
| Condensate Overflow Switch                                                                                                    | X                               | X                                |
| Fan/Filter Status Switch                                                                                                      |                                 | X                                |
| <b>ECONOMIZERS AND OUTDOOR AIR DAMPERS</b>                                                                                    |                                 |                                  |
| EconomizerONE for Electromechanical Controls, complies with FDD (Standard and Ultra Low Leak damper models) <sup>a c, d</sup> | X                               | X                                |
| Wi-Fi Stick for EconomizerONE (optional)                                                                                      |                                 | X                                |
| EconoMi\$er® 2 for DDC Controls (Standard and Ultra Low Leak air damper models) <sup>a, e</sup>                               | X                               | X                                |
| Motorized Two-Position Outdoor-Air Damper <sup>a</sup>                                                                        | X                               | X                                |
| Manual Outdoor-Air Damper (25% and 50%)                                                                                       |                                 | X                                |
| Barometric Relief <sup>f</sup>                                                                                                | X                               | X                                |
| Power Exhaust - prop design                                                                                                   |                                 | X                                |

| ITEM                                                              | FACTORY-<br>INSTALLED<br>OPTION | FIELD-<br>INSTALLED<br>ACCESSORY |
|-------------------------------------------------------------------|---------------------------------|----------------------------------|
| <b>ECONOMIZER SENSORS AND IAQ DEVICES</b>                         |                                 |                                  |
| Single Dry Bulb Temperature Sensors <sup>g</sup>                  | X                               | X                                |
| Differential Dry Bulb Temperature Sensors <sup>g</sup>            |                                 | X                                |
| Single Enthalpy Sensors <sup>g</sup>                              | X                               | X                                |
| Differential Enthalpy Sensors <sup>g</sup>                        |                                 | X                                |
| CO <sub>2</sub> Sensor (wall, duct, or unit mounted) <sup>g</sup> | X                               | X                                |
| <b>INDOOR MOTOR AND DRIVE</b>                                     |                                 |                                  |
| Multiple Motor and Drive Packages                                 | X                               |                                  |
| <b>LOW AMBIENT CONTROL</b>                                        |                                 |                                  |
| Winter Start Kit <sup>h</sup>                                     |                                 | X                                |
| Low Ambient Controller to -20°F (-29°C) <sup>h</sup>              |                                 | X                                |
| <b>POWER OPTIONS</b>                                              |                                 |                                  |
| Convenience Outlet (powered) <sup>a</sup>                         | X                               |                                  |
| Convenience Outlet (unpowered)                                    | X                               | X                                |
| Non-Fused Disconnect <sup>i</sup>                                 | X                               |                                  |
| <b>ROOF CURBS</b>                                                 |                                 |                                  |
| Roof Curb 14 in. (356 mm)                                         |                                 | X                                |
| Roof Curb 24 in. (610 mm)                                         |                                 | X                                |

## NOTE(S):

- Not available on single-phase (-3 voltage code) models. Use field-installed accessory where available.
- Requires a field-supplied 24V transformer for each application. See price pages for details.
- FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
- Available as a factory-installed option for 04-06 models only.
- Models with SystemVu and RTU Open DDC controls comply with California Title 24 Fault Detection and Diagnostic (FDD).
- Included with economizer.
- Sensors used to optimize economizer performance.
- See application data for assistance.
- Non-fused disconnect switch cannot be used when unit electrical rating exceeds:
  - 208-230/1/60 and 208-230/3/60 = 80 amps (FLA).
  - 480/3/60 and 575/3/60 = 80 amps (FLA).
 Carrier RTUBuilder automatically selects the amp limitations.

## Factory-installed options

### Economizer (dry-bulb or enthalpy)

Economizers save money. They bring in fresh, outside air for ventilation and provide cool outside air to cool the building. This is the preferred method of low-ambient cooling. When coupled to CO<sub>2</sub> sensors, economizers can provide even more savings by coupling the ventilation air to only that amount required.

Economizers are available, installed and tested by the factory, with either enthalpy or dry-bulb temperature inputs. Additional sensors are available as accessories to optimize the economizers. Economizers include a powered exhaust system to help equalize building pressures.

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 standard low leak versions. Economizers can be factory-installed or easily field-installed.

### Unit mounted 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. It is also available as a field-installed accessory.

### Smoke detector (supply and/or return air)

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.

### Thru-the-base connections

Thru-the-base connections, available 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 main power lines, as well as control power.

### Hinged access panels

Allows access to unit's major components with specifically designed hinged access panels. Panels are filter, control box access indoor fan motor access.

### Cu/Cu (indoor) coils

Copper fins and copper tubes are mechanically bonded to copper tubes and copper tube sheets. A polymer strip prevents coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.

### E-coated (outdoor and indoor) coils

A flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.

Coating process shall ensure complete coil encapsulation of tubes, fins and headers.

### Pre-coated outdoor coils

A durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. The coating minimizes galvanic action between dissimilar metals. Coating is applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.

### Condenser coil hail guard

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

### Single enthalpy sensor

Prevents the wheel from rotating if the outside air conditions are acceptable for free cooling. Both exhaust and supply blowers will remain on.

### Convenience outlet (powered or un-powered)

Reduce service and/or installation costs by including a convenience outlet in your specification. Carrier will install this service feature at our factory. 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.

The unpowered convenience outlet is available as a 15 amp factory-installed option or a 20 amp field-installed accessory.

### 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 field-installed items such as power exhaust devices, etc. If field installing electric heat with factory-installed non-fused disconnect switch, a single point kit may or may not be required.

### SystemVu™ controller

Carrier's SystemVu controller is an optional factory-installed and tested controller.

This 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 comfort only Carrier is noted for.

*Key features include:*

- Easy to read back lit four 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, space sensor or build automation system.

- 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 capacity for:
  - i-Vu® open systems
  - BACnet systems
  - CCN systems
- Configuration and alarm point capability:
  - Contain over 100 alarm codes
  - Contain over 260 status, troubleshooting, diagnostic and maintenance points
  - Contain over 270 control configuration setpoints

## **RTU Open, multi-protocol controller**

Connect the rooftop to an existing BAS (building automation system) without needing complicated translators or adapter modules using the RTU Open controller. The RTU Open controller speaks the 4 most common building automation system languages (BACnet, Modbus, Johnson Controls N2, and LonWorks). Use this controller when you have an existing BAS. Besides the 4 protocols, it also communicates with a Carrier Open system (i-Vu and VVT®).

## **Condensate overflow switch**

This sensor and related controller monitors the condensate level in the drain pan and shuts down compression operation when overflow conditions occur. It includes:

- Indicator light — solid red (more than 10 seconds on water contact — compressors disabled), blinking red (sensor disconnected)
- 10-second delay to break — eliminates nuisance trips from splashing or waves in pan (sensor needs 10 seconds of constant water contact before tripping)
- Disables the compressor(s) operation when condensate plug is detected, but still allows fans to run for economizer.

## **Power exhaust with barometric relief**

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

## **MERV-8 return air filters**

This factory option upgrades the return air filters from standard unit filters to high efficiency MERV-8 filters. Non-woven MERV-8 filter media with high strength, moisture-resistant frame. Filter media is securely fastened inside the filter frame on all four sides.

## **Field-installed accessories**

### **Condenser coil hail guard**

Sleek, louvered panels protect the condenser coil from hail damage, foreign objects, and incidental contact. This can be purchased as a factory-installed option or as a field-installed accessory.

### **Differential enthalpy sensor**

The differential enthalpy sensor is comprised of an outdoor and return air enthalpy sensors to provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.

### **Wall or duct mounted CO<sub>2</sub> sensor**

The IAQ sensor shall be available in duct or wall mount. The sensor provides demand ventilation indoor air quality (IAQ) control.

### **Phase monitor protection**

The Phase Monitor Control will monitor the sequence of the three-phase electrical system to provide phase reversal protection and monitor the three-phase voltage inputs to provide phase loss protection for the three-phase device. It will work on either a Delta or Wye power connection.

### **Winter start kit**

The winter start kit by Carrier extends the low ambient limit of your rooftop to 25°F (–4°C). The kit bypasses the low pressure switch, preventing nuisance tripping of the low pressure switch. Other low ambient precautions may still be prudent.

### **Low ambient controller**

The low ambient controller is a head pressure controller kit that is designed to maintain the unit's condenser head pressure during periods of low ambient cooling operation. This device should be used as an alternative to economizer free cooling when economizer usage is either not appropriate or desired. The low ambient controller will either cycle the outdoor fan motors or operate them at reduced speed to maintain the unit operation, depending on the model. This controller allows cooling operation down to –20°F (–29°C) ambient conditions.

### **Roof curb (14 in./356 mm or 24 in./610 mm)**

Full perimeter roof curb with exhaust capability provides separate air streams for energy recovery from the exhaust air without supply air contamination.

### **Fan/filter status switch**

Monitors static pressure across supply and exhaust filters and provides indication when filters become clogged.

### **Power exhaust**

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

### **Manual OA damper**

Manual outdoor air dampers are an economical way to bring in ventilation air. The dampers are available in 25% and 50% versions.

NOTE: See application tip “ROOFTOP-18-01” prior to use of this damper on 07 size models.

## Motorized two-position damper

The Carrier two-position, motorized outdoor air damper admits up to 100% outside air. Using reliable, gear-driven technology, the two-position damper opens to allow ventilation air and closes when the rooftop stops, stopping unwanted infiltration.

NOTE: See application tip “ROOFTOP-18-01” prior to use of this damper on 07 size models.

## Electric heaters and single point kits

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

## Time Guard II control circuit

This accessory protects your compressor by preventing short-cycling in the event of some other failure, prevents the compressor from restarting for 30 seconds after stopping. Not required with SystemVu™ controller, RTU Open controller, or authorized commercial thermostats.

## Wi-Fi Stick for EconomizerONE (optional)

The accessory Wi-Fi/WLAN stick can be connected to the EconomizerONE POL224 economizer controller via the

USB host interface. The Wi-Fi stick enables a wireless connection to be made between a smartphone and the economizer controller via the Climatix™<sup>1</sup> mobile application for commissioning, troubleshooting, and maintenance operations. The Wi-Fi stick is required to utilize the mobile application.

## Climatix™ mobile application

The Climatix™ mobile application offers a best-in-class user interface and a simple step-by-step commissioning workflow using a mobile device. The user interface walks users through the setup of the controller and allows users to view the operating mode and parameters. Users can adjust setpoints, initiate damper tests, and save the final configuration as a favorite to expedite setup in the future.

The application is available on Android™<sup>1</sup> and Apple iOS®<sup>1</sup> platforms. The Wi-Fi stick for the EconomizerONE is required to join the Siemens-WiFi-Stick network and setup the controller on a smartphone.

1. Third-party trademarks and logos are the property of their respective owners.

## Options and Accessory Weights<sup>a</sup>

| OPTION / ACCESSORY NAME              | 50FCQ UNIT WEIGHT |    |     |    |     |    |     |    |
|--------------------------------------|-------------------|----|-----|----|-----|----|-----|----|
|                                      | 04                |    | 05  |    | 06  |    | 07  |    |
|                                      | lb                | kg | lb  | kg | lb  | kg | lb  | kg |
| Power Exhaust — Vertical             | 51                | 23 | 51  | 23 | 51  | 23 | 51  | 23 |
| Power Exhaust — Horizontal           | 39                | 18 | 39  | 18 | 39  | 18 | 39  | 18 |
| EconomizerONE or EconoMi\$er® 2      | 51                | 23 | 51  | 23 | 51  | 23 | 51  | 23 |
| Two-Position Damper                  | 39                | 18 | 39  | 18 | 39  | 18 | 58  | 26 |
| Manual Damper                        | 12                | 5  | 12  | 5  | 12  | 5  | 18  | 8  |
| Hail Guard (louvered)                | 13                | 6  | 13  | 6  | 13  | 6  | 17  | 8  |
| Cu/Cu Condenser Coil                 | 37                | 17 | 74  | 34 | 74  | 34 | 95  | 43 |
| Cu/Cu Condenser and Evaporator Coils | 75                | 34 | 112 | 51 | 112 | 51 | 165 | 75 |
| Roof Curb (14 in. curb)              | 95                | 43 | 95  | 43 | 95  | 43 | 95  | 43 |
| Roof Curb (24 in. curb)              | 150               | 68 | 150 | 68 | 150 | 68 | 150 | 68 |
| CO <sub>2</sub> Sensor               | 2                 | 1  | 2   | 1  | 2   | 1  | 2   | 1  |
| Optional Indoor Motor/Drive          | 10                | 5  | 10  | 5  | 10  | 5  | 15  | 7  |
| Low Ambient Controller               | 9                 | 4  | 9   | 4  | 9   | 4  | 9   | 4  |
| Winter Start Kit                     | 5                 | 2  | 5   | 2  | 5   | 2  | 5   | 2  |
| Return Air Smoke Detector            | 7                 | 3  | 7   | 3  | 7   | 3  | 7   | 3  |
| Supply Air Smoke Detector            | 7                 | 3  | 7   | 3  | 7   | 3  | 7   | 3  |
| Fan Filter Switch                    | 2                 | 1  | 2   | 1  | 2   | 1  | 2   | 1  |
| Non-Fused Disconnect                 | 15                | 7  | 15  | 7  | 15  | 7  | 15  | 7  |
| Powered Convenience Outlet           | 36                | 16 | 36  | 16 | 36  | 16 | 36  | 16 |
| Unpowered Convenience Outlet         | 4                 | 2  | 4   | 2  | 4   | 2  | 4   | 2  |
| Enthalpy Sensor                      | 2                 | 1  | 2   | 1  | 2   | 1  | 2   | 1  |
| Differential Enthalpy Sensor         | 3                 | 1  | 3   | 1  | 3   | 1  | 3   | 1  |

NOTE(S):

- a. Where multiple variations are available, the heaviest combination is listed.

# 50FCQ\*04-07 Base 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

| UNIT     | J                | K               |
|----------|------------------|-----------------|
| 50FCQ*04 | 33 3/8<br>[847]  | 7 7/8<br>[200]  |
| 50FCQ*05 | 33 3/8<br>[847]  | 14 7/8<br>[377] |
| 50FCQ*06 | 41 3/8<br>[1051] | 18 5/8<br>[472] |
| 50FCQ*07 | 41 3/8<br>[1051] | 18 5/8<br>[472] |

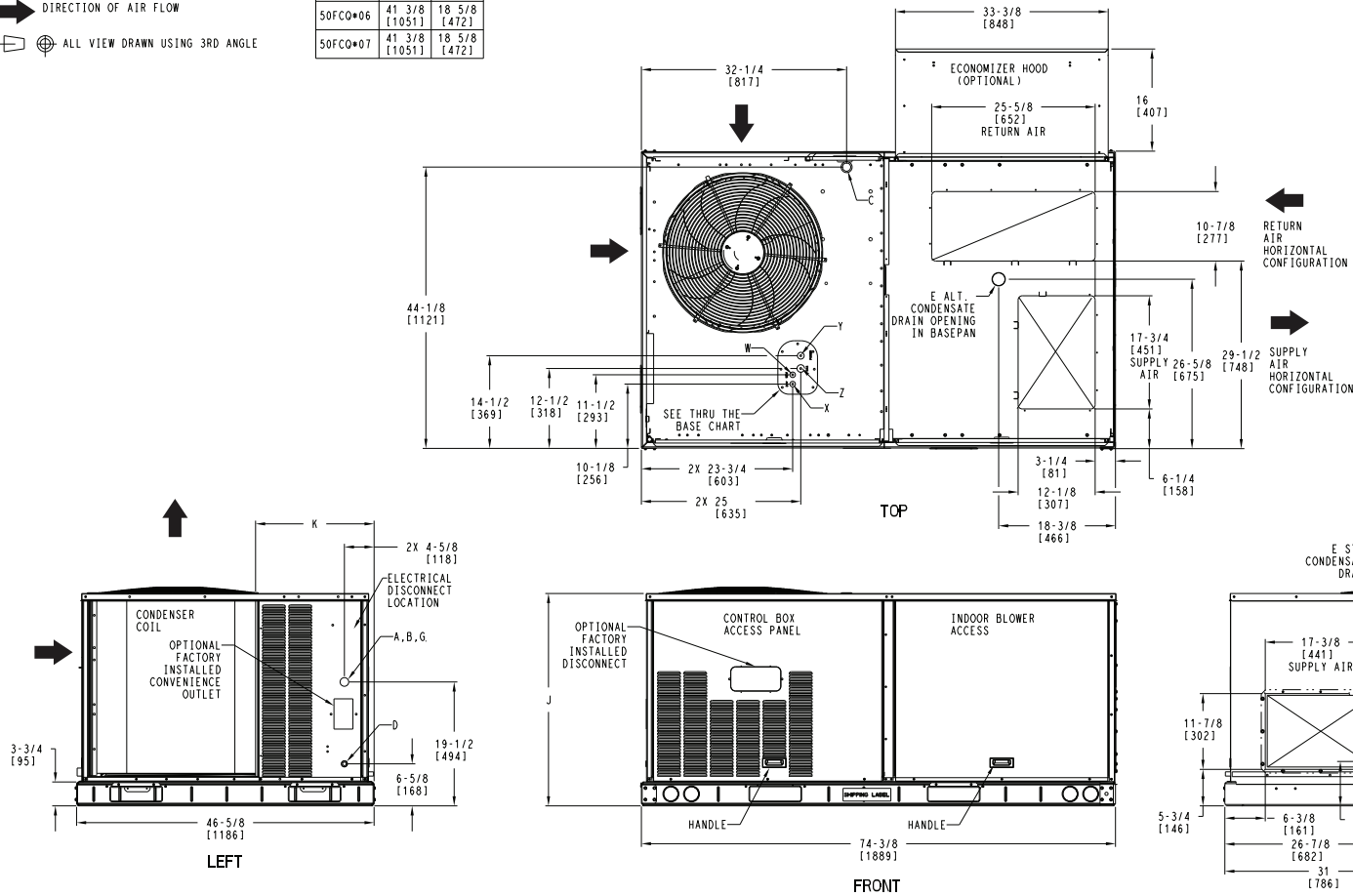


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| CONNECTION SIZES |                                         |
|------------------|-----------------------------------------|
| A                | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE |
| B                | 2" [51] DIA POWER SUPPLY KNOCKOUT       |
| C                | 1 3/4" [44] DIA GAUGE ACCESS PLUG       |
| D                | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
| E                | 3/4"-14 NPT CONDENSATE DRAIN            |
| G                | 2 1/2" [64] DIA POWER SUPPLY KNOCK-OUT  |

| THRU-THE-BASE CHART<br>THESE HOLES REQUIRED FOR USE<br>CRBTMPW008A00, 009A00    |                       |          |                         |
|---------------------------------------------------------------------------------|-----------------------|----------|-------------------------|
|                                                                                 | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
| W                                                                               | 1/2"                  | 115V     | 7/8" [22.2]             |
| X                                                                               | 1/2"                  | 24V      | 7/8" [22.2]             |
| Y *                                                                             | 3/4"                  | POWER    | 1 1/8" [28.6]           |
| **                                                                              | (009A00) 1/2" FPT     | GAS      | 1 1/8" [28.6]           |
| FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X, Y, & Z ARE PROVIDED |                       |          |                         |
| * SELECT EITHER 3/4" OR 1/2" FOR POWER, DEPENDING ON WIRE SIZE                  |                       |          |                         |
| ** (008A00) PROVIDES 3/4" FPT THRU CURB FLANGE & FITTING.                       |                       |          |                         |

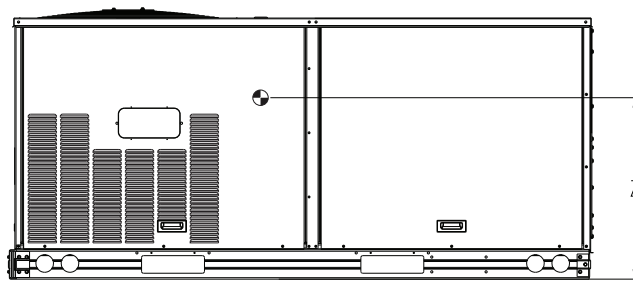
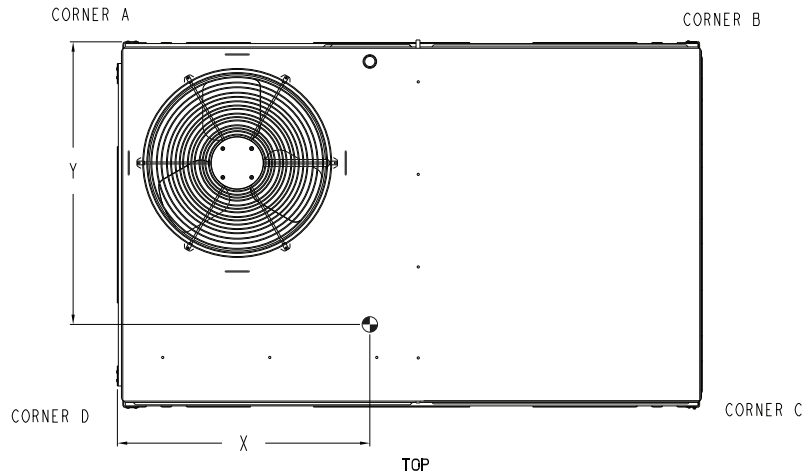


| ITC CLASSIFICATION | SHEET  | DATE     | SUPERCEDES | 50FCQ 04-07 SINGLE PACKAGE HEAT PUMP | 48TC003348 | REV |
|--------------------|--------|----------|------------|--------------------------------------|------------|-----|
| U.S. ECCN: NSR     | 1 OF 3 | 08/15/19 | -          |                                      |            | -   |

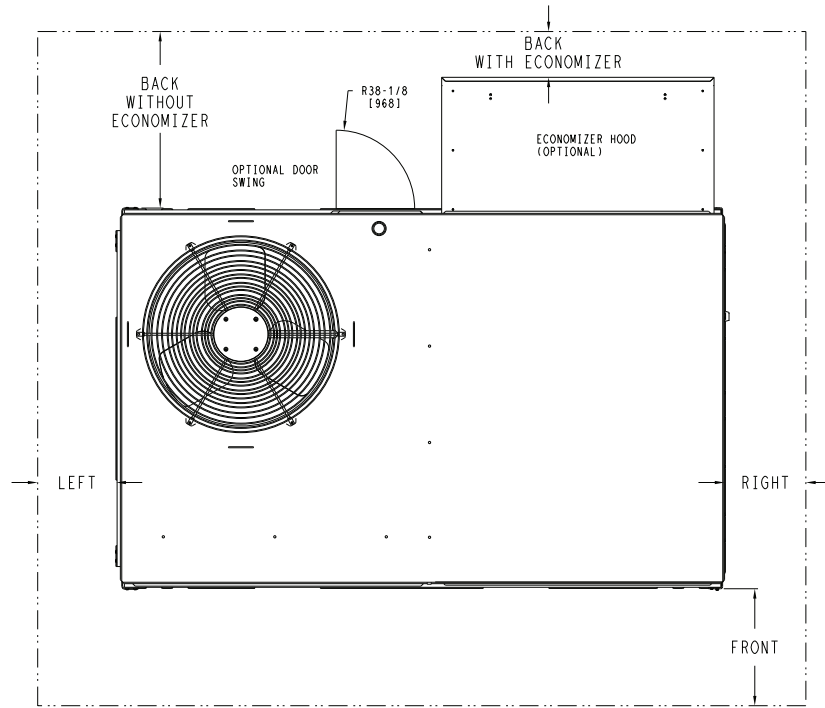
50FCQ\*04-07 Base Unit Dimensions (cont)

| UNIT     | STD. UNIT WEIGHT* |     | CORNER WEIGHT (A) |     | CORNER WEIGHT (B) |     | CORNER WEIGHT (C) |     | CORNER WEIGHT (D) |     | C.G.         |               | HEIGHT       |
|----------|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|--------------|---------------|--------------|
|          | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | LBS.              | KG. | X            | Y             | Z            |
| 50FCQ*04 | 467               | 212 | 126               | 57  | 118               | 53  | 108               | 49  | 115               | 52  | 36 [914]     | 22 3/8 [568]  | 16 1/8 [410] |
| 50FCQ*05 | 473               | 215 | 127               | 58  | 119               | 54  | 110               | 50  | 117               | 53  | 36 [914]     | 22 3/8 [568]  | 16 1/8 [410] |
| 50FCQ*06 | 584               | 265 | 160               | 72  | 145               | 66  | 133               | 60  | 146               | 66  | 35 3/8 [898] | 22 5/16 [557] | 16 1/2 [419] |
| 50FCQ*07 | 589               | 267 | 161               | 73  | 146               | 66  | 134               | 61  | 147               | 67  | 35 3/8 [898] | 22 5/16 [557] | 16 1/2 [419] |

\* STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT AND WITHOUT PACKAGING.  
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



FRONT



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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 | SHEET  | DATE     | SUPERCEDES | 50FCQ 04-07 SINGLE PACKAGE HEAT PUMP | 48TC003348 | REV |
| U.S. ECCN: NSR     | 2 OF 3 | 08/15/19 | -          |                                      |            | -   |

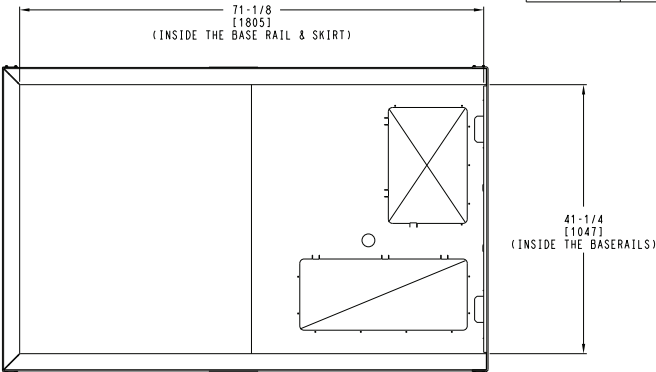
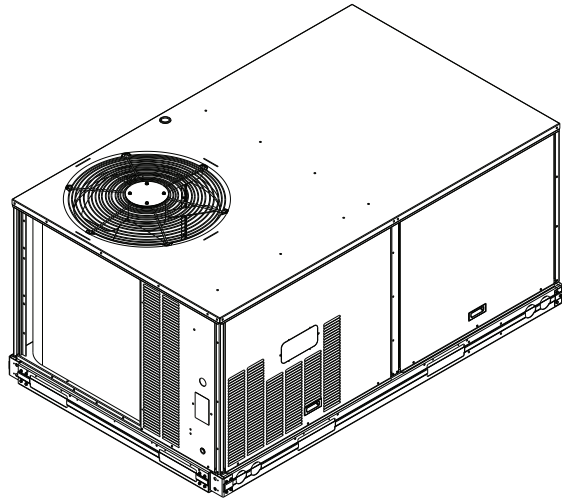


50FCQ\*04-07 Base Unit Dimensions (cont)

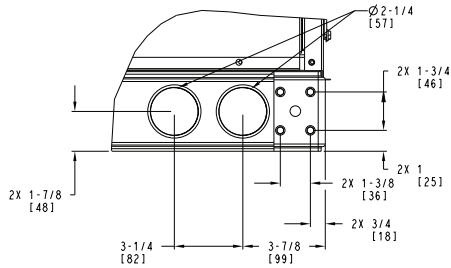
**Carrier**  
United Technologies

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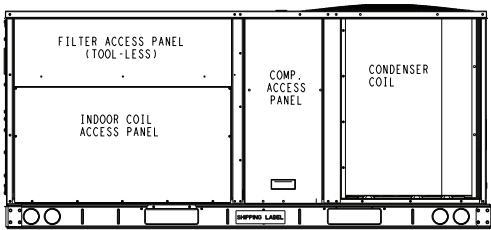
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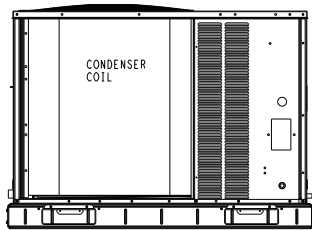
INSIDE BASERAIL DIMENSIONS  
BOTTOM



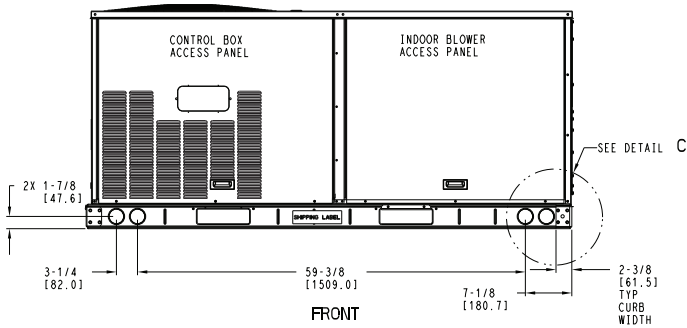
DETAIL C  
TYP 4 PLCS



BACK



LEFT



FRONT

|                    |        |          |            |                                      |            |     |
|--------------------|--------|----------|------------|--------------------------------------|------------|-----|
| ITC CLASSIFICATION | SHEET  | DATE     | SUPERCEDES | 50FCQ 04-07 SINGLE PACKAGE HEAT PUMP | 48TC003348 | REV |
| U.S. ECCN: NSR     | 3 OF 3 | 08/15/19 | -          |                                      |            | -   |

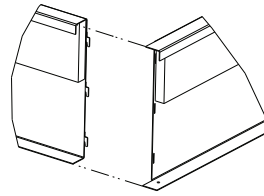
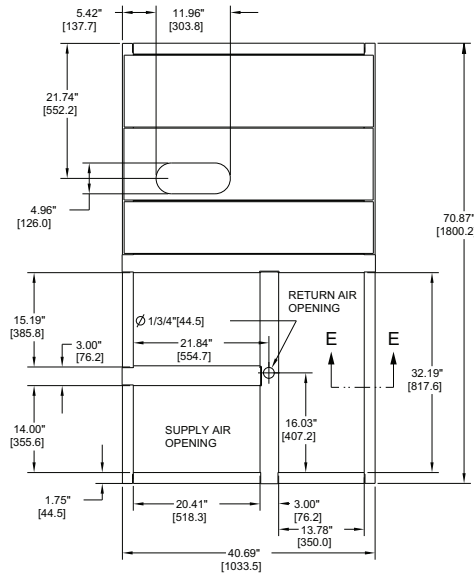


# Roof Curb Dimensions — 50FCQ 04-07

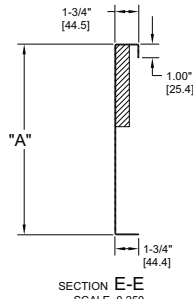
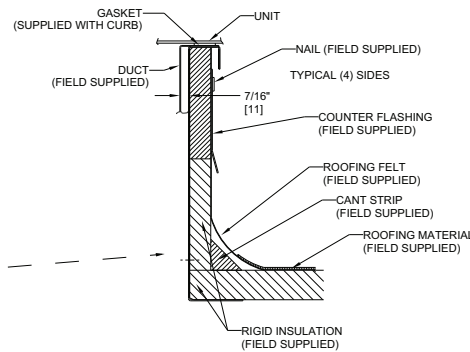
| ROOF CURB ACCESSORY # | A         |
|-----------------------|-----------|
| CRRFCURB001A01        | 14" [356] |
| CRRFCURB002A01        | 24" [610] |

- 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 CRBTMPWR001A01 IS FOR THRU-THE-CURB GAS TYPE PACKAGE CRBTMPWR003A01 IS FOR THRU-THE-BOTTOM TYPE GAS CONNECTIONS.

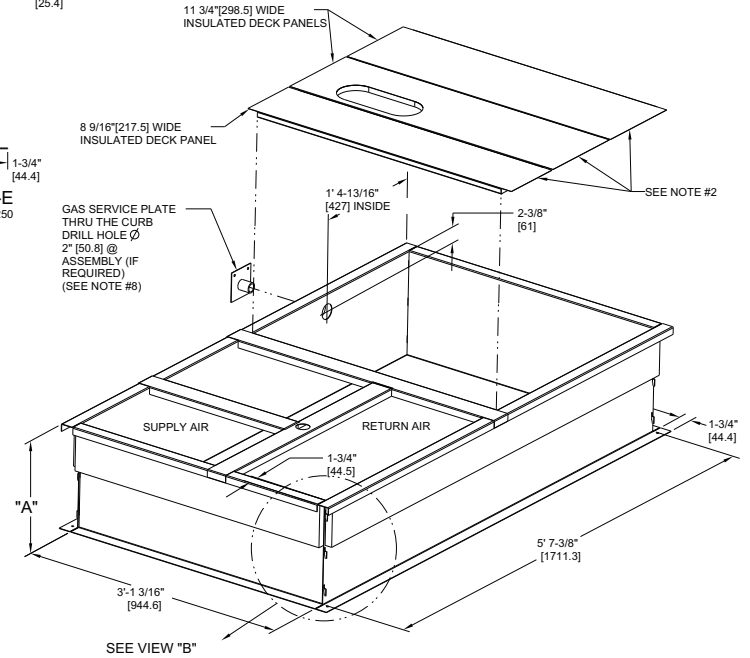
| CONNECTOR PKG. ACC. | GAS CONNECTION TYPE | GAS FITTING     | POWER WIRING FITTING | CONTROL WIRING FITTING | ACCESSORY CONVENIENCE OUTLET WIRING CONNECTOR |
|---------------------|---------------------|-----------------|----------------------|------------------------|-----------------------------------------------|
| CRBTMPWR001A01      | THRU THE CURB       | 3/4" [19] NPT   | 3/4" [19] NPT        | 1/2" [12.7] NPT        | 1/2" [12.7] NPT                               |
| CRBTMPWR003A01      | THRU THE BOTTOM     | 1/2" [12.7] NPT |                      |                        |                                               |



VIEW "B"  
CORNER DETAIL



SECTION E-E  
SCALE 0.250



CERTIFIED DRAWING

A OVERALL DIM. 5'-7 3/8" WAS 5'-7 7/8; 18GA MATERIAL WA 16 GA.; NAIL FIELD SUPPLIED WAS WITH CURB

REV REVISION RECORD

DATE 04/22/13  
BY MMC  
CHKD  
APPD  
ECN NO. 1067898

|                                        |  |                            |  |
|----------------------------------------|--|----------------------------|--|
| DRAWING RELEASE LEVEL: PRODUCTION      |  | TITLE: CURB ASY, ROOF      |  |
| THIRD ANGLE PROJECTION                 |  | SIZE: D                    |  |
| MATERIAL: -                            |  | DRAWING NUMBER: 48TC400427 |  |
| ENGINEERING REQUIREMENTS: T-005, Y-002 |  | REV: B                     |  |
| WEIGHT: -                              |  | SHEET 5 OF 5               |  |
| SURFACE FINISH: -                      |  | NEXT DRAWING: -            |  |
| MFG/PURCH: PURCH                       |  | SCALE: N/A                 |  |
| MODEL: (INTERNAL USE ONLY)             |  | DISTRIBUTION: MMC          |  |

## 50FCQA04 Single Stage Cooling Capacities<sup>a</sup>

| 50FCQA04    |            |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|------------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |            |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |            |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |            |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 900<br>cfm  | EA<br>(wb) | 58 | TC  | 30.8                    | 30.8 | 34.8 | 28.8    | 28.8 | 32.6 | 26.6    | 26.6 | 30.2 | 24.2    | 24.2 | 27.5 |
|             |            |    | SHC | 26.7                    | 30.8 | 34.8 | 24.9    | 28.8 | 32.6 | 23.0    | 26.6 | 30.2 | 20.9    | 24.2 | 27.5 |
|             |            | 62 | TC  | 33.0                    | 33.0 | 33.9 | 30.2    | 30.2 | 32.4 | 27.3    | 27.3 | 30.8 | 24.3    | 24.3 | 28.7 |
|             |            |    | SHC | 24.6                    | 29.2 | 33.9 | 23.1    | 27.8 | 32.4 | 21.6    | 26.2 | 30.8 | 19.8    | 24.3 | 28.7 |
|             |            | 67 | TC  | 37.4                    | 37.4 | 37.4 | 34.7    | 34.7 | 34.7 | 31.5    | 31.5 | 31.5 | 28.2    | 28.2 | 28.2 |
|             |            |    | SHC | 20.6                    | 25.2 | 29.8 | 19.4    | 24.0 | 28.6 | 17.8    | 22.5 | 27.1 | 16.3    | 20.9 | 25.5 |
|             |            | 72 | TC  | 40.3                    | 40.3 | 40.3 | 38.7    | 38.7 | 38.7 | 36.1    | 36.1 | 36.1 | 32.9    | 32.9 | 32.9 |
|             |            |    | SHC | 15.8                    | 20.2 | 24.5 | 15.0    | 19.5 | 24.0 | 13.9    | 18.4 | 23.0 | 12.5    | 17.0 | 21.6 |
|             |            | 76 | TC  | —                       | 41.4 | 41.4 | —       | 40.4 | 40.4 | —       | 38.5 | 38.5 | —       | 35.9 | 35.9 |
|             |            |    | SHC | —                       | 16.2 | 21.0 | —       | 15.5 | 20.1 | —       | 14.6 | 19.1 | —       | 13.5 | 17.9 |
| 1050<br>cfm | EA<br>(wb) | 58 | TC  | 33.0                    | 33.0 | 37.3 | 30.7    | 30.7 | 34.8 | 28.4    | 28.4 | 32.2 | 25.9    | 25.9 | 29.5 |
|             |            |    | SHC | 28.6                    | 33.0 | 37.3 | 26.7    | 30.7 | 34.8 | 24.6    | 28.4 | 32.2 | 22.4    | 25.9 | 29.5 |
|             |            | 62 | TC  | 34.4                    | 34.4 | 37.4 | 31.4    | 31.4 | 35.7 | 29.0    | 29.0 | 32.2 | 26.0    | 26.0 | 30.7 |
|             |            |    | SHC | 26.8                    | 32.1 | 37.4 | 25.2    | 30.4 | 35.7 | 22.8    | 27.5 | 32.2 | 21.2    | 26.0 | 30.7 |
|             |            | 67 | TC  | 38.5                    | 38.5 | 38.5 | 36.0    | 36.0 | 36.0 | 32.8    | 32.8 | 32.8 | 29.2    | 29.2 | 29.2 |
|             |            |    | SHC | 21.9                    | 27.1 | 32.3 | 20.8    | 26.1 | 31.4 | 19.3    | 24.6 | 29.9 | 17.7    | 23.0 | 28.3 |
|             |            | 72 | TC  | 40.7                    | 40.7 | 40.7 | 39.4    | 39.4 | 39.4 | 37.1    | 37.1 | 37.1 | 33.9    | 33.9 | 33.9 |
|             |            |    | SHC | 16.1                    | 20.9 | 25.7 | 15.5    | 20.5 | 25.5 | 14.4    | 19.6 | 24.8 | 13.1    | 18.4 | 23.6 |
|             |            | 76 | TC  | —                       | 41.7 | 41.7 | —       | 40.8 | 40.8 | —       | 39.0 | 39.0 | —       | 36.5 | 36.5 |
|             |            |    | SHC | —                       | 16.5 | 21.6 | —       | 15.9 | 20.9 | —       | 15.1 | 20.0 | —       | 14.0 | 19.0 |
| 1200<br>cfm | EA<br>(wb) | 58 | TC  | 34.9                    | 34.9 | 39.5 | 32.6    | 32.6 | 36.9 | 30.1    | 30.1 | 34.1 | 27.4    | 27.4 | 31.2 |
|             |            |    | SHC | 30.3                    | 34.9 | 39.5 | 28.3    | 32.6 | 36.9 | 26.0    | 30.1 | 34.1 | 23.7    | 27.4 | 31.2 |
|             |            | 62 | TC  | 35.5                    | 35.5 | 40.5 | 32.6    | 32.6 | 38.4 | 30.1    | 30.1 | 35.5 | 27.5    | 27.5 | 32.4 |
|             |            |    | SHC | 28.7                    | 34.6 | 40.5 | 26.9    | 32.6 | 38.4 | 24.7    | 30.1 | 35.5 | 22.5    | 27.5 | 32.4 |
|             |            | 67 | TC  | 39.2                    | 39.2 | 39.2 | 37.0    | 37.0 | 37.0 | 33.8    | 33.8 | 33.8 | 30.1    | 30.1 | 30.9 |
|             |            |    | SHC | 22.9                    | 28.6 | 34.3 | 22.0    | 27.9 | 33.9 | 20.6    | 26.6 | 32.6 | 19.0    | 25.0 | 30.9 |
|             |            | 72 | TC  | 41.1                    | 41.1 | 41.1 | 39.9    | 39.9 | 39.9 | 37.7    | 37.7 | 37.7 | 34.7    | 34.7 | 34.7 |
|             |            |    | SHC | 16.4                    | 21.5 | 26.6 | 15.8    | 21.3 | 26.7 | 14.9    | 20.6 | 26.3 | 13.6    | 19.5 | 25.4 |
|             |            | 76 | TC  | —                       | 41.9 | 41.9 | —       | 41.1 | 41.1 | —       | 39.4 | 39.4 | —       | 36.9 | 36.9 |
|             |            |    | SHC | —                       | 16.8 | 22.2 | —       | 16.3 | 21.6 | —       | 15.5 | 20.9 | —       | 14.5 | 19.9 |
| 1350<br>cfm | EA<br>(wb) | 58 | TC  | 36.4                    | 36.4 | 41.2 | 34.2    | 34.2 | 38.7 | 31.5    | 31.5 | 35.7 | 28.7    | 28.7 | 32.6 |
|             |            |    | SHC | 31.7                    | 36.4 | 41.2 | 29.7    | 34.2 | 38.7 | 27.3    | 31.5 | 35.7 | 24.9    | 28.7 | 32.6 |
|             |            | 62 | TC  | 36.5                    | 36.5 | 42.9 | 34.2    | 34.2 | 40.2 | 31.6    | 31.6 | 37.2 | 28.8    | 28.8 | 34.0 |
|             |            |    | SHC | 30.2                    | 36.5 | 42.9 | 28.2    | 34.2 | 40.2 | 26.0    | 31.6 | 37.2 | 23.6    | 28.8 | 34.0 |
|             |            | 67 | TC  | 39.7                    | 39.7 | 39.7 | 37.7    | 37.7 | 37.7 | 34.6    | 34.6 | 35.2 | 30.8    | 30.8 | 33.5 |
|             |            |    | SHC | 23.7                    | 29.9 | 36.1 | 23.1    | 29.6 | 36.1 | 21.9    | 28.5 | 35.2 | 20.2    | 26.9 | 33.5 |
|             |            | 72 | TC  | 41.3                    | 41.3 | 41.3 | 40.2    | 40.2 | 40.2 | 38.1    | 38.1 | 38.1 | 35.2    | 35.2 | 35.2 |
|             |            |    | SHC | 16.6                    | 22.0 | 27.5 | 16.1    | 21.9 | 27.8 | 15.2    | 21.4 | 27.6 | 14.1    | 20.5 | 27.0 |
|             |            | 76 | TC  | —                       | 42.0 | 42.0 | —       | 41.3 | 41.3 | —       | 39.6 | 39.6 | —       | 37.1 | 37.1 |
|             |            |    | SHC | —                       | 17.0 | 22.7 | —       | 16.5 | 22.2 | —       | 15.8 | 21.6 | —       | 14.8 | 20.8 |
| 1500<br>cfm | EA<br>(wb) | 58 | TC  | 37.6                    | 37.6 | 42.5 | 35.5    | 35.5 | 40.1 | 32.8    | 32.8 | 37.2 | 29.9    | 29.9 | 33.9 |
|             |            |    | SHC | 32.8                    | 37.6 | 42.5 | 30.8    | 35.5 | 40.1 | 28.5    | 32.8 | 37.2 | 25.9    | 29.9 | 33.9 |
|             |            | 62 | TC  | 37.7                    | 37.7 | 44.2 | 35.5    | 35.5 | 41.7 | 32.9    | 32.9 | 38.7 | 29.9    | 29.9 | 35.3 |
|             |            |    | SHC | 31.1                    | 37.7 | 44.2 | 29.3    | 35.5 | 41.7 | 27.1    | 32.9 | 38.7 | 24.6    | 29.9 | 35.3 |
|             |            | 67 | TC  | 40.0                    | 40.0 | 40.0 | 38.2    | 38.2 | 38.2 | 35.2    | 35.2 | 37.5 | 31.4    | 31.4 | 35.9 |
|             |            |    | SHC | 24.4                    | 31.0 | 37.6 | 24.1    | 31.1 | 38.2 | 23.0    | 30.2 | 37.5 | 21.4    | 28.7 | 35.9 |
|             |            | 72 | TC  | 41.4                    | 41.4 | 41.4 | 40.4    | 40.4 | 40.4 | 38.4    | 38.4 | 38.4 | 35.6    | 35.6 | 35.6 |
|             |            |    | SHC | 16.7                    | 22.4 | 28.2 | 16.3    | 22.5 | 28.8 | 15.5    | 22.2 | 28.8 | 14.5    | 21.4 | 28.4 |
|             |            | 76 | TC  | —                       | 42.1 | 42.1 | —       | 41.5 | 41.5 | —       | 39.8 | 39.8 | —       | 37.3 | 37.3 |
|             |            |    | SHC | —                       | 17.2 | 23.1 | —       | 16.8 | 22.8 | —       | 16.1 | 22.2 | —       | 15.2 | 21.5 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

|         |                                          |
|---------|------------------------------------------|
| —       | Do Not Operate                           |
| cfm     | Cubic Feet Per Minute (Supply Air)       |
| EA (db) | Entering Air Temperature (dry bulb)      |
| EA (wb) | Entering Air Temperature (wet bulb)      |
| SHC     | Sensible Heat Capacity (1000 Btuh) Gross |
| TC      | Total Capacity (1000 Btuh) Gross         |

## 50FCQC05 Single Stage Cooling Capacities — 1 Phase<sup>a</sup>

| 50FCQC05    |            |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|------------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |            |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |            |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |            |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 1200<br>cfm | EA<br>(wb) | 58 | TC  | 43.4                    | 43.4 | 48.9 | 41.2    | 41.2 | 46.4 | 38.7    | 38.7 | 43.6 | 36.0    | 36.0 | 40.5 |
|             |            |    | SHC | 37.9                    | 43.4 | 48.9 | 36.0    | 41.2 | 46.4 | 33.8    | 38.7 | 43.6 | 31.5    | 36.0 | 40.5 |
|             |            | 62 | TC  | 45.7                    | 45.7 | 46.6 | 43.1    | 43.1 | 45.5 | 39.8    | 39.8 | 43.9 | 36.1    | 36.1 | 41.8 |
|             |            |    | SHC | 34.4                    | 40.5 | 46.6 | 33.2    | 39.4 | 45.5 | 31.7    | 37.8 | 43.9 | 29.9    | 35.8 | 41.8 |
|             |            | 67 | TC  | 50.7                    | 50.7 | 50.7 | 48.1    | 48.1 | 48.1 | 45.0    | 45.0 | 45.0 | 41.1    | 41.1 | 41.1 |
|             |            |    | SHC | 28.5                    | 34.5 | 40.5 | 27.4    | 33.5 | 39.5 | 26.2    | 32.3 | 38.4 | 24.7    | 30.8 | 36.9 |
|             |            | 72 | TC  | 55.5                    | 55.5 | 55.5 | 53.1    | 53.1 | 53.1 | 50.2    | 50.2 | 50.2 | 46.6    | 46.6 | 46.6 |
|             |            |    | SHC | 22.3                    | 28.1 | 33.8 | 21.4    | 27.2 | 33.0 | 20.3    | 26.2 | 32.1 | 19.0    | 24.9 | 30.9 |
|             |            | 76 | TC  | —                       | 58.9 | 58.9 | —       | 56.4 | 56.4 | —       | 53.6 | 53.6 | —       | 50.6 | 50.6 |
|             |            |    | SHC | —                       | 22.7 | 29.3 | —       | 21.8 | 28.4 | —       | 21.0 | 26.3 | —       | 20.1 | 25.6 |
| 1400<br>cfm | EA<br>(wb) | 58 | TC  | 45.9                    | 45.9 | 51.7 | 43.8    | 43.8 | 49.4 | 41.2    | 41.2 | 46.3 | 38.3    | 38.3 | 43.1 |
|             |            |    | SHC | 40.1                    | 45.9 | 51.7 | 38.3    | 43.8 | 49.4 | 36.0    | 41.2 | 46.3 | 33.5    | 38.3 | 43.1 |
|             |            | 62 | TC  | 47.3                    | 47.3 | 51.1 | 44.6    | 44.6 | 49.8 | 41.1    | 41.1 | 48.1 | 38.5    | 38.5 | 44.4 |
|             |            |    | SHC | 37.1                    | 44.1 | 51.1 | 35.9    | 42.8 | 49.8 | 34.2    | 41.1 | 48.1 | 31.7    | 38.1 | 44.4 |
|             |            | 67 | TC  | 52.2                    | 52.2 | 52.2 | 49.6    | 49.6 | 49.6 | 46.4    | 46.4 | 46.4 | 42.4    | 42.4 | 42.4 |
|             |            |    | SHC | 30.1                    | 37.0 | 43.9 | 29.1    | 36.1 | 43.0 | 27.9    | 34.9 | 41.9 | 26.4    | 33.4 | 40.5 |
|             |            | 72 | TC  | 56.8                    | 56.8 | 56.8 | 54.3    | 54.3 | 54.3 | 51.4    | 51.4 | 51.4 | 47.9    | 47.9 | 47.9 |
|             |            |    | SHC | 22.9                    | 29.5 | 36.1 | 22.0    | 28.7 | 35.4 | 20.9    | 27.7 | 34.6 | 19.7    | 26.6 | 33.5 |
|             |            | 76 | TC  | —                       | 59.9 | 59.9 | —       | 57.5 | 57.5 | —       | 54.6 | 54.6 | —       | 51.4 | 51.4 |
|             |            |    | SHC | —                       | 23.3 | 29.0 | —       | 22.6 | 28.7 | —       | 21.7 | 28.1 | —       | 20.7 | 27.3 |
| 1600<br>cfm | EA<br>(wb) | 58 | TC  | 48.1                    | 48.1 | 54.2 | 45.9    | 45.9 | 51.6 | 43.2    | 43.2 | 48.6 | 40.2    | 40.2 | 45.3 |
|             |            |    | SHC | 42.0                    | 48.1 | 54.2 | 40.1    | 45.9 | 51.6 | 37.7    | 43.2 | 48.6 | 35.2    | 40.2 | 45.3 |
|             |            | 62 | TC  | 48.7                    | 48.7 | 55.1 | 46.2    | 46.2 | 51.8 | 43.2    | 43.2 | 50.5 | 40.3    | 40.3 | 47.0 |
|             |            |    | SHC | 39.5                    | 47.3 | 55.1 | 37.3    | 44.6 | 51.8 | 36.0    | 43.2 | 50.5 | 33.5    | 40.3 | 47.0 |
|             |            | 67 | TC  | 53.4                    | 53.4 | 53.4 | 50.6    | 50.6 | 50.6 | 47.5    | 47.5 | 47.5 | 43.3    | 43.3 | 44.0 |
|             |            |    | SHC | 31.6                    | 39.4 | 47.1 | 30.6    | 38.4 | 46.2 | 29.5    | 37.5 | 45.4 | 28.0    | 36.0 | 44.0 |
|             |            | 72 | TC  | 57.7                    | 57.7 | 57.7 | 55.2    | 55.2 | 55.2 | 52.3    | 52.3 | 52.3 | 48.8    | 48.8 | 48.8 |
|             |            |    | SHC | 23.3                    | 30.7 | 38.1 | 22.4    | 30.0 | 37.5 | 21.4    | 29.1 | 36.7 | 20.3    | 28.1 | 35.9 |
|             |            | 76 | TC  | —                       | 60.8 | 60.8 | —       | 58.2 | 58.2 | —       | 55.3 | 55.3 | —       | 52.1 | 52.1 |
|             |            |    | SHC | —                       | 23.9 | 30.7 | —       | 23.1 | 30.2 | —       | 22.2 | 29.5 | —       | 21.3 | 28.7 |
| 1800<br>cfm | EA<br>(wb) | 58 | TC  | 49.8                    | 49.8 | 56.1 | 47.7    | 47.7 | 53.7 | 45.0    | 45.0 | 50.7 | 41.8    | 41.8 | 47.1 |
|             |            |    | SHC | 43.5                    | 49.8 | 56.1 | 41.6    | 47.7 | 53.7 | 39.3    | 45.0 | 50.7 | 36.5    | 41.8 | 47.1 |
|             |            | 62 | TC  | 50.4                    | 50.4 | 57.2 | 47.7    | 47.7 | 55.6 | 45.1    | 45.1 | 52.7 | 41.8    | 41.8 | 48.9 |
|             |            |    | SHC | 41.0                    | 49.1 | 57.2 | 39.6    | 47.6 | 55.6 | 37.5    | 45.1 | 52.7 | 34.8    | 41.8 | 48.9 |
|             |            | 67 | TC  | 54.3                    | 54.3 | 54.3 | 51.6    | 51.6 | 51.6 | 48.4    | 48.4 | 48.6 | 44.0    | 44.0 | 47.2 |
|             |            |    | SHC | 33.0                    | 41.5 | 50.1 | 32.1    | 40.8 | 49.4 | 31.0    | 39.8 | 48.6 | 29.5    | 38.4 | 47.2 |
|             |            | 72 | TC  | 58.5                    | 58.5 | 58.5 | 55.9    | 55.9 | 55.9 | 52.9    | 52.9 | 52.9 | 49.5    | 49.5 | 49.5 |
|             |            |    | SHC | 23.7                    | 31.8 | 40.0 | 22.8    | 31.1 | 39.5 | 21.8    | 30.3 | 38.7 | 20.8    | 29.4 | 38.0 |
|             |            | 76 | TC  | —                       | 61.5 | 61.5 | —       | 58.9 | 58.9 | —       | 55.8 | 55.8 | —       | 52.5 | 52.5 |
|             |            |    | SHC | —                       | 24.4 | 32.2 | —       | 23.6 | 31.5 | —       | 22.7 | 30.8 | —       | 21.7 | 30.0 |
| 2000<br>cfm | EA<br>(wb) | 58 | TC  | 51.3                    | 51.3 | 57.8 | 49.1    | 49.1 | 55.3 | 46.5    | 46.5 | 52.4 | 43.1    | 43.1 | 48.6 |
|             |            |    | SHC | 44.8                    | 51.3 | 57.8 | 42.9    | 49.1 | 55.3 | 40.7    | 46.5 | 52.4 | 37.7    | 43.1 | 48.6 |
|             |            | 62 | TC  | 51.8                    | 51.8 | 58.6 | 49.2    | 49.2 | 57.4 | 46.6    | 46.6 | 54.4 | 43.2    | 43.2 | 50.5 |
|             |            |    | SHC | 42.0                    | 50.3 | 58.6 | 40.9    | 49.2 | 57.4 | 38.7    | 46.6 | 54.4 | 35.9    | 43.2 | 50.5 |
|             |            | 67 | TC  | 54.9                    | 54.9 | 54.9 | 52.2    | 52.2 | 52.4 | 49.0    | 49.0 | 51.6 | 44.7    | 44.7 | 50.4 |
|             |            |    | SHC | 34.2                    | 43.5 | 52.9 | 33.4    | 42.9 | 52.4 | 32.4    | 42.0 | 51.6 | 31.0    | 40.7 | 50.4 |
|             |            | 72 | TC  | 59.0                    | 59.0 | 59.0 | 56.4    | 56.4 | 56.4 | 53.4    | 53.4 | 53.4 | 50.0    | 50.0 | 50.0 |
|             |            |    | SHC | 24.0                    | 32.9 | 41.8 | 23.1    | 32.2 | 41.3 | 22.2    | 31.4 | 40.6 | 21.2    | 30.6 | 40.0 |
|             |            | 76 | TC  | —                       | 61.9 | 61.9 | —       | 59.3 | 59.3 | —       | 56.3 | 56.3 | —       | 52.9 | 52.9 |
|             |            |    | SHC | —                       | 24.7 | 33.3 | —       | 24.0 | 32.7 | —       | 23.1 | 32.0 | —       | 22.1 | 31.1 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

|         |                                          |
|---------|------------------------------------------|
| —       | Do Not Operate                           |
| cfm     | Cubic Feet Per Minute (Supply Air)       |
| EA (db) | Entering Air Temperature (dry bulb)      |
| EA (wb) | Entering Air Temperature (wet bulb)      |
| SHC     | Sensible Heat Capacity (1000 Btuh) Gross |
| TC      | Total Capacity (1000 Btuh) Gross         |

## 50FCQA05 Single Stage Cooling Capacities — 3 Phase<sup>a</sup>

| 50FCQA05    |         |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|---------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |         |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |         |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |         |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 1200<br>cfm | EA (wb) | 58 | TC  | 42.2                    | 42.2 | 47.7 | 39.8    | 39.8 | 45.0 | 37.1    | 37.1 | 42.0 | 34.1    | 34.1 | 38.6 |
|             |         |    | SHC | 36.7                    | 42.2 | 47.7 | 34.6    | 39.8 | 45.0 | 32.2    | 37.1 | 42.0 | 29.6    | 34.1 | 38.6 |
|             |         | 62 | TC  | 44.9                    | 44.9 | 45.7 | 41.6    | 41.6 | 44.1 | 38.1    | 38.1 | 42.3 | 34.2    | 34.2 | 40.1 |
|             |         |    | SHC | 33.6                    | 39.6 | 45.7 | 31.9    | 38.0 | 44.1 | 30.2    | 36.3 | 42.3 | 28.1    | 34.1 | 40.1 |
|             |         | 67 | TC  | 50.1                    | 50.1 | 50.1 | 47.1    | 47.1 | 47.1 | 43.3    | 43.3 | 43.3 | 39.3    | 39.3 | 39.3 |
|             |         |    | SHC | 27.9                    | 33.9 | 39.8 | 26.5    | 32.5 | 38.5 | 24.8    | 30.9 | 36.9 | 23.1    | 29.2 | 35.3 |
|             |         | 72 | TC  | 55.1                    | 55.1 | 55.1 | 52.4    | 52.4 | 52.4 | 49.1    | 49.1 | 49.1 | 44.8    | 44.8 | 44.8 |
|             |         |    | SHC | 22.0                    | 27.7 | 33.4 | 20.8    | 26.6 | 32.4 | 19.4    | 25.3 | 31.1 | 17.7    | 23.6 | 29.5 |
|             |         | 76 | TC  | —                       | 58.7 | 58.7 | —       | 56.0 | 56.0 | —       | 53.1 | 53.1 | —       | 49.5 | 49.5 |
|             |         |    | SHC | —                       | 22.6 | 29.2 | —       | 21.5 | 28.1 | —       | 20.5 | 25.6 | —       | 19.0 | 24.2 |
| 1400<br>cfm | EA (wb) | 58 | TC  | 45.1                    | 45.1 | 50.9 | 42.4    | 42.4 | 47.9 | 39.6    | 39.6 | 44.8 | 36.4    | 36.4 | 41.2 |
|             |         |    | SHC | 39.3                    | 45.1 | 50.9 | 36.9    | 42.4 | 47.9 | 34.4    | 39.6 | 44.8 | 31.7    | 36.4 | 41.2 |
|             |         | 62 | TC  | 46.7                    | 46.7 | 50.3 | 43.2    | 43.2 | 48.5 | 40.3    | 40.3 | 43.9 | 36.9    | 36.9 | 41.6 |
|             |         |    | SHC | 36.4                    | 43.4 | 50.3 | 34.6    | 41.5 | 48.5 | 31.5    | 37.7 | 43.9 | 29.5    | 35.6 | 41.6 |
|             |         | 67 | TC  | 51.7                    | 51.7 | 51.7 | 48.7    | 48.7 | 48.7 | 44.8    | 44.8 | 44.8 | 40.5    | 40.5 | 40.5 |
|             |         |    | SHC | 29.6                    | 36.5 | 43.3 | 28.4    | 35.3 | 42.3 | 26.7    | 33.7 | 40.7 | 24.9    | 31.9 | 39.0 |
|             |         | 72 | TC  | 56.5                    | 56.5 | 56.5 | 53.7    | 53.7 | 53.7 | 50.5    | 50.5 | 50.5 | 46.3    | 46.3 | 46.3 |
|             |         |    | SHC | 22.7                    | 29.3 | 35.9 | 21.5    | 28.2 | 35.0 | 20.2    | 27.0 | 33.9 | 18.5    | 25.4 | 32.3 |
|             |         | 76 | TC  | —                       | 59.9 | 59.9 | —       | 57.2 | 57.2 | —       | 54.1 | 54.1 | —       | 50.7 | 50.7 |
|             |         |    | SHC | —                       | 23.4 | 28.8 | —       | 22.4 | 28.5 | —       | 21.3 | 27.7 | —       | 20.0 | 26.6 |
| 1600<br>cfm | EA (wb) | 58 | TC  | 47.3                    | 47.3 | 53.4 | 44.6    | 44.6 | 50.4 | 41.6    | 41.6 | 47.0 | 38.4    | 38.4 | 43.4 |
|             |         |    | SHC | 41.2                    | 47.3 | 53.4 | 38.8    | 44.6 | 50.4 | 36.2    | 41.6 | 47.0 | 33.4    | 38.4 | 43.4 |
|             |         | 62 | TC  | 48.1                    | 48.1 | 54.4 | 44.9    | 44.9 | 51.8 | 41.9    | 41.9 | 47.9 | 38.4    | 38.4 | 45.2 |
|             |         |    | SHC | 38.8                    | 46.6 | 54.4 | 36.7    | 44.2 | 51.8 | 33.9    | 40.9 | 47.9 | 31.7    | 38.4 | 45.2 |
|             |         | 67 | TC  | 52.9                    | 52.9 | 52.9 | 49.9    | 49.9 | 49.9 | 46.0    | 46.0 | 46.0 | 41.5    | 41.5 | 42.5 |
|             |         |    | SHC | 31.2                    | 38.9 | 46.7 | 30.0    | 37.8 | 45.7 | 28.4    | 36.4 | 44.3 | 26.6    | 34.5 | 42.5 |
|             |         | 72 | TC  | 57.5                    | 57.5 | 57.5 | 54.8    | 54.8 | 54.8 | 51.5    | 51.5 | 51.5 | 47.3    | 47.3 | 47.3 |
|             |         |    | SHC | 23.3                    | 30.7 | 38.1 | 22.1    | 29.7 | 37.2 | 20.9    | 28.6 | 36.3 | 19.3    | 27.1 | 34.9 |
|             |         | 76 | TC  | —                       | 60.9 | 60.9 | —       | 58.1 | 58.1 | —       | 55.0 | 55.0 | —       | 51.5 | 51.5 |
|             |         |    | SHC | —                       | 24.1 | 30.9 | —       | 23.1 | 30.2 | —       | 22.0 | 29.3 | —       | 20.9 | 28.4 |
| 1800<br>cfm | EA (wb) | 58 | TC  | 49.2                    | 49.2 | 55.5 | 46.7    | 46.7 | 52.7 | 43.4    | 43.4 | 49.0 | 40.0    | 40.0 | 45.3 |
|             |         |    | SHC | 42.9                    | 49.2 | 55.5 | 40.6    | 46.7 | 52.7 | 37.7    | 43.4 | 49.0 | 34.8    | 40.0 | 45.3 |
|             |         | 62 | TC  | 49.7                    | 49.7 | 56.9 | 47.1    | 47.1 | 53.1 | 43.4    | 43.4 | 50.9 | 40.1    | 40.1 | 47.1 |
|             |         |    | SHC | 40.5                    | 48.7 | 56.9 | 37.9    | 45.5 | 53.1 | 35.9    | 43.4 | 50.9 | 33.1    | 40.1 | 47.1 |
|             |         | 67 | TC  | 53.8                    | 53.8 | 53.8 | 50.8    | 50.8 | 50.8 | 46.9    | 46.9 | 47.7 | 42.3    | 42.3 | 45.8 |
|             |         |    | SHC | 32.6                    | 41.2 | 49.7 | 31.5    | 40.2 | 48.9 | 30.0    | 38.8 | 47.7 | 28.1    | 36.9 | 45.8 |
|             |         | 72 | TC  | 58.3                    | 58.3 | 58.3 | 55.5    | 55.5 | 55.5 | 52.3    | 52.3 | 52.3 | 48.1    | 48.1 | 48.1 |
|             |         |    | SHC | 23.8                    | 32.0 | 40.2 | 22.7    | 31.0 | 39.3 | 21.5    | 30.0 | 38.5 | 19.9    | 28.6 | 37.3 |
|             |         | 76 | TC  | —                       | 61.6 | 61.6 | —       | 58.8 | 58.8 | —       | 55.6 | 55.6 | —       | 52.1 | 52.1 |
|             |         |    | SHC | —                       | 24.8 | 32.6 | —       | 23.8 | 31.7 | —       | 22.7 | 30.8 | —       | 21.6 | 30.0 |
| 2000<br>cfm | EA (wb) | 58 | TC  | 50.7                    | 50.7 | 57.2 | 48.3    | 48.3 | 54.5 | 44.9    | 44.9 | 50.8 | 41.4    | 41.4 | 46.8 |
|             |         |    | SHC | 44.2                    | 50.7 | 57.2 | 42.0    | 48.3 | 54.5 | 39.1    | 44.9 | 50.8 | 36.0    | 41.4 | 46.8 |
|             |         | 62 | TC  | 51.5                    | 51.5 | 57.5 | 48.3    | 48.3 | 56.6 | 45.0    | 45.0 | 52.8 | 41.5    | 41.5 | 48.7 |
|             |         |    | SHC | 41.2                    | 49.3 | 57.5 | 40.0    | 48.3 | 56.6 | 37.2    | 45.0 | 52.8 | 34.3    | 41.5 | 48.7 |
|             |         | 67 | TC  | 54.6                    | 54.6 | 54.6 | 51.6    | 51.6 | 51.9 | 47.7    | 47.7 | 50.9 | 43.0    | 43.0 | 49.0 |
|             |         |    | SHC | 33.9                    | 43.2 | 52.5 | 32.9    | 42.4 | 51.9 | 31.5    | 41.2 | 50.9 | 29.6    | 39.3 | 49.0 |
|             |         | 72 | TC  | 59.0                    | 59.0 | 59.0 | 56.1    | 56.1 | 56.1 | 52.9    | 52.9 | 52.9 | 48.7    | 48.7 | 48.7 |
|             |         |    | SHC | 24.3                    | 33.2 | 42.1 | 23.2    | 32.3 | 41.3 | 22.0    | 31.3 | 40.6 | 20.6    | 30.1 | 39.7 |
|             |         | 76 | TC  | —                       | 62.1 | 62.1 | —       | 59.3 | 59.3 | —       | 56.0 | 56.0 | —       | 52.6 | 52.6 |
|             |         |    | SHC | —                       | 25.5 | 34.1 | —       | 24.5 | 33.2 | —       | 23.3 | 32.2 | —       | 22.3 | 31.4 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

|         |                                          |
|---------|------------------------------------------|
| —       | Do Not Operate                           |
| cfm     | Cubic Feet Per Minute (Supply Air)       |
| EA (db) | Entering Air Temperature (dry bulb)      |
| EA (wb) | Entering Air Temperature (wet bulb)      |
| SHC     | Sensible Heat Capacity (1000 Btuh) Gross |
| TC      | Total Capacity (1000 Btuh) Gross         |

## 50FCQA06 Single Stage Cooling Capacities<sup>a</sup>

| 50FCQA06    |            |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|------------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |            |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |            |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |            |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 1500<br>cfm | EA<br>(wb) | 58 | TC  | 53.2                    | 53.2 | 60.1 | 49.8    | 49.8 | 56.3 | 46.2    | 46.2 | 52.3 | 42.4    | 42.4 | 48.0 |
|             |            |    | SHC | 46.3                    | 53.2 | 60.1 | 43.3    | 49.8 | 56.3 | 40.1    | 46.2 | 52.3 | 36.7    | 42.4 | 48.0 |
|             |            | 62 | TC  | 55.6                    | 55.6 | 58.8 | 51.3    | 51.3 | 56.7 | 46.4    | 46.4 | 54.2 | 42.4    | 42.4 | 50.0 |
|             |            |    | SHC | 42.6                    | 50.7 | 58.8 | 40.4    | 48.6 | 56.7 | 38.0    | 46.1 | 54.2 | 34.9    | 42.4 | 50.0 |
|             |            | 67 | TC  | 62.7                    | 62.7 | 62.7 | 58.2    | 58.2 | 58.2 | 53.5    | 53.5 | 53.5 | 48.1    | 48.1 | 48.1 |
|             |            |    | SHC | 35.4                    | 43.4 | 51.5 | 33.3    | 41.4 | 49.5 | 31.2    | 39.3 | 47.4 | 28.9    | 37.0 | 45.1 |
|             |            | 72 | TC  | 67.7                    | 67.7 | 67.7 | 64.7    | 64.7 | 64.7 | 60.8    | 60.8 | 60.8 | 55.3    | 55.3 | 55.3 |
|             |            |    | SHC | 27.0                    | 34.6 | 42.2 | 25.6    | 33.4 | 41.2 | 24.0    | 32.0 | 40.0 | 21.7    | 29.8 | 37.9 |
|             |            | 76 | TC  | —                       | 73.5 | 73.5 | —       | 69.7 | 69.7 | —       | 66.0 | 66.0 | —       | 61.5 | 61.5 |
|             |            |    | SHC | —                       | 28.5 | 35.0 | —       | 27.0 | 34.1 | —       | 25.5 | 33.1 | —       | 23.9 | 31.7 |
| 1800<br>cfm | EA<br>(wb) | 58 | TC  | 56.9                    | 56.9 | 64.2 | 53.4    | 53.4 | 60.4 | 49.6    | 49.6 | 56.1 | 45.4    | 45.4 | 51.4 |
|             |            |    | SHC | 49.5                    | 56.9 | 64.2 | 46.5    | 53.4 | 60.4 | 43.1    | 49.6 | 56.1 | 39.4    | 45.4 | 51.4 |
|             |            | 62 | TC  | 57.8                    | 57.8 | 65.3 | 53.7    | 53.7 | 62.3 | 49.7    | 49.7 | 58.4 | 45.5    | 45.5 | 53.5 |
|             |            |    | SHC | 46.5                    | 55.9 | 65.3 | 44.0    | 53.1 | 62.3 | 41.0    | 49.7 | 58.4 | 37.4    | 45.5 | 53.5 |
|             |            | 67 | TC  | 64.1                    | 64.1 | 64.1 | 60.3    | 60.3 | 60.3 | 55.3    | 55.3 | 55.3 | 49.9    | 49.9 | 50.3 |
|             |            |    | SHC | 37.4                    | 46.6 | 55.8 | 35.9    | 45.3 | 54.7 | 33.7    | 43.1 | 52.5 | 31.4    | 40.8 | 50.3 |
|             |            | 72 | TC  | 70.2                    | 70.2 | 70.2 | 66.8    | 66.8 | 66.8 | 62.6    | 62.6 | 62.6 | 57.2    | 57.2 | 57.2 |
|             |            |    | SHC | 28.2                    | 37.2 | 46.2 | 26.8    | 35.9 | 45.0 | 25.1    | 34.4 | 43.8 | 22.9    | 32.3 | 41.7 |
|             |            | 76 | TC  | —                       | 75.8 | 75.8 | —       | 72.1 | 72.1 | —       | 67.9 | 67.9 | —       | 63.1 | 63.1 |
|             |            |    | SHC | —                       | 29.9 | 38.6 | —       | 28.5 | 37.3 | —       | 27.0 | 35.9 | —       | 25.2 | 34.4 |
| 2100<br>cfm | EA<br>(wb) | 58 | TC  | 60.0                    | 60.0 | 67.7 | 56.3    | 56.3 | 63.7 | 52.5    | 52.5 | 59.3 | 48.2    | 48.2 | 54.5 |
|             |            |    | SHC | 52.2                    | 60.0 | 67.7 | 49.0    | 56.3 | 63.7 | 45.6    | 52.5 | 59.3 | 41.8    | 48.2 | 54.5 |
|             |            | 62 | TC  | 60.1                    | 60.1 | 70.4 | 56.4    | 56.4 | 66.2 | 52.5    | 52.5 | 61.7 | 48.2    | 48.2 | 56.8 |
|             |            |    | SHC | 49.7                    | 60.1 | 70.4 | 46.6    | 56.4 | 66.2 | 43.4    | 52.5 | 61.7 | 39.7    | 48.2 | 56.8 |
|             |            | 67 | TC  | 65.7                    | 65.7 | 65.7 | 61.9    | 61.9 | 61.9 | 56.6    | 56.6 | 57.5 | 51.2    | 51.2 | 55.2 |
|             |            |    | SHC | 39.7                    | 50.1 | 60.6 | 38.3    | 49.0 | 59.7 | 36.0    | 46.8 | 57.5 | 33.8    | 44.5 | 55.2 |
|             |            | 72 | TC  | 72.0                    | 72.0 | 72.0 | 68.6    | 68.6 | 68.6 | 64.1    | 64.1 | 64.1 | 58.5    | 58.5 | 58.5 |
|             |            |    | SHC | 29.3                    | 39.6 | 49.9 | 27.9    | 38.3 | 48.7 | 26.1    | 36.8 | 47.4 | 24.0    | 34.6 | 45.3 |
|             |            | 76 | TC  | —                       | 77.0 | 77.0 | —       | 73.3 | 73.3 | —       | 69.1 | 69.1 | —       | 64.2 | 64.2 |
|             |            |    | SHC | —                       | 31.0 | 40.9 | —       | 29.6 | 39.7 | —       | 28.1 | 38.3 | —       | 26.4 | 36.9 |
| 2400<br>cfm | EA<br>(wb) | 58 | TC  | 62.7                    | 62.7 | 70.8 | 58.9    | 58.9 | 66.5 | 54.8    | 54.8 | 61.9 | 50.5    | 50.5 | 57.1 |
|             |            |    | SHC | 54.6                    | 62.7 | 70.8 | 51.2    | 58.9 | 66.5 | 47.6    | 54.8 | 61.9 | 43.8    | 50.5 | 57.1 |
|             |            | 62 | TC  | 62.8                    | 62.8 | 73.6 | 58.9    | 58.9 | 69.2 | 54.9    | 54.9 | 64.4 | 50.5    | 50.5 | 59.4 |
|             |            |    | SHC | 52.0                    | 62.8 | 73.6 | 48.7    | 58.9 | 69.2 | 45.3    | 54.9 | 64.4 | 41.7    | 50.5 | 59.4 |
|             |            | 67 | TC  | 67.3                    | 67.3 | 67.3 | 63.2    | 63.2 | 64.5 | 57.8    | 57.8 | 62.3 | 52.2    | 52.2 | 60.0 |
|             |            |    | SHC | 42.1                    | 53.8 | 65.6 | 40.5    | 52.5 | 64.5 | 38.3    | 50.3 | 62.3 | 36.0    | 48.0 | 60.0 |
|             |            | 72 | TC  | 73.5                    | 73.5 | 73.5 | 69.7    | 69.7 | 69.7 | 65.2    | 65.2 | 65.2 | 59.5    | 59.5 | 59.5 |
|             |            |    | SHC | 30.3                    | 41.8 | 53.3 | 28.8    | 40.4 | 52.0 | 27.1    | 38.9 | 50.8 | 24.9    | 36.9 | 48.9 |
|             |            | 76 | TC  | —                       | 78.1 | 78.1 | —       | 74.2 | 74.2 | —       | 69.9 | 69.9 | —       | 65.1 | 65.1 |
|             |            |    | SHC | —                       | 32.1 | 43.2 | —       | 30.7 | 41.9 | —       | 29.1 | 40.5 | —       | 27.5 | 39.2 |
| 2700<br>cfm | EA<br>(wb) | 58 | TC  | 64.6                    | 64.6 | 72.9 | 61.0    | 61.0 | 69.0 | 56.8    | 56.8 | 64.2 | 52.3    | 52.3 | 59.2 |
|             |            |    | SHC | 56.3                    | 64.6 | 72.9 | 53.1    | 61.0 | 69.0 | 49.4    | 56.8 | 64.2 | 45.4    | 52.3 | 59.2 |
|             |            | 62 | TC  | 64.4                    | 64.4 | 75.5 | 61.1    | 61.1 | 71.7 | 56.8    | 56.8 | 66.7 | 52.4    | 52.4 | 61.6 |
|             |            |    | SHC | 53.4                    | 64.4 | 75.5 | 50.5    | 61.1 | 71.7 | 46.9    | 56.8 | 66.7 | 43.2    | 52.4 | 61.6 |
|             |            | 67 | TC  | 68.3                    | 68.3 | 70.0 | 64.2    | 64.2 | 69.1 | 58.8    | 58.8 | 67.1 | 53.1    | 53.1 | 64.6 |
|             |            |    | SHC | 44.1                    | 57.1 | 70.0 | 42.7    | 55.9 | 69.1 | 40.5    | 53.8 | 67.1 | 38.1    | 51.4 | 64.6 |
|             |            | 72 | TC  | 74.3                    | 74.3 | 74.3 | 70.5    | 70.5 | 70.5 | 66.1    | 66.1 | 66.1 | 60.3    | 60.3 | 60.3 |
|             |            |    | SHC | 31.1                    | 43.8 | 56.5 | 29.6    | 42.4 | 55.2 | 27.9    | 41.0 | 54.1 | 25.8    | 39.1 | 52.3 |
|             |            | 76 | TC  | —                       | 78.9 | 78.9 | —       | 74.9 | 74.9 | —       | 70.6 | 70.6 | —       | 65.8 | 65.8 |
|             |            |    | SHC | —                       | 33.0 | 45.2 | —       | 31.7 | 44.1 | —       | 30.1 | 42.7 | —       | 28.6 | 41.5 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

— Do Not Operate  
 cfm Cubic Feet Per Minute (Supply Air)  
 EA (db) Entering Air Temperature (dry bulb)  
 EA (wb) Entering Air Temperature (wet bulb)  
 SHC Sensible Heat Capacity (1000 Btuh) Gross  
 TC Total Capacity (1000 Btuh) Gross

## 50FCQM07 High Stage Cooling Capacities<sup>a</sup>

| 50FCQM07    |            |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|------------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |            |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |            |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |            |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 1800<br>cfm | EA<br>(wb) | 58 | TC  | 65.7                    | 65.7 | 74.1 | 62.9    | 62.9 | 71.0 | 59.9    | 59.9 | 67.7 | 56.7    | 56.7 | 64.1 |
|             |            |    | SHC | 57.2                    | 65.7 | 74.1 | 54.8    | 62.9 | 71.0 | 52.2    | 59.9 | 67.7 | 49.4    | 56.7 | 64.1 |
|             |            | 62 | TC  | 68.3                    | 68.3 | 71.8 | 64.8    | 64.8 | 70.0 | 61.0    | 61.0 | 68.2 | 57.0    | 57.0 | 66.2 |
|             |            |    | SHC | 52.3                    | 62.0 | 71.8 | 50.5    | 60.3 | 70.0 | 48.7    | 58.5 | 68.2 | 46.7    | 56.5 | 66.2 |
|             |            | 67 | TC  | 75.2                    | 75.2 | 75.2 | 71.4    | 71.4 | 71.4 | 67.4    | 67.4 | 67.4 | 63.1    | 63.1 | 63.1 |
|             |            |    | SHC | 42.9                    | 52.6 | 62.3 | 41.2    | 50.9 | 60.6 | 39.4    | 49.1 | 58.8 | 37.5    | 47.2 | 57.0 |
|             |            | 72 | TC  | 81.1                    | 81.1 | 81.1 | 78.4    | 78.4 | 78.4 | 74.4    | 74.4 | 74.4 | 69.7    | 69.7 | 69.7 |
|             |            |    | SHC | 32.6                    | 41.7 | 50.9 | 31.5    | 41.0 | 50.6 | 29.9    | 39.5 | 49.2 | 28.0    | 37.7 | 47.4 |
|             |            | 76 | TC  | —                       | 87.4 | 87.4 | —       | 84.0 | 84.0 | —       | 80.2 | 80.2 | —       | 75.4 | 75.4 |
|             |            |    | SHC | —                       | 34.2 | 41.9 | —       | 32.9 | 41.6 | —       | 31.6 | 40.8 | —       | 29.9 | 39.3 |
| 2100<br>cfm | EA<br>(wb) | 58 | TC  | 69.4                    | 69.4 | 78.3 | 66.4    | 66.4 | 75.0 | 63.2    | 63.2 | 71.4 | 59.8    | 59.8 | 67.5 |
|             |            |    | SHC | 60.5                    | 69.4 | 78.3 | 57.9    | 66.4 | 75.0 | 55.1    | 63.2 | 71.4 | 52.1    | 59.8 | 67.5 |
|             |            | 62 | TC  | 70.5                    | 70.5 | 79.3 | 66.8    | 66.8 | 77.3 | 63.3    | 63.3 | 74.1 | 59.9    | 59.9 | 70.2 |
|             |            |    | SHC | 56.7                    | 68.0 | 79.3 | 54.8    | 66.1 | 77.3 | 52.4    | 63.2 | 74.1 | 49.5    | 59.9 | 70.2 |
|             |            | 67 | TC  | 77.5                    | 77.5 | 77.5 | 73.5    | 73.5 | 73.5 | 69.2    | 69.2 | 69.2 | 64.7    | 64.7 | 64.7 |
|             |            |    | SHC | 45.7                    | 57.0 | 68.3 | 44.0    | 55.3 | 66.6 | 42.2    | 53.5 | 64.8 | 40.3    | 51.6 | 62.9 |
|             |            | 72 | TC  | 84.1                    | 84.1 | 84.1 | 80.8    | 80.8 | 80.8 | 76.2    | 76.2 | 76.2 | 71.4    | 71.4 | 71.4 |
|             |            |    | SHC | 34.1                    | 45.0 | 55.8 | 32.9    | 44.1 | 55.3 | 31.1    | 42.3 | 53.6 | 29.2    | 40.5 | 51.7 |
|             |            | 76 | TC  | —                       | 90.5 | 90.5 | —       | 86.7 | 86.7 | —       | 82.3 | 82.3 | —       | 77.1 | 77.1 |
|             |            |    | SHC | —                       | 36.1 | 46.4 | —       | 34.7 | 45.3 | —       | 33.2 | 44.2 | —       | 31.4 | 42.5 |
| 2400<br>cfm | EA<br>(wb) | 58 | TC  | 72.6                    | 72.6 | 81.9 | 69.4    | 69.4 | 78.3 | 66.0    | 66.0 | 74.5 | 62.4    | 62.4 | 70.4 |
|             |            |    | SHC | 63.3                    | 72.6 | 81.9 | 60.5    | 69.4 | 78.3 | 57.5    | 66.0 | 74.5 | 54.3    | 62.4 | 70.4 |
|             |            | 62 | TC  | 73.7                    | 73.7 | 82.3 | 69.7    | 69.7 | 81.6 | 66.1    | 66.1 | 77.4 | 62.4    | 62.4 | 73.2 |
|             |            |    | SHC | 59.0                    | 70.7 | 82.3 | 57.7    | 69.6 | 81.6 | 54.7    | 66.1 | 77.4 | 51.7    | 62.4 | 73.2 |
|             |            | 67 | TC  | 79.2                    | 79.2 | 79.2 | 75.0    | 75.0 | 75.0 | 70.6    | 70.6 | 70.6 | 65.9    | 65.9 | 68.7 |
|             |            |    | SHC | 48.5                    | 61.3 | 74.2 | 46.7    | 59.6 | 72.4 | 44.9    | 57.7 | 70.6 | 42.9    | 55.8 | 68.7 |
|             |            | 72 | TC  | 86.3                    | 86.3 | 86.3 | 82.4    | 82.4 | 82.4 | 77.7    | 77.7 | 77.7 | 72.7    | 72.7 | 72.7 |
|             |            |    | SHC | 35.5                    | 48.0 | 60.5 | 34.0    | 46.8 | 59.6 | 32.2    | 45.0 | 57.8 | 30.3    | 43.2 | 56.0 |
|             |            | 76 | TC  | —                       | 92.8 | 92.8 | —       | 88.7 | 88.7 | —       | 83.8 | 83.8 | —       | 78.5 | 78.5 |
|             |            |    | SHC | —                       | 37.7 | 49.7 | —       | 36.3 | 48.7 | —       | 34.7 | 47.2 | —       | 32.9 | 45.5 |
| 2700<br>cfm | EA<br>(wb) | 58 | TC  | 75.3                    | 75.3 | 84.9 | 71.9    | 71.9 | 81.1 | 68.3    | 68.3 | 77.1 | 64.5    | 64.5 | 72.8 |
|             |            |    | SHC | 65.6                    | 75.3 | 84.9 | 62.7    | 71.9 | 81.1 | 59.5    | 68.3 | 77.1 | 56.2    | 64.5 | 72.8 |
|             |            | 62 | TC  | 75.3                    | 75.3 | 88.2 | 72.0    | 72.0 | 84.3 | 68.4    | 68.4 | 80.2 | 64.6    | 64.6 | 75.7 |
|             |            |    | SHC | 62.5                    | 75.3 | 88.2 | 59.7    | 72.0 | 84.3 | 56.7    | 68.4 | 80.2 | 53.5    | 64.6 | 75.7 |
|             |            | 67 | TC  | 80.5                    | 80.5 | 80.5 | 76.2    | 76.2 | 78.2 | 71.6    | 71.6 | 76.3 | 66.8    | 66.8 | 74.3 |
|             |            |    | SHC | 51.1                    | 65.5 | 79.9 | 49.3    | 63.7 | 78.2 | 47.5    | 61.9 | 76.3 | 45.5    | 59.9 | 74.3 |
|             |            | 72 | TC  | 88.3                    | 88.3 | 88.3 | 83.7    | 83.7 | 83.7 | 78.8    | 78.8 | 78.8 | 73.6    | 73.6 | 73.6 |
|             |            |    | SHC | 36.9                    | 51.2 | 65.5 | 35.1    | 49.5 | 63.8 | 33.3    | 47.6 | 62.0 | 31.4    | 45.8 | 60.1 |
|             |            | 76 | TC  | —                       | 94.7 | 94.7 | —       | 90.1 | 90.1 | —       | 85.0 | 85.0 | —       | 79.5 | 79.5 |
|             |            |    | SHC | —                       | 39.3 | 53.0 | —       | 37.8 | 51.9 | —       | 36.1 | 50.2 | —       | 34.2 | 48.4 |
| 3000<br>cfm | EA<br>(wb) | 58 | TC  | 77.5                    | 77.5 | 87.4 | 74.0    | 74.0 | 83.5 | 70.3    | 70.3 | 79.3 | 66.3    | 66.3 | 74.9 |
|             |            |    | SHC | 67.6                    | 77.5 | 87.4 | 64.6    | 74.0 | 83.5 | 61.3    | 70.3 | 79.3 | 57.8    | 66.3 | 74.9 |
|             |            | 62 | TC  | 77.6                    | 77.6 | 90.9 | 74.1    | 74.1 | 86.8 | 70.4    | 70.4 | 82.5 | 66.4    | 66.4 | 77.8 |
|             |            |    | SHC | 64.4                    | 77.6 | 90.9 | 61.4    | 74.1 | 86.8 | 58.3    | 70.4 | 82.5 | 55.0    | 66.4 | 77.8 |
|             |            | 67 | TC  | 81.5                    | 81.5 | 85.6 | 77.1    | 77.1 | 83.7 | 72.5    | 72.5 | 81.8 | 67.6    | 67.6 | 79.8 |
|             |            |    | SHC | 53.7                    | 69.6 | 85.6 | 51.9    | 67.8 | 83.7 | 50.0    | 65.9 | 81.8 | 48.0    | 63.9 | 79.8 |
|             |            | 72 | TC  | 89.4                    | 89.4 | 89.4 | 84.7    | 84.7 | 84.7 | 79.7    | 79.7 | 79.7 | 74.4    | 74.4 | 74.4 |
|             |            |    | SHC | 37.9                    | 53.8 | 69.6 | 36.2    | 52.0 | 67.9 | 34.3    | 50.2 | 66.1 | 32.4    | 48.3 | 64.2 |
|             |            | 76 | TC  | —                       | 96.1 | 96.1 | —       | 91.2 | 91.2 | —       | 85.9 | 85.9 | —       | 80.3 | 80.3 |
|             |            |    | SHC | —                       | 40.8 | 56.3 | —       | 39.2 | 54.8 | —       | 37.4 | 53.1 | —       | 35.6 | 51.3 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

|         |                                          |
|---------|------------------------------------------|
| —       | Do Not Operate                           |
| cfm     | Cubic Feet Per Minute (Supply Air)       |
| EA (db) | Entering Air Temperature (dry bulb)      |
| EA (wb) | Entering Air Temperature (wet bulb)      |
| SHC     | Sensible Heat Capacity (1000 Btuh) Gross |
| TC      | Total Capacity (1000 Btuh) Gross         |

## 50FCQM07 Low Stage Cooling Capacities<sup>a</sup>

| 50FCQM07    |            |    |     | AMBIENT TEMPERATURE (F) |      |      |         |      |      |         |      |      |         |      |      |
|-------------|------------|----|-----|-------------------------|------|------|---------|------|------|---------|------|------|---------|------|------|
|             |            |    |     | 85                      |      |      | 95      |      |      | 105     |      |      | 115     |      |      |
|             |            |    |     | EA (db)                 |      |      | EA (db) |      |      | EA (db) |      |      | EA (db) |      |      |
|             |            |    |     | 75                      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   | 75      | 80   | 85   |
| 1500<br>cfm | EA<br>(wb) | 58 | TC  | 49.6                    | 49.6 | 56.1 | 47.3    | 47.3 | 53.5 | 44.6    | 44.6 | 50.5 | 41.7    | 41.7 | 47.2 |
|             |            |    | SHC | 43.1                    | 49.6 | 56.1 | 41.0    | 47.3 | 53.5 | 38.7    | 44.6 | 50.5 | 36.1    | 41.7 | 47.2 |
|             |            | 62 | TC  | 50.8                    | 50.8 | 56.3 | 47.8    | 47.8 | 54.8 | 45.2    | 45.2 | 51.4 | 41.7    | 41.7 | 49.2 |
|             |            |    | SHC | 40.2                    | 48.3 | 56.3 | 38.6    | 46.7 | 54.8 | 36.3    | 43.9 | 51.4 | 34.3    | 41.7 | 49.2 |
|             |            | 67 | TC  | 56.6                    | 56.6 | 56.6 | 53.3    | 53.3 | 53.3 | 49.7    | 49.7 | 49.7 | 45.8    | 45.8 | 45.8 |
|             |            |    | SHC | 32.6                    | 40.7 | 48.8 | 31.1    | 39.2 | 47.3 | 29.5    | 37.6 | 45.7 | 27.8    | 35.9 | 44.0 |
|             |            | 72 | TC  | 61.9                    | 61.9 | 61.9 | 59.2    | 59.2 | 59.2 | 55.7    | 55.7 | 55.7 | 51.5    | 51.5 | 51.5 |
|             |            |    | SHC | 24.4                    | 32.1 | 39.7 | 23.3    | 31.2 | 39.1 | 21.9    | 29.9 | 37.9 | 20.2    | 28.2 | 36.3 |
|             |            | 76 | TC  | —                       | 67.3 | 67.3 | —       | 64.3 | 64.3 | —       | 60.7 | 60.7 | —       | 56.3 | 56.3 |
|             |            |    | SHC | —                       | 26.0 | 32.9 | —       | 24.9 | 32.3 | —       | 23.6 | 31.3 | —       | 22.0 | 29.8 |
| 1750<br>cfm | EA<br>(wb) | 58 | TC  | 52.9                    | 52.9 | 59.8 | 50.3    | 50.3 | 56.9 | 47.4    | 47.4 | 53.7 | 44.2    | 44.2 | 50.1 |
|             |            |    | SHC | 45.9                    | 52.9 | 59.8 | 43.6    | 50.3 | 56.9 | 41.1    | 47.4 | 53.7 | 38.3    | 44.2 | 50.1 |
|             |            | 62 | TC  | 53.0                    | 53.0 | 61.9 | 50.3    | 50.3 | 59.2 | 47.4    | 47.4 | 55.9 | 44.2    | 44.2 | 52.2 |
|             |            |    | SHC | 43.5                    | 52.7 | 61.9 | 41.4    | 50.3 | 59.2 | 39.0    | 47.4 | 55.9 | 36.3    | 44.2 | 52.2 |
|             |            | 67 | TC  | 58.3                    | 58.3 | 58.3 | 54.8    | 54.8 | 54.8 | 51.0    | 51.0 | 51.3 | 46.9    | 46.9 | 49.5 |
|             |            |    | SHC | 35.1                    | 44.8 | 54.4 | 33.6    | 43.2 | 52.9 | 31.9    | 41.6 | 51.3 | 30.2    | 39.9 | 49.5 |
|             |            | 72 | TC  | 64.3                    | 64.3 | 64.3 | 61.1    | 61.1 | 61.1 | 57.0    | 57.0 | 57.0 | 52.6    | 52.6 | 52.6 |
|             |            |    | SHC | 25.6                    | 34.9 | 44.2 | 24.3    | 33.9 | 43.5 | 22.7    | 32.3 | 42.0 | 21.0    | 30.6 | 40.3 |
|             |            | 76 | TC  | —                       | 69.9 | 69.9 | —       | 66.4 | 66.4 | —       | 62.3 | 62.3 | —       | 57.6 | 57.6 |
|             |            |    | SHC | —                       | 27.5 | 36.5 | —       | 26.2 | 35.4 | —       | 24.8 | 34.2 | —       | 23.1 | 32.6 |
| 2000<br>cfm | EA<br>(wb) | 58 | TC  | 55.3                    | 55.3 | 62.6 | 52.5    | 52.5 | 59.5 | 49.4    | 49.4 | 56.0 | 46.0    | 46.0 | 52.3 |
|             |            |    | SHC | 48.0                    | 55.3 | 62.6 | 45.5    | 52.5 | 59.5 | 42.8    | 49.4 | 56.0 | 39.8    | 46.0 | 52.3 |
|             |            | 62 | TC  | 55.3                    | 55.3 | 65.1 | 52.5    | 52.5 | 61.9 | 49.5    | 49.5 | 58.3 | 46.1    | 46.1 | 54.4 |
|             |            |    | SHC | 45.6                    | 55.3 | 65.1 | 43.2    | 52.5 | 61.9 | 40.6    | 49.5 | 58.3 | 37.8    | 46.1 | 54.4 |
|             |            | 67 | TC  | 59.2                    | 59.2 | 59.7 | 55.6    | 55.6 | 58.2 | 51.7    | 51.7 | 56.5 | 47.4    | 47.4 | 54.7 |
|             |            |    | SHC | 37.3                    | 48.5 | 59.7 | 35.8    | 47.0 | 58.2 | 34.1    | 45.3 | 56.5 | 32.3    | 43.5 | 54.7 |
|             |            | 72 | TC  | 65.8                    | 65.8 | 65.8 | 62.0    | 62.0 | 62.0 | 57.8    | 57.8 | 57.8 | 53.2    | 53.2 | 53.2 |
|             |            |    | SHC | 26.4                    | 37.5 | 48.6 | 24.9    | 36.1 | 47.3 | 23.3    | 34.5 | 45.7 | 21.5    | 32.7 | 43.9 |
|             |            | 76 | TC  | —                       | 71.4 | 71.4 | —       | 67.5 | 67.5 | —       | 63.0 | 63.0 | —       | 58.2 | 58.2 |
|             |            |    | SHC | —                       | 28.5 | 39.2 | —       | 27.2 | 38.2 | —       | 25.7 | 36.6 | —       | 24.0 | 35.0 |
| 2250<br>cfm | EA<br>(wb) | 58 | TC  | 57.1                    | 57.1 | 64.7 | 54.1    | 54.1 | 61.4 | 50.8    | 50.8 | 57.7 | 47.3    | 47.3 | 53.8 |
|             |            |    | SHC | 49.5                    | 57.1 | 64.7 | 46.9    | 54.1 | 61.4 | 44.0    | 50.8 | 57.7 | 40.8    | 47.3 | 53.8 |
|             |            | 62 | TC  | 57.1                    | 57.1 | 67.3 | 54.2    | 54.2 | 63.8 | 50.9    | 50.9 | 60.1 | 47.3    | 47.3 | 56.0 |
|             |            |    | SHC | 47.0                    | 57.1 | 67.3 | 44.5    | 54.2 | 63.8 | 41.7    | 50.9 | 60.1 | 38.7    | 47.3 | 56.0 |
|             |            | 67 | TC  | 59.7                    | 59.7 | 64.7 | 56.0    | 56.0 | 63.1 | 51.9    | 51.9 | 61.4 | 47.6    | 47.6 | 59.4 |
|             |            |    | SHC | 39.2                    | 52.0 | 64.7 | 37.7    | 50.4 | 63.1 | 35.9    | 48.7 | 61.4 | 34.1    | 46.8 | 59.4 |
|             |            | 72 | TC  | 66.4                    | 66.4 | 66.4 | 62.4    | 62.4 | 62.4 | 58.0    | 58.0 | 58.0 | 53.3    | 53.3 | 53.3 |
|             |            |    | SHC | 26.9                    | 39.5 | 52.2 | 25.3    | 38.0 | 50.7 | 23.6    | 36.4 | 49.1 | 21.9    | 34.6 | 47.3 |
|             |            | 76 | TC  | —                       | 72.1 | 72.1 | —       | 68.0 | 68.0 | —       | 63.3 | 63.3 | —       | 58.4 | 58.4 |
|             |            |    | SHC | —                       | 29.3 | 41.6 | —       | 27.9 | 40.4 | —       | 26.3 | 38.8 | —       | 24.6 | 37.2 |
| 2500<br>cfm | EA<br>(wb) | 58 | TC  | 58.3                    | 58.3 | 66.1 | 55.2    | 55.2 | 62.7 | 51.8    | 51.8 | 58.9 | 48.1    | 48.1 | 54.7 |
|             |            |    | SHC | 50.4                    | 58.3 | 66.1 | 47.7    | 55.2 | 62.7 | 44.7    | 51.8 | 58.9 | 41.4    | 48.1 | 54.7 |
|             |            | 62 | TC  | 58.3                    | 58.3 | 68.8 | 55.2    | 55.2 | 65.2 | 51.8    | 51.8 | 61.3 | 48.1    | 48.1 | 57.0 |
|             |            |    | SHC | 47.8                    | 58.3 | 68.8 | 45.2    | 55.2 | 65.2 | 42.3    | 51.8 | 61.3 | 39.2    | 48.1 | 57.0 |
|             |            | 67 | TC  | 59.7                    | 59.7 | 69.3 | 56.0    | 56.0 | 67.6 | 52.0    | 52.0 | 65.5 | 48.2    | 48.2 | 61.1 |
|             |            |    | SHC | 40.9                    | 55.1 | 69.3 | 39.3    | 53.4 | 67.6 | 37.4    | 51.5 | 65.5 | 34.7    | 47.9 | 61.1 |
|             |            | 72 | TC  | 66.4                    | 66.4 | 66.4 | 62.3    | 62.3 | 62.3 | 57.8    | 57.8 | 57.8 | 53.0    | 53.0 | 53.0 |
|             |            |    | SHC | 27.0                    | 41.2 | 55.4 | 25.4    | 39.7 | 53.9 | 23.8    | 38.0 | 52.2 | 22.0    | 36.2 | 50.5 |
|             |            | 76 | TC  | —                       | 72.3 | 72.3 | —       | 67.9 | 67.9 | —       | 63.2 | 63.2 | —       | 58.1 | 58.1 |
|             |            |    | SHC | —                       | 29.8 | 43.8 | —       | 28.3 | 42.3 | —       | 26.7 | 40.8 | —       | 25.0 | 39.1 |

NOTE(S):

a. See minimum-maximum airflow ratings on page 7.

### LEGEND

|         |                                          |
|---------|------------------------------------------|
| —       | Do Not Operate                           |
| cfm     | Cubic Feet Per Minute (Supply Air)       |
| EA (db) | Entering Air Temperature (dry bulb)      |
| EA (wb) | Entering Air Temperature (wet bulb)      |
| SHC     | Sensible Heat Capacity (1000 Btuh) Gross |
| TC      | Total Capacity (1000 Btuh) Gross         |

## 50FCQA04 Heating Capacities

| 50FCQA04 (3 Tons)     |                       |           |                                                         |      |      |      |      |      |      |      |      |
|-----------------------|-----------------------|-----------|---------------------------------------------------------|------|------|------|------|------|------|------|------|
| Return Air<br>(°F db) | CFM<br>(Standard Air) |           | Temperature Air Entering Outdoor Coil (°F db at 70% rh) |      |      |      |      |      |      |      |      |
|                       |                       |           | -10                                                     | 0    | 10   | 17   | 30   | 40   | 47   | 50   | 60   |
| 55                    | 900                   | Capacity  | 10.0                                                    | 13.5 | 17.3 | 20.1 | 26.0 | 31.1 | 34.5 | 35.5 | 40.2 |
|                       |                       | Int. Cap. | 9.2                                                     | 12.5 | 15.9 | 18.4 | 22.8 | 31.1 | 34.5 | 35.5 | 40.2 |
|                       | 1200                  | Capacity  | 10.4                                                    | 13.9 | 17.8 | 20.7 | 26.8 | 31.9 | 35.1 | 36.2 | 41.1 |
|                       |                       | Int. Cap. | 9.6                                                     | 12.8 | 16.3 | 18.9 | 23.5 | 31.9 | 35.1 | 36.2 | 41.1 |
|                       | 1500                  | Capacity  | 10.4                                                    | 14.1 | 18.1 | 21.0 | 27.4 | 32.1 | 35.4 | 36.5 | 41.4 |
|                       |                       | Int. Cap. | 9.6                                                     | 13.0 | 16.6 | 19.1 | 24.0 | 32.1 | 35.4 | 36.5 | 41.4 |
| 70                    | 900                   | Capacity  | 8.2                                                     | 11.7 | 15.6 | 18.4 | 24.1 | 28.8 | 32.9 | 33.9 | 38.6 |
|                       |                       | Int. Cap. | 7.6                                                     | 10.8 | 14.3 | 16.8 | 21.1 | 28.8 | 32.9 | 33.9 | 38.6 |
|                       | 1200                  | Capacity  | 8.5                                                     | 12.2 | 16.1 | 19.1 | 25.0 | 30.1 | 34.1 | 34.9 | 39.6 |
|                       |                       | Int. Cap. | 7.9                                                     | 11.2 | 14.8 | 17.4 | 21.9 | 30.1 | 34.1 | 34.9 | 39.6 |
|                       | 1500                  | Capacity  | 8.7                                                     | 12.5 | 16.5 | 19.4 | 25.6 | 30.9 | 34.3 | 35.3 | 39.9 |
|                       |                       | Int. Cap. | 8.1                                                     | 11.5 | 15.1 | 17.7 | 22.4 | 30.9 | 34.3 | 35.3 | 39.9 |
| 80                    | 900                   | Capacity  | 6.7                                                     | 10.3 | 14.1 | 17.0 | 22.6 | 27.4 | 31.1 | 32.5 | 37.4 |
|                       |                       | Int. Cap. | 6.2                                                     | 9.5  | 13.0 | 15.5 | 19.8 | 27.4 | 31.1 | 32.5 | 37.4 |
|                       | 1200                  | Capacity  | 7.0                                                     | 10.8 | 14.7 | 17.7 | 23.5 | 28.6 | 32.7 | 33.8 | 38.5 |
|                       |                       | Int. Cap. | 6.5                                                     | 9.9  | 13.5 | 16.1 | 20.6 | 28.6 | 32.7 | 33.8 | 38.5 |
|                       | 1500                  | Capacity  | 7.2                                                     | 11.0 | 15.1 | 18.1 | 24.1 | 29.3 | 33.4 | 34.4 | 39.0 |
|                       |                       | Int. Cap. | 6.7                                                     | 10.2 | 13.9 | 16.5 | 21.1 | 29.3 | 33.4 | 34.4 | 39.0 |

### LEGEND

— Indicates standard rating point

**Capacity** — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

**Int. Cap.** — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

**rh** — Relative Humidity

**db** — Dry Bulb

## 50FCQC05 Heating Capacities — 1 Phase

| 50FCQC05 (4 Tons)     |                       |           |                                                         |      |      |      |      |      |      |      |      |
|-----------------------|-----------------------|-----------|---------------------------------------------------------|------|------|------|------|------|------|------|------|
| Return Air<br>(°F db) | CFM<br>(Standard Air) |           | Temperature Air Entering Outdoor Coil (°F db at 70% rh) |      |      |      |      |      |      |      |      |
|                       |                       |           | -10                                                     | 0    | 10   | 17   | 30   | 40   | 47   | 50   | 60   |
| 55                    | 1200                  | Capacity  | 17.0                                                    | 21.3 | 26.1 | 29.7 | 36.7 | 42.7 | 47.2 | 48.4 | 53.6 |
|                       |                       | Int. Cap. | 15.7                                                    | 19.6 | 24.0 | 27.1 | 32.2 | 42.7 | 47.2 | 48.4 | 53.6 |
|                       | 1600                  | Capacity  | 17.7                                                    | 22.2 | 27.1 | 30.7 | 38.4 | 44.3 | 48.1 | 49.3 | 55.0 |
|                       |                       | Int. Cap. | 16.4                                                    | 20.5 | 24.9 | 28.0 | 33.6 | 44.3 | 48.1 | 49.3 | 55.0 |
|                       | 2000                  | Capacity  | 18.6                                                    | 23.1 | 28.0 | 31.7 | 39.1 | 45.3 | 49.3 | 50.5 | 56.0 |
|                       |                       | Int. Cap. | 17.2                                                    | 21.2 | 25.7 | 28.9 | 34.3 | 45.3 | 49.3 | 50.5 | 56.0 |
| 70                    | 1200                  | Capacity  | 14.3                                                    | 18.9 | 23.8 | 27.4 | 34.5 | 40.1 | 44.9 | 46.6 | 51.8 |
|                       |                       | Int. Cap. | 13.3                                                    | 17.4 | 21.8 | 25.0 | 30.2 | 40.1 | 44.9 | 46.6 | 51.8 |
|                       | 1600                  | Capacity  | 15.1                                                    | 19.8 | 24.8 | 28.5 | 35.7 | 41.8 | 46.6 | 48.1 | 52.9 |
|                       |                       | Int. Cap. | 13.9                                                    | 18.2 | 22.7 | 26.0 | 31.3 | 41.8 | 46.6 | 48.1 | 52.9 |
|                       | 2000                  | Capacity  | 15.9                                                    | 20.7 | 25.8 | 29.5 | 36.9 | 43.2 | 47.9 | 49.3 | 54.2 |
|                       |                       | Int. Cap. | 14.7                                                    | 19.0 | 23.6 | 26.9 | 32.4 | 43.2 | 47.9 | 49.3 | 54.2 |
| 80                    | 1200                  | Capacity  | 22.1                                                    | 17.0 | 21.9 | 25.6 | 32.8 | 38.6 | 43.0 | 44.7 | 50.5 |
|                       |                       | Int. Cap. | 20.4                                                    | 15.7 | 20.1 | 23.3 | 28.8 | 38.6 | 43.0 | 44.7 | 50.5 |
|                       | 1600                  | Capacity  | 13.0                                                    | 17.9 | 23.0 | 26.8 | 34.2 | 40.2 | 44.8 | 46.9 | 51.7 |
|                       |                       | Int. Cap. | 12.1                                                    | 16.4 | 21.1 | 24.4 | 30.0 | 40.2 | 44.8 | 46.9 | 51.7 |
|                       | 2000                  | Capacity  | 13.8                                                    | 18.8 | 24.0 | 27.9 | 35.4 | 41.5 | 46.5 | 48.2 | 53.1 |
|                       |                       | Int. Cap. | 12.8                                                    | 17.3 | 22.0 | 25.4 | 31.0 | 41.5 | 46.5 | 48.2 | 53.1 |

### LEGEND

— Indicates standard rating point

**Capacity** — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

**Int. Cap.** — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

**rh** — Relative Humidity

**db** — Dry Bulb

## 50FCQA05 Heating Capacities — 3 Phase

| 50FCQA05 (4 Tons)     |                       |           |                                                         |      |      |      |      |      |      |      |      |
|-----------------------|-----------------------|-----------|---------------------------------------------------------|------|------|------|------|------|------|------|------|
| Return Air<br>(°F db) | CFM<br>(Standard Air) |           | Temperature Air Entering Outdoor Coil (°F db at 70% rh) |      |      |      |      |      |      |      |      |
|                       |                       |           | -10                                                     | 0    | 10   | 17   | 30   | 40   | 47   | 50   | 60   |
| 55                    | 1200                  | Capacity  | 17.8                                                    | 22.3 | 26.9 | 30.3 | 37.1 | 42.9 | 47.4 | 49.2 | 55.6 |
|                       |                       | Int. Cap. | 16.4                                                    | 20.5 | 24.7 | 27.6 | 32.5 | 42.9 | 47.4 | 49.2 | 55.6 |
|                       | 1600                  | Capacity  | 17.8                                                    | 22.4 | 27.0 | 30.5 | 37.6 | 43.8 | 48.2 | 50.1 | 56.4 |
|                       |                       | Int. Cap. | 16.4                                                    | 20.6 | 24.8 | 27.8 | 33.0 | 43.8 | 48.2 | 50.1 | 56.4 |
|                       | 2000                  | Capacity  | 18.8                                                    | 23.4 | 28.1 | 31.6 | 39.0 | 45.2 | 49.4 | 51.2 | 57.4 |
|                       |                       | Int. Cap. | 17.3                                                    | 21.5 | 25.8 | 28.9 | 34.1 | 45.2 | 49.4 | 51.2 | 57.4 |
| 70                    | 1200                  | Capacity  | 16.1                                                    | 20.6 | 25.3 | 28.6 | 35.3 | 40.8 | 45.0 | 47.0 | 53.3 |
|                       |                       | Int. Cap. | 14.9                                                    | 19.0 | 23.2 | 26.0 | 30.9 | 40.8 | 45.0 | 47.0 | 53.3 |
|                       | 1600                  | Capacity  | 16.2                                                    | 20.8 | 25.6 | 29.0 | 35.9 | 41.6 | 46.1 | 48.1 | 54.2 |
|                       |                       | Int. Cap. | 15.0                                                    | 19.2 | 23.5 | 26.4 | 31.4 | 41.6 | 46.1 | 48.1 | 54.2 |
|                       | 2000                  | Capacity  | 17.3                                                    | 22.0 | 26.8 | 30.2 | 37.2 | 43.2 | 47.6 | 49.4 | 55.5 |
|                       |                       | Int. Cap. | 16.0                                                    | 20.2 | 24.6 | 27.5 | 32.6 | 43.2 | 47.6 | 49.4 | 55.5 |
| 80                    | 1200                  | Capacity  | 16.1                                                    | 20.6 | 25.3 | 28.6 | 35.3 | 40.8 | 45.0 | 47.0 | 53.3 |
|                       |                       | Int. Cap. | 14.9                                                    | 19.0 | 23.2 | 26.0 | 30.9 | 40.8 | 45.0 | 47.0 | 53.3 |
|                       | 1600                  | Capacity  | 14.7                                                    | 19.4 | 24.2 | 27.7 | 34.5 | 40.1 | 44.5 | 46.4 | 52.7 |
|                       |                       | Int. Cap. | 13.6                                                    | 17.9 | 22.2 | 25.3 | 30.3 | 40.1 | 44.5 | 46.4 | 52.7 |
|                       | 2000                  | Capacity  | 15.8                                                    | 20.6 | 25.5 | 29.0 | 35.9 | 41.7 | 46.2 | 48.1 | 54.1 |
|                       |                       | Int. Cap. | 14.6                                                    | 19.0 | 23.4 | 26.4 | 31.5 | 41.7 | 46.2 | 48.1 | 54.1 |

### LEGEND

— Indicates standard rating point

**Capacity** — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

**Int. Cap.** — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

**rh** — Relative Humidity

**db** — Dry Bulb

## 50FCQA06 Heating Capacities

| 50FCQA06 (5 Tons)     |                       |           |                                                         |      |      |      |      |      |      |      |      |
|-----------------------|-----------------------|-----------|---------------------------------------------------------|------|------|------|------|------|------|------|------|
| Return Air<br>(°F db) | CFM<br>(Standard Air) |           | Temperature Air Entering Outdoor Coil (°F db at 70% rh) |      |      |      |      |      |      |      |      |
|                       |                       |           | -10                                                     | 0    | 10   | 17   | 30   | 40   | 47   | 50   | 60   |
| 55                    | 1500                  | Capacity  | —                                                       | 26.7 | 32.6 | 37.0 | 45.8 | 52.7 | 58.4 | 61.0 | 68.7 |
|                       |                       | Int. Cap. | —                                                       | 24.6 | 30.0 | 33.7 | 40.1 | 52.7 | 58.4 | 61.0 | 68.7 |
|                       | 2000                  | Capacity  | —                                                       | 26.9 | 32.8 | 37.3 | 46.3 | 53.7 | 59.3 | 61.5 | 69.3 |
|                       |                       | Int. Cap. | —                                                       | 24.8 | 30.1 | 34.0 | 40.6 | 53.7 | 59.3 | 61.5 | 69.3 |
|                       | 2500                  | Capacity  | —                                                       | 28.4 | 34.3 | 38.8 | 48.0 | 55.3 | 60.7 | 62.8 | 70.4 |
|                       |                       | Int. Cap. | —                                                       | 26.1 | 31.5 | 35.4 | 42.1 | 55.3 | 60.7 | 62.8 | 70.4 |
| 70                    | 1500                  | Capacity  | 18.3                                                    | 24.2 | 30.3 | 34.7 | 43.6 | 50.1 | 56.0 | 58.4 | 66.3 |
|                       |                       | Int. Cap. | 16.9                                                    | 22.3 | 27.8 | 31.7 | 38.2 | 50.1 | 56.0 | 58.4 | 66.3 |
|                       | 2000                  | Capacity  | 18.5                                                    | 24.5 | 30.7 | 35.1 | 44.2 | 51.3 | 56.8 | 59.4 | 67.2 |
|                       |                       | Int. Cap. | 17.1                                                    | 22.5 | 28.1 | 32.0 | 38.7 | 51.3 | 56.8 | 59.4 | 67.2 |
|                       | 2500                  | Capacity  | 19.9                                                    | 26.0 | 32.2 | 36.7 | 45.9 | 53.1 | 58.8 | 61.1 | 68.6 |
|                       |                       | Int. Cap. | 18.4                                                    | 23.9 | 29.6 | 33.5 | 40.2 | 53.1 | 58.8 | 61.1 | 68.6 |
| 80                    | 1500                  | Capacity  | 16.0                                                    | 22.1 | 28.4 | 33.0 | 41.9 | 48.6 | 54.1 | 56.6 | 64.5 |
|                       |                       | Int. Cap. | 14.8                                                    | 20.4 | 26.1 | 30.0 | 36.7 | 48.6 | 54.1 | 56.6 | 64.5 |
|                       | 2000                  | Capacity  | 16.2                                                    | 22.5 | 28.9 | 33.5 | 42.7 | 49.6 | 55.0 | 57.8 | 65.6 |
|                       |                       | Int. Cap. | 15.0                                                    | 20.7 | 26.5 | 30.5 | 37.4 | 49.6 | 55.0 | 57.8 | 65.6 |
|                       | 2500                  | Capacity  | 17.7                                                    | 24.0 | 30.5 | 35.2 | 44.4 | 51.5 | 57.2 | 59.5 | 67.2 |
|                       |                       | Int. Cap. | 16.3                                                    | 22.1 | 28.0 | 32.1 | 38.9 | 51.5 | 57.2 | 59.5 | 67.2 |

### LEGEND

— Indicates standard rating point

— Indicates operation not permissible

**Capacity** — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

**Int. Cap.** — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

**rh** — Relative Humidity

**db** — Dry Bulb

## 50FCQM07 Heating Capacities

| 50FCQM07 (6 Tons)     |                       |           |                                                         |      |      |      |      |      |      |      |      |
|-----------------------|-----------------------|-----------|---------------------------------------------------------|------|------|------|------|------|------|------|------|
| Return Air<br>(°F db) | CFM<br>(Standard Air) |           | Temperature Air Entering Outdoor Coil (°F db at 70% rh) |      |      |      |      |      |      |      |      |
|                       |                       |           | -10                                                     | 0    | 10   | 17   | 30   | 40   | 47   | 50   | 60   |
| 55                    | 1800                  | Capacity  | 20.9                                                    | 28.1 | 35.9 | 40.7 | 50.1 | 59.7 | 66.0 | 68.6 | 77.7 |
|                       |                       | Int. Cap. | 19.3                                                    | 25.9 | 33.0 | 37.1 | 43.9 | 59.7 | 66.0 | 68.6 | 77.7 |
|                       | 2400                  | Capacity  | 22.4                                                    | 29.8 | 37.3 | 42.8 | 52.6 | 62.2 | 68.5 | 71.2 | 80.4 |
|                       |                       | Int. Cap. | 20.7                                                    | 27.4 | 34.3 | 39.0 | 46.1 | 62.2 | 68.5 | 71.2 | 80.4 |
|                       | 3000                  | Capacity  | 25.2                                                    | 31.5 | 39.0 | 44.6 | 55.1 | 64.3 | 70.3 | 72.9 | 81.7 |
|                       |                       | Int. Cap. | 23.3                                                    | 28.9 | 35.8 | 40.7 | 48.3 | 64.3 | 70.3 | 72.9 | 81.7 |
| 70                    | 1800                  | Capacity  | 16.0                                                    | 23.5 | 31.1 | 36.5 | 45.6 | 54.7 | 62.0 | 64.7 | 73.6 |
|                       |                       | Int. Cap. | 14.8                                                    | 21.6 | 28.5 | 33.3 | 40.0 | 54.7 | 62.0 | 64.7 | 73.6 |
|                       | 2400                  | Capacity  | 17.6                                                    | 25.4 | 33.2 | 38.7 | 48.4 | 58.2 | 65.1 | 67.7 | 76.7 |
|                       |                       | Int. Cap. | 16.3                                                    | 23.4 | 30.5 | 35.3 | 42.4 | 58.2 | 65.1 | 67.7 | 76.7 |
|                       | 3000                  | Capacity  | 19.2                                                    | 27.2 | 35.1 | 40.7 | 50.7 | 61.0 | 67.2 | 69.8 | 78.7 |
|                       |                       | Int. Cap. | 17.7                                                    | 25.0 | 32.3 | 37.1 | 44.4 | 61.0 | 67.2 | 69.8 | 78.7 |
| 80                    | 1800                  | Capacity  | 12.2                                                    | 19.8 | 27.6 | 33.1 | 42.1 | 51.0 | 58.0 | 61.3 | 70.5 |
|                       |                       | Int. Cap. | 11.2                                                    | 18.2 | 25.3 | 30.1 | 36.9 | 51.0 | 58.0 | 61.3 | 70.5 |
|                       | 2400                  | Capacity  | 13.6                                                    | 21.7 | 29.8 | 35.5 | 45.1 | 54.5 | 62.2 | 65.0 | 73.9 |
|                       |                       | Int. Cap. | 12.6                                                    | 20.0 | 27.3 | 32.3 | 39.5 | 54.5 | 62.2 | 65.0 | 73.9 |
|                       | 3000                  | Capacity  | 15.3                                                    | 23.5 | 31.8 | 37.6 | 47.5 | 57.3 | 64.8 | 67.4 | 76.2 |
|                       |                       | Int. Cap. | 14.1                                                    | 21.7 | 29.2 | 34.3 | 41.6 | 57.3 | 64.8 | 67.4 | 76.2 |

### LEGEND

— Indicates standard rating point

**Capacity** — Instantaneous Capacity (1000 Btuh) - includes indoor fan motor heat at AHRI static conditions

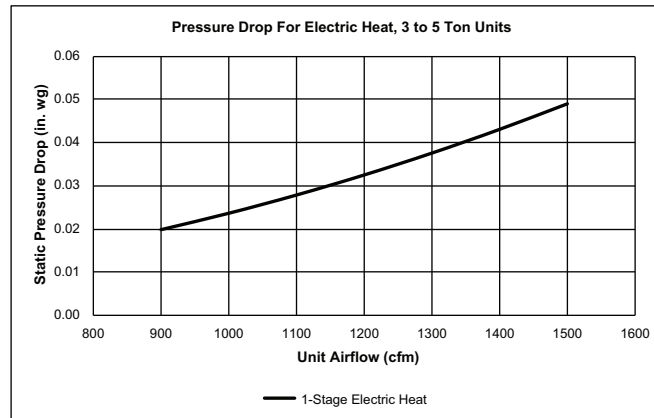
**Int. Cap.** — Integrated Capacity = instantaneous capacity minus the effects of frost on the OD coil and the heat required to defrost it

**rh** — Relative Humidity

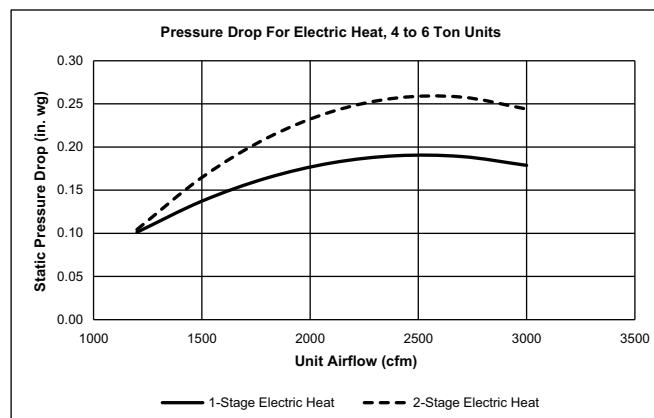
**db** — Dry Bulb

## Pressure Drops for Electric Heating Units

### Pressure Drop for Electric Heat 3 to 5 Ton Units — 1 Stage Heat



### Pressure Drop for Electric Heat 4 to 6 Ton Units — 1 and 2 Stage Heat



## Field-Installed Accessory Electric Heater Data

| 50FCQ UNIT SIZE | VOLTAGE | HEATER MODEL NUMBER <sup>a</sup> | NUMBER OF STAGES |
|-----------------|---------|----------------------------------|------------------|
| 04              | 208/230 | CRHEATER323A00                   | 1                |
|                 |         | CRHEATER324A00                   | 1                |
|                 |         | CRHEATER325A00                   | 1                |
|                 |         | CRHEATER326A00                   | 1                |
|                 |         | CRHEATER327A00                   | 2                |
|                 |         | CRHEATER328A00                   | 1                |
|                 | 460     | CRHEATER333A00                   | 1                |
|                 |         | CRHEATER334A00                   | 1                |
|                 |         | CRHEATER335A00                   | 1                |
|                 |         | CRHEATER336A00                   | 1                |
|                 | 575     | CRHEATER339A00                   | 1                |
|                 |         | CRHEATER340A00                   | 1                |
| 05              | 208/230 | CRHEATER323A00                   | 1                |
|                 |         | CRHEATER324A00                   | 1                |
|                 |         | CRHEATER325A00                   | 1                |
|                 |         | CRHEATER326A00                   | 1                |
|                 |         | CRHEATER327A00                   | 2                |
|                 |         | CRHEATER328A00                   | 1                |
|                 |         | CRHEATER329A00                   | 2                |
|                 |         | CRHEATER330A00 <sup>b</sup>      | 2                |
|                 |         | CRHEATER331A00 <sup>c</sup>      | 2                |
|                 | 460     | CRHEATER333A00                   | 1                |
|                 |         | CRHEATER335A00                   | 1                |
|                 |         | CRHEATER336A00                   | 1                |
|                 |         | CRHEATER337A00                   | 2                |
|                 | 575     | CRHEATER339A00                   | 1                |
|                 |         | CRHEATER340A00                   | 1                |
|                 |         | CRHEATER324A00                   | 1                |
| 06, 07          | 208/230 | CRHEATER325A00                   | 1                |
|                 |         | CRHEATER326A00                   | 1                |
|                 |         | CRHEATER327A00                   | 2                |
|                 |         | CRHEATER328A00                   | 1                |
|                 |         | CRHEATER329A00                   | 2                |
|                 |         | CRHEATER331A00                   | 2                |
|                 |         | CRHEATER332A00                   | 2                |
|                 | 460     | CRHEATER333A00                   | 1                |
|                 |         | CRHEATER335A00                   | 1                |
|                 |         | CRHEATER336A00                   | 1                |
|                 |         | CRHEATER337A00                   | 2                |
|                 |         | CRHEATER338A00                   | 2                |
|                 | 575     | CRHEATER340A00                   | 1                |
|                 |         | CRHEATER341A00                   | 2                |

NOTE(S):

- a. Check heater nameplate for model number.
- b. Do not use with size 05 horizontal supply duct configuration units.
- c. Do not use with size 05 vertical supply duct configuration units.

### Use of CRHEATER330A00 for 50FCQ Units (With or Without Non-Fused Disconnect)

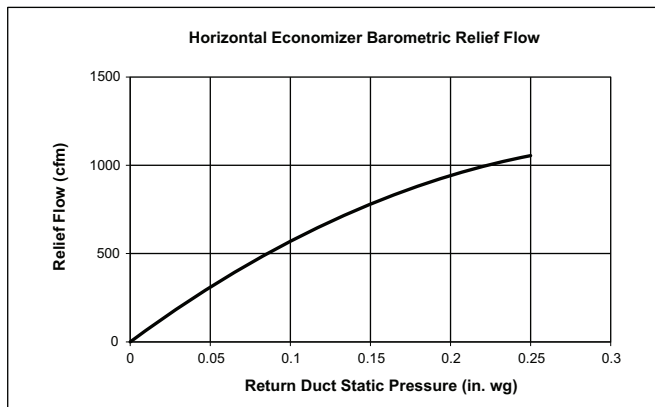
| DUCT CONFIGURATION | 50FCQ UNIT SIZE |               |               |               |
|--------------------|-----------------|---------------|---------------|---------------|
|                    | 04              | 05            | 06            | 07            |
| Vertical Supply    | Not available   | Available     | Not available | Not available |
| Horizontal Supply  | Not available   | Not available | Not available | Not available |

### Use of CRHEATER331A00 for 50FCQ Units (With or Without Non-Fused Disconnect)

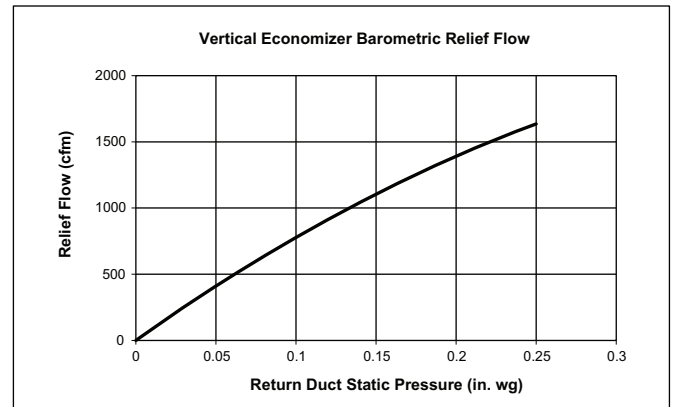
| DUCT CONFIGURATION | 50FCQ UNIT SIZE |               |           |           |
|--------------------|-----------------|---------------|-----------|-----------|
|                    | 04              | 05            | 06        | 07        |
| Vertical Supply    | Not available   | Not available | Available | Available |
| Horizontal Supply  | Not available   | Available     | Available | Available |

## Economizer Barometric Relief and Static Pressure

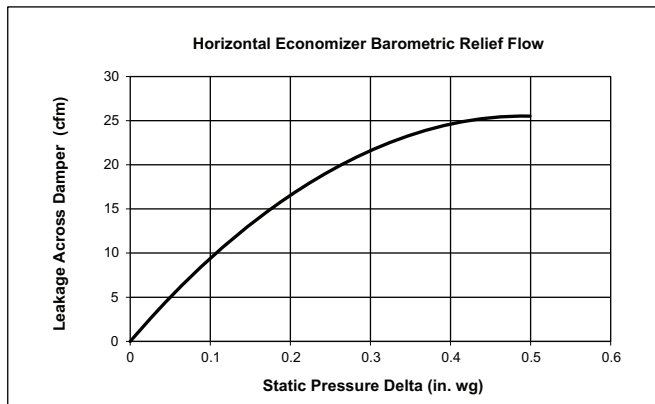
### Horizontal Economizer Barometric Relief



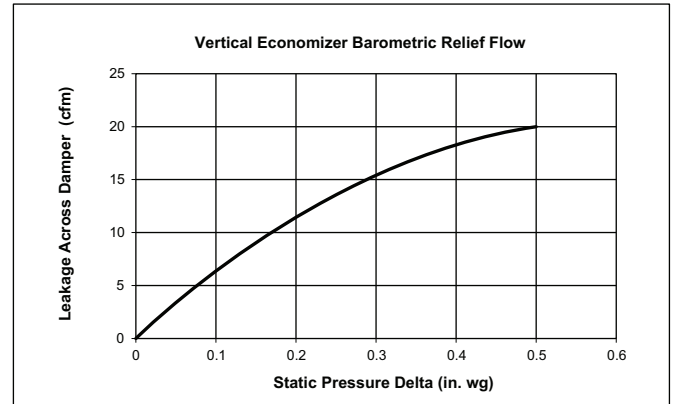
### Vertical Economizer Barometric Relief



### Horizontal Economizer Damper Leakage



### Vertical Economizer Damper Leakage



## MERV-8 filters pressure drop

NOTE: For factory-installed MERV-8 filters, no additional pressure drop adjustments are necessary. The standard fan tables accommodate usage.

## 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.
4. Factory options and accessories may effect static pressure losses. Selection software is available, through your salesperson, to help you select the best motor/drive combination for your application.
5. The fan performance tables offer motor/drive recommendations. In cases when two motor/drive combinations would work, Carrier recommends the lower horsepower option.
6. For information on the electrical properties of Carrier motors, please see the Electrical Data section of this book.
7. For more information on the performance limits of Carrier motors, see the application data section of this book.
8. The EPACT (Energy Policy Act of 1992) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (three-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.

## 50FCQA04 Single Phase — 3 Ton Vertical Supply (rpm - bhp)

| 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  |
| 900  | 1060                                        | 0.08 | 1325 | 0.16 | 1541 | 0.25 | 1718 | 0.35 | 1871 | 0.46 |
| 975  | 1103                                        | 0.09 | 1355 | 0.17 | 1572 | 0.27 | 1752 | 0.37 | 1906 | 0.48 |
| 1050 | 1150                                        | 0.11 | 1387 | 0.19 | 1602 | 0.29 | 1784 | 0.40 | 1941 | 0.51 |
| 1125 | 1198                                        | 0.12 | 1422 | 0.20 | 1632 | 0.30 | 1815 | 0.42 | 1974 | 0.54 |
| 1200 | 1249                                        | 0.14 | 1459 | 0.22 | 1662 | 0.32 | 1845 | 0.44 | 2005 | 0.56 |
| 1275 | 1303                                        | 0.15 | 1499 | 0.23 | 1694 | 0.34 | 1874 | 0.46 | 2036 | 0.59 |
| 1350 | 1357                                        | 0.17 | 1542 | 0.26 | 1728 | 0.36 | 1905 | 0.48 | 2066 | 0.61 |
| 1425 | 1413                                        | 0.20 | 1587 | 0.28 | 1765 | 0.38 | 1936 | 0.51 | 2095 | 0.64 |
| 1500 | 1469                                        | 0.22 | 1635 | 0.30 | 1803 | 0.41 | 1969 | 0.53 | 2126 | 0.67 |

| 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  |
| 900  | 2006                                        | 0.56 | 2130 | 0.67 | 2244 | 0.79 | 2352 | 0.91 | 2453 | 1.03 |
| 975  | 2044                                        | 0.59 | 2168 | 0.71 | 2283 | 0.83 | 2391 | 0.95 | —    | —    |
| 1050 | 2080                                        | 0.63 | 2206 | 0.75 | 2322 | 0.87 | 2430 | 1.00 | —    | —    |
| 1125 | 2115                                        | 0.66 | 2242 | 0.78 | 2359 | 0.91 | 2468 | 1.05 | —    | —    |
| 1200 | 2148                                        | 0.69 | 2277 | 0.82 | 2396 | 0.96 | —    | —    | —    | —    |
| 1275 | 2180                                        | 0.72 | 2311 | 0.86 | 2431 | 1.00 | —    | —    | —    | —    |
| 1350 | 2211                                        | 0.75 | 2343 | 0.90 | 2465 | 1.04 | —    | —    | —    | —    |
| 1425 | 2241                                        | 0.78 | 2375 | 0.93 | —    | —    | —    | —    | —    | —    |
| 1500 | 2271                                        | 0.82 | 2405 | 0.97 | —    | —    | —    | —    | —    | —    |

Standard Static 1060-1890 rpm, 0.44 max bhp

Medium Static 1060-2190 rpm, 0.71 max bhp

High Static 1060-2490 rpm, 1.07 max bhp

## 50FCQA04 Single Phase — Standard Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 5.6 | 1325 | 7.0 | 1541 | 8.2 | 1718 | 9.1 | 1871 | 9.9 |
| 975  | 1103                                        | 5.8 | 1355 | 7.2 | 1572 | 8.3 | 1752 | 9.3 | —    | —   |
| 1050 | 1150                                        | 6.1 | 1387 | 7.3 | 1602 | 8.5 | 1784 | 9.4 | —    | —   |
| 1125 | 1198                                        | 6.3 | 1422 | 7.5 | 1632 | 8.6 | 1815 | 9.6 | —    | —   |
| 1200 | 1249                                        | 6.6 | 1459 | 7.7 | 1662 | 8.8 | 1845 | 9.8 | —    | —   |
| 1275 | 1303                                        | 6.9 | 1499 | 7.9 | 1694 | 9.0 | 1874 | 9.9 | —    | —   |
| 1350 | 1357                                        | 7.2 | 1542 | 8.2 | 1728 | 9.1 | —    | —   | —    | —   |
| 1425 | 1413                                        | 7.5 | 1587 | 8.4 | 1765 | 9.3 | —    | —   | —    | —   |
| 1500 | 1469                                        | 7.8 | 1635 | 8.7 | 1803 | 9.5 | —    | —   | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 975  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1050 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1125 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1275 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1060-1890 rpm

## 50FCQA04 Single Phase — Medium Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 4.8 | 1325 | 6.1 | 1541 | 7.0 | 1718 | 7.8 | 1871 | 8.5 |
| 975  | 1103                                        | 5.0 | 1355 | 6.2 | 1572 | 7.2 | 1752 | 8.0 | 1906 | 8.7 |
| 1050 | 1150                                        | 5.3 | 1387 | 6.3 | 1602 | 7.3 | 1784 | 8.1 | 1941 | 8.9 |
| 1125 | 1198                                        | 5.5 | 1422 | 6.5 | 1632 | 7.5 | 1815 | 8.3 | 1974 | 9.0 |
| 1200 | 1249                                        | 5.7 | 1459 | 6.7 | 1662 | 7.6 | 1845 | 8.4 | 2005 | 9.2 |
| 1275 | 1303                                        | 5.9 | 1499 | 6.8 | 1694 | 7.7 | 1874 | 8.6 | 2036 | 9.3 |
| 1350 | 1357                                        | 6.2 | 1542 | 7.0 | 1728 | 7.9 | 1905 | 8.7 | 2066 | 9.4 |
| 1425 | 1413                                        | 6.5 | 1587 | 7.2 | 1765 | 8.1 | 1936 | 8.8 | 2095 | 9.6 |
| 1500 | 1469                                        | 6.7 | 1635 | 7.5 | 1803 | 8.2 | 1969 | 9.0 | 2126 | 9.7 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |      | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc  | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | 2006                                        | 9.2  | 2130 | 9.7 | —   | —   | —   | —   | —   | —   |
| 975  | 2044                                        | 9.3  | 2168 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1050 | 2080                                        | 9.5  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1125 | 2115                                        | 9.7  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1200 | 2148                                        | 9.8  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1275 | 2180                                        | 10.0 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1060-2190 rpm

## 50FCQA04 Single Phase — High Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 4.3 | 1325 | 5.3 | 1541 | 6.2 | 1718 | 6.9 | 1871 | 7.5 |
| 975  | 1103                                        | 4.4 | 1355 | 5.4 | 1572 | 6.3 | 1752 | 7.0 | 1906 | 7.7 |
| 1050 | 1150                                        | 4.6 | 1387 | 5.6 | 1602 | 6.4 | 1784 | 7.2 | 1941 | 7.8 |
| 1125 | 1198                                        | 4.8 | 1422 | 5.7 | 1632 | 6.6 | 1815 | 7.3 | 1974 | 7.9 |
| 1200 | 1249                                        | 5.0 | 1459 | 5.9 | 1662 | 6.7 | 1845 | 7.4 | 2005 | 8.1 |
| 1275 | 1303                                        | 5.2 | 1499 | 6.0 | 1694 | 6.8 | 1874 | 7.5 | 2036 | 8.2 |
| 1350 | 1357                                        | 5.4 | 1542 | 6.2 | 1728 | 6.9 | 1905 | 7.7 | 2066 | 8.3 |
| 1425 | 1413                                        | 5.7 | 1587 | 6.4 | 1765 | 7.1 | 1936 | 7.8 | 2095 | 8.4 |
| 1500 | 1469                                        | 5.9 | 1635 | 6.6 | 1803 | 7.2 | 1969 | 7.9 | 2126 | 8.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 2006                                        | 8.1 | 2130 | 8.6 | 2244 | 9.0 | 2352 | 9.4 | 2453 | 9.9 |
| 975  | 2044                                        | 8.2 | 2168 | 8.7 | 2283 | 9.2 | 2391 | 9.6 | —    | —   |
| 1050 | 2080                                        | 8.4 | 2206 | 8.9 | 2322 | 9.3 | 2430 | 9.8 | —    | —   |
| 1125 | 2115                                        | 8.5 | 2242 | 9.0 | 2359 | 9.5 | 2468 | 9.9 | —    | —   |
| 1200 | 2148                                        | 8.6 | 2277 | 9.1 | 2396 | 9.6 | —    | —   | —    | —   |
| 1275 | 2180                                        | 8.8 | 2311 | 9.3 | 2431 | 9.8 | —    | —   | —    | —   |
| 1350 | 2211                                        | 8.9 | 2343 | 9.4 | 2465 | 9.9 | —    | —   | —    | —   |
| 1425 | 2241                                        | 9.0 | 2375 | 9.5 | —    | —   | —    | —   | —    | —   |
| 1500 | 2271                                        | 9.1 | 2405 | 9.7 | —    | —   | —    | —   | —    | —   |

High Static 1060-2490 rpm

## 50FCQA04 Three Phase — 3 Ton Vertical Supply (rpm - bhp)

| 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  |
| 900  | 1060                                        | 0.08 | 1325 | 0.16 | 1541 | 0.25 | 1718 | 0.35 | 1871 | 0.46 |
| 975  | 1103                                        | 0.09 | 1355 | 0.17 | 1572 | 0.27 | 1752 | 0.37 | 1906 | 0.48 |
| 1050 | 1150                                        | 0.11 | 1387 | 0.19 | 1602 | 0.29 | 1784 | 0.40 | 1941 | 0.51 |
| 1125 | 1198                                        | 0.12 | 1422 | 0.20 | 1632 | 0.30 | 1815 | 0.42 | 1974 | 0.54 |
| 1200 | 1249                                        | 0.14 | 1460 | 0.22 | 1662 | 0.32 | 1845 | 0.44 | 2005 | 0.56 |
| 1275 | 1303                                        | 0.15 | 1499 | 0.23 | 1694 | 0.34 | 1874 | 0.46 | 2036 | 0.59 |
| 1350 | 1357                                        | 0.17 | 1542 | 0.26 | 1728 | 0.36 | 1905 | 0.48 | 2066 | 0.61 |
| 1425 | 1413                                        | 0.20 | 1587 | 0.28 | 1765 | 0.38 | 1936 | 0.51 | 2095 | 0.64 |
| 1500 | 1469                                        | 0.22 | 1635 | 0.30 | 1803 | 0.41 | 1969 | 0.53 | 2126 | 0.67 |

| 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  |
| 900  | 2006                                        | 0.56 | 2130 | 0.67 | 2245 | 0.79 | 2352 | 0.91 | 2454 | 1.03 |
| 975  | 2044                                        | 0.59 | 2169 | 0.71 | 2284 | 0.83 | 2391 | 0.95 | —    | —    |
| 1050 | 2080                                        | 0.63 | 2206 | 0.75 | 2322 | 0.87 | 2430 | 1.00 | —    | —    |
| 1125 | 2115                                        | 0.66 | 2242 | 0.78 | 2360 | 0.92 | 2469 | 1.05 | —    | —    |
| 1200 | 2148                                        | 0.69 | 2277 | 0.82 | 2396 | 0.96 | —    | —    | —    | —    |
| 1275 | 2180                                        | 0.72 | 2311 | 0.86 | 2431 | 1.00 | —    | —    | —    | —    |
| 1350 | 2211                                        | 0.75 | 2343 | 0.90 | 2465 | 1.04 | —    | —    | —    | —    |
| 1425 | 2241                                        | 0.78 | 2375 | 0.93 | —    | —    | —    | —    | —    | —    |
| 1500 | 2271                                        | 0.82 | 2405 | 0.97 | —    | —    | —    | —    | —    | —    |

Standard Static 1060-1890 rpm, 0.44 max bhp

Medium Static 1060-2190 rpm, 0.71 max bhp

High Static 1060-2490 rpm, 1.07 max bhp

## 50FCQA04 Three Phase — Standard Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 5.6 | 1325 | 7.0 | 1541 | 8.2 | 1718 | 9.1 | 1871 | 9.9 |
| 975  | 1103                                        | 5.8 | 1355 | 7.2 | 1572 | 8.3 | 1752 | 9.3 | —    | —   |
| 1050 | 1150                                        | 6.1 | 1387 | 7.3 | 1602 | 8.5 | 1784 | 9.4 | —    | —   |
| 1125 | 1198                                        | 6.3 | 1422 | 7.5 | 1632 | 8.6 | 1815 | 9.6 | —    | —   |
| 1200 | 1249                                        | 6.6 | 1460 | 7.7 | 1662 | 8.8 | 1845 | 9.8 | —    | —   |
| 1275 | 1303                                        | 6.9 | 1499 | 7.9 | 1694 | 9.0 | 1874 | 9.9 | —    | —   |
| 1350 | 1357                                        | 7.2 | 1542 | 8.2 | 1728 | 9.1 | —    | —   | —    | —   |
| 1425 | 1413                                        | 7.5 | 1587 | 8.4 | 1765 | 9.3 | —    | —   | —    | —   |
| 1500 | 1469                                        | 7.8 | 1635 | 8.7 | 1803 | 9.5 | —    | —   | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 975  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1050 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1125 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1275 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1060-1890 rpm

## 50FCQA04 Three Phase — Medium Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 4.8 | 1325 | 6.1 | 1541 | 7.0 | 1718 | 7.8 | 1871 | 8.5 |
| 975  | 1103                                        | 5.0 | 1355 | 6.2 | 1572 | 7.2 | 1752 | 8.0 | 1906 | 8.7 |
| 1050 | 1150                                        | 5.3 | 1387 | 6.3 | 1602 | 7.3 | 1784 | 8.1 | 1941 | 8.9 |
| 1125 | 1198                                        | 5.5 | 1422 | 6.5 | 1632 | 7.5 | 1815 | 8.3 | 1974 | 9.0 |
| 1200 | 1249                                        | 5.7 | 1460 | 6.7 | 1662 | 7.6 | 1845 | 8.4 | 2005 | 9.2 |
| 1275 | 1303                                        | 5.9 | 1499 | 6.8 | 1694 | 7.7 | 1874 | 8.6 | 2036 | 9.3 |
| 1350 | 1357                                        | 6.2 | 1542 | 7.0 | 1728 | 7.9 | 1905 | 8.7 | 2066 | 9.4 |
| 1425 | 1413                                        | 6.5 | 1587 | 7.2 | 1765 | 8.1 | 1936 | 8.8 | 2095 | 9.6 |
| 1500 | 1469                                        | 6.7 | 1635 | 7.5 | 1803 | 8.2 | 1969 | 9.0 | 2126 | 9.7 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |      | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc  | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | 2006                                        | 9.2  | 2130 | 9.7 | —   | —   | —   | —   | —   | —   |
| 975  | 2044                                        | 9.3  | 2169 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1050 | 2080                                        | 9.5  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1125 | 2115                                        | 9.7  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1200 | 2148                                        | 9.8  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1275 | 2180                                        | 10.0 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1060-2190 rpm

## 50FCQA04 Three Phase — High Static — 3 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1060                                        | 4.3 | 1325 | 5.3 | 1541 | 6.2 | 1718 | 6.9 | 1871 | 7.5 |
| 975  | 1103                                        | 4.4 | 1355 | 5.4 | 1572 | 6.3 | 1752 | 7.0 | 1906 | 7.7 |
| 1050 | 1150                                        | 4.6 | 1387 | 5.6 | 1602 | 6.4 | 1784 | 7.2 | 1941 | 7.8 |
| 1125 | 1198                                        | 4.8 | 1422 | 5.7 | 1632 | 6.6 | 1815 | 7.3 | 1974 | 7.9 |
| 1200 | 1249                                        | 5.0 | 1460 | 5.9 | 1662 | 6.7 | 1845 | 7.4 | 2005 | 8.1 |
| 1275 | 1303                                        | 5.2 | 1499 | 6.0 | 1694 | 6.8 | 1874 | 7.5 | 2036 | 8.2 |
| 1350 | 1357                                        | 5.4 | 1542 | 6.2 | 1728 | 6.9 | 1905 | 7.7 | 2066 | 8.3 |
| 1425 | 1413                                        | 5.7 | 1587 | 6.4 | 1765 | 7.1 | 1936 | 7.8 | 2095 | 8.4 |
| 1500 | 1469                                        | 5.9 | 1635 | 6.6 | 1803 | 7.2 | 1969 | 7.9 | 2126 | 8.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 2006                                        | 8.1 | 2130 | 8.6 | 2245 | 9.0 | 2352 | 9.4 | 2454 | 9.9 |
| 975  | 2044                                        | 8.2 | 2169 | 8.7 | 2284 | 9.2 | 2391 | 9.6 | —    | —   |
| 1050 | 2080                                        | 8.4 | 2206 | 8.9 | 2322 | 9.3 | 2430 | 9.8 | —    | —   |
| 1125 | 2115                                        | 8.5 | 2242 | 9.0 | 2360 | 9.5 | 2469 | 9.9 | —    | —   |
| 1200 | 2148                                        | 8.6 | 2277 | 9.1 | 2396 | 9.6 | —    | —   | —    | —   |
| 1275 | 2180                                        | 8.8 | 2311 | 9.3 | 2431 | 9.8 | —    | —   | —    | —   |
| 1350 | 2211                                        | 8.9 | 2343 | 9.4 | 2465 | 9.9 | —    | —   | —    | —   |
| 1425 | 2241                                        | 9.0 | 2375 | 9.5 | —    | —   | —    | —   | —    | —   |
| 1500 | 2271                                        | 9.1 | 2405 | 9.7 | —    | —   | —    | —   | —    | —   |

High Static 1060-2490 rpm

## 50FCQC05 Single Phase — 4 Ton Vertical Supply (rpm - bhp)

| 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  |
| 1200 | 1095                                        | 0.14 | 1302 | 0.24 | 1484 | 0.35 | 1646 | 0.48 | 1794 | 0.63 |
| 1300 | 1151                                        | 0.16 | 1347 | 0.26 | 1523 | 0.38 | 1681 | 0.51 | 1826 | 0.66 |
| 1400 | 1209                                        | 0.19 | 1395 | 0.29 | 1565 | 0.41 | 1719 | 0.55 | 1860 | 0.69 |
| 1500 | 1269                                        | 0.22 | 1444 | 0.32 | 1608 | 0.45 | 1758 | 0.58 | 1897 | 0.73 |
| 1600 | 1331                                        | 0.25 | 1496 | 0.36 | 1654 | 0.48 | 1800 | 0.62 | 1935 | 0.78 |
| 1700 | 1396                                        | 0.29 | 1550 | 0.40 | 1701 | 0.53 | 1843 | 0.67 | 1975 | 0.82 |
| 1800 | 1462                                        | 0.33 | 1605 | 0.44 | 1750 | 0.57 | 1888 | 0.72 | 2017 | 0.87 |
| 1900 | 1528                                        | 0.38 | 1663 | 0.49 | 1801 | 0.62 | 1934 | 0.77 | 2060 | 0.93 |
| 2000 | 1596                                        | 0.43 | 1722 | 0.54 | 1854 | 0.68 | 1982 | 0.83 | 2105 | 0.99 |

| 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  |
| 1200 | 1931                                        | 0.78 | 2058 | 0.95 | 2177 | 1.12 | 2288 | 1.30 | 2394 | 1.49 |
| 1300 | 1961                                        | 0.82 | 2086 | 0.98 | 2205 | 1.16 | 2316 | 1.34 | 2422 | 1.54 |
| 1400 | 1993                                        | 0.85 | 2116 | 1.02 | 2233 | 1.20 | 2344 | 1.39 | 2450 | 1.58 |
| 1500 | 2026                                        | 0.89 | 2148 | 1.06 | 2264 | 1.25 | 2373 | 1.44 | —    | —    |
| 1600 | 2062                                        | 0.94 | 2181 | 1.11 | 2296 | 1.30 | 2404 | 1.49 | —    | —    |
| 1700 | 2099                                        | 0.99 | 2217 | 1.16 | 2328 | 1.35 | 2435 | 1.54 | —    | —    |
| 1800 | 2138                                        | 1.04 | 2254 | 1.22 | 2363 | 1.41 | —    | —    | —    | —    |
| 1900 | 2179                                        | 1.10 | 2292 | 1.28 | 2400 | 1.47 | —    | —    | —    | —    |
| 2000 | 2221                                        | 1.16 | 2332 | 1.34 | 2438 | 1.54 | —    | —    | —    | —    |

Standard Static 1095-1900 rpm, 0.72 max bhp

Medium Static 1095-2170 rpm, 1.06 max bhp

High Static 1095-2460 rpm, 1.53 max bhp

## 50FCQC05 Single Phase — Standard Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1200 | 1094                                        | 5.8 | 1302 | 6.9 | 1484 | 7.8 | 1646 | 8.7 | 1794 | 9.4  |
| 1300 | 1150                                        | 6.1 | 1347 | 7.1 | 1523 | 8.0 | 1681 | 8.8 | 1826 | 9.6  |
| 1400 | 1209                                        | 6.4 | 1395 | 7.3 | 1565 | 8.2 | 1719 | 9.0 | 1860 | 9.8  |
| 1500 | 1269                                        | 6.7 | 1444 | 7.6 | 1608 | 8.5 | 1758 | 9.3 | 1897 | 10.0 |
| 1600 | 1332                                        | 7.0 | 1496 | 7.9 | 1654 | 8.7 | 1800 | 9.5 | —    | —    |
| 1700 | 1396                                        | 7.3 | 1549 | 8.2 | 1701 | 9.0 | 1843 | 9.7 | —    | —    |
| 1800 | 1461                                        | 7.7 | 1605 | 8.4 | 1750 | 9.2 | 1888 | 9.9 | —    | —    |
| 1900 | 1528                                        | 8.0 | 1662 | 8.7 | 1801 | 9.5 | —    | —   | —    | —    |
| 2000 | 1596                                        | 8.4 | 1721 | 9.1 | 1853 | 9.8 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1300 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1400 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1600 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1700 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1800 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1094-1900 rpm

## 50FCQC05 Single Phase — Medium Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1094                                        | 5.0 | 1302 | 6.0 | 1484 | 6.8 | 1646 | 7.6 | 1794 | 8.3 |
| 1300 | 1150                                        | 5.3 | 1347 | 6.2 | 1523 | 7.0 | 1681 | 7.7 | 1826 | 8.4 |
| 1400 | 1209                                        | 5.6 | 1395 | 6.4 | 1565 | 7.2 | 1719 | 7.9 | 1860 | 8.6 |
| 1500 | 1269                                        | 5.8 | 1444 | 6.7 | 1608 | 7.4 | 1758 | 8.1 | 1897 | 8.7 |
| 1600 | 1332                                        | 6.1 | 1496 | 6.9 | 1654 | 7.6 | 1800 | 8.3 | 1935 | 8.9 |
| 1700 | 1396                                        | 6.4 | 1549 | 7.1 | 1701 | 7.8 | 1843 | 8.5 | 1975 | 9.1 |
| 1800 | 1461                                        | 6.7 | 1605 | 7.4 | 1750 | 8.1 | 1888 | 8.7 | 2017 | 9.3 |
| 1900 | 1528                                        | 7.0 | 1662 | 7.7 | 1801 | 8.3 | 1934 | 8.9 | 2060 | 9.5 |
| 2000 | 1596                                        | 7.4 | 1721 | 7.9 | 1853 | 8.5 | 1982 | 9.1 | 2105 | 9.7 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | 1930                                        | 8.9 | 2058 | 9.5 | —   | —   | —   | —   | —   | —   |
| 1300 | 1960                                        | 9.0 | 2086 | 9.6 | —   | —   | —   | —   | —   | —   |
| 1400 | 1992                                        | 9.2 | 2116 | 9.8 | —   | —   | —   | —   | —   | —   |
| 1500 | 2026                                        | 9.3 | 2148 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1600 | 2062                                        | 9.5 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1700 | 2099                                        | 9.7 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1800 | 2138                                        | 9.9 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1094-2170 rpm

## 50FCQC05 Single Phase — High Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1094                                        | 4.4 | 1302 | 5.3 | 1484 | 6.0 | 1646 | 6.7 | 1794 | 7.3 |
| 1300 | 1150                                        | 4.7 | 1347 | 5.5 | 1523 | 6.2 | 1681 | 6.8 | 1826 | 7.4 |
| 1400 | 1209                                        | 4.9 | 1395 | 5.7 | 1565 | 6.4 | 1719 | 7.0 | 1860 | 7.6 |
| 1500 | 1269                                        | 5.2 | 1444 | 5.9 | 1608 | 6.5 | 1758 | 7.1 | 1897 | 7.7 |
| 1600 | 1332                                        | 5.4 | 1496 | 6.1 | 1654 | 6.7 | 1800 | 7.3 | 1935 | 7.9 |
| 1700 | 1396                                        | 5.7 | 1549 | 6.3 | 1701 | 6.9 | 1843 | 7.5 | 1975 | 8.0 |
| 1800 | 1461                                        | 5.9 | 1605 | 6.5 | 1750 | 7.1 | 1888 | 7.7 | 2017 | 8.2 |
| 1900 | 1528                                        | 6.2 | 1662 | 6.8 | 1801 | 7.3 | 1934 | 7.9 | 2060 | 8.4 |
| 2000 | 1596                                        | 6.5 | 1721 | 7.0 | 1853 | 7.5 | 1982 | 8.1 | 2105 | 8.6 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1200 | 1930                                        | 7.8 | 2058 | 8.4 | 2177 | 8.8 | 2288 | 9.3 | 2394 | 9.7  |
| 1300 | 1960                                        | 8.0 | 2086 | 8.5 | 2205 | 9.0 | 2316 | 9.4 | 2422 | 9.8  |
| 1400 | 1992                                        | 8.1 | 2116 | 8.6 | 2233 | 9.1 | 2344 | 9.5 | 2450 | 10.0 |
| 1500 | 2026                                        | 8.2 | 2148 | 8.7 | 2263 | 9.2 | 2373 | 9.6 | —    | —    |
| 1600 | 2062                                        | 8.4 | 2181 | 8.9 | 2295 | 9.3 | 2403 | 9.8 | —    | —    |
| 1700 | 2099                                        | 8.5 | 2217 | 9.0 | 2328 | 9.5 | 2435 | 9.9 | —    | —    |
| 1800 | 2138                                        | 8.7 | 2254 | 9.2 | 2363 | 9.6 | —    | —   | —    | —    |
| 1900 | 2179                                        | 8.9 | 2292 | 9.3 | 2400 | 9.8 | —    | —   | —    | —    |
| 2000 | 2221                                        | 9.0 | 2332 | 9.5 | 2438 | 9.9 | —    | —   | —    | —    |

High Static 1094-2460 rpm

## 50FCQA05 Three Phase — 4 Ton Vertical Supply (rpm - bhp)

| 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  |
| 1200 | 1094                                        | 0.14 | 1302 | 0.24 | 1484 | 0.35 | 1646 | 0.48 | 1794 | 0.63 |
| 1300 | 1150                                        | 0.16 | 1347 | 0.26 | 1524 | 0.38 | 1681 | 0.51 | 1826 | 0.66 |
| 1400 | 1209                                        | 0.19 | 1395 | 0.29 | 1565 | 0.41 | 1719 | 0.55 | 1860 | 0.69 |
| 1500 | 1269                                        | 0.22 | 1444 | 0.32 | 1608 | 0.45 | 1759 | 0.58 | 1897 | 0.73 |
| 1600 | 1332                                        | 0.25 | 1496 | 0.36 | 1654 | 0.48 | 1800 | 0.62 | 1935 | 0.78 |
| 1700 | 1396                                        | 0.29 | 1549 | 0.40 | 1701 | 0.53 | 1843 | 0.67 | 1976 | 0.82 |
| 1800 | 1461                                        | 0.33 | 1605 | 0.44 | 1750 | 0.57 | 1888 | 0.72 | 2017 | 0.87 |
| 1900 | 1528                                        | 0.38 | 1662 | 0.49 | 1801 | 0.62 | 1934 | 0.77 | 2060 | 0.93 |
| 2000 | 1596                                        | 0.43 | 1721 | 0.54 | 1853 | 0.67 | 1982 | 0.83 | 2105 | 0.99 |

| 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  |
| 1200 | 1930                                        | 0.78 | 2058 | 0.95 | 2177 | 1.12 | 2288 | 1.30 | 2394 | 1.49 |
| 1300 | 1960                                        | 0.81 | 2086 | 0.98 | 2205 | 1.16 | 2316 | 1.34 | 2422 | 1.54 |
| 1400 | 1992                                        | 0.85 | 2116 | 1.02 | 2233 | 1.20 | 2344 | 1.39 | 2450 | 1.58 |
| 1500 | 2026                                        | 0.89 | 2148 | 1.06 | 2263 | 1.24 | 2373 | 1.44 | 2478 | 1.63 |
| 1600 | 2062                                        | 0.94 | 2181 | 1.11 | 2295 | 1.29 | 2403 | 1.49 | 2507 | 1.69 |
| 1700 | 2099                                        | 0.99 | 2217 | 1.16 | 2328 | 1.35 | 2435 | 1.54 | 2538 | 1.75 |
| 1800 | 2138                                        | 1.04 | 2254 | 1.22 | 2363 | 1.40 | 2469 | 1.60 | 2570 | 1.81 |
| 1900 | 2180                                        | 1.10 | 2292 | 1.28 | 2400 | 1.47 | 2503 | 1.67 | 2603 | 1.87 |
| 2000 | 2222                                        | 1.16 | 2332 | 1.34 | 2438 | 1.54 | 2540 | 1.74 | 2638 | 1.95 |

Standard Static 1094-1900 rpm, 0.72 max bhp

Medium Static 1094-2170 rpm, 1.06 max bhp

High Static 1094-2660 rpm, 1.96 max bhp

## 50FCQA05 Three Phase — Standard Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1200 | 1094                                        | 5.8 | 1302 | 6.9 | 1484 | 7.8 | 1646 | 8.7 | 1794 | 9.4  |
| 1300 | 1150                                        | 6.1 | 1347 | 7.1 | 1524 | 8.0 | 1681 | 8.8 | 1826 | 9.6  |
| 1400 | 1209                                        | 6.4 | 1395 | 7.3 | 1565 | 8.2 | 1719 | 9.0 | 1860 | 9.8  |
| 1500 | 1269                                        | 6.7 | 1444 | 7.6 | 1608 | 8.5 | 1759 | 9.3 | 1897 | 10.0 |
| 1600 | 1332                                        | 7.0 | 1496 | 7.9 | 1654 | 8.7 | 1800 | 9.5 | —    | —    |
| 1700 | 1396                                        | 7.3 | 1549 | 8.2 | 1701 | 9.0 | 1843 | 9.7 | —    | —    |
| 1800 | 1461                                        | 7.7 | 1605 | 8.4 | 1750 | 9.2 | 1888 | 9.9 | —    | —    |
| 1900 | 1528                                        | 8.0 | 1662 | 8.7 | 1801 | 9.5 | —    | —   | —    | —    |
| 2000 | 1596                                        | 8.4 | 1721 | 9.1 | 1853 | 9.8 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1300 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1400 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1600 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1700 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1800 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1094-1900 rpm

## 50FCQA05 Three Phase — Medium Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1094                                        | 5.0 | 1302 | 6.0 | 1484 | 6.8 | 1646 | 7.6 | 1794 | 8.3 |
| 1300 | 1150                                        | 5.3 | 1347 | 6.2 | 1524 | 7.0 | 1681 | 7.7 | 1826 | 8.4 |
| 1400 | 1209                                        | 5.6 | 1395 | 6.4 | 1565 | 7.2 | 1719 | 7.9 | 1860 | 8.6 |
| 1500 | 1269                                        | 5.8 | 1444 | 6.7 | 1608 | 7.4 | 1759 | 8.1 | 1897 | 8.7 |
| 1600 | 1332                                        | 6.1 | 1496 | 6.9 | 1654 | 7.6 | 1800 | 8.3 | 1935 | 8.9 |
| 1700 | 1396                                        | 6.4 | 1549 | 7.1 | 1701 | 7.8 | 1843 | 8.5 | 1976 | 9.1 |
| 1800 | 1461                                        | 6.7 | 1605 | 7.4 | 1750 | 8.1 | 1888 | 8.7 | 2017 | 9.3 |
| 1900 | 1528                                        | 7.0 | 1662 | 7.7 | 1801 | 8.3 | 1934 | 8.9 | 2060 | 9.5 |
| 2000 | 1596                                        | 7.4 | 1721 | 7.9 | 1853 | 8.5 | 1982 | 9.1 | 2105 | 9.7 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | 1930                                        | 8.9 | 2058 | 9.5 | —   | —   | —   | —   | —   | —   |
| 1300 | 1960                                        | 9.0 | 2086 | 9.6 | —   | —   | —   | —   | —   | —   |
| 1400 | 1992                                        | 9.2 | 2116 | 9.8 | —   | —   | —   | —   | —   | —   |
| 1500 | 2026                                        | 9.3 | 2148 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1600 | 2062                                        | 9.5 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1700 | 2099                                        | 9.7 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1800 | 2138                                        | 9.9 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1094-2170 rpm

## 50FCQA05 Three Phase — High Static — 4 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1094                                        | 4.1 | 1302 | 4.9 | 1484 | 5.6 | 1646 | 6.2 | 1794 | 6.7 |
| 1300 | 1150                                        | 4.3 | 1347 | 5.1 | 1524 | 5.7 | 1681 | 6.3 | 1826 | 6.9 |
| 1400 | 1209                                        | 4.5 | 1395 | 5.2 | 1565 | 5.9 | 1719 | 6.5 | 1860 | 7.0 |
| 1500 | 1269                                        | 4.8 | 1444 | 5.4 | 1608 | 6.0 | 1759 | 6.6 | 1897 | 7.1 |
| 1600 | 1332                                        | 5.0 | 1496 | 5.6 | 1654 | 6.2 | 1800 | 6.8 | 1935 | 7.3 |
| 1700 | 1396                                        | 5.2 | 1549 | 5.8 | 1701 | 6.4 | 1843 | 6.9 | 1976 | 7.4 |
| 1800 | 1461                                        | 5.5 | 1605 | 6.0 | 1750 | 6.6 | 1888 | 7.1 | 2017 | 7.6 |
| 1900 | 1528                                        | 5.7 | 1662 | 6.2 | 1801 | 6.8 | 1934 | 7.3 | 2060 | 7.7 |
| 2000 | 1596                                        | 6.0 | 1721 | 6.5 | 1853 | 7.0 | 1982 | 7.5 | 2105 | 7.9 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1930                                        | 7.3 | 2058 | 7.7 | 2177 | 8.2 | 2288 | 8.6 | 2394 | 9.0 |
| 1300 | 1960                                        | 7.4 | 2086 | 7.8 | 2205 | 8.3 | 2316 | 8.7 | 2422 | 9.1 |
| 1400 | 1992                                        | 7.5 | 2116 | 8.0 | 2233 | 8.4 | 2344 | 8.8 | 2450 | 9.2 |
| 1500 | 2026                                        | 7.6 | 2148 | 8.1 | 2263 | 8.5 | 2373 | 8.9 | 2478 | 9.3 |
| 1600 | 2062                                        | 7.8 | 2181 | 8.2 | 2295 | 8.6 | 2403 | 9.0 | 2507 | 9.4 |
| 1700 | 2099                                        | 7.9 | 2217 | 8.3 | 2328 | 8.8 | 2435 | 9.2 | 2538 | 9.5 |
| 1800 | 2138                                        | 8.0 | 2254 | 8.5 | 2363 | 8.9 | 2469 | 9.3 | 2570 | 9.7 |
| 1900 | 2180                                        | 8.2 | 2292 | 8.6 | 2400 | 9.0 | 2503 | 9.4 | 2603 | 9.8 |
| 2000 | 2222                                        | 8.4 | 2332 | 8.8 | 2438 | 9.2 | 2540 | 9.5 | 2638 | 9.9 |

High Static 1094-2660 rpm

## 50FCQA06 Single Phase — 5 Ton Vertical Supply (rpm - bhp)

| 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  |
| 1500 | 1228                                        | 0.20 | 1394 | 0.29 | 1554 | 0.40 | 1701 | 0.53 | 1836 | 0.66 |
| 1625 | 1305                                        | 0.24 | 1457 | 0.33 | 1609 | 0.44 | 1750 | 0.57 | 1882 | 0.71 |
| 1750 | 1384                                        | 0.28 | 1523 | 0.37 | 1666 | 0.49 | 1802 | 0.62 | 1930 | 0.76 |
| 1875 | 1466                                        | 0.33 | 1592 | 0.43 | 1726 | 0.54 | 1857 | 0.67 | 1981 | 0.82 |
| 2000 | 1549                                        | 0.39 | 1664 | 0.48 | 1789 | 0.60 | 1914 | 0.74 | 2034 | 0.88 |
| 2125 | 1633                                        | 0.46 | 1739 | 0.55 | 1855 | 0.67 | 1974 | 0.81 | 2089 | 0.95 |
| 2250 | 1718                                        | 0.53 | 1816 | 0.63 | 1924 | 0.74 | 2036 | 0.88 | 2146 | 1.03 |
| 2375 | 1803                                        | 0.61 | 1894 | 0.71 | 1995 | 0.83 | 2100 | 0.97 | 2206 | 1.12 |
| 2500 | 1890                                        | 0.70 | 1974 | 0.80 | 2068 | 0.92 | 2167 | 1.06 | 2268 | 1.21 |

| 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 |
| 1500 | 1961                                        | 0.80 | 2079 | 0.96 | 2191 | 1.12 | 2297 | 1.29 | —   | —   |
| 1625 | 2004                                        | 0.85 | 2120 | 1.01 | 2229 | 1.18 | 2334 | 1.35 | —   | —   |
| 1750 | 2050                                        | 0.91 | 2163 | 1.07 | 2270 | 1.24 | 2373 | 1.41 | —   | —   |
| 1875 | 2098                                        | 0.97 | 2208 | 1.13 | 2314 | 1.31 | —    | —    | —   | —   |
| 2000 | 2148                                        | 1.04 | 2256 | 1.21 | 2359 | 1.38 | —    | —    | —   | —   |
| 2125 | 2200                                        | 1.11 | 2305 | 1.28 | —    | —    | —    | —    | —   | —   |
| 2250 | 2254                                        | 1.20 | 2357 | 1.37 | —    | —    | —    | —    | —   | —   |
| 2375 | 2310                                        | 1.28 | —    | —    | —    | —    | —    | —    | —   | —   |
| 2500 | 2368                                        | 1.38 | —    | —    | —    | —    | —    | —    | —   | —   |

Standard Static 1228-2150 rpm, 1.06 max bhp

Medium Static 1228-2390 rpm, 1.44 max bhp

## 50FCQA06 Single Phase — Standard Static — 5 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1500 | 1228                                        | 5.7 | 1394 | 6.5 | 1554 | 7.2 | 1701 | 7.9 | 1836 | 8.5  |
| 1625 | 1305                                        | 6.1 | 1457 | 6.8 | 1609 | 7.5 | 1750 | 8.1 | 1882 | 8.8  |
| 1750 | 1384                                        | 6.4 | 1523 | 7.1 | 1666 | 7.7 | 1802 | 8.4 | 1930 | 9.0  |
| 1875 | 1466                                        | 6.8 | 1592 | 7.4 | 1726 | 8.0 | 1857 | 8.6 | 1981 | 9.2  |
| 2000 | 1549                                        | 7.2 | 1664 | 7.7 | 1789 | 8.3 | 1914 | 8.9 | 2034 | 9.5  |
| 2125 | 1633                                        | 7.6 | 1739 | 8.1 | 1855 | 8.6 | 1974 | 9.2 | 2089 | 9.7  |
| 2250 | 1718                                        | 8.0 | 1816 | 8.4 | 1924 | 8.9 | 2036 | 9.5 | 2146 | 10.0 |
| 2375 | 1803                                        | 8.4 | 1894 | 8.8 | 1995 | 9.3 | 2100 | 9.8 | —    | —    |
| 2500 | 1890                                        | 8.8 | 1974 | 9.2 | 2068 | 9.6 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |      | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc  | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1500 | 1961                                        | 9.1  | 2079 | 9.7 | —   | —   | —   | —   | —   | —   |
| 1625 | 2004                                        | 9.3  | 2120 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1750 | 2050                                        | 9.5  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1875 | 2098                                        | 9.8  | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | 2148                                        | 10.0 | —    | —   | —   | —   | —   | —   | —   | —   |
| 2125 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2250 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2375 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2500 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1228-2150 rpm

## 50FCQA06 Single Phase — Medium Static — 5 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1228                                        | 5.1 | 1394 | 5.8 | 1554 | 6.5 | 1701 | 7.1 | 1836 | 7.7 |
| 1625 | 1305                                        | 5.5 | 1457 | 6.1 | 1609 | 6.7 | 1750 | 7.3 | 1882 | 7.9 |
| 1750 | 1384                                        | 5.8 | 1523 | 6.4 | 1666 | 7.0 | 1802 | 7.5 | 1930 | 8.1 |
| 1875 | 1466                                        | 6.1 | 1592 | 6.7 | 1726 | 7.2 | 1857 | 7.8 | 1981 | 8.3 |
| 2000 | 1549                                        | 6.5 | 1664 | 7.0 | 1789 | 7.5 | 1914 | 8.0 | 2034 | 8.5 |
| 2125 | 1633                                        | 6.8 | 1739 | 7.3 | 1855 | 7.8 | 1974 | 8.3 | 2089 | 8.7 |
| 2250 | 1718                                        | 7.2 | 1816 | 7.6 | 1924 | 8.1 | 2036 | 8.5 | 2146 | 9.0 |
| 2375 | 1803                                        | 7.5 | 1894 | 7.9 | 1995 | 8.3 | 2100 | 8.8 | 2206 | 9.2 |
| 2500 | 1890                                        | 7.9 | 1974 | 8.3 | 2068 | 8.7 | 2167 | 9.1 | 2268 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |     |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm | vdc |
| 1500 | 1961                                        | 8.2 | 2079 | 8.7 | 2191 | 9.2 | 2297 | 9.6 | —   | —   |
| 1625 | 2004                                        | 8.4 | 2120 | 8.9 | 2229 | 9.3 | 2334 | 9.8 | —   | —   |
| 1750 | 2050                                        | 8.6 | 2163 | 9.1 | 2270 | 9.5 | 2373 | 9.9 | —   | —   |
| 1875 | 2098                                        | 8.8 | 2208 | 9.2 | 2314 | 9.7 | —    | —   | —   | —   |
| 2000 | 2148                                        | 9.0 | 2256 | 9.4 | 2359 | 9.9 | —    | —   | —   | —   |
| 2125 | 2200                                        | 9.2 | 2305 | 9.6 | —    | —   | —    | —   | —   | —   |
| 2250 | 2254                                        | 9.4 | 2357 | 9.9 | —    | —   | —    | —   | —   | —   |
| 2375 | 2310                                        | 9.7 | —    | —   | —    | —   | —    | —   | —   | —   |
| 2500 | 2368                                        | 9.9 | —    | —   | —    | —   | —    | —   | —   | —   |

Medium Static 1228-2390 rpm

## 50FCQA06 Three Phase — 5 Ton Vertical Supply (rpm - bhp)

| 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  |
| 1500 | 1228                                        | 0.20 | 1394 | 0.29 | 1554 | 0.40 | 1701 | 0.53 | 1836 | 0.66 |
| 1625 | 1305                                        | 0.24 | 1457 | 0.33 | 1609 | 0.44 | 1750 | 0.57 | 1882 | 0.71 |
| 1750 | 1384                                        | 0.28 | 1523 | 0.37 | 1666 | 0.49 | 1802 | 0.62 | 1930 | 0.76 |
| 1875 | 1466                                        | 0.33 | 1592 | 0.43 | 1726 | 0.54 | 1857 | 0.67 | 1981 | 0.82 |
| 2000 | 1549                                        | 0.39 | 1664 | 0.48 | 1789 | 0.60 | 1914 | 0.74 | 2034 | 0.88 |
| 2125 | 1633                                        | 0.46 | 1739 | 0.55 | 1855 | 0.67 | 1974 | 0.81 | 2089 | 0.95 |
| 2250 | 1718                                        | 0.53 | 1816 | 0.63 | 1924 | 0.74 | 2036 | 0.88 | 2146 | 1.03 |
| 2375 | 1803                                        | 0.61 | 1894 | 0.71 | 1995 | 0.83 | 2100 | 0.97 | 2206 | 1.12 |
| 2500 | 1889                                        | 0.70 | 1974 | 0.80 | 2068 | 0.92 | 2167 | 1.06 | 2268 | 1.21 |

| 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  |
| 1500 | 1961                                        | 0.80 | 2079 | 0.96 | 2191 | 1.12 | 2297 | 1.29 | 2399 | 1.47 |
| 1625 | 2004                                        | 0.85 | 2120 | 1.01 | 2229 | 1.18 | 2334 | 1.35 | 2434 | 1.53 |
| 1750 | 2050                                        | 0.91 | 2163 | 1.07 | 2271 | 1.24 | 2373 | 1.41 | 2472 | 1.60 |
| 1875 | 2098                                        | 0.97 | 2208 | 1.13 | 2314 | 1.31 | 2415 | 1.48 | 2511 | 1.67 |
| 2000 | 2148                                        | 1.04 | 2256 | 1.21 | 2359 | 1.38 | 2458 | 1.56 | 2553 | 1.75 |
| 2125 | 2200                                        | 1.11 | 2305 | 1.28 | 2407 | 1.46 | 2504 | 1.64 | 2597 | 1.83 |
| 2250 | 2254                                        | 1.20 | 2357 | 1.37 | 2456 | 1.55 | 2551 | 1.73 | 2643 | 1.93 |
| 2375 | 2310                                        | 1.28 | 2410 | 1.46 | 2507 | 1.64 | 2600 | 1.83 | 2690 | 2.03 |
| 2500 | 2368                                        | 1.38 | 2465 | 1.56 | 2560 | 1.75 | 2651 | 1.94 | 2739 | 2.14 |

Standard Static 1228-2150 rpm, 1.06 max bhp

Medium Static 1228-2390 rpm, 1.44 max bhp

High Static 1228-2836 rpm, 2.43 max bhp

## 50FCQA06 Three Phase — Standard Static — 5 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1500 | 1228                                        | 5.7 | 1394 | 6.5 | 1554 | 7.2 | 1701 | 7.9 | 1836 | 8.5  |
| 1625 | 1305                                        | 6.1 | 1457 | 6.8 | 1609 | 7.5 | 1750 | 8.1 | 1882 | 8.8  |
| 1750 | 1384                                        | 6.4 | 1523 | 7.1 | 1666 | 7.7 | 1802 | 8.4 | 1930 | 9.0  |
| 1875 | 1466                                        | 6.8 | 1592 | 7.4 | 1726 | 8.0 | 1857 | 8.6 | 1981 | 9.2  |
| 2000 | 1549                                        | 7.2 | 1664 | 7.7 | 1789 | 8.3 | 1914 | 8.9 | 2034 | 9.5  |
| 2125 | 1633                                        | 7.6 | 1739 | 8.1 | 1855 | 8.6 | 1974 | 9.2 | 2089 | 9.7  |
| 2250 | 1718                                        | 8.0 | 1816 | 8.4 | 1924 | 8.9 | 2036 | 9.5 | 2146 | 10.0 |
| 2375 | 1803                                        | 8.4 | 1894 | 8.8 | 1995 | 9.3 | 2100 | 9.8 | —    | —    |
| 2500 | 1889                                        | 8.8 | 1974 | 9.2 | 2068 | 9.6 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |      |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|------|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |      | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc  | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1500 | 1961                                        | 9.1  | 2079 | 9.7 | —   | —   | —   | —   | —   | —   |
| 1625 | 2004                                        | 9.3  | 2120 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1750 | 2050                                        | 9.5  | —    | —   | —   | —   | —   | —   | —   | —   |
| 1875 | 2098                                        | 9.8  | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | 2148                                        | 10.0 | —    | —   | —   | —   | —   | —   | —   | —   |
| 2125 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2250 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2375 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |
| 2500 | —                                           | —    | —    | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1228-2150 rpm

## 50FCQA06 Three Phase — Medium Static — 5 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1228                                        | 5.1 | 1394 | 5.8 | 1554 | 6.5 | 1701 | 7.1 | 1836 | 7.7 |
| 1625 | 1305                                        | 5.5 | 1457 | 6.1 | 1609 | 6.7 | 1750 | 7.3 | 1882 | 7.9 |
| 1750 | 1384                                        | 5.8 | 1523 | 6.4 | 1666 | 7.0 | 1802 | 7.5 | 1930 | 8.1 |
| 1875 | 1466                                        | 6.1 | 1592 | 6.7 | 1726 | 7.2 | 1857 | 7.8 | 1981 | 8.3 |
| 2000 | 1549                                        | 6.5 | 1664 | 7.0 | 1789 | 7.5 | 1914 | 8.0 | 2034 | 8.5 |
| 2125 | 1633                                        | 6.8 | 1739 | 7.3 | 1855 | 7.8 | 1974 | 8.3 | 2089 | 8.7 |
| 2250 | 1718                                        | 7.2 | 1816 | 7.6 | 1924 | 8.1 | 2036 | 8.5 | 2146 | 9.0 |
| 2375 | 1803                                        | 7.5 | 1894 | 7.9 | 1995 | 8.3 | 2100 | 8.8 | 2206 | 9.2 |
| 2500 | 1889                                        | 7.9 | 1974 | 8.3 | 2068 | 8.7 | 2167 | 9.1 | 2268 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |     |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm | vdc |
| 1500 | 1961                                        | 8.2 | 2079 | 8.7 | 2191 | 9.2 | 2297 | 9.6 | —   | —   |
| 1625 | 2004                                        | 8.4 | 2120 | 8.9 | 2229 | 9.3 | 2334 | 9.8 | —   | —   |
| 1750 | 2050                                        | 8.6 | 2163 | 9.1 | 2271 | 9.5 | 2373 | 9.9 | —   | —   |
| 1875 | 2098                                        | 8.8 | 2208 | 9.2 | 2314 | 9.7 | —    | —   | —   | —   |
| 2000 | 2148                                        | 9.0 | 2256 | 9.4 | 2359 | 9.9 | —    | —   | —   | —   |
| 2125 | 2200                                        | 9.2 | 2305 | 9.6 | —    | —   | —    | —   | —   | —   |
| 2250 | 2254                                        | 9.4 | 2357 | 9.9 | —    | —   | —    | —   | —   | —   |
| 2375 | 2310                                        | 9.7 | —    | —   | —    | —   | —    | —   | —   | —   |
| 2500 | 2368                                        | 9.9 | —    | —   | —    | —   | —    | —   | —   | —   |

Medium Static 1228-2390 rpm

## 50FCQA06 Three Phase — High Static — 5 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1228                                        | 4.3 | 1394 | 4.9 | 1554 | 5.5 | 1701 | 6.0 | 1836 | 6.5 |
| 1625 | 1305                                        | 4.6 | 1457 | 5.1 | 1609 | 5.7 | 1750 | 6.2 | 1882 | 6.6 |
| 1750 | 1384                                        | 4.9 | 1523 | 5.4 | 1666 | 5.9 | 1802 | 6.4 | 1930 | 6.8 |
| 1875 | 1466                                        | 5.2 | 1592 | 5.6 | 1726 | 6.1 | 1857 | 6.5 | 1981 | 7.0 |
| 2000 | 1549                                        | 5.5 | 1664 | 5.9 | 1789 | 6.3 | 1914 | 6.7 | 2034 | 7.2 |
| 2125 | 1633                                        | 5.8 | 1739 | 6.1 | 1855 | 6.5 | 1974 | 7.0 | 2089 | 7.4 |
| 2250 | 1718                                        | 6.1 | 1816 | 6.4 | 1924 | 6.8 | 2036 | 7.2 | 2146 | 7.6 |
| 2375 | 1803                                        | 6.4 | 1894 | 6.7 | 1995 | 7.0 | 2100 | 7.4 | 2206 | 7.8 |
| 2500 | 1889                                        | 6.7 | 1974 | 7.0 | 2068 | 7.3 | 2167 | 7.6 | 2268 | 8.0 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1961                                        | 6.9 | 2079 | 7.3 | 2191 | 7.7 | 2297 | 8.1 | 2399 | 8.5 |
| 1625 | 2004                                        | 7.1 | 2120 | 7.5 | 2229 | 7.9 | 2334 | 8.2 | 2434 | 8.6 |
| 1750 | 2050                                        | 7.2 | 2163 | 7.6 | 2271 | 8.0 | 2373 | 8.4 | 2472 | 8.7 |
| 1875 | 2098                                        | 7.4 | 2208 | 7.8 | 2314 | 8.2 | 2415 | 8.5 | 2511 | 8.9 |
| 2000 | 2148                                        | 7.6 | 2256 | 8.0 | 2359 | 8.3 | 2458 | 8.7 | 2553 | 9.0 |
| 2125 | 2200                                        | 7.8 | 2305 | 8.1 | 2407 | 8.5 | 2504 | 8.8 | 2597 | 9.2 |
| 2250 | 2254                                        | 7.9 | 2357 | 8.3 | 2456 | 8.7 | 2551 | 9.0 | 2643 | 9.3 |
| 2375 | 2310                                        | 8.1 | 2410 | 8.5 | 2507 | 8.8 | 2600 | 9.2 | 2690 | 9.5 |
| 2500 | 2368                                        | 8.3 | 2465 | 8.7 | 2560 | 9.0 | 2651 | 9.3 | 2739 | 9.7 |

High Static 1228-2836 rpm

## 50FCQM07 Three Phase — 6 Ton Vertical Supply (rpm - bhp)

| 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 | 1416                                        | 0.30 | 1549 | 0.39 | 1690 | 0.51 | 1824 | 0.64 | 1950 | 0.78 |
| 1950 | 1516                                        | 0.37 | 1635 | 0.46 | 1764 | 0.58 | 1891 | 0.71 | 2012 | 0.86 |
| 2100 | 1616                                        | 0.44 | 1724 | 0.54 | 1841 | 0.65 | 1961 | 0.79 | 2078 | 0.94 |
| 2250 | 1718                                        | 0.53 | 1815 | 0.62 | 1924 | 0.74 | 2036 | 0.88 | 2146 | 1.03 |
| 2400 | 1820                                        | 0.63 | 1910 | 0.73 | 2009 | 0.84 | 2113 | 0.98 | 2218 | 1.14 |
| 2550 | 1924                                        | 0.74 | 2007 | 0.84 | 2098 | 0.96 | 2195 | 1.10 | 2293 | 1.25 |
| 2700 | 2028                                        | 0.87 | 2105 | 0.97 | 2189 | 1.09 | 2279 | 1.23 | 2371 | 1.38 |
| 2850 | 2133                                        | 1.01 | 2205 | 1.11 | 2282 | 1.23 | 2366 | 1.37 | 2453 | 1.53 |
| 3000 | 2239                                        | 1.16 | 2306 | 1.27 | 2378 | 1.39 | 2456 | 1.53 | 2537 | 1.69 |

| 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 | 2069                                        | 0.93 | 2181 | 1.10 | 2287 | 1.26 | 2389 | 1.44 | 2487 | 1.62 |
| 1950 | 2127                                        | 1.01 | 2237 | 1.18 | 2341 | 1.35 | 2440 | 1.53 | 2536 | 1.71 |
| 2100 | 2189                                        | 1.10 | 2295 | 1.27 | 2397 | 1.44 | 2494 | 1.63 | 2588 | 1.82 |
| 2250 | 2254                                        | 1.20 | 2357 | 1.37 | 2456 | 1.55 | 2551 | 1.73 | 2643 | 1.93 |
| 2400 | 2321                                        | 1.30 | 2421 | 1.48 | 2517 | 1.66 | 2610 | 1.85 | 2700 | 2.05 |
| 2550 | 2392                                        | 1.42 | 2488 | 1.60 | 2581 | 1.79 | 2672 | 1.98 | 2759 | 2.18 |
| 2700 | 2465                                        | 1.55 | 2557 | 1.73 | 2648 | 1.93 | 2736 | 2.13 | 2821 | 2.33 |
| 2850 | 2541                                        | 1.70 | 2630 | 1.88 | 2717 | 2.08 | 2802 | 2.28 | —    | —    |
| 3000 | 2621                                        | 1.86 | 2705 | 2.05 | 2788 | 2.24 | —    | —    | —    | —    |

Standard Static 1416-2300 rpm, 1.31 max bhp

Medium Static 1416-2530 rpm, 1.76 max bhp

High Static 1416-2836 rpm, 2.43 max bhp

## 50FCQM07 Three Phase — Standard Static — 6 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1800 | 1416                                        | 6.2 | 1549 | 6.7 | 1690 | 7.3 | 1824 | 7.9 | 1950 | 8.5  |
| 1950 | 1516                                        | 6.6 | 1635 | 7.1 | 1764 | 7.7 | 1891 | 8.2 | 2012 | 8.7  |
| 2100 | 1616                                        | 7.0 | 1724 | 7.5 | 1841 | 8.0 | 1961 | 8.5 | 2078 | 9.0  |
| 2250 | 1718                                        | 7.5 | 1815 | 7.9 | 1924 | 8.4 | 2036 | 8.9 | 2146 | 9.3  |
| 2400 | 1820                                        | 7.9 | 1910 | 8.3 | 2009 | 8.7 | 2113 | 9.2 | 2218 | 9.6  |
| 2550 | 1924                                        | 8.4 | 2007 | 8.7 | 2098 | 9.1 | 2195 | 9.5 | 2293 | 10.0 |
| 2700 | 2028                                        | 8.8 | 2105 | 9.2 | 2189 | 9.5 | 2279 | 9.9 | —    | —    |
| 2850 | 2133                                        | 9.3 | 2205 | 9.6 | 2282 | 9.9 | —    | —   | —    | —    |
| 3000 | 2239                                        | 9.7 | —    | —   | —    | —   | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |      |      |     |     |     |     |     |
|------|---------------------------------------------|-----|------|------|------|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |      | 1.6  |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc  | rpm  | vdc | rpm | vdc | rpm | vdc |
| 1800 | 2069                                        | 9.0 | 2181 | 9.5  | 2287 | 9.9 | —   | —   | —   | —   |
| 1950 | 2127                                        | 9.2 | 2237 | 9.7  | —    | —   | —   | —   | —   | —   |
| 2100 | 2189                                        | 9.5 | 2295 | 10.0 | —    | —   | —   | —   | —   | —   |
| 2250 | 2254                                        | 9.8 | —    | —    | —    | —   | —   | —   | —   | —   |
| 2400 | —                                           | —   | —    | —    | —    | —   | —   | —   | —   | —   |
| 2550 | —                                           | —   | —    | —    | —    | —   | —   | —   | —   | —   |
| 2700 | —                                           | —   | —    | —    | —    | —   | —   | —   | —   | —   |
| 2850 | —                                           | —   | —    | —    | —    | —   | —   | —   | —   | —   |
| 3000 | —                                           | —   | —    | —    | —    | —   | —   | —   | —   | —   |

Standard Static 1416-2300 rpm

## 50FCQM07 Three Phase — Medium Static — 6 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 1416                                        | 5.6 | 1549 | 6.1 | 1690 | 6.7 | 1824 | 7.2 | 1950 | 7.7 |
| 1950 | 1516                                        | 6.0 | 1635 | 6.5 | 1764 | 7.0 | 1891 | 7.5 | 2012 | 8.0 |
| 2100 | 1616                                        | 6.4 | 1724 | 6.8 | 1841 | 7.3 | 1961 | 7.8 | 2078 | 8.2 |
| 2250 | 1718                                        | 6.8 | 1815 | 7.2 | 1924 | 7.6 | 2036 | 8.0 | 2146 | 8.5 |
| 2400 | 1820                                        | 7.2 | 1910 | 7.5 | 2009 | 7.9 | 2113 | 8.4 | 2218 | 8.8 |
| 2550 | 1924                                        | 7.6 | 2007 | 7.9 | 2098 | 8.3 | 2195 | 8.7 | 2293 | 9.1 |
| 2700 | 2028                                        | 8.0 | 2105 | 8.3 | 2189 | 8.7 | 2279 | 9.0 | 2371 | 9.4 |
| 2850 | 2133                                        | 8.4 | 2205 | 8.7 | 2282 | 9.0 | 2366 | 9.4 | 2453 | 9.7 |
| 3000 | 2239                                        | 8.8 | 2306 | 9.1 | 2378 | 9.4 | 2456 | 9.7 | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 2069                                        | 8.2 | 2181 | 8.6 | 2287 | 9.0 | 2389 | 9.4 | 2487 | 9.8 |
| 1950 | 2127                                        | 8.4 | 2237 | 8.8 | 2341 | 9.3 | 2440 | 9.6 | —    | —   |
| 2100 | 2189                                        | 8.7 | 2295 | 9.1 | 2397 | 9.5 | 2494 | 9.9 | —    | —   |
| 2250 | 2254                                        | 8.9 | 2357 | 9.3 | 2456 | 9.7 | —    | —   | —    | —   |
| 2400 | 2321                                        | 9.2 | 2421 | 9.6 | 2517 | 9.9 | —    | —   | —    | —   |
| 2550 | 2392                                        | 9.5 | 2488 | 9.8 | —    | —   | —    | —   | —    | —   |
| 2700 | 2465                                        | 9.7 | —    | —   | —    | —   | —    | —   | —    | —   |
| 2850 | —                                           | —   | —    | —   | —    | —   | —    | —   | —    | —   |
| 3000 | —                                           | —   | —    | —   | —    | —   | —    | —   | —    | —   |

Medium Static 1416-2530 rpm

## 50FCQM07 Three Phase — High Static — 6 Ton Vertical Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 1416                                        | 5.0 | 1549 | 5.5 | 1690 | 6.0 | 1824 | 6.4 | 1950 | 6.9 |
| 1950 | 1516                                        | 5.3 | 1635 | 5.8 | 1764 | 6.2 | 1891 | 6.7 | 2012 | 7.1 |
| 2100 | 1616                                        | 5.7 | 1724 | 6.1 | 1841 | 6.5 | 1961 | 6.9 | 2078 | 7.3 |
| 2250 | 1718                                        | 6.1 | 1815 | 6.4 | 1924 | 6.8 | 2036 | 7.2 | 2146 | 7.6 |
| 2400 | 1820                                        | 6.4 | 1910 | 6.7 | 2009 | 7.1 | 2113 | 7.5 | 2218 | 7.8 |
| 2550 | 1924                                        | 6.8 | 2007 | 7.1 | 2098 | 7.4 | 2195 | 7.7 | 2293 | 8.1 |
| 2700 | 2028                                        | 7.2 | 2105 | 7.4 | 2189 | 7.7 | 2279 | 8.0 | 2371 | 8.4 |
| 2850 | 2133                                        | 7.5 | 2205 | 7.8 | 2282 | 8.0 | 2366 | 8.3 | 2453 | 8.6 |
| 3000 | 2239                                        | 7.9 | 2306 | 8.1 | 2378 | 8.4 | 2456 | 8.7 | 2537 | 8.9 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 2069                                        | 7.3 | 2181 | 7.7 | 2287 | 8.1 | 2389 | 8.4 | 2487 | 8.8 |
| 1950 | 2127                                        | 7.5 | 2237 | 7.9 | 2341 | 8.3 | 2440 | 8.6 | 2536 | 8.9 |
| 2100 | 2189                                        | 7.7 | 2295 | 8.1 | 2397 | 8.5 | 2494 | 8.8 | 2588 | 9.1 |
| 2250 | 2254                                        | 7.9 | 2357 | 8.3 | 2456 | 8.7 | 2551 | 9.0 | 2643 | 9.3 |
| 2400 | 2321                                        | 8.2 | 2421 | 8.5 | 2517 | 8.9 | 2610 | 9.2 | 2700 | 9.5 |
| 2550 | 2392                                        | 8.4 | 2488 | 8.8 | 2581 | 9.1 | 2672 | 9.4 | 2759 | 9.7 |
| 2700 | 2465                                        | 8.7 | 2557 | 9.0 | 2648 | 9.3 | 2736 | 9.6 | 2821 | 9.9 |
| 2850 | 2541                                        | 9.0 | 2630 | 9.3 | 2717 | 9.6 | 2802 | 9.9 | —    | —   |
| 3000 | 2621                                        | 9.2 | 2705 | 9.5 | 2788 | 9.8 | —    | —   | —    | —   |

High Static 1416-2836 rpm

## 50FCQA04 Single Phase — 3 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 900  | 1036                                        | 0.08 | 1301 | 0.15 | 1517 | 0.24 | 1698 | 0.34 | 1855 | 0.44 |
| 975  | 1077                                        | 0.09 | 1331 | 0.16 | 1546 | 0.26 | 1727 | 0.36 | 1885 | 0.47 |
| 1050 | 1119                                        | 0.10 | 1362 | 0.18 | 1574 | 0.27 | 1755 | 0.38 | 1915 | 0.49 |
| 1125 | 1164                                        | 0.11 | 1394 | 0.19 | 1603 | 0.29 | 1783 | 0.39 | 1944 | 0.51 |
| 1200 | 1211                                        | 0.12 | 1429 | 0.20 | 1632 | 0.30 | 1813 | 0.41 | 1972 | 0.53 |
| 1275 | 1261                                        | 0.14 | 1466 | 0.22 | 1663 | 0.32 | 1841 | 0.43 | 2000 | 0.56 |
| 1350 | 1312                                        | 0.16 | 1506 | 0.24 | 1695 | 0.34 | 1870 | 0.46 | 2029 | 0.58 |
| 1425 | 1365                                        | 0.18 | 1547 | 0.26 | 1729 | 0.36 | 1901 | 0.48 | 2057 | 0.61 |
| 1500 | 1419                                        | 0.20 | 1591 | 0.28 | 1765 | 0.38 | 1932 | 0.50 | 2087 | 0.63 |

| 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  |
| 900  | 1996                                        | 0.55 | 2123 | 0.67 | 2242 | 0.78 | 2352 | 0.91 | 2455 | 1.03 |
| 975  | 2027                                        | 0.58 | 2157 | 0.70 | 2276 | 0.82 | 2387 | 0.95 | —    | —    |
| 1050 | 2058                                        | 0.61 | 2189 | 0.73 | 2309 | 0.86 | 2421 | 0.99 | —    | —    |
| 1125 | 2088                                        | 0.63 | 2219 | 0.76 | 2341 | 0.89 | 2454 | 1.03 | —    | —    |
| 1200 | 2117                                        | 0.66 | 2249 | 0.79 | 2372 | 0.93 | 2486 | 1.07 | —    | —    |
| 1275 | 2146                                        | 0.69 | 2278 | 0.82 | 2402 | 0.97 | —    | —    | —    | —    |
| 1350 | 2174                                        | 0.72 | 2307 | 0.86 | 2431 | 1.00 | —    | —    | —    | —    |
| 1425 | 2202                                        | 0.74 | 2336 | 0.89 | 2460 | 1.04 | —    | —    | —    | —    |
| 1500 | 2230                                        | 0.77 | 2364 | 0.92 | 2488 | 1.07 | —    | —    | —    | —    |

Standard Static 1036-1890 rpm, 0.44 max bhp

Medium Static 1036-2190 rpm, 0.71 max bhp

High Static 1036-2490 rpm, 1.07 max bhp

## 50FCQA04 Single Phase — Standard Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 900  | 1036                                        | 5.5 | 1301 | 6.9 | 1517 | 8.0 | 1698 | 9.0 | 1855 | 9.8  |
| 975  | 1077                                        | 5.7 | 1331 | 7.0 | 1546 | 8.2 | 1727 | 9.1 | 1885 | 10.0 |
| 1050 | 1119                                        | 5.9 | 1362 | 7.2 | 1574 | 8.3 | 1755 | 9.3 | —    | —    |
| 1125 | 1164                                        | 6.2 | 1394 | 7.4 | 1603 | 8.5 | 1783 | 9.4 | —    | —    |
| 1200 | 1211                                        | 6.4 | 1429 | 7.6 | 1632 | 8.6 | 1813 | 9.6 | —    | —    |
| 1275 | 1261                                        | 6.7 | 1466 | 7.8 | 1663 | 8.8 | 1841 | 9.7 | —    | —    |
| 1350 | 1312                                        | 6.9 | 1506 | 8.0 | 1695 | 9.0 | 1870 | 9.9 | —    | —    |
| 1425 | 1365                                        | 7.2 | 1547 | 8.2 | 1729 | 9.1 | —    | —   | —    | —    |
| 1500 | 1419                                        | 7.5 | 1591 | 8.4 | 1765 | 9.3 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 975  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1050 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1125 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1275 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1036-1890 rpm

## 50FCQA04 Single Phase — Medium Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1036                                        | 4.7 | 1301 | 5.9 | 1517 | 6.9 | 1698 | 7.8 | 1855 | 8.5 |
| 975  | 1077                                        | 4.9 | 1331 | 6.1 | 1546 | 7.1 | 1727 | 7.9 | 1885 | 8.6 |
| 1050 | 1119                                        | 5.1 | 1362 | 6.2 | 1574 | 7.2 | 1755 | 8.0 | 1915 | 8.7 |
| 1125 | 1164                                        | 5.3 | 1394 | 6.4 | 1603 | 7.3 | 1783 | 8.1 | 1944 | 8.9 |
| 1200 | 1211                                        | 5.5 | 1429 | 6.5 | 1632 | 7.5 | 1813 | 8.3 | 1972 | 9.0 |
| 1275 | 1261                                        | 5.8 | 1466 | 6.7 | 1663 | 7.6 | 1841 | 8.4 | 2000 | 9.1 |
| 1350 | 1312                                        | 6.0 | 1506 | 6.9 | 1695 | 7.7 | 1870 | 8.5 | 2029 | 9.3 |
| 1425 | 1365                                        | 6.2 | 1547 | 7.1 | 1729 | 7.9 | 1901 | 8.7 | 2057 | 9.4 |
| 1500 | 1419                                        | 6.5 | 1591 | 7.3 | 1765 | 8.1 | 1932 | 8.8 | 2087 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |      |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|------|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |      | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc  | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | 1996                                        | 9.1 | 2123 | 9.7  | —   | —   | —   | —   | —   | —   |
| 975  | 2027                                        | 9.3 | 2157 | 9.8  | —   | —   | —   | —   | —   | —   |
| 1050 | 2058                                        | 9.4 | 2189 | 10.0 | —   | —   | —   | —   | —   | —   |
| 1125 | 2088                                        | 9.5 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1200 | 2117                                        | 9.7 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1275 | 2146                                        | 9.8 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1350 | 2174                                        | 9.9 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |

Medium Static 1036-2190 rpm

## 50FCQA04 Single Phase — High Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1036                                        | 4.2 | 1301 | 5.2 | 1517 | 6.1 | 1698 | 6.8 | 1855 | 7.4 |
| 975  | 1077                                        | 4.3 | 1331 | 5.3 | 1546 | 6.2 | 1727 | 6.9 | 1885 | 7.6 |
| 1050 | 1119                                        | 4.5 | 1362 | 5.5 | 1574 | 6.3 | 1755 | 7.0 | 1915 | 7.7 |
| 1125 | 1164                                        | 4.7 | 1394 | 5.6 | 1603 | 6.4 | 1783 | 7.2 | 1944 | 7.8 |
| 1200 | 1211                                        | 4.9 | 1429 | 5.7 | 1632 | 6.6 | 1813 | 7.3 | 1972 | 7.9 |
| 1275 | 1261                                        | 5.1 | 1466 | 5.9 | 1663 | 6.7 | 1841 | 7.4 | 2000 | 8.0 |
| 1350 | 1312                                        | 5.3 | 1506 | 6.0 | 1695 | 6.8 | 1870 | 7.5 | 2029 | 8.1 |
| 1425 | 1365                                        | 5.5 | 1547 | 6.2 | 1729 | 6.9 | 1901 | 7.6 | 2057 | 8.3 |
| 1500 | 1419                                        | 5.7 | 1591 | 6.4 | 1765 | 7.1 | 1932 | 7.8 | 2087 | 8.4 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |      |      |      |      |     |
|------|---------------------------------------------|-----|------|-----|------|------|------|------|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |      | 1.8  |      | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc  | rpm  | vdc  | rpm  | vdc |
| 900  | 1996                                        | 8.0 | 2123 | 8.5 | 2242 | 9.0  | 2352 | 9.4  | 2455 | 9.9 |
| 975  | 2027                                        | 8.1 | 2157 | 8.7 | 2276 | 9.1  | 2387 | 9.6  | —    | —   |
| 1050 | 2058                                        | 8.3 | 2189 | 8.8 | 2309 | 9.3  | 2421 | 9.7  | —    | —   |
| 1125 | 2088                                        | 8.4 | 2219 | 8.9 | 2341 | 9.4  | 2454 | 9.9  | —    | —   |
| 1200 | 2117                                        | 8.5 | 2249 | 9.0 | 2372 | 9.5  | 2486 | 10.0 | —    | —   |
| 1275 | 2146                                        | 8.6 | 2278 | 9.1 | 2402 | 9.6  | —    | —    | —    | —   |
| 1350 | 2174                                        | 8.7 | 2307 | 9.3 | 2431 | 9.8  | —    | —    | —    | —   |
| 1425 | 2202                                        | 8.8 | 2336 | 9.4 | 2460 | 9.9  | —    | —    | —    | —   |
| 1500 | 2230                                        | 9.0 | 2364 | 9.5 | 2488 | 10.0 | —    | —    | —    | —   |

High Static 1036-2490 rpm

## 50FCQA04 Three Phase — 3 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 900  | 1036                                        | 0.08 | 1301 | 0.15 | 1517 | 0.24 | 1698 | 0.34 | 1855 | 0.44 |
| 975  | 1076                                        | 0.09 | 1330 | 0.16 | 1545 | 0.26 | 1727 | 0.36 | 1885 | 0.47 |
| 1050 | 1119                                        | 0.10 | 1361 | 0.18 | 1573 | 0.27 | 1756 | 0.38 | 1915 | 0.49 |
| 1125 | 1164                                        | 0.11 | 1395 | 0.19 | 1602 | 0.29 | 1784 | 0.40 | 1944 | 0.51 |
| 1200 | 1211                                        | 0.12 | 1429 | 0.20 | 1632 | 0.30 | 1812 | 0.41 | 1973 | 0.53 |
| 1275 | 1261                                        | 0.14 | 1466 | 0.22 | 1663 | 0.32 | 1841 | 0.43 | 2001 | 0.56 |
| 1350 | 1313                                        | 0.16 | 1506 | 0.24 | 1695 | 0.34 | 1870 | 0.46 | 2029 | 0.58 |
| 1425 | 1366                                        | 0.18 | 1548 | 0.26 | 1729 | 0.36 | 1900 | 0.48 | 2058 | 0.61 |
| 1500 | 1420                                        | 0.20 | 1591 | 0.28 | 1765 | 0.38 | 1932 | 0.50 | 2087 | 0.63 |

| 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  |
| 900  | 1995                                        | 0.55 | 2124 | 0.67 | 2242 | 0.78 | 2352 | 0.91 | 2455 | 1.03 |
| 975  | 2027                                        | 0.58 | 2157 | 0.70 | 2276 | 0.82 | 2387 | 0.95 | —    | —    |
| 1050 | 2058                                        | 0.61 | 2189 | 0.73 | 2309 | 0.86 | 2421 | 0.99 | —    | —    |
| 1125 | 2088                                        | 0.63 | 2219 | 0.76 | 2341 | 0.89 | 2454 | 1.03 | —    | —    |
| 1200 | 2117                                        | 0.66 | 2249 | 0.79 | 2372 | 0.93 | 2485 | 1.07 | —    | —    |
| 1275 | 2146                                        | 0.69 | 2278 | 0.82 | 2401 | 0.96 | —    | —    | —    | —    |
| 1350 | 2174                                        | 0.72 | 2307 | 0.86 | 2431 | 1.00 | —    | —    | —    | —    |
| 1425 | 2202                                        | 0.74 | 2335 | 0.89 | 2460 | 1.04 | —    | —    | —    | —    |
| 1500 | 2231                                        | 0.77 | 2364 | 0.92 | 2488 | 1.07 | —    | —    | —    | —    |

Standard Static 1136-1890 rpm, 0.44 max bhp

Medium Static 1136-2190 rpm, 0.71 max bhp

High Static 1136-2490 rpm, 1.07 max bhp

## 50FCQA04 Three Phase — Standard Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 900  | 1036                                        | 5.5 | 1301 | 6.9 | 1517 | 8.0 | 1698 | 9.0 | 1855 | 9.8  |
| 975  | 1076                                        | 5.7 | 1330 | 7.0 | 1545 | 8.2 | 1727 | 9.1 | 1885 | 10.0 |
| 1050 | 1119                                        | 5.9 | 1361 | 7.2 | 1573 | 8.3 | 1756 | 9.3 | —    | —    |
| 1125 | 1164                                        | 6.2 | 1395 | 7.4 | 1602 | 8.5 | 1784 | 9.4 | —    | —    |
| 1200 | 1211                                        | 6.4 | 1429 | 7.6 | 1632 | 8.6 | 1812 | 9.6 | —    | —    |
| 1275 | 1261                                        | 6.7 | 1466 | 7.8 | 1663 | 8.8 | 1841 | 9.7 | —    | —    |
| 1350 | 1313                                        | 6.9 | 1506 | 8.0 | 1695 | 9.0 | 1870 | 9.9 | —    | —    |
| 1425 | 1366                                        | 7.2 | 1548 | 8.2 | 1729 | 9.1 | —    | —   | —    | —    |
| 1500 | 1420                                        | 7.5 | 1591 | 8.4 | 1765 | 9.3 | —    | —   | —    | —    |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 975  | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1050 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1125 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1275 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1350 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1136-1890 rpm

## 50FCQA04 Three Phase — Medium Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1036                                        | 4.7 | 1301 | 5.9 | 1517 | 6.9 | 1698 | 7.8 | 1855 | 8.5 |
| 975  | 1076                                        | 4.9 | 1330 | 6.1 | 1545 | 7.1 | 1727 | 7.9 | 1885 | 8.6 |
| 1050 | 1119                                        | 5.1 | 1361 | 6.2 | 1573 | 7.2 | 1756 | 8.0 | 1915 | 8.7 |
| 1125 | 1164                                        | 5.3 | 1395 | 6.4 | 1602 | 7.3 | 1784 | 8.1 | 1944 | 8.9 |
| 1200 | 1211                                        | 5.5 | 1429 | 6.5 | 1632 | 7.5 | 1812 | 8.3 | 1973 | 9.0 |
| 1275 | 1261                                        | 5.8 | 1466 | 6.7 | 1663 | 7.6 | 1841 | 8.4 | 2001 | 9.1 |
| 1350 | 1313                                        | 6.0 | 1506 | 6.9 | 1695 | 7.7 | 1870 | 8.5 | 2029 | 9.3 |
| 1425 | 1366                                        | 6.2 | 1548 | 7.1 | 1729 | 7.9 | 1900 | 8.7 | 2058 | 9.4 |
| 1500 | 1420                                        | 6.5 | 1591 | 7.3 | 1765 | 8.1 | 1932 | 8.8 | 2087 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |      |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|------|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |      | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc  | rpm | vdc | rpm | vdc | rpm | vdc |
| 900  | 1995                                        | 9.1 | 2124 | 9.7  | —   | —   | —   | —   | —   | —   |
| 975  | 2027                                        | 9.3 | 2157 | 9.8  | —   | —   | —   | —   | —   | —   |
| 1050 | 2058                                        | 9.4 | 2189 | 10.0 | —   | —   | —   | —   | —   | —   |
| 1125 | 2088                                        | 9.5 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1200 | 2117                                        | 9.7 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1275 | 2146                                        | 9.8 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1350 | 2174                                        | 9.9 | —    | —    | —   | —   | —   | —   | —   | —   |
| 1425 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |

Medium Static 1136-2190 rpm

## 50FCQA04 Three Phase — High Static — 3 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 900  | 1036                                        | 4.2 | 1301 | 5.2 | 1517 | 6.1 | 1698 | 6.8 | 1855 | 7.4 |
| 975  | 1076                                        | 4.3 | 1330 | 5.3 | 1545 | 6.2 | 1727 | 6.9 | 1885 | 7.6 |
| 1050 | 1119                                        | 4.5 | 1361 | 5.5 | 1573 | 6.3 | 1756 | 7.1 | 1915 | 7.7 |
| 1125 | 1164                                        | 4.7 | 1395 | 5.6 | 1602 | 6.4 | 1784 | 7.2 | 1944 | 7.8 |
| 1200 | 1211                                        | 4.9 | 1429 | 5.7 | 1632 | 6.6 | 1812 | 7.3 | 1973 | 7.9 |
| 1275 | 1261                                        | 5.1 | 1466 | 5.9 | 1663 | 6.7 | 1841 | 7.4 | 2001 | 8.0 |
| 1350 | 1313                                        | 5.3 | 1506 | 6.0 | 1695 | 6.8 | 1870 | 7.5 | 2029 | 8.1 |
| 1425 | 1366                                        | 5.5 | 1548 | 6.2 | 1729 | 6.9 | 1900 | 7.6 | 2058 | 8.3 |
| 1500 | 1420                                        | 5.7 | 1591 | 6.4 | 1765 | 7.1 | 1932 | 7.8 | 2087 | 8.4 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |      |      |      |      |     |
|------|---------------------------------------------|-----|------|-----|------|------|------|------|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |      | 1.8  |      | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc  | rpm  | vdc  | rpm  | vdc |
| 900  | 1995                                        | 8.0 | 2124 | 8.5 | 2242 | 9.0  | 2352 | 9.4  | 2455 | 9.9 |
| 975  | 2027                                        | 8.1 | 2157 | 8.7 | 2276 | 9.1  | 2387 | 9.6  | —    | —   |
| 1050 | 2058                                        | 8.3 | 2189 | 8.8 | 2309 | 9.3  | 2421 | 9.7  | —    | —   |
| 1125 | 2088                                        | 8.4 | 2219 | 8.9 | 2341 | 9.4  | 2454 | 9.9  | —    | —   |
| 1200 | 2117                                        | 8.5 | 2249 | 9.0 | 2372 | 9.5  | 2485 | 10.0 | —    | —   |
| 1275 | 2146                                        | 8.6 | 2278 | 9.1 | 2401 | 9.6  | —    | —    | —    | —   |
| 1350 | 2174                                        | 8.7 | 2307 | 9.3 | 2431 | 9.8  | —    | —    | —    | —   |
| 1425 | 2202                                        | 8.8 | 2335 | 9.4 | 2460 | 9.9  | —    | —    | —    | —   |
| 1500 | 2231                                        | 9.0 | 2364 | 9.5 | 2488 | 10.0 | —    | —    | —    | —   |

High Static 1136-2490 rpm

## 50FCQC05 Single Phase — 4 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 1200 | 1066                                        | 0.13 | 1280 | 0.22 | 1473 | 0.34 | 1644 | 0.47 | 1798 | 0.61 |
| 1300 | 1120                                        | 0.15 | 1320 | 0.24 | 1506 | 0.36 | 1674 | 0.49 | 1826 | 0.64 |
| 1400 | 1177                                        | 0.17 | 1363 | 0.26 | 1541 | 0.38 | 1705 | 0.52 | 1856 | 0.67 |
| 1500 | 1236                                        | 0.20 | 1409 | 0.29 | 1579 | 0.41 | 1739 | 0.55 | 1886 | 0.70 |
| 1600 | 1297                                        | 0.23 | 1458 | 0.32 | 1620 | 0.44 | 1774 | 0.58 | 1918 | 0.73 |
| 1700 | 1359                                        | 0.26 | 1509 | 0.35 | 1663 | 0.47 | 1811 | 0.61 | 1952 | 0.77 |
| 1800 | 1423                                        | 0.30 | 1563 | 0.39 | 1708 | 0.51 | 1851 | 0.65 | 1987 | 0.81 |
| 1900 | 1487                                        | 0.34 | 1619 | 0.44 | 1756 | 0.56 | 1893 | 0.70 | 2025 | 0.85 |
| 2000 | 1552                                        | 0.38 | 1677 | 0.48 | 1806 | 0.60 | 1937 | 0.74 | 2064 | 0.90 |

| 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  |
| 1200 | 1938                                        | 0.77 | 2069 | 0.93 | 2192 | 1.11 | 2309 | 1.29 | 2420 | 1.49 |
| 1300 | 1965                                        | 0.79 | 2095 | 0.96 | 2216 | 1.14 | 2331 | 1.33 | 2441 | 1.52 |
| 1400 | 1993                                        | 0.82 | 2121 | 0.99 | 2242 | 1.17 | 2356 | 1.36 | —    | —    |
| 1500 | 2023                                        | 0.86 | 2149 | 1.03 | 2269 | 1.21 | 2382 | 1.40 | —    | —    |
| 1600 | 2053                                        | 0.89 | 2178 | 1.07 | 2297 | 1.25 | 2409 | 1.45 | —    | —    |
| 1700 | 2084                                        | 0.93 | 2209 | 1.11 | 2326 | 1.30 | 2437 | 1.49 | —    | —    |
| 1800 | 2117                                        | 0.98 | 2239 | 1.15 | 2356 | 1.34 | —    | —    | —    | —    |
| 1900 | 2151                                        | 1.02 | 2272 | 1.20 | 2386 | 1.39 | —    | —    | —    | —    |
| 2000 | 2187                                        | 1.07 | 2305 | 1.25 | 2418 | 1.45 | —    | —    | —    | —    |

Standard Static 1066-1900 rpm, 0.72 max bhp

Medium Static 1066-2170 rpm, 1.06 max bhp

High Static 1066-2460 rpm, 1.53 max bhp

## 50FCQC05 Single Phase — Standard Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |      |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|------|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |      | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  | rpm  | vdc |
| 1200 | 1066                                        | 5.6 | 1280 | 6.7 | 1473 | 7.8 | 1644 | 8.7  | 1798 | 9.5 |
| 1300 | 1120                                        | 5.9 | 1320 | 6.9 | 1506 | 7.9 | 1674 | 8.8  | 1826 | 9.6 |
| 1400 | 1177                                        | 6.2 | 1363 | 7.2 | 1541 | 8.1 | 1705 | 9.0  | 1856 | 9.8 |
| 1500 | 1236                                        | 6.5 | 1409 | 7.4 | 1579 | 8.3 | 1739 | 9.2  | 1886 | 9.9 |
| 1600 | 1297                                        | 6.8 | 1458 | 7.7 | 1620 | 8.5 | 1774 | 9.3  | —    | —   |
| 1700 | 1359                                        | 7.2 | 1509 | 7.9 | 1663 | 8.8 | 1811 | 9.5  | —    | —   |
| 1800 | 1423                                        | 7.5 | 1563 | 8.2 | 1708 | 9.0 | 1851 | 9.7  | —    | —   |
| 1900 | 1487                                        | 7.8 | 1619 | 8.5 | 1756 | 9.2 | 1893 | 10.0 | —    | —   |
| 2000 | 1552                                        | 8.2 | 1677 | 8.8 | 1806 | 9.5 | —    | —    | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1300 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1400 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1600 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1700 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1800 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1066-1900 rpm

## 50FCQC05 Single Phase — Medium Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1066                                        | 4.9 | 1280 | 5.9 | 1473 | 6.8 | 1644 | 7.6 | 1798 | 8.3 |
| 1300 | 1120                                        | 5.2 | 1320 | 6.1 | 1506 | 6.9 | 1674 | 7.7 | 1826 | 8.4 |
| 1400 | 1177                                        | 5.4 | 1363 | 6.3 | 1541 | 7.1 | 1705 | 7.9 | 1856 | 8.6 |
| 1500 | 1236                                        | 5.7 | 1409 | 6.5 | 1579 | 7.3 | 1739 | 8.0 | 1886 | 8.7 |
| 1600 | 1297                                        | 6.0 | 1458 | 6.7 | 1620 | 7.5 | 1774 | 8.2 | 1918 | 8.8 |
| 1700 | 1359                                        | 6.3 | 1509 | 7.0 | 1663 | 7.7 | 1811 | 8.3 | 1952 | 9.0 |
| 1800 | 1423                                        | 6.6 | 1563 | 7.2 | 1708 | 7.9 | 1851 | 8.5 | 1987 | 9.2 |
| 1900 | 1487                                        | 6.9 | 1619 | 7.5 | 1756 | 8.1 | 1893 | 8.7 | 2025 | 9.3 |
| 2000 | 1552                                        | 7.2 | 1677 | 7.7 | 1806 | 8.3 | 1937 | 8.9 | 2064 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | 1938                                        | 8.9 | 2069 | 9.5 | —   | —   | —   | —   | —   | —   |
| 1300 | 1965                                        | 9.1 | 2095 | 9.7 | —   | —   | —   | —   | —   | —   |
| 1400 | 1993                                        | 9.2 | 2121 | 9.8 | —   | —   | —   | —   | —   | —   |
| 1500 | 2023                                        | 9.3 | 2149 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1600 | 2053                                        | 9.5 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1700 | 2084                                        | 9.6 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1800 | 2117                                        | 9.8 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1900 | 2151                                        | 9.9 | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1066-2170 rpm

## 50FCQC05 Single Phase — High Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1066                                        | 4.3 | 1280 | 5.2 | 1473 | 6.0 | 1644 | 6.7 | 1798 | 7.3 |
| 1300 | 1120                                        | 4.6 | 1320 | 5.4 | 1506 | 6.1 | 1674 | 6.8 | 1826 | 7.4 |
| 1400 | 1177                                        | 4.8 | 1363 | 5.5 | 1541 | 6.3 | 1705 | 6.9 | 1856 | 7.5 |
| 1500 | 1236                                        | 5.0 | 1409 | 5.7 | 1579 | 6.4 | 1739 | 7.1 | 1886 | 7.7 |
| 1600 | 1297                                        | 5.3 | 1458 | 5.9 | 1620 | 6.6 | 1774 | 7.2 | 1918 | 7.8 |
| 1700 | 1359                                        | 5.5 | 1509 | 6.1 | 1663 | 6.8 | 1811 | 7.4 | 1952 | 7.9 |
| 1800 | 1423                                        | 5.8 | 1563 | 6.4 | 1708 | 6.9 | 1851 | 7.5 | 1987 | 8.1 |
| 1900 | 1487                                        | 6.0 | 1619 | 6.6 | 1756 | 7.1 | 1893 | 7.7 | 2025 | 8.2 |
| 2000 | 1552                                        | 6.3 | 1677 | 6.8 | 1806 | 7.3 | 1937 | 7.9 | 2064 | 8.4 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1938                                        | 7.9 | 2069 | 8.4 | 2192 | 8.9 | 2309 | 9.4 | 2420 | 9.8 |
| 1300 | 1965                                        | 8.0 | 2095 | 8.5 | 2216 | 9.0 | 2331 | 9.5 | 2441 | 9.9 |
| 1400 | 1993                                        | 8.1 | 2121 | 8.6 | 2242 | 9.1 | 2356 | 9.6 | —    | —   |
| 1500 | 2023                                        | 8.2 | 2149 | 8.7 | 2269 | 9.2 | 2382 | 9.7 | —    | —   |
| 1600 | 2053                                        | 8.3 | 2178 | 8.9 | 2297 | 9.3 | 2409 | 9.8 | —    | —   |
| 1700 | 2084                                        | 8.5 | 2209 | 9.0 | 2326 | 9.5 | 2437 | 9.9 | —    | —   |
| 1800 | 2117                                        | 8.6 | 2239 | 9.1 | 2356 | 9.6 | —    | —   | —    | —   |
| 1900 | 2151                                        | 8.7 | 2272 | 9.2 | 2386 | 9.7 | —    | —   | —    | —   |
| 2000 | 2187                                        | 8.9 | 2305 | 9.4 | 2418 | 9.8 | —    | —   | —    | —   |

High Static 1066-2460 rpm

## 50FCQA05 Three Phase — 4 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 1200 | 1067                                        | 0.13 | 1280 | 0.22 | 1473 | 0.34 | 1645 | 0.47 | 1798 | 0.61 |
| 1300 | 1121                                        | 0.15 | 1320 | 0.24 | 1506 | 0.36 | 1675 | 0.49 | 1827 | 0.64 |
| 1400 | 1177                                        | 0.17 | 1363 | 0.26 | 1542 | 0.38 | 1706 | 0.52 | 1856 | 0.67 |
| 1500 | 1237                                        | 0.20 | 1409 | 0.29 | 1579 | 0.41 | 1739 | 0.55 | 1887 | 0.70 |
| 1600 | 1297                                        | 0.23 | 1458 | 0.32 | 1620 | 0.44 | 1774 | 0.58 | 1919 | 0.73 |
| 1700 | 1359                                        | 0.26 | 1510 | 0.35 | 1663 | 0.47 | 1811 | 0.61 | 1952 | 0.77 |
| 1800 | 1423                                        | 0.30 | 1563 | 0.39 | 1708 | 0.51 | 1851 | 0.65 | 1988 | 0.81 |
| 1900 | 1487                                        | 0.34 | 1619 | 0.44 | 1756 | 0.56 | 1893 | 0.70 | 2025 | 0.85 |
| 2000 | 1552                                        | 0.38 | 1677 | 0.48 | 1807 | 0.60 | 1937 | 0.74 | 2064 | 0.90 |

| 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  |
| 1200 | 1939                                        | 0.77 | 2070 | 0.93 | 2192 | 1.11 | 2309 | 1.29 | 2420 | 1.49 |
| 1300 | 1965                                        | 0.79 | 2095 | 0.96 | 2217 | 1.14 | 2332 | 1.33 | 2442 | 1.52 |
| 1400 | 1993                                        | 0.82 | 2121 | 0.99 | 2242 | 1.17 | 2356 | 1.36 | 2465 | 1.56 |
| 1500 | 2022                                        | 0.86 | 2149 | 1.03 | 2269 | 1.21 | 2382 | 1.40 | 2490 | 1.60 |
| 1600 | 2053                                        | 0.89 | 2178 | 1.07 | 2297 | 1.25 | 2409 | 1.45 | 2516 | 1.65 |
| 1700 | 2085                                        | 0.93 | 2208 | 1.11 | 2326 | 1.30 | 2437 | 1.49 | 2543 | 1.69 |
| 1800 | 2117                                        | 0.98 | 2240 | 1.16 | 2356 | 1.34 | 2466 | 1.54 | 2571 | 1.75 |
| 1900 | 2152                                        | 1.02 | 2272 | 1.20 | 2386 | 1.39 | 2496 | 1.59 | 2600 | 1.80 |
| 2000 | 2188                                        | 1.07 | 2306 | 1.25 | 2418 | 1.45 | 2526 | 1.65 | 2630 | 1.86 |

Standard Static 1067-1900 rpm, 0.72 max bhp

Medium Static 1067-2170 rpm, 1.06 max bhp

High Static 101672660 rpm, 1.96 max bhp

## 50FCQA05 Three Phase — Standard Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |      |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|------|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |      | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  | rpm  | vdc |
| 1200 | 1067                                        | 5.6 | 1280 | 6.7 | 1473 | 7.8 | 1645 | 8.7  | 1798 | 9.5 |
| 1300 | 1121                                        | 5.9 | 1320 | 6.9 | 1506 | 7.9 | 1675 | 8.8  | 1827 | 9.6 |
| 1400 | 1177                                        | 6.2 | 1363 | 7.2 | 1542 | 8.1 | 1706 | 9.0  | 1856 | 9.8 |
| 1500 | 1237                                        | 6.5 | 1409 | 7.4 | 1579 | 8.3 | 1739 | 9.2  | 1887 | 9.9 |
| 1600 | 1297                                        | 6.8 | 1458 | 7.7 | 1620 | 8.5 | 1774 | 9.3  | —    | —   |
| 1700 | 1359                                        | 7.2 | 1510 | 7.9 | 1663 | 8.8 | 1811 | 9.5  | —    | —   |
| 1800 | 1423                                        | 7.5 | 1563 | 8.2 | 1708 | 9.0 | 1851 | 9.7  | —    | —   |
| 1900 | 1487                                        | 7.8 | 1619 | 8.5 | 1756 | 9.2 | 1893 | 10.0 | —    | —   |
| 2000 | 1552                                        | 8.2 | 1677 | 8.8 | 1807 | 9.5 | —    | —    | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |     |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4 |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1300 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1400 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1500 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1600 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1700 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1800 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 1900 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —   | —   | —   | —   | —   | —   | —   | —   |

Standard Static 1067-1900 rpm

## 50FCQA05 Three Phase — Medium Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1067                                        | 4.9 | 1280 | 5.9 | 1473 | 6.8 | 1645 | 7.6 | 1798 | 8.3 |
| 1300 | 1121                                        | 5.2 | 1320 | 6.1 | 1506 | 6.9 | 1675 | 7.7 | 1827 | 8.4 |
| 1400 | 1177                                        | 5.4 | 1363 | 6.3 | 1542 | 7.1 | 1706 | 7.9 | 1856 | 8.6 |
| 1500 | 1237                                        | 5.7 | 1409 | 6.5 | 1579 | 7.3 | 1739 | 8.0 | 1887 | 8.7 |
| 1600 | 1297                                        | 6.0 | 1458 | 6.7 | 1620 | 7.5 | 1774 | 8.2 | 1919 | 8.8 |
| 1700 | 1359                                        | 6.3 | 1510 | 7.0 | 1663 | 7.7 | 1811 | 8.3 | 1952 | 9.0 |
| 1800 | 1423                                        | 6.6 | 1563 | 7.2 | 1708 | 7.9 | 1851 | 8.5 | 1988 | 9.2 |
| 1900 | 1487                                        | 6.9 | 1619 | 7.5 | 1756 | 8.1 | 1893 | 8.7 | 2025 | 9.3 |
| 2000 | 1552                                        | 7.2 | 1677 | 7.7 | 1807 | 8.3 | 1937 | 8.9 | 2064 | 9.5 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1200 | 1939                                        | 8.9 | 2070 | 9.5 | —   | —   | —   | —   | —   | —   |
| 1300 | 1965                                        | 9.1 | 2095 | 9.7 | —   | —   | —   | —   | —   | —   |
| 1400 | 1993                                        | 9.2 | 2121 | 9.8 | —   | —   | —   | —   | —   | —   |
| 1500 | 2022                                        | 9.3 | 2149 | 9.9 | —   | —   | —   | —   | —   | —   |
| 1600 | 2053                                        | 9.5 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1700 | 2085                                        | 9.6 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1800 | 2117                                        | 9.8 | —    | —   | —   | —   | —   | —   | —   | —   |
| 1900 | 2152                                        | 9.9 | —    | —   | —   | —   | —   | —   | —   | —   |
| 2000 | —                                           | —   | —    | —   | —   | —   | —   | —   | —   | —   |

Medium Static 1067-2170 rpm

## 50FCQA05 Three Phase — High Static — 4 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1067                                        | 4.0 | 1280 | 4.8 | 1473 | 5.5 | 1645 | 6.2 | 1798 | 6.8 |
| 1300 | 1121                                        | 4.2 | 1320 | 5.0 | 1506 | 5.7 | 1675 | 6.3 | 1827 | 6.9 |
| 1400 | 1177                                        | 4.4 | 1363 | 5.1 | 1542 | 5.8 | 1706 | 6.4 | 1856 | 7.0 |
| 1500 | 1237                                        | 4.7 | 1409 | 5.3 | 1579 | 5.9 | 1739 | 6.5 | 1887 | 7.1 |
| 1600 | 1297                                        | 4.9 | 1458 | 5.5 | 1620 | 6.1 | 1774 | 6.7 | 1919 | 7.2 |
| 1700 | 1359                                        | 5.1 | 1510 | 5.7 | 1663 | 6.3 | 1811 | 6.8 | 1952 | 7.3 |
| 1800 | 1423                                        | 5.3 | 1563 | 5.9 | 1708 | 6.4 | 1851 | 7.0 | 1988 | 7.5 |
| 1900 | 1487                                        | 5.6 | 1619 | 6.1 | 1756 | 6.6 | 1893 | 7.1 | 2025 | 7.6 |
| 2000 | 1552                                        | 5.8 | 1677 | 6.3 | 1807 | 6.8 | 1937 | 7.3 | 2064 | 7.8 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1200 | 1939                                        | 7.3 | 2070 | 7.8 | 2192 | 8.2 | 2309 | 8.7 | 2420 | 9.1 |
| 1300 | 1965                                        | 7.4 | 2095 | 7.9 | 2217 | 8.3 | 2332 | 8.8 | 2442 | 9.2 |
| 1400 | 1993                                        | 7.5 | 2121 | 8.0 | 2242 | 8.4 | 2356 | 8.9 | 2465 | 9.3 |
| 1500 | 2022                                        | 7.6 | 2149 | 8.1 | 2269 | 8.5 | 2382 | 9.0 | 2490 | 9.4 |
| 1600 | 2053                                        | 7.7 | 2178 | 8.2 | 2297 | 8.6 | 2409 | 9.1 | 2516 | 9.5 |
| 1700 | 2085                                        | 7.8 | 2208 | 8.3 | 2326 | 8.7 | 2437 | 9.2 | 2543 | 9.6 |
| 1800 | 2117                                        | 8.0 | 2240 | 8.4 | 2356 | 8.9 | 2466 | 9.3 | 2571 | 9.7 |
| 1900 | 2152                                        | 8.1 | 2272 | 8.5 | 2386 | 9.0 | 2496 | 9.4 | 2600 | 9.8 |
| 2000 | 2188                                        | 8.2 | 2306 | 8.7 | 2418 | 9.1 | 2526 | 9.5 | 2630 | 9.9 |

High Static 1067-2660 rpm

## 50FCQA06 Single Phase — 5 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 1500 | 1197                                        | 0.18 | 1360 | 0.26 | 1525 | 0.37 | 1679 | 0.49 | 1822 | 0.62 |
| 1625 | 1271                                        | 0.21 | 1421 | 0.29 | 1574 | 0.40 | 1721 | 0.52 | 1860 | 0.66 |
| 1750 | 1348                                        | 0.25 | 1485 | 0.33 | 1627 | 0.44 | 1767 | 0.56 | 1901 | 0.70 |
| 1875 | 1425                                        | 0.29 | 1553 | 0.38 | 1684 | 0.49 | 1817 | 0.61 | 1945 | 0.75 |
| 2000 | 1504                                        | 0.35 | 1623 | 0.43 | 1745 | 0.54 | 1870 | 0.66 | 1992 | 0.80 |
| 2125 | 1585                                        | 0.40 | 1695 | 0.49 | 1809 | 0.60 | 1926 | 0.72 | 2043 | 0.86 |
| 2250 | 1666                                        | 0.47 | 1769 | 0.56 | 1876 | 0.67 | 1986 | 0.79 | 2096 | 0.93 |
| 2375 | 1747                                        | 0.54 | 1844 | 0.63 | 1945 | 0.74 | 2049 | 0.87 | 2153 | 1.01 |
| 2500 | 1830                                        | 0.62 | 1921 | 0.71 | 2016 | 0.82 | 2114 | 0.95 | 2213 | 1.09 |

| 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 |
| 1500 | 1954                                        | 0.77 | 2078 | 0.92 | 2194 | 1.09 | 2304 | 1.26 | —   | —   |
| 1625 | 1990                                        | 0.81 | 2112 | 0.97 | 2227 | 1.13 | 2336 | 1.31 | —   | —   |
| 1750 | 2028                                        | 0.85 | 2148 | 1.01 | 2262 | 1.18 | 2370 | 1.36 | —   | —   |
| 1875 | 2069                                        | 0.90 | 2186 | 1.06 | 2298 | 1.23 | —    | —    | —   | —   |
| 2000 | 2111                                        | 0.95 | 2226 | 1.12 | 2336 | 1.29 | —    | —    | —   | —   |
| 2125 | 2157                                        | 1.02 | 2268 | 1.18 | 2375 | 1.36 | —    | —    | —   | —   |
| 2250 | 2206                                        | 1.08 | 2313 | 1.25 | —    | —    | —    | —    | —   | —   |
| 2375 | 2258                                        | 1.16 | 2361 | 1.33 | —    | —    | —    | —    | —   | —   |
| 2500 | 2312                                        | 1.24 | —    | —    | —    | —    | —    | —    | —   | —   |

Standard Static 1197-2150 rpm, 1.06 max bhp

Medium Static 1197-2390 rpm, 1.44 max bhp

## 50FCQA06 Single Phase — Standard Static — 5 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1197                                        | 5.6 | 1360 | 6.3 | 1525 | 7.1 | 1679 | 7.8 | 1822 | 8.5 |
| 1625 | 1271                                        | 5.9 | 1421 | 6.6 | 1574 | 7.3 | 1721 | 8.0 | 1860 | 8.7 |
| 1750 | 1348                                        | 6.3 | 1485 | 6.9 | 1627 | 7.6 | 1767 | 8.2 | 1901 | 8.8 |
| 1875 | 1425                                        | 6.6 | 1553 | 7.2 | 1684 | 7.8 | 1817 | 8.5 | 1945 | 9.0 |
| 2000 | 1504                                        | 7.0 | 1623 | 7.5 | 1745 | 8.1 | 1870 | 8.7 | 1992 | 9.3 |
| 2125 | 1585                                        | 7.4 | 1695 | 7.9 | 1809 | 8.4 | 1926 | 9.0 | 2043 | 9.5 |
| 2250 | 1666                                        | 7.7 | 1769 | 8.2 | 1876 | 8.7 | 1986 | 9.2 | 2096 | 9.7 |
| 2375 | 1747                                        | 8.1 | 1844 | 8.6 | 1945 | 9.0 | 2049 | 9.5 | —    | —   |
| 2500 | 1830                                        | 8.5 | 1921 | 8.9 | 2016 | 9.4 | 2114 | 9.8 | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |      |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|------|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |      | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc  | rpm | vdc | rpm | vdc | rpm | vdc |
| 1500 | 1954                                        | 9.1 | 2078 | 9.7  | —   | —   | —   | —   | —   | —   |
| 1625 | 1990                                        | 9.3 | 2112 | 9.8  | —   | —   | —   | —   | —   | —   |
| 1750 | 2028                                        | 9.4 | 2148 | 10.0 | —   | —   | —   | —   | —   | —   |
| 1875 | 2069                                        | 9.6 | —    | —    | —   | —   | —   | —   | —   | —   |
| 2000 | 2111                                        | 9.8 | —    | —    | —   | —   | —   | —   | —   | —   |
| 2125 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2250 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2375 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2500 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |

Standard Static 1197-2150 rpm

## 50FCQA06 Single Phase — Medium Static — 5 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1197                                        | 5.0 | 1360 | 5.7 | 1525 | 6.4 | 1679 | 7.0 | 1822 | 7.6 |
| 1625 | 1271                                        | 5.3 | 1421 | 5.9 | 1574 | 6.6 | 1721 | 7.2 | 1860 | 7.8 |
| 1750 | 1348                                        | 5.6 | 1485 | 6.2 | 1627 | 6.8 | 1767 | 7.4 | 1901 | 8.0 |
| 1875 | 1425                                        | 6.0 | 1553 | 6.5 | 1684 | 7.0 | 1817 | 7.6 | 1945 | 8.1 |
| 2000 | 1504                                        | 6.3 | 1623 | 6.8 | 1745 | 7.3 | 1870 | 7.8 | 1992 | 8.3 |
| 2125 | 1585                                        | 6.6 | 1695 | 7.1 | 1809 | 7.6 | 1926 | 8.1 | 2043 | 8.5 |
| 2250 | 1666                                        | 7.0 | 1769 | 7.4 | 1876 | 7.8 | 1986 | 8.3 | 2096 | 8.8 |
| 2375 | 1747                                        | 7.3 | 1844 | 7.7 | 1945 | 8.1 | 2049 | 8.6 | 2153 | 9.0 |
| 2500 | 1830                                        | 7.7 | 1921 | 8.0 | 2016 | 8.4 | 2114 | 8.8 | 2213 | 9.3 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |     |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm | vdc |
| 1500 | 1954                                        | 8.2 | 2078 | 8.7 | 2194 | 9.2 | 2304 | 9.6 | —   | —   |
| 1625 | 1990                                        | 8.3 | 2112 | 8.8 | 2227 | 9.3 | 2336 | 9.8 | —   | —   |
| 1750 | 2028                                        | 8.5 | 2148 | 9.0 | 2262 | 9.5 | 2370 | 9.9 | —   | —   |
| 1875 | 2069                                        | 8.7 | 2186 | 9.1 | 2298 | 9.6 | —    | —   | —   | —   |
| 2000 | 2111                                        | 8.8 | 2226 | 9.3 | 2336 | 9.8 | —    | —   | —   | —   |
| 2125 | 2157                                        | 9.0 | 2268 | 9.5 | 2375 | 9.9 | —    | —   | —   | —   |
| 2250 | 2206                                        | 9.2 | 2313 | 9.7 | —    | —   | —    | —   | —   | —   |
| 2375 | 2258                                        | 9.4 | 2361 | 9.9 | —    | —   | —    | —   | —   | —   |
| 2500 | 2312                                        | 9.7 | —    | —   | —    | —   | —    | —   | —   | —   |

Medium Static 1197-2390 rpm

## 50FCQA06 Three Phase — 5 Ton Horizontal Supply (rpm - bhp)

| 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  |
| 1500 | 1196                                        | 0.18 | 1360 | 0.26 | 1525 | 0.37 | 1679 | 0.49 | 1822 | 0.62 |
| 1625 | 1271                                        | 0.21 | 1421 | 0.29 | 1574 | 0.40 | 1721 | 0.52 | 1860 | 0.66 |
| 1750 | 1348                                        | 0.25 | 1485 | 0.33 | 1627 | 0.44 | 1767 | 0.56 | 1901 | 0.70 |
| 1875 | 1425                                        | 0.29 | 1553 | 0.38 | 1684 | 0.49 | 1817 | 0.61 | 1945 | 0.75 |
| 2000 | 1504                                        | 0.35 | 1622 | 0.43 | 1745 | 0.54 | 1870 | 0.66 | 1993 | 0.80 |
| 2125 | 1585                                        | 0.40 | 1695 | 0.49 | 1809 | 0.60 | 1926 | 0.72 | 2043 | 0.86 |
| 2250 | 1666                                        | 0.47 | 1769 | 0.56 | 1876 | 0.67 | 1986 | 0.79 | 2096 | 0.93 |
| 2375 | 1747                                        | 0.54 | 1844 | 0.63 | 1945 | 0.74 | 2049 | 0.87 | 2153 | 1.01 |
| 2500 | 1829                                        | 0.62 | 1921 | 0.71 | 2016 | 0.82 | 2114 | 0.95 | 2213 | 1.09 |

| 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  |
| 1500 | 1954                                        | 0.77 | 2078 | 0.92 | 2194 | 1.09 | 2304 | 1.26 | 2408 | 1.44 |
| 1625 | 1990                                        | 0.81 | 2112 | 0.97 | 2227 | 1.13 | 2336 | 1.31 | 2439 | 1.49 |
| 1750 | 2028                                        | 0.85 | 2148 | 1.01 | 2262 | 1.18 | 2370 | 1.36 | 2472 | 1.54 |
| 1875 | 2069                                        | 0.90 | 2186 | 1.06 | 2298 | 1.23 | 2404 | 1.41 | 2506 | 1.60 |
| 2000 | 2112                                        | 0.96 | 2226 | 1.12 | 2336 | 1.29 | 2441 | 1.48 | 2541 | 1.66 |
| 2125 | 2157                                        | 1.02 | 2268 | 1.18 | 2376 | 1.36 | 2479 | 1.54 | 2578 | 1.73 |
| 2250 | 2206                                        | 1.08 | 2313 | 1.25 | 2418 | 1.43 | 2518 | 1.61 | 2616 | 1.81 |
| 2375 | 2258                                        | 1.16 | 2361 | 1.33 | 2462 | 1.50 | 2560 | 1.69 | 2656 | 1.89 |
| 2500 | 2312                                        | 1.24 | 2411 | 1.41 | 2508 | 1.59 | 2604 | 1.78 | 2698 | 1.97 |

Standard Static 1196-2150 rpm, 1.06 max bhp

Medium Static 1196-2390 rpm, 1.44 max bhp

High Static 1196-2836 rpm, 2.43 max bhp

## 50FCQA06 Three Phase — Standard Static — 5 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1196                                        | 5.6 | 1360 | 6.3 | 1525 | 7.1 | 1679 | 7.8 | 1822 | 8.5 |
| 1625 | 1271                                        | 5.9 | 1421 | 6.6 | 1574 | 7.3 | 1721 | 8.0 | 1860 | 8.7 |
| 1750 | 1348                                        | 6.3 | 1485 | 6.9 | 1627 | 7.6 | 1767 | 8.2 | 1901 | 8.8 |
| 1875 | 1425                                        | 6.6 | 1553 | 7.2 | 1684 | 7.8 | 1817 | 8.5 | 1945 | 9.0 |
| 2000 | 1504                                        | 7.0 | 1622 | 7.5 | 1745 | 8.1 | 1870 | 8.7 | 1993 | 9.3 |
| 2125 | 1585                                        | 7.4 | 1695 | 7.9 | 1809 | 8.4 | 1926 | 9.0 | 2043 | 9.5 |
| 2250 | 1666                                        | 7.7 | 1769 | 8.2 | 1876 | 8.7 | 1986 | 9.2 | 2096 | 9.7 |
| 2375 | 1747                                        | 8.1 | 1844 | 8.6 | 1945 | 9.0 | 2049 | 9.5 | —    | —   |
| 2500 | 1829                                        | 8.5 | 1921 | 8.9 | 2016 | 9.4 | 2114 | 9.8 | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |      |     |     |     |     |     |     |
|------|---------------------------------------------|-----|------|------|-----|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |      | 1.6 |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc  | rpm | vdc | rpm | vdc | rpm | vdc |
| 1500 | 1954                                        | 9.1 | 2078 | 9.7  | —   | —   | —   | —   | —   | —   |
| 1625 | 1990                                        | 9.3 | 2112 | 9.8  | —   | —   | —   | —   | —   | —   |
| 1750 | 2028                                        | 9.4 | 2148 | 10.0 | —   | —   | —   | —   | —   | —   |
| 1875 | 2069                                        | 9.6 | —    | —    | —   | —   | —   | —   | —   | —   |
| 2000 | 2112                                        | 9.8 | —    | —    | —   | —   | —   | —   | —   | —   |
| 2125 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2250 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2375 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |
| 2500 | —                                           | —   | —    | —    | —   | —   | —   | —   | —   | —   |

Standard Static 1196-2150 rpm

## 50FCQA06 Three Phase — Medium Static — 5 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1196                                        | 5.0 | 1360 | 5.7 | 1525 | 6.4 | 1679 | 7.0 | 1822 | 7.6 |
| 1625 | 1271                                        | 5.3 | 1421 | 5.9 | 1574 | 6.6 | 1721 | 7.2 | 1860 | 7.8 |
| 1750 | 1348                                        | 5.6 | 1485 | 6.2 | 1627 | 6.8 | 1767 | 7.4 | 1901 | 8.0 |
| 1875 | 1425                                        | 6.0 | 1553 | 6.5 | 1684 | 7.0 | 1817 | 7.6 | 1945 | 8.1 |
| 2000 | 1504                                        | 6.3 | 1622 | 6.8 | 1745 | 7.3 | 1870 | 7.8 | 1993 | 8.3 |
| 2125 | 1585                                        | 6.6 | 1695 | 7.1 | 1809 | 7.6 | 1926 | 8.1 | 2043 | 8.5 |
| 2250 | 1666                                        | 7.0 | 1769 | 7.4 | 1876 | 7.8 | 1986 | 8.3 | 2096 | 8.8 |
| 2375 | 1747                                        | 7.3 | 1844 | 7.7 | 1945 | 8.1 | 2049 | 8.6 | 2153 | 9.0 |
| 2500 | 1829                                        | 7.7 | 1921 | 8.0 | 2016 | 8.4 | 2114 | 8.8 | 2213 | 9.3 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |     |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm | vdc |
| 1500 | 1954                                        | 8.2 | 2078 | 8.7 | 2194 | 9.2 | 2304 | 9.6 | —   | —   |
| 1625 | 1990                                        | 8.3 | 2112 | 8.8 | 2227 | 9.3 | 2336 | 9.8 | —   | —   |
| 1750 | 2028                                        | 8.5 | 2148 | 9.0 | 2262 | 9.5 | 2370 | 9.9 | —   | —   |
| 1875 | 2069                                        | 8.7 | 2186 | 9.1 | 2298 | 9.6 | —    | —   | —   | —   |
| 2000 | 2112                                        | 8.8 | 2226 | 9.3 | 2336 | 9.8 | —    | —   | —   | —   |
| 2125 | 2157                                        | 9.0 | 2268 | 9.5 | 2376 | 9.9 | —    | —   | —   | —   |
| 2250 | 2206                                        | 9.2 | 2313 | 9.7 | —    | —   | —    | —   | —   | —   |
| 2375 | 2258                                        | 9.4 | 2361 | 9.9 | —    | —   | —    | —   | —   | —   |
| 2500 | 2312                                        | 9.7 | —    | —   | —    | —   | —    | —   | —   | —   |

Medium Static 1196-2390 rpm

## 50FCQA06 Three Phase — High Static — 5 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1196                                        | 4.2 | 1360 | 4.8 | 1525 | 5.4 | 1679 | 5.9 | 1822 | 6.4 |
| 1625 | 1271                                        | 4.5 | 1421 | 5.0 | 1574 | 5.6 | 1721 | 6.1 | 1860 | 6.6 |
| 1750 | 1348                                        | 4.8 | 1485 | 5.2 | 1627 | 5.7 | 1767 | 6.2 | 1901 | 6.7 |
| 1875 | 1425                                        | 5.0 | 1553 | 5.5 | 1684 | 5.9 | 1817 | 6.4 | 1945 | 6.9 |
| 2000 | 1504                                        | 5.3 | 1622 | 5.7 | 1745 | 6.2 | 1870 | 6.6 | 1993 | 7.0 |
| 2125 | 1585                                        | 5.6 | 1695 | 6.0 | 1809 | 6.4 | 1926 | 6.8 | 2043 | 7.2 |
| 2250 | 1666                                        | 5.9 | 1769 | 6.2 | 1876 | 6.6 | 1986 | 7.0 | 2096 | 7.4 |
| 2375 | 1747                                        | 6.2 | 1844 | 6.5 | 1945 | 6.9 | 2049 | 7.2 | 2153 | 7.6 |
| 2500 | 1829                                        | 6.4 | 1921 | 6.8 | 2016 | 7.1 | 2114 | 7.5 | 2213 | 7.8 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1500 | 1954                                        | 6.9 | 2078 | 7.3 | 2194 | 7.7 | 2304 | 8.1 | 2408 | 8.5 |
| 1625 | 1990                                        | 7.0 | 2112 | 7.4 | 2227 | 7.9 | 2336 | 8.2 | 2439 | 8.6 |
| 1750 | 2028                                        | 7.2 | 2148 | 7.6 | 2262 | 8.0 | 2370 | 8.4 | 2472 | 8.7 |
| 1875 | 2069                                        | 7.3 | 2186 | 7.7 | 2298 | 8.1 | 2404 | 8.5 | 2506 | 8.8 |
| 2000 | 2112                                        | 7.4 | 2226 | 7.8 | 2336 | 8.2 | 2441 | 8.6 | 2541 | 9.0 |
| 2125 | 2157                                        | 7.6 | 2268 | 8.0 | 2376 | 8.4 | 2479 | 8.7 | 2578 | 9.1 |
| 2250 | 2206                                        | 7.8 | 2313 | 8.2 | 2418 | 8.5 | 2518 | 8.9 | 2616 | 9.2 |
| 2375 | 2258                                        | 8.0 | 2361 | 8.3 | 2462 | 8.7 | 2560 | 9.0 | 2656 | 9.4 |
| 2500 | 2312                                        | 8.2 | 2411 | 8.5 | 2508 | 8.8 | 2604 | 9.2 | 2698 | 9.5 |

High Static 1196-2836 rpm

## 50FCQM07 Three Phase — 6 Ton Horizontal Supply (rpm - bhp)

| 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 | 1378                                        | 0.27 | 1512 | 0.35 | 1649 | 0.46 | 1786 | 0.58 | 1918 | 0.72 |
| 1950 | 1473                                        | 0.32 | 1594 | 0.41 | 1721 | 0.52 | 1848 | 0.64 | 1973 | 0.78 |
| 2100 | 1569                                        | 0.39 | 1680 | 0.48 | 1796 | 0.59 | 1915 | 0.71 | 2032 | 0.85 |
| 2250 | 1666                                        | 0.47 | 1769 | 0.56 | 1876 | 0.67 | 1986 | 0.79 | 2096 | 0.93 |
| 2400 | 1764                                        | 0.55 | 1860 | 0.65 | 1959 | 0.76 | 2061 | 0.88 | 2165 | 1.02 |
| 2550 | 1863                                        | 0.65 | 1952 | 0.75 | 2045 | 0.86 | 2140 | 0.99 | 2237 | 1.13 |
| 2700 | 1962                                        | 0.76 | 2046 | 0.86 | 2133 | 0.97 | 2222 | 1.10 | 2313 | 1.24 |
| 2850 | 2062                                        | 0.88 | 2141 | 0.98 | 2223 | 1.10 | 2307 | 1.23 | 2392 | 1.37 |
| 3000 | 2163                                        | 1.01 | 2238 | 1.12 | 2315 | 1.24 | 2394 | 1.37 | 2474 | 1.52 |

| 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 | 2044                                        | 0.87 | 2163 | 1.03 | 2276 | 1.20 | 2383 | 1.38 | 2486 | 1.57 |
| 1950 | 2094                                        | 0.93 | 2210 | 1.10 | 2320 | 1.27 | 2426 | 1.45 | 2527 | 1.64 |
| 2100 | 2148                                        | 1.00 | 2259 | 1.17 | 2367 | 1.34 | 2471 | 1.53 | 2570 | 1.72 |
| 2250 | 2206                                        | 1.08 | 2313 | 1.25 | 2417 | 1.43 | 2518 | 1.61 | 2616 | 1.81 |
| 2400 | 2268                                        | 1.18 | 2370 | 1.34 | 2471 | 1.52 | 2568 | 1.71 | 2664 | 1.90 |
| 2550 | 2335                                        | 1.28 | 2432 | 1.45 | 2528 | 1.62 | 2622 | 1.81 | 2714 | 2.01 |
| 2700 | 2405                                        | 1.40 | 2497 | 1.56 | 2589 | 1.74 | 2679 | 1.93 | 2768 | 2.13 |
| 2850 | 2479                                        | 1.53 | 2566 | 1.69 | 2653 | 1.87 | 2740 | 2.06 | 2826 | 2.26 |
| 3000 | 2556                                        | 1.67 | 2639 | 1.84 | 2722 | 2.02 | 2804 | 2.21 | —    | —    |

Standard Static 1378-2300 rpm, 1.31 max bhp

Medium Static 1378-2530 rpm, 1.76 max bhp

High Static 1378-2836 rpm, 2.43 max bhp

## 50FCQM07 Three Phase — Standard Static — 6 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 1378                                        | 6.0 | 1512 | 6.6 | 1649 | 7.2 | 1786 | 7.8 | 1918 | 8.3 |
| 1950 | 1473                                        | 6.4 | 1594 | 6.9 | 1721 | 7.5 | 1848 | 8.0 | 1973 | 8.6 |
| 2100 | 1569                                        | 6.8 | 1680 | 7.3 | 1796 | 7.8 | 1915 | 8.3 | 2032 | 8.8 |
| 2250 | 1666                                        | 7.2 | 1769 | 7.7 | 1876 | 8.2 | 1986 | 8.6 | 2096 | 9.1 |
| 2400 | 1764                                        | 7.7 | 1860 | 8.1 | 1959 | 8.5 | 2061 | 9.0 | 2165 | 9.4 |
| 2550 | 1863                                        | 8.1 | 1952 | 8.5 | 2045 | 8.9 | 2140 | 9.3 | 2237 | 9.7 |
| 2700 | 1962                                        | 8.5 | 2046 | 8.9 | 2133 | 9.3 | 2222 | 9.7 | —    | —   |
| 2850 | 2062                                        | 9.0 | 2141 | 9.3 | 2223 | 9.7 | —    | —   | —    | —   |
| 3000 | 2163                                        | 9.4 | 2238 | 9.7 | —    | —   | —    | —   | —    | —   |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |     |     |     |     |
|------|---------------------------------------------|-----|------|-----|------|-----|-----|-----|-----|-----|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8 |     | 2.0 |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm | vdc | rpm | vdc |
| 1800 | 2044                                        | 8.9 | 2163 | 9.4 | 2276 | 9.9 | —   | —   | —   | —   |
| 1950 | 2094                                        | 9.1 | 2210 | 9.6 | —    | —   | —   | —   | —   | —   |
| 2100 | 2148                                        | 9.3 | 2259 | 9.8 | —    | —   | —   | —   | —   | —   |
| 2250 | 2206                                        | 9.6 | —    | —   | —    | —   | —   | —   | —   | —   |
| 2400 | 2268                                        | 9.9 | —    | —   | —    | —   | —   | —   | —   | —   |
| 2550 | —                                           | —   | —    | —   | —    | —   | —   | —   | —   | —   |
| 2700 | —                                           | —   | —    | —   | —    | —   | —   | —   | —   | —   |
| 2850 | —                                           | —   | —    | —   | —    | —   | —   | —   | —   | —   |
| 3000 | —                                           | —   | —    | —   | —    | —   | —   | —   | —   | —   |

Standard Static 1378-2300 rpm

## 50FCQM07 Three Phase — Medium Static — 6 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 1378                                        | 5.4 | 1512 | 6.0 | 1649 | 6.5 | 1786 | 7.1 | 1918 | 7.6 |
| 1950 | 1473                                        | 5.8 | 1594 | 6.3 | 1721 | 6.8 | 1848 | 7.3 | 1973 | 7.8 |
| 2100 | 1569                                        | 6.2 | 1680 | 6.6 | 1796 | 7.1 | 1915 | 7.6 | 2032 | 8.0 |
| 2250 | 1666                                        | 6.6 | 1769 | 7.0 | 1876 | 7.4 | 1986 | 7.8 | 2096 | 8.3 |
| 2400 | 1764                                        | 7.0 | 1860 | 7.4 | 1959 | 7.7 | 2061 | 8.1 | 2165 | 8.6 |
| 2550 | 1863                                        | 7.4 | 1952 | 7.7 | 2045 | 8.1 | 2140 | 8.5 | 2237 | 8.8 |
| 2700 | 1962                                        | 7.8 | 2046 | 8.1 | 2133 | 8.4 | 2222 | 8.8 | 2313 | 9.1 |
| 2850 | 2062                                        | 8.2 | 2141 | 8.5 | 2223 | 8.8 | 2307 | 9.1 | 2392 | 9.5 |
| 3000 | 2163                                        | 8.5 | 2238 | 8.8 | 2315 | 9.2 | 2394 | 9.5 | 2474 | 9.8 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |      |      |      |      |      |
|------|---------------------------------------------|-----|------|-----|------|------|------|------|------|------|
|      | 1.2                                         |     | 1.4  |     | 1.6  |      | 1.8  |      | 2.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc  | rpm  | vdc  | rpm  | vdc  |
| 1800 | 2044                                        | 8.1 | 2163 | 8.5 | 2276 | 9.0  | 2383 | 9.4  | 2486 | 9.8  |
| 1950 | 2094                                        | 8.3 | 2210 | 8.7 | 2320 | 9.2  | 2426 | 9.6  | 2527 | 10.0 |
| 2100 | 2148                                        | 8.5 | 2259 | 8.9 | 2367 | 9.4  | 2471 | 9.8  | —    | —    |
| 2250 | 2206                                        | 8.7 | 2313 | 9.1 | 2417 | 9.6  | 2518 | 10.0 | —    | —    |
| 2400 | 2268                                        | 9.0 | 2370 | 9.4 | 2471 | 9.8  | —    | —    | —    | —    |
| 2550 | 2335                                        | 9.2 | 2432 | 9.6 | 2528 | 10.0 | —    | —    | —    | —    |
| 2700 | 2405                                        | 9.5 | 2497 | 9.9 | —    | —    | —    | —    | —    | —    |
| 2850 | 2479                                        | 9.8 | —    | —   | —    | —    | —    | —    | —    | —    |
| 3000 | —                                           | —   | —    | —   | —    | —    | —    | —    | —    | —    |

Medium Static 1378-2530 rpm

## 50FCQM07 Three Phase — High Static — 6 Ton Horizontal Supply (rpm - vdc)

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |     |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|-----|
|      | 0.2                                         |     | 0.4  |     | 0.6  |     | 0.8  |     | 1.0  |     |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc |
| 1800 | 1378                                        | 4.9 | 1512 | 5.3 | 1649 | 5.8 | 1786 | 6.3 | 1918 | 6.8 |
| 1950 | 1473                                        | 5.2 | 1594 | 5.6 | 1721 | 6.1 | 1848 | 6.5 | 1973 | 7.0 |
| 2100 | 1569                                        | 5.5 | 1680 | 5.9 | 1796 | 6.3 | 1915 | 6.8 | 2032 | 7.2 |
| 2250 | 1666                                        | 5.9 | 1769 | 6.2 | 1876 | 6.6 | 1986 | 7.0 | 2096 | 7.4 |
| 2400 | 1764                                        | 6.2 | 1860 | 6.6 | 1959 | 6.9 | 2061 | 7.3 | 2165 | 7.6 |
| 2550 | 1863                                        | 6.6 | 1952 | 6.9 | 2045 | 7.2 | 2140 | 7.5 | 2237 | 7.9 |
| 2700 | 1962                                        | 6.9 | 2046 | 7.2 | 2133 | 7.5 | 2222 | 7.8 | 2313 | 8.2 |
| 2850 | 2062                                        | 7.3 | 2141 | 7.5 | 2223 | 7.8 | 2307 | 8.1 | 2392 | 8.4 |
| 3000 | 2163                                        | 7.6 | 2238 | 7.9 | 2315 | 8.2 | 2394 | 8.4 | 2474 | 8.7 |

| CFM  | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) |     |      |     |      |     |      |     |      |      |
|------|---------------------------------------------|-----|------|-----|------|-----|------|-----|------|------|
|      | 1.2                                         |     | 1.4  |     | 1.6  |     | 1.8  |     | 2.0  |      |
|      | rpm                                         | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc | rpm  | vdc  |
| 1800 | 2044                                        | 7.2 | 2163 | 7.6 | 2276 | 8.0 | 2383 | 8.4 | 2486 | 8.8  |
| 1950 | 2094                                        | 7.4 | 2210 | 7.8 | 2320 | 8.2 | 2426 | 8.6 | 2527 | 8.9  |
| 2100 | 2148                                        | 7.6 | 2259 | 8.0 | 2367 | 8.3 | 2471 | 8.7 | 2570 | 9.1  |
| 2250 | 2206                                        | 7.8 | 2313 | 8.2 | 2417 | 8.5 | 2518 | 8.9 | 2616 | 9.2  |
| 2400 | 2268                                        | 8.0 | 2370 | 8.4 | 2471 | 8.7 | 2568 | 9.1 | 2664 | 9.4  |
| 2550 | 2335                                        | 8.2 | 2432 | 8.6 | 2528 | 8.9 | 2622 | 9.2 | 2714 | 9.6  |
| 2700 | 2405                                        | 8.5 | 2497 | 8.8 | 2589 | 9.1 | 2679 | 9.4 | 2768 | 9.8  |
| 2850 | 2479                                        | 8.7 | 2566 | 9.0 | 2653 | 9.4 | 2740 | 9.7 | 2826 | 10.0 |
| 3000 | 2556                                        | 9.0 | 2639 | 9.3 | 2722 | 9.6 | 2804 | 9.9 | —    | —    |

High Static 1378-2836 rpm

## Legend and Notes

### Applicable for Electrical Data Tables on pages 60-78

#### LEGEND

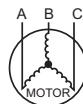
|                 |                                |
|-----------------|--------------------------------|
| <b>BRKR</b>     | — Circuit Breaker              |
| <b>CO</b>       | — Convenience Outlet           |
| <b>FLA</b>      | — Full Load Amps               |
| <b>IFM</b>      | — Indoor Fan Motor             |
| <b>LRA</b>      | — Locked Rotor Amps            |
| <b>MCA</b>      | — Minimum Circuit Amps         |
| <b>PE</b>       | — Power Exhaust                |
| <b>PWRD CO</b>  | — Powered Convenience Outlet   |
| <b>RLA</b>      | — Rated Load Amps              |
| <b>UNPWR CO</b> | — Unpowered Convenience Outlet |

#### NOTES:

1. In compliance with NEC requirements for multi-motor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent 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 show 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.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{4}{227} = 1.76\%$$

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.

## 50FCQ\*04-07 Cooling Electrical Data

| 50FCQ UNIT | V-Ph-Hz      | UNIT VOLTAGE RANGE |     | COMPRESSOR |     | OFM (EA) |      | IFM  |                         |     | POWER EXHAUST |              |
|------------|--------------|--------------------|-----|------------|-----|----------|------|------|-------------------------|-----|---------------|--------------|
|            |              | Min                | Max | RLA        | LRA | Watts    | FLA  | Type | Efficiency at Full Load | FLA | Kit QTY       | FLA (EA Kit) |
| A04        | 208/230-1-60 | 187                | 253 | 15.4       | 84  | 190      | 1.5  | STD  | 84%                     | 4.3 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 84%                     | 5.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 85%                     | 7.3 |               |              |
|            | 208/230-3-60 | 187                | 253 | 10.4       | 73  | 190      | 1.5  | STD  | 84%                     | 4.3 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 84%                     | 5.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 85%                     | 7.3 |               |              |
|            | 460-3-60     | 414                | 506 | 5.8        | 38  | 190      | 0.8  | STD  | 85%                     | 1.2 | 1             | 1.0          |
|            |              |                    |     |            |     |          |      | MED  | 85%                     | 1.2 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 84%                     | 1.7 |               |              |
|            | 575-3-60     | 518                | 633 | 3.8        | 37  | 190      | 0.6  | STD  | 84%                     | 1.1 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 84%                     | 1.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 85%                     | 1.5 |               |              |
| C05        | 208/230-1-60 | 187                | 253 | 25.0       | 120 | 325      | 1.58 | STD  | 87%                     | 5.0 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 86%                     | 7.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 84%                     | 8.8 |               |              |
| A05        | 208/230-3-60 | 187                | 253 | 13.7       | 83  | 325      | 1.5  | STD  | 87%                     | 5.0 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 86%                     | 7.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 85%                     | 5.5 |               |              |
|            | 460-3-60     | 414                | 506 | 6.2        | 41  | 325      | 0.8  | STD  | 85%                     | 1.2 | 1             | 1.0          |
|            |              |                    |     |            |     |          |      | MED  | 86%                     | 1.7 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 88%                     | 2.6 |               |              |
|            | 575-3-60     | 518                | 633 | 4.8        | 33  | 325      | 0.6  | STD  | 84%                     | 1.1 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 85%                     | 1.5 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 88%                     | 2.3 |               |              |
| A06        | 208/230-1-60 | 187                | 253 | 24.4       | 144 | 325      | 1.5  | STD  | 86%                     | 7.2 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 84%                     | 9.2 |               |              |
|            | 208/230-3-60 | 187                | 253 | 16.0       | 110 | 325      | 1.5  | STD  | 86%                     | 7.2 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 84%                     | 9.2 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 84%                     | 6.5 |               |              |
|            | 460-3-60     | 414                | 506 | 7.8        | 52  | 325      | 0.8  | STD  | 86%                     | 1.7 | 1             | 1.0          |
|            |              |                    |     |            |     |          |      | MED  | 86%                     | 2.1 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 88%                     | 3.1 |               |              |
|            | 575-3-60     | 518                | 633 | 5.7        | 39  | 325      | 0.6  | STD  | 84%                     | 1.5 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 85%                     | 2.0 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 87%                     | 2.7 |               |              |
| M07        | 208/230-3-60 | 187                | 253 | 18.0       | 136 | 325      | 1.5  | STD  | 84%                     | 9.2 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 87%                     | 5.5 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 84%                     | 6.5 |               |              |
|            | 460-3-60     | 414                | 506 | 8.5        | 66  | 325      | 0.8  | STD  | 85%                     | 2.1 | 1             | 1.0          |
|            |              |                    |     |            |     |          |      | MED  | 88%                     | 2.6 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 88%                     | 3.1 |               |              |
|            | 575-3-60     | 518                | 633 | 7.3        | 55  | 325      | 0.6  | STD  | 85%                     | 2.0 | 1             | 1.9          |
|            |              |                    |     |            |     |          |      | MED  | 88%                     | 2.3 |               |              |
|            |              |                    |     |            |     |          |      | HIGH | 87%                     | 2.7 |               |              |

## 50FCQA04 MCA MOCAP Electrical Data

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |             |           | NO CONVENIENCE OUTLET OR UNPOWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-------------|-----------|-------------------------------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM<br>(kW) | FLA       | No Power Exhaust                                      |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |             |           | MCA                                                   | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |             |           |                                                       |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A04                   | 208/230-1-60    | STD         | NONE               | —           | —         | 26                                                    | 30                      | 24              | 94      | 27                                     | 40                      | 27              | 96      |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 45/48                                                 | 50/50                   | 43/45           | 110/112 | 47/50                                  | 50/60                   | 45/48           | 112/114 |
|                       |                 |             | 324A               | 4.9/6.5     | 23.5/27.1 | 55/59                                                 | 60/60                   | 51/56           | 118/121 | 57/61                                  | 60/70                   | 54/58           | 120/123 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 65/71                                                 | 70/80                   | 60/66           | 125/130 | 67/73                                  | 70/80                   | 63/68           | 127/132 |
|                       |                 |             | 326A               | 7.9/10.5    | 37.9/43.8 | 73/80                                                 | 80/80                   | 68/75           | 132/138 | 75/82                                  | 80/90                   | 70/77           | 134/140 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 84/93                                                 | 90/100                  | 78/87           | 141/148 | 86/95                                  | 90/100                  | 81/89           | 143/150 |
|                       |                 | MED         | NONE               | —           | —         | 26                                                    | 30                      | 25              | 95      | 28                                     | 40                      | 27              | 97      |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 46/49                                                 | 50/50                   | 44/46           | 111/113 | 48/51                                  | 50/60                   | 46/49           | 113/115 |
|                       |                 |             | 324A               | 4.9/6.5     | 23.5/27.1 | 56/60                                                 | 60/60                   | 52/56           | 119/122 | 58/62                                  | 60/70                   | 55/59           | 121/124 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 66/72                                                 | 70/80                   | 61/67           | 126/131 | 67/74                                  | 70/80                   | 64/69           | 128/133 |
|                       |                 |             | 326A               | 7.9/10.5    | 37.9/43.8 | 74/81                                                 | 80/90                   | 69/76           | 133/139 | 76/83                                  | 80/90                   | 71/78           | 135/141 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 85/94                                                 | 90/100                  | 79/88           | 142/149 | 87/96                                  | 90/100                  | 81/90           | 144/151 |
|                       |                 | HIGH        | NONE               | —           | —         | 29                                                    | 40                      | 28              | 98      | 30                                     | 45                      | 30              | 100     |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 48/51                                                 | 50/60                   | 46/49           | 114/116 | 50/53                                  | 60/60                   | 48/51           | 116/118 |
|                       |                 |             | 324A               | 4.9/6.5     | 23.5/27.1 | 58/62                                                 | 60/70                   | 55/59           | 122/125 | 60/64                                  | 60/70                   | 57/61           | 124/127 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 68/74                                                 | 70/80                   | 64/70           | 129/134 | 70/76                                  | 70/80                   | 66/72           | 131/136 |
|                       |                 |             | 326A               | 7.9/10.5    | 37.9/43.8 | 76/83                                                 | 80/90                   | 71/78           | 136/142 | 78/85                                  | 80/90                   | 74/80           | 138/144 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 87/96                                                 | 90/100                  | 82/90           | 145/152 | 89/98                                  | 90/100                  | 84/92           | 147/154 |
|                       | 208/230-3-60    | STD         | NONE               | —           | —         | 19                                                    | 25                      | 19              | 83      | 21                                     | 30                      | 21              | 85      |
|                       |                 |             | 323A               | 3.3/4.4     | 9.2/10.6  | 31/33                                                 | 35/35                   | 29/31           | 92/94   | 33/34                                  | 40/40                   | 31/33           | 94/96   |
|                       |                 |             | 324A               | 4.9/6.5     | 13.6/15.6 | 36/39                                                 | 40/40                   | 34/37           | 97/99   | 38/41                                  | 40/45                   | 36/39           | 99/101  |
|                       |                 |             | 325A               | 6.5/8.7     | 18.1/20.9 | 42/45                                                 | 45/50                   | 39/43           | 101/104 | 44/47                                  | 45/50                   | 42/45           | 103/106 |
|                       |                 |             | 326A               | 7.9/10.5    | 21.9/25.3 | 47/51                                                 | 50/60                   | 44/48           | 105/108 | 49/53                                  | 50/60                   | 46/50           | 107/110 |
|                       |                 |             | 328A               | 12.0/16.0   | 33.4/38.5 | 61/67                                                 | 70/70                   | 57/63           | 116/122 | 63/69                                  | 70/70                   | 59/65           | 118/124 |
|                       |                 | MED         | NONE               | —           | —         | 20                                                    | 30                      | 20              | 84      | 22                                     | 30                      | 22              | 86      |
|                       |                 |             | 323A               | 3.3/4.4     | 9.2/10.6  | 32/33                                                 | 35/40                   | 30/32           | 93/95   | 33/35                                  | 40/40                   | 32/34           | 95/97   |
|                       |                 |             | 324A               | 4.9/6.5     | 13.6/15.6 | 37/40                                                 | 40/45                   | 35/37           | 98/100  | 39/41                                  | 45/45                   | 37/40           | 100/102 |
|                       |                 |             | 325A               | 6.5/8.7     | 18.1/20.9 | 43/46                                                 | 45/50                   | 40/44           | 102/105 | 45/48                                  | 50/50                   | 43/46           | 104/107 |
|                       |                 |             | 326A               | 7.9/10.5    | 21.9/25.3 | 47/52                                                 | 50/60                   | 45/49           | 106/109 | 49/54                                  | 50/60                   | 47/51           | 108/111 |
|                       |                 |             | 328A               | 12.0/16.0   | 33.4/38.5 | 62/68                                                 | 70/70                   | 58/64           | 117/123 | 64/70                                  | 70/70                   | 60/66           | 119/125 |
|                       |                 | HIGH        | NONE               | —           | —         | 22                                                    | 30                      | 22              | 87      | 24                                     | 30                      | 24              | 89      |
|                       |                 |             | 323A               | 3.3/4.4     | 9.2/10.6  | 34/36                                                 | 40/40                   | 33/34           | 96/98   | 36/37                                  | 40/40                   | 35/36           | 98/100  |
|                       |                 |             | 324A               | 4.9/6.5     | 13.6/15.6 | 39/42                                                 | 45/45                   | 38/40           | 101/103 | 41/44                                  | 45/45                   | 40/42           | 103/105 |
|                       |                 |             | 325A               | 6.5/8.7     | 18.1/20.9 | 45/48                                                 | 50/50                   | 43/46           | 105/108 | 47/50                                  | 50/50                   | 45/48           | 107/110 |
|                       |                 |             | 326A               | 7.9/10.5    | 21.9/25.3 | 50/54                                                 | 50/60                   | 47/51           | 109/112 | 52/56                                  | 60/60                   | 49/53           | 111/114 |
|                       |                 |             | 328A               | 12.0/16.0   | 33.4/38.5 | 64/70                                                 | 70/70                   | 60/66           | 120/126 | 66/72                                  | 70/80                   | 63/69           | 122/128 |
|                       | 460-3-60        | STD         | NONE               | —           | —         | 10                                                    | 15                      | 9               | 42      | 11                                     | 15                      | 10              | 43      |
|                       |                 |             | 333A               | 6.0         | 7.2       | 19                                                    | 20                      | 17              | 49      | 20                                     | 20                      | 18              | 50      |
|                       |                 |             | 334A               | 8.8         | 10.6      | 23                                                    | 25                      | 21              | 53      | 24                                     | 25                      | 22              | 54      |
|                       |                 |             | 335A               | 11.5        | 13.8      | 27                                                    | 30                      | 25              | 56      | 28                                     | 30                      | 26              | 57      |
|                       |                 |             | 336A               | 14.0        | 16.8      | 31                                                    | 35                      | 28              | 59      | 32                                     | 35                      | 29              | 60      |
|                       |                 | MED         | NONE               | —           | —         | 10                                                    | 15                      | 9               | 42      | 11                                     | 15                      | 10              | 43      |
|                       |                 |             | 333A               | 6.0         | 7.2       | 19                                                    | 20                      | 17              | 49      | 20                                     | 20                      | 18              | 50      |
|                       |                 |             | 334A               | 8.8         | 10.6      | 23                                                    | 25                      | 21              | 53      | 24                                     | 25                      | 22              | 54      |
|                       |                 |             | 335A               | 11.5        | 13.8      | 27                                                    | 30                      | 25              | 56      | 28                                     | 30                      | 26              | 57      |
|                       |                 |             | 336A               | 14.0        | 16.8      | 31                                                    | 35                      | 28              | 59      | 32                                     | 35                      | 29              | 60      |
|                       |                 | HIGH        | NONE               | —           | —         | 10                                                    | 15                      | 10              | 42      | 11                                     | 15                      | 11              | 43      |
|                       |                 |             | 333A               | 6.0         | 7.2       | 19                                                    | 20                      | 18              | 49      | 20                                     | 20                      | 19              | 50      |
|                       |                 |             | 334A               | 8.8         | 10.6      | 23                                                    | 25                      | 22              | 53      | 24                                     | 25                      | 23              | 54      |
|                       |                 |             | 335A               | 11.5        | 13.8      | 27                                                    | 30                      | 25              | 56      | 28                                     | 30                      | 27              | 57      |
|                       |                 |             | 336A               | 14.0        | 16.8      | 31                                                    | 35                      | 29              | 59      | 32                                     | 35                      | 30              | 60      |
|                       | 575-3-60        | STD         | NONE               | —           | —         | 7                                                     | 15                      | 6               | 41      | 9                                      | 15                      | 9               | 43      |
|                       |                 |             | 339A               | 10.0        | 9.6       | 19                                                    | 20                      | 17              | 51      | 21                                     | 25                      | 20              | 53      |
|                       |                 |             | 340A               | 15.0        | 14.4      | 25                                                    | 25                      | 23              | 55      | 27                                     | 30                      | 25              | 57      |
|                       |                 | MED         | NONE               | —           | —         | 7                                                     | 15                      | 6               | 41      | 9                                      | 15                      | 9               | 43      |
|                       |                 |             | 339A               | 10.0        | 9.6       | 19                                                    | 20                      | 17              | 51      | 21                                     | 25                      | 20              | 53      |
|                       |                 |             | 340A               | 15.0        | 14.4      | 25                                                    | 25                      | 23              | 55      | 27                                     | 30                      | 25              | 57      |
|                       |                 | HIGH        | NONE               | —           | —         | 7                                                     | 15                      | 7               | 41      | 9                                      | 15                      | 9               | 43      |
|                       |                 |             | 339A               | 10.0        | 9.6       | 19                                                    | 20                      | 18              | 51      | 21                                     | 25                      | 20              | 53      |
|                       |                 |             | 340A               | 15.0        | 14.4      | 25                                                    | 25                      | 23              | 55      | 27                                     | 30                      | 26              | 57      |

## 50FCQA04 MCA MOCAP Electrical Data (cont)

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | WITH POWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|---------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                             | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                 |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A04                   | 208/230-3-60    | STD         | NONE               | —         | —         | 24                              | 30                      | 24              | 88      | 26                                     | 30                      | 26              | 90      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 36/37                           | 40/40                   | 35/36           | 97/99   | 37/39                                  | 45/45                   | 37/39           | 99/101  |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 41/44                           | 45/45                   | 40/42           | 102/104 | 43/45                                  | 45/50                   | 42/44           | 104/106 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 47/50                           | 50/50                   | 45/48           | 106/109 | 49/52                                  | 50/60                   | 47/50           | 108/111 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 51/56                           | 60/60                   | 49/53           | 110/113 | 53/58                                  | 60/60                   | 52/55           | 112/115 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 66/72                           | 70/80                   | 63/68           | 121/127 | 68/74                                  | 70/80                   | 65/71           | 123/129 |
|                       |                 | MED         | NONE               | —         | —         | 25                              | 30                      | 25              | 89      | 27                                     | 30                      | 27              | 91      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 36/38                           | 40/45                   | 36/37           | 98/100  | 38/40                                  | 45/45                   | 38/39           | 100/102 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 42/44                           | 45/50                   | 41/43           | 103/105 | 44/46                                  | 50/50                   | 43/45           | 105/107 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 47/51                           | 50/60                   | 46/49           | 107/110 | 49/53                                  | 50/60                   | 48/51           | 109/112 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 52/56                           | 60/60                   | 50/54           | 111/114 | 54/58                                  | 60/60                   | 52/56           | 113/116 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 67/73                           | 70/80                   | 63/69           | 122/128 | 69/75                                  | 70/80                   | 66/72           | 124/130 |
|                       |                 | HIGH        | NONE               | —         | —         | 27                              | 30                      | 28              | 92      | 29                                     | 35                      | 30              | 94      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 39/40                           | 45/45                   | 38/40           | 101/103 | 40/42                                  | 45/45                   | 40/42           | 103/105 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 44/47                           | 50/50                   | 43/46           | 106/108 | 46/48                                  | 50/50                   | 45/48           | 108/110 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 50/53                           | 50/60                   | 48/52           | 110/113 | 52/55                                  | 60/60                   | 51/54           | 112/115 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 54/59                           | 60/60                   | 53/57           | 114/117 | 56/61                                  | 60/70                   | 55/59           | 116/119 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 69/75                           | 70/80                   | 66/72           | 125/131 | 71/77                                  | 80/80                   | 68/74           | 127/133 |
|                       | 460-3-60        | STD         | NONE               | —         | —         | 12                              | 15                      | 12              | 44      | 13                                     | 15                      | 13              | 45      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 21                              | 25                      | 20              | 51      | 22                                     | 25                      | 21              | 52      |
|                       |                 |             | 334A               | 8.8       | 10.6      | 25                              | 25                      | 24              | 55      | 26                                     | 30                      | 25              | 56      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 29                              | 30                      | 27              | 58      | 30                                     | 30                      | 29              | 59      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 33                              | 35                      | 31              | 61      | 34                                     | 35                      | 32              | 62      |
|                       |                 | MED         | NONE               | —         | —         | 12                              | 15                      | 12              | 44      | 13                                     | 15                      | 13              | 45      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 21                              | 25                      | 20              | 51      | 22                                     | 25                      | 21              | 52      |
|                       |                 |             | 334A               | 8.8       | 10.6      | 25                              | 25                      | 24              | 55      | 26                                     | 30                      | 25              | 56      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 29                              | 30                      | 27              | 58      | 30                                     | 30                      | 29              | 59      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 33                              | 35                      | 31              | 61      | 34                                     | 35                      | 32              | 62      |
|                       |                 | HIGH        | NONE               | —         | —         | 12                              | 15                      | 12              | 44      | 13                                     | 15                      | 13              | 45      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 21                              | 25                      | 20              | 51      | 22                                     | 25                      | 22              | 52      |
|                       |                 |             | 334A               | 8.8       | 10.6      | 26                              | 30                      | 24              | 55      | 27                                     | 30                      | 25              | 56      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 30                              | 30                      | 28              | 58      | 31                                     | 35                      | 29              | 59      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 33                              | 35                      | 31              | 61      | 34                                     | 35                      | 33              | 62      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 33                              | 35                      | 31              | 61      | 34                                     | 35                      | 33              | 62      |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 9                               | 15                      | 8               | 43      | 11                                     | 15                      | 10              | 45      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 21                              | 25                      | 19              | 53      | 23                                     | 25                      | 22              | 55      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 27                              | 30                      | 25              | 57      | 29                                     | 30                      | 27              | 59      |
|                       |                 | MED         | NONE               | —         | —         | 9                               | 15                      | 8               | 43      | 11                                     | 15                      | 10              | 45      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 21                              | 25                      | 19              | 53      | 23                                     | 25                      | 22              | 55      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 27                              | 30                      | 25              | 57      | 29                                     | 30                      | 27              | 59      |
|                       |                 | HIGH        | NONE               | —         | —         | 9                               | 15                      | 9               | 43      | 11                                     | 15                      | 11              | 45      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 21                              | 25                      | 20              | 53      | 23                                     | 25                      | 22              | 55      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 27                              | 30                      | 25              | 57      | 29                                     | 30                      | 27              | 59      |

## 50FCQC05 MCA MOCF Electrical Data

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |             |           | NO CONVENIENCE OUTLET OR UNPOWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-------------|-----------|-------------------------------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM<br>(kW) | FLA       | No Power Exhaust                                      |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |             |           | MCA                                                   | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |             |           |                                                       |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| C05                   | 208/230-1-60    | STD         | —                  | —           | —         | 38                                                    | 60                      | 36              | 131     | 40                                     | 60                      | 38              | 133     |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 58/61                                                 | 60/80                   | 55/57           | 147/149 | 60/63                                  | 80/80                   | 57/59           | 149/151 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 77/84                                                 | 80/90                   | 72/78           | 162/167 | 79/85                                  | 80/100                  | 75/80           | 164/169 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 97/106                                                | 100/110                 | 90/99           | 178/185 | 99/108                                 | 100/110                 | 92/101          | 180/187 |
|                       |                 |             | 329A               | 13.1/17.4   | 62.8/72.5 | 117/129                                               | 125/150                 | 108/120         | 194/204 | 119/131                                | 125/150                 | 111/122         | 196/206 |
|                       |                 |             | 330A               | 14.4/19.2   | 69.3/80.0 | 125/138                                               | 125/150                 | 116/128         | 200/211 | 127/140                                | 150/150                 | 118/130         | 202/213 |
|                       |                 | MED         | 331A               | 15.8/21.0   | 75.8/87.5 | 133/148                                               | 150/150                 | 123/137         | 207/219 | 135/149                                | 150/150                 | 126/139         | 209/221 |
|                       |                 |             | —                  | —           | —         | 40                                                    | 60                      | 39              | 134     | 42                                     | 60                      | 41              | 136     |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 60/63                                                 | 80/80                   | 57/60           | 150/152 | 62/65                                  | 80/80                   | 59/62           | 152/154 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 80/86                                                 | 80/100                  | 75/80           | 165/170 | 81/88                                  | 90/100                  | 77/83           | 167/172 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 99/108                                                | 100/110                 | 93/101          | 181/188 | 101/110                                | 110/110                 | 95/103          | 183/190 |
|                       |                 |             | 329A               | 13.1/17.4   | 62.8/72.5 | 119/131                                               | 125/150                 | 111/122         | 197/207 | 121/133                                | 125/150                 | 113/124         | 199/209 |
|                       |                 | HIGH        | 330A               | 14.4/19.2   | 69.3/80.0 | 127/140                                               | 150/150                 | 118/131         | 203/214 | 129/142                                | 150/150                 | 121/133         | 205/216 |
|                       |                 |             | 331A               | 15.8/21.0   | 75.8/87.5 | 135/150                                               | 150/150                 | 126/139         | 210/222 | 137/152                                | 150/175                 | 128/141         | 212/224 |
|                       |                 |             | —                  | —           | —         | 42                                                    | 60                      | 41              | 136     | 44                                     | 60                      | 43              | 138     |
|                       |                 |             | 323A               | 3.3/4.4     | 15.9/18.3 | 62/65                                                 | 80/80                   | 59/62           | 152/154 | 64/67                                  | 80/80                   | 61/64           | 154/156 |
|                       |                 |             | 325A               | 6.5/8.7     | 31.4/36.3 | 81/87                                                 | 90/100                  | 77/82           | 167/172 | 83/89                                  | 90/100                  | 79/85           | 169/174 |
|                       |                 |             | 327A               | 9.8/13.0    | 46.9/54.2 | 101/110                                               | 110/110                 | 95/103          | 183/190 | 103/112                                | 110/125                 | 97/105          | 185/192 |
|                       |                 |             | 329A               | 13.1/17.4   | 62.8/72.5 | 121/133                                               | 125/150                 | 113/124         | 199/209 | 122/135                                | 125/150                 | 115/126         | 201/211 |
|                       |                 |             | 330A               | 14.4/19.2   | 69.3/80.0 | 129/142                                               | 150/150                 | 120/133         | 205/216 | 131/144                                | 150/150                 | 122/135         | 207/218 |
|                       |                 |             | 331A               | 15.8/21.0   | 75.8/87.5 | 137/151                                               | 150/175                 | 128/141         | 212/224 | 139/153                                | 150/175                 | 130/143         | 214/226 |

## 50FCQA05 MCA MOCAP Electrical Data

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | NO CONVENIENCE OUTLET or UNPOWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|-------------------------------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                                      |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                                                   | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                                       |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A05                   | 208/230-3-60    | STD         | NONE               | —         | —         | 24                                                    | 30                      | 23              | 94      | 26                                     | 30                      | 25              | 96      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 36/37                                                 | 45/45                   | 34/35           | 103/105 | 37/39                                  | 45/45                   | 36/38           | 105/107 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 41/44                                                 | 50/50                   | 39/41           | 108/110 | 43/45                                  | 50/50                   | 41/43           | 110/112 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 47/50                                                 | 50/50                   | 44/47           | 112/115 | 49/52                                  | 50/60                   | 46/49           | 114/117 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 66/72                                                 | 70/80                   | 62/68           | 127/133 | 68/74                                  | 70/80                   | 64/70           | 129/135 |
|                       |                 |             | 330A               | 14.4/19.2 | 40.0/46.2 | 74/82                                                 | 80/90                   | 69/76           | 134/140 | 76/84                                  | 80/90                   | 71/79           | 136/142 |
|                       |                 | MED         | 331A               | 15.8/21.0 | 43.8/50.5 | 79/87                                                 | 80/90                   | 74/81           | 138/145 | 81/89                                  | 90/90                   | 76/83           | 140/147 |
|                       |                 |             | NONE               | —         | —         | 26                                                    | 30                      | 26              | 97      | 28                                     | 40                      | 28              | 99      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 38/39                                                 | 45/50                   | 36/38           | 106/108 | 40/41                                  | 50/50                   | 38/40           | 108/110 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 43/46                                                 | 50/50                   | 41/44           | 111/113 | 45/48                                  | 50/50                   | 43/46           | 113/115 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 49/52                                                 | 50/60                   | 46/50           | 115/118 | 51/54                                  | 60/60                   | 49/52           | 117/120 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 68/74                                                 | 70/80                   | 64/70           | 130/136 | 70/76                                  | 70/80                   | 66/72           | 132/138 |
|                       |                 | HIGH        | 330A               | 14.4/19.2 | 40.0/46.2 | 76/84                                                 | 80/90                   | 72/79           | 137/143 | 78/86                                  | 80/90                   | 74/81           | 139/145 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 81/89                                                 | 90/90                   | 76/84           | 141/148 | 83/91                                  | 90/100                  | 78/86           | 143/150 |
|                       |                 |             | NONE               | —         | —         | 25                                                    | 30                      | 24              | 95      | 26                                     | 30                      | 26              | 97      |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 36/38                                                 | 45/45                   | 34/36           | 104/106 | 38/40                                  | 45/50                   | 37/38           | 106/108 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 42/44                                                 | 50/50                   | 39/42           | 109/111 | 43/46                                  | 50/50                   | 42/44           | 111/113 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 47/51                                                 | 50/60                   | 45/48           | 113/116 | 49/53                                  | 50/60                   | 47/50           | 115/118 |
|                       | 460-3-60        | STD         | 328A               | 12.0/16.0 | 33.4/38.5 | 66/73                                                 | 70/80                   | 62/68           | 128/134 | 68/75                                  | 70/80                   | 64/70           | 130/136 |
|                       |                 |             | 330A               | 14.4/19.2 | 40.0/46.2 | 75/82                                                 | 80/90                   | 70/77           | 135/141 | 76/84                                  | 80/90                   | 72/79           | 137/143 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 79/88                                                 | 80/90                   | 74/82           | 139/146 | 81/90                                  | 90/90                   | 76/84           | 141/148 |
|                       |                 |             | NONE               | —         | —         | 10                                                    | 15                      | 9               | 45      | 11                                     | 15                      | 11              | 46      |
|                       |                 | MED         | 333A               | 6.0       | 7.2       | 19                                                    | 20                      | 18              | 52      | 20                                     | 20                      | 19              | 53      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 27                                                    | 30                      | 25              | 59      | 28                                     | 30                      | 26              | 60      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 31                                                    | 35                      | 29              | 62      | 32                                     | 35                      | 30              | 63      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 43                                                    | 45                      | 39              | 71      | 44                                     | 45                      | 40              | 72      |
|                       |                 | HIGH        | NONE               | —         | —         | 11                                                    | 15                      | 10              | 45      | 12                                     | 15                      | 11              | 46      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 20                                                    | 20                      | 18              | 52      | 21                                     | 25                      | 19              | 53      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 28                                                    | 30                      | 26              | 59      | 29                                     | 30                      | 27              | 60      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 32                                                    | 35                      | 29              | 62      | 33                                     | 35                      | 30              | 63      |
| A05                   | 575-3-60        | STD         | 337A               | 21.5      | 25.9      | 43                                                    | 45                      | 40              | 71      | 44                                     | 45                      | 41              | 72      |
|                       |                 |             | NONE               | —         | —         | 12                                                    | 15                      | 11              | 47      | 13                                     | 15                      | 12              | 48      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 21                                                    | 25                      | 19              | 54      | 22                                     | 25                      | 20              | 55      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 29                                                    | 30                      | 27              | 61      | 30                                     | 30                      | 28              | 62      |
|                       |                 | MED         | 336A               | 14.0      | 16.8      | 33                                                    | 35                      | 30              | 64      | 34                                     | 35                      | 32              | 65      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 44                                                    | 45                      | 41              | 73      | 45                                     | 45                      | 42              | 74      |
|                       |                 | HIGH        | NONE               | —         | —         | 8                                                     | 15                      | 7               | 37      | 10                                     | 15                      | 10              | 39      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 20                                                    | 20                      | 19              | 47      | 22                                     | 25                      | 21              | 49      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 26                                                    | 30                      | 24              | 51      | 28                                     | 30                      | 26              | 53      |
|                       |                 |             | NONE               | —         | —         | 9                                                     | 15                      | 8               | 37      | 10                                     | 15                      | 10              | 39      |
|                       |                 | HIGH        | 339A               | 10.0      | 9.6       | 21                                                    | 25                      | 19              | 47      | 22                                     | 25                      | 21              | 49      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 27                                                    | 30                      | 24              | 51      | 28                                     | 30                      | 27              | 53      |
|                       |                 |             | NONE               | —         | —         | 9                                                     | 15                      | 9               | 38      | 11                                     | 15                      | 11              | 40      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 21                                                    | 25                      | 20              | 48      | 23                                     | 25                      | 22              | 50      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 27                                                    | 30                      | 25              | 52      | 29                                     | 30                      | 28              | 54      |

## 50FCQA05 MCA MOCAP Electrical Data (cont)

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | WITH POWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|---------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                             | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                 |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A05                   | 208/230-3-60    | STD         | NONE               | —         | —         | 29                              | 40                      | 29              | 99      | 31                                     | 40                      | 31              | 101     |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 40/42                           | 50/50                   | 39/41           | 108/110 | 42/44                                  | 50/50                   | 42/43           | 110/112 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 46/48                           | 50/50                   | 44/47           | 113/115 | 48/50                                  | 50/50                   | 47/49           | 115/117 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 52/55                           | 60/60                   | 50/53           | 117/120 | 53/57                                  | 60/60                   | 52/55           | 119/122 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 71/77                           | 80/80                   | 67/73           | 132/138 | 73/79                                  | 80/80                   | 69/75           | 134/140 |
|                       |                 |             | 330A               | 14.4/19.2 | 40.0/46.2 | 79/87                           | 80/90                   | 75/82           | 139/145 | 81/89                                  | 90/90                   | 77/84           | 141/147 |
|                       |                 | MED         | 331A               | 15.8/21.0 | 43.8/50.5 | 84/92                           | 90/100                  | 79/87           | 143/150 | 86/94                                  | 90/100                  | 81/89           | 145/152 |
|                       |                 |             | NONE               | —         | —         | 31                              | 40                      | 31              | 102     | 33                                     | 45                      | 33              | 104     |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 42/44                           | 50/50                   | 42/43           | 111/113 | 44/46                                  | 50/50                   | 44/46           | 113/115 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 48/50                           | 50/60                   | 47/49           | 116/118 | 50/52                                  | 50/60                   | 49/51           | 118/120 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 54/57                           | 60/60                   | 52/55           | 120/123 | 56/59                                  | 60/60                   | 54/57           | 122/125 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 73/79                           | 80/80                   | 70/75           | 135/141 | 75/81                                  | 80/90                   | 72/78           | 137/143 |
|                       |                 | HIGH        | 330A               | 14.4/19.2 | 40.0/46.2 | 81/89                           | 90/90                   | 77/84           | 142/148 | 83/91                                  | 90/100                  | 79/86           | 144/150 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 86/94                           | 90/100                  | 82/89           | 146/153 | 88/96                                  | 90/100                  | 84/91           | 148/155 |
|                       |                 |             | NONE               | —         | —         | 29                              | 40                      | 29              | 100     | 31                                     | 40                      | 32              | 102     |
|                       |                 |             | 323A               | 3.3/4.4   | 9.2/10.6  | 41/43                           | 50/50                   | 40/42           | 109/111 | 43/45                                  | 50/50                   | 42/44           | 111/113 |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 46/49                           | 50/50                   | 45/47           | 114/116 | 48/51                                  | 50/60                   | 47/49           | 116/118 |
|                       |                 |             | 325A               | 6.5/8.7   | 18.1/20.9 | 52/56                           | 60/60                   | 50/53           | 118/121 | 54/57                                  | 60/60                   | 52/56           | 120/123 |
|                       | 460-3-60        | STD         | 328A               | 12.0/16.0 | 33.4/38.5 | 71/78                           | 80/80                   | 68/74           | 133/139 | 73/79                                  | 80/80                   | 70/76           | 135/141 |
|                       |                 |             | 330A               | 14.4/19.2 | 40.0/46.2 | 79/87                           | 80/90                   | 75/82           | 140/146 | 81/89                                  | 90/90                   | 78/85           | 142/148 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 84/93                           | 90/100                  | 80/87           | 144/151 | 86/94                                  | 90/100                  | 82/90           | 146/153 |
|                       |                 |             | NONE               | —         | —         | 12                              | 15                      | 12              | 47      | 13                                     | 15                      | 13              | 48      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 21                              | 25                      | 20              | 54      | 22                                     | 25                      | 21              | 55      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 30                              | 30                      | 28              | 61      | 31                                     | 35                      | 29              | 62      |
|                       |                 | MED         | 336A               | 14.0      | 16.8      | 33                              | 35                      | 31              | 64      | 34                                     | 35                      | 32              | 65      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 45                              | 45                      | 42              | 73      | 46                                     | 50                      | 43              | 74      |
|                       |                 |             | NONE               | —         | —         | 13                              | 15                      | 13              | 47      | 14                                     | 20                      | 14              | 48      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 22                              | 25                      | 21              | 54      | 23                                     | 25                      | 22              | 55      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 30                              | 30                      | 28              | 61      | 31                                     | 35                      | 30              | 62      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 34                              | 35                      | 32              | 64      | 35                                     | 35                      | 33              | 65      |
|                       |                 | HIGH        | 337A               | 21.5      | 25.9      | 45                              | 45                      | 42              | 73      | 46                                     | 50                      | 43              | 74      |
|                       |                 |             | NONE               | —         | —         | 14                              | 15                      | 14              | 49      | 15                                     | 20                      | 15              | 50      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 23                              | 25                      | 22              | 56      | 24                                     | 25                      | 23              | 57      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 31                              | 35                      | 29              | 63      | 32                                     | 35                      | 31              | 64      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 35                              | 35                      | 33              | 66      | 36                                     | 40                      | 34              | 67      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 46                              | 50                      | 43              | 75      | 47                                     | 50                      | 45              | 76      |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 10                              | 15                      | 9               | 39      | 12                                     | 15                      | 12              | 41      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 22                              | 25                      | 20              | 49      | 24                                     | 25                      | 23              | 51      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 28                              | 30                      | 26              | 53      | 30                                     | 30                      | 28              | 55      |
|                       |                 | MED         | NONE               | —         | —         | 10                              | 15                      | 10              | 39      | 12                                     | 15                      | 12              | 41      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 22                              | 25                      | 21              | 49      | 24                                     | 25                      | 23              | 51      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 28                              | 30                      | 26              | 53      | 30                                     | 30                      | 29              | 55      |
|                       |                 | HIGH        | NONE               | —         | —         | 11                              | 15                      | 11              | 40      | 13                                     | 15                      | 13              | 42      |
|                       |                 |             | 339A               | 10.0      | 9.6       | 23                              | 25                      | 22              | 50      | 25                                     | 25                      | 24              | 52      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 29                              | 30                      | 27              | 54      | 31                                     | 35                      | 30              | 56      |

## 50FCQA06 MCA MOCAP Electrical Data

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | NO CONVENIENCE OUTLET or UNPOWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|-------------------------------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                                      |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                                                   | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                                       |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A06                   | 208/230-1-60    | STD         | NONE               | —         | —         | 40                                                    | 60                      | 38              | 158     | 42                                     | 60                      | 40              | 160     |
|                       |                 |             | 324A               | 4.9/6.5   | 23.5/27.1 | 69/74                                                 | 80/80                   | 65/69           | 182/185 | 71/75                                  | 80/80                   | 67/71           | 184/187 |
|                       |                 |             | 325A               | 6.5/8.7   | 31.4/36.3 | 79/85                                                 | 80/90                   | 74/80           | 189/194 | 81/87                                  | 90/100                  | 76/82           | 191/196 |
|                       |                 |             | 327A               | 9.8/13.0  | 46.9/54.2 | 98/107                                                | 100/110                 | 92/100          | 205/212 | 100/109                                | 100/110                 | 94/103          | 207/214 |
|                       |                 |             | 329A               | 13.1/17.4 | 62.8/72.5 | 118/130                                               | 125/150                 | 110/121         | 221/231 | 120/132                                | 125/150                 | 112/124         | 223/233 |
|                       |                 |             | 331A               | 15.8/21.0 | 75.8/87.5 | 134/149                                               | 150/150                 | 125/139         | 234/246 | 136/151                                | 150/175                 | 127/141         | 236/248 |
|                       |                 | MED         | NONE               | —         | —         | 42                                                    | 60                      | 40              | 161     | 44                                     | 60                      | 43              | 163     |
|                       |                 |             | 324A               | 4.9/6.5   | 23.5/27.1 | 71/76                                                 | 80/80                   | 67/72           | 185/188 | 73/77                                  | 80/80                   | 70/74           | 187/190 |
|                       |                 |             | 325A               | 6.5/8.7   | 31.4/36.3 | 81/87                                                 | 90/100                  | 76/82           | 192/197 | 83/89                                  | 90/100                  | 79/84           | 194/199 |
|                       |                 |             | 327A               | 9.8/13.0  | 46.9/54.2 | 100/109                                               | 100/110                 | 94/103          | 208/215 | 102/111                                | 110/125                 | 96/105          | 210/217 |
|                       |                 |             | 329A               | 13.1/17.4 | 62.8/72.5 | 120/132                                               | 125/150                 | 113/124         | 224/234 | 122/134                                | 125/150                 | 115/126         | 226/236 |
|                       |                 |             | 331A               | 15.8/21.0 | 75.8/87.5 | 136/151                                               | 150/175                 | 128/141         | 237/249 | 138/153                                | 150/175                 | 130/143         | 239/251 |
|                       | 208/230-3-60    | STD         | NONE               | —         | —         | 29                                                    | 40                      | 28              | 124     | 31                                     | 45                      | 31              | 126     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 46/49                                                 | 50/60                   | 44/46           | 138/140 | 48/51                                  | 60/60                   | 46/49           | 140/142 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 57/61                                                 | 60/70                   | 54/58           | 146/149 | 58/63                                  | 60/70                   | 56/60           | 148/151 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 71/77                                                 | 80/80                   | 67/73           | 157/163 | 73/79                                  | 80/80                   | 69/75           | 159/165 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 84/92                                                 | 90/100                  | 79/86           | 168/175 | 86/94                                  | 90/100                  | 81/89           | 170/177 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 93/103                                                | 100/110                 | 87/96           | 175/183 | 95/105                                 | 100/110                 | 89/98           | 177/185 |
|                       |                 | MED         | NONE               | —         | —         | 31                                                    | 45                      | 31              | 127     | 33                                     | 45                      | 33              | 129     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 48/51                                                 | 60/60                   | 46/49           | 141/143 | 50/53                                  | 60/60                   | 49/51           | 143/145 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 59/63                                                 | 60/70                   | 56/60           | 149/152 | 60/65                                  | 60/70                   | 58/62           | 151/154 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 73/79                                                 | 80/80                   | 69/75           | 160/166 | 75/81                                  | 80/90                   | 71/77           | 162/168 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 86/94                                                 | 90/100                  | 81/89           | 171/178 | 88/96                                  | 90/100                  | 83/91           | 173/180 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 95/105                                                | 100/110                 | 89/98           | 178/186 | 97/107                                 | 100/110                 | 92/101          | 180/188 |
|                       |                 | HIGH        | NONE               | —         | —         | 28                                                    | 40                      | 28              | 123     | 30                                     | 45                      | 30              | 125     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 45/48                                                 | 50/50                   | 43/46           | 137/139 | 47/50                                  | 50/60                   | 45/48           | 139/141 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 56/60                                                 | 60/60                   | 53/57           | 145/148 | 58/62                                  | 60/70                   | 55/59           | 147/150 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 70/77                                                 | 70/80                   | 66/72           | 156/162 | 72/78                                  | 80/80                   | 68/74           | 158/164 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 83/92                                                 | 90/100                  | 78/86           | 167/174 | 85/93                                  | 90/100                  | 80/88           | 169/176 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 92/102                                                | 100/110                 | 86/95           | 174/182 | 94/104                                 | 100/110                 | 89/98           | 176/184 |
|                       | 460-3-60        | STD         | NONE               | —         | —         | 13                                                    | 20                      | 12              | 56      | 14                                     | 20                      | 13              | 57      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 22                                                    | 25                      | 20              | 63      | 23                                     | 25                      | 21              | 64      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 30                                                    | 30                      | 28              | 70      | 31                                     | 35                      | 29              | 71      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 34                                                    | 35                      | 31              | 73      | 35                                     | 35                      | 32              | 74      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 45                                                    | 45                      | 42              | 82      | 46                                     | 50                      | 43              | 83      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 49                                                    | 50                      | 45              | 85      | 50                                     | 50                      | 46              | 86      |
|                       |                 | MED         | NONE               | —         | —         | 13                                                    | 20                      | 12              | 57      | 14                                     | 20                      | 13              | 58      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 22                                                    | 25                      | 21              | 64      | 23                                     | 25                      | 22              | 65      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 30                                                    | 30                      | 28              | 71      | 31                                     | 35                      | 29              | 72      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 34                                                    | 35                      | 32              | 74      | 35                                     | 35                      | 33              | 75      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 45                                                    | 50                      | 42              | 83      | 46                                     | 50                      | 43              | 84      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 49                                                    | 50                      | 46              | 86      | 50                                     | 50                      | 47              | 87      |
|                       |                 | HIGH        | NONE               | —         | —         | 14                                                    | 20                      | 13              | 58      | 15                                     | 20                      | 15              | 59      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 23                                                    | 25                      | 22              | 65      | 24                                     | 25                      | 23              | 66      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 31                                                    | 35                      | 29              | 72      | 32                                     | 35                      | 30              | 73      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 35                                                    | 35                      | 33              | 75      | 36                                     | 40                      | 34              | 76      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 46                                                    | 50                      | 43              | 84      | 47                                     | 50                      | 44              | 85      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 50                                                    | 50                      | 47              | 87      | 51                                     | 60                      | 48              | 88      |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 10                                                    | 15                      | 9               | 43      | 12                                     | 15                      | 11              | 45      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 28                                                    | 30                      | 26              | 57      | 30                                     | 30                      | 28              | 59      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 35                                                    | 35                      | 32              | 63      | 37                                     | 40                      | 34              | 65      |
|                       |                 | MED         | NONE               | —         | —         | 10                                                    | 15                      | 10              | 44      | 12                                     | 15                      | 12              | 46      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 28                                                    | 30                      | 26              | 58      | 30                                     | 30                      | 28              | 60      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 35                                                    | 35                      | 33              | 64      | 37                                     | 40                      | 35              | 66      |
|                       |                 | HIGH        | NONE               | —         | —         | 11                                                    | 15                      | 10              | 45      | 13                                     | 15                      | 13              | 47      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 29                                                    | 30                      | 27              | 59      | 31                                     | 35                      | 29              | 61      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 36                                                    | 40                      | 34              | 65      | 38                                     | 40                      | 36              | 67      |

## 50FCQA06 MCA MOCAP Electrical Data (cont)

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | WITH POWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|---------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                             | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                 |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| A06                   | 208/230-3-60    | STD         | NONE               | —         | —         | 34                              | 45                      | 34              | 129     | 36                                     | 50                      | 36              | 131     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 51/53                           | 60/60                   | 50/52           | 143/145 | 53/55                                  | 60/60                   | 52/54           | 145/147 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 61/66                           | 70/70                   | 59/63           | 151/154 | 63/67                                  | 70/70                   | 61/65           | 153/156 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 76/82                           | 80/90                   | 72/78           | 162/168 | 78/84                                  | 80/90                   | 75/80           | 164/170 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 89/97                           | 90/100                  | 84/92           | 173/180 | 91/99                                  | 100/100                 | 86/94           | 175/182 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 98/108                          | 100/110                 | 93/102          | 180/188 | 100/109                                | 100/110                 | 95/104          | 182/190 |
|                       |                 | MED         | NONE               | —         | —         | 36                              | 50                      | 36              | 132     | 38                                     | 50                      | 38              | 134     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 53/55                           | 60/60                   | 52/54           | 146/148 | 55/57                                  | 60/60                   | 54/56           | 148/150 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 63/68                           | 70/70                   | 61/65           | 154/157 | 65/69                                  | 70/70                   | 64/68           | 156/159 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 78/84                           | 80/90                   | 75/81           | 165/171 | 80/86                                  | 80/90                   | 77/83           | 167/173 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 91/99                           | 100/100                 | 87/94           | 176/183 | 93/101                                 | 100/110                 | 89/96           | 178/185 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 100/110                         | 100/110                 | 95/104          | 183/191 | 102/111                                | 110/125                 | 97/106          | 185/193 |
|                       |                 | HIGH        | NONE               | —         | —         | 33                              | 45                      | 33              | 128     | 35                                     | 50                      | 35              | 130     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 50/53                           | 60/60                   | 49/51           | 142/144 | 52/55                                  | 60/60                   | 51/53           | 144/146 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 61/65                           | 70/70                   | 58/62           | 150/153 | 63/67                                  | 70/70                   | 60/64           | 152/155 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 75/81                           | 80/90                   | 72/77           | 161/167 | 77/83                                  | 80/90                   | 74/80           | 163/169 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 88/96                           | 90/100                  | 83/91           | 172/179 | 90/98                                  | 90/100                  | 86/93           | 174/181 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 97/107                          | 100/110                 | 92/101          | 179/187 | 99/109                                 | 100/110                 | 94/103          | 181/189 |
|                       | 460-3-60        | STD         | NONE               | —         | —         | 15                              | 20                      | 14              | 58      | 16                                     | 20                      | 16              | 59      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 24                              | 25                      | 23              | 65      | 25                                     | 30                      | 24              | 66      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 32                              | 35                      | 30              | 72      | 33                                     | 35                      | 31              | 73      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 36                              | 40                      | 34              | 75      | 37                                     | 40                      | 35              | 76      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 47                              | 50                      | 44              | 84      | 48                                     | 50                      | 45              | 85      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 51                              | 60                      | 48              | 87      | 52                                     | 60                      | 49              | 88      |
|                       |                 | MED         | NONE               | —         | —         | 15                              | 20                      | 15              | 59      | 16                                     | 20                      | 16              | 60      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 24                              | 25                      | 23              | 66      | 25                                     | 30                      | 24              | 67      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 33                              | 35                      | 31              | 73      | 34                                     | 35                      | 32              | 74      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 36                              | 40                      | 34              | 76      | 37                                     | 40                      | 35              | 77      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 48                              | 50                      | 45              | 85      | 49                                     | 50                      | 46              | 86      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 51                              | 60                      | 48              | 88      | 52                                     | 60                      | 49              | 89      |
|                       |                 | HIGH        | NONE               | —         | —         | 16                              | 20                      | 16              | 60      | 17                                     | 20                      | 17              | 61      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 25                              | 30                      | 24              | 67      | 26                                     | 30                      | 25              | 68      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 34                              | 35                      | 32              | 74      | 35                                     | 35                      | 33              | 75      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 37                              | 40                      | 35              | 77      | 38                                     | 40                      | 36              | 78      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 49                              | 50                      | 46              | 86      | 50                                     | 50                      | 47              | 87      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 52                              | 60                      | 49              | 89      | 53                                     | 60                      | 50              | 90      |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 11                              | 15                      | 11              | 45      | 13                                     | 15                      | 13              | 47      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 29                              | 30                      | 27              | 59      | 31                                     | 35                      | 30              | 61      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 37                              | 40                      | 34              | 65      | 39                                     | 40                      | 36              | 67      |
|                       |                 | MED         | NONE               | —         | —         | 12                              | 15                      | 12              | 46      | 14                                     | 15                      | 14              | 48      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 30                              | 30                      | 28              | 60      | 32                                     | 35                      | 30              | 62      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 37                              | 40                      | 35              | 66      | 39                                     | 40                      | 37              | 68      |
|                       |                 | HIGH        | NONE               | —         | —         | 13                              | 15                      | 12              | 47      | 14                                     | 20                      | 14              | 49      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 31                              | 35                      | 29              | 61      | 32                                     | 35                      | 31              | 63      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 38                              | 40                      | 36              | 67      | 40                                     | 40                      | 38              | 69      |

## 50FCQM07 MCA MOCF Electrical Data

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | NO CONVENIENCE OUTLET or UNPOWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|-------------------------------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                                      |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                                                   | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                                       |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| M07                   | 208/230-3-60    | STD         | NONE               | —         | —         | 34                                                    | 50                      | 33              | 153     | 36                                     | 50                      | 35              | 155     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 51/53                                                 | 60/60                   | 49/51           | 167/169 | 53/55                                  | 60/60                   | 51/53           | 169/171 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 61/65                                                 | 70/70                   | 58/62           | 175/178 | 63/67                                  | 70/70                   | 60/64           | 177/180 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 75/82                                                 | 80/90                   | 71/77           | 186/192 | 77/84                                  | 80/90                   | 74/79           | 188/194 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 88/97                                                 | 90/100                  | 83/91           | 197/204 | 90/99                                  | 90/100                  | 86/93           | 199/206 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 98/107                                                | 100/110                 | 92/101          | 204/212 | 99/109                                 | 100/110                 | 94/103          | 206/214 |
|                       |                 | MED         | NONE               | —         | —         | 30                                                    | 45                      | 29              | 148     | 32                                     | 45                      | 31              | 150     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 47/49                                                 | 60/60                   | 44/47           | 162/164 | 49/51                                  | 60/60                   | 47/49           | 164/166 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 57/62                                                 | 60/70                   | 54/58           | 170/173 | 59/63                                  | 60/70                   | 56/60           | 172/175 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 72/78                                                 | 80/80                   | 67/73           | 181/187 | 74/80                                  | 80/80                   | 69/75           | 183/189 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 85/93                                                 | 90/100                  | 79/87           | 192/199 | 87/95                                  | 90/100                  | 81/89           | 194/201 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 94/104                                                | 100/110                 | 88/96           | 199/207 | 96/105                                 | 100/110                 | 90/99           | 201/209 |
|                       |                 | HIGH        | NONE               | —         | —         | 31                                                    | 45                      | 30              | 149     | 33                                     | 50                      | 32              | 151     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 48/50                                                 | 60/60                   | 46/48           | 163/165 | 50/52                                  | 60/60                   | 48/50           | 165/167 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 58/63                                                 | 60/70                   | 55/59           | 171/174 | 60/64                                  | 60/70                   | 57/61           | 173/176 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 73/79                                                 | 80/80                   | 68/74           | 182/188 | 75/81                                  | 80/90                   | 70/76           | 184/190 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 86/94                                                 | 90/100                  | 80/88           | 193/200 | 88/96                                  | 90/100                  | 82/90           | 195/202 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 95/105                                                | 100/110                 | 89/98           | 200/208 | 97/106                                 | 100/110                 | 91/100          | 202/210 |
|                       | 460-3-60        | STD         | NONE               | —         | —         | 14                                                    | 20                      | 13              | 71      | 15                                     | 20                      | 14              | 72      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 23                                                    | 25                      | 21              | 78      | 24                                     | 30                      | 23              | 79      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 31                                                    | 35                      | 29              | 85      | 32                                     | 35                      | 30              | 86      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 35                                                    | 35                      | 32              | 88      | 36                                     | 40                      | 34              | 89      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 46                                                    | 50                      | 43              | 97      | 47                                     | 50                      | 44              | 98      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 50                                                    | 50                      | 46              | 100     | 51                                     | 60                      | 47              | 101     |
|                       |                 | MED         | NONE               | —         | —         | 14                                                    | 20                      | 14              | 72      | 15                                     | 20                      | 15              | 73      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 23                                                    | 25                      | 22              | 79      | 24                                     | 30                      | 23              | 80      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 32                                                    | 35                      | 30              | 86      | 33                                     | 35                      | 31              | 87      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 35                                                    | 40                      | 33              | 89      | 36                                     | 40                      | 34              | 90      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 47                                                    | 50                      | 43              | 98      | 48                                     | 50                      | 45              | 99      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 51                                                    | 60                      | 47              | 101     | 52                                     | 60                      | 48              | 102     |
|                       |                 | HIGH        | NONE               | —         | —         | 15                                                    | 20                      | 14              | 72      | 16                                     | 20                      | 15              | 73      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 24                                                    | 30                      | 23              | 79      | 25                                     | 30                      | 24              | 80      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 32                                                    | 35                      | 30              | 86      | 33                                     | 35                      | 31              | 87      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 36                                                    | 40                      | 34              | 89      | 37                                     | 40                      | 35              | 90      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 47                                                    | 50                      | 44              | 98      | 48                                     | 50                      | 45              | 99      |
|                       |                 |             | 338A               | 24.0      | 28.9      | 51                                                    | 60                      | 47              | 101     | 52                                     | 60                      | 49              | 102     |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 12                                                    | 15                      | 11              | 60      | 14                                     | 20                      | 14              | 62      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 30                                                    | 30                      | 28              | 74      | 32                                     | 35                      | 30              | 76      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 37                                                    | 40                      | 35              | 80      | 39                                     | 40                      | 37              | 82      |
|                       |                 | MED         | NONE               | —         | —         | 12                                                    | 15                      | 12              | 60      | 14                                     | 20                      | 14              | 62      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 30                                                    | 35                      | 28              | 74      | 32                                     | 35                      | 30              | 76      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 38                                                    | 40                      | 35              | 80      | 40                                     | 40                      | 37              | 82      |
|                       |                 | HIGH        | NONE               | —         | —         | 13                                                    | 15                      | 12              | 61      | 15                                     | 20                      | 14              | 63      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 31                                                    | 35                      | 29              | 75      | 33                                     | 35                      | 31              | 77      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 38                                                    | 40                      | 35              | 81      | 40                                     | 40                      | 38              | 83      |

## 50FCQM07 MCA MOCAP Electrical Data (cont)

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER    |           |           | WITH POWERED CONVENIENCE OUTLET |                         |                 |         |                                        |                         |                 |         |
|-----------------------|-----------------|-------------|--------------------|-----------|-----------|---------------------------------|-------------------------|-----------------|---------|----------------------------------------|-------------------------|-----------------|---------|
|                       |                 |             | CRHEATER<br>****00 | NOM (kW)  | FLA       | No Power Exhaust                |                         |                 |         | With Power Exhaust (powered from unit) |                         |                 |         |
|                       |                 |             |                    |           |           | MCA                             | Fuse or<br>HACR<br>Brkr | Disconnect Size |         | MCA                                    | Fuse or<br>HACR<br>Brkr | Disconnect Size |         |
|                       |                 |             |                    |           |           |                                 |                         | FLA             | LRA     |                                        |                         | FLA             | LRA     |
| M07                   | 208/230-3-60    | STD         | NONE               | —         | —         | 38                              | 50                      | 39              | 158     | 40                                     | 50                      | 41              | 160     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 55/58                           | 60/60                   | 54/56           | 172/174 | 57/60                                  | 60/60                   | 56/59           | 174/176 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 66/70                           | 70/80                   | 64/68           | 180/183 | 68/72                                  | 70/80                   | 66/70           | 182/185 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 80/87                           | 80/90                   | 77/83           | 191/197 | 82/88                                  | 90/90                   | 79/85           | 193/199 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 93/102                          | 100/110                 | 89/97           | 202/209 | 95/103                                 | 100/110                 | 91/99           | 204/211 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 102/112                         | 110/125                 | 97/106          | 209/217 | 104/114                                | 110/125                 | 99/108          | 211/219 |
|                       |                 | MED         | NONE               | —         | —         | 35                              | 50                      | 34              | 153     | 37                                     | 50                      | 36              | 155     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 52/54                           | 60/60                   | 50/52           | 167/169 | 54/56                                  | 60/60                   | 52/54           | 169/171 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 62/66                           | 70/70                   | 59/63           | 175/178 | 64/68                                  | 70/70                   | 62/66           | 177/180 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 77/83                           | 80/90                   | 73/79           | 186/192 | 78/85                                  | 80/90                   | 75/81           | 188/194 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 90/98                           | 90/100                  | 85/92           | 197/204 | 91/100                                 | 100/100                 | 87/95           | 199/206 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 99/108                          | 100/110                 | 93/102          | 204/212 | 101/110                                | 110/110                 | 95/104          | 206/214 |
|                       |                 | HIGH        | NONE               | —         | —         | 36                              | 50                      | 35              | 154     | 38                                     | 50                      | 38              | 156     |
|                       |                 |             | 324A               | 4.9/6.5   | 13.6/15.6 | 53/55                           | 60/60                   | 51/53           | 168/170 | 55/57                                  | 60/60                   | 53/56           | 170/172 |
|                       |                 |             | 326A               | 7.9/10.5  | 21.9/25.3 | 63/67                           | 70/70                   | 61/65           | 176/179 | 65/69                                  | 70/80                   | 63/67           | 178/181 |
|                       |                 |             | 328A               | 12.0/16.0 | 33.4/38.5 | 78/84                           | 80/90                   | 74/80           | 187/193 | 79/86                                  | 80/90                   | 76/82           | 189/195 |
|                       |                 |             | 331A               | 15.8/21.0 | 43.8/50.5 | 91/99                           | 100/100                 | 86/93           | 198/205 | 92/101                                 | 100/110                 | 88/96           | 200/207 |
|                       |                 |             | 332A               | 18.4/24.5 | 51.1/58.9 | 100/109                         | 100/110                 | 94/103          | 205/213 | 102/111                                | 110/125                 | 96/105          | 207/215 |
|                       | 460-3-60        | STD         | NONE               | —         | —         | 16                              | 20                      | 16              | 73      | 17                                     | 25                      | 17              | 74      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 25                              | 30                      | 24              | 80      | 26                                     | 30                      | 25              | 81      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 33                              | 35                      | 32              | 87      | 34                                     | 35                      | 33              | 88      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 37                              | 40                      | 35              | 90      | 38                                     | 40                      | 36              | 91      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 49                              | 50                      | 45              | 99      | 50                                     | 50                      | 47              | 100     |
|                       |                 |             | 338A               | 24.0      | 28.9      | 52                              | 60                      | 49              | 102     | 53                                     | 60                      | 50              | 103     |
|                       |                 | MED         | NONE               | —         | —         | 17                              | 20                      | 16              | 74      | 18                                     | 25                      | 17              | 75      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 26                              | 30                      | 24              | 81      | 27                                     | 30                      | 26              | 82      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 34                              | 35                      | 32              | 88      | 35                                     | 35                      | 33              | 89      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 38                              | 40                      | 36              | 91      | 39                                     | 40                      | 37              | 92      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 49                              | 50                      | 46              | 100     | 50                                     | 50                      | 47              | 101     |
|                       |                 |             | 338A               | 24.0      | 28.9      | 53                              | 60                      | 49              | 103     | 54                                     | 60                      | 51              | 104     |
|                       |                 | HIGH        | NONE               | —         | —         | 17                              | 25                      | 17              | 74      | 18                                     | 25                      | 18              | 75      |
|                       |                 |             | 333A               | 6.0       | 7.2       | 26                              | 30                      | 25              | 81      | 27                                     | 30                      | 26              | 82      |
|                       |                 |             | 335A               | 11.5      | 13.8      | 34                              | 35                      | 33              | 88      | 35                                     | 40                      | 34              | 89      |
|                       |                 |             | 336A               | 14.0      | 16.8      | 38                              | 40                      | 36              | 91      | 39                                     | 40                      | 37              | 92      |
|                       |                 |             | 337A               | 21.5      | 25.9      | 50                              | 50                      | 47              | 100     | 51                                     | 60                      | 48              | 101     |
|                       |                 |             | 338A               | 24.0      | 28.9      | 53                              | 60                      | 50              | 103     | 54                                     | 60                      | 51              | 104     |
|                       | 575-3-60        | STD         | NONE               | —         | —         | 14                              | 20                      | 13              | 62      | 16                                     | 20                      | 16              | 64      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 32                              | 35                      | 30              | 76      | 34                                     | 35                      | 32              | 78      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 39                              | 40                      | 37              | 82      | 41                                     | 45                      | 39              | 84      |
|                       |                 | MED         | NONE               | —         | —         | 14                              | 20                      | 14              | 62      | 16                                     | 20                      | 16              | 64      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 32                              | 35                      | 30              | 76      | 34                                     | 35                      | 32              | 78      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 39                              | 40                      | 37              | 82      | 41                                     | 45                      | 39              | 84      |
|                       |                 | HIGH        | NONE               | —         | —         | 15                              | 20                      | 14              | 63      | 16                                     | 20                      | 16              | 65      |
|                       |                 |             | 340A               | 15.0      | 14.4      | 33                              | 35                      | 31              | 77      | 34                                     | 35                      | 33              | 79      |
|                       |                 |             | 341A               | 21.0      | 20.2      | 40                              | 40                      | 37              | 83      | 42                                     | 45                      | 40              | 85      |

## 50FCQA04 Electric Heat Data — without Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| A04                   | 208/230-1-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | 037                        | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       | 208/230-3-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | —                                                       | —                          | —            | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | —                                                       | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | —                                                       | —                          | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | —                                                       | —                          | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 037                        | 037          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       | 575-3-60        | STD         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | HIGH        | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |

## 50FCQA04 Electric Heat Data — with Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| A04                   | 208/230-1-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       | 208/230-3-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 037                        | 037          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER334A00                 | 8.8         | 8.1                 | 27.6                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       | 575-3-60        | STD         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | HIGH        | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |

## 50FCQC05 Electric Heat Data — without Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART<br>NUMBER | NOM (kW) | APPLICATION (kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION<br>PART NUMBER<br>CRSINGLEXXXA00 |                            |
|-----------------------|-----------------|----------|--------------------------------|----------|------------------|-----------------------------|-----------------------------------------------------------|----------------------------|
|                       |                 |          |                                |          |                  |                             | No CO or Unpowered CO                                     |                            |
|                       |                 |          |                                |          |                  |                             | No PE                                                     | With PE<br>(pwrdr fr/unit) |
| C05                   | 208/230-1-60    | STD      | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 | MED      | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 | HIGH     | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |

## 50FCQC05 Electric Heat Data — with Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART<br>NUMBER | NOM (kW) | APPLICATION (kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION<br>PART NUMBER<br>CRSINGLEXXXA00 |                            |
|-----------------------|-----------------|----------|--------------------------------|----------|------------------|-----------------------------|-----------------------------------------------------------|----------------------------|
|                       |                 |          |                                |          |                  |                             | No CO or Unpowered CO                                     |                            |
|                       |                 |          |                                |          |                  |                             | No PE                                                     | With PE<br>(pwrdr fr/unit) |
| C05                   | 208/230-1-60    | STD      | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 | MED      | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 | HIGH     | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER323A00                 | 4.4      | 3.3/4.0          | 11.3/13.8                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER325A00                 | 8.7      | 6.5/8.0          | 22.3/27.3                   | 040                                                       | 040                        |
|                       |                 |          | CRHEATER327A00                 | 13.0     | 9.8/11.9         | 33.3/40.7                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER329A00                 | 17.4     | 13.1/16.0        | 44.6/54.5                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER330A00                 | 19.2     | 14.4/17.6        | 49.2/60.2                   | 041                                                       | 041                        |
|                       |                 |          | CRHEATER331A00                 | 21.0     | 15.8/19.3        | 53.8/65.8                   | 041                                                       | 041                        |

## 50FCQA05 Electric Heat Data — without Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| A05                   | 208/230-3-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | —                                                       | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | 037                        |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | —                                                       | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       | 575-3-60        | STD         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | MED         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 | HIGH        | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |

## 50FCQA05 Electric Heat Data — with Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                           |              |                           |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|---------------------------|--------------|---------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                           | With PWRD CO |                           |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrd fr/unit) | No PE        | With PE<br>(pwrd fr/unit) |
| A05                   | 208/230-3-60    | STD         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                       | 038          | 038                       |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                       | 039          | 039                       |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                       | 039          | 039                       |
|                       |                 | MED         | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                       | 038          | 038                       |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                       | 039          | 039                       |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                       | 039          | 039                       |
|                       |                 | HIGH        | CRHEATER323A00                 | 4.4         | 3.3/4.0             | 11.3/13.8                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                       | 038          | 038                       |
|                       |                 |             | CRHEATER330A00                 | 19.2        | 14.4/17.6           | 49.2/60.2                   | 039                                                     | 039                       | 039          | 039                       |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                       | 039          | 039                       |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                       | 037          | 037                       |
|                       |                 |             | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                         | —            | —                         |
|                       |                 | MED         | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                       | 037          | 037                       |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                       | 037          | 037                       |
|                       | 575-3-60        | STD         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                         | —            | —                         |
|                       |                 | MED         | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                         | —            | —                         |
|                       |                 | HIGH        | CRHEATER339A00                 | 10.0        | 9.2                 | 31.3                        | —                                                       | —                         | —            | —                         |
|                       |                 |             | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                         | —            | —                         |

## 50FCQA06 Electric Heat Data — without Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE    | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW)    | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |     |
|-----------------------|-----------------|----------------|--------------------------------|----------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|-----|
|                       |                 |                |                                |                |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |     |
|                       |                 |                |                                |                |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |     |
| A06                   | 208/230-1-60    | STD            | CRHEATER324A00                 | 6.5            | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |     |
|                       |                 |                | CRHEATER325A00                 | 8.7            | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |     |
|                       |                 |                | CRHEATER327A00                 | 13.0           | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |     |
|                       |                 |                | CRHEATER329A00                 | 17.4           | 13.1/16.0           | 44.6/54.5                   | 041                                                     | 041                        | —            | —                          |     |
|                       |                 |                | CRHEATER331A00                 | 21.0           | 15.8/19.3           | 53.8/65.8                   | 041                                                     | 041                        | —            | —                          |     |
|                       |                 | MED            | CRHEATER324A00                 | 6.5            | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |     |
|                       |                 |                | CRHEATER325A00                 | 8.7            | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |     |
|                       |                 |                | CRHEATER327A00                 | 13.0           | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |     |
|                       |                 |                | CRHEATER329A00                 | 17.4           | 13.1/16.0           | 44.6/54.5                   | 041                                                     | 041                        | —            | —                          |     |
|                       |                 |                | CRHEATER331A00                 | 21.0           | 15.8/19.3           | 53.8/65.8                   | 041                                                     | 041                        | —            | —                          |     |
|                       | 208/230-3-60    | STD            | CRHEATER324A00                 | 6.5            | 4.9/6.0             | 16.7/20.4                   | —                                                       | 037                        | 037          | 037                        |     |
|                       |                 |                | CRHEATER326A00                 | 10.5           | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER328A00                 | 16.0           | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER331A00                 | 21.0           | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |     |
|                       |                 |                | CRHEATER332A00                 | 24.5           | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |     |
|                       |                 | MED            | CRHEATER324A00                 | 6.5            | 4.9/6.0             | 16.7/20.4                   | —                                                       | 037                        | 037          | 037                        |     |
|                       |                 |                | CRHEATER326A00                 | 10.5           | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER328A00                 | 16.0           | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER331A00                 | 21.0           | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |     |
|                       |                 |                | CRHEATER332A00                 | 24.5           | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |     |
|                       |                 | HIGH           | CRHEATER324A00                 | 6.5            | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | 037          | 037                        |     |
|                       |                 |                | CRHEATER326A00                 | 10.5           | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER328A00                 | 16.0           | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |     |
|                       |                 |                | CRHEATER331A00                 | 21.0           | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |     |
|                       |                 | 460-3-60       | STD                            | CRHEATER333A00 | 6.0                 | 5.5                         | 18.8                                                    | —                          | —            | —                          | —   |
|                       |                 |                |                                | CRHEATER335A00 | 11.5                | 10.6                        | 36.0                                                    | —                          | —            | —                          | —   |
|                       |                 |                |                                | CRHEATER336A00 | 14.0                | 12.9                        | 43.9                                                    | —                          | —            | —                          | —   |
|                       |                 |                |                                | CRHEATER337A00 | 21.5                | 19.7                        | 67.4                                                    | 037                        | 037          | 037                        | 037 |
|                       | CRHEATER338A00  |                |                                | 24.0           | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       | MED             |                | CRHEATER333A00                 | 6.0            | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER335A00                 | 11.5           | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER336A00                 | 14.0           | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER337A00                 | 21.5           | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       |                 |                | CRHEATER338A00                 | 24.0           | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       | HIGH            |                | CRHEATER333A00                 | 6.0            | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER335A00                 | 11.5           | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER336A00                 | 14.0           | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER337A00                 | 21.5           | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       |                 |                | CRHEATER338A00                 | 24.0           | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       | 575-3-60        |                | STD                            | CRHEATER340A00 | 15.0                | 13.8                        | 47.0                                                    | —                          | —            | —                          | —   |
|                       |                 | CRHEATER341A00 |                                | 21.0           | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       |                 | MED            | CRHEATER340A00                 | 15.0           | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER341A00                 | 21.0           | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |     |
|                       |                 | HIGH           | CRHEATER340A00                 | 15.0           | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |     |
|                       |                 |                | CRHEATER341A00                 | 21.0           | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |     |

## 50FCQA06 Electric Heat Data — with Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| A06                   | 208/230-1-60    | STD         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 |             | CRHEATER329A00                 | 17.4        | 13.1/16.0           | 44.6/54.5                   | 041                                                     | 041                        | —            | —                          |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 041                                                     | 041                        | —            | —                          |
|                       |                 | MED         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER325A00                 | 8.7         | 6.5/8.0             | 22.3/27.3                   | 040                                                     | 040                        | —            | —                          |
|                       |                 |             | CRHEATER327A00                 | 13.0        | 9.8/11.9            | 33.3/40.7                   | 041                                                     | 041                        | —            | —                          |
|                       |                 |             | CRHEATER329A00                 | 17.4        | 13.1/16.0           | 44.6/54.5                   | 041                                                     | 041                        | —            | —                          |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 041                                                     | 041                        | —            | —                          |
|                       | 208/230-3-60    | STD         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | MED         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | HIGH        | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 037                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | 575-3-60    | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |

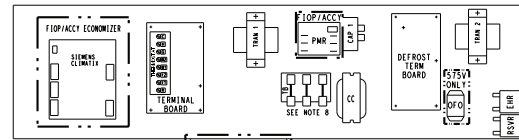
## 50FCQM07 Electric Heat Data — without Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| M07                   | 208/230-3-60    | STD         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | MED         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | —                          | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | HIGH        | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | —                                                       | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       | 575-3-60        | STD         | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |

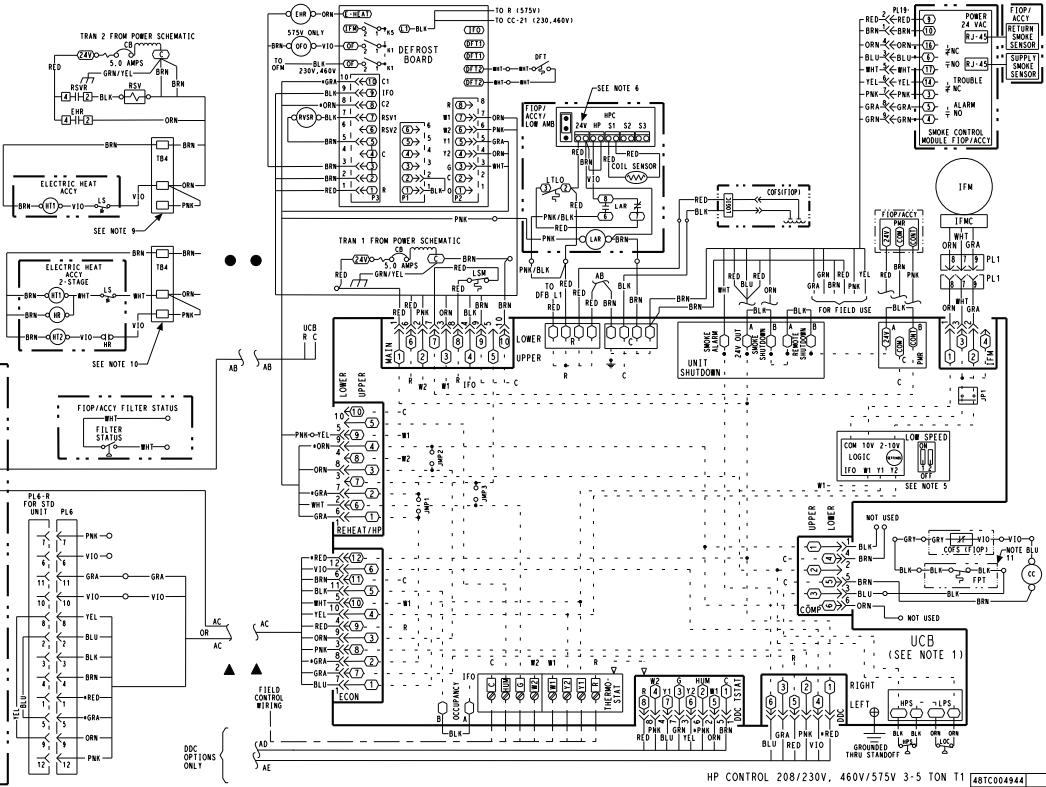
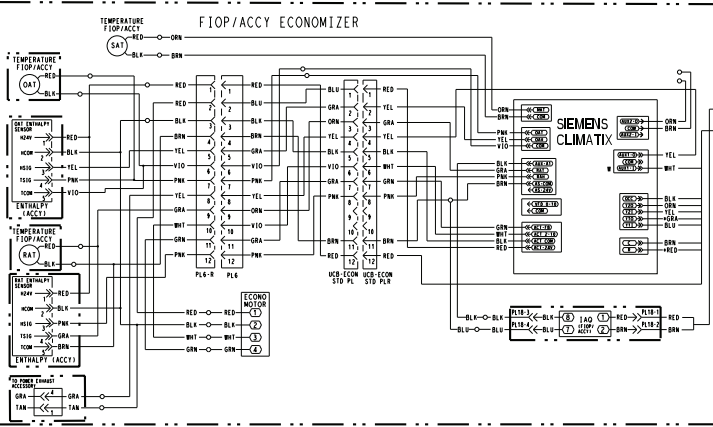
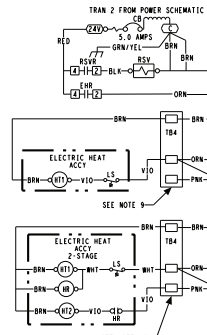
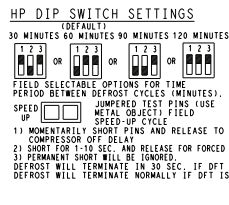
## 50FCQM07 Electric Heat Data — with Non-Fused Disconnect

| 50FCQ<br>UNIT<br>SIZE | NOM.<br>V-Ph-Hz | IFM<br>TYPE | ELECTRIC HEATER<br>PART NUMBER | NOM<br>(kW) | APPLICATION<br>(kW) | APPLICATION<br>OUTPUT (MBH) | SINGLE POINT OR JUNCTION PART NUMBER<br>CRSINGLEXXXXA00 |                            |              |                            |
|-----------------------|-----------------|-------------|--------------------------------|-------------|---------------------|-----------------------------|---------------------------------------------------------|----------------------------|--------------|----------------------------|
|                       |                 |             |                                |             |                     |                             | No CO or Unpowered CO                                   |                            | With PWRD CO |                            |
|                       |                 |             |                                |             |                     |                             | No PE                                                   | With PE<br>(pwrdr fr/unit) | No PE        | With PE<br>(pwrdr fr/unit) |
| M07                   | 208/230-3-60    | STD         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | MED         | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 | HIGH        | CRHEATER324A00                 | 6.5         | 4.9/6.0             | 16.7/20.4                   | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER326A00                 | 10.5        | 7.9/9.6             | 26.9/32.9                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER328A00                 | 16.0        | 12.0/14.7           | 41.0/50.1                   | 038                                                     | 038                        | 038          | 038                        |
|                       |                 |             | CRHEATER331A00                 | 21.0        | 15.8/19.3           | 53.8/65.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       |                 |             | CRHEATER332A00                 | 24.5        | 18.4/22.5           | 62.8/76.8                   | 039                                                     | 039                        | 039          | 039                        |
|                       | 460-3-60        | STD         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER333A00                 | 6.0         | 5.5                 | 18.8                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER335A00                 | 11.5        | 10.6                | 36.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER336A00                 | 14.0        | 12.9                | 43.9                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER337A00                 | 21.5        | 19.7                | 67.4                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 |             | CRHEATER338A00                 | 24.0        | 22.0                | 75.2                        | 037                                                     | 037                        | 037          | 037                        |
|                       | 575-3-60        | STD         | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | MED         | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |
|                       |                 | HIGH        | CRHEATER340A00                 | 15.0        | 13.8                | 47.0                        | —                                                       | —                          | —            | —                          |
|                       |                 |             | CRHEATER341A00                 | 21.0        | 19.3                | 65.8                        | 037                                                     | 037                        | 037          | 037                        |

# Typical Control Wiring Diagram — 50FCQ 04-06 Unit, All Voltages with Electromechanical Control and POL224 Economizer

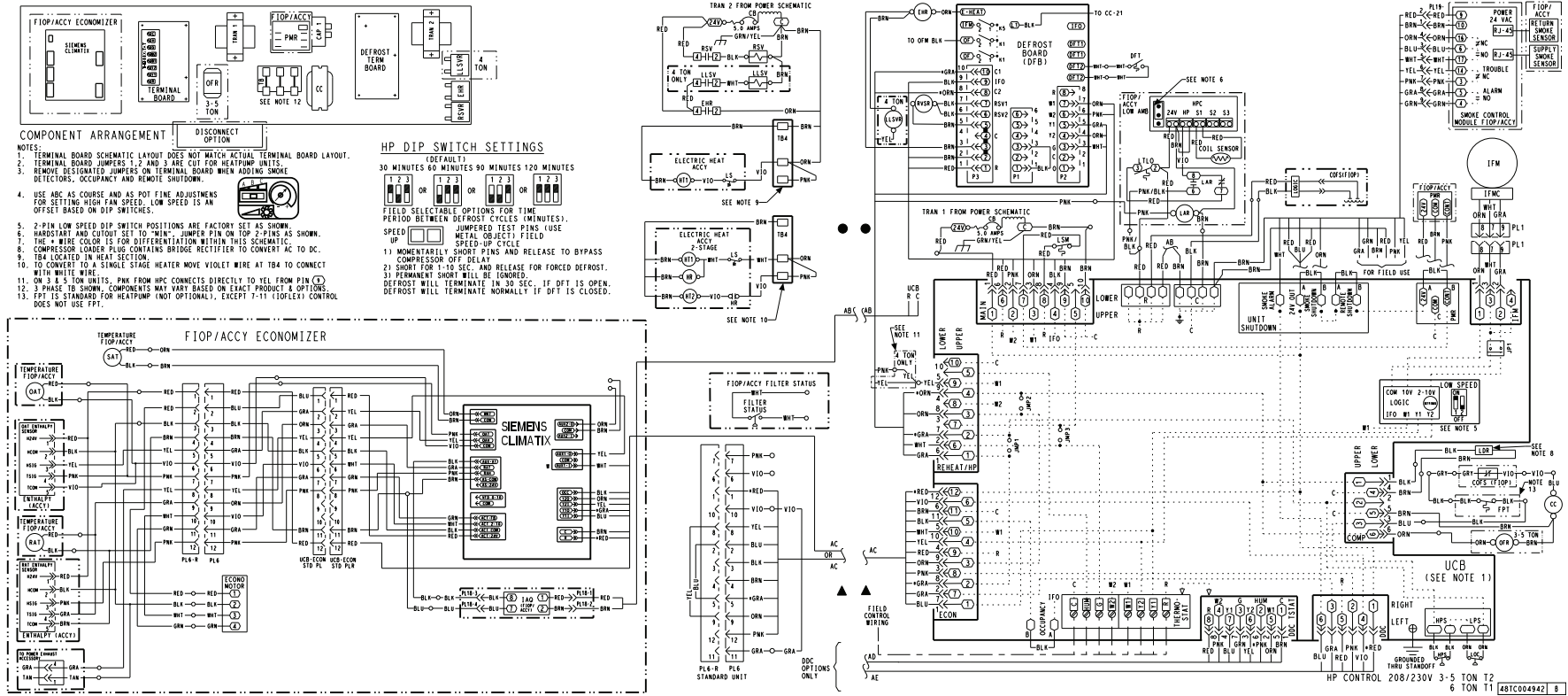


- NOTES:
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD LAYOUT.
  2. TERMINAL BOARD JUMBERS 1, 2 AND 3 ARE CUT FOR HEATPUMP UNITS.
  3. REMOVE DESIGNATED JUMBERS ON TERMINAL BOARD WHEN ADDING SMOKE DETECTORS, OCCUPANCY AND REMOTE SHUTDOWN.
  4. USE ABC AS COURSE AND AS POT FINE ADJUSTMENTS FOR SETTING HIGH FAN SPEED. LOW SPEED IS AN OFFSET BASED ON DIP SWITCHES.
  5. 2-PIN LOW SPEED DIP SWITCH POSITIONS ARE FACTORY SET AS SHOWN.
  6. HANDSTART AND CUTOFF SET TO "MIN". JUMPER PIN ON TOP 2-PIN AS SHOWN.
  7. THE 4-WIRE COLOR IS FOR DIFFERENTIATION WITHIN THIS SCHEMATIC.
  8. 3 PHASE UNIT SHOWN ON 1 PHASE UNITS THIS IS A 2-PIN TERMINAL BLOCK.
  9. TBA LOCATED IN HEAT SECTOR.
  10. TO CONVERT TO A SINGLE STAGE HEATER MOVE VIOLET WIRE AT TBA TO CONNECT WITH WHITE WIRE.
  11. FFI IS STANDARD FOR HEATPUMP (NOT OPTIONAL), EXCEPT 7-11 (IOFLEX) CONTROL DOES NOT USE FFI.

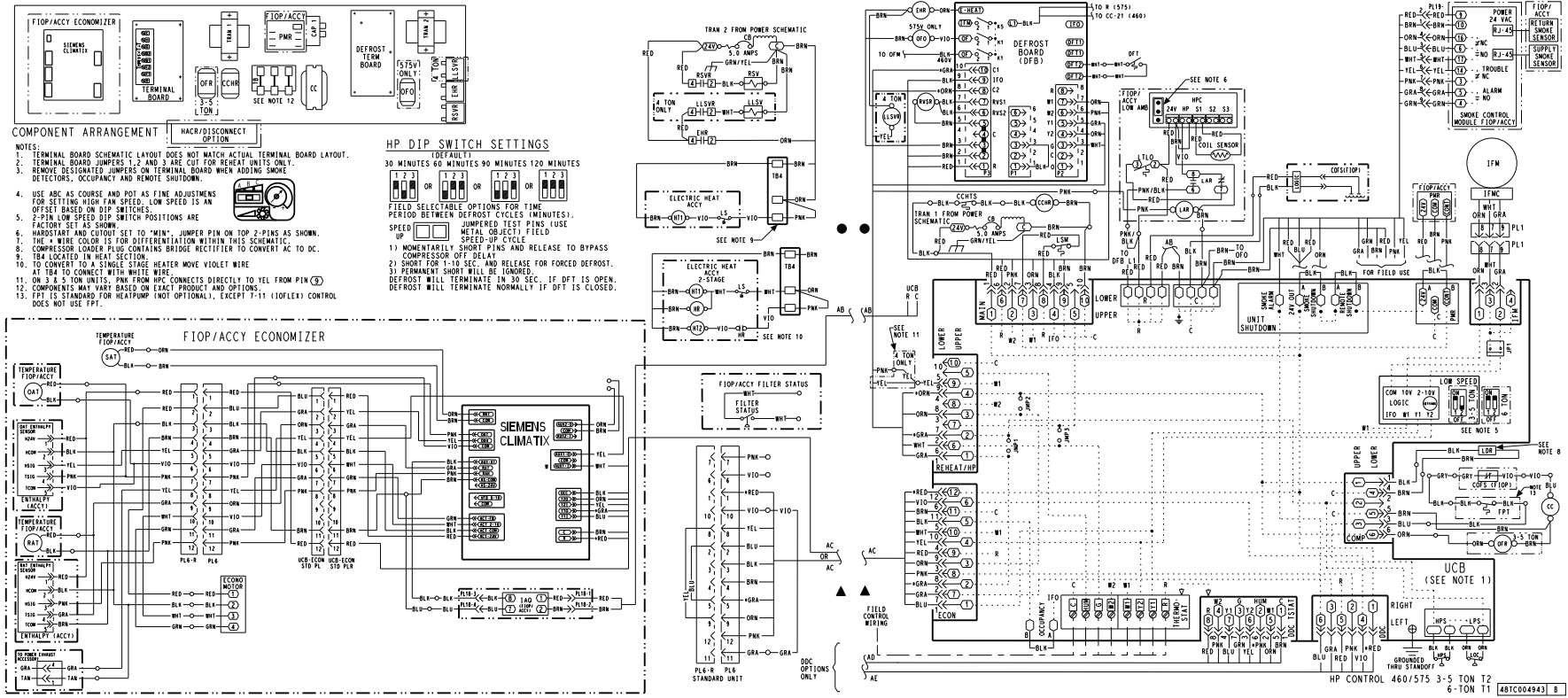


### Typical Control Wiring Diagram — 50FCQ 07 208/230-3-60 Unit with Electromechanical Control and POL224 Economizer

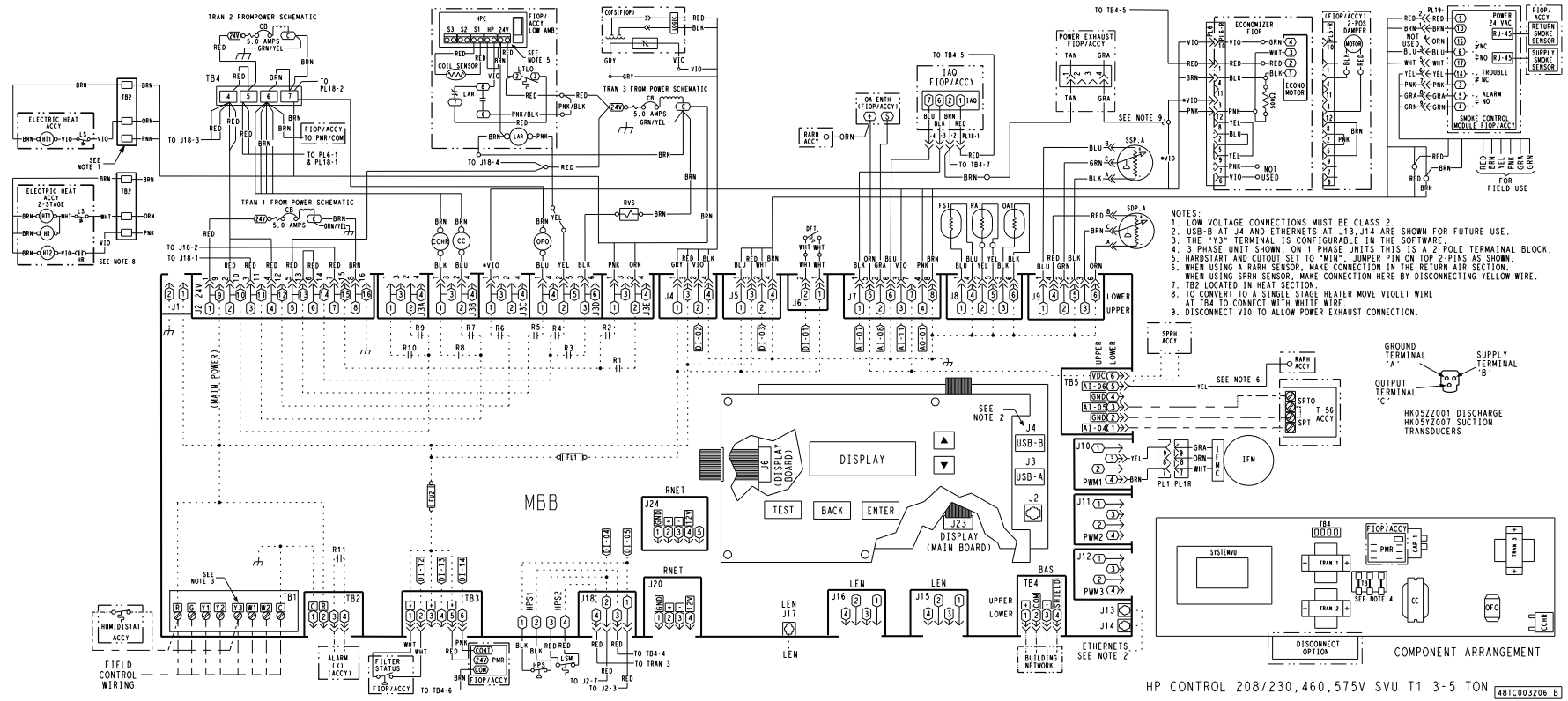
## Typical wiring diagrams (cont)



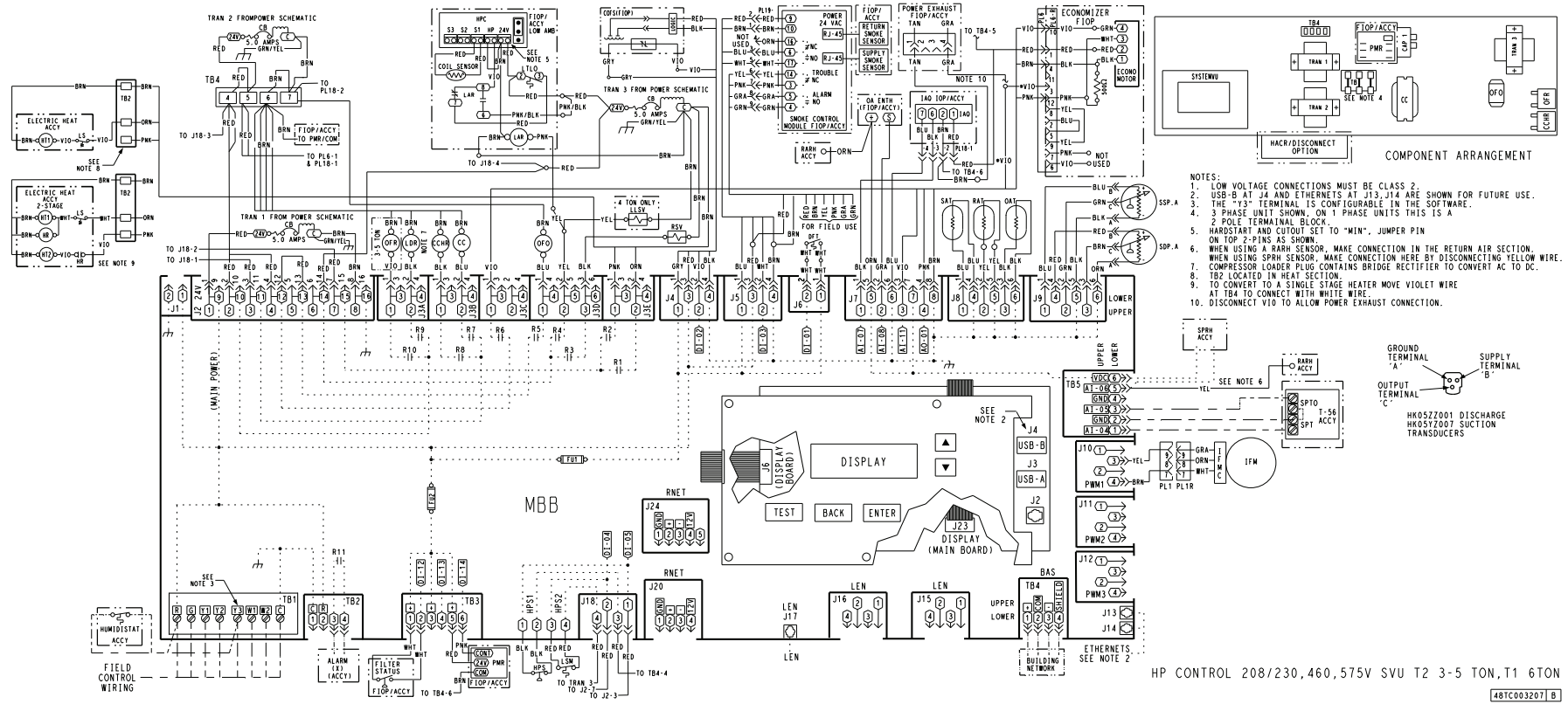
# Typical Control Wiring Diagram — 50FCQ 07 460, 575-3-60 Unit with Electromechanical Control and POL224 Economizer



## Typical Control Wiring Diagram — 50FCQ 04-06 208/230, 460, 575-3-60 Unit with SystemVu Controller

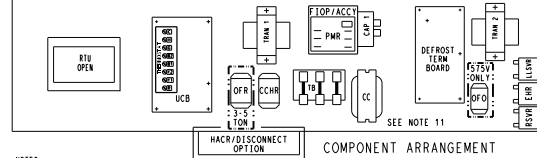


# Typical Control Wiring Diagram — 50FCQ 07 208/230, 460, 575/3/60 Unit with SystemVu Controller

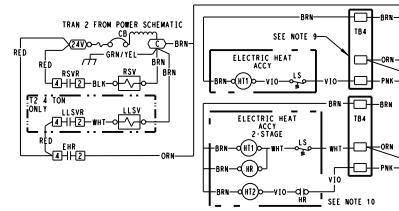


# Typical Control Wiring Diagram — 50FCQ 04-06 208/230, 460, 575-3-60 Unit with RTU Open Controller

HP 3-5 TON T2 & 3-6 TON T1 208/230, 460, 575V RTU OPEN



1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD LAYOUT.
2. TERMINAL BOARD JUMPERS 1, 2 AND 3 ARE CUT FOR REHEAT UNITS ONLY.
3. REMOVE DESIGNATED JUMPERS ON TERMINAL BOARD WHEN ADDING SMOKE DETECTORS, OCCUPANCY AND REMOTE SHUTDOWN.
4. NOT USED ON RTU OPEN.
5. USE RTU OPEN SETTING TO ADJUST FAN SPEED.
6. HARDSTART AND CUTOFF SET TO "MIN". JUMPER PIN ON TOP 2-PINS AS SHOWN.
7. THE + WIRE COLOR IS FOR DIFFERENTIATION WITHIN THIS SCHEMATIC.
8. COMPRESSOR LOADER PLUG CONTAINS BRIDGE RECTIFIER TO CONVERT AC TO DC.
9. TBA LOCATED IN THE HEAT SECTION.
10. TO CONVERT TO A SINGLE STAGE HEATER MOVE VIOLET WIRE AT TBA TO CONNECT WITH WHITE WIRE.
11. COMPONENTS MAY VARY BASED ON EXACT PRODUCT AND OPTIONS.
12. FOLLOW THIS WIRING FOR IFM CONNECTOR WITH RTU OPEN, IGNORE IFM WIRING AT UCB.



## HP DIP SWITCH SETTINGS

30 MINUTES 60 MINUTES 90 MINUTES 120 MINUTES

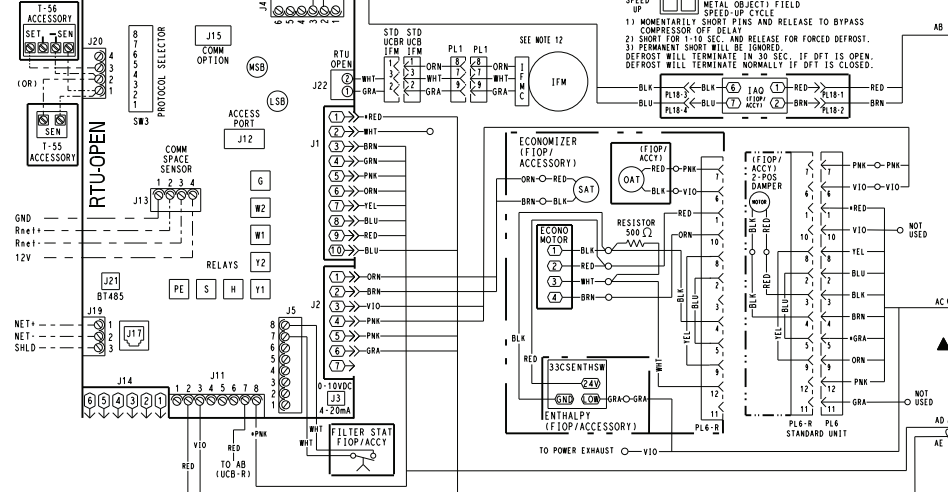
(DEFAULT)

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

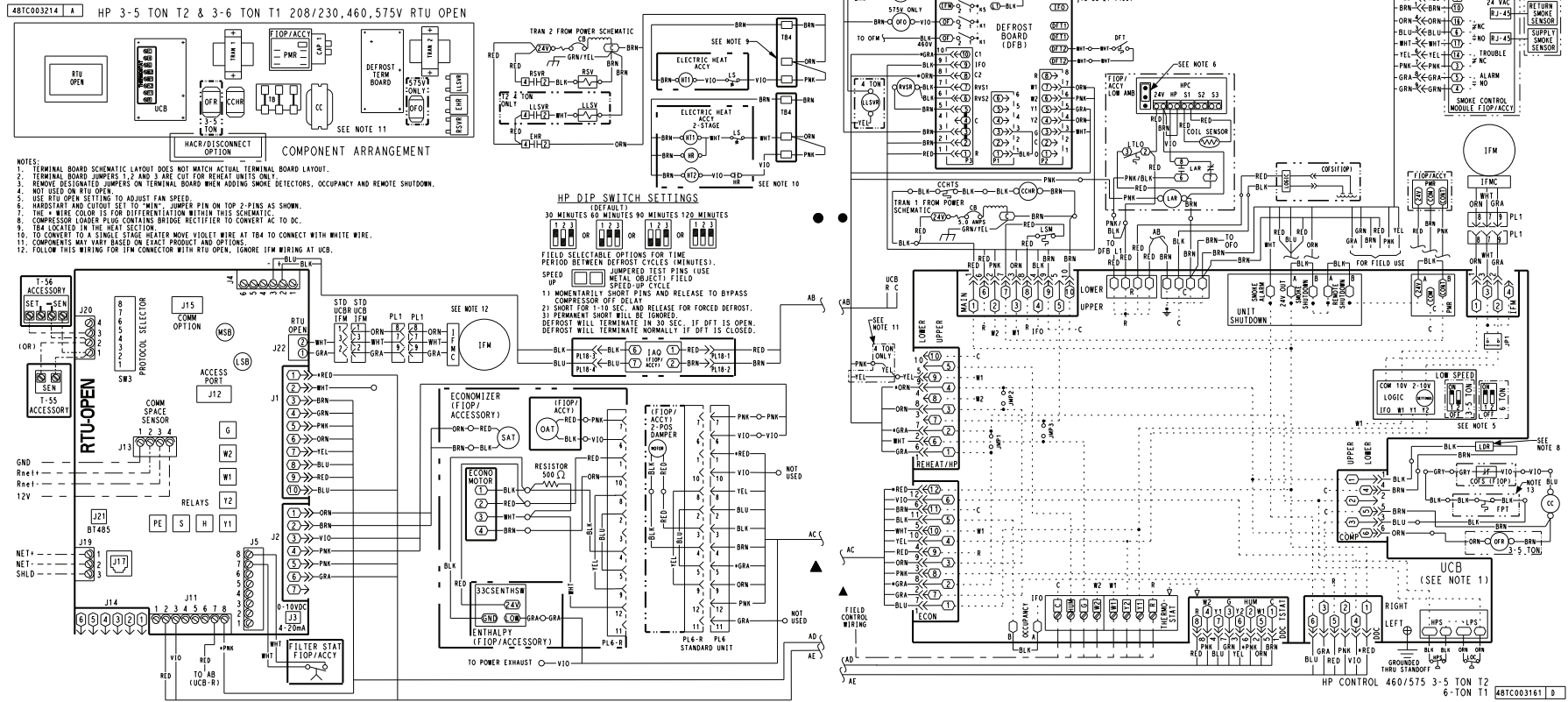
SPEED JUMPERED TEST PINS (USE UP SPEED-UP CYCLE)

1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.

2) SHORT FOR 1-10 SEC. AND RELEASE FOR FORCED DEFROST. DEFROST WILL TERMINATE IN 30 SEC. IF DFT IS OPEN. DEFROST WILL TERMINATE NORMALLY IF DFT IS CLOSED.



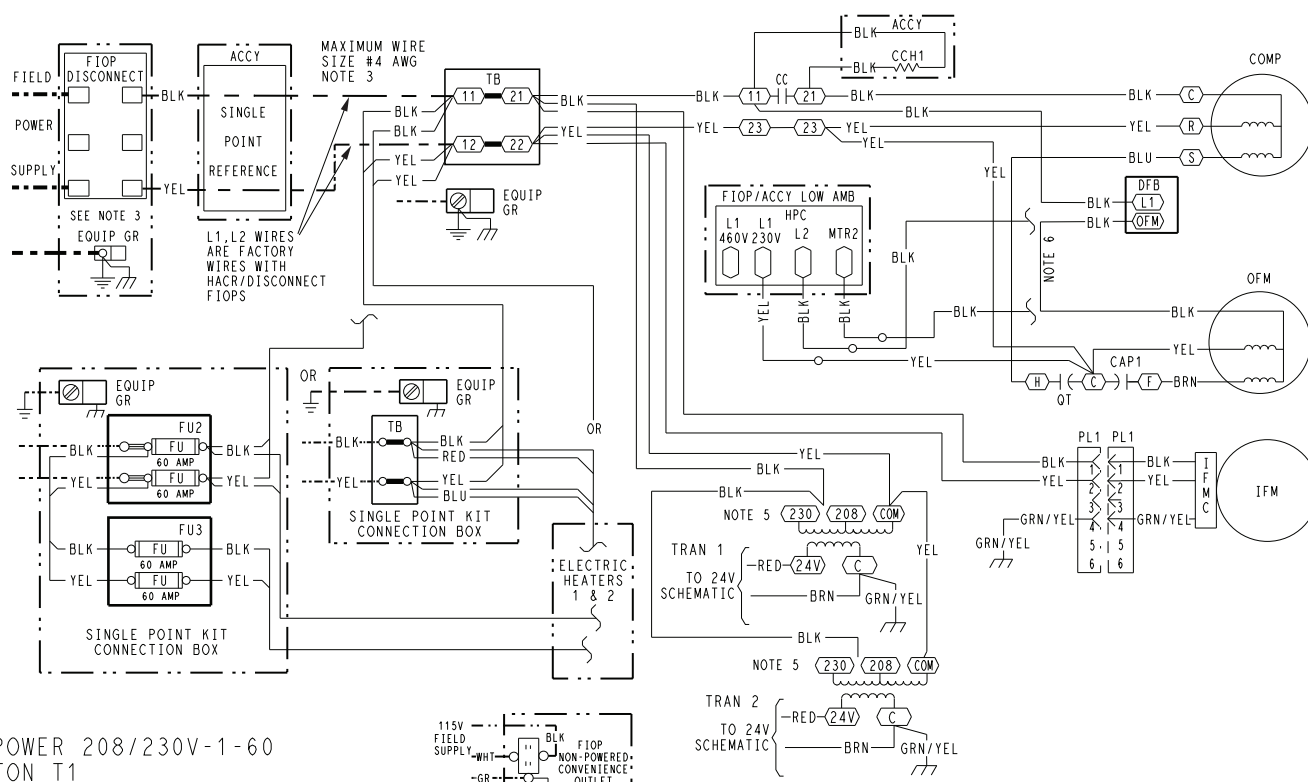
# Typical Control Wiring Diagram — 50FCQM07 208/230, 460, 575-3-60 Unit with RTU Open Controller



# Typical wiring diagrams (cont)



Typical 50FCQ 04-06 Power Wiring Diagram, 208/230-1-60 Unit



HP POWER 208/230V-1-60  
3-5TON T1

- 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.
  3. USE COPPER CONDUCTOR ONLY.
  4. DO NOT DISCONNECT POWER PLUG OR SIGNAL WIRE WHILE UNDER LOAD.
  5. 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 208V TAP.
  6. THIS WIRE NOT USED WITH LOW AMBIENT FIOP/ACCY.

## LEGEND

- (X) MARKED WIRE
- (X) TERMINAL (MARKED)
- TERMINAL (UNMARKED)
- [X] TERMINAL BLOCK
- SPLICE
- SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- CIRCUIT BOARD TRACE
- ACCESSORY OR OPTIONAL WIRING

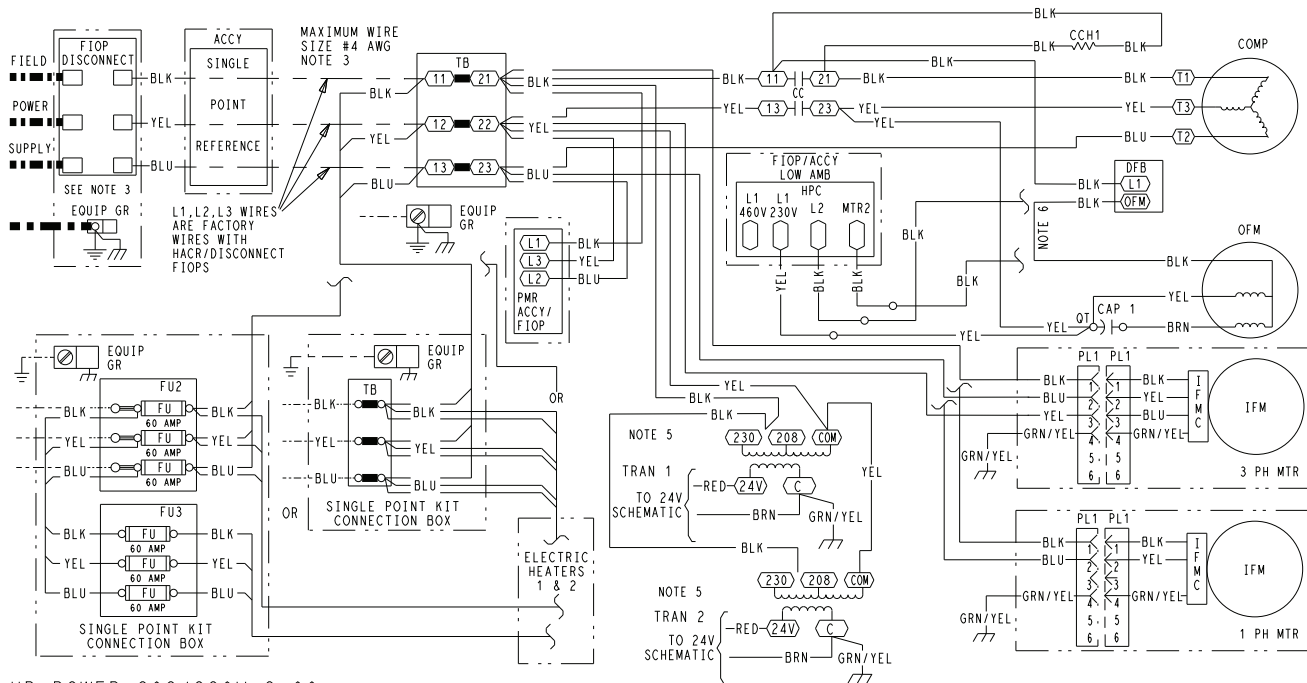
- ACCY ACCESSORY
- AWG AMERICAN WIRE GAGE
- BAS BUILDING AUTOMATION NETWORK
- CC CONTACTOR, COMPRESSOR
- C COMMON
- CAP CAPACITOR
- CB CIRCUIT BREAKER
- CCH CRANKCASE HEATER
- CCHR CRANKCASE HEATER RELAY
- CCHTS CRANKCASE HEATER TEMP SWITCH
- CLO COMPRESSOR LOCKOUT
- CLV COOLING LIQUID VALVE
- COFS CONDENSATE OVERFLOW SWITCH
- COM SIGNAL COMMON
- COMP COMPRESSOR MOTOR
- DDC DIRECT DIGITAL CONTROL
- DFB DEFROST BOARD
- DFT DEFROST THERMOSTAT
- EHR ELECTRIC HEAT RELAY
- ENTH ENTHALPY
- ERV ENERGY RECOVERY VENTILATOR
- ESL ENTHALPY SENSOR - LOW
- FB FUSE BLOCK
- FIOP FACTORY INSTALLED OPTION
- FPT FREEZE PROTECTION THERMOSTAT
- FST FAN HOUSING TEMP SENSOR
- FU FUSE
- G THERMOSTAT FAN CALL
- GR(GND) GROUND
- HACR HEATING, AIR-CONDITIONING, REFRIGERATION BREAKER

- HR HEATER RELAY
- HGRH HOT GAS REHEAT
- HPC HEAD PRESSURE CONTROL
- HPS HIGH PRESSURE SWITCH
- HUM HUMIDISTAT
- IAQ INDOOR AIR QUALITY SENSORS
- IFM INDOOR FAN MOTOR
- IFMC INDOOR FAN MOTOR CONTROL
- IFO INDOOR FAN ON SIGNAL
- IRH INDOOR RELATIVE HUMIDITY
- JMP JUMPER
- L1 LINE 1
- LA LOW AMBIENT LOCKOUT
- LAR LOW AMBIENT RELAY
- LAS LOW AMBIENT SWITCH
- LDR COMPRESSOR LOADER
- LEN LOCAL EQUIPMENT NETWORK
- LOC LOSS OF CHARGE
- LPS LOW PRESSURE SWITCH
- LS LIMIT SWITCH
- LSM LIMIT SWITCH (MANUAL RESET)
- LTLO LOW TEMP LOCKOUT
- MTR MOTOR
- OAO OUTDOOR AIR QUALITY
- OAT OUTDOOR AIR TEMP. SEN
- OFM OUTDOOR FAN MOTOR
- OFR OUTDOOR FAN RELAY
- OL OVERLOAD

- PER POWER EXHAUST RELAY
- PH PHASE
- PL PLUG ASSEMBLY
- POT POTENTIOMETER
- PMR PHASE MONITOR RELAY
- PS PRESSURE SWITCH
- PWM PULSE WIDTH MODULATION
- QT QUADRUPEL TERMINAL
- R THERMOSTAT POWER
- RAT RETURN AIR TEMP. SEN
- RDV REHEAT DISCHARGE VALVE
- RH RELATIVE HUMIDITY
- RLV REHEAT LIQUID VALVE
- RNET LOCAL ACCESS NETWORK
- RVS REVERSING VALVE SOLENOID
- SAT SUPPLY AIR TEMP SENSOR
- SDP SYSTEM DISCHARGE PRESSURE
- SPRH SPACE RELATIVE HUMIDITY
- SPT SPACE TEMPERATURE SENSOR
- SPTO SPACE TEMPERATURE OFFSET
- SSP SYSTEM SUCTION PRESSURE
- SW SWITCH
- TB TERMINAL BLOCK
- TDR TIME DELAY RELAY
- TRAN TRANSFORMER
- UCB UNIT CONTROL BOARD
- W1 1st STAGE OF HEATING CALL
- W2 2nd STAGE OF HEATING CALL
- Y1 1st STAGE OF COOLING CALL
- Y2 2nd STAGE OF COOLING CALL

48TC003163 | A

## Typical 50FCQ 04-07 Power Wiring Diagram, 208/230-3-60 Unit



HP POWER 208/230V-3-60  
3-6TON T1

### 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.
3. USE COPPER CONDUCTOR ONLY.
4. DO NOT DISCONNECT POWER PLUG OR SIGNAL WIRE WHILE UNDER LOAD.
5. 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 208V TAP.
6. THIS WIRE NOT USED WITH LOW AMBIENT FIOP/ACCY.

### LEGEND

- (X) MARKED WIRE
- (X) TERMINAL (MARKED)
- (O) TERMINAL (UNMARKED)
- (X) TERMINAL BLOCK
- (•) SPLICE
- (•) SPLICE (MARKED)
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- CIRCUIT BOARD TRACE
- ACCESSORY OR OPTIONAL WIRING

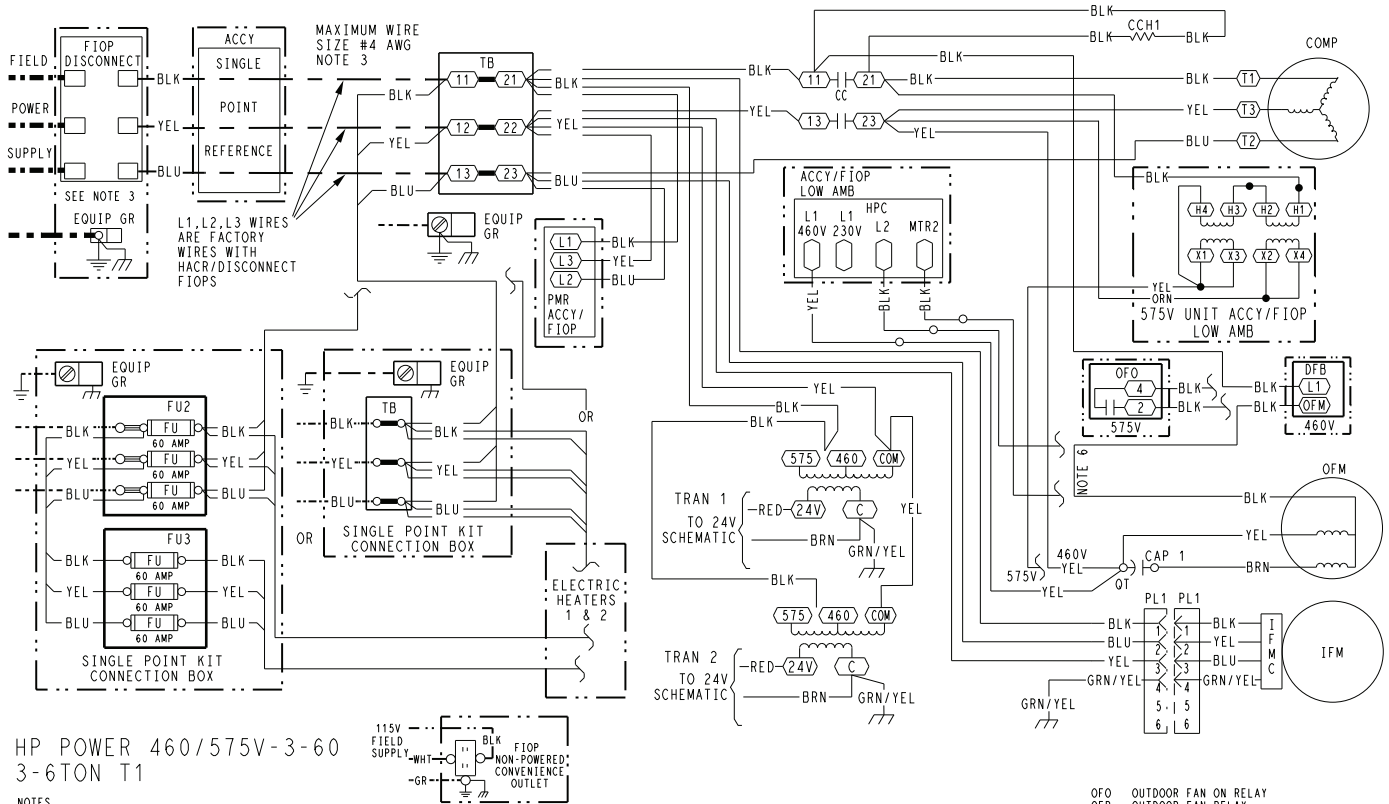
- ACCY ACCESSORY
- AWG AMERICAN WIRE GAGE
- BAS BUILDING AUTOMATION NETWORK
- CC CONTACTOR, COMPRESSOR
- C COMMON
- CAP CAPACITOR
- CB CIRCUIT BREAKER
- CCH CRANKCASE HEATER
- CCHR CRANKCASE HEATER RELAY
- CCHTS CRANKCASE HEATER TEMP SWITCH
- CLO COMPRESSOR LOCKOUT
- CLV COOLING LIQUID VALVE
- COFS CONDENSATE OVERFLOW SWITCH
- COM SIGNAL COMMON
- COMP COMPRESSOR MOTOR
- DDC DIRECT DIGITAL CONTROL
- DFB DEFROST BOARD
- DTF DEFROST THERMOSTAT
- EHR ELECTRIC HEAT RELAY
- ENTH ENTHALPY
- ERV ENERGY RECOVERY VENTILATOR
- ESL ENTHALPY SENSOR - LOW
- FU FUSE BLOCK
- FIOP FACTORY INSTALLED OPTION
- FPT FREEZE PROTECTION THERMOSTAT
- FST FAN HOUSING TEMP SENSOR
- FU FUSE

- G THERMOSTAT FAN CALL
- GR(ND) GROUND
- HACR HEATING, AIR-CONDITIONING, REFRIGERATION BREAKER
- HR HEATER RELAY
- HPC HEAD PRESSURE CONTROL
- HPS HIGH PRESSURE SWITCH
- IAQ INDOOR AIR QUALITY SENSORS
- IFM INDOOR FAN MOTOR
- IFMC INDOOR FAN MOTOR CONTROL
- IFO INDOOR FAN ON SIGNAL
- IRH INDOOR RELATIVE HUMIDITY
- JMP JUMPER
- L1 LINE 1
- LA LOW AMBIENT LOCKOUT
- LAR LOW AMBIENT RELAY
- LAS LOW AMBIENT SWITCH
- LDR COMPRESSOR LOADER
- LEN LOCAL EQUIPMENT NETWORK
- LLSVR LIQUID LINE SOLENOID VALVE
- LOC LOSS OF CHARGE
- LPS LOW PRESSURE SWITCH
- LS LIMIT SWITCH
- LSM LIMIT SWITCH (MANUAL RESET)
- LTLO LOW TEMP LOCKOUT

- MTR MOTOR
- OAQ OUTDOOR AIR QUALITY
- OAT OUTDOOR AIR TEMP. SEN
- OFM OUTDOOR FAN MOTOR
- OFR OUTDOOR FAN RELAY
- OL OVERLOAD
- PER POWER EXHAUST RELAY
- PH PHASE
- PL PLUG ASSEMBLY
- POT POTENTIOMETER
- PMR PHASE MONITOR RELAY
- PS PRESSURE SWITCH
- PWM PULSE WIDTH MODULATION
- RNET LOCAL ACCESS NETWORK
- RVS REVERSING VALVE SOLENOID
- RVSR REVERSING VALVE RELAY
- SAT SUPPLY AIR TEMP SENSOR
- SDP SYSTEM DISCHARGE PRESSURE
- SPT SPACE TEMPERATURE SENSOR
- SPTO SPACE TEMPERATURE OFFSET
- SSP SYSTEM SUCTION PRESSURE
- SW SWITCH
- TB TERMINAL BLOCK
- TDR TIME DELAY RELAY
- TRAN TRANSFORMER
- UCB UNIT CONTROL BOARD
- W1 1st STAGE OF HEATING CALL
- W2 2nd STAGE OF HEATING CALL
- Y1 1st STAGE OF COOLING CALL
- Y2 2nd STAGE OF COOLING CALL

48TC003162 D

## Typical 50FCQ 04-07 Power Wiring Diagram, 460, 575-3-60



- 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.
  3. USE COPPER CONDUCTOR ONLY.
  4. DO NOT DISCONNECT POWER PLUG OR SIGNAL WIRE WHILE UNDER LOAD.
  5. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC.
  6. THIS WIRE NOT USED WITH LOW AMBIENT FIOP/ACCY.

### LEGEND

- |     |                     |       |                              |
|-----|---------------------|-------|------------------------------|
| (X) | MARKED WIRE         | ACCY  | ACCESSORY                    |
| (X) | TERMINAL (MARKED)   | AWG   | AMERICAN WIRE GAGE           |
| (X) | TERMINAL (UNMARKED) | BAS   | BUILDING AUTOMATION NETWORK  |
| (X) | TERMINAL BLOCK      | CC    | CONTACTOR, COMPRESSOR        |
| (X) | TERMINAL BLOCK      | C     | COMMON                       |
| (X) | TERMINAL BLOCK      | CAP   | CAPACITOR                    |
| (X) | TERMINAL BLOCK      | CB    | CIRCUIT BREAKER              |
| (X) | TERMINAL BLOCK      | CCH   | CRANKCASE HEATER             |
| (X) | TERMINAL BLOCK      | CCHTS | CRANKCASE HEATER TEMP SWITCH |
| (X) | TERMINAL BLOCK      | CLO   | COMPRESSOR LOCKOUT           |
| (X) | TERMINAL BLOCK      | CLV   | COOLING LIQUID VALVE         |
| (X) | TERMINAL BLOCK      | COFS  | CONDENSATE OVERFLOW SWITCH   |
| (X) | TERMINAL BLOCK      | COM   | SIGNAL COMMON                |
| (X) | TERMINAL BLOCK      | COMP  | COMPRESSOR MOTOR             |
| (X) | TERMINAL BLOCK      | DDC   | DIRECT DIGITAL CONTROL       |
| (X) | TERMINAL BLOCK      | DFB   | DEFROST BOARD                |
| (X) | TERMINAL BLOCK      | DFT   | DEFROST THERMOSTAT           |
| (X) | TERMINAL BLOCK      | EHR   | ELECTRIC HEAT RELAY          |
| (X) | TERMINAL BLOCK      | ENTH  | ENTHALPY                     |
| (X) | TERMINAL BLOCK      | ERV   | ENERGY RECOVERY VENTILATOR   |
| (X) | TERMINAL BLOCK      | ESL   | ENTHALPY SENSOR - LOW        |
| (X) | TERMINAL BLOCK      | FB    | FUSE BLOCK                   |
| (X) | TERMINAL BLOCK      | FIOP  | FACTORY INSTALLED OPTION     |
| (X) | TERMINAL BLOCK      | FPT   | FREEZE PROTECTION THERMOSTAT |
| (X) | TERMINAL BLOCK      | FST   | FAN HOUSING TEMP SENSOR      |
| (X) | TERMINAL BLOCK      | FU    | FUSE                         |

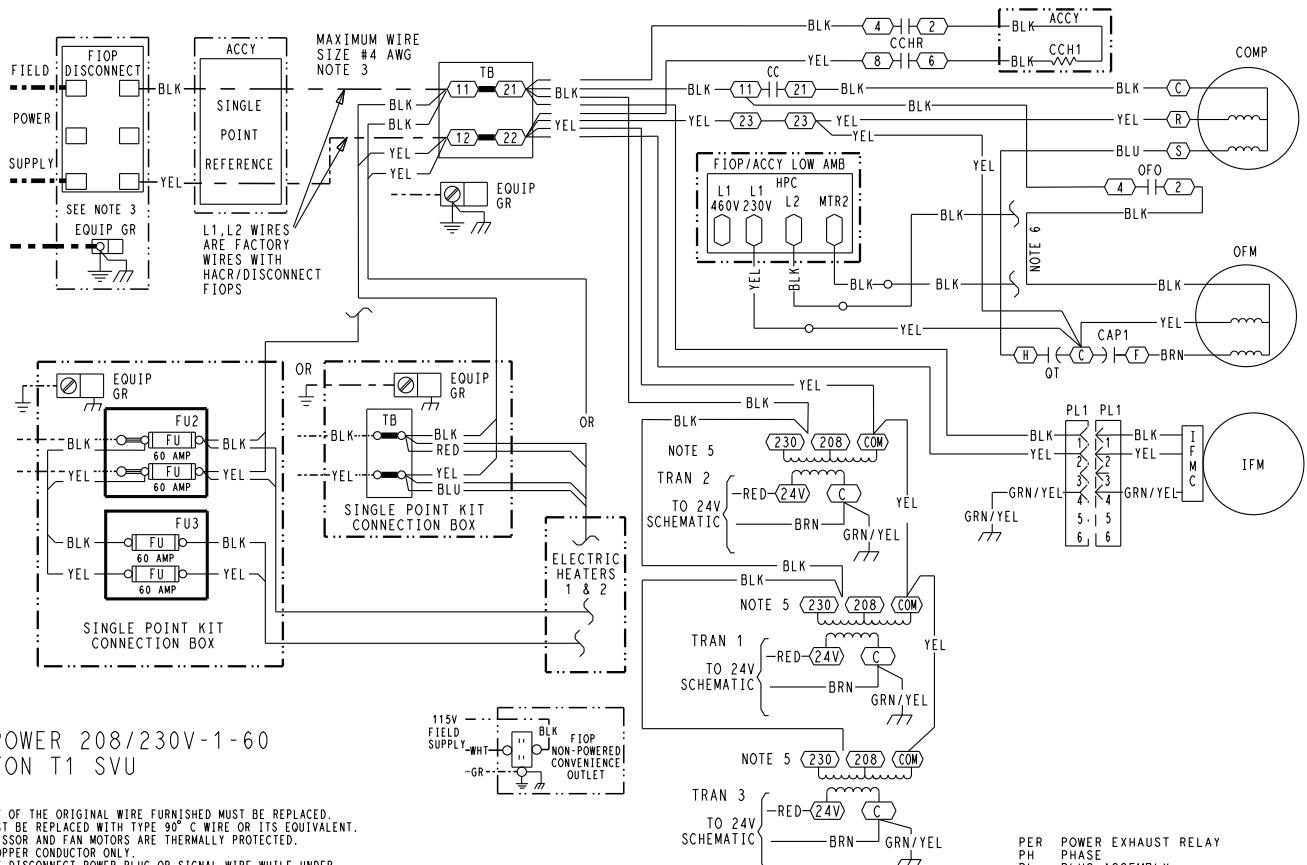
- |         |                                                  |      |                            |
|---------|--------------------------------------------------|------|----------------------------|
| G (GND) | GROUND                                           | HR   | HEATER RELAY               |
| HACR    | HEATING, AIR-CONDITIONING, REFRIGERATION BREAKER | HGRH | HOT GAS REHEAT             |
| HPC     | HIGH PRESSURE CONTROL                            | HPS  | HIGH PRESSURE SWITCH       |
| HUM     | HUMIDISTAT                                       | IAQ  | INDOOR AIR QUALITY SENSORS |
| IFM     | INDOOR FAN MOTOR                                 | IFMC | INDOOR FAN MOTOR CONTROL   |
| IFO     | INDOOR FAN ON SIGNAL                             | IRH  | INDOOR RELATIVE HUMIDITY   |
| JMP     | JUMPER                                           | L1   | LINE 1                     |
| LA      | LOW AMBIENT LOCKOUT                              | LAR  | LOW AMBIENT RELAY          |
| LAS     | LOW AMBIENT SWITCH                               | LDR  | COMPRESSOR LOADER          |
| LEN     | LOCAL EQUIPMENT NETWORK                          | LO   | LOSS OF CHARGE             |
| LOP     | LOW PRESSURE LOCKOUT                             | LOP  | LOW PRESSURE LOCKOUT       |
| LPS     | LOW PRESSURE SWITCH                              | LS   | LIMIT SWITCH               |
| LSM     | LIMIT SWITCH (MANUAL RESET)                      | LTLO | LOW TEMP LOCKOUT           |
| LTLO    | LOW TEMP LOCKOUT                                 | MBB  | MAIN BASE BOARD            |
| MOV     | METAL OXIDE VARISTOR                             | MTR  | MOTOR                      |
| OAO     | OUTDOOR AIR QUALITY                              | OAT  | OUTDOOR AIR TEMP. SEN      |
| OAT     | OUTDOOR AIR TEMP. SEN                            | OFM  | OUTDOOR FAN MOTOR          |

- |      |                                |
|------|--------------------------------|
| OFO  | OUTDOOR FAN ON RELAY           |
| OFM  | OUTDOOR FAN MOTOR              |
| OL   | OVERLOAD                       |
| PER  | POWER EXHAUST RELAY            |
| PH   | PHASE                          |
| PL   | PLUG ASSEMBLY                  |
| POT  | POTENTIOMETER                  |
| PMR  | PHASE MONITOR RELAY            |
| PS   | PRESSURE SWITCH                |
| PWM  | PULSE WIDTH MODULATION         |
| QT   | QUADRUPLE TERMINAL             |
| R    | THERMOSTAT POWER               |
| RAT  | RETURN AIR TEMP. SEN           |
| RDB  | REFRIGERANT DISSIPATION BOARD  |
| RDS  | REFRIGERANT DISSIPATION SENSOR |
| RDV  | REHEAT DISCHARGE VALVE         |
| RH   | RELATIVE HUMIDITY              |
| RLV  | REHEAT LIQUID VALVE            |
| RNET | LOCAL ACCESS NETWORK           |
| RVS  | REVERSING VALVE SOLENOID       |
| SAT  | SUPPLY AIR TEMP SENSOR         |
| SDP  | SYSTEM DISCHARGE PRESSURE      |
| SPRH | SPACE RELATIVE HUMIDITY        |
| SPT  | SPACE TEMPERATURE SENSOR       |
| SPTO | SPACE TEMPERATURE OFFSET       |
| SSP  | SPACE SUCTION PRESSURE         |
| SW   | SWITCH                         |
| TB   | TERMINAL BLOCK                 |
| TDR  | TIME DELAY RELAY               |
| TRAN | TRANSFORMER                    |
| UCB  | UNIT CONTROL BOARD             |
| W1   | 1st STAGE OF HEATING CALL      |
| W2   | 2nd STAGE OF HEATING CALL      |
| Y1   | 1st STAGE OF COOLING CALL      |
| Y2   | 2nd STAGE OF COOLING CALL      |

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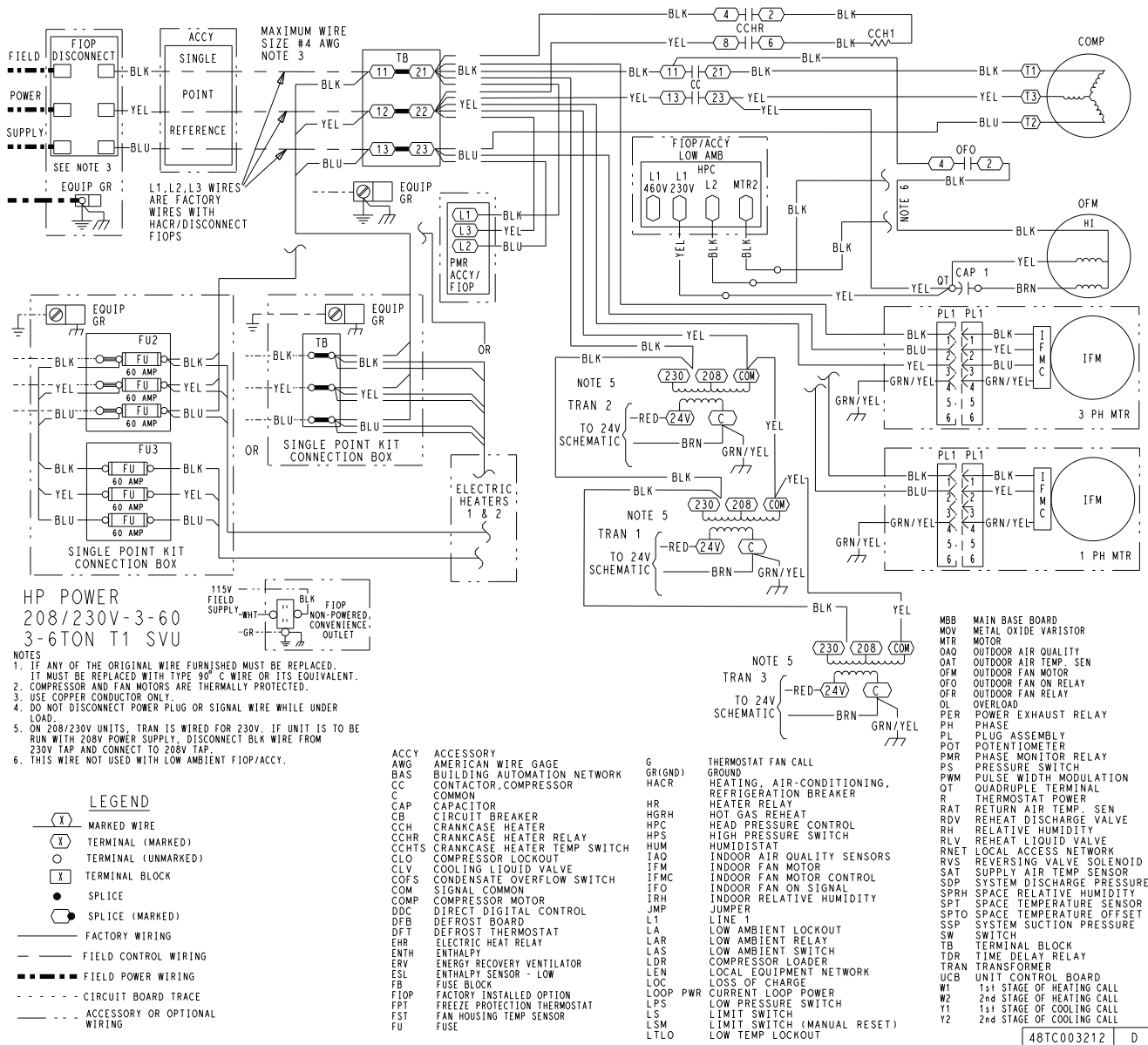
# Typical wiring diagrams (cont)

**Typical 50FCQ 04-06 Power Wiring Diagram, 208/230-1-60 Unit with SystemVu Controller**

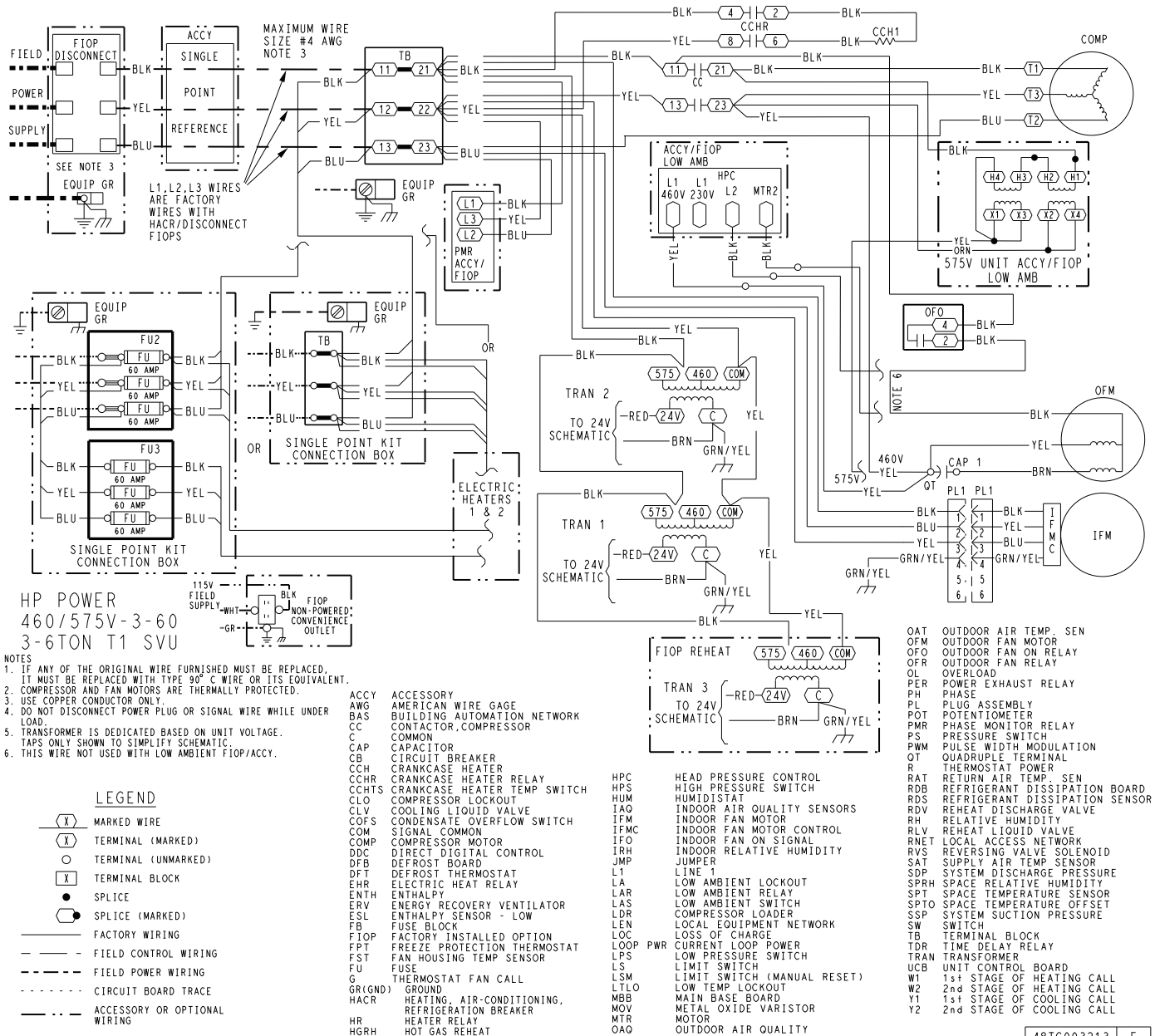


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## Typical 50FCQ 04-07 Power Wiring Diagram, 208/230-3-60 Unit with SystemVu Controller



## Typical 50FCQ 04-07 Power Wiring Diagram, 460, 575-3-60 Unit with SystemVu Controller



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## General

The sequence below describes the sequence of operation for an electro-mechanical unit with and without a factory-installed EconomizerONE (POL224 controller). For information regarding a direct digital controller, see the start-up, operations, and troubleshooting manual for the applicable controller.

## Electro-mechanical units without economizer

### Cooling (single stage units)

When the thermostat calls for cooling, terminals G and Y1 are energized. The indoor fan will run at the user set fan speed and the compressor contactor (CC) is energized causing the compressor and outdoor fan to run.

When the thermostat removes the call for Y1, the compressor contactor will de-energize shutting down the compressor and the outdoor fan. When the thermostat removes the call for G, the indoor fan will turn off after the specific unit fan off delay.

### Cooling (two stage units)

When the thermostat calls for cooling, terminals G and Y1 are energized. The indoor fan will run at the low fan speed and the compressor contactor (CC) is energized causing the compressor and outdoor fan to run. The low indoor fan speed is 66% of the user set fan speed and the compressor will run at partial capacity.

If additional cooling is needed, the thermostat will add the call for Y2. This will increase the indoor fan speed to the user set fan speed and energize the compressor loader for full compressor capacity. The outdoor fan is the same speed for Y1 and Y2.

When the thermostat removes the call for Y2 but leaves the Y1, the indoor fan will reduce speed to 66% of the user set fan speed, the compressor loader will turn off, and the outdoor fan will remain on. When the thermostat removes the call for Y1 the compressor contactor will de-energize shutting down the compressor and the outdoor fan. When the thermostat removes the call for G, the indoor fan will turn off after the specific unit fan off delay.

NOTE: Per ASHRAE 90.1-2016 and IECC-2018 standards, during the first stage of cooling operation the Unit Control Board (UCB) will adjust the fan motor speed to provide 66% of the total cfm established for the unit.

### Defrost

When the temperature of the outdoor coil drops below 28°F (-2°C) as sensed by the defrost thermostat (DFT2) and the defrost timer is at the end of a timed period (adjustable at 30, 60, 90, or 120 minutes), reversing valve solenoids (RVS1 and RVS2) are energized and the OFC is de-energized. This switches the position of the reversing valves and shuts off the outdoor fan. The electric heaters (if installed) will be energized.

### Heating, unit with economizer

When the room temperature calls for heat through terminal W1, the indoor (evaporator) fan contactor (IFC) and heater contactor no. 1 (HC1) are energized and the reversing valve(s) de-energize and switches position. On units equipped for 2 stages of heat, when additional heat is needed, heater contactor no. 2 is energized through W2. The economizer damper moves to the minimum position.

When the thermostat is satisfied, the damper moves to the fully closed position.

### Heating, unit without economizer

Upon a request for heating from the space thermostat, terminal W1 will be energized with 24V. The IFC, outdoor fan contactor (OFC), C1, and C2 will be energized. The indoor fan, outdoor fans, and compressor no. 1, and compressor no. 2 are energized and reversing valves are de-energized and switch position.

If the space temperature continues to fall while W1 is energized, W2 will be energized with 24V, and the heater contactor(s) (HC) will be energized, which will energize the electric heater(s).

When the space thermostat is satisfied, W2 will be de-energized first, and the electric heater(s) will be de-energized. Upon a further rise in space temperature, W1 will be de-energized.

**IMPORTANT:** The thermostat must be configured for Electric Heat so it will energize G with the W1 call.

## Electro-mechanical units with factory-installed EconomizerONE

When free cooling is not available, the compressors will be controlled by the zone thermostat. When free cooling is available, the outdoor-air damper is modulated by the EconomizerONE control to provide a 50°F (10°C) to 55°F (13°C) mixed-air temperature into the zone. As the mixed air temperature fluctuates above 55°F (13°C) or below 50°F (10°C) dampers will be modulated (open or close) to bring the mixed-air temperature back within control. If mechanical cooling is utilized with free cooling, the outdoor-air damper will maintain its current position at the time the compressor is started. If the increase in cooling capacity causes the mixed-air temperature to drop below 45°F (7°C), then the outdoor-air damper position will be decreased to the minimum position. If the mixed-air temperature continues to fall, the outdoor-air damper will close. Control returns to normal once the mixed-air temperature rises above 48°F (9°C). 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 EconomizerONE control, 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 (on the EconomizerONE controller), the minimum position of the damper will be increased proportionally until the Maximum Ventilation setting is reached. As the CO<sub>2</sub> level decreases because of the increase in fresh air, the outdoor-air damper will follow the higher demand condition from either the DCV mode or from the free cooling mode. For EconomizerONE 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.

When the EconomizerONE control is in the occupied mode and a call for cooling exists (Y1 on the thermostat), the control will first check for indoor fan operation. If the fan is not on, then cooling will not be activated. If the fan is on, then the control will open the EconomizerONE damper to the minimum position.

On the initial power to the EconomizerONE control, it will take the damper up to 2-1/2 minutes before it begins to

position itself. After the initial power-up, further changes in damper position can take up to 90 seconds to initiate. Damper movement from full closed to full open (or vice versa) will take between 1-1/2 and 2-1/2 minutes. If free cooling can be used as determined from the appropriate changeover command (dry bulb, outdoor enthalpy, differential dry bulb, or differential enthalpy), then the control will modulate the dampers open and closed to maintain the mixed-air temperature setpoint at 50°F (10°C) to 55°F (13°C). If there is a further demand for cooling (cooling second stage — Y2 is energized), then the control will bring on compressor stage 1 to maintain the mixed-air temperature setpoint. The EconomizerONE damper will be open at maximum position.

**2-Speed Note:** The EconomizerONE controller will adjust the damper position as the Indoor Fan Speed changes, per its configured values.

### Heating

The sequence of operation for heating is the same as an electro-mechanical unit without an economizer. The only

difference is how the economizer acts. The economizer will stay at the Economizer Minimum Position while the evaporator fan is operating. The outdoor-air damper is closed when the indoor fan is not operating. Refer to Service and Maintenance manual for further details.

### RTU Open controller (factory option)

For details on operating 50FCQ units equipped with the factory-installed RTU Open controller option, refer to Factory Installed RTU Open Multi-Protocol Controller Controls, Start-Up, Operation and Troubleshooting manual.

### SystemVu™ controller (factory option)

For details on operating 50FCQ units equipped with the factory-installed SystemVu controller option, refer to FCQ/GCQ Series Single Package Rooftop Units with SystemVu Controller Controls, Start-Up, Operation and Troubleshooting manual.

## **Minimum operating ambient temperature (cooling)**

In mechanical cooling mode, your Carrier rooftop unit can safely operate down to an outdoor ambient temperature of 40°F (4°C). It is possible to provide cooling at lower outdoor ambient temperatures by using less outside air, economizers, and/or accessory low ambient kits.

## **Maximum operating ambient temperature (cooling)**

The maximum operating ambient temperature for cooling mode is 115°F (46°C). While cooling operation above 115°F (46°C) may be possible, it could cause either a reduction in performance, reliability, or a protective action by the unit's internal safety devices.

## **Multiple motor and drive packages**

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 are available, factory installed, to handle nearly any application.

## **Minimum and maximum airflow (heating and cooling)**

To maintain safe and reliable operation of your rooftop, operate within the heating airflow limits during heating mode and cooling airflow limits during cooling mode. Operating above the max may cause blow-off, undesired airflow noise, or airflow related problems with the rooftop unit. Operating below the min may cause problems with coil freeze-up and unsafe heating operation. Heating and cooling limitations differ when evaluating operating cfm, the minimum value is the HIGHER of the cooling and heating minimum cfm values published on page 7 and the maximum value is the LOWER of the cooling and heating minimum values published on page 7.

## **Heating-to-cooling changeover**

Your unit will automatically change from heating to cooling mode when using a thermostat with an auto-changeover feature.

## **Airflow**

All units are draw-through in cooling mode and blow-through 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 application 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 internal design of Carrier units, the air path, and specially designed motors, the full horsepower (maximum continuous bhp) band, as listed in the Fan Performance tables, can be used with the utmost confidence. There is no need for extra safety factors, as Carrier 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 is not necessarily better. While an air conditioner needs to have enough capacity to meet the design loads, it does not 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, are all signs of oversizing air conditioners. Oversizing the air conditioner leads to poor humidity control, reduced efficiency, higher utility bills, larger indoor temperature swings, excessive noise, and increased wear and tear on the air conditioner.

Rather than oversizing an air conditioner, engineers should "right-size" or even slightly "under-size" air conditioners. Correctly sizing an air conditioner controls humidity better, promotes efficiency, reduces utility bills, extends equipment life, and maintains even, comfortable temperatures. Please contact your local Carrier representative for assistance.

## **Low ambient applications**

The optional Carrier economizer can adequately cool your space by bringing in fresh, cool outside air. In fact, when so equipped, accessory low-ambient kit may not be necessary. In low ambient conditions, unless the outdoor air is excessively humid or contaminated, economizer-based "free cooling" is the preferred less costly and energy conscious method. In low ambient applications where outside air might not be desired (such as contaminated or excessively humid outdoor environments), your Carrier rooftop can operate to ambient temperatures down to -20°F (-29°C) using the recommended accessory low ambient controller.

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.



## Rooftop Packaged Heat Pump

### HVAC Guide Specifications

Size Range: **3 to 6 Nominal Tons**

Carrier Model Number: **50FCQ04-07**

#### 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 (RTU) Schedule:

1. 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, flexible fiberglass insulation bonded with a phenolic binder, neoprene coated on the air side.
2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

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 13.13) Sensors and Transmitters:

A. (23 09 13.13.A.) Thermostats:

1. Thermostat must:
  - a. have capability to energize 2 different stages of cooling, and 2 different stages of heating. (07 models have 2-stage cooling capabilities).
  - b. be heat pump design and include capability for occupancy scheduling.

#### Part 4 — (23 09 23) Direct Digital Control 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 — that indicates there is currently a non-critical issue with the unit, like filters need to be replaced and FAULT — that 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 and Carrier Comfort Network® (CCN) systems. No special modules or boards are required for these capabilities. Has the capability to work with Equipment Touch™ and System Touch™ devices and ZS Sensors.
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, back-up and restore data and file transfer data such as component number of starts and run hours.
8. Reverse Rotation Protection of compressors if field three-phase wiring is misapplied.
9. Provide Service Capabilities of:
  - a. Auto run test
  - 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, ASHRAE 90.1 and IECC Fault Detection and Diagnostic (FDD) requirements.

11. Unit cooling operation down to 40°F (4°C).
  12. Controller shall have easy access connections around the controller perimeter area and consist of Mate-N-Lok, 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 (3°C) temperature difference between cooling and heating setpoints to meet the latest ASHRAE 90.1 Energy Standard.
  16. 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, Equipment Touch and System Touch devices.
  18. Supply Air Tempering control operates the electric heat to maintain a minimum supply air temperature during conditions where very cold outdoor air causes the supply air temperature to fall below the configured Supply Air Tempering Setpoint. This occurs during periods where DCV is active and increasing the amount of outdoor air or in cases where the system is operating at very low airflow and the calculated economizer position has increased to maintain a constant ventilation rate.
  19. Demand limiting in SystemVu™ is achieved through setpoint expansion. The systems heating and cooling setpoints are expanded in steps or levels. The degree to which the setpoints may be expanded is defined by the 6 demand level offsets and the 2 commanded demand limit levels.
  20. 3-year limited part warranty.
- B. (23 09 23.13.B.) RTU Open Protocol, Direct Digital Controller:
1. Shall be ASHRAE 62 compliant.
  2. Shall accept 18 - 30VAC, 50 - 60Hz, and consumer 15VA or less power.
  3. Shall have an operating temperature range from -40°F (-40°C) to 130°F (54°C), 10% to 90% RH (non-condensing).
  4. Shall include built-in protocol for BACnet™<sup>1</sup> (MS/TP and PTP modes), Modbus®<sup>1</sup> (RTU and ASCII), Johnson N2 and LonWorks®<sup>1</sup>. LonWorks

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 DIP switch.
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, exhaust, reversing valve/high fan speed.
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 RS-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) Electric and Electronic Control System for HVAC

### 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 a Unit Control Board to conveniently and safely provide connection points for vital control functions such as: smoke detectors, phase monitor, economizer, thermostat, DDC control options, and low and high pressure switches. Controller shall also provide an intuitive

1. Third-party trademarks and logos are property of their respective owners.

means to adjust the indoor fan speed through a simple switch and pot adjustment design.

4. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.
  5. Shall include integrated defrost system to prevent excessive frost accumulation during heating duty, and shall be controlled as follows:
    - a. Defrost shall be initiated on the basis of time and coil temperature.
    - b. A 30, 60, 90, 120 minute timer shall activate the defrost cycle only if the coil temperature is low enough to indicate a heavy frost condition.
    - c. Defrost cycle shall terminate when defrost thermostat is satisfied and shall have a positive termination time of 10 minutes.
  6. Defrost system shall also include:
    - a. Defrost Cycle Indicator LED.
    - b. DIP switch selectable defrost time between 30, 60, 90 and 120 minutes. Factory set at 30 minutes.
    - c. Molded plug connection to ensure proper connection.
- B. (23 09 33.13.B.) Safeties:
1. Compressor over-temperature, over-current. High internal pressure differential.
  2. Low Pressure Switch.
    - a. 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.
  3. High Pressure Switch.
    - a. 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, disposable 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 (50FCQ04-07):

- A. (23 81 19.13.A.) General:
1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a fully hermetic scroll compressor(s) for cooling duty and heat pump 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 ASHRAE 90.1 minimum efficiency requirements.
  2. Unit shall be rated in accordance with AHRI Standards 210/240 (04-06 sizes) or 340/360 (07 size).
  3. Unit shall be designed to conform to ASHRAE 15.
  4. Unit shall be 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 casing shall be capable of withstanding 500 hour salt spray exposure per ASTM B117 (scribed specimen).
  7. Unit shall be designed in accordance with ISO 9001, and shall be manufactured in a facility registered by ISO 9001:2015.
  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.

- 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:
  - 1. As specified in the contract.
- E. (23 81 19.13.E.) Operating Characteristics:
  - 1. Unit shall be capable of starting and running at 115°F (46°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 210/240 or 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. Accessory winter start kit is necessary if mechanically cooling at ambient temperatures down to 25°F (-4°C).
  - 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.
  - 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:
  - 1. 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 in. 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 210/240 and or 340/360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 1/2 in. thick, 1 lb density, flexible fiberglass insulation, neoprene coated on the air side. Aluminum foil-faced fiberglass insulation shall be used in the heat compartment.
  - 4. Base of unit shall have a minimum of four locations for thru-the-base electrical connections (factory-installed or field-installed), standard.
  - 5. Base Rail:
    - a. Unit shall have base rails on a minimum of 2 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.
- 6. Condensate Pan and Connections:
  - a. Shall be a sloped condensate drain pan made of a corrosion resistant 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 side of the drain pan. Connection shall be made per manufacturer's recommendations.
- 7. Top Panel:
  - a. Shall be a single piece top panel on all sizes.
- 8. 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.
- 9. 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, and compressors shall have molded composite handles.
  - d. Handles shall be UV modified, composite. They shall be 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, Industry-Proven Aluminum Fin-Copper Tube Coils:
    - a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved 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 (3-Phase Models Only):
  - 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 (3-Phase Models Only):
  - 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 (3-Phase Models Only):
  - 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 1000 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. Fixed cooling orifice metering system on 04-06 models and TXV on 07 size models shall include a multiple feed distribution system that optimizes coil performance. Fixed heating orifice metering system on all 04-07 models shall include a multiple feed distribution system that optimizes coil performance.
    - b. Refrigerant filter drier - Solid core design.
    - c. Service gauge connections on suction and discharge lines.
    - d. Pressure gauge access through a specially designed access port in the top panel of the unit.
    - e. Suction line accumulator to provide protection in all operating modes from cooling, heating and reverse cycle switching.
  2. There shall be gauge line access port in the skin of the rooftop, covered by a black, removable plug.
    - a. The plug shall be easy to remove and replace.
    - b. When the plug is removed, the gauge access port shall enable maintenance personnel to route their pressure gauge lines.
    - c. This gauge access port shall facilitate correct and accurate condenser pressure readings by enabling the reading with the compressor access panel on.
    - d. The plug shall be made of a leak proof, UV-resistant, composite material.
  3. Compressors:
    - a. Unit shall use fully hermetic, heat pump duty scroll compressor on single circuit independent refrigeration circuit.
    - b. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
    - c. Compressors shall be internally protected from high discharge temperature conditions.
    - d. Compressors shall be protected from an over-temperature and over-ampereage conditions by an internal, motor overload device.

- e. Compressor shall be factory mounted on rubber grommets.
  - f. Compressor motors shall have internal line break thermal, current overload and high pressure differential protection.
  - g. Crankcase heaters shall not be required for normal operating range, unless required by compressor manufacturer due to refrigerant charge limits.
  - h. Compressor on 04-06 models shall be of a single stage cooling capacity design and 07 models shall be a two stage cooling capacity design.
- 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 with EcoBlue™ Technology:
- 1. Direct Drive Evaporator Fan Motor:
    - a. Shall be a ECM motor design.
    - b. Shall have permanently lubricated bearings.
    - c. Shall have inherent automatic-reset thermal overload protection.
    - d. Shall have slow ramp up to speed capabilities.
    - e. Shall require no fan/motor belts for operation, adjustments and or initial fan speed set up.
    - f. Fan DC voltage set up on Unit Control Board can eliminate the need of removal of blower access door, required on conventional belt drive systems.
    - g. Shall be internally protected from electrical phase reversal and loss.
  - 2. Evaporator Fan:
    - a. Shall be easily set with dedicated selection switch and adjustment pot on unit control board or through SystemVu™ controller.
    - b. On sizes 04-06 single speed indoor fan operation provided and on 07 size model with two stage cooling capacity control, the indoor fan speed is automatically controlled to meet the code-compliant 66% low fan speed and 100% at full fan speed operation.
    - c. Blower fan shall be a Vane Axial fan design with 75% less moving parts than a conventional belt drive system.
    - d. Shall be constructed of an aluminum stator or high impact composite material on stator, rotor and air inlet casing.
    - e. Shall be a patented / pending design with a corrosion resistant material and dynamically balanced.
    - f. Shall have slow ramp up to speed capabilities to help reduce sound and comfort issues typically associated with single speed belt drive systems.
    - g. Shall be a slide out design with two screw removal.
  - 3. Shall include an easily accessible unit Control Board to conveniently and safely provide connection points for vital control functions such as: smoke detectors, phase monitor, economizer, thermostat, DDC control options, and low and high pressure switches. Controller shall also provide an intuitive means to adjust the indoor fan speed through a simple switch and pot adjustment design.
- L. (23 81 19.13.L.) Condenser Fans and Motors:
- 1. Condenser Fan Motors:
    - a. Shall be a totally enclosed 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 all sizes.
  - 2. Condenser Fans:
    - a. Shall be a direct-driven propeller type fan constructed of high impact composite material.
    - b. Shall have high impact composite blades completely formed into one piece without blade fasteners or connectors and shall be dynamically balanced.
- M. (23 81 19.13.M.) Special Features Options and Accessories:
- 1. Integrated EconomizerONE and EconoMi\$er® 2 Low Leak Rate Models. (Both may be factory-installed on 04-07 models. Either may be field-installed on all 3 and 1-phase models.)
    - a. Integrated, gear driven opposing modulating blade design type capable of simultaneous economizer and compressor operation.
    - b. Independent modules for vertical or horizontal return configuration shall be available. Vertical return modules shall be available as a factory installed option.
    - c. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
    - d. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.

- 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 shall be equipped with dampers not to exceed 2% leakage at 1 in. wg pressure differential.
- g. Economizer controller on EconomizerONE models shall be the POL224 that provides:
  - 1) Combined minimum and DCV maximum damper position potentiometers with compressor staging relay.
  - 2) Functions with solid-state analog enthalpy or dry bulb changeover control sensing.
  - 3) LED indication for free cooling, sensor, and damper operation.
  - 4) One-line LCD interface screen for setup, configuration and troubleshooting.
  - 5) Optional configuration via WLAN stick and Siemens Climatix™1 smartphone app for easy setup.
  - 6) On-board Fault Detection and Diagnostics (FDD) that senses and alerts when the economizer is not operating properly, per California Title 24, ASHRAE 90.1 and IECC®1.
  - 7) Sensor failure loss of communication identification.
  - 8) Capabilities for use with multiple-speed or single speed indoor fan systems.
  - 9) Digital sensors: Dry bulb and Enthalpy.
- h. Economizer controller on EconoMi\$er® 2 models with RTU Open or SystemVu™ controls shall be a 4 to 20mA design controlled directly by the controller. RTU Open and SystemVu meet California Title 24, ASHRAE 90.1 and IECC Fault Detection and Diagnostic (FDD) requirements.
- i. Shall be capable of introducing up to 100% outdoor air.
- j. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air and contain seals that meet ASHRAE 90.1 requirements.
- k. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
- l. Dry bulb outdoor air temperature sensor shall be provided as standard. Enthalpy sensor is also available on factory installed only. 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.
- m. 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%.
- n. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.
- o. Dampers shall be completely closed when the unit is in the unoccupied mode.
- p. Economizer controller shall accept a 0 to 10 vdc 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.
- q. Compressor lockout temperature on POL224 control is adjustable from -45°F (-43°C) to 80°F (27°C), set at a factory default of 32°F (0°C).
- r. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
- s. Contain LED indication for free cooling, sensor, and damper operation.
- 2. Integrated EconomizerONE and EconoMi\$er 2 Ultra Low Leak Rate Models. (Factory-installed on 3-phase models only. Field-installed on all 3 and 1-phase models.)
  - a. Integrated, gear driven opposing modulating blade design type capable of simultaneous economizer and compressor operation.
  - b. Independent modules for vertical or horizontal return configuration shall be available. Vertical return modules shall be available as a factory-installed option.
  - c. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
  - d. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.
  - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
  - f. Ultra Low Leak design meets California Title 24 section 140.4 and ASHRAE 90.1 requirements for 4 cfm per sq ft on the outside air dampers and 10 cfm per sq ft on the return dampers.
  - g. Economizer controller on EconomizerONE models shall be the POL224 that provides:
    - 1) One-line LCD interface screen for setup, configuration and troubleshooting.
    - 2) Optional configuration via WLAN stick and Siemens Climatix™ smartphone app for easy setup.

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- 3) On-board Fault Detection and Diagnostics (FDD) that senses and alerts when the economizer is not operating properly, per California Title 24, ASHRAE 90.1 and IECC.
- 4) Sensor failure loss of communication identification.
- 5) Capabilities for use with multiple-speed indoor fan systems.
- 6) Digital sensors: Dry bulb and Enthalpy.
- h. Economizer controller on EconoMi\$er® 2 models with RTU Open or SystemVu™ controls shall be a 4-20mA design controlled directly by the controller. RTU Open and SystemVu meet California Title 24, ASHRAE 90.1 and IECC Fault Detection and Diagnostic (FDD) requirements.
- i. Shall be capable of introducing up to 100% outdoor air.
- j. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air and contain seals that meet ASHRAE 90.1 requirements.
- k. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
- l. Dry bulb outdoor air temperature sensor shall be provided as standard. Enthalpy sensor is also available on factory installed only. 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.
- m. 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%.
- n. The economizer shall maintain minimum air-flow into the building during occupied period and provide design ventilation rate for full occupancy.
- o. Dampers shall be completely closed when the unit is in the unoccupied mode.
- p. Economizer controller shall accept a 0 to 10 vdc 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.
- q. Compressor lockout temperature on POL224 control is adjustable from -45°F (-43°C) to 80°F (27°C), set at a factory default of 32°F (0°C).
- r. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
- s. Contain LED indication for free cooling, sensor, and damper operation.
3. Wi-Fi/WLAN stick for EconomizerONE POL224 (field-installed):  
This item allows use of the Siemens Climatix™1 mobile application.
4. Two-Position Damper (Factory-installed on 3-Phase 04-06 Models Only. Field-installed on all 3 and 1-Phase Models)
  - a. Damper shall be a Two-Position Damper. Damper travel shall be from the full closed position to the field adjustable %-open setpoint.
  - b. Damper shall include adjustable damper travel from 25% to 100% (full open).
  - c. Damper shall include single or dual blade, gear driven dampers and actuator motor.
  - d. Actuator shall be direct coupled to damper gear. No linkage arms or control rods shall be acceptable.
  - e. Damper will admit up to 100% outdoor air for applicable rooftop units.
  - f. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power.
  - g. The damper actuator shall plug into the rooftop unit's wiring harness plug. No hard wiring shall be required.
  - h. Outside air hood shall include aluminum water entrainment filter.
5. Manual Damper (field-installed only):
  - a. Manual damper package shall consist of damper, air inlet screen, and rain hood which can be preset to admit up to 25% or 50% outdoor air for year round ventilation.
6. Low Ambient Control Package:
  - a. Controller shall control coil head pressure by condenser fan speed modulation or condenser fan cycling and wind baffles.
  - b. Shall consist of solid-state control and condenser coil temperature sensor to maintain condensing temperature between 90°F (32°C) and 110°F (43°C) at outdoor ambient temperatures down to -20°F (-29°C).
7. Condenser Coil Hail Guard Assembly (Factory-installed on 3-Phase Models Only. Field-installed on all 3 and 1-Phase Models.)
  - a. Shall protect against damage from hail.
  - b. Shall be either hood style or louvered.
8. Unit-Mounted, Non-Fused Disconnect Switch (Available on units with MOCPs of 80 amps or less):
  - a. Switch shall be factory installed, internally mounted.
  - b. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff.

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- 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.
9. Convenience Outlet:
- a. Powered Convenience Outlet: (3-Phase Models Only)
    - 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 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. Factory-Installed 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.
  - c. Field-Installed 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 field-installed and internally mounted with easily accessible 115-v female receptacle.
    - 4) Outlet shall include 20 amp GFI receptacles. This kit provides a flexible installation method which allows code compliance for height requirements of the GFCI outlet from the finished roof surface as well as the capability to relocate the outlet to a more convenient location.
- 5) Outlet shall be accessible from outside the unit.
- 6) Outlet shall include a field installed "Wet in Use" cover.
10. Thru-the-Base Connectors:
- a. Kits shall provide connectors to permit electrical connections to be brought to the unit through the unit basepan.
  - b. Minimum of four connection locations per unit.
11. 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 to 100% adjustable setpoint on the economizer control.
12. 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.
13. Outdoor Air Enthalpy Sensor:
- a. 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.
14. Return Air Enthalpy Sensor:
- a. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
15. 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.
16. Smoke Detectors:
- a. Shall be a four-wire controller and detector.

## Guide specifications (cont)

- 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 two individual detector modules.
    - 5) Can be wired to up to 14 other duct smoke detectors for multiple fan shut-down applications.
17. Winter Start Kit:
- a. Shall contain a bypass device around the low pressure switch.
  - b. Shall be required when mechanical cooling is required down to 25°F (–4°C).
  - c. Shall not be required to operate on an economizer when below an outdoor ambient of 40°F (4°C).
18. Time Guard Control Circuit:
- a. Shall prevent compressor short-cycling by providing a 5 minute delay (±2 minutes) before restarting a compressor after shut-down for any reason.
  - b. One device shall be required per compressor.
19. 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.
20. Condensate Overflow Switch:
- a. This sensor and related controller monitors the condensate level in the drain pan and shuts down compression operation when overflow conditions occur. It includes:
    - 1) Indicator light — solid red (more than 10 seconds on water contact — compressors disabled), blinking red (sensor disconnected).
- 2) 10 second delay to break — eliminates nuisance trips from splashing or waves in pan (sensor needs 10 seconds of constant water contact before tripping).
  - 3) Disables the compressor(s) operation when condensate plug is detected, but still allows fans to run for Economizer.
21. MERV-8 Return Air Filters:
- a. Factory option to upgrade standard unit filters to MERV-8 filters.
22. Phase Monitor Control:
- a. Shall monitor the sequence of three-phase electrical system to provide a phase reversal protection.
  - b. Shall monitor the three-phase voltage inputs to provide a phase loss protection for the three-phase device.
  - c. Will work on either a Delta or Wye power connection.
23. 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.
24. 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.