



Product Data

WeatherMaker® Single Package Heat Pump Rooftop

15 to 25 Nominal Tons

ecoblue™  technology



Puron
ADVANCE™

50FEQ*17, 24, 28

Single-Packaged Heat Pump with Accessory Electric Heat and Puron Advance™ Refrigerant (R-454B)

Carrier's WeatherMaker® packaged heat pump rooftop units (RTUs) with Puron Advance™ and EcoBlue™ Fan Technology.

For over 70 years the WeatherMaker line has stood for cooling solutions that are innovative, high quality, and easy to use. Carrier's new 50FEQ rooftops continue our legacy of progress with Puron Advance™, our low global warming potential refrigerant. With competitive efficiencies, EcoBlue fan technology, locally available stock, and direct fit footprints, new installations and replacements are easier than ever.

New major design features include:

- Puron Advance (R-454B) refrigerant, which delivers a 75% reduction in global warming potential (GWP) compared to the original Puron (R-410A). Puron Advance's GWP of 466 easily exceeds the EPA (Environmental Protection Agency) requirement of <700 GWP.
- A patented, industry-first vane axial indoor fan system with an electronically commutated variable speed motor for simplicity and efficiency. When compared to traditional belt-driven forward curve fans, our reliable system has:
 - 75% fewer moving parts
 - Up to 40% greater efficiency

- No fan belts, pulleys, shaft, or shaft bearings
- Better sound and comfort due to slow ramp-up capability
- Internal protection from phase reversal and phase loss situations
- High external static capability
- Slide-out blower assembly design
- Reliable 2 stage cooling with tandem scroll compressors technology, fully active evaporator coil.
- Unit control board (UCB) with intuitive indoor fan adjustment that uses simple dial and switch configuration
- Reliable copper tube/aluminum fin condenser coil with 5/16 in. tubing to help reduce refrigerant charge and weight versus prior designs

WeatherMaker® 50FEQ units 15 to 25 tons are specifically designed for dedicated factory-supplied vertical air flow or horizontal air flow. No special field kits are required. Designed to fit on pre-installed curbs by other manufacturer, these units can also fit on some of Carrier's past installed roof curbs.

Two-speed staged air volume (SAV) Vane Axial indoor fan speed control helps deliver IEERs up to 14.0.

With "no-strip" screw collars, handled access panels, and more, the unit is easy to install, easy to maintain, and easy to use. Your new 15 to 25 ton Carrier WeatherMaker RTU provides

optimum comfort and control from a packaged rooftop.

Value-added features include:

- SystemVu™ intuitive intelligent controls option that provides:
 - Large full text, multi-line display
 - USB Flash Port for data transfer
 - Built in i-Vu®, CCN and BACnet®1
 - Read refrigerant pressures from display — no gauges
 - Quick LED Status — Run, Alert, Fault
 - Conventional thermostat or sensor capabilities
 - Historical component runtime and starts
 - Supply air tempering
 - Navigator™ and Network Service Tool compatible
- Single point electrical connections
- All 15 to 25 ton models use TXV refrigerant metering devices
- Scroll compressors with internal line-break overload protection
- Units come with an easy access tool-less filter door. Filter track tilts out for filter removal and replacement. All filters are the same size in each unit

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Easy to install

Lighter units make for easy replacement and aid in the structural approval process. Units have 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 EcoBlue vane axial fan system and direct drive ECM motor, belts and pulleys are a thing of the past. This frees up maintenance, installation and commissioning time. Should an adjustment be necessary, it can easily be made via the UCB in the control box. For regular service activities, our easy-access handles provide a quick solution to all commonly accessed service panels, and our sloped, corrosion-resistant composite drain pan sheds water and will not rust. Service gauge connections are included on compressor suction/discharge lines and before and after the filter drier to monitor system operation during maintenance.

Easy to use

Carrier's re-designed unit control board puts all connections and troubleshooting points in one convenient place. Most low voltage connections use the same board and are easy to access. Setting up the fan is simple using an intuitive switch and rotary dial arrangement. Our rooftops have high and low pressure switches, a filter drier, and 2 in. filters standard.

Heat pump flexibility

50FEQ models offer onboard electro-mechanical heating standard. Our robust systems are rigorously tested to ensure reliable reverse cycle heating operation. The result is a clean, environmentally responsible heat source to keep occupants comfortable year-round. All 50FEQ models can be easily controlled with a standard thermostat and remove the need to burn fossil fuels to heat your building. Should you need supplemental heat, we offer a full line of single point powered electric heaters that can easily be installed at site.

Puron Advance™ features

In 2018, Carrier announced Puron Advance (R-454B) as our next generation refrigerant for light commercial rooftops. With a GWP of 466 and similar working pressure and performance to R-410A, Puron Advance easily exceeds the EPA's new, stringent <700 GWP refrigerant requirement while minimizing unit redesign. Like other next generation refrigerants (R-32, etc.), R-454B is classified as an "A2L" refrigerant by ASHRAE^{®1} (American Society of Heating, Refrigerating, and Air-Conditioning Engineers). This designation means that R-454B is "mildly flammable" under certain conditions. While this is a change from legacy "A1 — No Flame Propagation" refrigerants like Puron (R-410A), A2Ls are still very low on the flammability scale and quite safe for use. A2L refrigerants are difficult to ignite and have an extremely low flame speed — much less so than natural gas, propane, or even rubbing alcohol. At Carrier, we are committed to safety. As such, all of our Puron Advance rooftop

units include a factory-installed dissipation control board and leak sensor designed to last the lifetime of the unit. This system is certified to UL 60335-2-40 and designed to work right away, without any field configuration or wiring. In the event of a leak, these systems are designed to automatically identify and resolve the issue by dissipating the refrigerant to minimize risk to equipment, buildings, or occupants.

EcoBlue™ Technology

Our direct drive EcoBlue indoor fan system uses vane axial fan design and electronically commutated motor. The benefit is clear: when compared to legacy belt drive systems, this vane axial design has 75% fewer moving parts, uses up to 40% less energy, and has no belts, blower bearings, or shaft.

Streamlined control and integration

Carrier controllers make connecting WeatherMaker rooftop heat pump units to existing building automation systems easy. The units are compatible with conventional thermostat controls or SystemVu™ controls for greater comfort, diagnostics, and building network integration.

Operating efficiency and flexibility

The 50FEQ packaged rooftops meet DOE 2023 efficiency standards, as well as ASHRAE 90.1 and IECC^{®1} (International Energy Conservation Code) minimum IEER efficiency requirements.

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WeatherMaker[®]
with **ecoblue[™]** technology
50FEQ 15-25 Ton Models

Vane Axial Indoor Fan

- Direct drive ECM
- Slow ramp up
- Phase loss protection
- No belts or pulleys
- Slide out design

High Efficiency Outdoor Fan

- Quiet operation
- Balanced blades
- Efficient airflow collar

Unit Controls

- E/M base unit controller
- Switch/dial fan setting
- Large terminal connections
- SystemVu[™] control option

Compression

- Fully hermetic scroll
- Internally protected
- Multi stage design
- Safety switch protected

Air Management

- Factory - Field economizers
- Upgraded MERV-13 filters
- Tool-less Filter Access door

Efficient Coils

- Round tube/plate fin
- Copper/Aluminum
- Special coating available
- New 5/16 in. condenser tube
- TXV metering device

Heating

- Electric Heating
- Field installed accessory
- Integral fusing
- Multiple kW sizes available
- Terminal block connections
- Single point power

Cabinet Design

- Heavy gauge base rails
- Large handled access panels
- Embossed strengthened base pan

Model number nomenclature



50FEQ*17-28 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 | E | Q | M | 2 | 4 | A | 2 | A | 6 | - | 0 | A | 0 | A | 0 |

Unit Heat Type

50 = Cooling Packaged Rooftop

Model Series - WeatherMaker®

FE = Standard Efficiency (EcoBlue™ Technology)

Heat Type

Q = Heat Pump
(Field-Installed Electric Heat)

Refrig. Systems Options

M = Two Stage Cooling/Single Circuit Models

Cooling Tons

17 = 15.0 tons
24 = 20.0 tons
28 = 25.0 tons

Sensor Options

A = None
B = Return Air Smoke Detector (RA)
C = Supply Air Smoke Detector (SA)
D = RA + SA Smoke Detector
J = Condensate Overflow Switch (COFS)
K = Condensate Overflow Switch + RA Smoke Detector
L = Condensate Overflow Switch + RA and SA Smoke Detectors
M = Condensate Overflow Switch + SA Smoke Detector

Indoor Fan Options - Vane Axial EcoBlue Fan System

2 = Standard/Medium Static Motor
3 = High Static Motor
5 = Standard/Medium Static Motor, Filter Status Switch
6 = High Static Motor - Vertical Supply and Filter Status Switch
J = High Static Motor - Horizontal Supply
L = High Static Motor - Horizontal Supply and Filter Status Switch

Coil Options – RTPF (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
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 Guards
R = Cu/Cu – Al/Cu – Louvered Hail Guard
S = Cu/Cu – Cu/Cu – Louvered Hail Guard

Voltage

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

Packaging Compliance

0 = Standard

Electrical Options

A = None
C = Non-Fused Disconnect
N = Phase Monitor/Protection
Q = Phase Monitor/Protection
and Non-Fused Disconnect
1 = HSCCR Protection

Service Options

0 = None
1 = Unpowered Convenience Outlet (NPCO)
2 = Powered Convenience Outlet (PCO)
3 = Hinged Panels (HP)
4 = Hinged Panels + NPCO
5 = Hinged Access Panels + PCO
6 = MERV-13 Filters (M13)
7 = NPCO + MERV-13 Filters
8 = PCO + MERV-13 Filters
9 = Hinged Panels + MERV-13 Filters
A = HP + NPCO + MERV-13 Filters
B = HP + PCO + MERV-13 Filters

Intake / Exhaust Options

A = None
B = Temperature Economizer with Barometric Relief
F = Enthalpy Economizer with Barometric Relief
L = ULL (Ultra Low Leak) Temperature Economizer
with Barometric Relief and CO₂ Sensor
M = ULL Enthalpy Economizer with Barometric
Relief and CO₂ Sensor
N = ULL Temperature Economizer with Power Exhaust
and CO₂ Sensor, Vertical Only
P = ULL Enthalpy Economizer with Power Exhaust
and CO₂ Sensor, Vertical Only
U = ULL Temperature Economizer with Barometric Relief
V = ULL Temperature Economizer with Power Exhaust,
Vertical Only
W = ULL Enthalpy Economizer with Barometric Relief
X = ULL Enthalpy Economizer with Power Exhaust,
Vertical Only

Base Unit Controls

0 = Electromechanical Controller
3 = SystemVu™ Controller
8 = Electromechanical Controls with POL224
EconomizerONE (with Fault Detection and Diagnostic)

Design Revision

- = Factory Design Revision

50FEQ AHRI Ratings, Cooling Mode^{a,b,c}

| UNIT | COOLING STAGES | NOMINAL CAPACITY (tons) | NET COOLING CAPACITY (Btuh) | TOTAL POWER (kW) | EER | IEER WITH 2-SPEED INDOOR FAN MOTOR | AHRI RATING CFM | AHRI PART LOAD CFM |
|----------|----------------|-------------------------|-----------------------------|------------------|-------|------------------------------------|-----------------|--------------------|
| 50FEQM17 | 2 | 15 | 172,000 | 16.2 | 10.60 | 14.0 | 6,300 | 3,780 |
| 50FEQM24 | 2 | 20 | 240,000 | 24.0 | 10.00 | 14.0 | 8,000 | 4,800 |
| 50FEQM28 | 2 | 25 | 278,000 | 29.3 | 9.50 | 14.0 | 8,800 | 5,280 |

NOTE(S):

- a. Rated in accordance with AHRI Standards 340/360.
- b. 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.
IEER Standard: A measure that expresses cooling part-load EER efficiency for commercial unitary air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities.
- c. All 50FEQ units comply with ASHRAE 90.1-2019 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum IEER requirements.

LEGEND

- AHRI — Air-Conditioning, Heating and Refrigeration Institute
- EER — Energy Efficiency Ratio
- IEER — Integrated Energy Efficiency Ratio



50FEQ AHRI Ratings, Heating Mode^{a,b,c}

| UNIT | HEATING, LOW 17°F (-8°C) AMBIENT | | HEATING, HIGH 47°F (8°C) AMBIENT | | AHRI RATING CFM |
|----------|----------------------------------|------|----------------------------------|------|-----------------|
| | Net Capacity (Btuh) | COP | Net Capacity (Btuh) | COP | |
| 50FEQM17 | 100,000 | 2.20 | 168,000 | 3.30 | 6,300 |
| 50FEQM24 | 136,000 | 2.20 | 234,000 | 3.30 | 8,000 |
| 50FEQM28 | 156,000 | 2.15 | 278,000 | 3.30 | 8,800 |

NOTE(S):

- a. Rated in accordance with AHRI Standards 340/360.
- b. 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.
IEER Standard: A measure that expresses cooling part-load EER efficiency for commercial unitary air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities.
- c. All 50FEQ units comply with ASHRAE 90.1-2019 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) and DOE-2023 (Department of Energy) Energy Standard for minimum IEER requirements.

LEGEND

- AHRI — Air-Conditioning, Heating and Refrigeration Institute
- COP — Coefficient of Performance



Sound Rating Table^a

| UNIT | COOLING STAGES | OUTDOOR SOUND (dB) AT 60 Hz ^b | | | | | | | | |
|----------|----------------|--|------|------|------|------|------|------|------|------|
| | | A-WEIGHTED ^c | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 50FEQM17 | 2 | 84.1 | 92.2 | 83.9 | 80.4 | 81.8 | 78.7 | 76.5 | 72.2 | 65.4 |
| 50FEQM17 | 2 | 85.9 | 97.1 | 88.3 | 84.4 | 83.3 | 80.7 | 77.4 | 73.4 | 67.3 |
| 50FEQM28 | 2 | 85.9 | 97.1 | 88.3 | 84.4 | 83.3 | 80.7 | 77.4 | 73.4 | 67.3 |

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 ^a | |
|----------|-------------------------------------|--------------------------------------|---------------------|----------------------------|---------------------|
| | MINIMUM 2-SPEED AIRFLOW (LOW SPEED) | MINIMUM 2-SPEED AIRFLOW (HIGH SPEED) | MAXIMUM AIRFLOW CFM | MINIMUM AIRFLOW CFM | MAXIMUM AIRFLOW CFM |
| 50FEQM17 | 2,700 | 4,500 | 7,500 | 4,500 | 7,500 |
| 50FEQM24 | 3,000 | 6,000 | 10,000 | 6,000 | 10,000 |
| 50FEQM28 | 3,750 | 7,500 | 12,500 | 7,500 | 12,500 |

NOTE(S):

- Electric heat modules and single point kits are available as field-installed accessories for 50FEQ units.

50FEQ 17 to 28 Physical Data

| 50FEQ UNIT | 50FEQM17 | 50FEQM24 | 50FEQM28 |
|--|----------------|----------------|----------------|
| NOMINAL TONS | 15 | 20 | 25 |
| BASE UNIT OPERATING WT (lb)^a | 1627 | 2057 | 2125 |
| REFRIGERATION SYSTEM | | | |
| No. Circuits/No. Compressors/Type | 1/2/Scroll | 1/2/Scroll | 1/2/Scroll |
| Puron Advance™ (R-454B) Charge (lb-oz) | 29-6 | 31-10 | 39-8 |
| Cooling Metering Device | TXV | TXV | TXV |
| Heating Metering Device | TXV | TXV | TXV |
| High-Pressure Trip/Reset (psig) | 630/505 | 630/505 | 630/505 |
| Loss of Charge Trip/Reset | 27/44 | 27/44 | 27/44 |
| EVAPORATOR COIL | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 3/8 in. RTPF | 3/8 in. RTPF | 3/8 in. RTPF |
| Rows/FPI | 3/17 | 4/17 | 4/17 |
| Total Face Area (ft²) | 19.6 | 26 | 26 |
| Condensate Drain Connection Size | 3/4 in. | 3/4 in. | 3/4 in. |
| CONDENSER COIL | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Rows/FPI | 2/18 | 2/18 | 2/18 |
| Total Face Area (ft²) | 41.6 | 59.2 | 59.2 |
| EVAPORATOR FAN AND MOTOR | | | |
| Standard/Medium Static 3 Phase | | | |
| Motor Qty / Drive Type | 2 / Direct | 2 / Direct | 2 / Direct |
| Max Cont bhp | 2.4 | 2.4 | 3 |
| Range (rpm) | 250-2000 | 250-2000 | 250-2200 |
| Fan Qty / Type | 2 / Vane Axial | 2 / Vane Axial | 2 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 |
| Vertical High Static 3 Phase | | | |
| Motor Qty / Drive Type | 2 / Direct | 2 / Direct | 2 / Direct |
| Max Cont bhp | 3 | 5 | 5 |
| Range (rpm) | 250-2200 | 250-2200 | 250-2200 |
| Fan Qty / Type | 2 / Vane Axial | 2 / Vane Axial | 2 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 |
| Horizontal High Static 3 Phase | | | |
| Motor Qty / Drive Type | 2 / Direct | 2 / Direct | 2 / Direct |
| Max Cont bhp | 5 | 5 | 5 |
| Range (rpm) | 250-2200 | 250-2200 | 250-2200 |
| Fan Qty / Type | 2 / Vane Axial | 2 / Vane Axial | 2 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 |
| CONDENSER FAN AND MOTOR | | | |
| Qty / Motor Drive Type | 3 / Direct | 4 / Direct | 4 / Direct |
| Motor hp / rpm | 1/4 / 1100 | 1/4 / 1100 | 1/4 / 1100 |
| Fan Diameter (in.) | 22 | 22 | 22 |
| FILTERS | | | |
| RA Filter Qty / Size (in.) | 6 / 25x25x2 | 9 / 16x25x2 | 9 / 16x25x2 |
| OA Inlet Screen Qty / Size (in.) | 4 / 16x25x1 | 4 / 16x25x1 | 4 / 16x25x1 |

NOTE(S):

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

LEGEND

bhp — Brake Horsepower
FPI — Fins Per Inch
OA — Outdoor Air
RA — Return Air

Options and accessories



| ITEM | FACTORY-INSTALLED OPTION | FIELD-INSTALLED ACCESSORY |
|--|--------------------------|---------------------------|
| ELECTRIC HEAT | | |
| Electric Resistance Heaters | | X |
| Single Point Kits | | X |
| CABINET | | |
| Hinged Access Panels | X | |
| MERV-13, 4 in. Filters | X | |
| MERV-13, 2 in. Filters | | X |
| MERV-8, 2 in. Filters | | X |
| 4 in. Filter Rack (filters not included) | | X |
| Condenser Coil Hail Guard | X | X |
| COIL OPTIONS | | |
| Cu/Cu Indoor and/or Outdoor Coils ^a | X | |
| Pre-Coated Outdoor Coils | X | |
| Premium, E-Coated Indoor and/or Outdoor Coils | X | |
| CONTROLS | | |
| Thermostats, Temperature Sensors, and Subbases | | X |
| SystemVu™ DDC Communicating Controller | X | |
| Smoke Detector (supply and/or return air) | X | X |
| Horn Strobe Annunciator ^b | | X |
| Time Guard II Compressor Delay Control Circuit | | X |
| Phase Monitor | X | X |
| Condensate Overflow Switch | X | X |
| ECONOMIZERS AND OUTDOOR AIR DAMPERS | | |
| EconomizerONE for Electromechanical Controls, complies with FDD (standard and ultra low leak damper models) ^c | X | X |
| Wi-Fi Stick for EconomizerONE (optional) | | X |
| EconoMi\$er® 2 for DDC Controls (standard and ultra low leak damper models) ^d | X | X |
| Motorized Two-Position Outdoor-Air Damper | | X |
| Manual Outdoor-Air Damper (25% and 50%) | | X |
| Barometric Relief ^e | X | X |
| Power Exhaust — Centrifugal Design | X | X |

| ITEM | FACTORY-INSTALLED OPTION | FIELD-INSTALLED ACCESSORY |
|---|--------------------------|---------------------------|
| ECONOMIZER SENSORS AND IAQ DEVICES | | |
| Single Dry Bulb Temperature Sensors ^f | X | X |
| Differential Dry Bulb Temperature Sensors ^f | | X |
| Single Enthalpy Sensors ^f | X | X |
| Differential Enthalpy Sensors ^f | | X |
| CO ₂ Sensor (wall, duct, or unit mounted) ^f | X | X |
| INDOOR MOTOR AND DRIVE | | |
| Multiple Motor and Drive Packages | X | |
| LOW AMBIENT CONTROLS | | |
| Winter Start Kit ^g | | X |
| Low Ambient Controller to 0°F (-18°C) ^g | | X |
| POWER OPTIONS | | |
| Convenience Outlet (powered) | X | |
| Convenience Outlet (unpowered) | X | |
| Convenience Outlet, 20 amp (unpowered) | | X |
| Non-Fused Disconnect ^h | X | |
| High SCCR Protection ⁱ | X | |
| ROOF CURBS | | |
| Roof Curb 14 in. (356 mm) | | X |
| Roof Curb 24 in. (610 mm) | | X |

NOTE(S):

- Cu/Cu coils are only available with louvered hail guards.
- 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.
- Models with SystemVu 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 FLA electrical rating exceeds:
 - 200 amps, 208/230V-3-60
 - 100 amps, 460/575V-3-60
- High SCCR (Short Circuit Current Rating) is not available on the following: units with Low Ambient controls, Phase loss monitor, Non-fused disconnect, Powered convenience outlet, and 575-v models.

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 your building. This is the preferred method of low-ambient cooling. When coupled to CO₂ 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 can be factory-installed or easily field-installed.

Unit mounted CO₂ sensor

The CO₂ sensor works with the economizer to intake only the correct amount of outside air for ventilation. As occupants fill your building, the CO₂ sensor detects their presence through increasing CO₂ levels, and opens the economizer appropriately. When the occupants leave, the CO₂ 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.

Phase monitor protection

The Phase Monitor Control will monitor the sequence of 3-phase electrical system to provide a phase reversal protection; and monitor the 3-phase voltage inputs to provide a phase loss protection for the 3-phase device. It will work on either a Delta or Wye power connection.

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, included as standard, are necessary to ensure proper connection and seal when routing wire and piping through the rooftop's basepan and curb. These couplings eliminate roof penetration and should be considered for gas lines, main power lines, 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, and indoor fan motor access.

Cu/Cu (indoor and outdoor) 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. Only available with louvered hail guards.

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.

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, 115-v 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 115/120-v 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 4 line text screen for superior visibility.
- Quick operational condition LEDs of: Run, Alert, and Fault.
- Simple navigation with large keypad buttons of: Navigation arrows, Test, Back, Enter and Menu.
- Capable of being controlled with a conventional thermostat, 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

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 compressors operation when condensate plug is detected, but still allows fans to run for economizer.

MERV-13 4 in. return air filters

This factory option upgrades the return air filters from standard unit filters to high efficiency MERV-13 filters. Non-woven MERV-13 filter media with high strength, moisture-resistant frame. Filter media is securely fastened inside the filter frame on all 4 sides.

High Short Circuit Current Rating (SCCR) protection

This factory-installed option provides high short circuit current protection to each compressor, plus all indoor and outdoor fan motors of 60 kA (for 208/230-3-60 units) and 65 kA (for 460-3-60 units) against high potential fault current situations.

Standard unit comes with 5 kA rating.

This option is not available with factory installed Non-Fused Disconnect, Low Ambient controls, Phase loss monitor/protection and 575 Volt models.

Filter maintenance indicator

When the optional factory-installed filter maintenance indicator is used, a factory-installed differential pressure switch measures pressure drop across the outside air filter and activates a field-supplied dry contact indicator when the pressure differential exceeds the adjustable switch setpoint.

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 CO₂ sensor

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

4 in. filter rack kit

The 4 in. filter rack accessory kit is designed to hold 4 in. MERV-8 or MERV-13 filters. Filters not included in kit.

MERV-13 2 in. return air filters

This kit includes MERV-13 2 in. filters to accommodate unit filter rack size. Kit available through RDC (Replacement Components Division).

MERV-8 2 in. return air filters

This kit includes MERV-8 2 in. filters to accommodate unit filter rack size. Kit available through RDC.

Phase monitor protection

The Phase Monitor Control will monitor the sequence of 3-phase electrical system to provide a phase reversal protection; and monitor the 3-phase voltage inputs to provide a phase loss protection for the 3-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 0°F (-18°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.

Filter status indicator accessory

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.

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.

Electric heaters

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 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™¹ 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™¹ and Apple iOS®¹ 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 accessories (cont)



Option and Accessory Weights^a

| OPTION / ACCESSORY NAME | 50FEQ UNIT WEIGHT | | | | | |
|--------------------------------------|-------------------|-----|-----|-----|-----|-----|
| | 17 | | 24 | | 28 | |
| | lb | kg | lb | kg | lb | kg |
| Power Exhaust | 198 | 90 | 198 | 90 | 198 | 90 |
| EconomizerONE and EconoMiSer® 2 | 293 | 133 | 304 | 138 | 304 | 138 |
| Two-Position Damper | 50 | 23 | 50 | 23 | 50 | 23 |
| Manual Damper | 35 | 16 | 35 | 16 | 35 | 16 |
| Electric Heater | 85 | 39 | 85 | 39 | 85 | 39 |
| Hail Guard (louvered) | 90 | 41 | 90 | 41 | 100 | 46 |
| Cu/Cu Condenser and Evaporator Coils | 305 | 139 | 448 | 204 | 448 | 204 |
| Roof Curb (14 in. curb) | 240 | 109 | 255 | 116 | 255 | 116 |
| Roof Curb (24 in. curb) | 340 | 154 | 355 | 161 | 355 | 161 |
| CO ₂ Sensor | 5 | 3 | 5 | 3 | 5 | 3 |
| Optional Indoor Motor ^b | 30 | 14 | 30 | 14 | 0 | 0 |
| Low Ambient Controller | 9 | 4 | 9 | 4 | 9 | 4 |
| Winter Start Kit | 5 | 2 | 5 | 2 | 5 | 2 |
| Return Air Smoke Detector | 7 | 3 | 7 | 3 | 7 | 3 |
| Supply Air Smoke Detector | 7 | 3 | 7 | 3 | 7 | 3 |
| Fan Filter Switch | 2 | 1 | 2 | 1 | 2 | 1 |
| Non-Fused Disconnect | 15 | 7 | 15 | 7 | 15 | 7 |
| Powered Convenience Outlet | 36 | 16 | 36 | 16 | 36 | 16 |
| Unpowered Convenience Outlet | 4 | 2 | 4 | 2 | 4 | 2 |
| Enthalpy Sensor | 2 | 1 | 2 | 1 | 2 | 1 |
| Differential Enthalpy Sensor | 3 | 2 | 3 | 2 | 3 | 2 |
| 4 in. MERV 13 Filters | 22 | 10 | 22 | 10 | 22 | 10 |

NOTE(S):

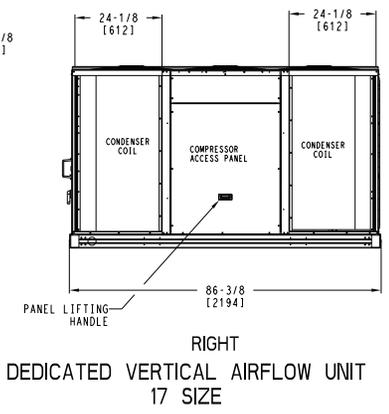
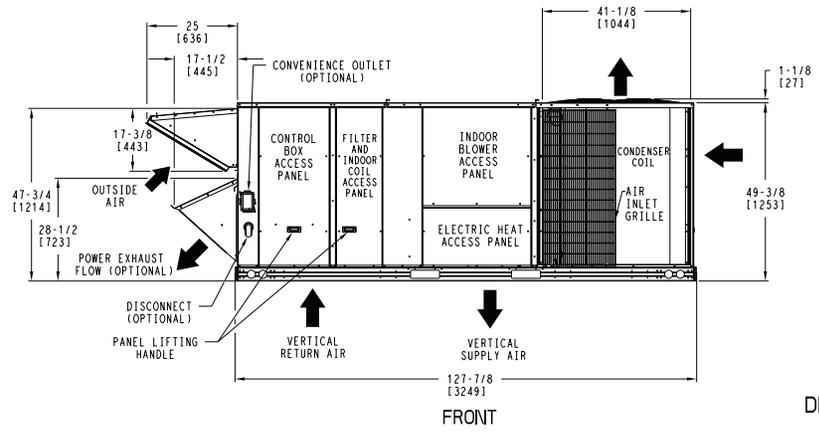
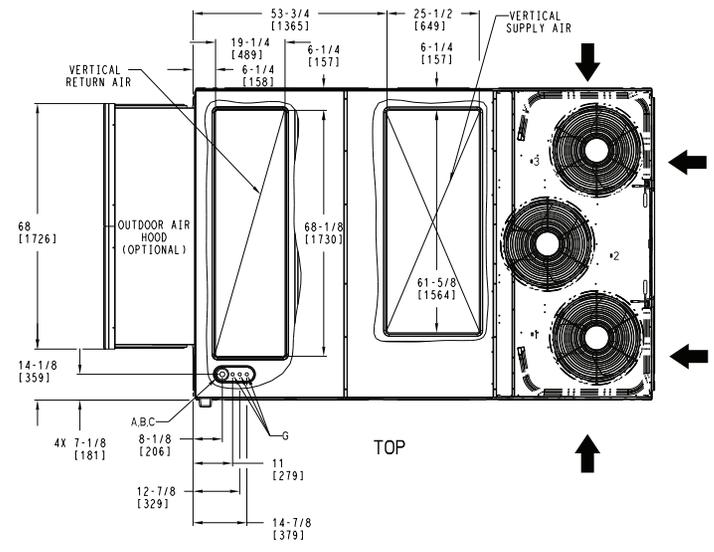
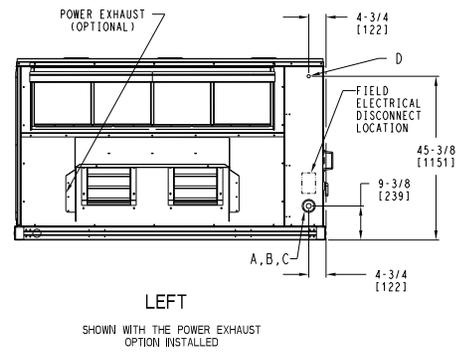
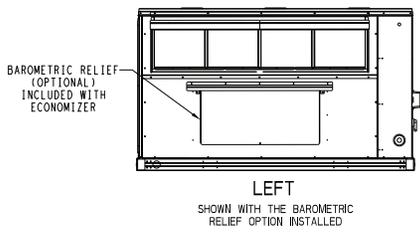
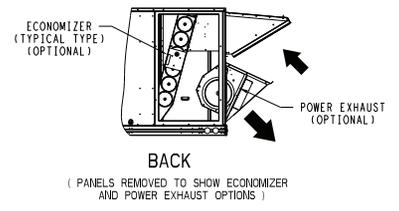
- a. Where multiple variations are available, the heaviest combination is listed.
- b. Add the Optional Indoor Motor weight to the weight of the base unit.

50FEQ*17 Base Unit Dimensions

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| CONNECTION SIZES | |
|------------------|---|
| A | 1 3/8" DIA [35] FIELD POWER SUPPLY KNOCKOUT |
| B | 3" DIA [76] FIELD POWER SUPPLY KNOCKOUT |
| C | 3 5/8" DIA [92] FIELD POWER SUPPLY KNOCKOUT |
| D | 7/8" DIA [22] FIELD CONTROL WIRING HOLE |
| G | 7/8" DIA [22] FIELD CONTROL WIRING KNOCKOUT |

- 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



| | | | | | | |
|--------------------|--------|----------|------------|---|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FEQ 17 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004889 | REV |
| U.S. ECCN:NSR | 1 OF 5 | 05/21/24 | - | | | - |

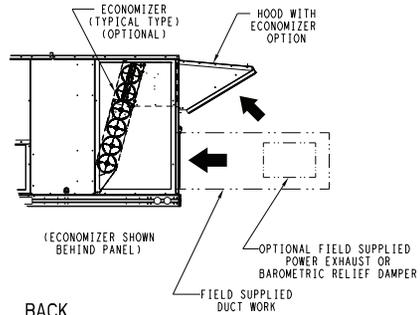


50FEQ*17 Base Unit Dimensions (cont)

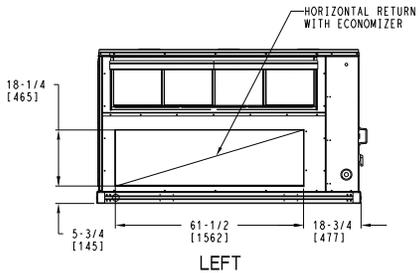
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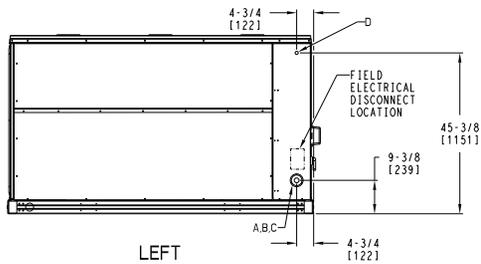
- NOTES:
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 3. DIRECTION OF AIR FLOW
 4. ALL VIEW DRAWN USING 3RD ANGLE



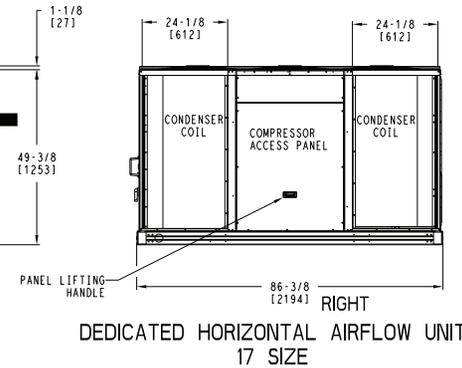
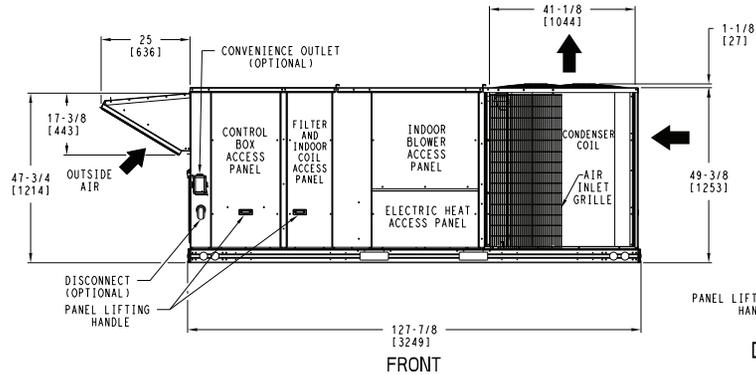
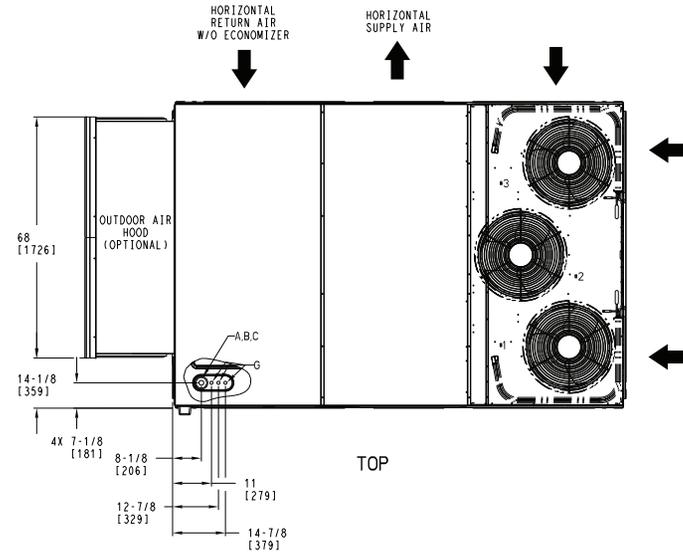
BACK
(DEDICATED HORIZONTAL AIRFLOW UNIT RETURN AIRFLOW WITH ECONOMIZER)



LEFT
(DEDICATED HORIZONTAL AIRFLOW UNIT RETURN AIRFLOW WITH ECONOMIZER)



LEFT
(DEDICATED HORIZONTAL AIRFLOW UNIT RETURN AIRFLOW WITHOUT ECONOMIZER)



RIGHT
DEDICATED HORIZONTAL AIRFLOW UNIT 17 SIZE

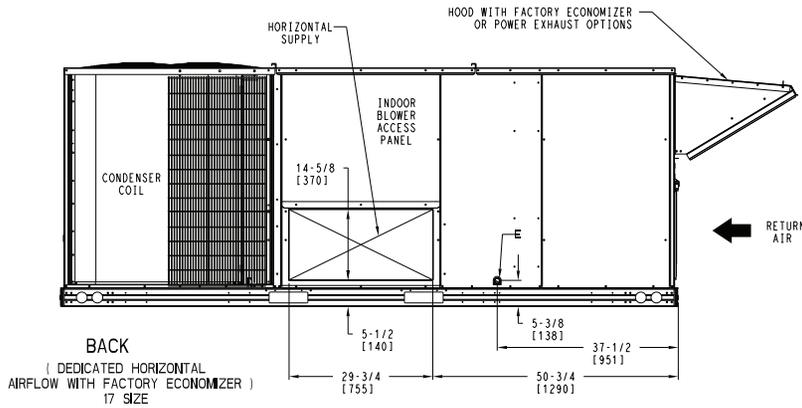
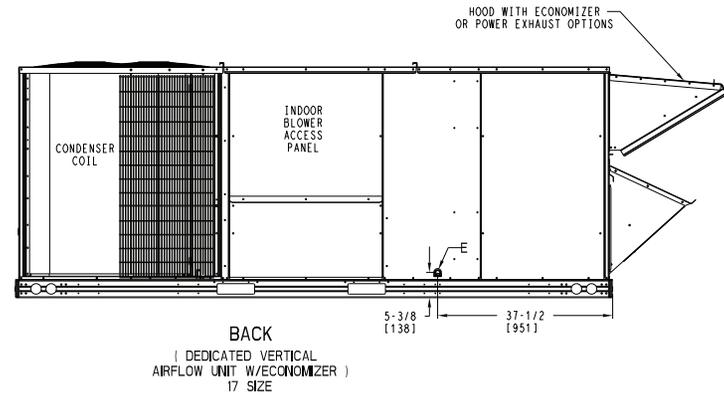
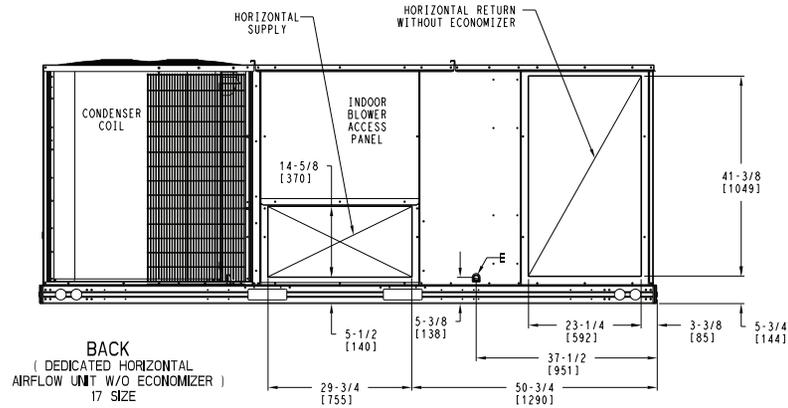
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| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FEQ 17 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004889 | REV |
| U.S. ECCN:NSR | 2 OF 5 | 05/21/24 | - | | | - |



50FEQ*17 Base Unit Dimensions (cont)

| CONNECTION SIZES | |
|------------------|------------------------------|
| E | 3/4"-14 NPT CONDENSATE DRAIN |

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| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FEQ 17 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004889 | REV |
|--------------------|--------|----------|------------|---|------------|-----|
| U.S. ECCN:NSR | 3 OF 5 | 05/21/24 | - | | | - |

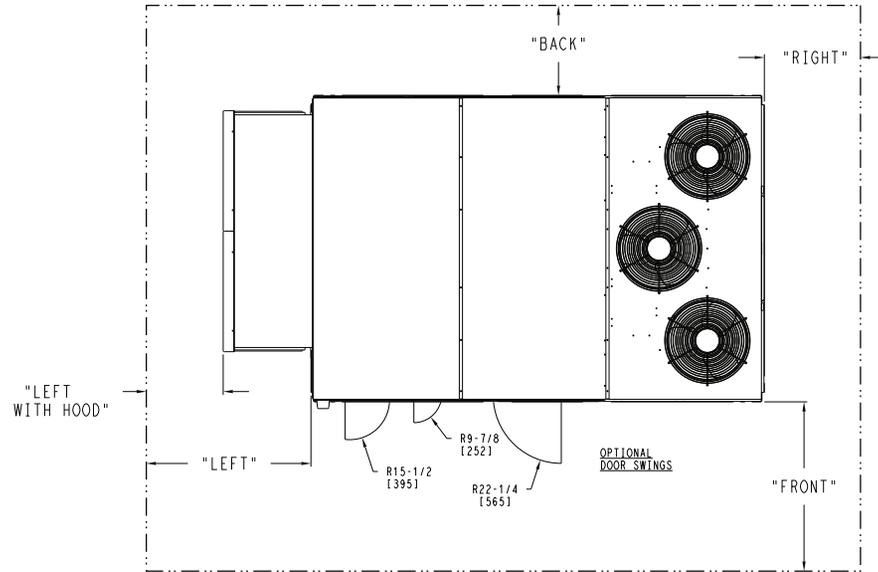
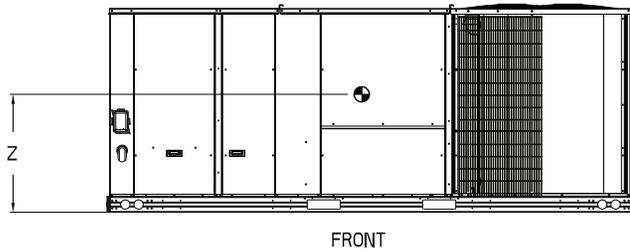
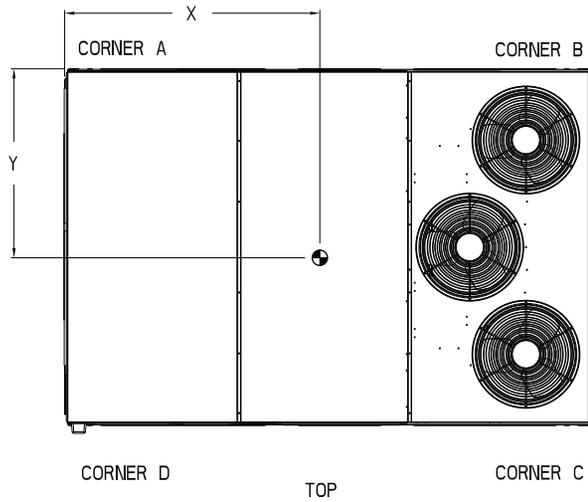


50FEQ*17 Base Unit Dimensions (cont)

| UNIT | STD UNIT WEIGHT * | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | |
|----------|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-----------|-----------|--------------|
| | LBS. | KG. | X | Y | Z |
| 50FEQ 17 | 1627 | 738 | 357 | 162 | 460 | 209 | 456 | 207 | 354 | 161 | 72 [1829] | 43 [1092] | 16 1/2 [419] |

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



NOTES:

1. CLEARANCE ABOVE THE UNIT TO BE 72"
2. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

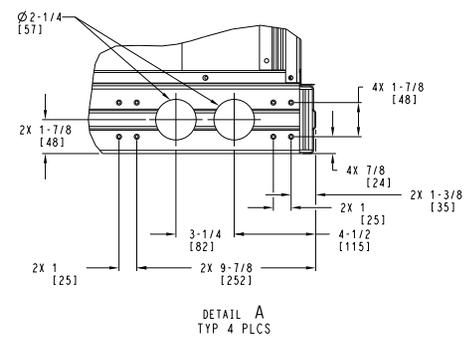
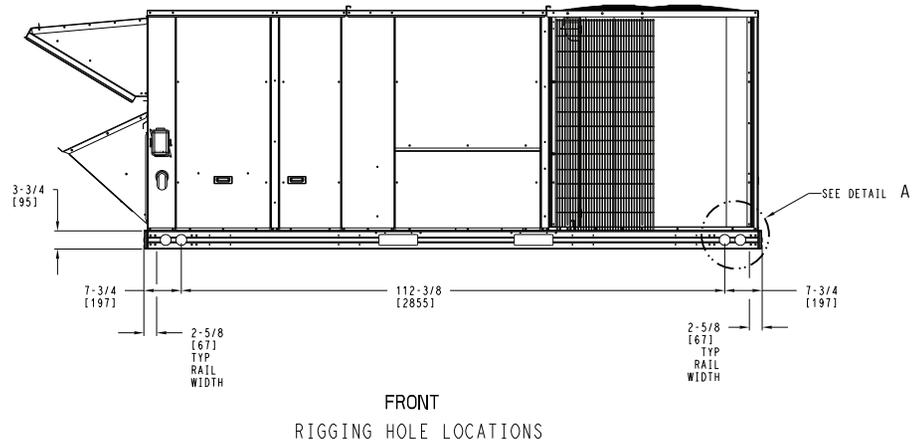
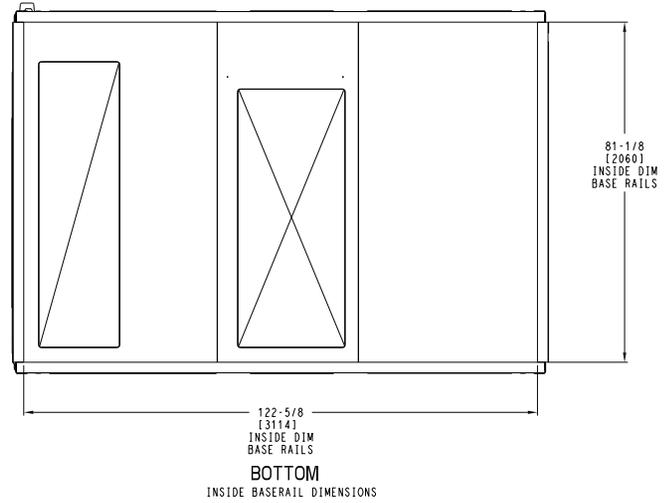
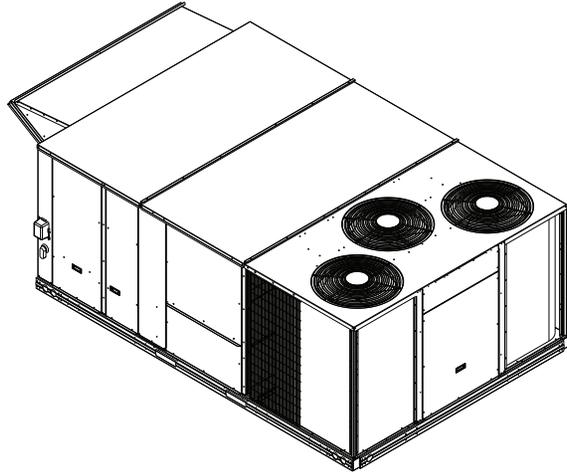
| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|----------------|----------------------------------|-------------------------------------|---------------------|
| | SERVICE WITH: CONDUCTIVE BARRIER | SERVICE WITH: NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48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

| | | | | | | |
|-------------------------------------|-----------------|------------------|-----------------|---|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 4 OF 5 | DATE 05/21/24 | SUPERCEDES - | 50FEQ 17 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004889 | REV - |
|-------------------------------------|-----------------|------------------|-----------------|---|------------|----------|



50FEQ*17 Base Unit Dimensions (cont)

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| | | | | | | |
|-------------------------------------|-----------------|------------------|-----------------|--|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 5 OF 5 | DATE 05/21/24 | SUPERCEDES - | 50FEQ 17 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004889 | REV - |
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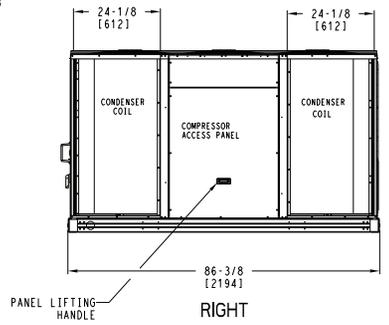
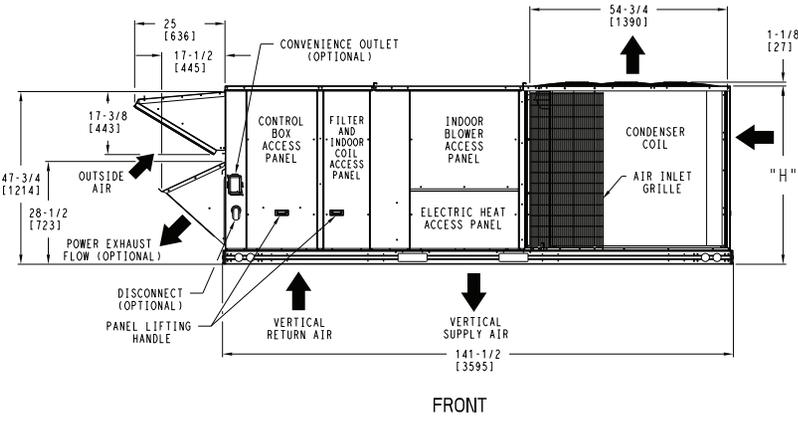
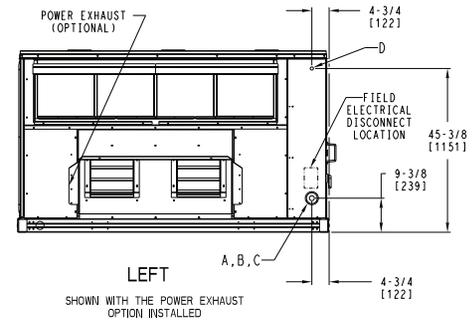
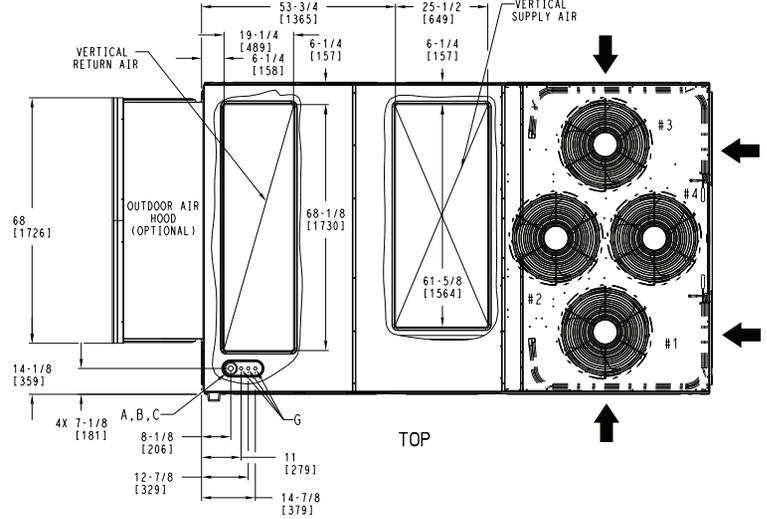
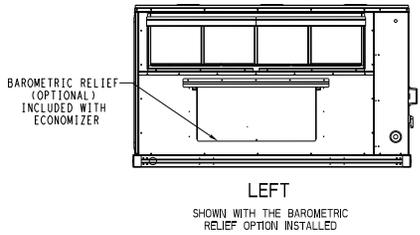
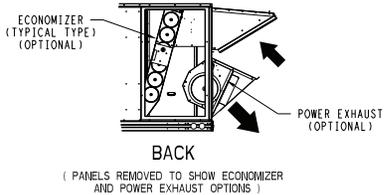
50FEQ*24-28 Base Unit Dimensions

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| CONNECTION SIZES | |
|------------------|---|
| A | 1 3/8" DIA [35] FIELD POWER SUPPLY KNOCKOUT |
| B | 3" DIA [76] FIELD POWER SUPPLY KNOCKOUT |
| C | 3 5/8" DIA [92] FIELD POWER SUPPLY KNOCKOUT |
| D | 7/8" DIA [22] FIELD CONTROL WIRING HOLE |
| G | 7/8" DIA [22] FIELD CONTROL WIRING KNOCKOUT |

| UNIT | H |
|---------|---------------|
| 24 SIZE | 57-3/8 [1456] |
| 28 SIZE | 57-3/8 [1456] |

- 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



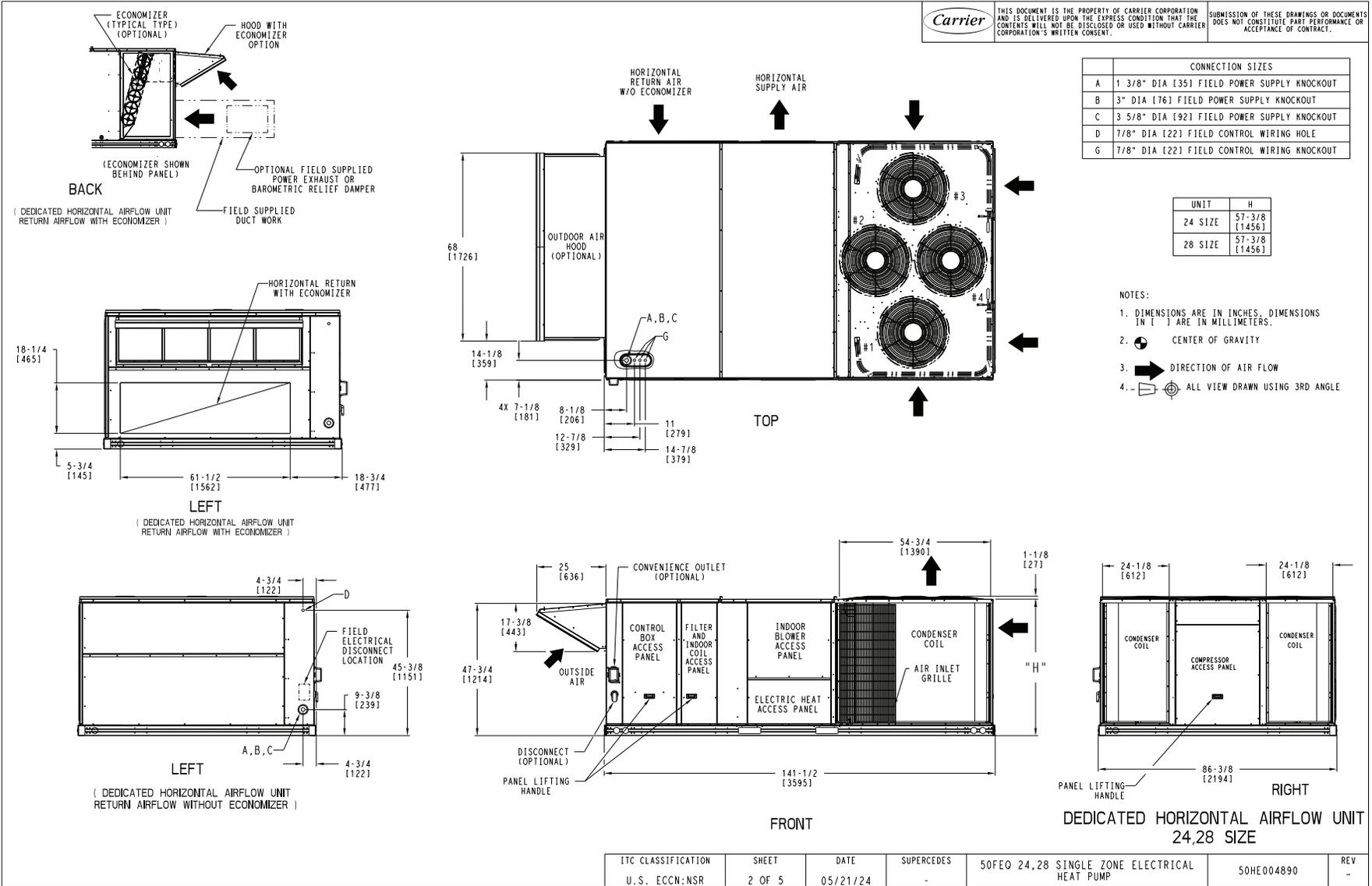
DEDICATED VERTICAL AIRFLOW UNIT
24,28 SIZE

| | | | | | | |
|-------------------------------------|-----------------|------------------|-----------------|--|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 1 OF 5 | DATE 05/21/24 | SUPERCEDES - | 50FEQ 24,28 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004890 | REV - |
|-------------------------------------|-----------------|------------------|-----------------|--|------------|----------|



50FEQ*24-28 Base Unit Dimensions (cont)

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| | | | | | | |
|--------------------|--------|----------|------------|--|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FEQ 24,28 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004890 | REV |
| U.S. ECCN:NSR | 2 OF 5 | 05/21/24 | - | | | - |

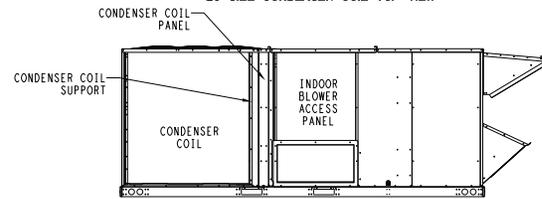
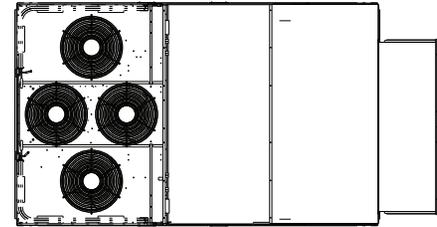
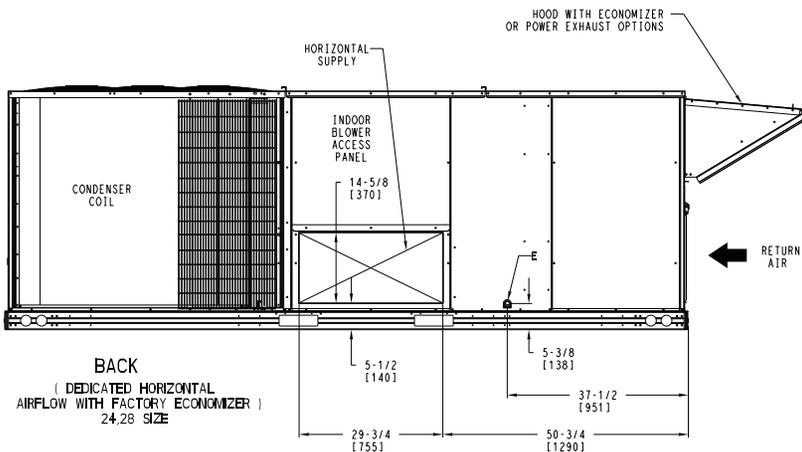
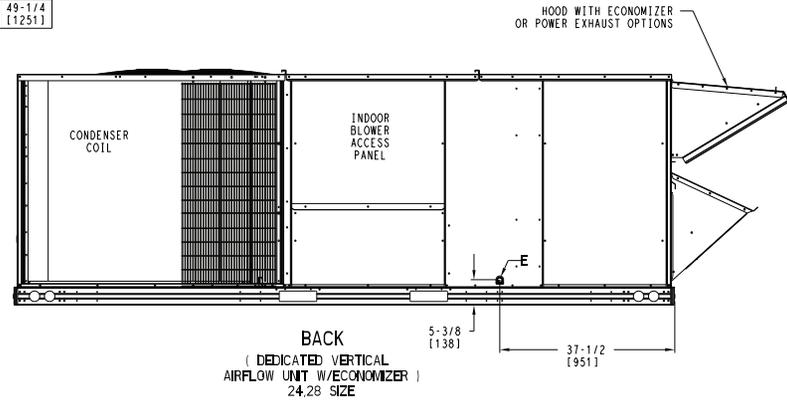
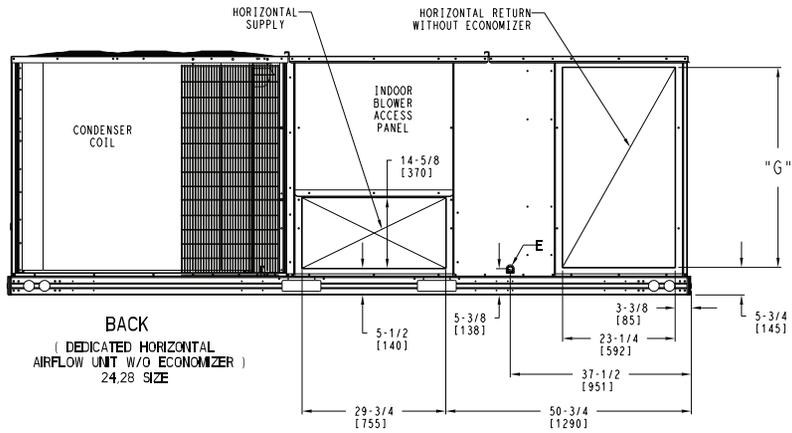


50FEQ*24-28 Base Unit Dimensions (cont)

| CONNECTION SIZES | |
|------------------|------------------------------|
| E | 3/4"-14 NPT CONDENSATE DRAIN |

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| UNIT | G |
|---------|---------------|
| 24 SIZE | 49-1/4 [1251] |
| 28 SIZE | 49-1/4 [1251] |



| | | | | | | |
|--------------------|--------|----------|------------|--|------------|-----|
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | 50FEQ 24,28 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004890 | REV |
| U.S. ECCN:NSR | 3 OF 5 | 05/21/24 | - | | | - |

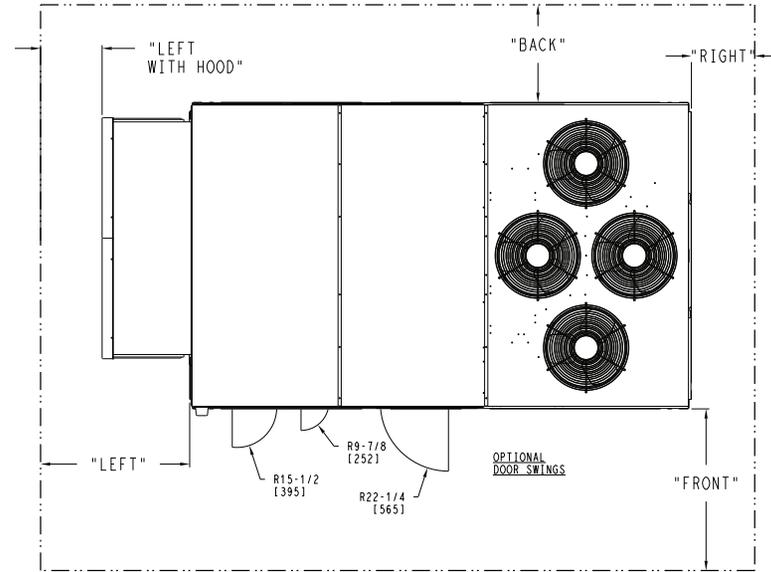
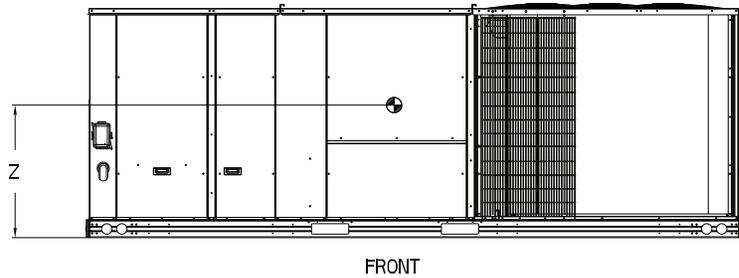
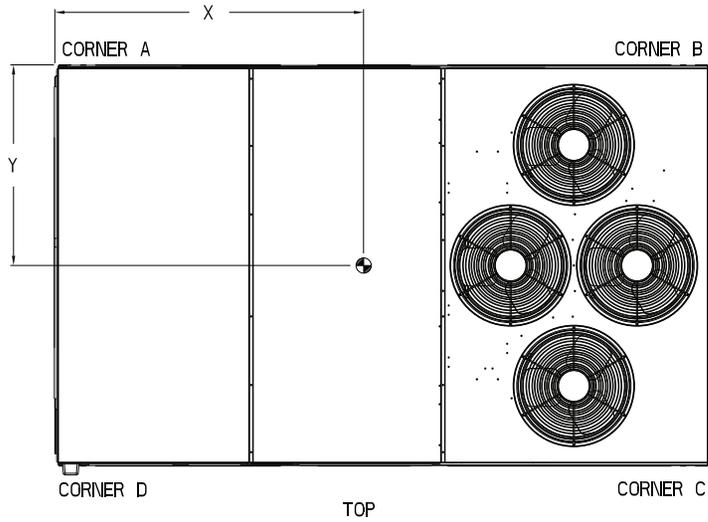


50FEQ*24-28 Base Unit Dimensions (cont)

| UNIT | STD. UNIT WEIGHT * | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | |
|----------|--------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|---------------|---------------|----------|
| | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z |
| 50FEQ 24 | 2057 | 933 | 466 | 211 | 531 | 241 | 565 | 256 | 495 | 225 | 75 3/8 [1915] | 44 1/2 [1130] | 19 [483] |
| 50FEQ 28 | 2125 | 964 | 465 | 211 | 556 | 252 | 601 | 273 | 503 | 228 | 77 [1956] | 44 7/8 [1140] | 19 [483] |

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



- NOTES:
1. CLEARANCE ABOVE THE UNIT TO BE 72"
 2. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

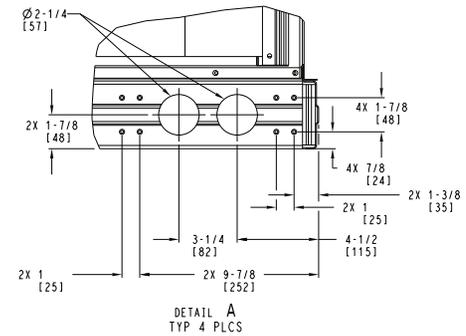
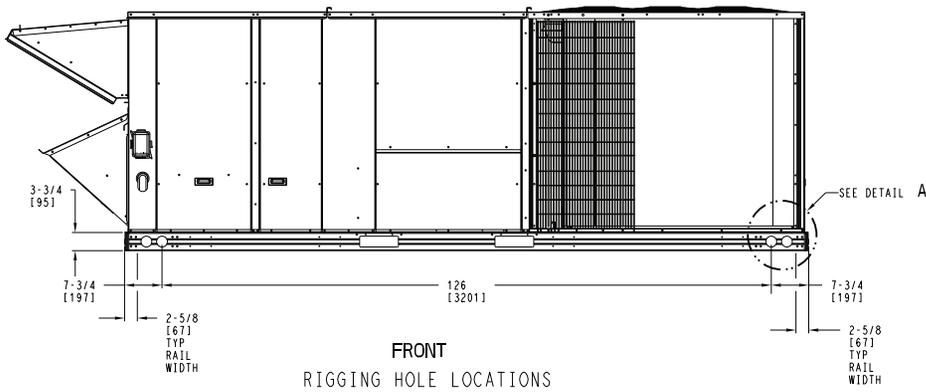
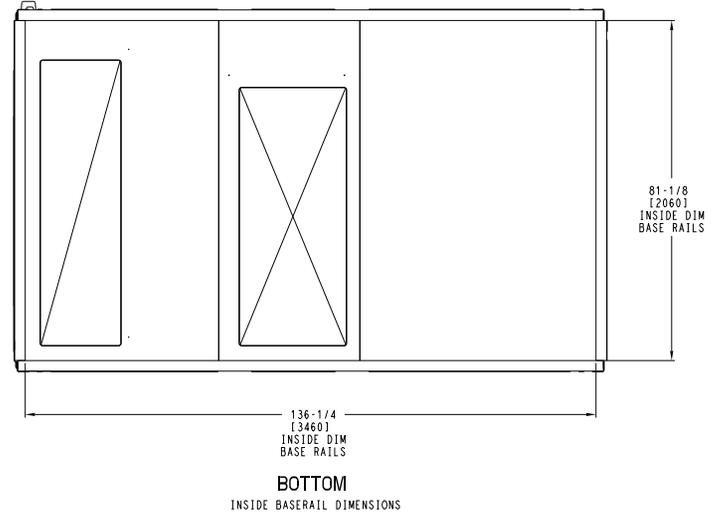
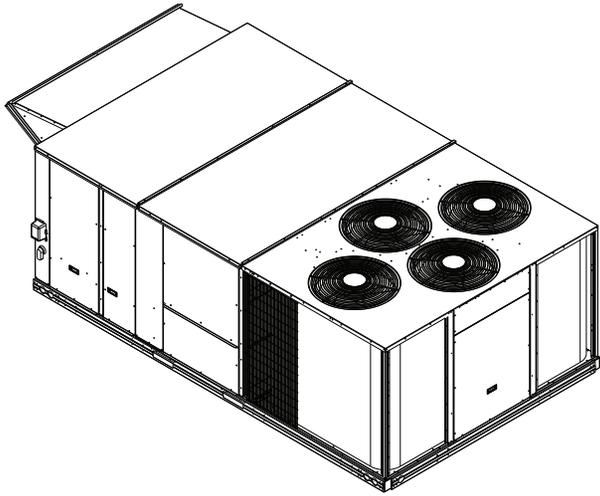
| SURFACE | CLEARANCE | | OPERATING CLEARANCE |
|----------------|---------------------------------|------------------------------------|---------------------|
| | SERVICE WITH CONDUCTIVE BARRIER | SERVICE WITH NONCONDUCTIVE BARRIER | |
| FRONT | 48 [1219mm] | 36 [914mm] | 18 [457mm] |
| LEFT | 48 [1219mm]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

| | | | | | | |
|-------------------------------------|-----------------|------------------|-----------------|--|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 4 OF 5 | DATE 05/21/24 | SUPERCEDES - | 50FEQ 24,28 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004890 | REV - |
|-------------------------------------|-----------------|------------------|-----------------|--|------------|----------|



50FEQ*24-28 Base Unit Dimensions (cont)

| | | |
|--|---|---|
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|--|---|---|

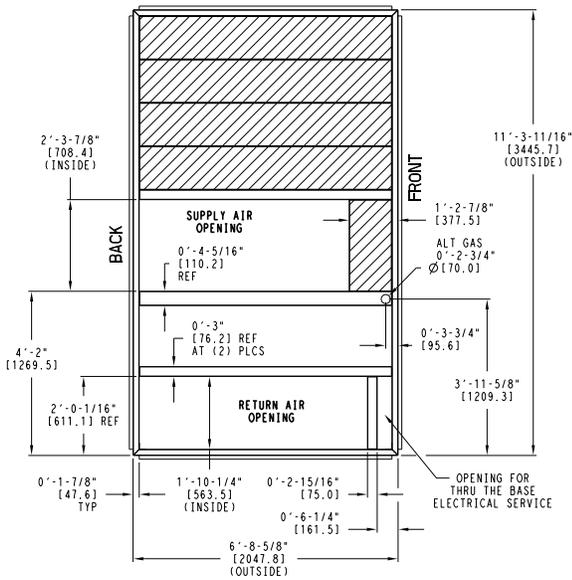


| | | | | | | |
|-------------------------------------|-----------------|------------------|-----------------|---|------------|----------|
| ITC CLASSIFICATION U.S. ECCN:NSR | SHEET 5 OF 5 | DATE 05/21/24 | SUPERCEDES - | 50FEQ 24,28 SINGLE ZONE ELECTRICAL HEAT PUMP | 50HE004890 | REV - |
|-------------------------------------|-----------------|------------------|-----------------|---|------------|----------|



Roof Curb Dimensions — 50FEQ*17

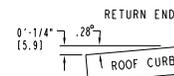
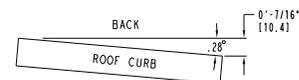
| "A" | ROOF CURB ACCESSORY |
|---------------|---------------------|
| 1'-2" [356.0] | CRRFCURB047A00 |
| 2'-0" [610.0] | CRRFCURB048A00 |



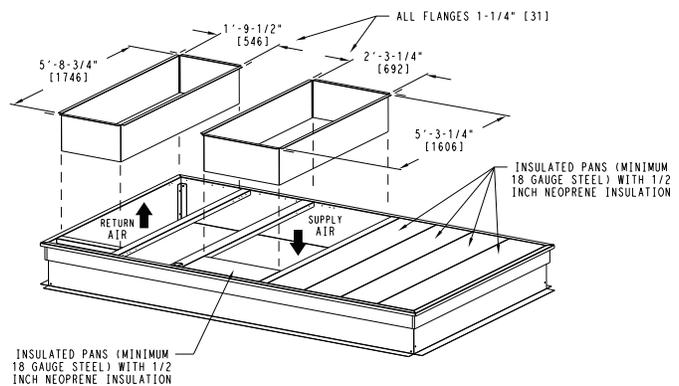
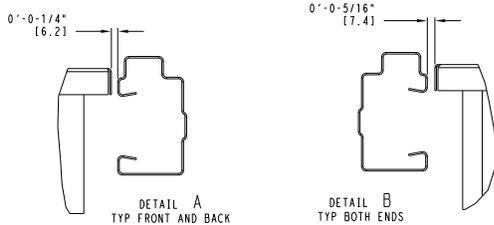
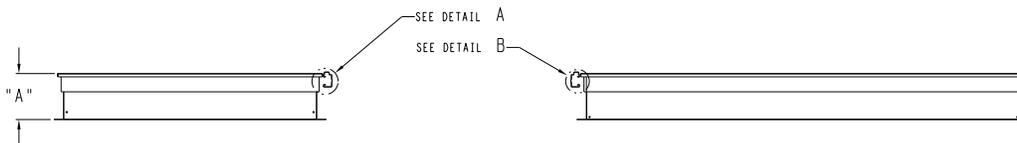
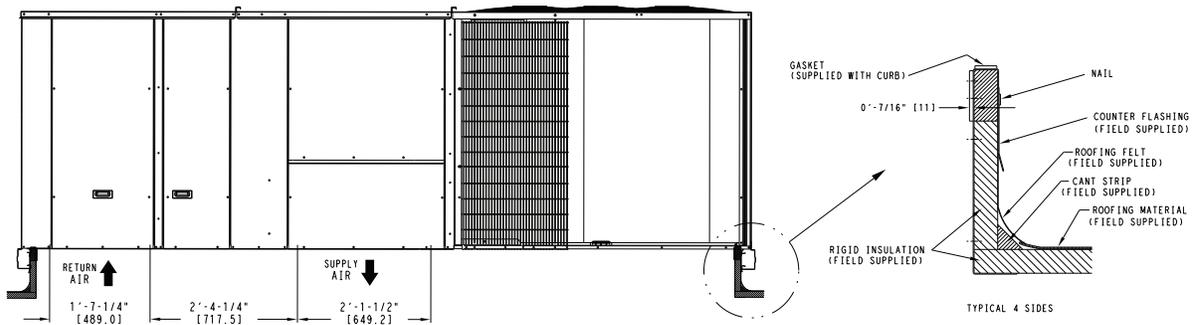
NOTES:

- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
- 2 DIMENSIONS IN [] ARE IN MILLIMETERS.
- 3 ROOF CURB GALVANIZED STEEL.
- 4 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
- 5 SERVICE CLEARANCE 4 FT ON EACH SIDE

➔ DIRECTION OF AIR FLOW

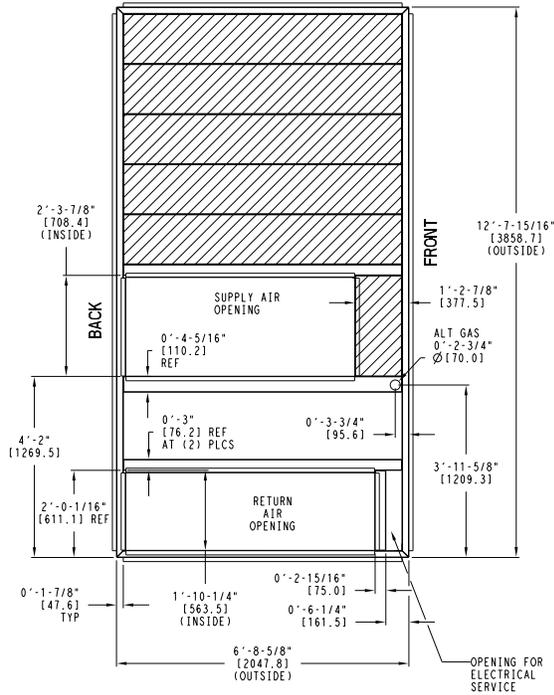


MAX CURB LEVELING TOLERANCES

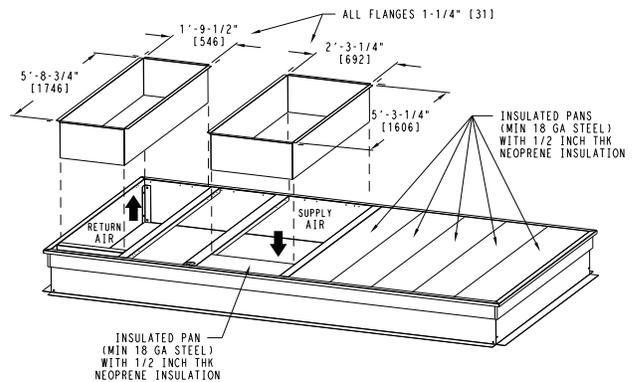
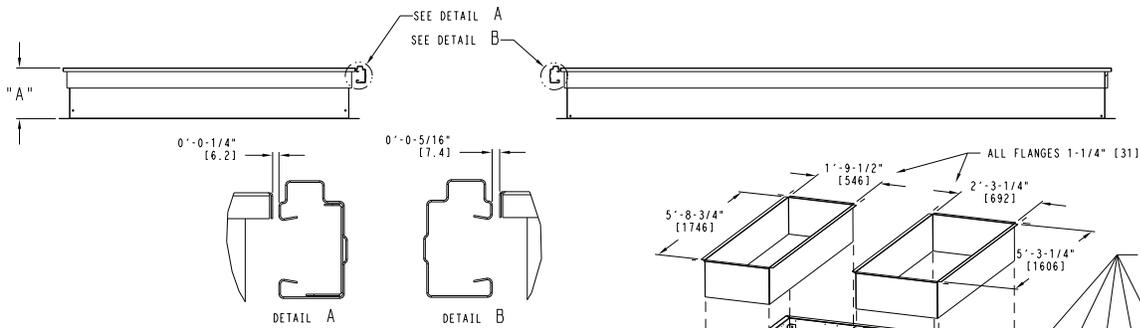
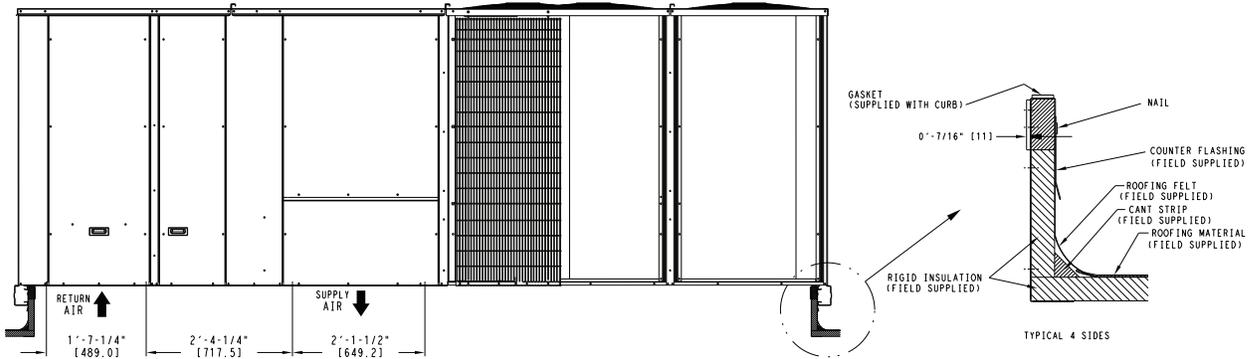
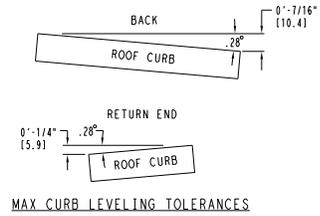


Roof Curb Dimensions — 50FEQ*24-28

| "A" | ROOF CURB ACCESSORY |
|---------------|---------------------|
| 1'-2" [356.0] | CRRFCURB049A00 |
| 2'-0" [610.0] | CRRFCURB050A00 |



- NOTES:
- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
 - 2 BOLT HEADS TO BE ON INSIDE OF FLANGE. CLEARANCE IS (11) 0-0-7/16" TYP ALL CORNERS.
 - 3 DIMENSIONS IN () ARE IN MILLIMETERS.
 - 4 ROOF CURB GALVANIZED STEEL.
 - 5 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
 - 6 SERVICE CLEARANCE 4 ft ON EACH SIDE
- ➔ DIRECTION OF AIR FLOW



50FEQM17 Two Stage Cooling Capacities

| 50FEQM17 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|---|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 4500 cfm | EAT (wb) | 58 | TC | 148.1 | 148.1 | 168.5 | 139.8 | 139.8 | 159.6 | 131.0 | 131.0 | 150.1 | 121.7 | 121.7 | 140.0 | 112.0 | 112.0 | 129.5 | |
| | | | SHC | 127.6 | 148.1 | 168.5 | 120.0 | 139.8 | 159.6 | 111.9 | 131.0 | 150.1 | 103.4 | 121.7 | 140.0 | 94.5 | 112.0 | 129.5 | |
| | | 62 | TC | 158.8 | 158.8 | 158.8 | 148.8 | 148.8 | 151.3 | 138.2 | 138.2 | 144.3 | 127.1 | 127.1 | 137.2 | — | — | — | |
| | | | SHC | 114.0 | 135.9 | 157.8 | 107.5 | 129.4 | 151.3 | 100.7 | 122.5 | 144.3 | 93.7 | 115.4 | 137.2 | — | — | — | |
| | | 67 | TC | 176.6 | 176.6 | 176.6 | 166.0 | 166.0 | 166.0 | 154.8 | 154.8 | 154.8 | 143.0 | 143.0 | 143.0 | — | — | — | |
| | | | SHC | 93.3 | 115.3 | 137.3 | 86.8 | 108.8 | 130.8 | 80.1 | 102.1 | 124.1 | 73.2 | 95.2 | 117.1 | — | — | — | |
| | 72 | TC | 196.0 | 196.0 | 196.0 | 184.7 | 184.7 | 184.7 | 172.8 | 172.8 | 172.8 | 160.3 | 160.3 | 160.3 | — | — | — | | |
| | | SHC | 72.2 | 94.4 | 116.7 | 65.7 | 88.0 | 110.2 | 59.0 | 81.2 | 103.5 | 52.2 | 74.4 | 96.5 | — | — | — | | |
| | 76 | TC | — | 212.5 | 212.5 | — | 200.7 | 200.7 | — | 188.2 | 188.2 | — | 175.1 | 175.1 | — | — | — | | |
| | | SHC | — | 77.6 | 101.6 | — | 71.1 | 94.8 | — | 64.4 | 87.9 | — | 57.6 | 80.8 | — | — | — | | |
| | 5250 cfm | EAT (wb) | 58 | TC | 157.3 | 157.3 | 178.8 | 148.5 | 148.5 | 169.3 | 139.3 | 139.3 | 159.3 | 129.6 | 129.6 | 148.7 | — | — | — |
| | | | | SHC | 135.8 | 157.3 | 178.8 | 127.8 | 148.5 | 169.3 | 119.3 | 139.3 | 159.3 | 110.4 | 129.6 | 148.7 | — | — | — |
| 62 | | | TC | 164.6 | 164.6 | 173.6 | 154.2 | 154.2 | 166.7 | 143.4 | 143.4 | 159.4 | 132.0 | 132.0 | 151.5 | — | — | — | |
| | | | SHC | 123.7 | 148.6 | 173.6 | 116.9 | 141.8 | 166.7 | 109.9 | 134.6 | 159.4 | 102.5 | 127.0 | 151.5 | — | — | — | |
| 67 | | | TC | 182.6 | 182.6 | 182.6 | 171.5 | 171.5 | 171.5 | 159.8 | 159.8 | 159.8 | 147.5 | 147.5 | 147.5 | — | — | — | |
| | | | SHC | 99.9 | 125.2 | 150.4 | 93.3 | 118.5 | 143.7 | 86.5 | 111.7 | 136.9 | 79.5 | 104.7 | 129.9 | — | — | — | |
| 72 | | TC | 202.3 | 202.3 | 202.3 | 190.5 | 190.5 | 190.5 | 178.1 | 178.1 | 178.1 | 165.1 | 165.1 | 165.1 | — | — | — | | |
| | | SHC | 75.6 | 101.0 | 126.5 | 69.0 | 94.4 | 119.9 | 62.2 | 87.6 | 113.0 | 55.2 | 80.6 | 106.0 | — | — | — | | |
| 76 | | TC | — | 219.1 | 219.1 | — | 206.7 | 206.7 | — | 193.7 | 193.7 | — | 180.0 | 180.0 | — | — | — | | |
| | | SHC | — | 81.6 | 108.3 | — | 75.0 | 101.6 | — | 68.2 | 94.6 | — | 61.2 | 87.5 | — | — | — | | |
| 6000 cfm | | EAT (wb) | 58 | TC | 165.1 | 165.1 | 187.5 | 156.0 | 156.0 | 177.6 | 146.3 | 146.3 | 167.1 | 136.1 | 136.1 | 156.0 | — | — | — |
| | | | | SHC | 142.7 | 165.1 | 187.5 | 134.3 | 156.0 | 177.6 | 125.5 | 146.3 | 167.1 | 116.2 | 136.1 | 156.0 | — | — | — |
| | 62 | | TC | 169.3 | 169.3 | 187.8 | 158.8 | 158.8 | 180.3 | 148.4 | 148.4 | 169.8 | 138.2 | 138.2 | 155.3 | — | — | — | |
| | | | SHC | 132.3 | 160.1 | 187.8 | 125.3 | 152.8 | 180.3 | 116.7 | 143.3 | 169.8 | 106.0 | 130.7 | 155.3 | — | — | — | |
| | 67 | | TC | 187.2 | 187.2 | 187.2 | 175.7 | 175.7 | 175.7 | 163.7 | 163.7 | 163.7 | 151.0 | 151.0 | 151.0 | — | — | — | |
| | | | SHC | 106.1 | 134.4 | 162.7 | 99.4 | 127.6 | 155.9 | 92.5 | 120.7 | 149.0 | 85.4 | 113.6 | 141.9 | — | — | — | |
| | 72 | TC | 207.1 | 207.1 | 207.1 | 194.9 | 194.9 | 194.9 | 182.1 | 182.1 | 182.1 | 168.8 | 168.8 | 168.8 | — | — | — | | |
| | | SHC | 78.5 | 107.1 | 135.6 | 71.9 | 100.4 | 128.9 | 65.0 | 93.5 | 121.9 | 58.0 | 86.4 | 114.8 | — | — | — | | |
| | 76 | TC | — | 224.1 | 224.1 | — | 211.3 | 211.3 | — | 197.9 | 197.9 | — | 183.9 | 183.9 | — | — | — | | |
| | | SHC | — | 85.1 | 114.7 | — | 78.4 | 107.9 | — | 71.6 | 100.9 | — | 64.5 | 93.8 | — | — | — | | |
| | 6750 cfm | EAT (wb) | 58 | TC | 171.7 | 171.7 | 194.8 | 162.3 | 162.3 | 184.6 | 152.2 | 152.2 | 173.7 | 141.7 | 141.7 | 162.2 | — | — | — |
| | | | | SHC | 148.6 | 171.7 | 194.8 | 139.9 | 162.3 | 184.6 | 130.8 | 152.2 | 173.7 | 121.1 | 141.7 | 162.2 | — | — | — |
| 62 | | | TC | 175.3 | 175.3 | 192.2 | 164.9 | 164.9 | 182.9 | 155.0 | 155.0 | 169.8 | 144.3 | 144.3 | 158.4 | — | — | — | |
| | | | SHC | 136.2 | 164.2 | 192.2 | 128.2 | 155.5 | 182.9 | 118.3 | 144.1 | 169.8 | 109.1 | 133.7 | 158.4 | — | — | — | |
| 67 | | | TC | 190.9 | 190.9 | 190.9 | 179.1 | 179.1 | 179.1 | 166.7 | 166.7 | 166.7 | 153.8 | 153.8 | 153.8 | — | — | — | |
| | | | SHC | 111.8 | 143.1 | 174.4 | 105.0 | 136.3 | 167.6 | 98.1 | 129.3 | 160.5 | 90.9 | 122.1 | 153.3 | — | — | — | |
| 72 | | TC | 211.0 | 211.0 | 211.0 | 198.5 | 198.5 | 198.5 | 185.4 | 185.4 | 185.4 | 171.7 | 171.7 | 171.7 | — | — | — | | |
| | | SHC | 81.2 | 112.8 | 144.3 | 74.5 | 106.0 | 137.5 | 67.6 | 99.0 | 130.5 | 60.5 | 91.9 | 123.3 | — | — | — | | |
| 76 | | TC | — | 228.1 | 228.1 | — | 215.0 | 215.0 | — | 201.3 | 201.3 | — | 186.9 | 186.9 | — | — | — | | |
| | | SHC | — | 88.3 | 120.9 | — | 81.6 | 114.0 | — | 74.7 | 107.0 | — | 67.6 | 99.8 | — | — | — | | |
| 7500 cfm | | EAT (wb) | 58 | TC | 177.4 | 177.4 | 201.2 | 167.7 | 167.7 | 190.6 | 157.3 | 157.3 | 179.4 | 146.4 | 146.4 | 167.5 | — | — | — |
| | | | | SHC | 153.7 | 177.4 | 201.2 | 144.7 | 167.7 | 190.6 | 135.3 | 157.3 | 179.4 | 125.3 | 146.4 | 167.5 | — | — | — |
| | 62 | | TC | 180.6 | 180.6 | 195.6 | 170.6 | 170.6 | 185.2 | 157.5 | 157.5 | 186.9 | 146.5 | 146.5 | 174.7 | — | — | — | |
| | | | SHC | 139.3 | 167.5 | 195.6 | 130.8 | 158.0 | 185.2 | 128.0 | 157.5 | 186.9 | 118.4 | 146.5 | 174.7 | — | — | — | |
| | 67 | | TC | 193.9 | 193.9 | 193.9 | 181.9 | 181.9 | 181.9 | 169.2 | 169.2 | 171.6 | 156.0 | 156.0 | 164.1 | — | — | — | |
| | | | SHC | 117.2 | 151.4 | 185.7 | 110.4 | 144.6 | 178.8 | 103.3 | 137.4 | 171.6 | 96.0 | 130.1 | 164.1 | — | — | — | |
| | 72 | TC | 214.2 | 214.2 | 214.2 | 201.5 | 201.5 | 201.5 | 188.0 | 188.0 | 188.0 | 174.1 | 174.1 | 174.1 | — | — | — | | |
| | | SHC | 83.7 | 118.2 | 152.6 | 76.9 | 111.3 | 145.7 | 69.9 | 104.3 | 138.7 | 62.8 | 97.1 | 131.4 | — | — | — | | |
| | 76 | TC | — | 231.4 | 231.4 | — | 218.0 | 218.0 | — | 204.1 | 204.1 | — | 189.4 | 189.4 | — | — | — | | |
| | | SHC | — | 91.4 | 126.8 | — | 84.6 | 119.9 | — | 77.6 | 112.8 | — | 70.4 | 105.5 | — | — | — | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM17 Single Stage Cooling Capacities

| 50FEQM17 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|------|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 2700 cfm | EAT (wb) | 58 | TC | 92.5 | 92.5 | 106.0 | 86.1 | 86.1 | 99.1 | 79.5 | 79.5 | 92.2 | 72.7 | 72.7 | 84.8 | 65.6 | 65.6 | 77.1 | |
| | | | SHC | 79.0 | 92.5 | 106.0 | 73.0 | 86.1 | 99.1 | 66.9 | 79.5 | 92.2 | 60.6 | 72.7 | 84.8 | 54.0 | 65.6 | 77.1 | |
| | | 62 | TC | 101.3 | 101.3 | 101.3 | 93.7 | 93.7 | 93.7 | 86.0 | 86.0 | 86.3 | 77.8 | 77.8 | 85.6 | 69.0 | 69.0 | 80.1 | |
| | | | SHC | 69.5 | 83.2 | 97.0 | 64.2 | 77.9 | 91.7 | 58.8 | 72.6 | 86.3 | 57.0 | 71.3 | 85.6 | 51.5 | 65.8 | 80.1 | |
| | | 67 | TC | 114.0 | 114.0 | 114.0 | 106.0 | 106.0 | 106.0 | 97.8 | 97.8 | 97.8 | 89.2 | 89.2 | 89.2 | 80.1 | 80.1 | 80.1 | |
| | | | SHC | 56.9 | 70.7 | 84.5 | 51.6 | 65.4 | 79.2 | 46.1 | 59.9 | 73.7 | 40.6 | 54.4 | 68.2 | 34.9 | 48.7 | 62.5 | |
| | 72 | TC | 127.7 | 127.7 | 127.7 | 119.3 | 119.3 | 119.3 | 110.6 | 110.6 | 110.6 | 101.6 | 101.6 | 101.6 | 92.1 | 92.1 | 92.1 | | |
| | | SHC | 44.1 | 58.1 | 72.1 | 38.8 | 52.7 | 66.7 | 33.3 | 47.3 | 61.2 | 27.8 | 41.7 | 55.6 | 22.1 | 36.0 | 49.9 | | |
| | 76 | TC | — | 139.7 | 139.7 | — | 130.7 | 130.7 | — | 121.6 | 121.6 | — | 112.3 | 112.3 | — | 102.5 | 102.5 | | |
| | | SHC | — | 47.9 | 62.8 | — | 42.5 | 57.3 | — | 37.1 | 51.8 | — | 31.6 | 46.1 | — | 25.9 | 40.3 | | |
| | 3150 cfm | EAT (wb) | 58 | TC | 99.3 | 99.3 | 113.5 | 92.6 | 92.6 | 106.4 | 85.8 | 85.8 | 99.1 | 78.6 | 78.6 | 91.3 | 71.0 | 71.0 | 83.2 |
| | | | | SHC | 85.1 | 99.3 | 113.5 | 78.9 | 92.6 | 106.4 | 72.5 | 85.8 | 99.1 | 65.8 | 78.6 | 91.3 | 58.8 | 71.0 | 83.2 |
| 62 | | | TC | 105.7 | 105.7 | 107.9 | 97.8 | 97.8 | 102.5 | 89.8 | 89.8 | 96.8 | 81.3 | 81.3 | 91.0 | 72.6 | 72.6 | 84.9 | |
| | | | SHC | 76.3 | 92.1 | 107.9 | 70.9 | 86.7 | 102.5 | 65.3 | 81.1 | 96.8 | 59.6 | 75.3 | 91.0 | 53.8 | 69.4 | 84.9 | |
| 67 | | | TC | 118.6 | 118.6 | 118.6 | 110.3 | 110.3 | 110.3 | 101.7 | 101.7 | 101.7 | 92.7 | 92.7 | 92.7 | 83.3 | 83.3 | 83.3 | |
| | | | SHC | 61.6 | 77.5 | 93.4 | 56.1 | 72.0 | 87.9 | 50.6 | 66.5 | 82.4 | 45.0 | 60.9 | 76.7 | 39.2 | 55.1 | 70.9 | |
| 72 | | TC | 132.5 | 132.5 | 132.5 | 123.7 | 123.7 | 123.7 | 114.7 | 114.7 | 114.7 | 105.3 | 105.3 | 105.3 | 95.5 | 95.5 | 95.5 | | |
| | | SHC | 46.6 | 62.7 | 78.7 | 41.2 | 57.2 | 73.2 | 35.6 | 51.7 | 67.7 | 30.0 | 46.0 | 62.0 | 24.2 | 40.2 | 56.2 | | |
| 76 | | TC | — | 144.6 | 144.6 | — | 135.4 | 135.4 | — | 126.0 | 126.0 | — | 116.2 | 116.2 | — | 105.9 | 105.9 | | |
| | | SHC | — | 50.8 | 67.6 | — | 45.4 | 62.1 | — | 39.8 | 56.4 | — | 34.1 | 50.7 | — | 28.3 | 44.8 | | |
| 3600 cfm | | EAT (wb) | 58 | TC | 105.2 | 105.2 | 120.0 | 98.2 | 98.2 | 112.6 | 91.0 | 91.0 | 104.9 | 83.5 | 83.5 | 96.7 | 75.5 | 75.5 | 88.2 |
| | | | | SHC | 90.3 | 105.2 | 120.0 | 83.8 | 98.2 | 112.6 | 77.2 | 91.0 | 104.9 | 70.2 | 83.5 | 96.7 | 62.9 | 75.5 | 88.2 |
| | 62 | | TC | 109.2 | 109.2 | 118.1 | 101.2 | 101.2 | 112.4 | 92.9 | 92.9 | 106.4 | 84.4 | 84.4 | 100.1 | 75.8 | 75.8 | 92.3 | |
| | | | SHC | 82.5 | 100.3 | 118.1 | 77.0 | 94.7 | 112.4 | 71.3 | 88.8 | 106.4 | 65.3 | 82.7 | 100.1 | 58.6 | 75.5 | 92.3 | |
| | 67 | | TC | 122.2 | 122.2 | 122.2 | 113.6 | 113.6 | 113.6 | 104.7 | 104.7 | 104.7 | 95.4 | 95.4 | 95.4 | 85.7 | 85.7 | 85.7 | |
| | | | SHC | 65.9 | 83.9 | 101.8 | 60.4 | 78.3 | 96.3 | 54.8 | 72.7 | 90.6 | 49.1 | 67.0 | 84.9 | 43.2 | 61.1 | 79.0 | |
| | 72 | TC | 136.5 | 136.5 | 136.5 | 127.2 | 127.2 | 127.2 | 117.9 | 117.9 | 117.9 | 108.2 | 108.2 | 108.2 | 98.1 | 98.1 | 98.1 | | |
| | | SHC | 48.9 | 67.0 | 85.1 | 43.3 | 61.4 | 79.5 | 37.7 | 55.8 | 73.8 | 32.0 | 50.0 | 68.1 | 26.2 | 44.2 | 62.2 | | |
| | 76 | TC | — | 148.6 | 148.6 | — | 139.1 | 139.1 | — | 129.3 | 129.3 | — | 119.3 | 119.3 | — | 108.7 | 108.7 | | |
| | | SHC | — | 53.4 | 72.2 | — | 47.9 | 66.5 | — | 42.2 | 60.8 | — | 36.5 | 55.0 | — | 30.6 | 49.0 | | |
| | 4050 cfm | EAT (wb) | 58 | TC | 110.2 | 110.2 | 125.6 | 102.9 | 102.9 | 117.8 | 95.5 | 95.5 | 109.8 | 87.6 | 87.6 | 101.4 | 79.4 | 79.4 | 92.5 |
| | | | | SHC | 94.8 | 110.2 | 125.6 | 88.1 | 102.9 | 117.8 | 81.2 | 95.5 | 109.8 | 73.9 | 87.6 | 101.4 | 66.3 | 79.4 | 92.5 |
| 62 | | | TC | 112.3 | 112.3 | 127.3 | 104.2 | 104.2 | 121.1 | 95.8 | 95.8 | 115.0 | 87.8 | 87.8 | 106.1 | 79.6 | 79.6 | 97.1 | |
| | | | SHC | 88.3 | 107.8 | 127.3 | 82.4 | 101.8 | 121.1 | 76.6 | 95.8 | 115.0 | 69.4 | 87.8 | 106.1 | 62.1 | 79.6 | 97.1 | |
| 67 | | | TC | 125.1 | 125.1 | 125.1 | 116.2 | 116.2 | 116.2 | 107.1 | 107.1 | 107.1 | 97.6 | 97.6 | 97.6 | 87.6 | 87.6 | 87.6 | |
| | | | SHC | 70.0 | 89.9 | 109.9 | 64.4 | 84.3 | 104.2 | 58.7 | 78.6 | 98.6 | 53.0 | 72.9 | 92.8 | 47.0 | 66.9 | 86.8 | |
| 72 | | TC | 139.6 | 139.6 | 139.6 | 130.0 | 130.0 | 130.0 | 120.4 | 120.4 | 120.4 | 110.6 | 110.6 | 110.6 | 100.2 | 100.2 | 100.2 | | |
| | | SHC | 50.9 | 71.0 | 91.1 | 45.2 | 65.3 | 85.4 | 39.6 | 59.6 | 79.7 | 33.8 | 53.9 | 73.9 | 27.9 | 47.9 | 67.9 | | |
| 76 | | TC | — | 151.8 | 151.8 | — | 142.1 | 142.1 | — | 132.0 | 132.0 | — | 121.7 | 121.7 | — | 110.8 | 110.8 | | |
| | | SHC | — | 55.8 | 76.5 | — | 50.2 | 70.7 | — | 44.5 | 65.0 | — | 38.7 | 59.1 | — | 32.7 | 53.1 | | |
| 4500 cfm | | EAT (wb) | 58 | TC | 114.6 | 114.6 | 130.4 | 107.1 | 107.1 | 122.4 | 99.4 | 99.4 | 114.1 | 91.3 | 91.3 | 105.4 | 82.8 | 82.8 | 96.3 |
| | | | | SHC | 98.7 | 114.6 | 130.4 | 91.7 | 107.1 | 122.4 | 84.6 | 99.4 | 114.1 | 77.1 | 91.3 | 105.4 | 69.4 | 82.8 | 96.3 |
| | 62 | | TC | 115.0 | 115.0 | 136.2 | 107.2 | 107.2 | 127.7 | 99.5 | 99.5 | 119.2 | 91.4 | 91.4 | 110.3 | 82.9 | 82.9 | 100.9 | |
| | | | SHC | 93.7 | 115.0 | 136.2 | 86.7 | 107.2 | 127.7 | 79.8 | 99.5 | 119.2 | 72.5 | 91.4 | 110.3 | 64.9 | 82.9 | 100.9 | |
| | 67 | | TC | 127.4 | 127.4 | 127.4 | 118.3 | 118.3 | 118.3 | 109.0 | 109.0 | 109.0 | 99.3 | 99.3 | 100.3 | 89.2 | 89.2 | 94.2 | |
| | | | SHC | 73.8 | 95.7 | 117.6 | 68.2 | 90.1 | 112.0 | 62.4 | 84.3 | 106.2 | 56.6 | 78.5 | 100.3 | 50.7 | 72.4 | 94.2 | |
| | 72 | TC | 142.1 | 142.1 | 142.1 | 132.2 | 132.2 | 132.2 | 122.5 | 122.5 | 122.5 | 112.4 | 112.4 | 112.4 | 101.8 | 101.8 | 101.8 | | |
| | | SHC | 52.8 | 74.8 | 96.9 | 47.0 | 69.1 | 91.1 | 41.3 | 63.3 | 85.3 | 35.5 | 57.5 | 79.5 | 29.6 | 51.5 | 73.5 | | |
| | 76 | TC | — | 154.5 | 154.5 | — | 144.5 | 144.5 | — | 134.2 | 134.2 | — | 123.7 | 123.7 | — | 112.6 | 112.6 | | |
| | | SHC | — | 58.0 | 80.6 | — | 52.3 | 74.8 | — | 46.6 | 69.0 | — | 40.7 | 63.1 | — | 34.7 | 57.0 | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM24 Two Stage Cooling Capacities

| 50FEQM24 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|--------------|-------------|-------------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|-------|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 6000 cfm | EAT (wb) | 58 | TC | 210.3 | 210.3 | 240.7 | 196.6 | 196.6 | 226.0 | 182.3 | 182.3 | 210.7 | 167.4 | 167.4 | 194.8 | 151.7 | 151.7 | 177.7 | |
| | | | SHC | 180.0 | 210.3 | 240.7 | 167.2 | 196.6 | 226.0 | 153.9 | 182.3 | 210.7 | 140.0 | 167.4 | 194.8 | 125.6 | 151.7 | 177.7 | |
| | | 62 | TC | 227.1 | 227.1 | 227.1 | 210.6 | 210.6 | 213.5 | 193.5 | 193.5 | 202.6 | 175.5 | 175.5 | 190.3 | 156.8 | 156.8 | 178.2 | |
| | | | SHC | 160.7 | 193.0 | 225.4 | 148.8 | 181.1 | 213.5 | 137.9 | 170.3 | 202.6 | 125.6 | 158.0 | 190.3 | 113.5 | 145.9 | 178.2 | |
| | | 67 | TC | 255.3 | 255.3 | 255.3 | 237.8 | 237.8 | 237.8 | 219.7 | 219.7 | 219.7 | 200.7 | 200.7 | 200.7 | 180.8 | 180.8 | 180.8 | |
| | | | SHC | 131 | 163.4 | 195.7 | 119.9 | 152.2 | 184.6 | 108.2 | 140.6 | 172.9 | 96.1 | 128.5 | 160.8 | 85.2 | 117.5 | 149.9 | |
| | 72 | TC | 285.8 | 285.8 | 285.8 | 267.3 | 267.3 | 267.3 | 248.2 | 248.2 | 248.2 | 228.0 | 228.0 | 228.0 | 206.8 | 206.8 | 206.8 | | |
| | | SHC | 102.0 | 134.3 | 166.7 | 90.6 | 123.0 | 155.3 | 79.4 | 111.7 | 144.0 | 68.0 | 100.3 | 132.7 | 56.6 | 88.9 | 121.3 | | |
| | 76 | TC | — | 311.8 | 311.8 | — | 292.5 | 292.5 | — | 272.4 | 272.4 | — | 251.1 | 251.1 | — | — | — | | |
| | | SHC | — | 112.3 | 143.6 | — | 99.4 | 130.8 | — | 87.2 | 118.5 | — | 75.3 | 107.0 | — | — | — | | |
| | 7000 cfm | EAT (wb) | 58 | TC | 226.4 | 226.4 | 258.4 | 211.8 | 211.8 | 243.0 | 196.6 | 196.6 | 226.6 | 180.6 | 180.6 | 209.1 | 164.2 | 164.2 | 191.5 |
| | | | | SHC | 194.5 | 226.4 | 258.4 | 180.6 | 211.8 | 243.0 | 166.6 | 196.6 | 226.6 | 152.1 | 180.6 | 209.1 | 136.9 | 164.2 | 191.5 |
| 62 | | | TC | 236.9 | 236.9 | 250.5 | 219.6 | 219.6 | 239.4 | 201.7 | 201.7 | 226.9 | 183.2 | 183.2 | 215.1 | 167.0 | 167.0 | 195.3 | |
| | | | SHC | 175.8 | 213.2 | 250.5 | 164.7 | 202.0 | 239.4 | 152.2 | 189.6 | 226.9 | 140.4 | 177.7 | 215.1 | 125.2 | 160.3 | 195.3 | |
| 67 | | | TC | 265.2 | 265.2 | 265.2 | 247.0 | 247.0 | 247.0 | 228.0 | 228.0 | 228.0 | 208.3 | 208.3 | 208.3 | 187.6 | 187.6 | 187.6 | |
| | | | SHC | 143.0 | 180.3 | 217.7 | 130.6 | 168.0 | 205.3 | 120.0 | 157.3 | 194.7 | 106.4 | 143.7 | 181.1 | 95.8 | 133.2 | 170.5 | |
| 72 | | TC | 296.1 | 296.1 | 296.1 | 277.0 | 277.0 | 277.0 | 256.9 | 256.9 | 256.9 | 235.8 | 235.8 | 235.8 | 213.7 | 213.7 | 213.7 | | |
| | | SHC | 107.8 | 145.1 | 182.5 | 95.6 | 133.0 | 170.3 | 83.4 | 120.7 | 158.1 | 73.5 | 110.8 | 148.2 | 61.0 | 98.3 | 135.7 | | |
| 76 | | TC | — | 322.6 | 322.6 | — | 302.3 | 302.3 | — | 281.1 | 281.1 | — | 259.0 | 259.0 | — | — | — | | |
| | | SHC | — | 116.1 | 152.7 | — | 105.8 | 142.4 | — | 92.8 | 129.3 | — | 80.3 | 116.9 | — | — | — | | |
| 8000 cfm | | EAT (wb) | 58 | TC | 239.9 | 239.9 | 273.3 | 224.5 | 224.5 | 257.1 | 208.6 | 208.6 | 239.8 | 192.0 | 192.0 | 221.9 | 174.6 | 174.6 | 203.2 |
| | | | | SHC | 206.5 | 239.9 | 273.3 | 192.0 | 224.5 | 257.1 | 177.4 | 208.6 | 239.8 | 162.1 | 192.0 | 221.9 | 146.0 | 174.6 | 203.2 |
| | 62 | | TC | 244.6 | 244.6 | 277.0 | 227.0 | 227.0 | 264.7 | 213.2 | 213.2 | 241.7 | 192.3 | 192.3 | 232.4 | 174.9 | 174.9 | 213.2 | |
| | | | SHC | 192.5 | 234.8 | 277.0 | 180.2 | 222.4 | 264.7 | 163.4 | 202.6 | 241.7 | 152.3 | 192.3 | 232.4 | 136.6 | 174.9 | 213.2 | |
| | 67 | | TC | 272.8 | 272.8 | 272.8 | 254.0 | 254.0 | 254.0 | 234.5 | 234.5 | 234.5 | 214.1 | 214.1 | 214.1 | 192.7 | 192.7 | 192.7 | |
| | | | SHC | 151.0 | 193.7 | 236.4 | 140.2 | 182.9 | 225.6 | 128.5 | 171.2 | 213.8 | 115.7 | 158.4 | 201.1 | 103.8 | 146.5 | 189.2 | |
| | 72 | TC | 304.2 | 304.2 | 304.2 | 284.3 | 284.3 | 284.3 | 263.4 | 263.4 | 263.4 | 241.5 | 241.5 | 241.5 | 218.8 | 218.8 | 218.8 | | |
| | | SHC | 112.5 | 155.2 | 197.8 | 99.5 | 142.1 | 184.8 | 89.0 | 131.7 | 174.4 | 75.7 | 118.3 | 161.0 | 64.6 | 107.2 | 149.9 | | |
| | 76 | TC | — | 330.6 | 330.6 | — | 309.7 | 309.7 | — | 287.8 | 287.8 | — | 265.0 | 265.0 | — | — | — | | |
| | | SHC | — | 122.3 | 164.1 | — | 111.5 | 153.3 | — | 97.9 | 139.7 | — | 84.8 | 126.6 | — | — | — | | |
| | 9000 cfm | EAT (wb) | 58 | TC | 251.4 | 251.4 | 286.0 | 235.4 | 235.4 | 269.1 | 218.8 | 218.8 | 251.0 | 201.5 | 201.5 | 232.7 | 183.4 | 183.4 | 212.6 |
| | | | | SHC | 216.7 | 251.4 | 286.0 | 201.8 | 235.4 | 269.1 | 186.6 | 218.8 | 251.0 | 170.3 | 201.5 | 232.7 | 154.2 | 183.4 | 212.6 |
| 62 | | | TC | 258.8 | 258.8 | 279.6 | 240.4 | 240.4 | 270.0 | 219.2 | 219.2 | 262.2 | 201.8 | 201.8 | 243.4 | 183.4 | 183.4 | 222.5 | |
| | | | SHC | 196.5 | 238.1 | 279.6 | 186.8 | 228.4 | 270.0 | 176.1 | 219.2 | 262.2 | 160.3 | 201.8 | 243.4 | 144.3 | 183.4 | 222.5 | |
| 67 | | | TC | 278.9 | 278.9 | 278.9 | 259.6 | 259.6 | 259.6 | 239.6 | 239.6 | 239.6 | 218.7 | 218.7 | 220.3 | 196.9 | 196.9 | 209.0 | |
| | | | SHC | 161.7 | 209.2 | 256.7 | 149.8 | 197.3 | 244.8 | 137.0 | 184.5 | 232.0 | 125.3 | 172.8 | 220.3 | 113.9 | 161.5 | 209.0 | |
| 72 | | TC | 310.0 | 310.0 | 310.0 | 289.7 | 289.7 | 289.7 | 268.4 | 268.4 | 268.4 | 246.2 | 246.2 | 246.2 | 223.0 | 223.0 | 223.0 | | |
| | | SHC | 116.8 | 164.3 | 211.8 | 103.1 | 150.7 | 198.2 | 92.1 | 139.6 | 187.1 | 80.5 | 128.0 | 175.5 | 66.2 | 113.7 | 161.2 | | |
| 76 | | TC | — | 336.8 | 336.8 | — | 315.4 | 315.4 | — | 293.0 | 293.0 | — | 269.6 | 269.6 | — | — | — | | |
| | | SHC | — | 124.6 | 171.1 | — | 113.5 | 160.1 | — | 102.5 | 149.1 | — | 89.0 | 135.5 | — | — | — | | |
| 10000 cfm | | EAT (wb) | 58 | TC | 261.2 | 261.2 | 297.0 | 244.7 | 244.7 | 279.4 | 227.6 | 227.6 | 261.2 | 209.6 | 209.6 | 241.5 | 190.8 | 190.8 | 221.0 |
| | | | | SHC | 225.5 | 261.2 | 297.0 | 210.1 | 244.7 | 279.4 | 194.1 | 227.6 | 261.2 | 177.7 | 209.6 | 241.5 | 160.5 | 190.8 | 221.0 |
| | 62 | | TC | 267.5 | 267.5 | 294.9 | 245.1 | 245.1 | 291.3 | 227.9 | 227.9 | 272.5 | 210.0 | 210.0 | 252.3 | 191.2 | 191.2 | 231.3 | |
| | | | SHC | 208.0 | 251.4 | 294.9 | 198.9 | 245.1 | 291.3 | 183.4 | 227.9 | 272.5 | 167.6 | 210.0 | 252.3 | 151.0 | 191.2 | 231.3 | |
| | 67 | | TC | 283.9 | 283.9 | 283.9 | 264.2 | 264.2 | 264.2 | 243.8 | 243.8 | 252.1 | 222.5 | 222.5 | 239.2 | 200.3 | 200.3 | 226.5 | |
| | | | SHC | 172.0 | 224.3 | 276.5 | 159.1 | 211.4 | 263.6 | 147.6 | 199.9 | 252.1 | 134.7 | 186.9 | 239.2 | 122.0 | 174.2 | 226.5 | |
| | 72 | TC | 315.2 | 315.2 | 315.2 | 294.4 | 294.4 | 294.4 | 272.7 | 272.7 | 272.7 | 250.0 | 250.0 | 250.0 | — | — | — | | |
| | | SHC | 121.1 | 173.4 | 225.6 | 106.7 | 159.0 | 211.2 | 95.0 | 147.2 | 199.5 | 82.7 | 135.0 | 187.2 | — | — | — | | |
| | 76 | TC | — | 341.9 | 341.9 | — | 320.0 | 320.0 | — | 297.2 | 297.2 | — | 273.3 | 273.3 | — | — | — | | |
| | | SHC | — | 123.2 | 172.1 | — | 114.0 | 163.0 | — | 104.5 | 153.5 | — | 94.8 | 143.8 | — | — | — | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM24 Single Stage Cooling Capacities

| 50FEQM24 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|-------|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 3600 cfm | EAT (wb) | 58 | TC | 122.7 | 122.7 | 140.3 | 114.5 | 114.5 | 131.5 | 107.5 | 107.5 | 123.7 | 97.2 | 97.2 | 113.0 | 88.0 | 88.0 | 103.0 | |
| | | | SHC | 105.1 | 122.7 | 140.3 | 97.5 | 114.5 | 131.5 | 91.3 | 107.5 | 123.7 | 81.4 | 97.2 | 113.0 | 72.9 | 88.0 | 103.0 | |
| | | 62 | TC | 130.5 | 130.5 | 133.2 | 120.8 | 120.8 | 127.1 | 110.8 | 110.8 | 120.4 | 100.3 | 100.3 | 112.9 | 89.3 | 89.3 | 106.0 | |
| | | | SHC | 94.0 | 113.6 | 133.2 | 87.9 | 107.5 | 127.1 | 81.2 | 100.8 | 120.4 | 73.7 | 93.3 | 112.9 | 67.2 | 86.6 | 106.0 | |
| | | 67 | TC | 147.0 | 147.0 | 147.0 | 136.8 | 136.8 | 136.8 | 126.1 | 126.1 | 126.1 | 115.0 | 115.0 | 115.0 | 103.2 | 103.2 | 103.2 | |
| | | | SHC | 77.4 | 97.0 | 116.6 | 70.7 | 90.3 | 109.9 | 63.6 | 83.2 | 102.8 | 57.4 | 77.0 | 96.6 | 49.6 | 69.2 | 88.8 | |
| | 72 | TC | 164.9 | 164.9 | 164.9 | 154.1 | 154.1 | 154.1 | 142.9 | 142.9 | 142.9 | 131.2 | 131.2 | 131.2 | 118.7 | 118.7 | 118.7 | | |
| | | SHC | 59.5 | 79.1 | 98.7 | 52.8 | 72.4 | 92.0 | 46.1 | 65.8 | 85.4 | 39.4 | 59.0 | 78.6 | 32.6 | 52.2 | 71.8 | | |
| | 76 | TC | — | 180.4 | 180.4 | — | 169.2 | 169.2 | — | 157.6 | 157.6 | — | 145.1 | 145.1 | — | 132.2 | 132.2 | | |
| | | SHC | — | 64.9 | 84.1 | — | 59.2 | 78.4 | — | 52.0 | 71.2 | — | 45.0 | 64.4 | — | 38.3 | 57.7 | | |
| | 4200 cfm | EAT (wb) | 58 | TC | 131.9 | 131.9 | 150.6 | 123.3 | 123.3 | 141.3 | 114.3 | 114.3 | 131.7 | 105.0 | 105.0 | 121.6 | 95.2 | 95.2 | 111.1 |
| | | | | SHC | 113.2 | 131.9 | 150.6 | 105.2 | 123.3 | 141.3 | 97.0 | 114.3 | 131.7 | 88.3 | 105.0 | 121.6 | 79.2 | 95.2 | 111.1 |
| 62 | | | TC | 136.0 | 136.0 | 149.1 | 126.0 | 126.0 | 142.3 | 115.6 | 115.6 | 135.9 | 105.1 | 105.1 | 127.3 | 95.3 | 95.3 | 116.6 | |
| | | | SHC | 103.8 | 126.5 | 149.1 | 97.0 | 119.7 | 142.3 | 90.6 | 113.3 | 135.9 | 82.9 | 105.1 | 127.3 | 74.1 | 95.3 | 116.6 | |
| 67 | | | TC | 152.6 | 152.6 | 152.6 | 141.9 | 141.9 | 141.9 | 130.8 | 130.8 | 130.8 | 119.2 | 119.2 | 119.2 | 107.0 | 107.0 | 107.0 | |
| | | | SHC | 84.2 | 106.8 | 129.4 | 76.7 | 99.3 | 122.0 | 70.2 | 92.9 | 115.5 | 63.2 | 85.8 | 108.5 | 56.5 | 79.2 | 101.8 | |
| 72 | | TC | 170.6 | 170.6 | 170.6 | 159.4 | 159.4 | 159.4 | 147.8 | 147.8 | 147.8 | 135.5 | 135.5 | 135.5 | 122.7 | 122.7 | 122.7 | | |
| | | SHC | 62.7 | 85.3 | 108.0 | 57.1 | 79.7 | 102.4 | 49.8 | 72.4 | 95.1 | 42.4 | 65.0 | 87.7 | 35.0 | 57.7 | 80.3 | | |
| 76 | | TC | — | 186.5 | 186.5 | — | 174.9 | 174.9 | — | 162.7 | 162.7 | — | 149.9 | 149.9 | — | 136.3 | 136.3 | | |
| | | SHC | — | 69.0 | 91.4 | — | 62.9 | 85.4 | — | 55.3 | 77.7 | — | 48.0 | 70.4 | — | 40.9 | 63.3 | | |
| 4800 cfm | | EAT (wb) | 58 | TC | 139.7 | 139.7 | 159.2 | 130.7 | 130.7 | 149.4 | 121.3 | 121.3 | 139.5 | 111.5 | 111.5 | 128.9 | 101.2 | 101.2 | 117.8 |
| | | | | SHC | 120.1 | 139.7 | 159.2 | 111.9 | 130.7 | 149.4 | 103.1 | 121.3 | 139.5 | 94.0 | 111.5 | 128.9 | 84.5 | 101.2 | 117.8 |
| | 62 | | TC | 140.7 | 140.7 | 164.9 | 130.9 | 130.9 | 155.9 | 121.3 | 121.3 | 145.5 | 111.7 | 111.7 | 134.9 | 101.3 | 101.3 | 123.5 | |
| | | | SHC | 113.7 | 139.3 | 164.9 | 105.8 | 130.9 | 155.9 | 97.0 | 121.3 | 145.5 | 88.4 | 111.7 | 134.9 | 79.2 | 101.3 | 123.5 | |
| | 67 | | TC | 156.8 | 156.8 | 156.8 | 145.8 | 145.8 | 145.8 | 134.4 | 134.4 | 134.4 | 122.5 | 122.5 | 122.5 | 109.9 | 109.9 | 113.8 | |
| | | | SHC | 90.2 | 116.1 | 141.9 | 83.5 | 109.4 | 135.2 | 76.3 | 102.1 | 128 | 68.4 | 94.3 | 120.2 | 62.1 | 87.9 | 113.8 | |
| | 72 | TC | 175.1 | 175.1 | 175.1 | 163.6 | 163.6 | 163.6 | 151.6 | 151.6 | 151.6 | 139.0 | 139.0 | 139.0 | 125.7 | 125.7 | 125.7 | | |
| | | SHC | 65.2 | 91.1 | 116.9 | 59.2 | 85.1 | 110.9 | 52.9 | 78.8 | 104.7 | 45.0 | 70.9 | 96.8 | 38.2 | 64.1 | 90.0 | | |
| | 76 | TC | — | 191.2 | 191.2 | — | 179.1 | 179.1 | — | 166.6 | 166.6 | — | 153.4 | 153.4 | — | 139.4 | 139.4 | | |
| | | SHC | — | 72.6 | 98.3 | — | 66.3 | 91.9 | — | 58.3 | 83.9 | — | 52.1 | 77.7 | — | 44.6 | 70.2 | | |
| | 5400 cfm | EAT (wb) | 58 | TC | 146.3 | 146.3 | 166.5 | 136.9 | 136.9 | 156.5 | 127.2 | 127.2 | 145.9 | 117.0 | 117.0 | 134.8 | 106.3 | 106.3 | 123.2 |
| | | | | SHC | 126.1 | 146.3 | 166.5 | 117.3 | 136.9 | 156.5 | 108.4 | 127.2 | 145.9 | 99.2 | 117.0 | 134.8 | 89.3 | 106.3 | 123.2 |
| 62 | | | TC | 146.5 | 146.5 | 173.5 | 137.3 | 137.3 | 163.4 | 127.2 | 127.2 | 152.1 | 117.1 | 117.1 | 141.2 | 106.4 | 106.4 | 129.3 | |
| | | | SHC | 119.5 | 146.5 | 173.5 | 111.2 | 137.3 | 163.4 | 102.3 | 127.2 | 152.1 | 93.1 | 117.1 | 141.2 | 83.6 | 106.4 | 129.3 | |
| 67 | | | TC | 160.2 | 160.2 | 160.2 | 149.0 | 149.0 | 149.0 | 137.3 | 137.3 | 140 | 125.1 | 125.1 | 132.6 | 112.2 | 112.2 | 125.3 | |
| | | | SHC | 95.8 | 124.9 | 154.1 | 88.6 | 117.7 | 146.8 | 82.4 | 111.2 | 140 | 75.0 | 103.8 | 132.6 | 67.7 | 96.5 | 125.3 | |
| 72 | | TC | 178.6 | 178.6 | 178.6 | 166.8 | 166.8 | 166.8 | 154.5 | 154.5 | 154.5 | 141.5 | 141.5 | 141.5 | 128.0 | 128.0 | 128.0 | | |
| | | SHC | 69.1 | 98.2 | 127.3 | 61.0 | 90.1 | 119.2 | 54.3 | 83.4 | 112.5 | 47.3 | 76.4 | 105.5 | 40.0 | 69.1 | 98.2 | | |
| 76 | | TC | — | 194.8 | 194.8 | — | 182.5 | 182.5 | — | 169.6 | 169.6 | — | 156.1 | 156.1 | — | 141.8 | 141.8 | | |
| | | SHC | — | 76.0 | 104.8 | — | 69.3 | 98.1 | — | 61.1 | 89.9 | — | 54.6 | 83.4 | — | 46.8 | 75.6 | | |
| 6000 cfm | | EAT (wb) | 58 | TC | 151.9 | 151.9 | 172.7 | 142.3 | 142.3 | 162.4 | 132.2 | 132.2 | 151.7 | 121.6 | 121.6 | 140.1 | 110.6 | 110.6 | 128.1 |
| | | | | SHC | 131.1 | 151.9 | 172.7 | 122.2 | 142.3 | 162.4 | 112.8 | 132.2 | 151.7 | 103.2 | 121.6 | 140.1 | 93.1 | 110.6 | 128.1 |
| | 62 | | TC | 152.2 | 152.2 | 180.2 | 142.5 | 142.5 | 169.5 | 132.4 | 132.4 | 158.2 | 121.9 | 121.9 | 146.6 | 110.8 | 110.8 | 134.2 | |
| | | | SHC | 124.1 | 152.2 | 180.2 | 115.4 | 142.5 | 169.5 | 106.7 | 132.4 | 158.2 | 97.1 | 121.9 | 146.6 | 87.3 | 110.8 | 134.2 | |
| | 67 | | TC | 163.0 | 163.0 | 165.6 | 151.5 | 151.5 | 157.8 | 139.6 | 139.6 | 150.7 | 127.2 | 127.2 | 143.9 | 114.1 | 114.1 | 135.9 | |
| | | | SHC | 101.6 | 133.6 | 165.6 | 93.7 | 125.7 | 157.8 | 86.6 | 118.6 | 150.7 | 79.9 | 111.9 | 143.9 | 71.9 | 103.9 | 135.9 | |
| | 72 | TC | 181.4 | 181.4 | 181.4 | 169.4 | 169.4 | 169.4 | 156.8 | 156.8 | 156.8 | 143.8 | 143.8 | 143.8 | 129.9 | 129.9 | 129.9 | | |
| | | SHC | 71.4 | 103.4 | 135.4 | 64.5 | 96.6 | 128.6 | 57.4 | 89.4 | 121.4 | 49.9 | 81.9 | 113.9 | 42.0 | 74.0 | 106.1 | | |
| | 76 | TC | — | 197.7 | 197.7 | — | 185.1 | 185.1 | — | 172.0 | 172.0 | — | 158.3 | 158.3 | — | 143.8 | 143.8 | | |
| | | SHC | — | 79.1 | 110.8 | — | 72.2 | 103.9 | — | 63.7 | 95.7 | — | 57.0 | 89.0 | — | 50.3 | 82.3 | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM28 Two Stage Cooling Capacities

| 50FEQM28 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|-----------|-----------|----------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|----|---|---|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 7500 cfm | EAT (wb) | 58 | TC | 262.8 | 262.8 | 297.0 | 250.5 | 250.5 | 283.5 | 237.0 | 237.0 | 268.4 | 222.2 | 222.2 | 251.9 | — | — | — | |
| | | | SHC | 228.5 | 262.8 | 297.0 | 217.5 | 250.5 | 283.5 | 205.7 | 237.0 | 268.4 | 192.5 | 222.2 | 251.9 | — | — | — | |
| | | 62 | TC | 274.7 | 274.7 | 283.3 | 259.6 | 259.6 | 275.0 | 242.9 | 242.9 | 266.7 | 224.7 | 224.7 | 256.4 | — | — | — | |
| | | | SHC | 205.8 | 244.5 | 283.3 | 197.5 | 236.3 | 275.0 | 190.0 | 228.3 | 266.7 | 179.6 | 218.0 | 256.4 | — | — | — | |
| | | 67 | TC | 300.4 | 300.4 | 300.4 | 284.7 | 284.7 | 284.7 | 267.2 | 267.2 | 267.2 | 247.9 | 247.9 | 247.9 | — | — | — | |
| | | | SHC | 168.5 | 207.3 | 246.1 | 160.5 | 199.3 | 238.1 | 153.6 | 192.4 | 231.1 | 144.7 | 183.5 | 222.3 | — | — | — | |
| | 72 | TC | 328.7 | 328.7 | 328.7 | 312.1 | 312.1 | 312.1 | 293.5 | 293.5 | 293.5 | 273.4 | 273.4 | 273.4 | — | — | — | | |
| | | SHC | 129.3 | 167.6 | 206.0 | 120.8 | 159.2 | 197.5 | 113.8 | 152.6 | 191.4 | 106.1 | 144.9 | 183.7 | — | — | — | | |
| | 76 | TC | — | 352.6 | 352.6 | — | 335.0 | 335.0 | — | 315.6 | 315.6 | — | 294.8 | 294.8 | — | — | — | | |
| | | SHC | — | 134.0 | 170.7 | — | 127.3 | 164.4 | — | 119.9 | 157.5 | — | 112.0 | 149.6 | — | — | — | | |
| | 8750 cfm | EAT (wb) | 58 | TC | 275.8 | 275.8 | 311.9 | 263.0 | 263.0 | 297.7 | 248.7 | 248.7 | 281.4 | 233.3 | 233.3 | 264.6 | — | — | — |
| | | | | SHC | 239.7 | 275.8 | 311.9 | 228.4 | 263.0 | 297.7 | 216.0 | 248.7 | 281.4 | 202.0 | 233.3 | 264.6 | — | — | — |
| 62 | | | TC | 281.5 | 281.5 | 308.9 | 266.2 | 266.2 | 302.5 | 253.7 | 253.7 | 271.9 | 237.4 | 237.4 | 257.8 | — | — | — | |
| | | | SHC | 220.3 | 264.6 | 308.9 | 214.0 | 258.2 | 302.5 | 194.9 | 233.4 | 271.9 | 183.7 | 220.8 | 257.8 | — | — | — | |
| 67 | | | TC | 307.4 | 307.4 | 307.4 | 291.0 | 291.0 | 291.0 | 272.8 | 272.8 | 272.8 | 252.9 | 252.9 | 252.9 | — | — | — | |
| | | | SHC | 176.5 | 221.3 | 266.1 | 170.6 | 215.3 | 260.1 | 162.6 | 207.3 | 252.1 | 152.5 | 197.3 | 242.0 | — | — | — | |
| 72 | | TC | 335.7 | 335.7 | 335.7 | 318.3 | 318.3 | 318.3 | 299.1 | 299.1 | 299.1 | 278.4 | 278.4 | 278.4 | — | — | — | | |
| | | SHC | 133.7 | 177.9 | 222.2 | 124.4 | 168.7 | 213.0 | 117.2 | 161.5 | 205.8 | 108.8 | 153.1 | 197.4 | — | — | — | | |
| 76 | | TC | — | 359.7 | 359.7 | — | 341.4 | 341.4 | — | 321.3 | 321.3 | — | 299.8 | 299.8 | — | — | — | | |
| | | SHC | — | 140.3 | 183.1 | — | 133.2 | 176.5 | — | 125.3 | 168.6 | — | 116.9 | 160.3 | — | — | — | | |
| 10000 cfm | | EAT (wb) | 58 | TC | 286.0 | 286.0 | 323.4 | 272.7 | 272.7 | 308.5 | 258.1 | 258.1 | 292.2 | 241.7 | 241.7 | 274.2 | — | — | — |
| | | | | SHC | 248.6 | 286.0 | 323.4 | 237.0 | 272.7 | 308.5 | 224.0 | 258.1 | 292.2 | 209.3 | 241.7 | 274.2 | — | — | — |
| | 62 | | TC | 288.7 | 288.7 | 327.9 | 275.0 | 275.0 | 315.7 | 258.2 | 258.2 | 303.8 | 242.0 | 242.0 | 284.9 | — | — | — | |
| | | | SHC | 232.2 | 280.1 | 327.9 | 223.3 | 269.5 | 315.7 | 212.5 | 258.2 | 303.8 | 199.1 | 242.0 | 284.9 | — | — | — | |
| | 67 | | TC | 312.3 | 312.3 | 312.3 | 295.4 | 295.4 | 295.4 | 276.6 | 276.6 | 276.6 | 256.4 | 256.4 | 262.8 | — | — | — | |
| | | | SHC | 186.7 | 237.3 | 287.9 | 176.9 | 227.5 | 278.1 | 170.7 | 221.3 | 271.9 | 162.7 | 212.8 | 262.8 | — | — | — | |
| | 72 | TC | 340.6 | 340.6 | 340.6 | 322.7 | 322.7 | 322.7 | 302.8 | 302.8 | 302.8 | 281.5 | 281.5 | 281.5 | — | — | — | | |
| | | SHC | 133.9 | 183.9 | 234.0 | 127.4 | 177.5 | 227.5 | 119.5 | 169.5 | 219.6 | 110.4 | 160.5 | 210.5 | — | — | — | | |
| | 76 | TC | — | 364.7 | 364.7 | — | 345.9 | 345.9 | — | 325.1 | 325.1 | — | 303.2 | 303.2 | — | — | — | | |
| | | SHC | — | 142.2 | 191.2 | — | 134.9 | 183.8 | — | 126.8 | 175.7 | — | 121.3 | 170.8 | — | — | — | | |
| | 11250 cfm | EAT (wb) | 58 | TC | 294.4 | 294.4 | 332.8 | 280.8 | 280.8 | 317.9 | 265.4 | 265.4 | 300.6 | 248.5 | 248.5 | 281.9 | — | — | — |
| | | | | SHC | 256.1 | 294.4 | 332.8 | 243.7 | 280.8 | 317.9 | 230.1 | 265.4 | 300.6 | 215.1 | 248.5 | 281.9 | — | — | — |
| 62 | | | TC | 298.9 | 298.9 | 323.8 | 286.0 | 286.0 | 303.0 | 265.6 | 265.6 | 312.6 | 248.7 | 248.7 | 293.3 | — | — | — | |
| | | | SHC | 232.2 | 278.0 | 323.8 | 217.6 | 260.3 | 303.0 | 218.5 | 265.6 | 312.6 | 204.2 | 248.7 | 293.3 | — | — | — | |
| 67 | | | TC | 315.7 | 315.7 | 315.7 | 298.4 | 298.4 | 298.4 | 279.4 | 279.4 | 290.4 | 258.7 | 258.7 | 280.8 | — | — | — | |
| | | | SHC | 193.7 | 249.4 | 305.1 | 186.0 | 241.7 | 297.4 | 179.0 | 234.7 | 290.4 | 169.4 | 225.1 | 280.8 | — | — | — | |
| 72 | | TC | 343.7 | 343.7 | 343.7 | 325.5 | 325.5 | 325.5 | 305.3 | 305.3 | 305.3 | 283.7 | 283.7 | 283.7 | — | — | — | | |
| | | SHC | 136.8 | 192.5 | 248.2 | 129.8 | 185.5 | 241.2 | 121.4 | 177.1 | 232.8 | 114.6 | 170.2 | 225.9 | — | — | — | | |
| 76 | | TC | — | 368.2 | 368.2 | — | 348.9 | 348.9 | — | 327.6 | 327.6 | — | 305.3 | 305.3 | — | — | — | | |
| | | SHC | — | 147.3 | 201.7 | — | 139.5 | 194.0 | — | 131.1 | 186.1 | — | 122.1 | 177.2 | — | — | — | | |
| 12500 cfm | | EAT (wb) | 58 | TC | 301.3 | 301.3 | 341.2 | 287.2 | 287.2 | 325.0 | 271.2 | 271.2 | 307.7 | 253.9 | 253.9 | 288.2 | — | — | — |
| | | | | SHC | 261.4 | 301.3 | 341.2 | 249.4 | 287.2 | 325.0 | 234.8 | 271.2 | 307.7 | 219.5 | 253.9 | 288.2 | — | — | — |
| | 62 | | TC | 306.3 | 306.3 | 324.1 | 287.4 | 287.4 | 338.3 | 271.4 | 271.4 | 319.5 | 253.9 | 253.9 | 299.3 | — | — | — | |
| | | | SHC | 233.4 | 278.7 | 324.1 | 236.5 | 287.4 | 338.3 | 223.3 | 271.4 | 319.5 | 208.6 | 253.9 | 299.3 | — | — | — | |
| | 67 | | TC | 318.0 | 318.0 | 325.1 | 300.4 | 300.4 | 316.5 | 281.1 | 281.1 | 308.6 | 260.4 | 260.4 | 298.1 | — | — | — | |
| | | | SHC | 202.7 | 263.9 | 325.1 | 194.1 | 255.3 | 316.5 | 186.2 | 247.4 | 308.6 | 175.8 | 237.0 | 298.1 | — | — | — | |
| | 72 | TC | 346.1 | 346.1 | 346.1 | 327.4 | 327.4 | 327.4 | 306.9 | 306.9 | 306.9 | 285.0 | 285.0 | 285.0 | — | — | — | | |
| | | SHC | 139.5 | 200.7 | 261.9 | 132.0 | 193.2 | 254.4 | 122.9 | 184.1 | 245.3 | 115.5 | 176.7 | 237.9 | — | — | — | | |
| | 76 | TC | — | 370.5 | 370.5 | — | 350.8 | 350.8 | — | 329.2 | 329.2 | — | — | — | — | — | — | | |
| | | SHC | — | 148.2 | 208.0 | — | 140.3 | 200.8 | — | 135.0 | 195.5 | — | — | — | — | — | — | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM28 Single Stage Cooling Capacities

| 50FEQM28 | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|--------------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|-------|
| | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 4500 cfm | EAT (wb) | 58 | TC | 160.9 | 160.9 | 182.2 | 153.9 | 153.9 | 174.5 | 146.3 | 146.3 | 166.1 | 137.9 | 137.9 | 156.7 | 128.6 | 128.6 | 146.4 | |
| | | | SHC | 139.6 | 160.9 | 182.2 | 133.4 | 153.9 | 174.5 | 126.5 | 146.3 | 166.1 | 119.1 | 137.9 | 156.7 | 110.8 | 128.6 | 146.4 | |
| | | 62 | TC | 168.3 | 168.3 | 173.5 | 159.8 | 159.8 | 169.2 | 150.5 | 150.5 | 163.7 | 140.3 | 140.3 | 158.4 | 131.3 | 131.3 | 145.0 | |
| | | | SHC | 126.0 | 149.8 | 173.5 | 121.7 | 145.4 | 169.2 | 116.2 | 140.0 | 163.7 | 110.9 | 134.7 | 158.4 | 101.9 | 123.4 | 145.0 | |
| | | 67 | TC | 184.9 | 184.9 | 184.9 | 175.8 | 175.8 | 175.8 | 165.9 | 165.9 | 165.9 | 155.0 | 155.0 | 155.0 | 142.9 | 142.9 | 142.9 | |
| | | | SHC | 103.6 | 127.6 | 151.6 | 99.1 | 123.1 | 147.1 | 93.8 | 117.8 | 141.8 | 87.8 | 111.6 | 135.4 | 82.0 | 105.8 | 129.5 | |
| | 72 | TC | 203.3 | 203.3 | 203.3 | 193.5 | 193.5 | 193.5 | 182.8 | 182.8 | 182.8 | 171.2 | 171.2 | 171.2 | 158.3 | 158.3 | 158.3 | | |
| | | SHC | 79.9 | 103.7 | 127.4 | 74.9 | 98.7 | 122.4 | 69.5 | 93.2 | 117.0 | 65.3 | 89.0 | 112.8 | 58.6 | 82.3 | 106.1 | | |
| | 76 | TC | — | 219.1 | 219.1 | — | 208.6 | 208.6 | — | 197.3 | 197.3 | — | 185.0 | 185.0 | — | 171.6 | 171.6 | | |
| | | SHC | — | 83.2 | 106.3 | — | 79.3 | 102.5 | — | 75.0 | 98.2 | — | 68.5 | 91.7 | — | 63.5 | 87.0 | | |
| | 5250 cfm | EAT (wb) | 58 | TC | 170.0 | 170.0 | 192.3 | 162.6 | 162.6 | 184.2 | 154.5 | 154.5 | 175.3 | 145.6 | 145.6 | 165.2 | 135.7 | 135.7 | 154.5 |
| | | | | SHC | 147.8 | 170.0 | 192.3 | 140.9 | 162.6 | 184.2 | 133.7 | 154.5 | 175.3 | 126.0 | 145.6 | 165.2 | 116.9 | 135.7 | 154.5 |
| 62 | | | TC | 173.6 | 173.6 | 192.3 | 164.8 | 164.8 | 187.3 | 156.3 | 156.3 | 177.9 | 149.0 | 149.0 | 161.9 | 135.9 | 135.9 | 160.7 | |
| | | | SHC | 137.5 | 164.9 | 192.3 | 132.5 | 159.9 | 187.3 | 125.3 | 151.6 | 177.9 | 115.1 | 138.5 | 161.9 | 111.0 | 135.9 | 160.7 | |
| 67 | | | TC | 190.3 | 190.3 | 190.3 | 180.7 | 180.7 | 180.7 | 170.4 | 170.4 | 170.4 | 159.0 | 159.0 | 159.0 | 146.6 | 146.6 | 146.6 | |
| | | | SHC | 109.3 | 137.0 | 164.8 | 104.2 | 131.9 | 159.7 | 100.1 | 127.8 | 155.5 | 94.7 | 122.5 | 150.2 | 88.1 | 115.8 | 143.5 | |
| 72 | | TC | 208.7 | 208.7 | 208.7 | 198.3 | 198.3 | 198.3 | 187.3 | 187.3 | 187.3 | 175.2 | 175.2 | 175.2 | 162.0 | 162.0 | 162.0 | | |
| | | SHC | 82.9 | 110.6 | 138.3 | 77.4 | 105.1 | 132.8 | 73.4 | 101.1 | 128.9 | 66.9 | 94.6 | 122.3 | 61.4 | 89.1 | 116.8 | | |
| 76 | | TC | — | 224.7 | 224.7 | — | 213.8 | 213.8 | — | 202.0 | 202.0 | — | 189.3 | 189.3 | — | 175.4 | 175.4 | | |
| | | SHC | — | 87.6 | 114.5 | — | 83.4 | 110.2 | — | 78.8 | 105.9 | — | 71.9 | 99.1 | — | 66.6 | 93.8 | | |
| 6000 cfm | | EAT (wb) | 58 | TC | 177.4 | 177.4 | 200.5 | 169.8 | 169.8 | 192.2 | 161.3 | 161.3 | 182.7 | 151.9 | 151.9 | 172.4 | 141.6 | 141.6 | 161.1 |
| | | | | SHC | 154.3 | 177.4 | 200.5 | 147.3 | 169.8 | 192.2 | 139.8 | 161.3 | 182.7 | 131.4 | 151.9 | 172.4 | 122.1 | 141.6 | 161.1 |
| | 62 | | TC | 179.1 | 179.1 | 205.5 | 170.0 | 170.0 | 200.0 | 161.4 | 161.4 | 190.1 | 152.1 | 152.1 | 179.5 | 141.8 | 141.8 | 167.5 | |
| | | | SHC | 145.5 | 175.5 | 205.5 | 139.9 | 170.0 | 200.0 | 132.7 | 161.4 | 190.1 | 124.7 | 152.1 | 179.5 | 116.0 | 141.8 | 167.5 | |
| | 67 | | TC | 194.4 | 194.4 | 194.4 | 184.5 | 184.5 | 184.5 | 173.8 | 173.8 | 173.8 | 162.1 | 162.1 | 164.3 | 149.3 | 149.3 | 158.3 | |
| | | | SHC | 116.4 | 147.7 | 179.1 | 110.7 | 142.0 | 173.4 | 106.0 | 137.3 | 168.7 | 101.6 | 132.9 | 164.3 | 95.6 | 126.9 | 158.3 | |
| | 72 | TC | 212.8 | 212.8 | 212.8 | 202.1 | 202.1 | 202.1 | 190.8 | 190.8 | 190.8 | 178.3 | 178.3 | 178.3 | 164.7 | 164.7 | 164.7 | | |
| | | SHC | 85.7 | 117.0 | 148.4 | 79.8 | 111.2 | 142.5 | 75.5 | 106.8 | 138.2 | 70.3 | 101.6 | 133.0 | 64.2 | 95.5 | 126.9 | | |
| | 76 | TC | — | 229.1 | 229.1 | — | 217.6 | 217.6 | — | 205.6 | 205.6 | — | 192.4 | 192.4 | — | 178.1 | 178.1 | | |
| | | SHC | — | 91.6 | 122.3 | — | 84.9 | 115.6 | — | 80.2 | 110.9 | — | 75.0 | 105.7 | — | 69.5 | 100.5 | | |
| | 6750 cfm | EAT (wb) | 58 | TC | 183.8 | 183.8 | 207.5 | 175.8 | 175.8 | 198.9 | 167.0 | 167.0 | 189.2 | 157.3 | 157.3 | 178.5 | 146.5 | 146.5 | 166.5 |
| | | | | SHC | 160.0 | 183.8 | 207.5 | 152.8 | 175.8 | 198.9 | 144.7 | 167.0 | 189.2 | 136.1 | 157.3 | 178.5 | 126.4 | 146.5 | 166.5 |
| 62 | | | TC | 184.2 | 184.2 | 216.1 | 176.0 | 176.0 | 206.8 | 167.1 | 167.1 | 196.8 | 157.4 | 157.4 | 185.6 | 146.6 | 146.6 | 173.3 | |
| | | | SHC | 152.3 | 184.2 | 216.1 | 145.2 | 176.0 | 206.8 | 137.4 | 167.1 | 196.8 | 129.2 | 157.4 | 185.6 | 119.9 | 146.6 | 173.3 | |
| 67 | | | TC | 197.6 | 197.6 | 197.6 | 187.5 | 187.5 | 187.5 | 176.5 | 176.5 | 183.2 | 164.6 | 164.6 | 176.4 | 151.5 | 151.5 | 171.3 | |
| | | | SHC | 123.2 | 158.1 | 193.0 | 116.9 | 151.8 | 186.7 | 113.4 | 148.3 | 183.2 | 106.6 | 141.5 | 176.4 | 101.5 | 136.4 | 171.3 | |
| 72 | | TC | 216.4 | 216.4 | 216.4 | 205.3 | 205.3 | 205.3 | 193.4 | 193.4 | 193.4 | 180.7 | 180.7 | 180.7 | 166.8 | 166.8 | 166.8 | | |
| | | SHC | 88.4 | 123.3 | 158.2 | 82.1 | 117.0 | 151.9 | 77.3 | 112.2 | 147.1 | 71.7 | 106.6 | 141.5 | 66.8 | 101.7 | 136.6 | | |
| 76 | | TC | — | 232.4 | 232.4 | — | 220.7 | 220.7 | — | 208.3 | 208.3 | — | 194.9 | 194.9 | — | 180.3 | 180.3 | | |
| | | SHC | — | 93.0 | 127.1 | — | 88.3 | 122.8 | — | 83.3 | 117.9 | — | 77.9 | 112.5 | — | 72.1 | 106.7 | | |
| 7500 cfm | | EAT (wb) | 58 | TC | 189.5 | 189.5 | 214.2 | 181.0 | 181.0 | 205.0 | 171.9 | 171.9 | 194.6 | 161.8 | 161.8 | 183.3 | 150.6 | 150.6 | 170.8 |
| | | | | SHC | 164.7 | 189.5 | 214.2 | 157.1 | 181.0 | 205.0 | 149.2 | 171.9 | 194.6 | 140.4 | 161.8 | 183.3 | 130.4 | 150.6 | 170.8 |
| | 62 | | TC | 189.6 | 189.6 | 222.6 | 181.2 | 181.2 | 212.9 | 172.1 | 172.1 | 202.6 | 161.9 | 161.9 | 190.8 | 150.7 | 150.7 | 178.0 | |
| | | | SHC | 156.6 | 189.6 | 222.6 | 149.4 | 181.2 | 212.9 | 141.5 | 172.1 | 202.6 | 133.1 | 161.9 | 190.8 | 123.5 | 150.7 | 178.0 | |
| | 67 | | TC | 200.3 | 200.3 | 204.6 | 189.9 | 189.9 | 199.7 | 178.7 | 178.7 | 195.6 | 166.6 | 166.6 | 189.9 | 153.4 | 153.4 | 182.1 | |
| | | | SHC | 127.9 | 166.3 | 204.6 | 123.0 | 161.4 | 199.7 | 118.9 | 157.3 | 195.6 | 113.2 | 151.6 | 189.9 | 106.2 | 144.2 | 182.1 | |
| | 72 | TC | 218.8 | 218.8 | 218.8 | 207.5 | 207.5 | 207.5 | 195.6 | 195.6 | 195.6 | 182.6 | 182.6 | 182.6 | 168.5 | 168.5 | 168.5 | | |
| | | SHC | 90.3 | 129.1 | 167.9 | 83.7 | 122.4 | 161.2 | 80.5 | 119.3 | 158.1 | 74.9 | 113.2 | 151.6 | 69.5 | 107.8 | 146.2 | | |
| | 76 | TC | — | 235.1 | 235.1 | — | 223.2 | 223.2 | — | 210.4 | 210.4 | — | 196.8 | 196.8 | — | 182.0 | 182.0 | | |
| | | SHC | — | 96.4 | 134.3 | — | 91.5 | 129.5 | — | 86.3 | 124.2 | — | 80.7 | 118.6 | — | 76.4 | 114.4 | | |

LEGEND

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

NOTE: See minimum-maximum airflow ratings on page 7.

50FEQM17 Heating Capacities

| 50FEQM17 (15 Tons) | | | | | | | | | | | |
|-----------------------|-----------------------|-----------|---|------|------|-------|-------|-------|-------|-------|-------|
| Return Air (°F db) | CFM (Standard Air) | | Temperature Air Entering Outdoor Coil (°F db at 70% rh) | | | | | | | | |
| | | | -10 | 0 | 10 | 17 | 30 | 40 | 47 | 50 | 60 |
| 55 | 4500 | Capacity | 56.2 | 74.0 | 93.7 | 107.0 | 133.3 | 156.4 | 172.6 | 177.9 | 202.3 |
| | | Int. Cap. | 52.0 | 68.1 | 86.0 | 97.6 | 116.8 | 156.4 | 172.6 | 177.9 | 202.3 |
| | 6000 | Capacity | 57.2 | 75.2 | 95.3 | 109.0 | 136.4 | 160.5 | 177.6 | 183.2 | 209.4 |
| | | Int. Cap. | 52.9 | 69.2 | 87.5 | 99.4 | 119.5 | 160.5 | 177.6 | 183.2 | 209.4 |
| | 7500 | Capacity | 58.4 | 76.6 | 96.8 | 110.7 | 138.8 | 163.4 | 181.2 | 187.0 | 214.2 |
| | | Int. Cap. | 54.0 | 70.4 | 88.8 | 100.9 | 121.6 | 163.4 | 181.2 | 187.0 | 214.2 |
| 70 | 4500 | Capacity | 54.2 | 71.1 | 94.0 | 102.9 | 127.7 | 150.2 | 165.5 | 170.6 | 193.4 |
| | | Int. Cap. | 50.2 | 65.5 | 86.3 | 93.8 | 111.9 | 150.2 | 165.5 | 170.6 | 193.4 |
| | 6000 | Capacity | 55.2 | 72.3 | 91.8 | 104.8 | 130.8 | 154.1 | 170.5 | 175.8 | 200.5 |
| | | Int. Cap. | 51.1 | 66.6 | 84.3 | 95.6 | 114.6 | 154.1 | 170.5 | 175.8 | 200.5 |
| | 7500 | Capacity | 56.5 | 73.7 | 93.3 | 106.5 | 133.1 | 157.0 | 174.0 | 179.6 | 205.4 |
| | | Int. Cap. | 52.2 | 67.8 | 85.6 | 97.1 | 116.7 | 157.0 | 174.0 | 179.6 | 205.4 |
| 80 | 4500 | Capacity | 53.1 | 69.3 | 88.2 | 100.3 | 124.0 | 146.1 | 160.8 | 165.8 | 187.6 |
| | | Int. Cap. | 49.1 | 63.8 | 81.0 | 91.4 | 108.7 | 146.1 | 160.8 | 165.8 | 187.6 |
| | 6000 | Capacity | 54.0 | 70.5 | 90.0 | 102.1 | 127.1 | 149.9 | 165.7 | 170.9 | 194.5 |
| | | Int. Cap. | 50.0 | 64.9 | 82.6 | 93.1 | 111.3 | 149.9 | 165.7 | 170.9 | 194.5 |
| | 7500 | Capacity | 55.3 | 71.9 | 91.7 | 103.8 | 129.4 | 152.8 | 169.1 | 174.6 | 199.4 |
| | | Int. Cap. | 51.1 | 66.1 | 84.1 | 94.6 | 113.4 | 152.8 | 169.1 | 174.6 | 199.4 |

LEGEND

- Do Not Operate
- 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

50FEQM24 Heating Capacities

| 50FEQM24 (20 Tons) | | | | | | | | | | | |
|-----------------------|-----------------------|-----------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Return Air (°F db) | CFM (Standard Air) | | Temperature Air Entering Outdoor Coil (°F db at 70% rh) | | | | | | | | |
| | | | -10 | 0 | 10 | 17 | 30 | 40 | 47 | 50 | 60 |
| 55 | 6000 | Capacity | 84.2 | 106.7 | 133.3 | 151.0 | 186.2 | 219.4 | 240.0 | 249.7 | 284.0 |
| | | Int. Cap. | 77.9 | 98.2 | 122.3 | 137.7 | 163.2 | 219.4 | 240.0 | 249.7 | 284.0 |
| | 8000 | Capacity | 87.2 | 108.9 | 135.7 | 153.8 | 190.5 | 224.6 | 246.3 | 256.3 | 292.9 |
| | | Int. Cap. | 80.6 | 100.2 | 124.6 | 140.2 | 166.9 | 224.6 | 246.3 | 256.3 | 292.9 |
| | 10000 | Capacity | — | 111.2 | 138.1 | 156.6 | 193.9 | 228.5 | 250.9 | 261.2 | 299.1 |
| | | Int. Cap. | — | 102.3 | 126.8 | 142.8 | 169.9 | 228.5 | 250.9 | 261.2 | 299.1 |
| 70 | 6000 | Capacity | 83.5 | 103.4 | 129.7 | 146.8 | 180.3 | 212.9 | 232.4 | 241.4 | 273.7 |
| | | Int. Cap. | 77.3 | 95.2 | 119.0 | 133.8 | 158.0 | 212.9 | 232.4 | 241.4 | 273.7 |
| | 8000 | Capacity | 84.1 | 105.3 | 131.9 | 149.3 | 184.3 | 217.8 | 238.4 | 248.2 | 282.9 |
| | | Int. Cap. | 77.8 | 96.9 | 121.0 | 136.1 | 161.5 | 217.8 | 238.4 | 248.2 | 282.9 |
| | 10000 | Capacity | 86.9 | 107.4 | 134.1 | 151.9 | 187.7 | 221.8 | 243.1 | 253.0 | 289.3 |
| | | Int. Cap. | 80.4 | 98.8 | 123.1 | 138.5 | 164.4 | 221.8 | 243.1 | 253.0 | 289.3 |
| 80 | 6000 | Capacity | 82.6 | 101.9 | 129.1 | 144.5 | 176.8 | 208.9 | 227.5 | 236.2 | 266.9 |
| | | Int. Cap. | 76.4 | 93.8 | 118.5 | 131.8 | 154.9 | 208.9 | 227.5 | 236.2 | 266.9 |
| | 8000 | Capacity | 83.7 | 104.0 | 130.0 | 147.0 | 180.6 | 213.4 | 233.6 | 242.8 | 276.0 |
| | | Int. Cap. | 77.4 | 95.7 | 119.4 | 134.0 | 158.3 | 213.4 | 233.6 | 242.8 | 276.0 |
| | 10000 | Capacity | 83.6 | 106.0 | 132.1 | 149.5 | 184.0 | 217.5 | 238.1 | 247.8 | 282.6 |
| | | Int. Cap. | 77.4 | 97.6 | 121.2 | 136.3 | 161.2 | 217.5 | 238.1 | 247.8 | 282.6 |

LEGEND

- Do Not Operate
- 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

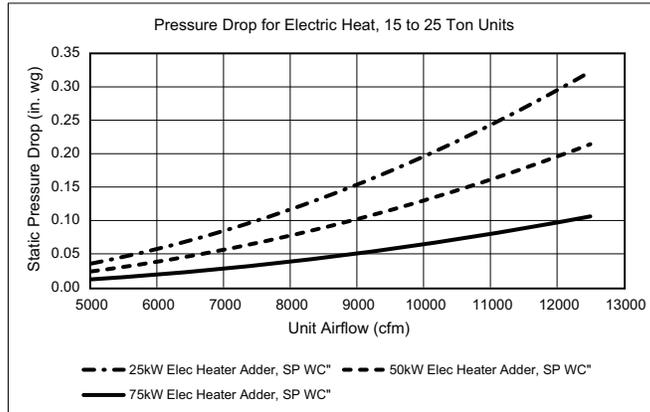
50FEQM28 Heating Capacities

| 50FEQM28 (25 Tons) | | | | | | | | | | | |
|-----------------------|-----------------------|-----------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Return Air (°F db) | CFM (Standard Air) | | Temperature Air Entering Outdoor Coil (°F db at 70% rh) | | | | | | | | |
| | | | -10 | 0 | 10 | 17 | 30 | 40 | 47 | 50 | 60 |
| 55 | 7500 | Capacity | 88.0 | 113.0 | 155.8 | 177.1 | 216.1 | 252.2 | 279.1 | 291.0 | 330.5 |
| | | Int. Cap. | 81.3 | 104.0 | 143.0 | 161.4 | 189.4 | 252.2 | 279.1 | 291.0 | 330.5 |
| | 10000 | Capacity | — | 117.1 | 159.3 | 180.4 | 219.2 | 256.1 | 283.9 | 296.0 | 337.2 |
| | | Int. Cap. | — | 107.8 | 146.2 | 164.5 | 192.1 | 256.1 | 283.9 | 296.0 | 337.2 |
| | 12500 | Capacity | — | 121.3 | 163.1 | 184.0 | 222.8 | 260.0 | 288.2 | 300.3 | 342.5 |
| | | Int. Cap. | — | 111.6 | 149.7 | 167.8 | 195.2 | 260.0 | 288.2 | 300.3 | 342.5 |
| 70 | 7500 | Capacity | 77.9 | 103.1 | 148.1 | 168.6 | 208.7 | 246.1 | 272.3 | 284.3 | 321.9 |
| | | Int. Cap. | 72.0 | 94.8 | 135.9 | 153.7 | 182.9 | 246.1 | 272.3 | 284.3 | 321.9 |
| | 10000 | Capacity | 82.4 | 107.7 | 152.4 | 172.9 | 212.3 | 251.0 | 278.2 | 290.3 | 329.8 |
| | | Int. Cap. | 76.2 | 99.1 | 139.8 | 157.6 | 186.0 | 251.0 | 278.2 | 290.3 | 329.8 |
| | 12500 | Capacity | 87.1 | 112.4 | 157.0 | 177.4 | 216.7 | 255.8 | 283.2 | 295.5 | 336.1 |
| | | Int. Cap. | 80.5 | 103.5 | 144.1 | 161.7 | 189.9 | 255.8 | 283.2 | 295.5 | 336.1 |
| 80 | 7500 | Capacity | — | 94.1 | 141.9 | 162.5 | 201.5 | 241.5 | 266.8 | 278.5 | 315.1 |
| | | Int. Cap. | — | 86.6 | 130.2 | 148.1 | 176.6 | 241.5 | 266.8 | 278.5 | 315.1 |
| | 10000 | Capacity | 74.1 | 99.8 | 146.5 | 166.0 | 206.9 | 247.5 | 273.4 | 285.4 | 323.9 |
| | | Int. Cap. | 68.5 | 91.8 | 134.4 | 151.4 | 181.3 | 247.5 | 273.4 | 285.4 | 323.9 |
| | 12500 | Capacity | 79.0 | 105.0 | 151.6 | 171.2 | 211.9 | 251.9 | 279.1 | 291.3 | 330.7 |
| | | Int. Cap. | 68.5 | 91.8 | 134.4 | 151.4 | 181.3 | 247.5 | 273.4 | 285.4 | 323.9 |

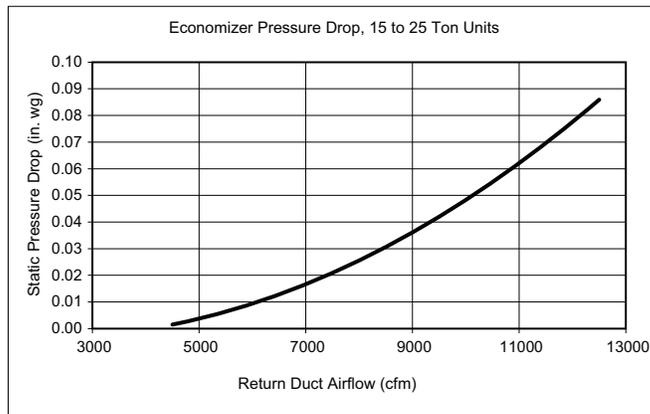
LEGEND

- Do Not Operate
- 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

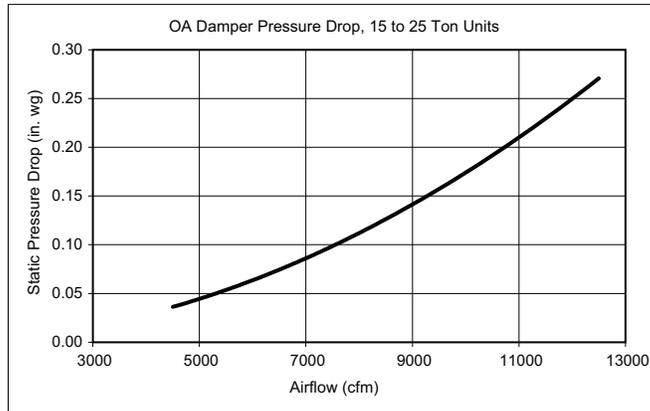
Pressure Drop for Electric Heating Units 15 to 25 Ton Units



Static Pressure Drop — Accessory Economizer 15 to 25 Ton Units



Outside Air Damper Leakage 15 to 25 Ton Units



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 2 motor/drive combinations would work, the lower horsepower option is recommended.
6. For information on the electrical properties of the fan motors, please see the Electrical information section of this book.
7. For more information on the performance limits of the fan 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 (3-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy-efficient motor. Variable-speed motors are exempt from EPACT compliance requirements.

50FEQM17 — 15 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 |
| 4500 | 936 | 0.61 | 1065 | 0.90 | 1180 | 1.23 | 1285 | 1.59 | 1380 | 1.97 |
| 4875 | 991 | 0.73 | 1112 | 1.03 | 1224 | 1.37 | 1325 | 1.74 | 1418 | 2.14 |
| 5250 | 1048 | 0.86 | 1161 | 1.18 | 1268 | 1.53 | 1366 | 1.91 | 1457 | 2.32 |
| 5625 | 1106 | 1.02 | 1211 | 1.34 | 1314 | 1.71 | 1410 | 2.11 | 1498 | 2.53 |
| 6000 | 1166 | 1.19 | 1263 | 1.52 | 1362 | 1.90 | 1454 | 2.31 | 1540 | 2.75 |
| 6375 | 1226 | 1.38 | 1317 | 1.72 | 1410 | 2.11 | 1499 | 2.53 | 1584 | 2.99 |
| 6750 | 1287 | 1.59 | 1371 | 1.93 | 1460 | 2.33 | 1546 | 2.76 | 1628 | 3.23 |
| 7125 | 1349 | 1.82 | 1428 | 2.16 | 1511 | 2.56 | 1594 | 3.01 | 1674 | 3.48 |
| 7500 | 1412 | 2.07 | 1485 | 2.40 | 1563 | 2.80 | 1643 | 3.26 | 1721 | 3.74 |

| 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 |
| 4500 | 1470 | 2.38 | 1554 | 2.81 | 1634 | 3.27 | 1710 | 3.74 | 1782 | 4.24 |
| 4875 | 1505 | 2.55 | 1588 | 3.00 | 1666 | 3.46 | 1741 | 3.95 | 1812 | 4.46 |
| 5250 | 1542 | 2.75 | 1623 | 3.21 | 1700 | 3.69 | 1773 | 4.18 | 1844 | 4.71 |
| 5625 | 1581 | 2.97 | 1660 | 3.44 | 1735 | 3.93 | 1807 | 4.44 | 1876 | 4.97 |
| 6000 | 1622 | 3.21 | 1699 | 3.69 | 1772 | 4.19 | 1843 | 4.71 | 1911 | 5.25 |
| 6375 | 1663 | 3.46 | 1739 | 3.95 | 1811 | 4.46 | 1880 | 4.99 | 1946 | 5.54 |
| 6750 | 1706 | 3.71 | 1780 | 4.22 | 1850 | 4.74 | 1918 | 5.28 | 1983 | 5.83 |
| 7125 | 1750 | 3.98 | 1822 | 4.49 | 1891 | 5.02 | 1958 | 5.57 | 2022 | 6.14 |
| 7500 | 1794 | 4.24 | 1866 | 4.77 | 1933 | 5.30 | 1999 | 5.86 | — | — |

Std/Med Static 936-2000 rpm, 4.8 Max bhp (2.4 Max bhp per fan motor)

High Static 936-2200 rpm, 6.0 Max bhp (3.0 Max bhp per fan motor)

50FEQM17 — Standard/Medium Static — 15 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 |
| 4500 | 936 | 4.5 | 1065 | 5.2 | 1180 | 5.8 | 1285 | 6.3 | 1380 | 6.8 |
| 4875 | 991 | 4.8 | 1112 | 5.4 | 1224 | 6.0 | 1325 | 6.5 | 1418 | 7.0 |
| 5250 | 1048 | 5.1 | 1161 | 5.7 | 1268 | 6.2 | 1366 | 6.7 | 1457 | 7.2 |
| 5625 | 1106 | 5.4 | 1211 | 5.9 | 1314 | 6.5 | 1410 | 7.0 | 1498 | 7.4 |
| 6000 | 1166 | 5.7 | 1263 | 6.2 | 1362 | 6.7 | 1454 | 7.2 | 1540 | 7.6 |
| 6375 | 1226 | 6.0 | 1317 | 6.5 | 1410 | 7.0 | 1499 | 7.4 | 1584 | 7.9 |
| 6750 | 1287 | 6.3 | 1371 | 6.8 | 1460 | 7.2 | 1546 | 7.7 | 1628 | 8.1 |
| 7125 | 1349 | 6.7 | 1428 | 7.1 | 1511 | 7.5 | 1594 | 7.9 | 1674 | 8.3 |
| 7500 | 1412 | 7.0 | 1485 | 7.4 | 1563 | 7.8 | 1643 | 8.2 | 1721 | 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 |
| 4500 | 1470 | 7.3 | 1554 | 7.7 | 1634 | 8.1 | 1710 | 8.5 | 1782 | 8.9 |
| 4875 | 1505 | 7.5 | 1588 | 7.9 | 1666 | 8.3 | 1741 | 8.7 | 1812 | 9.0 |
| 5250 | 1542 | 7.6 | 1623 | 8.1 | 1700 | 8.5 | 1773 | 8.8 | 1844 | 9.2 |
| 5625 | 1581 | 7.8 | 1660 | 8.3 | 1735 | 8.6 | 1807 | 9.0 | 1876 | 9.4 |
| 6000 | 1622 | 8.1 | 1699 | 8.5 | 1772 | 8.8 | 1843 | 9.2 | — | — |
| 6375 | 1663 | 8.3 | 1739 | 8.7 | 1811 | 9.0 | 1880 | 9.4 | — | — |
| 6750 | 1706 | 8.5 | 1780 | 8.9 | 1850 | 9.2 | — | — | — | — |
| 7125 | 1750 | 8.7 | 1822 | 9.1 | 1891 | 9.4 | — | — | — | — |
| 7500 | 1794 | 8.9 | 1866 | 9.3 | — | — | — | — | — | — |

Std/Med Static 936-2000 rpm

50FEQM17 — High Static — 15 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 |
| 4500 | 936 | 4.2 | 1065 | 4.8 | 1180 | 5.3 | 1285 | 5.8 | 1380 | 6.2 |
| 4875 | 991 | 4.4 | 1112 | 5.0 | 1224 | 5.5 | 1325 | 6.0 | 1418 | 6.4 |
| 5250 | 1048 | 4.7 | 1161 | 5.2 | 1268 | 5.7 | 1366 | 6.2 | 1457 | 6.6 |
| 5625 | 1106 | 5.0 | 1211 | 5.4 | 1314 | 5.9 | 1410 | 6.4 | 1498 | 6.8 |
| 6000 | 1166 | 5.2 | 1263 | 5.7 | 1362 | 6.1 | 1454 | 6.6 | 1540 | 7.0 |
| 6375 | 1226 | 5.5 | 1317 | 5.9 | 1410 | 6.4 | 1499 | 6.8 | 1584 | 7.2 |
| 6750 | 1287 | 5.8 | 1371 | 6.2 | 1460 | 6.6 | 1546 | 7.0 | 1628 | 7.4 |
| 7125 | 1349 | 6.1 | 1428 | 6.4 | 1511 | 6.8 | 1594 | 7.2 | 1674 | 7.6 |
| 7500 | 1412 | 6.4 | 1485 | 6.7 | 1563 | 7.1 | 1643 | 7.4 | 1721 | 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 |
| 4500 | 1470 | 6.6 | 1554 | 7.0 | 1634 | 7.4 | 1710 | 7.7 | 1782 | 8.1 |
| 4875 | 1505 | 6.8 | 1588 | 7.2 | 1666 | 7.5 | 1741 | 7.9 | 1812 | 8.2 |
| 5250 | 1542 | 7.0 | 1623 | 7.3 | 1700 | 7.7 | 1773 | 8.0 | 1844 | 8.4 |
| 5625 | 1581 | 7.1 | 1660 | 7.5 | 1735 | 7.9 | 1807 | 8.2 | 1876 | 8.5 |
| 6000 | 1622 | 7.3 | 1699 | 7.7 | 1772 | 8.0 | 1843 | 8.4 | 1911 | 8.7 |
| 6375 | 1663 | 7.5 | 1739 | 7.9 | 1811 | 8.2 | 1880 | 8.5 | 1946 | 8.8 |
| 6750 | 1706 | 7.7 | 1780 | 8.1 | 1850 | 8.4 | 1918 | 8.7 | 1983 | 9.0 |
| 7125 | 1750 | 7.9 | 1822 | 8.3 | 1891 | 8.6 | 1958 | 8.9 | 2022 | 9.2 |
| 7500 | 1794 | 8.1 | 1866 | 8.5 | 1933 | 8.8 | 1999 | 9.1 | — | — |

High Static 936-2200 rpm

50FEQM24 — 20 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 |
| 6,000 | 1038 | 0.84 | 1148 | 1.14 | 1251 | 1.47 | 1351 | 1.86 | 1448 | 2.28 |
| 6,500 | 1103 | 1.01 | 1207 | 1.32 | 1304 | 1.66 | 1398 | 2.05 | 1490 | 2.48 |
| 7,000 | 1169 | 1.19 | 1269 | 1.52 | 1360 | 1.87 | 1448 | 2.26 | 1535 | 2.69 |
| 7,500 | 1234 | 1.38 | 1332 | 1.74 | 1418 | 2.09 | 1501 | 2.48 | 1583 | 2.91 |
| 8,000 | 1299 | 1.58 | 1395 | 1.95 | 1478 | 2.32 | 1557 | 2.72 | 1634 | 3.14 |
| 8,500 | 1364 | 1.78 | 1459 | 2.18 | 1540 | 2.56 | 1615 | 2.95 | 1689 | 3.37 |
| 9,000 | 1427 | 1.97 | 1524 | 2.40 | 1602 | 2.79 | 1674 | 3.18 | 1745 | 3.60 |
| 9,500 | 1491 | 2.17 | 1589 | 2.62 | 1665 | 3.02 | 1735 | 3.41 | 1802 | 3.83 |
| 10,000 | 1553 | 2.36 | 1653 | 2.84 | 1729 | 3.25 | 1797 | 3.65 | 1862 | 4.06 |

| 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 |
| 6,000 | 1539 | 2.74 | 1624 | 3.22 | 1703 | 3.72 | 1777 | 4.22 | 1847 | 4.74 |
| 6,500 | 1578 | 2.95 | 1662 | 3.44 | 1741 | 3.96 | 1816 | 4.49 | 1887 | 5.04 |
| 7,000 | 1619 | 3.16 | 1701 | 3.66 | 1779 | 4.19 | 1854 | 4.74 | 1924 | 5.30 |
| 7,500 | 1663 | 3.38 | 1742 | 3.88 | 1818 | 4.41 | 1892 | 4.97 | 1962 | 5.55 |
| 8,000 | 1711 | 3.60 | 1786 | 4.10 | 1859 | 4.62 | 1931 | 5.18 | 2000 | 5.76 |
| 8,500 | 1761 | 3.83 | 1832 | 4.31 | 1903 | 4.83 | 1972 | 5.37 | 2039 | 5.94 |
| 9,000 | 1813 | 4.04 | 1882 | 4.52 | 1949 | 5.02 | 2015 | 5.55 | 2081 | 6.11 |
| 9,500 | 1868 | 4.26 | 1933 | 4.72 | 1998 | 5.21 | 2061 | 5.72 | 2124 | 6.27 |
| 10,000 | 1925 | 4.49 | 1987 | 4.94 | 2049 | 5.41 | 2110 | 5.91 | 2170 | 6.43 |

Std/Med Static 1038-2000 rpm, 4.8 Max bhp (2.4 Max bhp per fan motor)

High Static 1038-2200 rpm, 10.0 Max bhp (5.0 Max bhp per fan motor)

50FEQM24 — Standard/Medium Static — 20 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 |
| 6,000 | 1038 | 5.1 | 1148 | 5.6 | 1251 | 6.1 | 1351 | 6.7 | 1448 | 7.2 |
| 6,500 | 1103 | 5.4 | 1207 | 5.9 | 1304 | 6.4 | 1398 | 6.9 | 1490 | 7.4 |
| 7,000 | 1169 | 5.7 | 1269 | 6.2 | 1360 | 6.7 | 1448 | 7.2 | 1535 | 7.6 |
| 7,500 | 1234 | 6.1 | 1332 | 6.6 | 1418 | 7.0 | 1501 | 7.4 | 1583 | 7.9 |
| 8,000 | 1299 | 6.4 | 1395 | 6.9 | 1478 | 7.3 | 1557 | 7.7 | 1634 | 8.1 |
| 8,500 | 1364 | 6.7 | 1459 | 7.2 | 1540 | 7.6 | 1615 | 8.0 | 1689 | 8.4 |
| 9,000 | 1427 | 7.1 | 1524 | 7.6 | 1602 | 8.0 | 1674 | 8.3 | 1745 | 8.7 |
| 9,500 | 1491 | 7.4 | 1589 | 7.9 | 1665 | 8.3 | 1735 | 8.6 | 1802 | 9.0 |
| 10,000 | 1553 | 7.7 | 1653 | 8.2 | 1729 | 8.6 | 1797 | 9.0 | 1862 | 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 |
| 6,000 | 1539 | 7.6 | 1624 | 8.1 | 1703 | 8.5 | 1777 | 8.9 | 1847 | 9.2 |
| 6,500 | 1578 | 7.8 | 1662 | 8.3 | 1741 | 8.7 | 1816 | 9.1 | 1887 | 9.4 |
| 7,000 | 1619 | 8.0 | 1701 | 8.5 | 1779 | 8.9 | 1854 | 9.2 | — | — |
| 7,500 | 1663 | 8.3 | 1742 | 8.7 | 1818 | 9.1 | 1892 | 9.4 | — | — |
| 8,000 | 1711 | 8.5 | 1786 | 8.9 | 1859 | 9.3 | — | — | — | — |
| 8,500 | 1761 | 8.8 | 1832 | 9.1 | 1903 | 9.5 | — | — | — | — |
| 9,000 | 1813 | 9.0 | 1882 | 9.4 | 1949 | 9.7 | — | — | — | — |
| 9,500 | 1868 | 9.3 | 1933 | 9.7 | — | — | — | — | — | — |
| 10,000 | 1925 | 9.6 | 1987 | 9.9 | — | — | — | — | — | — |

Std/Med Static 1038-2000 rpm

50FEQM24 — High Static — 20 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 |
| 6,000 | 1038 | 4.6 | 1148 | 5.1 | 1251 | 5.6 | 1351 | 6.1 | 1448 | 6.5 |
| 6,500 | 1103 | 4.9 | 1207 | 5.4 | 1304 | 5.9 | 1398 | 6.3 | 1490 | 6.7 |
| 7,000 | 1169 | 5.2 | 1269 | 5.7 | 1360 | 6.1 | 1448 | 6.5 | 1535 | 6.9 |
| 7,500 | 1234 | 5.5 | 1332 | 6.0 | 1418 | 6.4 | 1501 | 6.8 | 1583 | 7.2 |
| 8,000 | 1299 | 5.8 | 1395 | 6.3 | 1478 | 6.7 | 1557 | 7.0 | 1634 | 7.4 |
| 8,500 | 1364 | 6.1 | 1459 | 6.6 | 1540 | 7.0 | 1615 | 7.3 | 1689 | 7.6 |
| 9,000 | 1427 | 6.4 | 1524 | 6.9 | 1602 | 7.2 | 1674 | 7.6 | 1745 | 7.9 |
| 9,500 | 1491 | 6.7 | 1589 | 7.2 | 1665 | 7.5 | 1735 | 7.9 | 1802 | 8.2 |
| 10,000 | 1553 | 7.0 | 1653 | 7.5 | 1729 | 7.8 | 1797 | 8.1 | 1862 | 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 |
| 6,000 | 1539 | 6.9 | 1624 | 7.3 | 1703 | 7.7 | 1777 | 8.0 | 1847 | 8.4 |
| 6,500 | 1578 | 7.1 | 1662 | 7.5 | 1741 | 7.9 | 1816 | 8.2 | 1887 | 8.6 |
| 7,000 | 1619 | 7.3 | 1701 | 7.7 | 1779 | 8.1 | 1854 | 8.4 | 1924 | 8.7 |
| 7,500 | 1663 | 7.5 | 1742 | 7.9 | 1818 | 8.2 | 1892 | 8.6 | 1962 | 8.9 |
| 8,000 | 1711 | 7.7 | 1786 | 8.1 | 1859 | 8.4 | 1931 | 8.8 | 2000 | 9.1 |
| 8,500 | 1761 | 8.0 | 1832 | 8.3 | 1903 | 8.6 | 1972 | 8.9 | 2039 | 9.3 |
| 9,000 | 1813 | 8.2 | 1882 | 8.5 | 1949 | 8.8 | 2015 | 9.1 | 2081 | 9.5 |
| 9,500 | 1868 | 8.5 | 1933 | 8.8 | 1998 | 9.1 | 2061 | 9.4 | 2124 | 9.6 |
| 10,000 | 1925 | 8.7 | 1987 | 9.0 | 2049 | 9.3 | 2110 | 9.6 | 2170 | 9.9 |

High Static 1038-2200 rpm

50FEQM28 — 25 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 |
| 7,500 | 1099 | 1.27 | 1174 | 1.55 | 1256 | 1.90 | 1343 | 2.32 | 1433 | 2.82 |
| 8,125 | 1177 | 1.58 | 1246 | 1.87 | 1319 | 2.22 | 1397 | 2.64 | 1479 | 3.13 |
| 8,750 | 1256 | 1.92 | 1319 | 2.23 | 1385 | 2.58 | 1456 | 3.00 | 1530 | 3.48 |
| 9,375 | 1337 | 2.32 | 1394 | 2.63 | 1455 | 2.99 | 1519 | 3.40 | 1586 | 3.87 |
| 10,000 | 1417 | 2.74 | 1471 | 3.06 | 1526 | 3.42 | 1585 | 3.83 | 1646 | 4.29 |
| 10,625 | 1498 | 3.18 | 1548 | 3.51 | 1600 | 3.88 | 1654 | 4.28 | 1710 | 4.73 |
| 11,250 | 1579 | 3.65 | 1626 | 3.98 | 1675 | 4.36 | 1725 | 4.76 | 1777 | 5.20 |
| 11,875 | 1661 | 4.17 | 1705 | 4.51 | 1751 | 4.88 | 1798 | 5.29 | 1846 | 5.72 |
| 12,500 | 1743 | 4.78 | 1785 | 5.14 | 1828 | 5.52 | 1872 | 5.93 | 1917 | 6.37 |

| 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 |
| 7,500 | 1521 | 3.38 | 1604 | 3.96 | 1683 | 4.58 | 1757 | 5.21 | 1828 | 5.86 |
| 8,125 | 1561 | 3.68 | 1642 | 4.28 | 1720 | 4.92 | 1794 | 5.58 | 1864 | 6.26 |
| 8,750 | 1606 | 4.02 | 1683 | 4.63 | 1758 | 5.28 | 1830 | 5.95 | 1900 | 6.66 |
| 9,375 | 1655 | 4.40 | 1727 | 5.00 | 1798 | 5.64 | 1869 | 6.33 | 1937 | 7.05 |
| 10,000 | 1710 | 4.81 | 1776 | 5.39 | 1843 | 6.02 | 1910 | 6.70 | 1976 | 7.42 |
| 10,625 | 1769 | 5.24 | 1829 | 5.79 | 1891 | 6.40 | 1954 | 7.06 | 2018 | 7.78 |
| 11,250 | 1831 | 5.69 | 1887 | 6.23 | 1944 | 6.81 | 2003 | 7.45 | 2063 | 8.14 |
| 11,875 | 1896 | 6.20 | 1948 | 6.72 | 2001 | 7.29 | 2056 | 7.90 | 2111 | 8.56 |
| 12,500 | 1964 | 6.85 | 2012 | 7.36 | 2061 | 7.91 | 2112 | 8.51 | 2164 | 9.16 |

Std/Med Static 1099-2200 rpm, 6.0 Max bhp (3.0 Max bhp per fan motor)

High Static 1099-2200 rpm, 10.0 Max bhp (5.0 Max bhp per fan motor)

50FEQM28 — Standard/Medium Static — 25 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 |
| 7,500 | 1099 | 4.9 | 1174 | 5.3 | 1256 | 5.6 | 1343 | 6.0 | 1433 | 6.5 |
| 8,125 | 1177 | 5.3 | 1246 | 5.6 | 1319 | 5.9 | 1397 | 6.3 | 1479 | 6.7 |
| 8,750 | 1256 | 5.6 | 1319 | 5.9 | 1385 | 6.2 | 1456 | 6.6 | 1530 | 6.9 |
| 9,375 | 1337 | 6.0 | 1394 | 6.3 | 1455 | 6.6 | 1519 | 6.9 | 1586 | 7.2 |
| 10,000 | 1417 | 6.4 | 1471 | 6.6 | 1526 | 6.9 | 1585 | 7.2 | 1646 | 7.4 |
| 10,625 | 1498 | 6.8 | 1548 | 7.0 | 1600 | 7.2 | 1654 | 7.5 | 1710 | 7.7 |
| 11,250 | 1579 | 7.1 | 1626 | 7.4 | 1675 | 7.6 | 1725 | 7.8 | 1777 | 8.0 |
| 11,875 | 1661 | 7.5 | 1705 | 7.7 | 1751 | 7.9 | 1798 | 8.1 | 1846 | 8.4 |
| 12,500 | 1743 | 7.9 | 1785 | 8.1 | 1828 | 8.3 | 1872 | 8.5 | 1917 | 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 |
| 7,500 | 1521 | 6.9 | 1604 | 7.2 | 1683 | 7.6 | 1757 | 8.0 | 1828 | 8.3 |
| 8,125 | 1561 | 7.1 | 1642 | 7.4 | 1720 | 7.8 | 1794 | 8.1 | 1864 | 8.4 |
| 8,750 | 1606 | 7.3 | 1683 | 7.6 | 1758 | 8.0 | 1830 | 8.3 | — | — |
| 9,375 | 1655 | 7.5 | 1727 | 7.8 | 1798 | 8.1 | 1869 | 8.5 | — | — |
| 10,000 | 1710 | 7.7 | 1776 | 8.0 | 1843 | 8.4 | — | — | — | — |
| 10,625 | 1769 | 8.0 | 1829 | 8.3 | 1891 | 8.6 | — | — | — | — |
| 11,250 | 1831 | 8.3 | 1887 | 8.6 | — | — | — | — | — | — |
| 11,875 | 1896 | 8.6 | — | — | — | — | — | — | — | — |
| 12,500 | — | — | — | — | — | — | — | — | — | — |

Std/Med Static 1099-2200 rpm

50FEQM28 — High Static — 25 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 |
| 7,500 | 1099 | 4.9 | 1174 | 5.3 | 1256 | 5.6 | 1343 | 6.0 | 1433 | 6.5 |
| 8,125 | 1177 | 5.3 | 1246 | 5.6 | 1319 | 5.9 | 1397 | 6.3 | 1479 | 6.7 |
| 8,750 | 1256 | 5.6 | 1319 | 5.9 | 1385 | 6.2 | 1456 | 6.6 | 1530 | 6.9 |
| 9,375 | 1337 | 6.0 | 1394 | 6.3 | 1455 | 6.6 | 1519 | 6.9 | 1586 | 7.2 |
| 10,000 | 1417 | 6.4 | 1471 | 6.6 | 1526 | 6.9 | 1585 | 7.2 | 1646 | 7.4 |
| 10,625 | 1498 | 6.8 | 1548 | 7.0 | 1600 | 7.2 | 1654 | 7.5 | 1710 | 7.7 |
| 11,250 | 1579 | 7.1 | 1626 | 7.4 | 1675 | 7.6 | 1725 | 7.8 | 1777 | 8.0 |
| 11,875 | 1661 | 7.5 | 1705 | 7.7 | 1751 | 7.9 | 1798 | 8.1 | 1846 | 8.4 |
| 12,500 | 1743 | 7.9 | 1785 | 8.1 | 1828 | 8.3 | 1872 | 8.5 | 1917 | 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 |
| 7,500 | 1521 | 6.9 | 1604 | 7.2 | 1683 | 7.6 | 1757 | 8.0 | 1828 | 8.3 |
| 8,125 | 1561 | 7.1 | 1642 | 7.4 | 1720 | 7.8 | 1794 | 8.1 | 1864 | 8.4 |
| 8,750 | 1606 | 7.3 | 1683 | 7.6 | 1758 | 8.0 | 1830 | 8.3 | 1900 | 8.6 |
| 9,375 | 1655 | 7.5 | 1727 | 7.8 | 1798 | 8.1 | 1869 | 8.5 | 1937 | 8.8 |
| 10,000 | 1710 | 7.7 | 1776 | 8.0 | 1843 | 8.4 | 1910 | 8.7 | 1976 | 9.0 |
| 10,625 | 1769 | 8.0 | 1829 | 8.3 | 1891 | 8.6 | 1954 | 8.9 | 2018 | 9.2 |
| 11,250 | 1831 | 8.3 | 1887 | 8.6 | 1944 | 8.8 | 2003 | 9.1 | 2063 | 9.4 |
| 11,875 | 1896 | 8.6 | 1948 | 8.8 | 2001 | 9.1 | 2056 | 9.3 | 2111 | 9.6 |
| 12,500 | 1964 | 8.9 | 2012 | 9.1 | 2061 | 9.4 | 2112 | 9.6 | 2164 | 9.8 |

High Static 1099-2200 rpm

50FEQM17 — 15 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 |
| 4500 | 1055 | 0.71 | 1171 | 0.97 | 1279 | 1.26 | 1379 | 1.58 | 1472 | 1.92 |
| 4875 | 1122 | 0.85 | 1231 | 1.12 | 1334 | 1.43 | 1430 | 1.76 | 1520 | 2.11 |
| 5250 | 1190 | 1.01 | 1293 | 1.30 | 1390 | 1.61 | 1482 | 1.95 | 1569 | 2.32 |
| 5625 | 1259 | 1.19 | 1356 | 1.49 | 1448 | 1.81 | 1536 | 2.16 | 1621 | 2.54 |
| 6000 | 1329 | 1.39 | 1420 | 1.69 | 1508 | 2.03 | 1592 | 2.39 | 1674 | 2.78 |
| 6375 | 1399 | 1.60 | 1486 | 1.92 | 1570 | 2.26 | 1650 | 2.63 | 1728 | 3.02 |
| 6750 | 1470 | 1.83 | 1553 | 2.16 | 1632 | 2.51 | 1710 | 2.89 | 1785 | 3.28 |
| 7125 | 1541 | 2.08 | 1620 | 2.42 | 1696 | 2.77 | 1770 | 3.15 | 1842 | 3.56 |
| 7500 | 1612 | 2.34 | 1688 | 2.69 | 1761 | 3.06 | 1832 | 3.44 | 1902 | 3.85 |

| 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 |
| 4500 | 1560 | 2.29 | 1642 | 2.67 | 1721 | 3.29 | 1796 | 3.74 | 1870 | 4.22 |
| 4875 | 1605 | 2.49 | 1685 | 2.88 | 1762 | 3.29 | 1835 | 3.99 | 1906 | 4.47 |
| 5250 | 1652 | 2.70 | 1730 | 3.10 | 1805 | 3.53 | 1877 | 4.27 | 1946 | 4.75 |
| 5625 | 1701 | 2.94 | 1777 | 3.35 | 1850 | 3.78 | 1920 | 4.57 | 1988 | 5.07 |
| 6000 | 1751 | 3.18 | 1826 | 3.60 | 1897 | 4.04 | 1966 | 4.90 | 2032 | 5.41 |
| 6375 | 1803 | 3.43 | 1876 | 3.86 | 1945 | 4.31 | 2013 | 5.26 | 2078 | 5.79 |
| 6750 | 1857 | 3.70 | 1927 | 4.13 | 1995 | 4.59 | 2061 | 5.65 | 2125 | 6.19 |
| 7125 | 1913 | 3.98 | 1981 | 4.42 | 2047 | 4.88 | 2111 | 6.07 | 2173 | 6.62 |
| 7500 | 1969 | 4.27 | 2035 | 4.72 | 2099 | 5.18 | 2162 | 6.52 | — | — |

High Static 1055-2200 rpm, 10.0 Max bhp (5.0 Max bhp per fan motor)

50FEQM17 — High Static — 15 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 |
| 4500 | 1055 | 4.7 | 1171 | 5.3 | 1279 | 5.7 | 1379 | 6.2 | 1472 | 6.6 |
| 4875 | 1122 | 5.0 | 1231 | 5.5 | 1334 | 6.0 | 1430 | 6.4 | 1520 | 6.9 |
| 5250 | 1190 | 5.3 | 1293 | 5.8 | 1390 | 6.3 | 1482 | 6.7 | 1569 | 7.1 |
| 5625 | 1259 | 5.7 | 1356 | 6.1 | 1448 | 6.5 | 1536 | 6.9 | 1621 | 7.3 |
| 6000 | 1329 | 6.0 | 1420 | 6.4 | 1508 | 6.8 | 1592 | 7.2 | 1674 | 7.6 |
| 6375 | 1399 | 6.3 | 1486 | 6.7 | 1570 | 7.1 | 1650 | 7.5 | 1728 | 7.8 |
| 6750 | 1470 | 6.6 | 1553 | 7.0 | 1632 | 7.4 | 1710 | 7.7 | 1785 | 8.1 |
| 7125 | 1541 | 7.0 | 1620 | 7.3 | 1696 | 7.7 | 1770 | 8.0 | 1842 | 8.3 |
| 7500 | 1612 | 7.3 | 1688 | 7.6 | 1761 | 8.0 | 1832 | 8.3 | 1902 | 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 |
| 4500 | 1560 | 7.0 | 1642 | 7.4 | 1721 | 7.8 | 1796 | 8.1 | 1870 | 8.5 |
| 4875 | 1605 | 7.3 | 1685 | 7.6 | 1762 | 8.0 | 1835 | 8.3 | 1906 | 8.6 |
| 5250 | 1652 | 7.5 | 1730 | 7.8 | 1805 | 8.2 | 1877 | 8.5 | 1946 | 8.8 |
| 5625 | 1701 | 7.7 | 1777 | 8.0 | 1850 | 8.4 | 1920 | 8.7 | 1988 | 9.0 |
| 6000 | 1751 | 7.9 | 1826 | 8.3 | 1897 | 8.6 | 1966 | 8.9 | 2032 | 9.2 |
| 6375 | 1803 | 8.2 | 1876 | 8.5 | 1945 | 8.8 | 2013 | 9.1 | 2078 | 9.4 |
| 6750 | 1857 | 8.4 | 1927 | 8.7 | 1995 | 9.1 | 2061 | 9.4 | 2125 | 9.7 |
| 7125 | 1913 | 8.7 | 1981 | 9.0 | 2047 | 9.3 | 2111 | 9.6 | 2173 | 9.9 |
| 7500 | 1969 | 8.9 | 2035 | 9.2 | 2099 | 9.5 | 2162 | 9.8 | — | — |

High Static 1055-2200 rpm

50FEQM24 — 20 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 |
| 6,000 | 1267 | 1.20 | 1361 | 1.49 | 1451 | 1.81 | 1538 | 2.15 | 1621 | 2.52 |
| 6,500 | 1356 | 1.45 | 1443 | 1.75 | 1527 | 2.07 | 1609 | 2.43 | 1688 | 2.80 |
| 7,000 | 1446 | 1.73 | 1527 | 2.04 | 1606 | 2.37 | 1683 | 2.73 | 1758 | 3.11 |
| 7,500 | 1537 | 2.03 | 1612 | 2.35 | 1687 | 2.69 | 1760 | 3.05 | 1831 | 3.44 |
| 8,000 | 1628 | 2.36 | 1699 | 2.68 | 1769 | 3.03 | 1838 | 3.40 | 1906 | 3.79 |
| 8,500 | 1719 | 2.71 | 1786 | 3.04 | 1853 | 3.40 | 1918 | 3.77 | 1983 | 4.16 |
| 9,000 | 1811 | 3.09 | 1875 | 3.43 | 1938 | 3.79 | 2000 | 4.17 | 2061 | 4.56 |
| 9,500 | 1904 | 3.50 | 1964 | 3.85 | 2024 | 4.21 | 2083 | 4.59 | 2142 | 4.99 |
| 10,000 | 1997 | 3.94 | 2054 | 4.29 | 2111 | 4.66 | 2167 | 5.04 | — | — |

| 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 |
| 6,000 | 1700 | 2.90 | 1777 | 3.32 | 1850 | 3.74 | 1921 | 4.19 | 1989 | 4.65 |
| 6,500 | 1764 | 3.20 | 1838 | 3.62 | 1909 | 4.05 | 1977 | 4.50 | 2043 | 4.97 |
| 7,000 | 1831 | 3.51 | 1901 | 3.93 | 1970 | 4.37 | 2036 | 4.83 | 2100 | 5.30 |
| 7,500 | 1900 | 3.84 | 1968 | 4.27 | 2033 | 4.71 | 2098 | 5.17 | 2160 | 5.64 |
| 8,000 | 1972 | 4.20 | 2037 | 4.63 | 2100 | 5.07 | 2162 | 5.53 | — | — |
| 8,500 | 2046 | 4.57 | 2108 | 5.00 | 2169 | 5.45 | — | — | — | — |
| 9,000 | 2122 | 4.97 | 2181 | 5.40 | — | — | — | — | — | — |
| 9,500 | 2199 | 5.40 | — | — | — | — | — | — | — | — |
| 10,000 | — | — | — | — | — | — | — | — | — | — |

High Static 1267-2200 rpm, 10.0 Max bhp (5.0 Max bhp per fan motor)

50FEQM24 — High Static — 20 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 |
| 6,000 | 1267 | 5.7 | 1361 | 6.1 | 1451 | 6.5 | 1538 | 6.9 | 1621 | 7.3 |
| 6,500 | 1356 | 6.1 | 1443 | 6.5 | 1527 | 6.9 | 1609 | 7.3 | 1688 | 7.6 |
| 7,000 | 1446 | 6.5 | 1527 | 6.9 | 1606 | 7.3 | 1683 | 7.6 | 1758 | 8.0 |
| 7,500 | 1537 | 6.9 | 1612 | 7.3 | 1687 | 7.6 | 1760 | 8.0 | 1831 | 8.3 |
| 8,000 | 1628 | 7.4 | 1699 | 7.7 | 1769 | 8.0 | 1838 | 8.3 | 1906 | 8.6 |
| 8,500 | 1719 | 7.8 | 1786 | 8.1 | 1853 | 8.4 | 1918 | 8.7 | 1983 | 9.0 |
| 9,000 | 1811 | 8.2 | 1875 | 8.5 | 1938 | 8.8 | 2000 | 9.1 | 2061 | 9.4 |
| 9,500 | 1904 | 8.6 | 1964 | 8.9 | 2024 | 9.2 | 2083 | 9.5 | 2142 | 9.7 |
| 10,000 | 1997 | 9.1 | 2054 | 9.3 | 2111 | 9.6 | 2167 | 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 |
| 6,000 | 1700 | 7.7 | 1777 | 8.0 | 1850 | 8.4 | 1921 | 8.7 | 1989 | 9.0 |
| 6,500 | 1764 | 8.0 | 1838 | 8.3 | 1909 | 8.7 | 1977 | 9.0 | 2043 | 9.3 |
| 7,000 | 1831 | 8.3 | 1901 | 8.6 | 1970 | 8.9 | 2036 | 9.2 | 2100 | 9.5 |
| 7,500 | 1900 | 8.6 | 1968 | 8.9 | 2033 | 9.2 | 2098 | 9.5 | 2160 | 9.8 |
| 8,000 | 1972 | 8.9 | 2037 | 9.2 | 2100 | 9.5 | 2162 | 9.8 | — | — |
| 8,500 | 2046 | 9.3 | 2108 | 9.6 | 2169 | 9.9 | — | — | — | — |
| 9,000 | 2122 | 9.6 | 2181 | 9.9 | — | — | — | — | — | — |
| 9,500 | 2199 | 10.0 | — | — | — | — | — | — | — | — |
| 10,000 | — | — | — | — | — | — | — | — | — | — |

High Static 1267-2200 rpm

50FEQM28 — 25 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 |
| 7,500 | 1406 | 2.11 | 1483 | 2.47 | 1559 | 2.87 | 1636 | 3.32 | 1711 | 3.80 |
| 8,125 | 1509 | 2.60 | 1580 | 2.98 | 1651 | 3.40 | 1722 | 3.86 | 1792 | 4.35 |
| 8,750 | 1614 | 3.16 | 1679 | 3.56 | 1744 | 3.98 | 1810 | 4.45 | 1876 | 4.96 |
| 9,375 | 1719 | 3.78 | 1779 | 4.19 | 1840 | 4.63 | 1902 | 5.11 | 1963 | 5.62 |
| 10,000 | 1824 | 4.44 | 1880 | 4.87 | 1938 | 5.33 | 1995 | 5.81 | 2053 | 6.34 |
| 10,625 | 1930 | 5.16 | 1983 | 5.60 | 2036 | 6.06 | 2091 | 6.56 | 2145 | 7.09 |
| 11,250 | 2036 | 5.91 | 2086 | 6.35 | 2137 | 6.83 | 2187 | 7.32 | — | — |
| 11,875 | 2143 | 6.67 | 2190 | 7.12 | — | — | — | — | — | — |
| 12,500 | — | — | — | — | — | — | — | — | — | — |

| 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 |
| 7,500 | 1783 | 4.30 | 1853 | 4.82 | 1921 | 5.37 | 1986 | 5.94 | 2048 | 6.51 |
| 8,125 | 1861 | 4.87 | 1928 | 5.42 | 1993 | 5.98 | 2055 | 6.56 | 2116 | 7.16 |
| 8,750 | 1941 | 5.49 | 2005 | 6.05 | 2067 | 6.63 | 2128 | 7.24 | 2187 | 7.86 |
| 9,375 | 2024 | 6.16 | 2085 | 6.74 | 2144 | 7.33 | — | — | — | — |
| 10,000 | 2111 | 6.89 | 2168 | 7.46 | — | — | — | — | — | — |
| 10,625 | 2199 | 7.63 | — | — | — | — | — | — | — | — |
| 11,250 | — | — | — | — | — | — | — | — | — | — |
| 11,875 | — | — | — | — | — | — | — | — | — | — |
| 12,500 | — | — | — | — | — | — | — | — | — | — |

High Static 1406-2200 rpm, 10.0 Max bhp (5.0 Max bhp per fan motor)

50FEQM28 — High Static — 25 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 |
| 7,500 | 1406 | 6.3 | 1483 | 6.7 | 1559 | 7.0 | 1636 | 7.4 | 1711 | 7.7 |
| 8,125 | 1509 | 6.8 | 1580 | 7.1 | 1651 | 7.5 | 1722 | 7.8 | 1792 | 8.1 |
| 8,750 | 1614 | 7.3 | 1679 | 7.6 | 1744 | 7.9 | 1810 | 8.2 | 1876 | 8.5 |
| 9,375 | 1719 | 7.8 | 1779 | 8.1 | 1840 | 8.3 | 1902 | 8.6 | 1963 | 8.9 |
| 10,000 | 1824 | 8.3 | 1880 | 8.5 | 1938 | 8.8 | 1995 | 9.1 | 2053 | 9.3 |
| 10,625 | 1930 | 8.8 | 1983 | 9.0 | 2036 | 9.2 | 2091 | 9.5 | 2145 | 9.7 |
| 11,250 | 2036 | 9.2 | 2086 | 9.5 | 2137 | 9.7 | 2187 | 9.9 | — | — |
| 11,875 | 2143 | 9.7 | 2190 | 10.0 | — | — | — | — | — | — |
| 12,500 | — | — | — | — | — | — | — | — | — | — |

| 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 |
| 7,500 | 1783 | 8.1 | 1853 | 8.4 | 1921 | 8.7 | 1986 | 9.0 | 2048 | 9.3 |
| 8,125 | 1861 | 8.4 | 1928 | 8.7 | 1993 | 9.0 | 2055 | 9.3 | 2116 | 9.6 |
| 8,750 | 1941 | 8.8 | 2005 | 9.1 | 2067 | 9.4 | 2128 | 9.7 | 2187 | 9.9 |
| 9,375 | 2024 | 9.2 | 2085 | 9.5 | 2144 | 9.7 | — | — | — | — |
| 10,000 | 2111 | 9.6 | 2168 | 9.9 | — | — | — | — | — | — |
| 10,625 | 2199 | 10.0 | — | — | — | — | — | — | — | — |
| 11,250 | — | — | — | — | — | — | — | — | — | — |
| 11,875 | — | — | — | — | — | — | — | — | — | — |
| 12,500 | — | — | — | — | — | — | — | — | — | — |

High Static 1406-2200 rpm

Legend and Notes

Applicable for Electrical Data Tables on pages 46 to 58

LEGEND

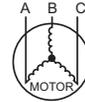
| | |
|-------------------|--------------------------------|
| BRKR | — Circuit Breaker |
| C.O. | — Convenience Outlet |
| FLA | — Full Load Amps |
| IFM | — Indoor Fan Motor |
| LRA | — Locked Rotor Amps |
| MCA | — Minimum Circuit Amps |
| P.E. | — Power Exhaust |
| PWRD C.O. | — Powered Convenience Outlet |
| RLA | — Rated Load Amps |
| SCCR | — Short Circuit Current Rating |
| UNPWR C.O. | — Unpowered Convenience Outlet |

NOTES:

- 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.
- For 208/230 v units, where one value is show it is the same for either 208 or 230 volts.
- 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.

50FEQM17-28 Cooling Electrical Data

| 50FEQ UNIT SIZE | V-Ph-Hz | UNIT VOLTAGE | | STD SCCR kA | HIGH SCCR kA ^a | COMP 1 | | COMP 2 | | OFM (EA) | | IFM | | |
|------------------------|----------|--------------|-----|-------------------|---------------------------------|--------|------|--------|-----|----------|---------|---------|--------------------------|------|
| | | RANGE | | | | RLA | LRA | RLA | LRA | WATTS | FLA | TYPE | EFFCY AT FULL LOAD | FLA |
| | | MIN | MAX | | | | | | | | | | | |
| 50FEQM17 Vertical | 208-3-60 | 187 | 253 | 5 | 60 | 31.8 | 255 | 23.6 | 157 | 350 | 1.5 | STD/MED | 90.0% | 6.4 |
| | | | | | | | | | | | | HIGH | 90.0% | 7.5 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 31.8 | 255 | 23.6 | 157 | 350 | 1.5 | STD/MED | 90.0% | 6.4 |
| | | | | | | | | | | | | HIGH | 90.0% | 7.5 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 15.0 | 123 | 10.1 | 75 | 277 | 0.9 | STD/MED | 90.0% | 3.0 |
| | | | | | | | | | | | | HIGH | 90.0% | 3.5 |
| 575-3-60 | 518 | 633 | 5 | — | 11.9 | 94 | 8.6 | 48 | 397 | 0.6 | STD/MED | 90.0% | 2.5 | |
| | | | | | | | | | | | HIGH | 90.0% | 3.0 | |
| 50FEQM17 Horizontal | 208-3-60 | 187 | 253 | 5 | 60 | 31.8 | 255 | 23.6 | 157 | 350 | 1.5 | HIGH | 90.0% | 12.6 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 31.8 | 255 | 23.6 | 157 | 350 | | HIGH | 90.0% | 12.6 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 15.0 | 123 | 10.1 | 75 | 277 | 0.9 | HIGH | 90.0% | 5.6 |
| | 575-3-60 | 518 | 633 | 5 | — | 11.9 | 94 | 8.6 | 48 | 397 | 0.6 | HIGH | 90.0% | 4.6 |
| 50FEQM24 Vertical | 208-3-60 | 187 | 253 | 5 | 60 | 37.1 | 255 | 37.1 | 255 | 397 | 1.9 | STD/MED | 90.0% | 6.4 |
| | | | | | | | | | | | | HIGH | 90.0% | 12.6 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 37.1 | 255 | 37.1 | 255 | 397 | 1.9 | STD/MED | 90.0% | 6.4 |
| | | | | | | | | | | | | HIGH | 90.0% | 12.6 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 17.1 | 140 | 17.1 | 140 | 397 | 0.9 | STD/MED | 90.0% | 3.0 |
| | | | | | | | | | | | | HIGH | 90.0% | 5.6 |
| 575-3-60 | 518 | 633 | 5 | — | 14.4 | 108 | 14.4 | 108 | 397 | 0.7 | STD/MED | 90.0% | 2.5 | |
| | | | | | | | | | | | HIGH | 90.0% | 4.6 | |
| 50FEQM24 Horizontal | 208-3-60 | 187 | 253 | 5 | 60 | 37.1 | 255 | 37.1 | 255 | 397 | 1.9 | HIGH | 90.0% | 12.6 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 37.1 | 255 | 37.1 | 255 | 397 | 1.9 | HIGH | 90.0% | 12.6 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 17.1 | 140 | 17.1 | 140 | 397 | 0.9 | HIGH | 90.0% | 5.6 |
| | 575-3-60 | 518 | 633 | 5 | — | 14.4 | 108 | 14.4 | 108 | 397 | 0.7 | HIGH | 90.0% | 4.6 |
| 50FEQM28 Vertical | 208-3-60 | 187 | 253 | 5 | 60 | 51.3 | 300 | 45.4 | 270 | 397 | 1.9 | STD/MED | 90.0% | 7.5 |
| | | | | | | | | | | | | HIGH | 90.0% | 12.6 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 51.3 | 300 | 45.4 | 270 | 397 | 1.9 | STD/MED | 90.0% | 7.5 |
| | | | | | | | | | | | | HIGH | 90.0% | 12.6 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 22.4 | 150 | 21.6 | 147 | 397 | 0.9 | STD/MED | 90.0% | 3.5 |
| | | | | | | | | | | | | HIGH | 90.0% | 5.6 |
| 575-3-60 | 518 | 633 | 5 | — | 19.9 | 109 | 15.3 | 109 | 397 | 0.7 | STD/MED | 90.0% | 3.0 | |
| | | | | | | | | | | | HIGH | 90.0% | 4.6 | |
| 50FEQM28 Horizontal | 208-3-60 | 187 | 253 | 5 | 60 | 51.3 | 300 | 45.4 | 270 | 397 | 1.9 | HIGH | 90.0% | 12.6 |
| | 230-3-60 | 187 | 253 | 5 | 60 | 51.3 | 300 | 45.4 | 270 | 397 | 1.9 | HIGH | 90.0% | 12.6 |
| | 460-3-60 | 414 | 506 | 5 | 65 | 22.4 | 150 | 21.6 | 147 | 397 | 0.9 | HIGH | 90.0% | 5.6 |
| | 575-3-60 | 518 | 633 | 5 | — | 19.9 | 109 | 15.3 | 109 | 397 | 0.7 | HIGH | 90.0% | 4.6 |

NOTE(S):

- a. High SCCR (Short Circuit Current Rating) is not available on the following: units with Low Ambient controls, Phase loss monitor, Non-fused disconnect, Powered convenience outlet, and 575-v models.

50FEQM17 MCA MOCP Electrical Data

| 50FEQ UNIT SIZE | NOM. V-PH-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA ^a | ELECTRIC HEATER | | | | NO CONVENIENCE OUTLET OR UNPOWERED CONVENIENCE OUTLET | | | | | | | |
|---------------------|--------------|----------|-------------|---------------------------|--------------------------|---------------------------|-------------|-------------|---|-------------------|-----------------|---------|-------------------------------------|-------------------|-----------------|---------|
| | | | | | STD SCCR CRHEATER ****00 | HIGH SCCR CRHEATER ****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | | w/POWER EXHAUST (powered from unit) | | | |
| | | | | | | | | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | | | FLA | LRA | | | FLA | LRA |
| 50FEQM17 Vertical | 208/230-3-60 | STD/MED | 5 | 60 | — | — | — | — | 81 | 100 | 84 | 439 | 92 | 110 | 97 | 459 |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 146/156 | 150/175 | 144/153 | 491/499 | 158/168 | 175/175 | 157/166 | 511/519 |
| | | | | | 455A | 455A | 37.6/50.0 | 104.2/120.3 | 211/201 | 225/225 | 203/222 | 543/559 | 223/213 | 225/225 | 217/236 | 563/579 |
| | | 456A | 456A | 56.3/75.0 | 156.4/180.4 | 237/261 | 250/300 | 263/291 | 595/619 | 249/273 | 300/300 | 277/305 | 615/639 | | | |
| | | HIGH | 5 | 60 | — | — | — | — | 83 | 100 | 86 | 443 | 95 | 125 | 100 | 463 |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 148/158 | 150/175 | 146/155 | 495/503 | 160/170 | 175/175 | 160/169 | 515/523 |
| | 455A | | | | 455A | 37.6/50.0 | 104.2/120.3 | 213/203 | 225/225 | 206/224 | 547/563 | 225/215 | 225/225 | 220/238 | 567/583 | |
| | 456A | 456A | 56.3/75.0 | 156.4/180.4 | 239/263 | 250/300 | 266/294 | 599/623 | 251/275 | 300/300 | 280/307 | 619/643 | | | | |
| | 460-3-60 | STD/MED | 5 | 65 | — | — | — | — | 38 | 50 | 39 | 212 | 44 | 50 | 46 | 224 |
| | | | | | 457A | 457A | 25.0 | 30.1 | 75 | 80 | 73 | 242 | 81 | 90 | 81 | 254 |
| | | | | | 458A | 458A | 50.0 | 60.1 | 98 | 110 | 108 | 272 | 104 | 110 | 115 | 284 |
| | | 459A | 459A | 75.0 | 90.2 | 128 | 150 | 143 | 302 | 134 | 150 | 150 | 314 | | | |
| | | HIGH | 5 | 65 | — | — | — | — | 39 | 50 | 40 | 214 | 45 | 50 | 47 | 226 |
| | | | | | 457A | 457A | 25.0 | 30.1 | 76 | 80 | 75 | 244 | 82 | 90 | 82 | 256 |
| | 458A | | | | 458A | 50.0 | 60.1 | 99 | 110 | 109 | 274 | 105 | 110 | 116 | 286 | |
| | 459A | 459A | 75.0 | 90.2 | 129 | 150 | 144 | 304 | 135 | 150 | 151 | 316 | | | | |
| | 575-3-60 | STD/MED | 5 | — | — | — | — | — | 30 | 40 | 31 | 156 | 35 | 45 | 37 | 164 |
| | | | | | 460A | — | 24.8 | 23.9 | 60 | 70 | 59 | 180 | 65 | 70 | 64 | 188 |
| | | | | | 461A | — | 49.6 | 47.7 | 90 | 90 | 86 | 204 | 95 | 100 | 92 | 212 |
| | | 462A | — | 74.4 | 71.6 | 102 | 110 | 114 | 228 | 107 | 110 | 119 | 236 | | | |
| | | HIGH | 5 | — | — | — | — | — | 31 | 40 | 33 | 156 | 36 | 45 | 38 | 164 |
| | | | | | 460A | — | 24.8 | 23.9 | 61 | 70 | 60 | 180 | 66 | 70 | 66 | 188 |
| | 461A | | | | — | 49.6 | 47.7 | 91 | 100 | 87 | 204 | 96 | 100 | 93 | 212 | |
| | 462A | — | 74.4 | 71.6 | 103 | 110 | 115 | 228 | 108 | 125 | 120 | 236 | | | | |
| 50FEQM17 Horizontal | 208/230-3-60 | HIGH | 5 | 60 | — | — | — | — | 93 | 110 | 98 | 457 | 105 | 125 | 111 | 477 |
| | | | | | 463A | 463A | 18.8/25.0 | 52.1/60.1 | 158/168 | 175/175 | 158/167 | 509/517 | 170/180 | 175/200 | 171/181 | 529/537 |
| | | | | | 464A | 464A | 37.6/50.0 | 104.2/120.3 | 223/213 | 225/225 | 218/236 | 561/577 | 235/225 | 250/250 | 231/250 | 581/597 |
| | 465A | 465A | 56.3/75.0 | 156.4/180.4 | 250/274 | 300/300 | 278/305 | 613/637 | 261/285 | 300/300 | 291/319 | 633/657 | | | | |
| | 460-3-60 | HIGH | 5 | 65 | — | — | — | — | 43 | 50 | 45 | 220 | 49 | 60 | 52 | 232 |
| | | | | | 466A | 466A | 25.0 | 30.1 | 80 | 90 | 79 | 250 | 87 | 90 | 87 | 262 |
| | | | | | 467A | 467A | 50.0 | 60.1 | 103 | 110 | 114 | 280 | 109 | 125 | 121 | 292 |
| | 468A | 468A | 75.0 | 90.2 | 133 | 150 | 149 | 310 | 139 | 150 | 156 | 322 | | | | |
| | 575-3-60 | HIGH | 5 | — | — | — | — | — | 34 | 45 | 36 | 160 | 39 | 50 | 42 | 168 |
| | | | | | 469A | — | 24.8 | 23.9 | 64 | 70 | 64 | 184 | 69 | 70 | 69 | 192 |
| | | | | | 470A | — | 49.6 | 47.7 | 94 | 100 | 91 | 208 | 99 | 100 | 97 | 216 |
| | 471A | — | 74.4 | 71.6 | 106 | 110 | 119 | 232 | 111 | 125 | 124 | 240 | | | | |

NOTE(S):

- a. High SCCR (Short Circuit Current Rating) is not available on the following: units with Low Ambient controls, Phase loss monitor, Non-fused disconnect, and 575-v models.



50FEQM17 MCA MOCP Electrical Data (cont)

| 50FEQ UNIT SIZE | NOM. V-PH-Hz | IFM TYPE | STD SCCR KA | ELECTRIC HEATER | | | W/POWERED CONVENIENCE OUTLET | | | | | | | |
|-------------------|---------------------|--------------|-------------|--------------------------|-------------|-------------|------------------------------|-------------------|-----------------|---------|-------------------------------------|-------------------|-----------------|---------|
| | | | | STD SCCR CRHEATER ****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | | w/POWER EXHAUST (powered from unit) | | | |
| | | | | | | | MCA | FUZE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUZE OR HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| 50FEQM17 Vertical | 208/230-3-60 | STD/MED | 5 | — | — | — | 86 | 100 | 89 | 444 | 97 | 125 | 103 | 464 |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 151/161 | 175/175 | 149/158 | 496/504 | 162/172 | 175/175 | 163/172 | 516/524 |
| | | | | 455A | 37.6/50.0 | 104.2/120.3 | 216/206 | 225/225 | 209/227 | 548/564 | 228/218 | 250/250 | 223/241 | 568/584 |
| | | 456A | 56.3/75.0 | 156.4/180.4 | 242/266 | 250/300 | 269/297 | 600/624 | 254/278 | 300/300 | 283/310 | 620/644 | | |
| | | HIGH | 5 | — | — | — | 88 | 100 | 92 | 448 | 100 | 125 | 105 | 468 |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 153/163 | 175/175 | 152/161 | 500/508 | 165/175 | 175/175 | 165/174 | 520/528 |
| | 455A | | | 37.6/50.0 | 104.2/120.3 | 218/208 | 225/225 | 211/230 | 552/568 | 230/220 | 250/250 | 225/244 | 572/588 | |
| | 460-3-60 | STD/MED | 5 | — | — | — | 40 | 50 | 41 | 214 | 46 | 60 | 49 | 226 |
| | | | | 457A | 25.0 | 30.1 | 77 | 80 | 76 | 244 | 84 | 90 | 83 | 256 |
| | | | | 458A | 50.0 | 60.1 | 100 | 110 | 111 | 274 | 106 | 110 | 118 | 286 |
| | | HIGH | 5 | 459A | 75.0 | 90.2 | 130 | 150 | 145 | 304 | 136 | 150 | 152 | 316 |
| | | | | — | — | — | 41 | 50 | 43 | 216 | 47 | 60 | 50 | 228 |
| | | | | 457A | 25.0 | 30.1 | 78 | 80 | 77 | 246 | 85 | 90 | 84 | 258 |
| | 458A | 50.0 | 60.1 | 101 | 110 | 112 | 276 | 107 | 125 | 119 | 288 | | | |
| | 459A | 75.0 | 90.2 | 131 | 150 | 146 | 306 | 137 | 150 | 153 | 318 | | | |
| | 575-3-60 | STD/MED | 5 | — | — | — | 32 | 40 | 33 | 158 | 37 | 45 | 39 | 166 |
| | | | | 460A | 24.8 | 23.9 | 62 | 70 | 61 | 182 | 67 | 70 | 66 | 190 |
| | | | | 461A | 49.6 | 47.7 | 92 | 100 | 88 | 206 | 96 | 100 | 94 | 214 |
| | | HIGH | 5 | 462A | 74.4 | 71.6 | 104 | 110 | 116 | 230 | 108 | 125 | 121 | 238 |
| | | | | — | — | — | 33 | 40 | 35 | 158 | 38 | 45 | 40 | 166 |
| | | | | 460A | 24.8 | 23.9 | 63 | 70 | 62 | 182 | 68 | 70 | 68 | 190 |
| | 461A | 49.6 | 47.7 | 93 | 100 | 89 | 206 | 97 | 100 | 95 | 214 | | | |
| | 462A | 74.4 | 71.6 | 105 | 110 | 117 | 230 | 109 | 125 | 122 | 238 | | | |
| | 50FEQM17 Horizontal | 208/230-3-60 | HIGH | 5 | — | — | — | 98 | 125 | 103 | 462 | 110 | 125 | 117 |
| 463A | | | | | 18.8/25.0 | 52.1/60.1 | 163/173 | 175/175 | 163/173 | 514/522 | 175/185 | 175/200 | 177/186 | 534/542 |
| 464A | | | | | 37.6/50.0 | 104.2/120.3 | 228/218 | 250/250 | 223/242 | 566/582 | 240/230 | 250/250 | 237/255 | 586/602 |
| 460-3-60 | | HIGH | 5 | 465A | 56.3/75.0 | 156.4/180.4 | 254/278 | 300/300 | 283/311 | 618/642 | 266/290 | 300/300 | 297/324 | 638/662 |
| | | | | — | — | — | 45 | 50 | 47 | 222 | 51 | 60 | 55 | 234 |
| | | | | 466A | 25.0 | 30.1 | 83 | 90 | 82 | 252 | 89 | 90 | 89 | 264 |
| 467A | | 50.0 | 60.1 | 105 | 110 | 116 | 282 | 111 | 125 | 124 | 294 | | | |
| 468A | | 75.0 | 90.2 | 135 | 150 | 151 | 312 | 141 | 150 | 158 | 324 | | | |
| 575-3-60 | | HIGH | 5 | — | — | — | 36 | 45 | 38 | 162 | 41 | 50 | 44 | 170 |
| | | | | 469A | 24.8 | 23.9 | 66 | 70 | 66 | 186 | 71 | 80 | 71 | 194 |
| | | | | 470A | 49.6 | 47.7 | 96 | 100 | 93 | 210 | 101 | 110 | 99 | 218 |
| 471A | | 74.4 | 71.6 | 108 | 125 | 121 | 234 | 113 | 125 | 126 | 242 | | | |

50FEQM24 MCA MOCP Electrical Data

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA ^a | ELECTRIC HEATER | | | | NO CONVENIENCE OUTLET OR UNPOWERED CONVENIENCE OUTLET | | | | | | | |
|---------------------|--------------|----------|-------------|---------------------------|--------------------------|---------------------------|-------------|-------------|---|-------------------|-----------------|---------|-------------------------------------|-------------------|-----------------|---------|
| | | | | | STD SCCR CRHEATER ****00 | HIGH SCCR CRHEATER ****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | | w/POWER EXHAUST (powered from unit) | | | |
| | | | | | | | | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | | | FLA | LRA | | | FLA | LRA |
| 50FEQM24 Vertical | 208/230-3-60 | STD/MED | 5 | 60 | — | — | — | — | 104 | 125 | 109 | 540 | 116 | 150 | 122 | 560 |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 169/179 | 175/200 | 169/178 | 592/600 | 181/191 | 200/200 | 182/191 | 612/620 |
| | | | | | 455A | 455A | 37.6/50.0 | 104.2/120.3 | 234/224 | 250/250 | 229/247 | 644/660 | 246/236 | 250/250 | 242/261 | 664/680 |
| | | 456A | 456A | 56.3/75.0 | 156.4/180.4 | 260/284 | 300/300 | 289/316 | 696/720 | 272/296 | 300/350 | 302/330 | 716/740 | | | |
| | | HIGH | 5 | 60 | — | — | — | — | 116 | 150 | 123 | 558 | 128 | 150 | 137 | 578 |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 181/191 | 200/200 | 183/192 | 610/618 | 193/203 | 200/225 | 197/206 | 630/638 |
| | 455A | | | | 455A | 37.6/50.0 | 104.2/120.3 | 246/237 | 250/250 | 243/261 | 662/678 | 258/248 | 300/300 | 256/275 | 682/698 | |
| | 456A | 456A | 56.3/75.0 | 156.4/180.4 | 273/297 | 300/350 | 303/331 | 714/738 | 284/308 | 300/350 | 316/344 | 734/758 | | | | |
| | 460-3-60 | STD/MED | 5 | 65 | — | — | — | — | 48 | 60 | 50 | 296 | 54 | 60 | 58 | 308 |
| | | | | | 457A | 457A | 25.0 | 30.1 | 86 | 90 | 85 | 326 | 92 | 100 | 92 | 338 |
| | | | | | 458A | 458A | 50.0 | 60.1 | 108 | 125 | 119 | 356 | 114 | 125 | 127 | 368 |
| | | 459A | 459A | 75.0 | 90.2 | 138 | 150 | 154 | 386 | 144 | 150 | 161 | 398 | | | |
| HIGH | | 5 | 65 | — | — | — | — | 53 | 60 | 56 | 304 | 60 | 70 | 63 | 316 | |
| | | | | 457A | 457A | 25.0 | 30.1 | 91 | 100 | 91 | 334 | 97 | 100 | 98 | 346 | |
| | 458A | | | 458A | 50.0 | 60.1 | 113 | 125 | 125 | 364 | 120 | 125 | 133 | 376 | | |
| 459A | 459A | 75.0 | 90.2 | 144 | 150 | 160 | 394 | 150 | 175 | 167 | 406 | | | | | |
| 575-3-60 | STD/MED | 5 | — | — | — | — | — | 40 | 50 | 42 | 232 | 45 | 50 | 48 | 240 | |
| | | | | 460A | — | 24.8 | 23.9 | 70 | 80 | 70 | 256 | 75 | 80 | 75 | 264 | |
| | | | | 461A | — | 49.6 | 47.7 | 100 | 100 | 97 | 280 | 105 | 110 | 102 | 288 | |
| | 462A | — | 74.4 | 71.6 | 112 | 125 | 124 | 304 | 117 | 125 | 130 | 312 | | | | |
| | HIGH | 5 | — | — | — | — | — | 44 | 50 | 47 | 236 | 49 | 60 | 52 | 244 | |
| | | | | 460A | — | 24.8 | 23.9 | 74 | 80 | 74 | 260 | 79 | 80 | 80 | 268 | |
| 461A | | | | — | 49.6 | 47.7 | 104 | 110 | 102 | 284 | 109 | 110 | 107 | 292 | | |
| 462A | — | 74.4 | 71.6 | 116 | 125 | 129 | 308 | 121 | 125 | 135 | 316 | | | | | |
| 50FEQM24 Horizontal | 208/230-3-60 | HIGH | 5 | 60 | — | — | — | — | 116 | 150 | 123 | 558 | 128 | 150 | 137 | 578 |
| | | | | | 463A | 463A | 18.8/25.0 | 52.1/60.1 | 181/191 | 200/200 | 183/192 | 610/618 | 193/203 | 200/225 | 197/206 | 630/638 |
| | | | | | 464A | 464A | 37.6/50.0 | 104.2/120.3 | 246/237 | 250/250 | 243/261 | 662/678 | 258/248 | 300/300 | 256/275 | 682/698 |
| | 465A | 465A | 56.3/75.0 | 156.4/180.4 | 273/297 | 300/350 | 303/331 | 714/738 | 284/308 | 300/350 | 316/344 | 734/758 | | | | |
| | 460-3-60 | HIGH | 5 | 65 | — | — | — | — | 53 | 60 | 56 | 304 | 60 | 70 | 63 | 316 |
| | | | | | 466A | 466A | 25.0 | 30.1 | 91 | 100 | 91 | 334 | 97 | 100 | 98 | 346 |
| | | | | | 467A | 467A | 50.0 | 60.1 | 113 | 125 | 125 | 364 | 120 | 125 | 133 | 376 |
| | | | | | 468A | 468A | 75.0 | 90.2 | 144 | 150 | 160 | 394 | 150 | 175 | 167 | 406 |
| | 575-3-60 | HIGH | 5 | — | — | — | — | — | 44 | 50 | 47 | 236 | 49 | 60 | 52 | 244 |
| | | | | | 469A | — | 24.8 | 23.9 | 74 | 80 | 74 | 260 | 79 | 80 | 80 | 268 |
| | | | | | 470A | — | 49.6 | 47.7 | 104 | 110 | 102 | 284 | 109 | 110 | 107 | 292 |
| | | | | | 471A | — | 74.4 | 71.6 | 116 | 125 | 129 | 308 | 121 | 125 | 135 | 316 |

NOTE(S):

- a. High SCCR (Short Circuit Current Rating) is not available on the following: units with Low Ambient controls, Phase loss monitor, Non-fused disconnect, and 575-v models.

50FEQM24 MCA MOCP Electrical Data (cont)

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR KA | ELECTRIC HEATER | | | W/POWERED CONVENIENCE OUTLET | | | | | | | |
|---------------------|--------------|----------|-------------|---------------------------|-----------|-------------|------------------------------|-------------------|-----------------|---------|-------------------------------------|-------------------|-----------------|---------|
| | | | | STD SCCR CRHEATER *****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | | w/POWER EXHAUST (powered from unit) | | | |
| | | | | | | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| 50FEQM24 Vertical | 208/230-3-60 | STD/MED | 5 | — | — | — | 109 | 125 | 114 | 545 | 120 | 150 | 128 | 565 |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 174/184 | 175/200 | 174/183 | 597/605 | 186/196 | 200/200 | 188/197 | 617/625 |
| | | | | 455A | 37.6/50.0 | 104.2/120.3 | 239/229 | 250/250 | 234/253 | 649/665 | 251/241 | 300/300 | 248/266 | 669/685 |
| | | HIGH | 5 | 456A | 56.3/75.0 | 156.4/180.4 | 265/289 | 300/300 | 294/322 | 701/725 | 277/301 | 300/350 | 308/335 | 721/745 |
| | | | | — | — | — | 121 | 150 | 129 | 563 | 133 | 150 | 142 | 583 |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 186/196 | 200/200 | 188/198 | 615/623 | 198/208 | 200/225 | 202/211 | 635/643 |
| | 460-3-60 | STD/MED | 5 | — | — | — | 50 | 60 | 53 | 298 | 56 | 70 | 60 | 310 |
| | | | | 457A | 25.0 | 30.1 | 88 | 90 | 88 | 328 | 94 | 100 | 95 | 340 |
| | | | | 458A | 50.0 | 60.1 | 110 | 125 | 122 | 358 | 117 | 125 | 129 | 370 |
| | | HIGH | 5 | 459A | 75.0 | 90.2 | 140 | 150 | 157 | 388 | 147 | 175 | 164 | 400 |
| | | | | — | — | — | 56 | 60 | 59 | 306 | 62 | 70 | 66 | 318 |
| | | | | 457A | 25.0 | 30.1 | 93 | 100 | 93 | 336 | 99 | 100 | 101 | 348 |
| | 575-3-60 | STD/MED | 5 | 458A | 50.0 | 60.1 | 116 | 125 | 128 | 366 | 122 | 150 | 135 | 378 |
| | | | | 459A | 75.0 | 90.2 | 146 | 150 | 163 | 396 | 152 | 175 | 170 | 408 |
| | | | | — | — | — | 42 | 50 | 44 | 234 | 47 | 60 | 50 | 242 |
| | | HIGH | 5 | 460A | 24.8 | 23.9 | 72 | 80 | 72 | 258 | 77 | 80 | 77 | 266 |
| | | | | 461A | 49.6 | 47.7 | 102 | 110 | 99 | 282 | 106 | 110 | 104 | 290 |
| | | | | 462A | 74.4 | 71.6 | 114 | 125 | 126 | 306 | 118 | 125 | 132 | 314 |
| 50FEQM24 Horizontal | 208/230-3-60 | HIGH | 5 | — | — | — | 46 | 60 | 49 | 238 | 51 | 60 | 54 | 246 |
| | | | | 460A | 24.8 | 23.9 | 76 | 80 | 76 | 262 | 81 | 90 | 82 | 270 |
| | | | | 461A | 49.6 | 47.7 | 106 | 110 | 104 | 286 | 110 | 125 | 109 | 294 |
| | | HIGH | 5 | 462A | 74.4 | 71.6 | 118 | 125 | 131 | 310 | 122 | 150 | 137 | 318 |
| | | | | — | — | — | 121 | 150 | 129 | 563 | 133 | 150 | 142 | 583 |
| | | | | 463A | 18.8/25.0 | 52.1/60.1 | 186/196 | 200/200 | 188/198 | 615/623 | 198/208 | 200/225 | 202/211 | 635/643 |
| | 460-3-60 | HIGH | 5 | 464A | 37.6/50.0 | 104.2/120.3 | 251/241 | 300/300 | 248/267 | 667/683 | 263/253 | 300/300 | 262/280 | 687/703 |
| | | | | 465A | 56.3/75.0 | 156.4/180.4 | 278/302 | 300/350 | 308/336 | 719/743 | 289/313 | 300/350 | 322/350 | 739/763 |
| | | | | — | — | — | 56 | 60 | 59 | 306 | 62 | 70 | 66 | 318 |
| | | HIGH | 5 | 466A | 25.0 | 30.1 | 93 | 100 | 93 | 336 | 99 | 100 | 101 | 348 |
| | | | | 467A | 50.0 | 60.1 | 116 | 125 | 128 | 366 | 122 | 150 | 135 | 378 |
| | | | | 468A | 75.0 | 90.2 | 146 | 150 | 163 | 396 | 152 | 175 | 170 | 408 |
| | 575-3-60 | HIGH | 5 | — | — | — | 46 | 60 | 49 | 238 | 51 | 60 | 54 | 246 |
| | | | | 469A | 24.8 | 23.9 | 76 | 80 | 76 | 262 | 81 | 90 | 82 | 270 |
| | | | | 470A | 49.6 | 47.7 | 106 | 110 | 104 | 286 | 110 | 125 | 109 | 294 |
| | | HIGH | 5 | 471A | 74.4 | 71.6 | 118 | 125 | 131 | 310 | 122 | 150 | 137 | 318 |
| | | | | — | — | — | 46 | 60 | 49 | 238 | 51 | 60 | 54 | 246 |
| | | | | 469A | 24.8 | 23.9 | 76 | 80 | 76 | 262 | 81 | 90 | 82 | 270 |

50FEQM28 MCA MOCP Electrical Data

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA ^a | ELECTRIC HEATER | | | | NO CONVENIENCE OUTLET OR UNPOWERED CONVENIENCE OUTLET | | | | | | | | |
|-------------------|---------------------|--------------|-------------|---------------------------|--------------------------|---------------------------|-----------|-------------|---|-------------------|-----------------|-------------------------------------|---------|-------------------|-----------------|---------|---------|
| | | | | | STD SCCR CRHEATER ****00 | HIGH SCCR CRHEATER ****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | w/POWER EXHAUST (powered from unit) | | | | | |
| | | | | | | | | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | |
| | | | | | | | | | | | FLA | LRA | | | FLA | LRA | |
| 50FEQM28 Vertical | 208/230-3-60 | STD/MED | 5 | 60 | — | — | — | — | 132 | 175 | 137 | 604 | 144 | 175 | 151 | 624 | |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 197/207 | 225/225 | 197/206 | 656/664 | 209/219 | 225/250 | 211/220 | 676/684 | |
| | | | | | 455A | 455A | 37.6/50.0 | 104.2/120.3 | 262/252 | 300/300 | 257/276 | 708/724 | 274/264 | 300/300 | 271/289 | 728/744 | |
| | | HIGH | 5 | 60 | 456A | 456A | 56.3/75.0 | 156.4/180.4 | 288/312 | 350/350 | 317/345 | 760/784 | 300/324 | 350/350 | 331/358 | 780/804 | |
| | | | | | — | — | — | — | 142 | 175 | 149 | 618 | 154 | 200 | 162 | 638 | |
| | | | | | 454A | 454A | 18.8/25.0 | 52.1/60.1 | 208/218 | 225/250 | 209/218 | 670/678 | 219/229 | 250/250 | 222/232 | 690/698 | |
| | 460-3-60 | STD/MED | 5 | 65 | — | — | — | — | 60 | 80 | 63 | 315 | 66 | 80 | 70 | 327 | |
| | | | | | 457A | 457A | 25.0 | 30.1 | 98 | 100 | 97 | 345 | 104 | 110 | 105 | 357 | |
| | | | | | 458A | 458A | 50.0 | 60.1 | 120 | 150 | 132 | 375 | 126 | 150 | 139 | 387 | |
| | | HIGH | 5 | 65 | 459A | 459A | 75.0 | 90.2 | 150 | 175 | 167 | 405 | 157 | 175 | 174 | 417 | |
| | | | | | — | — | — | — | 64 | 80 | 68 | 321 | 71 | 90 | 75 | 333 | |
| | | | | | 457A | 457A | 25.0 | 30.1 | 102 | 110 | 102 | 351 | 108 | 110 | 109 | 363 | |
| | 575-3-60 | STD/MED | 5 | — | — | — | — | — | 49 | 60 | 51 | 234 | 54 | 60 | 56 | 242 | |
| | | | | | 460A | — | 24.8 | 23.9 | 79 | 90 | 78 | 258 | 84 | 90 | 84 | 266 | |
| | | | | | 461A | — | 49.6 | 47.7 | 109 | 110 | 105 | 282 | 113 | 125 | 111 | 290 | |
| | | HIGH | 5 | — | 462A | — | 74.4 | 71.6 | 121 | 150 | 133 | 306 | 125 | 150 | 138 | 314 | |
| | | | | | — | — | — | — | 52 | 60 | 54 | 238 | 57 | 70 | 60 | 246 | |
| | | | | | 460A | — | 24.8 | 23.9 | 82 | 90 | 82 | 262 | 87 | 100 | 87 | 270 | |
| | 50FEQM28 Horizontal | 208/230-3-60 | HIGH | 5 | 65 | 461A | — | 49.6 | 47.7 | 112 | 125 | 109 | 286 | 117 | 125 | 115 | 294 |
| | | | | | | 462A | — | 74.4 | 71.6 | 124 | 150 | 137 | 310 | 129 | 150 | 142 | 318 |
| | | | | | | — | — | — | — | 142 | 175 | 149 | 618 | 154 | 200 | 162 | 638 |
| | | 460-3-60 | HIGH | 5 | 65 | 463A | 463A | 18.8/25.0 | 52.1/60.1 | 208/218 | 225/250 | 209/218 | 670/678 | 219/229 | 250/250 | 222/232 | 690/698 |
| | | | | | | 464A | 464A | 37.6/50.0 | 104.2/120.3 | 273/263 | 300/300 | 269/287 | 722/738 | 284/274 | 300/300 | 282/301 | 742/758 |
| | | | | | | 465A | 465A | 56.3/75.0 | 156.4/180.4 | 299/323 | 350/350 | 329/356 | 774/798 | 310/334 | 350/350 | 342/370 | 794/818 |
| HIGH | | | 5 | 65 | — | — | — | — | 64 | 80 | 68 | 321 | 71 | 90 | 75 | 333 | |
| | | | | | 466A | 466A | 25.0 | 30.1 | 102 | 110 | 102 | 351 | 108 | 110 | 109 | 363 | |
| | | | | | 467A | 467A | 50.0 | 60.1 | 124 | 150 | 137 | 381 | 131 | 150 | 144 | 393 | |
| 575-3-60 | | HIGH | 5 | — | 468A | 468A | 75.0 | 90.2 | 155 | 175 | 171 | 411 | 161 | 175 | 178 | 423 | |
| | | | | | — | — | — | — | 52 | 60 | 54 | 238 | 57 | 70 | 60 | 246 | |
| | | | | | 469A | — | 24.8 | 23.9 | 82 | 90 | 82 | 262 | 87 | 100 | 87 | 270 | |
| 575-3-60 | HIGH | 5 | — | 470A | — | 49.6 | 47.7 | 112 | 125 | 109 | 286 | 117 | 125 | 115 | 294 | | |
| | | | | 471A | — | 74.4 | 71.6 | 124 | 150 | 137 | 310 | 129 | 150 | 142 | 318 | | |
| | | | | — | — | — | — | 124 | 150 | 137 | 310 | 129 | 150 | 142 | 318 | | |

NOTE(S):

- a. High SCCR (Short Circuit Current Rating) is not available on the following: units with Low Ambient controls, Phase loss monitor, Non-fused disconnect, and 575-v models.

50FEQM28 MCA MOCP Electrical Data (cont)

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR KA | ELECTRIC HEATER | | | W/POWERED CONVENIENCE OUTLET | | | | | | | | |
|-------------------|---------------------|--------------|-------------|--------------------------|-------------|-------------|------------------------------|-------------------|-----------------|---------|-------------------------------------|-------------------|-----------------|---------|---------|
| | | | | STD SCCR CRHEATER ****00 | NOM (kW) | FLA | NO POWER EXHAUST | | | | w/POWER EXHAUST (powered from unit) | | | | |
| | | | | | | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | MCA | FUSE OR HACR BRKR | DISCONNECT SIZE | | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA | |
| 50FEQM28 Vertical | 208/230-3-60 | STD/MED | 5 | — | — | — | 137 | 175 | 143 | 609 | 149 | 200 | 156 | 629 | |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 202/212 | 225/225 | 203/212 | 661/669 | 214/224 | 250/250 | 216/225 | 681/689 | |
| | | | | 455A | 37.6/50.0 | 104.2/120.3 | 267/257 | 300/300 | 263/281 | 713/729 | 279/269 | 300/300 | 276/295 | 733/749 | |
| | | 456A | 56.3/75.0 | 156.4/180.4 | 293/317 | 350/350 | 323/350 | 765/789 | 305/329 | 350/350 | 336/364 | 785/809 | | | |
| | | HIGH | 5 | — | — | — | 147 | 175 | 154 | 623 | 159 | 200 | 168 | 643 | |
| | | | | 454A | 18.8/25.0 | 52.1/60.1 | 212/222 | 250/250 | 214/224 | 675/683 | 224/234 | 250/250 | 228/237 | 695/703 | |
| | 455A | | | 37.6/50.0 | 104.2/120.3 | 277/267 | 300/300 | 274/293 | 727/743 | 289/279 | 300/300 | 288/306 | 747/763 | | |
| | 460-3-60 | STD/MED | 5 | — | — | — | 62 | 80 | 65 | 317 | 69 | 90 | 72 | 329 | |
| | | | | 457A | 25.0 | 30.1 | 100 | 110 | 100 | 347 | 106 | 110 | 107 | 359 | |
| | | | | 458A | 50.0 | 60.1 | 122 | 150 | 134 | 377 | 129 | 150 | 142 | 389 | |
| | | HIGH | 5 | — | — | — | 67 | 80 | 70 | 323 | 73 | 90 | 77 | 335 | |
| | | | | 457A | 25.0 | 30.1 | 104 | 110 | 105 | 353 | 110 | 125 | 112 | 365 | |
| | | | | 458A | 50.0 | 60.1 | 127 | 150 | 139 | 383 | 133 | 150 | 146 | 395 | |
| | | 575-3-60 | STD/MED | 5 | — | — | — | 51 | 60 | 53 | 236 | 56 | 70 | 58 | 244 |
| | | | | | 460A | 24.8 | 23.9 | 81 | 90 | 80 | 260 | 85 | 90 | 86 | 268 |
| | | | | | 461A | 49.6 | 47.7 | 110 | 125 | 107 | 284 | 115 | 125 | 113 | 292 |
| | | | HIGH | 5 | 462A | 74.4 | 71.6 | 122 | 150 | 135 | 308 | 127 | 150 | 140 | 316 |
| | | | | | — | — | — | 54 | 60 | 56 | 240 | 59 | 70 | 62 | 248 |
| | | | | | 460A | 24.8 | 23.9 | 84 | 90 | 84 | 264 | 89 | 100 | 89 | 272 |
| | 50FEQM28 Horizontal | 208/230-3-60 | HIGH | 5 | 461A | 49.6 | 47.7 | 114 | 125 | 111 | 288 | 118 | 125 | 117 | 296 |
| | | | | | 462A | 74.4 | 71.6 | 126 | 150 | 139 | 312 | 130 | 150 | 144 | 320 |
| | | | | | — | — | — | 147 | 175 | 154 | 623 | 159 | 200 | 168 | 643 |
| | | | HIGH | 5 | 463A | 18.8/25.0 | 52.1/60.1 | 212/222 | 250/250 | 214/224 | 675/683 | 224/234 | 250/250 | 228/237 | 695/703 |
| | | | | | 464A | 37.6/50.0 | 104.2/120.3 | 277/267 | 300/300 | 274/293 | 727/743 | 289/279 | 300/300 | 288/306 | 747/763 |
| 465A | | | | | 56.3/75.0 | 156.4/180.4 | 304/328 | 350/350 | 334/362 | 779/803 | 315/339 | 350/400 | 348/375 | 799/823 | |
| 460-3-60 | | HIGH | 5 | — | — | — | 67 | 80 | 70 | 323 | 73 | 90 | 77 | 335 | |
| | | | | 466A | 25.0 | 30.1 | 104 | 110 | 105 | 353 | 110 | 125 | 112 | 365 | |
| | | | | 467A | 50.0 | 60.1 | 127 | 150 | 139 | 383 | 133 | 150 | 146 | 395 | |
| | | HIGH | 5 | 468A | 75.0 | 90.2 | 157 | 175 | 174 | 413 | 163 | 175 | 181 | 425 | |
| | | | | — | — | — | 54 | 60 | 56 | 240 | 59 | 70 | 62 | 248 | |
| | | | | 469A | 24.8 | 23.9 | 84 | 90 | 84 | 264 | 89 | 100 | 89 | 272 | |
| 575-3-60 | | HIGH | 5 | 470A | 49.6 | 47.7 | 114 | 125 | 111 | 288 | 118 | 125 | 117 | 296 | |
| | | | | 471A | 74.4 | 71.6 | 126 | 150 | 139 | 312 | 130 | 150 | 144 | 320 | |
| | | | | — | — | — | 147 | 175 | 154 | 623 | 159 | 200 | 168 | 643 | |

50FEQM17 Electric Heat Data — Standard SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | STD ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | STD SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXXA00 | | | |
|---------------------|--------------|----------|-------------|---------------------------------|--------------|------------------|--------------------------|--|-----------------------|-------------|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | | w/PWRD C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM17 Vertical | 208/230-3-60 | STD/MED | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | | HIGH | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | STD/MED | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | STD/MED | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | — | — | — | — |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | — | — | — | — |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| 50FEQM17 Horizontal | 208/230-3-60 | HIGH | 5 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | HIGH | 5 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | HIGH | 5 | CRHEATER469A00 | 24.8 | 22.8 | 77.7 | — | — | — | 057 |
| | | | | CRHEATER470A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER471A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |

50FEQM17 Electric Heat Data — High SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | HIGH SCCR KA | HIGH SCCR ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HIGH SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXXA00 | |
|---------------------|--------------|----------|--------------|---------------------------------------|--------------|------------------|--------------------------|---|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM17 Vertical | 208/230-3-60 | STD/MED | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | | HIGH | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | STD/MED | 65 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | | HIGH | 65 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | STD/MED | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| | | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| 50FEQM17 Horizontal | 208/230-3-60 | HIGH | 60 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | HIGH | 65 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |

50FEQM24 Electric Heat Data — Standard SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | STD ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | STD SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXA00 | | | |
|---------------------|--------------|----------|-------------|---------------------------------|--------------|------------------|--------------------------|---|-----------------------|-------------|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | | w/PWRD C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM24 Vertical | 208/230-3-60 | STD/MED | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | | HIGH | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | STD/MED | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | STD/MED | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| 50FEQM24 Horizontal | 208/230-3-60 | HIGH | 5 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | HIGH | 5 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | HIGH | 5 | CRHEATER469A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER470A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER471A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |

50FEQM24 Electric Heat Data — High SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | HIGH SCCR KA | HIGH SCCR ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HIGH SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXXA00 | |
|---------------------|--------------|----------|--------------|---------------------------------------|--------------|------------------|--------------------------|---|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM24 Vertical | 208/230-3-60 | STD/MED | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | | HIGH | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | STD/MED | 65 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | | HIGH | 55 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | STD/MED | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| | | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| 50FEQM24 Horizontal | 208/230-3-60 | HIGH | 60 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | HIGH | 65 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |

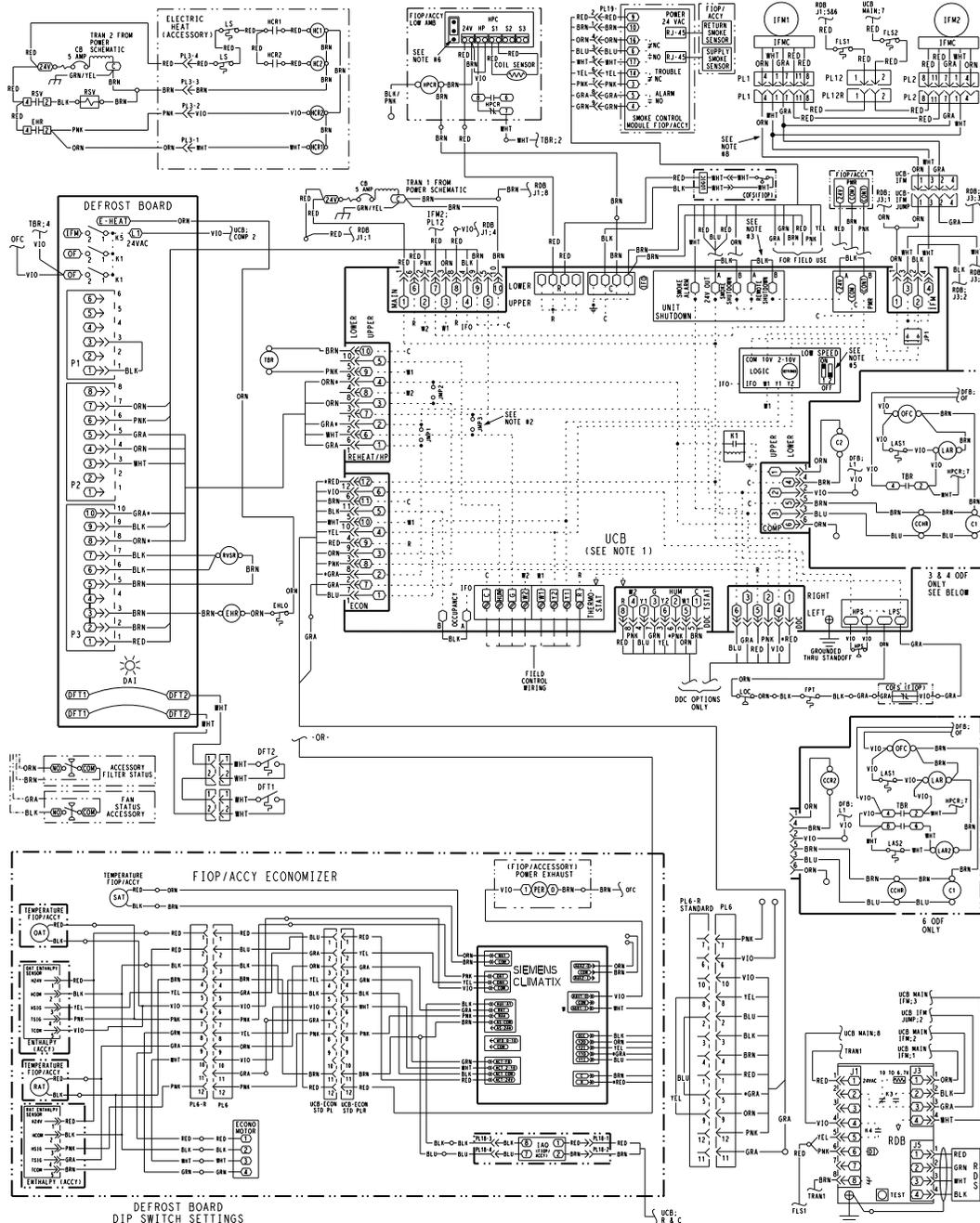
50FEQM28 Electric Heat Data — Standard SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | STD ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | STD SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXXA00 | | | |
|---------------------|--------------|----------|-------------|---------------------------------|--------------|------------------|--------------------------|--|-----------------------|-------------|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | | w/PWRD C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM28 Vertical | 208/230-3-60 | STD/MED | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | | HIGH | 5 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | STD/MED | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | STD/MED | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| | | HIGH | 5 | CRHEATER460A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER461A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER462A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |
| 50FEQM28 Horizontal | 208/230-3-60 | HIGH | 5 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 056 | 056 | 056 | 056 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 056 | 056 | 056 | 056 |
| | 460-3-60 | HIGH | 5 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 057 | 057 | 057 | 057 |
| | 575-3-60 | HIGH | 5 | CRHEATER469A00 | 24.8 | 22.8 | 77.7 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER470A00 | 49.6 | 45.6 | 155.4 | 057 | 057 | 057 | 057 |
| | | | | CRHEATER471A00 | 74.4 | 68.3 | 233.1 | 057 | 057 | 057 | 057 |

50FEQM28 Electric Heat Data — High SCCR Unit

| 50FEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | HIGH SCCR KA | HIGH SCCR ELECTRIC HEATER PART NUMBER | NOMINAL (kW) | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HIGH SCCR SINGLE POINT OR JUNCTION KIT PART NUMBER CRSINGLEXXXA00 | |
|---------------------|--------------|----------|--------------|---------------------------------------|--------------|------------------|--------------------------|---|-----------------------|
| | | | | | | | | NO C.O. OR UNPOWERED C.O. | |
| | | | | | | | | NO P.E. | w/P.E. (pwrd fr/unit) |
| 50FEQM28 Vertical | 208/230-3-60 | STD/MED | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | | HIGH | 60 | CRHEATER454A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER455A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER456A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | STD/MED | 65 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | | HIGH | 65 | CRHEATER457A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER458A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER459A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | STD/MED | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| | | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |
| 50FEQM28 Horizontal | 208/230-3-60 | HIGH | 60 | CRHEATER463A00 | 25.0 | 18.8/23.0 | 64.1/78.3 | 058 | 058 |
| | | | | CRHEATER464A00 | 50.0 | 37.6/45.9 | 128.1/156.7 | 058 | 058 |
| | | | | CRHEATER465A00 | 75.0 | 56.3/68.9 | 192.2/235.0 | 058 | 058 |
| | 460-3-60 | HIGH | 65 | CRHEATER466A00 | 25.0 | 23.0 | 78.3 | 059 | 059 |
| | | | | CRHEATER467A00 | 50.0 | 45.9 | 156.7 | 059 | 059 |
| | | | | CRHEATER468A00 | 75.0 | 68.9 | 235.0 | 059 | 059 |
| | 575-3-60 | HIGH | — | — | 24.8 | 22.8 | 77.7 | — | — |
| | | | | — | 49.6 | 45.6 | 155.4 | — | — |
| | | | | — | 74.4 | 68.3 | 233.1 | — | — |

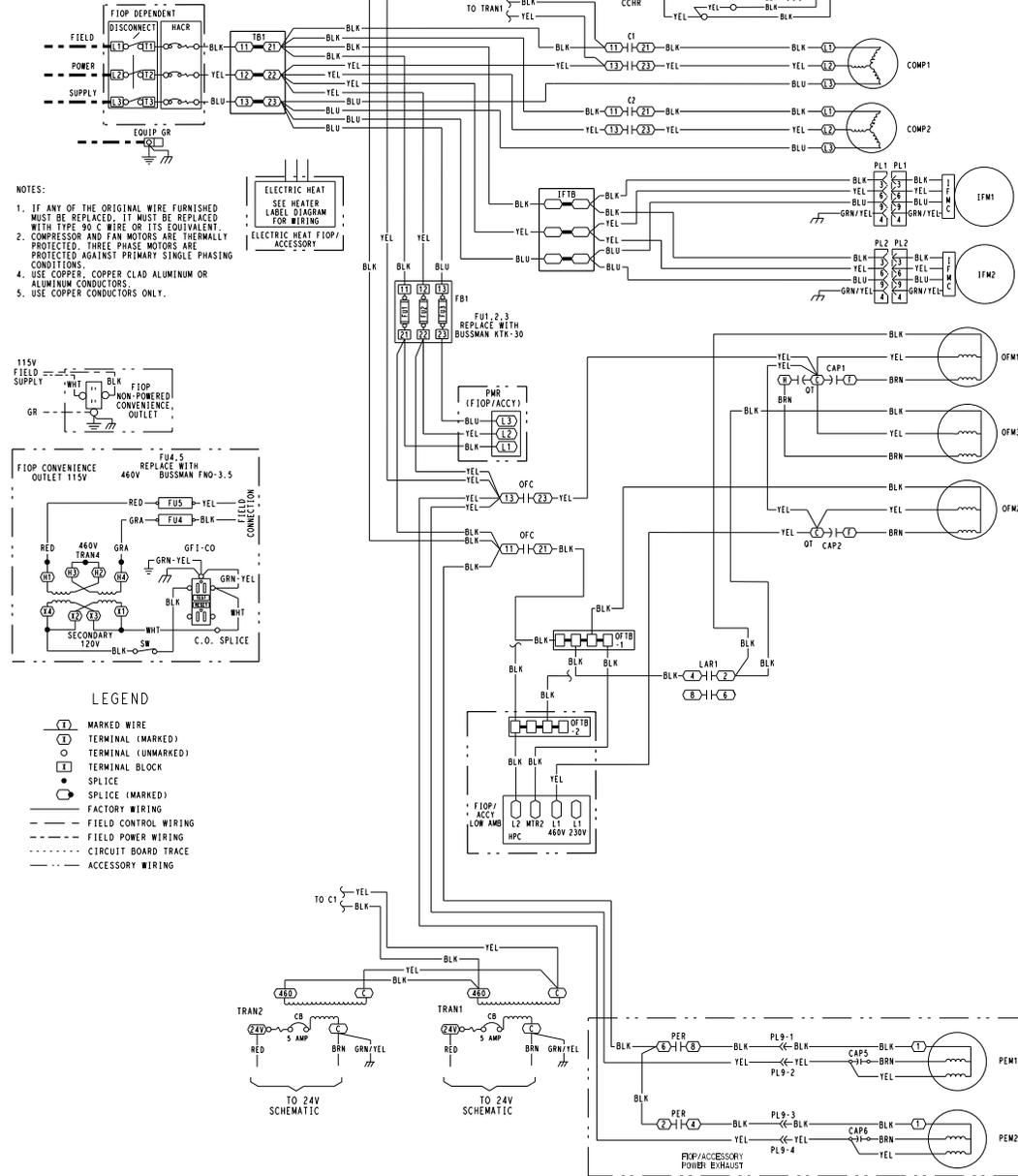
Typical 50FEQ*17-28 Control Wiring Diagram, Electromechanical with POL224 Controller, 460/575-3-60 Unit Shown



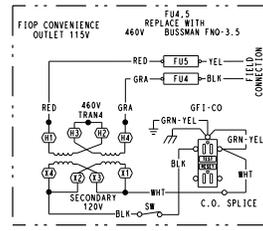
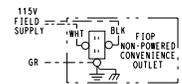
- DEFROST BOARD DIP SWITCH SETTINGS**
- 30 MINUTES 60 MINUTES 90 MINUTES 120 MINUTES
- FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES).
 SPEED SHORT TEST WIRE USE SP
 1) MOMENTARILY SHORT WIRE AND RELEASE TO BYPASS COMPRESSOR OFF DELAY.
 2) SHORT FOR 1/2 SEC. AND RELEASE FOR 1/2 SEC.
 3) PERMANENT SHORT WILL BE IGNORED.
 DEFROST WILL TERMINATE IN 30 SEC. IF OPT 1 IS CLOSED.
 DEFROST WILL TERMINATE NORMALLY IF OPT 1 IS CLOSED.
- NOTES:**
- TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD LAYOUT.
 - TERMINAL BOARD JUMPERS 1, 2, AND 3 ARE CUT FROM THE FACTORY.
 - REMOVE DESIGNATED JUMPERS ON TERMINAL BOARD WHEN ADDING SMOKE DETECTORS, OCCUPANCY AND REMOTE SHUTDOWN.
 - USE ABC AS COARSE AND POT AS FINE ADJUSTMENTS FOR SETTING HIGH FAN SPEED. LOW SPEED IS AN OFFSET BASED ON DIP SWITCHES.
 - 2-PIN LOW SPEED DIP SWITCH POSITIONS ARE FACTORY SET AS SHOWN.
 - HARDSTART AND CUTOFF SET BY "N" - NUMBER PIN ON TOP 2-PIN AS SHOWN.
 - "X" WIRE COLOR IS FOR DIFFERENTIATION WITHIN THIS SCHEMATIC.
 - ON HORIZONTAL SUPPLY UNITS, IFM2 GRN AND WHT WIRES WILL INCLUDE IN-LINE RESISTORS TO REDUCE 1/2" SPEED.
 - CONTROL BOARDS SHOWN HERE ARE IN THE UNPOWERED STATE.
- | | | | | | |
|---|--|--|---|---|---|
| ACCY AMB C CAP CB CCH CCHH CMB COFS COMP DDC EHL0 EHL1 ERV FIOP FLS FSD FU GND GVR HFC HPS | ACCESSORY AMBIENT CONTACTOR, COMPRESSOR CAPACITOR CIRCUIT BREAKER CRANKCASE HEATER COMBUSTION HEATER RELAY COMBUSTION CONDENSATE OVERFLOW SWT DIRECT DIGITAL CONTROL ELECTRIC HEAT LOCKOUT ELECTRIC HEAT RELAY ENERGY RECOVERY VENTILATOR FACTORY INSTALLED OPTION FAN LIMIT SWITCH FREEZE PROTECTION THERMOSTAT FIRE SHUT DOWN FLAME SENSOR FU GND GAS VALVE RELAY HFC HEAD PRESSURE CONTROL HPS | HS I IAO IOM IFCB IFM IFMC IFM2 JMP LA LDV LOC LTD LSM LS LTD0 MOV MTR MIS OAO OARH OAO OARH OAO OARH OAO OARH | HALL EFFECT SENSOR IGNITOR INDOOR AIR QUALITY SENSORS INDUCED DRAFT MOTOR INDOOR AIR CIRCUIT BREAKER INDOOR FAN MOTOR INDOOR FAN CONTROLLER INTEGRATED GAS CONTROL JUMPER LIQUID DIVERTER VALVE LOSS OF CHARGE LOW PRESSURE SWITCH LIMIT SWITCH (MANUAL RESET) LIMIT SWITCH LOW TEMPERATURE LOCKOUT MIXED AIR VALVE OUTDOOR AIR QUALITY MOTOR MIXED AIR TEMPERATURE SWITCH OUTDOOR AIR QUALITY OUTSIDE AIR RELATIVE HUMIDITY OUTDOOR AIR TEMP SENSOR OUTDOOR FAN CONTACTOR | OFM OFR OL PLG POT PWR POT RARRH RAT ROT SAT SEN SPRH SAT SEN SPRH SP SPTD STD TBD TDR TRAN UCB | OUTDOOR FAN MOTOR OUTDOOR FAN RELAY OVERLOAD PLUG ASSEMBLY POTENTIOMETER PHASE MONITOR RELAY QUADRUPLE TERMINAL RETURN AIR RELATIVE HUMIDITY RETURN AIR TEMP. SENSOR REFRIGERANT DISSIPATION BOARD REFRIGERANT DISSIPATION SENSOR REHEAT DISCHARGE VALVE ROLLOVER SWITCH REVERSING VALVE RELAY SUPPLY AIR TEMP. SENSOR SPACE RELATIVE HUMIDITY SPACE TEMPERATURE SENSOR SPACE TEMPERATURE OFFSET STANDARD TERMINAL BLOCK TEMPERATURE BYPASS RELAY TIME DELAY RELAY (WINTER START) TRANSFORMER UNIT CONTROL BOARD |
|---|--|--|---|---|---|
- HP CONTROL
 T1 15 - 25 TON
 T2 15 - 25 TON
 460V, 575V
- 50HE00760 B

Typical 50FEQ*17 Power Wiring Diagram, Electromechanical Controller, 15 Ton 460-3-60 Unit Shown

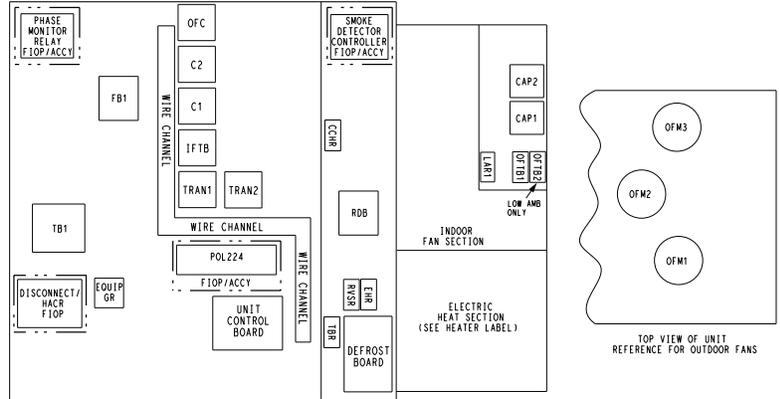
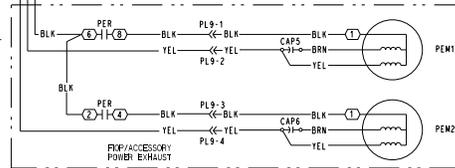
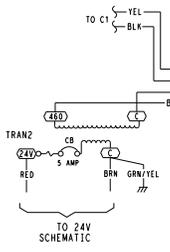
HP POWER T1 15 TON
460V



- NOTES:
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
 2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
 3. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
 4. USE COPPER CONDUCTORS ONLY.

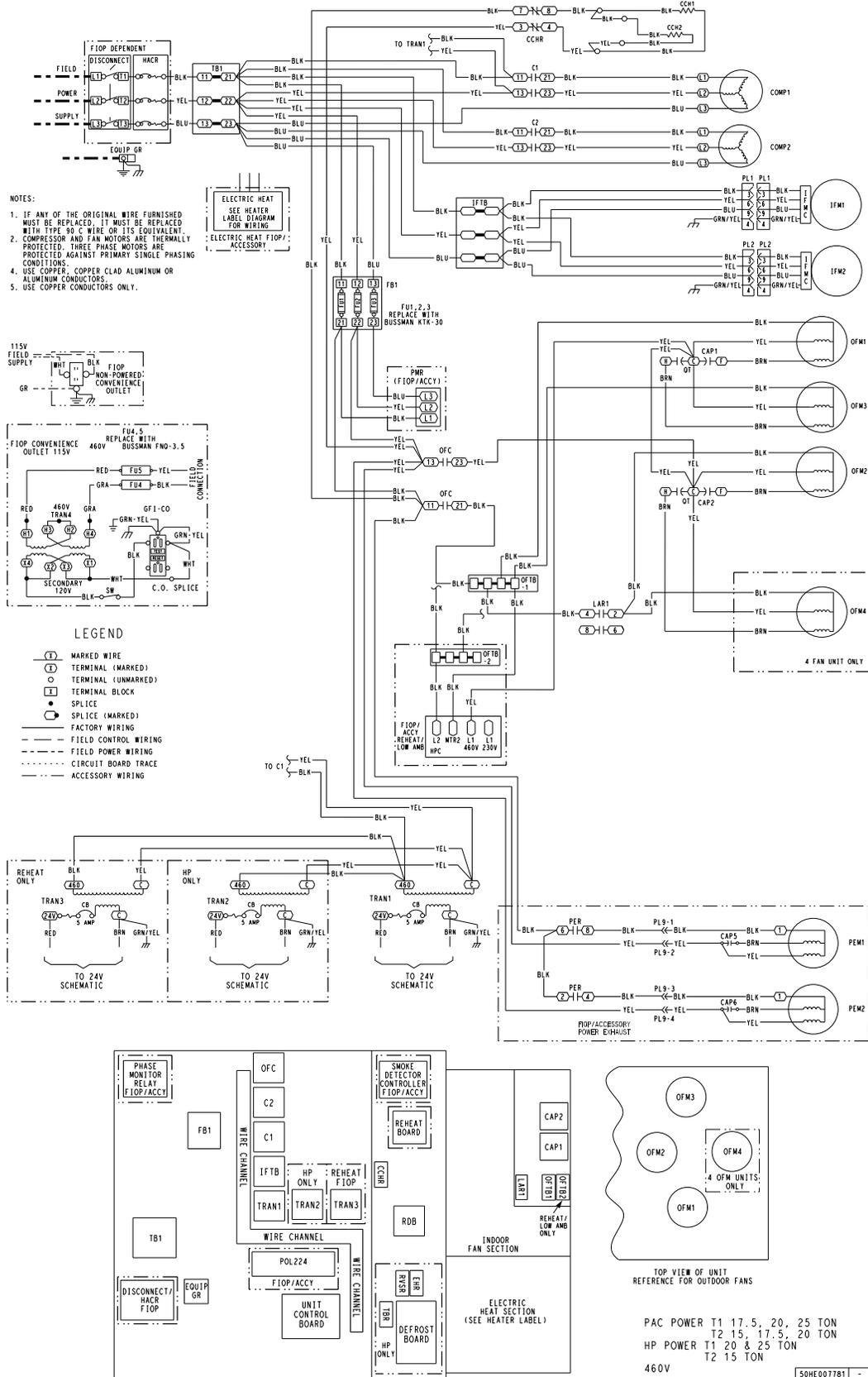


- LEGEND
- Ⓜ MARKED WIRE
 - Ⓜ TERMINAL (MARKED)
 - TERMINAL (UNMARKED)
 - TERMINAL BLOCK
 - SPLICE
 - SPLICE (MARKED)
 - FACTORY WIRING
 - - - FIELD CONTROL WIRING
 - - - FIELD POWER WIRING
 - ⋯⋯⋯ CIRCUIT BOARD TRACE
 - ⋯⋯⋯ ACCESSORY WIRING

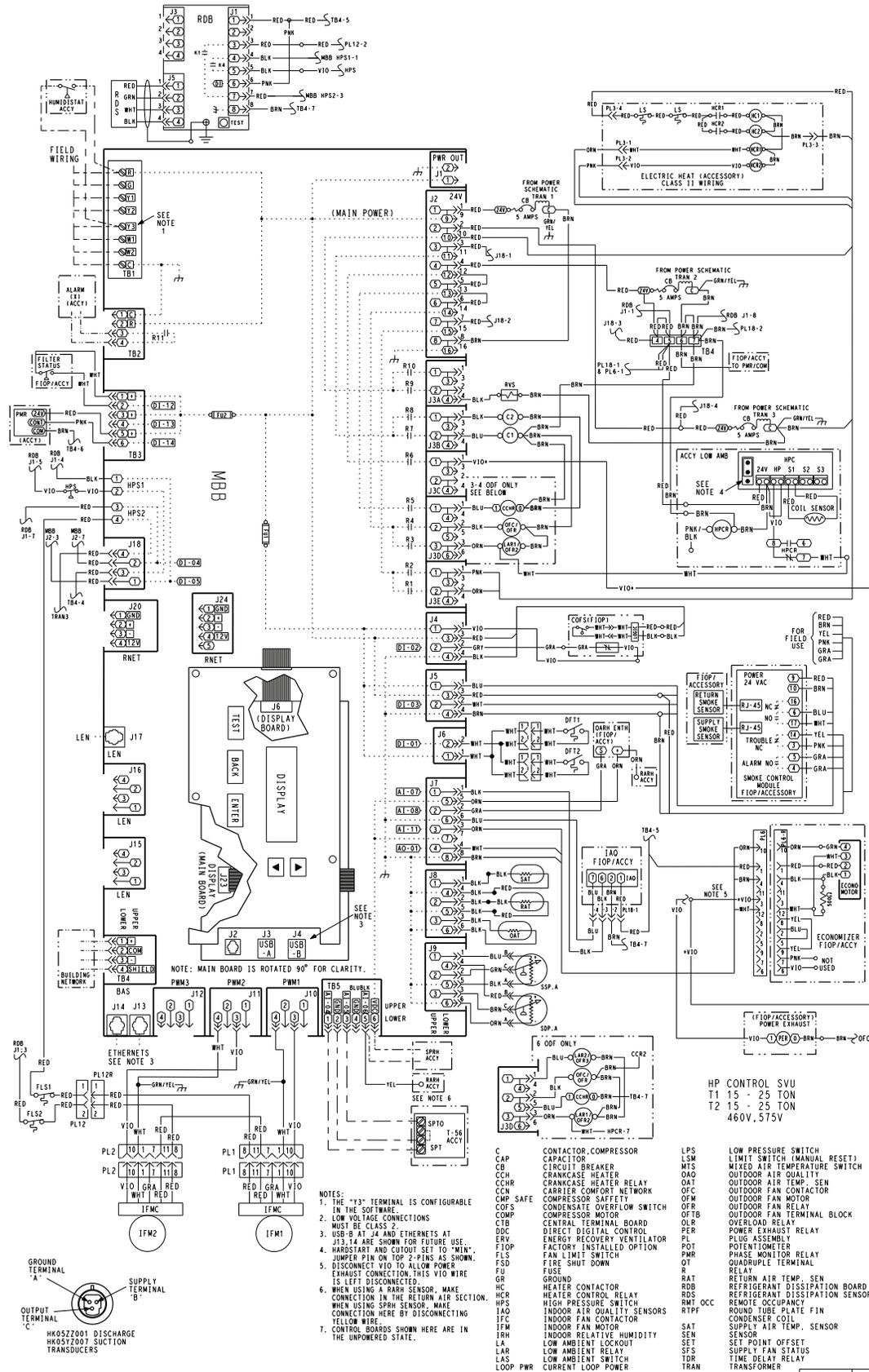


50HE007818

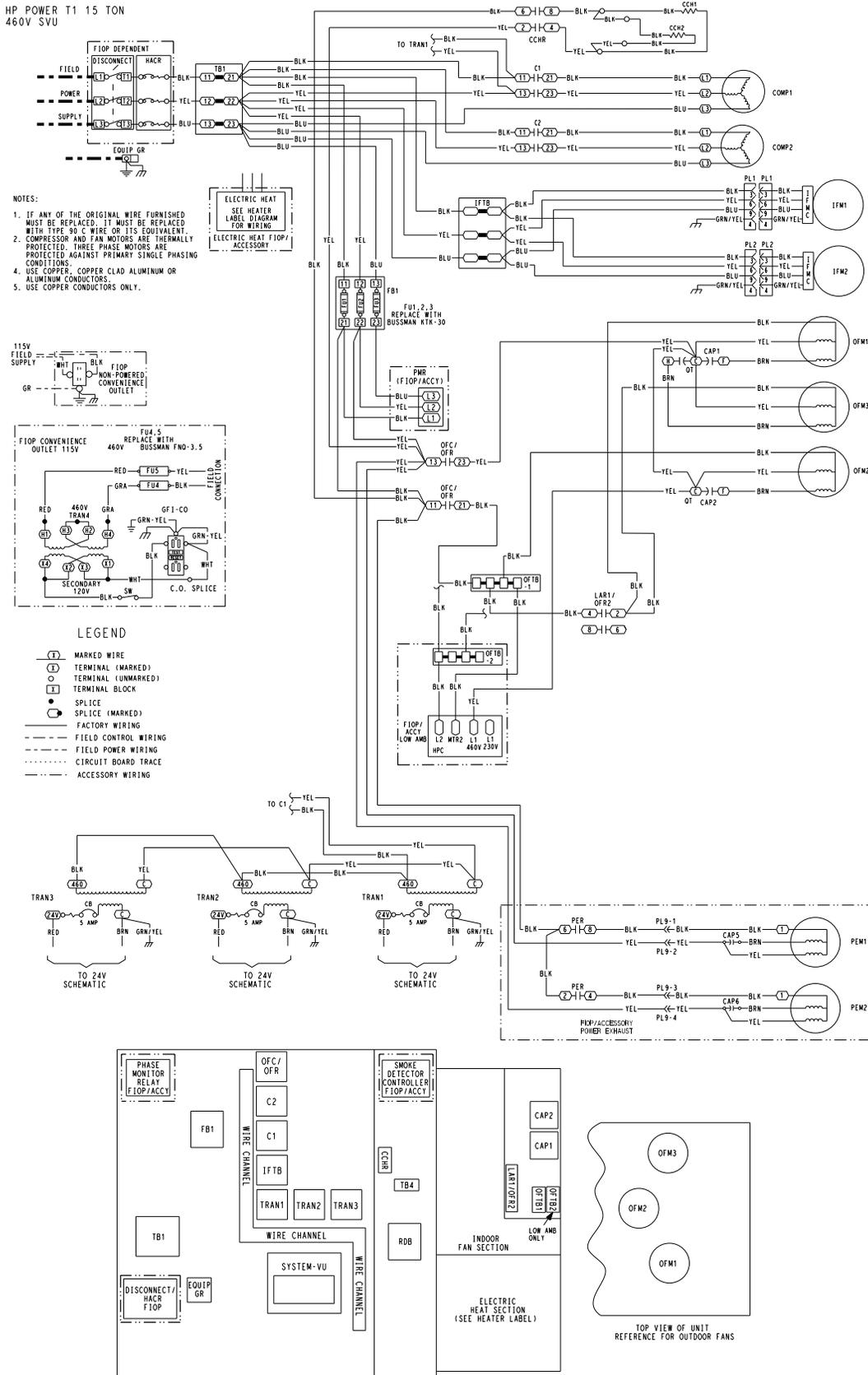
Typical 50FEQ*24-28 Power Wiring Diagram, Electromechanical Controller, 460-3-60 Unit Shown



Typical 50FEQ*17-28 Control Wiring Diagram, SystemVu™ Controller, 460-3-60 Unit Shown



Typical 50FEQ*17 Power Wiring Diagram, SystemVu™ Controller, 15 Ton 460-3-60 Unit Shown



50HE007821

General

The sequence below describes the sequence of operation for an electromechanical 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.

Electromechanical units without economizer

Cooling

When the thermostat calls for cooling, terminals G and Y1 are energized. The indoor fan will run at the low fan speed and the C1 compressor contactor (CC) is energized causing the compressor and outdoor fan to run. The low indoor fan speed is 60% or 66% of the user set fan speed depending on unit size.

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 C2 contactor and second compressor 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 slow to the reduced percentage of the user set fan speed, the C2 contactor will de-energize, the second compressor 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 90.1-2019 and IECC-2018 standards, during the first stage cooling operation the Unit Control Board (UCB) will adjust the fan motor speed to provide 60% or 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), the reversing valve solenoid (RVS) is energized and the OFC is de-energized. This switches the position of the reversing valve and shuts off the outdoor fan. The electric heaters (if installed) will be energized.

Heating, unit with economizer

Upon a request for heating from the space thermostat terminal, W1 will be energized with 24V. The indoor fan will run at high speed, and outdoor fan contactor (OFC), C1 and C2 will be energized in heating. The indoor fan, outdoor fans, and both stages of the compressor are energized. The reversing valve is de-energized and switch positions. The economizer is set to minimum position (ventilation position). If the space temperature continues to fall with W1 energized, W2 will bring on all electric heat (HC).

As the space temperature rises the W2 will de-energize and the compressors will continue to operate, until the thermostat set point is achieved de-energizing W1. If the thermostat is set to Auto, the indoor fan will de-energize and the economizer will close. If the indoor fan is set to On, the indoor fan will continue to operate and the economizer will remain at minimum position (vent 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.

Electromechanical 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 CO₂ sensors are connected to the EconomizerONE control, a demand controlled ventilation strategy will begin to operate. As the CO₂ level in the zone increases above the CO₂ set-point (on the EconomizerONE controller), the minimum position of the damper will be increased proportionally until the Maximum Ventilation setting is reached. As the CO₂ 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 set-point 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.

NOTE: On 2-speed units, the EconomizerONE controller will adjust the damper position as the Indoor Fan Speed changes, per its configured values.

Heating

The sequence of operation for the heating is the same as an electromechanical unit without 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.

SystemVu™ controller (factory option)

For details on operating 50FEQ units equipped with the factory-installed SystemVu controller option, refer to FEQ/GEQ 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 125°F (52°C). While cooling operation above 125°F (52°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 maximum may cause blow-off, undesired airflow noise, or airflow related problems with the rooftop unit. Operating below the minimum may cause problems with coil freeze-up and unsafe heating operation. Heating and cooling limitations differ when evaluating operating CFM, 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, brake 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 -0°F (-18°C) using the recommended accessory low ambient controller.

Note about this specification:

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



Cooling Only/Electric Heat Packaged Rooftop Heat Pump

HVAC Guide Specifications

Size Range: **15 to 25 Nominal Tons**

Carrier Model Number: **50FEQ*17-28**

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 13.23) Sensors and Transmitters:

- A. (23 09 13.23.A.) Thermostats:
- Thermostat must:
- a. energize both “W” and “G” when calling for heat.
 - b. have capability to energize 1 or 2 different stages of cooling, and 2 different stages of heating.
 - c. 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®, BACnet¹ MS/TP 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, backup and restore data and file transfer data such as component number of starts and run hours.
8. Reverse Rotation Protection of compressors if field 3-phase wiring is misapplied.

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

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^{®1} 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^{®1}, terminal block and RJ style modular jack connections.
13. 365 day real time clock, 20 holiday schedules along with occupied and unoccupied scheduling.
14. Auto-Recognition for easy installation and commissioning of devices like economizers, space sensors, etc.
15. A 5°F temperature difference between cooling and heating set points to meet the latest ASHRAE 90.1 Energy Standard.
16. Contains 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 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 units with SystemVu™ controller is achieved through set point expansion. The systems heating and cooling set points are expanded in steps or levels. The degree to which the set points may be expanded is defined by the 6 demand level offsets and the 2 commanded demand limit levels.
20. 3-year limited part warranty.

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 75 VA 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 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.

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

4. Heating section shall be provided with the following minimum protections:
 - a. High temperature limit switches.
 5. AL2 Refrigerant Leak Dissipation System (Electromechanical)
 - a. Leak dissipation system shall consist of control board and A2L sensor certified to UL 60335-2-40.
 - b. System shall be designed for the life of the unit.
 - c. Dissipation system shall be automatic, ship pre-wired, and require no additional field connections to thermostat to function.
 - d. Refrigerant leak sensor shall be installed in UL certified location and orientation. Sensor shall be self-correcting and resettable. Single use refrigerant leak sensor shall not be permitted.
 - e. Factory installed dissipation controller shall use onboard microprocessor and include:
 - 1) Automatic reset after a dissipation event has occurred.
 - 2) Onboard LED with flash code to indicate current unit status and hardware failures.
 - 3) Depressible “Test” button to allow for a system test and recall/reset of leak detection history.
 - 4) 24V dry contact alarm terminal to allow for external notification of leak detection.
 - f. Dissipation control board shall be accessible via normal maintenance locations and LED shall be visible.
 - g. Dissipation system shall “Fail Safe” per UL requirements.
 - h. Dissipation shall allow smoke and building fire systems to override in case of event.
 6. A2L Refrigerant Leak Dissipation System (SystemVu)
 - a. Leak dissipation system shall consist of control board and A2L sensor certified to UL 60335-2-40, integrated with SystemVu controller.
 - b. System shall be designed for the life of the unit.
 - c. Dissipation system shall be automatic, ship pre-wired, and require no additional field connections to function.
 - d. Refrigerant leak sensor shall be installed in UL certified location and orientation. Sensor shall be self-correcting and resettable. Single use refrigerant leak sensor shall not be permitted.
 - e. Factory installed dissipation system shall use onboard microprocessor and include:
 - 1) Automatic leak detection and dissipation algorithm.
 - 2) Automatic reset after a dissipation event has occurred.
 - 3) Onboard LED with flash code to indicate current unit status and hardware failures.
 - 4) Depressible “Test” button to allow for a system test and recall/reset of leak detection history.
 - 5) 24V dry contact alarm terminal on dissipation control board to allow for external notification of leak detection.
 - 6) Ability to notify BAS system of dissipation event via readable alarm point through SystemVu.
 - 7) Recallable dissipation alarm history on SystemVu controller.
 - f. Dissipation control board shall be accessible via normal maintenance locations and LED shall be visible.
 - g. Dissipation system shall “Fail Safe” per UL requirements.
 - h. Dissipation shall allow smoke and building fire systems to override in case of event.
- Part 6 — (23 09 93) Sequence of Operation 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:
 - A. (23 81 19.13.A.) General:
 1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing fully hermetic scroll compressors 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 Advance™ (R-454) 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 340/360.
 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 60335-2-40, including testing to withstand rain. Unit shall be IPX4 rated.
 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 125°F (52°C) ambient outdoor temperature meeting maximum load criteria of AHRI Standard 340/360 at ±10% voltage.
 2. Compressor with standard controls shall be capable of operation down to 40°F (4°C) ambient outdoor temperatures in cooling mode.
3. Compressor with standard controls shall be capable of operation down to -10°F (-23°C) ambient outdoor temperatures or lower in heat pump heating mode.
 4. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
 5. Unit shall be factory configured for either vertical or horizontal supply and return configurations. Unit shall not require field conversion.
- 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 prepainted 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 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 4 locations for thru-the-base gas and 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, through the side of the drain pan. Connection shall be made per manufacturer's recommendations.
 7. Top Panel:
 - a. Shall be a multi-top panel with watertight flanges and locking systems.

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) Thru-the-base provisions/connections are available as standard with every unit. When bottom connections are required, field furnished couplings are required.
 - 2) 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, gas components (where applicable), 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 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 60335-2-40 burst test at 1775 psig.
 - c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 60335-2-40 burst test at 1980 psig.
 2. Optional Pre-Coated Aluminum-Fin Condenser Coils:
 - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
 - b. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.
 - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
 3. Optional Copper-Fin Evaporator and Condenser Coils:
 - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
 - b. Galvanized steel tube sheets shall not be acceptable.
 - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
 4. Optional E-Coated Aluminum-Fin Evaporator and Condenser Coils:
 - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.
 - b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
 - c. Color shall be high gloss black with gloss per ASTM D523.
 - 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 and cross-hatch adhesion of 4B-5B per ASTM D3359.
 - f. Impact resistance shall be up to 160 in.-lb (ASTM D2794).
 - g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247 and ASTM D870).
 - h. Corrosion durability shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117.
- I. (23 81 19.13.I.) Refrigerant Components:
 1. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range. Shall contain
 - d. Corrosion durability of fin stock shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117.
 - 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).

removable power element to allow change out of power element and bulb without removing the valve body.

- b. Refrigerant filter drier — Solid core design with pre and post filter service gauge connections for filter diagnostics and maintenance.
 - c. Service gauge connections on suction and discharge lines.
 - d. Pressure gauge access through a specially designed access port in the unit.
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 tandem scroll compressor assembly on single independent refrigeration circuit with two stages of cooling for efficient comfort cooling operation.
 - b. Evaporator coils shall be a full active design to help better control latent removal and minimize unconditioned bypass air.
 - c. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
 - d. Compressors shall be internally protected from high discharge temperature conditions.
 - e. Compressors shall be protected from an over-temperature and over-ampereage conditions by an internal, motor overload device.
 - f. Compressor shall be factory mounted on rubber grommets.
 - g. Compressor motors shall have internal line break thermal, current overload and high pressure differential protection.
 - h. Crankcase heaters shall not be required for normal operating range, unless required by the manufacturer due to refrigerant charge limits.
- 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 be direct drive design for all static options.
 - c. Shall have permanently lubricated bearings.
 - d. Shall have inherent automatic-reset thermal overload protection.
 - e. Shall have slow ramp up to speed capabilities.
 - f. Shall require no fan/motor belts for operation, adjustments and or initial fan speed set up.
 - g. 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.
 - h. Shall be internally protected from electrical phase reversal and loss.
 2. Evaporator Fan:
 - a. Speed shall be easily set with dedicated selection switch and adjustment pot on unit control board or through SystemVu™ controller.
 - b. Shall provide 2 stage cooling capacity control, the indoor fan speed is automatically controlled to meet the code-compliant low fan speed and 100% at full fan speed operation.
 - c. Blower fan shall be a Vane Axial fan design with fan assembly secured directly to ECM motor. Additional shafts, belts, pulleys/sheaves, and bearing blocks to drive fan shall not be permitted or necessary.
 - d. Additional variable frequency drive to control fan motor speed shall not be permitted or necessary. All speed control electronics must be onboard fan motor assembly.
 - e. Shall be constructed of a cast aluminum stator or high impact composite material on stator rotor and air inlet casing.
 - f. Shall be a patented design with a corrosion resistant material and dynamically balanced.
 - g. Fan assembly design shall be integrated to fan deck, dynamically balanced, and require no additional vibration isolation for normal operation.
 - h. Shall have slow ramp up to speed capabilities to help reduce sound and comfort issues typically associated with single speed belt drive systems.
 - i. Units shall contain 2 separate vane axial fan assemblies.
 - j. Shall be a slide out design with removal of a few support brackets.

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, high and mixed air temperature 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.
 - b. Shall have galvalum blades riveted to steel spider that have corrosion-resistant properties 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.
 - 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 set points.
 - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - f. Low 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 Siemens POL224 that provides:
 - 1) Combined minimum and DCV maximum damper position potentiometers with compressor staging relay.
 - 2) Optional configuration via WLAN stick and Siemens Climatix™1 smartphone app for easy setup.
 - 3) Functions with solid-state analog enthalpy or dry bulb changeover control sensing.
 - 4) LED indicators for free cooling, sensor, and damper operation.
 - 5) One-line LCD interface screen for setup, configuration and troubleshooting.
 - 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 SystemVu™ controls shall be a 4-20 mA design controlled directly by the controller. SystemVu controllers 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.

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- p. Economizer controller shall accept a 0 to 10 vdc CO₂ 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 to 80°F (-43°C to 26°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. Shall contain LED indication for free cooling, sensor, and damper operation.
2. Integrated EconomizerONE and EconoMi\$er® 2 Ultra Low Leak Rate 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 set points.
 - 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 Siemens 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.
 - 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 SystemVu™ controls shall be a 4-20mA design controlled directly by the controller. SystemVu controller meets 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 CO₂ 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 to 80°F (-43°C to 26°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. Shall 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™ mobile application.
4. Two-Position Damper (field-installed only):
- a. Damper shall be a Two-Position Damper. Damper travel shall be from the full closed position to the field adjustable %-open set point.

- 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):
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). For full low ambient control range, winter start kit is required.
7. Condenser Coil Hail Guard Assembly (factory or field installed):
- a. Shall protect against damage from hail.
 - b. Shall be louvered type.
8. Unit-Mounted, Non-Fused Disconnect Switch:
- a. Available on 15 to 25 ton units with FLA of 100 amps or less (460/575V) or 200 amps or less (208/230V).
 - b. Switch shall be factory installed, internally mounted.
 - c. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff.
 - d. Shall be accessible from outside the unit.
 - e. Shall provide local shutdown and lockout capability.
 - f. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
9. Convenience Outlet:
- a. Factory Installed Powered Convenience Outlet.
 - 1) Outlet shall be powered from main line power to the rooftop unit.
 - 2) Outlet shall be powered from line side or load side of disconnect by installing contractor, as required by code. If outlet is powered from load side of disconnect, unit electrical ratings shall be 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 115/120-v 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 115/120-v 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 gas and electrical connections to be brought to the unit through the unit basepan.
 - b. Minimum of 4 connections locations per unit.
11. Centrifugal Fan 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 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:

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:

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 (CO₂) 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 4-wire controller and detector.
 - b. Shall be environmental compensated with differential sensing for reliable, stable, and drift-free sensitivity.
- c. Shall use magnet-activated test/reset sensor switches.
- d. Shall have tool-less connection terminal access.
- e. Shall have a recessed momentary switch for testing and resetting the detector.
- f. Controller shall include:
 - 1) One set of normally open alarm initiation contacts for connection to an initiating device circuit on a fire alarm control panel.
 - 2) Two Form-C auxiliary alarm relays for interface with rooftop unit or other equipment.
 - 3) One Form-C supervision (trouble) relay to control the operation of the Trouble LED on a remote test/reset station.
 - 4) Capable of direct connection to 2 individual detector modules.
 - 5) Can be wired to up to 14 other duct smoke detectors for multiple fan 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 40°F (4°C).
 - c. Shall not be required to operate on an economizer for cooling when below an outdoor ambient of 40°F (4°C).
 - d. Is not compatible with SystemVu controls.
18. Time Guard:
 - 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:

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

 - a. Indicator light — solid red (more than 10 seconds of water contact — compressors disabled), blinking red (sensor disconnected).
 - b. 10 second delay to break — eliminates nuisance trips from splashing or waves in pan (sensor needs 10 seconds of constant water contact before tripping).

Guide specifications (cont)

- c. Disables the compressor(s) operation when condensate plug is detected, but still allows fans to run for economizer.
21. 4 MERV-13 – 4 in. Return Air Filters (factory installed only):
- a. Factory option to upgrade standard unit filters to 4 in. MERV-13 filters.
 - b. Upgraded option shall include factory installed 4 in. filter rack.
22. 4 in. Return Air Filter Rack (field installed only):
- a. Accessory kit designed to hold 4 in. MERV-8 or MERV-13 filters. Filters not included in kit.
23. 2 in. MERV-13 Return Air Filters:
- a. Accessory kit to field upgrade standard unit filters to 2 in. MERV-13 filters.
 - b. Correct size and quantity of filters shall ship in a single box
24. 2 in. MERV-8 Return Air Filters:
- a. Accessory kit to field upgrade standard unit filters to 2 in. MERV-8 filters.
 - b. Correct size and quantity of filters shall ship in a single box.
25. Phase Monitor Control:
- a. Shall monitor the sequence of 3-phase electrical system to provide a phase reversal protection.
 - b. Shall monitor the 3-phase voltage inputs to provide a phase loss protection for the 3-phase device.
 - c. Will work on either a Delta or Wye power connection.
26. Horn/Strobe Annunciator:
- a. Provides an audible/visual signaling device for use with factory-installed option or field installed accessory smoke detectors.
- b. Requires installation of a field-supplied 24-v transformer suitable for 4.2 VA (AC) or 3.0 VA (DC) per horn/strobe accessory.
 - c. Requires field-supplied electrical box, North American 1-gang box, 2 in. x 4 in. (51 mm x 102 mm).
 - d. Shall have a clear colored lens.
27. 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. Auto re-set 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.
28. High Short Circuit Current Rating (SCCR) Protection:
- a. Factory-installed option shall provide high short circuit current protection to compressor and all indoor and outdoor fan motors of 60 kA (208/230V) or 65 kA (460V) against high potential fault current situations. (Standard unit comes with 5 kA rating.)
 - b. This option is not available with factory installed Powered Convenience Outlet, Non-Fused Disconnect, Low Ambient controls, Phase loss monitor/protection, or 575 Volt models.