Product Data

# WeatherMaster® Single Package Heat Pump Rooftop

6 to 10 Nominal Tons

ecoblue™ technology


50GEQ*07, 08, 09, 12

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

# Features/Benefits

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

The WeatherMaster line have always stood for cooling solutions that are innovative, high quality, and easy to use. Carrier's new 50GEQ 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 efficient 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 control 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 and 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

Designed to fit on existing roof curbs, Carrier 50GEQ 6 to 10 ton models make replacements even easier.

Two-stage cooling capacity control delivers efficiencies of up to 17.6 IEER and 3.7 COP. All models are field convertible and capable of either vertical or horizontal air-flow.

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 6 to 10 ton Carrier WeatherMaster RTU provides optimum comfort and control from a packaged rooftop.

Value-added features include:

- Puron Advance refrigerant (R-454B)
- SystemVu™ intuitive, intelligent controls option
- Optional Humidi-MiZer® adaptive dehumidification system with patented subcooling technology for improved part load humidity performance
- Single point electrical connections
- TXV refrigerant metering system
- Scroll compressors with internal line-break overload protection
- Easy-to-access tool-less filter door, filter tracks that tilt out for filter removal and replacement, and filter size consistency across units

### Easy to install

All 6 to 10 ton WeatherMaster units are field-convertible to horizontal air-flow, which makes it easy to adjust to unexpected jobsite complications. The 10 ton models require a simple supply duct cover kit to field convert from factory vertical to horizontal. Our units are light, making them easy to replace and aiding in the structural approval process. Our standard integrated unit control board (UCB) has simple, fast, clearly labeled plug-in connection points that reduce installation time. Should a job need additional features, our large control box provides room to work and mount Carrier accessories.

### 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.

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# Features/Benefits (cont)

## 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

50GEQ models offer onboard electromechanical 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 yearround. All 50GEQ 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 (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 WeatherMaster 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

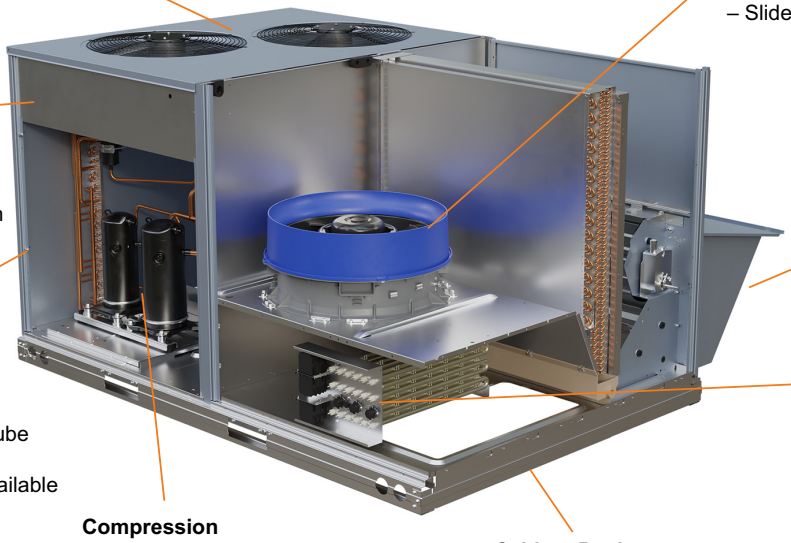
The 50GEQ packaged rooftops exceed ASHRAE 90.1 and IECC®[1] (International Energy Conservation Code) minimum IEER efficiency requirements.

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

# Features/Benefits (cont)

WeatherMaster®
with ecoblue™ technology

50GEQ 6.0 – 8.5 Ton Models shown



**High Efficiency Outdoor Fan**
– Non-corrosive blades
– Balanced blades
– Efficient airflow collar

**Vane Axial Indoor Fan**
– Direct drive ECM
– Slow ramp up
– Phase loss protection
– No belts or pulleys
– Slide out design

**Unit Controls**
– Base unit controller
  Switch/dial fan setting
  Large terminal connections
– SystemVu™ control option

**Air Management**
– Factory - Field economizers
– 4 inch 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
– Humidi-MiZer® system available

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

**Compression**
– Fully hermetic scroll
– Internally protected
– Tandem stage design
– Safety switch protected

**Cabinet Design**
– Heavy gauge base rails
– Large handled access panels
– Embossed strengthened base pan

# Model number nomenclature

## 50GEQ 07-12 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 | G | E | Q | M | 1 | 2 | A | 2 | A | 5 | - | 0 | A | 0 | A | 0 |

**Unit Type**
50 – Cooling Packaged Rooftop

**Model Series — WeatherMaster®**
GE – High Efficiency Puron Advance™

**Heat Size**
Q = Heat Pump
(Field-Installed Electric Heat)

**Refrigerant Systems Options**
M = Two Stage Cooling, Single Circuit
N = Two Stage Cooling, Single Circuit with Humidi-MiZer® System[a,b]
X = Two Stage Cooling, Single Circuit with Pressure Relief Valve[c]
Y = Two Stage Cooling, Single Circuit with Humidi-MiZer System and Pressure Relief Valve[a,b,c]

**Tonnage**
07 = 6.0 tons
08 = 7.5 tons
09 = 8.5 tons
12 = 10.0 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

**Fan Options**
2 = Standard/Medium Static – EcoBlue Vane Axial Fan
3 = High Static – EcoBlue Vane Axial Fan
5 = Standard/Medium Static – EcoBlue Vane Axial Fan and Filter Status Switch
6 = High Static – EcoBlue Vane Axial Fan and Filter Status Switch

**RTPF Coil Options – (Outdoor - Indoor - Hail Guard)**
A = Al/Cu - Al/Cu
B = Precoat Al/Cu - Al/Cu
C = E-coat Al/Cu - Al/Cu
D = E-coat Al/Cu - E-coat Al/Cu
M = Al/Cu - Al/Cu — Louvered Hail Guard
N = Precoat Al/Cu - Al/Cu — Louvered Hail Guard
P = E-coat Al/Cu - Al/Cu — Louvered Hail Guard
Q = E-coat Al/Cu - E-coat Al/Cu — Louvered Hail Guard
R = Cu/Cu - Al/Cu — Louvered Hail Guard
S = Cu/Cu - Cu/Cu — Louvered Hail Guard

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

**Design Revision**
- = Factory Assigned

**Base Unit Controls**
0 = Standard Electromechanical Controls (can be used with field installed economizers and dampers)
3 = SystemVu™ Controller
8 = Electromechanical Controls with POL224 (includes FDD[e])

**Intake / Exhaust Options**
A = None
B = Standard Leak Economizer with Barometric Relief
F = Standard Leak Enthalpy Economizer with Barometric Relief
L = ULL (Ultra Low Leak) Temperature Economizer with Barometric Relief and $CO_2$ Sensor
M = ULL Enthalpy Economizer with Barometric Relief and $CO_2$ Sensor
U = ULL Temperature Economizer with Barometric Relief
W = ULL Enthalpy Economizer with Barometric Relief

**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
C = Foil Faced Insulation (FF)
D = Foil Faced Insulation + NPCO
E = Foil Faced Insulation + PCO
F = Foil Faced Insulation + Hinged Panels
G = FF + HP + NPCO
H = FF + HP + PCO
J = Foil Faced Insulation + MERV-13 Filters
K = FF + NPCO + MERV-13 Filters
L = FF + PCO + MERV-13 Filters
M = FF + HP + MERV-13 Filters
N = FF + HP + NPCO + MERV-13 Filters
P = FF + HP + PCO + MERV-13 Filters

**Electrical Options**
A = None
B = HACR Breaker
C = Non-Fused Disconnect (NFDC)
D = Thru-The-Base Connections (TTB)
E = HACR +TTB
F = NFDC + TTB
N = Phase Monitor Protection (PMR)
P = PMR + HACR
Q = PMR + NFDC
R = PMR + TTB
S = PMR + HACR + TTB
T = PMR + NFDC + TTB
1 = HSCCR[d] (High Short Circuit Current Rating)
2 = HSCCR[d] + TTB

**Packaging & Seismic Compliance**
0 = Standard

NOTE(S):
a Units with Humidi-MiZer System include Low Ambient controller.
b Requires SystemVu Controller.
c Available for Size 12 units only.
d Not available on the following models/options:
575V, Low Ambient/Head Pressure Control, Phase Loss Monitor, Humidi-MiZer System, Non-Fused Disconnect, HACR, Powered Convenience Outlet or Size 09 units.
e FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.

# Capacity ratings

## 50GEQ*07-12 AHRI Ratings[a,b,c]

| COOLING MODE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 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 |
| **50GEQ*07** | 2 | 6.0 | 72,000 | 5.7 | 12.60 | 17.4 | 2600 | 1560 |
| **50GEQ*08** | 2 | 7.5 | 90,000 | 7.4 | 12.20 | 17.0 | 3000 | 1700 |
| **50GEQ*09** | 2 | 8.5 | 100,000 | 8.2 | 12.20 | 17.6 | 3200 | 1600 |
| **50GEQ*12** | 2 | 10.0 | 116,000 | 9.6 | 12.10 | 16.8 | 4400 | 2640 |

| HEATING MODE | | | | | |
|---|---|---|---|---|---|
| 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 | |
| **50GEQ*07** | 36,000 | 2.30 | 67,000 | 3.70 | 2600 |
| **50GEQ*08** | 45,000 | 2.30 | 87,000 | 3.60 | 3000 |
| **50GEQ*09** | 52,000 | 2.35 | 94,000 | 3.50 | 3200 |
| **50GEQ*12** | 60,000 | 2.35 | 108,000 | 3.50 | 4400 |

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 50GEQ 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
**EER** — Energy Efficiency Ratio
**IEER** — Integrated Energy Efficiency Ratio

# Capacity ratings (cont)

## Sound Rating Tables [a]

| 50GEQ UNIT | COOLING STATES | OUTDOOR SOUND (dB) AT 60 Hz[b] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A-WEIGHTED[c] | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| **M07** | 2 | 81 | 86.7 | 82.7 | 79.1 | 78.4 | 75.4 | 71.2 | 67.8 | 62.9 |
| **M08** | 2 | 83 | 87.3 | 81.6 | 79.7 | 80.6 | 79.0 | 73.5 | 69.2 | 66.1 |
| **M09** | 2 | 87 | 61.7 | 74.7 | 77.4 | 82.6 | 84.9 | 81.9 | 78.8 | 75.9 |
| **M12** | 2 | 83 | 61.0 | 67.3 | 75.1 | 77.7 | 78.1 | 75.5 | 71.2 | 66.7 |

NOTE(S):

a. 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.
b. Outdoor sound data is measured in accordance with AHRI.
c. 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 |
| **50GEQ*07** | 1080 | 1800 | 3000 | 1800 | 3000 |
| **50GEQ*08** | 1125 | 2250 | 3750 | 2250 | 3750 |
| **50GEQ*09** | 1275 | 2550 | 4250 | 2550 | 4250 |
| **50GEQ*12** | 1800 | 3000 | 5000 | 3000 | 5000 |

NOTE(S):

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

# Physical data

## 50GEQ 6.0 to 7.5 Ton Physical Data

| 50GEQ UNIT | 50GEQM07 | 50GEQN07 | 50GEQM08 | 50GEQN08 |
|---|---|---|---|---|
| NOMINAL TONS | 6.0 | 6.0 | 7.5 | 7.5 |
| BASE UNIT OPERATING WT (lb)[a] | 776 | 776 | 812 | 812 |
| REFRIGERATION SYSTEM | | | | |
| No. Circuits/No. Compressors/Type | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll |
| Puron Advance™ (R-454B) Charge (lb-oz) | 15-0 | 15-14 | 16-11 | 23-13 |
| Cooling Metering Device | TXV | TXV | TXV | TXV |
| Heating Metering Device | TXV | TXV | TXV | TXV |
| High-Pressure Trip/Reset (psig) | 630/505 | 630/505 | 630/505 | 630/505 |
| Loss of Charge Trip/Reset (psig) | 27/44 | 27/44 | 27/44 | 27/44 |
| EVAPORATOR COIL | | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 3/8 in. RTPF | 3/8 in. RTPF | 3/8 in. RTPF | 3/8 in. RTPF |
| Rows/FPI | 3/15 | 3/15 | 4/15 | 4/15 |
| Total Face Area ($ft^2$) | 11.1 | 11.1 | 11.1 | 11.1 |
| Condensate Drain Connection Size | 3/4 in. | 3/4 in. | 3/4 in. | 3/4 in. |
| CONDENSER COIL | | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Rows/FPI | 2/18 | 2/18 | 2/18 | 2/18 |
| Total Face Area ($ft^2$) | 25.1 | 25.1 | 25.1 | 25.1 |
| HUMIDI-MIZER COIL | | | | |
| Material (Tube/Fin) | — | Cu/Al | — | Cu/Al |
| Coil Type | — | 5/16 in. RTPF | — | 5/16 in. RTPF |
| Rows/FPI | — | 2/18 | — | 2/18 |
| Total Face Area ($ft^2$) | — | 8 | — | 8 |
| EVAPORATOR FAN AND MOTOR | | | | |
| Standard/Medium Static 3 Phase | | | | |
| Motor Qty / Drive Type | 1 / Direct | 1 / Direct | 1 / Direct | 1 / Direct |
| Max Cont bhp | 2.4 | 2.4 | 2.4 | 2.4 |
| Range (rpm) | 250-2000 | 250-2000 | 250-2000 | 250-2000 |
| Fan Qty / Type | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 | 22 |
| High Static 3 Phase | | | | |
| Motor Qty / Drive Type | 1 / Direct | 1 / Direct | 1 / Direct | 1 / Direct |
| Max Cont bhp | 3 | 3 | 3 | 3 |
| Range (rpm) | 250-2200 | 250-2200 | 250-2200 | 250-2200 |
| Fan Qty / Type | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 | 22 |
| CONDENSER FAN AND MOTOR | | | | |
| Qty / Motor Drive Type | 2 / Direct | 2 / Direct | 2 / Direct | 2 / Direct |
| Motor hp / rpm | 1/4 / 1100 | 1/4 / 1100 | 1/4 / 1100 | 1/4 / 1100 |
| Fan Diameter (in.) | 22 | 22 | 22 | 22 |
| FILTERS | | | | |
| RA Filter Qty / Size (in.) | 4 / 20 x 20 x 2 | 4 / 20 x 20 x 2 | 4 / 20 x 20 x 2 | 4 / 20 x 20 x 2 |
| OA Inlet Screen Qty / Size (in.) | 1 / 20 x 24 x 1 | 1 / 20 x 24 x 1 | 1 / 20 x 24 x 1 | 1 / 20 x 24 x 1 |

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

# Physical data (cont)

## 50GEQ 8.5 to 10.0 Ton Physical Data

| 50GEQ UNIT | 50GEQM09 | 50GEQN09 | 50GEQM12 | 50GEQN12 |
|---|---|---|---|---|
| NOMINAL TONS | 8.5 | 8.5 | 10.0 | 10.0 |
| BASE UNIT OPERATING WT (lb)[a] | 947 | 947 | 1219 | 1219 |
| REFRIGERATION SYSTEM | | | | |
| No. Circuits/No. Compressors/Type | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll |
| Puron Advance™ (R-454B) Charge (lb-oz) | 19-0 | 28-0 | 20-8 | 34-8 |
| Cooling Metering Device | TXV | TXV | TXV | TXV |
| Heating Metering Device | TXV | TXV | TXV | TXV |
| High-Pressure Trip/Reset (psig) | 630/505 | 630/505 | 630/505 | 630/505 |
| Loss of Charge Trip/Reset (psig) | 27/44 | 27/44 | 27/44 | 27/44 |
| EVAPORATOR COIL | | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 3/8 in. RTPF | 3/8 in. RTPF | 3/8 in. RTPF | 3/8 in. RTPF |
| Rows/FPI | 4/15 | 4/15 | 3/15 | 3/15 |
| Total Face Area ($ft^2$) | 11.1 | 11.1 | 17.5 | 17.5 |
| Condensate Drain Connection Size | 3/4 in. | 3/4 in. | 3/4 in. | 3/4 in. |
| CONDENSER COIL | | | | |
| Material (Tube/Fin) | Cu/Al | Cu/Al | Cu/Al | Cu/Al |
| Coil Type | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF | 5/16 in. RTPF |
| Rows/FPI | 3/18 | 3/18 | 2/18 | 2/18 |
| Total Face Area ($ft^2$) | 25.1 | 25.1 | 36.1 | 36.1 |
| HUMIDI-MIZER COIL | | | | |
| Material (Tube/Fin) | — | Cu/Al | — | Cu/Al |
| Coil Type | — | 5/16 in. RTPF | — | 5/16 in. RTPF |
| Rows/FPI | — | 2/18 | — | 2/18 |
| Total Face Area ($ft^2$) | — | 8 | — | 8 |
| EVAPORATOR FAN AND MOTOR | | | | |
| Standard/Medium Static 3 Phase | | | | |
| Motor Qty / Drive Type | 1 / Direct | 1 / Direct | 1 / Direct | 1 / Direct |
| Max Cont bhp | 2.4 | 2.4 | 2.4 | 2.4 |
| Range (rpm) | 250-2000 | 250-2000 | 250-2000 | 250-2000 |
| Fan Qty / Type | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 | 22 |
| High Static 3 Phase | | | | |
| Motor Qty / Drive Type | 1 / Direct | 1 / Direct | 1 / Direct | 1 / Direct |
| Max Cont bhp | 3 | 3 | 5 | 5 |
| Range (rpm) | 250-2200 | 250-2200 | 250-2200 | 250-2200 |
| Fan Qty / Type | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial | 1 / Vane Axial |
| Fan Diameter (in.) | 22 | 22 | 22 | 22 |
| CONDENSER FAN AND MOTOR | | | | |
| Qty / Motor Drive Type | 1 / Direct | 1 / Direct | 3 / Direct | 3 / Direct |
| Motor hp / rpm | 1 / Multiple Speeds[b] | 1 / Multiple Speeds[b] | 1 / 1100 | 1 / 1100 |
| Fan Diameter (in.) | 30 | 30 | 22 | 22 |
| FILTERS | | | | |
| RA Filter Qty / Size (in.) | 4 / 20 x 20 x 2 | 4 / 20 x 20 x 2 | 6 / 18 x 24 x 2 | 6 / 18 x 24 x 2 |
| OA Inlet Screen Qty / Size (in.) | 1 / 20 x 24 x 1 | 1 / 20 x 24 x 1 | V 2 / 24 x 27<br>H 1 / 30 x 39 x 1 | V 2 / 24 x 27<br>H 1 / 30 x 39 x 1 |

NOTE(S):

a. Base unit operating weight does not include weight of options.
b. 1050/770/450/350/265 rpm

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** | | |
| Thru-the-Base Electrical Connections | X | X |
| 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 |
| Louvered Hail Guard | X | X |
| Disconnect Switch Bracket[a] | | X |
| Supply Duct Cover[a] | | X |
| **COIL OPTIONS** | | |
| Cu/Cu Indoor and/or Outdoor Coils[b] | X | |
| Pre-coated Outdoor Coils | X | |
| Premium, E-Coated Indoor and/or Outdoor Coils | X | |
| **HUMIDITY CONTROL** | | |
| Humidi-MiZer® Adaptive Dehumidification System[c] | 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[d] | | X |
| Time Guard II Compressor Delay Control Circuit | | X |
| Phase Monitor | X | X |
| **ECONOMIZERS AND OUTDOOR AIR DAMPERS** | | |
| EconomizerONE for Electromechanical Controls, complies with FDD (Low and Ultra Low Leak damper models)[e] | X | X |
| Wi-Fi Stick for EconomizerONE (optional) | | X |
| EconoMi$er® 2 for DDC controls (Low and Ultra Low Leak air damper models)[f] | X | X |
| Motorized Two-Position Outdoor-Air Damper | | X |
| Manual Outdoor-Air Damper (25% and 50%) | | X |
| Barometric Relief[g] | X | X |
| Power Exhaust — Prop Design | | X |
| Condensate Overflow switch | X | X |

| ITEM | FACTORY-INSTALLED OPTION | FIELD-INSTALLED ACCESSORY |
|---|---|---|
| **ECONOMIZER SENSORS AND IAQ DEVICES** | | |
| Single Dry Bulb Temperature Sensors[h] | X | X |
| Differential Dry Bulb Temperature Sensors[h] | | X |
| Single Enthalpy Sensors[h] | X | X |
| Differential Enthalpy Sensors[h] | | X |
| $CO_2$ Sensor (wall, duct, or unit mounted)[h] | X | X |
| **INDOOR FAN MOTOR** | | |
| Optional Indoor Fan Motors | X | |
| Fan Filter Status Switch | X | X |
| **LOW AMBIENT CONTROLS** | | |
| Winter Start Kit[i] | | X |
| Low Ambient Controller to 0°F (–18°C)[i,j] | | X |
| **POWER OPTIONS** | | |
| Convenience Outlet (powered) | X | |
| Convenience Outlet (unpowered) | X | |
| Convenience Outlet, 20 amp (unpowered) | | X |
| Non-Fused Disconnect[k] | X | |
| HACR Breaker[l] | X | |
| High SCCR Protection[m] | X | |
| **ROOF CURBS** | | |
| Roof Curb 14 in. (356 mm) | | X |
| Roof Curb 24 in. (610 mm) | | X |

NOTE(S):

a. For Size 12 units only.
b. Cu/Cu coils are only available with louvered hail guards.
c. Not available on single-phase (-3 voltage code) models.
d. Requires a field-supplied 24-v transformer for each application. See price pages for details.
e. FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
f. Models with SystemVu controls comply with California Title 24 Fault Detection and Diagnostic (FDD).
g. Included with economizer.
h. Sensors used to optimize economizer performance.
i. See application data for assistance.
j. Size 09 models operate down to 0°F (-18°C) standard; Low Ambient control is not available.
k. Non-fused disconnect switch cannot be used when unit FLA electrical rating exceeds:
   Sizes 07-09: 80 amps, all voltages.
   Size 12: 200 amps, 208/230V-3-60
   Size 12: 100 amps, 460/575V-3-60
l. HACR circuit breaker cannot be used on 50GEQ 07-12 sizes when unit MOCP rating exceeds:
   50GEQ 07-09:
   208/230/3/60 = 70 amps
   460/3/60 = 35 amps
   575/3/60 = 30 amps
   50GEQ 12:
   208/230/3/60 = 80 amps
   460/3/60 = 35 amps
   575/3/60 = 30 amps
   Carrier RTUBuilder automatically selects the amps limitations.
m. High SCCR (Short Circuit Current Rating) is not available on the following: units with low ambient controls, Humidi-MiZer system, powered convenience outlet, HACR breaker, phase loss monitor, non-fused disconnect, or 575-v. Not available on size 09 units due to control box constraints.

# Options and accessories (cont)

## Factory-installed options

### Economizer (dry-bulb or enthalpy)

Economizers save money. They bring in fresh, outside air for ventilation and provide outside air to cool your building. This is the preferred method of low-ambient cooling. When used with $CO_2$ sensors, economizers can provide even more savings by adjusting the ventilation air intake to just the correct amount.

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 gravity-controlled barometric relief system to help equalize building pressures. This can be a cost effective solution to prevent building pressurization. Economizers are available in ultra low leak and standard low leak versions. They can be factory-installed or easily field-installed.

### Unit mounted $CO_2$ sensor

The $CO_2$ sensor works with the economizer to intake only the correct amount of outside air for ventilation. As occupants fill your building, the $CO_2$ sensor detects their presence through increasing $CO_2$ levels and opens the economizer appropriately. When the occupants leave, the $CO_2$ levels decrease, and the sensor appropriately closes the economizer. This intelligent control of the ventilation air, called demand controlled ventilation (DCV), reduces the overall load on the rooftop, saving money. It is also available as a field-installed accessory.

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

Our 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.

### Optional Humidi-MiZer® adaptive dehumidification system

Carrier's Humidi-MiZer adaptive dehumidification system is an all-inclusive factory-installed option that can be ordered with any WeatherMaster® 50GEQ 07-12 heat pump rooftop unit.

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

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

When coupled with the Humidi-MiZer system, the 50GEQ 07-12 is capable of operating in normal design cooling mode, sub-cooling mode, and hot gas reheat mode. Normal design cooling mode is when the unit operates under its normal sequence of operation by cycling compressors to maintain comfort conditions.

Sub-cooling mode operates to satisfy part load type conditions when the space requires combined sensible and a higher proportion of latent load control. Hot gas reheat mode operates when outdoor temperatures fall and latent capacity is required for humidity control. Hot gas reheat mode provides neutral air for maximum dehumidification operation.

NOTE: Humidi-MiZer system includes Low Ambient controller.

### Thru-the-base connections

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

### Fan filter status switch and 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.

### Hinged access panels

These specially designed hinged access panels allow access to unit's major components. Panels allow access to filters, the control box, and the indoor fan motor.

### Cu/Cu (outdoor and indoor) coils

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

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

These coils feature a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. The coating process ensures 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

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

### Convenience outlet (powered or unpowered)

Reduce service and/or installation costs by including a convenience outlet in your specification. Carrier will install this service feature at our factory. It provides a convenient, 15 amp, 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. This outlet is available as a 15 amp factory-installed option or a 20 amp field-installed accessory.

# Options and accessories (cont)

### HACR Breaker

These manual reset devices provide overload and short circuit protection for the unit. Breakers are factory wired and mounted on the units, with an access cover to provide protection from the environment.

### 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 that they are sized for the unit as ordered from the factory. The sizing does 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 option provides a whole new approach by using 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, access historical data, generate reports, and provide comfort Carrier is noted for.

*Key features include:*

- Easy-to-read back lit 4-line text screen for superior visibility
- Quick operational condition LEDs for Run, Alert, and Fault
- Simple navigation with large keypad buttons for Navigation arrows, Test, Back, Enter, and Menu
- Capable of being controlled with a conventional thermostat, space sensor, or building 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 needing 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®[1] 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. This option:

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

### MERV-13 4 in. return air filters

This factory option upgrades the return air filters from standard unit filters to high efficiency 4 in. MERV-13 filters. Uses non-woven MERV-13 filter media with a 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 of 10 kA against high potential fault current situations for the compressors and all indoor and outdoor fan motors. (A standard unit comes with 5 kA rating.)

This option is not available on 575-v models or models with a factory-installed low ambient controls, powered convenience outlet, phase loss monitor, or non-fused disconnect. Not available on size 09 units due to control box constraints.

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

# Options and accessories (cont)

## Field-installed accessories

### Condenser coil hail guard

These 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 a return air enthalpy sensor to provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.

### Wall or duct-mounted $CO_2$ sensor

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

### Filter rack kit (4 in.)

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

### MERV-8 and MERV-13 return air filters

These field-installed accessories provide a return air filter upgrade from standard unit filters to high efficiency 2 in. MERV-8 or 2 in. MERV-13 filters. Uses non-woven filter media with high strength, moisture-resistant frame. Filter media is securely fastened inside the filter frame on all 4 sides.

### Phase monitor protection

The phase monitor control monitors the sequence of the 3-phase electrical system to provide a phase reversal protection and monitors 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

Carrier's winter start kit 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 switch. Other low ambient precautions may still be prudent.

### Low ambient controller

The low ambient controller is a head pressure controller kit 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 not 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.

NOTE: 0°F (–18°C) is standard on size 09 models.

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

This full perimeter roof curb with exhaust capability provides separate air streams.

### Power exhaust

This accessory provides superior internal building pressure control and 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 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 and install, and they 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 by preventing the compressor from restarting for 30 seconds after stopping. (Not required with SystemVu™ controller or authorized commercial thermostats.)

### Disconnect switch bracket

This accessory provides a pre-engineered and sized mounting bracket for applications requiring a unit-mounted fused and non-fused disconnect of greater than offered by the factory. This bracket assures that no damage will occur to coils when mounting with screws (size 12 only).

### Supply duct cover

This accessory is required when field converting the factory standard vertical duct supply to horizontal duct supply configuration (size 12 only).

### 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 but is not needed to configure the controller should a user prefer to use the controller's onboard keypad.

*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.

NOTE: The Climatix app is not required to commission the EconomizerONE controller. The unit can be set up using the controller's on board button system.

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

# Options and accessories (cont)

## Options and Accessory Weights[a]

| OPTION / ACCESSORY NAME | 50GEQ UNIT WEIGHT | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 07 | | 08 | | 09 | | 12 | |
| | lb | kg | lb | kg | lb | kg | lb | kg |
| Humidi-MiZer Coil[b] | 25 | 12 | 34 | 16 | 34 | 16 | 55 | 25 |
| Power Exhaust — Vertical | 55 | 25 | 55 | 25 | 55 | 25 | 55 | 25 |
| EconomizerONE and EconoMi$er® 2 | 75 | 34 | 75 | 34 | 75 | 34 | 75 | 34 |
| Two-Position Damper | 58 | 26 | 58 | 26 | 58 | 26 | 58 | 26 |
| Manual Damper | 18 | 8 | 18 | 8 | 18 | 8 | 18 | 8 |
| Hail Guard (louvered) | 17 | 8 | 17 | 8 | 17 | 8 | 17 | 8 |
| Cu/Cu Condenser Coil | 85 | 39 | 85 | 39 | 100 | 46 | 150 | |
| Cu/Cu Evaporator Coil | 50 | 23 | 100 | 46 | 100 | 46 | 150 | 68 |
| Roof Curb (14 in. curb) | 143 | 65 | 143 | 65 | 143 | 65 | 180 | 82 |
| Roof Curb (24 in. curb) | 245 | 112 | 245 | 112 | 245 | 112 | 255 | 116 |
| $CO_2$ Sensor | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Optional Indoor Motor[c] | 30 | 14 | 30 | 14 | 30 | 14 | 30 | 14 |
| Low Ambient Controller | 9 | 4 | 9 | 4 | — | — | — | — |
| Winter Start Kit | 5 | 2 | 5 | 2 | 5 | 2 | 5 | 2 |
| Return Air Smoke Detector | 7 | 3 | 7 | 3 | 7 | 3 | 7 | 3 |
| Supply Air Smoke Detector | 7 | 3 | 7 | 3 | 7 | 3 | 7 | 3 |
| Fan Filter Switch | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Non-Fused Disconnect | 15 | 7 | 15 | 7 | 15 | 7 | 15 | 7 |
| Powered Convenience Outlet[d] | 36 | 16 | 36 | 16 | 36 | 16 | 36 | 16 |
| Unpowered Convenience Outlet | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 |
| Enthalpy Sensor | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Differential Enthalpy Sensor | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 |

NOTE(S):

a. Where multiple variations are available, the heaviest combination is listed.
b. For Humidi-MiZer coil add low ambient controller.
c. Add the optional indoor motor weight to the weight of the base unit.
d. Weight includes convenience outlet and convenience outlet transformer.

# 50GEQ 07-08 Base Unit Dimensions

NOTES:

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

| UNIT | OUTDOOR COIL TYPE | J | K | H |
|---|---|---|---|---|
| 50GEQ-07 | RTPF | 49 3/8 [1253] | 36 3/8 [925] | 15 7/8 [403] |
| 50GEQ-08 | RTPF | 49 3/8 [1253] | 36 3/8 [925] | 15 7/8 [403] |
| RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM) | | | | |



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

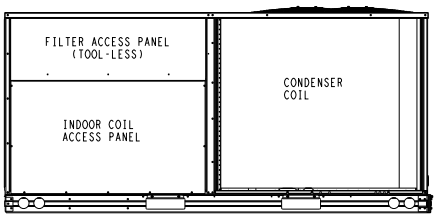
THRU-THE-BASE CHART (FIELD INST)

THESE HOLES REQUIRED FOR USE WITH ACCY KITS: CRBTMFWR002A01

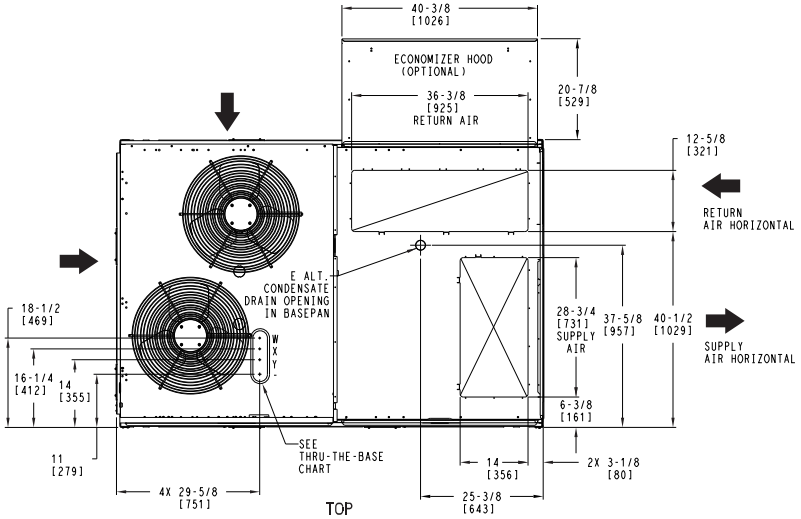
| | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
|---|---|---|---|
| W | 1/2" | ACC. | 7/8" [22.2] |
| X | 1/2" | 24V | 7/8" [22.2] |
| Y | 1 1/4" (002) | POWER | 1 3/4" [44.4] |

THRU-THE-BASE CHART (FIOP)

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



BACK



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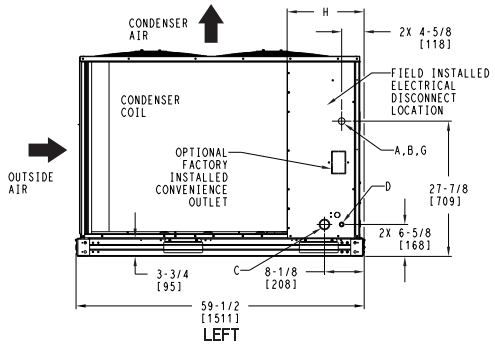

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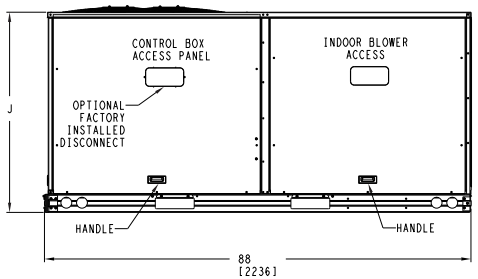
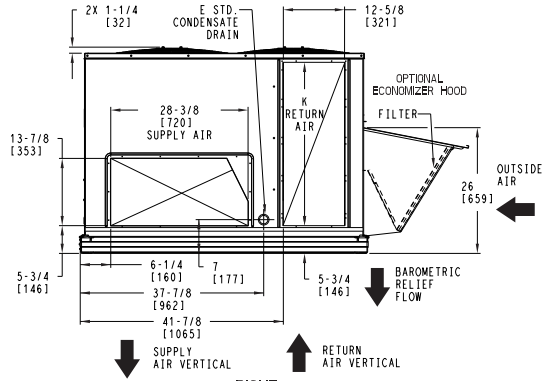


FRONT



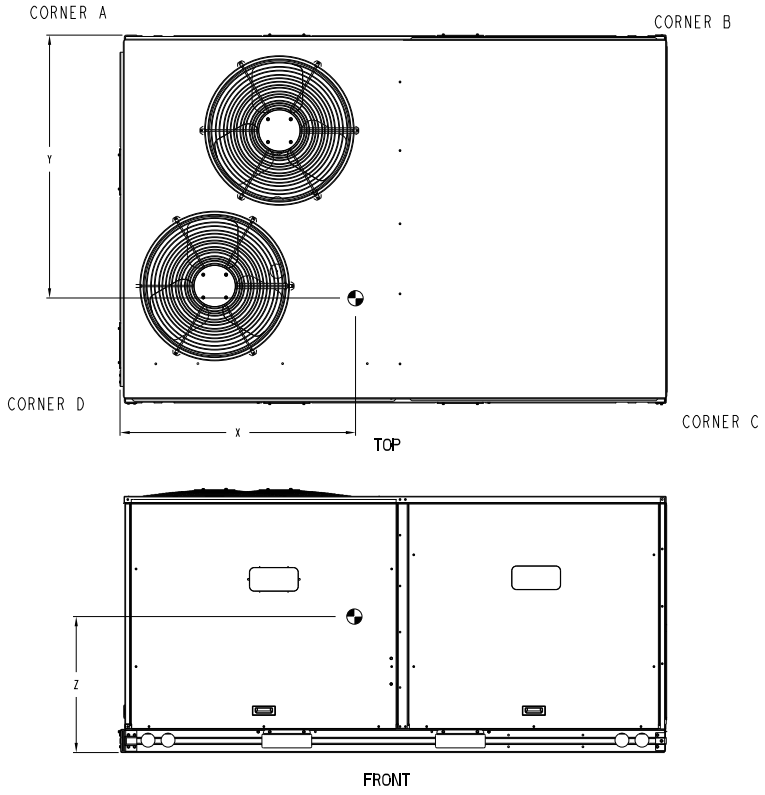
RIGHT

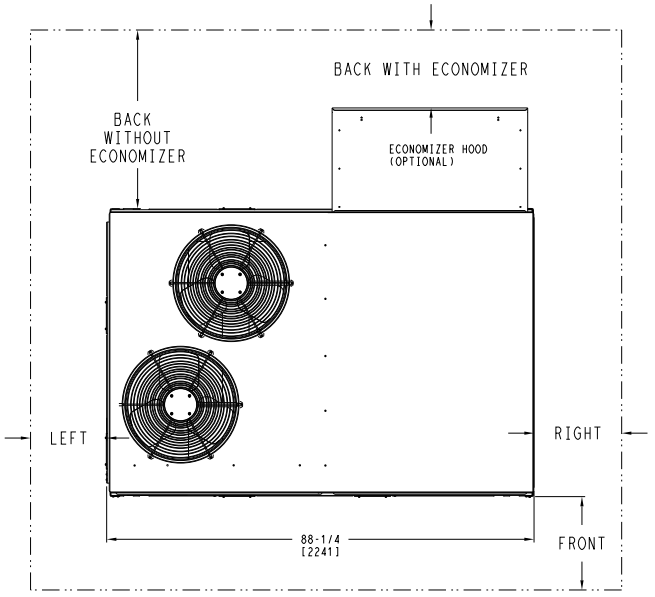
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 1 OF 3 | 07/11/25 | 5/30/24 | 50GEQ 07,08 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009917 | A |

# 50GEQ 07-08 Base Unit Dimensions (cont)

| UNIT | OUTDOOR COIL TYPE | STD. UNIT WEIGHT *** | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z |
| 50GEQ-07 | RTPF | 805 | 365 | 163 | 74 | 209 | 95 | 243 | 110 | 190 | 86 | 38 5/8 [981] | 32 [813] | 19 1/8 [486] |
| 50GEQ-08 | RTPF | 812 | 368 | 164 | 74 | 211 | 96 | 245 | 111 | 191 | 87 | 38 5/8 [981] | 32 [813] | 19 1/8 [486] |
| RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM) | | | | | | | | | | | | | | |

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



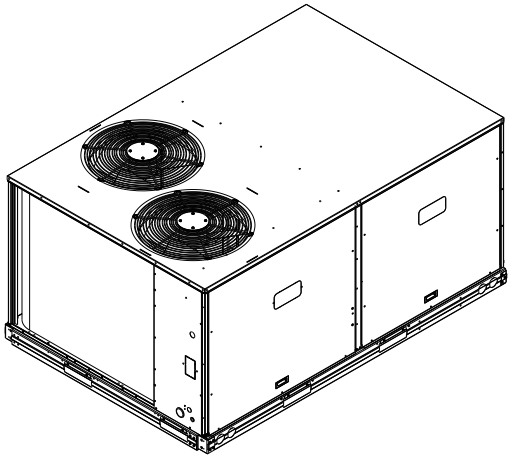

NOTE:

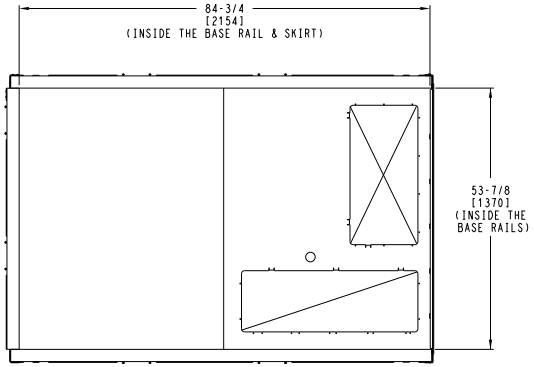
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

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

# 50GEQ 07-08 Base Unit Dimensions (cont)

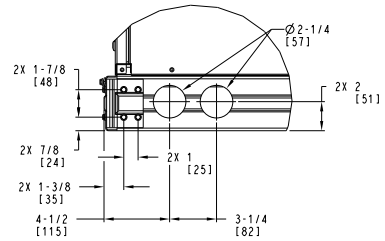




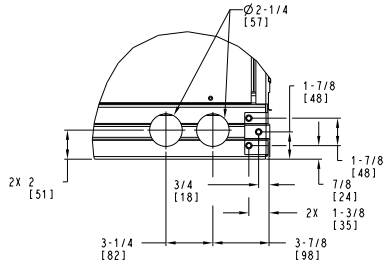



INSIDE BASERAIL DIMENSIONS

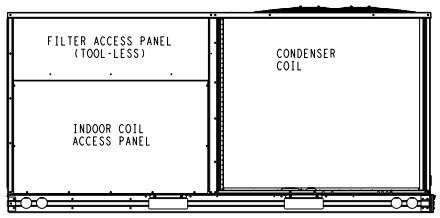
BOTTOM



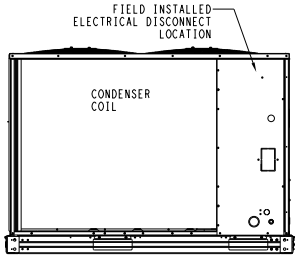

DETAIL B
AT 2 PLCS



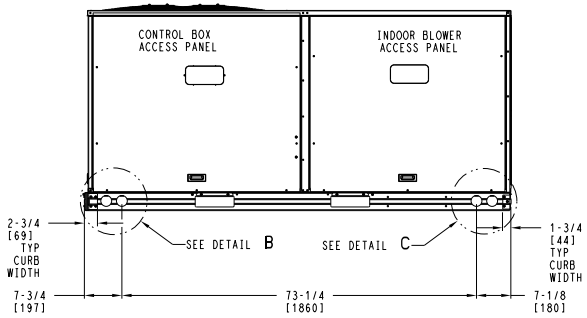

DETAIL C
AT 2 PLCS




BACK




LEFT




FRONT

| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 3 OF 3 | 7/11/25 | 5/30/24 | 50GEQ 07,08 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009917 | A |

# 50GEQ 09 Base Unit Dimensions

NOTES:

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

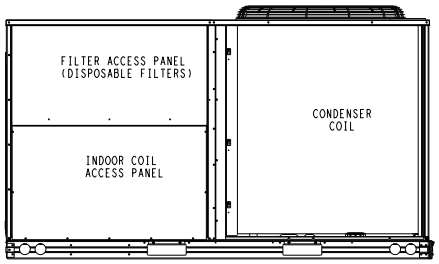
| UNIT | OUTDOOR COIL TYPE | H |
|---|---|---|
| 50GEQ 09 | RTPF | 15 7/8 [403] |
| RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM) | | |



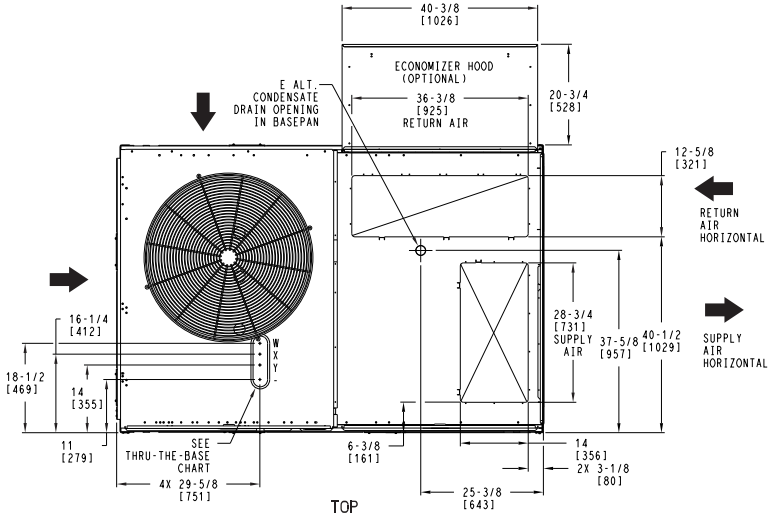
| | CONNECTION SIZES |
|---|---|
| A | 1 3/8" [35] DIA FIELD POWER SUPPLY HOLE |
| B | 2 1/2" [64] DIA POWER SUPPLY KNOCKOUT |
| C | 1 3/4" [51] DIA GAUGE ACCESS PLUG |
| D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
| E | 3/4"-14 NPT CONDENSATE DRAIN |
| G | 2" [51] DIA POWER SUPPLY KNOCK-OUT |

THRU-THE-BASE CHART
THESE HOLES REQUIRED FOR USE CRBTMPWR002A01

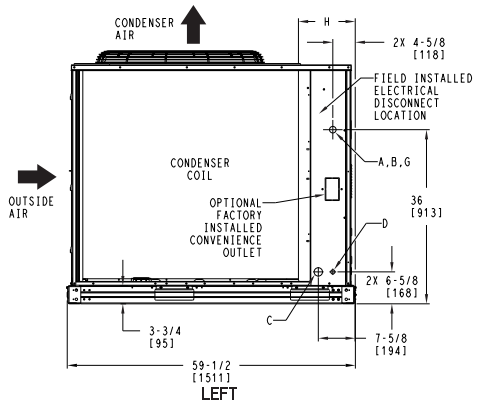
| | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
|---|---|---|---|
| W | 1/2" | ACC. | 7/8" [22.2] |
| X | 1/2" | 24V | 7/8" [22.2] |
| Y | 1 1/4" (002) | POWER | 1 3/4" [44.4] |
| | FOR "THRU-THE-BASEPAN" FACTORY OPTION, FITTINGS FOR ONLY X & Y ARE PROVIDED | | |



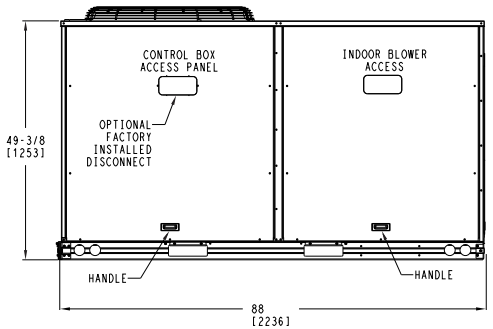
BACK



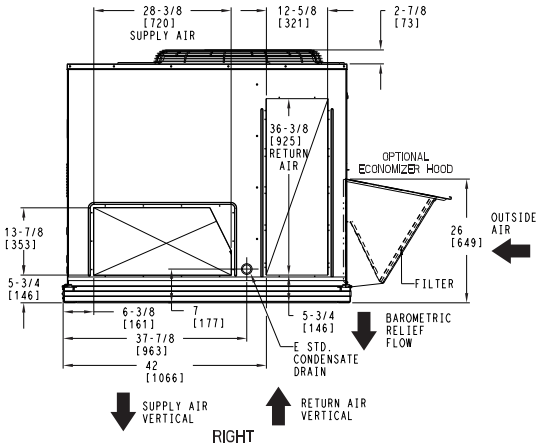
TOP



LEFT



FRONT



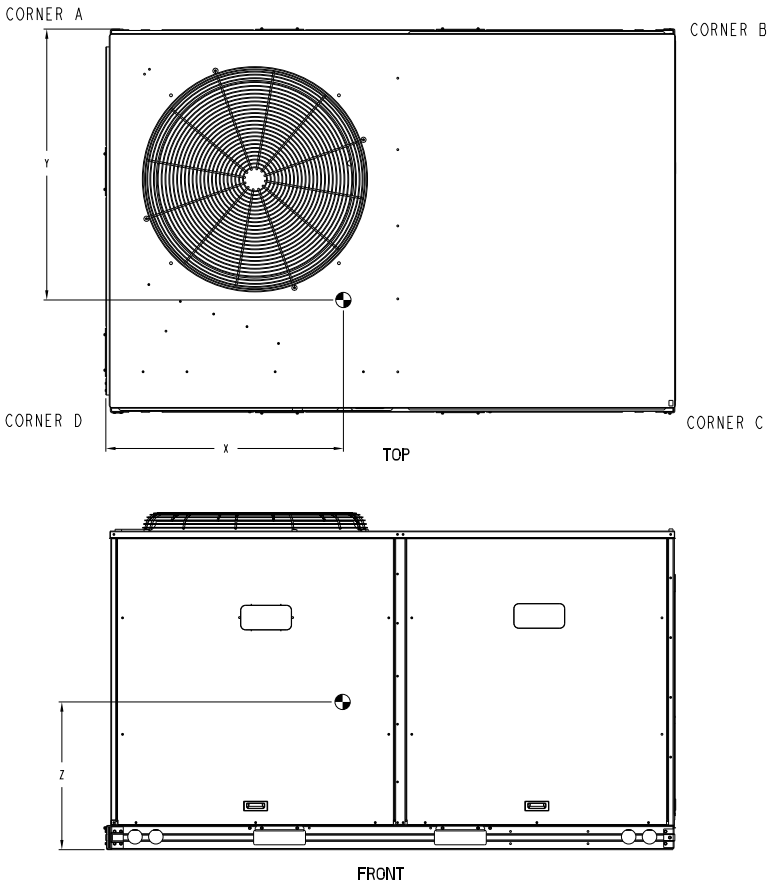
RIGHT

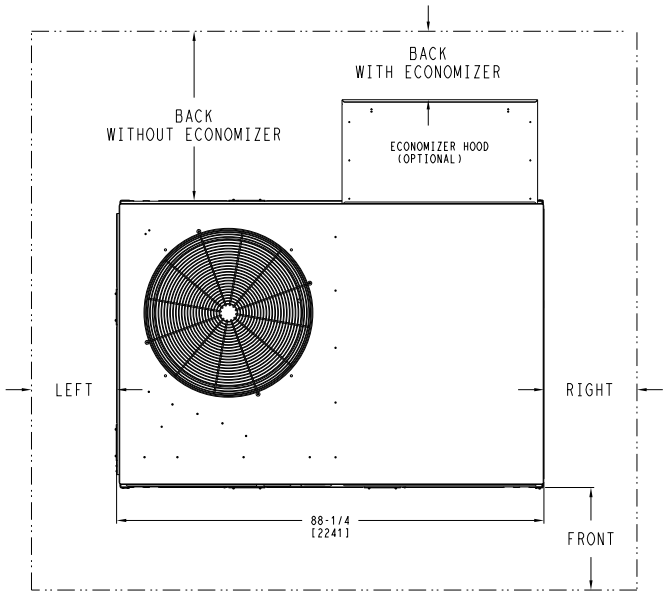
| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 1 OF 3 | 7/11/25 | 5/30/24 | 50GEQ 09 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009918 | A |

# 50GEQ 09 Base Unit Dimensions (cont)

| UNIT | OUTDOOR COIL TYPE | STD. UNIT WEIGHT*** | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z |
| 50GEQ 09 | RTPF | 955 | 433 | 190 | 86 | 243 | 110 | 293 | 133 | 229 | 104 | 38 5/8 [981] | 32 1/2 [826] | 19 1/8 [486] |
| RTPF - ROUND TUBE, PLATE FIN (COPPER/ALUM) | | | | | | | | | | | | | | |

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



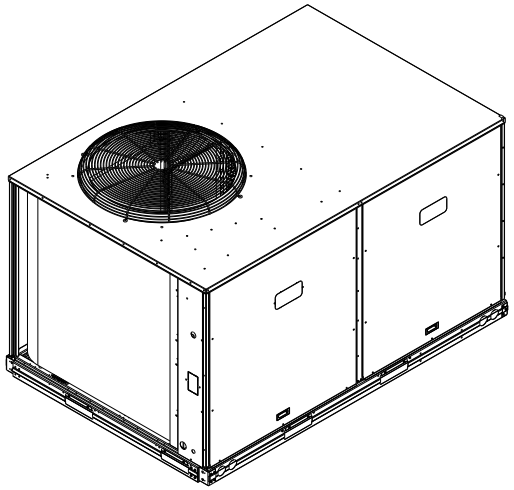

NOTE:

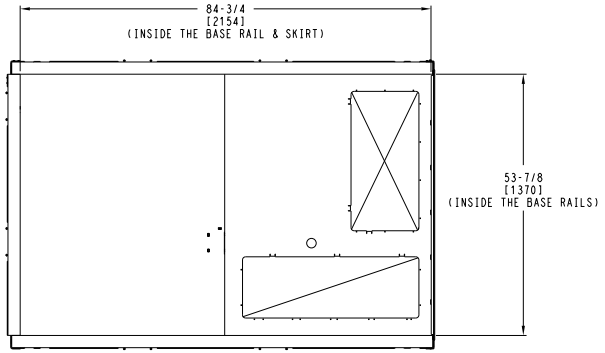
1. FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

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

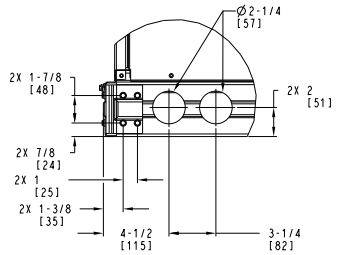
# 50GEQ 09 Base Unit Dimensions (cont)



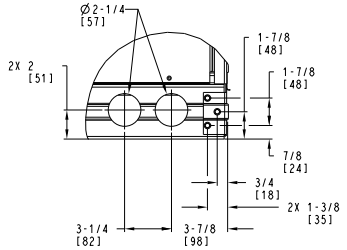




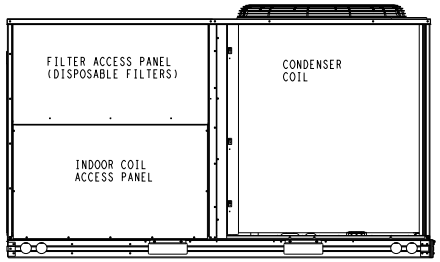

INSIDE BASERAIL DIMENSIONS
BOTTOM



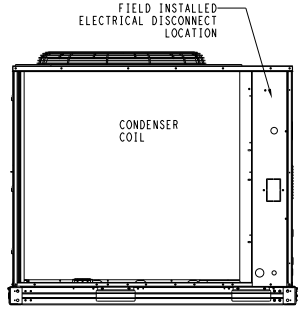

DETAIL B
TYP 2 PLCS



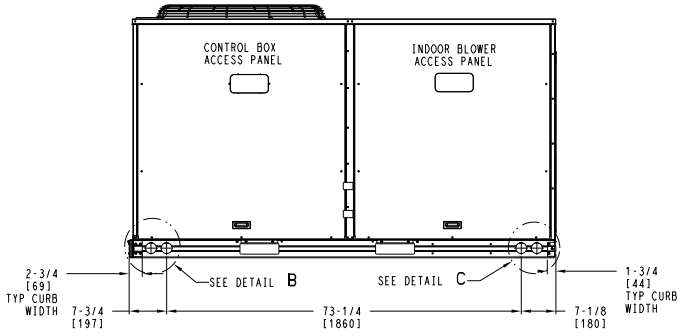

DETAIL C
TYP 2 PLCS




BACK




LEFT




FRONT

| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 3 OF 3 | 7/11/25 | 5/30/24 | 50GEQ 09 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009918 | A |

# 50GEQ 12 Base Unit Dimensions

NOTES:

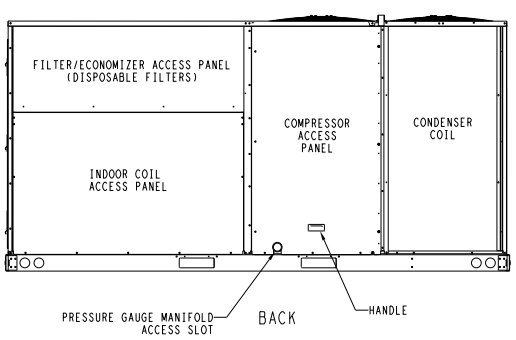
1. DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE IN MILLIMETERS.
2. CENTER OF GRAVITY
3. DIRECTION OF AIR FLOW

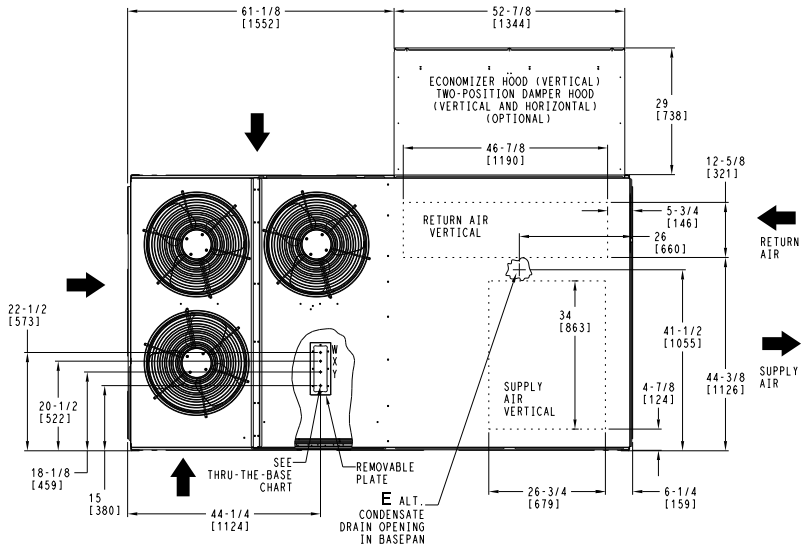


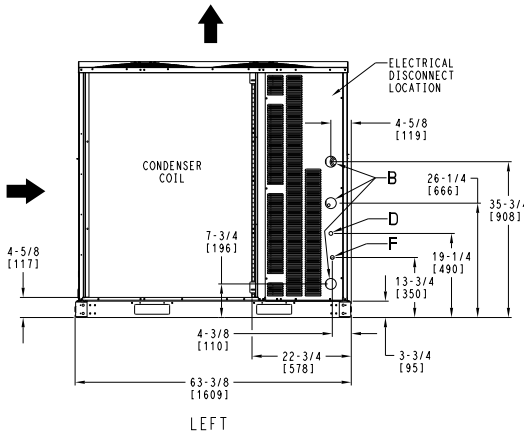
| | CONNECTION SIZES |
|---|---|
| B | 2 1/2" [64] DIA POWER SUPPLY HOLE |
| D | 7/8" [22] DIA FIELD CONTROL WIRING HOLE |
| E | 3/4"-14 NPT CONDENSATE DRAIN |
| F | 7/8" [22] DIA FIELD CONVENIENCE OUTLET HOLE |

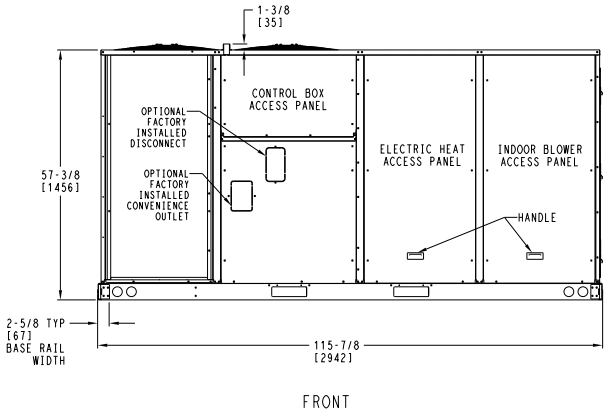
THRU-THE-BASE CHART
THESE HOLES REQUIRED FOR USE
CRBTMPWR005A00,006A00,007A00

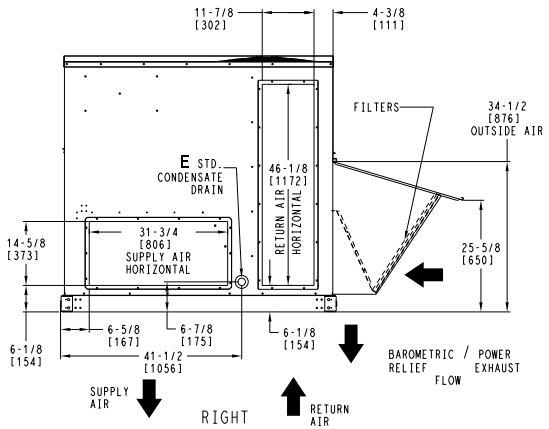
| ACCESSORY NO. | | THREADED CONDUIT SIZE | WIRE USE | REQ'D HOLE SIZES (MAX.) |
|---|---|---|---|---|
| 005 | W | 1/2" | ACC. | 7/8" [22.2] |
| | X | 1/2" | 24V | 7/8" [22.2] |
| | Y | 1 1/4" | POWER | 1 1/2" [38.1] |
| 006 | W | 1/2" | ACC. | 7/8" [22.2] |
| | X | 1/2" | 24V | 7/8" [22.2] |
| | Y |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



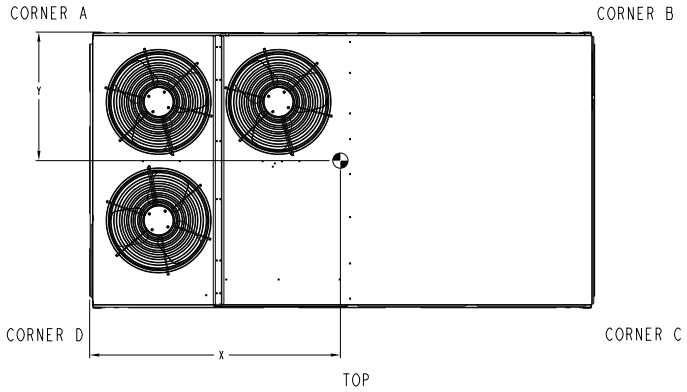

| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 1 OF 2 | 7/11/25 | 5/31/24 | 50GEQ 12 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009923 | A |

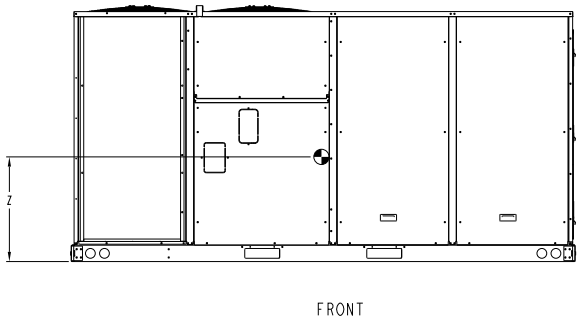
# 50GEQ 12 Base Unit Dimensions (cont)

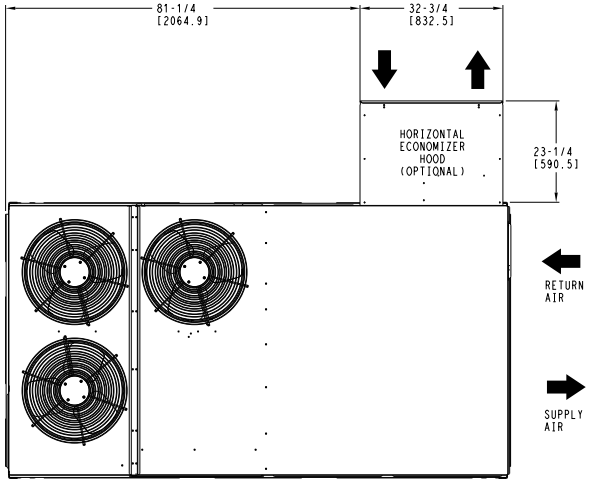
| UNIT | STD UNIT WEIGHT | | CORNER WEIGHT (A) | | CORNER WEIGHT (B) | | CORNER WEIGHT (C) | | CORNER WEIGHT (D) | | C.G. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | LBS. | KG. | X | Y | Z |
| 50GEQ-12 | 1250 | 567 | 350 | 159 | 338 | 153 | 277 | 126 | 286 | 130 | 57 [1448] | 28 1/2 [724] | 24 [610] |

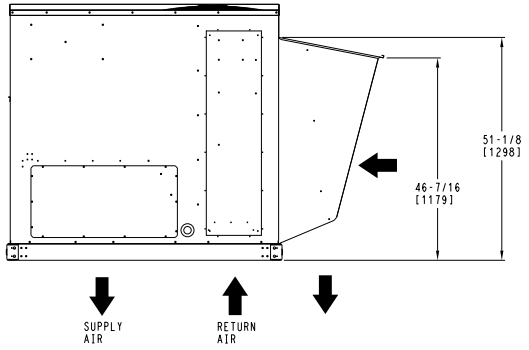
STANDARD UNIT WEIGHT IS WITHOUT ELECTRIC HEAT & WITHOUT PACKAGING.
FOR OPTIONS & ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.





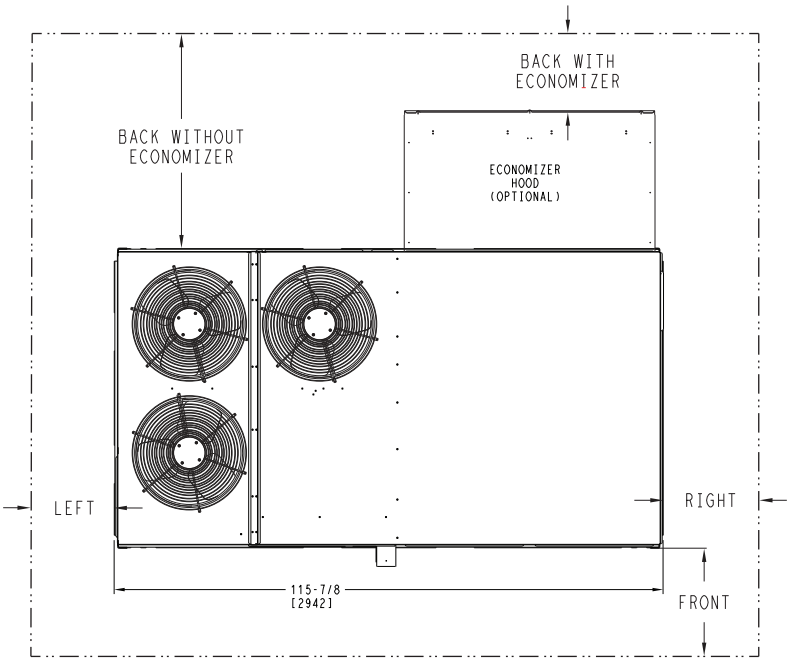




HORIZONTAL ECONOMIZER

| ITC CLASSIFICATION | SHEET | DATE | SUPERCEDES | | | REV |
|---|---|---|---|---|---|---|
| U.S. ECCN:NSR | 2 OF 2 | 7/11/25 | 5/31/24 | 50GEQ 12 SINGLE ZONE ELECTRICAL HEAT PUMP | 48TM009923 | A |

# Base unit dimensions (cont)

## 50GEQ 12 Base Unit Dimensions — Clearances




| CLEARANCE[a,b] | | | |
|---|---|---|---|
| **SURFACE** | **Service with Conductive Barrier** | **Service with Non-conductive Barrier** | **Operating Clearance** |
| **FRONT** | 48 in. (1219 mm) | 36 in. (914 mm) | 18 in. (457 mm) |
| **LEFT** | 48 in. (1219 mm) | 42 in. (1067 mm) | 18 in. (457 mm) |
| **BACK WITHOUT ECONOMIZER** | 48 in. (1219 mm) | 42 in. (1067 mm) | 18 in. (457 mm) |
| **BACK WITH ECONOMIZER** | 36 in. (914 mm) | 36 in. (914 mm) | 18 in. (457 mm) |
| **RIGHT** | 36 in. (914 mm) | 36 in. (914 mm) | 18 in. (457 mm) |
| **LEFT** | 72 in. (1829 mm) | 72 in. (1829 mm) | 72 in. (1829 mm) |

NOTE(S):

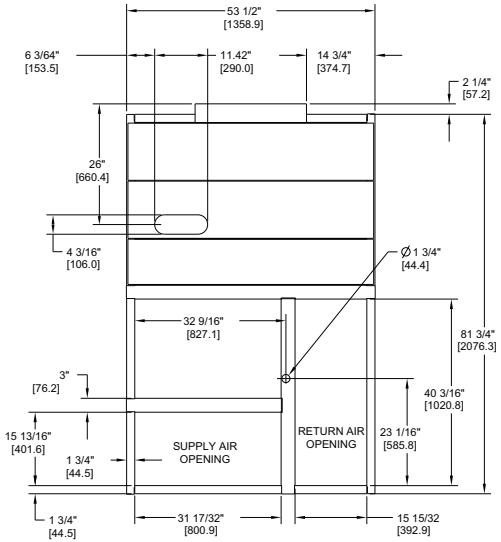
a. For all minimum clearances local codes or jurisdictions may prevail.
b. See page 16 for 50GEQ 07-08 clearances. See page 19 for 50GEQ 09 clearances.

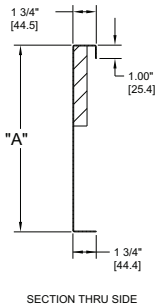
# Roof Curb Dimensions — 50GEQ 07-09

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

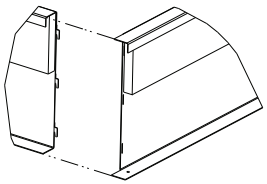
NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 25.4 [1"] THK. POLYURETHANE FOAM, 44.5 [1-3/4] # DENSITY.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOFCURB: 18 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).
6. SERVICE CLEARANCE 4 FEET ON EACH SIDE.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

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

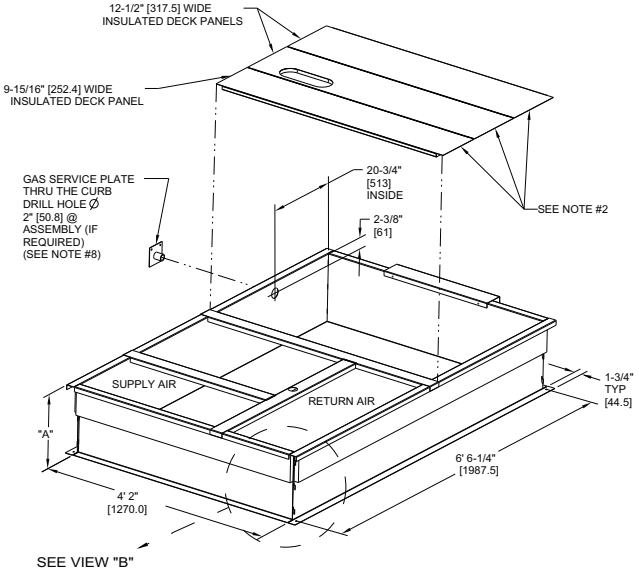


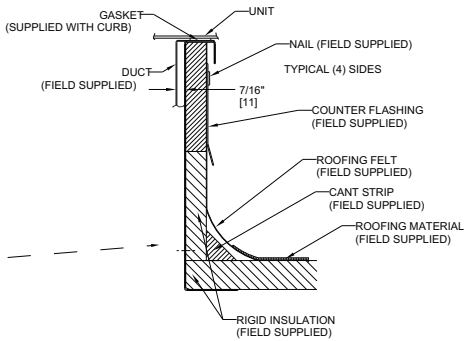

SECTION THRU SIDE

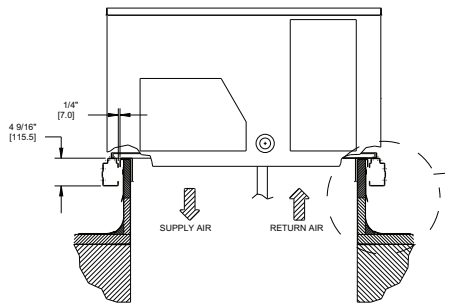


VIEW "B"
CORNER DETAIL




SEE VIEW "B"






TITLE
CURB ASY, ROOF

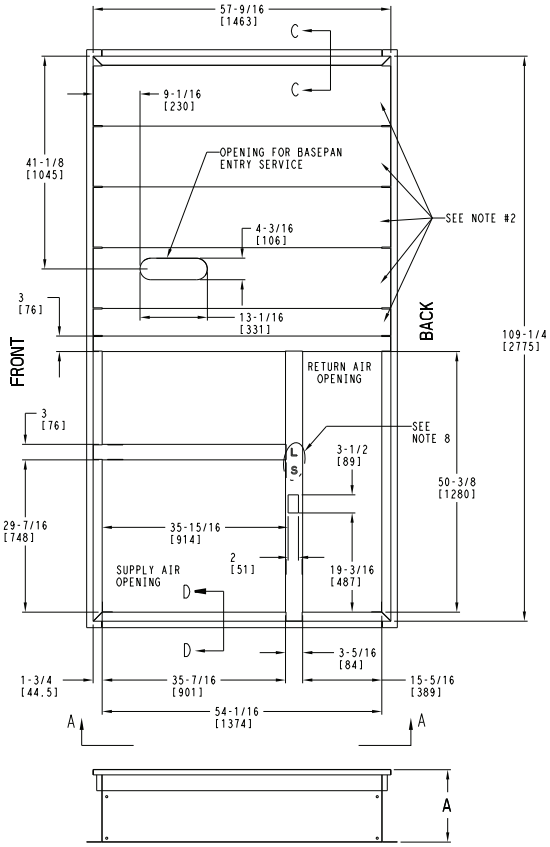
DRAWING NUMBER
50HJ405012

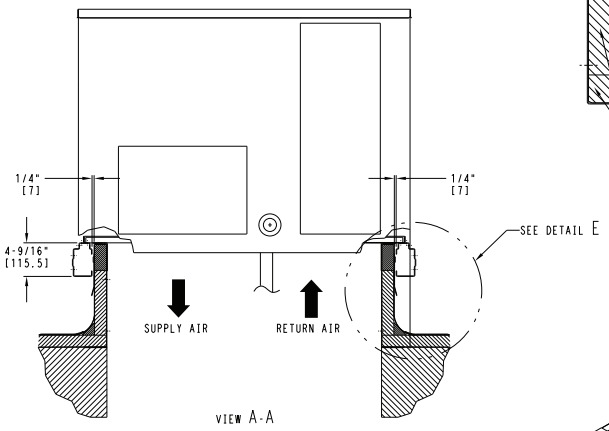
REV
C

# Roof Curb Dimensions — 50GEQ 12

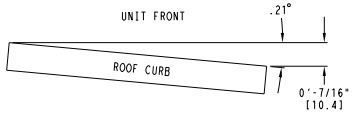
| ROOF CURB ACCESSORY # | A |
|---|---|
| CRRFCURB074A00 | 14" [356] |
| CRRFCURB075A00 | 24" [610] |

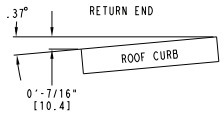
NOTES:
1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 1/2" THK. NEOPRENE FOAM, 1.0# DENSITY.
3. DIMENSIONS IN [ ] ARE IN MILLIMETERS.
4. ROOFCURB SIDEWALLS: 16 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB).
6. SERVICE CLEARANCE 4 FT ON EACH SIDE.
7. ➡ DIRECTION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



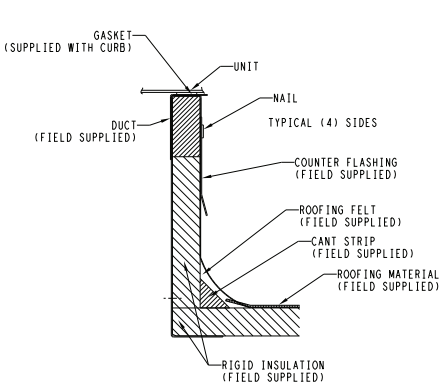




VIEW A-A

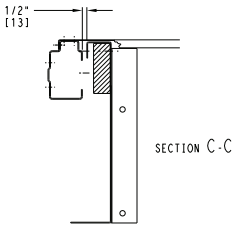


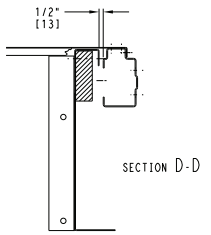



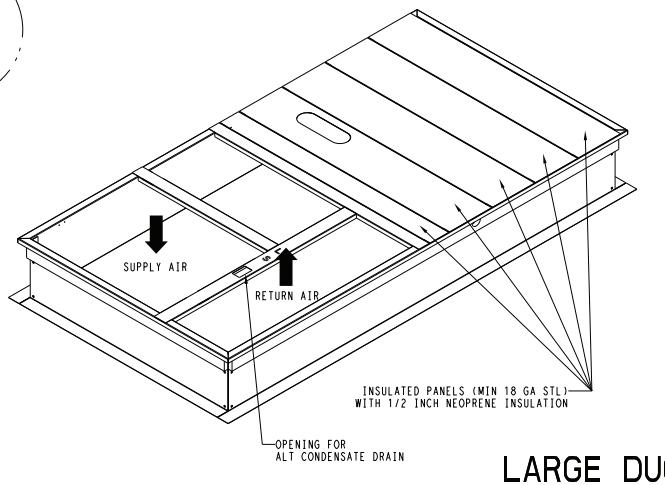

MAX CURB LEVELING TOLERANCES




DETAIL E




## LARGE DUCT OPENINGS

| 50TM500780 | REV B |
|---|---|

# Performance data

## 50GEQ*07 Two Stage Cooling Capacities

| 50GEQ*07 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 1800 cfm | EA (wb) | 58 | TC | 66.4 | 66.4 | 74.8 | 64.1 | 64.1 | 72.3 | 61.6 | 61.6 | 69.4 | 58.9 | 58.9 | 66.3 | 55.8 | 55.8 | 62.9 |
| | | | SHC | 58.0 | 66.4 | 74.8 | 56.0 | 64.1 | 72.3 | 53.8 | 61.6 | 69.4 | 51.4 | 58.9 | 66.3 | 48.7 | 55.8 | 62.9 |
| | | 62 | TC | 69.5 | 69.5 | 71.5 | 66.6 | 66.6 | 70.1 | 63.4 | 63.4 | 68.5 | 59.9 | 59.9 | 66.8 | 56.2 | 56.2 | 64.7 |
| | | | SHC | 52.6 | 62.1 | 71.5 | 51.2 | 60.6 | 70.1 | 49.6 | 59.1 | 68.5 | 48.0 | 57.4 | 66.8 | 46.1 | 55.4 | 64.7 |
| | | 67 | TC | 76.4 | 76.4 | 76.4 | 73.2 | 73.2 | 73.2 | 69.7 | 69.7 | 69.7 | 65.9 | 65.9 | 65.9 | 61.8 | 61.8 | 61.8 |
| | | | SHC | 43.2 | 52.8 | 62.3 | 41.9 | 51.4 | 60.9 | 40.4 | 49.9 | 59.4 | 38.8 | 48.3 | 57.8 | 37.1 | 46.6 | 56.1 |
| | | 72 | TC | 83.9 | 83.9 | 83.9 | 80.4 | 80.4 | 80.4 | 76.6 | 76.6 | 76.6 | 72.6 | 72.6 | 72.6 | 68.2 | 68.2 | 68.2 |
| | | | SHC | 33.7 | 43.3 | 52.8 | 32.3 | 41.9 | 51.5 | 30.9 | 40.5 | 50.0 | 29.4 | 38.9 | 48.5 | 27.7 | 37.3 | 46.8 |
| | | 76 | TC | — | 90.3 | 90.3 | — | 86.6 | 86.6 | — | 82.6 | 82.6 | — | 78.3 | 78.3 | — | 73.6 | 73.6 |
| | | | SHC | — | 35.5 | 45.2 | — | 34.2 | 44.1 | — | 32.8 | 42.6 | — | 31.3 | 41.0 | — | 29.6 | 39.4 |
| 2100 cfm | EA (wb) | 58 | TC | 70.0 | 70.0 | 78.9 | 67.6 | 67.6 | 76.2 | 64.9 | 64.9 | 73.1 | 61.9 | 61.9 | 69.8 | 58.6 | 58.6 | 66.1 |
| | | | SHC | 61.1 | 70.0 | 78.9 | 59.0 | 67.6 | 76.2 | 56.6 | 64.9 | 73.1 | 54.0 | 61.9 | 69.8 | 51.2 | 58.6 | 66.1 |
| | | 62 | TC | 71.7 | 71.7 | 78.4 | 68.7 | 68.7 | 76.9 | 65.4 | 65.4 | 75.0 | 62.0 | 62.0 | 72.5 | 58.7 | 58.7 | 68.7 |
| | | | SHC | 56.7 | 67.6 | 78.4 | 55.2 | 66.0 | 76.9 | 53.5 | 64.3 | 75.0 | 51.5 | 62.0 | 72.5 | 48.7 | 58.7 | 68.7 |
| | | 67 | TC | 78.6 | 78.6 | 78.6 | 75.2 | 75.2 | 75.2 | 71.5 | 71.5 | 71.5 | 67.6 | 67.6 | 67.6 | 63.2 | 63.2 | 63.2 |
| | | | SHC | 45.9 | 56.9 | 67.9 | 44.5 | 55.5 | 66.5 | 43.0 | 54.0 | 65.0 | 41.4 | 52.4 | 63.4 | 39.7 | 50.7 | 61.6 |
| | | 72 | TC | 86.2 | 86.2 | 86.2 | 82.6 | 82.6 | 82.6 | 78.6 | 78.6 | 78.6 | 74.3 | 74.3 | 74.3 | 69.7 | 69.7 | 69.7 |
| | | | SHC | 34.8 | 45.9 | 57.0 | 33.5 | 44.5 | 55.6 | 32.0 | 43.0 | 54.1 | 30.4 | 41.5 | 52.5 | 28.8 | 39.8 | 50.8 |
| | | 76 | TC | — | 92.7 | 92.7 | — | 88.9 | 88.9 | — | 84.7 | 84.7 | — | 80.1 | 80.1 | — | 75.2 | 75.2 |
| | | | SHC | — | 36.9 | 48.3 | — | 35.6 | 46.9 | — | 34.2 | 45.4 | — | 32.6 | 43.8 | — | 30.9 | 42.1 |
| 2400 cfm | EA (wb) | 58 | TC | 73.1 | 73.1 | 82.4 | 70.5 | 70.5 | 79.4 | 67.6 | 67.6 | 76.2 | 64.4 | 64.4 | 72.6 | 61.0 | 61.0 | 68.7 |
| | | | SHC | 63.8 | 73.1 | 82.4 | 61.5 | 70.5 | 79.4 | 59.0 | 67.6 | 76.2 | 56.2 | 64.4 | 72.6 | 53.2 | 61.0 | 68.7 |
| | | 62 | TC | 73.6 | 73.6 | 84.6 | 71.3 | 71.3 | 79.4 | 67.6 | 67.6 | 79.1 | 64.5 | 64.5 | 75.4 | 61.0 | 61.0 | 71.4 |
| | | | SHC | 60.4 | 72.5 | 84.6 | 57.1 | 68.3 | 79.4 | 56.2 | 67.6 | 79.1 | 53.6 | 64.5 | 75.4 | 50.7 | 61.0 | 71.4 |
| | | 67 | TC | 80.3 | 80.3 | 80.3 | 76.8 | 76.8 | 76.8 | 72.9 | 72.9 | 72.9 | 68.8 | 68.8 | 68.8 | 64.4 | 64.4 | 66.9 |
| | | | SHC | 48.5 | 60.9 | 73.4 | 47.0 | 59.5 | 71.9 | 45.5 | 58.0 | 70.4 | 43.9 | 56.3 | 68.7 | 42.1 | 54.5 | 66.9 |
| | | 72 | TC | 88.0 | 88.0 | 88.0 | 84.2 | 84.2 | 84.2 | 80.1 | 80.1 | 80.1 | 75.7 | 75.7 | 75.7 | 70.9 | 70.9 | 70.9 |
| | | | SHC | 35.8 | 48.4 | 60.9 | 34.5 | 47.0 | 59.5 | 33.0 | 45.5 | 58.0 | 31.4 | 43.9 | 56.4 | 29.7 | 42.2 | 54.7 |
| | | 76 | TC | — | 94.6 | 94.6 | — | 90.6 | 90.6 | — | 86.3 | 86.3 | — | 81.5 | 81.5 | — | 76.5 | 76.5 |
| | | | SHC | — | 38.2 | 51.0 | — | 36.9 | 49.6 | — | 35.4 | 48.1 | — | 33.8 | 46.5 | — | 32.2 | 44.8 |
| 2700 cfm | EA (wb) | 58 | TC | 75.7 | 75.7 | 85.3 | 72.9 | 72.9 | 82.2 | 69.9 | 69.9 | 78.8 | 66.6 | 66.6 | 75.0 | 63.0 | 63.0 | 71.0 |
| | | | SHC | 66.1 | 75.7 | 85.3 | 63.7 | 72.9 | 82.2 | 61.0 | 69.9 | 78.8 | 58.1 | 66.6 | 75.0 | 55.0 | 63.0 | 71.0 |
| | | 62 | TC | 76.8 | 76.8 | 84.2 | 73.0 | 73.0 | 85.3 | 70.0 | 70.0 | 81.8 | 66.6 | 66.6 | 77.9 | 63.0 | 63.0 | 73.7 |
| | | | SHC | 60.8 | 72.5 | 84.2 | 60.6 | 73.0 | 85.3 | 58.1 | 70.0 | 81.8 | 55.3 | 66.6 | 77.9 | 52.3 | 63.0 | 73.7 |
| | | 67 | TC | 81.6 | 81.6 | 81.6 | 78.0 | 78.0 | 78.0 | 74.1 | 74.1 | 75.6 | 69.9 | 69.9 | 73.9 | 65.3 | 65.3 | 72.0 |
| | | | SHC | 50.9 | 64.8 | 78.7 | 49.5 | 63.4 | 77.2 | 47.9 | 61.8 | 75.6 | 46.3 | 60.1 | 73.9 | 44.5 | 58.2 | 72.0 |
| | | 72 | TC | 89.4 | 89.4 | 89.4 | 85.5 | 85.5 | 85.5 | 81.2 | 81.2 | 81.2 | 76.7 | 76.7 | 76.7 | 71.8 | 71.8 | 71.8 |
| | | | SHC | 36.8 | 50.8 | 64.7 | 35.4 | 49.4 | 63.3 | 33.9 | 47.8 | 61.8 | 32.3 | 46.2 | 60.2 | 30.6 | 44.5 | 58.4 |
| | | 76 | TC | — | 96.0 | 96.0 | — | 91.9 | 91.9 | — | 87.5 | 87.5 | — | 82.7 | 82.7 | — | 77.5 | 77.5 |
| | | | SHC | — | 39.4 | 53.6 | — | 38.0 | 52.2 | — | 36.6 | 50.7 | — | 35.0 | 49.0 | — | 33.3 | 47.3 |
| 3000 cfm | EA (wb) | 58 | TC | 77.9 | 77.9 | 87.8 | 75.0 | 75.0 | 84.6 | 71.9 | 71.9 | 81.0 | 68.4 | 68.4 | 77.1 | 64.7 | 64.7 | 72.9 |
| | | | SHC | 68.0 | 77.9 | 87.8 | 65.5 | 75.0 | 84.6 | 62.7 | 71.9 | 81.0 | 59.7 | 68.4 | 77.1 | 56.4 | 64.7 | 72.9 |
| | | 62 | TC | 78.0 | 78.0 | 91.2 | 75.1 | 75.1 | 87.8 | 71.9 | 71.9 | 84.1 | 68.5 | 68.5 | 80.1 | 64.7 | 64.7 | 75.7 |
| | | | SHC | 64.8 | 78.0 | 91.2 | 62.3 | 75.1 | 87.8 | 59.7 | 71.9 | 84.1 | 56.9 | 68.5 | 80.1 | 53.7 | 64.7 | 75.7 |
| | | 67 | TC | 82.7 | 82.7 | 83.8 | 79.0 | 79.0 | 82.3 | 75.0 | 75.0 | 80.6 | 70.7 | 70.7 | 78.8 | 66.1 | 66.1 | 76.7 |
| | | | SHC | 53.2 | 68.5 | 83.8 | 51.8 | 67.0 | 82.3 | 50.2 | 65.4 | 80.6 | 48.5 | 63.6 | 78.8 | 46.6 | 61.7 | 76.7 |
| | | 72 | TC | 90.5 | 90.5 | 90.5 | 86.6 | 86.6 | 86.6 | 82.1 | 82.1 | 82.1 | 77.6 | 77.6 | 77.6 | 72.6 | 72.6 | 72.6 |
| | | | SHC | 37.7 | 53.1 | 68.5 | 36.3 | 51.7 | 67.0 | 34.8 | 50.1 | 65.5 | 33.2 | 48.5 | 63.8 | 31.5 | 46.8 | 62.1 |
| | | 76 | TC | — | 97.2 | 97.2 | — | 93.0 | 93.0 | — | 88.5 | 88.5 | — | 83.6 | 83.6 | — | 78.3 | 78.3 |
| | | | SHC | — | 40.5 | 56.1 | — | 39.1 | 54.7 | — | 37.7 | 53.1 | — | 36.1 | 51.5 | — | 34.4 | 49.7 |

LEGEND

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

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

# Performance data (cont)

## 50GEQ*07 Single Stage Cooling Capacities

| 50GEQ*07 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 1080 cfm | EA (wb) | 58 | TC | 39.7 | 39.7 | 44.7 | 38.3 | 38.3 | 43.2 | 36.9 | 36.9 | 41.6 | 35.3 | 35.3 | 39.7 | 33.5 | 33.5 | 37.7 |
| | | | SHC | 34.6 | 39.7 | 44.7 | 33.5 | 38.3 | 43.2 | 32.2 | 36.9 | 41.6 | 30.8 | 35.3 | 39.7 | 29.2 | 33.5 | 37.7 |
| | | 62 | TC | 41.8 | 41.8 | 42.4 | 40.1 | 40.1 | 41.6 | 38.2 | 38.2 | 40.6 | 36.1 | 36.1 | 39.6 | 33.9 | 33.9 | 38.4 |
| | | | SHC | 31.3 | 36.8 | 42.4 | 30.5 | 36.0 | 41.6 | 29.6 | 35.1 | 40.6 | 28.6 | 34.1 | 39.6 | 27.5 | 33.0 | 38.4 |
| | | 67 | TC | 46.0 | 46.0 | 46.0 | 44.2 | 44.2 | 44.2 | 42.1 | 42.1 | 42.1 | 39.9 | 39.9 | 39.9 | 37.4 | 37.4 | 37.4 |
| | | | SHC | 25.9 | 31.5 | 37.1 | 25.1 | 30.7 | 36.3 | 24.3 | 29.8 | 35.4 | 23.3 | 28.9 | 34.4 | 22.3 | 27.9 | 33.4 |
| | | 72 | TC | 50.7 | 50.7 | 50.7 | 48.7 | 48.7 | 48.7 | 46.5 | 46.5 | 46.5 | 44.1 | 44.1 | 44.1 | 41.5 | 41.5 | 41.5 |
| | | | SHC | 20.4 | 26.0 | 31.6 | 19.6 | 25.2 | 30.8 | 18.8 | 24.4 | 30.0 | 17.9 | 23.5 | 29.1 | 16.9 | 22.5 | 28.1 |
| | | 76 | TC | — | 54.7 | 54.7 | — | 52.5 | 52.5 | — | 50.2 | 50.2 | — | 47.7 | 47.7 | — | 44.9 | 44.9 |
| | | | SHC | — | 21.6 | 27.4 | — | 20.8 | 26.6 | — | 20.0 | 25.7 | — | 19.1 | 24.8 | — | 18.1 | 23.8 |
| 1260 cfm | EA (wb) | 58 | TC | 41.9 | 41.9 | 47.2 | 40.4 | 40.4 | 45.6 | 38.9 | 38.9 | 43.8 | 37.1 | 37.1 | 41.8 | 35.2 | 35.2 | 39.7 |
| | | | SHC | 36.6 | 41.9 | 47.2 | 35.3 | 40.4 | 45.6 | 33.9 | 38.9 | 43.8 | 32.4 | 37.1 | 41.8 | 30.7 | 35.2 | 39.7 |
| | | 62 | TC | 43.1 | 43.1 | 46.4 | 41.4 | 41.4 | 45.5 | 39.4 | 39.4 | 44.5 | 37.3 | 37.3 | 43.1 | 35.3 | 35.3 | 41.2 |
| | | | SHC | 33.7 | 40.0 | 46.4 | 32.8 | 39.2 | 45.5 | 31.9 | 38.2 | 44.5 | 30.7 | 36.9 | 43.1 | 29.3 | 35.2 | 41.2 |
| | | 67 | TC | 47.4 | 47.4 | 47.4 | 45.5 | 45.5 | 45.5 | 43.3 | 43.3 | 43.3 | 41.0 | 41.0 | 41.0 | 38.4 | 38.4 | 38.4 |
| | | | SHC | 27.5 | 33.9 | 40.3 | 26.7 | 33.1 | 39.5 | 25.8 | 32.2 | 38.6 | 24.8 | 31.2 | 37.6 | 23.8 | 30.2 | 36.6 |
| | | 72 | TC | 52.2 | 52.2 | 52.2 | 50.0 | 50.0 | 50.0 | 47.7 | 47.7 | 47.7 | 45.2 | 45.2 | 45.2 | 42.5 | 42.5 | 42.5 |
| | | | SHC | 21.1 | 27.6 | 34.0 | 20.3 | 26.8 | 33.2 | 19.4 | 25.9 | 32.3 | 18.5 | 25.0 | 31.4 | 17.5 | 24.0 | 30.4 |
| | | 76 | TC | — | 56.2 | 56.2 | — | 54.0 | 54.0 | — | 51.5 | 51.5 | — | 48.9 | 48.9 | — | 46.0 | 46.0 |
| | | | SHC | — | 22.4 | 29.1 | — | 21.6 | 28.3 | — | 20.8 | 27.4 | — | 19.9 | 26.4 | — | 18.9 | 25.4 |
| 1440 cfm | EA (wb) | 58 | TC | 43.7 | 43.7 | 49.3 | 42.2 | 42.2 | 47.6 | 40.5 | 40.5 | 45.7 | 38.7 | 38.7 | 43.6 | 36.7 | 36.7 | 41.3 |
| | | | SHC | 38.2 | 43.7 | 49.3 | 36.9 | 42.2 | 47.6 | 35.4 | 40.5 | 45.7 | 33.8 | 38.7 | 43.6 | 32.0 | 36.7 | 41.3 |
| | | 62 | TC | 44.3 | 44.3 | 50.0 | 42.5 | 42.5 | 49.0 | 40.6 | 40.6 | 47.4 | 38.7 | 38.7 | 45.3 | 36.7 | 36.7 | 42.9 |
| | | | SHC | 35.9 | 42.9 | 50.0 | 34.9 | 41.9 | 49.0 | 33.7 | 40.5 | 47.4 | 32.2 | 38.7 | 45.3 | 30.5 | 36.7 | 42.9 |
| | | 67 | TC | 48.5 | 48.5 | 48.5 | 46.5 | 46.5 | 46.5 | 44.2 | 44.2 | 44.2 | 41.8 | 41.8 | 41.8 | 39.1 | 39.1 | 39.7 |
| | | | SHC | 29.0 | 36.2 | 43.5 | 28.1 | 35.4 | 42.6 | 27.2 | 34.5 | 41.7 | 26.3 | 33.5 | 40.7 | 25.2 | 32.4 | 39.7 |
| | | 72 | TC | 53.3 | 53.3 | 53.3 | 51.1 | 51.1 | 51.1 | 48.7 | 48.7 | 48.7 | 46.1 | 46.1 | 46.1 | 43.3 | 43.3 | 43.3 |
| | | | SHC | 21.7 | 29.0 | 36.3 | 20.9 | 28.2 | 35.5 | 20.1 | 27.3 | 34.6 | 19.1 | 26.4 | 33.6 | 18.1 | 25.4 | 32.6 |
| | | 76 | TC | — | 57.4 | 57.4 | — | 55.1 | 55.1 | — | 52.5 | 52.5 | — | 49.8 | 49.8 | — | 46.8 | 46.8 |
| | | | SHC | — | 23.2 | 30.7 | — | 22.4 | 29.9 | — | 21.5 | 29.0 | — | 20.6 | 28.0 | — | 19.6 | 27.0 |
| 1620 cfm | EA (wb) | 58 | TC | 45.3 | 45.3 | 51.1 | 43.7 | 43.7 | 49.3 | 42.0 | 42.0 | 47.3 | 40.0 | 40.0 | 45.1 | 37.9 | 37.9 | 42.7 |
| | | | SHC | 39.6 | 45.3 | 51.1 | 38.2 | 43.7 | 49.3 | 36.6 | 42.0 | 47.3 | 34.9 | 40.0 | 45.1 | 33.1 | 37.9 | 42.7 |
| | | 62 | TC | 45.4 | 45.4 | 53.1 | 43.8 | 43.8 | 51.2 | 42.0 | 42.0 | 49.1 | 40.1 | 40.1 | 46.9 | 38.0 | 38.0 | 44.4 |
| | | | SHC | 37.7 | 45.4 | 53.1 | 36.3 | 43.8 | 51.2 | 34.9 | 42.0 | 49.1 | 33.3 | 40.1 | 46.9 | 31.5 | 38.0 | 44.4 |
| | | 67 | TC | 49.4 | 49.4 | 49.4 | 47.3 | 47.3 | 47.3 | 44.9 | 44.9 | 44.9 | 42.4 | 42.4 | 43.7 | 39.7 | 39.7 | 42.6 |
| | | | SHC | 30.4 | 38.4 | 46.5 | 29.5 | 37.6 | 45.7 | 28.6 | 36.7 | 44.7 | 27.6 | 35.7 | 43.7 | 26.6 | 34.6 | 42.6 |
| | | 72 | TC | 54.2 | 54.2 | 54.2 | 52.0 | 52.0 | 52.0 | 49.5 | 49.5 | 49.5 | 46.8 | 46.8 | 46.8 | 43.9 | 43.9 | 43.9 |
| | | | SHC | 22.3 | 30.4 | 38.5 | 21.5 | 29.6 | 37.7 | 20.6 | 28.7 | 36.8 | 19.7 | 27.7 | 35.8 | 18.6 | 26.7 | 34.8 |
| | | 76 | TC | — | 58.4 | 58.4 | — | 56.0 | 56.0 | — | 53.4 | 53.4 | — | 50.5 | 50.5 | — | 47.5 | 47.5 |
| | | | SHC | — | 23.9 | 32.2 | — | 23.1 | 31.4 | — | 22.2 | 30.5 | — | 21.3 | 29.5 | — | 20.3 | 28.5 |
| 1800 cfm | EA (wb) | 58 | TC | 46.7 | 46.7 | 52.6 | 45.0 | 45.0 | 50.7 | 43.2 | 43.2 | 48.7 | 41.2 | 41.2 | 46.4 | 39.0 | 39.0 | 43.9 |
| | | | SHC | 40.8 | 46.7 | 52.6 | 39.3 | 45.0 | 50.7 | 37.7 | 43.2 | 48.7 | 36.0 | 41.2 | 46.4 | 34.0 | 39.0 | 43.9 |
| | | 62 | TC | 46.7 | 46.7 | 54.7 | 45.1 | 45.1 | 52.7 | 43.2 | 43.2 | 50.6 | 41.2 | 41.2 | 48.2 | 39.0 | 39.0 | 45.6 |
| | | | SHC | 38.8 | 46.7 | 54.7 | 37.4 | 45.1 | 52.7 | 35.9 | 43.2 | 50.6 | 34.2 | 41.2 | 48.2 | 32.4 | 39.0 | 45.6 |
| | | 67 | TC | 50.1 | 50.1 | 50.1 | 47.9 | 47.9 | 48.6 | 45.5 | 45.5 | 47.6 | 43.0 | 43.0 | 46.5 | 40.2 | 40.2 | 45.3 |
| | | | SHC | 31.7 | 40.6 | 49.5 | 30.9 | 39.7 | 48.6 | 29.9 | 38.8 | 47.6 | 28.9 | 37.7 | 46.5 | 27.8 | 36.6 | 45.3 |
| | | 72 | TC | 55.0 | 55.0 | 55.0 | 52.6 | 52.6 | 52.6 | 50.1 | 50.1 | 50.1 | 47.4 | 47.4 | 47.4 | 44.4 | 44.4 | 44.4 |
| | | | SHC | 22.9 | 31.8 | 40.7 | 22.0 | 30.9 | 39.8 | 21.2 | 30.0 | 38.9 | 20.2 | 29.1 | 37.9 | 19.2 | 28.0 | 36.9 |
| | | 76 | TC | — | 59.2 | 59.2 | — | 56.7 | 56.7 | — | 54.0 | 54.0 | — | 51.1 | 51.1 | — | 48.0 | 48.0 |
| | | | SHC | — | 24.6 | 33.6 | — | 23.8 | 32.8 | — | 22.9 | 31.9 | — | 22.0 | 31.0 | — | 21.0 | 29.9 |

LEGEND

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

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

# Performance data (cont)

## 50GEQN07 — Unit with Humidi-MiZer® System in Subcooling Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 80 Dry Bulb 62 Wet Bulb (36% Relative) | | | 80 Dry Bulb 67 Wet Bulb (51% Relative) | | | 80 Dry Bulb 72Wet Bulb (68% Relative) | | |
| | | Air Entering Evaporator — SCFM/Static | | | | | | | | |
| | | 1800 | 2400 | 3000 | 1800 | 2400 | 3000 | 1800 | 2400 | 3000 |
| 75 | TC | 69.7 | 75.3 | 80.0 | 78.8 | 84.4 | 89.8 | 89.4 | 93.1 | 101.3 |
| | SHC | 59.4 | 71.8 | 82.5 | 47.0 | 56.9 | 65.6 | 34.9 | 44.2 | 46.6 |
| | kW | 4.3 | 4.5 | 4.5 | 4.4 | 4.5 | 4.5 | 4.4 | 4.5 | 4.5 |
| 85 | TC | 64.5 | 69.7 | 74.1 | 73.0 | 78.5 | 83.1 | 82.8 | 86.2 | 93.8 |
| | SHC | 54.0 | 65.3 | 75.0 | 42.8 | 52.1 | 59.6 | 31.8 | 40.2 | 42.4 |
| | kW | 4.8 | 5.0 | 5.0 | 4.8 | 5.0 | 5.0 | 4.8 | 5.0 | 5.0 |
| 95 | TC | 59.8 | 64.5 | 68.6 | 67.6 | 72.2 | 77.0 | 76.6 | 79.8 | 86.8 |
| | SHC | 49.1 | 59.4 | 68.2 | 38.9 | 46.6 | 54.2 | 28.9 | 36.6 | 38.5 |
| | kW | 5.4 | 5.6 | 5.5 | 5.4 | 5.6 | 5.6 | 5.4 | 5.6 | 5.6 |
| 105 | TC | 55.0 | 59.4 | 63.1 | 62.2 | 66.7 | 70.8 | 70.5 | 73.5 | 79.9 |
| | SHC | 44.2 | 53.4 | 61.4 | 35.0 | 42.5 | 48.8 | 26.0 | 32.9 | 34.7 |
| | kW | 4.8 | 5.0 | 5.0 | 4.8 | 6.1 | 5.0 | 4.8 | 5.0 | 5.0 |
| 115 | TC | 50.6 | 54.6 | 58.1 | 57.2 | 60.8 | 65.1 | 64.9 | 67.6 | 73.5 |
| | SHC | 39.8 | 48.1 | 55.2 | 31.5 | 37.7 | 43.9 | 23.4 | 29.6 | 31.2 |
| | kW | 4.3 | 4.5 | 4.5 | 4.4 | 6.7 | 4.5 | 4.4 | 4.5 | 4.5 |
| 125 | TC | — | — | — | — | — | — | — | — | — |
| | SHC | — | — | — | — | — | — | — | — | — |
| | kW | — | — | — | — | — | — | — | — | — |

## 50GEQN07 — Unit with Humidi-MiZer System in Hot Gas Reheat Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 75 Dry Bulb 62.5 Wet Bulb (50% Relative) | | | 75 Dry Bulb 64 Wet Bulb (56% Relative) | | | 75 Dry Bulb 65.3 Wet Bulb (60% Relative) | | |
| | | Air Entering Evaporator — SCFM | | | | | | | | |
| | | 1800 | 2400 | 3000 | 1800 | 2400 | 3000 | 1800 | 2400 | 3000 |
| 80 | TC | 20.2 | 23.8 | 26.7 | 19.3 | 22.7 | 25.3 | 18.5 | 21.7 | 24.1 |
| | SHC | 2.2 | 2.2 | 2.1 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 0.9 |
| | kW | 4.5 | 4.4 | 4.3 | 4.6 | 4.5 | 4.4 | 4.7 | 4.5 | 4.4 |
| 75 | TC | 18.8 | 22.1 | 24.8 | 18.0 | 21.1 | 23.5 | 17.3 | 20.1 | 22.4 |
| | SHC | 1.5 | 1.5 | 1.5 | 0.9 | 0.9 | 0.8 | 0.3 | 0.3 | 0.3 |
| | kW | 4.6 | 4.4 | 4.4 | 4.6 | 4.5 | 4.4 | 4.7 | 4.6 | 4.5 |
| 70 | TC | 17.5 | 20.5 | 22.9 | 16.7 | 19.5 | 21.7 | 16.0 | 18.6 | 20.6 |
| | SHC | 0.8 | 0.8 | 0.8 | 0.2 | 0.2 | 0.2 | –0.3 | –0.3 | –0.3 |
| | kW | 4.6 | 4.5 | 4.4 | 4.7 | 4.6 | 4.5 | 4.8 | 4.7 | 4.6 |
| 60 | TC | 14.8 | 17.1 | 19.0 | 14.1 | 16.3 | 18.0 | 13.5 | 15.5 | 17.1 |
| | SHC | –0.6 | –0.6 | –0.6 | –1.1 | –1.1 | –1.1 | –1.6 | –1.6 | –1.6 |
| | kW | 4.7 | 4.6 | 4.5 | 4.8 | 4.7 | 4.6 | 4.9 | 4.8 | 4.7 |
| 50 | TC | 12.0 | 13.8 | 15.2 | 11.5 | 13.1 | 14.4 | 11.0 | 12.5 | 13.6 |
| | SHC | –2.0 | –2.0 | –2.0 | –2.4 | –2.5 | –2.5 | –2.9 | –2.9 | –2.9 |
| | kW | 4.8 | 4.7 | 4.7 | 4.9 | 4.8 | 4.8 | 5.0 | 4.9 | 4.8 |
| 40 | TC | 9.3 | 10.5 | 11.4 | 8.9 | 9.9 | 10.7 | 8.5 | 9.4 | 10.1 |
| | SHC | –3.3 | –3.3 | –3.3 | –3.8 | –3.8 | –3.8 | –4.1 | –4.1 | –4.1 |
| | kW | 4.9 | 4.8 | 4.8 | 5.0 | 4.9 | 4.9 | 5.1 | 5.0 | 5.0 |

LEGEND

**Edb** — Entering Dry Bulb
**kW** — Compressor Power Input
**SCFM** — Standard Cubic Feet per Minute
**SHC** — Sensible Heat Capacity (1000 Btuh) Gross
**TC** — Total Capacity (1000 Btuh) Gross

# Performance data (cont)

## 50GEQ*08 Two Stage Cooling Capacities

| 50GEQ*08 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 2250 cfm | EA (wb) | 58 | TC | 87.4 | 87.4 | 100.0 | 84.4 | 84.4 | 96.5 | 81.0 | 81.0 | 92.7 | 77.3 | 77.3 | 88.4 | 73.3 | 73.3 | 83.8 |
| | | | SHC | 74.8 | 87.4 | 100.0 | 72.2 | 84.4 | 96.5 | 69.4 | 81.0 | 92.7 | 66.2 | 77.3 | 88.4 | 62.7 | 73.3 | 83.8 |
| | | 62 | TC | 91.6 | 91.6 | 95.1 | 87.7 | 87.7 | 93.3 | 83.4 | 83.4 | 91.3 | 78.7 | 78.7 | 89.1 | 73.7 | 73.7 | 86.7 |
| | | | SHC | 67.3 | 81.2 | 95.1 | 65.4 | 79.4 | 93.3 | 63.4 | 77.4 | 91.3 | 61.3 | 75.2 | 89.1 | 59.0 | 72.8 | 86.7 |
| | | 67 | TC | 100.5 | 100.5 | 100.5 | 96.2 | 96.2 | 96.2 | 91.6 | 91.6 | 91.6 | 86.5 | 86.5 | 86.5 | 81.0 | 81.0 | 81.0 |
| | | | SHC | 55.0 | 68.9 | 82.9 | 53.2 | 67.1 | 81.1 | 51.2 | 65.2 | 79.1 | 49.1 | 63.1 | 77.0 | 46.9 | 60.8 | 74.8 |
| | | 72 | TC | 110.2 | 110.2 | 110.2 | 105.5 | 105.5 | 105.5 | 100.5 | 100.5 | 100.5 | 95.0 | 95.0 | 95.0 | 89.2 | 89.2 | 89.2 |
| | | | SHC | 42.4 | 56.5 | 70.5 | 40.6 | 54.7 | 68.7 | 38.7 | 52.8 | 66.8 | 36.7 | 50.7 | 64.7 | 34.5 | 48.5 | 62.6 |
| | | 76 | TC | — | 118.5 | 118.5 | — | 113.6 | 113.6 | — | 108.2 | 108.2 | — | 102.3 | 102.3 | — | 96.2 | 96.2 |
| | | | SHC | — | 46.2 | 60.3 | — | 44.5 | 58.5 | — | 42.6 | 56.6 | — | 40.5 | 54.6 | — | 38.4 | 52.5 |
| 2650 cfm | EA (wb) | 58 | TC | 92.8 | 92.8 | 106.1 | 89.4 | 89.4 | 102.3 | 85.8 | 85.8 | 98.1 | 81.7 | 81.7 | 93.5 | 77.4 | 77.4 | 88.5 |
| | | | SHC | 79.4 | 92.8 | 106.1 | 76.6 | 89.4 | 102.3 | 73.5 | 85.8 | 98.1 | 70.0 | 81.7 | 93.5 | 66.3 | 77.4 | 88.5 |
| | | 62 | TC | 94.8 | 94.8 | 105.7 | 90.7 | 90.7 | 103.8 | 86.2 | 86.2 | 101.5 | 81.9 | 81.9 | 97.6 | 77.5 | 77.5 | 92.4 |
| | | | SHC | 73.1 | 89.4 | 105.7 | 71.2 | 87.5 | 103.8 | 69.1 | 85.3 | 101.5 | 66.1 | 81.9 | 97.6 | 62.6 | 77.5 | 92.4 |
| | | 67 | TC | 103.6 | 103.6 | 103.6 | 99.1 | 99.1 | 99.1 | 94.2 | 94.2 | 94.2 | 88.8 | 88.8 | 88.8 | 83.1 | 83.1 | 83.1 |
| | | | SHC | 58.5 | 74.9 | 91.3 | 56.7 | 73.1 | 89.5 | 54.7 | 71.1 | 87.5 | 52.5 | 68.9 | 85.3 | 50.3 | 66.7 | 83.1 |
| | | 72 | TC | 113.4 | 113.4 | 113.4 | 108.6 | 108.6 | 108.6 | 103.2 | 103.2 | 103.2 | 97.4 | 97.4 | 97.4 | 91.4 | 91.4 | 91.4 |
| | | | SHC | 43.7 | 60.2 | 76.7 | 41.9 | 58.4 | 74.8 | 39.9 | 56.4 | 72.9 | 37.8 | 54.3 | 70.8 | 35.6 | 52.1 | 68.6 |
| | | 76 | TC | — | 121.9 | 121.9 | — | 116.7 | 116.7 | — | 111.0 | 111.0 | — | 104.9 | 104.9 | — | — | — |
| | | | SHC | — | 48.1 | 64.6 | — | 46.3 | 62.8 | — | 44.4 | 60.9 | — | 42.3 | 58.8 | — | — | — |
| 3000 cfm | EA (wb) | 58 | TC | 96.7 | 96.7 | 110.6 | 93.2 | 93.2 | 106.6 | 89.2 | 89.2 | 102.1 | 85.0 | 85.0 | 97.2 | 80.4 | 80.4 | 92.0 |
| | | | SHC | 82.8 | 96.7 | 110.6 | 79.8 | 93.2 | 106.6 | 76.4 | 89.2 | 102.1 | 72.7 | 85.0 | 97.2 | 68.8 | 80.4 | 92.0 |
| | | 62 | TC | 98.4 | 98.4 | 109.9 | 93.3 | 93.3 | 111.2 | 89.3 | 89.3 | 106.5 | 85.1 | 85.1 | 101.4 | 80.7 | 80.7 | 95.1 |
| | | | SHC | 75.9 | 92.9 | 109.9 | 75.3 | 93.3 | 111.2 | 72.2 | 89.3 | 106.5 | 68.7 | 85.1 | 101.4 | 64.7 | 79.9 | 95.1 |
| | | 67 | TC | 105.8 | 105.8 | 105.8 | 101.0 | 101.0 | 101.0 | 95.9 | 95.9 | 95.9 | 90.4 | 90.4 | 92.5 | 84.5 | 84.5 | 90.2 |
| | | | SHC | 61.4 | 80.0 | 98.6 | 59.6 | 78.1 | 96.7 | 57.5 | 76.1 | 94.6 | 55.4 | 73.9 | 92.5 | 53.2 | 71.7 | 90.2 |
| | | 72 | TC | 115.6 | 115.6 | 115.6 | 110.5 | 110.5 | 110.5 | 105.0 | 105.0 | 105.0 | 99.0 | 99.0 | 99.0 | 92.8 | 92.8 | 92.8 |
| | | | SHC | 44.6 | 63.3 | 82.0 | 42.8 | 61.4 | 80.1 | 40.8 | 59.4 | 78.1 | 38.7 | 57.3 | 75.9 | 36.5 | 55.1 | 73.7 |
| | | 76 | TC | — | 124.1 | 124.1 | — | 118.7 | 118.7 | — | 112.9 | 112.9 | — | 106.5 | 106.5 | — | — | — |
| | | | SHC | — | 49.6 | 68.3 | — | 47.8 | 66.5 | — | 45.8 | 64.5 | — | 43.7 | 62.4 | — | — | — |
| 3400 cfm | EA (wb) | 58 | TC | 100.4 | 100.4 | 114.9 | 96.7 | 96.7 | 110.6 | 92.6 | 92.6 | 105.9 | 88.1 | 88.1 | 100.7 | 83.2 | 83.2 | 95.2 |
| | | | SHC | 86.0 | 100.4 | 114.9 | 82.8 | 96.7 | 110.6 | 79.3 | 92.6 | 105.9 | 75.4 | 88.1 | 100.7 | 71.3 | 83.2 | 95.2 |
| | | 62 | TC | 100.6 | 100.6 | 119.9 | 96.8 | 96.8 | 115.4 | 92.7 | 92.7 | 110.5 | 88.1 | 88.1 | 105.1 | 83.3 | 83.3 | 99.3 |
| | | | SHC | 81.3 | 100.6 | 119.9 | 78.2 | 96.8 | 115.4 | 74.9 | 92.7 | 110.5 | 71.2 | 88.1 | 105.1 | 67.3 | 83.3 | 99.3 |
| | | 67 | TC | 107.6 | 107.6 | 107.6 | 102.7 | 102.7 | 104.7 | 97.5 | 97.5 | 102.6 | 91.8 | 91.8 | 100.4 | 85.8 | 85.8 | 98.1 |
| | | | SHC | 64.7 | 85.7 | 106.6 | 62.8 | 83.7 | 104.7 | 60.8 | 81.7 | 102.6 | 58.6 | 79.5 | 100.4 | 56.4 | 77.3 | 98.1 |
| | | 72 | TC | 117.5 | 117.5 | 117.5 | 112.3 | 112.3 | 112.3 | 106.6 | 106.6 | 106.6 | 100.4 | 100.4 | 100.4 | 94.0 | 94.0 | 94.0 |
| | | | SHC | 45.5 | 66.6 | 87.7 | 43.7 | 64.8 | 85.8 | 41.7 | 62.8 | 83.8 | 39.6 | 60.6 | 81.7 | 37.4 | 58.4 | 79.5 |
| | | 76 | TC | — | 126.1 | 126.1 | — | 120.6 | 120.6 | — | 114.5 | 114.5 | — | 108.0 | 108.0 | — | — | — |
| | | | SHC | — | 51.1 | 72.3 | — | 49.3 | 70.5 | — | 47.4 | 68.5 | — | 45.2 | 66.4 | — | — | — |
| 3750 cfm | EA (wb) | 58 | TC | 103.3 | 103.3 | 118.1 | 99.4 | 99.4 | 113.7 | 95.1 | 95.1 | 108.8 | 90.4 | 90.4 | 103.4 | 85.4 | 85.4 | 97.7 |
| | | | SHC | 88.4 | 103.3 | 118.1 | 85.1 | 99.4 | 113.7 | 81.4 | 95.1 | 108.8 | 77.4 | 90.4 | 103.4 | 73.1 | 85.4 | 97.7 |
| | | 62 | TC | 103.4 | 103.4 | 123.2 | 99.5 | 99.5 | 118.6 | 95.2 | 95.2 | 113.4 | 90.4 | 90.4 | 107.8 | 85.5 | 85.5 | 101.9 |
| | | | SHC | 83.5 | 103.4 | 123.2 | 80.4 | 99.5 | 118.6 | 76.9 | 95.2 | 113.4 | 73.1 | 90.4 | 107.8 | 69.0 | 85.4 | 101.9 |
| | | 67 | TC | 109.0 | 109.0 | 113.6 | 103.9 | 103.9 | 111.6 | 98.6 | 98.6 | 109.5 | 92.8 | 92.8 | 107.3 | 86.8 | 86.8 | 104.9 |
| | | | SHC | 67.5 | 90.5 | 113.6 | 65.6 | 88.6 | 111.6 | 63.6 | 86.6 | 109.5 | 61.4 | 84.3 | 107.3 | 59.2 | 82.0 | 104.9 |
| | | 72 | TC | 118.9 | 118.9 | 118.9 | 113.5 | 113.5 | 113.5 | 107.7 | 107.7 | 107.7 | 101.4 | 101.4 | 101.4 | 94.9 | 94.9 | 94.9 |
| | | | SHC | 46.2 | 69.4 | 92.6 | 44.4 | 67.6 | 90.8 | 42.4 | 65.6 | 88.8 | 40.3 | 63.5 | 86.6 | 38.1 | 61.3 | 84.4 |
| | | 76 | TC | — | 127.5 | 127.5 | — | 121.8 | 121.8 | — | 115.7 | 115.7 | — | 109.0 | 109.0 | — | — | — |
| | | | SHC | — | 52.3 | 75.7 | — | 50.5 | 73.8 | — | 48.5 | 71.8 | — | 46.4 | 69.7 | — | — | — |

LEGEND

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

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

# Performance data (cont)

## 50GEQ*08 Single Stage Cooling Capacities

| 50GEQ*08 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 1350 cfm | EA (wb) | 58 | TC | 54.3 | 54.3 | 60.9 | 52.3 | 52.3 | 58.7 | 50.2 | 50.2 | 56.3 | 47.8 | 47.8 | 53.7 | 45.2 | 45.2 | 50.8 |
| | | | SHC | 47.7 | 54.3 | 60.9 | 45.9 | 52.3 | 58.7 | 44.0 | 50.2 | 56.3 | 41.9 | 47.8 | 53.7 | 39.6 | 45.2 | 50.8 |
| | | 62 | TC | 57.8 | 57.8 | 57.8 | 55.3 | 55.3 | 55.4 | 52.5 | 52.5 | 54.0 | 49.5 | 49.5 | 52.5 | 46.2 | 46.2 | 50.9 |
| | | | SHC | 42.8 | 49.8 | 56.7 | 41.4 | 48.4 | 55.4 | 40.0 | 47.0 | 54.0 | 38.5 | 45.5 | 52.5 | 36.9 | 43.9 | 50.9 |
| | | 67 | TC | 63.8 | 63.8 | 63.8 | 61.1 | 61.1 | 61.1 | 58.1 | 58.1 | 58.1 | 54.9 | 54.9 | 54.9 | 51.3 | 51.3 | 51.3 |
| | | | SHC | 35.7 | 42.7 | 49.7 | 34.3 | 41.4 | 48.4 | 33.0 | 40.0 | 47.0 | 31.5 | 38.5 | 45.5 | 29.9 | 36.9 | 43.9 |
| | | 72 | TC | 70.4 | 70.4 | 70.4 | 67.4 | 67.4 | 67.4 | 64.2 | 64.2 | 64.2 | 60.8 | 60.8 | 60.8 | 57.0 | 57.0 | 57.0 |
| | | | SHC | 28.4 | 35.4 | 42.4 | 27.1 | 34.1 | 41.1 | 25.7 | 32.7 | 39.7 | 24.3 | 31.3 | 38.3 | 22.7 | 29.7 | 36.7 |
| | | 76 | TC | — | 76.1 | 76.1 | — | 72.8 | 72.8 | — | 69.5 | 69.5 | — | 65.8 | 65.8 | — | 61.8 | 61.8 |
| | | | SHC | — | 29.5 | 36.5 | — | 28.2 | 35.2 | — | 26.8 | 33.8 | — | 25.4 | 32.4 | — | 23.9 | 30.9 |
| 1590 cfm | EA (wb) | 58 | TC | 58.0 | 58.0 | 65.0 | 55.8 | 55.8 | 62.7 | 53.5 | 53.5 | 60.1 | 51.0 | 51.0 | 57.2 | 48.1 | 48.1 | 54.1 |
| | | | SHC | 50.9 | 58.0 | 65.0 | 49.0 | 55.8 | 62.7 | 47.0 | 53.5 | 60.1 | 44.7 | 51.0 | 57.2 | 42.2 | 48.1 | 54.1 |
| | | 62 | TC | 60.1 | 60.1 | 63.1 | 57.4 | 57.4 | 61.8 | 54.5 | 54.5 | 60.3 | 51.3 | 51.3 | 58.7 | 48.2 | 48.2 | 56.2 |
| | | | SHC | 46.7 | 54.9 | 63.1 | 45.3 | 53.5 | 61.8 | 43.9 | 52.1 | 60.3 | 42.3 | 50.5 | 58.7 | 40.2 | 48.2 | 56.2 |
| | | 67 | TC | 66.2 | 66.2 | 66.2 | 63.3 | 63.3 | 63.3 | 60.1 | 60.1 | 60.1 | 56.7 | 56.7 | 56.7 | 53.0 | 53.0 | 53.0 |
| | | | SHC | 38.2 | 46.4 | 54.7 | 36.9 | 45.1 | 53.3 | 35.4 | 43.7 | 51.9 | 33.9 | 42.2 | 50.4 | 32.3 | 40.5 | 48.8 |
| | | 72 | TC | 72.9 | 72.9 | 72.9 | 69.7 | 69.7 | 69.7 | 66.3 | 66.3 | 66.3 | 62.7 | 62.7 | 62.7 | 58.7 | 58.7 | 58.7 |
| | | | SHC | 29.6 | 37.8 | 46.1 | 28.2 | 36.5 | 44.7 | 26.8 | 35.1 | 43.3 | 25.4 | 33.6 | 41.9 | 23.8 | 32.0 | 40.3 |
| | | 76 | TC | — | 78.7 | 78.7 | — | 75.3 | 75.3 | — | 71.7 | 71.7 | — | 67.8 | 67.8 | — | 63.6 | 63.6 |
| | | | SHC | — | 30.8 | 39.1 | — | 29.5 | 37.7 | — | 28.1 | 36.3 | — | 26.6 | 34.9 | — | 25.1 | 33.3 |
| 1800 cfm | EA (wb) | 58 | TC | 60.7 | 60.7 | 68.1 | 58.5 | 58.5 | 65.6 | 56.0 | 56.0 | 62.8 | 53.3 | 53.3 | 59.8 | 50.3 | 50.3 | 56.5 |
| | | | SHC | 53.3 | 60.7 | 68.1 | 51.3 | 58.5 | 65.6 | 49.1 | 56.0 | 62.8 | 46.7 | 53.3 | 59.8 | 44.1 | 50.3 | 56.5 |
| | | 62 | TC | 61.7 | 61.7 | 68.5 | 58.9 | 58.9 | 67.1 | 55.8 | 55.8 | 65.2 | 53.3 | 53.3 | 62.1 | 50.4 | 50.4 | 58.7 |
| | | | SHC | 50.0 | 59.2 | 68.5 | 48.6 | 57.9 | 67.1 | 46.5 | 55.8 | 65.2 | 44.6 | 53.3 | 62.1 | 42.0 | 50.4 | 58.7 |
| | | 67 | TC | 67.8 | 67.8 | 67.8 | 64.7 | 64.7 | 64.7 | 61.5 | 61.5 | 61.5 | 57.9 | 57.9 | 57.9 | 54.1 | 54.1 | 54.1 |
| | | | SHC | 40.3 | 49.6 | 59.0 | 38.9 | 48.3 | 57.6 | 37.5 | 46.8 | 56.2 | 36.0 | 45.3 | 54.6 | 34.3 | 43.6 | 53.0 |
| | | 72 | TC | 74.6 | 74.6 | 74.6 | 71.2 | 71.2 | 71.2 | 67.7 | 67.7 | 67.7 | 63.9 | 63.9 | 63.9 | 59.8 | 59.8 | 59.8 |
| | | | SHC | 30.5 | 39.9 | 49.2 | 29.1 | 38.5 | 47.8 | 27.7 | 37.1 | 46.4 | 26.2 | 35.6 | 44.9 | 24.6 | 34.0 | 43.3 |
| | | 76 | TC | — | 80.4 | 80.4 | — | 76.8 | 76.8 | — | 73.1 | 73.1 | — | 69.1 | 69.1 | — | 64.8 | 64.8 |
| | | | SHC | — | 31.9 | 41.2 | — | 30.5 | 39.9 | — | 29.1 | 38.5 | — | 27.6 | 37.0 | — | 26.1 | 35.4 |
| 2040 cfm | EA (wb) | 58 | TC | 63.4 | 63.4 | 71.1 | 61.1 | 61.1 | 68.5 | 58.4 | 58.4 | 65.5 | 55.5 | 55.5 | 62.3 | 52.4 | 52.4 | 58.8 |
| | | | SHC | 55.7 | 63.4 | 71.1 | 53.6 | 61.1 | 68.5 | 51.3 | 58.4 | 65.5 | 48.7 | 55.5 | 62.3 | 45.9 | 52.4 | 58.8 |
| | | 62 | TC | 63.4 | 63.4 | 73.7 | 61.1 | 61.1 | 71.0 | 58.5 | 58.5 | 68.0 | 54.7 | 54.7 | 64.3 | 52.4 | 52.4 | 61.1 |
| | | | SHC | 53.0 | 63.4 | 73.7 | 51.2 | 61.1 | 71.0 | 48.9 | 58.5 | 68.0 | 45.1 | 54.7 | 64.3 | 43.8 | 52.4 | 61.1 |
| | | 67 | TC | 69.2 | 69.2 | 69.2 | 66.1 | 66.1 | 66.1 | 62.7 | 62.7 | 62.7 | 59.0 | 59.0 | 59.3 | 55.0 | 55.0 | 57.7 |
| | | | SHC | 42.7 | 53.2 | 63.7 | 41.3 | 51.8 | 62.3 | 39.8 | 50.3 | 60.9 | 38.3 | 48.8 | 59.3 | 36.6 | 47.1 | 57.7 |
| | | 72 | TC | 76.1 | 76.1 | 76.1 | 72.6 | 72.6 | 72.6 | 69.0 | 69.0 | 69.0 | 65.1 | 65.1 | 65.1 | 60.8 | 60.8 | 60.8 |
| | | | SHC | 31.5 | 42.1 | 52.7 | 30.1 | 40.7 | 51.3 | 28.7 | 39.3 | 49.9 | 27.2 | 37.7 | 48.3 | 25.6 | 36.2 | 46.8 |
| | | 76 | TC | — | 81.9 | 81.9 | — | 78.2 | 78.2 | — | 74.4 | 74.4 | — | 70.3 | 70.3 | — | 65.8 | 65.8 |
| | | | SHC | — | 33.0 | 43.6 | — | 31.6 | 42.2 | — | 30.2 | 40.8 | — | 28.7 | 39.3 | — | 27.1 | 37.7 |
| 2250 cfm | EA (wb) | 58 | TC | 65.5 | 65.5 | 73.5 | 63.0 | 63.0 | 70.7 | 60.2 | 60.2 | 67.5 | 57.2 | 57.2 | 64.2 | 53.9 | 53.9 | 60.6 |
| | | | SHC | 57.6 | 65.5 | 73.5 | 55.4 | 63.0 | 70.7 | 52.8 | 60.2 | 67.5 | 50.2 | 57.2 | 64.2 | 47.3 | 53.9 | 60.6 |
| | | 62 | TC | 65.5 | 65.5 | 76.1 | 63.1 | 63.1 | 73.4 | 60.3 | 60.3 | 70.1 | 57.3 | 57.3 | 66.7 | 54.0 | 54.0 | 62.9 |
| | | | SHC | 54.9 | 65.5 | 76.1 | 52.9 | 63.1 | 73.4 | 50.4 | 60.3 | 70.1 | 47.9 | 57.3 | 66.7 | 45.1 | 54.0 | 62.9 |
| | | 67 | TC | 70.3 | 70.3 | 70.3 | 67.0 | 67.0 | 67.0 | 63.5 | 63.5 | 65.0 | 59.7 | 59.7 | 63.4 | 55.8 | 55.8 | 61.7 |
| | | | SHC | 44.6 | 56.3 | 67.9 | 43.2 | 54.8 | 66.5 | 41.8 | 53.4 | 65.0 | 40.2 | 51.8 | 63.4 | 38.6 | 50.1 | 61.7 |
| | | 72 | TC | 77.1 | 77.1 | 77.1 | 73.6 | 73.6 | 73.6 | 69.9 | 69.9 | 69.9 | 65.8 | 65.8 | 65.8 | 61.5 | 61.5 | 61.5 |
| | | | SHC | 32.3 | 43.9 | 55.6 | 30.9 | 42.6 | 54.3 | 29.4 | 41.1 | 52.8 | 27.9 | 39.6 | 51.3 | 26.3 | 38.0 | 49.6 |
| | | 76 | TC | — | 83.0 | 83.0 | — | 79.2 | 79.2 | — | 75.3 | 75.3 | — | 71.1 | 71.1 | — | 66.5 | 66.5 |
| | | | SHC | — | 33.9 | 45.6 | — | 32.5 | 44.2 | — | 31.1 | 42.8 | — | 29.6 | 41.3 | — | 28.0 | 39.7 |

LEGEND

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

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

# Performance data (cont)

## 50GEQN08 — Unit with Humidi-MiZer® System in Subcooling Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 80 Dry Bulb 62 Wet Bulb (36% Relative) | | | 80 Dry Bulb 67 Wet Bulb (51% Relative) | | | 80 Dry Bulb 72Wet Bulb (68% Relative) | | |
| | | Air Entering Evaporator — SCFM/Static | | | | | | | | |
| | | 2250 | 3000 | 3750 | 2250 | 3000 | 3750 | 2250 | 3000 | 3750 |
| 75 | TC | 85.5 | 89.7 | 93.0 | 97.3 | 101.9 | 105.4 | 109.1 | 114.1 | 117.9 |
| | SHC | 72.1 | 76.5 | 79.0 | 63.5 | 68.3 | 71.0 | 55.0 | 60.2 | 63.1 |
| | kW | 5.5 | 6.2 | 6.7 | 5.7 | 6.3 | 6.8 | 5.8 | 6.3 | 6.8 |
| 85 | TC | 77.2 | 81.9 | 85.5 | 89.0 | 94.1 | 98.0 | 100.8 | 106.3 | 110.5 |
| | SHC | 67.7 | 72.7 | 75.5 | 56.9 | 62.3 | 65.4 | 46.1 | 51.9 | 55.2 |
| | kW | 6.4 | 7.1 | 7.5 | 6.6 | 7.1 | 7.5 | 6.7 | 7.2 | 7.5 |
| 95 | TC | 68.9 | 74.1 | 78.1 | 80.7 | 86.3 | 90.6 | 92.5 | 98.4 | 103.1 |
| | SHC | 63.3 | 69.0 | 72.1 | 50.3 | 56.3 | 59.7 | 37.2 | 43.7 | 47.4 |
| | kW | 7.3 | 7.9 | 8.4 | 7.5 | 8.0 | 8.3 | 7.7 | 8.1 | 8.3 |
| 105 | TC | 60.7 | 66.3 | 70.6 | 72.4 | 78.5 | 83.1 | 84.1 | 90.6 | 95.7 |
| | SHC | 59.0 | 65.2 | 68.7 | 43.6 | 50.3 | 54.1 | 28.3 | 35.5 | 39.5 |
| | kW | 8.2 | 8.7 | 9.2 | 8.4 | 8.8 | 9.1 | 8.6 | 8.9 | 9.1 |
| 115 | TC | 52.4 | 58.5 | 63.2 | 64.1 | 70.6 | 75.7 | 75.8 | 82.8 | 88.3 |
| | SHC | 54.6 | 61.4 | 65.2 | 37.0 | 44.3 | 48.4 | 19.3 | 27.2 | 31.6 |
| | kW | 9.1 | 9.6 | 10.0 | 9.3 | 9.7 | 9.9 | 9.5 | 9.8 | 9.9 |
| 125 | TC | — | — | — | — | — | — | — | — | — |
| | SHC | — | — | — | — | — | — | — | — | — |
| | kW | — | — | — | — | — | — | — | — | — |

## 50GEQN08 — Unit with Humidi-MiZer System in Hot Gas Reheat Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 75 Dry Bulb 62.5 Wet Bulb (50% Relative) | | | 75 Dry Bulb 64 Wet Bulb (56% Relative) | | | 75 Dry Bulb 65.3 Wet Bulb (60% Relative) | | |
| | | Air Entering Evaporator — SCFM | | | | | | | | |
| | | 2250 | 3000 | 3750 | 2250 | 3000 | 3750 | 2250 | 3000 | 3750 |
| 80 | TC | 17.3 | 20.7 | 24.7 | 17.8 | 19.6 | 22.2 | 18.0 | 18.7 | 20.0 |
| | SHC | –0.6 | 0.7 | 1.7 | –1.2 | 0.1 | 1.1 | –1.8 | –0.5 | 0.6 |
| | kW | 7.3 | 7.1 | 6.9 | 6.9 | 7.1 | 6.9 | 7.3 | 7.1 | 6.9 |
| 75 | TC | 17.4 | 22.3 | 24.5 | 17.8 | 21.3 | 23.5 | 18.1 | 20.5 | 22.6 |
| | SHC | –0.2 | 1.0 | 2.0 | –0.8 | 0.4 | 1.4 | –1.3 | –0.1 | 0.9 |
| | kW | 7.1 | 6.9 | 6.8 | 6.7 | 6.9 | 6.8 | 7.2 | 7.0 | 6.8 |
| 70 | TC | 17.5 | 23.8 | 26.2 | 17.9 | 23.0 | 25.3 | 18.1 | 22.3 | 24.6 |
| | SHC | 0.1 | 1.3 | 2.2 | –0.4 | 0.8 | 1.7 | –0.9 | 0.3 | 1.2 |
| | kW | 7.0 | 6.8 | 6.7 | 6.6 | 6.8 | 6.7 | 7.0 | 6.8 | 6.7 |
| 60 | TC | 17.7 | 26.9 | 29.6 | 18.0 | 26.4 | 29.0 | 18.2 | 26.0 | 28.6 |
| | SHC | 0.8 | 1.9 | 2.7 | 0.4 | 1.4 | 2.3 | 0.0 | 1.1 | 1.9 |
| | kW | 6.7 | 6.5 | 6.4 | 6.4 | 6.5 | 6.4 | 6.7 | 6.6 | 6.5 |
| 50 | TC | 17.9 | 30.0 | 33.0 | 18.2 | 29.8 | 32.8 | 18.3 | 29.6 | 32.6 |
| | SHC | 1.6 | 2.5 | 3.2 | 1.2 | 2.1 | 2.8 | 0.9 | 1.8 | 2.5 |
| | kW | 6.3 | 6.2 | 6.1 | 6.1 | 6.3 | 6.2 | 6.4 | 6.3 | 6.2 |
| 40 | TC | 18.1 | 33.1 | 36.4 | 18.3 | 33.2 | 36.5 | 18.4 | 33.2 | 36.6 |
| | SHC | 2.3 | 3.0 | 3.6 | 2.0 | 2.8 | 3.4 | 1.8 | 2.6 | 3.2 |
| | kW | 6.0 | 5.9 | 5.9 | 5.9 | 6.0 | 5.9 | 6.2 | 6.1 | 6.0 |

LEGEND

**Edb** — Entering Dry Bulb
**kW** — Compressor Power Input
**SCFM** — Standard Cubic Feet per Minute
**SHC** — Sensible Heat Capacity (1000 Btuh) Gross
**TC** — Total Capacity (1000 Btuh) Gross

# Performance data (cont)

## 50GEQ*09 Two Stage Cooling Capacities

| 50GEQ*09 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 2550 cfm | EA (wb) | 58 | TC | 90.7 | 90.7 | 103.3 | 86.2 | 86.2 | 98.4 | 81.4 | 81.4 | 93.1 | 76.3 | 76.3 | 87.5 | 70.8 | 70.8 | 81.4 |
| | | | SHC | 78.1 | 90.7 | 103.3 | 74.0 | 86.2 | 98.4 | 69.7 | 81.4 | 93.1 | 65.1 | 76.3 | 87.5 | 60.2 | 70.8 | 81.4 |
| | | 62 | TC | 96.0 | 96.0 | 97.6 | 90.5 | 90.5 | 94.3 | 84.6 | 84.6 | 90.9 | 78.4 | 78.4 | 87.2 | 71.8 | 71.8 | 83.3 |
| | | | SHC | 70.1 | 83.8 | 97.6 | 66.8 | 80.6 | 94.3 | 63.3 | 77.1 | 90.9 | 59.8 | 73.5 | 87.2 | 56.0 | 69.6 | 83.3 |
| | | 67 | TC | 106.5 | 106.5 | 106.5 | 100.6 | 100.6 | 100.6 | 94.4 | 94.4 | 94.4 | 87.6 | 87.6 | 87.6 | 80.4 | 80.4 | 80.4 |
| | | | SHC | 57.4 | 71.2 | 85.1 | 54.1 | 68.0 | 81.8 | 50.7 | 64.6 | 78.4 | 47.2 | 61.0 | 74.9 | 43.5 | 57.3 | 71.1 |
| | | 72 | TC | 118.1 | 118.1 | 118.1 | 111.8 | 111.8 | 111.8 | 105.1 | 105.1 | 105.1 | 97.9 | 97.9 | 97.9 | 90.2 | 90.2 | 90.2 |
| | | | SHC | 44.5 | 58.4 | 72.4 | 41.3 | 55.2 | 69.1 | 37.9 | 51.8 | 65.7 | 34.3 | 48.3 | 62.2 | 30.7 | 44.6 | 58.5 |
| | | 76 | TC | — | 128.1 | 128.1 | — | 121.5 | 121.5 | — | 114.3 | 114.3 | — | 106.7 | 106.7 | — | 98.5 | 98.5 |
| | | | SHC | — | 47.9 | 62.0 | — | 44.7 | 58.7 | — | 41.3 | 55.4 | — | 37.8 | 51.9 | — | 34.2 | 48.2 |
| 3000 cfm | EA (wb) | 58 | TC | 96.9 | 96.9 | 110.3 | 92.1 | 92.1 | 105.0 | 87.0 | 87.0 | 99.4 | 81.5 | 81.5 | 93.3 | 75.6 | 75.6 | 86.8 |
| | | | SHC | 83.6 | 96.9 | 110.3 | 79.2 | 92.1 | 105.0 | 74.6 | 87.0 | 99.4 | 69.7 | 81.5 | 93.3 | 64.4 | 75.6 | 86.8 |
| | | 62 | TC | 99.8 | 99.8 | 108.8 | 94.1 | 94.1 | 105.4 | 88.0 | 88.0 | 101.6 | 82.2 | 82.2 | 95.7 | 75.7 | 75.7 | 90.7 |
| | | | SHC | 76.7 | 92.8 | 108.8 | 73.3 | 89.4 | 105.4 | 69.7 | 85.7 | 101.6 | 65.1 | 80.4 | 95.7 | 60.8 | 75.7 | 90.7 |
| | | 67 | TC | 110.3 | 110.3 | 110.3 | 104.1 | 104.1 | 104.1 | 97.5 | 97.5 | 97.5 | 90.4 | 90.4 | 90.4 | 82.9 | 82.9 | 82.9 |
| | | | SHC | 61.7 | 77.9 | 94.1 | 58.4 | 74.6 | 90.8 | 54.9 | 71.1 | 87.3 | 51.3 | 67.5 | 83.7 | 47.5 | 63.7 | 79.9 |
| | | 72 | TC | 122.2 | 122.2 | 122.2 | 115.5 | 115.5 | 115.5 | 108.4 | 108.4 | 108.4 | 100.9 | 100.9 | 100.9 | 92.8 | 92.8 | 92.8 |
| | | | SHC | 46.4 | 62.7 | 79.0 | 43.1 | 59.4 | 75.7 | 39.6 | 55.9 | 72.2 | 36.0 | 52.3 | 68.6 | 32.3 | 48.6 | 64.8 |
| | | 76 | TC | — | 132.3 | 132.3 | — | 125.2 | 125.2 | — | 117.7 | 117.7 | — | 109.7 | 109.7 | — | 101.2 | 101.2 |
| | | | SHC | — | 50.3 | 66.8 | — | 47.1 | 63.6 | — | 43.6 | 60.1 | — | 40.0 | 56.4 | — | 36.2 | 52.7 |
| 3400 cfm | EA (wb) | 58 | TC | 101.5 | 101.5 | 115.4 | 96.5 | 96.5 | 109.9 | 91.1 | 91.1 | 104.0 | 85.4 | 85.4 | 97.6 | 79.2 | 79.2 | 90.8 |
| | | | SHC | 87.6 | 101.5 | 115.4 | 83.1 | 96.5 | 109.9 | 78.2 | 91.1 | 104.0 | 73.1 | 85.4 | 97.6 | 67.5 | 79.2 | 90.8 |
| | | 62 | TC | 102.6 | 102.6 | 118.1 | 97.5 | 97.5 | 112.2 | 91.2 | 91.2 | 108.4 | 85.5 | 85.5 | 101.9 | 79.3 | 79.3 | 94.8 |
| | | | SHC | 82.2 | 100.1 | 118.1 | 77.7 | 94.9 | 112.2 | 74.0 | 91.2 | 108.4 | 69.1 | 85.5 | 101.9 | 63.7 | 79.3 | 94.8 |
| | | 67 | TC | 112.9 | 112.9 | 112.9 | 106.5 | 106.5 | 106.5 | 99.7 | 99.7 | 99.7 | 92.4 | 92.4 | 92.4 | 84.6 | 84.6 | 87.4 |
| | | | SHC | 65.3 | 83.6 | 101.9 | 61.9 | 80.2 | 98.5 | 58.4 | 76.7 | 94.9 | 54.8 | 73.0 | 91.3 | 51.0 | 69.2 | 87.4 |
| | | 72 | TC | 124.9 | 124.9 | 124.9 | 118.0 | 118.0 | 118.0 | 110.7 | 110.7 | 110.7 | 102.9 | 102.9 | 102.9 | 94.5 | 94.5 | 94.5 |
| | | | SHC | 47.9 | 66.2 | 84.6 | 44.5 | 62.9 | 81.3 | 41.0 | 59.4 | 77.7 | 37.4 | 55.7 | 74.1 | 33.6 | 51.9 | 70.2 |
| | | 76 | TC | — | 135.0 | 135.0 | — | 127.8 | 127.8 | — | 120.0 | 120.0 | — | 111.8 | 111.8 | — | 103.0 | 103.0 |
| | | | SHC | — | 52.2 | 70.8 | — | 48.8 | 67.4 | — | 45.3 | 63.8 | — | 41.7 | 60.2 | — | 37.9 | 56.3 |
| 3850 cfm | EA (wb) | 58 | TC | 106.0 | 106.0 | 120.4 | 100.7 | 100.7 | 114.6 | 95.1 | 95.1 | 108.4 | 89.0 | 89.0 | 101.7 | 82.5 | 82.5 | 94.5 |
| | | | SHC | 91.5 | 106.0 | 120.4 | 86.8 | 100.7 | 114.6 | 81.7 | 95.1 | 108.4 | 76.3 | 89.0 | 101.7 | 70.5 | 82.5 | 94.5 |
| | | 62 | TC | 108.0 | 108.0 | 118.8 | 100.8 | 100.8 | 119.4 | 95.2 | 95.2 | 113.0 | 89.1 | 89.1 | 106.1 | 82.6 | 82.6 | 98.7 |
| | | | SHC | 83.8 | 101.3 | 118.8 | 82.2 | 100.8 | 119.4 | 77.3 | 95.2 | 113.0 | 72.1 | 89.1 | 106.1 | 66.5 | 82.6 | 98.7 |
| | | 67 | TC | 115.2 | 115.2 | 115.2 | 108.6 | 108.6 | 108.6 | 101.6 | 101.6 | 103.3 | 94.2 | 94.2 | 99.6 | 86.2 | 86.2 | 95.6 |
| | | | SHC | 69.2 | 89.8 | 110.3 | 65.8 | 86.3 | 106.9 | 62.2 | 82.8 | 103.3 | 58.6 | 79.1 | 99.6 | 54.7 | 75.1 | 95.6 |
| | | 72 | TC | 127.3 | 127.3 | 127.3 | 120.2 | 120.2 | 120.2 | 112.7 | 112.7 | 112.7 | 104.6 | 104.6 | 104.6 | 96.1 | 96.1 | 96.1 |
| | | | SHC | 49.3 | 70.0 | 90.7 | 45.9 | 66.6 | 87.3 | 42.4 | 63.1 | 83.8 | 38.8 | 59.4 | 80.0 | 34.9 | 55.6 | 76.2 |
| | | 76 | TC | — | 137.5 | 137.5 | — | 130.0 | 130.0 | — | 122.0 | 122.0 | — | 113.5 | 113.5 | — | 104.6 | 104.6 |
| | | | SHC | — | 54.0 | 74.9 | — | 50.6 | 71.5 | — | 47.1 | 67.9 | — | 43.4 | 64.1 | — | 39.5 | 60.3 |
| 4250 cfm | EA (wb) | 58 | TC | 109.4 | 109.4 | 124.3 | 103.9 | 103.9 | 118.2 | 98.1 | 98.1 | 111.8 | 91.8 | 91.8 | 104.9 | 85.1 | 85.1 | 97.4 |
| | | | SHC | 94.5 | 109.4 | 124.3 | 89.6 | 103.9 | 118.2 | 84.4 | 98.1 | 111.8 | 78.8 | 91.8 | 104.9 | 72.7 | 85.1 | 97.4 |
| | | 62 | TC | 109.5 | 109.5 | 129.4 | 104.0 | 104.0 | 123.2 | 98.2 | 98.2 | 116.5 | 91.9 | 91.9 | 109.4 | 85.1 | 85.1 | 101.6 |
| | | | SHC | 89.7 | 109.5 | 129.4 | 84.9 | 104.0 | 123.2 | 79.9 | 98.2 | 116.5 | 74.5 | 91.9 | 109.4 | 68.7 | 85.1 | 101.6 |
| | | 67 | TC | 116.9 | 116.9 | 117.6 | 110.2 | 110.2 | 114.2 | 103.0 | 103.0 | 110.5 | 95.5 | 95.5 | 106.6 | 87.4 | 87.4 | 102.5 |
| | | | SHC | 72.5 | 95.1 | 117.6 | 69.1 | 91.6 | 114.2 | 65.5 | 88.0 | 110.5 | 61.8 | 84.2 | 106.6 | 57.9 | 80.2 | 102.5 |
| | | 72 | TC | 129.0 | 129.0 | 129.0 | 121.8 | 121.8 | 121.8 | 114.1 | 114.1 | 114.1 | 105.9 | 105.9 | 105.9 | 97.2 | 97.2 | 97.2 |
| | | | SHC | 50.5 | 73.3 | 96.0 | 47.1 | 69.8 | 92.5 | 43.6 | 66.3 | 88.9 | 39.9 | 62.6 | 85.2 | 36.1 | 58.7 | 81.3 |
| | | 76 | TC | — | 139.3 | 139.3 | — | 131.6 | 131.6 | — | 123.5 | 123.5 | — | 114.8 | 114.8 | — | 105.7 | 105.7 |
| | | | SHC | — | 55.5 | 78.4 | — | 52.1 | 74.9 | — | 48.5 | 71.3 | — | 44.8 | 67.5 | — | 40.9 | 63.6 |

LEGEND

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

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

# Performance data (cont)

## 50GEQ*09 Single Stage Cooling Capacities

| 50GEQ*09 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 1275 cfm | EA (wb) | 58 | TC | 49.8 | 49.8 | 56.0 | 46.7 | 46.7 | 53.6 | 43.7 | 43.7 | 50.4 | 40.6 | 40.6 | 47.0 | 37.3 | 37.3 | 43.3 |
| | | | SHC | 42.0 | 49.0 | 56.0 | 39.7 | 46.7 | 53.6 | 37.1 | 43.7 | 50.4 | 34.3 | 40.6 | 47.0 | 31.2 | 37.3 | 43.3 |
| | | 62 | TC | 54.5 | 54.5 | 54.5 | 51.0 | 51.0 | 51.0 | 47.4 | 47.4 | 47.4 | 43.5 | 43.5 | 44.4 | 39.3 | 39.3 | 41.8 |
| | | | SHC | 37.3 | 44.3 | 51.3 | 35.1 | 42.1 | 49.1 | 32.8 | 39.8 | 46.8 | 30.4 | 37.4 | 44.4 | 27.9 | 34.9 | 41.8 |
| | | 67 | TC | 61.0 | 61.0 | 61.0 | 57.3 | 57.3 | 57.3 | 53.4 | 53.4 | 53.4 | 49.2 | 49.2 | 49.2 | 44.7 | 44.7 | 44.7 |
| | | | SHC | 31.3 | 38.3 | 45.3 | 29.1 | 36.1 | 43.1 | 26.8 | 33.8 | 40.8 | 24.4 | 31.4 | 38.4 | 21.9 | 28.9 | 35.8 |
| | | 72 | TC | 68.0 | 68.0 | 68.0 | 64.1 | 64.1 | 64.1 | 59.9 | 59.9 | 59.9 | 55.4 | 55.4 | 55.4 | 50.7 | 50.7 | 50.7 |
| | | | SHC | 25.2 | 32.2 | 39.2 | 22.9 | 29.9 | 37.0 | 20.6 | 27.6 | 34.6 | 18.2 | 25.2 | 32.2 | 15.7 | 22.7 | 29.8 |
| | | 76 | TC | — | 74.2 | 74.2 | — | 70.0 | 70.0 | — | 65.6 | 65.6 | — | 60.7 | 60.7 | — | 55.8 | 55.8 |
| | | | SHC | — | 27.2 | 34.2 | — | 24.9 | 31.9 | — | 22.6 | 29.6 | — | 20.2 | 27.2 | — | 17.7 | 24.7 |
| 1500 cfm | EA (wb) | 58 | TC | 53.5 | 53.5 | 61.1 | 50.5 | 50.5 | 57.9 | 47.4 | 47.4 | 54.5 | 44.1 | 44.1 | 50.8 | 40.4 | 40.4 | 46.9 |
| | | | SHC | 45.9 | 53.5 | 61.1 | 43.2 | 50.5 | 57.9 | 40.3 | 47.4 | 54.5 | 37.3 | 44.1 | 50.8 | 34.0 | 40.4 | 46.9 |
| | | 62 | TC | 57.2 | 57.2 | 57.5 | 53.5 | 53.5 | 55.2 | 49.7 | 49.7 | 52.8 | 45.6 | 45.6 | 50.3 | 41.2 | 41.2 | 47.7 |
| | | | SHC | 41.1 | 49.3 | 57.5 | 38.8 | 47.0 | 55.2 | 36.4 | 44.6 | 52.8 | 33.9 | 42.1 | 50.3 | 31.4 | 39.5 | 47.7 |
| | | 67 | TC | 63.8 | 63.8 | 63.8 | 59.9 | 59.9 | 59.9 | 55.8 | 55.8 | 55.8 | 51.4 | 51.4 | 51.4 | 46.6 | 46.6 | 46.6 |
| | | | SHC | 33.8 | 42.0 | 50.3 | 31.5 | 39.8 | 48.0 | 29.2 | 37.4 | 45.6 | 26.7 | 34.9 | 43.2 | 24.1 | 32.3 | 40.6 |
| | | 72 | TC | 71.1 | 71.1 | 71.1 | 66.9 | 66.9 | 66.9 | 62.4 | 62.4 | 62.4 | 57.6 | 57.6 | 57.6 | 52.6 | 52.6 | 52.6 |
| | | | SHC | 26.5 | 34.7 | 43.0 | 24.2 | 32.4 | 40.6 | 21.8 | 30.0 | 38.3 | 19.3 | 27.6 | 35.8 | 16.8 | 25.0 | 33.3 |
| | | 76 | TC | — | 77.3 | 77.3 | — | 72.9 | 72.9 | — | 68.2 | 68.2 | — | 63.2 | 63.2 | — | 57.8 | 57.8 |
| | | | SHC | — | 28.7 | 36.9 | — | 26.4 | 34.7 | — | 24.0 | 32.3 | — | 21.6 | 29.9 | — | 19.0 | 27.3 |
| 1700 cfm | EA (wb) | 58 | TC | 56.6 | 56.6 | 64.6 | 53.5 | 53.5 | 61.2 | 50.2 | 50.2 | 57.6 | 46.6 | 46.6 | 53.7 | 42.8 | 42.8 | 49.5 |
| | | | SHC | 48.6 | 56.6 | 64.6 | 45.8 | 53.5 | 61.2 | 42.8 | 50.2 | 57.6 | 39.6 | 46.6 | 53.7 | 36.1 | 42.8 | 49.5 |
| | | 62 | TC | 59.0 | 59.0 | 62.8 | 55.3 | 55.3 | 60.4 | 51.3 | 51.3 | 58.0 | 47.1 | 47.1 | 55.4 | 42.9 | 42.9 | 51.9 |
| | | | SHC | 44.2 | 53.5 | 62.8 | 41.9 | 51.1 | 60.4 | 39.5 | 48.7 | 58.0 | 36.9 | 46.2 | 55.4 | 33.9 | 42.9 | 51.9 |
| | | 67 | TC | 65.8 | 65.8 | 65.8 | 61.7 | 61.7 | 61.7 | 57.4 | 57.4 | 57.4 | 52.7 | 52.7 | 52.7 | 47.7 | 47.7 | 47.7 |
| | | | SHC | 35.9 | 45.2 | 54.5 | 33.6 | 42.9 | 52.2 | 31.2 | 40.5 | 49.8 | 28.6 | 37.9 | 47.2 | 26.0 | 35.3 | 44.6 |
| | | 72 | TC | 73.1 | 73.1 | 73.1 | 68.8 | 68.8 | 68.8 | 64.2 | 64.2 | 64.2 | 59.1 | 59.1 | 59.1 | 53.9 | 53.9 | 53.9 |
| | | | SHC | 27.5 | 36.8 | 46.2 | 25.1 | 34.5 | 43.8 | 22.7 | 32.1 | 41.4 | 20.2 | 29.5 | 38.9 | 17.6 | 27.0 | 36.3 |
| | | 76 | TC | — | 79.5 | 79.5 | — | 74.9 | 74.9 | — | 70.0 | 70.0 | — | 64.7 | 64.7 | — | 59.2 | 59.2 |
| | | | SHC | — | 29.9 | 39.3 | — | 27.6 | 37.0 | — | 25.2 | 34.6 | — | 22.7 | 32.0 | — | 20.1 | 29.5 |
| 1925 cfm | EA (wb) | 58 | TC | 59.6 | 59.6 | 67.9 | 56.2 | 56.2 | 64.3 | 52.8 | 52.8 | 60.6 | 49.1 | 49.1 | 56.5 | 45.0 | 45.0 | 52.0 |
| | | | SHC | 51.2 | 59.6 | 67.9 | 48.2 | 56.2 | 64.3 | 45.1 | 52.8 | 60.6 | 41.8 | 49.1 | 56.5 | 38.0 | 45.0 | 52.0 |
| | | 62 | TC | 60.8 | 60.8 | 68.5 | 56.9 | 56.9 | 66.1 | 52.9 | 52.9 | 63.3 | 49.0 | 49.0 | 59.0 | 44.3 | 44.3 | 54.2 |
| | | | SHC | 47.6 | 58.0 | 68.5 | 45.2 | 55.6 | 66.1 | 42.6 | 52.9 | 63.3 | 39.0 | 49.0 | 59.0 | 34.4 | 44.3 | 54.2 |
| | | 67 | TC | 67.5 | 67.5 | 67.5 | 63.3 | 63.3 | 63.3 | 58.8 | 58.8 | 58.8 | 54.0 | 54.0 | 54.0 | 48.8 | 48.8 | 49.1 |
| | | | SHC | 38.1 | 48.6 | 59.2 | 35.7 | 46.3 | 56.8 | 33.3 | 43.8 | 54.3 | 30.7 | 41.2 | 51.7 | 28.0 | 38.6 | 49.1 |
| | | 72 | TC | 75.0 | 75.0 | 75.0 | 70.4 | 70.4 | 70.4 | 65.7 | 65.7 | 65.7 | 60.5 | 60.5 | 60.5 | 55.1 | 55.1 | 55.1 |
| | | | SHC | 28.5 | 39.0 | 49.6 | 26.1 | 36.7 | 47.2 | 23.6 | 34.2 | 44.8 | 21.1 | 31.7 | 42.2 | 18.5 | 29.0 | 39.6 |
| | | 76 | TC | — | 81.4 | 81.4 | — | 76.6 | 76.6 | — | 71.6 | 71.6 | — | 66.1 | 66.1 | — | 60.4 | 60.4 |
| | | | SHC | — | 31.2 | 41.8 | — | 28.8 | 39.4 | — | 26.4 | 37.0 | — | 23.8 | 34.4 | — | 21.2 | 31.8 |
| 2125 cfm | EA (wb) | 58 | TC | 61.9 | 61.9 | 70.6 | 58.5 | 58.5 | 66.8 | 54.9 | 54.9 | 62.8 | 51.0 | 51.0 | 58.6 | 46.8 | 46.8 | 54.0 |
| | | | SHC | 53.3 | 61.9 | 70.6 | 50.2 | 58.5 | 66.8 | 46.9 | 54.9 | 62.8 | 43.4 | 51.0 | 58.6 | 39.6 | 46.8 | 54.0 |
| | | 62 | TC | 62.2 | 62.2 | 73.3 | 58.6 | 58.6 | 69.7 | 55.0 | 55.0 | 65.6 | 51.1 | 51.1 | 61.2 | 46.9 | 46.9 | 56.5 |
| | | | SHC | 50.4 | 61.8 | 73.3 | 47.5 | 58.6 | 69.7 | 44.3 | 55.0 | 65.6 | 40.9 | 51.1 | 61.2 | 37.3 | 46.9 | 56.5 |
| | | 67 | TC | 68.8 | 68.8 | 68.8 | 64.4 | 64.4 | 64.4 | 59.8 | 59.8 | 59.8 | 54.9 | 54.9 | 55.7 | 49.8 | 49.8 | 53.0 |
| | | | SHC | 40.0 | 51.6 | 63.2 | 37.6 | 49.2 | 60.8 | 35.1 | 46.7 | 58.3 | 32.5 | 44.1 | 55.7 | 29.9 | 41.5 | 53.0 |
| | | 72 | TC | 76.3 | 76.3 | 76.3 | 71.7 | 71.7 | 71.7 | 66.7 | 66.7 | 66.7 | 61.4 | 61.4 | 61.4 | 55.9 | 55.9 | 55.9 |
| | | | SHC | 29.3 | 40.9 | 52.6 | 26.9 | 38.5 | 50.2 | 24.4 | 36.1 | 47.7 | 21.8 | 33.5 | 45.1 | 19.2 | 30.8 | 42.5 |
| | | 76 | TC | — | 82.8 | 82.8 | — | 77.9 | 77.9 | — | 72.6 | 72.6 | — | 67.0 | 67.0 | — | 61.3 | 61.3 |
| | | | SHC | — | 32.2 | 43.9 | — | 29.8 | 41.5 | — | 27.4 | 39.0 | — | 24.8 | 36.5 | — | 22.2 | 33.9 |

LEGEND

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

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

# Performance data (cont)

## 50GEQN09 — Unit with Humidi-MiZer® System in Subcooling Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 80 Dry Bulb 62 Wet Bulb (36% Relative) | | | 80 Dry Bulb 67 Wet Bulb (51% Relative) | | | 80 Dry Bulb 72Wet Bulb (68% Relative) | | |
| | | Air Entering Evaporator — SCFM/Static | | | | | | | | |
| | | 2400 | 3200 | 4000 | 2400 | 3200 | 4000 | 2400 | 3200 | 4000 |
| 75 | TC | 100.1 | 105.0 | 108.8 | 112.2 | 117.5 | 121.6 | 124.2 | 129.9 | 134.3 |
| | SHC | 75.6 | 84.7 | 91.8 | 65.1 | 73.9 | 80.7 | 54.7 | 63.1 | 69.6 |
| | kW | 6.6 | 6.7 | 6.9 | 6.6 | 6.8 | 6.9 | 6.6 | 6.8 | 6.9 |
| 85 | TC | 86.7 | 92.2 | 96.5 | 98.1 | 104.1 | 108.7 | 109.6 | 116.0 | 121.0 |
| | SHC | 69.0 | 77.5 | 84.1 | 55.8 | 63.7 | 69.9 | 42.6 | 50.0 | 55.7 |
| | kW | 7.4 | 7.6 | 7.7 | 7.4 | 7.6 | 7.7 | 7.4 | 7.6 | 7.8 |
| 95 | TC | 73.3 | 79.4 | 84.2 | 84.1 | 90.8 | 95.9 | 95.0 | 102.1 | 107.6 |
| | SHC | 62.4 | 70.3 | 76.4 | 46.4 | 53.6 | 59.1 | 30.4 | 36.8 | 41.8 |
| | kW | 8.2 | 8.4 | 8.6 | 8.2 | 8.4 | 8.6 | 8.2 | 8.4 | 8.6 |
| 105 | TC | 59.9 | 66.7 | 71.9 | 70.1 | 77.4 | 83.1 | 80.3 | 88.2 | 94.3 |
| | SHC | 55.7 | 63.1 | 68.7 | 37.0 | 43.4 | 48.3 | 18.3 | 23.7 | 27.8 |
| | kW | 9.0 | 9.2 | 9.4 | 9.0 | 9.2 | 9.4 | 9.0 | 9.3 | 9.5 |
| 115 | TC | 46.5 | 53.9 | 59.6 | 56.1 | 64.1 | 70.3 | 65.7 | 74.3 | 80.9 |
| | SHC | 49.1 | 55.8 | 61.0 | 27.6 | 33.2 | 37.5 | 6.2 | 10.6 | 13.9 |
| | kW | 9.8 | 10.1 | 10.3 | 9.8 | 10.1 | 10.3 | 9.8 | 10.1 | 10.3 |
| 125 | TC | — | — | — | — | — | — | — | — | — |
| | SHC | — | — | — | — | — | — | — | — | — |
| | kW | — | — | — | — | — | — | — | — | — |

## 50GEQN09 — Unit with Humidi-MiZer System in Hot Gas Reheat Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 75 Dry Bulb 62.5 Wet Bulb (50% Relative) | | | 75 Dry Bulb 64 Wet Bulb (56% Relative) | | | 75 Dry Bulb 65.3 Wet Bulb (60% Relative) | | |
| | | Air Entering Evaporator — SCFM | | | | | | | | |
| | | 2400 | 3200 | 4000 | 2400 | 3200 | 4000 | 2400 | 3200 | 4000 |
| 80 | TC | 50.4 | 52.3 | 53.9 | 52.0 | 54.2 | 55.9 | 53.4 | 55.8 | 57.7 |
| | SHC | 9.6 | 8.7 | 8.0 | 8.0 | 7.1 | 6.4 | 6.7 | 5.7 | 4.9 |
| | kW | 6.0 | 6.5 | 6.9 | 6.3 | 6.5 | 6.9 | 5.9 | 6.5 | 6.9 |
| 75 | TC | 50.8 | 52.7 | 54.3 | 52.4 | 54.5 | 56.2 | 53.8 | 56.1 | 58.0 |
| | SHC | 11.6 | 10.8 | 10.2 | 10.2 | 9.3 | 8.7 | 8.9 | 8.1 | 7.4 |
| | kW | 5.8 | 6.3 | 6.7 | 6.1 | 6.3 | 6.7 | 5.8 | 6.3 | 6.7 |
| 70 | TC | 51.2 | 53.1 | 54.6 | 52.8 | 54.9 | 56.6 | 54.2 | 56.4 | 58.2 |
| | SHC | 13.6 | 12.8 | 12.3 | 12.3 | 11.5 | 10.9 | 11.2 | 10.4 | 9.8 |
| | kW | 5.7 | 6.1 | 6.5 | 6.0 | 6.1 | 6.5 | 5.7 | 6.1 | 6.5 |
| 60 | TC | 52.0 | 53.8 | 55.3 | 53.5 | 55.6 | 57.2 | 54.9 | 57.1 | 58.8 |
| | SHC | 17.5 | 16.9 | 16.5 | 16.6 | 16.0 | 15.5 | 15.8 | 15.1 | 14.6 |
| | kW | 5.4 | 5.8 | 6.1 | 5.7 | 5.8 | 6.1 | 5.4 | 5.8 | 6.1 |
| 50 | TC | 52.8 | 54.6 | 56.0 | 54.3 | 56.2 | 57.8 | 55.7 | 57.7 | 59.4 |
| | SHC | 21.5 | 21.1 | 20.7 | 20.9 | 20.4 | 20.0 | 20.3 | 19.8 | 19.5 |
| | kW | 5.2 | 5.5 | 5.7 | 5.4 | 5.5 | 5.7 | 5.2 | 5.5 | 5.8 |
| 40 | TC | 53.6 | 55.3 | 56.7 | 55.1 | 56.9 | 58.4 | 56.4 | 58.3 | 59.9 |
| | SHC | 25.5 | 25.2 | 24.9 | 25.2 | 24.8 | 24.6 | 24.9 | 24.6 | 24.3 |
| | kW | 4.9 | 5.1 | 5.3 | 5.1 | 5.2 | 5.3 | 4.9 | 5.2 | 5.4 |

LEGEND

**Edb** — Entering Dry Bulb
**kW** — Compressor Power Input
**SCFM** — Standard Cubic Feet per Minute
**SHC** — Sensible Heat Capacity (1000 Btuh) Gross
**TC** — Total Capacity (1000 Btuh) Gross

# Performance data (cont)

## 50GEQ*12 Two Stage Cooling Capacities

| 50GEQ*12 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 3000 cfm | EA (wb) | 58 | TC | 105.6 | 105.6 | 120.3 | 99.4 | 99.4 | 113.6 | 92.8 | 92.8 | 106.5 | 85.8 | 85.8 | 98.9 | 78.4 | 78.4 | 90.9 |
| | | | SHC | 90.9 | 105.6 | 120.3 | 85.1 | 99.4 | 113.6 | 79.1 | 92.8 | 106.5 | 72.8 | 85.8 | 98.9 | 66.0 | 78.4 | 90.9 |
| | | 62 | TC | 112.2 | 112.2 | 113.5 | 104.7 | 104.7 | 108.6 | 96.8 | 96.8 | 103.6 | 88.5 | 88.5 | 98.3 | 79.7 | 79.7 | 92.8 |
| | | | SHC | 81.2 | 97.3 | 113.5 | 76.4 | 92.5 | 108.6 | 71.4 | 87.5 | 103.6 | 66.3 | 82.3 | 98.3 | 60.9 | 76.9 | 92.8 |
| | | 67 | TC | 125.1 | 125.1 | 125.1 | 117.2 | 117.2 | 117.2 | 108.7 | 108.7 | 108.7 | 99.8 | 99.8 | 99.8 | 90.3 | 90.3 | 90.3 |
| | | | SHC | 66.1 | 82.3 | 98.5 | 61.3 | 77.5 | 93.6 | 56.3 | 72.5 | 88.6 | 51.2 | 67.3 | 83.5 | 45.9 | 62.0 | 78.2 |
| | | 72 | TC | 139.2 | 139.2 | 139.2 | 130.6 | 130.6 | 130.6 | 121.6 | 121.6 | 121.6 | 112.1 | 112.1 | 112.1 | 102.1 | 102.1 | 102.1 |
| | | | SHC | 50.7 | 67.0 | 83.3 | 45.9 | 62.1 | 78.4 | 40.9 | 57.2 | 73.4 | 35.8 | 52.0 | 68.3 | 30.5 | 46.7 | 62.9 |
| | | 76 | TC | — | 151.0 | 151.0 | — | 142.1 | 142.1 | — | 132.4 | 132.4 | — | 122.5 | 122.5 | — | 112.0 | 112.0 |
| | | | SHC | — | 54.5 | 71.0 | — | 49.7 | 66.2 | — | 44.7 | 61.2 | — | 39.6 | 56.1 | — | 34.3 | 50.8 |
| 3500 cfm | EA (wb) | 58 | TC | 112.8 | 112.8 | 128.4 | 106.2 | 106.2 | 121.2 | 99.2 | 99.2 | 113.6 | 91.8 | 91.8 | 105.6 | 84.0 | 84.0 | 97.0 |
| | | | SHC | 97.3 | 112.8 | 128.4 | 91.2 | 106.2 | 121.2 | 84.8 | 99.2 | 113.6 | 78.1 | 91.8 | 105.6 | 70.9 | 84.0 | 97.0 |
| | | 62 | TC | 116.6 | 116.6 | 126.2 | 108.8 | 108.8 | 121.1 | 100.7 | 100.7 | 115.8 | 92.3 | 92.3 | 109.8 | 84.1 | 84.1 | 101.5 |
| | | | SHC | 89.0 | 107.6 | 126.2 | 84.0 | 102.6 | 121.1 | 78.9 | 97.3 | 115.8 | 73.3 | 91.5 | 109.8 | 66.7 | 84.1 | 101.5 |
| | | 67 | TC | 129.5 | 129.5 | 129.5 | 121.1 | 121.1 | 121.1 | 112.3 | 112.3 | 112.3 | 102.9 | 102.9 | 102.9 | 93.1 | 93.1 | 93.1 |
| | | | SHC | 71.3 | 90.1 | 108.8 | 66.4 | 85.2 | 103.9 | 61.3 | 80.1 | 98.8 | 56.1 | 74.9 | 93.6 | 50.7 | 69.4 | 88.2 |
| | | 72 | TC | 143.6 | 143.6 | 143.6 | 134.7 | 134.7 | 134.7 | 125.2 | 125.2 | 125.2 | 115.4 | 115.4 | 115.4 | 104.9 | 104.9 | 104.9 |
| | | | SHC | 53.3 | 72.1 | 91.0 | 48.4 | 67.2 | 86.1 | 43.3 | 62.1 | 80.9 | 38.1 | 56.9 | 75.7 | 32.7 | 51.5 | 70.3 |
| | | 76 | TC | — | 155.5 | 155.5 | — | 146.3 | 146.3 | — | 136.5 | 136.5 | — | 125.9 | 125.9 | — | 115.0 | 115.0 |
| | | | SHC | — | 57.6 | 76.8 | — | 52.7 | 71.9 | — | 47.6 | 66.7 | — | 42.3 | 61.4 | — | 37.0 | 56.0 |
| 4000 cfm | EA (wb) | 58 | TC | 118.9 | 118.9 | 135.1 | 111.9 | 111.9 | 127.5 | 104.6 | 104.6 | 119.6 | 96.8 | 96.8 | 111.1 | 88.5 | 88.5 | 102.1 |
| | | | SHC | 102.6 | 118.9 | 135.1 | 96.3 | 111.9 | 127.5 | 89.5 | 104.6 | 119.6 | 82.5 | 96.8 | 111.1 | 75.0 | 88.5 | 102.1 |
| | | 62 | TC | 120.3 | 120.3 | 137.9 | 113.7 | 113.7 | 128.3 | 104.7 | 104.7 | 124.8 | 96.9 | 96.9 | 116.1 | 88.6 | 88.6 | 106.8 |
| | | | SHC | 96.1 | 117.0 | 137.9 | 89.0 | 108.7 | 128.3 | 84.6 | 104.7 | 124.8 | 77.8 | 96.9 | 116.1 | 70.5 | 88.6 | 106.8 |
| | | 67 | TC | 132.8 | 132.8 | 132.8 | 124.1 | 124.1 | 124.1 | 115.0 | 115.0 | 115.0 | 105.4 | 105.4 | 105.4 | 95.2 | 95.2 | 97.7 |
| | | | SHC | 76.2 | 97.5 | 118.8 | 71.2 | 92.5 | 113.8 | 66.1 | 87.3 | 108.6 | 60.8 | 82.0 | 103.3 | 55.3 | 76.5 | 97.7 |
| | | 72 | TC | 147.0 | 147.0 | 147.0 | 137.8 | 137.8 | 137.8 | 128.0 | 128.0 | 128.0 | 117.8 | 117.8 | 117.8 | 107.1 | 107.1 | 107.1 |
| | | | SHC | 55.5 | 76.9 | 98.4 | 50.6 | 72.0 | 93.4 | 45.4 | 66.8 | 88.2 | 40.2 | 61.5 | 82.9 | 34.7 | 56.1 | 77.4 |
| | | 76 | TC | — | 159.0 | 159.0 | — | 149.4 | 149.4 | — | 139.3 | 139.3 | — | 128.5 | 128.5 | — | 117.2 | 117.2 |
| | | | SHC | — | 60.3 | 82.0 | — | 55.3 | 77.0 | — | 50.2 | 71.9 | — | 44.9 | 66.4 | — | 39.5 | 61.0 |
| 4500 cfm | EA (wb) | 58 | TC | 124.0 | 124.0 | 140.8 | 116.7 | 116.7 | 132.9 | 109.1 | 109.1 | 124.6 | 101.0 | 101.0 | 115.7 | 92.3 | 92.3 | 106.3 |
| | | | SHC | 107.2 | 124.0 | 140.8 | 100.5 | 116.7 | 132.9 | 93.5 | 109.1 | 124.6 | 86.2 | 101.0 | 115.7 | 78.4 | 92.3 | 106.3 |
| | | 62 | TC | 126.7 | 126.7 | 136.8 | 116.9 | 116.9 | 138.5 | 109.2 | 109.2 | 129.9 | 101.1 | 101.1 | 120.8 | 92.5 | 92.5 | 111.2 |
| | | | SHC | 97.1 | 117.0 | 136.8 | 95.2 | 116.9 | 138.5 | 88.5 | 109.2 | 129.9 | 81.3 | 101.1 | 120.8 | 73.8 | 92.5 | 111.2 |
| | | 67 | TC | 135.4 | 135.4 | 135.4 | 126.5 | 126.5 | 126.5 | 117.2 | 117.2 | 118.1 | 107.4 | 107.4 | 112.6 | 97.0 | 97.0 | 106.9 |
| | | | SHC | 80.9 | 104.7 | 128.5 | 75.8 | 99.6 | 123.4 | 70.6 | 94.4 | 118.1 | 65.3 | 88.9 | 112.6 | 59.7 | 83.3 | 106.9 |
| | | 72 | TC | 149.7 | 149.7 | 149.7 | 140.3 | 140.3 | 140.3 | 130.1 | 130.1 | 130.1 | 119.8 | 119.8 | 119.8 | 108.8 | 108.8 | 108.8 |
| | | | SHC | 57.6 | 81.6 | 105.5 | 52.6 | 76.5 | 100.4 | 47.4 | 71.3 | 95.2 | 42.1 | 66.0 | 89.8 | 36.7 | 60.5 | 84.3 |
| | | 76 | TC | — | 161.7 | 161.7 | — | 151.8 | 151.8 | — | 141.4 | 141.4 | — | 130.5 | 130.5 | — | 119.0 | 119.0 |
| | | | SHC | — | 62.8 | 87.0 | — | 57.8 | 81.9 | — | 52.6 | 76.7 | — | 47.3 | 71.3 | — | 41.8 | 65.7 |
| 5000 cfm | EA (wb) | 58 | TC | 128.4 | 128.4 | 145.7 | 120.8 | 120.8 | 137.5 | 112.9 | 112.9 | 128.9 | 104.5 | 104.5 | 119.7 | 95.6 | 95.6 | 110.0 |
| | | | SHC | 111.1 | 128.4 | 145.7 | 104.2 | 120.8 | 137.5 | 97.0 | 112.9 | 128.9 | 89.3 | 104.5 | 119.7 | 81.3 | 95.6 | 110.0 |
| | | 62 | TC | 128.5 | 128.5 | 151.6 | 121.0 | 121.0 | 143.2 | 113.0 | 113.0 | 134.3 | 104.6 | 104.6 | 124.9 | 95.7 | 95.7 | 114.9 |
| | | | SHC | 105.4 | 128.5 | 151.6 | 98.7 | 121.0 | 143.2 | 91.7 | 113.0 | 134.3 | 84.4 | 104.6 | 124.9 | 76.5 | 95.7 | 114.9 |
| | | 67 | TC | 137.5 | 137.5 | 137.7 | 128.4 | 128.4 | 132.5 | 118.9 | 118.9 | 127.1 | 109.0 | 109.0 | 121.5 | 98.5 | 98.5 | 115.5 |
| | | | SHC | 85.3 | 111.5 | 137.7 | 80.1 | 106.3 | 132.5 | 74.9 | 101.0 | 127.1 | 69.5 | 95.5 | 121.5 | 63.8 | 89.7 | 115.5 |
| | | 72 | TC | 151.8 | 151.8 | 151.8 | 142.2 | 142.2 | 142.2 | 131.8 | 131.8 | 131.8 | 121.3 | 121.3 | 121.3 | 110.1 | 110.1 | 110.1 |
| | | | SHC | 59.6 | 86.0 | 112.3 | 54.5 | 80.9 | 107.2 | 49.3 | 75.6 | 102.0 | 44.0 | 70.3 | 96.6 | 38.5 | 64.7 | 91.0 |
| | | 76 | TC | — | 163.8 | 163.8 | — | 153.8 | 153.8 | — | 143.2 | 143.2 | — | 132.1 | 132.1 | — | 120.4 | 120.4 |
| | | | SHC | — | 65.2 | 91.8 | — | 60.1 | 86.7 | — | 54.9 | 81.4 | — | 49.5 | 75.9 | — | 44.0 | 70.3 |

LEGEND

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

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

# Performance data (cont)

## 50GEQ*12 Single Stage Cooling Capacities

| 50GEQ*12 | | | | AMBIENT TEMPERATURE (°F) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 85 | | | 95 | | | 105 | | | 115 | | | 125 | | |
| | | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | | EA (db) | | |
| | | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 |
| 1800 cfm | EA (wb) | 58 | TC | 60.5 | 60.5 | 69.4 | 55.9 | 55.9 | 64.5 | 51.1 | 51.1 | 59.4 | 46.1 | 46.1 | 54.1 | 40.9 | 40.9 | 48.5 |
| | | | SHC | 51.5 | 60.5 | 69.4 | 47.2 | 55.9 | 64.5 | 42.8 | 51.1 | 59.4 | 38.1 | 46.1 | 54.1 | 33.3 | 40.9 | 48.5 |
| | | 62 | TC | 64.9 | 64.9 | 65.4 | 59.4 | 59.4 | 61.5 | 53.8 | 53.8 | 57.7 | 47.9 | 47.9 | 53.7 | 41.7 | 41.7 | 49.6 |
| | | | SHC | 45.8 | 55.6 | 65.4 | 42.0 | 51.8 | 61.5 | 38.1 | 47.9 | 57.7 | 34.2 | 43.9 | 53.7 | 30.2 | 39.9 | 49.6 |
| | | 67 | TC | 73.6 | 73.6 | 73.6 | 67.9 | 67.9 | 67.9 | 61.9 | 61.9 | 61.9 | 55.6 | 55.6 | 55.6 | 49.0 | 49.0 | 49.0 |
| | | | SHC | 36.9 | 46.8 | 56.6 | 33.1 | 42.9 | 52.7 | 29.2 | 39.0 | 48.8 | 25.2 | 35.0 | 44.8 | 21.1 | 30.9 | 40.7 |
| | | 72 | TC | 83.2 | 83.2 | 83.2 | 77.1 | 77.1 | 77.1 | 70.7 | 70.7 | 70.7 | 64.1 | 64.1 | 64.1 | 57.1 | 57.1 | 57.1 |
| | | | SHC | 28.0 | 37.9 | 47.8 | 24.2 | 34.0 | 43.9 | 20.2 | 30.1 | 40.0 | 16.2 | 26.0 | 35.9 | 12.0 | 21.9 | 31.7 |
| | | 76 | TC | — | 91.4 | 91.4 | — | 85.0 | 85.0 | — | 78.3 | 78.3 | — | 71.3 | 71.3 | — | 64.0 | 64.0 |
| | | | SHC | — | 30.7 | 40.6 | — | 26.8 | 36.7 | — | 22.9 | 32.8 | — | 18.8 | 28.7 | — | 14.6 | 24.5 |
| 2100 cfm | EA (wb) | 58 | TC | 65.3 | 65.3 | 74.8 | 60.4 | 60.4 | 69.6 | 55.4 | 55.4 | 64.2 | 50.1 | 50.1 | 58.5 | 44.6 | 44.6 | 52.6 |
| | | | SHC | 55.8 | 65.3 | 74.8 | 51.3 | 60.4 | 69.6 | 46.6 | 55.4 | 64.2 | 41.7 | 50.1 | 58.5 | 36.6 | 44.6 | 52.6 |
| | | 62 | TC | 67.8 | 67.8 | 73.6 | 62.1 | 62.1 | 69.7 | 56.3 | 56.3 | 65.6 | 50.4 | 50.4 | 61.2 | 44.7 | 44.7 | 55.3 |
| | | | SHC | 50.9 | 62.2 | 73.6 | 47.0 | 58.3 | 69.7 | 43.0 | 54.3 | 65.6 | 38.8 | 50.0 | 61.2 | 34.0 | 44.7 | 55.3 |
| | | 67 | TC | 76.6 | 76.6 | 76.6 | 70.5 | 70.5 | 70.5 | 64.3 | 64.3 | 64.3 | 57.7 | 57.7 | 57.7 | 50.9 | 50.9 | 50.9 |
| | | | SHC | 40.4 | 51.8 | 63.2 | 36.5 | 47.9 | 59.3 | 32.5 | 43.9 | 55.3 | 28.4 | 39.8 | 51.2 | 24.2 | 35.6 | 47.0 |
| | | 72 | TC | 86.3 | 86.3 | 86.3 | 79.9 | 79.9 | 79.9 | 73.3 | 73.3 | 73.3 | 66.3 | 66.3 | 66.3 | 59.1 | 59.1 | 59.1 |
| | | | SHC | 29.8 | 41.3 | 52.8 | 25.9 | 37.4 | 48.9 | 21.9 | 33.3 | 44.8 | 17.7 | 29.2 | 40.7 | 13.5 | 25.0 | 36.4 |
| | | 76 | TC | — | 94.6 | 94.6 | — | 87.9 | 87.9 | — | 81.0 | 81.0 | — | 73.7 | 73.7 | — | 66.0 | 66.0 |
| | | | SHC | — | 32.8 | 44.4 | — | 28.8 | 40.4 | — | 24.8 | 36.3 | — | 20.7 | 32.2 | — | 16.4 | 27.9 |
| 2400 cfm | EA (wb) | 58 | TC | 69.4 | 69.4 | 79.3 | 64.3 | 64.3 | 73.9 | 59.0 | 59.0 | 68.2 | 53.5 | 53.5 | 62.2 | 47.6 | 47.6 | 56.0 |
| | | | SHC | 59.5 | 69.4 | 79.3 | 54.7 | 64.3 | 73.9 | 49.8 | 59.0 | 68.2 | 44.7 | 53.5 | 62.2 | 39.3 | 47.6 | 56.0 |
| | | 62 | TC | 70.2 | 70.2 | 81.3 | 64.5 | 64.5 | 77.1 | 59.1 | 59.1 | 71.4 | 53.6 | 53.6 | 65.3 | 47.7 | 47.7 | 58.9 |
| | | | SHC | 55.6 | 68.5 | 81.3 | 51.6 | 64.3 | 77.1 | 46.8 | 59.1 | 71.4 | 41.8 | 53.6 | 65.3 | 36.6 | 47.7 | 58.9 |
| | | 67 | TC | 78.9 | 78.9 | 78.9 | 72.6 | 72.6 | 72.6 | 66.1 | 66.1 | 66.1 | 59.4 | 59.4 | 59.4 | 52.3 | 52.3 | 53.2 |
| | | | SHC | 43.6 | 56.6 | 69.6 | 39.6 | 52.7 | 65.7 | 35.6 | 48.6 | 61.6 | 31.5 | 44.5 | 57.5 | 27.3 | 40.2 | 53.2 |
| | | 72 | TC | 88.7 | 88.7 | 88.7 | 82.1 | 82.1 | 82.1 | 75.2 | 75.2 | 75.2 | 68.1 | 68.1 | 68.1 | 60.6 | 60.6 | 60.6 |
| | | | SHC | 31.4 | 44.5 | 57.6 | 27.4 | 40.5 | 53.5 | 23.3 | 36.4 | 49.4 | 19.2 | 32.2 | 45.3 | 14.9 | 27.9 | 41.0 |
| | | 76 | TC | — | 97.1 | 97.1 | — | 90.2 | 90.2 | — | 83.0 | 83.0 | — | 75.5 | 75.5 | — | 67.6 | 67.6 |
| | | | SHC | — | 34.7 | 47.9 | — | 30.7 | 43.9 | — | 26.6 | 39.8 | — | 22.4 | 35.5 | — | 18.0 | 31.1 |
| 2700 cfm | EA (wb) | 58 | TC | 72.9 | 72.9 | 83.2 | 67.6 | 67.6 | 77.5 | 62.1 | 62.1 | 71.6 | 56.3 | 56.3 | 65.4 | 50.3 | 50.3 | 58.9 |
| | | | SHC | 62.6 | 72.9 | 83.2 | 57.7 | 67.6 | 77.5 | 52.5 | 62.1 | 71.6 | 47.2 | 56.3 | 65.4 | 41.7 | 50.3 | 58.9 |
| | | 62 | TC | 73.0 | 73.0 | 86.8 | 67.7 | 67.7 | 81.0 | 62.2 | 62.2 | 74.9 | 56.4 | 56.4 | 68.6 | 50.4 | 50.4 | 61.9 |
| | | | SHC | 59.3 | 73.0 | 86.8 | 54.4 | 67.7 | 81.0 | 49.4 | 62.2 | 74.9 | 44.3 | 56.4 | 68.6 | 38.9 | 50.4 | 61.9 |
| | | 67 | TC | 80.7 | 80.7 | 80.7 | 74.3 | 74.3 | 74.3 | 67.6 | 67.6 | 67.7 | 60.7 | 60.7 | 63.5 | 53.5 | 53.5 | 59.2 |
| | | | SHC | 46.7 | 61.3 | 75.9 | 42.7 | 57.3 | 71.8 | 38.6 | 53.1 | 67.7 | 34.4 | 49.0 | 63.5 | 30.2 | 44.7 | 59.2 |
| | | 72 | TC | 90.6 | 90.6 | 90.6 | 83.8 | 83.8 | 83.8 | 76.8 | 76.8 | 76.8 | 69.5 | 69.5 | 69.5 | 61.8 | 61.8 | 61.8 |
| | | | SHC | 32.9 | 47.5 | 62.2 | 28.9 | 43.5 | 58.1 | 24.7 | 39.3 | 53.9 | 20.5 | 35.1 | 49.7 | 16.2 | 30.7 | 45.3 |
| | | 76 | TC | — | 99.1 | 99.1 | — | 91.9 | 91.9 | — | 84.5 | 84.5 | — | 76.8 | 76.8 | — | 68.8 | 68.8 |
| | | | SHC | — | 36.5 | 51.2 | — | 32.4 | 47.1 | — | 28.2 | 42.9 | — | 23.9 | 38.6 | — | 19.5 | 34.1 |
| 3000 cfm | EA (wb) | 58 | TC | 76.0 | 76.0 | 86.6 | 70.4 | 70.4 | 80.7 | 64.7 | 64.7 | 74.6 | 58.8 | 58.8 | 68.1 | 52.5 | 52.5 | 61.4 |
| | | | SHC | 65.3 | 76.0 | 86.6 | 60.2 | 70.4 | 80.7 | 54.9 | 64.7 | 74.6 | 49.4 | 58.8 | 68.1 | 43.7 | 52.5 | 61.4 |
| | | 62 | TC | 76.1 | 76.1 | 90.3 | 70.5 | 70.5 | 84.2 | 64.8 | 64.8 | 78.0 | 58.9 | 58.9 | 71.4 | 52.6 | 52.6 | 64.4 |
| | | | SHC | 61.8 | 76.1 | 90.3 | 56.8 | 70.5 | 84.2 | 51.7 | 64.8 | 78.0 | 46.4 | 58.9 | 71.4 | 40.8 | 52.6 | 64.4 |
| | | 67 | TC | 82.2 | 82.2 | 82.2 | 75.6 | 75.6 | 77.8 | 68.9 | 68.9 | 73.6 | 61.8 | 61.8 | 69.3 | 54.5 | 54.5 | 64.9 |
| | | | SHC | 49.6 | 65.7 | 81.8 | 45.6 | 61.7 | 77.8 | 41.5 | 57.5 | 73.6 | 37.3 | 53.3 | 69.3 | 33.0 | 48.9 | 64.9 |
| | | 72 | TC | 92.1 | 92.1 | 92.1 | 85.2 | 85.2 | 85.2 | 78.0 | 78.0 | 78.0 | 70.5 | 70.5 | 70.5 | 62.7 | 62.7 | 62.7 |
| | | | SHC | 34.3 | 50.4 | 66.6 | 30.2 | 46.3 | 62.5 | 26.0 | 42.1 | 58.3 | 21.7 | 37.9 | 54.0 | 17.4 | 33.6 | 49.7 |
| | | 76 | TC | — | 100.6 | 100.6 | — | 93.3 | 93.3 | — | 85.8 | 85.8 | — | 77.9 | 77.9 | — | 69.7 | 69.7 |
| | | | SHC | — | 38.1 | 54.4 | — | 33.9 | 50.2 | — | 29.7 | 45.9 | — | 25.4 | 41.5 | — | 20.9 | 37.0 |

LEGEND

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

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

# Performance data (cont)

## 50GEQN12 — Unit with Humidi-MiZer® System in Subcooling Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 80 Dry Bulb 62 Wet Bulb (36% Relative) | | | 80 Dry Bulb 67 Wet Bulb (51% Relative) | | | 80 Dry Bulb 72Wet Bulb (68% Relative) | | |
| | | Air Entering Evaporator — SCFM/Static | | | | | | | | |
| | | 3000 | 4000 | 5000 | 3000 | 4000 | 5000 | 300 | 4000 | 5000 |
| 75 | TC | 122.4 | 122.5 | 122.6 | 137.0 | 137.1 | 137.3 | 151.6 | 151.8 | 151.9 |
| | SHC | 104.6 | 104.2 | 103.9 | 87.0 | 91.0 | 93.8 | 69.5 | 77.7 | 83.6 |
| | kW | 3.7 | 3.7 | 3.7 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| 85 | TC | 112.4 | 112.6 | 112.7 | 126.9 | 127.0 | 127.2 | 141.3 | 141.5 | 141.6 |
| | SHC | 103.5 | 99.9 | 97.3 | 82.3 | 83.4 | 84.1 | 61.2 | 66.8 | 70.9 |
| | kW | 4.3 | 4.3 | 4.3 | 4.4 | 4.4 | 4.4 | 4.5 | 4.4 | 4.4 |
| 95 | TC | 102.4 | 102.6 | 102.8 | 116.7 | 116.9 | 117.1 | 131.0 | 131.2 | 131.4 |
| | SHC | 102.4 | 95.6 | 90.7 | 77.6 | 75.8 | 74.4 | 52.9 | 56.0 | 58.2 |
| | kW | 4.9 | 4.9 | 4.9 | 5.0 | 5.0 | 5.0 | 5.1 | 5.1 | 5.1 |
| 105 | TC | 92.5 | 92.7 | 92.9 | 106.6 | 106.8 | 107.0 | 120.7 | 121.0 | 121.1 |
| | SHC | 101.2 | 91.3 | 84.1 | 72.9 | 68.2 | 64.8 | 44.6 | 45.1 | 45.4 |
| | kW | 5.5 | 5.5 | 5.5 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 | 5.7 |
| 115 | TC | 82.5 | 82.8 | 83.0 | 96.5 | 96.7 | 96.9 | 110.4 | 110.7 | 110.9 |
| | SHC | 100.1 | 87.0 | 77.5 | 68.2 | 60.6 | 55.1 | 36.3 | 34.2 | 32.7 |
| | kW | 6.0 | 6.0 | 6.0 | 6.2 | 6.2 | 6.1 | 6.3 | 6.3 | 6.3 |
| 125 | TC | — | — | — | — | — | — | — | — | — |
| | SHC | — | — | — | — | — | — | — | — | — |
| | kW | — | — | — | — | — | — | — | — | — |

## 50GEQN12 — Unit with Humidi-MiZer System in Hot Gas Reheat Mode — Cooling Capacities

| TEMP (°F) AIR ENTERING CONDENSER (Edb) | | AIR ENTERING EVAPORATOR — (°F) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 75 Dry Bulb 62.5 Wet Bulb (50% Relative) | | | 75 Dry Bulb 64 Wet Bulb (56% Relative) | | | 75 Dry Bulb 65.3 Wet Bulb (60% Relative) | | |
| | | Air Entering Evaporator — SCFM | | | | | | | | |
| | | 3000 | 4000 | 5000 | 3000 | 4000 | 5000 | 300 | 4000 | 5000 |
| 80 | TC | 36.6 | 37.2 | 37.6 | 36.8 | 37.4 | 37.9 | 37.1 | 37.7 | 38.1 |
| | SHC | 5.7 | 5.7 | 5.7 | 2.0 | 2.0 | 2.0 | –1.2 | –1.2 | –1.2 |
| | kW | 8.8 | 8.2 | 7.8 | 6.2 | 7.7 | 7.3 | 7.8 | 7.2 | 6.8 |
| 75 | TC | 37.3 | 37.8 | 38.2 | 37.6 | 38.1 | 38.5 | 37.8 | 38.4 | 38.8 |
| | SHC | 7.9 | 7.9 | 7.9 | 4.4 | 4.4 | 4.4 | 1.5 | 1.5 | 1.5 |
| | kW | 8.6 | 8.1 | 7.7 | 6.2 | 7.6 | 7.2 | 7.7 | 7.1 | 6.7 |
| 70 | TC | 38.0 | 38.4 | 38.8 | 38.3 | 38.8 | 39.2 | 38.6 | 39.1 | 39.5 |
| | SHC | 10.0 | 10.0 | 10.0 | 6.9 | 6.9 | 6.9 | 4.2 | 4.2 | 4.2 |
| | kW | 8.4 | 7.9 | 7.5 | 6.1 | 7.5 | 7.1 | 7.6 | 7.1 | 6.7 |
| 60 | TC | 39.3 | 39.7 | 40.0 | 39.8 | 40.2 | 40.5 | 40.2 | 40.6 | 40.9 |
| | SHC | 14.4 | 14.3 | 14.3 | 11.8 | 11.8 | 11.8 | 9.6 | 9.6 | 9.6 |
| | kW | 8.0 | 7.6 | 7.3 | 6.1 | 7.2 | 6.9 | 7.3 | 6.9 | 6.6 |
| 50 | TC | 40.7 | 41.0 | 41.2 | 41.3 | 41.6 | 41.8 | 41.8 | 42.1 | 42.4 |
| | SHC | 18.7 | 18.7 | 18.7 | 16.7 | 16.7 | 16.7 | 15.0 | 15.0 | 15.0 |
| | kW | 7.6 | 7.3 | 7.0 | 6.1 | 7.0 | 6.7 | 7.1 | 6.8 | 6.5 |
| 40 | TC | 42.1 | 42.3 | 42.5 | 42.8 | 43.0 | 43.2 | 43.4 | 43.6 | 43.8 |
| | SHC | 23.0 | 23.0 | 23.0 | 21.6 | 21.6 | 21.6 | 20.4 | 20.4 | 20.4 |
| | kW | 7.3 | 7.0 | 6.8 | 6.0 | 6.8 | 6.6 | 6.9 | 6.6 | 6.4 |

LEGEND

**Edb** — Entering Dry Bulb
**kW** — Compressor Power Input
**SCFM** — Standard Cubic Feet per Minute
**SHC** — Sensible Heat Capacity (1000 Btuh) Gross
**TC** — Total Capacity (1000 Btuh) Gross

# Performance data (cont)

## 50GEQ*07 Heating Capacities

| RETURN AIR (°F db) | CFM (Standard Air) | | TEMPERATURE AIR ENTERING OUTDOOR COIL (°F db at 70% rh) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | –10.0 | 0.0 | 10.0 | 17.0 | 30.0 | 40.0 | 47.0 | 50.0 | 60.0 |
| 55 | 1800 | Capacity | 23.4 | 29.4 | 37.6 | 43.1 | 53.4 | 63.5 | 69.7 | 71.9 | 82.0 |
| | | Int. Cap. | 21.6 | 27.1 | 34.5 | 39.3 | 46.8 | 63.5 | 69.7 | 71.9 | 82.0 |
| | 2400 | Capacity | 23.8 | 29.9 | 37.9 | 43.2 | 53.4 | 63.9 | 71.3 | 73.7 | 84.6 |
| | | Int. Cap. | 22.0 | 27.5 | 34.8 | 39.4 | 46.8 | 63.9 | 71.3 | 73.7 | 84.6 |
| | 3000 | Capacity | 24.2 | 30.3 | 38.4 | 44.1 | 54.0 | 64.7 | 72.0 | 74.9 | 86.2 |
| | | Int. Cap. | 22.4 | 27.9 | 35.2 | 40.2 | 47.3 | 64.7 | 72.0 | 74.9 | 86.2 |
| 70 | 1800 | Capacity | 21.4 | 27.3 | 35.2 | 40.5 | 50.9 | 60.9 | 66.6 | 69.7 | 78.5 |
| | | Int. Cap. | 19.8 | 25.1 | 32.4 | 36.9 | 44.6 | 60.9 | 66.6 | 69.7 | 78.5 |
| | 2400 | Capacity | 21.9 | 27.9 | 35.9 | 41.3 | 52.0 | 62.2 | 68.4 | 71.8 | 81.0 |
| | | Int. Cap. | 20.3 | 25.7 | 33.0 | 37.6 | 45.5 | 62.2 | 68.4 | 71.8 | 81.0 |
| | 3000 | Capacity | 22.4 | 28.4 | 36.5 | 41.6 | 54.2 | 62.8 | 69.5 | 73.5 | 82.6 |
| | | Int. Cap. | 20.7 | 26.1 | 33.5 | 38.0 | 47.4 | 62.8 | 69.5 | 73.5 | 82.6 |
| 80 | 1800 | Capacity | 19.8 | 25.7 | 33.7 | 38.5 | 49.3 | 58.9 | 64.5 | 67.9 | 76.9 |
| | | Int. Cap. | 18.3 | 23.6 | 30.9 | 35.1 | 43.2 | 58.9 | 64.5 | 67.9 | 76.9 |
| | 2400 | Capacity | 20.4 | 26.3 | 34.4 | 39.4 | 50.2 | 60.7 | 66.1 | 69.8 | 78.5 |
| | | Int. Cap. | 18.9 | 24.2 | 31.6 | 35.9 | 44.0 | 60.7 | 66.1 | 69.8 | 78.5 |
| | 3000 | Capacity | 20.9 | 26.8 | 34.9 | 40.1 | 51.0 | 61.1 | 67.4 | 71.1 | 80.1 |
| | | Int. Cap. | 19.4 | 24.7 | 32.0 | 36.5 | 44.7 | 61.1 | 67.4 | 71.1 | 80.1 |

LEGEND

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

## 50GEQ*08 Heating Capacities

| RETURN AIR (°F db) | CFM (Standard Air) | | TEMPERATURE AIR ENTERING OUTDOOR COIL (°F db at 70% rh) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | –10.0 | 0.0 | 10.0 | 17.0 | 30.0 | 40.0 | 47.0 | 50.0 | 60.0 |
| 55 | 2250 | Capacity | 33.6 | 39.9 | 49.6 | 55.6 | 68.0 | 81.4 | 89.6 | 92.5 | 105.1 |
| | | Int. Cap. | 31.1 | 36.7 | 45.5 | 50.7 | 59.6 | 81.4 | 89.6 | 92.5 | 105.1 |
| | 3000 | Capacity | 30.2 | 40.7 | 50.5 | 56.6 | 69.4 | 82.9 | 91.6 | 94.7 | 107.9 |
| | | Int. Cap. | 27.9 | 37.5 | 46.3 | 51.6 | 60.8 | 82.9 | 91.6 | 94.7 | 107.9 |
| | 3750 | Capacity | 35.6 | 41.9 | 51.6 | 57.7 | 70.7 | 84.4 | 93.3 | 96.4 | 110.1 |
| | | Int. Cap. | 32.9 | 38.6 | 47.4 | 52.6 | 61.9 | 84.4 | 93.3 | 96.4 | 110.1 |
| 70 | 2250 | Capacity | 31.9 | 38.0 | 48.0 | 53.8 | 65.7 | 79.2 | 87.3 | 90.0 | 102.0 |
| | | Int. Cap. | 29.5 | 35.0 | 44.0 | 49.0 | 57.6 | 79.2 | 87.3 | 90.0 | 102.0 |
| | 3000 | Capacity | 29.5 | 39.0 | 48.7 | 54.9 | 67.2 | 80.9 | 89.3 | 92.2 | 105.0 |
| | | Int. Cap. | 27.3 | 35.9 | 44.7 | 50.0 | 58.9 | 80.9 | 89.3 | 92.2 | 105.0 |
| | 3750 | Capacity | 34.1 | 40.4 | 50.0 | 56.1 | 68.7 | 82.5 | 91.0 | 94.1 | 107.3 |
| | | Int. Cap. | 31.5 | 37.1 | 45.9 | 51.2 | 60.2 | 82.5 | 91.0 | 94.1 | 107.3 |
| 80 | 2250 | Capacity | 30.6 | 36.7 | 46.7 | 52.3 | 64.2 | 77.9 | 85.7 | 88.3 | 99.9 |
| | | Int. Cap. | 28.3 | 33.8 | 42.9 | 47.7 | 56.2 | 77.9 | 85.7 | 88.3 | 99.9 |
| | 3000 | Capacity | 28.8 | 37.8 | 47.7 | 53.5 | 65.7 | 79.5 | 87.6 | 90.5 | 102.8 |
| | | Int. Cap. | 26.7 | 34.8 | 43.8 | 48.8 | 57.5 | 79.5 | 87.6 | 90.5 | 102.8 |
| | 3750 | Capacity | 32.9 | 39.0 | 49.1 | 54.9 | 67.2 | 81.1 | 89.4 | 92.4 | 105.2 |
| | | Int. Cap. | 30.5 | 35.9 | 45.1 | 50.0 | 58.9 | 81.1 | 89.4 | 92.4 | 105.2 |

LEGEND

**Capacity** — Instantaneous Capacity (1000 Btuh) — includes indoor fan motor heat at AHRI static conditions
**db** — Dry Bulb
**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
— Standard rating point

# Performance data (cont)

## 50GEQ*09 Heating Capacities

| RETURN AIR (°F db) | CFM (Standard Air) | | TEMPERATURE AIR ENTERING OUTDOOR COIL (°F db at 70% rh) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | –10.0 | 0.0 | 10.0 | 17.0 | 30.0 | 40.0 | 47.0 | 50.0 | 60.0 |
| 55 | 2550 | Capacity | 35.4 | 43.0 | 52.1 | 59.1 | 72.8 | 84.8 | 94.6 | 97.9 | 111.8 |
| | | Int. Cap. | 32.7 | 39.6 | 47.9 | 53.9 | 63.8 | 84.8 | 94.6 | 97.9 | 111.8 |
| | 3400 | Capacity | 36.4 | 44.1 | 53.4 | 60.4 | 74.6 | 87.2 | 97.5 | 101.1 | 116.7 |
| | | Int. Cap. | 33.7 | 40.6 | 49.0 | 55.0 | 65.4 | 87.2 | 97.5 | 101.1 | 116.7 |
| | 4250 | Capacity | 37.6 | 45.2 | 54.6 | 61.6 | 76.1 | 89.0 | 99.8 | 103.6 | 119.1 |
| | | Int. Cap. | 34.8 | 41.6 | 50.1 | 56.2 | 66.7 | 89.0 | 99.8 | 103.6 | 119.1 |
| 70 | 2550 | Capacity | 32.9 | 40.4 | 49.5 | 56.0 | 69.3 | 81.0 | 90.5 | 93.6 | 106.9 |
| | | Int. Cap. | 30.4 | 37.2 | 45.4 | 51.1 | 60.7 | 81.0 | 90.5 | 93.6 | 106.9 |
| | 3400 | Capacity | 34.0 | 41.7 | 50.8 | 58.0 | 71.1 | 83.4 | 93.5 | 96.5 | 110.9 |
| | | Int. Cap. | 31.4 | 38.4 | 46.7 | 52.9 | 62.3 | 83.4 | 93.5 | 96.5 | 110.9 |
| | 4250 | Capacity | 35.3 | 43.0 | 52.0 | 59.0 | 72.7 | 85.2 | 95.7 | 99.1 | 114.0 |
| | | Int. Cap. | 32.6 | 39.6 | 47.7 | 53.8 | 63.7 | 85.2 | 95.7 | 99.1 | 114.0 |
| 80 | 2550 | Capacity | 31.1 | 38.8 | 48.7 | 54.1 | 67.0 | 78.6 | 87.7 | 90.8 | 103.7 |
| | | Int. Cap. | 28.7 | 35.7 | 44.7 | 49.3 | 58.7 | 78.6 | 87.7 | 90.8 | 103.7 |
| | 3400 | Capacity | 32.2 | 40.0 | 50.0 | 55.5 | 68.8 | 80.9 | 90.9 | 93.6 | 109.9 |
| | | Int. Cap. | 29.8 | 36.8 | 45.9 | 50.6 | 60.2 | 80.9 | 90.9 | 93.6 | 109.9 |
| | 4250 | Capacity | 33.6 | 41.2 | 51.2 | 56.8 | 70.4 | 82.6 | 92.9 | 96.2 | 110.7 |
| | | Int. Cap. | 31.1 | 37.9 | 47.0 | 51.8 | 61.7 | 82.6 | 92.9 | 96.2 | 110.7 |

LEGEND

**Capacity** — Instantaneous Capacity (1000 Btuh) — includes indoor fan motor heat at AHRI static conditions
**db** — Dry Bulb
**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
— Standard rating point

## 50GEQ*12 Heating Capacities

| RETURN AIR (°F db) | CFM (Standard Air) | | TEMPERATURE AIR ENTERING OUTDOOR COIL (°F db at 70% rh) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | –10.0 | 0.0 | 10.0 | 17.0 | 30.0 | 40.0 | 47.0 | 50.0 | 60.0 |
| 55 | 3000 | Capacity | 30.1 | 41.0 | 55.4 | 64.6 | 83.4 | 100.5 | 111.7 | 115.9 | 132.9 |
| | | Int. Cap. | 27.8 | 37.8 | 50.8 | 58.9 | 73.1 | 100.5 | 111.7 | 115.9 | 132.9 |
| | 4000 | Capacity | 31.2 | 42.5 | 57.1 | 66.7 | 86.7 | 103.9 | 116.2 | 120.6 | 139.1 |
| | | Int. Cap. | 28.8 | 39.1 | 52.4 | 60.8 | 76.0 | 103.9 | 116.2 | 120.6 | 139.1 |
| | 5000 | Capacity | 32.2 | 43.7 | 59.5 | 68.1 | 88.9 | 106.2 | 119.2 | 123.7 | 143.2 |
| | | Int. Cap. | 29.8 | 40.2 | 54.6 | 62.1 | 77.9 | 106.2 | 119.2 | 123.7 | 143.2 |
| 70 | 3000 | Capacity | 25.4 | 36.2 | 50.6 | 59.6 | 77.3 | 94.9 | 105.4 | 110.1 | 125.6 |
| | | Int. Cap. | 23.5 | 33.3 | 46.5 | 54.4 | 67.8 | 94.9 | 105.4 | 110.1 | 125.6 |
| | 4000 | Capacity | 26.5 | 37.7 | 52.4 | 61.7 | 80.9 | 98.4 | 109.7 | 114.3 | 131.6 |
| | | Int. Cap. | 24.5 | 34.7 | 48.1 | 56.2 | 70.9 | 98.4 | 109.7 | 114.3 | 131.6 |
| | 5000 | Capacity | 27.7 | 38.9 | 53.7 | 63.2 | 83.2 | 100.7 | 112.6 | 117.1 | 135.5 |
| | | Int. Cap. | 25.6 | 35.8 | 49.3 | 57.6 | 72.9 | 100.7 | 112.6 | 117.1 | 135.5 |
| 80 | 3000 | Capacity | 22.1 | 32.8 | 47.5 | 56.3 | 73.6 | 91.5 | 101.2 | 106.0 | 121.1 |
| | | Int. Cap. | 20.4 | 30.2 | 43.6 | 51.3 | 64.5 | 91.5 | 101.2 | 106.0 | 121.1 |
| | 4000 | Capacity | 23.4 | 34.3 | 49.2 | 58.3 | 76.5 | 94.7 | 105.5 | 110.3 | 126.6 |
| | | Int. Cap. | 21.7 | 31.6 | 45.1 | 53.2 | 67.0 | 94.7 | 105.5 | 110.3 | 126.6 |
| | 5000 | Capacity | 24.7 | 35.6 | 50.5 | 59.8 | 79.3 | 96.9 | 108.3 | 113.3 | 130.4 |
| | | Int. Cap. | 22.8 | 32.7 | 46.4 | 54.5 | 69.5 | 96.9 | 108.3 | 113.3 | 130.4 |

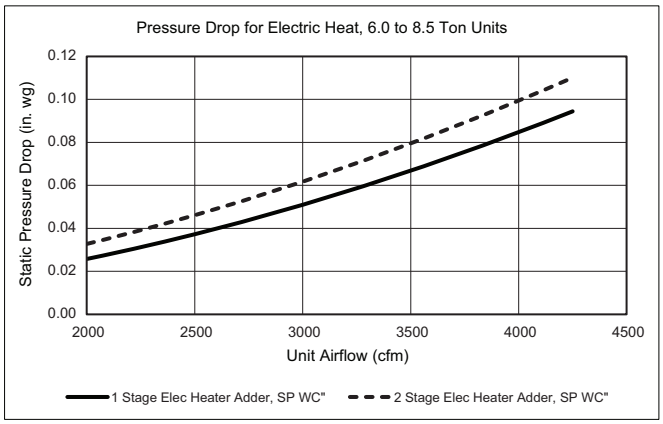
LEGEND

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

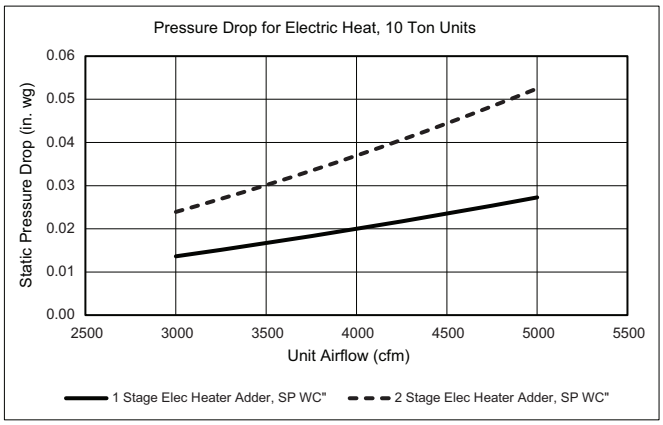
# Performance data (cont)

## Pressure Drop for Electric Heating Units

### 6.0 to 8.5 Ton Units



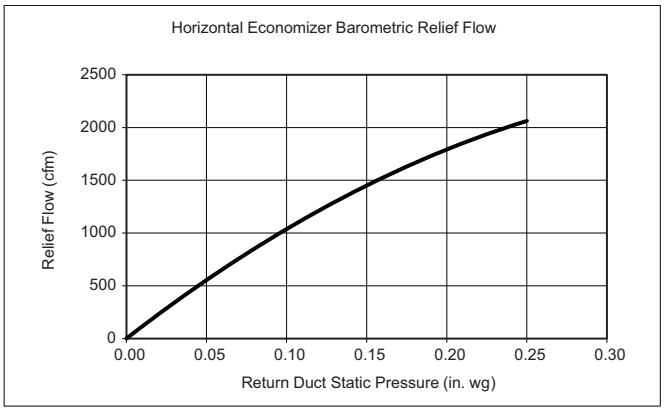

### 10.0 Ton Units



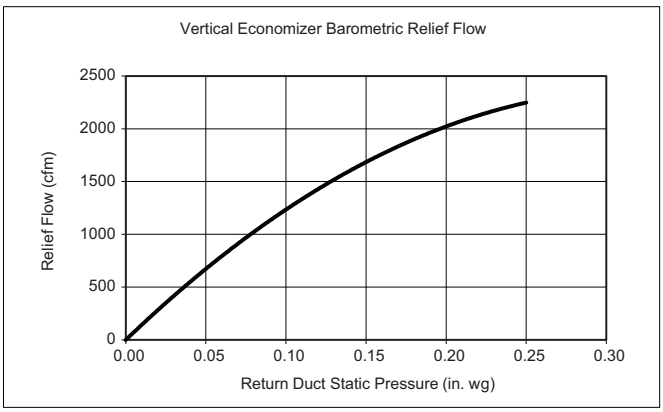
# Performance data (cont)

## Economizer Barometric Relief and Damper Leakage — 6 to 8.5 Ton Units

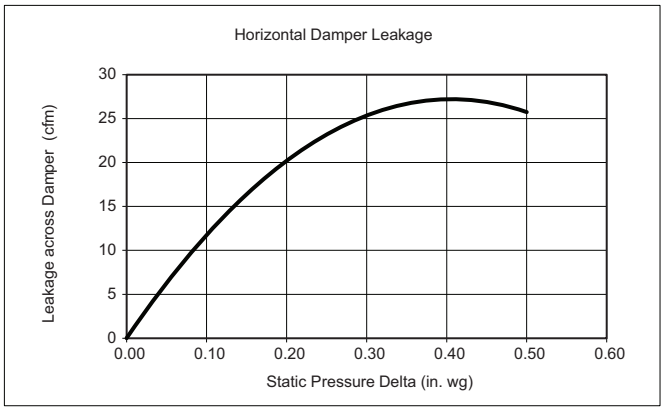
### Horizontal Economizer Barometric Relief



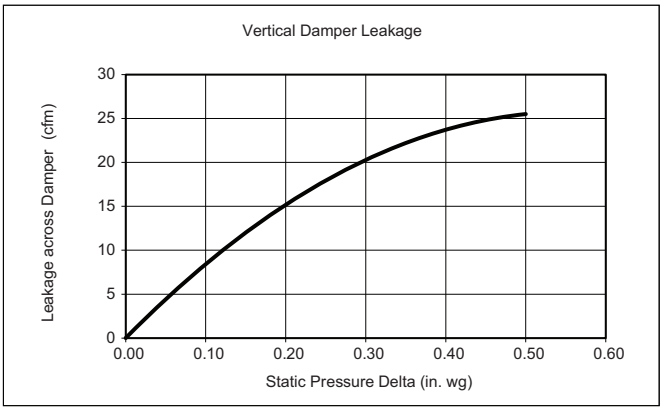

### Vertical Economizer Barometric Relief




### Horizontal Economizer Damper Leakage



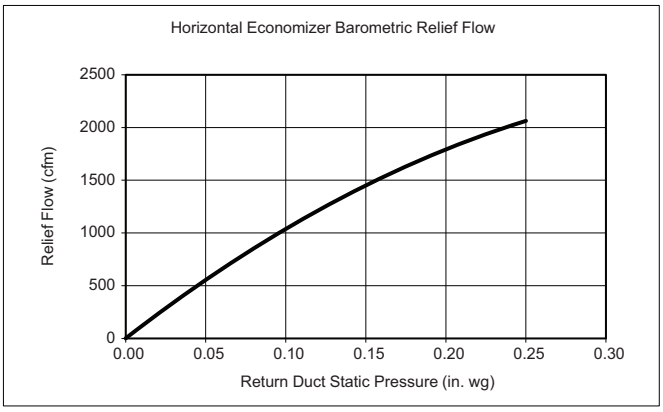

### Vertical Economizer Damper Leakage



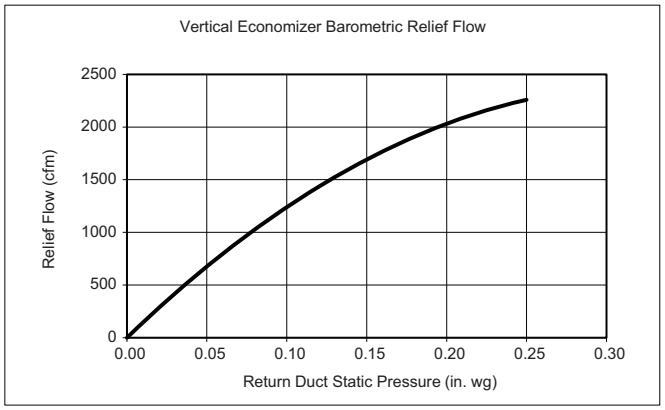
# Performance data (cont)

## Economizer Barometric Relief and Damper Leakage — 10 Ton Units

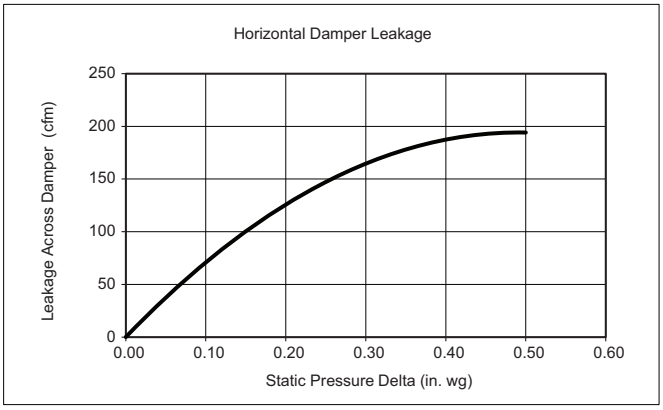
### Horizontal Economizer Barometric Relief



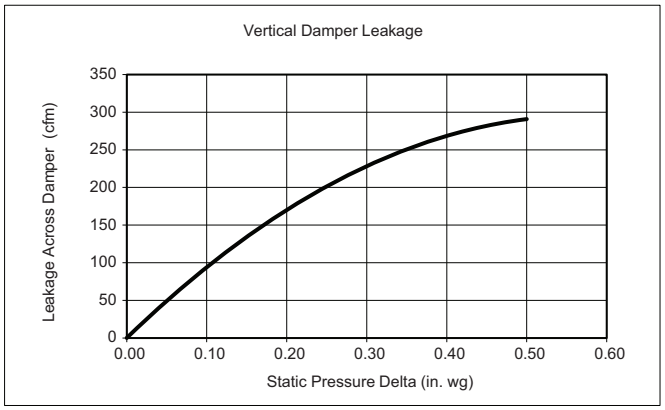

### Vertical Economizer Barometric Relief




### Horizontal Economizer Damper Leakage

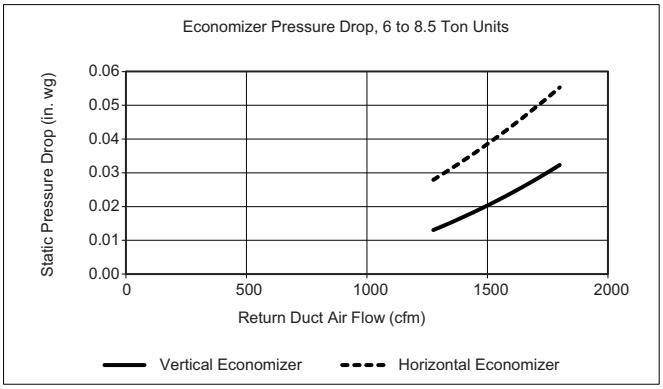



### Vertical Economizer Damper Leakage

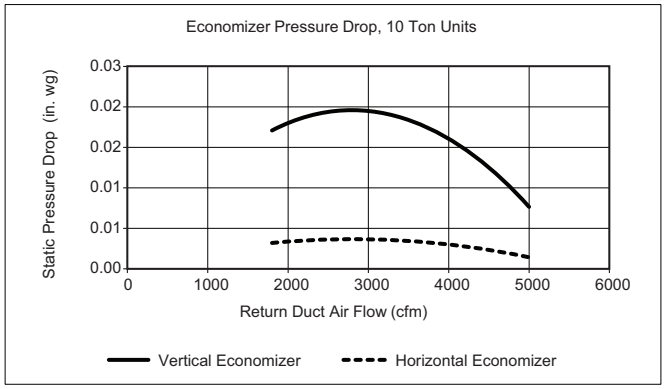



## Economizer Pressure Drop

### 6 to 8.5 Ton Units




### 10 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. Gas heat unit fan tables assume highest gas heat models; for fan selections with low or medium heat models, the user must deduct low and medium heat static pressures. 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 recommendations. In cases when two motors 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 (three-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy-efficient motor. Variable-speed motors are exempt from EPACT compliance requirements.

# Fan data (cont)

## 50GEQM07 — 6.5 Ton Vertical Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 1800 | 796 | 0.19 | 940 | 0.32 | 1064 | 0.46 | 1174 | 0.61 | 1274 | 0.79 |
| 1950 | 840 | 0.22 | 977 | 0.35 | 1097 | 0.50 | 1205 | 0.66 | 1303 | 0.84 |
| 2100 | 886 | 0.26 | 1016 | 0.39 | 1132 | 0.54 | 1237 | 0.71 | 1334 | 0.89 |
| 2250 | 932 | 0.30 | 1056 | 0.44 | 1168 | 0.59 | 1271 | 0.77 | 1365 | 0.95 |
| 2400 | 980 | 0.35 | 1098 | 0.49 | 1206 | 0.65 | 1306 | 0.83 | 1398 | 1.01 |
| 2550 | 1029 | 0.40 | 1141 | 0.55 | 1245 | 0.71 | 1342 | 0.89 | 1432 | 1.08 |
| 2700 | 1078 | 0.46 | 1185 | 0.61 | 1285 | 0.78 | 1379 | 0.96 | 1467 | 1.16 |
| 2850 | 1128 | 0.52 | 1230 | 0.68 | 1327 | 0.85 | 1418 | 1.04 | 1504 | 1.24 |
| 3000 | 1178 | 0.59 | 1276 | 0.75 | 1369 | 0.93 | 1458 | 1.12 | 1541 | 1.32 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 1800 | 1365 | 0.97 | 1451 | 1.16 | 1530 | 1.36 | 1606 | 1.57 | 1678 | 1.80 |
| 1950 | 1393 | 1.02 | 1478 | 1.22 | 1557 | 1.43 | 1631 | 1.64 | 1702 | 1.86 |
| 2100 | 1423 | 1.08 | 1506 | 1.28 | 1584 | 1.49 | 1658 | 1.71 | 1728 | 1.94 |
| 2250 | 1453 | 1.15 | 1535 | 1.35 | 1612 | 1.56 | 1685 | 1.79 | 1755 | 2.02 |
| 2400 | 1484 | 1.21 | 1565 | 1.42 | 1641 | 1.64 | 1714 | 1.87 | 1783 | 2.10 |
| 2550 | 1517 | 1.29 | 1596 | 1.50 | 1671 | 1.72 | 1743 | 1.95 | 1811 | 2.19 |
| 2700 | 1550 | 1.36 | 1628 | 1.58 | 1703 | 1.81 | 1773 | 2.04 | 1841 | 2.29 |
| 2850 | 1585 | 1.45 | 1661 | 1.67 | 1735 | 1.90 | 1804 | 2.14 | 1871 | 2.38 |
| 3000 | 1620 | 1.53 | 1696 | 1.76 | 1768 | 1.99 | 1836 | 2.23 | 1902 | 2.48 |

Std/Med Static 796-2000 rpm, 2.4 Max bhp

High Static 796-2200 rpm, 3.0 Max bhp

## 50GEQM07 — Standard/Medium Static — 6.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1800 | 796 | 3.8 | 940 | 4.5 | 1064 | 5.2 | 1174 | 5.8 | 1274 | 6.3 |
| 1950 | 840 | 4.0 | 977 | 4.7 | 1097 | 5.4 | 1205 | 5.9 | 1303 | 6.4 |
| 2100 | 886 | 4.3 | 1016 | 4.9 | 1132 | 5.5 | 1237 | 6.1 | 1334 | 6.6 |
| 2250 | 932 | 4.5 | 1056 | 5.1 | 1168 | 5.7 | 1271 | 6.3 | 1365 | 6.7 |
| 2400 | 980 | 4.8 | 1098 | 5.4 | 1206 | 5.9 | 1306 | 6.4 | 1398 | 6.9 |
| 2550 | 1029 | 5.0 | 1141 | 5.6 | 1245 | 6.1 | 1342 | 6.6 | 1432 | 7.1 |
| 2700 | 1078 | 5.3 | 1185 | 5.8 | 1285 | 6.3 | 1379 | 6.8 | 1467 | 7.3 |
| 2850 | 1128 | 5.5 | 1230 | 6.0 | 1327 | 6.5 | 1418 | 7.0 | 1504 | 7.4 |
| 3000 | 1178 | 5.8 | 1276 | 6.3 | 1369 | 6.8 | 1458 | 7.2 | 1541 | 7.6 |

| 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 |
| 1800 | 1365 | 6.7 | 1451 | 7.2 | 1530 | 7.6 | 1606 | 8.0 | 1678 | 8.3 |
| 1950 | 1393 | 6.9 | 1478 | 7.3 | 1557 | 7.7 | 1631 | 8.1 | 1702 | 8.5 |
| 2100 | 1423 | 7.0 | 1506 | 7.5 | 1584 | 7.9 | 1658 | 8.2 | 1728 | 8.6 |
| 2250 | 1453 | 7.2 | 1535 | 7.6 | 1612 | 8.0 | 1685 | 8.4 | 1755 | 8.7 |
| 2400 | 1484 | 7.3 | 1565 | 7.8 | 1641 | 8.2 | 1714 | 8.5 | 1783 | 8.9 |
| 2550 | 1517 | 7.5 | 1596 | 7.9 | 1671 | 8.3 | 1743 | 8.7 | 1811 | 9.0 |
| 2700 | 1550 | 7.7 | 1628 | 8.1 | 1703 | 8.5 | 1773 | 8.8 | 1841 | 9.2 |
| 2850 | 1585 | 7.9 | 1661 | 8.3 | 1735 | 8.6 | 1804 | 9.0 | 1871 | 9.3 |
| 3000 | 1620 | 8.0 | 1696 | 8.4 | 1768 | 8.8 | 1836 | 9.2 | 1902 | 9.5 |

Std/Med Static 796-2000 rpm, 2.4 Max bhp

# Fan data (cont)

## 50GEQM07 — High Static — 6.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1800 | 796 | 3.5 | 940 | 4.2 | 1064 | 4.8 | 1174 | 5.3 | 1274 | 5.7 |
| 1950 | 840 | 3.7 | 977 | 4.4 | 1097 | 4.9 | 1205 | 5.4 | 1303 | 5.9 |
| 2100 | 886 | 3.9 | 1016 | 4.5 | 1132 | 5.1 | 1237 | 5.6 | 1334 | 6.0 |
| 2250 | 932 | 4.1 | 1056 | 4.7 | 1168 | 5.2 | 1271 | 5.7 | 1365 | 6.1 |
| 2400 | 980 | 4.4 | 1098 | 4.9 | 1206 | 5.4 | 1306 | 5.9 | 1398 | 6.3 |
| 2550 | 1029 | 4.6 | 1141 | 5.1 | 1245 | 5.6 | 1342 | 6.0 | 1432 | 6.5 |
| 2700 | 1078 | 4.8 | 1185 | 5.3 | 1285 | 5.8 | 1379 | 6.2 | 1467 | 6.6 |
| 2850 | 1128 | 5.1 | 1230 | 5.5 | 1327 | 6.0 | 1418 | 6.4 | 1504 | 6.8 |
| 3000 | 1178 | 5.3 | 1276 | 5.7 | 1369 | 6.2 | 1458 | 6.6 | 1541 | 7.0 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1800 | 1365 | 6.1 | 1451 | 6.5 | 1530 | 6.9 | 1606 | 7.3 | 1678 | 7.6 |
| 1950 | 1393 | 6.3 | 1478 | 6.7 | 1557 | 7.0 | 1631 | 7.4 | 1702 | 7.7 |
| 2100 | 1423 | 6.4 | 1506 | 6.8 | 1584 | 7.2 | 1658 | 7.5 | 1728 | 7.8 |
| 2250 | 1453 | 6.6 | 1535 | 6.9 | 1612 | 7.3 | 1685 | 7.6 | 1755 | 7.9 |
| 2400 | 1484 | 6.7 | 1565 | 7.1 | 1641 | 7.4 | 1714 | 7.8 | 1783 | 8.1 |
| 2550 | 1517 | 6.8 | 1596 | 7.2 | 1671 | 7.6 | 1743 | 7.9 | 1811 | 8.2 |
| 2700 | 1550 | 7.0 | 1628 | 7.4 | 1703 | 7.7 | 1773 | 8.0 | 1841 | 8.3 |
| 2850 | 1585 | 7.2 | 1661 | 7.5 | 1735 | 7.9 | 1804 | 8.2 | 1871 | 8.5 |
| 3000 | 1620 | 7.3 | 1696 | 7.7 | 1768 | 8.0 | 1836 | 8.3 | 1902 | 8.6 |

High Static 796-2200 rpm, 3.0 Max bhp

# Fan data (cont)

## 50GEQM08 — 7.5 Ton Vertical Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2250 | 941 | 0.31 | 1064 | 0.45 | 1176 | 0.61 | 1279 | 0.79 | 1373 | 0.98 |
| 2440 | 1000 | 0.37 | 1116 | 0.52 | 1223 | 0.69 | 1322 | 0.87 | 1414 | 1.06 |
| 2625 | 1059 | 0.44 | 1169 | 0.59 | 1271 | 0.76 | 1366 | 0.95 | 1456 | 1.15 |
| 2815 | 1120 | 0.52 | 1224 | 0.68 | 1322 | 0.85 | 1413 | 1.04 | 1500 | 1.25 |
| 3000 | 1181 | 0.60 | 1279 | 0.77 | 1372 | 0.95 | 1461 | 1.14 | 1544 | 1.35 |
| 3190 | 1244 | 0.70 | 1337 | 0.87 | 1426 | 1.06 | 1511 | 1.26 | 1592 | 1.47 |
| 3375 | 1306 | 0.80 | 1395 | 0.98 | 1480 | 1.17 | 1561 | 1.37 | 1640 | 1.59 |
| 3565 | 1370 | 0.92 | 1455 | 1.10 | 1536 | 1.29 | 1614 | 1.50 | 1690 | 1.72 |
| 3750 | 1433 | 1.04 | 1514 | 1.23 | 1592 | 1.43 | 1667 | 1.64 | 1740 | 1.86 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2250 | 1460 | 1.17 | 1542 | 1.38 | 1619 | 1.60 | 1692 | 1.83 | 1761 | 2.06 |
| 2440 | 1499 | 1.26 | 1580 | 1.48 | 1655 | 1.70 | 1727 | 1.93 | 1796 | 2.17 |
| 2625 | 1539 | 1.36 | 1618 | 1.58 | 1692 | 1.80 | 1763 | 2.04 | 1831 | 2.28 |
| 2815 | 1581 | 1.46 | 1658 | 1.68 | 1732 | 1.92 | 1802 | 2.16 | 1869 | 2.41 |
| 3000 | 1624 | 1.57 | 1699 | 1.80 | 1771 | 2.04 | 1840 | 2.29 | 1906 | 2.54 |
| 3190 | 1669 | 1.69 | 1743 | 1.93 | 1813 | 2.17 | 1881 | 2.42 | 1946 | 2.68 |
| 3375 | 1714 | 1.82 | 1787 | 2.06 | 1856 | 2.31 | 1922 | 2.56 | 1986 | 2.83 |
| 3565 | 1763 | 1.96 | 1833 | 2.20 | 1900 | 2.45 | 1965 | 2.71 | 2028 | 2.98 |
| 3750 | 1811 | 2.10 | 1879 | 2.34 | 1945 | 2.60 | 2008 | 2.86 | 2070 | 3.13 |

Std/Med Static 941-2000 rpm, 2.4 Max bhp

High Static 941-2200 rpm, 3.0 Max bhp

## 50GEQM08 — Standard/Medium Static — 7.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 941 | 4.6 | 1064 | 5.2 | 1176 | 5.8 | 1279 | 6.3 | 1373 | 6.8 |
| 2440 | 1000 | 4.9 | 1116 | 5.5 | 1223 | 6.0 | 1322 | 6.5 | 1414 | 7.0 |
| 2625 | 1059 | 5.2 | 1169 | 5.7 | 1271 | 6.3 | 1366 | 6.7 | 1456 | 7.2 |
| 2815 | 1120 | 5.5 | 1224 | 6.0 | 1322 | 6.5 | 1413 | 7.0 | 1500 | 7.4 |
| 3000 | 1181 | 5.8 | 1279 | 6.3 | 1372 | 6.8 | 1461 | 7.2 | 1544 | 7.7 |
| 3190 | 1244 | 6.1 | 1337 | 6.6 | 1426 | 7.0 | 1511 | 7.5 | 1592 | 7.9 |
| 3375 | 1306 | 6.4 | 1395 | 6.9 | 1480 | 7.3 | 1561 | 7.7 | 1640 | 8.1 |
| 3565 | 1370 | 6.8 | 1455 | 7.2 | 1536 | 7.6 | 1614 | 8.0 | 1690 | 8.4 |
| 3750 | 1433 | 7.1 | 1514 | 7.5 | 1592 | 7.9 | 1667 | 8.3 | 1740 | 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 |
| 2250 | 1460 | 7.2 | 1542 | 7.6 | 1619 | 8.0 | 1692 | 8.4 | 1761 | 8.8 |
| 2440 | 1499 | 7.4 | 1580 | 7.8 | 1655 | 8.2 | 1727 | 8.6 | 1796 | 9.0 |
| 2625 | 1539 | 7.6 | 1618 | 8.0 | 1692 | 8.4 | 1763 | 8.8 | 1831 | 9.1 |
| 2815 | 1581 | 7.8 | 1658 | 8.2 | 1732 | 8.6 | 1802 | 9.0 | 1869 | 9.3 |
| 3000 | 1624 | 8.1 | 1699 | 8.5 | 1771 | 8.8 | 1840 | 9.2 | 1906 | 9.5 |
| 3190 | 1669 | 8.3 | 1743 | 8.7 | 1813 | 9.0 | 1881 | 9.4 | — | — |
| 3375 | 1714 | 8.5 | 1787 | 8.9 | 1856 | 9.3 | — | — | — | — |
| 3565 | 1763 | 8.8 | 1833 | 9.1 | 1900 | 9.5 | — | — | — | — |
| 3750 | 1811 | 9.0 | 1879 | 9.4 | — | — | — | — | — | — |

Std/Med Static 941-2000 rpm

# Fan data (cont)

## 50GEQM08 — High Static — 7.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 941 | 4.2 | 1064 | 4.8 | 1176 | 5.3 | 1279 | 5.7 | 1373 | 6.2 |
| 2440 | 1000 | 4.5 | 1116 | 5.0 | 1223 | 5.5 | 1322 | 5.9 | 1414 | 6.4 |
| 2625 | 1059 | 4.7 | 1169 | 5.2 | 1271 | 5.7 | 1366 | 6.2 | 1456 | 6.6 |
| 2815 | 1120 | 5.0 | 1224 | 5.5 | 1322 | 5.9 | 1413 | 6.4 | 1500 | 6.8 |
| 3000 | 1181 | 5.3 | 1279 | 5.7 | 1372 | 6.2 | 1461 | 6.6 | 1544 | 7.0 |
| 3190 | 1244 | 5.6 | 1337 | 6.0 | 1426 | 6.4 | 1511 | 6.8 | 1592 | 7.2 |
| 3375 | 1306 | 5.9 | 1395 | 6.3 | 1480 | 6.7 | 1561 | 7.1 | 1640 | 7.4 |
| 3565 | 1370 | 6.2 | 1455 | 6.6 | 1536 | 6.9 | 1614 | 7.3 | 1690 | 7.6 |
| 3750 | 1433 | 6.5 | 1514 | 6.8 | 1592 | 7.2 | 1667 | 7.5 | 1740 | 7.9 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 1460 | 6.6 | 1542 | 7.0 | 1619 | 7.3 | 1692 | 7.7 | 1761 | 8.0 |
| 2440 | 1499 | 6.8 | 1580 | 7.1 | 1655 | 7.5 | 1727 | 7.8 | 1796 | 8.1 |
| 2625 | 1539 | 6.9 | 1618 | 7.3 | 1692 | 7.7 | 1763 | 8.0 | 1831 | 8.3 |
| 2815 | 1581 | 7.1 | 1658 | 7.5 | 1732 | 7.8 | 1802 | 8.2 | 1869 | 8.5 |
| 3000 | 1624 | 7.3 | 1699 | 7.7 | 1771 | 8.0 | 1840 | 8.3 | 1906 | 8.6 |
| 3190 | 1669 | 7.5 | 1743 | 7.9 | 1813 | 8.2 | 1881 | 8.5 | 1946 | 8.8 |
| 3375 | 1714 | 7.8 | 1787 | 8.1 | 1856 | 8.4 | 1922 | 8.7 | 1986 | 9.0 |
| 3565 | 1763 | 8.0 | 1833 | 8.3 | 1900 | 8.6 | 1965 | 8.9 | 2028 | 9.2 |
| 3750 | 1811 | 8.2 | 1879 | 8.5 | 1945 | 8.8 | 2008 | 9.1 | 2070 | 9.4 |

High Static 941-2200 rpm

# Fan data (cont)

## 50GEQM09 — 8.5 Ton Vertical Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2550 | 1035 | 0.41 | 1147 | 0.56 | 1251 | 0.73 | 1348 | 0.91 | 1438 | 1.11 |
| 2765 | 1104 | 0.50 | 1209 | 0.65 | 1308 | 0.83 | 1401 | 1.02 | 1488 | 1.22 |
| 2975 | 1173 | 0.59 | 1272 | 0.76 | 1365 | 0.93 | 1454 | 1.13 | 1538 | 1.34 |
| 3190 | 1244 | 0.70 | 1337 | 0.87 | 1426 | 1.06 | 1511 | 1.26 | 1592 | 1.47 |
| 3400 | 1314 | 0.82 | 1402 | 0.99 | 1487 | 1.19 | 1568 | 1.39 | 1646 | 1.61 |
| 3615 | 1387 | 0.95 | 1470 | 1.13 | 1551 | 1.33 | 1629 | 1.54 | 1703 | 1.76 |
| 3825 | 1458 | 1.09 | 1538 | 1.28 | 1615 | 1.48 | 1689 | 1.69 | 1761 | 1.92 |
| 4040 | 1532 | 1.24 | 1608 | 1.44 | 1681 | 1.64 | 1752 | 1.86 | 1822 | 2.09 |
| 4250 | 1605 | 1.41 | 1677 | 1.60 | 1747 | 1.81 | 1815 | 2.03 | 1882 | 2.27 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2550 | 1522 | 1.32 | 1602 | 1.53 | 1677 | 1.76 | 1749 | 2.00 | 1817 | 2.24 |
| 2765 | 1570 | 1.43 | 1647 | 1.65 | 1721 | 1.89 | 1792 | 2.13 | 1859 | 2.38 |
| 2975 | 1618 | 1.56 | 1693 | 1.78 | 1766 | 2.02 | 1835 | 2.27 | 1901 | 2.52 |
| 3190 | 1669 | 1.69 | 1743 | 1.93 | 1813 | 2.17 | 1881 | 2.42 | 1946 | 2.68 |
| 3400 | 1721 | 1.84 | 1792 | 2.07 | 1861 | 2.32 | 1927 | 2.58 | 1991 | 2.84 |
| 3615 | 1776 | 2.00 | 1845 | 2.24 | 1912 | 2.49 | 1976 | 2.75 | 2039 | 3.02 |
| 3825 | 1831 | 2.16 | 1898 | 2.40 | 1963 | 2.66 | 2026 | 2.92 | 2087 | 3.20 |
| 4040 | 1889 | 2.33 | 1954 | 2.58 | 2017 | 2.84 | 2078 | 3.11 | — | — |
| 4250 | 1947 | 2.51 | 2010 | 2.76 | 2071 | 3.02 | — | — | — | — |

Std/Med Static 1035-2000 rpm, 2.4 Max bhp

High Static 1035-2200 rpm, 3.0 Max bhp

## 50GEQM09 — Standard/Medium Static — 8.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 1035 | 5.0 | 1147 | 5.6 | 1251 | 6.1 | 1348 | 6.6 | 1438 | 7.1 |
| 2765 | 1104 | 5.4 | 1209 | 5.9 | 1308 | 6.4 | 1401 | 6.9 | 1488 | 7.4 |
| 2975 | 1173 | 5.7 | 1272 | 6.3 | 1365 | 6.7 | 1454 | 7.2 | 1538 | 7.6 |
| 3190 | 1244 | 6.1 | 1337 | 6.6 | 1426 | 7.0 | 1511 | 7.5 | 1592 | 7.9 |
| 3400 | 1314 | 6.5 | 1402 | 6.9 | 1487 | 7.4 | 1568 | 7.8 | 1646 | 8.2 |
| 3615 | 1387 | 6.8 | 1470 | 7.3 | 1551 | 7.7 | 1629 | 8.1 | 1703 | 8.5 |
| 3825 | 1458 | 7.2 | 1538 | 7.6 | 1615 | 8.0 | 1689 | 8.4 | 1761 | 8.8 |
| 4040 | 1532 | 7.6 | 1608 | 8.0 | 1681 | 8.4 | 1752 | 8.7 | 1822 | 9.1 |
| 4250 | 1605 | 8.0 | 1677 | 8.3 | 1747 | 8.7 | 1815 | 9.0 | 1882 | 9.4 |

| 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 |
| 2550 | 1522 | 7.5 | 1602 | 8.0 | 1677 | 8.3 | 1749 | 8.7 | 1817 | 9.1 |
| 2765 | 1570 | 7.8 | 1647 | 8.2 | 1721 | 8.6 | 1792 | 8.9 | 1859 | 9.3 |
| 2975 | 1618 | 8.0 | 1693 | 8.4 | 1766 | 8.8 | 1835 | 9.2 | 1901 | 9.5 |
| 3190 | 1669 | 8.3 | 1743 | 8.7 | 1813 | 9.0 | 1881 | 9.4 | — | — |
| 3400 | 1721 | 8.6 | 1792 | 8.9 | 1861 | 9.3 | — | — | — | — |
| 3615 | 1776 | 8.8 | 1845 | 9.2 | 1912 | 9.5 | — | — | — | — |
| 3825 | 1831 | 9.1 | 1898 | 9.5 | — | — | — | — | — | — |
| 4040 | 1889 | 9.4 | — | — | — | — | — | — | — | — |
| 4250 | 1947 | 9.7 | — | — | — | — | — | — | — | — |

Std/Med Static 1035-2000 rpm

# Fan data (cont)

## 50GEQM09 — High Static — 8.5 Ton Vertical Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 1035 | 4.6 | 1147 | 5.1 | 1251 | 5.6 | 1348 | 6.1 | 1438 | 6.5 |
| 2765 | 1104 | 4.9 | 1209 | 5.4 | 1308 | 5.9 | 1401 | 6.3 | 1488 | 6.7 |
| 2975 | 1173 | 5.3 | 1272 | 5.7 | 1365 | 6.1 | 1454 | 6.6 | 1538 | 6.9 |
| 3190 | 1244 | 5.6 | 1337 | 6.0 | 1426 | 6.4 | 1511 | 6.8 | 1592 | 7.2 |
| 3400 | 1314 | 5.9 | 1402 | 6.3 | 1487 | 6.7 | 1568 | 7.1 | 1646 | 7.4 |
| 3615 | 1387 | 6.2 | 1470 | 6.6 | 1551 | 7.0 | 1629 | 7.4 | 1703 | 7.7 |
| 3825 | 1458 | 6.6 | 1538 | 6.9 | 1615 | 7.3 | 1689 | 7.6 | 1761 | 8.0 |
| 4040 | 1532 | 6.9 | 1608 | 7.3 | 1681 | 7.6 | 1752 | 7.9 | 1822 | 8.3 |
| 4250 | 1605 | 7.3 | 1677 | 7.6 | 1747 | 7.9 | 1815 | 8.2 | 1882 | 8.5 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 1522 | 6.9 | 1602 | 7.2 | 1677 | 7.6 | 1749 | 7.9 | 1817 | 8.2 |
| 2765 | 1570 | 7.1 | 1647 | 7.4 | 1721 | 7.8 | 1792 | 8.1 | 1859 | 8.4 |
| 2975 | 1618 | 7.3 | 1693 | 7.7 | 1766 | 8.0 | 1835 | 8.3 | 1901 | 8.6 |
| 3190 | 1669 | 7.5 | 1743 | 7.9 | 1813 | 8.2 | 1881 | 8.5 | 1946 | 8.8 |
| 3400 | 1721 | 7.8 | 1792 | 8.1 | 1861 | 8.4 | 1927 | 8.7 | 1991 | 9.0 |
| 3615 | 1776 | 8.0 | 1845 | 8.4 | 1912 | 8.7 | 1976 | 9.0 | 2039 | 9.3 |
| 3825 | 1831 | 8.3 | 1898 | 8.6 | 1963 | 8.9 | 2026 | 9.2 | 2087 | 9.5 |
| 4040 | 1889 | 8.6 | 1954 | 8.9 | 2017 | 9.2 | 2078 | 9.4 | — | — |
| 4250 | 1947 | 8.8 | 2010 | 9.1 | 2071 | 9.4 | — | — | — | — |

High Static 1035-2200 rpm

# Fan data (cont)

## 50GEQM12 — 10 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 |
| 3000 | 1099 | 0.55 | 1202 | 0.72 | 1302 | 0.91 | 1397 | 1.13 | 1486 | 1.36 |
| 3250 | 1173 | 0.66 | 1270 | 0.84 | 1363 | 1.04 | 1453 | 1.26 | 1539 | 1.49 |
| 3500 | 1249 | 0.79 | 1339 | 0.97 | 1427 | 1.17 | 1512 | 1.40 | 1594 | 1.64 |
| 3750 | 1325 | 0.93 | 1410 | 1.11 | 1493 | 1.32 | 1573 | 1.55 | 1652 | 1.79 |
| 4000 | 1403 | 1.08 | 1482 | 1.27 | 1560 | 1.48 | 1637 | 1.71 | 1711 | 1.96 |
| 4250 | 1480 | 1.24 | 1556 | 1.44 | 1630 | 1.65 | 1702 | 1.88 | 1773 | 2.13 |
| 4500 | 1559 | 1.41 | 1630 | 1.61 | 1700 | 1.83 | 1769 | 2.06 | 1837 | 2.30 |
| 4750 | 1638 | 1.58 | 1705 | 1.79 | 1772 | 2.01 | 1838 | 2.24 | 1903 | 2.48 |
| 5000 | 1717 | 1.76 | 1781 | 1.97 | 1845 | 2.19 | 1908 | 2.42 | 1970 | 2.66 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 3000 | 1570 | 1.60 | 1649 | 1.86 | 1723 | 2.12 | 1794 | 2.39 | 1860 | 2.67 |
| 3250 | 1620 | 1.74 | 1698 | 2.00 | 1771 | 2.27 | 1841 | 2.55 | 1907 | 2.84 |
| 3500 | 1673 | 1.89 | 1748 | 2.16 | 1820 | 2.44 | 1889 | 2.72 | 1954 | 3.01 |
| 3750 | 1727 | 2.05 | 1800 | 2.32 | 1871 | 2.61 | 1938 | 2.90 | 2003 | 3.20 |
| 4000 | 1784 | 2.22 | 1855 | 2.49 | 1923 | 2.78 | 1989 | 3.07 | 2052 | 3.37 |
| 4250 | 1843 | 2.39 | 1911 | 2.66 | 1977 | 2.95 | 2041 | 3.24 | 2103 | 3.55 |
| 4500 | 1904 | 2.56 | 1969 | 2.84 | 2033 | 3.12 | 2095 | 3.42 | 2156 | 3.72 |
| 4750 | 1966 | 2.74 | 2029 | 3.01 | 2091 | 3.29 | 2151 | 3.59 | — | — |
| 5000 | 2031 | 2.92 | 2091 | 3.19 | 2150 | 3.46 | — | — | — | — |

Std/Med Static 1100-2000 rpm, 2.4 Max bhp

High Static 1100-2200 rpm, 5.0 Max bhp

## 50GEQM12 — Standard/Medium Static — 10 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 |
| 3000 | 1099 | 5.4 | 1202 | 5.9 | 1302 | 6.4 | 1397 | 6.9 | 1486 | 7.4 |
| 3250 | 1173 | 5.7 | 1270 | 6.2 | 1363 | 6.7 | 1453 | 7.2 | 1539 | 7.6 |
| 3500 | 1249 | 6.1 | 1339 | 6.6 | 1427 | 7.1 | 1512 | 7.5 | 1594 | 7.9 |
| 3750 | 1325 | 6.5 | 1410 | 7.0 | 1493 | 7.4 | 1573 | 7.8 | 1652 | 8.2 |
| 4000 | 1403 | 6.9 | 1482 | 7.3 | 1560 | 7.7 | 1637 | 8.1 | 1711 | 8.5 |
| 4250 | 1480 | 7.3 | 1556 | 7.7 | 1630 | 8.1 | 1702 | 8.5 | 1773 | 8.8 |
| 4500 | 1559 | 7.7 | 1630 | 8.1 | 1700 | 8.5 | 1769 | 8.8 | 1837 | 9.2 |
| 4750 | 1638 | 8.1 | 1705 | 8.5 | 1772 | 8.8 | 1838 | 9.2 | 1903 | 9.5 |
| 5000 | 1717 | 8.5 | 1781 | 8.9 | 1845 | 9.2 | 1908 | 9.5 | — | — |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 3000 | 1570 | 7.8 | 1649 | 8.2 | 1723 | 8.6 | 1794 | 8.9 | — | — |
| 3250 | 1620 | 8.0 | 1698 | 8.4 | 1771 | 8.8 | — | — | — | — |
| 3500 | 1673 | 8.3 | 1748 | 8.7 | 1820 | 9.1 | — | — | — | — |
| 3750 | 1727 | 8.6 | 1800 | 9.0 | — | — | — | — | — | — |
| 4000 | 1784 | 8.9 | 1855 | 9.3 | — | — | — | — | — | — |
| 4250 | 1843 | 9.2 | — | — | — | — | — | — | — | — |
| 4500 | — | — | — | — | — | — | — | — | — | — |
| 4750 | — | — | — | — | — | — | — | — | — | — |
| 5000 | — | — | — | — | — | — | — | — | — | — |

Std/Med Static 1100-2000 rpm

# Fan data (cont)

## 50GEQM12 — High Static — 10 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 |
| 3000 | 1099 | 4.9 | 1202 | 5.4 | 1302 | 5.9 | 1397 | 6.3 | 1486 | 6.7 |
| 3250 | 1173 | 5.3 | 1270 | 5.7 | 1363 | 6.1 | 1453 | 6.6 | 1539 | 6.9 |
| 3500 | 1249 | 5.6 | 1339 | 6.0 | 1427 | 6.4 | 1512 | 6.8 | 1594 | 7.2 |
| 3750 | 1325 | 6.0 | 1410 | 6.4 | 1493 | 6.7 | 1573 | 7.1 | 1652 | 7.5 |
| 4000 | 1403 | 6.3 | 1482 | 6.7 | 1560 | 7.0 | 1637 | 7.4 | 1711 | 7.7 |
| 4250 | 1480 | 6.7 | 1556 | 7.0 | 1630 | 7.4 | 1702 | 7.7 | 1773 | 8.0 |
| 4500 | 1559 | 7.0 | 1630 | 7.4 | 1700 | 7.7 | 1769 | 8.0 | 1837 | 8.3 |
| 4750 | 1638 | 7.4 | 1705 | 7.7 | 1772 | 8.0 | 1838 | 8.3 | 1903 | 8.6 |
| 5000 | 1717 | 7.8 | 1781 | 8.1 | 1845 | 8.4 | 1908 | 8.7 | 1970 | 8.9 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 3000 | 1570 | 7.1 | 1649 | 7.5 | 1723 | 7.8 | 1794 | 8.1 | 1860 | 8.4 |
| 3250 | 1620 | 7.3 | 1698 | 7.7 | 1771 | 8.0 | 1841 | 8.3 | 1907 | 8.6 |
| 3500 | 1673 | 7.6 | 1748 | 7.9 | 1820 | 8.2 | 1889 | 8.6 | 1954 | 8.9 |
| 3750 | 1727 | 7.8 | 1800 | 8.2 | 1871 | 8.5 | 1938 | 8.8 | 2003 | 9.1 |
| 4000 | 1784 | 8.1 | 1855 | 8.4 | 1923 | 8.7 | 1989 | 9.0 | 2052 | 9.3 |
| 4250 | 1843 | 8.4 | 1911 | 8.7 | 1977 | 9.0 | 2041 | 9.3 | 2103 | 9.6 |
| 4500 | 1904 | 8.6 | 1969 | 8.9 | 2033 | 9.2 | 2095 | 9.5 | 2156 | 9.8 |
| 4750 | 1966 | 8.9 | 2029 | 9.2 | 2091 | 9.5 | 2151 | 9.8 | — | — |
| 5000 | 2031 | 9.2 | 2091 | 9.5 | 2150 | 9.8 | — | — | — | — |

High Static 1100-2200 rpm

# Fan data (cont)

## 50GEQM07 — 6.5 Ton Horizontal Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 1800 | 742 | 0.16 | 897 | 0.27 | 1033 | 0.42 | 1150 | 0.58 | 1255 | 0.75 |
| 1950 | 780 | 0.18 | 927 | 0.30 | 1059 | 0.45 | 1175 | 0.61 | 1279 | 0.79 |
| 2100 | 820 | 0.21 | 959 | 0.33 | 1086 | 0.48 | 1200 | 0.65 | 1303 | 0.83 |
| 2250 | 861 | 0.24 | 993 | 0.37 | 1115 | 0.52 | 1227 | 0.69 | 1329 | 0.88 |
| 2400 | 904 | 0.27 | 1028 | 0.40 | 1146 | 0.56 | 1255 | 0.73 | 1355 | 0.92 |
| 2550 | 947 | 0.31 | 1065 | 0.45 | 1178 | 0.60 | 1284 | 0.78 | 1382 | 0.97 |
| 2700 | 991 | 0.36 | 1103 | 0.49 | 1212 | 0.65 | 1314 | 0.83 | 1410 | 1.03 |
| 2850 | 1036 | 0.40 | 1143 | 0.54 | 1246 | 0.70 | 1345 | 0.88 | 1439 | 1.08 |
| 3000 | 1082 | 0.46 | 1183 | 0.60 | 1282 | 0.76 | 1378 | 0.94 | 1469 | 1.14 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 1800 | 1349 | 0.93 | 1436 | 1.13 | 1518 | 1.33 | 1594 | 1.54 | 1666 | 1.76 |
| 1950 | 1373 | 0.98 | 1460 | 1.18 | 1541 | 1.38 | 1617 | 1.60 | 1689 | 1.82 |
| 2100 | 1397 | 1.02 | 1484 | 1.23 | 1565 | 1.44 | 1641 | 1.66 | 1712 | 1.89 |
| 2250 | 1422 | 1.07 | 1508 | 1.28 | 1589 | 1.50 | 1664 | 1.72 | 1736 | 1.95 |
| 2400 | 1447 | 1.12 | 1533 | 1.34 | 1613 | 1.56 | 1689 | 1.79 | 1760 | 2.02 |
| 2550 | 1473 | 1.18 | 1558 | 1.39 | 1638 | 1.62 | 1713 | 1.85 | 1784 | 2.09 |
| 2700 | 1499 | 1.23 | 1583 | 1.45 | 1663 | 1.68 | 1738 | 1.92 | 1809 | 2.17 |
| 2850 | 1527 | 1.29 | 1610 | 1.52 | 1688 | 1.75 | 1763 | 1.99 | 1834 | 2.24 |
| 3000 | 1555 | 1.36 | 1637 | 1.58 | 1715 | 1.82 | 1789 | 2.07 | 1859 | 2.32 |

Std/Med Static 742-2000 rpm, 2.4 Max bhp

High Static 742-2200 rpm, 3.0 Max bhp

## 50GEQM07 — Standard/Medium Static — 6.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1800 | 742 | 3.5 | 897 | 4.3 | 1033 | 5.0 | 1150 | 5.6 | 1255 | 6.2 |
| 1950 | 780 | 3.7 | 927 | 4.5 | 1059 | 5.2 | 1175 | 5.8 | 1279 | 6.3 |
| 2100 | 820 | 3.9 | 959 | 4.6 | 1086 | 5.3 | 1200 | 5.9 | 1303 | 6.4 |
| 2250 | 861 | 4.1 | 993 | 4.8 | 1115 | 5.4 | 1227 | 6.0 | 1329 | 6.5 |
| 2400 | 904 | 4.4 | 1028 | 5.0 | 1146 | 5.6 | 1255 | 6.2 | 1355 | 6.7 |
| 2550 | 947 | 4.6 | 1065 | 5.2 | 1178 | 5.8 | 1284 | 6.3 | 1382 | 6.8 |
| 2700 | 991 | 4.8 | 1103 | 5.4 | 1212 | 5.9 | 1314 | 6.5 | 1410 | 7.0 |
| 2850 | 1036 | 5.0 | 1143 | 5.6 | 1246 | 6.1 | 1345 | 6.6 | 1439 | 7.1 |
| 3000 | 1082 | 5.3 | 1183 | 5.8 | 1282 | 6.3 | 1378 | 6.8 | 1469 | 7.3 |

| 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 |
| 1800 | 1349 | 6.7 | 1436 | 7.1 | 1518 | 7.5 | 1594 | 7.9 | 1666 | 8.3 |
| 1950 | 1373 | 6.8 | 1460 | 7.2 | 1541 | 7.6 | 1617 | 8.0 | 1689 | 8.4 |
| 2100 | 1397 | 6.9 | 1484 | 7.3 | 1565 | 7.8 | 1641 | 8.2 | 1712 | 8.5 |
| 2250 | 1422 | 7.0 | 1508 | 7.5 | 1589 | 7.9 | 1664 | 8.3 | 1736 | 8.6 |
| 2400 | 1447 | 7.2 | 1533 | 7.6 | 1613 | 8.0 | 1689 | 8.4 | 1760 | 8.8 |
| 2550 | 1473 | 7.3 | 1558 | 7.7 | 1638 | 8.1 | 1713 | 8.5 | 1784 | 8.9 |
| 2700 | 1499 | 7.4 | 1583 | 7.9 | 1663 | 8.3 | 1738 | 8.7 | 1809 | 9.0 |
| 2850 | 1527 | 7.6 | 1610 | 8.0 | 1688 | 8.4 | 1763 | 8.8 | 1834 | 9.1 |
| 3000 | 1555 | 7.7 | 1637 | 8.1 | 1715 | 8.5 | 1789 | 8.9 | 1859 | 9.3 |

Std/Med Static 742-2000 rpm

# Fan data (cont)

## 50GEQM07 — High Static — 6.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 1800 | 742 | 3.3 | 897 | 4.0 | 1033 | 4.6 | 1150 | 5.2 | 1255 | 5.6 |
| 1950 | 780 | 3.4 | 927 | 4.1 | 1059 | 4.7 | 1175 | 5.3 | 1279 | 5.7 |
| 2100 | 820 | 3.6 | 959 | 4.3 | 1086 | 4.9 | 1200 | 5.4 | 1303 | 5.9 |
| 2250 | 861 | 3.8 | 993 | 4.4 | 1115 | 5.0 | 1227 | 5.5 | 1329 | 6.0 |
| 2400 | 904 | 4.0 | 1028 | 4.6 | 1146 | 5.1 | 1255 | 5.6 | 1355 | 6.1 |
| 2550 | 947 | 4.2 | 1065 | 4.8 | 1178 | 5.3 | 1284 | 5.8 | 1382 | 6.2 |
| 2700 | 991 | 4.4 | 1103 | 4.9 | 1212 | 5.4 | 1314 | 5.9 | 1410 | 6.4 |
| 2850 | 1036 | 4.6 | 1143 | 5.1 | 1246 | 5.6 | 1345 | 6.1 | 1439 | 6.5 |
| 3000 | 1082 | 4.8 | 1183 | 5.3 | 1282 | 5.8 | 1378 | 6.2 | 1469 | 6.6 |

| 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 |
| 1800 | 1349 | 6.1 | 1436 | 6.5 | 1518 | 6.9 | 1594 | 7.2 | 1666 | 7.5 |
| 1950 | 1373 | 6.2 | 1460 | 6.6 | 1541 | 7.0 | 1617 | 7.3 | 1689 | 7.6 |
| 2100 | 1397 | 6.3 | 1484 | 6.7 | 1565 | 7.1 | 1641 | 7.4 | 1712 | 7.7 |
| 2250 | 1422 | 6.4 | 1508 | 6.8 | 1589 | 7.2 | 1664 | 7.5 | 1736 | 7.9 |
| 2400 | 1447 | 6.5 | 1533 | 6.9 | 1613 | 7.3 | 1689 | 7.6 | 1760 | 8.0 |
| 2550 | 1473 | 6.6 | 1558 | 7.0 | 1638 | 7.4 | 1713 | 7.8 | 1784 | 8.1 |
| 2700 | 1499 | 6.8 | 1583 | 7.2 | 1663 | 7.5 | 1738 | 7.9 | 1809 | 8.2 |
| 2850 | 1527 | 6.9 | 1610 | 7.3 | 1688 | 7.6 | 1763 | 8.0 | 1834 | 8.3 |
| 3000 | 1555 | 7.0 | 1637 | 7.4 | 1715 | 7.8 | 1789 | 8.1 | 1859 | 8.4 |

High Static 742-2200 rpm

# Fan data (cont)

## 50GEQM08 — 7.5 Ton Horizontal Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2250 | 882 | 0.26 | 1014 | 0.39 | 1135 | 0.55 | 1246 | 0.73 | 1346 | 0.92 |
| 2440 | 935 | 0.31 | 1058 | 0.44 | 1174 | 0.61 | 1281 | 0.79 | 1380 | 0.98 |
| 2625 | 988 | 0.36 | 1104 | 0.50 | 1214 | 0.67 | 1318 | 0.85 | 1414 | 1.05 |
| 2815 | 1044 | 0.42 | 1153 | 0.57 | 1257 | 0.73 | 1357 | 0.92 | 1450 | 1.13 |
| 3000 | 1100 | 0.49 | 1202 | 0.64 | 1301 | 0.81 | 1397 | 1.00 | 1487 | 1.21 |
| 3190 | 1157 | 0.56 | 1254 | 0.72 | 1348 | 0.89 | 1439 | 1.08 | 1527 | 1.30 |
| 3375 | 1214 | 0.65 | 1305 | 0.80 | 1395 | 0.98 | 1483 | 1.18 | 1567 | 1.39 |
| 3565 | 1273 | 0.74 | 1359 | 0.90 | 1445 | 1.08 | 1529 | 1.28 | 1610 | 1.49 |
| 3750 | 1330 | 0.83 | 1413 | 1.00 | 1495 | 1.18 | 1575 | 1.38 | 1653 | 1.60 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2250 | 1439 | 1.12 | 1524 | 1.34 | 1604 | 1.56 | 1679 | 1.79 | 1750 | 2.02 |
| 2440 | 1471 | 1.19 | 1556 | 1.41 | 1635 | 1.64 | 1710 | 1.87 | 1782 | 2.12 |
| 2625 | 1504 | 1.27 | 1588 | 1.49 | 1667 | 1.72 | 1741 | 1.96 | 1812 | 2.21 |
| 2815 | 1538 | 1.34 | 1621 | 1.57 | 1699 | 1.81 | 1773 | 2.06 | 1844 | 2.32 |
| 3000 | 1573 | 1.43 | 1655 | 1.66 | 1732 | 1.91 | 1805 | 2.16 | 1875 | 2.42 |
| 3190 | 1611 | 1.52 | 1690 | 1.76 | 1766 | 2.00 | 1839 | 2.26 | 1908 | 2.53 |
| 3375 | 1648 | 1.62 | 1726 | 1.86 | 1801 | 2.11 | 1872 | 2.37 | 1941 | 2.64 |
| 3565 | 1689 | 1.72 | 1764 | 1.96 | 1837 | 2.21 | 1908 | 2.48 | 1975 | 2.75 |
| 3750 | 1729 | 1.83 | 1803 | 2.07 | 1874 | 2.33 | 1943 | 2.59 | 2010 | 2.87 |

Std/Med Static 882-2000 rpm, 2.4 Max bhp

High Static 882-2200 rpm, 3.0 Max bhp

## 50GEQM08 — Standard/Medium Static — 7.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 882 | 4.3 | 1014 | 4.9 | 1135 | 5.6 | 1246 | 6.1 | 1346 | 6.6 |
| 2440 | 935 | 4.5 | 1058 | 5.2 | 1174 | 5.8 | 1281 | 6.3 | 1380 | 6.8 |
| 2625 | 988 | 4.8 | 1104 | 5.4 | 1214 | 6.0 | 1318 | 6.5 | 1414 | 7.0 |
| 2815 | 1044 | 5.1 | 1153 | 5.6 | 1257 | 6.2 | 1357 | 6.7 | 1450 | 7.2 |
| 3000 | 1100 | 5.4 | 1202 | 5.9 | 1301 | 6.4 | 1397 | 6.9 | 1487 | 7.4 |
| 3190 | 1157 | 5.7 | 1254 | 6.2 | 1348 | 6.6 | 1439 | 7.1 | 1527 | 7.6 |
| 3375 | 1214 | 6.0 | 1305 | 6.4 | 1395 | 6.9 | 1483 | 7.3 | 1567 | 7.8 |
| 3565 | 1273 | 6.3 | 1359 | 6.7 | 1445 | 7.1 | 1529 | 7.6 | 1610 | 8.0 |
| 3750 | 1330 | 6.6 | 1413 | 7.0 | 1495 | 7.4 | 1575 | 7.8 | 1653 | 8.2 |

| 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 |
| 2250 | 1439 | 7.1 | 1524 | 7.6 | 1604 | 8.0 | 1679 | 8.3 | 1750 | 8.7 |
| 2440 | 1471 | 7.3 | 1556 | 7.7 | 1635 | 8.1 | 1710 | 8.5 | 1782 | 8.9 |
| 2625 | 1504 | 7.4 | 1588 | 7.9 | 1667 | 8.3 | 1741 | 8.7 | 1812 | 9.0 |
| 2815 | 1538 | 7.6 | 1621 | 8.1 | 1699 | 8.5 | 1773 | 8.8 | 1844 | 9.2 |
| 3000 | 1573 | 7.8 | 1655 | 8.2 | 1732 | 8.6 | 1805 | 9.0 | 1875 | 9.4 |
| 3190 | 1611 | 8.0 | 1690 | 8.4 | 1766 | 8.8 | 1839 | 9.2 | 1908 | 9.5 |
| 3375 | 1648 | 8.2 | 1726 | 8.6 | 1801 | 9.0 | 1872 | 9.3 | — | — |
| 3565 | 1689 | 8.4 | 1764 | 8.8 | 1837 | 9.2 | 1908 | 9.5 | — | — |
| 3750 | 1729 | 8.6 | 1803 | 9.0 | 1874 | 9.4 | — | — | — | — |

Std/Med Static 882-2000 rpm

# Fan data (cont)

## 50GEQM08 — High Static — 7.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 882 | 3.9 | 1014 | 4.5 | 1135 | 5.1 | 1246 | 5.6 | 1346 | 6.1 |
| 2440 | 935 | 4.2 | 1058 | 4.7 | 1174 | 5.3 | 1281 | 5.8 | 1380 | 6.2 |
| 2625 | 988 | 4.4 | 1104 | 4.9 | 1214 | 5.4 | 1318 | 5.9 | 1414 | 6.4 |
| 2815 | 1044 | 4.7 | 1153 | 5.2 | 1257 | 5.6 | 1357 | 6.1 | 1450 | 6.5 |
| 3000 | 1100 | 4.9 | 1202 | 5.4 | 1301 | 5.9 | 1397 | 6.3 | 1487 | 6.7 |
| 3190 | 1157 | 5.2 | 1254 | 5.6 | 1348 | 6.1 | 1439 | 6.5 | 1527 | 6.9 |
| 3375 | 1214 | 5.4 | 1305 | 5.9 | 1395 | 6.3 | 1483 | 6.7 | 1567 | 7.1 |
| 3565 | 1273 | 5.7 | 1359 | 6.1 | 1445 | 6.5 | 1529 | 6.9 | 1610 | 7.3 |
| 3750 | 1330 | 6.0 | 1413 | 6.4 | 1495 | 6.7 | 1575 | 7.1 | 1653 | 7.5 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2250 | 1439 | 6.5 | 1524 | 6.9 | 1604 | 7.2 | 1679 | 7.6 | 1750 | 7.9 |
| 2440 | 1471 | 6.6 | 1556 | 7.0 | 1635 | 7.4 | 1710 | 7.7 | 1782 | 8.1 |
| 2625 | 1504 | 6.8 | 1588 | 7.2 | 1667 | 7.5 | 1741 | 7.9 | 1812 | 8.2 |
| 2815 | 1538 | 6.9 | 1621 | 7.3 | 1699 | 7.7 | 1773 | 8.0 | 1844 | 8.4 |
| 3000 | 1573 | 7.1 | 1655 | 7.5 | 1732 | 7.8 | 1805 | 8.2 | 1875 | 8.5 |
| 3190 | 1611 | 7.3 | 1690 | 7.6 | 1766 | 8.0 | 1839 | 8.3 | 1908 | 8.7 |
| 3375 | 1648 | 7.5 | 1726 | 7.8 | 1801 | 8.2 | 1872 | 8.5 | 1941 | 8.8 |
| 3565 | 1689 | 7.6 | 1764 | 8.0 | 1837 | 8.3 | 1908 | 8.7 | 1975 | 9.0 |
| 3750 | 1729 | 7.8 | 1803 | 8.2 | 1874 | 8.5 | 1943 | 8.8 | 2010 | 9.1 |

High Static 882-2200 rpm

# Fan data (cont)

## 50GEQM09 — 8.5 Ton Horizontal Supply (rpm - bhp)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2550 | 967 | 0.34 | 1085 | 0.48 | 1198 | 0.64 | 1303 | 0.83 | 1400 | 1.02 |
| 2765 | 1030 | 0.40 | 1140 | 0.55 | 1246 | 0.72 | 1346 | 0.90 | 1441 | 1.11 |
| 2975 | 1092 | 0.48 | 1195 | 0.63 | 1295 | 0.80 | 1391 | 0.99 | 1482 | 1.20 |
| 3190 | 1157 | 0.56 | 1254 | 0.72 | 1348 | 0.89 | 1439 | 1.08 | 1527 | 1.30 |
| 3400 | 1222 | 0.66 | 1312 | 0.81 | 1402 | 0.99 | 1489 | 1.19 | 1573 | 1.40 |
| 3615 | 1288 | 0.76 | 1374 | 0.92 | 1458 | 1.10 | 1541 | 1.30 | 1621 | 1.52 |
| 3825 | 1354 | 0.87 | 1435 | 1.04 | 1515 | 1.22 | 1594 | 1.42 | 1671 | 1.64 |
| 4040 | 1422 | 1.00 | 1498 | 1.16 | 1575 | 1.35 | 1650 | 1.55 | 1724 | 1.77 |
| 4250 | 1488 | 1.12 | 1561 | 1.29 | 1634 | 1.48 | 1706 | 1.69 | 1776 | 1.90 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 2550 | 1490 | 1.23 | 1575 | 1.46 | 1654 | 1.69 | 1729 | 1.93 | 1800 | 2.18 |
| 2765 | 1529 | 1.32 | 1612 | 1.55 | 1691 | 1.79 | 1765 | 2.04 | 1835 | 2.29 |
| 2975 | 1568 | 1.42 | 1650 | 1.65 | 1727 | 1.89 | 1801 | 2.15 | 1871 | 2.41 |
| 3190 | 1611 | 1.52 | 1690 | 1.76 | 1766 | 2.00 | 1839 | 2.26 | 1908 | 2.53 |
| 3400 | 1654 | 1.63 | 1731 | 1.87 | 1806 | 2.12 | 1877 | 2.38 | 1945 | 2.65 |
| 3615 | 1699 | 1.75 | 1775 | 1.99 | 1847 | 2.24 | 1917 | 2.51 | 1985 | 2.79 |
| 3825 | 1746 | 1.87 | 1819 | 2.12 | 1890 | 2.37 | 1958 | 2.64 | 2024 | 2.92 |
| 4040 | 1796 | 2.00 | 1866 | 2.25 | 1935 | 2.51 | 2001 | 2.77 | 2066 | 3.05 |
| 4250 | 1846 | 2.14 | 1914 | 2.38 | 1980 | 2.64 | 2045 | 2.91 | 2108 | 3.18 |

Std/Med Static 967-2000 rpm, 2.4 Max bhp

High Static 967-2200 rpm, 3.0 Max bhp

## 50GEQM09 — Standard/Medium Static — 8.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 967 | 4.7 | 1085 | 5.3 | 1198 | 5.9 | 1303 | 6.4 | 1400 | 6.9 |
| 2765 | 1030 | 5.0 | 1140 | 5.6 | 1246 | 6.1 | 1346 | 6.6 | 1441 | 7.1 |
| 2975 | 1092 | 5.3 | 1195 | 5.9 | 1295 | 6.4 | 1391 | 6.9 | 1482 | 7.3 |
| 3190 | 1157 | 5.7 | 1254 | 6.2 | 1348 | 6.6 | 1439 | 7.1 | 1527 | 7.6 |
| 3400 | 1222 | 6.0 | 1312 | 6.5 | 1402 | 6.9 | 1489 | 7.4 | 1573 | 7.8 |
| 3615 | 1288 | 6.3 | 1374 | 6.8 | 1458 | 7.2 | 1541 | 7.6 | 1621 | 8.1 |
| 3825 | 1354 | 6.7 | 1435 | 7.1 | 1515 | 7.5 | 1594 | 7.9 | 1671 | 8.3 |
| 4040 | 1422 | 7.0 | 1498 | 7.4 | 1575 | 7.8 | 1650 | 8.2 | 1724 | 8.6 |
| 4250 | 1488 | 7.4 | 1561 | 7.7 | 1634 | 8.1 | 1706 | 8.5 | 1776 | 8.8 |

| 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 |
| 2550 | 1490 | 7.4 | 1575 | 7.8 | 1654 | 8.2 | 1729 | 8.6 | 1800 | 9.0 |
| 2765 | 1529 | 7.6 | 1612 | 8.0 | 1691 | 8.4 | 1765 | 8.8 | 1835 | 9.2 |
| 2975 | 1568 | 7.8 | 1650 | 8.2 | 1727 | 8.6 | 1801 | 9.0 | 1871 | 9.3 |
| 3190 | 1611 | 8.0 | 1690 | 8.4 | 1766 | 8.8 | 1839 | 9.2 | 1908 | 9.5 |
| 3400 | 1654 | 8.2 | 1731 | 8.6 | 1806 | 9.0 | 1877 | 9.4 | — | — |
| 3615 | 1699 | 8.5 | 1775 | 8.8 | 1847 | 9.2 | 1917 | 9.6 | — | — |
| 3825 | 1746 | 8.7 | 1819 | 9.1 | 1890 | 9.4 | — | — | — | — |
| 4040 | 1796 | 9.0 | 1866 | 9.3 | 1935 | 9.7 | — | — | — | — |
| 4250 | 1846 | 9.2 | 1914 | 9.6 | — | — | — | — | — | — |

Std/Med Static 967-2000 rpm

# Fan data (cont)

## 50GEQM09 — High Static — 8.5 Ton Horizontal Supply (rpm - vdc)

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 967 | 4.3 | 1085 | 4.9 | 1198 | 5.4 | 1303 | 5.9 | 1400 | 6.3 |
| 2765 | 1030 | 4.6 | 1140 | 5.1 | 1246 | 5.6 | 1346 | 6.1 | 1441 | 6.5 |
| 2975 | 1092 | 4.9 | 1195 | 5.4 | 1295 | 5.8 | 1391 | 6.3 | 1482 | 6.7 |
| 3190 | 1157 | 5.2 | 1254 | 5.6 | 1348 | 6.1 | 1439 | 6.5 | 1527 | 6.9 |
| 3400 | 1222 | 5.5 | 1312 | 5.9 | 1402 | 6.3 | 1489 | 6.7 | 1573 | 7.1 |
| 3615 | 1288 | 5.8 | 1374 | 6.2 | 1458 | 6.6 | 1541 | 7.0 | 1621 | 7.3 |
| 3825 | 1354 | 6.1 | 1435 | 6.5 | 1515 | 6.8 | 1594 | 7.2 | 1671 | 7.6 |
| 4040 | 1422 | 6.4 | 1498 | 6.8 | 1575 | 7.1 | 1650 | 7.5 | 1724 | 7.8 |
| 4250 | 1488 | 6.7 | 1561 | 7.1 | 1634 | 7.4 | 1706 | 7.7 | 1776 | 8.0 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 2550 | 1490 | 6.7 | 1575 | 7.1 | 1654 | 7.5 | 1729 | 7.8 | 1800 | 8.2 |
| 2765 | 1529 | 6.9 | 1612 | 7.3 | 1691 | 7.7 | 1765 | 8.0 | 1835 | 8.3 |
| 2975 | 1568 | 7.1 | 1650 | 7.5 | 1727 | 7.8 | 1801 | 8.2 | 1871 | 8.5 |
| 3190 | 1611 | 7.3 | 1690 | 7.6 | 1766 | 8.0 | 1839 | 8.3 | 1908 | 8.7 |
| 3400 | 1654 | 7.5 | 1731 | 7.8 | 1806 | 8.2 | 1877 | 8.5 | 1945 | 8.8 |
| 3615 | 1699 | 7.7 | 1775 | 8.0 | 1847 | 8.4 | 1917 | 8.7 | 1985 | 9.0 |
| 3825 | 1746 | 7.9 | 1819 | 8.2 | 1890 | 8.6 | 1958 | 8.9 | 2024 | 9.2 |
| 4040 | 1796 | 8.1 | 1866 | 8.5 | 1935 | 8.8 | 2001 | 9.1 | 2066 | 9.4 |
| 4250 | 1846 | 8.4 | 1914 | 8.7 | 1980 | 9.0 | 2045 | 9.3 | 2108 | 9.6 |

High Static 967-2200 rpm

# Fan data (cont)

## 50GEQM12 — 10 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 |
| 3000 | 1098 | 0.55 | 1200 | 0.72 | 1299 | 0.91 | 1394 | 1.12 | 1485 | 1.36 |
| 3250 | 1173 | 0.66 | 1268 | 0.83 | 1360 | 1.03 | 1450 | 1.25 | 1536 | 1.48 |
| 3500 | 1248 | 0.79 | 1337 | 0.97 | 1424 | 1.17 | 1509 | 1.39 | 1591 | 1.63 |
| 3750 | 1325 | 0.93 | 1409 | 1.11 | 1490 | 1.32 | 1571 | 1.54 | 1648 | 1.78 |
| 4000 | 1402 | 1.08 | 1481 | 1.27 | 1558 | 1.48 | 1634 | 1.70 | 1708 | 1.94 |
| 4250 | 1480 | 1.24 | 1555 | 1.43 | 1628 | 1.65 | 1699 | 1.87 | 1770 | 2.12 |
| 4500 | 1558 | 1.41 | 1629 | 1.61 | 1699 | 1.82 | 1767 | 2.05 | 1834 | 2.29 |
| 4750 | 1637 | 1.58 | 1705 | 1.79 | 1771 | 2.00 | 1836 | 2.23 | 1900 | 2.47 |
| 5000 | 1716 | 1.76 | 1781 | 1.97 | 1844 | 2.19 | 1906 | 2.41 | 1967 | 2.65 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp | rpm | bhp |
| 3000 | 1570 | 1.60 | 1651 | 1.86 | 1728 | 2.14 | 1800 | 2.42 | 1869 | 2.70 |
| 3250 | 1619 | 1.74 | 1698 | 2.00 | 1773 | 2.28 | 1844 | 2.57 | 1913 | 2.87 |
| 3500 | 1670 | 1.88 | 1747 | 2.15 | 1820 | 2.44 | 1890 | 2.73 | 1958 | 3.03 |
| 3750 | 1724 | 2.04 | 1798 | 2.31 | 1869 | 2.60 | 1937 | 2.89 | 2004 | 3.20 |
| 4000 | 1780 | 2.20 | 1851 | 2.48 | 1920 | 2.76 | 1987 | 3.06 | 2051 | 3.37 |
| 4250 | 1839 | 2.37 | 1907 | 2.65 | 1973 | 2.93 | 2038 | 3.23 | 2101 | 3.54 |
| 4500 | 1900 | 2.55 | 1965 | 2.82 | 2029 | 3.10 | 2092 | 3.40 | 2153 | 3.71 |
| 4750 | 1963 | 2.73 | 2025 | 2.99 | 2087 | 3.28 | 2147 | 3.57 | — | — |
| 5000 | 2028 | 2.91 | 2087 | 3.17 | 2146 | 3.44 | — | — | — | — |

Std/Med Static 1100-2000 rpm, 2.4 Max bhp

High Static 1100-2200 rpm, 5.0 Max bhp

## 50GEQM12 — Standard/Medium Static — 10 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 |
| 3000 | 1098 | 5.4 | 1200 | 5.9 | 1299 | 6.4 | 1394 | 6.9 | 1485 | 7.4 |
| 3250 | 1173 | 5.7 | 1268 | 6.2 | 1360 | 6.7 | 1450 | 7.2 | 1536 | 7.6 |
| 3500 | 1248 | 6.1 | 1337 | 6.6 | 1424 | 7.0 | 1509 | 7.5 | 1591 | 7.9 |
| 3750 | 1325 | 6.5 | 1409 | 7.0 | 1490 | 7.4 | 1571 | 7.8 | 1648 | 8.2 |
| 4000 | 1402 | 6.9 | 1481 | 7.3 | 1558 | 7.7 | 1634 | 8.1 | 1708 | 8.5 |
| 4250 | 1480 | 7.3 | 1555 | 7.7 | 1628 | 8.1 | 1699 | 8.5 | 1770 | 8.8 |
| 4500 | 1558 | 7.7 | 1629 | 8.1 | 1699 | 8.5 | 1767 | 8.8 | 1834 | 9.1 |
| 4750 | 1637 | 8.1 | 1705 | 8.5 | 1771 | 8.8 | 1836 | 9.2 | 1900 | 9.5 |
| 5000 | 1716 | 8.5 | 1781 | 8.9 | 1844 | 9.2 | 1906 | 9.5 | — | — |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 3000 | 1570 | 7.8 | 1651 | 8.2 | 1728 | 8.6 | 1800 | 9.0 | — | — |
| 3250 | 1619 | 8.0 | 1698 | 8.4 | 1773 | 8.8 | — | — | — | — |
| 3500 | 1670 | 8.3 | 1747 | 8.7 | 1820 | 9.1 | — | — | — | — |
| 3750 | 1724 | 8.6 | 1798 | 9.0 | — | — | — | — | — | — |
| 4000 | 1780 | 8.9 | 1851 | 9.2 | — | — | — | — | — | — |
| 4250 | 1839 | 9.2 | — | — | — | — | — | — | — | — |
| 4500 | 1900 | 9.5 | — | — | — | — | — | — | — | — |
| 4750 | — | — | — | — | — | — | — | — | — | — |
| 5000 | — | — | — | — | — | — | — | — | — | — |

Std/Med Static 1100-2000 rpm

# Fan data (cont)

## 50GEQM12 — High Static — 10 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 |
| 3000 | 1098 | 4.9 | 1200 | 5.4 | 1299 | 5.8 | 1394 | 6.3 | 1485 | 6.7 |
| 3250 | 1173 | 5.3 | 1268 | 5.7 | 1360 | 6.1 | 1450 | 6.5 | 1536 | 6.9 |
| 3500 | 1248 | 5.6 | 1337 | 6.0 | 1424 | 6.4 | 1509 | 6.8 | 1591 | 7.2 |
| 3750 | 1325 | 6.0 | 1409 | 6.3 | 1490 | 6.7 | 1571 | 7.1 | 1648 | 7.5 |
| 4000 | 1402 | 6.3 | 1481 | 6.7 | 1558 | 7.0 | 1634 | 7.4 | 1708 | 7.7 |
| 4250 | 1480 | 6.7 | 1555 | 7.0 | 1628 | 7.4 | 1699 | 7.7 | 1770 | 8.0 |
| 4500 | 1558 | 7.0 | 1629 | 7.4 | 1699 | 7.7 | 1767 | 8.0 | 1834 | 8.3 |
| 4750 | 1637 | 7.4 | 1705 | 7.7 | 1771 | 8.0 | 1836 | 8.3 | 1900 | 8.6 |
| 5000 | 1716 | 7.8 | 1781 | 8.1 | 1844 | 8.4 | 1906 | 8.6 | 1967 | 8.9 |

| CFM | AVAILABLE EXTERNAL STATIC PRESSURE (in. wg) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc | rpm | vdc |
| 3000 | 1570 | 7.1 | 1651 | 7.5 | 1728 | 7.8 | 1800 | 8.2 | 1869 | 8.5 |
| 3250 | 1619 | 7.3 | 1698 | 7.7 | 1773 | 8.0 | 1844 | 8.4 | 1913 | 8.7 |
| 3500 | 1670 | 7.6 | 1747 | 7.9 | 1820 | 8.2 | 1890 | 8.6 | 1958 | 8.9 |
| 3750 | 1724 | 7.8 | 1798 | 8.1 | 1869 | 8.5 | 1937 | 8.8 | 2004 | 9.1 |
| 4000 | 1780 | 8.1 | 1851 | 8.4 | 1920 | 8.7 | 1987 | 9.0 | 2051 | 9.3 |
| 4250 | 1839 | 8.3 | 1907 | 8.6 | 1973 | 9.0 | 2038 | 9.3 | 2101 | 9.5 |
| 4500 | 1900 | 8.6 | 1965 | 8.9 | 2029 | 9.2 | 2092 | 9.5 | 2153 | 9.8 |
| 4750 | 1963 | 8.9 | 2025 | 9.2 | 2087 | 9.5 | 2147 | 9.8 | — | — |
| 5000 | 2028 | 9.2 | 2087 | 9.5 | 2146 | 9.8 | — | — | — | — |

High Static 1100-2200 rpm

## Legend and Notes

### Applicable for Electrical Data Tables on pages 61-77

LEGEND

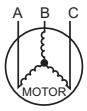
| | | |
|---|---|---|
| **BRKR** | — | Circuit Breaker |
| **C.O.** | — | Convenience Outlet |
| **FLA** | — | Full Load Amps |
| **IFM** | — | Indoor Fan Motor |
| **LRA** | — | Locked Rotor Amps |
| **MCA** | — | Minimum Circuit Amps |
| **P.E.** | — | Power Exhaust |
| **PWRD C.O.** | — | Powered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

NOTES:

1. In compliance with NEC requirements for multi-motor and combination load equipment (refer to NEC Articles 430 and 440), the overcurrent protective device for the unit shall be fuse or HACR breaker. Canadian units may be fuse or circuit breaker.
2. For 208/230 v units, where one value is show it is the same for either 208 or 230 volts.
3. **Unbalanced 3-Phase Supply Voltage**: Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

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

Example: Supply voltage is 230-3-60




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

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

Determine maximum deviation from average voltage.
(AB) 227-224 = 3-v
(BC) 231-227 = 4-v
(AC) 227-226 = 1-v
Maximum deviation is 4-v.
Determine percent of voltage imbalance.

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

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.

# Electrical data (cont)

## 50GEQM07-12 Cooling Electrical Data

| 50GEQ UNIT SIZE | V-Ph-Hz | UNIT VOLTAGE RANGE | | COMP 1 | | COMP 2 | | OFM (ea) | | STD SCCR kA | HIGH SCCR kA | IFM | | | POWER EXHAUST | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MIN | MAX | RLA | LRA | RLA | LRA | Watts | FLA | | | Type | EFF at Full Load | FLA | Kit Qty | FLA (ea kit) |
| M07 | 208-3-60 | 187 | 253 | 12.8 | 103 | 8.3 | 68 | 325 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 230-3-60 | 187 | 253 | 12.8 | 103 | 8.3 | 68 | 325 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 460-3-60 | 414 | 506 | 5.8 | 50 | 5.1 | 38 | 325 | 0.8 | 5 | 10 | MED | 90% | 3.0 | 1 | 1.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.5 | 1 | 1.8 |
| | 575-3-60 | 518 | 633 | 5.1 | 41 | 3.5 | 24 | 325 | 0.6 | 5 | — | MED | 90% | 2.5 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.0 | 1 | 3.8 |
| M08 | 208-3-60 | 187 | 253 | 16 | 156 | 12.8 | 98 | 325 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 230-3-60 | 187 | 253 | 16 | 156 | 12.8 | 98 | 325 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 460-3-60 | 414 | 506 | 7.7 | 69 | 5.1 | 44 | 325 | 0.8 | 5 | 10 | MED | 90% | 3.0 | 1 | 1.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.5 | 1 | 1.8 |
| | 575-3-60 | 518 | 633 | 6.4 | 48 | 4.5 | 27 | 325 | 0.6 | 5 | — | MED | 90% | 2.5 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.0 | 1 | 3.8 |
| M09 | 208-3-60 | 187 | 253 | 18.6 | 155 | 12.8 | 103 | 1070 | 7.4 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 230-3-60 | 187 | 253 | 18.6 | 155 | 12.8 | 103 | 1070 | 7.4 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 7.5 | 1 | 3.8 |
| | 460-3-60 | 414 | 506 | 8.3 | 58 | 5.8 | 50 | 1070 | 7.4 | 5 | 10 | MED | 90% | 3.0 | 1 | 1.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.5 | 1 | 1.8 |
| | 575-3-60 | 518 | 633 | 7.7 | 48 | 5.1 | 41 | 1070 | 7.4 | 5 | — | MED | 90% | 2.5 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 3.0 | 1 | 3.8 |
| M12 | 208-3-60 | 187 | 253 | 21.1 | 157 | 13.4 | 120 | 280 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 12.6 | 1 | 3.8 |
| | 230-3-60 | 187 | 253 | 21.1 | 157 | 13.4 | 120 | 280 | 1.5 | 5 | 10 | MED | 90% | 6.4 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 12.6 | 1 | 3.8 |
| | 460-3-60 | 414 | 506 | 9.1 | 75 | 6.4 | 50 | 280 | 0.8 | 5 | 10 | MED | 90% | 3.0 | 1 | 1.8 |
| | | | | | | | | | | | | HIGH | 90% | 5.6 | 1 | 1.8 |
| | 575-3-60 | 518 | 633 | 7.7 | 48 | 5.1 | 41 | 280 | 0.6 | 5 | — | MED | 90% | 2.5 | 1 | 3.8 |
| | | | | | | | | | | | | HIGH | 90% | 4.6 | 1 | 3.8 |

# Electrical data (cont)

## 50GEQM07 Unit Wire/Fuse Sizing Electrical Data

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA[a] | ELECTRIC HEATER | | | NO C.O. OR UNPWR C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | | CRHEATER ****00 | NOM. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M07 | 208/230-3-60 | MED | 5 | 10 | — | — | — | 34 | 45 | 35 | 184 | 38 | 50 | 39 | 188 |
| | | | 5 | 10 | 410A | 4.9/6.5 | 13.6/15.6 | 51/54 | 60/60 | 51/53 | 198/200 | 55/57 | 60/60 | 55/57 | 202/204 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 61/65 | 70/70 | 60/64 | 206/209 | 65/69 | 70/70 | 64/68 | 210/213 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 76/82 | 80/90 | 73/79 | 217/223 | 80/86 | 80/90 | 78/84 | 221/227 |
| | | | 5 | 10 | 413A | 15.8/21.0 | 43.8/50.5 | 89/97 | 90/100 | 85/93 | 228/235 | 93/101 | 100/110 | 90/98 | 232/239 |
| | | | 5 | 10 | 414A | 18.8/25.0 | 52.1/60.1 | 99/109 | 100/110 | 95/104 | 236/244 | 103/113 | 110/125 | 99/109 | 240/248 |
| | | HIGH | 5 | 10 | — | — | — | 35 | 45 | 36 | 186 | 39 | 50 | 41 | 190 |
| | | | 5 | 10 | 410A | 4.9/6.5 | 13.6/15.6 | 52/55 | 60/60 | 52/54 | 200/202 | 56/59 | 60/60 | 56/59 | 204/206 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 62/67 | 70/70 | 61/65 | 208/211 | 66/70 | 70/70 | 66/69 | 212/215 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 77/83 | 80/90 | 75/81 | 219/225 | 81/87 | 90/90 | 79/85 | 223/229 |
| | | | 5 | 10 | 413A | 15.8/21.0 | 43.8/50.5 | 90/98 | 90/100 | 87/94 | 230/237 | 94/102 | 100/110 | 91/99 | 234/241 |
| | | | 5 | 10 | 414A | 18.8/25.0 | 52.1/60.1 | 100/110 | 100/110 | 96/105 | 238/246 | 104/114 | 110/125 | 101/110 | 242/250 |
| | 460-3-60 | MED | 5 | 10 | — | — | — | 17 | 20 | 18 | 94 | 19 | 25 | 20 | 96 |
| | | | 5 | 10 | 418A | 6.0 | 7.2 | 26 | 30 | 26 | 101 | 28 | 30 | 28 | 103 |
| | | | 5 | 10 | 419A | 11.5 | 13.8 | 35 | 35 | 34 | 108 | 36 | 40 | 36 | 110 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 40 | 40 | 39 | 112 | 42 | 45 | 41 | 114 |
| | | | 5 | 10 | 421A | 25.0 | 30.1 | 55 | 60 | 52 | 124 | 57 | 60 | 55 | 126 |
| | | HIGH | 5 | 10 | — | — | — | 18 | 20 | 18 | 97 | 20 | 25 | 20 | 99 |
| | | | 5 | 10 | 418A | 6.0 | 7.2 | 27 | 30 | 27 | 104 | 29 | 30 | 29 | 106 |
| | | | 5 | 10 | 419A | 11.5 | 13.8 | 35 | 35 | 34 | 111 | 37 | 40 | 36 | 113 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 40 | 40 | 39 | 115 | 42 | 45 | 41 | 117 |
| | | | 5 | 10 | 421A | 25.0 | 30.1 | 56 | 60 | 53 | 127 | 57 | 60 | 55 | 129 |
| | 575-3-60 | MED | 5 | — | — | — | — | 14 | 15 | 14 | 71 | 18 | 20 | 19 | 75 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 36 | 40 | 34 | 88 | 39 | 40 | 38 | 92 |
| | | | 5 | — | 426A | 24.8 | 23.9 | 44 | 45 | 42 | 95 | 48 | 50 | 46 | 99 |
| | | HIGH | 5 | — | — | — | — | 15 | 20 | 15 | 72 | 18 | 20 | 19 | 76 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 36 | 40 | 35 | 89 | 40 | 40 | 39 | 93 |
| | | | 5 | — | 426A | 24.8 | 23.9 | 44 | 45 | 42 | 96 | 48 | 50 | 47 | 100 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM07 Unit Wire/Fuse Sizing Electrical Data (cont)

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | ELECTRIC HEATER | | | WITH PWRD C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M07 | 208/ 230-3-60 | MED | 5 | — | — | — | 39 | 50 | 41 | 189 | 43 | 50 | 45 | 193 |
| | | | 5 | 410A | 4.9/6.5 | 13.6/15.6 | 56/58 | 60/60 | 56/59 | 203/205 | 60/62 | 60/70 | 61/63 | 207/209 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 66/70 | 70/70 | 66/69 | 211/214 | 70/74 | 70/80 | 70/74 | 215/218 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 81/87 | 90/90 | 79/85 | 222/228 | 85/91 | 90/100 | 83/89 | 226/232 |
| | | | 5 | 413A | 15.8/21.0 | 43.8/50.5 | 94/102 | 100/110 | 91/99 | 233/240 | 98/106 | 100/110 | 95/103 | 237/244 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 104/114 | 110/125 | 101/110 | 241/249 | 108/118 | 110/125 | 105/114 | 245/253 |
| | | HIGH | 5 | — | — | — | 40 | 50 | 42 | 191 | 44 | 50 | 46 | 195 |
| | | | 5 | 410A | 4.9/6.5 | 13.6/15.6 | 57/60 | 60/60 | 58/60 | 205/207 | 61/63 | 70/70 | 62/64 | 209/211 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 67/71 | 70/80 | 67/71 | 213/216 | 71/75 | 80/80 | 71/75 | 217/220 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 82/88 | 90/90 | 80/86 | 224/230 | 86/92 | 90/100 | 85/91 | 228/234 |
| | | | 5 | 413A | 15.8/21.0 | 43.8/50.5 | 95/103 | 100/110 | 92/100 | 235/242 | 99/107 | 100/110 | 97/104 | 239/246 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 105/115 | 110/125 | 102/111 | 243/251 | 109/119 | 110/125 | 106/115 | 247/255 |
| | 460-3-60 | MED | 5 | — | — | — | 20 | 25 | 20 | 96 | 21 | 25 | 22 | 98 |
| | | | 5 | 418A | 6.0 | 7.2 | 29 | 30 | 29 | 103 | 30 | 30 | 31 | 105 |
| | | | 5 | 419A | 11.5 | 13.8 | 37 | 40 | 36 | 110 | 39 | 40 | 38 | 112 |
| | | | 5 | 420A | 15.0 | 18.0 | 42 | 45 | 41 | 114 | 44 | 45 | 43 | 116 |
| | | | 5 | 421A | 25.0 | 30.1 | 57 | 60 | 55 | 126 | 59 | 60 | 57 | 128 |
| | | HIGH | 5 | — | — | — | 20 | 25 | 21 | 99 | 22 | 25 | 23 | 101 |
| | | | 5 | 418A | 6.0 | 7.2 | 29 | 30 | 29 | 106 | 31 | 35 | 31 | 108 |
| | | | 5 | 419A | 11.5 | 13.8 | 37 | 40 | 37 | 113 | 39 | 40 | 39 | 115 |
| | | | 5 | 420A | 15.0 | 18.0 | 43 | 45 | 42 | 117 | 44 | 45 | 44 | 119 |
| | | | 5 | 421A | 25.0 | 30.1 | 58 | 60 | 56 | 129 | 60 | 60 | 58 | 131 |
| | 575-3-60 | MED | 5 | — | — | — | 16 | 20 | 16 | 73 | 20 | 25 | 20 | 77 |
| | | | 5 | 425A | 18.0 | 17.3 | 37 | 40 | 36 | 90 | 41 | 45 | 40 | 94 |
| | | | 5 | 426A | 24.8 | 23.9 | 46 | 50 | 44 | 97 | 49 | 50 | 48 | 101 |
| | | HIGH | 5 | — | — | — | 16 | 20 | 17 | 74 | 20 | 25 | 21 | 78 |
| | | | 5 | 425A | 18.0 | 17.3 | 38 | 40 | 37 | 91 | 42 | 45 | 41 | 95 |
| | | | 5 | 426A | 24.8 | 23.9 | 46 | 50 | 44 | 98 | 50 | 50 | 49 | 102 |

# Electrical data (cont)

## 50GEQM08 Unit Wire/Fuse Sizing Electrical Data

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA[a] | ELECTRIC HEATER | | | NO C.O. OR UNPWR C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | | CRHEATER ****00 | NOM. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M08 | 208/230-3-60 | MED | 5 | 10 | — | — | — | 43 | 50 | 44 | 267 | 46 | 60 | 48 | 271 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 70/74 | 70/80 | 69/73 | 289/292 | 74/78 | 80/80 | 73/77 | 293/296 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 84/91 | 90/100 | 82/88 | 300/306 | 88/95 | 90/100 | 87/93 | 304/310 |
| | | | 5 | 10 | 414A | 18.8/25.0 | 52.1/60.1 | 108/118 | 110/125 | 104/113 | 319/327 | 112/122 | 125/125 | 108/117 | 323/331 |
| | | | 5 | 10 | 415A | 24.0/32.0 | 66.7/77.0 | 126/139 | 150/150 | 121/132 | 334/344 | 130/143 | 150/150 | 125/137 | 338/348 |
| | | | 5 | 10 | 416A | 31.8/42.4 | 88.4/102.0 | 153/170 | 175/175 | 146/161 | 355/369 | 157/174 | 175/175 | 150/166 | 359/373 |
| | | HIGH | 5 | 10 | — | — | — | 44 | 50 | 45 | 269 | 48 | 60 | 50 | 273 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 71/75 | 80/80 | 70/74 | 291/294 | 75/79 | 80/80 | 75/78 | 295/298 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 86/92 | 90/100 | 84/89 | 302/308 | 89/96 | 90/100 | 88/94 | 306/312 |
| | | | 5 | 10 | 414A | 18.8/25.0 | 52.1/60.1 | 109/119 | 110/125 | 105/114 | 321/329 | 113/123 | 125/125 | 109/119 | 325/333 |
| | | | 5 | 10 | 415A | 24.0/32.0 | 66.7/77.0 | 127/140 | 150/150 | 122/134 | 336/346 | 131/144 | 150/150 | 126/138 | 340/350 |
| | | | 5 | 10 | 416A | 31.8/42.4 | 88.4/102.0 | 154/171 | 175/175 | 147/162 | 357/371 | 158/175 | 175/175 | 151/167 | 361/375 |
| | 460-3-60 | MED | 5 | 10 | — | — | — | 20 | 25 | 20 | 119 | 22 | 25 | 22 | 121 |
| | | | 5 | 10 | 419A | 11.5 | 13.8 | 37 | 40 | 36 | 133 | 39 | 40 | 38 | 135 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 42 | 45 | 41 | 137 | 44 | 45 | 43 | 139 |
| | | | 5 | 10 | 421A | 25.0 | 30.1 | 57 | 60 | 55 | 149 | 59 | 60 | 57 | 151 |
| | | | 5 | 10 | 422A | 33.0 | 39.7 | 69 | 70 | 66 | 159 | 71 | 80 | 68 | 161 |
| | | HIGH | 5 | 10 | — | — | — | 20 | 25 | 21 | 122 | 22 | 25 | 23 | 124 |
| | | | 5 | 10 | 419A | 11.5 | 13.8 | 38 | 40 | 36 | 136 | 39 | 40 | 39 | 138 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 43 | 45 | 41 | 140 | 45 | 45 | 43 | 142 |
| | | | 5 | 10 | 421A | 25.0 | 30.1 | 58 | 60 | 55 | 152 | 60 | 60 | 57 | 154 |
| | | | 5 | 10 | 422A | 33.0 | 39.7 | 70 | 70 | 66 | 162 | 72 | 80 | 68 | 164 |
| | 575-3-60 | MED | 5 | — | — | — | — | 17 | 20 | 17 | 81 | 20 | 25 | 21 | 85 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 38 | 40 | 37 | 98 | 42 | 45 | 41 | 102 |
| | | | 5 | — | 427A | 36.0 | 34.6 | 60 | 60 | 57 | 116 | 64 | 70 | 61 | 120 |
| | | HIGH | 5 | — | — | — | — | 17 | 20 | 17 | 82 | 21 | 25 | 22 | 86 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 39 | 40 | 37 | 99 | 43 | 45 | 42 | 103 |
| | | | 5 | — | 427A | 36.0 | 34.6 | 60 | 60 | 57 | 117 | 64 | 70 | 62 | 121 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM08 Unit Wire/Fuse Sizing Electrical Data (cont)

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | ELECTRIC HEATER | | | WITH PWRD C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M08 | 208/ 230-3-60 | MED | 5 | — | — | — | 47 | 60 | 49 | 272 | 51 | 60 | 54 | 276 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 75/79 | 80/80 | 74/78 | 294/297 | 78/83 | 80/90 | 79/83 | 298/301 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 89/96 | 90/100 | 88/94 | 305/311 | 93/99 | 100/100 | 92/98 | 309/315 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 113/123 | 125/125 | 109/119 | 324/332 | 116/126 | 125/150 | 114/123 | 328/336 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 131/144 | 150/150 | 126/138 | 339/349 | 135/148 | 150/150 | 131/142 | 343/353 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 158/175 | 175/175 | 151/167 | 360/374 | 162/179 | 175/200 | 155/171 | 364/378 |
| | | HIGH | 5 | — | — | — | 49 | 60 | 51 | 274 | 52 | 60 | 55 | 278 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 76/80 | 80/80 | 76/79 | 296/299 | 79/84 | 80/90 | 80/84 | 300/303 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 90/97 | 90/100 | 89/95 | 307/313 | 94/100 | 100/110 | 93/99 | 311/317 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 114/124 | 125/125 | 111/120 | 326/334 | 117/127 | 125/150 | 115/124 | 330/338 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 132/145 | 150/150 | 127/139 | 341/351 | 136/149 | 150/150 | 132/144 | 345/355 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 159/176 | 175/200 | 152/168 | 362/376 | 163/180 | 175/200 | 157/172 | 366/380 |
| | 460-3-60 | MED | 5 | — | — | — | 22 | 25 | 23 | 121 | 24 | 30 | 25 | 123 |
| | | | 5 | 419A | 11.5 | 13.8 | 39 | 40 | 38 | 135 | 41 | 45 | 40 | 137 |
| | | | 5 | 420A | 15.0 | 18.0 | 44 | 45 | 43 | 139 | 46 | 50 | 45 | 141 |
| | | | 5 | 421A | 25.0 | 30.1 | 60 | 60 | 57 | 151 | 61 | 70 | 59 | 153 |
| | | | 5 | 422A | 33.0 | 39.7 | 72 | 80 | 68 | 161 | 73 | 80 | 70 | 163 |
| | | HIGH | 5 | — | — | — | 22 | 25 | 23 | 124 | 24 | 30 | 25 | 126 |
| | | | 5 | 419A | 11.5 | 13.8 | 40 | 40 | 39 | 138 | 42 | 45 | 41 | 140 |
| | | | 5 | 420A | 15.0 | 18.0 | 45 | 45 | 44 | 142 | 47 | 50 | 46 | 144 |
| | | | 5 | 421A | 25.0 | 30.1 | 60 | 60 | 58 | 154 | 62 | 70 | 60 | 156 |
| | | | 5 | 422A | 33.0 | 39.7 | 72 | 80 | 69 | 164 | 74 | 80 | 71 | 166 |
| | 575-3-60 | MED | 5 | — | — | — | 18 | 20 | 19 | 83 | 22 | 25 | 23 | 87 |
| | | | 5 | 425A | 18.0 | 17.3 | 40 | 40 | 39 | 100 | 44 | 45 | 43 | 104 |
| | | | 5 | 427A | 36.0 | 34.6 | 62 | 70 | 59 | 118 | 65 | 70 | 63 | 122 |
| | | HIGH | 5 | — | — | — | 19 | 25 | 19 | 84 | 23 | 25 | 24 | 88 |
| | | | 5 | 425A | 18.0 | 17.3 | 40 | 45 | 39 | 101 | 44 | 45 | 44 | 105 |
| | | | 5 | 427A | 36.0 | 34.6 | 62 | 70 | 59 | 119 | 66 | 70 | 63 | 123 |

# Electrical data (cont)

## 50GEQM09 Unit Wire/Fuse Sizing Electrical Data[a]

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | ELECTRIC HEATER | | | NO C.O. OR UNPWR C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M09 | 208/230-3-60 | MED | 5 | — | — | — | 50 | 60 | 52 | 274 | 54 | 60 | 56 | 278 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 77/82 | 80/90 | 77/81 | 296/299 | 81/85 | 90/90 | 81/85 | 300/303 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 92/98 | 100/100 | 90/96 | 307/313 | 96/102 | 100/110 | 95/101 | 311/317 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 115/125 | 125/125 | 112/121 | 326/334 | 119/129 | 125/150 | 116/125 | 330/338 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 134/147 | 150/150 | 129/141 | 341/351 | 137/150 | 150/150 | 133/145 | 345/355 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 161/178 | 175/200 | 154/169 | 362/376 | 165/182 | 175/200 | 158/174 | 366/380 |
| | | HIGH | 5 | — | — | — | 51 | 60 | 53 | 276 | 55 | 60 | 58 | 280 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 79/83 | 80/90 | 78/82 | 298/301 | 82/86 | 90/90 | 83/86 | 302/305 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 93/100 | 100/100 | 92/98 | 309/315 | 97/103 | 100/110 | 96/102 | 313/319 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 117/127 | 125/150 | 113/122 | 328/336 | 120/130 | 125/150 | 118/127 | 332/340 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 135/148 | 150/150 | 130/142 | 343/353 | 139/151 | 150/175 | 134/146 | 347/357 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 162/179 | 175/200 | 155/171 | 364/378 | 166/183 | 175/200 | 159/175 | 368/382 |
| | 460-3-60 | MED | 5 | — | — | — | 27 | 30 | 28 | 119 | 29 | 35 | 30 | 121 |
| | | | 5 | 419A | 11.5 | 13.8 | 44 | 45 | 44 | 133 | 46 | 50 | 46 | 135 |
| | | | 5 | 420A | 15.0 | 18.0 | 50 | 50 | 49 | 137 | 51 | 60 | 51 | 139 |
| | | | 5 | 421A | 25.0 | 30.1 | 65 | 70 | 63 | 149 | 66 | 70 | 65 | 151 |
| | | | 5 | 422A | 33.0 | 39.7 | 77 | 80 | 74 | 159 | 78 | 80 | 76 | 161 |
| | | HIGH | 5 | — | — | — | 28 | 30 | 29 | 122 | 29 | 35 | 31 | 124 |
| | | | 5 | 419A | 11.5 | 13.8 | 45 | 45 | 45 | 136 | 47 | 50 | 47 | 138 |
| | | | 5 | 420A | 15.0 | 18.0 | 50 | 50 | 49 | 140 | 52 | 60 | 52 | 142 |
| | | | 5 | 421A | 25.0 | 30.1 | 65 | 70 | 63 | 152 | 67 | 70 | 65 | 154 |
| | | | 5 | 422A | 33.0 | 39.7 | 77 | 80 | 74 | 162 | 79 | 80 | 76 | 164 |
| | 575-3-60 | MED | 5 | — | — | — | 25 | 30 | 26 | 100 | 29 | 35 | 30 | 104 |
| | | | 5 | 425A | 18.0 | 17.3 | 47 | 50 | 46 | 117 | 51 | 60 | 50 | 121 |
| | | | 5 | 427A | 36.0 | 34.6 | 68 | 70 | 66 | 135 | 72 | 80 | 70 | 139 |
| | | HIGH | 5 | — | — | — | 26 | 30 | 27 | 101 | 29 | 35 | 31 | 105 |
| | | | 5 | 425A | 18.0 | 17.3 | 47 | 50 | 47 | 118 | 51 | 60 | 51 | 122 |
| | | | 5 | 427A | 36.0 | 34.6 | 69 | 70 | 66 | 136 | 73 | 80 | 71 | 140 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 50GEQM09 units due to control box constraints.

# Electrical data (cont)

## 50GEQM09 Unit Wire/Fuse Sizing Electrical Data[a] (cont)

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | ELECTRIC HEATER | | | WITH PWRD C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M09 | 208/230-3-60 | MED | 5 | — | — | — | 55 | 60 | 58 | 279 | 59 | 70 | 62 | 283 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 82/86 | 90/90 | 82/86 | 301/304 | 86/90 | 90/100 | 87/91 | 305/308 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 97/103 | 100/110 | 96/102 | 312/318 | 101/107 | 110/110 | 100/106 | 316/322 |
| | | | 5 | 414A | 18.8/25.0 | 52.1/60.1 | 120/130 | 125/150 | 117/127 | 331/339 | 124/134 | 125/150 | 122/131 | 335/343 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 138/151 | 150/175 | 134/146 | 346/356 | 142/155 | 150/175 | 139/150 | 350/360 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 166/183 | 175/200 | 159/175 | 367/381 | 169/186 | 175/200 | 164/179 | 371/385 |
| | | HIGH | 5 | — | — | — | — | 56 | 70 | 59 | 281 | 60 | 70 | 63 |
| | | | 5 | 411A | 411A | 7.8/10.4 | 21.7/25.0 | 83/87 | 90/90 | 84/88 | 303/306 | 87/91 | 90/100 | 88/92 |
| | | | 5 | 412A | 412A | 12.0/16.0 | 33.4/38.5 | 98/104 | 100/110 | 97/103 | 314/320 | 102/108 | 110/110 | 102/107 |
| | | | 5 | 414A | 414A | 18.8/25.0 | 52.1/60.1 | 121/131 | 125/150 | 119/128 | 333/341 | 125/135 | 125/150 | 123/132 |
| | | | 5 | 415A | 415A | 24.0/32.0 | 66.7/77.0 | 140/152 | 150/175 | 135/147 | 348/358 | 143/156 | 150/175 | 140/152 |
| | | | 5 | 416A | 416A | 31.8/42.4 | 88.4/102.0 | 167/184 | 175/200 | 160/176 | 369/383 | 171/188 | 175/200 | 165/180 |
| | 460-3-60 | MED | 5 | — | — | — | 29 | 35 | 31 | 121 | 31 | 35 | 33 | 123 |
| | | | 5 | 419A | 11.5 | 13.8 | 46 | 50 | 47 | 135 | 48 | 50 | 49 | 137 |
| | | | 5 | 420A | 15.0 | 18.0 | 52 | 60 | 51 | 139 | 54 | 60 | 53 | 141 |
| | | | 5 | 421A | 25.0 | 30.1 | 67 | 70 | 65 | 151 | 69 | 70 | 67 | 153 |
| | | | 5 | 422A | 33.0 | 39.7 | 79 | 80 | 76 | 161 | 81 | 90 | 78 | 163 |
| | | HIGH | 5 | — | — | — | 30 | 35 | 31 | 124 | 32 | 35 | 33 | 126 |
| | | | 5 | 419A | 11.5 | 13.8 | 47 | 50 | 47 | 138 | 49 | 50 | 49 | 140 |
| | | | 5 | 420A | 15.0 | 18.0 | 52 | 60 | 52 | 142 | 54 | 60 | 54 | 144 |
| | | | 5 | 421A | 25.0 | 30.1 | 67 | 70 | 66 | 154 | 69 | 70 | 68 | 156 |
| | | | 5 | 422A | 33.0 | 39.7 | 79 | 80 | 77 | 164 | 81 | 90 | 79 | 166 |
| | 575-3-60 | MED | 5 | — | — | — | 27 | 30 | 28 | 102 | 31 | 35 | 32 | 106 |
| | | | 5 | 425A | 18.0 | 17.3 | 48 | 50 | 48 | 119 | 52 | 60 | 52 | 123 |
| | | | 5 | 427A | 36.0 | 34.6 | 70 | 70 | 68 | 137 | 74 | 80 | 72 | 141 |
| | | HIGH | 5 | — | — | — | 27 | 30 | 29 | 103 | 31 | 35 | 33 | 107 |
| | | | 5 | 425A | 18.0 | 17.3 | 49 | 50 | 49 | 120 | 53 | 60 | 53 | 124 |
| | | | 5 | 427A | 36.0 | 34.6 | 71 | 80 | 68 | 138 | 74 | 80 | 73 | 142 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 50GEQM09 units due to control box constraints.

# Electrical data (cont)

## 50GEQM12 Unit Wire/Fuse Sizing Electrical Data

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | HIGH SCCR kA[a] | ELECTRIC HEATER | | | NO C.O. OR UNPWR C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M12 | 208/230-3-60 | MED | 5 | 10 | — | — | — | 51 | 60 | 52 | 292 | 55 | 60 | 57 | 296 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 78/82 | 80/90 | 77/81 | 314/317 | 82/86 | 90/100 | 82/85 | 318/321 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 93/99 | 100/100 | 91/96 | 325/331 | 97/103 | 100/110 | 95/101 | 329/335 |
| | | | 5 | 10 | 415A | 24.0/32.0 | 66.7/77.0 | 135/147 | 150/150 | 129/141 | 359/369 | 138/151 | 150/175 | 133/145 | 363/373 |
| | | | 5 | 10 | 416A | 31.8/42.4 | 88.4/102.0 | 162/179 | 175/200 | 154/170 | 380/394 | 165/182 | 175/200 | 158/174 | 384/398 |
| | | | 5 | 10 | 417A | 37.6/50.0 | 104.2/120.3 | 181/171 | 200/200 | 172/191 | 396/412 | 185/175 | 200/200 | 176/195 | 400/416 |
| | | HIGH | 5 | 10 | — | — | — | 57 | 70 | 59 | 301 | 61 | 80 | 64 | 305 |
| | | | 5 | 10 | 411A | 7.8/10.4 | 21.7/25.0 | 84/89 | 90/100 | 84/88 | 323/326 | 88/92 | 100/100 | 89/92 | 327/330 |
| | | | 5 | 10 | 412A | 12.0/16.0 | 33.4/38.5 | 99/105 | 100/110 | 98/104 | 334/340 | 103/109 | 110/110 | 102/108 | 338/344 |
| | | | 5 | 10 | 415A | 24.0/32.0 | 66.7/77.0 | 141/154 | 150/175 | 136/148 | 368/378 | 145/157 | 150/175 | 140/152 | 372/382 |
| | | | 5 | 10 | 416A | 31.8/42.4 | 88.4/102.0 | 168/185 | 175/200 | 161/177 | 389/403 | 172/189 | 175/200 | 165/181 | 393/407 |
| | | | 5 | 10 | 417A | 37.6/50.0 | 104.2/120.3 | 188/178 | 200/200 | 179/198 | 405/421 | 191/181 | 200/200 | 184/202 | 409/425 |
| | 460-3-60 | MED | 5 | 10 | — | — | — | 24 | 30 | 24 | 132 | 25 | 30 | 26 | 134 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 46 | 50 | 45 | 150 | 48 | 50 | 47 | 152 |
| | | | 5 | 10 | 422A | 33.0 | 39.7 | 73 | 80 | 70 | 172 | 75 | 80 | 72 | 174 |
| | | | 5 | 10 | 423A | 41.7 | 50.2 | 86 | 90 | 82 | 182 | 88 | 90 | 84 | 184 |
| | | | 5 | 10 | 424A | 50.0 | 60.1 | 84 | 90 | 93 | 192 | 86 | 90 | 95 | 194 |
| | | HIGH | 5 | 10 | — | — | — | 26 | 30 | 27 | 136 | 28 | 30 | 29 | 138 |
| | | | 5 | 10 | 420A | 15.0 | 18.0 | 49 | 50 | 48 | 154 | 51 | 60 | 50 | 156 |
| | | | 5 | 10 | 422A | 33.0 | 39.7 | 76 | 80 | 73 | 176 | 78 | 80 | 75 | 178 |
| | | | 5 | 10 | 423A | 41.7 | 50.2 | 89 | 90 | 85 | 186 | 91 | 100 | 87 | 188 |
| | | | 5 | 10 | 424A | 50.0 | 60.1 | 86 | 90 | 96 | 196 | 88 | 90 | 98 | 198 |
| | 575-3-60 | MED | 5 | — | — | — | — | 19 | 25 | 20 | 96 | 23 | 30 | 24 | 100 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 41 | 45 | 40 | 113 | 45 | 45 | 44 | 117 |
| | | | 5 | — | 427A | 36.0 | 34.6 | 63 | 70 | 59 | 131 | 67 | 70 | 64 | 135 |
| | | | 5 | — | 428A | 50.0 | 48.1 | 68 | 70 | 75 | 144 | 71 | 80 | 79 | 148 |
| | | HIGH | 5 | — | — | — | — | 22 | 25 | 22 | 98 | 25 | 30 | 26 | 102 |
| | | | 5 | — | 425A | 18.0 | 17.3 | 43 | 45 | 42 | 115 | 47 | 50 | 46 | 119 |
| | | | 5 | — | 427A | 36.0 | 34.6 | 65 | 70 | 62 | 133 | 69 | 70 | 66 | 137 |
| | | | 5 | — | 428A | 50.0 | 48.1 | 70 | 80 | 77 | 146 | 73 | 80 | 82 | 150 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM12 Unit Wire/Fuse Sizing Electrical Data (cont)

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | STD SCCR kA | ELECTRIC HEATER | | | WITH PWRD C.O. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NO P.E. | | | | WITH P.E. (pwrd fr/unit) | | | |
| | | | | CRHEATER ****00 | Nom. (kW) | FLA | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | | MCA | FUSE or HACR BRKR | DISCONNECT SIZE | |
| | | | | | | | | | FLA | LRA | | | FLA | LRA |
| M12 | 208/230-3-60 | MED | 5 | — | — | — | 56 | 70 | 58 | 297 | 60 | 80 | 62 | 301 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 83/87 | 90/100 | 83/86 | 319/322 | 87/91 | 100/100 | 87/91 | 323/326 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 98/104 | 100/110 | 96/102 | 330/336 | 101/108 | 110/110 | 101/106 | 334/340 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 139/152 | 150/175 | 134/146 | 364/374 | 143/156 | 150/175 | 139/151 | 368/378 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 166/183 | 175/200 | 159/175 | 385/399 | 170/187 | 175/200 | 164/179 | 389/403 |
| | | | 5 | 417A | 37.6/50.0 | 104.2/120.3 | 186/176 | 200/200 | 178/196 | 401/417 | 190/180 | 200/200 | 182/200 | 405/421 |
| | | HIGH | 5 | — | — | — | 62 | 80 | 65 | 306 | 66 | 80 | 69 | 310 |
| | | | 5 | 411A | 7.8/10.4 | 21.7/25.0 | 89/93 | 100/100 | 90/94 | 328/331 | 93/97 | 100/100 | 94/98 | 332/335 |
| | | | 5 | 412A | 12.0/16.0 | 33.4/38.5 | 104/110 | 110/110 | 103/109 | 339/345 | 108/114 | 110/125 | 108/114 | 343/349 |
| | | | 5 | 415A | 24.0/32.0 | 66.7/77.0 | 146/158 | 150/175 | 142/153 | 373/383 | 149/162 | 150/175 | 146/158 | 377/387 |
| | | | 5 | 416A | 31.8/42.4 | 88.4/102.0 | 173/190 | 175/200 | 167/182 | 394/408 | 176/193 | 200/200 | 171/187 | 398/412 |
| | | | 5 | 417A | 37.6/50.0 | 104.2/120.3 | 192/182 | 200/200 | 185/203 | 410/426 | 196/186 | 200/200 | 189/208 | 414/430 |
| | 460-3-60 | MED | 5 | — | — | — | 26 | 30 | 27 | 134 | 28 | 30 | 29 | 136 |
| | | | 5 | 420A | 15.0 | 18.0 | 48 | 50 | 47 | 152 | 50 | 50 | 49 | 154 |
| | | | 5 | 422A | 33.0 | 39.7 | 75 | 80 | 72 | 174 | 77 | 80 | 74 | 176 |
| | | | 5 | 423A | 41.7 | 50.2 | 89 | 90 | 84 | 184 | 90 | 90 | 86 | 186 |
| | | | 5 | 424A | 50.0 | 60.1 | 86 | 90 | 96 | 194 | 88 | 90 | 98 | 196 |
| | | HIGH | 5 | — | — | — | 28 | 35 | 30 | 138 | 30 | 35 | 32 | 140 |
| | | | 5 | 420A | 15.0 | 18.0 | 51 | 60 | 50 | 156 | 53 | 60 | 52 | 158 |
| | | | 5 | 422A | 33.0 | 39.7 | 78 | 80 | 75 | 178 | 80 | 80 | 77 | 180 |
| | | | 5 | 423A | 41.7 | 50.2 | 91 | 100 | 87 | 188 | 93 | 100 | 89 | 190 |
| | | | 5 | 424A | 50.0 | 60.1 | 89 | 100 | 99 | 198 | 90 | 100 | 101 | 200 |
| | 575-3-60 | MED | 5 | — | — | — | 21 | 25 | 22 | 98 | 25 | 30 | 26 | 102 |
| | | | 5 | 425A | 18.0 | 17.3 | 43 | 45 | 42 | 115 | 47 | 50 | 46 | 119 |
| | | | 5 | 427A | 36.0 | 34.6 | 64 | 70 | 61 | 133 | 68 | 70 | 66 | 137 |
| | | | 5 | 428A | 50.0 | 48.1 | 69 | 80 | 77 | 146 | 73 | 80 | 81 | 150 |
| | | HIGH | 5 | — | — | — | 23 | 30 | 24 | 100 | 27 | 30 | 28 | 104 |
| | | | 5 | 425A | 18.0 | 17.3 | 45 | 45 | 44 | 117 | 49 | 50 | 48 | 121 |
| | | | 5 | 427A | 36.0 | 34.6 | 67 | 70 | 64 | 135 | 70 | 70 | 68 | 139 |
| | | | 5 | 428A | 50.0 | 48.1 | 71 | 80 | 79 | 148 | 75 | 80 | 84 | 152 |

# Electrical data (cont)

## 50GEQM07 Electric Heat Data — Without Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M07 | 208/230-3-60 | MED | CRHEATER410A00 | 6.5 | 5 | 4.9/6.0 | 16.7/20.4 | 047 | 047 | 047 | 049 |
| | | | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER413A00 | 21.0 | 5 | 15.8/19.3 | 53.8/65.8 | 051 | 051 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | HIGH | CRHEATER410A00 | 6.5 | 5 | 4.9/6.0 | 16.7/20.4 | 047 | 047 | 047 | 049 |
| | | | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER413A00 | 21.0 | 5 | 15.8/19.3 | 53.8/65.8 | 051 | 051 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | 460-3-60 | MED | CRHEATER418A00 | 6.0 | 5 | 5.5 | 18.8 | 047 | 047 | 047 | 047 |
| | | | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5 | 23.0 | 78.3 | 047 | 047 | 047 | 047 |
| | | HIGH | CRHEATER418A00 | 6.0 | 5 | 5.5 | 18.8 | 047 | 047 | 047 | 047 |
| | | | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5 | 23.0 | 78.3 | 047 | 047 | 047 | 047 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER426A00 | 24.8 | 5 | 22.8 | 77.7 | 047 | 047 | 047 | 047 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER426A00 | 24.8 | 5 | 22.8 | 77.7 | 047 | 047 | 047 | 047 |

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | HIGH SCCR kA[a] | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HSCCR SINGLE POINT OR JUNCTION KIT P/N | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) |
| M07 | 208/230-3-60 | MED | CRHEATER410A00 | 6.5 | 10 | 4.9/6.0 | 16.7/20.4 | 067 | 067 |
| | | | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER413A00 | 21.0 | 10 | 15.8/19.3 | 53.8/65.8 | 068 | 068 |
| | | | CRHEATER414A00 | 25.0 | 10 | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | | HIGH | CRHEATER410A00 | 6.5 | 10 | 4.9/6.0 | 16.7/20.4 | 067 | 067 |
| | | | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER413A00 | 21.0 | 10 | 15.8/19.3 | 53.8/65.8 | 068 | 068 |
| | | | CRHEATER414A00 | 25.0 | 10 | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | 460-3-60 | MED | CRHEATER418A00 | 6.0 | 10 | 5.5 | 18.8 | 067 | 067 |
| | | | CRHEATER419A00 | 11.5 | 10 | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15.0 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25.0 | 10 | 23.0 | 78.3 | 068 | 068 |
| | | HIGH | CRHEATER418A00 | 6.0 | 10 | 5.5 | 18.8 | 067 | 067 |
| | | | CRHEATER419A00 | 11.5 | 10 | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15.0 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25.0 | 10 | 23.0 | 78.3 | 068 | 068 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER426A00 | 24.8 | — | 22.8 | 77.7 | 068 | 068 |
| | | HIGH | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER426A00 | 24.8 | — | 22.8 | 77.7 | 068 | 068 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM07 Electric Heat Data — With Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M07 | 208/ 230-3-60 | MED | CRHEATER410A00 | 6.5 | 5.0 | 4.9/6.0 | 16.7/20.4 | 047 | 047 | 047 | 049 |
| | | | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER413A00 | 21.0 | 5.0 | 15.8/19.3 | 53.8/65.8 | 051 | 051 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | HIGH | CRHEATER410A00 | 6.5 | 5.0 | 4.9/6.0 | 16.7/20.4 | 047 | 047 | 047 | 049 |
| | | | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER413A00 | 21.0 | 5.0 | 15.8/19.3 | 53.8/65.8 | 051 | 051 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | 460-3-60 | MED | CRHEATER418A00 | 6.0 | 5.0 | 5.5 | 18.8 | 047 | 047 | 047 | 047 |
| | | | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 047 | 047 | 047 | 047 |
| | | HIGH | CRHEATER418A00 | 6.0 | 5.0 | 5.5 | 18.8 | 047 | 047 | 047 | 047 |
| | | | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 047 | 047 | 047 | 047 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER426A00 | 24.8 | 5.0 | 22.8 | 77.7 | 047 | 047 | 047 | 047 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER426A00 | 24.8 | 5.0 | 22.8 | 77.7 | 047 | 047 | 047 | 047 |

# Electrical data (cont)

## 50GEQM08 Electric Heat Data — Without Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M08 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER414A00 | 25 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32 | 5 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 053 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER414A00 | 25 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32 | 5 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 053 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25 | 5 | 23.0 | 78.3 | 047 | 047 | 047 | 052 |
| | | | CRHEATER422A00 | 33 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25 | 5 | 23.0 | 78.3 | 047 | 047 | 047 | 052 |
| | | | CRHEATER422A00 | 33 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36 | 5 | 33.1 | 112.8 | 047 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36 | 5 | 33.1 | 112.8 | 047 | 052 | 052 | 052 |

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | HIGH SCCR kA[a] | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HSCCR SINGLE POINT OR JUNCTION KIT P/N | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) |
| M08 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER414A00 | 25 | 10 | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | | | CRHEATER415A00 | 32 | 10 | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | 10 | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | | HIGH | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER414A00 | 25 | 10 | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | | | CRHEATER415A00 | 32 | 10 | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | 10 | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | 10 | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25 | 10 | 23.0 | 78.3 | 068 | 068 |
| | | | CRHEATER422A00 | 33 | 10 | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | 10 | 38.3 | 130.7 | 068 | 068 |
| | | HIGH | CRHEATER419A00 | 11.5 | 10 | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25 | 10 | 23.0 | 78.3 | 068 | 068 |
| | | | CRHEATER422A00 | 33 | 10 | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | 10 | 38.3 | 130.7 | 068 | 068 |
| | 575-3-60 | MED | CRHEATER425A00 | 18 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36 | — | 33.1 | 112.8 | 068 | 068 |
| | | HIGH | CRHEATER425A00 | 18 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36 | — | 33.1 | 112.8 | 068 | 068 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM08 Electric Heat Data — With Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M08 | 208/ 230-3-60 | MED | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 053 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 049 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 049 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 051 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 053 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 047 | 047 | 047 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 047 | 047 | 047 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 047 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 047 | 052 | 052 | 052 |

# Electrical data (cont)

## 50GEQM09 Electric Heat Data — Without Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M09 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 053 |
| | | | CRHEATER415A00 | 32.0 | 5 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 054 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER415A00 | 32.0 | 5 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 054 | 054 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5 | 23.0 | 78.3 | 052 | 052 | 052 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER419A00 | 11.5 | 5 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5 | 23.0 | 78.3 | 052 | 052 | 052 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | HIGH SCCR kA[a] | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HSCCR SINGLE POINT OR JUNCTION KIT P/N | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) |
| M09 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | — | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | — | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER414A00 | 25.0 | — | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | | | CRHEATER415A00 | 32.0 | — | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | — | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | | HIGH | CRHEATER411A00 | 10.4 | — | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | — | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER414A00 | 25.0 | — | 18.8/23.0 | 64.1/78.3 | 068 | 068 |
| | | | CRHEATER415A00 | 32.0 | — | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | — | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | — | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15.0 | — | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25.0 | — | 23.0 | 78.3 | 068 | 068 |
| | | | CRHEATER422A00 | 33.0 | — | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | — | 38.3 | 130.7 | 068 | 068 |
| | | HIGH | CRHEATER419A00 | 11.5 | — | 10.6 | 36.0 | 067 | 067 |
| | | | CRHEATER420A00 | 15.0 | — | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER421A00 | 25.0 | — | 23.0 | 78.3 | 068 | 068 |
| | | | CRHEATER422A00 | 33.0 | — | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | — | 38.3 | 130.7 | 068 | 068 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36.0 | — | 33.1 | 112.8 | 068 | 068 |
| | | HIGH | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36.0 | — | 33.1 | 112.8 | 068 | 068 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 50GEQM09 units due to control box constraints.

# Electrical data (cont)

## 50GEQM09 Electric Heat Data — With Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M09 | 208/ 230-3-60 | MED | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 049 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 049 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 051 | 053 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 051 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 053 | 054 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 051 | 051 |
| | | | CRHEATER414A00 | 25.0 | 5.0 | 18.8/23.0 | 64.1/78.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 054 | 054 |
| | 460-3-60 | MED | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 052 | 052 | 052 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER419A00 | 11.5 | 5.0 | 10.6 | 36.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER421A00 | 25.0 | 5.0 | 23.0 | 78.3 | 052 | 052 | 052 | 052 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |

# Electrical data (cont)

## 50GEQM12 Electric Heat Data — Without Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M12 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 054 | 054 |
| | | | CRHEATER417A00 | 50.0 | 5 | 37.6/45.9 | 128.1/156.7 | 053 | 053 | 054 | 054 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5 | 7.8/9.6 | 26.7/32.6 | 051 | 051 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5 | 12.0/14.7 | 41.0/50.1 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5 | 24.0/29.4 | 82.0/100.3 | 053 | 053 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5 | 31.8/38.9 | 108.7/132.9 | 054 | 054 | 054 | 054 |
| | | | CRHEATER417A00 | 50.0 | 5 | 37.6/45.9 | 128.1/156.7 | 054 | 054 | 054 | 054 |
| | 460-3-60 | MED | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER422A00 | 33.0 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | | CRHEATER424A00 | 50.0 | 5 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER420A00 | 15.0 | 5 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER422A00 | 33.0 | 5 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | | CRHEATER424A00 | 50.0 | 5 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | | CRHEATER428A00 | 50.0 | 5 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | | CRHEATER428A00 | 50.0 | 5 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | HIGH SCCR kA[a] | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | HSCCR SINGLE POINT OR JUNCTION KIT P/N | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) |
| M12 | 208/230-3-60 | MED | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER415A00 | 32.0 | 10 | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | 10 | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | | | CRHEATER417A00 | 50.0 | 10 | 37.6/45.9 | 128.1/156.7 | 069 | 069 |
| | | HIGH | CRHEATER411A00 | 10.4 | 10 | 7.8/9.6 | 26.7/32.6 | 067 | 067 |
| | | | CRHEATER412A00 | 16.0 | 10 | 12.0/14.7 | 41.0/50.1 | 067 | 067 |
| | | | CRHEATER415A00 | 32.0 | 10 | 24.0/29.4 | 82.0/100.3 | 068 | 068 |
| | | | CRHEATER416A00 | 42.4 | 10 | 31.8/38.9 | 108.7/132.9 | 069 | 069 |
| | | | CRHEATER417A00 | 50.0 | 10 | 37.6/45.9 | 128.1/156.7 | 069 | 069 |
| | 460-3-60 | MED | CRHEATER420A00 | 15.0 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER422A00 | 33.0 | 10 | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | 10 | 38.3 | 130.7 | 068 | 068 |
| | | | CRHEATER424A00 | 50.0 | 10 | 45.9 | 156.7 | 068 | 068 |
| | | HIGH | CRHEATER420A00 | 15.0 | 10 | 13.8 | 47.0 | 067 | 067 |
| | | | CRHEATER422A00 | 33.0 | 10 | 30.3 | 103.4 | 068 | 068 |
| | | | CRHEATER423A00 | 41.7 | 10 | 38.3 | 130.7 | 068 | 068 |
| | | | CRHEATER424A00 | 50.0 | 10 | 45.9 | 156.7 | 068 | 068 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36.0 | — | 33.1 | 112.8 | 068 | 068 |
| | | | CRHEATER428A00 | 50.0 | — | 45.9 | 156.7 | 068 | 068 |
| | | HIGH | CRHEATER425A00 | 18.0 | — | 16.5 | 56.4 | 067 | 067 |
| | | | CRHEATER427A00 | 36.0 | — | 33.1 | 112.8 | 068 | 068 |
| | | | CRHEATER428A00 | 50.0 | — | 45.9 | 156.7 | 068 | 068 |

NOTE(S):

a. High SCCR (Short Circuit Current Rating) is not available on 575-v units, or units with factory-installed powered convenience outlet or non-fused disconnect.

# Electrical data (cont)

## 50GEQM12 Electric Heat Data — With Non-Fused Disconnect

| 50GEQ UNIT SIZE | NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER P/N | NOM. (kW) | STD SCCR kA | APPLICATION (kW) | APPLICATION OUTPUT (MBH) | SINGLE POINT OR JUNCTION KIT P/N | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | No C.O. or Unpowered C.O. | | With PWRD C.O. | |
| | | | | | | | | No P.E. | With P.E. (pwrd fr/unit) | No P.E. | With P.E. (pwrd fr/unit) |
| M12 | 208/ 230-3-60 | MED | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 049 | 049 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 049 | 049 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 051 | 051 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 053 | 053 | 054 | 054 |
| | | | CRHEATER417A00 | 50.0 | 5.0 | 37.6/45.9 | 128.1/156.7 | 053 | 053 | 054 | 054 |
| | | HIGH | CRHEATER411A00 | 10.4 | 5.0 | 7.8/9.6 | 26.7/32.6 | 051 | 051 | 051 | 051 |
| | | | CRHEATER412A00 | 16.0 | 5.0 | 12.0/14.7 | 41.0/50.1 | 051 | 051 | 051 | 051 |
| | | | CRHEATER415A00 | 32.0 | 5.0 | 24.0/29.4 | 82.0/100.3 | 053 | 053 | 053 | 053 |
| | | | CRHEATER416A00 | 42.4 | 5.0 | 31.8/38.9 | 108.7/132.9 | 054 | 054 | 054 | 054 |
| | | | CRHEATER417A00 | 50.0 | 5.0 | 37.6/45.9 | 128.1/156.7 | 054 | 054 | 054 | 054 |
| | 460-3-60 | MED | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | | CRHEATER424A00 | 50.0 | 5.0 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER420A00 | 15.0 | 5.0 | 13.8 | 47.0 | 047 | 047 | 047 | 047 |
| | | | CRHEATER422A00 | 33.0 | 5.0 | 30.3 | 103.4 | 052 | 052 | 052 | 052 |
| | | | CRHEATER423A00 | 41.7 | 5.0 | 38.3 | 130.7 | 052 | 052 | 052 | 052 |
| | | | CRHEATER424A00 | 50.0 | 5.0 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | 575-3-60 | MED | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | | CRHEATER428A00 | 50.0 | 5.0 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |
| | | HIGH | CRHEATER425A00 | 18.0 | 5.0 | 16.5 | 56.4 | 047 | 047 | 047 | 047 |
| | | | CRHEATER427A00 | 36.0 | 5.0 | 33.1 | 112.8 | 052 | 052 | 052 | 052 |
| | | | CRHEATER428A00 | 50.0 | 5.0 | 45.9 | 156.7 | 052 | 052 | 052 | 052 |

# 50GEQ*07-08 Control Wiring Diagram, Electromechanical with POL224 Controller




NOTES:
1. UCB LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD LAYOUT.
2. TERMINAL BOARD JUMPERS 1-2 AND 3 ARE CUT FROM THE FACTORY.
3. REMOVE DESIGNATED JUMPERS ON TERMINAL BOARD WHEN ADDING SMOKE DETECTORS, OCCUPANCY AND REMOTE SHUTDOWN.
4. USE ABC AS COARSE AND POT AS FINE ADJUSTMENTS FOR SETTING HIGH FAN SPEED. LOW SPEED IS AN OFFSET BASED ON DIP SWITCHES.
5. 2-PIN LOW SPEED DIP SWITCH POSITIONS ARE FACTORY SET AS SHOWN. EXCEPTION ON 6 TON T2 UNITS THE SETTING IS "ON-OFF".
6. HARDSTART AND CUTOUT SET TO "MIN". JUMPER PIN ON TOP 2-PINS AS SHOWN.
7. THE ▪ WIRE COLOR IS FOR DIFFERENTIATION WITHIN THIS SCHEMATIC.
8. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC. 208/230V UNIT TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 208V TAP.
9. TB4 LOCATED IN HEAT SECTION.
10. TO CONVERT TO A SINGLE STAGE HEATER MOVE VIOLET WIRE AT TB4 TO CONNECT WITH WHITE WIRE.
11. CONTROL BOARDS SHOWN HERE ARE IN THE UNPOWERED STATE.

HP DIP SWITCH SETTINGS

(DEFAULT)

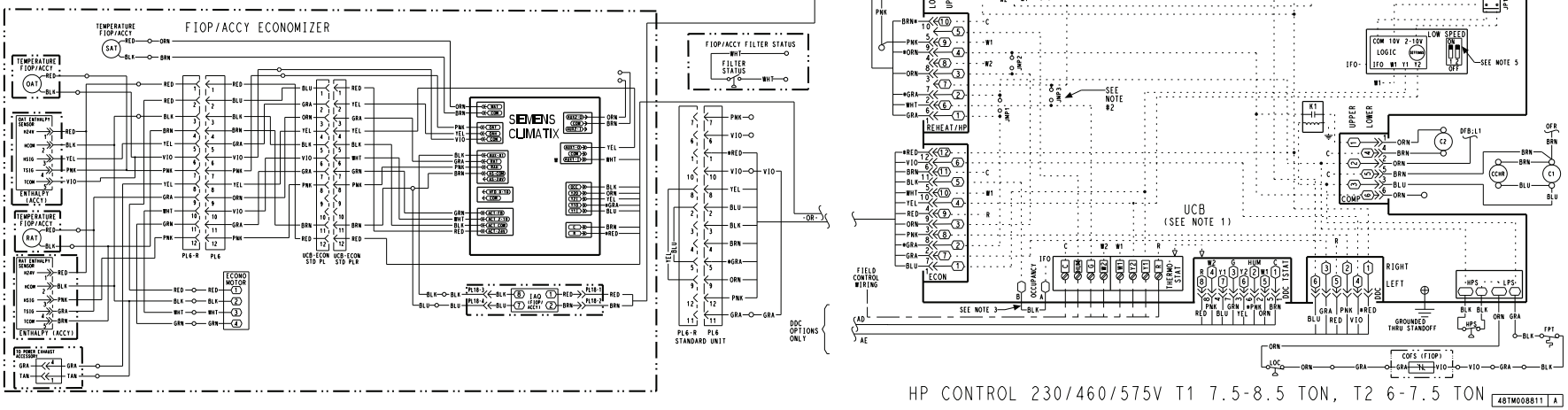
30 MINUTES 60 MINUTES 90 MINUTES 120 MINUTES

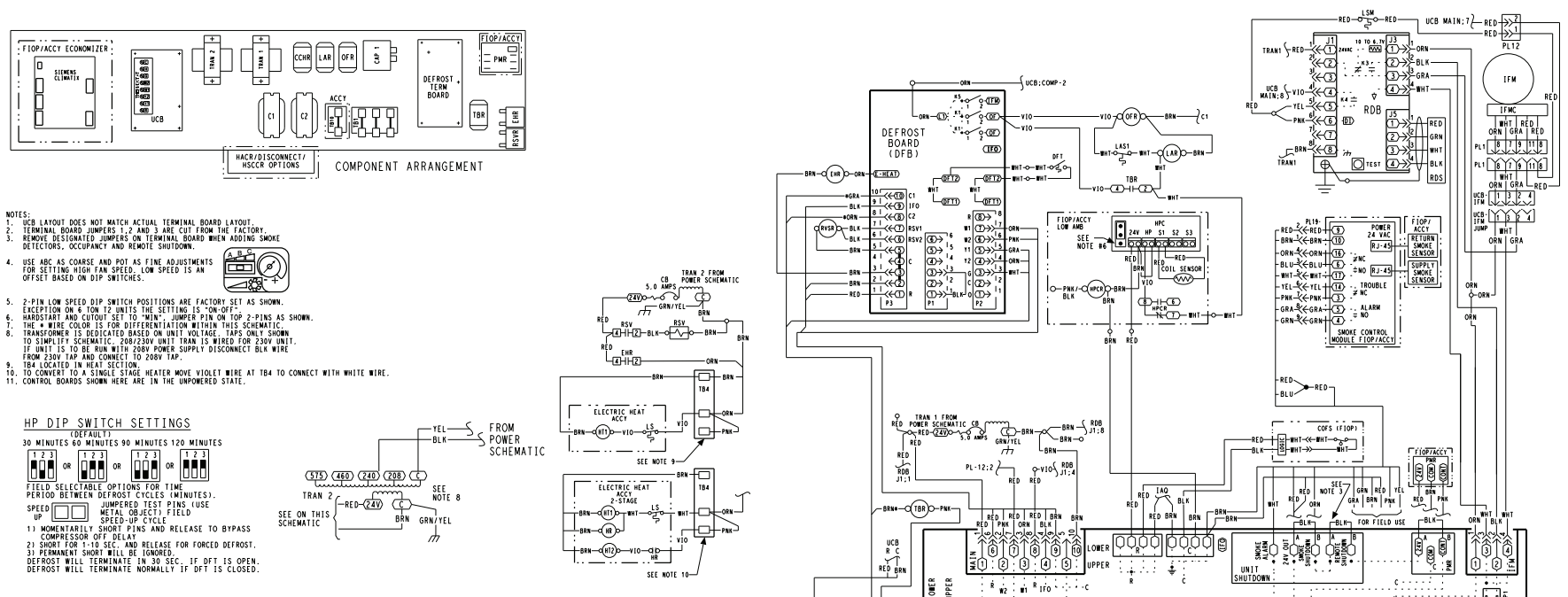
FIELD SELECTABLE OPTIONS FOR TIME PERIOD BETWEEN DEFROST CYCLES (MINUTES).

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

1) MOMENTARILY SHORT PINS AND RELEASE TO BYPASS COMPRESSOR OFF DELAY
2) SHORT FOR 1-10 SEC. AND RELEASE FOR FORCED DEFROST.
3) PERMANENT SHORT WILL BE IGNORED.

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



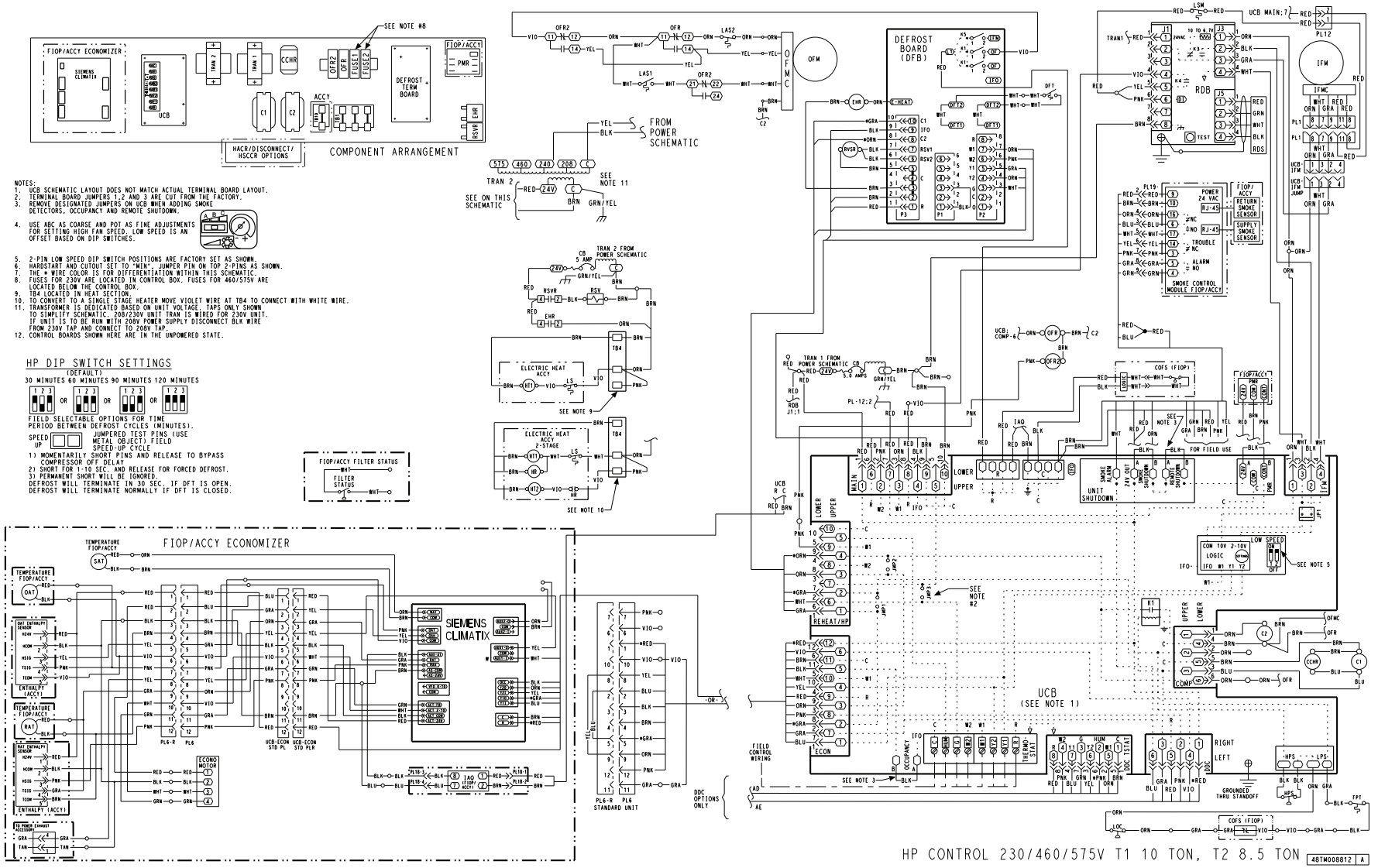




HP CONTROL 230/460/575V T1 7.5-8.5 TON, T2 6-7.5 TON

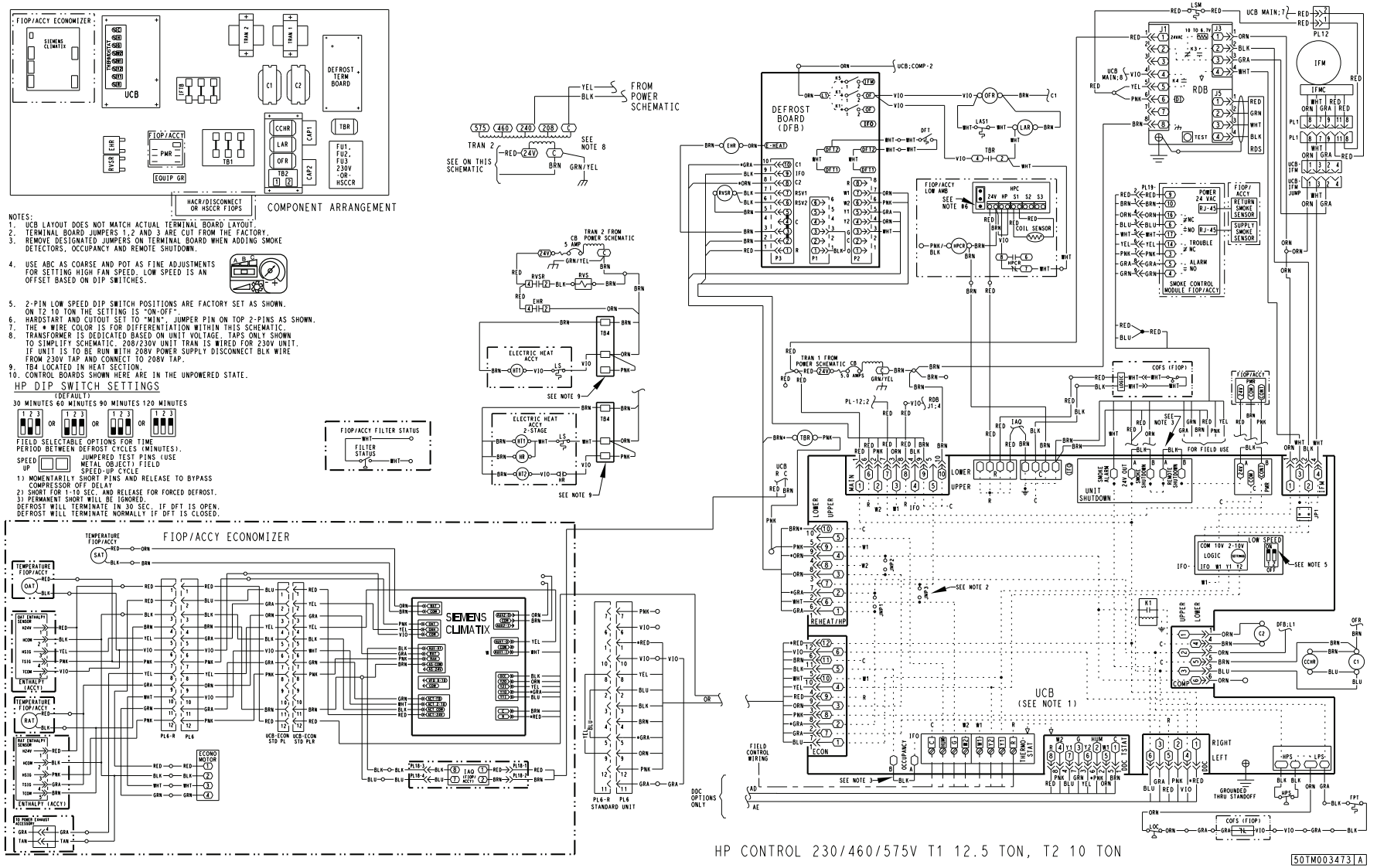
48TM008811 A

Carrier

# 50GEQ*09 Control Wiring Diagram, Electromechanical with POL224 Controller

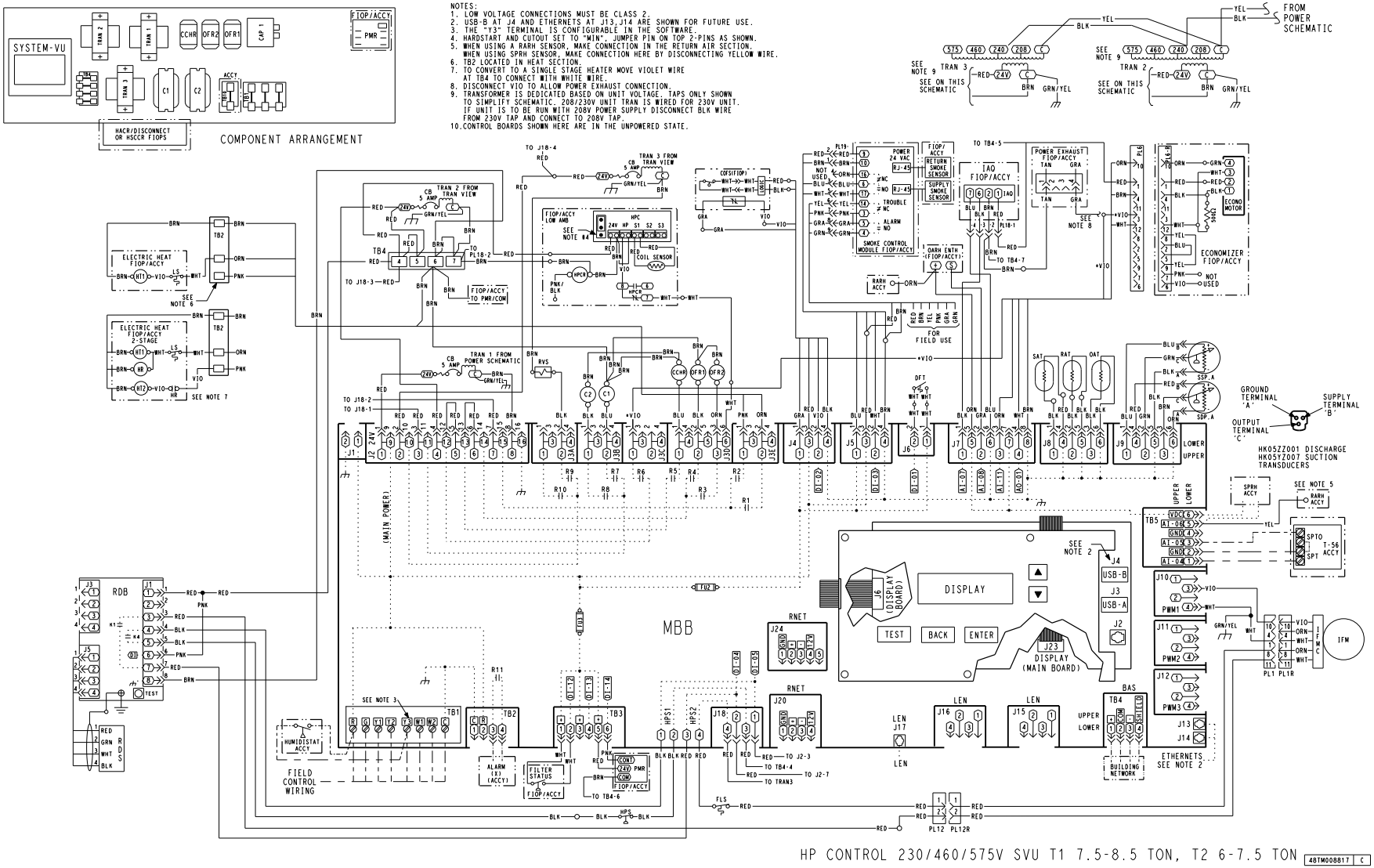


# 50GEQ*12 Control Wiring Diagram, Electromechanical with POL224 Controller

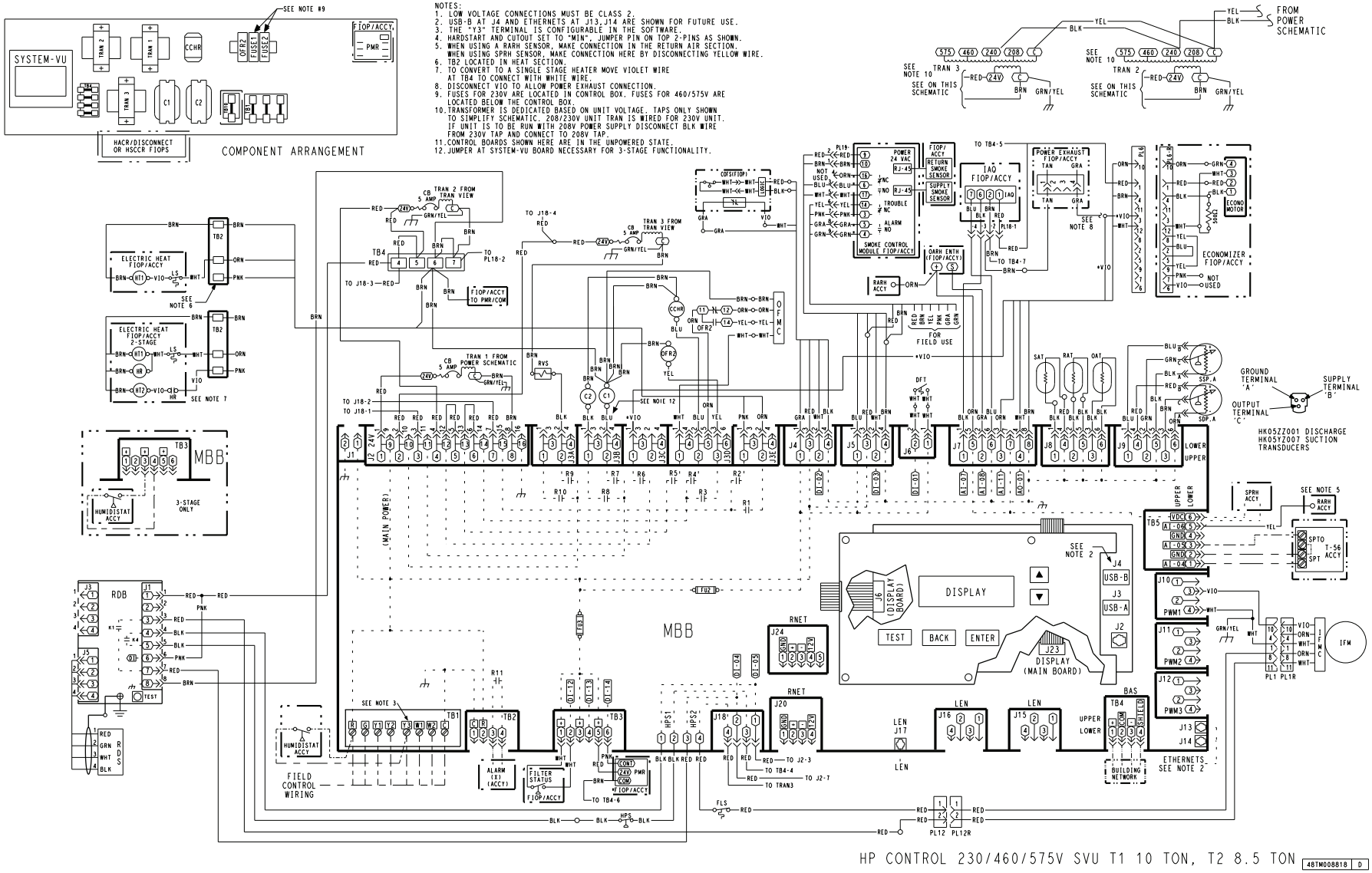



Carrier

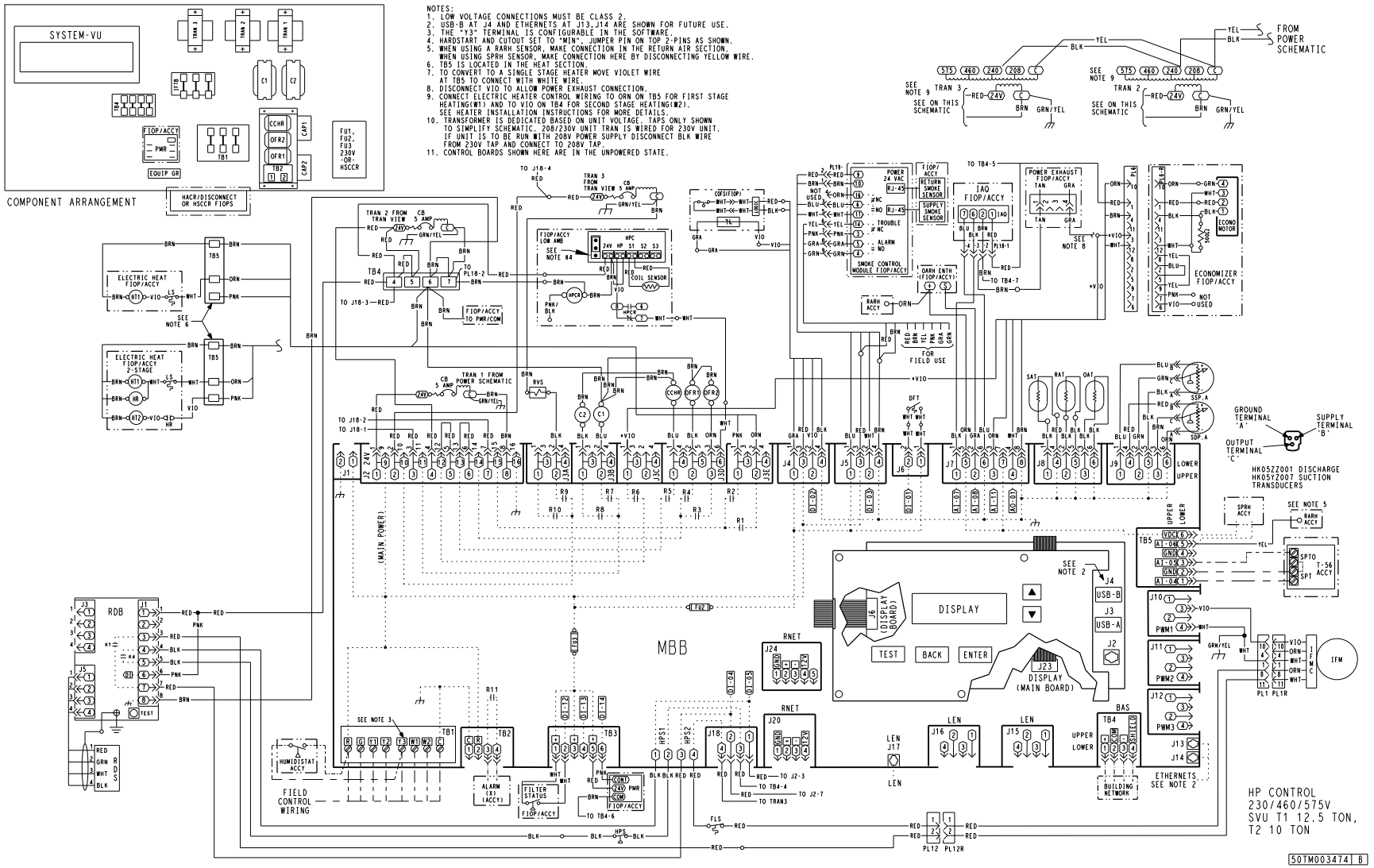
# 50GEQM07-08 Control Wiring Diagram, SystemVu™ Controller



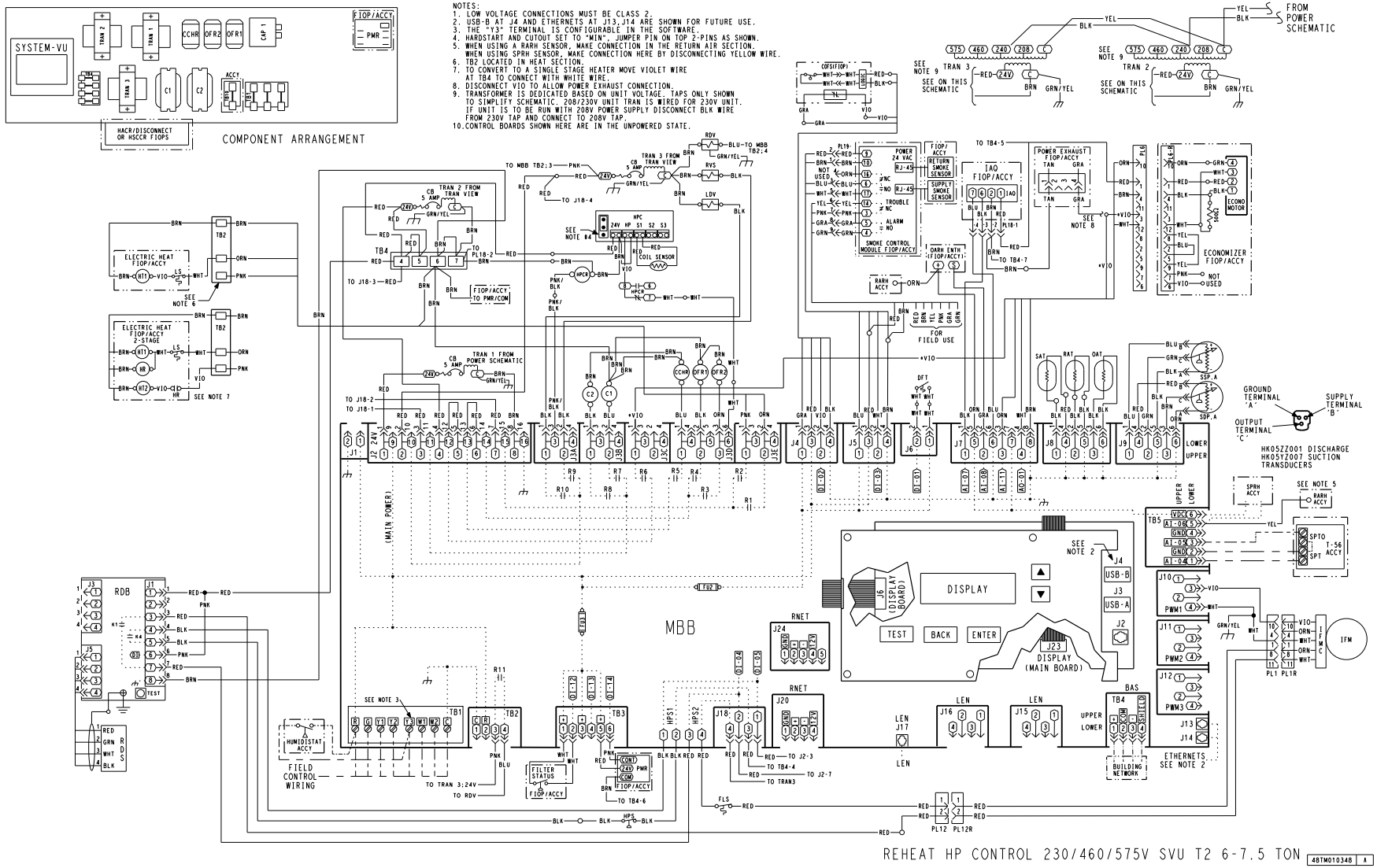
# 50GEQM09 Control Wiring Diagram, SystemVu™ Controller



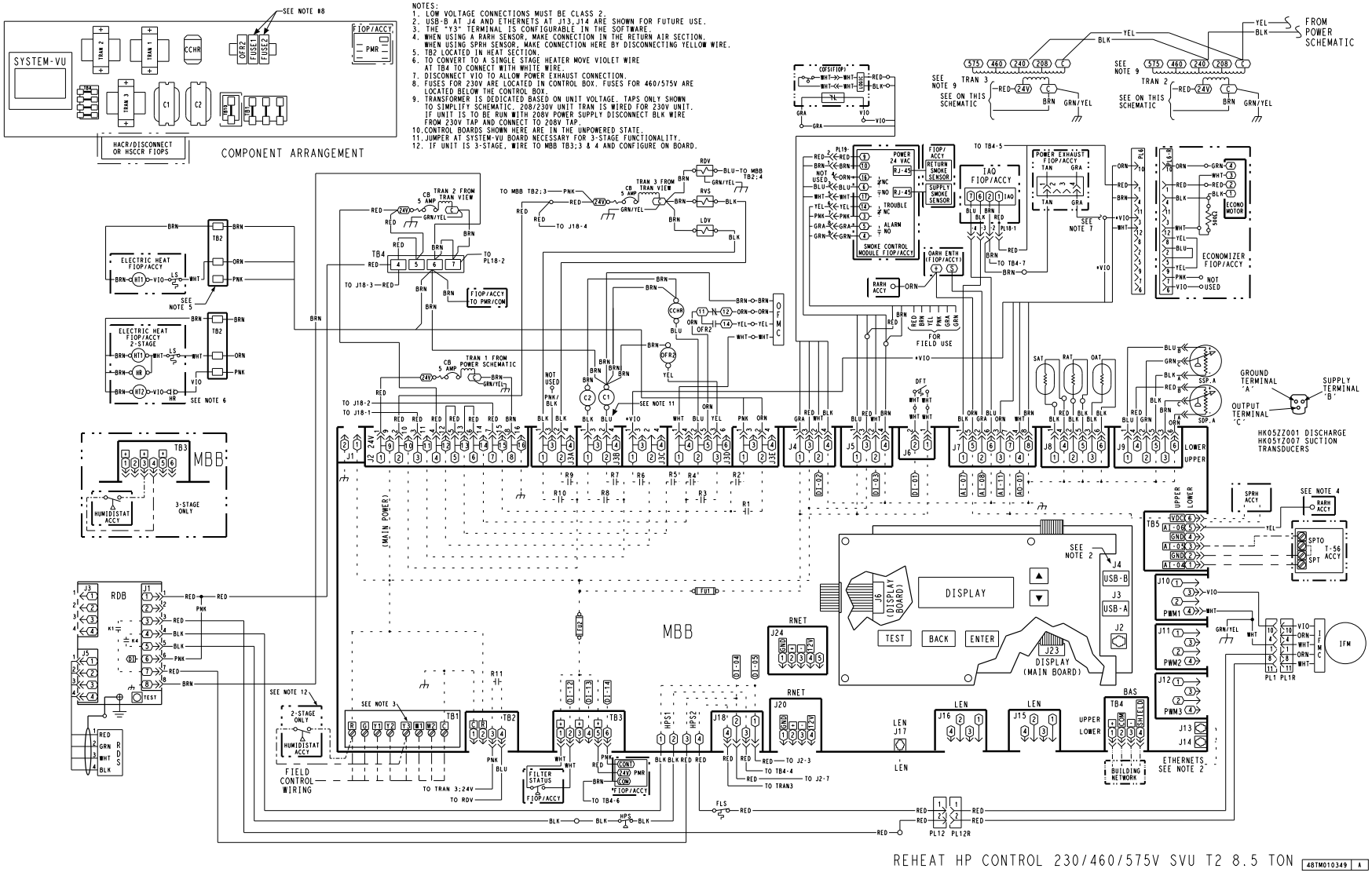
# 50GEQM12 Control Wiring Diagram, SystemVu™ Controller



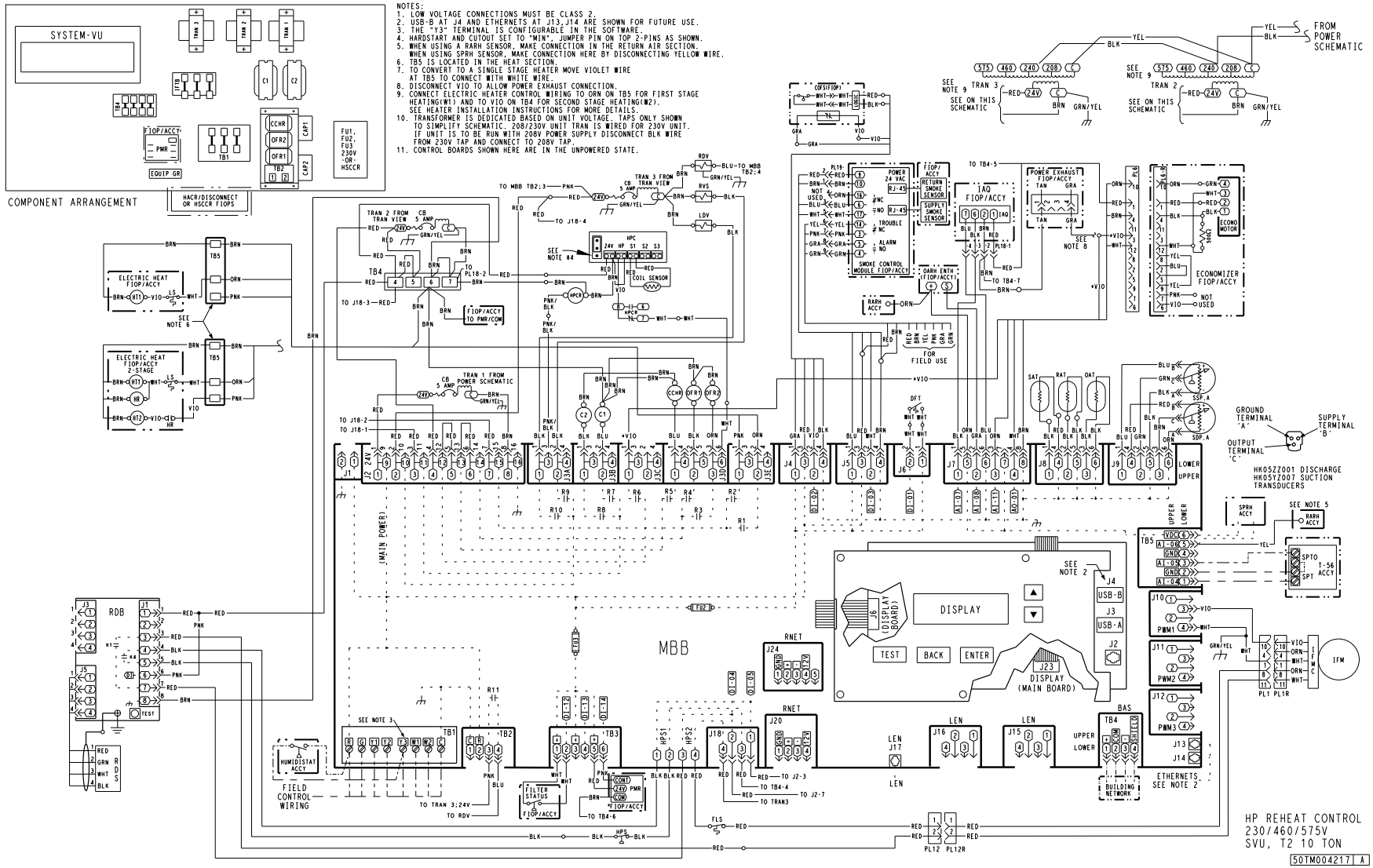
# 50GEQN07-08 Control Wiring Diagram, SystemVu™ Controller



# 50GEQN09 Control Wiring Diagram, SystemVu™ Controller

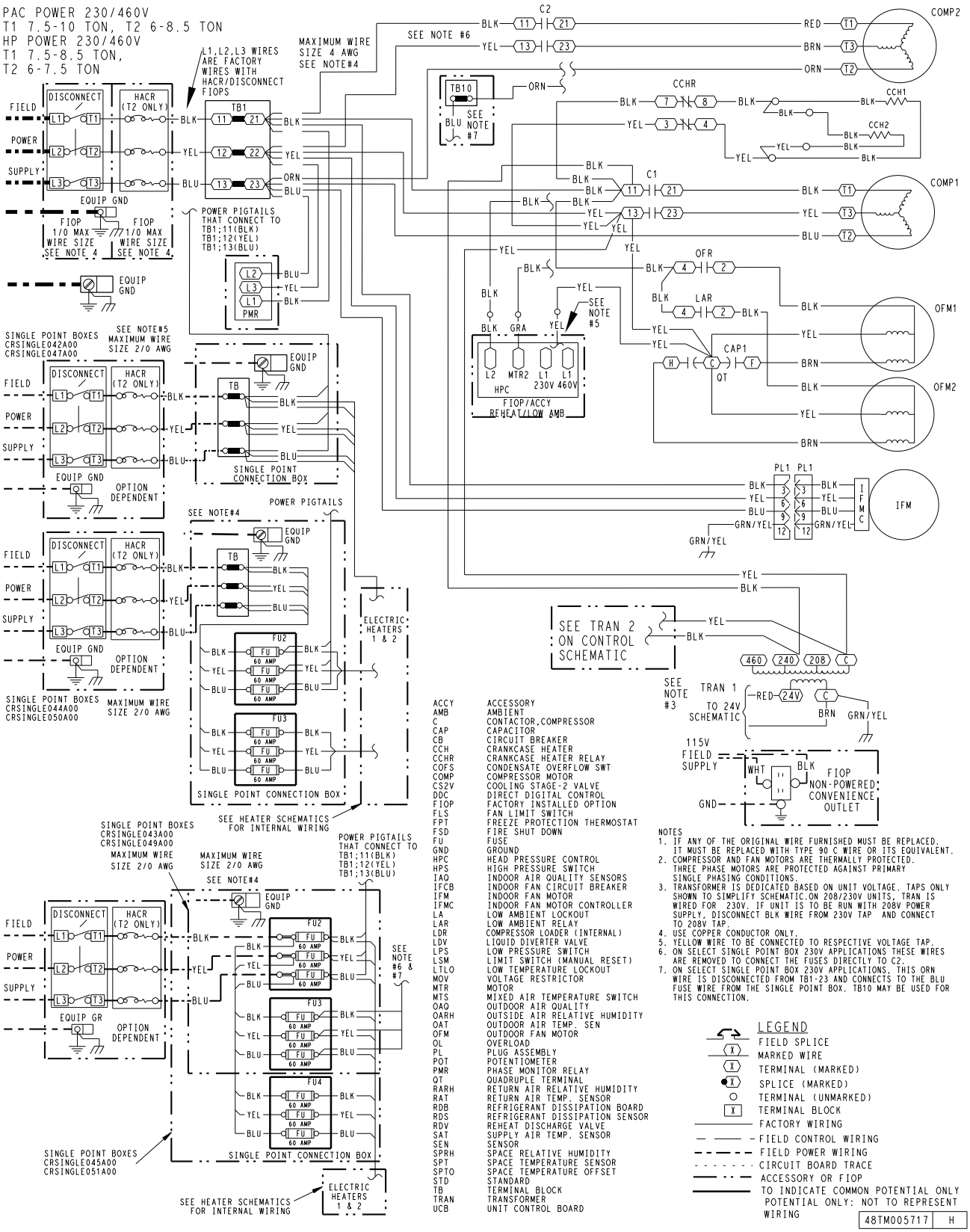


# 50GEQN12 Control Wiring Diagram, SystemVu™ Controller



# Typical wiring diagrams (cont)

## 50GEQ*07-08 Power Wiring Diagram, Electromechanical Controller, 230/460-3-60 Shown




| | |
|---|---|
| ACCY | ACCESSORY |
| AMB | AMBIENT |
| C | CONTACTOR,COMPRESSOR |
| CAP | CAPACITOR |
| CB | CIRCUIT BREAKER |
| CCH | CRANKCASE HEATER |
| CCHR | CRANKCASE HEATER RELAY |
| COFS | CONDENSATE OVERFLOW SWT |
| COMP | COMPRESSOR MOTOR |
| CS2V | COOLING STAGE-2 VALVE |
| DDC | DIRECT DIGITAL CONTROL |
| FIOP | FACTORY INSTALLED OPTION |
| FLS | FAN LIMIT SWITCH |
| FPT | FREEZE PROTECTION THERMOSTAT |
| FSD | FIRE SHUT DOWN |
| FU | FUSE |
| GND | GROUND |
| HPC | HEAD PRESSURE CONTROL |
| HPS | HIGH PRESSURE SWITCH |
| IAQ | INDOOR AIR QUALITY SENSORS |
| IFCB | INDOOR FAN CIRCUIT BREAKER |
| IFM | INDOOR FAN MOTOR |
| IFMC | INDOOR FAN MOTOR CONTROLLER |
| LA | LOW AMBIENT LOCKOUT |
| LAR | LOW AMBIENT RELAY |
| LDR | COMPRESSOR LOADER (INTERNAL) |
| LDV | LIQUID DIVERTER VALVE |
| LPS | LOW PRESSURE SWITCH |
| LSM | LIMIT SWITCH (MANUAL RESET) |
| LTLO | LOW TEMPERATURE LOCKOUT |
| MOV | VOLTAGE RESTRICTOR |
| MTR | MOTOR |
| MTS | MIXED AIR TEMPERATURE SWITCH |
| OAQ | OUTDOOR AIR QUALITY |
| OARH | OUTSIDE AIR RELATIVE HUMIDITY |
| OAT | OUTDOOR AIR TEMP. SEN |
| OFM | OUTDOOR FAN MOTOR |
| OL | OVERLOAD |
| PL | PLUG ASSEMBLY |
| POT | POTENTIOMETER |
| PMR | PHASE MONITOR RELAY |
| QT | QUADRUPLE TERMINAL |
| RARH | RETURN AIR RELATIVE HUMIDITY |
| RAT | RETURN AIR TEMP. SENSOR |
| RDB | REFRIGERANT DISSIPATION BOARD |
| RDS | REFRIGERANT DISSIPATION SENSOR |
| RDV | REHEAT DISCHARGE VALVE |
| SAT | SUPPLY AIR TEMP. SENSOR |
| SEN | SENSOR |
| SPRH | SPACE RELATIVE HUMIDITY |
| SPT | SPACE TEMPERATURE SENSOR |
| SPTO | SPACE TEMPERATURE OFFSET |
| STD | STANDARD |
| TB | TERMINAL BLOCK |
| TRAN | TRANSFORMER |
| UCB | UNIT CONTROL BOARD |

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. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC.ON 208/230V UNITS, TRAN IS WIRED FOR 230V. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY, DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 208V TAP.
4. USE COPPER CONDUCTOR ONLY.
5. YELLOW WIRE TO BE CONNECTED TO RESPECTIVE VOLTAGE TAP.
6. ON SELECT SINGLE POINT BOX 230V APPLICATIONS THESE WIRES ARE REMOVED TO CONNECT THE FUSES DIRECTLY TO C2.
7. ON SELECT SINGLE POINT BOX 230V APPLICATIONS, THIS ORN WIRE IS DISCONNECTED FROM TB1-23 AND CONNECTS TO THE BLU FUSE WIRE FROM THE SINGLE POINT BOX. TB10 MAY BE USED FOR THIS CONNECTION.

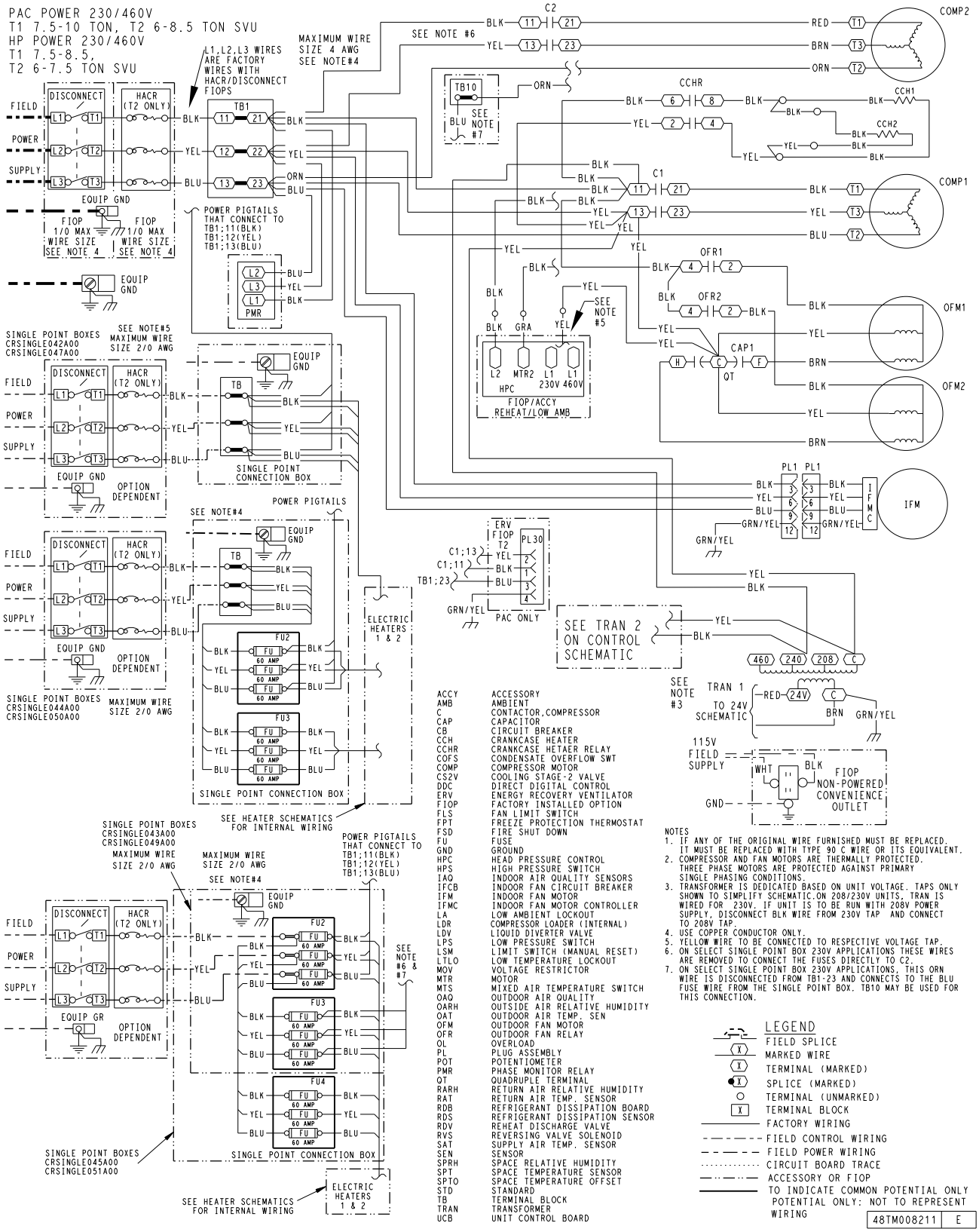
LEGEND

| | |
|---|---|
| | FIELD SPLICE |
| X | MARKED WIRE |
| X | TERMINAL (MARKED) |
| X | SPLICE (MARKED) |
| | TERMINAL (UNMARKED) |
| X | TERMINAL BLOCK |
| | FACTORY WIRING |
| | FIELD CONTROL WIRING |
| | FIELD POWER WIRING |
| | CIRCUIT BOARD TRACE |
| | ACCESSORY OR FIOP |
| | TO INDICATE COMMON POTENTIAL ONLY POTENTIAL ONLY: NOT TO REPRESENT WIRING |

48TM005717 | H

# Typical wiring diagrams (cont)

## 50GEQ*07-08 Power Wiring Diagram, SystemVu™ Controller, 230/460-3-60 Unit Shown




| | |
|---|---|
| ACCY | ACCESSORY |
| AMB | AMBIENT |
| C | CONTACTOR,COMPRESSOR |
| CAP | CAPACITOR |
| CB | CIRCUIT BREAKER |
| CCH | CRANKCASE HEATER |
| CCHR | CRANKCASE HETAER RELAY |
| COFS | CONDENSATE OVERFLOW SWT |
| COMP | COMPRESSOR MOTOR |
| CS2V | COOLING STAGE-2 VALVE |
| DDC | DIRECT DIGITAL CONTROL |
| ERV | ENERGY RECOVERY VENTILATOR |
| FIOP | FACTORY INSTALLED OPTION |
| FLS | FAN LIMIT SWITCH |
| FPT | FREEZE PROTECTION THERMOSTAT |
| FSD | FIRE SHUT DOWN |
| FU | FUSE |
| GND | GROUND |
| HPC | HEAD PRESSURE CONTROL |
| HPS | HIGH PRESSURE SWITCH |
| IAQ | INDOOR AIR QUALITY SENSORS |
| IFCB | INDOOR FAN CIRCUIT BREAKER |
| IFM | INDOOR FAN MOTOR |
| IFMC | INDOOR FAN MOTOR CONTROLLER |
| LA | LOW AMBIENT LOCKOUT |
| LDR | COMPRESSOR LOADER (INTERNAL) |
| LDV | LIQUID DIVERTER VALVE |
| LPS | LOW PRESSURE SWITCH |
| LSM | LIMIT SWITCH (MANUAL RESET) |
| LTLO | LOW TEMPERATURE LOCKOUT |
| MOV | VOLTAGE RESTRICTOR |
| MTR | MOTOR |
| MTS | MIXED AIR TEMPERATURE SWITCH |
| OAQ | OUTDOOR AIR QUALITY |
| OARH | OUTSIDE AIR RELATIVE HUMIDITY |
| OAT | OUTDOOR AIR TEMP. SEN |
| OFM | OUTDOOR FAN MOTOR |
| OFR | OUTDOOR FAN RELAY |
| OL | OVERLOAD |
| PL | PLUG ASSEMBLY |
| POT | POTENTIOMETER |
| PMR | PHASE MONITOR RELAY |
| QT | QUADRUPLE TERMINAL |
| RARH | RETURN AIR RELATIVE HUMIDITY |
| RAT | RETURN AIR TEMP. SENSOR |
| RDB | REFRIGERANT DISSIPATION BOARD |
| RDS | REFRIGERANT DISSIPATION SENSOR |
| RDV | REHEAT DISCHARGE VALVE |
| RVS | REVERSING VALVE SOLENOID |
| SAT | SUPPLY AIR TEMP. SENSOR |
| SEN | SENSOR |
| SPRH | SPACE RELATIVE HUMIDITY |
| SPT | SPACE TEMPERATURE SENSOR |
| SPTO | SPACE TEMPERATURE OFFSET |
| STD | STANDARD |
| TB | TERMINAL BLOCK |
| TRAN | TRANSFORMER |
| UCB | UNIT CONTROL BOARD |

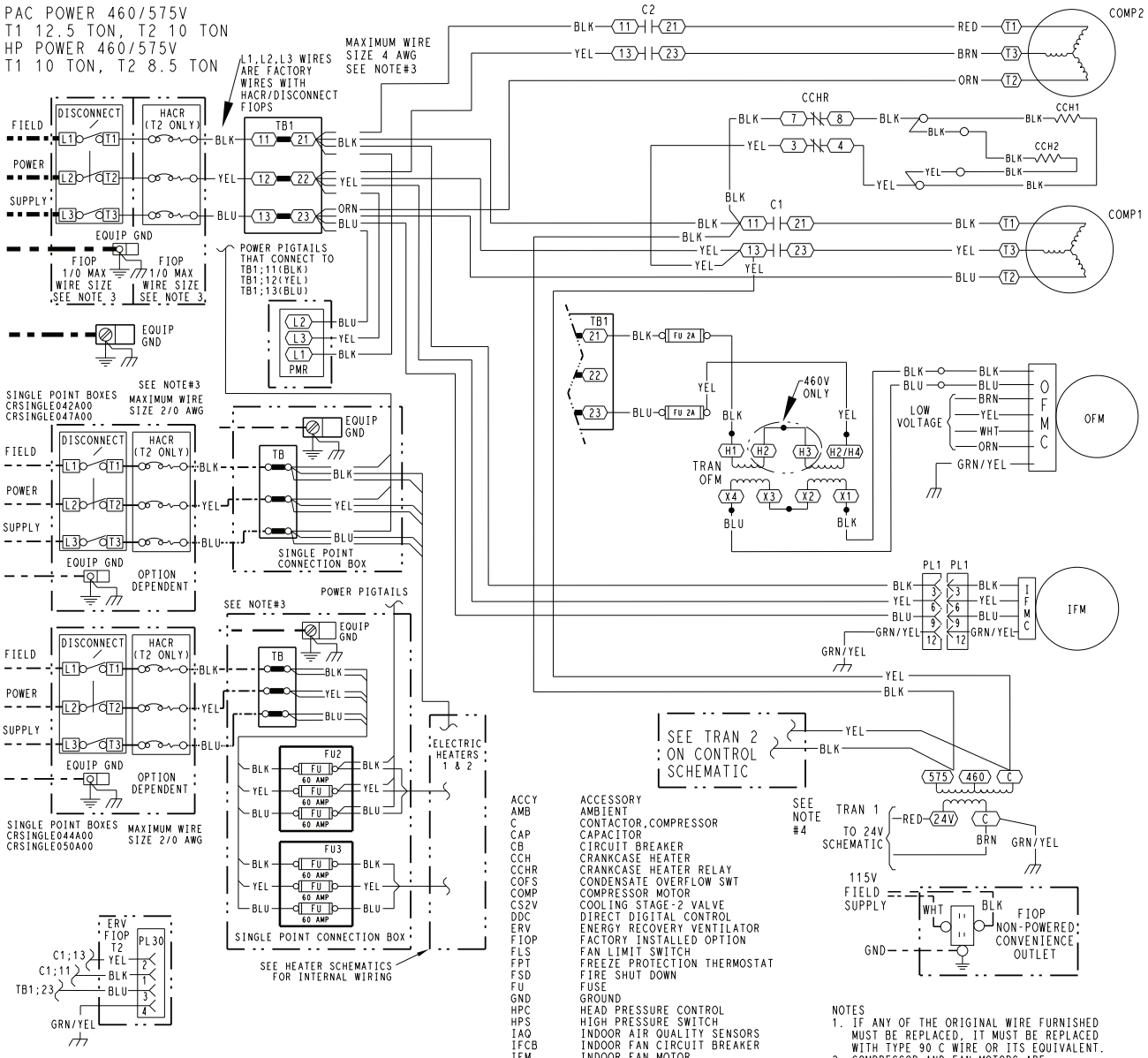
NOTES
1. IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC.ON 208/230V UNITS, TRAN IS WIRED FOR 230V. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY, DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 208V TAP.
4. USE COPPER CONDUCTOR ONLY.
5. YELLOW WIRE TO BE CONNECTED TO RESPECTIVE VOLTAGE TAP.
6. ON SELECT SINGLE POINT BOX 230V APPLICATIONS THESE WIRES ARE REMOVED TO CONNECT THE FUSES DIRECTLY TO C2.
7. ON SELECT SINGLE POINT BOX 230V APPLICATIONS, THIS ORN WIRE IS DISCONNECTED FROM TB1-23 AND CONNECTS TO THE BLU FUSE WIRE FROM THE SINGLE POINT BOX. TB10 MAY BE USED FOR THIS CONNECTION.

LEGEND
- FIELD SPLICE
- MARKED WIRE
- TERMINAL (MARKED)
- SPLICE (MARKED)
- TERMINAL (UNMARKED)
- TERMINAL BLOCK
- FACTORY WIRING
- FIELD CONTROL WIRING
- FIELD POWER WIRING
- CIRCUIT BOARD TRACE
- ACCESSORY OR FIOP
- TO INDICATE COMMON POTENTIAL ONLY POTENTIAL ONLY: NOT TO REPRESENT WIRING

48TM008211 | E

# Typical wiring diagrams (cont)

## 50GEQ*09 Power Wiring Diagram, Electromechanical and SystemVu™ Controllers, 230/460-3-60 Unit Shown




| | |
|---|---|
| ACCY | ACCESSORY |
| AMB | AMBIENT |
| C | CONTACTOR,COMPRESSOR |
| CAP | CAPACITOR |
| CB | CIRCUIT BREAKER |
| CCH | CRANKCASE HEATER |
| CCHR | CRANKCASE HEATER RELAY |
| COFS | CONDENSATE OVERFLOW SWT |
| COMP | COMPRESSOR MOTOR |
| CS2V | COOLING STAGE-2 VALVE |
| DDC | DIRECT DIGITAL CONTROL |
| ERV | ENERGY RECOVERY VENTILATOR |
| FIOP | FACTORY INSTALLED OPTION |
| FLS | FAN LIMIT SWITCH |
| FPT | FREEZE PROTECTION THERMOSTAT |
| FSD | FIRE SHUT DOWN |
| FU | FUSE |
| GND | GROUND |
| HPC | HEAD PRESSURE CONTROL |
| HPS | HIGH PRESSURE SWITCH |
| IAQ | INDOOR AIR QUALITY SENSORS |
| IFCB | INDOOR FAN CIRCUIT BREAKER |
| IFM | INDOOR FAN MOTOR |
| IFMC | INDOOR FAN MOTOR CONTROLLER |
| LA | LOW AMBIENT LOCKOUT |
| LDR | COMPRESSOR LOADER (INTERNAL) |
| LDV | LIQUID DIVERTER VALVE |
| LPS | LOW PRESSURE SWITCH |
| LSM | LIMIT SWITCH (MANUAL RESET) |
| LTLO | LOW TEMPERATURE LOCKOUT |
| MOV | VOLTAGE RESTRICTOR |
| MTR | MOTOR |
| MTS | MIXED AIR TEMPERATURE SWITCH |
| OAQ | OUTDOOR AIR QUALITY |
| OARH | OUTSIDE AIR RELATIVE HUMIDITY |
| OAT | OUTDOOR AIR TEMP. SEN |
| OFM | OUTDOOR FAN MOTOR |
| OL | OVERLOAD |
| PL | PLUG ASSEMBLY |
| POT | POTENTIOMETER |
| PMR | PHASE MONITOR RELAY |
| QT | QUADRUPLE TERMINAL |
| RARH | RETURN AIR RELATIVE HUMIDITY |
| RAT | RETURN AIR TEMP. SENSOR |
| RDB | REFRIGERANT DISSIPATION BOARD |
| RDS | REFRIGERANT DISSIPATION SENSOR |
| RDV | REHEAT DISCHARGE VALVE |
| SAT | SUPPLY AIR TEMP. SENSOR |
| SEN | SENSOR |
| SPRH | SPACE RELATIVE HUMIDITY |
| SPT | SPACE TEMPERATURE SENSOR |
| SPTO | SPACE TEMPERATURE OFFSET |
| STD | STANDARD |
| TB | TERMINAL BLOCK |
| TRAN | TRANSFORMER |
| UCB | UNIT CONTROL BOARD |

NOTES
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2. COMPRESSOR AND FAN MOTORS ARE THERMALLY PROTECTED. THREE PHASE MOTORS ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
3. USE COPPER CONDUCTOR ONLY.
4. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC.

LEGEND

| | |
|---|---|
| | FIELD SPLICE |
| X | MARKED WIRE |
| X | TERMINAL (MARKED) |
| X | SPLICE (MARKED) |
| | TERMINAL (UNMARKED) |
| X | TERMINAL BLOCK |
| | FACTORY WIRING |
| | FIELD CONTROL WIRING |
| | FIELD POWER WIRING |
| | CIRCUIT BOARD TRACE |
| | ACCESSORY OR FIOP |
| | TO INDICATE COMMON POTENTIAL ONLY POTENTIAL ONLY: NOT TO REPRESENT WIRING |

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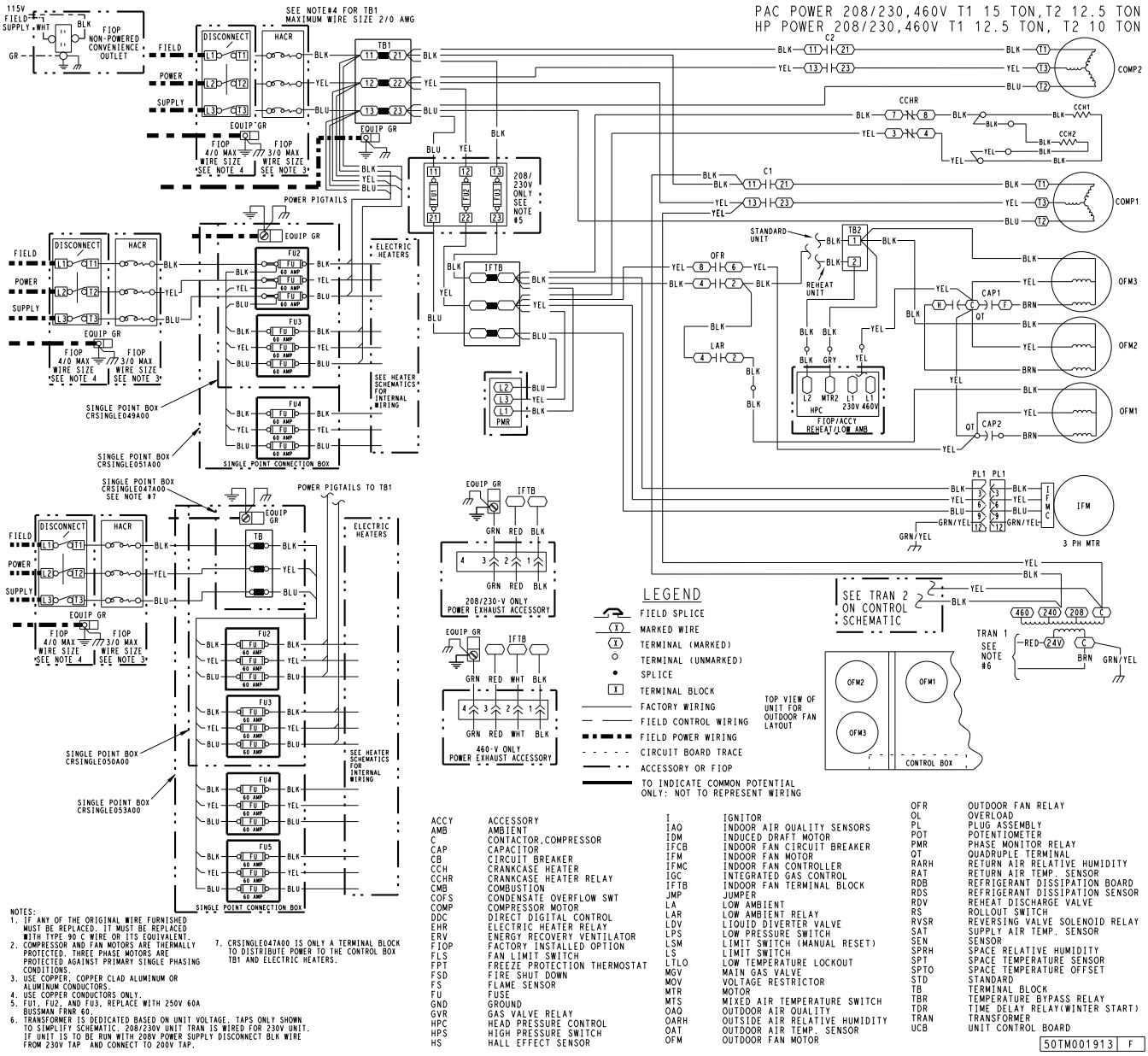
# Typical wiring diagrams (cont)

## 50GEQ*12 Power Wiring Diagram, Electromechanical Controller, 230/460-3-60 Unit Shown

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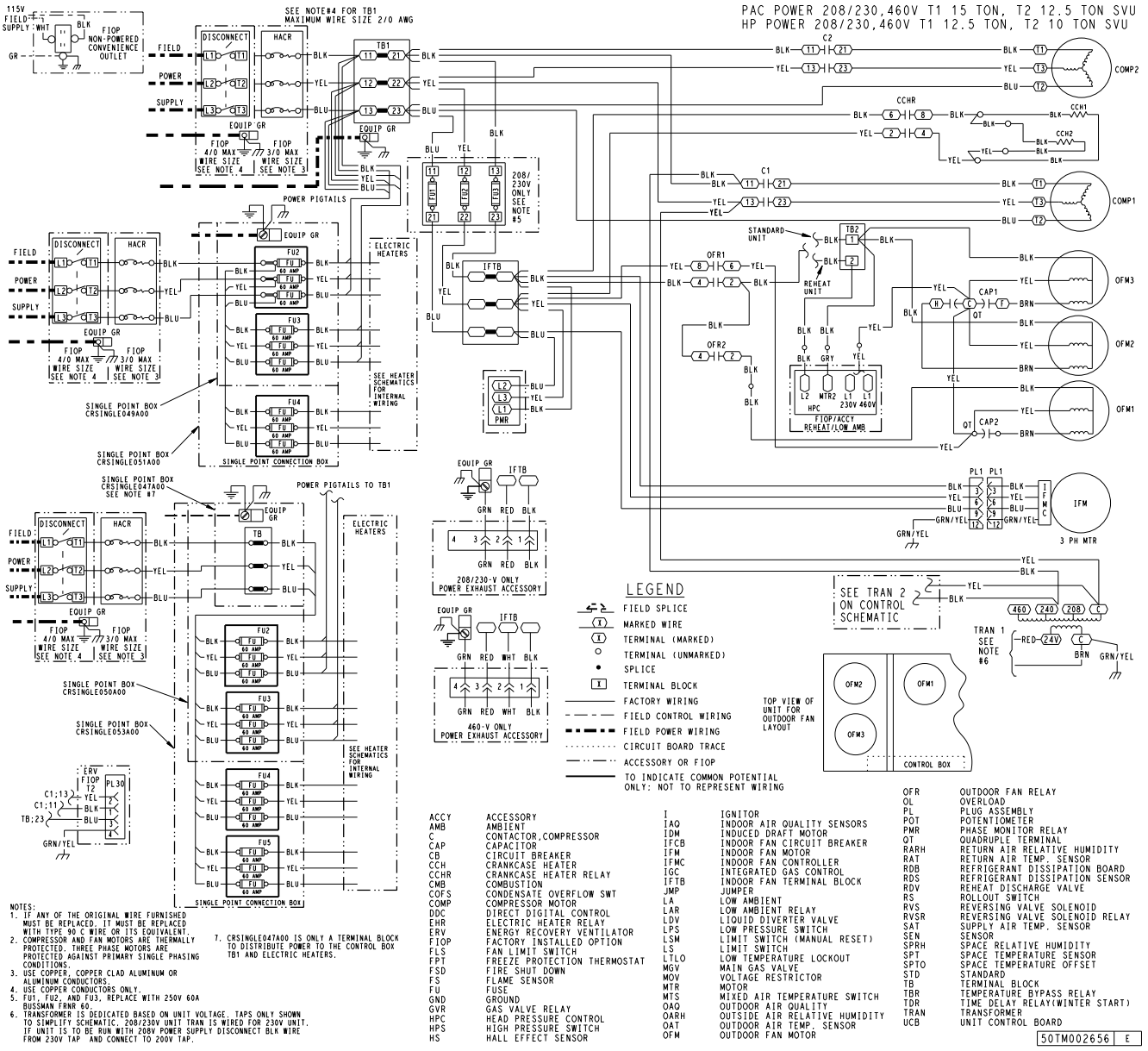
3. USE COPPER, COPPER CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
4. USE COPPER CONDUCTORS ONLY.
5. FU1, FU2, AND FU3, REPLACE WITH 250V 60A BUSSMAN-FRNR 60.
6. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC. 208/230V UNIT TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 200V TAP.
7. CRSINGLE047A00 IS ONLY A TERMINAL BLOCK TO DISTRIBUTE POWER TO THE CONTROL BOX TB1 AND ELECTRIC HEATERS.

| | |
|---|---|
| ACCY | ACCESSORY |
| AMB | AMBIENT |
| C | CONTACTOR,COMPRESSOR |
| CAP | CAPACITOR |
| CB | CIRCUIT BREAKER |
| CCH | CRANKCASE HEATER |
| CCHR | CRANKCASE HEATER RELAY |
| CMB | COMBUSTION |
| COFS | CONDENSATE OVERFLOW SWT |
| COMP | COMPRESSOR MOTOR |
| DDC | DIRECT DIGITAL CONTROL |
| EHR | ELECTRIC HEATER RELAY |
| ERV | ENERGY RECOVERY VENTILATOR |
| FIOP | FACTORY INSTALLED OPTION |
| FLS | FAN LIMIT SWITCH |
| FPT | FREEZE PROTECTION THERMOSTAT |
| FSD | FIRE SHUT DOWN |
| FS | FLAME SENSOR |
| FU | FUSE |
| GND | GROUND |
| GVR | GAS VALVE RELAY |
| HPC | HEAD PRESSURE CONTROL |
| HPS | HIGH PRESSURE SWITCH |
| HS | HALL EFFECT SENSOR |
| I | IGNITOR |
| IAQ | INDOOR AIR QUALITY SENSORS |
| IDM | INDUCED DRAFT MOTOR |
| IFCB | INDOOR FAN CIRCUIT BREAKER |
| IFM | INDOOR FAN MOTOR |
| IFMC | INDOOR FAN CONTROLLER |
| IGC | INTEGRATED GAS CONTROL |
| IFTB | INDOOR FAN TERMINAL BLOCK |
| JMP | JUMPER |
| LA | LOW AMBIENT |
| LAR | LOW AMBIENT RELAY |
| LDV | LIQUID DIVERTER VALVE |
| LPS | LOW PRESSURE SWITCH |
| LSM | LIMIT SWITCH (MANUAL RESET) |
| LS | LIMIT SWITCH |
| LTLO | LOW TEMPERATURE LOCKOUT |
| MGV | MAIN GAS VALVE |
| MOV | VOLTAGE RESTRICTOR |
| MTR | MOTOR |
| MTS | MIXED AIR TEMPERATURE SWITCH |
| OAQ | OUTDOOR AIR QUALITY |
| OARH | OUTSIDE AIR RELATIVE HUMIDITY |
| OAT | OUTDOOR AIR TEMP. SENSOR |
| OFM | OUTDOOR FAN MOTOR |
| OFR | OUTDOOR FAN RELAY |
| OL | OVERLOAD |
| PL | PLUG ASSEMBLY |
| POT | POTENTIOMETER |
| PMR | PHASE MONITOR RELAY |
| QT | QUADRUPLE TERMINAL |
| RARH | RETURN AIR RELATIVE HUMIDITY |
| RAT | RETURN AIR TEMP. SENSOR |
| RDB | REFRIGERANT DISSIPATION BOARD |
| RDS | REFRIGERANT DISSIPATION SENSOR |
| RDV | REHEAT DISCHARGE VALVE |
| RS | ROLLOUT SWITCH |
| RVSR | REVERSING VALVE SOLENOID RELAY |
| SAT | SUPPLY AIR TEMP. SENSOR |
| SEN | SENSOR |
| SPRH | SPACE RELATIVE HUMIDITY |
| SPT | SPACE TEMPERATURE SENSOR |
| SPTO | SPACE TEMPERATURE OFFSET |
| STD | STANDARD |
| TB | TERMINAL BLOCK |
| TBR | TEMPERATURE BYPASS RELAY |
| TDR | TIME DELAY RELAY(WINTER START) |
| TRAN | TRANSFORMER |
| UCB | UNIT CONTROL BOARD |

50TM001913 F

# Typical wiring diagrams (cont)

## 50GEQ*12 Power Wiring Diagram, SystemVu™ Controller, 230/460-3-60 Unit Shown

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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.
5. FU1, FU2, AND FU3, REPLACE WITH 250V 60A BUSSMAN FRNR 60.
6. TRANSFORMER IS DEDICATED BASED ON UNIT VOLTAGE. TAPS ONLY SHOWN TO SIMPLIFY SCHEMATIC. 208/230V UNIT TRAN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 208V POWER SUPPLY DISCONNECT BLK WIRE FROM 230V TAP AND CONNECT TO 200V TAP.
7. CRSINGLE047A00 IS ONLY A TERMINAL BLOCK TO DISTRIBUTE POWER TO THE CONTROL BOX TB1 AND ELECTRIC HEATERS.

| | |
|---|---|
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| CB | CIRCUIT BREAKER |
| CCH | CRANKCASE HEATER |
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| COMP | COMPRESSOR MOTOR |
| DDC | DIRECT DIGITAL CONTROL |
| EHR | ELECTRIC HEATER RELAY |
| ERV | ENERGY RECOVERY VENTILATOR |
| FIOP | FACTORY INSTALLED OPTION |
| FLS | FAN LIMIT SWITCH |
| FPT | FREEZE PROTECTION THERMOSTAT |
| FSD | FIRE SHUT DOWN |
| FS | FLAME SENSOR |
| FU | FUSE |
| GND | GROUND |
| GVR | GAS VALVE RELAY |
| HPC | HEAD PRESSURE CONTROL |
| HPS | HIGH PRESSURE SWITCH |
| HS | HALL EFFECT SENSOR |
| I | IGNITOR |
| IAQ | INDOOR AIR QUALITY SENSORS |
| IDM | INDUCED DRAFT MOTOR |
| IFCB | INDOOR FAN CIRCUIT BREAKER |
| IFM | INDOOR FAN MOTOR |
| IFMC | INDOOR FAN CONTROLLER |
| IGC | INTEGRATED GAS CONTROL |
| IFTB | INDOOR FAN TERMINAL BLOCK |
| JMP | JUMPER |
| LA | LOW AMBIENT |
| LAR | LOW AMBIENT RELAY |
| LDV | LIQUID DIVERTER VALVE |
| LPS | LOW PRESSURE SWITCH |
| LSM | LIMIT SWITCH (MANUAL RESET) |
| LS | LIMIT SWITCH |
| LTLO | LOW TEMPERATURE LOCKOUT |
| MGV | MAIN GAS VALVE |
| MOV | VOLTAGE RESTRICTOR |
| MTR | MOTOR |
| MTS | MIXED AIR TEMPERATURE SWITCH |
| OAQ | OUTDOOR AIR QUALITY |
| OARH | OUTSIDE AIR RELATIVE HUMIDITY |
| OAT | OUTDOOR AIR TEMP. SENSOR |
| OFM | OUTDOOR FAN MOTOR |
| OFR | OUTDOOR FAN RELAY |
| OL | OVERLOAD |
| PL | PLUG ASSEMBLY |
| POT | POTENTIOMETER |
| PMR | PHASE MONITOR RELAY |
| QT | QUADRUPLE TERMINAL |
| RARH | RETURN AIR RELATIVE HUMIDITY |
| RAT | RETURN AIR TEMP. SENSOR |
| RDB | REFRIGERANT DISSIPATION BOARD |
| RDS | REFRIGERANT DISSIPATION SENSOR |
| RDV | REHEAT DISCHARGE VALVE |
| RS | ROLLOUT SWITCH |
| RVS | REVERSING VALVE SOLENOID |
| RVSR | REVERSING VALVE SOLENOID RELAY |
| SAT | SUPPLY AIR TEMP. SENSOR |
| SEN | SENSOR |
| SPRH | SPACE RELATIVE HUMIDITY |
| SPT | SPACE TEMPERATURE SENSOR |
| SPTO | SPACE TEMPERATURE OFFSET |
| STD | STANDARD |
| TB | TERMINAL BLOCK |
| TBR | TEMPERATURE BYPASS RELAY |
| TDR | TIME DELAY RELAY(WINTER START) |
| TRAN | TRANSFORMER |
| UCB | UNIT CONTROL BOARD |

50TM002656 E

# Sequence of operation

## 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.

## Dissipation

When the factory-installed dissipation system detects a level of refrigerant leak in the unit, a safety dissipation mode will be activated. During this dissipation mode, the thermostat will be disabled and the indoor fan will run at 66% of the maximum speed of the motor. When the refrigerant leak levels are normal for 5 minutes, the unit will return to normal operation.

## 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 is energized, causing the first compressor and outdoor fan(s) to run. The low indoor fan speed is 66% of the user-set fan speed.

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. The outdoor fan(s) is the same speed for Y1 and Y2, except for 50GEQ*09 units in which the outdoor fan will increase in speed.

When the thermostat removes the call for Y2 but leaves the Y1, the indoor fan will reduce speed to 66% of the user-set fan speed, the C2 contactor will de-energize, the second compressor will turn off, and the outdoor fan(s) will remain on. When the thermostat removes the call for Y1, the C1 contactor will de-energize, shutting down the first 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 of cooling operation, the Unit Control Board (UCB) will adjust the fan motor speed to provide 66% of the total cfm established for the unit.

### Defrost

When the temperature of the outdoor coil drops below 28°F (–2°C), as sensed by the defrost thermostat (DFT2), and the defrost timer is at the end of a timed period (adjustable to 30, 60, 90 or 120 minutes), the reversing valve solenoids (RVS1 and RVS2) are energized and the OFC is de-energized. This switches the position of the reversing valves and shuts off the outdoor fan(s). 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 24-v. The outdoor fan contactor (OFC), C1, and C2 will be energized. The indoor fan will run at the user-set fan speed. The indoor fan, outdoor fans, 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, then W2 will be energized with 24-v 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 $CO_2$ sensors are connected to the EconomizerONE control, a demand controlled ventilation strategy will begin to operate. As the $CO_2$ level in the zone increases above the $CO_2$ 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 $CO_2$ 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 set-point. The EconomizerONE damper will be open at maximum position.

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

### Heating

The sequence of operation for heating is the same as for an electromechanical unit without an economizer. The only difference is how the economizer acts. The economizer will stay at the Economizer Minimum Position while the evaporator fan is operating. The outdoor-air damper is closed when the indoor fan is not operating. Refer to the unit's service and maintenance manual for further details.

## Optional Humidi-MiZer® dehumidification system

Units with the factory-installed Humidi-MiZer system option are capable of providing multiple modes of improved dehumidification as a variation of the normal cooling cycle. The Humidi-MiZer system option includes additional valves in the liquid line and discharge line of each refrigerant circuit, and a small reheat condenser coil downstream of the evaporator on the air side. Select units have a head pressure controller for variable speed operation of the outdoor fan(s). Operation of the revised refrigerant circuit for each mode is described below.

The Humidi-MiZer system provides 3 sub-modes of operation: Cool, Reheat1, and Reheat2.

Cool — provides a normal ratio of sensible and latent cooling effect from the evaporator coil. Refrigerant flows from the outdoor condenser through the de-energized 3-Way Liquid Diverter Valve (LDV) to the expansion device bypassing the reheat condenser coil. The Reheat Discharge Valve (RDV) is closed.

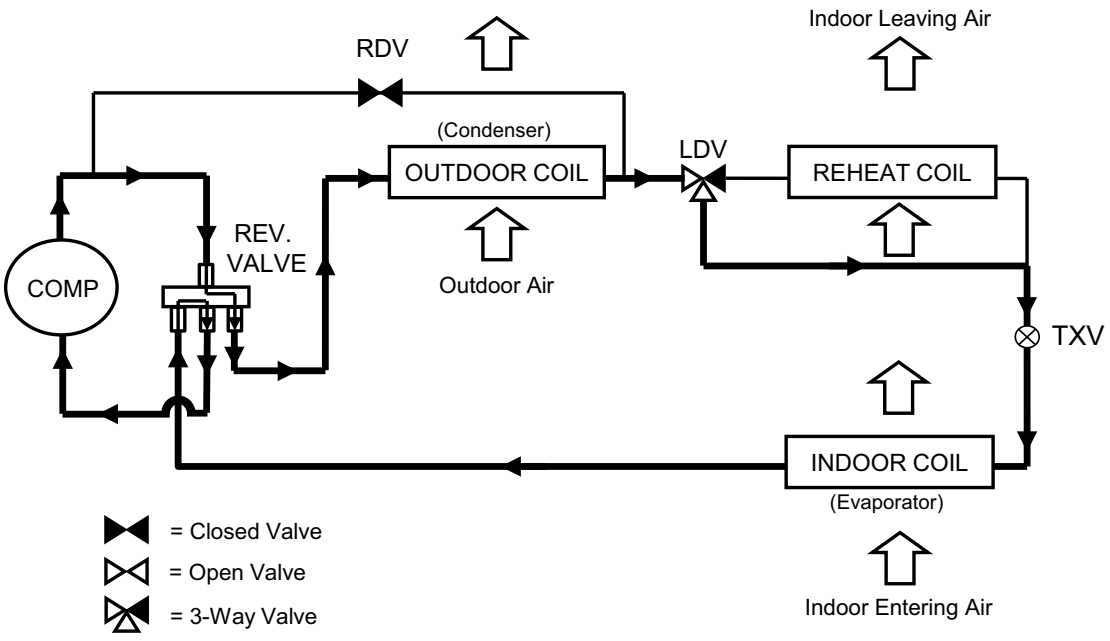
Subcooling Mode (Reheat1) — provides increased latent cooling while slightly reducing the sensible cooling effect. Refrigerant flows from the outdoor condenser, through the energized LDV and through the reheat condenser coil to the expansion device. The RDV is closed.

Hot Gas Reheat Mode (Reheat2) — provides normal latent cooling but with null or minimum sensible cooling effect delivered to the space. This is the same as Subcooling mode but the RDV is open, which provides some compressor discharge gas to the reheat condenser to further increase the reheat of the evaporator air stream.

The Reheat1 and Reheat2 modes are available when the unit is not in a heating mode and when the system has not locked out reheat in colder ambient conditions.

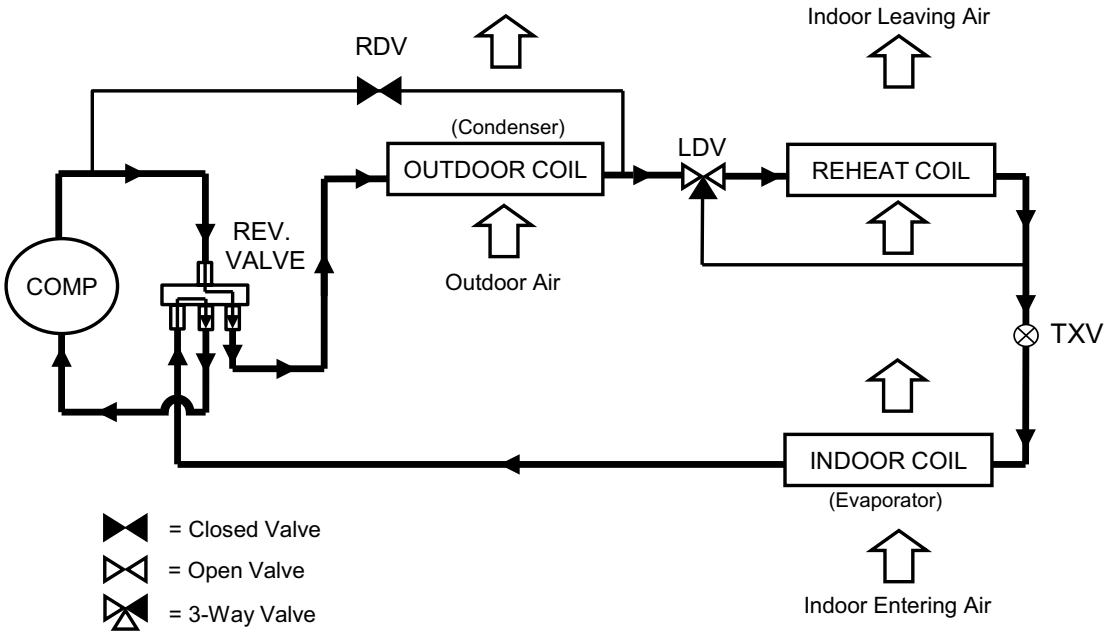
Refer to the following figures for piping flow diagrams.

**Normal Cooling Mode**

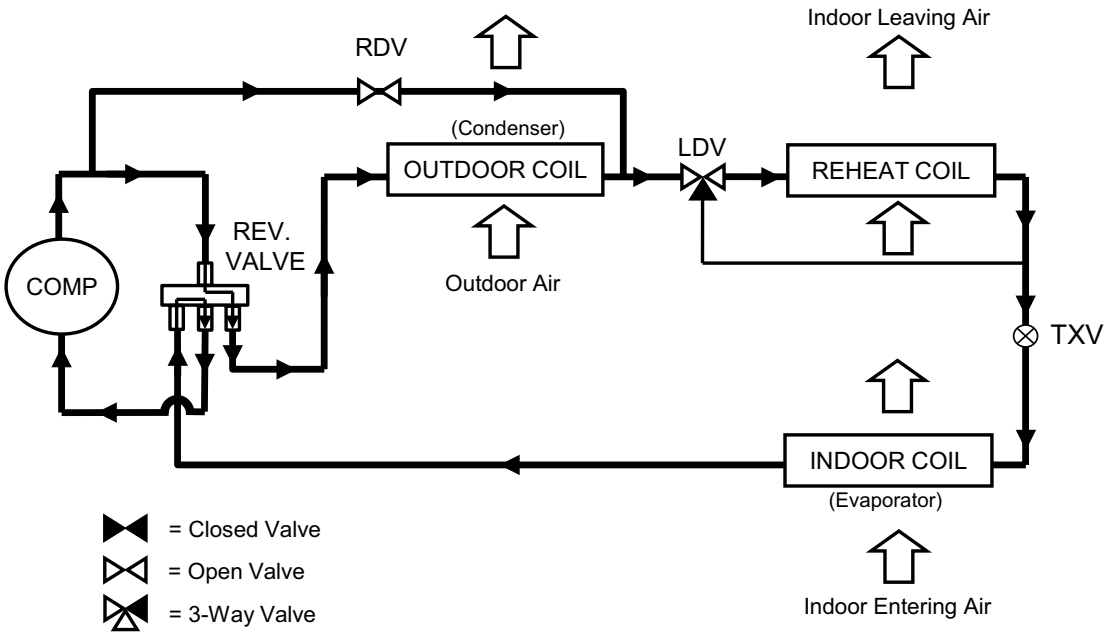


# Sequence of operation (cont)

**Subcooling Mode (Reheat1)**




**Hot Gas Reheat Mode (Reheat2)**




LEGEND

**LDV** — Liquid Diverter Valve
**RDV** — Reheat Discharge Valve
**TXV** — Thermostatic Expansion Valve

## SystemVu™ controller (factory option)

For details on operating 50GEQ units equipped with the factory-installed SystemVu controller option, refer to *FEQ/GEQ/QE Series Single Packaged Rooftop Units with SystemVu Controls, Start-Up, Operation and Troubleshooting* manual.

# Application data

## Minimum operating ambient temperature (cooling)

In mechanical cooling mode, your Carrier rooftop unit can safely operate down to an outdoor ambient temperature of 35°F (1.6°C) (or 0°F [–18°C] for size 09 models). 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 reduced performance, reduced 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. The minimum value is the HIGHER of the cooling and heating minimum cfm values published on page 7, and the maximum value is the LOWER of the cooling and heating maximum 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 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 the 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 and adding "safety factors" to the calculated load are both signs of oversizing. Oversizing an 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 a unit is equipped with an economizer, an 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: 0°F (–18°C) is standard on size 09 models.

# Guide specifications

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.

Puron ADVANCE™

## High Efficiency Heat Pump Packaged Rooftop Unit

### HVAC Guide Specifications

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

Carrier Model Number: **50GEQ*07-12**

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

1.01 (23 06 80.13) Decentralized Unitary HVAC Equipment Schedule:

A. (23 06 80.13.A.) Rooftop Unit (RTU) Schedule:

Schedule is per the project specification requirements.

### Part 2 — (23 07 16) HVAC Equipment Insulation

2.01 (23 07 16.13) Decentralized, Rooftop Units:

A. (23 07 16.13.A.) Evaporator Fan Compartment:

1. Interior cabinet surfaces shall be insulated with a minimum 1/2 in. thick, minimum 1-1/2 lb density, flexible fiberglass insulation bonded with a phenolic binder, neoprene coated on the air side.
2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

B. (23 07 16.13.B.) Electric Heat Compartment:

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

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

3.01 (23 09 13.13) Sensors and Transmitters:

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

1. Thermostat must:
   a. 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®, BACnet®[1] and Carrier Comfort Network® (CCN) systems. No special modules or boards are required for these capabilities. Has the capability to work with Equipment Touch™ and System Touch™ devices and ZS Sensors.
6. The ability to read refrigerant pressures at display or via BAS network of; Discharge Pressure and Suction Pressure. The need for traditional refrigerant gauges is not required.
7. USB Data Port for flash drive interaction. This will allow the transfer of data for uploads, downloads, perform software upgrades, back-up and restore data and file transfer data such as component number of starts and run hours.
8. Reverse Rotation Protection of compressors if field three phase wiring is misapplied.

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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®[1] 90.1 and IECC®[1] Fault Detection and Diagnostic (FDD) requirements.
11. Unit cooling operation down to 35°F (1.6°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 (3°C) temperature difference between cooling and heating set points to meet the latest ASHRAE 90.1 Energy Standard.
16. Contain return air sensor, supply air sensor and outdoor air sensor to help monitor and provide data for the unit comfort operation, diagnostic and alarms.
17. Use of Carrier's field accessory Equipment Touch and System Touch devices.
18. Units with the factory-installed Humidi-MiZer® system option are capable of providing multiple modes of improved dehumidification as a variation of the normal cooling cycle.
19. 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.
20. 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.
21. 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, Overcurrent. High Internal Pressure Differential.
   2. Low Pressure Switch:

      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:

      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.

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4. Heating section shall be provided with the following minimum protections:

   High temperature limit switches.

5. A2L 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) 24-v 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) 24-v 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 Operations for HVAC Controls**

6.01 (23 09 93.13) Decentralized, Rooftop Units:

A. (23 09 93.13.A.) INSERT SEQUENCE OF OPERATION

**Part 7 — (23 40 13) Panel Air Filters**

7.01 (23 40 13.13) Decentralized, Rooftop Units:

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

**Part 8 — (23 81 19) Self-Contained Air Conditioners**

8.01 (23 81 19.13) Small-Capacity Self-Contained Air Conditioners:

A. (23 81 19.13.A.) General:
   1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a fully hermetic scroll compressor(s) for cooling duty and heat pump heating duty.
   2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
   3. Unit shall use Puron Advance™ (R-454B) 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 DOE and 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 Standards 60335-1 and 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 35°F (1.6°C) (0°F [–18°C] for size 09 models), 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 vertical - supply and return configurations.
6. Unit shall be field convertible from vertical to horizontal airflow on all models. No special kit required except on 12 size models that require a Supply Duct Kit field installed for horizontal air flow.
7. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.

F. (23 81 19.13.F.) Electrical Requirements:
1. Main power supply voltage, phase, and frequency must match those required by the manufacturer.

G. (23 81 19.13.G.) Unit Cabinet:
1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a 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 four 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, possible either through the bottom or

side of the drain pan. Connection shall be made per manufacturer's recommendations.

7. Top Panel:
   a. Shall be a single piece top panel on 07-09 models and 2 piece on size 12 models.
8. Electrical Connections:
   a. All unit power wiring shall enter unit cabinet at a single, factory prepared, knockout location.
   b. Thru-the-base capability.
      1) Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
      2) Optional, factory approved, water-tight connection method must be used for thru-the-base electrical connections.
      3) No basepan penetration, other than those authorized by the manufacturer, is permitted.
9. Component Access Panels (standard):
   a. Cabinet panels shall be easily removable for servicing.
   b. Unit shall have one factory installed, tool-less, removable, filter access panel.
   c. Panels covering control box, indoor fan, indoor fan motor, 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 internal helical 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.
   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).
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 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 top panel of the unit.
2. There shall be gauge line access port in the skin of the rooftop.
   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.
3. Compressors:
   a. Unit shall use tandem scroll compressor assembly on a single 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-amperage 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 an 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 setup.
   g. Fan DC voltage set up on Unit Control Board shall eliminate the need of removal of blower access door, required on conventional belt drive systems.
   h. Shall be internally protected from electrical phase reversal.
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 <66% 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 on board fan motor assembly.
   e. Shall be constructed of a cast aluminum stator and high impact composite material on rotor and air inlet casing.
   f. Shall be a patented design with a corrosion resistant material.

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. Shall be a slide out design with removal of a few support brackets.

3. Shall include an easily accessible Unit Control Board (UCB) or SystemVu MBB (main base 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. Units with the UCB shall also provide an intuitive means to adjust the indoor fan speed through a simple switch and pot adjustment design. Indoor fan speed on SystemVu units are adjusted using the keypad on the SystemVu interface.

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 setpoints.

e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.

f. 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 the 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 indication 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.

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 controllers 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

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function. Factory set at 100%, with a range of 0% to 100%.

n. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.

o. Dampers shall be completely closed when the unit is in the unoccupied mode.

p. Economizer controller shall accept a 0 to 10 vdc $CO_2$ 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. Contains 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 setpoints.

e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.

f. Ultra Low Leak design meets California Title 24 section 140.4 and ASHRAE 90.1 requirements for 4 cfm per sq ft on the outside air dampers and 10 cfm per sq ft on the return dampers.

g. Economizer controller on EconomizerONE models shall be the 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 controllers 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.

p. Economizer controller shall accept a 0 to 10 vdc $CO_2$ 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. Contains 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 setpoint.
   b. Damper shall include adjustable damper travel from 25% to 100% (full open).
   c. Damper shall include single or dual blade, gear driven dampers and actuator motor.
   d. Actuator shall be direct coupled to damper gear. No linkage arms or control rods shall be acceptable.
   e. Damper will admit up to 100% outdoor air for applicable rooftop units.
   f. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power.
   g. The damper actuator shall plug into the rooftop unit's wiring harness plug. No hard wiring shall be required.
   h. Outside air hood shall include aluminum water entrainment filter.
5. Manual Damper (field-installed only):
   a. Manual damper package shall consist of damper, air inlet screen, and rain hood which can be preset to admit up to 25% or 50% outdoor air for year round ventilation.
6. Humidi-MiZer Adaptive Dehumidification System (3-Phase Models Only):

   The Humidi-MiZer Adaptive Dehumidification System shall be factory installed and shall provide greater dehumidification of the occupied space by 2 modes of dehumidification operations in addition to its normal design cooling mode:
   a. Subcooling mode further sub cools the hot liquid refrigerant leaving the condenser coil when both temperature and humidity in the space are not satisfied.
   b. Hot gas reheat mode shall mix a portion of the hot gas from the discharge of the compressor with the hot liquid refrigerant leaving the condenser coil to create a 2-phase heat transfer in the system, resulting in a neutral leaving air temperature when only humidity in the space is not satisfied.
   c. Includes low ambient controller.
7. 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.
8. Condenser Coil Hail Guard Assembly (factory or field installed):
   a. Shall protect against damage from hail.
   b. Shall be louvered type.
9. Unit-Mounted, Non-Fused Disconnect Switch:
   a. Available on 6 to 8.5 ton units with FLA of 80 amps or less, or 10 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.
10. HACR Breaker:
    a. These manual reset devices provide overload and short circuit protection for the unit. Factory wired and mounted with the units, with access cover to help provide environmental protection. On 575V applications, HACR breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.
    b. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
11. 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.

12. Thru-the-Base Connectors:
    a. Shall provide connectors to permit gas and electrical connections to be brought to the unit through the unit basepan.
    b. Minimum of four connection locations per unit.
13. Supply Duct Cover (size 12 only):
    a. Required when field converting the factory standard vertical duct supply to horizontal duct supply configuration. One required per unit.
14. Propeller Power Exhaust:
    a. Power exhaust shall be used in conjunction with an integrated economizer.
    b. Independent modules for vertical or horizontal return configurations shall be available.
    c. Horizontal power exhaust 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.
15. 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.
16. 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.
17. 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.
18. Indoor Air Quality ($CO_2$) 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.
19. 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 two individual detector modules.

5) Can be wired to up to 14 other duct smoke detectors for multiple fan shut-down applications.

20. Winter Start Kit:
    a. Shall contain a bypass device around the low pressure switch.
    b. Shall be required when mechanical cooling is required below 40°F (4°C).
    c. Shall not be required to operate an economizer for cooling when below an outdoor ambient of 40°F (4°C).
    d. Is not compatible with SystemVu controls.
21. Time Guard Control Circuit:
    a. Shall prevent compressor short-cycling by providing a 5-minute delay (±2 minutes) before restarting a compressor after shut-down for any reason.
    b. One device shall be required per compressor.
22. 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.
23. 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 on 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).
    c. Disables the compressors operation when condensate plug is detected, but still allows fans to run for economizer.
24. Foil Faced Insulation:

    Throughout unit cabinet air stream, non-fibrous and cleanable foil faced insulation is used.
25. 4 in. MERV-13 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.
    c. Shall not be compatible with horizontal units with field-installed economizers.
26. 4 in. Return Air Rack (field-installed only):
    a. Accessory kit is designed to hold 4 in. MERV-8 or MERV-13 filters. Filters not included in kit.
    b. Shall not be compatible with horizontal units with field installed economizers.
27. 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.
28. 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.
29. 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.
30. 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.
31. Electric Heat:
    a. Heating Section:
        1) Heater element open coil resistance wire, nickel-chrome alloy, 0.29 in. 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 reset thermo limit controls, magnetic heater contactors (24-v coil), and terminal block all mounted in electric heater control box (minimum 18 ga galvanized steel) attached to end of heater assembly.

32. High Short Circuit Current Rating (SCCR) Protection:
    a. Factory-installed option provides high short circuit current protection to compressor and all indoor and outdoor fan motors rated at 10 kA against high potential fault current situations. (Standard unit comes with 5 kA rating.)
    b. This option is not available on 50GEQM09 units, 575-v units, or units with factory-installed powered convenience outlet, low ambient controls, phase loss monitor/protection, HACR breaker, non-fused disconnect or Humidi-MiZer system.

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