

50LC WeatherExpert® Series
Ultra High-Efficiency
Single Package Rooftop and Single Zone VAV
Cooling Only with Optional Electric Heat
Sizes 07 – 12 with Puron® (R-410A) Refrigerant
6 – 10 Ton



Product Data



WeatherExpert®



C13052

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50LC

Carrier’s new Electric Heat / Electric Cooling WeatherExpert® 6 to 10 ton Commercial Package Rooftop models are designed to provide total low cost of ownership by providing some of the highest cooling efficiencies in the industry with low installed costs, low maintenance costs, and high reliability. These models focus on providing high IEERs (Integrated Energy Efficiency Ratios) which are a measurement of cooling part load performance and where actual buildings operate nearly all of the time. These high part load values are achieved by using logic that strategically sequences compressor stages, indoor fan motor and condenser fan motor speeds. These models are in addition to the 3 to 5 ton models with SEERs up to 17.5 and 12.5 to 23 ton models with IEERs up to 19.3 to provide a full range offering.

Ultra high efficiency:

With IEERs up to 21.2, these new WeatherExpert models help to contribute in LEED credits and help qualify for rebates. The high IEER efficiencies are achieved by utilizing a proven staged compressor design on a single refrigerant circuit that provides three-stages of cooling capacity control. The indoor fan motors are high efficiency belt drive and controlled by a VFD (Variable Frequency Drive) that matches the cooling capacity stages for optimum comfort and efficient control. Models also have multiple heat capacities for each size.

Easy to install:

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

Easy to maintain:

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

Reliable:

Carrier conducts rigorous testing to insure your unit will perform as designed. Extensive rain testing is conducted in special designed test areas and under conditions that simulate actual job sites. In addition, units are both shake tested and driven around the country to make sure not only the packaging holds up, but the unit components within. Condensate pans are made of non corrosive – composite material, motors are permanently lubricated and compressors use crankcase heaters, all to further strengthen the unit’s reliability.



UNIT FEATURES

- Three-stage cooling capacity control with staged scroll compressors design. Each cooling stage is different in capacity output to better match typical building load profiles.
- Single refrigerant circuit design with precision sized TXV refrigerant metering devices to provide optimum operation through the entire operating range.
- Single full faced evaporator coil for full surface utilization, even at part load operation.
- Crankcase heater on each compressor designed to cycle off during the on cycle.
- IEER up to 21.0 and EERs up to 13.7.
- High efficiency permanently lubricated belt driven evaporator-fan motor with VFD (Variable Frequency Drive) controller.
- Electro-Mechanical Integrated Staging Control (ISC) board that provides:
 - Thermostat controls
 - Compressor staging
 - Indoor fan motor staging
 - Field and factory wiring connections
 - Outdoor fan motor staging
 - Crank case heater control
- Sound levels as low as 82 dB.
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design; side or bottom drain.
- Single point electrical connections.
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection.
- Fully insulated with foil faced insulation throughout the entire airstream of the cabinet.
- High ambient cooling operation and ratings up to 125°F (52°C).
- Low ambient mechanical cooling operation down to 40°F (4°C). An economizer shall be the source of cooling in low ambient temperature conditions. When the outside air temperature is below 40°F (4°C), to reduce operating costs, mechanical cooling shall not be utilized.
- Access panels with easy grip handles.
- Innovative, easy starting, no-strip screw feature on unit access panels.
- Two-inch disposable return air filters.
- Tool-less filter access door.
- Field convertible airflow capability on all models. On 07 size, switch panels within the units. On 08-12 sizes, a simple field-installed supply duct kit is required.
- Provisions for thru-the-bottom power entry capability as standard.
- Full perimeter base rail with built-in rigging adapters and fork truck slots.
- 24-volt control circuit protected with resettable circuit breaker.
- Totally enclosed high-efficiency ECM outdoor fan motor with permanently lubricated bearings.
- Low-pressure switch and high-pressure switch protection.
- High capacity liquid line filter drier.
- Factory-Installed Humidi-MiZer[®] Adaptive Dehumidification System on all sizes.
- Factory-installed SystemVu[™] controller with LCD user display
- Standard Limited Parts Warranty: 5 yr. Electric heaters, 5 yr. compressor, 3 yr. SystemVu controller, 1 yr. parts.

MODEL NUMBER NOMENCLATURE

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

Unit Type

50 = Electric Cooling
Packaged Rooftop

Model Series – WeatherExpert®

LC = Ultra High Efficiency

Heat Size

D = Low Electric Heat
E = Medium Electric Heat
F = High Electric Heat

Refrig. System Options

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

Nominal Cooling Tons

07 = 6 Ton
08 = 7.5 Ton
09 = 8.5 Ton
12 = 10 Ton

Sensor Options

A = None
B = RA smoke detector
C = SA smoke detector
D = RA & SA smoke detector
E = CO₂ sensor
F = RA smoke detector & CO₂
G = SA smoke detector & CO₂
H = RA & SA smoke detector & CO₂

Indoor Fan Options

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

Coil Options (Outdoor – Indoor – Hailguard)

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

Brand / Packaging

0 = Standard
1 = LTL

Electrical Options

A = None
B = HACR breaker
C = Non-fused disconnect
D = Thru the base connections
E = HACR breaker & thru the base
F = Non-fused & thru the base

Service Options

0 = None
1 = Unpowered convenience outlet
2 = Powered convenience outlet
3 = Hinged panels
4 = Hinged panels, unpwr'd conv outlet
5 = Hinged panels, pwr'd conv outlet

Air Intake / Exhaust Options

A = None
B = Standard Leak Temperature Economizer
w/barometric relief
E = Standard Leak Enthalpy Economizer
w/barometric relief
N = Temp ultra low leak econo w/ baro relief
R = Enthalpy ultra low leak econo w/ baro relief

Base Unit Controls

0 = Electro-Mechanical Control
1 = RTU Open Multi-Protocol Controller
4 = SystemVu™ Controller*

Design Rev

- Factory design revision

Voltage

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

* SystemVu controller is not available on units equipped with Standard Leak Economizers or Humidi-MiZer system.

Not all possible options can be displayed above – see Price Pages for more details.

Table 1 – FACTORY-INSTALLED OPTIONS AND FIELD-INSTALLED ACCESSORIES

| CATEGORY | ITEM | FACTORY-INSTALLED OPTION | FIELD-INSTALLED ACCESSORY |
|--|---|--------------------------|---------------------------|
| Cabinet | Thru-the-base electrical connections | X | X |
| | Hinged access panels | X | |
| Coil Options | Cu/Cu indoor and/or outdoor coils | X | |
| | Pre-coated outdoor coils | X | |
| | Premium, E-coated outdoor coils | X | |
| Condenser Protection | Condenser coil hail guard (louvered design) | X | X |
| Humidity Control | Humidi-MiZer [®] Adaptive Dehumidification System | X | |
| Controls | Thermostats, temperature sensors, and subbases | | X |
| | Smoke detector (supply and/or return air) | X | |
| | Horn/Strobe Annunciator ⁸ | | X |
| | Time Guard II compressor delay control circuit | | X |
| | Phase Monitor | | X |
| | SystemVu™ Controller ⁷ | X | |
| Economizers & Outdoor Air Dampers | EconoMi\$er X for electromechanical controls, complies with FDD. (Standard and Ultra Low Leak air damper models) ⁶ | X | X |
| | EconoMi\$er2 for DDC controls, complies with FDD. (Standard and Ultra Low Leak air damper models) ⁶ | X | X |
| | Barometric relief ¹ | X | X |
| | Power exhaust | | X |
| Economizer Sensors & IAQ Devices | Single dry bulb temperature sensors ² | X | X |
| | Differential dry bulb temperature sensors ² | | X |
| | Single enthalpy sensors ² | X | X |
| | Differential enthalpy sensors ² | | X |
| | CO ₂ sensor (wall, duct, or unit mounted) ² | X | X |
| Electric Heat | Electric Resistance Heaters | X | X |
| | Single Point Kit | X | X |
| Indoor Motor & Drive | Multiple motor and drive packages | X | |
| Power Options | Convenience outlet (powered) | X | |
| | Convenience outlet (unpowered) | X | |
| | HACR Circuit Breaker ^{3,5} | X | |
| | Non-fused disconnect ⁴ | X | |
| Roof Curbs | Roof curb 14-in (356 mm) | | X |
| | Roof curb 24-in (610 mm) | | X |

NOTES:

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

FACTORY OPTIONS AND/OR ACCESSORIES

Economizer

Economizers can reduce operating costs. They bring in fresh, outside air for ventilation; and provide cool outside air to cool your building. This also is the preferred method of low ambient cooling. When coupled to CO₂ sensors, economizers can limit the ventilation air to only that amount required.

Economizers are available, installed and tested by the factory, with either enthalpy or temperature dry-bulb

inputs. There are also models for electromechanical and direct digital controllers. Additional sensors are available as accessories to optimize the economizer.

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

FACTORY OPTIONS AND/OR ACCESSORIES (cont.)

CO₂ Sensor

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

When the occupants leave, the CO₂ levels decrease, and the sensor appropriately closes the economizer. This intelligent control of the ventilation air, called Demand Controlled Ventilation (DCV) reduces the overall load on the rooftop, saving money.

Smoke Detectors

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

Louvered Hail Guards

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

Convenience Outlet (powered or un-powered)

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

Non-fused Disconnect

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

Power Exhaust

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

Time Guard II Control Circuit

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

Hinged Access Panels

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

Alternate Motors and Drives

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

Thru-the-Base Connections

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

Electric Heaters

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

HACR Breaker

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 environment protection.

When selecting a factory-installed Non-fused disconnect, note they are sized for the unit as ordered from the factory. The sizing of these do not accommodate any field items such as power exhaust devices etc.

On 575V applications, HACR breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.

Thermostat

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

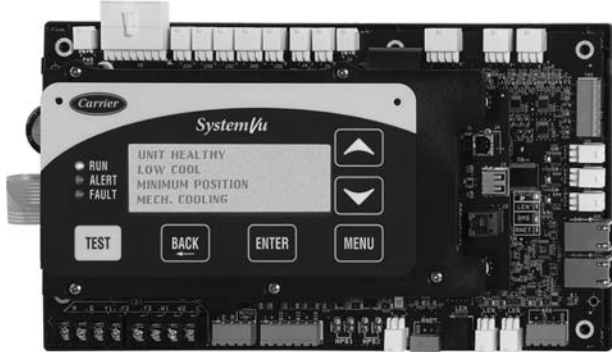
Carrier offers a Honeywell branded T7350D (3 Cool/3 Heat) Commercial Programmable Thermostat.

This provides:

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

FACTORY OPTIONS AND/OR ACCESSORIES (cont.)

SystemVu™ Controller



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BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BI.

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

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

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

Some of the key features include:

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

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

NOTE: SystemVu controller is not available on units equipped with Standard Leak Economizers or Humidi-MiZer® system.

* BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)

Optional Humidi-MiZer® Adaptive Dehumidification System

Carrier's Humidi-MiZer adaptive dehumidification system is an all-inclusive factory-installed option that can be ordered with any 50LC WeatherExpert® rooftop unit, except for units equipped with SystemVu™ controls.

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

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

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

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

Table 2 – AHRI COOLING RATING TABLE — 208V

| LC SIZE | COOLING STAGES | NOMINAL CAPACITY (Tons) | NET COOLING CAPACITY (MBH) | TOTAL POWER (kW) | ELECTRIC HEAT OPTION | INDOOR MOTOR OPTION (Static Capability) | EER | IEER |
|---------|----------------|-------------------------|----------------------------|------------------|----------------------|---|------|------|
| 07 | 3 | 6.0 | 70.0 | 5.3 | All | Std, Med, High | 13.1 | 20.7 |
| 08 | 3 | 7.5 | 89.0 | 6.8 | All | Std | 13.0 | 19.7 |
| | | | | 6.9 | All | Med | 12.9 | 19.4 |
| | | | | 7.0 | All | High | 12.9 | 19.3 |
| | | | | 6.9 | All | Ultra High | 13.0 | 19.4 |
| 09 | 3 | 8.5 | 102.0 | 7.6 | All | Std | 13.7 | 21.0 |
| | | | | 7.6 | All | Med | 13.7 | 21.0 |
| | | | | 7.7 | All | High | 13.6 | 20.8 |
| | | | | 7.7 | All | Ultra High | 13.6 | 20.8 |
| 12 | 3 | 10.0 | 116.0 | 8.9 | All | Std, Med, High | 13.1 | 20.8 |

Table 3 – AHRI COOLING RATING TABLE — 230/460/575V

| LC SIZE | COOLING STAGES | NOMINAL CAPACITY (Tons) | NET COOLING CAPACITY (MBH) | TOTAL POWER (kW) | ELECTRIC HEAT OPTION | INDOOR MOTOR OPTION (Static Capability) | EER | IEER |
|---------|----------------|-------------------------|----------------------------|------------------|----------------------|---|------|------|
| 07 | 3 | 6.0 | 70.0 | 5.3 | All | Std, Med, High | 13.1 | 20.5 |
| 08 | 3 | 7.5 | 89.0 | 6.8 | All | Std | 13.1 | 19.5 |
| | | | | 6.9 | All | Med | 13.0 | 19.2 |
| | | | | 7.0 | All | High | 12.8 | 19.1 |
| | | | | 6.9 | All | Ultra High | 12.9 | 19.2 |
| 09 | 3 | 8.5 | 102.0 | 7.6 | All | Std | 13.4 | 19.9 |
| | | | | 7.6 | All | Med | 13.4 | 19.9 |
| | | | | 7.7 | All | High | 13.3 | 19.7 |
| | | | | 7.7 | All | Ultra High | 13.3 | 19.7 |
| 12 | 3 | 10.0 | 116.0 | 8.9 | All | Std, Med, High | 13.1 | 20.5 |

LEGEND AND NOTES FOR TABLES 2 & 3

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

NOTES:

1. Rated in accordance with AHRI Standards.
2. Ratings are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temp and 95°F (35°C) db outdoor air temp.
3. 50LC units comply with US Energy Policy Act. To evaluate code compliance requirements, refer to state and local codes.

Table 4 – COOLING MINIMUM - MAXIMUM OPERATION CFM TABLE

| LC SIZE | COOLING STAGE | MAX CFM | MIN CFM | MAX OD AMBIENT TEMP °F | MIN OD AMBIENT TEMP °F |
|---------|---------------|---------|---------|------------------------|------------------------|
| 07 | Stage-3 | 3000 | 1500 | 125 | 40 |
| | Stage-2 | 2000 | 1000 | | |
| | Stage-1 | 2000 | 1000 | | |
| 08 | Stage-3 | 3750 | 1900 | 125 | 40 |
| | Stage-2 | 2500 | 1250 | | |
| | Stage-1 | 2500 | 1250 | | |
| 09 | Stage-3 | 4250 | 2150 | 125 | 40 |
| | Stage-2 | 2800 | 1400 | | |
| | Stage-1 | 2800 | 1400 | | |
| 12 | Stage-3 | 5000 | 2500 | 125 | 40 |
| | Stage-2 | 3000 | 1500 | | |
| | Stage-1 | 3000 | 1000 | | |

NOTE: SystemVu™ controller provides minimum outdoor temperature operation down to 0°F (-18°C).

Table 5 – HEATING MINIMUM / MAXIMUM CFM TABLE

| UNIT | Min Air Flow (cfm) | Max Air Flow (cfm) |
|----------|--------------------|--------------------|
| 50LC**07 | 1,800 | 3,000 |
| 50LC**08 | 2,250 | 3,750 |
| 50LC**09 | 2,550 | 4,250 |
| 50LC**12 | 3,000 | 5,000 |

Table 6 – SOUND PERFORMANCE TABLE

| 50LC | COOLING STAGES | OUTDOOR SOUND (dB) AT 60 Hz | | | | | | | | |
|------|----------------|-----------------------------|------|------|------|------|------|------|------|------|
| | | A-WEIGHTED | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| 07 | 3 | 82 | 88.6 | 85.0 | 81.6 | 79.5 | 77.4 | 74.1 | 71.0 | 66.3 |
| 08 | 3 | 83 | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |
| 09 | 3 | 83 | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |
| 12 | 3 | 83 | 89.3 | 86.0 | 82.9 | 80.7 | 78.5 | 73.6 | 69.6 | 64.5 |

LEGEND: dB – Decibel

NOTES:

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

Table 7 – PHYSICAL DATA

(COOLING)

6-10 TONS

| | | 50LC**07 | 50LC**08 | 50LC**09 | 50LC**12 |
|---------------------------------|--|-----------------|-----------------|-----------------|-----------------|
| Refrigeration System | | | | | |
| | # Circuits / # Comp. / Type | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll | 1 / 2 / Scroll |
| | RTPF Models R-410A charge (lbs – oz) | 15 – 8 | 22 – 5 | 25 – 11 | 24 – 15 |
| | Alternate (Humidi-MiZer®) R-410A charge (lbs – oz) | 23 – 5 | 27 – 6 | 34 – 0 | 31 – 8 |
| | Metering device | TXV | TXV | TXV | TXV |
| | High – press. Trip / Reset (psig) | 630 / 505 | 630 / 505 | 630 / 505 | 630 / 505 |
| | Low – press. Trip / Reset (psig) | N/A | N/A | 54/117 | 54/117 |
| | Loss of charge Trip / Reset (psig) | 27 / 44 | 27 / 44 | N/A | N/A |
| Evaporator Coil | | | | | |
| | Material | Cu / Al | Cu / Al | Cu / Al | Cu / Al |
| | Coil type | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF |
| | Coil Length (in) | 40 | 52.5 | 52.5 | 52.5 |
| | Coil Height (in) | 40 | 48 | 48 | 48 |
| | Rows / FPI | 4 / 15 | 4 / 15 | 4 / 15 | 4 / 15 |
| | Total Face Area (ft ²) | 11.1 | 17.5 | 17.5 | 17.5 |
| | Condensate Drain Conn. Size | 3/4" | 3/4" | 3/4" | 3/4" |
| Humidi-MiZer Coil | | | | | |
| | Material | Cu / Al | Cu / Al | Cu / Al | Cu / Al |
| | Coil type | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF |
| | Coil Length (in) | 38 | 49.5 | 49.5 | 49.5 |
| | Coil Height (in) | 32 | 40 | 40 | 40 |
| | Rows / FPI | 2 / 18 | 1 / 18 | 1 / 18 | 1 / 18 |
| | Total Face Area (ft ²) | 8.4 | 13.8 | 13.8 | 13.8 |
| Evaporator Fan and Motor | | | | | |
| Standard Static | Motor Qty / Drive type | 1 / Belt | 1 / Belt | 1 / Belt | 1 / Belt |
| | Max BHP | 1.7 | 1.7 | 1.7 | 2.4 |
| | RPM range | 356–534 | 338–507 | 338–507 | 375–563 |
| | Motor Frame Size | 56 | 56 | 56 | 56Z |
| | Fan Qty / Type | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal |
| | Fan Diameter (in) | 15.5 x 15 | 18.5 x 18 | 18.5 x 18 | 18.5 X 18 |
| Medium Static | Motor Qty / Drive type | 1 / Belt | 1 / Belt | 1 / Belt | 1 / Belt |
| | Max BHP | 1.7 | 1.7 | 1.7 | 2.9 |
| | RPM range | 539–809 | 488–675 | 488–675 | 547–757 |
| | Motor Frame Size | 56 | 56 | 56 | 56 |
| | Fan Qty / Type | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal |
| | Fan Diameter (in) | 15.5 x 15 | 18.5 x 18 | 18.5 x 18 | 18.5 X 18 |
| High Static | Motor Qty / Drive type | 1 / Belt | 1 / Belt | 1 / Belt | 1 / Belt |
| | Max BHP | 2.9 | 2.9 | 3.7 | 4.9 |
| | RPM range | 799–1054 | 623–863 | 675–863 | 760–960 |
| | Motor Frame Size | 56 | 56 | 56HZ | 145TZ |
| | Fan Qty / Type | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal | 1 / Centrifugal |
| | Fan Diameter (in) | 15.5 x 15 | 18.5 x 18 | 18.5 x 18 | 18.5 X 18 |
| Ultra High Static | Motor Qty / Drive type | N/A | 1 / Belt | 1 / Belt | N/A |
| | Max BHP (208/230/460/575v) | N/A | 3.7 | 4.9 | N/A |
| | RPM range | N/A | 847–1150 | 832–1021 | N/A |
| | Motor Frame Size | N/A | 56HZ | 145TZ | N/A |
| | Fan Qty / Type | N/A | 1 / Centrifugal | 1 / Centrifugal | N/A |
| | Fan Diameter (in) | N/A | 18.5 x 18 | 18.5 x 18 | N/A |

Table 7 (cont.) – PHYSICAL DATA

(COOLING)

6-10 TONS

| | | 50LC**07 | 50LC**08 | 50LC**09 | 50LC**12 |
|------------------------------|-------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
| Condenser Coil 1 | Material | Cu / Al | Cu / Al | Cu / Al | Cu / Al |
| | Coil type | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF | 5/16" RTPF |
| | Rows / FPI | 2 / 18 | 2 / 18 | 2/18 | 2/18 |
| | Total Face Area (ft2) | 25.1 | 36.1 | 23.1 | 23.1 |
| Condenser Coil 2 | Material | N/A | N/A | Cu / Al | Cu / Al |
| | Coil type | N/A | N/A | 5/16" RTPF | 5/16" RTPF |
| | Rows / FPI | N/A | N/A | 2/18 | 2/18 |
| | Total Face Area (ft2) | N/A | N/A | 23.1 | 23.1 |
| Condenser fan / motor | Qty / Motor drive type | 2 / direct | 3 / direct | 3 / direct | 3 / direct |
| | Motor HP / RPM | 1/3 / 1000 | 1/3 / 1000 | 1/3 / 1000 | 1/3 / 1000 |
| | Fan diameter (in) | 22 | 22 | 22 | 22 |
| Filters | RA Filter # / size (in) | 4/ 20 x 20 x 2 | 6/ 18 x 24 x 2 | 6 / 18 x 24 x 2 | 6 / 18 x 24 x 2 |
| | OA inlet screen # / size (in) | V 2 / 24 x 27 x 1 H 1 / 30 x 39 x1 | V 2 / 24 x 27 x 1 H 1 / 30 x 39 x1 | V 2 / 24 x 27 x 1H 1 / 30 x 39 x2 | V 2 / 24 x 27 x 1 H 1 / 30 x 39 x2 |

Table 8 – ELECTRIC HEAT - ELECTRICAL DATA

50LC07**

| NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART NUMBER CRHEATER | NOM PWR (kW) | APP PWR (kW) | SINGLE POINT KIT PART NUMBER CRSINGLEXXXA00 | | | |
|------------------|-------------|---|-----------------|-----------------|---|------------------------------|-------------|------------------------------|
| | | | | | NO C.O. or UNPWRD C.O. | | w/PWRD C.O. | |
| | | | | | NO P.E. | w/ P.E. (pwrd fr/unit) | NO P.E. | w/ P.E. (pwrd fr/unit) |
| 208/ 230-3-60 | STD | 316A00 | 6.5 | 4.9/6.0 | 047 | 047 | 047 | 047 |
| | | 317A00 | 16.0 | 12.0/14.7 | 047 | 047 | 049 | 049 |
| | | 318A00 | 24.8 | 18.6/22.8 | 049 | 049 | 049 | 049 |
| | MED | 316A00 | 6.5 | 4.9/6.0 | 047 | 047 | 047 | 047 |
| | | 317A00 | 16.0 | 12.0/14.7 | 047 | 047 | 049 | 049 |
| | | 318A00 | 24.8 | 18.6/22.8 | 049 | 049 | 049 | 049 |
| | HIGH | 316A00 | 6.5 | 4.9/6.0 | 047 | 047 | 047 | 047 |
| | | 317A00 | 16.0 | 12.0/14.7 | 047 | 049 | 049 | 049 |
| | | 318A00 | 24.8 | 18.6/22.8 | 049 | 049 | 049 | 049 |
| 460-3-60 | STD | 319A00 | 6.0 | 5.5 | 047 | 047 | 047 | 047 |
| | | 320A00 | 14.0 | 12.9 | 047 | 047 | 047 | 047 |
| | | 321A00 | 25.5 | 23.4 | 047 | 047 | 047 | 047 |
| | MED | 319A00 | 6.0 | 5.5 | 047 | 047 | 047 | 047 |
| | | 320A00 | 14.0 | 12.9 | 047 | 047 | 047 | 047 |
| | | 321A00 | 25.5 | 23.4 | 047 | 047 | 047 | 047 |
| | HIGH | 319A00 | 6.0 | 5.5 | 047 | 047 | 047 | 047 |
| | | 320A00 | 14.0 | 12.9 | 047 | 047 | 047 | 047 |
| | | 321A00 | 25.5 | 23.4 | 047 | 047 | 047 | 047 |
| 575-3-60 | STD | 308A00 | 18.0 | 16.5 | 047 | 047 | 047 | 047 |
| | | 322A00 | 28.0 | 25.7 | 047 | 047 | 047 | 047 |
| | MED | 308A00 | 18.0 | 16.5 | 047 | 047 | 047 | 047 |
| | | 322A00 | 28.0 | 25.7 | 047 | 047 | 047 | 047 |
| | HIGH | 308A00 | 18.0 | 16.5 | 047 | 047 | 047 | 047 |
| | | 322A00 | 28.0 | 25.7 | 047 | 047 | 047 | 047 |

LEGEND

- APP PWR - 208 / 230V / 460V / 575V
- C.O. - Convenience outlet
- IFM - Indoor fan motor
- NOM PWR - 240V / 480V / 600V
- P.E. - Power exhaust
- Pwrd fr/unit - Powered from unit
- PWRD - Powered convenience outlet
- UNPWRD - Unpowered convenience outlet

Table 9 – ELECTRIC HEAT - ELECTRICAL DATA

50LC**08

| NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART NUMBER CRHEATER | NOM PWR (kW) | APP PWR (kW) | SINGLE POINT KIT PART NUMBER CRSINGLEXXXA00 | | | |
|------------------|-------------|---|-----------------|-----------------|---|------------------------------|-------------|------------------------------|
| | | | | | NO C.O. or UNPWRD C.O. | | w/PWRD C.O. | |
| | | | | | NO P.E. | w/ P.E. (pwrd fr/unit) | NO P.E. | w/ P.E. (pwrd fr/unit) |
| 208/ 230-3-60 | STD | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | MED | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | HIGH | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | ULTRA-HIGH | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | 049 | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| 460-3-60 | STD | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | MED | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | HIGH | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 050 |
| | ULTRA HIGH | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 050 |
| 575-3-60 | STD | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | MED | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | HIGH | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | ULTRA HIGH | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |

LEGEND

- APP PWR - 208 / 230V / 460V / 575V
- C.O. - Convenience outlet
- IFM - Indoor fan motor
- NOM PWR - 240V / 480V / 600V
- P.E. - Power exhaust
- Pwrd fr/unit - Powered from unit
- PWRD - Powered convenience outlet
- UNPWRD - Unpowered convenience outlet

Table 10 – ELECTRIC HEAT - ELECTRICAL DATA

50LC**09

| NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART NUMBER CRHEATER | NOM PWR (kW) | APP PWR (kW) | SINGLE POINT KIT PART NUMBER CRSINGLEXXA00 | | | |
|------------------|---------------|---|-----------------|-----------------|--|------------------------------|-------------|------------------------------|
| | | | | | NO C.O. or UNPWRD C.O. | | w/PWRD C.O. | |
| | | | | | NO P.E. | w/ P.E. (pwrd fr/unit) | NO P.E. | w/ P.E. (pwrd fr/unit) |
| 208/ 230-3-60 | STD | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | MED | 288A00 | 10.0 | 7.5/9.2 | - | - | - | - |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | HIGH | 288A00 | 10.0 | 7.5/9.2 | - | - | - | 049 |
| | | 291A00 | 16.5 | 12.4/15.2 | 049 | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | ULTRA HIGH | 288A00 | 10.0 | 7.5/9.2 | - | - | 049 | 049 |
| | | 291A00 | 16.5 | 12.4/15.2 | 049 | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| 460-3-60 | STD | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | MED | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | HIGH | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 050 |
| | ULTRA HIGH | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 050 | 050 | 050 |
| 575-3-60 | STD | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | MED | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | HIGH | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | ULTRA HIGH | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |

LEGEND

- APP PWR - 208 / 230V / 460V / 575V
- C.O. - Convenience outlet
- IFM - Indoor fan motor
- NOM PWR - 240V / 480V / 600V
- P.E. - Power exhaust
- PWRD - Powered convenience outlet
- UNPWRD - Unpowered convenience outlet

| NOM. V-Ph-Hz | IFM TYPE | ELECTRIC HEATER PART NUMBER CRHEATER | NOM PWR (kW) | APP PWR (kW) | SINGLE POINT KIT PART NUMBER CRSINGLEXXA00 | | | |
|------------------|-------------|---|-----------------|-----------------|--|------------------------------|-------------|------------------------------|
| | | | | | NO C.O. or UNPWRD C.O. | | w/PWRD C.O. | |
| | | | | | NO P.E. | w/ P.E. (pwrd fr/unit) | NO P.E. | w/ P.E. (pwrd fr/unit) |
| 208/ 230-3-60 | STD | 288A00 | 10.0 | 7.5/9.2 | - | - | - | 049 |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | | 291A00,294A00 | 50.0 | 37.6/45.9 | 051 | 051 | 051 | 051 |
| | MED | 288A00 | 10.0 | 7.5/9.2 | - | 049 | 049 | 049 |
| | | 291A00 | 16.5 | 12.4/15.2 | - | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | | 291A00,294A00 | 50.0 | 37.6/45.9 | 051 | 051 | 051 | 051 |
| | HIGH | 288A00 | 10.0 | 7.5/9.2 | 049 | 049 | 049 | 049 |
| | | 291A00 | 16.5 | 12.4/15.2 | 049 | 049 | 049 | 049 |
| | | 294A00 | 33.5 | 25.2/30.8 | 049 | 049 | 049 | 049 |
| | | 291A00,294A00 | 50.0 | 37.6/45.9 | 051 | 051 | 051 | 051 |
| 460-3-60 | STD | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 050 |
| | | 292A00,295A00 | 50.0 | 45.9 | 050 | 050 | 050 | 050 |
| | MED | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 047 | 047 | 050 |
| | | 292A00,295A00 | 50.0 | 45.9 | 050 | 050 | 050 | 050 |
| | HIGH | 289A00 | 10.0 | 9.2 | - | - | - | - |
| | | 292A00 | 16.5 | 15.2 | - | - | - | - |
| | | 295A00 | 33.5 | 30.8 | 047 | 050 | 050 | 050 |
| | | 292A00,295A00 | 50.0 | 45.9 | 050 | 050 | 050 | 050 |
| 575-3-60 | STD | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | | 293A00,296A00 | 50.0 | 45.9 | 047 | 047 | 047 | 047 |
| | MED | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | | 293A00,296A00 | 50.0 | 45.9 | 047 | 047 | 047 | 050 |
| | HIGH | 293A00 | 16.5 | 15.2 | - | - | - | - |
| | | 296A00 | 33.5 | 30.8 | 047 | 047 | 047 | 047 |
| | | 293A00,296A00 | 50.0 | 45.9 | 047 | 050 | 047 | 050 |

LEGEND

- APP PWR - 208 / 230V / 460V / 575V
- C.O. - Convenience outlet
- IFM - Indoor fan motor
- NOM PWR - 240V / 480V / 600V
- P.E. - Power exhaust
- PWRD - Powered convenience outlet
- UNPWRD - Unpowered convenience outlet

UNIT: DIMENSIONS, WEIGHTS & CURBS

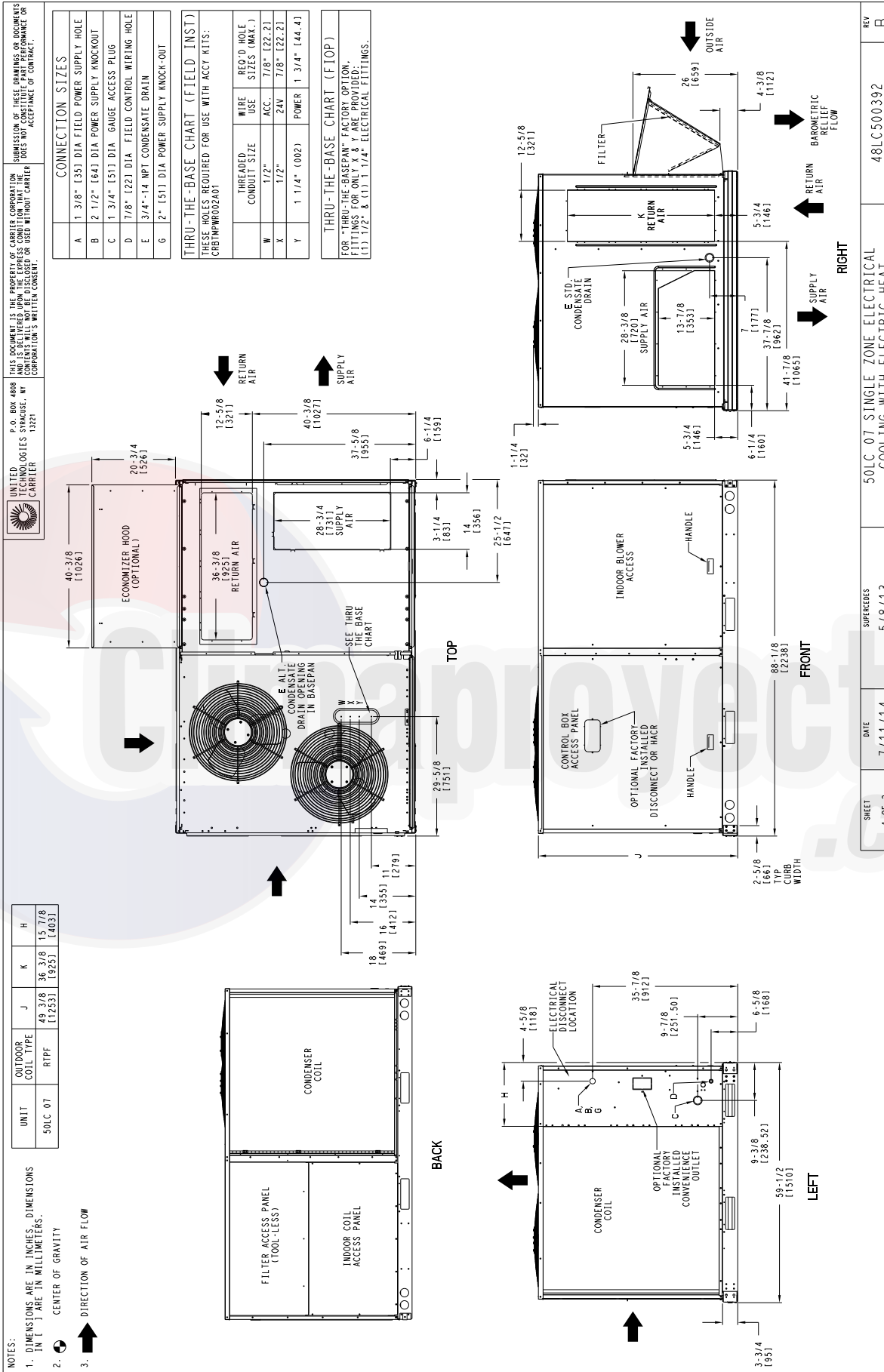


Fig. 1 - Dimensions 50LC 07

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

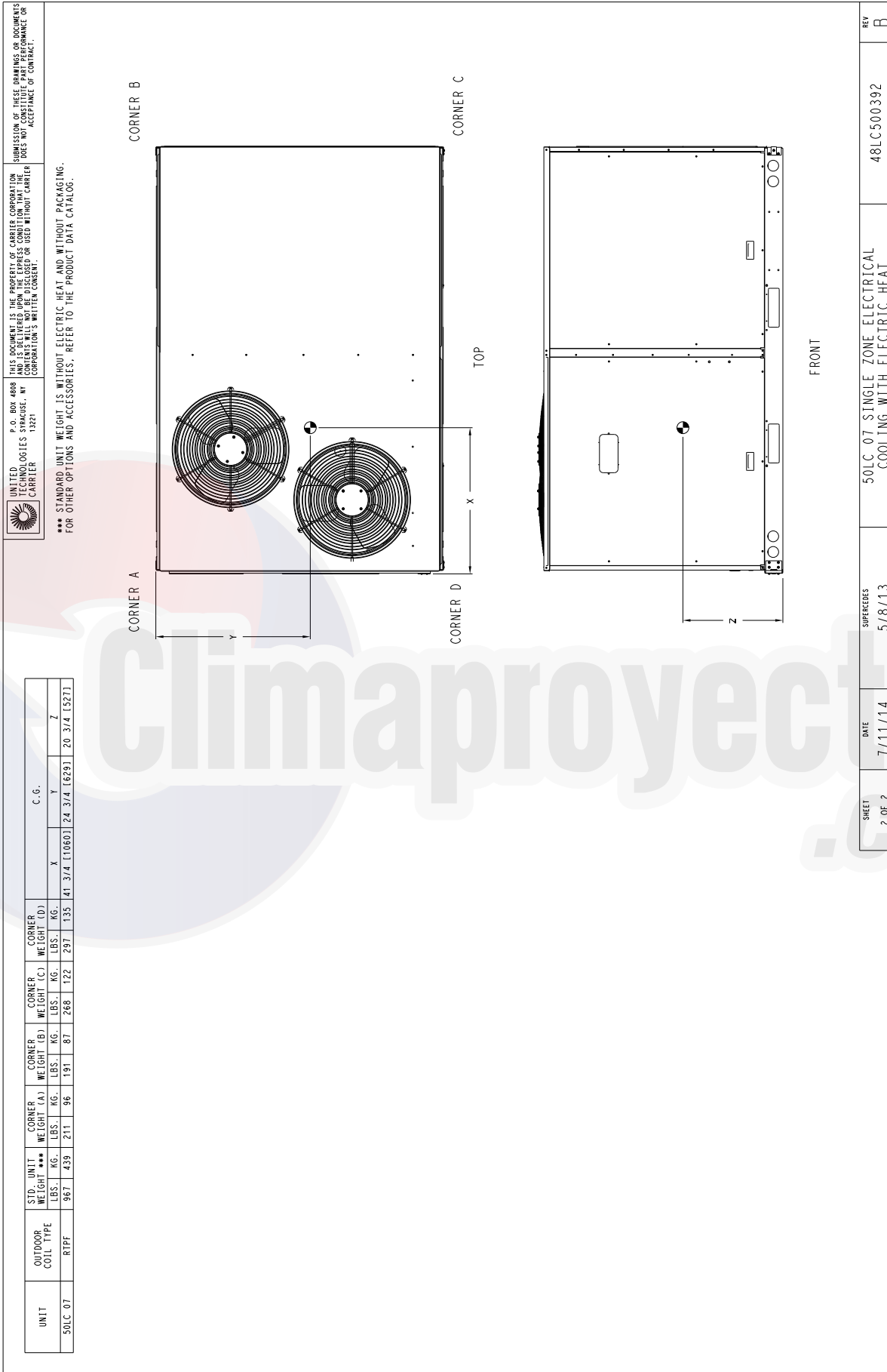


Fig. 2 - Dimensions 50LC 07

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

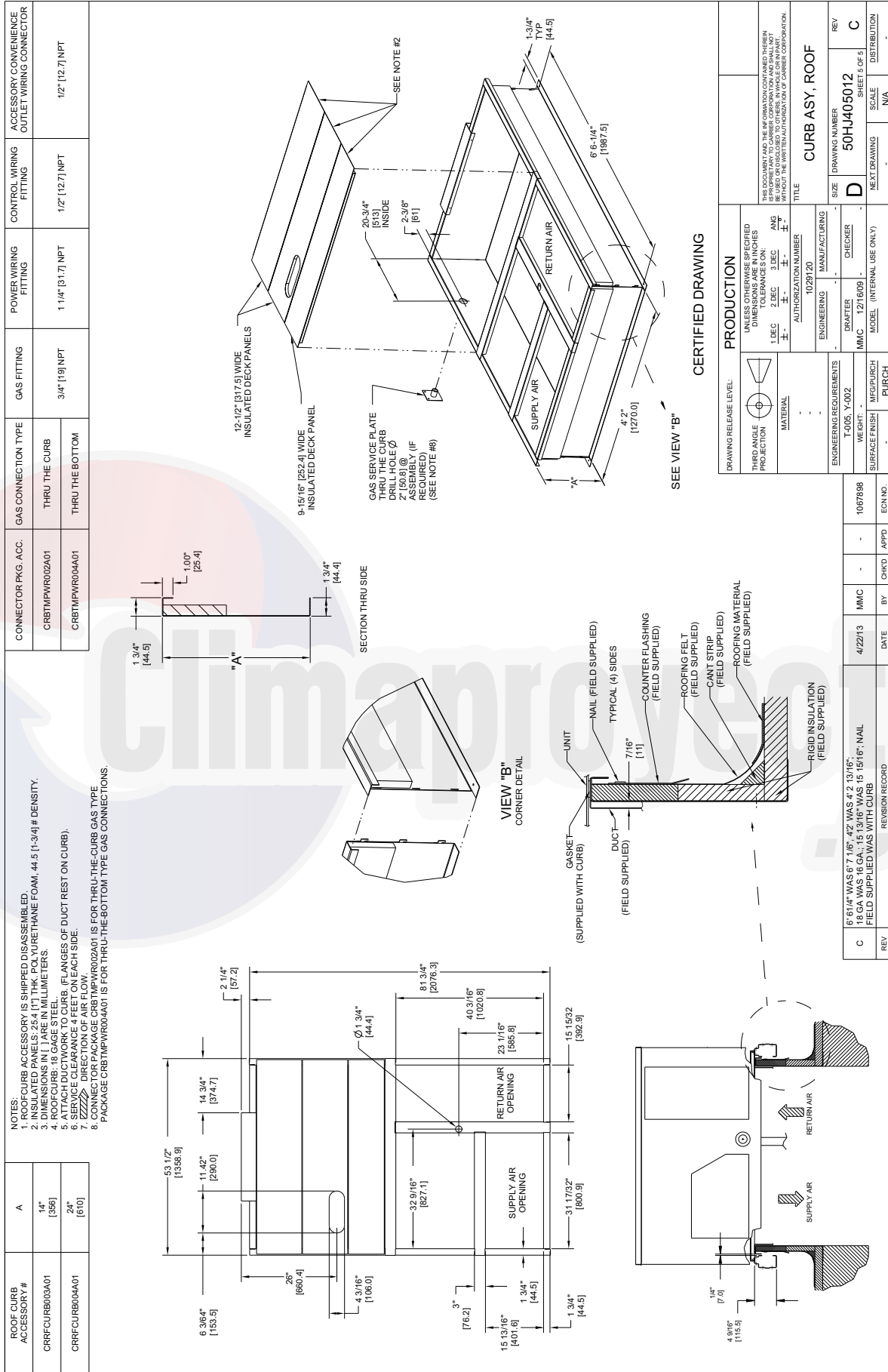


Fig. 3 - Roof Curb Details Size 07

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

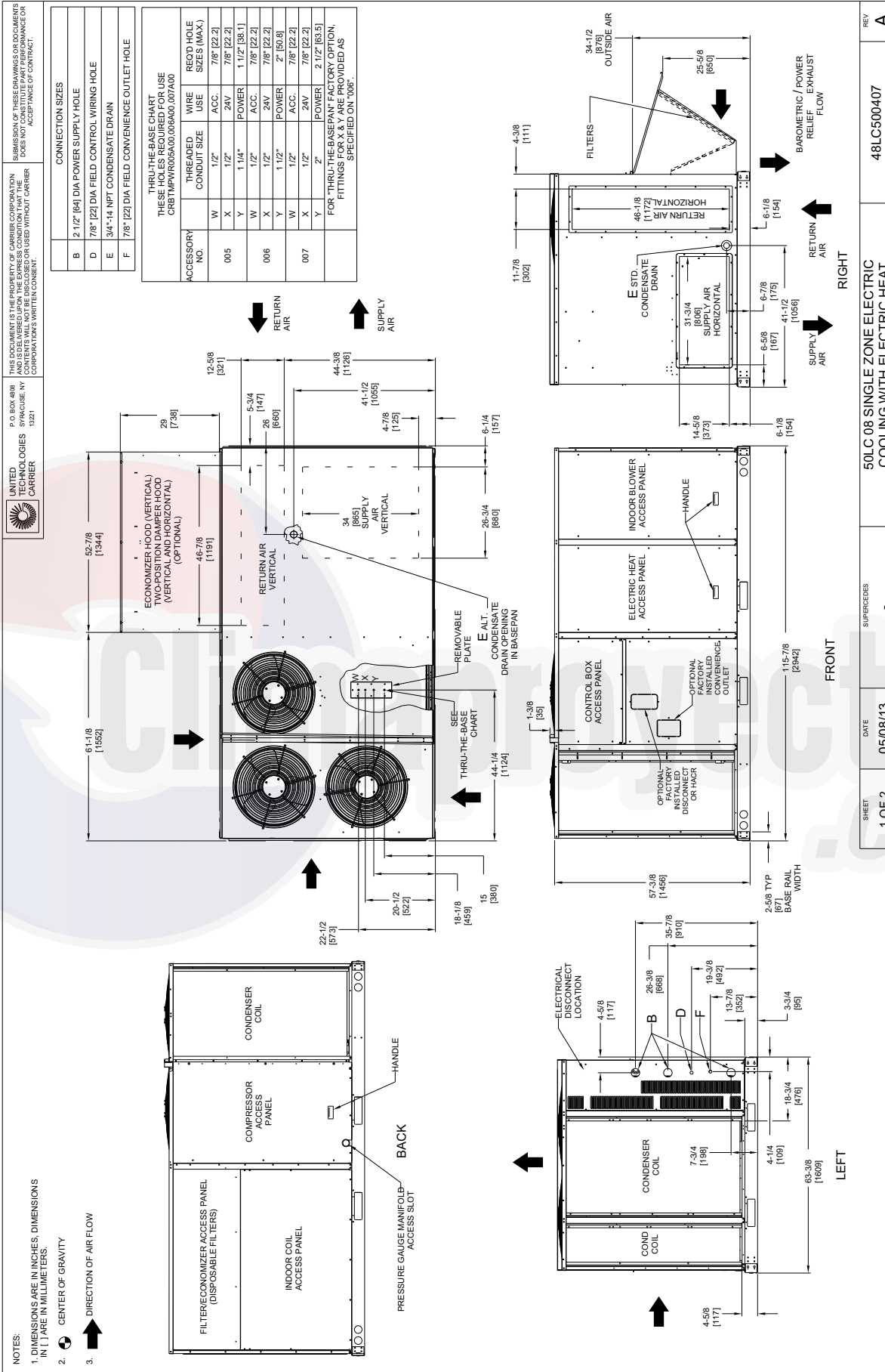
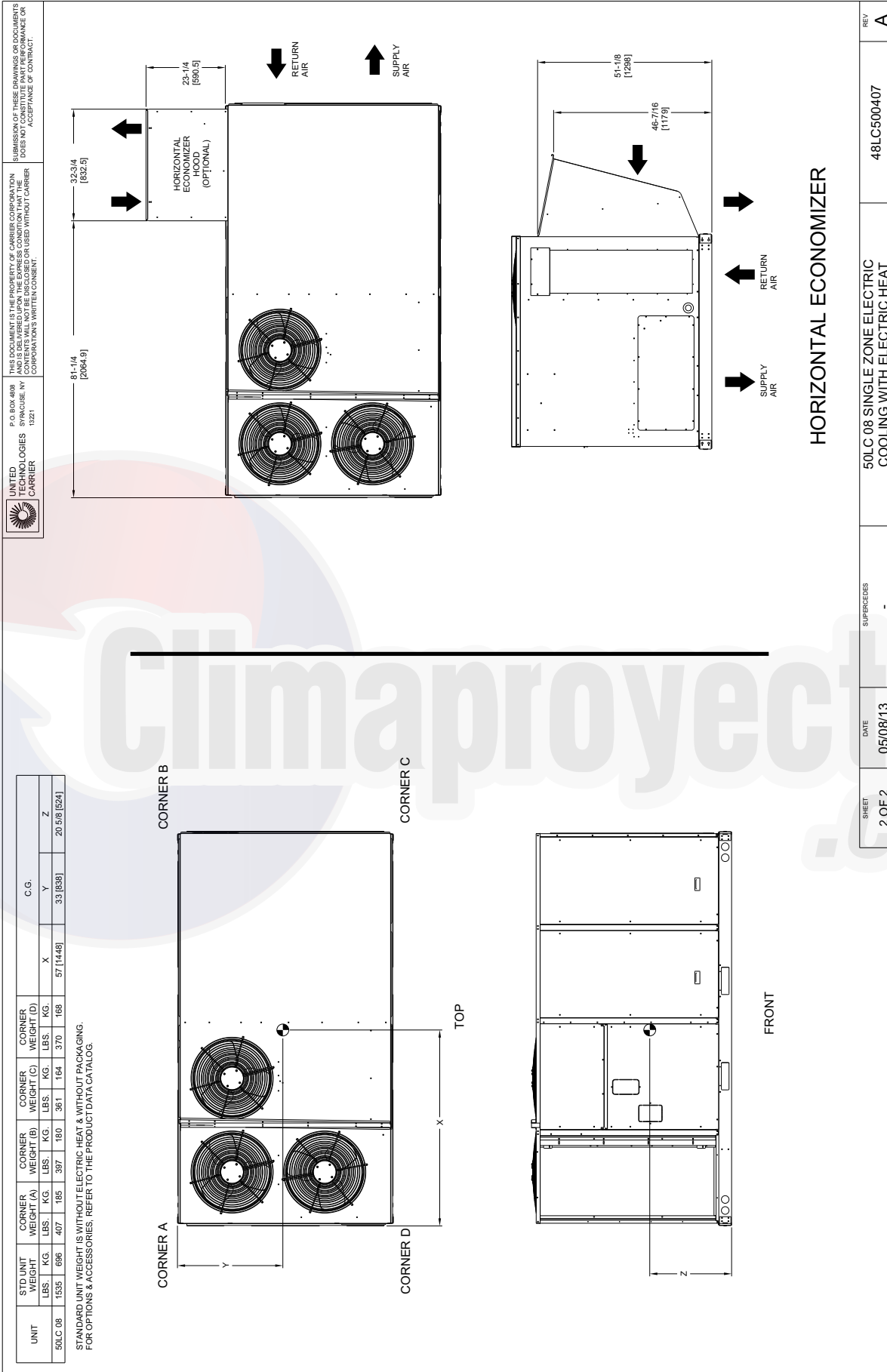


Fig. 4 - 50LC 08

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)



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UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

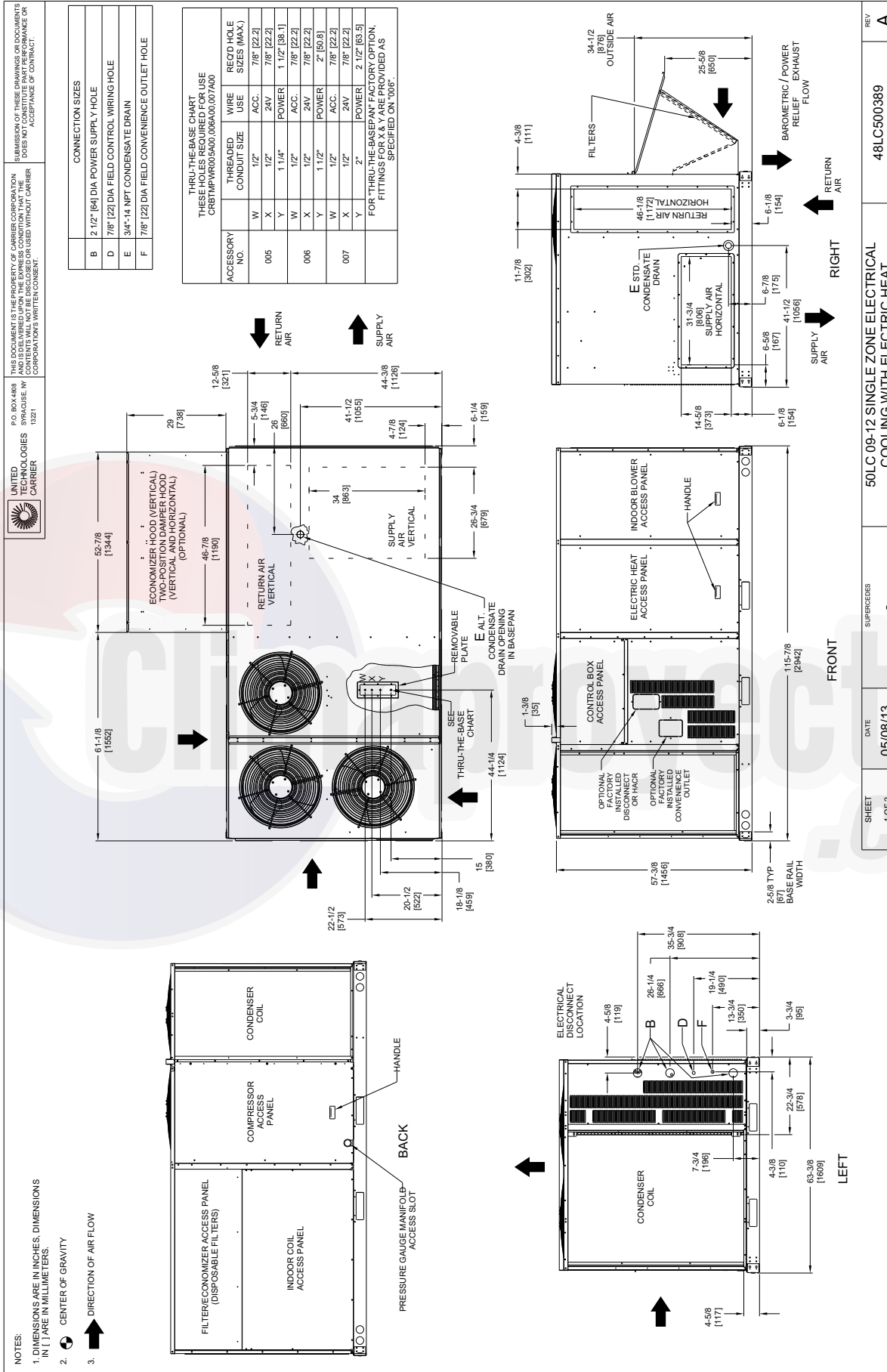


Fig. 6 - 50LC 09 - 12

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

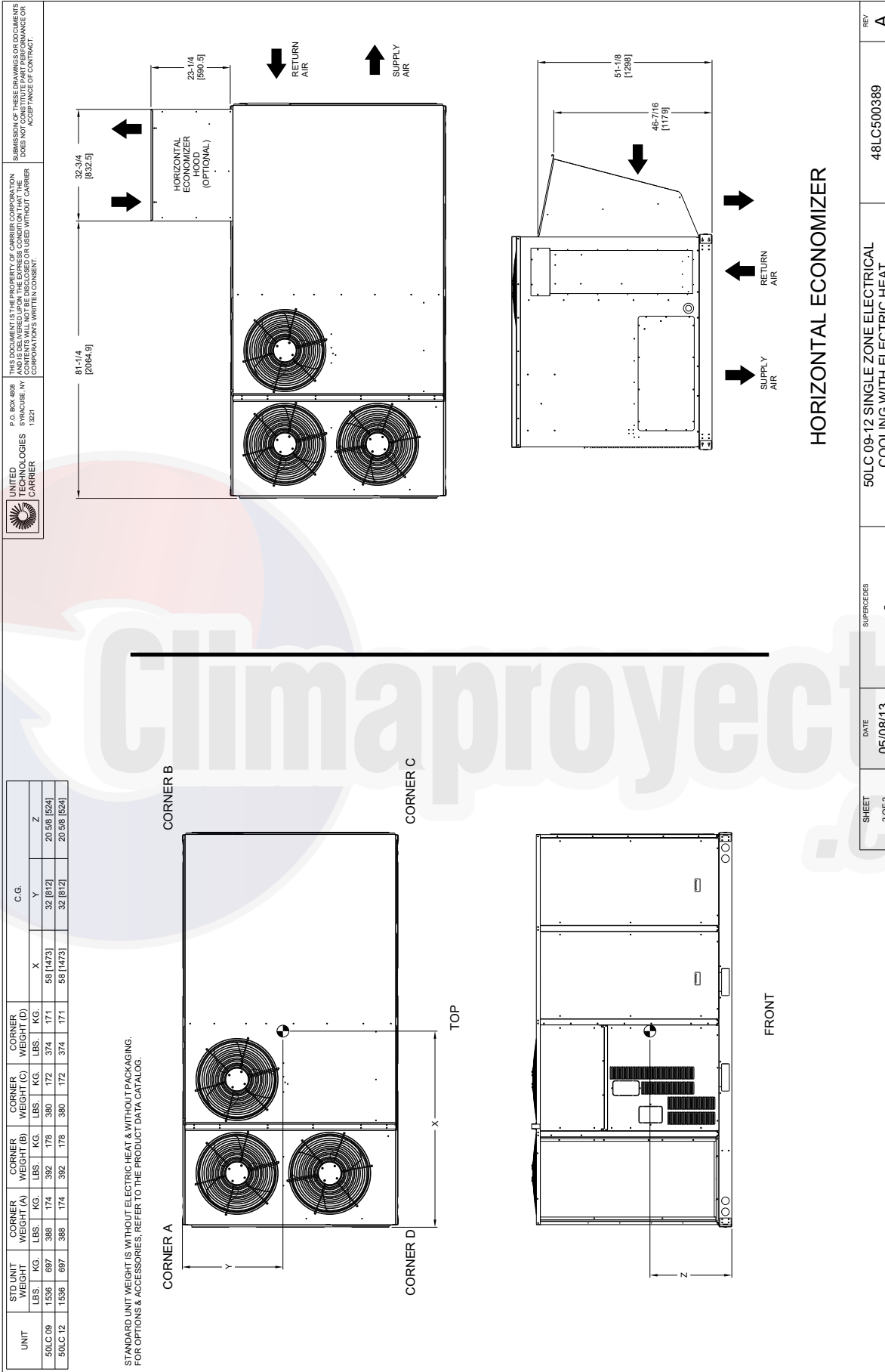


Fig. 7 - 50LC 09 - 12

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)

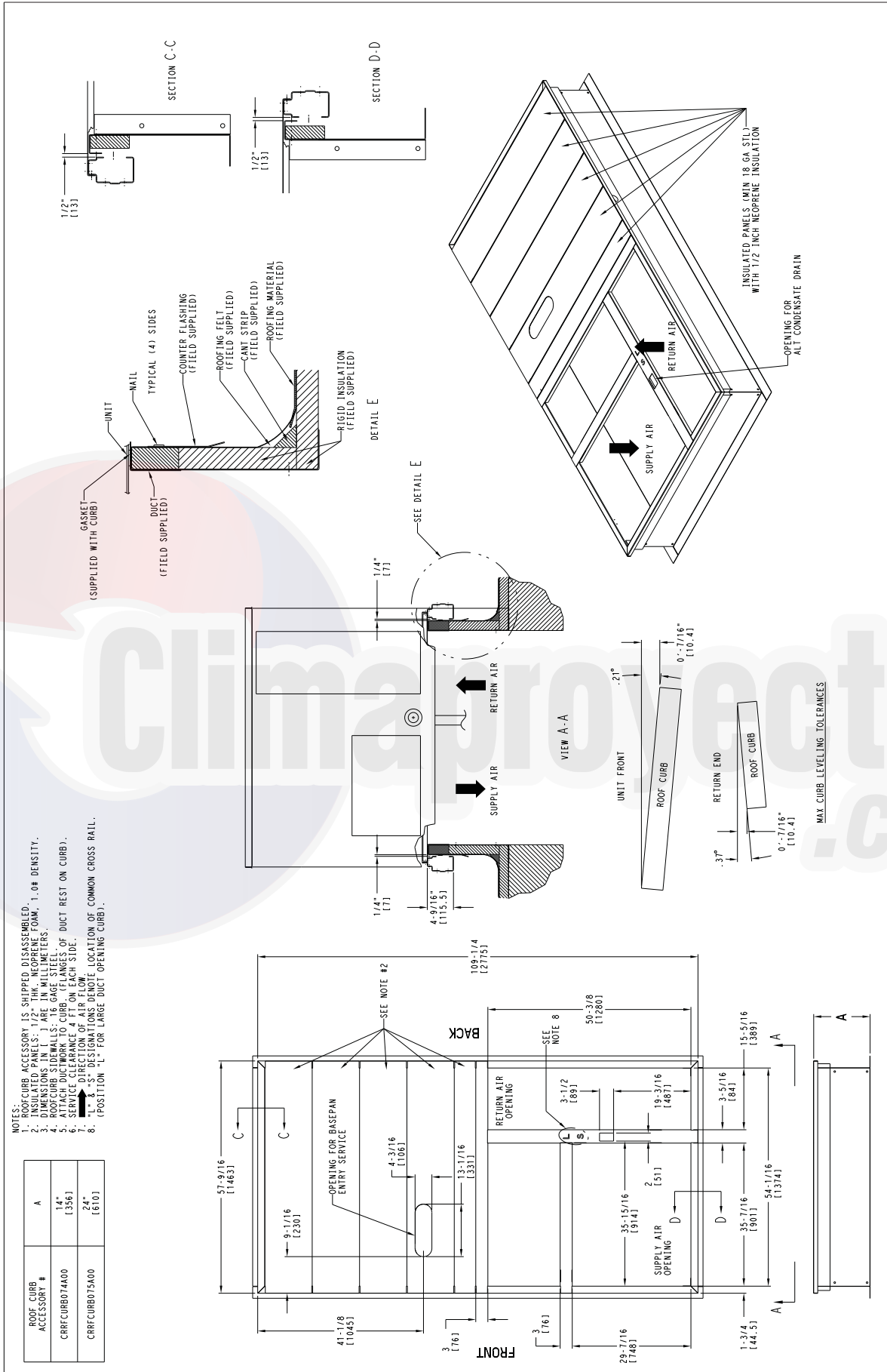
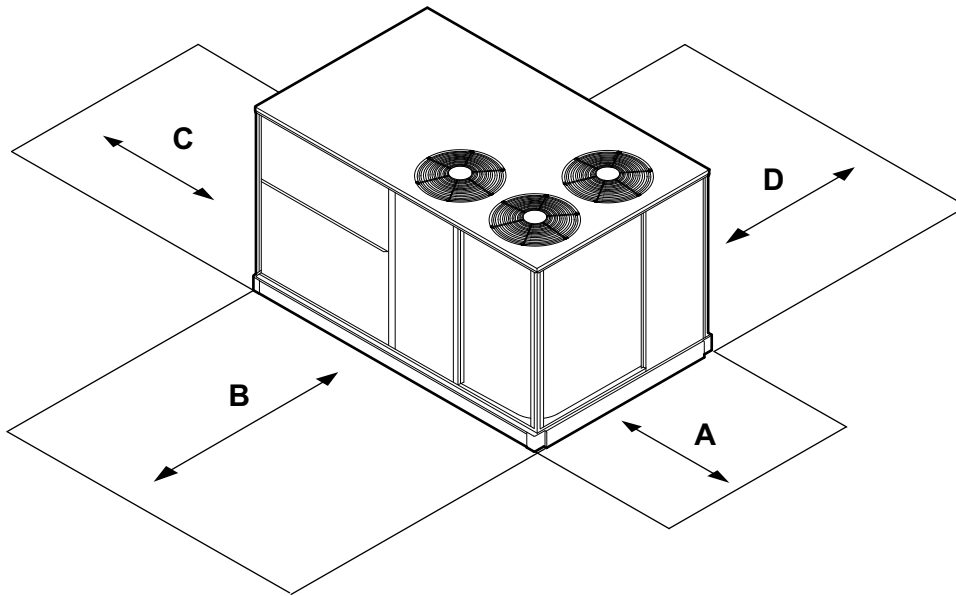


Fig. 8 - Roof Curb Details Size 08 - 12

UNIT: DIMENSIONS, WEIGHTS & CURBS (cont.)



C13291

| LOCATION | DIMENSION | CONDITION |
|----------|---|---|
| A | 48-in (1219 mm) 18-in (457 mm) 18-in (457 mm) 12-in (305 mm) | Unit disconnect is mounted on panel No disconnect, convenience outlet option Recommended service clearance Minimum clearance |
| B | 40-in (1067 mm) 36-in (914 mm) Special | Surface behind servicer is grounded (e.g., metal, masonry wall) Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass) Check sources of flue products within 10-ft of unit fresh air intake hood |
| C | 36-in (914 mm) 18-in (457 mm) | Side condensate drain is used Minimum clearance |
| D | 42-in (1067 mm) 36-in (914 mm) | Surface behind servicer is grounded (e.g., metal, masonry wall, another unit) Surface behind servicer is electrically non-conductive (e.g., wood, fiberglass) |

NOTE: 1. Unit not designed to have overhead obstruction. Contact Application Engineering for guidance on any application planning overhead obstruction or for vertical clearances.

2. The number of fans varies with the unit size. Depending on size unit will have two or three fans.

Fig. 9 - Service Clearance Dimensional Drawing — Typical All 50LC 07-12 Units

OPTIONS & ACCESSORY WEIGHTS

| OPTION / ACCESSORY | WEIGHTS in LBS | | | |
|--|----------------|----------|----------|----------|
| | 50LC**07 | 50LC**08 | 50LC**09 | 50LC**12 |
| Humidi – MiZer® | 80 | 90 | 90 | 90 |
| Low Electric Heat | 57 | 49 | 49 | 49 |
| Medium Electric Heat | 69 | 62 | 62 | 62 |
| High Electric Heat | 105 | 65 | 65 | 65 |
| Return Smoke Detector | 5 | 5 | 5 | 5 |
| Supply Smoke Detector | 5 | 5 | 5 | 5 |
| RA & SA Smoke Detector | 10 | 10 | 10 | 10 |
| CO ₂ sensor | 5 | 5 | 5 | 5 |
| RA Smoke Detector & CO ₂ | 10 | 10 | 10 | 10 |
| SA Smoke Detector & CO ₂ | 10 | 10 | 10 | 10 |
| RA & SA Smoke Detector & CO ₂ | 15 | 15 | 15 | 15 |
| Medium Static Option – Belt Drive | 15 | 45 | 45 | 45 |
| High Static Option – Belt Drive | 15 | 45 | 45 | 45 |
| Cu/Cu Cond & Al/Cu Evap | 23 | 25 | 25 | 25 |
| Cu/Cu Cond & Cu/Cu Evap | 49 | 47 | 47 | 47 |
| Al/Cu Cond & Al/Cu Evap + Hail Guard | 34 | 45 | 45 | 45 |
| Pre-coat Al/Cu Cond & Al/Cu Evap + Hail Guard | 34 | 45 | 45 | 45 |
| E-coat Al/Cu Cond & Al/Cu Evap + Hail Guard | 34 | 45 | 45 | 45 |
| E-coat Al/Cu Cond & E-coat Al/Cu Evap + Hail Guard | 34 | 45 | 45 | 45 |
| Cu/Cu Cond & Al/Cu Evap + Hail Guard | 57 | 70 | 70 | 70 |
| Cu/Cu Cond & Cu/Cu Evap + Hail Guard | 83 | 92 | 92 | 92 |
| Temp Ultra Low Leak Econo w/Baro Relief | 74 | 103 | 103 | 103 |
| Enthalpy Ultra Low Leak Econo w/Baro Relief | 74 | 103 | 103 | 103 |
| Unpowered Convenience Outlet | 5 | 5 | 5 | 5 |
| Powered Convenience outlet | 35 | 35 | 35 | 35 |
| Hinged Panels | 5 | 5 | 5 | 5 |
| Hinged Panels with Unpowered Convenience Outlet | 10 | 10 | 10 | 10 |
| Hinged Panels with Powered Convenience Outlet | 40 | 40 | 40 | 40 |
| HACR Breaker | 10 | 10 | 10 | 10 |
| Non-Fused Disconnect | 15 | 15 | 15 | 15 |
| Thru the base | 4 | 4 | 4 | 4 |
| HACR Breaker w/thru base connections | 14 | 14 | 14 | 14 |
| Non-Fused Disconnect + Thru the base | 19 | 19 | 19 | 19 |

APPLICATION DATA

Min operating ambient temp (cooling):

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

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

Max operating ambient temp (cooling):

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

Min and max airflow (cooling mode):

To maintain safe and reliable operation of your rooftop, operate within the cooling airflow limits. Operating above the max may cause blow-off, undesired airflow noise, or airflow related problems with the rooftop unit. Operating below the min may cause problems with coil freeze-up. For proper minimum and maximum CFM values see Table 4.

Airflow:

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

Outdoor air application strategies:

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

Motor limits, break horsepower (BHP):

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

Sizing a rooftop

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

Using higher design temperatures than ASHRAE recommends for your location, adding "safety factors" to the calculated load, and rounding up to the next largest unit, are all signs of oversizing air conditioners. Oversizing can cause short-cycling, and short cycling leads to poor humidity control, reduced efficiency, higher utility bills, drastic indoor temperature swings, excessive noise, and increased wear and tear on the air conditioner.

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

COOLING CAPACITIES

Table 12 – COOLING CAPACITIES - FIRST STAGE, PART LOAD

6 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 13 – COOLING CAPACITIES - SECOND STAGE, PART LOAD

6 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 14 – COOLING CAPACITIES - THIRD STAGE, FULL LOAD

6 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 15 – REHEAT PERFORMANCE TABLE

6 TONS

50LC*A07 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-1 (Subcooler Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|---------------------------|-----|--|-----|-----|------|-----|-----|------|-----|-----|
| | | 1800 | | | 2400 | | | 3000 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 82 | 74 | 64 | 86 | 75 | 71 | 89 | 81 | 72 |
| | SHC | 37 | 46 | 52 | 43 | 51 | 66 | 48 | 62 | 72 |
| | kW | 3.5 | 3.4 | 3.4 | 3.5 | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 |
| 85 | TC | 77 | 69 | 62 | 81 | 73 | 66 | 84 | 72 | 66 |
| | SHC | 33 | 42 | 51 | 38 | 49 | 61 | 43 | 53 | 66 |
| | kW | 3.9 | 3.9 | 3.9 | 4.0 | 3.9 | 3.9 | 4.0 | 3.9 | 3.9 |
| 95 | TC | 72 | 64 | 58 | 76 | 68 | 61 | 78 | 70 | 65 |
| | SHC | 28 | 37 | 47 | 33 | 45 | 57 | 38 | 52 | 65 |
| | kW | 4.5 | 4.4 | 4.4 | 4.5 | 4.5 | 4.4 | 4.5 | 4.5 | 4.4 |
| 105 | TC | 66 | 58 | 53 | 70 | 62 | 56 | 72 | 65 | 60 |
| | SHC | 23 | 32 | 42 | 28 | 40 | 52 | 33 | 47 | 60 |
| | kW | 5.1 | 5.0 | 5.0 | 5.1 | 5.0 | 5.0 | 5.1 | 5.1 | 5.0 |
| 115 | TC | 60 | 52 | 47 | 64 | 55 | 51 | 66 | 59 | 54 |
| | SHC | 18 | 27 | 38 | 23 | 34 | 47 | 27 | 42 | 54 |
| | kW | 5.7 | 5.7 | 5.7 | 5.8 | 5.7 | 5.7 | 5.8 | 5.7 | 5.7 |
| 125 | TC | 54 | 48 | 42 | 57 | 51 | 45 | 59 | 52 | 48 |
| | SHC | 13 | 23 | 33 | 17 | 30 | 42 | 21 | 36 | 48 |
| | kW | 6.5 | 6.5 | 6.4 | 6.5 | 6.5 | 6.4 | 6.5 | 6.5 | 6.4 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

50LC*A07 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-2 (Hot Gas Reheat Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|--------------------------------|-----|--|-----|------|------|-----|------|------|-----|------|
| | | 1800 | | | 2400 | | | 3000 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 |
| 80 | TC | 27 | 28 | 29 | 28 | 29 | 30 | 29 | 30 | 31 |
| | SHC | 5 | 1 | -2 | 10 | 6 | 2 | 16 | 10 | 6 |
| | kW | 4.4 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.6 |
| 75 | TC | 28 | 29 | 31 | 30 | 31 | 32 | 31 | 32 | 33 |
| | SHC | 7 | 3 | 0 | 12 | 8 | 4 | 17 | 12 | 8 |
| | kW | 4.2 | 4.2 | 4.3 | 4.2 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| 70 | TC | 30 | 31 | 32 | 32 | 33 | 34 | 33 | 34 | 35 |
| | SHC | 8 | 5 | 2 | 14 | 9 | 6 | 19 | 14 | 10 |
| | kW | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.1 | 4.0 | 4.1 | 4.1 |
| 60 | TC | 34 | 35 | 36 | 36 | 37 | 38 | 37 | 38 | 39 |
| | SHC | 12 | 9 | 6 | 18 | 13 | 10 | 23 | 18 | 14 |
| | kW | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.7 | 3.6 | 3.7 | 3.7 |
| 50 | TC | 38 | 39 | 41 | 40 | 41 | 43 | 41 | 42 | 44 |
| | SHC | 16 | 13 | 10 | 22 | 18 | 14 | 28 | 23 | 19 |
| | kW | 3.2 | 3.3 | 3.3 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| 40 | TC | 42 | 44 | 45 | 44 | 46 | 47 | 46 | 47 | 49 |
| | SHC | 22 | 19 | 17 | 28 | 24 | 21 | 33 | 29 | 25 |
| | kW | 2.9 | 3.0 | 3.0 | 3.0 | 3.0 | 3.1 | 3.0 | 3.0 | 3.1 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 16 – COOLING CAPACITIES - FIRST STAGE, PART LOAD

7.5 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 17 – COOLING CAPACITIES - SECOND STAGE, PART LOAD

7.5 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 18 – COOLING CAPACITIES - THIRD STAGE, FULL LOAD

7.5 TONS

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

LEGEND:

- - Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 19 – REHEAT PERFORMANCE TABLE

7.5 TONS

50LC*A08 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-1 (Subcooler Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|---------------------------|-----|--|-----|-----|------|-----|-----|------|-----|-----|
| | | 2250 | | | 3000 | | | 3750 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 109 | 97 | 86 | 113 | 101 | 93 | 116 | 108 | 99 |
| | SHC | 48 | 58 | 69 | 53 | 68 | 84 | 60 | 81 | 96 |
| | kW | 4.5 | 4.5 | 4.5 | 5.3 | 5.1 | 4.5 | 5.3 | 4.6 | 4.5 |
| 85 | TC | 101 | 89 | 79 | 108 | 95 | 85 | 109 | 100 | 91 |
| | SHC | 41 | 52 | 62 | 48 | 62 | 77 | 53 | 73 | 88 |
| | kW | 5.2 | 5.1 | 5.1 | 5.2 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| 95 | TC | 93 | 82 | 72 | 99 | 87 | 77 | 102 | 91 | 82 |
| | SHC | 34 | 45 | 56 | 41 | 56 | 70 | 47 | 65 | 82 |
| | kW | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| 105 | TC | 84 | 74 | 64 | 90 | 79 | 69 | 93 | 82 | 75 |
| | SHC | 27 | 38 | 49 | 33 | 48 | 63 | 39 | 58 | 72 |
| | kW | 6.6 | 6.6 | 6.5 | 6.6 | 6.6 | 6.5 | 6.6 | 6.6 | 6.5 |
| 115 | TC | 76 | 66 | 56 | 80 | 70 | 61 | 83 | 73 | 66 |
| | SHC | 19 | 31 | 42 | 25 | 40 | 56 | 31 | 50 | 64 |
| | kW | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 |
| 125 | TC | 67 | 57 | 48 | 71 | 61 | 53 | 73 | 63 | 57 |
| | SHC | 11 | 23 | 35 | 17 | 32 | 48 | 22 | 41 | 57 |
| | kW | 8.5 | 8.5 | 8.4 | 8.5 | 8.5 | 8.4 | 8.5 | 8.5 | 8.4 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

50LC*A08 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-2 (Hot Gas Reheat Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|--------------------------------|-----|--|-----|------|------|-----|------|------|-----|------|
| | | 2250 | | | 3000 | | | 3750 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 |
| 80 | TC | 31 | 33 | 35 | 33 | 34 | 36 | 33 | 35 | 36 |
| | SHC | 3 | -1 | -5 | 10 | 4 | -1 | 16 | 10 | 4 |
| | kW | 6.8 | 6.8 | 6.9 | 6.8 | 6.8 | 6.9 | 6.8 | 6.8 | 6.9 |
| 75 | TC | 35 | 36 | 38 | 36 | 38 | 39 | 37 | 39 | 40 |
| | SHC | 6 | 2 | -2 | 13 | 7 | 2 | 20 | 13 | 7 |
| | kW | 6.4 | 6.5 | 6.5 | 6.4 | 6.5 | 6.5 | 6.5 | 6.5 | 6.6 |
| 70 | TC | 38 | 40 | 41 | 40 | 41 | 43 | 40 | 42 | 44 |
| | SHC | 10 | 5 | 2 | 16 | 11 | 6 | 23 | 16 | 11 |
| | kW | 6.1 | 6.1 | 6.2 | 6.1 | 6.2 | 6.2 | 6.1 | 6.2 | 6.2 |
| 60 | TC | 44 | 46 | 48 | 46 | 48 | 50 | 47 | 49 | 51 |
| | SHC | 16 | 12 | 8 | 22 | 17 | 12 | 30 | 23 | 18 |
| | kW | 5.5 | 5.6 | 5.6 | 5.5 | 5.6 | 5.6 | 5.6 | 5.6 | 5.7 |
| 50 | TC | 51 | 53 | 54 | 53 | 55 | 57 | 54 | 56 | 58 |
| | SHC | 22 | 18 | 15 | 29 | 24 | 19 | 37 | 30 | 25 |
| | kW | 5.0 | 5.0 | 5.1 | 5.0 | 5.1 | 5.1 | 5.1 | 5.1 | 5.2 |
| 40 | TC | 57 | 59 | 61 | 60 | 62 | 64 | 61 | 63 | 65 |
| | SHC | 29 | 25 | 22 | 36 | 31 | 27 | 44 | 38 | 32 |
| | kW | 4.6 | 4.6 | 4.7 | 4.6 | 4.7 | 4.7 | 4.6 | 4.7 | 4.7 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 20 – COOLING CAPACITIES - FIRST STAGE, PART LOAD

8.5 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 21 – COOLING CAPACITIES - SECOND STAGE, PART LOAD

8.5 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 22 – COOLING CAPACITIES - THIRD STAGE, FULL LOAD

8.5 TONS

| 09 SIZE | | | AMBIENT TEMPERATURE | | | | | | | | | | | | | | | | |
|-------------|-------------|-------------|---------------------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|-------|----------|-------|------|------|------|
| | | | 85°F | | | 95°F | | | 105°F | | | 115°F | | | 125°F | | | | |
| | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | EAT (db) | | | | |
| | | | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | 75 | 80 | 85 | | |
| 2550 Cfm | EAT (wb) | 58 | TC | 89.1 | 89.1 | 101.2 | 84.4 | 84.4 | 96.1 | 79.5 | 79.5 | 90.7 | 74.2 | 74.2 | 84.9 | 68.6 | 68.6 | 78.9 | |
| | | | SHC | 77.0 | 89.1 | 101.2 | 72.8 | 84.4 | 96.1 | 68.3 | 79.5 | 90.7 | 63.6 | 74.2 | 84.9 | 58.5 | 68.6 | 78.9 | |
| | | 62 | TC | 93.6 | 93.6 | 96.3 | 87.9 | 87.9 | 92.9 | 81.9 | 81.9 | 89.3 | 75.7 | 75.7 | 85.5 | 69.1 | 69.1 | 81.4 | |
| | | | SHC | 69.4 | 82.9 | 96.3 | 66.0 | 79.5 | 92.9 | 62.4 | 75.9 | 89.3 | 58.7 | 72.1 | 85.5 | 54.8 | 68.1 | 81.4 | |
| | | 67 | TC | 103.5 | 103.5 | 103.5 | 97.5 | 97.5 | 97.5 | 91.1 | 91.1 | 91.1 | 84.3 | 84.3 | 84.3 | 77.1 | 77.1 | 77.1 | |
| | | | SHC | 56.8 | 70.4 | 83.9 | 53.4 | 67.0 | 80.5 | 49.9 | 63.5 | 76.9 | 46.3 | 59.8 | 73.3 | 42.5 | 56.0 | 69.5 | |
| | 72 | TC | 114.6 | 114.6 | 114.6 | 108.1 | 108.1 | 108.1 | 101.2 | 101.2 | 101.2 | 94.0 | 94.0 | 94.0 | 86.3 | 86.3 | 86.3 | | |
| | | SHC | 44.1 | 57.7 | 71.3 | 40.8 | 54.3 | 67.9 | 37.2 | 50.8 | 64.4 | 33.6 | 47.2 | 60.7 | 29.8 | 43.4 | 56.9 | | |
| | 76 | TC | – | 124.0 | 124.0 | – | 117.2 | 117.2 | – | 110.0 | 110.0 | – | 102.3 | 102.3 | – | 94.1 | 94.1 | | |
| | | SHC | – | 47.3 | 60.9 | – | 43.9 | 57.6 | – | 40.5 | 54.1 | – | 36.9 | 50.5 | – | 33.2 | 46.8 | | |
| | 3000 Cfm | EAT (wb) | 58 | TC | 95.2 | 95.2 | 107.9 | 90.1 | 90.1 | 102.4 | 84.8 | 84.8 | 96.6 | 79.2 | 79.2 | 90.5 | 73.2 | 73.2 | 83.9 |
| | | | | SHC | 82.4 | 95.2 | 107.9 | 77.8 | 90.1 | 102.4 | 72.9 | 84.8 | 96.6 | 67.9 | 79.2 | 90.5 | 62.5 | 73.2 | 83.9 |
| 62 | | | TC | 97.1 | 97.1 | 107.3 | 91.3 | 91.3 | 103.7 | 85.2 | 85.2 | 99.7 | 79.4 | 79.4 | 94.4 | 73.3 | 73.3 | 87.6 | |
| | | | SHC | 76.0 | 91.7 | 107.3 | 72.4 | 88.0 | 103.7 | 68.6 | 84.1 | 99.7 | 64.3 | 79.3 | 94.4 | 59.0 | 73.3 | 87.6 | |
| 67 | | | TC | 106.9 | 106.9 | 106.9 | 100.5 | 100.5 | 100.5 | 93.8 | 93.8 | 93.8 | 86.8 | 86.8 | 86.8 | 79.4 | 79.4 | 79.4 | |
| | | | SHC | 61.1 | 76.9 | 92.7 | 57.7 | 73.5 | 89.3 | 54.1 | 69.8 | 85.6 | 50.3 | 66.1 | 81.9 | 46.5 | 62.2 | 78.0 | |
| 72 | | TC | 118.0 | 118.0 | 118.0 | 111.2 | 111.2 | 111.2 | 104.0 | 104.0 | 104.0 | 96.5 | 96.5 | 96.5 | 88.5 | 88.5 | 88.5 | | |
| | | SHC | 46.1 | 61.9 | 77.8 | 42.6 | 58.5 | 74.4 | 39.1 | 54.9 | 70.8 | 35.4 | 51.2 | 67.1 | 31.6 | 47.4 | 63.2 | | |
| 76 | | TC | – | 127.5 | 127.5 | – | 120.3 | 120.3 | – | 112.8 | 112.8 | – | 104.7 | 104.7 | – | 96.2 | 96.2 | | |
| | | SHC | – | 49.7 | 65.8 | – | 46.3 | 62.4 | – | 42.8 | 58.8 | – | 39.1 | 55.0 | – | 35.2 | 51.1 | | |
| 3400 Cfm | | EAT (wb) | 58 | TC | 99.5 | 99.5 | 112.8 | 94.3 | 94.3 | 107.1 | 88.7 | 88.7 | 100.9 | 82.8 | 82.8 | 94.5 | 76.5 | 76.5 | 87.7 |
| | | | | SHC | 86.2 | 99.5 | 112.8 | 81.4 | 94.3 | 107.1 | 76.4 | 88.7 | 100.9 | 71.1 | 82.8 | 94.5 | 65.4 | 76.5 | 87.7 |
| | 62 | | TC | 99.9 | 99.9 | 116.3 | 94.4 | 94.4 | 111.5 | 88.8 | 88.8 | 105.2 | 82.9 | 82.9 | 98.6 | 76.6 | 76.6 | 91.5 | |
| | | | SHC | 81.3 | 98.9 | 116.3 | 77.3 | 94.4 | 111.5 | 72.4 | 88.8 | 105.2 | 67.3 | 82.9 | 98.6 | 61.8 | 76.6 | 91.5 | |
| | 67 | | TC | 109.1 | 109.1 | 109.1 | 102.6 | 102.6 | 102.6 | 95.7 | 95.7 | 95.7 | 88.4 | 88.4 | 89.2 | 80.8 | 80.8 | 85.2 | |
| | | | SHC | 64.7 | 82.5 | 100.3 | 61.2 | 79.0 | 96.7 | 57.5 | 75.3 | 93.0 | 53.8 | 71.5 | 89.2 | 49.9 | 67.6 | 85.2 | |
| | 72 | TC | 120.3 | 120.3 | 120.3 | 113.3 | 113.3 | 113.3 | 106.0 | 106.0 | 106.0 | 98.2 | 98.2 | 98.2 | 90.0 | 90.0 | 90.0 | | |
| | | SHC | 47.7 | 65.5 | 83.4 | 44.2 | 62.0 | 79.8 | 40.6 | 58.4 | 76.1 | 36.9 | 54.6 | 72.3 | 33.1 | 50.7 | 68.4 | | |
| | 76 | TC | – | 129.9 | 129.9 | – | 122.5 | 122.5 | – | 114.7 | 114.7 | – | 106.4 | 106.4 | – | 97.6 | 97.6 | | |
| | | SHC | – | 51.7 | 69.7 | – | 48.3 | 66.2 | – | 44.6 | 62.5 | – | 40.9 | 58.6 | – | 37.0 | 54.6 | | |
| | 3850 Cfm | EAT (wb) | 58 | TC | 103.7 | 103.7 | 117.5 | 98.2 | 98.2 | 111.4 | 92.3 | 92.3 | 105.1 | 86.2 | 86.2 | 98.3 | 79.7 | 79.7 | 91.1 |
| | | | | SHC | 89.9 | 103.7 | 117.5 | 84.9 | 98.2 | 111.4 | 79.7 | 92.3 | 105.1 | 74.1 | 86.2 | 98.3 | 68.3 | 79.7 | 91.1 |
| 62 | | | TC | 103.8 | 103.8 | 122.3 | 98.3 | 98.3 | 116.0 | 92.4 | 92.4 | 109.4 | 86.3 | 86.3 | 102.4 | 79.8 | 79.8 | 95.0 | |
| | | | SHC | 85.4 | 103.8 | 122.3 | 80.5 | 98.3 | 116.0 | 75.5 | 92.4 | 109.4 | 70.1 | 86.3 | 102.4 | 64.4 | 79.8 | 95.0 | |
| 67 | | | TC | 111.2 | 111.2 | 111.2 | 104.5 | 104.5 | 104.8 | 97.4 | 97.4 | 101.0 | 90.1 | 90.1 | 97.1 | 82.3 | 82.3 | 93.0 | |
| | | | SHC | 68.5 | 88.5 | 108.4 | 65.0 | 84.9 | 104.8 | 61.2 | 81.1 | 101.0 | 57.4 | 77.3 | 97.1 | 53.5 | 73.2 | 93.0 | |
| 72 | | TC | 122.3 | 122.3 | 122.3 | 115.1 | 115.1 | 115.1 | 107.6 | 107.6 | 107.6 | 99.6 | 99.6 | 99.6 | 91.4 | 91.4 | 91.4 | | |
| | | SHC | 49.3 | 69.2 | 89.2 | 45.8 | 65.7 | 85.7 | 42.1 | 62.1 | 82.0 | 38.4 | 58.2 | 78.1 | 34.5 | 54.3 | 74.1 | | |
| 76 | | TC | – | 131.9 | 131.9 | – | 124.3 | 124.3 | – | 116.2 | 116.2 | – | 107.7 | 107.7 | – | 98.7 | 98.7 | | |
| | | SHC | – | 53.7 | 73.8 | – | 50.2 | 70.2 | – | 46.5 | 66.4 | – | 42.6 | 62.4 | – | 38.6 | 58.2 | | |
| 4250 Cfm | | EAT (wb) | 58 | TC | 106.9 | 106.9 | 121.0 | 101.1 | 101.1 | 114.8 | 95.1 | 95.1 | 108.1 | 88.7 | 88.7 | 101.1 | 82.0 | 82.0 | 93.7 |
| | | | | SHC | 92.7 | 106.9 | 121.0 | 87.6 | 101.1 | 114.8 | 82.1 | 95.1 | 108.1 | 76.3 | 88.7 | 101.1 | 70.3 | 82.0 | 93.7 |
| | 62 | | TC | 107.0 | 107.0 | 125.9 | 101.2 | 101.2 | 119.4 | 95.2 | 95.2 | 112.6 | 88.8 | 88.8 | 105.4 | 82.1 | 82.1 | 97.7 | |
| | | | SHC | 88.1 | 107.0 | 125.9 | 83.1 | 101.2 | 119.4 | 77.8 | 95.2 | 112.6 | 72.2 | 88.8 | 105.4 | 66.4 | 82.1 | 97.7 | |
| | 67 | | TC | 112.6 | 112.6 | 115.4 | 105.9 | 105.9 | 111.7 | 98.7 | 98.7 | 107.8 | 91.3 | 91.3 | 103.8 | 83.5 | 83.5 | 99.5 | |
| | | | SHC | 71.8 | 93.6 | 115.4 | 68.2 | 90.0 | 111.7 | 64.4 | 86.1 | 107.8 | 60.5 | 82.2 | 103.8 | 56.6 | 78.0 | 99.5 | |
| | 72 | TC | 123.7 | 123.7 | 123.7 | 116.5 | 116.5 | 116.5 | 108.8 | 108.8 | 108.8 | 100.7 | 100.7 | 100.7 | 92.2 | 92.2 | 92.2 | | |
| | | SHC | 50.7 | 72.4 | 94.3 | 47.1 | 68.9 | 90.7 | 43.5 | 65.2 | 87.0 | 39.7 | 61.3 | 83.0 | 35.7 | 57.3 | 79.0 | | |
| | 76 | TC | – | 133.4 | 133.4 | – | 125.6 | 125.6 | – | 117.3 | 117.3 | – | 108.6 | 108.6 | – | 99.5 | 99.5 | | |
| | | SHC | – | 55.4 | 77.3 | – | 51.8 | 73.5 | – | 48.1 | 69.6 | – | 44.1 | 65.5 | – | 40.0 | 61.1 | | |

LEGEND:

- – Do not operate
- Cfm – Cubic feet per minute (supply air)
- EAT (db) – Entering Air Temperature (dry bulb)
- EAT (wb) – Entering Air Temperature (wet bulb)
- SHC – Sensible Heat Capacity (1000 Btuh) Gross
- TC – Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 23 – REHEAT PERFORMANCE TABLE

8.5 TONS

50LC*A09 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-1 (Subcooler Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|---------------------------|-----|--|-----|-----|------|-----|-----|------|-----|-----|
| | | 2550 | | | 3400 | | | 4250 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 121 | 108 | 96 | 128 | 115 | 104 | 133 | 120 | 111 |
| | SHC | 55 | 67 | 78 | 64 | 79 | 95 | 71 | 91 | 107 |
| | kW | 5.3 | 5.2 | 5.1 | 5.3 | 5.2 | 5.2 | 5.3 | 5.2 | 5.2 |
| 85 | TC | 113 | 101 | 90 | 120 | 108 | 97 | 124 | 112 | 103 |
| | SHC | 48 | 60 | 72 | 56 | 72 | 88 | 64 | 84 | 101 |
| | kW | 6.0 | 5.9 | 5.8 | 6.0 | 5.9 | 5.9 | 6.0 | 6.0 | 5.9 |
| 95 | TC | 105 | 94 | 83 | 112 | 100 | 89 | 115 | 104 | 95 |
| | SHC | 41 | 54 | 66 | 49 | 65 | 82 | 56 | 76 | 95 |
| | kW | 6.7 | 6.7 | 6.6 | 6.8 | 6.7 | 6.6 | 6.8 | 6.7 | 6.7 |
| 105 | TC | 97 | 86 | 76 | 103 | 92 | 82 | 107 | 95 | 88 |
| | SHC | 34 | 47 | 60 | 41 | 58 | 75 | 48 | 69 | 85 |
| | kW | 7.6 | 7.5 | 7.5 | 7.7 | 7.6 | 7.5 | 7.7 | 7.6 | 7.6 |
| 115 | TC | 89 | 78 | 69 | 94 | 83 | 74 | 97 | 87 | 81 |
| | SHC | 27 | 40 | 53 | 34 | 51 | 68 | 40 | 61 | 73 |
| | kW | 8.7 | 8.6 | 8.5 | 8.7 | 8.6 | 8.5 | 8.7 | 8.6 | 8.6 |
| 125 | TC | 80 | 70 | 61 | 85 | 75 | 66 | 88 | 78 | 72 |
| | SHC | 19 | 33 | 46 | 26 | 43 | 60 | 32 | 53 | 69 |
| | kW | 9.8 | 9.7 | 9.7 | 9.8 | 9.8 | 9.7 | 9.9 | 9.8 | 9.7 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

50LC*A09 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-2 (Hot Gas Reheat Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|--------------------------------|-----|--|-----|------|------|-----|------|------|-----|------|
| | | 2550 | | | 3400 | | | 4250 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 |
| 80 | TC | 39 | 41 | 42 | 40 | 42 | 43 | 41 | 43 | 44 |
| | SHC | 8 | 3 | -1 | 15 | 9 | 3 | 22 | 15 | 8 |
| | kW | 7.8 | 7.8 | 7.9 | 7.8 | 7.8 | 7.9 | 7.8 | 7.8 | 7.9 |
| 75 | TC | 43 | 44 | 45 | 43 | 45 | 46 | 44 | 46 | 47 |
| | SHC | 12 | 6 | 2 | 18 | 12 | 6 | 25 | 18 | 11 |
| | kW | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 | 7.5 | 7.4 | 7.4 | 7.5 |
| 70 | TC | 46 | 48 | 48 | 46 | 48 | 50 | 48 | 49 | 51 |
| | SHC | 15 | 10 | 5 | 21 | 14 | 9 | 29 | 21 | 14 |
| | kW | 7.0 | 7.0 | 7.1 | 7.0 | 7.0 | 7.1 | 7.0 | 7.1 | 7.1 |
| 60 | TC | 51 | 56 | 57 | 56 | 55 | 57 | 55 | 56 | 57 |
| | SHC | 20 | 18 | 13 | 30 | 21 | 16 | 35 | 27 | 21 |
| | kW | 6.3 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.3 | 6.4 | 6.5 |
| 50 | TC | 60 | 61 | 64 | 61 | 64 | 66 | 63 | 65 | 67 |
| | SHC | 28 | 23 | 20 | 35 | 30 | 25 | 44 | 36 | 30 |
| | kW | 5.7 | 5.8 | 5.8 | 5.8 | 5.8 | 5.9 | 5.8 | 5.8 | 5.9 |
| 40 | TC | 66 | 68 | 69 | 68 | 71 | 71 | 70 | 72 | 72 |
| | SHC | 34 | 30 | 25 | 42 | 37 | 30 | 50 | 43 | 36 |
| | kW | 5.2 | 5.3 | 5.3 | 5.3 | 5.3 | 5.4 | 5.3 | 5.4 | 5.4 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 24 – COOLING CAPACITIES - FIRST STAGE, PART LOAD

10 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 25 – COOLING CAPACITIES - SECOND STAGE, PART LOAD

10 TONS

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

LEGEND:

- Do not operate
- Cfm – Cubic feet per minute (supply air)
- EAT (db) – Entering Air Temperature (dry bulb)
- EAT (wb) – Entering Air Temperature (wet bulb)
- SHC – Sensible Heat Capacity (1000 Btuh) Gross
- TC – Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 26 – COOLING CAPACITIES - THIRD STAGE, FULL LOAD

10 TONS

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

LEGEND:

- Do not operate
- Cfm - Cubic feet per minute (supply air)
- EAT (db) - Entering Air Temperature (dry bulb)
- EAT (wb) - Entering Air Temperature (wet bulb)
- SHC - Sensible Heat Capacity (1000 Btuh) Gross
- TC - Total Capacity (1000 Btuh) Gross

COOLING CAPACITIES (cont.)

Table 27 – REHEAT PERFORMANCE TABLE

10 TONS

50LC*A12 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-1 (Subcooler Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|---------------------------|-----|--|------|------|------|------|------|------|------|------|
| | | 3000 | | | 4000 | | | 5000 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 72 | 67 | 62 | 72 | 67 | 62 | 72 | 67 | 62 |
| 75 | TC | 149 | 128 | 120 | 149 | 134 | 120 | 149 | 134 | 120 |
| | SHC | 73 | 86 | 110 | 73 | 92 | 110 | 73 | 92 | 110 |
| | kW | 6.3 | 6.2 | 6.2 | 6.3 | 6.3 | 6.2 | 6.3 | 6.3 | 6.2 |
| 85 | TC | 139 | 124 | 111 | 139 | 124 | 111 | 139 | 124 | 111 |
| | SHC | 64 | 83 | 102 | 63 | 83 | 102 | 63 | 83 | 102 |
| | kW | 7.1 | 7.0 | 6.9 | 7.0 | 7.0 | 6.9 | 7.0 | 7.0 | 6.9 |
| 95 | TC | 128 | 114 | 102 | 128 | 114 | 102 | 128 | 114 | 102 |
| | SHC | 54 | 73 | 93 | 54 | 74 | 93 | 54 | 74 | 93 |
| | kW | 7.9 | 7.8 | 7.7 | 7.9 | 7.8 | 7.7 | 7.9 | 7.8 | 7.7 |
| 105 | TC | 117 | 103 | 92 | 117 | 103 | 92 | 117 | 103 | 92 |
| | SHC | 44 | 64 | 84 | 44 | 64 | 84 | 44 | 64 | 84 |
| | kW | 8.8 | 8.7 | 8.7 | 8.8 | 8.7 | 8.7 | 8.8 | 8.7 | 8.7 |
| 115 | TC | 106 | 92 | 81 | 106 | 92 | 81 | 106 | 92 | 81 |
| | SHC | 34 | 54 | 74 | 34 | 54 | 74 | 34 | 54 | 74 |
| | kW | 9.8 | 9.8 | 9.7 | 9.8 | 9.8 | 9.7 | 9.8 | 9.8 | 9.7 |
| 125 | TC | 94 | 81 | 70 | 94 | 81 | 70 | 94 | 81 | 70 |
| | SHC | 24 | 45 | 65 | 24 | 45 | 65 | 24 | 45 | 65 |
| | kW | 11.0 | 10.9 | 10.9 | 11.0 | 10.9 | 10.9 | 11.0 | 10.9 | 10.9 |

LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

50LC*A12 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

| Reheat-2 (Hot Gas Reheat Mode) | | AIR ENTERING EVAPORATOR - SCFM/BF (80db) | | | | | | | | |
|--------------------------------|-----|--|-----|------|------|-----|------|------|-----|------|
| | | 3000 | | | 4000 | | | 5000 | | |
| Outdoor Air Temp ° F | | Air Entering Evaporator -- Ewb (F) | | | | | | | | |
| | | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 | 62.5 | 64 | 65.3 |
| 80 | TC | 43 | 45 | 47 | 44 | 46 | 48 | 45 | 47 | 49 |
| | SHC | 7 | 1 | -4 | 15 | 8 | 2 | 24 | 15 | 8 |
| | kW | 8.6 | 8.6 | 8.7 | 8.6 | 8.6 | 8.7 | 8.6 | 8.6 | 8.7 |
| 75 | TC | 46 | 49 | 51 | 48 | 50 | 52 | 49 | 52 | 54 |
| | SHC | 11 | 5 | 0 | 19 | 12 | 5 | 28 | 19 | 12 |
| | kW | 8.2 | 8.2 | 8.3 | 8.2 | 8.2 | 8.3 | 8.2 | 8.2 | 8.3 |
| 70 | TC | 50 | 52 | 55 | 52 | 54 | 57 | 53 | 56 | 58 |
| | SHC | 14 | 9 | 4 | 23 | 16 | 9 | 32 | 23 | 16 |
| | kW | 7.8 | 7.9 | 7.9 | 7.8 | 7.9 | 7.9 | 7.8 | 7.9 | 7.9 |
| 60 | TC | 58 | 60 | 62 | 60 | 63 | 65 | 62 | 64 | 66 |
| | SHC | 22 | 16 | 12 | 30 | 23 | 17 | 40 | 32 | 24 |
| | kW | 7.1 | 7.2 | 7.3 | 7.1 | 7.2 | 7.3 | 7.2 | 7.2 | 7.3 |
| 50 | TC | 67 | 68 | 70 | 69 | 71 | 73 | 70 | 72 | 75 |
| | SHC | 31 | 24 | 20 | 39 | 32 | 26 | 48 | 40 | 33 |
| | kW | 6.6 | 6.6 | 6.7 | 6.6 | 6.7 | 6.7 | 6.6 | 6.7 | 6.7 |
| 40 | TC | 74 | 76 | 81 | 79 | 81 | 82 | 79 | 81 | 84 |
| | SHC | 38 | 33 | 31 | 50 | 43 | 37 | 58 | 50 | 44 |
| | kW | 6.1 | 6.2 | 6.2 | 6.1 | 6.2 | 6.3 | 6.2 | 6.2 | 6.3 |

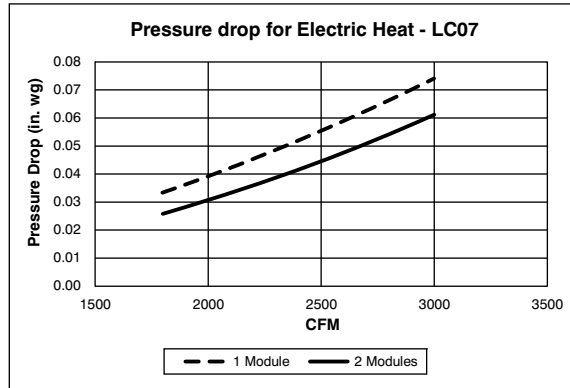
LEGEND AND NOTES

- kW --- Compressor Power Input
- SHC --- Sensible Heat Capacity (1000 Btuh) Gross
- TC --- Total Capacity(1000 Btuh) Gross

Table 28 – STATIC PRESSURE ADDERS (IN. WG) (FACTORY OPTIONS AND/OR ACCESSORIES)

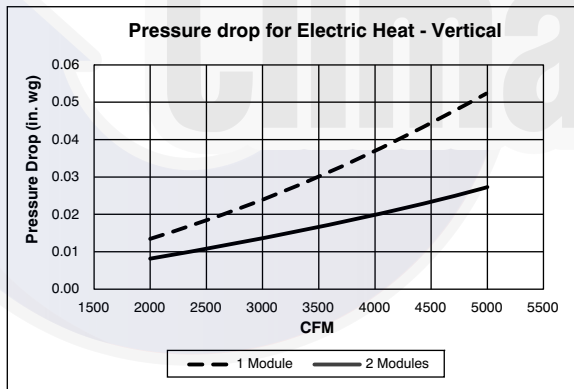
Electric Heaters

| 6 Tons | | | | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| CFM (in. wg) | 1800 | 1950 | 2100 | 2250 | 2400 | 2550 | 2700 | 2850 | 3000 |
| 1 Elec. Heater Module | 0.026 | 0.029 | 0.033 | 0.037 | 0.042 | 0.046 | 0.051 | 0.056 | 0.061 |
| 2 Elec. Heater Modules | 0.033 | 0.038 | 0.042 | 0.047 | 0.052 | 0.057 | 0.063 | 0.068 | 0.074 |

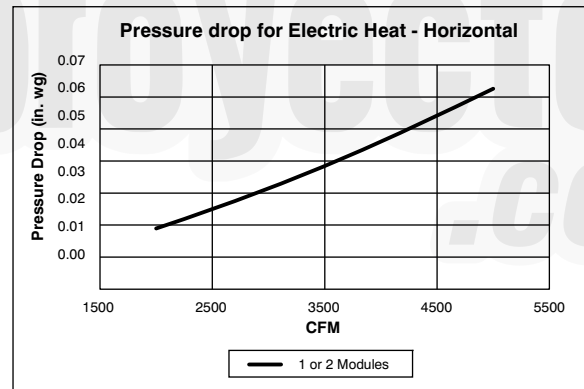


C160089

| 7.5 – 10 Tons | | | | | | | |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| CFM (in. wg) | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
| Vertical – 1 Elec. Heater Module | 0.008 | 0.011 | 0.014 | 0.017 | 0.020 | 0.024 | 0.027 |
| Vertical – 2 Elec. Heater Modules | 0.013 | 0.018 | 0.024 | 0.030 | 0.037 | 0.044 | 0.052 |
| Horizontal – 1 Elec. Heater Module | 0.019 | 0.025 | 0.031 | 0.038 | 0.046 | 0.054 | 0.063 |
| Horizontal – 2 Elec. Heater Modules | 0.019 | 0.025 | 0.031 | 0.038 | 0.046 | 0.054 | 0.063 |



C160090



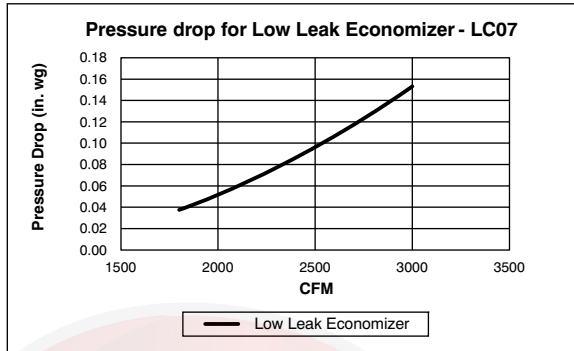
C160091

Table 28 (cont.) - STATIC PRESSURE ADDERS (IN. WG) (FACTORY OPTIONS AND/OR ACCESSORIES)

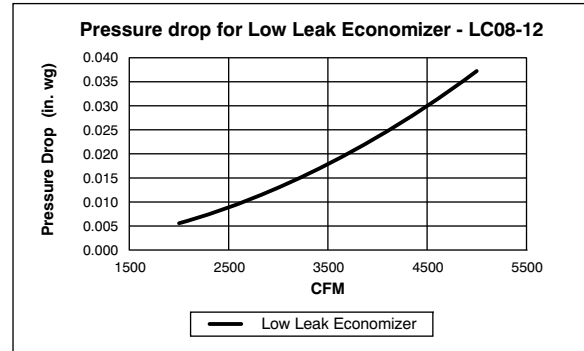
Ultra Low Leak Economizers

| 50LC**07 | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CFM | 1800 | 1950 | 2100 | 2250 | 2400 | 2550 | 2700 | 2850 | 3000 |
| Pressure Drop (in. wg) | 0.038 | 0.048 | 0.060 | 0.072 | 0.086 | 0.101 | 0.117 | 0.135 | 0.153 |

| 50LC**08-12 | | | | | | | |
|------------------------|--------|-------|-------|-------|-------|-------|-------|
| CFM | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
| Pressure Drop (in. wg) | 0.0006 | 0.009 | 0.013 | 0.018 | 0.024 | 0.030 | 0.037 |



C160079

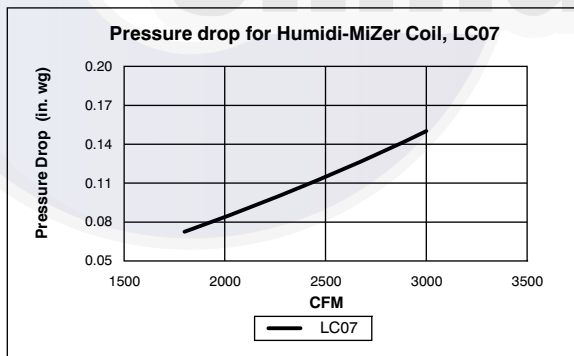


C160080

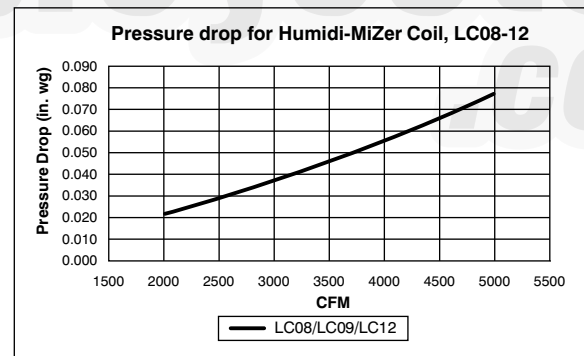
Humidi-MiZer® Coil

| 50LC**07 | | | | | | | | | |
|------------------------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| CFM | 1800 | 1950 | 2100 | 2250 | 2400 | 2550 | 2700 | 2850 | 3000 |
| Pressure Drop (in. wg) | 0.073 | 0.81 | 0.090 | 0.099 | 0.108 | 0.118 | 0.129 | 0.139 | 0.150 |

| 50LC**08-12 | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| CFM | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
| Pressure Drop (in. wg) | 0.022 | 0.029 | 0.037 | 0.046 | 0.056 | 0.066 | 0.077 |



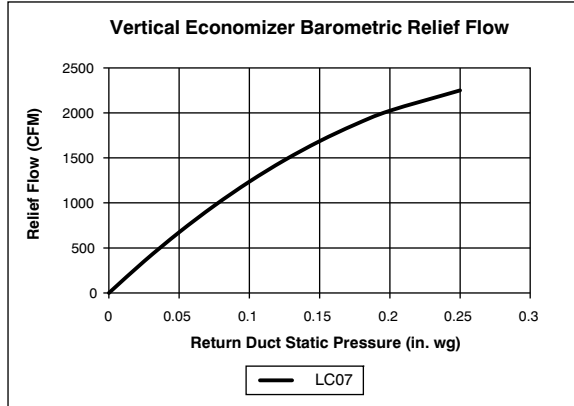
C160081



C160082

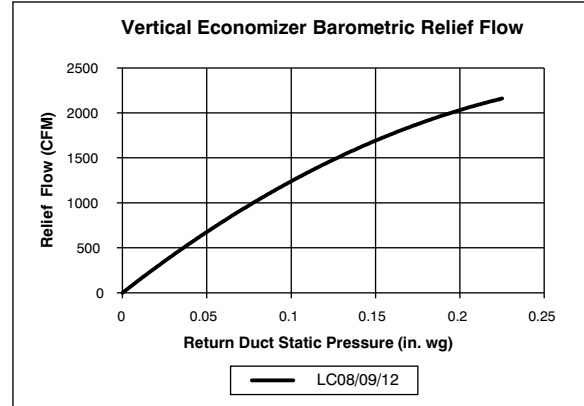
ECONOMIZER, BAROMETRIC RELIEF AND PE PERFORMANCE

Barometric Relief Flow Capacity - Vertical Economizers



C160083

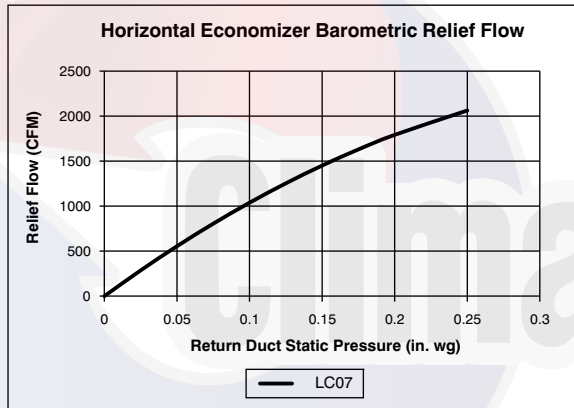
Fig. 10 - Barometric Relief Flow Capacity - 6 Ton Unit



C160084

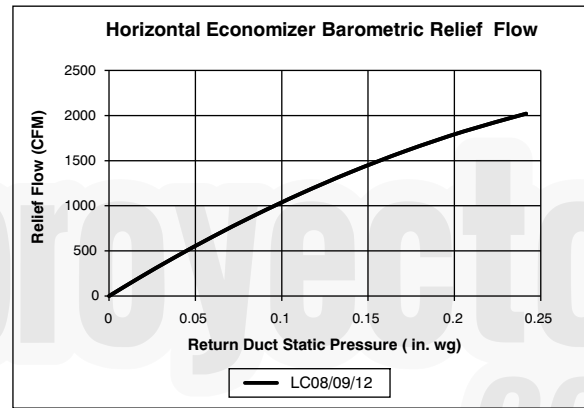
Fig. 11 - Barometric Relief Flow Capacity - 7.5-10 Ton Units

Barometric Relief Flow Capacity - Horizontal Economizers



C160085

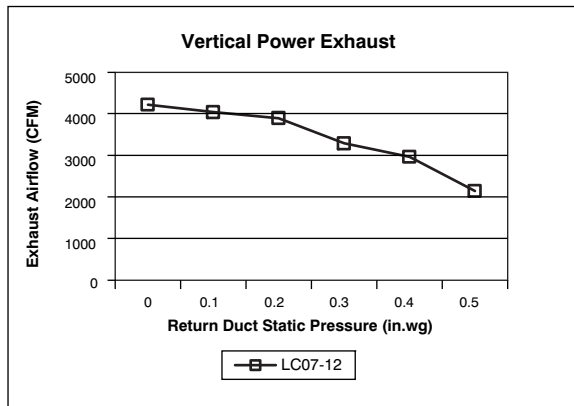
Fig. 12 - Barometric Relief Flow Capacity - 6 Ton Unit



C160086

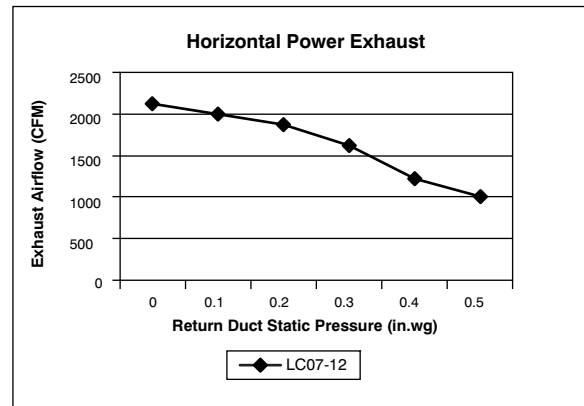
Fig. 13 - Barometric Relief Flow Capacity - 7.5-10 Ton Units

Power Exhaust Performance



C160087

Fig. 14 - Vertical Power Exhaust Performance



C160088

Fig. 15 - Horizontal Power Exhaust Performance

GENERAL FAN PERFORMANCE NOTES:

1. Interpolation is permissible. Do not extrapolate.
2. External static pressure is the static pressure difference between the return duct and the supply duct plus the static pressure caused by any FIOPs or accessories.
3. Tabular data accounts for pressure loss due to clean filters, unit casing, and wet coils. Factory options and accessories may add static pressure losses. Selection software is available, through your salesperson, to help you select the best motor/drive combination for your application.
4. The Fan Performance tables offer motor/drive recommendations. In cases when two motor/drive combinations would work, Carrier recommended the lower horsepower option.
5. For information on the electrical properties of Carrier motors, please see the Electrical information section of this book.
6. For more information on the performance limits of Carrier motors, see the application data section of this book.
7. The EPACT (Energy Policy Act) regulates energy requirements for specific types of indoor fan motors. Motors regulated by EPACT include any general purpose, T-frame (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 PERFORMANCE

Table 29 – 50LC07**

6 TON VERTICAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 392 | 0.22 | 492 | 0.33 | 580 | 0.46 | 658 | 0.59 | 729 | 0.74 | 793 | 0.89 | 854 | 1.05 | 910 | 1.22 | 963 | 1.39 | 1013 | 1.57 |
| 1950 | 408 | 0.25 | 502 | 0.37 | 587 | 0.51 | 664 | 0.65 | 733 | 0.80 | 798 | 0.96 | 857 | 1.13 | 913 | 1.30 | 966 | 1.48 | 1016 | 1.66 |
| 2100 | 425 | 0.30 | 514 | 0.42 | 596 | 0.56 | 670 | 0.71 | 739 | 0.87 | 802 | 1.04 | 861 | 1.21 | 917 | 1.39 | 969 | 1.57 | 1019 | 1.76 |
| 2250 | 442 | 0.35 | 526 | 0.48 | 605 | 0.62 | 678 | 0.78 | 745 | 0.94 | 807 | 1.12 | 866 | 1.30 | 921 | 1.48 | 973 | 1.67 | 1022 | 1.87 |
| 2400 | 460 | 0.41 | 540 | 0.54 | 616 | 0.69 | 686 | 0.85 | 752 | 1.02 | 813 | 1.20 | 871 | 1.39 | 926 | 1.58 | 977 | 1.78 | 1026 | 1.98 |
| 2550 | 479 | 0.47 | 555 | 0.61 | 627 | 0.77 | 696 | 0.93 | 760 | 1.11 | 820 | 1.29 | 877 | 1.49 | 931 | 1.68 | 982 | 1.89 | 1031 | 2.10 |
| 2700 | 499 | 0.55 | 570 | 0.69 | 640 | 0.85 | 706 | 1.02 | 768 | 1.20 | 827 | 1.39 | 883 | 1.59 | 936 | 1.79 | 987 | 2.00 | 1035 | 2.22 |
| 2850 | 519 | 0.63 | 587 | 0.77 | 653 | 0.94 | 717 | 1.12 | 778 | 1.30 | 835 | 1.50 | 890 | 1.70 | 943 | 1.91 | 993 | 2.13 | 1040 | 2.35 |
| 3000 | 539 | 0.71 | 604 | 0.87 | 667 | 1.04 | 729 | 1.22 | 788 | 1.41 | 844 | 1.61 | 898 | 1.82 | 949 | 2.04 | 999 | 2.26 | 1046 | 2.49 |

STD Static (356 – 534 rpm) 1.7 Max BHP

MID Static (539 – 809 rpm) 1.7 Max BHP

HIGH Static (799 – 1054 rpm) 2.9 Max BHP

Table 30 – 50LC07**

6 TON HORIZONTAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 366 | 0.19 | 466 | 0.30 | 555 | 0.42 | 635 | 0.55 | 707 | 0.69 | 772 | 0.84 | 833 | 1.00 | 890 | 1.16 | 943 | 1.33 | 994 | 1.50 |
| 1950 | 379 | 0.22 | 474 | 0.33 | 560 | 0.46 | 638 | 0.60 | 709 | 0.75 | 774 | 0.90 | 834 | 1.06 | 891 | 1.23 | 944 | 1.40 | 995 | 1.58 |
| 2100 | 394 | 0.26 | 483 | 0.38 | 566 | 0.51 | 642 | 0.65 | 711 | 0.80 | 776 | 0.96 | 836 | 1.13 | 892 | 1.31 | 945 | 1.49 | 995 | 1.67 |
| 2250 | 409 | 0.31 | 493 | 0.43 | 573 | 0.56 | 647 | 0.71 | 715 | 0.87 | 778 | 1.03 | 838 | 1.21 | 894 | 1.39 | 946 | 1.57 | 996 | 1.76 |
| 2400 | 426 | 0.36 | 505 | 0.48 | 581 | 0.62 | 652 | 0.77 | 719 | 0.94 | 782 | 1.11 | 840 | 1.29 | 895 | 1.47 | 948 | 1.66 | 998 | 1.86 |
| 2550 | 443 | 0.41 | 517 | 0.54 | 590 | 0.68 | 659 | 0.84 | 724 | 1.01 | 785 | 1.19 | 843 | 1.37 | 898 | 1.56 | 950 | 1.76 | 999 | 1.96 |
| 2700 | 460 | 0.48 | 531 | 0.61 | 600 | 0.75 | 667 | 0.92 | 730 | 1.09 | 790 | 1.27 | 847 | 1.46 | 901 | 1.66 | 952 | 1.86 | 1001 | 2.07 |
| 2850 | 478 | 0.55 | 545 | 0.68 | 611 | 0.83 | 675 | 1.00 | 737 | 1.17 | 795 | 1.36 | 851 | 1.56 | 904 | 1.76 | 955 | 1.97 | 1004 | 2.18 |
| 3000 | 497 | 0.62 | 560 | 0.76 | 623 | 0.92 | 685 | 1.09 | 744 | 1.27 | 802 | 1.46 | 856 | 1.66 | 909 | 1.87 | 959 | 2.08 | 1007 | 2.30 |

STD Static (356 – 534 rpm) 1.7 Max BHP

MID Static (539 – 809 rpm) 1.7 Max BHP

HIGH Static (799 – 1054 rpm) 2.9 Max BHP

FAN PERFORMANCE (cont.)

Table 31 – 50LC**08

7.5 TON VERTICAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|-------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2250 | 328 | 0.23 | 438 | 0.44 | 521 | 0.68 | 588 | 0.93 | 647 | 1.19 | 699 | 1.47 | 746 | 1.76 | 790 | 2.06 | 830 | 2.36 | 869 | 2.68 |
| 2438 | 335 | 0.25 | 443 | 0.48 | 527 | 0.73 | 596 | 0.99 | 655 | 1.27 | 707 | 1.56 | 755 | 1.86 | 799 | 2.17 | 840 | 2.49 | 879 | 2.81 |
| 2625 | 342 | 0.28 | 448 | 0.51 | 533 | 0.77 | 602 | 1.05 | 662 | 1.34 | 715 | 1.64 | 764 | 1.96 | 808 | 2.28 | 850 | 2.61 | 889 | 2.95 |
| 2813 | 349 | 0.32 | 454 | 0.56 | 538 | 0.83 | 608 | 1.12 | 669 | 1.42 | 723 | 1.73 | 772 | 2.06 | 817 | 2.40 | 859 | 2.74 | 898 | 3.09 |
| 3000 | 358 | 0.36 | 459 | 0.60 | 543 | 0.88 | 614 | 1.18 | 675 | 1.50 | 730 | 1.83 | 779 | 2.16 | 825 | 2.51 | 867 | 2.87 | 907 | 3.24 |
| 3188 | 367 | 0.40 | 465 | 0.65 | 548 | 0.94 | 620 | 1.25 | 681 | 1.58 | 737 | 1.92 | 786 | 2.27 | 832 | 2.63 | 875 | 3.00 | 915 | 3.38 |
| 3375 | 378 | 0.45 | 471 | 0.70 | 554 | 1.00 | 625 | 1.32 | 687 | 1.66 | 743 | 2.01 | 793 | 2.38 | 840 | 2.75 | 883 | 3.14 | 923 | 3.53 |
| 3563 | 388 | 0.50 | 477 | 0.75 | 559 | 1.06 | 630 | 1.39 | 693 | 1.75 | 749 | 2.11 | 800 | 2.49 | 846 | 2.88 | 890 | 3.27 | 931 | 3.68 |
| 3750 | 400 | 0.56 | 484 | 0.82 | 564 | 1.13 | 635 | 1.47 | 698 | 1.83 | 754 | 2.21 | 806 | 2.60 | 853 | 3.00 | 897 | 3.41 | 938 | 3.83 |

STD Static (338 – 507 rpm) 1.7 Max BHP

MID Static (488 – 675 rpm) 1.7 Max BHP

HIGH Static (623 – 863 rpm) 2.9 Max BHP

ULTRA HIGH Static (847 – 1150 rpm) 3.7 Max BHP

Bold Face = Field Supplied Drive (Standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308 – 462 rpm

Italics = Field Supplied Motor and Drive (Motor = HD60FK658, motor pulley = KR11HY213, blower pulley = KR11AK215, belt = KR29AF048) 836 – 1006rpm

Table 32 – 50LC**08

7.5 TON HORIZONTAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|-------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2250 | 317 | 0.21 | 426 | 0.41 | 511 | 0.65 | 583 | 0.91 | 644 | 1.18 | 700 | 1.48 | 750 | 1.78 | 797 | 2.11 | 840 | 2.44 | 881 | 2.79 |
| 2438 | 323 | 0.24 | 429 | 0.44 | 515 | 0.96 | 587 | 0.95 | 649 | 1.24 | 705 | 1.54 | 756 | 1.86 | 803 | 2.19 | 847 | 2.54 | 888 | 2.90 |
| 2625 | 331 | 0.27 | 433 | 0.48 | 519 | 0.73 | 591 | 1.00 | 654 | 1.30 | 710 | 1.61 | 762 | 1.94 | 809 | 2.28 | 853 | 2.64 | 895 | 3.01 |
| 2813 | 339 | 0.30 | 438 | 0.51 | 522 | 0.77 | 595 | 1.05 | 658 | 1.36 | 715 | 1.68 | 767 | 2.02 | 814 | 2.38 | 859 | 2.74 | 901 | 3.12 |
| 3000 | 388 | 0.34 | 443 | 0.55 | 526 | 0.82 | 598 | 1.11 | 662 | 1.42 | 719 | 1.76 | 771 | 2.11 | 819 | 2.47 | 864 | 2.84 | 906 | 3.23 |
| 3188 | 358 | 0.38 | 448 | 0.60 | 530 | 0.87 | 602 | 1.17 | 666 | 1.49 | 723 | 1.83 | 776 | 2.19 | 824 | 2.56 | 869 | 2.95 | 912 | 3.35 |
| 3375 | 369 | 0.43 | 455 | 0.65 | 534 | 0.92 | 606 | 1.23 | 669 | 1.56 | 727 | 1.91 | 780 | 2.28 | 828 | 2.66 | 874 | 3.05 | 916 | 3.46 |
| 3563 | 380 | 0.48 | 462 | 0.71 | 539 | 0.98 | 610 | 1.29 | 673 | 1.63 | 731 | 1.99 | 783 | 2.36 | 832 | 2.76 | 878 | 3.16 | 921 | 3.58 |
| 3750 | 392 | 0.54 | 469 | 0.77 | 544 | 1.04 | 614 | 1.36 | 677 | 1.70 | 734 | 2.07 | 787 | 2.46 | 836 | 2.86 | 882 | 3.27 | 926 | 3.70 |

STD Static (338 – 507 rpm) 1.7 Max BHP

MID Static (488 – 675 rpm) 1.7 Max BHP

HIGH Static (623 – 863 rpm) 2.9 Max BHP

ULTRA HIGH Static (847 – 1150 rpm) 3.7 Max BHP

Bold Face = Field Supplied Drive (Standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308 – 462 rpm

FAN PERFORMANCE (cont.)

Table 33 – 50LC09**

8.5 TON VERTICAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2550 | 339 | 0.27 | 446 | 0.50 | 530 | 0.76 | 600 | 1.03 | 659 | 1.31 | 712 | 1.61 | 760 | 1.92 | 805 | 2.23 | 846 | 2.56 | 885 | 2.90 |
| 2763 | 347 | 0.31 | 452 | 0.54 | 537 | 0.81 | 607 | 1.10 | 667 | 1.40 | 721 | 1.71 | 770 | 2.03 | 815 | 2.36 | 856 | 2.71 | 895 | 3.06 |
| 2975 | 357 | 0.35 | 458 | 0.59 | 543 | 0.87 | 613 | 1.17 | 675 | 1.49 | 729 | 1.81 | 778 | 2.15 | 824 | 2.50 | 866 | 2.85 | 906 | 3.22 |
| 3188 | 367 | 0.40 | 465 | 0.65 | 548 | 0.94 | 620 | 1.25 | 681 | 1.58 | 737 | 1.92 | 786 | 2.27 | 832 | 2.63 | 875 | 3.00 | 915 | 3.38 |
| 3400 | 379 | 0.46 | 471 | 0.71 | 554 | 1.01 | 626 | 1.33 | 688 | 1.67 | 744 | 2.03 | 794 | 2.39 | 841 | 2.77 | 884 | 3.15 | 924 | 3.55 |
| 3613 | 391 | 0.52 | 479 | 0.77 | 560 | 1.08 | 631 | 1.41 | 694 | 1.77 | 750 | 2.14 | 801 | 2.52 | 848 | 2.91 | 892 | 3.31 | 933 | 3.72 |
| 3825 | 405 | 0.59 | 488 | 0.84 | 566 | 1.16 | 637 | 1.50 | 700 | 1.87 | 757 | 2.25 | 808 | 2.65 | 855 | 3.05 | 899 | 3.47 | 941 | 3.89 |
| 4038 | 418 | 0.66 | 497 | 0.92 | 573 | 1.24 | 643 | 1.60 | 706 | 1.98 | 763 | 2.37 | 814 | 2.78 | 862 | 3.20 | 907 | 3.63 | 948 | 4.06 |
| 4250 | 432 | 0.75 | 507 | 1.01 | 580 | 1.33 | 649 | 1.70 | 712 | 2.09 | 769 | 2.49 | 821 | 2.92 | 869 | 3.35 | 913 | 3.79 | 955 | 4.24 |

STD Static (338 – 507 rpm) 1.7 Max BHP

MID Static (488 – 675 rpm) 1.7 Max BHP

HIGH Static (675 – 863 rpm) 3.7 Max BHP

ULTRA HIGH Static (832 – 1021 rpm) 4.9 Max BHP

Table 34 – 50LC09**

8.5 TON HORIZONTAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2550 | 328 | 0.25 | 432 | 0.46 | 517 | 0.71 | 589 | 0.98 | 652 | 1.28 | 708 | 1.59 | 759 | 1.91 | 807 | 2.25 | 851 | 2.60 | 892 | 2.96 |
| 2763 | 337 | 0.29 | 437 | 0.50 | 521 | 0.76 | 594 | 1.04 | 657 | 1.34 | 714 | 1.67 | 765 | 2.00 | 813 | 2.35 | 857 | 2.71 | 899 | 3.09 |
| 2975 | 347 | 0.33 | 442 | 0.55 | 526 | 0.81 | 598 | 1.10 | 661 | 1.42 | 719 | 1.75 | 771 | 2.09 | 819 | 2.46 | 863 | 2.83 | 906 | 3.22 |
| 3188 | 358 | 0.38 | 448 | 0.60 | 530 | 0.87 | 602 | 1.17 | 666 | 1.49 | 723 | 1.83 | 776 | 2.19 | 824 | 2.56 | 869 | 2.95 | 912 | 3.35 |
| 3400 | 371 | 0.44 | 456 | 0.66 | 535 | 0.93 | 606 | 1.24 | 670 | 1.57 | 727 | 1.92 | 780 | 2.29 | 829 | 2.67 | 874 | 3.07 | 917 | 3.48 |
| 3613 | 384 | 0.50 | 464 | 0.72 | 541 | 1.00 | 611 | 1.31 | 674 | 1.65 | 732 | 2.01 | 785 | 2.39 | 834 | 2.78 | 879 | 3.19 | 922 | 3.61 |
| 3825 | 397 | 0.57 | 473 | 0.79 | 547 | 1.07 | 615 | 1.39 | 678 | 1.74 | 736 | 2.11 | 789 | 2.49 | 838 | 2.90 | 884 | 3.32 | 927 | 3.75 |
| 4038 | 411 | 0.64 | 483 | 0.87 | 554 | 1.15 | 621 | 1.48 | 683 | 1.83 | 740 | 2.21 | 793 | 2.60 | 842 | 3.02 | 888 | 3.45 | 932 | 3.89 |
| 4250 | 426 | 0.73 | 493 | 0.96 | 561 | 1.24 | 626 | 1.57 | 687 | 1.93 | 744 | 2.31 | 797 | 2.72 | 846 | 3.14 | 893 | 3.58 | 936 | 4.03 |

STD Static (338 – 507 rpm) 1.7 Max BHP

MID Static (488 – 675 rpm) 1.7 Max BHP

HIGH Static (675 – 863 rpm) 3.7 Max BHP

ULTRA HIGH Static (832 – 1021 rpm) 4.9 Max BHP

Bold Face = Field Supplied Drive (Standard motor, motor pulley = KR11HY151, blower pulley = AK114 1 3/16, belt = A47) 308 – 462 rpm

FAN PERFORMANCE (cont.)

10 TON VERTICAL SUPPLY

Table 35 – 50LC12**

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|-------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3000 | 358 | 0.36 | 459 | 0.60 | 543 | 0.88 | 614 | 1.18 | 675 | 1.50 | 730 | 1.83 | 779 | 2.16 | 825 | 2.51 | 867 | 2.87 | 907 | 3.24 |
| 3250 | 371 | 0.42 | 467 | 0.66 | 550 | 0.96 | 621 | 1.27 | 683 | 1.61 | 739 | 1.95 | 789 | 2.31 | 835 | 2.67 | 878 | 3.05 | 918 | 3.43 |
| 3500 | 385 | 0.48 | 475 | 0.74 | 557 | 1.04 | 628 | 1.37 | 691 | 1.72 | 747 | 2.08 | 798 | 2.45 | 844 | 2.83 | 887 | 3.23 | 928 | 3.63 |
| 3750 | 400 | 0.56 | 484 | 0.82 | 564 | 1.13 | 635 | 1.47 | 698 | 1.83 | 754 | 2.21 | 806 | 2.60 | 853 | 3.00 | 897 | 3.41 | 938 | 3.83 |
| 4000 | 416 | 0.65 | 495 | 0.91 | 572 | 1.23 | 642 | 1.58 | 705 | 1.96 | 762 | 2.35 | 813 | 2.76 | 861 | 3.17 | 905 | 3.60 | 947 | 4.03 |
| 4250 | 432 | 0.75 | 507 | 1.01 | 580 | 1.33 | 649 | 1.70 | 712 | 2.09 | 769 | 2.49 | 821 | 2.92 | 869 | 3.35 | 913 | 3.79 | 955 | 4.24 |
| 4500 | 450 | 0.86 | 519 | 1.13 | 590 | 1.45 | 657 | 1.82 | 719 | 2.22 | 775 | 2.65 | 828 | 3.08 | 876 | 3.53 | 921 | 3.99 | 963 | 4.46 |
| 4750 | 468 | 0.99 | 533 | 1.26 | 600 | 1.58 | 665 | 1.96 | 726 | 2.37 | 782 | 2.80 | 834 | 3.25 | 883 | 3.72 | 928 | 4.19 | 971 | 4.68 |
| 5000 | 486 | 1.13 | 547 | 1.40 | 611 | 1.73 | 674 | 2.11 | 733 | 2.53 | 789 | 2.97 | 841 | 3.44 | 890 | 3.91 | 936 | 4.40 | 978 | 4.90 |

STD Static (375 – 563 rpm) 2.4 Max BHP

MID Static (547 – 757 rpm) 2.9 Max BHP

HIGH Static (760 – 960 rpm) 4.9 Max BHP*

*At 575V, HP is 4.7

Bold Face = Field Supplied Drive (Standard motor, motor pulley = KR11HY161, blower pulley = AK134 1 3/16, belt = KR30AE051) 340–470 rpm

Italics = Field Supplied Drive (High Static motor, motor pulley = KR11HY213, blower pulley = KR51BH615, belt = KR29BF047) 880 – 1080 rpm

Table 36 – 50LC12**

10 TON HORIZONTAL SUPPLY

| CFM | Available External Static Pressure (in. wg) | | | | | | | | | | | | | | | | | | | |
|------|---|-------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| | 0.2 | | 0.4 | | 0.6 | | 0.8 | | 1.0 | | 1.2 | | 1.4 | | 1.6 | | 1.8 | | 2.0 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 3000 | 348 | 0.34 | 443 | 0.55 | 526 | 0.82 | 598 | 1.11 | 662 | 1.42 | 719 | 1.76 | 771 | 2.11 | 819 | 2.47 | 864 | 2.84 | 906 | 3.23 |
| 3250 | 362 | 0.40 | 450 | 0.62 | 532 | 0.88 | 603 | 1.19 | 667 | 1.51 | 724 | 1.86 | 777 | 2.22 | 825 | 2.59 | 871 | 2.98 | 913 | 3.39 |
| 3500 | 377 | 0.46 | 459 | 0.69 | 538 | 0.96 | 608 | 1.27 | 672 | 1.61 | 729 | 1.96 | 782 | 2.34 | 831 | 2.72 | 877 | 3.13 | 920 | 3.54 |
| 3750 | 392 | 0.54 | 469 | 0.77 | 544 | 1.04 | 614 | 1.36 | 677 | 1.70 | 734 | 2.07 | 787 | 2.46 | 836 | 2.86 | 882 | 3.27 | 926 | 3.70 |
| 4000 | 409 | 0.63 | 481 | 0.86 | 552 | 1.14 | 620 | 1.46 | 682 | 1.81 | 739 | 2.19 | 792 | 2.58 | 841 | 3.00 | 888 | 3.42 | 931 | 3.86 |
| 4250 | 426 | 0.73 | 493 | 0.96 | 561 | 1.24 | 626 | 1.57 | 687 | 1.93 | 744 | 2.31 | 797 | 2.72 | 846 | 3.14 | 893 | 3.58 | 936 | 4.03 |
| 4500 | 443 | 0.84 | 506 | 1.07 | 571 | 1.36 | 634 | 1.69 | 693 | 2.05 | 749 | 2.45 | 802 | 2.86 | 851 | 3.29 | 897 | 3.74 | 941 | 4.21 |
| 4750 | 461 | 0.96 | 521 | 1.20 | 582 | 1.49 | 642 | 1.82 | 700 | 2.19 | 755 | 2.59 | 807 | 3.01 | 856 | 3.45 | 902 | 3.91 | 946 | 4.39 |
| 5000 | 480 | 1.10 | 536 | 1.34 | 594 | 1.64 | 651 | 1.97 | 708 | 2.34 | 761 | 2.75 | 813 | 3.18 | 861 | 3.63 | 907 | 4.09 | 951 | 4.58 |

STD Static (375 – 563 rpm) 2.4 Max BHP

MID Static (547 – 757 rpm) 2.9 Max BHP

HIGH Static (760 – 960 rpm) 4.9 Max BHP*

*At 575V, HP is 4.7

Bold Face = Field Supplied Drive (Standard motor, motor pulley = KR11HY161, blower pulley = AK134 1 3/16, belt = KR30AE051) 340–470 rpm



FAN PERFORMANCE (cont.)

Table 37 – PULLEY ADJUSTMENT

| UNIT | MOTOR/DRIVE COMBO | MOTOR PULLEY TURNS OPEN (RPM) | | | | | | | | | | | | |
|------|-------------------|-------------------------------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|
| | | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | 5.5 | 6.0 |
| 07 | Standard Static | 534 | 516 | 498 | 481 | 463 | 445 | 427 | 409 | 392 | 374 | 356 | N/A | N/A |
| | Medium Static | 809 | 782 | 755 | 728 | 701 | 674 | 647 | 620 | 593 | 566 | 539 | N/A | N/A |
| | High Static | N/A | N/A | 1054 | 1022 | 990 | 958 | 927 | 895 | 863 | 831 | 799 | N/A | N/A |
| 08 | Standard Static | 507 | 490 | 473 | 456 | 439 | 423 | 406 | 389 | 372 | 355 | 338 | N/A | N/A |
| | Medium Static | 675 | 656 | 638 | 619 | 600 | 582 | 563 | 544 | 525 | 507 | 488 | N/A | N/A |
| | High Static | 863 | 839 | 815 | 791 | 767 | 743 | 719 | 695 | 671 | 647 | 623 | N/A | N/A |
| | Ultra High Static | N/A | N/A | 1150 | 1120 | 1089 | 1059 | 1029 | 999 | 968 | 938 | 908 | 877 | 847 |
| 09 | Standard Static | 507 | 490 | 473 | 456 | 439 | 423 | 406 | 389 | 372 | 355 | 338 | N/A | N/A |
| | Medium Static | 675 | 656 | 638 | 619 | 600 | 582 | 563 | 544 | 525 | 507 | 488 | N/A | N/A |
| | High Static | 863 | 844 | 825 | 807 | 788 | 769 | 750 | 731 | 713 | 694 | 675 | N/A | N/A |
| | Ultra High Static | 1021 | 1002 | 983 | 964 | 945 | 927 | 908 | 889 | 870 | 851 | 832 | N/A | N/A |
| 12 | Standard Static | 563 | 544 | 525 | 507 | 488 | 469 | 450 | 431 | 413 | 394 | 375 | N/A | N/A |
| | Medium Static | 757 | 736 | 715 | 694 | 673 | 652 | 631 | 610 | 589 | 568 | 547 | N/A | N/A |
| | High Static | N/A | N/A | 960 | 940 | 920 | 900 | 880 | 860 | 840 | 820 | 800 | 780 | 760 |

■ – Factory settings



ELECTRICAL INFORMATION

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

ELECTRICAL DATA (cont.)

Table 38 – UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| UNIT | NO M. V - Ph - Hz | IFM TYPE | ELEC. HTR | | | | NO C.O. or UNPWR C.O. | | | | | | w/ PWRD C.O. | | | | | | | | |
|----------|-------------------|----------|----------------|-----------|-----------|--------|-----------------------|-------------------------|---------|--------|-----------------------|-------------------------|--------------|--------|-----------------------|-------------------------|---------|-------|-----------------------|-------|---------|
| | | | ORHEATER***A00 | Nom (kW) | FLA | NO PE. | | w/ P.E. (pwrdr fr/unit) | | NO PE. | | w/ P.E. (pwrdr fr/unit) | | NO PE. | | w/ P.E. (pwrdr fr/unit) | | | | | |
| | | | | | | MCA | MAX FUSE or HACR BRKR | FLA | LRA | MCA | MAX FUSE or HACR BRKR | FLA | LRA | MCA | MAX FUSE or HACR BRKR | FLA | LRA | MCA | MAX FUSE or HACR BRKR | FLA | LRA |
| 50LC**07 | 208/230-3-60 | STD | NONE | - | - | 35/34 | 45/45 | 36/35 | 173 | 38/38 | 50/50 | 40/40 | 177 | 39/39 | 50/50 | 41/41 | 178 | 43/43 | 50/50 | 45/45 | 182 |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 35/34 | 45/45 | 36/35 | 173/173 | 38/38 | 50/50 | 40/40 | 177/177 | 39/39 | 50/50 | 41/41 | 178/178 | 43/43 | 50/50 | 45/45 | 182/182 |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 49/56 | 50/60 | 45/51 | 173/173 | 54/60 | 60/60 | 49/65 | 177/177 | 55/62 | 60/70 | 51/56 | 178/178 | 60/66 | 60/70 | 55/61 | 182/182 |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 72/82 | 80/90 | 66/75 | 173/173 | 77/87 | 80/90 | 70/79 | 177/177 | 78/88 | 80/90 | 72/81 | 178/178 | 83/93 | 90/100 | 76/85 | 182/182 |
| | | MED | NONE | - | - | 35/34 | 45/45 | 36/35 | 173 | 38/38 | 50/50 | 40/40 | 177 | 39/39 | 50/50 | 41/41 | 178 | 43/43 | 50/50 | 45/45 | 182 |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 35/34 | 45/45 | 36/35 | 173/173 | 38/38 | 50/50 | 40/40 | 177/177 | 39/39 | 50/50 | 41/41 | 178/178 | 43/43 | 50/50 | 45/45 | 182/182 |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 49/56 | 50/60 | 45/51 | 173/173 | 54/60 | 60/60 | 49/65 | 177/177 | 55/62 | 60/70 | 51/56 | 178/178 | 60/66 | 60/70 | 55/61 | 182/182 |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 72/82 | 80/90 | 66/75 | 173/173 | 77/87 | 80/90 | 70/79 | 177/177 | 78/88 | 80/90 | 72/81 | 178/178 | 83/93 | 90/100 | 76/85 | 182/182 |
| | | HIGH | NONE | - | - | 37/37 | 50/45 | 39/38 | 203 | 41/40 | 50/50 | 43/42 | 207 | 42/41 | 50/50 | 44/43 | 208 | 46/45 | 50/50 | 49/48 | 212 |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 37/37 | 50/45 | 39/38 | 203/203 | 41/40 | 50/50 | 43/42 | 207/207 | 42/41 | 50/50 | 44/43 | 208/208 | 46/45 | 50/50 | 49/48 | 212/212 |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 53/58 | 60/60 | 48/53 | 203/203 | 58/63 | 60/70 | 53/58 | 207/207 | 59/64 | 60/70 | 54/59 | 208/208 | 64/69 | 70/70 | 58/63 | 212/212 |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 76/85 | 80/90 | 69/78 | 203/203 | 81/90 | 90/90 | 74/82 | 207/207 | 82/91 | 90/100 | 75/83 | 208/208 | 87/96 | 90/100 | 79/88 | 212/212 |
| STD | NONE | - | - | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 24 | 25 | 25 | 91 | |
| | 319A | 6.0 | 7.2 | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 24 | 25 | 25 | 91 | |
| | 320A | 14.0 | 16.8 | 25 | 25 | 23 | 87 | 27 | 30 | 25 | 89 | 28 | 30 | 25 | 89 | 30 | 30 | 30 | 27 | 91 | |
| | 321A | 25.5 | 30.7 | 42 | 45 | 39 | 87 | 45 | 45 | 41 | 89 | 45 | 45 | 41 | 89 | 47 | 47 | 50 | 43 | 91 | |
| MED | NONE | - | - | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 24 | 25 | 25 | 91 | |
| | 319A | 6.0 | 7.2 | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 24 | 25 | 25 | 91 | |
| | 320A | 14.0 | 16.8 | 25 | 25 | 23 | 87 | 27 | 30 | 25 | 89 | 28 | 30 | 25 | 89 | 30 | 30 | 30 | 27 | 91 | |
| | 321A | 25.5 | 30.7 | 42 | 45 | 39 | 87 | 45 | 45 | 41 | 89 | 45 | 45 | 41 | 89 | 47 | 47 | 50 | 43 | 91 | |
| HIGH | NONE | - | - | 20 | 25 | 21 | 103 | 22 | 25 | 23 | 105 | 23 | 25 | 24 | 105 | 24 | 24 | 26 | 26 | 107 | |
| | 319A | 6.0 | 7.2 | 20 | 25 | 21 | 103 | 22 | 25 | 23 | 105 | 23 | 25 | 24 | 105 | 24 | 24 | 26 | 26 | 107 | |
| | 320A | 14.0 | 16.8 | 26 | 30 | 24 | 103 | 28 | 30 | 26 | 105 | 29 | 30 | 26 | 105 | 31 | 31 | 35 | 28 | 107 | |
| | 321A | 25.5 | 30.7 | 44 | 45 | 40 | 103 | 46 | 50 | 42 | 105 | 46 | 50 | 42 | 105 | 49 | 49 | 50 | 44 | 107 | |
| STD | NONE | - | - | 15 | 20 | 16 | 67 | 19 | 20 | 20 | 71 | 17 | 20 | 18 | 69 | 21 | 21 | 25 | 22 | 73 | |
| | 308A | 18.0 | 17.3 | 26 | 30 | 23 | 67 | 30 | 30 | 27 | 71 | 28 | 30 | 25 | 69 | 32 | 32 | 35 | 29 | 73 | |
| | 322A | 28.0 | 26.9 | 38 | 40 | 34 | 67 | 42 | 45 | 39 | 71 | 40 | 40 | 36 | 69 | 44 | 44 | 45 | 40 | 73 | |
| | NONE | - | - | 15 | 20 | 16 | 67 | 19 | 20 | 20 | 71 | 17 | 20 | 18 | 69 | 21 | 21 | 25 | 22 | 73 | |
| MED | 308A | 18.0 | 17.3 | 26 | 30 | 23 | 67 | 30 | 30 | 27 | 71 | 28 | 30 | 25 | 69 | 32 | 32 | 35 | 29 | 73 | |
| | 322A | 28.0 | 26.9 | 38 | 40 | 34 | 67 | 42 | 45 | 39 | 71 | 40 | 40 | 36 | 69 | 44 | 44 | 45 | 40 | 73 | |
| | NONE | - | - | 17 | 20 | 18 | 80 | 21 | 25 | 22 | 84 | 19 | 20 | 20 | 82 | 23 | 23 | 25 | 24 | 86 | |
| | 308A | 18.0 | 17.3 | 28 | 30 | 25 | 80 | 32 | 35 | 29 | 84 | 30 | 30 | 27 | 82 | 35 | 35 | 35 | 31 | 86 | |
| HIGH | 322A | 28.0 | 26.9 | 40 | 40 | 36 | 80 | 44 | 45 | 40 | 84 | 42 | 45 | 38 | 82 | 47 | 47 | 50 | 42 | 86 | |
| | NONE | - | - | 40 | 40 | 36 | 80 | 44 | 45 | 40 | 84 | 42 | 45 | 38 | 82 | 47 | 47 | 50 | 42 | 86 | |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 39 – UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| UNIT | NO M, V-Ph-Hz | ELEC. HTR | | | | NO C.O. or UNPWR C.O. | | | | | | w/ PWRD C.O. | | | | | | | | | | | | | | |
|------------|---------------|----------------|-----------|-----------|--------|-----------------------|--------|------------------------|------------|---------|------------------|------------------------|---------|------------|---------|------------------------|---------|---------|------------|---------|------------------|---------|---------|------------|---------|---------|
| | | ORHEATER***A00 | Nom (kW) | FLA | | NO PE. | | w/ P.E. (pwrd fr/unit) | | NO PE. | | w/ P.E. (pwrd fr/unit) | | NO PE. | | w/ P.E. (pwrd fr/unit) | | | | | | | | | | |
| IFM TYPE | | | | | MCA | MAX FUSE OR BRKR | FLA | LRA | DISC. SIZE | MCA | MAX FUSE OR BRKR | FLA | LRA | DISC. SIZE | MCA | MAX FUSE OR BRKR | FLA | LRA | DISC. SIZE | MCA | MAX FUSE OR BRKR | FLA | LRA | DISC. SIZE | | |
| STD | | NONE | - | - | 42/42 | 50/50 | 44/44 | 200 | 48/48 | 46/46 | 50/50 | 48/48 | 204 | 49/49 | 47/47 | 60/60 | 49/49 | 205 | 51/50 | 54/53 | 60/60 | 49/49 | 205 | 54/53 | 209 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 42/42 | 50/50 | 44/44 | 200/200 | 48/48 | 46/46 | 50/50 | 48/48 | 204/204 | 49/49 | 47/47 | 60/60 | 49/49 | 205/205 | 51/50 | 54/53 | 60/60 | 49/49 | 205/205 | 54/53 | 209/209 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 46/52 | 60/60 | 46/52 | 200/200 | 51/56 | 55/62 | 60/70 | 51/56 | 204/204 | 52/58 | 57/63 | 70/70 | 52/58 | 205/205 | 61/68 | 67/70 | 70/70 | 52/58 | 205/205 | 67/70 | 56/62 | 209/209 |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/99 | 100/110 | 87/99 | 200/200 | 91/104 | 100/113 | 100/125 | 91/104 | 204/204 | 93/105 | 101/114 | 110/125 | 106/119 | 110/125 | 205/205 | 106/119 | 110/125 | 110/125 | 93/105 | 205/205 | 97/109 | 209/209 |
| MED | | NONE | - | - | 42/42 | 50/50 | 44/44 | 200 | 48/48 | 46/46 | 50/50 | 48/48 | 204 | 49/49 | 47/47 | 60/60 | 49/49 | 205 | 51/50 | 54/53 | 60/60 | 49/49 | 205 | 54/53 | 209 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 42/42 | 50/50 | 44/44 | 200/200 | 48/48 | 46/46 | 50/50 | 48/48 | 204/204 | 49/49 | 47/47 | 60/60 | 49/49 | 205/205 | 51/50 | 54/53 | 60/60 | 49/49 | 205/205 | 54/53 | 209/209 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 46/52 | 60/60 | 46/52 | 200/200 | 51/56 | 55/62 | 60/70 | 51/56 | 204/204 | 52/58 | 57/63 | 70/70 | 52/58 | 205/205 | 61/68 | 67/70 | 70/70 | 52/58 | 205/205 | 67/70 | 56/62 | 209/209 |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/99 | 100/110 | 87/99 | 200/200 | 91/104 | 100/113 | 100/125 | 91/104 | 204/204 | 93/105 | 101/114 | 110/125 | 106/119 | 110/125 | 205/205 | 106/119 | 110/125 | 110/125 | 93/105 | 205/205 | 97/109 | 209/209 |
| HIGH | | NONE | - | - | 45/44 | 50/50 | 47/46 | 230 | 51/50 | 49/48 | 60/60 | 51/50 | 234 | 53/52 | 50/49 | 60/60 | 53/52 | 235 | 53/53 | 57/56 | 60/60 | 53/52 | 235 | 57/56 | 239 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 45/44 | 50/50 | 47/46 | 230/230 | 51/50 | 49/48 | 60/60 | 51/50 | 234/234 | 53/52 | 50/49 | 60/60 | 53/52 | 235/235 | 53/53 | 57/56 | 60/60 | 53/52 | 235/235 | 57/56 | 239/239 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 49/65 | 60/60 | 49/65 | 230/230 | 54/59 | 59/65 | 70/70 | 54/59 | 234/234 | 55/60 | 60/66 | 70/80 | 55/60 | 235/235 | 65/71 | 70/80 | 70/80 | 55/60 | 235/235 | 59/65 | 239/239 | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 93/104 | 110/125 | 93/104 | 230/230 | 95/106 | 103/116 | 110/125 | 95/106 | 234/234 | 98/107 | 105/117 | 110/125 | 109/122 | 110/125 | 235/235 | 109/122 | 110/125 | 110/125 | 98/107 | 235/235 | 100/112 | 239/239 |
| ULTRA HIGH | | NONE | - | - | 47/46 | 60/60 | 50/48 | 254 | 51/50 | 51/50 | 60/60 | 54/53 | 258 | 55/54 | 52/51 | 60/60 | 55/54 | 259 | 56/55 | 59/58 | 60/60 | 55/54 | 259 | 59/58 | 263 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 47/46 | 60/60 | 50/48 | 254/254 | 54/53 | 51/50 | 60/60 | 54/53 | 258/258 | 55/54 | 52/51 | 60/60 | 55/54 | 259/259 | 56/55 | 59/58 | 60/60 | 55/54 | 259/259 | 59/58 | 263/263 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 52/57 | 60/70 | 52/57 | 254/254 | 56/61 | 62/67 | 70/70 | 56/61 | 258/258 | 58/62 | 63/68 | 70/80 | 58/62 | 259/259 | 68/73 | 70/80 | 70/80 | 58/62 | 259/259 | 62/67 | 263/263 | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 93/104 | 110/125 | 93/104 | 254/254 | 97/108 | 106/118 | 110/125 | 97/108 | 258/258 | 98/109 | 107/119 | 110/125 | 112/124 | 125/125 | 103/114 | 103/114 | 125/125 | 103/114 | 98/109 | 263/263 | | |
| STD | | NONE | - | - | 23 | 25 | 24 | 102 | 26 | 24 | 30 | 26 | 104 | 26 | 25 | 30 | 26 | 104 | 27 | 30 | 28 | 27 | 104 | 28 | 106 | |
| | | 288A | 10.0 | 12.0 | 24 | 25 | 24 | 102 | 26 | 24 | 30 | 26 | 104 | 26 | 25 | 30 | 26 | 104 | 27 | 30 | 28 | 27 | 104 | 28 | 106 | |
| | | 292A | 16.5 | 19.9 | 26 | 30 | 26 | 102 | 28 | 24 | 35 | 29 | 104 | 28 | 29 | 30 | 28 | 104 | 34 | 35 | 31 | 30 | 29 | 31 | 106 | |
| | | 295A | 33.5 | 40.3 | 50 | 60 | 50 | 102 | 52 | 57 | 60 | 60 | 52 | 104 | 52 | 57 | 60 | 52 | 104 | 59 | 60 | 54 | 60 | 54 | 106 | |
| MED | | NONE | - | - | 23 | 25 | 24 | 102 | 26 | 24 | 30 | 26 | 104 | 26 | 25 | 30 | 26 | 104 | 27 | 30 | 28 | 27 | 104 | 28 | 106 | |
| | | 288A | 10.0 | 12.0 | 24 | 25 | 24 | 102 | 26 | 24 | 30 | 26 | 104 | 26 | 25 | 30 | 26 | 104 | 27 | 30 | 28 | 27 | 104 | 28 | 106 | |
| | | 292A | 16.5 | 19.9 | 26 | 30 | 26 | 102 | 28 | 24 | 35 | 29 | 104 | 28 | 29 | 30 | 28 | 104 | 34 | 35 | 31 | 30 | 29 | 31 | 106 | |
| | | 295A | 33.5 | 40.3 | 50 | 60 | 50 | 102 | 52 | 57 | 60 | 60 | 52 | 104 | 52 | 57 | 60 | 52 | 104 | 59 | 60 | 54 | 60 | 54 | 106 | |
| HIGH | | NONE | - | - | 23 | 25 | 25 | 118 | 27 | 25 | 30 | 27 | 120 | 27 | 26 | 30 | 27 | 120 | 27 | 30 | 29 | 27 | 120 | 29 | 122 | |
| | | 288A | 10.0 | 12.0 | 25 | 25 | 24 | 118 | 27 | 25 | 30 | 27 | 120 | 27 | 26 | 30 | 27 | 120 | 27 | 30 | 29 | 27 | 120 | 29 | 122 | |
| | | 292A | 16.5 | 19.9 | 27 | 30 | 27 | 118 | 29 | 25 | 35 | 29 | 120 | 29 | 30 | 30 | 28 | 120 | 35 | 35 | 32 | 30 | 29 | 32 | 122 | |
| | | 295A | 33.5 | 40.3 | 51 | 60 | 51 | 118 | 53 | 58 | 60 | 60 | 53 | 120 | 53 | 58 | 60 | 60 | 120 | 61 | 70 | 55 | 61 | 70 | 55 | 122 |
| ULTRA HIGH | | NONE | - | - | 25 | 30 | 26 | 130 | 28 | 26 | 30 | 28 | 132 | 28 | 27 | 30 | 28 | 132 | 29 | 30 | 30 | 28 | 132 | 29 | 134 | |
| | | 288A | 10.0 | 12.0 | 26 | 26 | 24 | 130 | 28 | 26 | 30 | 28 | 132 | 28 | 27 | 30 | 28 | 132 | 29 | 30 | 30 | 28 | 132 | 29 | 134 | |
| | | 292A | 16.5 | 19.9 | 31 | 35 | 29 | 130 | 31 | 34 | 35 | 31 | 132 | 31 | 34 | 35 | 31 | 132 | 36 | 40 | 33 | 36 | 40 | 33 | 134 | |
| | | 295A | 33.5 | 40.3 | 57 | 60 | 52 | 130 | 54 | 59 | 60 | 60 | 54 | 132 | 55 | 60 | 60 | 55 | 132 | 62 | 70 | 57 | 62 | 70 | 57 | 134 |
| STD | | NONE | - | - | 19 | 20 | 20 | 78 | 24 | 23 | 25 | 24 | 82 | 24 | 21 | 25 | 25 | 80 | 24 | 24 | 30 | 25 | 80 | 24 | 84 | |
| | | 288A | 16.5 | 15.9 | 24 | 25 | 22 | 78 | 26 | 23 | 30 | 26 | 82 | 26 | 26 | 30 | 23 | 80 | 31 | 35 | 28 | 28 | 28 | 84 | | |
| | | 292A | 16.5 | 19.9 | 32.2 | 44 | 45 | 78 | 45 | 49 | 50 | 45 | 82 | 45 | 46 | 50 | 42 | 80 | 51 | 60 | 47 | 47 | 47 | 84 | | |
| | | 295A | 33.5 | 40.3 | 56 | 60 | 51 | 78 | 53 | 58 | 60 | 60 | 53 | 80 | 58 | 60 | 60 | 53 | 80 | 61 | 70 | 55 | 61 | 70 | 55 | 84 |
| MED | | NONE | - | - | 19 | 20 | 20 | 78 | 23 | 23 | 25 | 24 | 82 | 24 | 21 | 25 | 25 | 80 | 24 | 24 | 30 | 25 | 80 | 24 | 84 | |
| | | 288A | 16.5 | 15.9 | 24 | 25 | 22 | 78 | 26 | 23 | 30 | 26 | 82 | 26 | 26 | 30 | 23 | 80 | 31 | 35 | 28 | 28 | 28 | 84 | | |
| | | 292A | 16.5 | 19.9 | 32.2 | 44 | 45 | 78 | 45 | 49 | 50 | 45 | 82 | 45 | 46 | 50 | 42 | 80 | 51 | 60 | 47 | 47 | 47 | 84 | | |
| | | 295A | 33.5 | 40.3 | 57 | 60 | 52 | 78 | 54 | 59 | 60 | 60 | 54 | 80 | 58 | 60 | 60 | 53 | 80 | 62 | 70 | 57 | 62 | 70 | 57 | 84 |
| HIGH | | NONE | - | - | 21 | 25 | 22 | 91 | 26 | 24 | 30 | 26 | 95 | 24 | 22 | 25 | 25 | 93 | 26 | 26 | 30 | 25 | 93 | 26 | 97 | |
| | | 288A | 16.5 | 15.9 | 26 | 30 | 23 | 91 | 28 | 28 | 35 | 28 | 95 | 28 | 28 | 30 | 25 | 93 | 33 | 35 | 30 | 30 | 30 | 30 | 97 | |
| | | 292A | 16.5 | 19.9 | 32.2 | 46 | 50 | 91 | 47 | 51 | 50 | 47 | 95 | 44 | 48 | 50 | 44 | 93 | 53 | 60 | 49 | 49 | 49 | 49 | 97 | |
| | | 295A | 33.5 | 40.3 | 57 | 60 | 52 | 91 | 54 | 59 | 60 | 60 | 54 | 93 | 55 | 60 | 60 | 55 | 93 | 62 | 70 | 57 | 62 | 70 | 57 | 97 |
| ULTRA HIGH | | NONE | - | - | 21 | 25 | 22 | 91 | 26 | 24 | 30 | 26 | 95 | 24 | 22 | 25 | 25 | 93 | 26 | 26 | 30 | 25 | 93 | 26 | 97 | |
| | | 288A | 16.5 | 15.9 | 26 | 30 | 23 | 91 | 28 | 28 | 35 | 28 | 95 | 28 | 28 | 30 | 25 | 93 | 33 | 35 | 30 | 30 | 30 | 30 | 97 | |
| | | 292A | 16.5 | 19.9 | 32.2 | 46 | 50 | 91 | 47 | 51 | 50 | 47 | 95 | 44 | 48 | 50 | 44 | 93 | 53 | 60 | 49 | 49 | 49 | 49 | 97 | |
| | | 295A | 33.5 | 40.3 | 57 | 60 | 52 | 91 | 54 | 59 | 60 | 60 | 54 | 93 | 55 | 60 | 60 | 55 | 93 | 62 | 70 | 57 | 62 | 70 | 57 | 97 |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 40 – UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| UNIT | NO M, V-PH-Hz | ELEC. HTR | | | | NO C.O. or UNPWR C.O. | | | | | | w/ PWRD C.O. | | | | | | | |
|------------|---------------|-----------|----------------|-----------|--------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------|-----------------------|--------------|--------------------------|-----------------------|------------------------|--------------------------|-----------------------|---------|---------|
| | | IFM TYPE | CRHEATER***A00 | Nom (kW) | FLA | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | | |
| | | | | | | MCA | MAX or FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX or FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX or FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX or FUSE or HACR BRKR | DISC. SIZE FLA LRA | | |
| STD | 208/230-3-60 | NONE | — | — | — | 46/46 | 227 | 49/48 | 60/60 | 51/50 | 231 | 50/49 | 60/60 | 52/52 | 232 | 53/53 | 60/60 | 56/56 | 236 |
| | | 288A | 7.5/10.0 | 20.9/24.1 | — | 46/46 | 227/227 | 49/48 | 60/60 | 51/50 | 231/231 | 50/49 | 60/60 | 52/52 | 232/232 | 53/53 | 60/60 | 56/56 | 236/236 |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 46/52 | 227/227 | 55/62 | 60/70 | 60/70 | 51/56 | 231/231 | 57/63 | 60/70 | 52/58 | 232/232 | 61/68 | 70/70 | 56/62 | 236/236 |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/99 | 227/227 | 100/113 | 100/125 | 100/125 | 91/104 | 231/231 | 101/114 | 110/125 | 93/105 | 232/232 | 106/119 | 110/125 | 97/109 | 236/236 |
| MED | 208/230-3-60 | NONE | — | — | 46/46 | 227 | 49/48 | 60/60 | 51/50 | 231 | 50/49 | 60/60 | 52/52 | 232 | 53/53 | 60/60 | 56/56 | 236 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 46/46 | 227/227 | 49/48 | 60/60 | 51/50 | 231/231 | 50/49 | 60/60 | 52/52 | 232/232 | 53/53 | 60/60 | 56/56 | 236/236 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 46/52 | 227/227 | 55/62 | 60/70 | 60/70 | 51/56 | 231/231 | 57/63 | 60/70 | 52/58 | 232/232 | 61/68 | 70/70 | 56/62 | 236/236 |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/99 | 227/227 | 100/113 | 100/125 | 100/125 | 91/104 | 231/231 | 101/114 | 110/125 | 93/105 | 232/232 | 106/119 | 110/125 | 97/109 | 236/236 |
| HIGH | 208/230-3-60 | NONE | — | — | 52/51 | 281 | 54/53 | 60/60 | 56/55 | 285 | 55/54 | 60/60 | 58/56 | 286 | 58/57 | 70/70 | 62/61 | 290 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 52/51 | 281/281 | 54/53 | 60/60 | 56/55 | 285/285 | 55/54 | 60/60 | 58/56 | 286/286 | 58/57 | 70/70 | 62/61 | 290/290 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 52/57 | 281/281 | 62/67 | 70/70 | 56/61 | 285/285 | 63/68 | 70/70 | 58/62 | 286/286 | 68/73 | 70/80 | 62/67 | 290/290 | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 93/104 | 281/281 | 106/118 | 110/125 | 110/125 | 97/108 | 285/285 | 107/119 | 110/125 | 98/109 | 286/286 | 112/124 | 125/125 | 103/114 | 290/290 |
| ULTRA HIGH | 460-3-60 | NONE | — | — | 55/54 | 292 | 56/55 | 60/60 | 60/59 | 296 | 57/56 | 70/60 | 61/60 | 297 | 61/60 | 70/70 | 65/64 | 301 | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 55/54 | 292/292 | 56/55 | 60/60 | 60/59 | 296/296 | 57/56 | 70/60 | 61/60 | 297/297 | 61/60 | 70/70 | 65/64 | 301/301 | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 55/60 | 292/292 | 65/71 | 70/80 | 60/65 | 296/296 | 66/72 | 70/80 | 61/66 | 297/297 | 61/66 | 80/80 | 65/70 | 301/301 | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 96/107 | 292/292 | 110/122 | 110/125 | 110/125 | 100/112 | 296/296 | 111/123 | 125/125 | 102/113 | 297/297 | 116/128 | 125/150 | 106/117 | 301/301 |
| STD | 460-3-60 | NONE | — | — | 25 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 117 | |
| | | 288A | 10.0 | 12.0 | 25 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 117 | |
| | | 292A | 16.5 | 19.9 | 26 | 113 | 31 | 35 | 31 | 28 | 115 | 32 | 35 | 29 | 115 | 34 | 35 | 117 | |
| | | 295A | 33.5 | 40.3 | 50 | 113 | 57 | 60 | 60 | 52 | 115 | 57 | 60 | 60 | 52 | 59 | 60 | 54 | 117 |
| MED | 460-3-60 | NONE | — | — | 25 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 117 | |
| | | 288A | 10.0 | 12.0 | 25 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 117 | |
| | | 292A | 16.5 | 19.9 | 26 | 113 | 31 | 35 | 31 | 28 | 115 | 32 | 35 | 29 | 115 | 34 | 35 | 117 | |
| | | 295A | 33.5 | 40.3 | 50 | 113 | 57 | 60 | 60 | 52 | 115 | 57 | 60 | 60 | 52 | 59 | 60 | 54 | 117 |
| HIGH | 460-3-60 | NONE | — | — | 28 | 141 | 28 | 30 | 30 | 143 | 29 | 35 | 30 | 143 | 30 | 35 | 32 | 145 | |
| | | 288A | 10.0 | 12.0 | 28 | 141 | 28 | 30 | 30 | 143 | 29 | 35 | 30 | 143 | 30 | 35 | 32 | 145 | |
| | | 292A | 16.5 | 19.9 | 29 | 141 | 34 | 35 | 31 | 30 | 143 | 34 | 35 | 31 | 143 | 36 | 40 | 33 | 145 |
| | | 295A | 33.5 | 40.3 | 52 | 141 | 59 | 60 | 60 | 54 | 143 | 60 | 60 | 55 | 143 | 62 | 70 | 57 | 145 |
| ULTRA HIGH | 460-3-60 | NONE | — | — | 29 | 146 | 30 | 35 | 31 | 148 | 30 | 35 | 32 | 148 | 32 | 35 | 34 | 150 | |
| | | 288A | 10.0 | 12.0 | 29 | 146 | 30 | 35 | 31 | 148 | 30 | 35 | 32 | 148 | 32 | 35 | 34 | 150 | |
| | | 292A | 16.5 | 19.9 | 30 | 146 | 36 | 40 | 32 | 148 | 36 | 40 | 33 | 148 | 38 | 40 | 35 | 150 | |
| | | 295A | 33.5 | 40.3 | 54 | 146 | 61 | 70 | 60 | 56 | 148 | 62 | 70 | 56 | 148 | 64 | 70 | 58 | 150 |
| STD | 575-3-60 | NONE | — | — | 21 | 84 | 24 | 25 | 25 | 88 | 22 | 25 | 23 | 86 | 25 | 30 | 27 | 90 | |
| | | 288A | 16.5 | 15.9 | 22 | 84 | 29 | 30 | 26 | 88 | 26 | 30 | 23 | 86 | 31 | 35 | 28 | 90 | |
| | | 296A | 33.5 | 32.2 | 45 | 84 | 49 | 50 | 45 | 88 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | |
| | | 296A | 33.5 | 32.2 | 44 | 84 | 49 | 50 | 45 | 88 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | |
| MED | 575-3-60 | NONE | — | — | 21 | 84 | 24 | 25 | 25 | 88 | 22 | 25 | 23 | 86 | 25 | 30 | 27 | 90 | |
| | | 288A | 16.5 | 15.9 | 22 | 84 | 29 | 30 | 26 | 88 | 26 | 30 | 23 | 86 | 31 | 35 | 28 | 90 | |
| | | 296A | 33.5 | 32.2 | 40 | 84 | 49 | 50 | 45 | 88 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | |
| | | 296A | 33.5 | 32.2 | 44 | 84 | 49 | 50 | 45 | 88 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | |
| HIGH | 575-3-60 | NONE | — | — | 23 | 97 | 25 | 30 | 27 | 101 | 23 | 25 | 25 | 99 | 27 | 30 | 29 | 103 | |
| | | 288A | 16.5 | 15.9 | 23 | 97 | 31 | 35 | 28 | 101 | 28 | 30 | 25 | 99 | 33 | 35 | 30 | 103 | |
| | | 296A | 33.5 | 32.2 | 46 | 97 | 51 | 50 | 42 | 101 | 48 | 50 | 44 | 99 | 53 | 60 | 49 | 103 | |
| | | 296A | 33.5 | 32.2 | 46 | 97 | 51 | 50 | 42 | 101 | 48 | 50 | 44 | 99 | 53 | 60 | 49 | 103 | |
| ULTRA HIGH | 575-3-60 | NONE | — | — | 25 | 111 | 27 | 30 | 29 | 115 | 25 | 30 | 27 | 113 | 29 | 35 | 31 | 117 | |
| | | 288A | 16.5 | 15.9 | 25 | 111 | 27 | 30 | 29 | 115 | 25 | 30 | 27 | 113 | 29 | 35 | 31 | 117 | |
| | | 293A | 33.5 | 32.2 | 48 | 111 | 33 | 35 | 30 | 115 | 30 | 30 | 27 | 113 | 35 | 35 | 32 | 117 | |
| | | 296A | 33.5 | 32.2 | 48 | 111 | 33 | 35 | 30 | 115 | 30 | 30 | 27 | 113 | 35 | 35 | 32 | 117 | |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 41 – UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA

| UNIT | NO. M. V. Ph-Hz | IFM TYPE | ELEC. HTR | | | | NO. C.O. or UNPWR C.O. | | | | | | | | | | w/ PWRD C.O. | | | | | | | | | |
|-----------|-----------------|----------|-----------------|----------|-----------|--------|------------------------|-----------------------|------------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|------------------------|--|--|--|--|--|
| | | | CORHEATER***A00 | Nom (kW) | FLA | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | | | |
| | | | | | | MCA | MAX FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX FUSE or HACR BRKR | DISC. SIZE FLA LRA | MCA | MAX FUSE or HACR BRKR | DISC. SIZE FLA LRA | | | | | | |
| 50LC**12 | 460-3-60 | STD | NONE | 7.5/10.0 | 20.9/24.1 | - | 51/50 | 60/60 | 52/52 | 252 | 56/56 | 256 | 55/55 | 60/60 | 58/57 | 257 | 59/59 | 62/62 | 261 | | | | | | | |
| | | | | | | | 288A | 60/60 | 52/52 | 252/252 | 56/56 | 256/256 | 55/55 | 60/60 | 58/57 | 257/257 | 59/59 | 62/62 | 261/261 | | | | | | | |
| | | | | | | | 291A | 60/60 | 52/53 | 252/252 | 56/58 | 256/256 | 58/60 | 60/70 | 58/59 | 257/257 | 63/69 | 62/63 | 261/261 | | | | | | | |
| | | | | | | | 294A | 100/110 | 89/101 | 252/252 | 93/105 | 256/256 | 103/116 | 110/125 | 94/106 | 257/257 | 107/120 | 98/110 | 261/261 | | | | | | | |
| | | | | | | | 291A+294A | 150/150 | 128/146 | 252/252 | 132/151 | 256/256 | 144/134 | 150/150 | 134/152 | 257/257 | 150/140 | 138/156 | 261/261 | | | | | | | |
| | | | | | | | NONE | 60/60 | 54/55 | 278 | 58/57 | 282 | 57/56 | 70/70 | 59/58 | 283 | 61/60 | 64/63 | 287 | | | | | | | |
| | | | | | | | 288A | 60/60 | 54/53 | 278/278 | 58/57 | 282/282 | 57/56 | 70/70 | 59/58 | 283/283 | 61/60 | 64/63 | 287/287 | | | | | | | |
| | | | | | | | 291A | 60/60 | 54/55 | 278/278 | 58/59 | 282/282 | 60/66 | 70/70 | 59/60 | 283/283 | 65/71 | 64/65 | 287/287 | | | | | | | |
| | | | | | | | 294A | 100/125 | 99/111 | 278/278 | 103/116 | 282/282 | 105/117 | 110/125 | 96/107 | 283/283 | 109/122 | 100/112 | 287/287 | | | | | | | |
| | | | | | | | 291A+294A | 150/150 | 142/131 | 278/278 | 134/152 | 282/282 | 148/137 | 150/150 | 135/153 | 283/283 | 152/141 | 140/157 | 287/287 | | | | | | | |
| 50LC**12 | 460-3-60 | MED | NONE | 7.5/10.0 | 20.9/24.1 | - | 57/56 | 70/70 | 59/58 | 313 | 64/63 | 317 | 62/61 | 80/80 | 65/64 | 318 | 66/65 | 69/68 | 322 | | | | | | | |
| | | | | | | | 288A | 70/70 | 59/58 | 313/313 | 64/63 | 317/317 | 62/61 | 80/80 | 65/64 | 318/318 | 66/65 | 69/68 | 322/322 | | | | | | | |
| | | | | | | | 291A | 70/70 | 59/60 | 313/313 | 64/65 | 317/317 | 66/72 | 80/80 | 65/66 | 318/318 | 71/77 | 69/70 | 322/322 | | | | | | | |
| | | | | | | | 294A | 110/125 | 96/107 | 313/313 | 100/112 | 317/317 | 111/123 | 125/125 | 102/113 | 318/318 | 116/128 | 106/117 | 322/322 | | | | | | | |
| | | | | | | | 291A+294A | 150/150 | 136/153 | 313/313 | 140/157 | 317/317 | 154/143 | 175/175 | 141/158 | 318/318 | 159/147 | 145/163 | 322/322 | | | | | | | |
| | | | | | | | NONE | 30 | 27 | 126 | 126 | 29 | 28 | 30 | 29 | 128 | 30 | 31 | 130 | | | | | | | |
| | | | | | | | 289A | 30 | 27 | 126 | 126 | 29 | 28 | 30 | 29 | 128 | 30 | 31 | 130 | | | | | | | |
| | | | | | | | 292A | 30 | 27 | 126 | 126 | 32 | 32 | 35 | 29 | 128 | 35 | 35 | 130 | | | | | | | |
| | | | | | | | 295A | 60 | 50 | 126 | 126 | 57 | 58 | 60 | 53 | 128 | 60 | 55 | 130 | | | | | | | |
| | | | | | | | 292A+295A | 70 | 73 | 126 | 126 | 67 | 67 | 70 | 75 | 128 | 80 | 80 | 130 | | | | | | | |
| 50LC**12 | 460-3-60 | MED | NONE | 10.0 | 12.0 | - | 26 | 30 | 27 | 140 | 28 | 142 | 28 | 30 | 30 | 142 | 30 | 32 | 144 | | | | | | | |
| | | | | | | | 289A | 30 | 27 | 140 | 140 | 28 | 28 | 30 | 29 | 142 | 30 | 32 | 144 | | | | | | | |
| | | | | | | | 292A | 30 | 27 | 140 | 140 | 32 | 32 | 35 | 29 | 142 | 35 | 32 | 144 | | | | | | | |
| | | | | | | | 295A | 60 | 51 | 140 | 140 | 58 | 58 | 60 | 53 | 142 | 61 | 70 | 144 | | | | | | | |
| | | | | | | | 292A+295A | 70 | 74 | 140 | 140 | 68 | 68 | 80 | 76 | 142 | 70 | 80 | 144 | | | | | | | |
| | | | | | | | NONE | 35 | 30 | 157 | 157 | 30 | 31 | 35 | 32 | 159 | 33 | 40 | 161 | | | | | | | |
| | | | | | | | 289A | 35 | 30 | 157 | 157 | 30 | 32 | 35 | 33 | 159 | 33 | 40 | 161 | | | | | | | |
| | | | | | | | 292A | 35 | 30 | 157 | 157 | 36 | 36 | 40 | 32 | 159 | 38 | 40 | 161 | | | | | | | |
| | | | | | | | 295A | 60 | 54 | 157 | 157 | 61 | 61 | 70 | 56 | 159 | 64 | 70 | 161 | | | | | | | |
| | | | | | | | 292A+295A | 80 | 77 | 157 | 157 | 71 | 71 | 80 | 79 | 159 | 74 | 80 | 161 | | | | | | | |
| 575-3-60 | 575-3-60 | STD | NONE | 16.5 | 32.2 | - | 22 | 25 | 23 | 107 | 26 | 111 | 24 | 25 | 109 | 28 | 30 | 29 | 113 | | | | | | | |
| | | | | | | | 293A | 25 | 23 | 107 | 107 | 27 | 27 | 30 | 25 | 109 | 32 | 29 | 113 | | | | | | | |
| | | | | | | | 296A | 45 | 45 | 107 | 107 | 50 | 47 | 50 | 43 | 109 | 52 | 60 | 113 | | | | | | | |
| | | | | | | | 293A+296A | 60 | 59 | 107 | 107 | 58 | 55 | 60 | 61 | 109 | 60 | 60 | 113 | | | | | | | |
| | | | | | | | NONE | 23 | 25 | 116 | 116 | 27 | 25 | 30 | 26 | 118 | 29 | 30 | 122 | | | | | | | |
| | | | | | | | 293A | 30 | 24 | 116 | 116 | 31 | 28 | 30 | 26 | 118 | 33 | 30 | 122 | | | | | | | |
| | | | | | | | 296A | 50 | 42 | 116 | 116 | 51 | 48 | 50 | 44 | 118 | 53 | 60 | 122 | | | | | | | |
| | | | | | | | 293A+296A | 60 | 60 | 116 | 116 | 59 | 56 | 60 | 62 | 118 | 61 | 70 | 122 | | | | | | | |
| | | | | | | | NONE | 25 | 25 | 130 | 130 | 27 | 26 | 30 | 28 | 132 | 30 | 32 | 136 | | | | | | | |
| | | | | | | | 293A | 28 | 26 | 130 | 130 | 33 | 30 | 30 | 28 | 132 | 35 | 35 | 136 | | | | | | | |
| 296A | 50 | 44 | 130 | 130 | 53 | 51 | 60 | 46 | 132 | 55 | 60 | 136 | | | | | | | | | | | | | | |
| 293A+296A | 60 | 62 | 130 | 130 | 61 | 58 | 70 | 64 | 132 | 63 | 70 | 136 | | | | | | | | | | | | | | |

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ELECTRICAL DATA (cont.)

Table 42 – UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| UNIT | NO M, V, Pn-Hz | ELEC. HTR | | | | | | | | | | NO C.O. or UNPWR C.O. | | | | | | | | | | w/ PWRD C.O. | | | | | | | | | |
|----------|----------------|-----------|----------------|-----------|-----------|---------|-----------|-----------------------|------------------------|-----------|-----------------------|-----------------------|-----------|-----------------------|------------------------|-----------|-----------------------|---------|-----------|-----------------------|------------------------|--------------|--|--|--|--|--|--|--|--|--|
| | | IFM TYPE | CRHEATER***A00 | Nom (kW) | FLA | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | | | | | | | | |
| | | | | | | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | | | | | | | | | | | |
| 50LC**07 | | STD | NONE | - | - | 35/35 | 45/45 | 36/35 | 173 | 38/38 | 50/50 | 40/40 | 177 | 39/39 | 50/50 | 41/41 | 178 | 43/43 | 50/50 | 45/45 | 182 | | | | | | | | | | |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 35/35 | 45/45 | 36/35 | 173/173 | 38/38 | 50/50 | 40/40 | 177/177 | 39/39 | 50/50 | 41/41 | 178/178 | 43/43 | 50/50 | 45/45 | 182/182 | | | | | | | | | | |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 56/56 | 60/60 | 45/51 | 173/173 | 60/60 | 60/60 | 49/55 | 177/177 | 62/62 | 70/70 | 51/56 | 178/178 | 66/66 | 70/70 | 55/61 | 182/182 | | | | | | | | | | |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 82/82 | 90/90 | 66/75 | 173/173 | 87/87 | 90/90 | 70/79 | 177/177 | 88/88 | 90/90 | 72/81 | 178/178 | 93/93 | 100/100 | 76/85 | 182/182 | | | | | | | | | | |
| 460-3-60 | | MED | NONE | - | - | 35/35 | 45/45 | 36/35 | 173 | 38/38 | 50/50 | 40/40 | 177 | 39/39 | 50/50 | 41/41 | 178 | 43/43 | 50/50 | 45/45 | 182 | | | | | | | | | | |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 35/35 | 45/45 | 36/35 | 173/173 | 38/38 | 50/50 | 40/40 | 177/177 | 39/39 | 50/50 | 41/41 | 178/178 | 43/43 | 50/50 | 45/45 | 182/182 | | | | | | | | | | |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 56/56 | 60/60 | 45/51 | 173/173 | 60/60 | 60/60 | 49/55 | 177/177 | 62/62 | 70/70 | 51/56 | 178/178 | 66/66 | 70/70 | 55/61 | 182/182 | | | | | | | | | | |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 82/82 | 90/90 | 66/75 | 173/173 | 87/87 | 90/90 | 70/79 | 177/177 | 88/88 | 90/90 | 72/81 | 178/178 | 93/93 | 100/100 | 76/85 | 182/182 | | | | | | | | | | |
| 575-3-60 | | HIGH | NONE | - | - | 37/37 | 50/50 | 39/38 | 203 | 41/41 | 50/50 | 43/42 | 207 | 42/42 | 50/50 | 44/43 | 208 | 46/46 | 50/50 | 49/48 | 212 | | | | | | | | | | |
| | | | 316A | 4.9/6.5 | 13.6/15.6 | 37/37 | 50/50 | 39/38 | 203/203 | 41/41 | 50/50 | 43/42 | 207/207 | 42/42 | 50/50 | 44/43 | 208/208 | 46/46 | 50/50 | 49/48 | 212/212 | | | | | | | | | | |
| | | | 317A | 12.0/16.0 | 33.4/38.5 | 58/58 | 60/60 | 48/53 | 203/203 | 63/63 | 70/70 | 53/58 | 207/207 | 64/64 | 70/70 | 54/59 | 208/208 | 69/69 | 70/70 | 58/63 | 212/212 | | | | | | | | | | |
| | | | 318A | 18.6/24.8 | 51.7/59.7 | 85/85 | 90/90 | 69/78 | 203/203 | 90/90 | 90/90 | 74/82 | 207/207 | 91/91 | 100/100 | 75/83 | 208/208 | 96/96 | 100/100 | 79/88 | 212/212 | | | | | | | | | | |
| 50LC**07 | | STD | NONE | - | - | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 25 | 25 | 91 | | | | | | | | | | |
| | | | 319A | 6.0 | 7.2 | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 25 | 25 | 91 | | | | | | | | | | |
| | | | 320A | 14.0 | 16.8 | 25 | 25 | 23 | 87 | 27 | 30 | 25 | 89 | 28 | 30 | 25 | 89 | 30 | 30 | 27 | 91 | | | | | | | | | | |
| | | | 321A | 25.5 | 30.7 | 42 | 45 | 39 | 87 | 45 | 45 | 41 | 89 | 45 | 45 | 41 | 89 | 47 | 50 | 43 | 91 | | | | | | | | | | |
| 460-3-60 | | MED | NONE | - | - | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 25 | 25 | 91 | | | | | | | | | | |
| | | | 319A | 6.0 | 7.2 | 20 | 25 | 20 | 87 | 21 | 25 | 22 | 89 | 22 | 25 | 23 | 89 | 24 | 25 | 25 | 91 | | | | | | | | | | |
| | | | 320A | 14.0 | 16.8 | 25 | 25 | 23 | 87 | 27 | 30 | 25 | 89 | 28 | 30 | 25 | 89 | 30 | 30 | 27 | 91 | | | | | | | | | | |
| | | | 321A | 25.5 | 30.7 | 42 | 45 | 39 | 87 | 45 | 45 | 41 | 89 | 45 | 45 | 41 | 89 | 47 | 50 | 43 | 91 | | | | | | | | | | |
| 50LC**07 | | HIGH | NONE | - | - | 20 | 25 | 21 | 103 | 22 | 25 | 23 | 105 | 23 | 25 | 24 | 105 | 24 | 30 | 26 | 107 | | | | | | | | | | |
| | | | 319A | 6.0 | 7.2 | 20 | 25 | 21 | 103 | 22 | 25 | 23 | 105 | 23 | 25 | 24 | 105 | 24 | 30 | 26 | 107 | | | | | | | | | | |
| | | | 320A | 14.0 | 16.8 | 26 | 30 | 24 | 103 | 28 | 30 | 26 | 105 | 29 | 30 | 26 | 105 | 31 | 35 | 28 | 107 | | | | | | | | | | |
| | | | 321A | 25.5 | 30.7 | 44 | 45 | 40 | 103 | 46 | 50 | 42 | 105 | 46 | 50 | 42 | 105 | 49 | 50 | 44 | 107 | | | | | | | | | | |
| 575-3-60 | | STD | NONE | - | - | 15 | 20 | 16 | 67 | 19 | 20 | 20 | 71 | 17 | 20 | 18 | 69 | 21 | 25 | 22 | 73 | | | | | | | | | | |
| | | | 308A | 18.0 | 17.3 | 26 | 30 | 23 | 67 | 30 | 30 | 27 | 71 | 28 | 30 | 25 | 69 | 32 | 35 | 29 | 73 | | | | | | | | | | |
| | | | 322A | 28.0 | 26.9 | 38 | 40 | 34 | 67 | 42 | 45 | 39 | 71 | 40 | 40 | 36 | 69 | 44 | 45 | 40 | 73 | | | | | | | | | | |
| | | | NONE | - | - | 15 | 20 | 16 | 67 | 19 | 20 | 20 | 71 | 17 | 20 | 18 | 69 | 21 | 25 | 22 | 73 | | | | | | | | | | |
| 50LC**07 | | MED | NONE | - | - | 26 | 30 | 23 | 67 | 30 | 30 | 27 | 71 | 28 | 30 | 25 | 69 | 32 | 35 | 29 | 73 | | | | | | | | | | |
| | | | 308A | 18.0 | 17.3 | 26 | 30 | 23 | 67 | 30 | 30 | 27 | 71 | 28 | 30 | 25 | 69 | 32 | 35 | 29 | 73 | | | | | | | | | | |
| | | | 322A | 28.0 | 26.9 | 38 | 40 | 34 | 67 | 42 | 45 | 39 | 71 | 40 | 40 | 36 | 69 | 44 | 45 | 40 | 73 | | | | | | | | | | |
| | | | NONE | - | - | 17 | 20 | 18 | 80 | 21 | 25 | 22 | 84 | 19 | 20 | 20 | 82 | 23 | 25 | 24 | 86 | | | | | | | | | | |
| 50LC**07 | | HIGH | NONE | - | - | 28 | 30 | 25 | 80 | 32 | 35 | 29 | 84 | 30 | 30 | 27 | 82 | 35 | 35 | 31 | 86 | | | | | | | | | | |
| | | | 308A | 18.0 | 17.3 | 28 | 30 | 25 | 80 | 32 | 35 | 29 | 84 | 30 | 30 | 27 | 82 | 35 | 35 | 31 | 86 | | | | | | | | | | |
| | | | 322A | 28.0 | 26.9 | 40 | 40 | 36 | 80 | 44 | 45 | 40 | 84 | 42 | 45 | 38 | 82 | 47 | 50 | 42 | 86 | | | | | | | | | | |
| | | | NONE | - | - | 40 | 40 | 36 | 80 | 44 | 45 | 40 | 84 | 42 | 45 | 38 | 82 | 47 | 50 | 42 | 86 | | | | | | | | | | |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 43 – UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| UNIT | NO M, V - Ph - Hz | ELEC. HTR | | | | | | | | | | NO C.O. or UNPWR C.O. | | | | | | | | | | w/ PWRD C.O. | | | | | | | | | |
|------------|-------------------|-----------|----------------|-----------|---------|--------|-----------|-----------------------|------------------------|-----------|-----------------------|-----------------------|-----------|-----------------------|------------------------|-----------|-----------------------|---------|-----------|-----------------------|------------------------|--------------|-----------------------|---------|--|--|--|--|--|--|--|
| | | IFM TYPE | CRHEATER***A00 | Nom (kW) | FLA | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | NO PE. | | | w/ P.E. (pwrd fr/unit) | | | | | | | | | | |
| | | | | | | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | MCA | HACR BRKR | DISC. SIZE FLA LRA | | | | | | | | |
| STD | | NONE | — | — | — | 44/44 | 200 | 46/46 | 50/50 | 48/48 | 204 | 47/47 | 60/60 | 49/49 | 205 | 48/48 | 205 | 49/49 | 60/60 | 51/51 | 51/51 | 54/53 | 209 | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 42/42 | 44/44 | 200/200 | 46/46 | 50/50 | 48/48 | 204/204 | 47/47 | 60/60 | 49/49 | 205/205 | 49/49 | 205/205 | 51/51 | 51/51 | 60/60 | 68/68 | 68/68 | 54/53 | 209/209 | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 57/57 | 46/52 | 200/200 | 62/62 | 70/70 | 51/56 | 204/204 | 63/63 | 70/70 | 52/58 | 205/205 | 52/58 | 205/205 | 68/68 | 70/70 | 70/70 | 70/70 | 70/70 | 56/52 | 209/209 | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 108/108 | 87/89 | 200/200 | 113/113 | 125/125 | 91/104 | 204/204 | 114/114 | 125/125 | 93/105 | 205/205 | 93/105 | 205/205 | 119/119 | 119/119 | 125/125 | 119/119 | 119/119 | 97/109 | 209/209 | | | | | | | |
| MED | | NONE | — | — | 44/44 | 200 | 46/46 | 50/50 | 48/48 | 204 | 47/47 | 60/60 | 49/49 | 205 | 49/49 | 205 | 51/51 | 51/51 | 60/60 | 60/60 | 60/60 | 54/53 | 209 | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 42/42 | 44/44 | 200/200 | 46/46 | 50/50 | 48/48 | 204/204 | 47/47 | 60/60 | 49/49 | 205/205 | 49/49 | 205/205 | 68/68 | 70/70 | 70/70 | 70/70 | 56/52 | 209/209 | | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 57/57 | 46/52 | 200/200 | 62/62 | 70/70 | 51/56 | 204/204 | 63/63 | 70/70 | 52/58 | 205/205 | 52/58 | 205/205 | 68/68 | 70/70 | 70/70 | 70/70 | 56/52 | 209/209 | | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 108/108 | 87/89 | 200/200 | 113/113 | 125/125 | 91/104 | 204/204 | 114/114 | 125/125 | 93/105 | 205/205 | 93/105 | 205/205 | 119/119 | 119/119 | 125/125 | 119/119 | 119/119 | 97/109 | 209/209 | | | | | | | |
| HIGH | | NONE | — | — | 47/46 | 230 | 49/49 | 60/60 | 51/50 | 234 | 50/50 | 60/60 | 53/53 | 235 | 53/52 | 235 | 53/53 | 60/60 | 60/60 | 60/60 | 57/56 | 239 | | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 45/45 | 47/46 | 230/230 | 49/49 | 60/60 | 51/50 | 234/234 | 50/50 | 60/60 | 53/53 | 235/235 | 53/52 | 235/235 | 68/68 | 70/70 | 70/70 | 70/70 | 57/56 | 239/239 | | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 60/60 | 49/55 | 230/230 | 65/65 | 70/70 | 54/59 | 234/234 | 66/66 | 70/70 | 55/60 | 235/235 | 55/60 | 235/235 | 71/71 | 80/80 | 80/80 | 80/80 | 59/55 | 239/239 | | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 111/111 | 90/102 | 230/230 | 118/118 | 125/125 | 95/106 | 234/234 | 117/117 | 125/125 | 96/107 | 235/235 | 96/107 | 235/235 | 122/122 | 100/112 | 100/112 | 100/112 | 103/114 | 263/263 | | | | | | | | |
| ULTRA HIGH | | NONE | — | — | 50/48 | 254 | 51/51 | 60/60 | 54/53 | 258 | 52/52 | 60/60 | 55/54 | 259 | 55/54 | 259 | 56/56 | 60/60 | 60/60 | 60/60 | 59/58 | 263 | | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 47/47 | 50/48 | 254/254 | 51/51 | 60/60 | 54/53 | 258/258 | 52/52 | 60/60 | 55/54 | 259/259 | 55/54 | 259/259 | 73/73 | 80/80 | 80/80 | 80/80 | 62/67 | 263/263 | | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 62/62 | 52/57 | 254/254 | 67/67 | 70/70 | 56/61 | 258/258 | 68/68 | 70/70 | 58/62 | 259/259 | 58/62 | 259/259 | 73/73 | 80/80 | 80/80 | 80/80 | 62/67 | 263/263 | | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 93/104 | 93/104 | 254/254 | 118/118 | 125/125 | 97/108 | 258/258 | 119/119 | 125/125 | 98/109 | 259/259 | 98/109 | 259/259 | 124/124 | 103/114 | 103/114 | 103/114 | 103/114 | 263/263 | | | | | | | | |
| STD | | NONE | — | — | 24 | 102 | 24 | 24 | 26 | 104 | 25 | 30 | 26 | 104 | 27 | 26 | 104 | 27 | 30 | 27 | 27 | 106 | | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 23 | 24 | 102 | 24 | 26 | 104 | 25 | 30 | 26 | 104 | 27 | 26 | 104 | 27 | 30 | 27 | 27 | 106 | | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 29 | 26 | 102 | 31 | 35 | 28 | 104 | 32 | 35 | 29 | 104 | 33 | 30 | 29 | 30 | 30 | 35 | 106 | | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 54 | 50 | 102 | 57 | 60 | 52 | 104 | 57 | 60 | 52 | 104 | 58 | 53 | 50 | 55 | 70 | 70 | 55 | 106 | | | | | | | | |
| MED | | NONE | — | — | 24 | 102 | 24 | 24 | 26 | 104 | 25 | 30 | 26 | 104 | 27 | 26 | 104 | 27 | 30 | 27 | 27 | 106 | | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 23 | 24 | 102 | 24 | 26 | 104 | 25 | 30 | 26 | 104 | 27 | 26 | 104 | 27 | 30 | 27 | 27 | 106 | | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 29 | 26 | 102 | 31 | 35 | 28 | 104 | 32 | 35 | 29 | 104 | 33 | 30 | 29 | 30 | 35 | 35 | 106 | | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 54 | 50 | 102 | 57 | 60 | 52 | 104 | 57 | 60 | 52 | 104 | 58 | 53 | 50 | 55 | 70 | 70 | 55 | 106 | | | | | | | | |
| HIGH | | NONE | — | — | 25 | 118 | 25 | 30 | 27 | 120 | 26 | 30 | 27 | 120 | 27 | 27 | 120 | 27 | 30 | 27 | 27 | 122 | | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 23 | 25 | 118 | 25 | 30 | 27 | 120 | 26 | 30 | 27 | 120 | 27 | 27 | 120 | 27 | 30 | 27 | 27 | 122 | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 30 | 27 | 118 | 32 | 35 | 29 | 120 | 33 | 35 | 30 | 120 | 33 | 30 | 30 | 35 | 35 | 35 | 122 | | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 56 | 51 | 118 | 58 | 60 | 53 | 120 | 58 | 60 | 53 | 120 | 58 | 53 | 50 | 55 | 70 | 70 | 55 | 122 | | | | | | | | |
| ULTRA HIGH | | NONE | — | — | 25 | 130 | 26 | 30 | 28 | 132 | 27 | 30 | 28 | 132 | 28 | 28 | 132 | 29 | 30 | 28 | 29 | 134 | | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 25 | 26 | 130 | 26 | 30 | 28 | 132 | 27 | 30 | 28 | 132 | 28 | 28 | 132 | 29 | 30 | 28 | 29 | 134 | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 31 | 29 | 130 | 34 | 35 | 31 | 132 | 34 | 35 | 31 | 132 | 31 | 31 | 32 | 36 | 40 | 33 | 134 | | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 57 | 50 | 130 | 59 | 60 | 54 | 132 | 60 | 60 | 54 | 132 | 55 | 55 | 50 | 62 | 70 | 57 | 134 | | | | | | | | | |
| STD | | NONE | — | — | 19 | 78 | 19 | 20 | 24 | 82 | 21 | 25 | 24 | 80 | 22 | 22 | 80 | 24 | 24 | 24 | 26 | 84 | | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 24 | 22 | 78 | 29 | 30 | 26 | 82 | 26 | 30 | 23 | 80 | 23 | 80 | 31 | 31 | 35 | 28 | 84 | | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 44 | 40 | 78 | 49 | 50 | 45 | 82 | 46 | 50 | 42 | 80 | 42 | 80 | 51 | 51 | 60 | 47 | 84 | | | | | | | | | |
| | | NONE | — | — | 19 | 78 | 19 | 20 | 24 | 82 | 21 | 25 | 24 | 80 | 22 | 22 | 80 | 24 | 24 | 24 | 26 | 84 | | | | | | | | | |
| MED | | NONE | — | — | 20 | 80 | 20 | 25 | 24 | 84 | 22 | 25 | 24 | 82 | 23 | 23 | 82 | 25 | 25 | 25 | 28 | 84 | | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 24 | 22 | 78 | 29 | 30 | 26 | 82 | 26 | 30 | 23 | 80 | 23 | 80 | 31 | 31 | 35 | 28 | 84 | | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 44 | 40 | 78 | 49 | 50 | 45 | 82 | 46 | 50 | 42 | 80 | 42 | 80 | 51 | 51 | 60 | 47 | 84 | | | | | | | | | |
| | | NONE | — | — | 20 | 80 | 20 | 25 | 24 | 84 | 22 | 25 | 24 | 82 | 23 | 23 | 82 | 25 | 25 | 25 | 28 | 84 | | | | | | | | | |
| HIGH | | NONE | — | — | 22 | 91 | 22 | 30 | 26 | 95 | 23 | 30 | 26 | 93 | 24 | 24 | 93 | 26 | 26 | 26 | 30 | 97 | | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 26 | 23 | 91 | 31 | 35 | 28 | 95 | 28 | 30 | 25 | 93 | 25 | 93 | 33 | 33 | 35 | 30 | 97 | | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 46 | 42 | 91 | 51 | 51 | 47 | 95 | 48 | 50 | 44 | 93 | 44 | 93 | 53 | 53 | 60 | 49 | 97 | | | | | | | | | |
| | | NONE | — | — | 22 | 91 | 22 | 30 | 26 | 95 | 23 | 30 | 26 | 93 | 24 | 24 | 93 | 26 | 26 | 26 | 30 | 97 | | | | | | | | | |
| ULTRA HIGH | | NONE | — | — | 23 | 91 | 23 | 30 | 28 | 95 | 28 | 30 | 25 | 93 | 25 | 93 | 33 | 33 | 35 | 30 | 97 | | | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 26 | 23 | 91 | 31 | 35 | 28 | 95 | 28 | 30 | 25 | 93 | 25 | 93 | 33 | 33 | 35 | 30 | 97 | | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 46 | 42 | 91 | 51 | 51 | 47 | 95 | 48 | 50 | 44 | 93 | 44 | 93 | 53 | 53 | 60 | 49 | 97 | | | | | | | | | |
| | | NONE | — | — | 23 | 91 | 23 | 30 | 28 | 95 | 28 | 30 | 25 | 93 | 25 | 93 | 33 | 33 | 35 | 30 | 97 | | | | | | | | | | |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 44 – UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| UNIT | NO M, V, P, Hz | ELEC. HTR | | | | | | | | | | NO C.O. or UNPWR C.O. | | | | | | | | | | w/ PWRD C.O. | | | | | | | | | |
|----------|----------------|-----------|----------------|-----------|--------|---------|-----------|------------|------------------------|-----------|------------|-----------------------|-----------|------------|------------------------|-----------|------------|---------|-----------|------------|------------------------|--------------|------------|---------|-----------|------------|--|--|--|--|--|
| | | IFM TYPE | CRHEATER***A00 | Nom (kW) | FLA | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | NO P.E. | | | w/ P.E. (pwrd fr/unit) | | | | | | | | | | |
| | | | | | | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | MCA | HACR BRKR | DISC. SIZE | | | | | |
| FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | FLA | FLA | LRA | | | | | | | | |
| 575-3-60 | STD | NONE | - | - | - | 46/46 | 60/60 | 227 | 49/49 | 60/60 | 51/50 | 231 | 50/50 | 60/60 | 52/52 | 232 | 53/53 | 60/60 | 56/56 | 236 | 53/53 | 60/60 | 56/56 | 236 | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 45/45 | 60/60 | 227/227 | 49/49 | 60/60 | 51/50 | 231/231 | 50/50 | 232/232 | 60/60 | 52/52 | 232/232 | 53/53 | 60/60 | 56/56 | 236/236 | 53/53 | 60/60 | 56/56 | 236/236 | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 57/57 | 60/60 | 227/227 | 62/62 | 70/70 | 51/56 | 231/231 | 63/63 | 232/232 | 70/70 | 52/58 | 232/232 | 68/68 | 70/70 | 56/62 | 236/236 | 68/68 | 70/70 | 56/62 | 236/236 | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/89 | 110/110 | 227/227 | 113/113 | 125/125 | 91/104 | 231/231 | 114/114 | 232/232 | 125/125 | 93/105 | 232/232 | 119/119 | 125/125 | 97/109 | 236/236 | 119/119 | 125/125 | 97/109 | 236/236 | | | | | | | |
| 460-3-60 | MED | NONE | - | - | 46/46 | 60/60 | 227 | 49/49 | 60/60 | 51/50 | 231 | 50/50 | 60/60 | 52/52 | 232 | 53/53 | 60/60 | 56/56 | 236 | 53/53 | 60/60 | 56/56 | 236 | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 45/45 | 60/60 | 227/227 | 49/49 | 60/60 | 51/50 | 231/231 | 50/50 | 232/232 | 60/60 | 52/52 | 232/232 | 53/53 | 60/60 | 56/56 | 236/236 | 53/53 | 60/60 | 56/56 | 236/236 | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 57/57 | 60/60 | 227/227 | 62/62 | 70/70 | 51/56 | 231/231 | 63/63 | 232/232 | 70/70 | 52/58 | 232/232 | 68/68 | 70/70 | 56/62 | 236/236 | 68/68 | 70/70 | 56/62 | 236/236 | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 87/89 | 110/110 | 227/227 | 113/113 | 125/125 | 91/104 | 231/231 | 114/114 | 232/232 | 125/125 | 93/105 | 232/232 | 119/119 | 125/125 | 97/109 | 236/236 | 119/119 | 125/125 | 97/109 | 236/236 | | | | | | | |
| 575-3-60 | ULTRA HIGH | NONE | - | - | 52/51 | 60/60 | 281 | 54/54 | 60/60 | 56/55 | 285 | 55/55 | 60/60 | 58/58 | 286 | 58/58 | 70/70 | 62/61 | 290 | 58/58 | 70/70 | 62/61 | 290 | | | | | | | | |
| | | 288A | 7.5/10.0 | 20.9/24.1 | 45/45 | 60/60 | 281/281 | 54/54 | 60/60 | 56/55 | 285/285 | 55/55 | 60/60 | 58/58 | 286/286 | 58/58 | 70/70 | 62/61 | 290/290 | 58/58 | 70/70 | 62/61 | 290/290 | | | | | | | | |
| | | 291A | 12.4/16.5 | 34.4/39.7 | 52/57 | 70/70 | 281/281 | 67/67 | 70/70 | 56/61 | 285/285 | 68/68 | 286/286 | 70/70 | 58/62 | 286/286 | 73/73 | 80/80 | 62/67 | 290/290 | 73/73 | 80/80 | 62/67 | 290/290 | | | | | | | |
| | | 294A | 25.2/33.5 | 69.9/80.6 | 93/104 | 125/125 | 281/281 | 118/118 | 125/125 | 97/108 | 285/285 | 119/119 | 286/286 | 125/125 | 98/109 | 286/286 | 124/124 | 150/150 | 103/114 | 290/290 | 124/124 | 150/150 | 103/114 | 290/290 | | | | | | | |
| 575-3-60 | ULTRA HIGH | NONE | - | - | 24 | 30 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 30 | 117 | 28 | 30 | 30 | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 25 | 30 | 113 | 26 | 30 | 27 | 115 | 27 | 30 | 28 | 115 | 28 | 30 | 30 | 30 | 117 | 28 | 30 | 30 | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 26 | 30 | 113 | 31 | 35 | 28 | 115 | 32 | 35 | 35 | 29 | 115 | 34 | 35 | 31 | 117 | 34 | 35 | 31 | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 54 | 60 | 113 | 57 | 60 | 52 | 115 | 57 | 60 | 60 | 52 | 115 | 59 | 60 | 54 | 117 | 59 | 60 | 54 | | | | | | | | |
| 575-3-60 | ULTRA HIGH | NONE | - | - | 26 | 30 | 141 | 28 | 30 | 30 | 143 | 29 | 35 | 30 | 143 | 30 | 35 | 32 | 145 | 30 | 35 | 32 | 145 | | | | | | | | |
| | | 289A | 10.0 | 12.0 | 26 | 30 | 141 | 28 | 30 | 30 | 143 | 29 | 35 | 30 | 143 | 30 | 35 | 32 | 145 | 30 | 35 | 32 | 145 | | | | | | | | |
| | | 292A | 16.5 | 19.9 | 31 | 35 | 141 | 34 | 35 | 31 | 143 | 34 | 35 | 31 | 143 | 36 | 40 | 33 | 145 | 36 | 40 | 33 | 145 | | | | | | | | |
| | | 295A | 33.5 | 40.3 | 57 | 60 | 141 | 59 | 60 | 54 | 143 | 62 | 70 | 56 | 55 | 143 | 64 | 70 | 57 | 145 | 62 | 70 | 57 | 145 | | | | | | | |
| 575-3-60 | STD | NONE | - | - | 20 | 25 | 84 | 24 | 25 | 25 | 88 | 22 | 25 | 23 | 86 | 25 | 30 | 27 | 90 | 25 | 30 | 27 | 90 | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 22 | 25 | 84 | 29 | 30 | 26 | 88 | 26 | 26 | 23 | 86 | 31 | 35 | 28 | 90 | 26 | 26 | 23 | 86 | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 44 | 45 | 84 | 49 | 50 | 45 | 88 | 46 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | 46 | 46 | 51 | 60 | | | | | | | |
| | | 299A | - | - | 44 | 45 | 84 | 49 | 50 | 45 | 88 | 46 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | 46 | 46 | 51 | 60 | | | | | | | |
| 575-3-60 | MED | NONE | - | - | 20 | 25 | 84 | 24 | 25 | 25 | 88 | 22 | 25 | 23 | 86 | 25 | 30 | 27 | 90 | 25 | 30 | 27 | 90 | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 22 | 25 | 84 | 29 | 30 | 26 | 88 | 26 | 26 | 23 | 86 | 31 | 35 | 28 | 90 | 26 | 26 | 23 | 86 | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 44 | 45 | 84 | 49 | 50 | 45 | 88 | 46 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | 46 | 46 | 51 | 60 | | | | | | | |
| | | 299A | - | - | 44 | 45 | 84 | 49 | 50 | 45 | 88 | 46 | 46 | 50 | 42 | 86 | 51 | 60 | 47 | 90 | 46 | 46 | 51 | 60 | | | | | | | |
| 575-3-60 | HIGH | NONE | - | - | 22 | 25 | 97 | 25 | 30 | 27 | 101 | 23 | 25 | 25 | 99 | 27 | 30 | 29 | 103 | 27 | 30 | 29 | 103 | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 23 | 30 | 97 | 31 | 35 | 28 | 101 | 23 | 25 | 25 | 99 | 27 | 30 | 29 | 103 | 27 | 30 | 29 | 103 | | | | | | | | |
| | | 296A | 33.5 | 32.2 | 42 | 45 | 97 | 51 | 51 | 47 | 101 | 48 | 48 | 50 | 44 | 99 | 53 | 60 | 49 | 103 | 48 | 48 | 50 | 44 | | | | | | | |
| | | 299A | - | - | 42 | 45 | 97 | 51 | 51 | 47 | 101 | 48 | 48 | 50 | 44 | 99 | 53 | 60 | 49 | 103 | 48 | 48 | 50 | 44 | | | | | | | |
| 575-3-60 | ULTRA HIGH | NONE | - | - | 24 | 25 | 111 | 27 | 30 | 29 | 115 | 25 | 30 | 27 | 113 | 29 | 35 | 31 | 117 | 24 | 25 | 31 | 117 | | | | | | | | |
| | | 289A | 16.5 | 15.9 | 25 | 30 | 111 | 33 | 35 | 30 | 115 | 30 | 30 | 30 | 27 | 113 | 35 | 35 | 32 | 117 | 30 | 30 | 32 | 117 | | | | | | | |
| | | 293A | 33.5 | 32.2 | 44 | 50 | 111 | 53 | 60 | 49 | 115 | 51 | 51 | 60 | 46 | 113 | 55 | 60 | 50 | 117 | 51 | 51 | 60 | 50 | | | | | | | |
| | | 296A | - | - | 44 | 50 | 111 | 53 | 60 | 49 | 115 | 51 | 51 | 60 | 46 | 113 | 55 | 60 | 50 | 117 | 51 | 51 | 60 | 50 | | | | | | | |

See Legend and Notes on page 59

ELECTRICAL DATA (cont.)

Table 45 – UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER

| UNIT | NO M. V-PH-Hz | ELEC. HTR | | | | NO C.O. or UNPWR C.O. | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---------------|---------------|-----------|-----------|-------------|-----------------------|------------|---------|---------|------------------------|-----------|------------|---------|---------|---------|-----------|------------|------------------------|---------|---------|-----------|------------|---------|---------|---------|---------|---------|---------|---------|-----|
| | | CRHEATER**A00 | Nom (kW) | FLA | MCA | NO P.E. | | | | w/ P.E. (pwrd fr/unit) | | | | NO P.E. | | | | w/ P.E. (pwrd fr/unit) | | | | | | | | | | | | |
| | | | | | | HACR BRKR | DISC. SIZE | FLA | LRA | MCA | HACR BRKR | DISC. SIZE | FLA | LRA | MCA | HACR BRKR | DISC. SIZE | FLA | LRA | MCA | HACR BRKR | DISC. SIZE | FLA | LRA | | | | | | |
| 50LC**12 | 460-3-60 | STD | NONE | - | - | 51/51 | 60/60 | 52/52 | 252 | 54/54 | 60/60 | 56/56 | 256 | 55/55 | 60/60 | 58/57 | 60/60 | 58/57 | 257 | 59/59 | 70/70 | 59/58 | 283 | 61/61 | 70/70 | 64/63 | 287 | | | |
| | | | 288A | 7.5/10.0 | 20.9/24.1 | 51/51 | 60/60 | 52/52 | 252 | 54/54 | 60/60 | 56/56 | 256 | 55/55 | 60/60 | 58/57 | 60/60 | 58/57 | 257 | 59/59 | 70/70 | 59/58 | 283 | 61/61 | 70/70 | 64/63 | 287 | | | |
| | | | 291A | 12.4/16.5 | 34.4/39.7 | 59/59 | 60/60 | 52/53 | 252/252 | 63/63 | 70/70 | 56/58 | 256/256 | 256/256 | 257/257 | 65/65 | 70/70 | 58/59 | 70/70 | 58/59 | 257/257 | 69/69 | 70/70 | 59/60 | 283/283 | 71/71 | 80/80 | 64/65 | 287/287 | |
| | | | 294A | 25.2/33.5 | 69.9/80.6 | 110/110 | 110/110 | 89/101 | 252/252 | 114/114 | 125/125 | 93/105 | 256/256 | 256/256 | 257/257 | 116/116 | 125/125 | 94/106 | 125/125 | 94/106 | 257/257 | 120/120 | 125/125 | 94/106 | 257/257 | 122/122 | 125/125 | 100/110 | 287/287 | |
| | | | 291A+294A | 37.6/50.0 | 104.3/120.3 | 140/140 | 150/150 | 128/146 | 252/252 | 144/144 | 150/150 | 132/151 | 256/256 | 256/256 | 257/257 | 146/146 | 150/150 | 134/152 | 150/150 | 134/152 | 257/257 | 150/150 | 175/175 | 150/150 | 283/283 | 152/152 | 175/175 | 140/157 | 287/287 | |
| | | | NONE | - | - | 52/52 | 60/60 | 54/53 | 278 | 56/56 | 70/70 | 58/57 | 70/70 | 58/57 | 282 | 57/57 | 70/70 | 57/57 | 70/70 | 58/58 | 283 | 61/61 | 70/70 | 59/58 | 283 | 61/61 | 70/70 | 64/63 | 287 | |
| | | | 288A | 7.5/10.0 | 20.9/24.1 | 52/52 | 60/60 | 54/53 | 278/278 | 56/56 | 70/70 | 58/57 | 70/70 | 58/57 | 282/282 | 57/57 | 70/70 | 57/57 | 70/70 | 58/58 | 283 | 61/61 | 70/70 | 59/58 | 283 | 61/61 | 70/70 | 64/63 | 287 | |
| | | | 291A | 12.4/16.5 | 34.4/39.7 | 60/60 | 60/60 | 54/55 | 278/278 | 65/65 | 70/70 | 58/59 | 70/70 | 58/59 | 282/282 | 66/66 | 70/70 | 59/60 | 70/70 | 59/60 | 283/283 | 71/71 | 80/80 | 64/65 | 283/283 | 71/71 | 80/80 | 64/65 | 287/287 | |
| | | | 294A | 25.2/33.5 | 69.9/80.6 | 111/111 | 125/125 | 90/102 | 278/278 | 116/116 | 125/125 | 95/106 | 282/282 | 282/282 | 282/282 | 117/117 | 125/125 | 96/107 | 125/125 | 96/107 | 283/283 | 122/122 | 125/125 | 96/107 | 283/283 | 122/122 | 125/125 | 100/110 | 287/287 | |
| | | | 291A+294A | 37.6/50.0 | 104.3/120.3 | 148/148 | 150/150 | 130/147 | 278/278 | 146/146 | 150/150 | 134/152 | 282/282 | 282/282 | 282/282 | 148/148 | 150/150 | 135/153 | 150/150 | 135/153 | 283/283 | 152/152 | 175/175 | 152/152 | 283/283 | 152/152 | 175/175 | 140/157 | 287/287 | |
| 50LC**12 | 460-3-60 | STD | NONE | - | - | 57/57 | 70/70 | 59/58 | 313 | 61/61 | 80/80 | 64/63 | 317 | 62/62 | 80/80 | 62/62 | 80/80 | 65/64 | 318 | 66/66 | 80/80 | 66/66 | 318 | 66/66 | 80/80 | 69/68 | 322 | | | |
| | | | 288A | 7.5/10.0 | 20.9/24.1 | 57/57 | 70/70 | 59/58 | 313/313 | 61/61 | 80/80 | 64/63 | 317/317 | 317/317 | 317/317 | 62/62 | 80/80 | 65/64 | 318 | 66/66 | 80/80 | 66/66 | 318/318 | 66/66 | 80/80 | 69/68 | 322 | | | |
| | | | 291A | 12.4/16.5 | 34.4/39.7 | 66/66 | 70/70 | 59/60 | 313/313 | 71/71 | 80/80 | 64/65 | 317/317 | 317/317 | 317/317 | 72/72 | 80/80 | 65/66 | 318/318 | 77/77 | 80/80 | 69/70 | 77/77 | 80/80 | 69/70 | 77/77 | 80/80 | 69/70 | 322 | |
| | | | 294A | 25.2/33.5 | 69.9/80.6 | 117/117 | 125/125 | 96/107 | 313/313 | 122/122 | 125/125 | 100/112 | 317/317 | 317/317 | 102/113 | 125/125 | 102/113 | 123/123 | 125/125 | 102/113 | 318/318 | 128/128 | 150/150 | 106/117 | 128/128 | 150/150 | 106/117 | 322 | | |
| | | | 291A+294A | 37.6/50.0 | 104.3/120.3 | 148/148 | 150/150 | 136/153 | 313/313 | 153/153 | 150/150 | 140/157 | 317/317 | 317/317 | 141/158 | 154/154 | 175/175 | 141/158 | 154/154 | 175/175 | 318/318 | 159/159 | 175/175 | 159/159 | 145/163 | 322/322 | 175/175 | 145/163 | 322 | |
| | | | NONE | - | - | 26 | 30 | 27 | 126 | 27 | 26 | 27 | 30 | 29 | 128 | 28 | 30 | 29 | 28 | 28 | 128 | 28 | 30 | 35 | 31 | 130 | 30 | 35 | 31 | 130 |
| | | | 289A | 10.0 | 12.0 | 12.0 | 30 | 27 | 126 | 27 | 26 | 27 | 30 | 29 | 128 | 28 | 30 | 29 | 28 | 28 | 128 | 28 | 30 | 35 | 31 | 130 | 30 | 35 | 31 | 130 |
| | | | 292A | 16.5 | 19.9 | 19.9 | 30 | 27 | 126 | 32 | 32 | 35 | 29 | 128 | 28 | 32 | 35 | 29 | 128 | 32 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 130 |
| | | | 295A | 33.5 | 40.3 | 40.3 | 55 | 50 | 126 | 57 | 57 | 60 | 52 | 128 | 58 | 58 | 60 | 53 | 128 | 58 | 60 | 60 | 60 | 60 | 53 | 128 | 60 | 60 | 55 | 130 |
| | | | 292A+295A | 50.0 | 60.2 | 60.2 | 65 | 70 | 126 | 67 | 67 | 70 | 75 | 128 | 68 | 68 | 80 | 76 | 128 | 68 | 80 | 80 | 80 | 80 | 76 | 128 | 80 | 80 | 78 | 130 |
| 50LC**12 | 460-3-60 | MED | NONE | - | - | 26 | 30 | 27 | 140 | 28 | 28 | 29 | 142 | 28 | 30 | 29 | 28 | 28 | 142 | 30 | 35 | 33 | 142 | 30 | 35 | 32 | 144 | | | |
| | | | 289A | 10.0 | 12.0 | 12.0 | 30 | 27 | 140 | 28 | 28 | 30 | 29 | 142 | 28 | 30 | 29 | 28 | 28 | 142 | 30 | 35 | 33 | 142 | 30 | 35 | 32 | 144 | | |
| | | | 292A | 16.5 | 19.9 | 19.9 | 30 | 27 | 140 | 32 | 32 | 35 | 29 | 142 | 32 | 35 | 35 | 29 | 142 | 33 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 144 | | |
| | | | 295A | 33.5 | 40.3 | 40.3 | 56 | 60 | 140 | 58 | 58 | 60 | 53 | 142 | 58 | 58 | 60 | 53 | 142 | 58 | 60 | 60 | 60 | 53 | 142 | 61 | 70 | 55 | 144 | |
| | | | 292A+295A | 50.0 | 60.2 | 60.2 | 65 | 70 | 140 | 68 | 68 | 80 | 76 | 142 | 68 | 68 | 80 | 76 | 142 | 68 | 80 | 80 | 80 | 76 | 142 | 70 | 80 | 78 | 144 | |
| | | | NONE | - | - | 29 | 35 | 30 | 157 | 30 | 30 | 35 | 32 | 159 | 31 | 35 | 35 | 33 | 159 | 31 | 35 | 35 | 40 | 35 | 159 | 33 | 40 | 35 | 161 | |
| | | | 289A | 10.0 | 12.0 | 12.0 | 30 | 30 | 157 | 30 | 30 | 35 | 32 | 159 | 31 | 35 | 35 | 33 | 159 | 31 | 35 | 35 | 40 | 35 | 159 | 33 | 40 | 35 | 161 | |
| | | | 292A | 16.5 | 19.9 | 19.9 | 33 | 30 | 157 | 36 | 36 | 40 | 32 | 159 | 36 | 36 | 40 | 32 | 159 | 36 | 40 | 40 | 40 | 33 | 159 | 38 | 40 | 35 | 161 | |
| | | | 295A | 33.5 | 40.3 | 40.3 | 59 | 60 | 157 | 61 | 61 | 70 | 56 | 159 | 62 | 62 | 70 | 56 | 159 | 62 | 70 | 70 | 70 | 56 | 159 | 64 | 70 | 58 | 161 | |
| | | | 292A+295A | 50.0 | 60.2 | 60.2 | 69 | 80 | 157 | 71 | 71 | 80 | 79 | 159 | 71 | 71 | 80 | 79 | 159 | 71 | 80 | 80 | 80 | 79 | 159 | 74 | 80 | 81 | 161 | |
| 575-3-60 | STD | NONE | - | - | 22 | 25 | 23 | 107 | 26 | 26 | 30 | 27 | 111 | 24 | 25 | 24 | 24 | 109 | 24 | 28 | 30 | 25 | 109 | 28 | 30 | 29 | 113 | | | |
| | | 293A | 16.5 | 15.9 | 15.9 | 25 | 25 | 23 | 107 | 29 | 29 | 30 | 27 | 111 | 27 | 30 | 27 | 109 | 27 | 30 | 35 | 25 | 109 | 32 | 35 | 29 | 113 | | | |
| | | 296A | 33.5 | 32.2 | 32.2 | 45 | 45 | 41 | 107 | 45 | 45 | 50 | 45 | 111 | 47 | 50 | 43 | 109 | 47 | 50 | 60 | 43 | 109 | 52 | 60 | 47 | 109 | | | |
| | | 293A+296A | 50.0 | 48.1 | 48.1 | 53 | 60 | 59 | 107 | 58 | 58 | 60 | 64 | 111 | 55 | 60 | 60 | 109 | 55 | 60 | 70 | 60 | 60 | 109 | 61 | 70 | 66 | 113 | | |
| | | NONE | - | - | 23 | 25 | 24 | 116 | 27 | 27 | 30 | 28 | 120 | 25 | 25 | 30 | 26 | 118 | 25 | 29 | 30 | 26 | 118 | 29 | 30 | 30 | 122 | | | |
| | | 293A | 16.5 | 15.9 | 15.9 | 26 | 30 | 24 | 116 | 31 | 31 | 35 | 28 | 120 | 28 | 30 | 26 | 118 | 28 | 30 | 35 | 26 | 118 | 33 | 35 | 30 | 122 | | | |
| | | 296A | 33.5 | 32.2 | 32.2 | 46 | 50 | 42 | 116 | 51 | 51 | 60 | 47 | 120 | 48 | 50 | 44 | 118 | 48 | 50 | 60 | 44 | 118 | 53 | 60 | 49 | 122 | | | |
| | | 293A+296A | 50.0 | 48.1 | 48.1 | 54 | 60 | 60 | 116 | 59 | 59 | 60 | 65 | 120 | 56 | 60 | 62 | 118 | 56 | 60 | 70 | 62 | 118 | 61 | 70 | 67 | 122 | | | |
| | | NONE | - | - | 25 | 25 | 26 | 130 | 29 | 29 | 30 | 30 | 28 | 134 | 26 | 30 | 28 | 132 | 26 | 30 | 35 | 28 | 25 | 132 | 30 | 35 | 32 | 136 | | |
| | | 293A | 16.5 | 15.9 | 15.9 | 28 | 30 | 26 | 130 | 33 | 33 | 35 | 30 | 134 | 30 | 30 | 28 | 132 | 30 | 30 | 35 | 28 | 25 | 132 | 35 | 35 | 32 | 136 | | |
| 296A | 33.5 | 32.2 | 32.2 | 48 | 50 | 44 | 130 | 53 | 53 | 60 | 49 | 134 | 51 | 60 | 46 | 132 | 51 | 60 | 70 | 46 | 132 | 55 | 60 | 50 | 136 | | | | | |
| 293A+296A | 50.0 | 48.1 | 48.1 | 56 | 60 | 62 | 130 | 61 | 61 | 70 | 67 | 134 | 58 | 60 | 64 | 132 | 58 | 60 | 70 | 64 | 64 | 132 | 63 | 70 | 69 | 136 | | | | |

See Legend and Notes on page 59

LEGEND:

- BRKR - Circuit breaker
- C.O. - Convenience outlet
- DISC - Disconnect
- FLA - Full load amps
- IFM - Indoor Fan Motor
- LRA - Locked rotor amps
- MCA - Minimum circuit amps
- PE. - Power exhaust
- pwrd fr/unit - Powered from unit
- PWRD C.O. - Powered convenience outlet
- UNPWR C.O. - Unpowered convenience outlet

NOTES:

1. In compliance with NEC requirements for multimotor 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 shown it is the same for either 208 or 230 volts.

3. **Unbalanced 3-Phase Supply Voltage**

Never operate a motor where a phase imbalance in supply voltage is greater than 2%. Use the following formula to determine the percentage of voltage imbalance.

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

Example: Supply voltage is 230-3-60



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

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

Determine maximum deviation from average voltage.

(AB) 227 - 224 = 3 v

(BC) 231 - 227 = 4 v

(AC) 227 - 226 = 1 v

Maximum deviation is 4 v.

Determine percent of voltage imbalance.

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

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.



TYPICAL WIRING DIAGRAMS

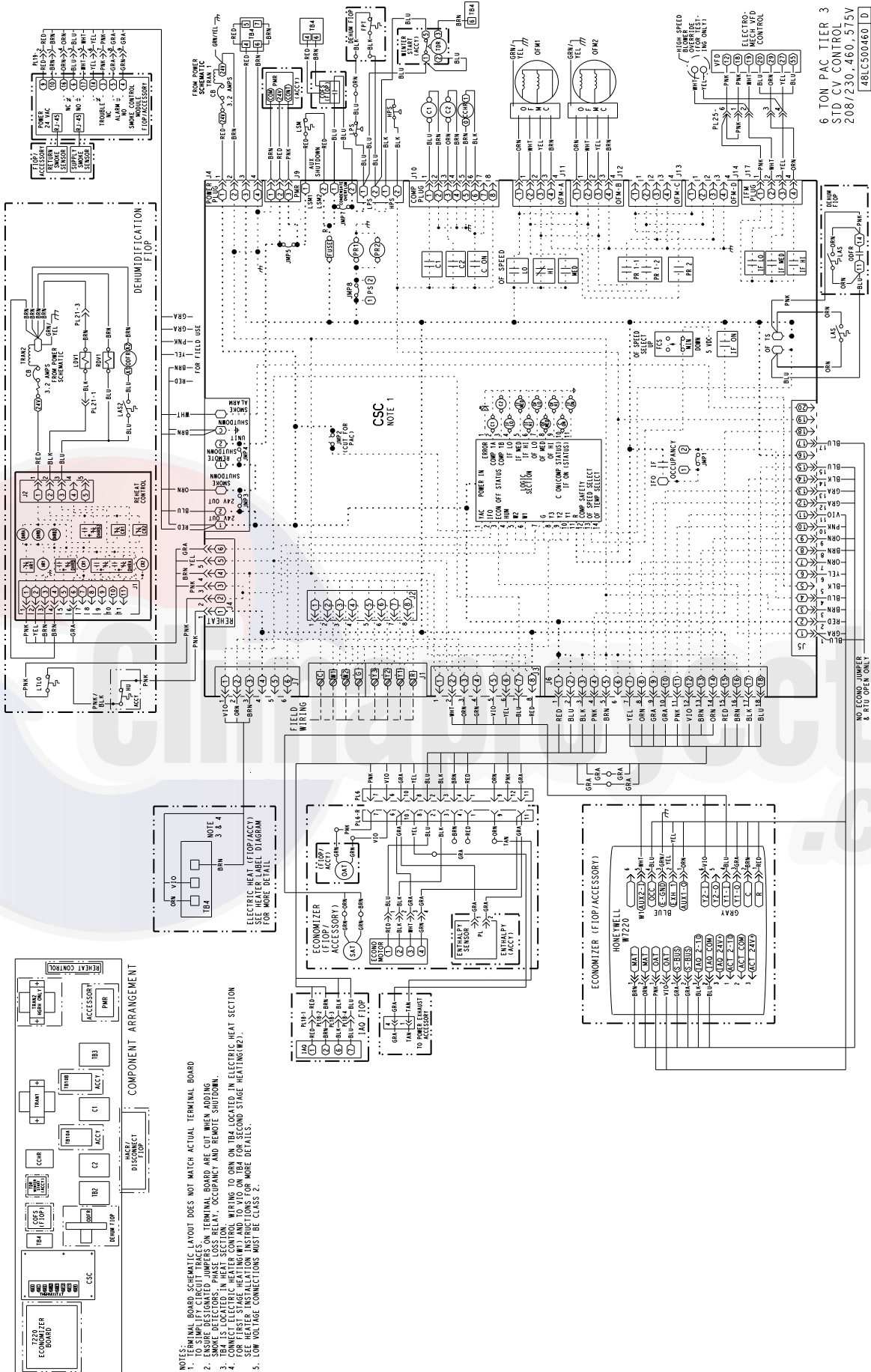
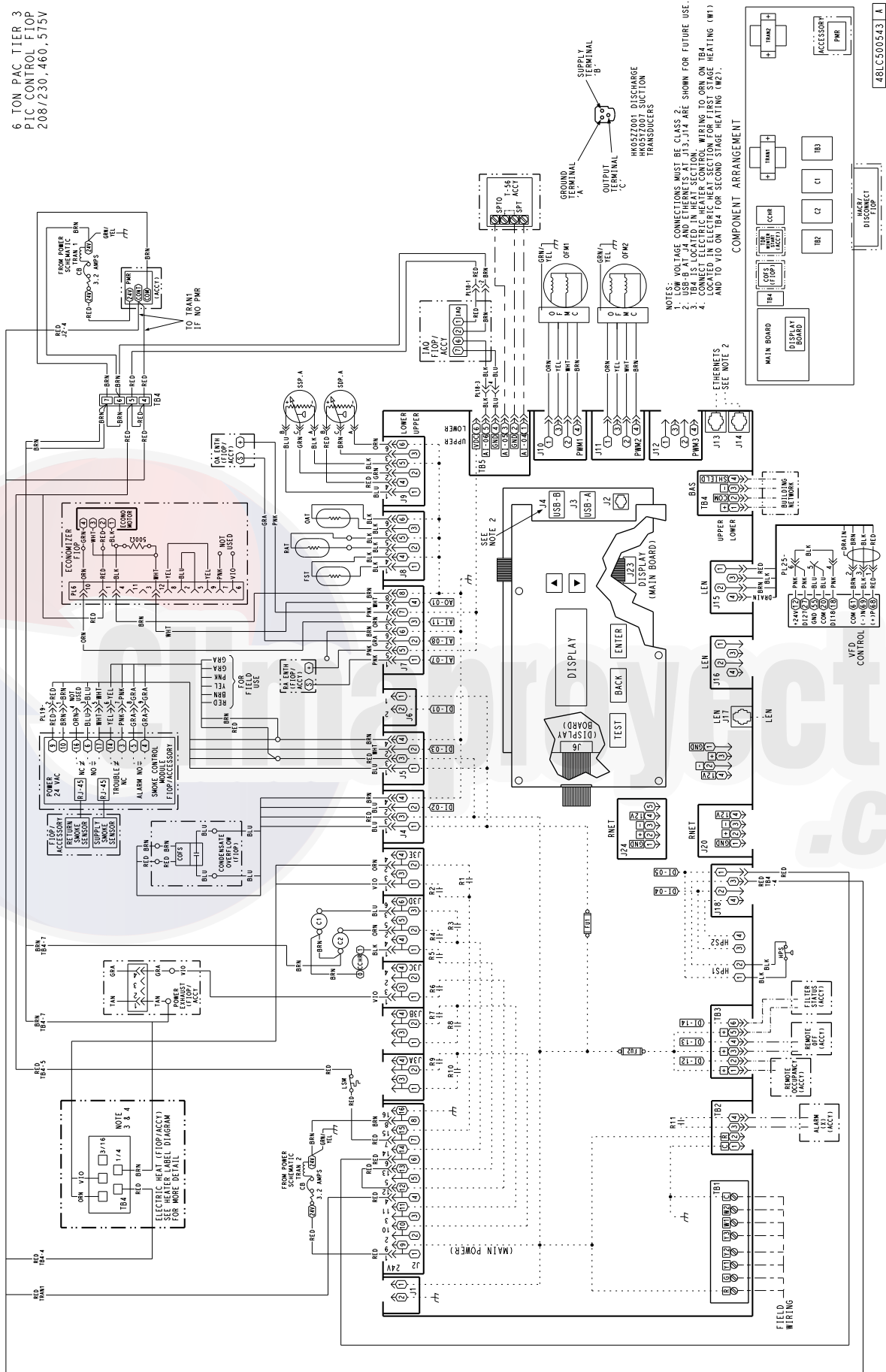


Fig. 16 - Typical Electromechanical Control Wiring Diagram 50LC Size 07

TYPICAL WIRING DIAGRAMS (cont.)

6 TON PAC TIER 3
PIC CONTROL F10P
208/230, 460, 575V



NOTES:
1. LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.
2. WIRING TO ORN ON TBA4 ARE SHOWN FOR FUTURE USE.
3. TBA4 IS LOCATED IN HEAT SECTION.
4. CONNECT ELECTRIC HEATER CONTROL WIRING TO ORN ON TBA4 FOR SECOND STAGE HEATING (W1).
AND TO W10 ON TBA4 FOR SECOND STAGE HEATING (W2).

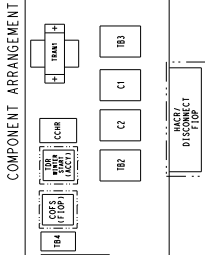
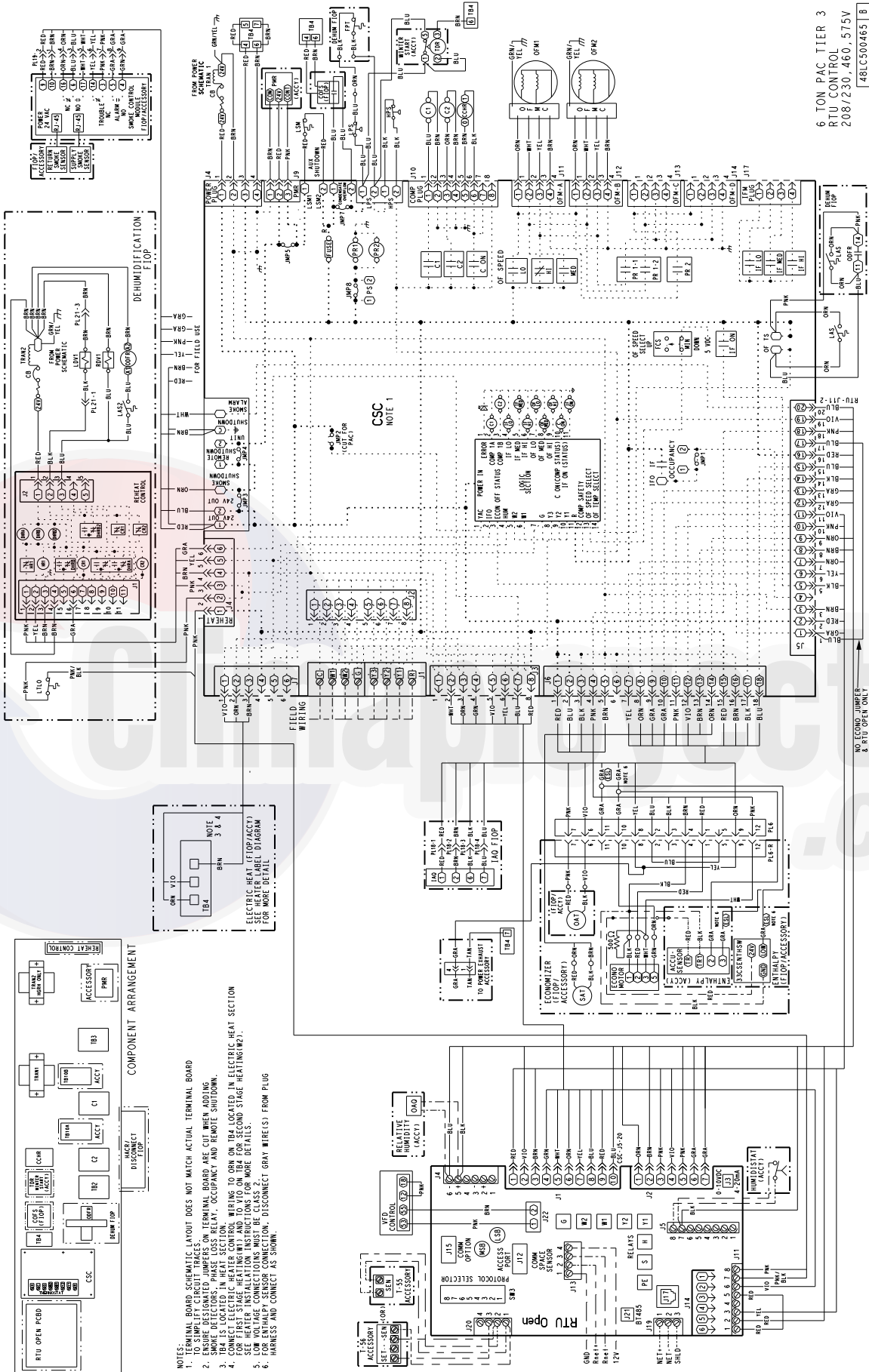


Fig. 17 - SystemVu™ Control Wiring Diagram 50LC Size 07

TYPICAL WIRING DIAGRAMS (cont.)



6 TON PAC TIER 3
RTU CONTROL
208/230, 460, 575V
481CC500465 B

- NOTES:**
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD.
 2. ENSURE DESIGNATED JUMPERS ON TERMINAL BOARD ARE CUT WHEN ADDING SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
 3. SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
 4. SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN.
 5. WIRING TO ORN ON TBA LOCATED IN ELECTRIC HEAT SECTION.
 6. FOR FIRST STAGE HEATING WHT AND TO VIO ON B4 FOR SECOND STAGE HEATING (W2).
 7. SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
 8. FOR EXHAUST FAN SENSOR CONNECTION, DISCONNECT GRAY WIRES FROM PLUS HARNESS AND CONNECT AS SHOWN.

Fig. 18 - RTU Open Control Wiring Diagram 50LC Size 07

TYPICAL WIRING DIAGRAMS (cont.)

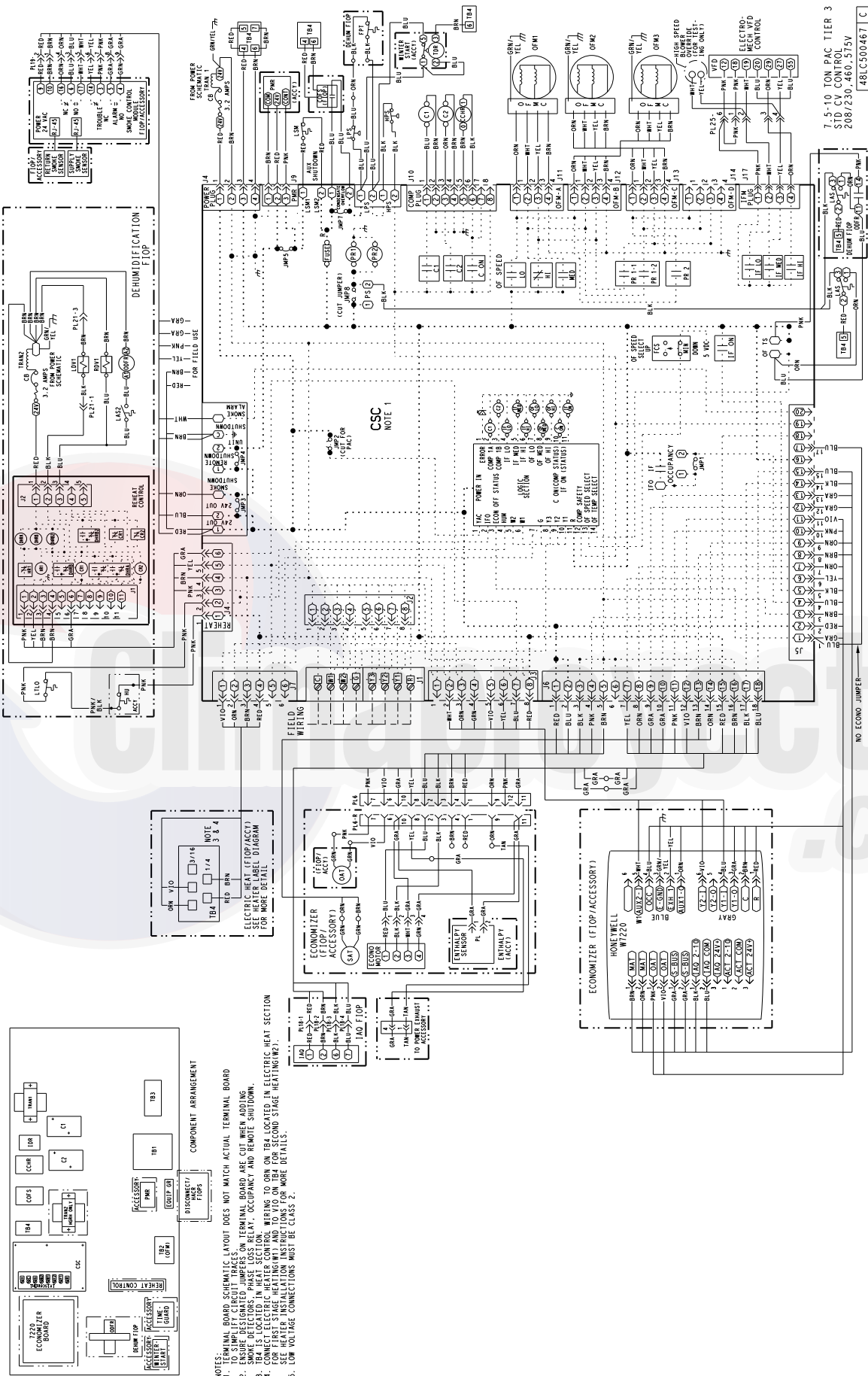


Fig. 19 - Typical Electromechanical Control Wiring Diagram 50LC Sizes 08-12

TYPICAL WIRING DIAGRAMS (cont.)

7.5-10 TON PAC TIER 3
 PIC CONTROL F10P
 208/230, 460, 575V

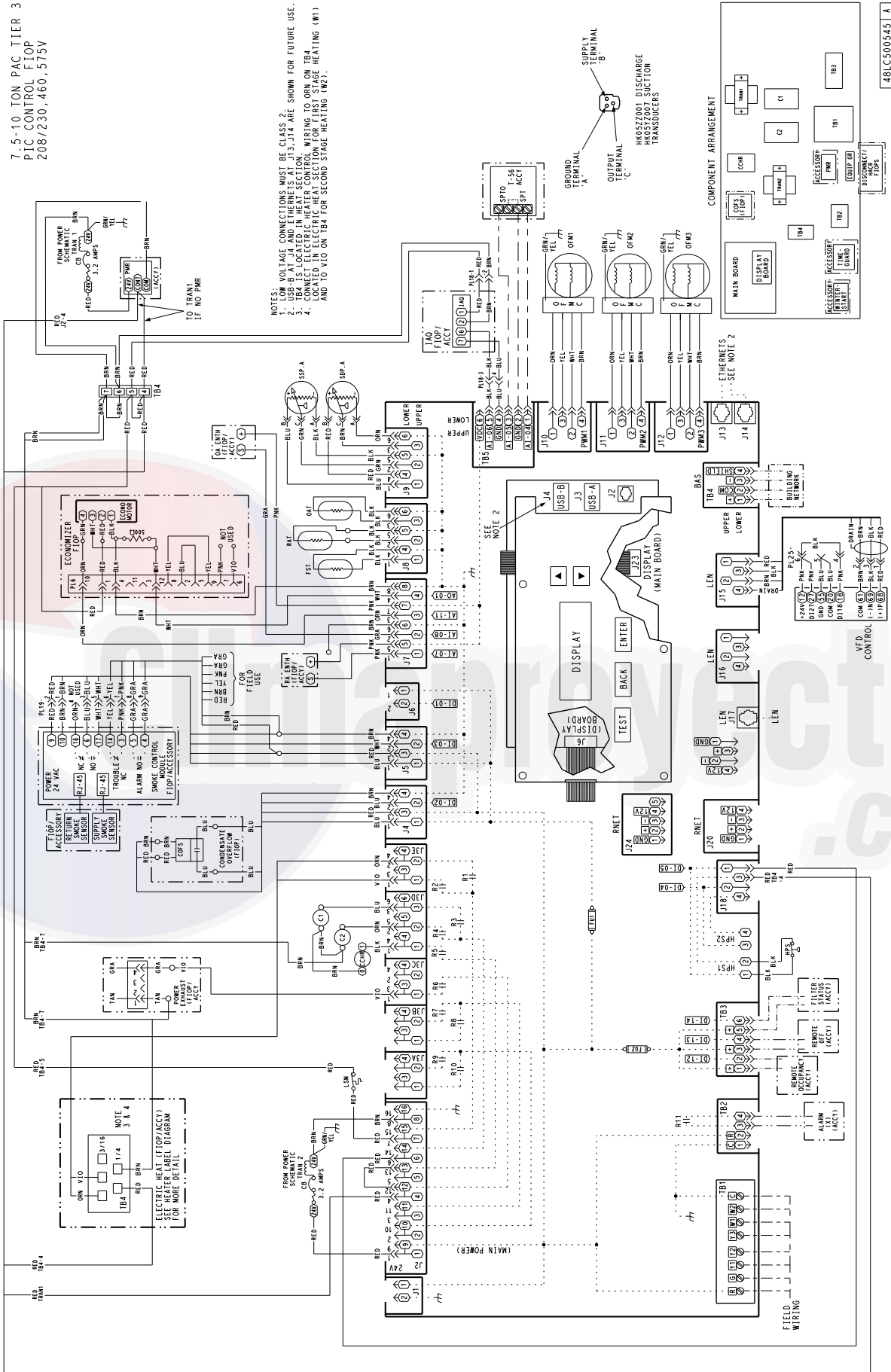


Fig. 20 - SystemVu™ Control Wiring Diagram 50LC Sizes 08-12

C160061

TYPICAL WIRING DIAGRAMS (cont.)

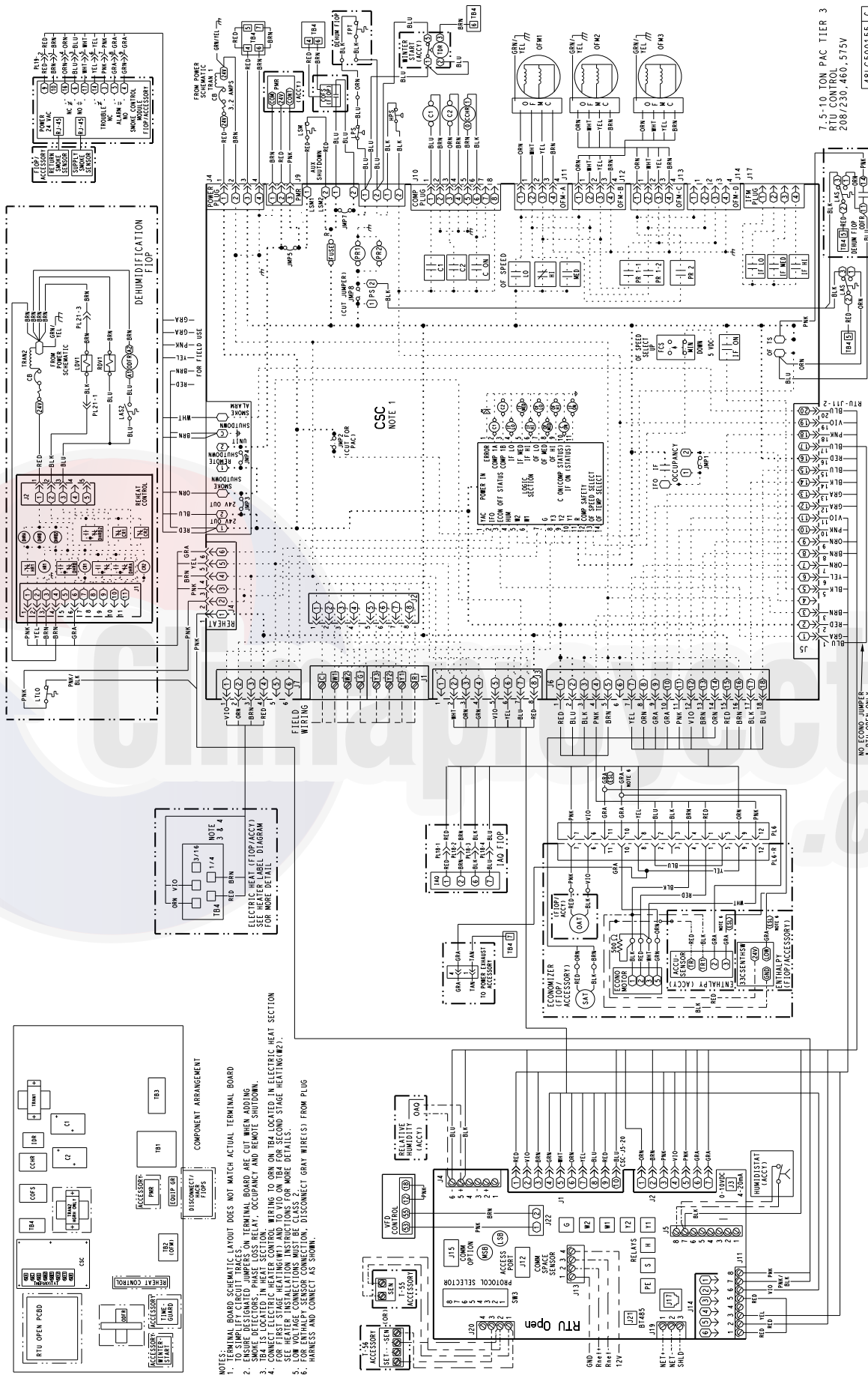


Fig. 21 - RTU Open Control Wiring Diagram 50LC Sizes 08-12

- NOTES:
1. TERMINAL BOARD SCHEMATIC LAYOUT DOES NOT MATCH ACTUAL TERMINAL BOARD
 2. SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN
 3. SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN
 4. SMOKE DETECTORS, PHASE LOSS RELAY, OCCUPANCY AND REMOTE SHUTDOWN
 5. WIRING FOR FIRST STAGE HEATING (W1) AND TO V10 ON TB4 LOCATED IN ELECTRIC HEAT SECTION
 6. SEE HEATER INSTALLATION INSTRUCTIONS FOR MORE DETAILS.
 7. FOR ENTIRE WIRING CONNECTION, DISCONNECT GRAY WIRE(S) FROM PLUG HARNESS AND CONNECT AS SHOWN.

TYPICAL WIRING DIAGRAMS (cont.)

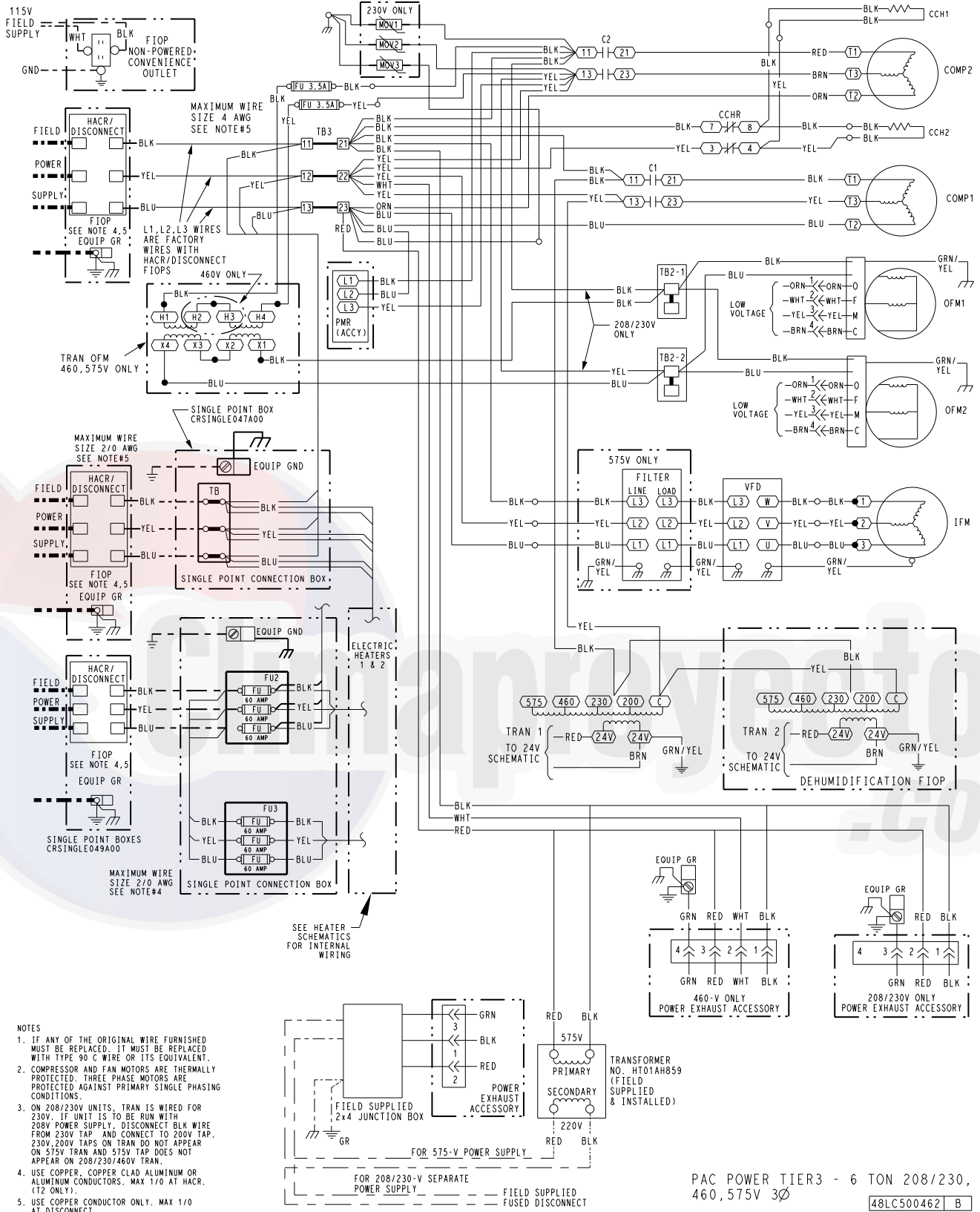


Fig. 22 - Power Wiring Diagram 50LC Size 07

TYPICAL SEQUENCE OF OPERATION

General

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

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

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

Ventilation

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

Cooling

In the Cooling Mode, the small and large compressors will be sequenced to maintain the thermostat/DDC temperature setpoint. Table 46 shows the cooling operation based on the following conditions.

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

Humidi-MiZer® (Optional)

In the Dehumidification Mode, both compressors will run and Indoor airflow will rise to High Speed.

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

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

| LC Size | RPM | Number of Fans On | Number of Fans Off |
|---------|-----|-------------------|--------------------|
| 07 | 250 | 2 | 0 |
| 08 | 160 | 2 | 1 |
| 09 | 160 | 2 | 1 |
| 12 | 160 | 2 | 1 |

Table 46 – COOLING OPERATION

| INPUT | OUTPUT | | | |
|---------------------------|---------------|---------------|------------------|-------------------|
| Thermostat | Compressor C1 | Compressor C2 | Indoor Fan Speed | Outdoor Fan Speed |
| First Stage Cooling (Y1) | On | Off | Low | Low (700 rpm) |
| Second Stage Cooling (Y2) | Off | On | Low | Medium (800 rpm) |
| Third Stage Cooling (Y3) | On | On | High | High (1,000 rpm) |

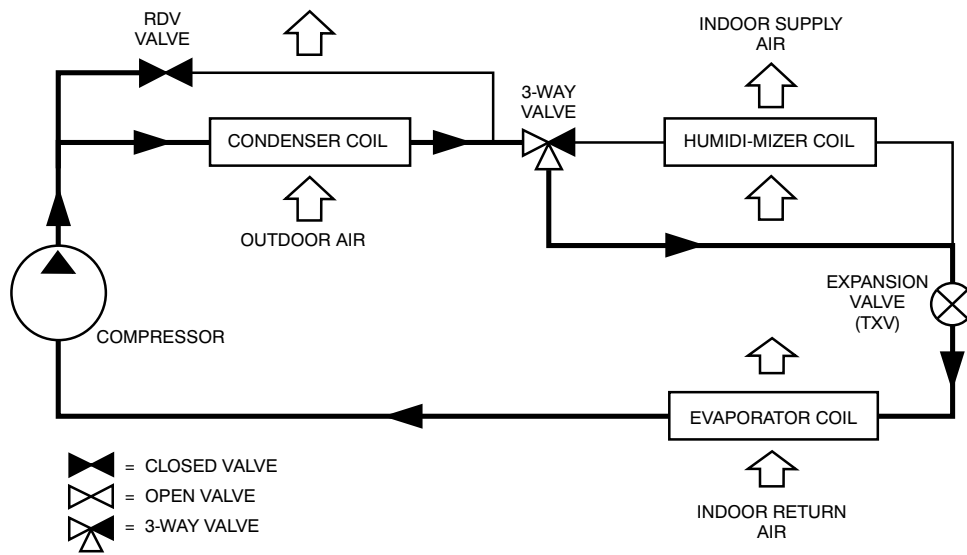


Fig. 24 - Humidi-MiZer® Piping Schematic Normal Cooling

C14114

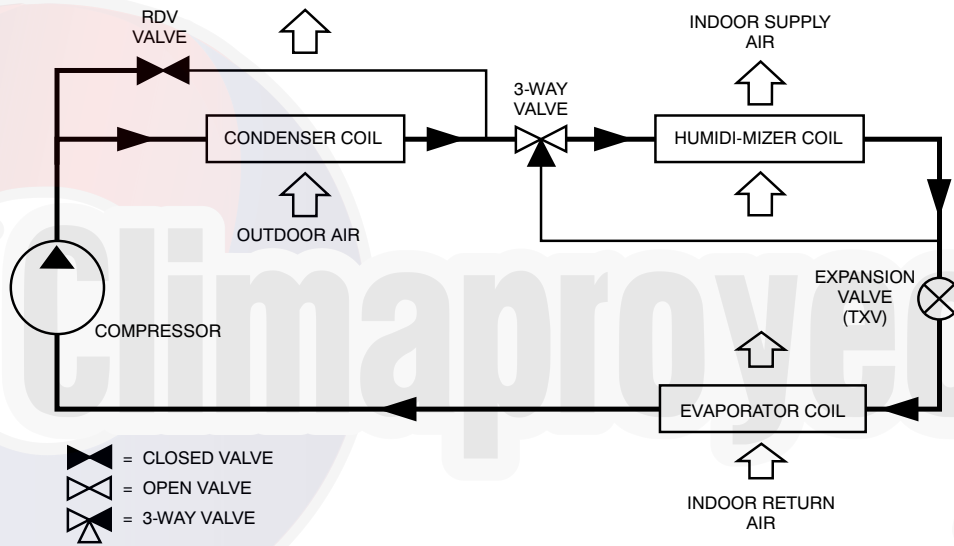


Fig. 25 - Humidi-MiZer Piping Schematic Subcooling Mode (Reheat1)

C14115

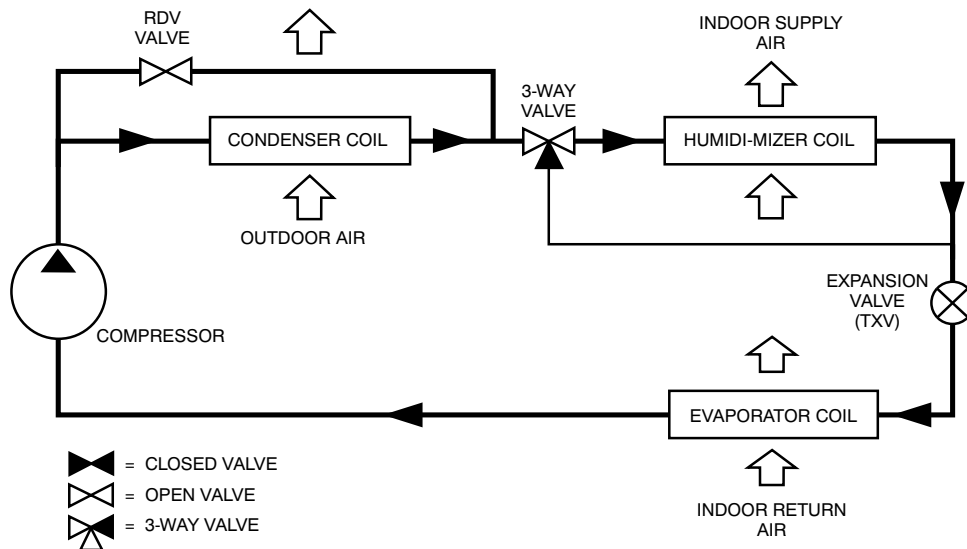


Fig. 26 - Humidi-MiZer Piping Schematic Hot Gas Reheat Mode (Reheat 2)

C14116

Economizer (Optional)

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

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

In field-installed accessory CO₂ sensors are connected to the Economizer, a demand controlled ventilation strategy will begin to operate. As the CO₂ level in the zone increases above the CO₂ setpoint, the minimum position of the damper will be increased proportionally. As the CO₂ level decreases because of the increase of fresh air, the outdoor-air damper will be proportionally closed. For economizer operation, there must be a thermostat call for the fan (G). If the unit is occupied and the fan is on, the damper will operate at minimum position. Otherwise, the damper will be closed.

Low Ambient

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

LC size 07 units have a SPST normally open Low Ambient Switch wired across the TS and OF terminal and a jumper placed across the PS terminal (See Fig. 28). When the LAS is active, the switch will close making contact to the OF terminal. This is done for units that require all outdoor fans to run at the same pre-set factory Low Ambient Speed.

LC Size 08 through 12 Units have a SPDT Low Ambient Switch wired to the OF terminal and the Outdoor Fan Relay (See Fig. 29). The jumper across the PS terminal will be removed. When the LAS is active, the switch will close making contact to the OF terminal and will drop connection to the ODF Relay. When electrical connection is removed from the ODF Relay, the PS connection will be opened. This will place the third outdoor-fan electrically isolated from receiving any speed command, which will then turn the motor off. This is done for units that only require two outdoor fans to run at the same pre-set factory Low Ambient Speed.

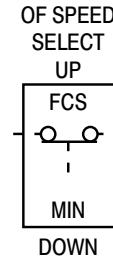


Fig. 27 - Outdoor Fan Speed Select Switch

C13327

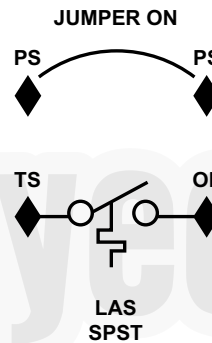


Fig. 28 - Schematic of SPST Low Ambient Switch

C13328

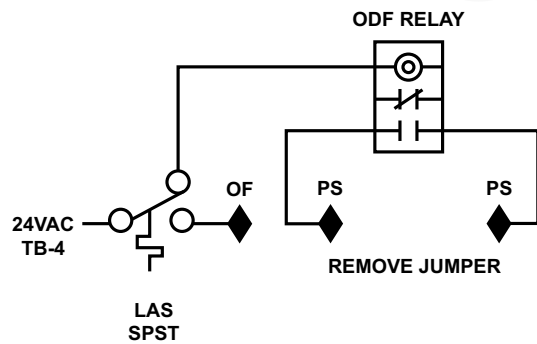


Fig. 29 - Schematic SPDT Low Ambient Switch

C13329

The Low Ambient Outdoor Fan Control chart (Table 47) shows the operation of the outdoor fans for each unit.

Table 47 – LOW AMBIENT TEMPERATURE OUTDOOR FAN CONTROL

| LC Size | No. of Fans On | No. of Fans Off | Switch | Low Ambient Switch Fig. No. | Outdoor Fan Select Switch | RPM |
|---------|----------------|-----------------|----------|-----------------------------|---------------------------|-----|
| 07 | 2 | 0 | (1) SPST | 28 | Up | 250 |
| 08 | 2 | 1 | (1) SPDT | 29 | Down | 160 |
| 09 | 2 | 1 | (1) SPDT | 29 | Down | 160 |
| 12 | 2 | 1 | (1) SPDT | 29 | Down | 160 |

Heating

In the Heating Mode (W1 on the thermostat), power is applied to the G and W1 terminal at the ISC board and energizes the first state of electric heat. Upon more call for heat (W2 at the thermostat), power is applied to the G and W2 terminal at the ISC board and energizes the second state of electric heat. The VFD controlled indoor fan will operate at high speed regardless of the heating demand.

SystemVu™ Control (Factory Option)

For details on operating 50LC units equipped with the factory-installed SystemVu controls option refer to *48/50LC 07-26 Single Package Rooftop Units with SystemVu™ Controls Version 1.X and PURON® (R-410A) Refrigerant Controls, Start-Up, Operation and Troubleshooting* (Catalog No.: S-VU-LC-7-26-02T or later).

RTU Open (Factory Option)

For details on operating 50LC units equipped with the factory-installed RTU Open option refer to *48/50LC-07-26 Factory Installed Option RTU Open Multi-Protocol Controller Controls, Start-Up, Operation and Troubleshooting* (Catalog No.:: 48-50LC-7-26-2T, or later).

GUIDE SPECIFICATIONS – 50LC**07-12

Note about this specification:

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

Weather Expert[®] Ultra High-Efficiency Cooling Only/Electric Heat Packaged Rooftop



HVAC Guide Specifications:

Size Range: 6 to 10 Nominal Tons

| <u>Section</u> | <u>Description</u> |
|----------------|--------------------|
|----------------|--------------------|

| | |
|-----------------|---|
| 23 06 80 | Schedules for Decentralized HVAC Equipment |
|-----------------|---|

| | |
|-------------|---|
| 23 06 80.13 | Decentralized Unitary HVAC Equipment Schedule |
|-------------|---|

| | |
|----------------|-----------------------|
| 23 06 80.13.A. | Rooftop unit schedule |
|----------------|-----------------------|

1. Schedule is per the project specification requirements.

| | |
|-----------------|----------------------------------|
| 23 07 16 | HVAC Equipment Insulation |
|-----------------|----------------------------------|

| | |
|-------------|-------------------------------|
| 23 07 16.13 | Decentralized, Rooftop Units: |
|-------------|-------------------------------|

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

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

| | |
|----------------|----------------------------|
| 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.

| | |
|-----------------|---|
| 23 09 13 | Instrumentation and Control Devices for HVAC |
|-----------------|---|

| | |
|-------------|--------------------------|
| 23 09 13.23 | Sensors and Transmitters |
|-------------|--------------------------|

| | |
|----------------|-------------|
| 23 09 13.23.A. | Thermostats |
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1. Thermostat must
 - a. energize both “W” and “G” when calling for heat.
 - b. have capability to energize 3 different stages of cooling, and 1 and 2 different stages of heating.
 - c. include capability for occupancy scheduling.

| | |
|-----------------|---|
| 23 09 23 | Direct Digital Control (DDC) System for HVAC |
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|-------------|-------------------------------|
| 23 09 23.13 | Decentralized, Rooftop Units: |
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| | |
|----------------|--|
| 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 LED's 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:

— Shutdown Unit

- Run Status
 - Settings
 - Alerts/Faults
 - Service
 - Inputs
 - Outputs
 - USB
5. The capability for standalone operation with conventional thermostat/sensor or use with building automation systems (BAS) of Carrier i-Vu[®], BACnet* and Carrier Comfort Network[®] (CCN) systems. No special modules or boards are required for these capabilities.
 6. The ability to read refrigerant pressures at display or via BAS network of Discharge Pressure and Suction Pressure. The need for traditional refrigerant gauges is not required.
 7. USB Data Port for flash drive interaction. This will allow the transfer of data for uploads, downloads, perform software upgrades, back-up and restore data and file transfer data such as component number of starts and run hours.
 8. Reverse Rotation Protection of compressors if field three phase wiring is misapplied.
 9. Provide Service Capabilities of:
 - Auto run test
 - Manual run test
 - Component run hours and starts
 - Commissioning reports
 - Data logging
 - Alarm history
 10. Economizer control and diagnostics. Set up economizer operation, receive feedback from actuator. Also meets the most recent California Title 24 Fault Detection and Diagnostic (FDD) requirements.
 11. Unit cooling operation down to 0°F (-18°C)
 12. Controller shall have easy access connections around the controller perimeter area and consist of Mate-N-Lok, terminal block and RJ style modular jack connections.
 13. 365 day real time clock, 20 holiday schedules along with occupied and unoccupied scheduling.
 14. Auto-Recognition for easy installation and commissioning of devices like economizers, space sensors etc.
 15. A 5°F temperature difference between cooling and heating setpoints to meet the latest ASHRAE 90.1-2013 Energy Standard.
 16. Contain return air sensor, supply air sensor and outdoor air sensor to help monitor and provide data for the unit comfort operation, diagnostic and alarms.
 17. Use of Carrier's field accessory hand-held Navigator™ display
 18. Control of the operation of unit VFD (Variable Frequency Drive) to work in conjunction with the cooling, heating and ventilation modes.
 19. 3-year limited part warranty
- 23.09.23.13.B. RTU Open - multi-protocol, direct digital controller:
1. Shall be ASHRAE 62 compliant.
 2. Shall accept 18-30VAC, 50-60Hz, and consume 15VA or less power.
 3. Shall have an operating temperature range from -40°F (-40°C) to 130°F (54°C), 10% - 90% RH (non-condensing).
 4. Shall include built-in protocol for BACnet (MS/TP and PTP modes), Modbus[†] (RTU and ASCII), Johnson N2 and LonWorks. LonWorks** Echelon processor required for all Lon applications shall be contained in separate communication board.
 5. Shall allow access of up to 62 network variables (SNVT). Shall be compatible with all open controllers
 6. Baud rate Controller shall be selectable using a dipswitch.
 7. Shall have an LED display independently showing the status of serial communication, running, errors, power, all digital outputs, and all analog inputs.
 8. Shall accept the following inputs: space temperature, setpoint adjustment, outdoor air temperature, indoor air quality, outdoor air quality, compressor lock-out, fire shutdown, enthalpy switch, and fan status/filter status/humidity/ remote occupancy.
 9. Shall provide the following outputs: economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, heat stage 3/ exhaust/ reversing valve.

* BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).

† Modbus is a registered trademark of Schneider Electric.

** LonWorks is a registered trademark of Echelon Corporation.

10. Shall have built-in surge protection circuitry through solid state polyswitches. Polyswitches shall be used on incoming power and network connections. Polyswitches will return to normal when the “trip” condition clears.
11. Shall have a battery back-up capable of a minimum of 10,000 hours of data and time clock retention during power outages.
12. Shall have built-in support for Carrier technician tool.
13. Shall include an RS-485 protocol communication port, an access port for connection of either a computer or a Carrier technician tool, an EIA-485 port for network communication to intelligent space sensors and displays, and a port to connect an optional LonWorks communications card.
14. Software upgrades will be accomplished by either local or remote download. No software upgrades through chip replacements are allowed.

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

23 09 33.13 Decentralized, Rooftop Units:

23 09 33.13.A. General:

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

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

4. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.

23 09 33.13.B. Safeties:

1. Compressor over-temperature, over current.
2. Low-pressure Protection.
 - a. Low-pressure switch shall use different color wire than the high-pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.

NOTE: Does not apply to units equipped with SystemVu controls.
3. High-pressure Protection.
 - a. High-pressure switch shall use different color wire than the low-pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
4. Automatic reset, motor thermal overload protector.

23 09 93 Sequence of Operations for HVAC Controls

23 09 93.13 Decentralized, Rooftop Units:

23 09 93.13.A. INSERT SEQUENCE OF OPERATION

23 40 13 Panel Air Filters

23 40 13.13 Decentralized, Rooftop Units:

23 40 13.13.A. Standard filter section

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

23 81 19 Self-Contained Air Conditioners

23 81 19.13 Small-Capacity Self-Contained Air Conditioners (50LC**07-12)

23 81 19.13.A. General

1. Outdoor, rooftop mounted, ISC electrically controlled, heating and cooling unit utilizing hermetic scroll compressors for cooling duty and optional electric heat for heating duty.
2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
3. Unit shall use Puron® (R-410A) refrigerant.
4. Unit shall be installed in accordance with the manufacturer’s instructions.
5. Unit must be selected and installed in compliance with local, state, and federal codes.

23 81 19.13.B. Quality Assurance

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

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.

23 81 19.13.D. Project Conditions

1. As specified in the contract.

23 81 19.13.E. Operating Characteristics

1. Unit shall be capable of starting and running at 125°F (52°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 340/360 at $\pm 10\%$ voltage.
2. Compressor with standard controls shall be capable of operation down to 40°F (4°C) ambient outdoor temperatures. For lower operation an integrated economizer shall be utilized to allow lower temperatures and accommodate indoor air quality initiatives.
3. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
4. Unit shall be factory configured for vertical supply & return configurations.
5. Unit shall be field convertible from vertical to horizontal airflow on all models. No special kit required on 07 models. Field-installed supply duct kit required for 08-12 size models only.
6. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.

23 81 19.13.F. Electrical Requirements

1. Main power supply voltage, phase, and frequency must match those required by the manufacturer.

23 81 19.13.G. Unit Cabinet

1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a pre-painted baked enamel finish on all externally exposed surfaces.
2. Unit cabinet exterior paint shall be: film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60°F / 16°C): 60, Hardness: H-2H Pencil hardness.
3. Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 340/360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 1/2-in. thick, 1 lb density, aluminum foil-faced fiberglass insulation, Aluminum foil-faced fiberglass insulation shall also be used in the heat compartment.
4. Unit internal insulation linings shall be resistant to mold growth in accordance with “mold growth and humidity” test in ASTM C1338, G21, and UL 181 or comparable test method. Air stream surfaces shall be evaluated in accordance with the “Erosion Test” in UL 181, as part of ASTM C1071.
5. Base of unit shall have a minimum of four locations for thru-the-base gas and electrical connections (factory-installed or field-installed), standard.
6. Base Rail
 - a. Unit shall have base rails on a minimum of 4 sides.
 - b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.

- c. Holes shall be provided in the base rail for moving the rooftop by fork truck.
 - d. Base rail shall be a minimum of 16 gauge thickness.
7. Condensate pan and connections:
 - a. Shall be an internally sloped condensate drain pan made of a non-corrosive material.
 - b. Shall comply with ASHRAE Standard 62.
 - c. Shall use a 3/4" -14 NPT drain connection, possible either through the bottom or end of the drain pan. Connection shall be made per manufacturer's recommendations.
 8. Top panel:
 - a. Shall be a single piece top panel on 07 sizes, two piece on 08-12 sizes.
 9. Electrical Connections
 - a. All unit power wiring shall enter unit cabinet at a single, factory-prepared, knockout location.
 - b. Thru-the-base capability
 - (1.) Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
 - (2.) Optional, factory-approved, water-tight connection method must be used for thru-the-base electrical connections.
 - (3.) No basepan penetration, other than those authorized by the manufacturer, is permitted.
 10. Component access panels (standard)
 - a. Cabinet panels shall be easily removable for servicing.
 - b. Unit shall have one factory-installed, tool-less, removable, filter access panel.
 - c. Panels covering control box, indoor fan, indoor fan motor, gas components (where applicable), and compressors shall have molded composite handles.
 - d. Handles shall be UV modified, composite, permanently attached, and recessed into the panel.
 - e. Screws on the vertical portion of all removable access panel shall engage into heat resistant, molded composite collars.
 - f. Collars shall be removable and easily replaceable using manufacturer recommended parts.
- 23 81 19.13.H. Coils
1. Standard Aluminum Fin/Copper Tube Coils:
 - a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved 5/16" diameter copper tubes with all joints brazed.
 - b. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig.
 - c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.
 2. Optional Pre-coated aluminum-fin condenser coils:
 - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
 - b. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.
 - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
 - d. Corrosion durability of fin stock shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90.
 - e. Corrosion durability of fin stock shall be confirmed through testing to have no visible corrosion after 48 hour immersion in a room temperature solution of 5% salt, 1% acetic acid.
 - f. Fin stock coating shall pass 2000 hours of the following: one week exposure in the prohesion chamber followed by one week of accelerated ultraviolet light testing. Prohesion chamber: the solution shall contain 3.5% sodium chloride and 0.35% ammonium sulfate. The exposure cycle is one hour of salt fog application at ambient followed by one hour drying at 95°F (35°C).
 3. Optional Copper-fin evaporator and condenser coils:
 - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
 - b. Galvanized steel tube sheets shall not be acceptable.
 - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
 4. Optional E-coated aluminum-fin evaporator and condenser coils:
 - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.

- b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
- c. Color shall be high gloss black with gloss per ASTM D523-89.
- d. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges.
- e. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93.
- f. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93).
- g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92).
- h. Corrosion durability shall be confirmed through testing to be no less than 6000 hours salt spray per ASTM B117-90.

23 81 19.13.I. Refrigerant Components

1. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range. Shall contain removable power element to allow change out of power element and bulb without removing the valve body.
 - b. Refrigerant filter drier.
 - c. Service gauge connections on suction and discharge lines.
 - d. Single circuit design with tandem compressor and fully activated evaporator coil
2. Compressors
 - a. Models shall use fully hermetic tandem scroll compressors optimized for comfort staging and IEER energy savings.
 - b. Models shall be available with a single refrigerant circuit and three stages of cooling operation on all models.
 - c. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
 - d. Compressors shall be internally protected from high discharge temperature conditions.
 - e. Compressors shall be protected from an over-temperature and over-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 heater shall be standard on each compressor and deactivated whenever a compressor is in operation.

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.

23 81 19.13.K. Evaporator Fan and Motor

1. Evaporator fan motor:
 - a. Shall have permanently lubricated bearings.
 - b. Shall have inherent automatic-reset thermal overload protection or circuit breaker.
 - c. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required. .
 - d. Shall be Variable Frequency duty to match the three-stage compression logic.
 - e. Shall contain motor shaft grounding ring to prevent electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground.
2. Variable Frequency Drive (VFD). For indoor fan motor Staged Air Volume (SAV™) operation:
 - a. Shall be installed inside the unit cabinet, mounted, wired and tested.
 - b. Shall contain Electromagnetic Interference (EMI) frequency protection.
 - c. Insulated Gate Bi-Polar Transistors (IGBT) used to produce the output pulse width modulated (PWM) waveform, allowing for quiet motor operation.
 - d. Self diagnostics with fault and power code LED indicator. Field accessory Display Kit available for further diagnostics and special setup applications.
 - e. RS485 capability standard.
 - f. Electronic thermal overload protection.
 - g. 5% swinging chokes for harmonic reduction and improved power factor.

- h. All printed circuit boards shall be conformal coated.
- i. Shall not contain visual display to adjust internal setting. Only available as field-installed kit.

3. Belt-driven Evaporator Fan:

- a. Belt drive shall include an adjustable-pitch motor pulley.
- b. Shall use sealed, permanently lubricated ball-bearing type.
- c. Blower fan shall be double-inlet type with forward-curved blades.
- d. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.

23 81 19.13.L. Condenser Fans and Motors

1. Condenser fan motors:

- a. Shall be a totally enclosed - multi speed ECM motor.
- b. Shall use permanently lubricated bearings.
- c. Shall have inherent thermal overload protection with an automatic reset feature.
- d. Shall use a shaft-down design on 07 models and shaft-up on 08-12 models with rain shield.

2. Condenser Fans:

- a. Shall be a direct-driven propeller type fan.
- b. Shall have galvanized aluminum (galvalum) blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

23 81 19.13.M. Special Features, Options and Accessories

1. Standard Leak Economizers:

- a. Available as factory-installed option (vertical only) or field-installed accessory (vertical or horizontal) on all electro-mechanical and RTU Open models. SystemVu™ field-installed accessory (vertical or horizontal) also available.
- b. Standard leak economizers are available with EconoMi\$er X controls for electro-mechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.
- c. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
- d. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
- e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
- f. Standard leak rate models shall be equipped with leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
- g. Shall be capable of introducing up to 100% outdoor air.
- h. Economizer's barometric relief dampers shall be sized to allow up to 100% relief (actual results will be based on specific job conditions).

2. Ultra-Low Leak Economizers:

- a. Available as a factory-installed option (vertical only) or field-installed accessory (vertical or horizontal) on all models including: electro-mechanical, RTU Open, and SystemVu.
- b. Ultra-Low Leak economizer dampers meet California's Title 24 section 140.4 prescriptive requirements for leakage, reliability testing, etc., and ASHRAE 90.1 requirements for damper leakage.
- c. Economizers are available with EconoMi\$er X controls for electro-mechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.
- d. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
- e. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
- f. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
- g. Shall be capable of introducing up to 100% outdoor air.
- h. Economizer's barometric relief dampers shall be sized to allow up to 100% relief (actual results will be based on specific job conditions).

(1.) EconoMi\$er X Economizer Controls:

- a. For us with factory-installed (vertical only) or field-installed accessory (vertical or horizontal) on electro-mechanical units with standard leak or Ultra-Low Leak economizers.
- b. Meets California's Title 24 section 120.2 mandatory requirements for economizer Fault Detection and Diagnosis (FDD).

- c. Economizer controller shall be Honeywell W7220 JADE that provides:
 - i. 2-line LCD interface screen for setup, configuration and troubleshooting.
 - ii. On-board FDD detects and alerts when economizer is not operating properly.
 - iii. Sensor failure loss of communication identification.
 - iv. Automatic sensor detection.
 - v. Capabilities for use with multi-speed indoor fan units.
 - d. Compressor lockout temperature on W7220 is adjustable from -45 to 80°F, set at a factory default of 32°F.
 - e. Shall be designed to spring return close outside air damper during loss of power.
 - f. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - g. Utilizes digital dry bulb or enthalpy outside air sensors. Factory-installed economizers available with dry bulb or enthalpy. Dry bulb sensors installed on all field-installed economizer accessories.
- (2.) EconoMi\$er2 Economizer Controls:
- a. For use with factory-installed (vertical only) or field-installed accessory (vertical or horizontal) on RTU Open or SystemVu™ units with standard leak or Ultra-Low Leak economizers. Note: Factory-installed EconoMi\$er2 is available on SystemVu™ units with Ultra-Low Leak economizers only.
 - b. EconoMi\$er2 economizers are controlled by RTU Open or SystemVu unit controllers, which shall be 4-20mA design.
 - c. RTU Open and SystemVu controls meet California's Title 24 section 120.2 mandatory requirements for economizer Fault Detection and Diagnosis.
 - d. Available on factory-installed (vertical only) economizers with dry bulb or enthalpy outside air sensors. Field-installed accessories (vertical or horizontal) are available with dry bulb outside air sensors only.
 - e. Outdoor air sensor setpoint shall be adjustable and shall range from 40 to 100°F (4 to 38°C). Additional sensor options shall be available as accessories.
 - f. Shall be designed to spring return close outside air damper during loss of power.
 - g. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - h. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 100%, with a range of 0% to 100%.
 - i. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy.
 - j. Controller shall drive outside air dampers completely closed when the unit is in the unoccupied mode.
 - k. Economizer controller shall accept a 4-20mA CO₂ sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor air damper to provide ventilation based on the sensor input.
 - l. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
3. Condenser Coil Hail Guard Assembly (Factory or field-installed)
- a. Shall protect against damage from hail.
 - b. Shall be louvered design.
4. Unit-Mounted, Non-Fused Disconnect Switch:
- a. Switch shall be factory-installed, internally mounted.
 - b. National Electric Code (NEC) and ETL/UL approved non-fused switch shall provide unit power shutoff.
 - c. Shall be accessible from outside the unit
 - d. Shall provide local shutdown and lockout capability
 - e. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
5. 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.
6. Convenience Outlet:
- a. Powered convenience outlet:
 - (1.) Outlet shall be powered from main line power to the rooftop unit.
 - (2.) Outlet shall be powered from line side or load side of disconnect by installing contractor, as required by code. If outlet is powered from load side of disconnect, unit electrical ratings shall be ETL/UL certified and rated for additional outlet amperage.

- (3.) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - (4.) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - (5.) Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer.
 - (6.) Outlet shall be accessible from outside the unit.
 - (7.) Outlet shall include a field-installed "Wet in Use" cover.
- b. Non-Powered convenience outlet.
 - (1.) Outlet shall be powered from a separate 115/120v power source.
 - (2.) A transformer shall not be included.
 - (3.) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - (4.) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - (5.) Outlet shall be accessible from outside the unit.
 - (6.) Outlet shall include a field-installed "Wet in Use" cover.
7. Thru-the-Base Connectors (07 models only):
 - a. Kit shall provide connectors to permit electrical connections to be brought to the unit through the unit base-pan. Kit include fittings for thru-the-curb gas connection which is not used on 50LC units.
 - b. Maximum of three connection locations per unit.
8. Propeller Power Exhaust:
 - a. Power exhaust shall be used in conjunction with an integrated economizer.
 - b. Independent modules for vertical or horizontal return configurations shall be available.
 - c. Horizontal power exhaust is shall be mounted in return ductwork.
 - d. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.
9. 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.
10. High-Static Indoor Fan Motor(s) and Drive(s):
 - a. High-static motor(s) and drive(s) shall be factory-installed to provide additional performance range.
11. Thru-the-Bottom Utility Connectors:
 - a. Kit shall provide connectors to permit electrical connections to be brought to the unit through the basepan.
12. Outdoor Air Enthalpy Sensor:
 - a. The outdoor air enthalpy sensor shall be used to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.
13. Return Air Enthalpy Sensor:
 - a. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
14. Indoor Air Quality (CO₂) Sensor:
 - a. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
 - b. The IAQ sensor shall be available in duct mount, wall mount, or wall mount with LED display. The set-point shall have adjustment capability.
15. Smoke detectors (factory-installed only):
 - a. Shall be a Four-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 shutdown applications.
16. Horn/Strobe Annunciator
- a. Provides an audible/visual signaling device for use with factory-installed option or field-installed accessory smoke detectors.
 - (1.) Requires installation of a field-supplied 24-v transformer suitable for 4.2 VA (AC) or 3.0 VA (DC) per horn/strobe accessory.
 - (2.) Requires field-supplied electrical box, North American 1-gang box, 2-in (51 mm) x 4-in (102 mm).
 - (3.) Shall have a clear colored lens.
17. Time Guard
- a. Shall prevent compressor short cycling by providing a 5-minute delay (± 2 minutes) before restarting a compressor after shutdown for any reason.
 - b. One device shall be required per compressor.
18. Electric Heat:
- a. Heating Section
 - (1.) Heater element open coil resistance wire, nickel-chrome alloy, 0.29 inches inside diameter, strung through ceramic insulators mounted on metal frame. Coil ends are staked and welded to terminal screw slots.
 - (2.) Heater assemblies are provided with integral fusing for protection of internal heater circuits not exceeding 48 amps each. Auto reset thermo limit controls, magnetic heater contactors (24 v coil) and terminal block all mounted in electric heater control box (minimum 18 ga galvanized steel) attached to end of heater assembly.
19. Hinged access panels:
- a. Shall provide easy access through integrated quarter turn latches.
 - b. Shall be on major panels of; filter, control box, fan motor and compressor.
20. Display Kit for Variable Frequency Drive
- a. Kit allows the ability to access the VFD controller programs to provide special setup capabilities and diagnostics.
 - b. Kit contains display module and communication cable.
 - c. Display Kit can be permanently installed in the unit or used on any SAV™ system VFD controller as needed.
21. Supply Duct Kit.
- a. On 08-12 models a supply air duct cover kit is required when field converting the factory standard vertical duct supply to horizontal duct supply configuration. One required per unit.
22. Thermostat:
- a. Due to the three-stage cooling capacity design of these units, a three-stage cooling thermostat is required for the unit to perform at listed operating efficiencies.
 - b. Carrier offers a Honeywell branded T7350D (3 Cool/3 Heat) Commercial Programmable Thermostat. This provides:
 - 7-day programmable 365-day clock with holiday programming
 - Automatic Daylight Saving Time adjustment
 - Backlit display
 - Changeover selections: automatic or manual
 - Fan configurable: continuous or intermittent during occupied
23. Humidi-MiZer® Adaptive Dehumidification System:
- a. The Humidi-MiZer Adaptive Dehumidification System shall be factory-installed, certified and tested to provide greater dehumidification of the occupied space by providing two distinct modes of dehumidification operation in addition to its normal design cooling mode:
 - (1.) Subcooling mode further sub cools the hot liquid refrigerant leaving the condenser coil as well as reheat leaving air stream. It can provide both better cooling capacity as well as dehumidification process when both temperature and humidity in the space are not satisfied.
 - (2.) Hot gas reheat mode shall mix a portion of the hot gas from the discharge of compressor with the hot liquid refrigerant leaving the condenser coil to create a two-phase warm refrigerant in the reheat coil which results in a neutral leaving air temperature when only humidity in the space is not satisfied.

