



Turn to the experts

Product Data

WeatherExpert®

Electric Cooling Packaged
Rooftop Units

12.5 to 23 Nominal Tons



Unit shown with economizer and power exhaust.

50LC Sizes 14-26
Packaged Rooftop Units with Electric Cooling and Optional
Electric Heat

Carrier's new Electric Heat/ Electric Cooling and Cooling only WeatherExpert® 50LC 12.5 to 23 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 (Seasonal Energy Efficiency Ratios) up to 17.5 and 6 to 10 ton models with IEERs up to 21.0 to provide a full range offering.

Ultra high efficiency

With IEERs up to 19.3, 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 3 stages of cooling capacity control. The indoor fan motors are high efficiency belt drive and controlled by a VFD (Variable Frequency Drive) system that matches the cooling capacity stages for optimum comfort and efficient control. Models also have multiple heat capacities.

Easy to install

Units are designed for dedicated factory-supplied vertical or horizontal air flow duct configuration. No special field kits are required. Designed to fit on pre-installed curbs by another manufacturer, these units also fit on past designed Carrier installed curbs with an authorized adapter curb. The cabinet design also integrates a large control box that gives you room to work and room to mount Carrier accessory controls.

Easy to maintain

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

Reliability

Carrier conducts rigorous testing to ensure 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.

- Three-stage cooling capacity control with staged scroll compressors design. Each 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 19.3 and EERs up to 12.6.
- 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 84 dB.
- Exclusive non-corrosive composite condensate pan in accordance with ASHRAE 62 Standard, sloping design; side or bottom drain.
- Single point electrical connections
- re-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection.
- Fully insulated with foil faced insulation throughout the entire 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.

Table of contents

Features/Benefits	2
Model Number Nomenclature	4
Options and Accessories	5
AHRI Capacity Ratings	9
Physical Data	12
Base Unit Dimensions	19
Accessory Dimensions	34
Application Data	37
Performance Data	38
Fan Data	61
Electrical Data	72
Typical Wiring Diagrams	101
Sequence of Operation	105
Guide Specifications	109

Features/Benefits (cont)



- Dedicated vertical and horizontal airflow models available ordered as factory option. No special kits 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 year electric heat, 5 year compressor, 3 year SystemVu controller, 1 year parts.

Model number nomenclature



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	2	4	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
0 = Standard No Electric Heat
D = Low Electric Heat
E = Medium Electric Heat
F = High Electric Heat

Refrig. System Options
0 = Three-stage cooling capacity control with TXV
A = Three-stage cooling capacity control with TXV
and Humidi-MiZer System

Nominal Cooling Tons
14 = 12.5 Ton
17 = 15 Ton
20 = 17.5 Ton
24 = 20 Ton
26 = 23 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 Vertical Supply Return Air Flow
2 = Medium Static Vertical Supply Return Air Flow
3 = High Static Vertical Supply Return Air Flow
4 = Ultra High Static Vertical Supply Return Air Flow
5 = Standard Static Horizontal Supply Return Air Flow
6 = Medium Static Horizontal Supply Return Air Flow
7 = High Static Horizontal Supply Return Air Flow
8 = Ultra High Static Horizontal Supply Return Air Flow

* SystemVu controller is not available on units equipped with
Standard Leak Economizer.

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

Brand / Packaging
0 = Standard
1 = LTL

Electrical Options
A = None
B = HACR breaker
C = Non-fused disconnect

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

Air Intake / Exhaust Options
A = None
B = Temp Low Standard Leak Econo w/Baro relief
C = Temp Low Leak Econo w/PE (cent) –
Vertical Only
E = Enthalpy Low Leak Econo w/Baro relief
F = Enthalpy Low Leak Econo w/PE (cent)
– Vertical Only
N = Temp Ultra Low Leak Econo w/ baro relief
P = Temp Ultra Low Leak Econo w/PE vert only
R = Enthalpy Ultra Low Leak Econo w/ baro relief
S = Enthalpy Ultra Low Leak Econo w/PE (cent)
– Vertical Only

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

Design Revision
– Factory design revision

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

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



FACTORY-INSTALLED OPTIONS AND FIELD-INSTALLED ACCESSORIES

CATEGORY	ITEM	FACTORY-INSTALLED OPTION	FIELD-INSTALLED ACCESSORY
CABINET	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	
HUMIDITY CONTROL	Humidi-MiZer® Adaptive Dehumidification System	X	
CONDENSER PROTECTION	Condenser coil hail guard (louvered design)	X	X
CONTROLS	Thermostats, temperature sensors, and subbases		X
	Smoke detector (supply and/or return air)	X	X
	Horn/Strobe Annunciator ⁸		X
	Time Guard II compressor delay control circuit		X
	Phase Monitor	X	X
	SystemVu™ Controller ⁷	X	
ECONOMIZERS AND OUTDOOR AIR DAMPERS	EconoMi\$er X for electromechanical controls, complies with FDD. (Low Leak and Ultra Low Leak air damper models) ⁶	X	X
	EconoMi\$er 2 for DDC controls, complies with FDD. (Low Leak and Ultra Low Leak air damper models) ⁶	X	X
	Barometric relief ¹	X	X
	Power exhaust	X	X
ECONOMIZER SENSORS AND 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 AND 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 ^{4,5}	X	
ROOF CURBS	Roof curb 14 in. (356 mm)		X
	Roof curb 24 in. (610 mm)		X

NOTES:

- Included with economizer.
- Sensors used to optimize economizer performance.
- On 575V applications, HACR breaker can only be used with WYE power distribution systems. Using on Delta power distribution systems is prohibited.
- 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.
- 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.
- FDD (Fault Detection and Diagnostic) capability per California Title 24 section 120.2.
- SystemVu controller is not available on units equipped with Low Leak Economizers.
- Requires a field-supplied 24V transformer for each application. See price pages for details.

Factory-Installed Options

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 low leak versions.

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.

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-Bottom Connections

Provisions for thru-the-bottom power connections are standard.

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 HACR breaker, 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.

SystemVu™ Controller



Carrier's new SystemVu unit controller is an optional factory installed and tested controller designed specifically for use in 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 backlit 4 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
 - BACnet¹ systems
 - CCN systems
- Configuration and alarms point capability
 - Contain over 100 alarm codes
 - Contain over 300 status, troubleshooting, diagnostic and maintenance points
 - Contain over 300 control configuration setpoints

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

Optional Humidi-MiZer Adaptive Dehumidification System

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

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

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

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

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

1. BACnet is a trademark of ASHRAE.

Options and accessories (cont)



Field-Installed Accessories

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.

Thermostat

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

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

This provides:

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

OPTION AND ACCESSORY WEIGHTS

OPTION/ACCESSORY	WEIGHT IN LBS				
	50LC**14	50LC**17	50LC**20	50LC**24	50LC**26
Humidi-MiZer® System	120	120	120	120	120
Low Electric Heat	85	85	85	85	85
Medium Electric Heat	100	100	100	100	100
High Electric Heat	100	100	100	100	100
Return Smoke Detector	5	5	5	5	5
Supply Smoke Detector	5	5	5	5	5
RA and SA Smoke Detector	10	10	10	10	10
CO ₂ Sensor	5	5	5	5	5
RA Smoke Detector and CO ₂	10	10	10	10	10
SA Smoke Detector and CO ₂	10	10	10	10	10
RA and SA Smoke Detector and CO ₂	15	15	15	15	15
Medium Static Option	5	6	6	10	10
High Static Option	11	16	16	20	20
Cu/Cu Cond and Al/Cu Evap	28	34	34	34	34
Cu/Cu Cond and Cu/Cu Evap	53	64	64	64	64
Al/Cu Cond and Al/Cu Evap + Hail Guard	60	150	150	150	150
Pre-coat Al/Cu Cond and Al/Cu Evap + Hail Guard	60	150	150	150	150
E-coat Al/Cu Cond and Al/Cu Evap + Hail Guard	60	150	150	150	150
E-coat Al/Cu Cond and E-coat Al/Cu Evap + Hail Guard	60	150	150	150	150
Cu/Cu Cond and Al/Cu Evap + Hail Guard	88	184	184	184	184
Cu/Cu Cond and Cu/Cu Evap + Hail Guard	113	214	214	214	214
Temp Ultra Low Leak Econo with Baro Relief	246	246	246	246	246
Temp Ultra Low Leak Econo with Power Exhaust	371	371	371	371	371
Enthalpy Ultra Low Leak Econo with Baro Relief	246	246	246	246	246
Enthalpy Ultra Low Leak Econo with Power Exhaust	371	371	371	371	371
Unpowered Convenience Outlet	5	5	5	5	5
Powered Convenience Outlet	35	35	35	35	35
Hinged Panels	5	5	5	5	5
Hinged Panels with Unpowered Convenience Outlet	10	10	10	10	10
Hinged Panels with Powered Convenience Outlet	40	40	40	40	40
HACR Breaker	10	10	10	10	10
Non-Fused Disconnect	15	15	15	15	15

AHRI COOLING RATING TABLE (208-v)

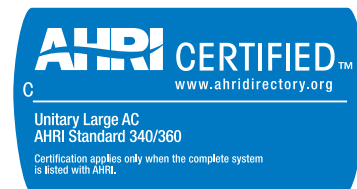
50LC SIZE	COOLING STAGES	HEATING OPTION	MOTOR OPTION	NOMINAL CAPACITY	NOM COOLING CAPACITY	CONFIG	TOTAL POWER (kW)	EER	IEER	RATED INDOOR AIRFLOW (CFM)
014	3	None	1, 3, 4	12.5	146.0	VERTICAL	11.6	12.6	19.3	4375
			2	12.5	146.0	VERTICAL	11.7	12.5	19.2	4375
			5, 7, 8	12.5	146.0	HORIZONTAL	12.0	12.2	18.7	4375
			6	12.5	146.0	HORIZONTAL	12.2	12.0	18.5	4375
		Low, Med, High	1, 3, 4	12.5	146.0	VERTICAL	11.7	12.4	19.2	4375
			2	12.5	146.0	VERTICAL	11.8	12.4	19.1	4375
			5, 7, 8	12.5	146.0	HORIZONTAL	12.3	11.9	18.3	4375
			6	12.5	146.0	HORIZONTAL	12.4	11.8	18.2	4375
017	3	All	—	15.0	172.0	VERTICAL	13.7	12.6	18.5	4875
		None	—	15.0	170.0	HORIZONTAL	14.0	12.1	17.7	4875
		Low	—	15.0	170.0	HORIZONTAL	14.0	12.1	17.7	4875
		Med	—	15.0	170.0	HORIZONTAL	14.0	12.1	17.7	4875
		High	—	15.0	170.0	HORIZONTAL	14.3	11.9	17.5	4875
020	3	All	—	17.5	194.0	VERTICAL	15.9	12.2	17.9	5690
		None	—	17.5	192.0	HORIZONTAL	16.7	11.5	17.2	5690
		Low	—	17.5	192.0	HORIZONTAL	16.7	11.5	17.2	5690
		Med	—	17.5	192.0	HORIZONTAL	16.8	11.4	17.1	5690
		High	—	17.5	192.0	HORIZONTAL	17.0	11.3	17.0	5690
024	3	All	—	20.0	232.0	VERTICAL	19.0	12.2	18.2	6500
		None	—	20.0	230.0	HORIZONTAL	20.2	11.4	17.5	6500
		Low	—	20.0	230.0	HORIZONTAL	20.2	11.4	17.5	6500
		Med	—	20.0	230.0	HORIZONTAL	20.2	11.4	17.5	6500
		High	—	20.0	228.0	HORIZONTAL	20.4	11.2	17.4	6500
026	3	All	—	23.0	274.0	VERTICAL	23.6	11.6	18.3	7500
		None	—	23.0	270.0	HORIZONTAL	25.5	10.6	16.8	7500
		Low	—	23.0	270.0	HORIZONTAL	25.5	10.6	16.8	7500
		Med	—	23.0	268.0	HORIZONTAL	25.3	10.6	16.8	7500
		High	—	23.0	268.0	HORIZONTAL	25.8	10.4	16.5	7500

LEGEND

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

NOTES:

1. Rated in accordance with AHRI 340/360 Standards.
2. Ratings are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temp.
3. 50LC units comply with US Energy Policy Act. To evaluate code compliance requirements, refer to state and local codes.



AHRI capacity ratings (cont)



AHRI COOLING RATING TABLE (230/460/575-v)

50LC SIZE	COOLING STAGES	HEATING OPTION	MOTOR OPTION	NOMINAL CAPACITY	NOM COOLING CAPACITY	CONFIG	TOTAL POWER (kW)	EER	IEER	RATED INDOOR AIRFLOW (CFM)
014	3	None	1,3,4	12.5	146.0	VERTICAL	11.6	12.6	19.3	4375
			2	12.5	146.0	VERTICAL	11.7	12.5	19.2	4375
			5, 7, 8	12.5	146.0	HORIZONTAL	12.0	12.2	18.7	4375
			6	12.5	146.0	HORIZONTAL	12.2	12.0	18.5	4375
		Low, Med, High	1, 3, 4	12.5	146.0	VERTICAL	11.7	12.4	19.2	4375
			2	12.5	146.0	VERTICAL	11.8	12.4	19.1	4375
			5, 7, 8	12.5	146.0	HORIZONTAL	12.3	11.9	18.3	4375
			6	12.5	146.0	HORIZONTAL	12.4	11.8	18.2	4375
017	3	All	—	15.0	174.0	VERTICAL	13.8	12.6	18.5	4875
		None	—	15.0	172.0	HORIZONTAL	14.2	12.1	17.7	4875
		Low	—	15.0	172.0	HORIZONTAL	14.2	12.1	17.7	4875
		Med	—	15.0	172.0	HORIZONTAL	14.2	12.1	17.7	4875
		High	—	15.0	172.0	HORIZONTAL	14.5	11.9	17.5	4875
020	3	All	—	17.5	194.0	VERTICAL	15.9	12.2	17.7	5690
		None	—	17.5	192.0	HORIZONTAL	16.7	11.5	17.0	5690
		Low	—	17.5	192.0	HORIZONTAL	16.7	11.5	17.0	5690
		Med	—	17.5	192.0	HORIZONTAL	16.8	11.4	16.9	5690
		High	—	17.5	192.0	HORIZONTAL	17.0	11.3	16.8	5690
024	3	All	—	20.0	234.0	VERTICAL	19.2	12.2	18.2	6500
		None	—	20.0	232.0	HORIZONTAL	20.4	11.4	17.5	6500
		Low	—	20.0	232.0	HORIZONTAL	20.4	11.4	17.5	6500
		Med	—	20.0	232.0	HORIZONTAL	20.4	11.4	17.5	6500
		High	—	20.0	232.0	HORIZONTAL	20.7	11.2	17.4	6500
026	3	All	—	23.0	274.0	VERTICAL	23.6	11.6	18.3	7500
		None	—	23.0	270.0	HORIZONTAL	25.5	10.6	16.8	7500
		Low	—	23.0	270.0	HORIZONTAL	25.5	10.6	16.8	7500
		Med	—	23.0	268.0	HORIZONTAL	25.3	10.6	16.8	7500
		High	—	23.0	268.0	HORIZONTAL	25.8	10.4	16.5	7500

LEGEND

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

NOTES:

1. Rated in accordance with AHRI 340/360 Standards.
2. Ratings are based on:
Cooling Standard: 80°F (27°C) db, 67°F (19°C) wb indoor air temperature and 95°F (35°C) db outdoor air temp.
3. 50LC units comply with US Energy Policy Act. To evaluate code compliance requirements, refer to state and local codes.



COOLING MINIMUM – MAXIMUM AIRFLOW RATINGS

50LC SIZE	COOLING STAGE	MAX CFM	MIN CFM	MAX OD AMBIENT TEMPERATURE °F	MIN OD AMBIENT TEMPERATURE °F
14	Stage 3	6250	3150	125	40
	Stage 2	3750	1900		
	Stage 1	2500	1250		
17	Stage 3	7500	3750	125	40
	Stage 2	4500	2250		
	Stage 1	3000	1500		
20	Stage 3	8750	4400	125	40
	Stage 2	5400	2700		
	Stage 1	4600	2300		
24	Stage 3	10000	5000	125	40
	Stage 2	5700	2850		
	Stage 1	4300	2150		
26	Stage 3	11250	5650	125	40
	Stage 2	8100	4050		
	Stage 1	6750	3400		

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

HEATING MINIMUM – MAXIMUM CFM

50LC** UNIT	MIN AIR FLOW (CFM)	MAX AIR FLOW (CFM)
14	3,750	6,250
17	4,500	7,500
20	5,250	8,750
24	6,000	10,000
26	6,750	11,250

SOUND PERFORMANCE

50LC	COOLING STAGES	OUTDOOR SOUND (dB) AT 60 Hz									
		A-WEIGHTED	31.5	63	125	250	500	1000	2000	4000	8000
14	3	84	92.6	92.2	83.9	80.4	81.8	78.7	76.5	72.2	65.4
17	3	86	101.3	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3
20	3	86	101.3	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3
24	3	86	101.3	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3
26	3	86	101.3	97.1	88.3	84.4	83.3	80.7	77.4	73.4	67.3

LEGEND

dB — Decibel

NOTES:

1. Outdoor sound data is measured in accordance with AHRI standard 270.
2. 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.
3. 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.

PHYSICAL DATA (COOLING) 12.5-23 TONS

	50LC*14	50LC*17	50LC*20	50LC*24	50LC*26
REFRIGERATION SYSTEM					
# Circuits / # Comp. / Type	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll	1/2/Scroll
R-410A charge (lbs-oz)	32-0	33-6	35-6	40-10	43-4
Alternate (Humidi-Mizer) R-410A charge A/B (lb-oz)	40-0	50-7	49-0	57-7	54-0
Metering device	TXV	TXV	TXV	TXV	TXV
High-press. Trip / Reset (psig)	630/505	630/505	630/505	630/505	630/505
Low-press. Trip / Reset (psig)	54/117	54/117	54/117	54/117	54/117
EVAPORATOR COIL					
Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
Coil Type	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF
Coil Length (in.)	72	72	72	72	72
Coil Height (in.)	44	52	52	52	52
Rows / FPI	4/15	4/15	4/15	4/15	4/15
Total face area (ft²)	22.0	26.0	26.0	26.0	26.0
Condensate drain conn. size (in.)	3/4	3/4	3/4	3/4	3/4
HUMIDI-MIZER COIL					
Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
Coil Type	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF
Coil Length (in.)	72	72	72	72	72
Coil Height (in.)	44	52	52	52	52
Rows / FPI	1/18	1/18	2/18	3/18	4/18
Total face area (ft²)	22.0	26.0	26.0	26.0	26.0
EVAPORATOR FAN AND MOTOR, VERTICAL					
Standard Static	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/Belt
	Max Bhp	2.9	2.9	2.9	7.4
	Rpm range	498-676	498-676	555-753	583-717
	Motor frame size	56	56	56HZ	184T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
Medium Static	Fan Diameter (in.)	15x15/15x15	15x15/15x15	15x15/15x15	15x15/15x15
	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/Belt
	Max Bhp	4.9	7.4	7.4	7.4
	Rpm range	682-861	651-818	707-888	707-888
	Motor frame size	145TZ	184T	184T	184T
High Static	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	15x15/15x15	15x15/15x15	15x15/15x15	15x15/15x15
	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/2Belt
	Max Bhp	7.4	9.9	9.9	9.9
	Rpm range	782-963	804-970	872-1053	872-1053
Ultra High Static	Motor frame size	184T	213T	213T	213T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	15x15/15x15	15x15/15x15	15x15/15x15	15x15/15x15
	Motor Qty. / Drive Type	1/Belt	1/2Belt	1/2Belt	1/2Belt
	Max Bhp (208/230/460/575v)	9.9	13.6	13.6	13.6
Ultra High Static	Rpm range	933-1113	948-1190	948-1190	1049-1291
	Motor frame size	213T	215T	215T	215T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	15x15/15x15	15x15/15x15	15x15/15x15	15x15/15x15
					N/A

PHYSICAL DATA (COOLING) 12.5-23 TONS (CONT)

		50LC*14	50LC*17	50LC*20	50LC*24	50LC*26
EVAPORATOR FAN AND MOTOR, HORIZONTAL						
Standard Static	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/Belt	1/Belt
	Max Bhp	2.9	2.9	2.9	7.4	7.4
	Rpm range	498-676	498-676	555-753	583-717	707-888
	Motor frame size	56	56	56HZ	184T	184T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11
Medium Static	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/Belt	1/Belt
	Max Bhp	4.9	7.4	7.4	7.4	9.9
	Rpm range	644-808	651-818	651-818	707-888	859-1026
	Motor frame size	184T	213T	213T	213T	213T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11
High Static	Motor Qty. / Drive Type	1/Belt	1/Belt	1/Belt	1/Belt	1/2Belt
	Max Bhp	7.4	9.9	9.9	9.9	13.6
	Rpm range	707-888	804-970	804-970	872-1053	948-1190
	Motor frame size	184T	213T	213T	213T	215T
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal
	Fan Diameter (in.)	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11
Ultra High Static	Motor Qty. / Drive Type	1/Belt	1/2Belt	1/2Belt	1/2Belt	N/A
	Max Bhp (208/230/460/575v)	9.9	13.6	13.6	13.6	N/A
	Rpm range	872-1053	948-1190	948-1190	948-1190	N/A
	Motor frame size	213T	215T	215T	215T	N/A
	Fan Qty. / Type	2/Centrifugal	2/Centrifugal	2/Centrifugal	2/Centrifugal	N/A
	Fan Diameter (in.)	18x15/15x11	18x15/15x11	18x15/15x11	18x15/15x11	N/A
CONDENSER COIL 1						
	Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
	Coil Type	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF
	Coil Length (in.)	68	82	82	98	98
	Coil Height (in.)	44	52	52	52	52
	Rows / FPI	2/18	2/18	2/18	2/18	2/18
	Total face area (ft ²)	20.8	29.6	29.6	35.4	35.4
CONDENSER COIL 2						
	Material	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
	Coil Type	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF	5/16 in. RTPF
	Coil Length (in.)	68	82	82	98	98
	Coil Height (in.)	44	52	52	52	52
	Rows / FPI	2/18	2/18	2/18	2/18	2/18
	Total face area (ft ²)	20.8	29.6	29.6	35.4	35.4
CONDENSER FAN / MOTOR						
	Qty. / Motor Drive Type	3/Direct	4/Direct	4/Direct	6/Direct	6/Direct
	Motor HP / Rpm	1/3/1000	1/3/1000	1/3/1000	1/3/1000	1/3/1000
	Fan Diameter (in.)	22	22	22	22	22
FILTERS						
	RA Filter # / size (in.)	6/20x25x2	9/16x25x2	9/16x25x2	9/16x25x2	9/16x25x2
	OA inlet screen # / size (in.)	4/16x25x1	4/16x25x1	4/16x25x1	4/16x25x1	4/16x25x1

ELECTRIC HEAT PART NUMBERS — ELECTRICAL DATA 50LC**14

UNIT 50LC	NOM. V-Ph-Hz	IFM TYPE	ELECTRIC HEATER PART NUMBER CRHEATER***A00 VERT/HORZ	NOM PWR (kW)	APP PWR (kW)	SINGLE POINT KIT PART NUMBER CRSINGLEXXXXA00			
						NO CO OR UNPWRD CO		W/PWRD CO	
						NO PE	W/ PE (PWRD FR/ UNIT)	NO PE	W/ PE (PWRD FR/ UNIT)
14	208/230-3-60	STD	302/305A00	15.0	11.3/13.8	—	—	—	—
			279/270A00	25.0	18.8/23.0	—	—	—	—
			309/312A00	50.0	37.6/45.9	056	056	056	056
		MED	302/305A00	15.0	11.3/13.8	—	—	—	—
			279/270A00	25.0	18.8/23.0	—	—	—	—
			309/312A00	50.0	37.6/45.9	056	056	056	056
		HIGH	302/305A00	15.0	11.3/13.8	—	—	—	—
			279/270A00	25.0	18.8/23.0	—	—	—	—
			309/312A00	50.0	37.6/45.9	056	056	056	056
		SUPER	302/305A00	15.0	11.3/13.8	—	—	—	—
			279/270A00	25.0	18.8/23.0	—	—	—	056
			309/312A00	50.0	37.6/45.9	056	056	056	056
	460-3-60	STD	303/306A00	15.0	13.8	—	—	—	—
			282/273A00	25.0	23.0	—	—	—	—
			310/313A00	50.0	45.9	—	057	057	057
		MED	303/306A00	15.0	13.8	—	—	—	—
			282/273A00	25.0	23.0	—	—	—	—
			310/313A00	50.0	45.9	057	057	057	057
		HIGH	303/306A00	15.0	13.8	—	—	—	—
			282/273A00	25.0	23.0	—	—	—	—
			310/313A00	50.0	45.9	057	057	057	057
		SUPER	303/306A00	15.0	13.8	—	—	—	—
			282/273A00	25.0	23.0	—	—	—	—
			310/313A00	50.0	45.9	057	057	057	057
	575-3-60	STD	304/307A00	15.0	13.8	—	—	—	—
			285/276A00	24.8	22.8	—	—	—	—
			311/314A00	49.6	45.6	—	057	—	057
		MED	304/307A00	15.0	13.8	—	—	—	—
			285/276A00	24.8	22.8	—	—	—	—
			311/314A00	49.6	45.6	—	057	—	057
		HIGH	304/307A00	15.0	13.8	—	—	—	—
			285/276A00	24.8	22.8	—	—	—	—
			311/314A00	49.6	45.6	—	057	057	057
		ULTRA HIGH	304/307A00	15.0	13.8	—	—	—	—
			285/276A00	24.8	22.8	—	—	—	—
			311/314A00	49.6	45.6	057	057	057	057

LEGEND

APP PWR	—	208 / 230V / 460V / 575V
CO	—	Convenience Outlet
IFM	—	Indoor Fan Motor
NOM PWR	—	240V / 480V / 600V
PE	—	Power Exhaust
PWRD	—	Powered Convenience Outlet
UNPWRD	—	Unpowered Convenience Outlet

ELECTRIC HEAT PART NUMBERS — ELECTRICAL DATA 50LC**17

UNIT 50LC	NOM. V-Ph-Hz	IFM TYPE	ELECTRIC HEATER PART NUMBER CRHEATER***A00 VERT/HORZ	NOM PWR (kW)	APP PWR (kW)	SINGLE POINT KIT PART NUMBER CRSINGLEXXXXA00			
						NO CO OR UNPWRD CO		W/PWRD CO	
						NO PE	W/ PE (PWRD FR/ UNIT)	NO PE	W/ PE (PWRD FR/ UNIT)
17	208/230-3-60	STD	279/270A00	25.0	18.8/23.0	—	—	—	—
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		MED	279/270A00	25.0	18.8/23.0	—	—	—	—
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		HIGH	279/270A00	25.0	18.8/23.0	—	—	—	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		SUPER	279/270A00	25.0	18.8/23.0	—	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
	460-3-60	STD	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	—	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		MED	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		HIGH	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		SUPER	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
	575-3-60	STD	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	—	057
			287/278A00	74.4	68.3	057	057	057	057
		MED	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		HIGH	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		SUPER	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057

LEGEND

APP PWR	—	208 / 230V / 460V / 575V
CO	—	Convenience Outlet
IFM	—	Indoor Fan Motor
NOM PWR	—	240V / 480V / 600V
PE	—	Power Exhaust
PWRD	—	Powered Convenience Outlet
UNPWRD	—	Unpowered Convenience Outlet

ELECTRIC HEAT PART NUMBERS — ELECTRICAL DATA 50LC**20

UNIT 50LC	NOM. V-Ph-Hz	IFM TYPE	ELECTRIC HEATER PART NUMBER CRHEATER***A00 VERT/HORZ	NOM PWR (kW)	APP PWR (kW)	SINGLE POINT KIT PART NUMBER CRSINGLEXXXA00			
						NO CO OR UNPWRD CO		W/PWRD CO	
						NO PE	W/ PE (PWRD FR/ UNIT)	NO PE	W/ PE (PWRD FR/ UNIT)
20	208/230-3-60	STD	279/270A00	25.0	18.8/23.0	—	—	—	—
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		MED	279/270A00	25.0	18.8/23.0	—	—	—	—
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		HIGH	279/270A00	25.0	18.8/23.0	—	—	—	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		SUPER	279/270A00	25.0	18.8/23.0	—	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
	460-3-60	STD	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		MED	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		HIGH	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		SUPER	282/273A00	25.0	23.0	—	—	—	—
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
	575-3-60	STD	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	—	057
			287/278A00	74.4	68.3	057	057	057	057
		MED	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		HIGH	285/276A00	24.8	22.8	—	—	—	—
			286A/27700	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		SUPER	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057

LEGEND

APP PWR	—	208 / 230V / 460V / 575V
CO	—	Convenience Outlet
IFM	—	Indoor Fan Motor
NOM PWR	—	240V / 480V / 600V
PE	—	Power Exhaust
PWRD	—	Powered Convenience Outlet
UNPWRD	—	Unpowered Convenience Outlet

ELECTRIC HEAT PART NUMBERS — ELECTRICAL DATA 50LC**24

UNIT 50LC	NOM. V-Ph-Hz	IFM TYPE	ELECTRIC HEATER PART NUMBER CRHEATER***A00 VERT/HORZ	NOM PWR (kW)	APP PWR (kW)	SINGLE POINT KIT PART NUMBER CRSINGLEXXXXA00			
						NO CO OR UNPWRD CO		W/PWRD CO	
						NO PE	W/ PE (PWRD FR/ UNIT)	NO PE	W/ PE (PWRD FR/ UNIT)
24	208/230-3-60	STD	279/270A00	25.0	18.8/23.0	—	—	—	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		MED	279A/27000	25.0	18.8/23.0	—	—	—	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		HIGH	279/270A00	25.0	18.8/23.0	—	056	—	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		SUPER	279/270A00	25.0	18.8/23.0	056	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
	460-3-60	STD	282/273A00	25.0	23.0	—	057	—	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		MED	282/273A00	25.0	23.0	—	057	—	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		HIGH	282/273A00	25.0	23.0	—	057	057	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		SUPER	282/273A00	25.0	23.0	057	057	057	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
	575-3-60	STD	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		MED	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	—	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		HIGH	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		SUPER	285/276A00	24.8	22.8	—	—	—	—
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057

LEGEND

APP PWR	—	208 / 230V / 460V / 575V
CO	—	Convenience Outlet
IFM	—	Indoor Fan Motor
NOM PWR	—	240V / 480V / 600V
PE	—	Power Exhaust
PWRD	—	Powered Convenience Outlet
UNPWRD	—	Unpowered Convenience Outlet

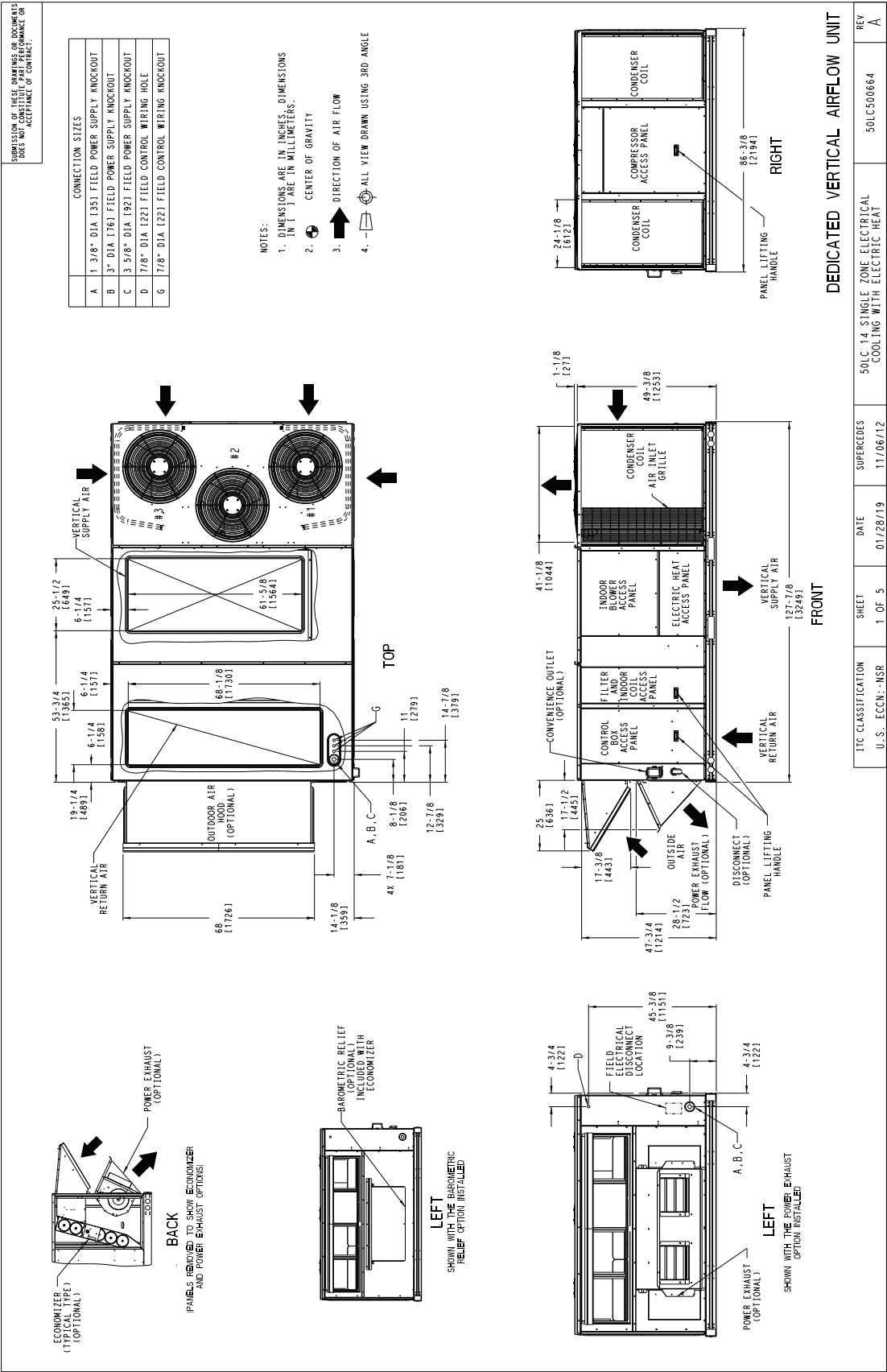
ELECTRIC HEAT PART NUMBERS — ELECTRICAL DATA 50LC**26

UNIT 50LC	NOM. V-Ph-Hz	IFM TYPE	ELECTRIC HEATER PART NUMBER CRHEATER***A00 VERT/HORZ	NOM PWR (kW)	APP PWR (kW)	SINGLE POINT KIT PART NUMBER CRSINGLEXXXXA00			
						NO CO OR UNPWRD CO		W/PWRD CO	
						NO PE	W/ PE (PWRD FR/ UNIT)	NO PE	W/ PE (PWRD FR/ UNIT)
26	208/230-3-60	STD	279/270A00	25.0	18.8/23.0	056	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		MED	279/270A00	25.0	18.8/23.0	056	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
		HIGH	279/270A00	25.0	18.8/23.0	056	056	056	056
			280/271A00	50.0	37.6/45.9	056	056	056	056
			281/272A00	75.0	56.3/68.9	056	056	056	056
	460-3-60	STD	282/273A00	25.0	23.0	057	057	057	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		MED	282/273A00	25.0	23.0	057	057	057	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
		HIGH	282/273A00	25.0	23.0	057	057	057	057
			283/274A00	50.0	45.9	057	057	057	057
			284/275A00	75.0	68.9	057	057	057	057
	575-3-60	STD	285/276A00	24.8	22.8	—	—	—	057
			286/277A00	49.6	45.6	—	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		MED	285/276A00	24.8	22.8	—	057	—	057
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057
		HIGH	285/276A00	24.8	22.8	057	057	057	057
			286/277A00	49.6	45.6	057	057	057	057
			287/278A00	74.4	68.3	057	057	057	057

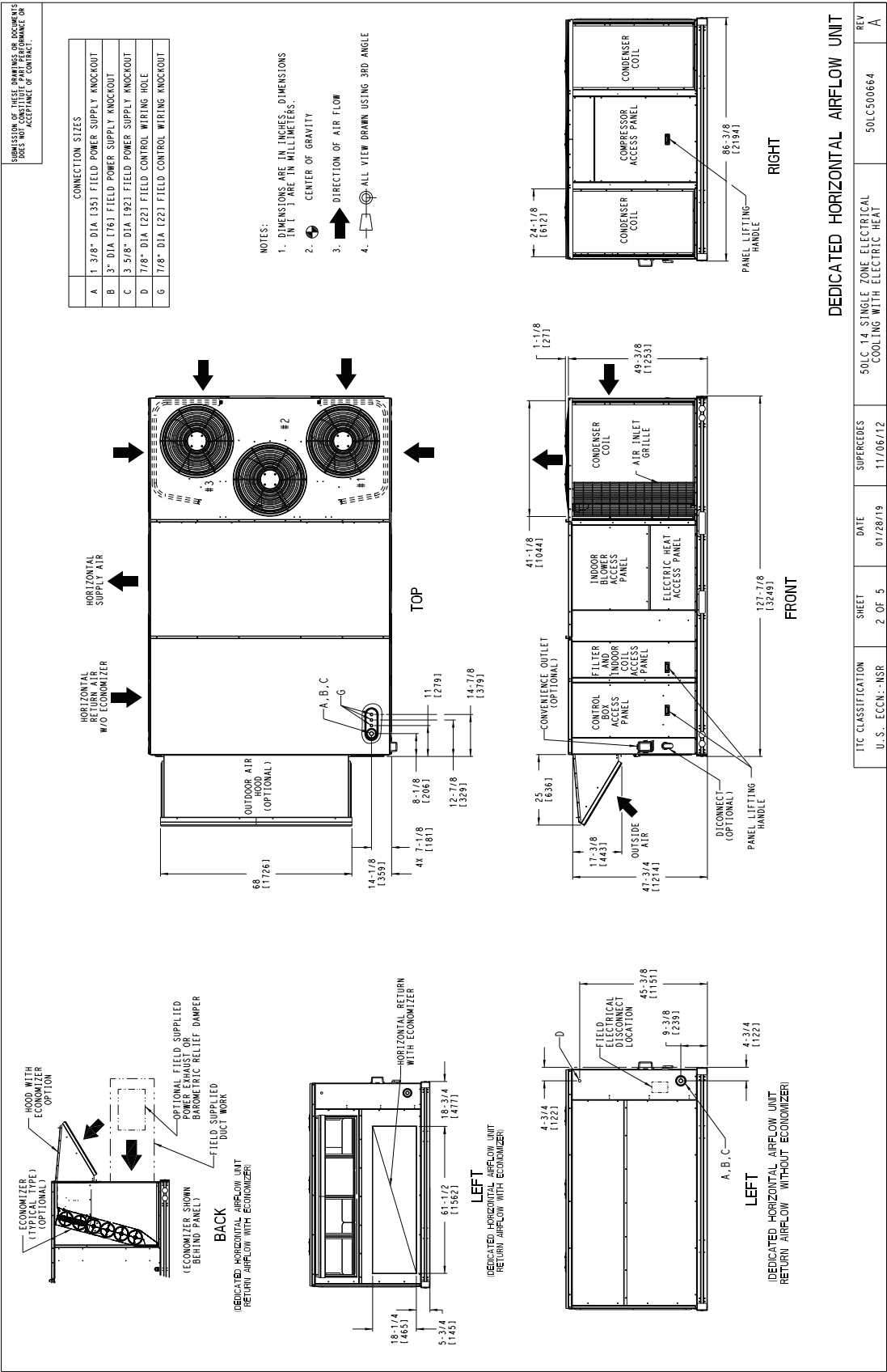
LEGEND

APP PWR	—	208 / 230V / 460V / 575V
CO	—	Convenience Outlet
IFM	—	Indoor Fan Motor
NOM PWR	—	240V / 480V / 600V
PE	—	Power Exhaust
PWRD	—	Powered Convenience Outlet
UNPWRD	—	Unpowered Convenience Outlet

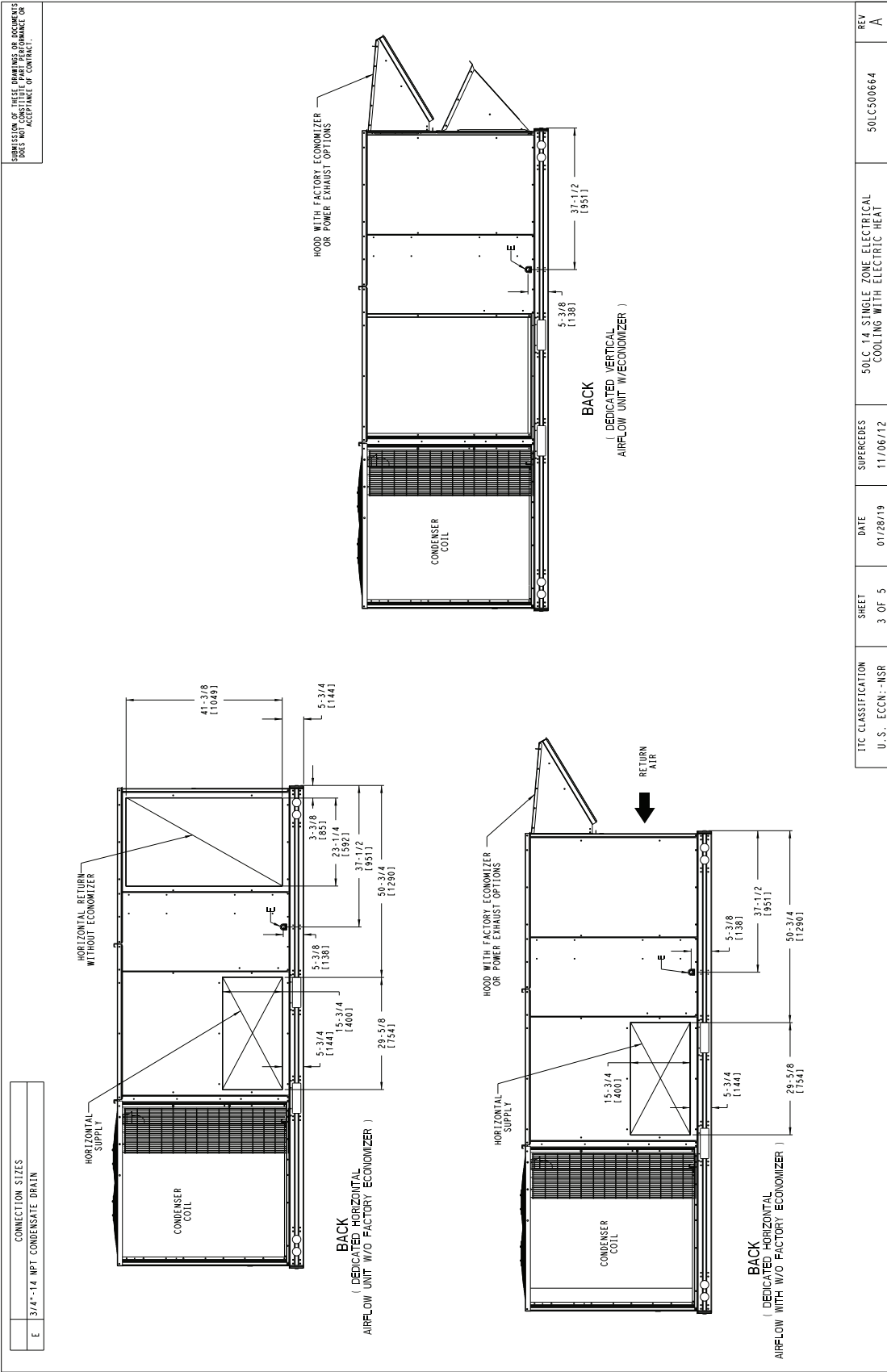
50LC 14 VERTICAL AIRFLOW



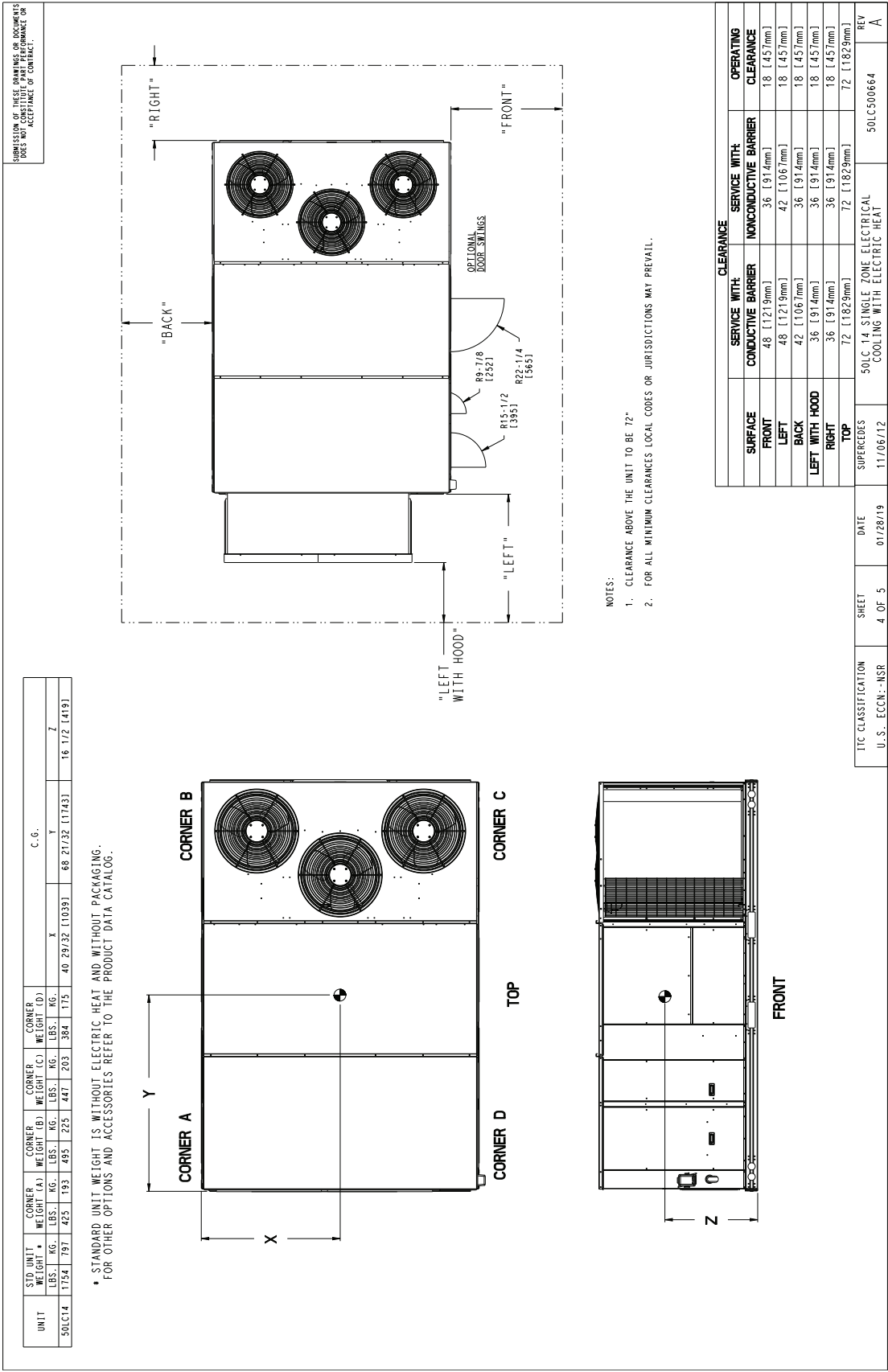
50LC 14 HORIZONTAL AIRFLOW



50LC 14 BACK VIEW AND CONDENSATE DRAIN LOCATION

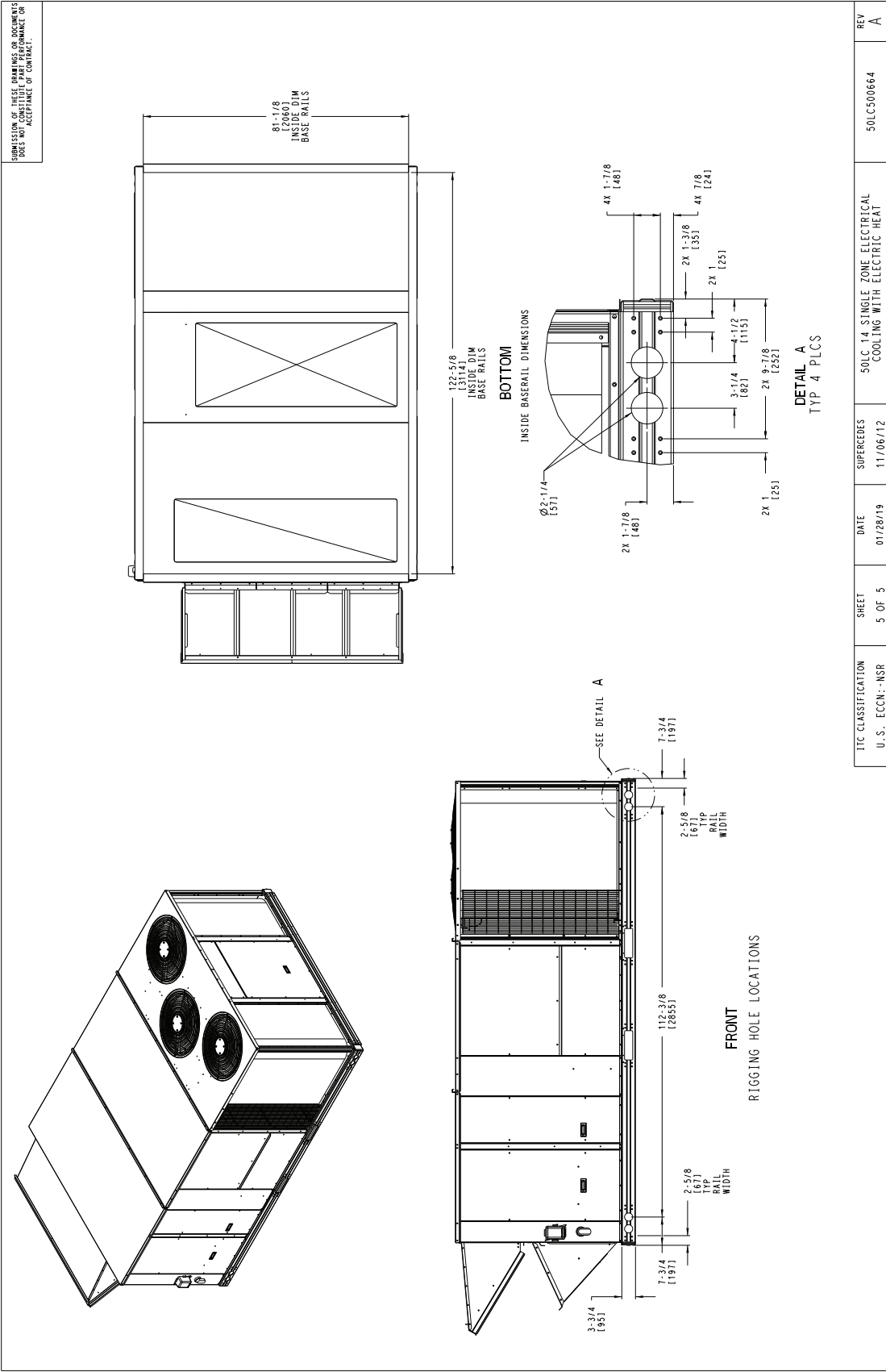


50LC 14 CORNER WEIGHTS AND CLEARANCES

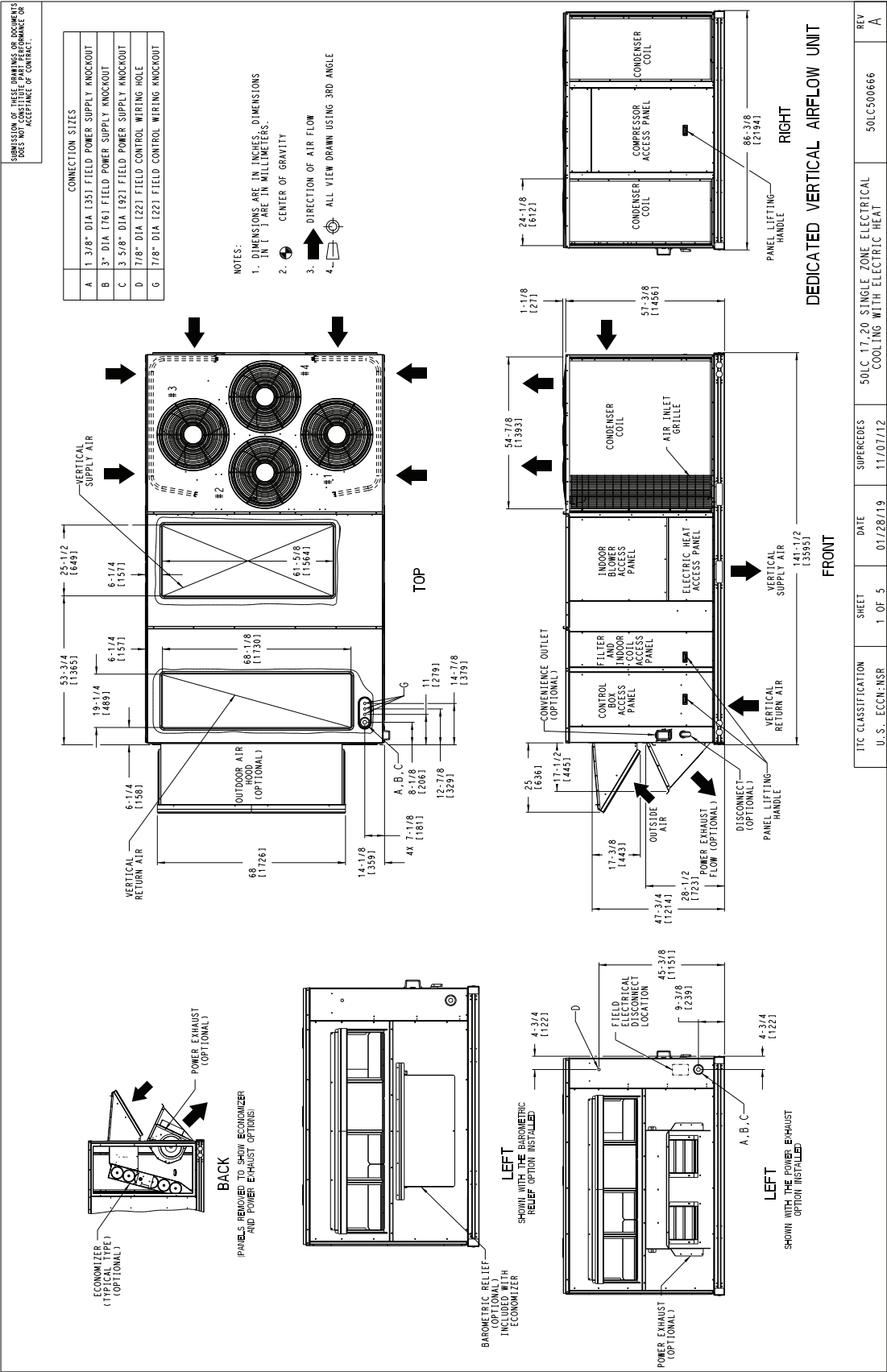




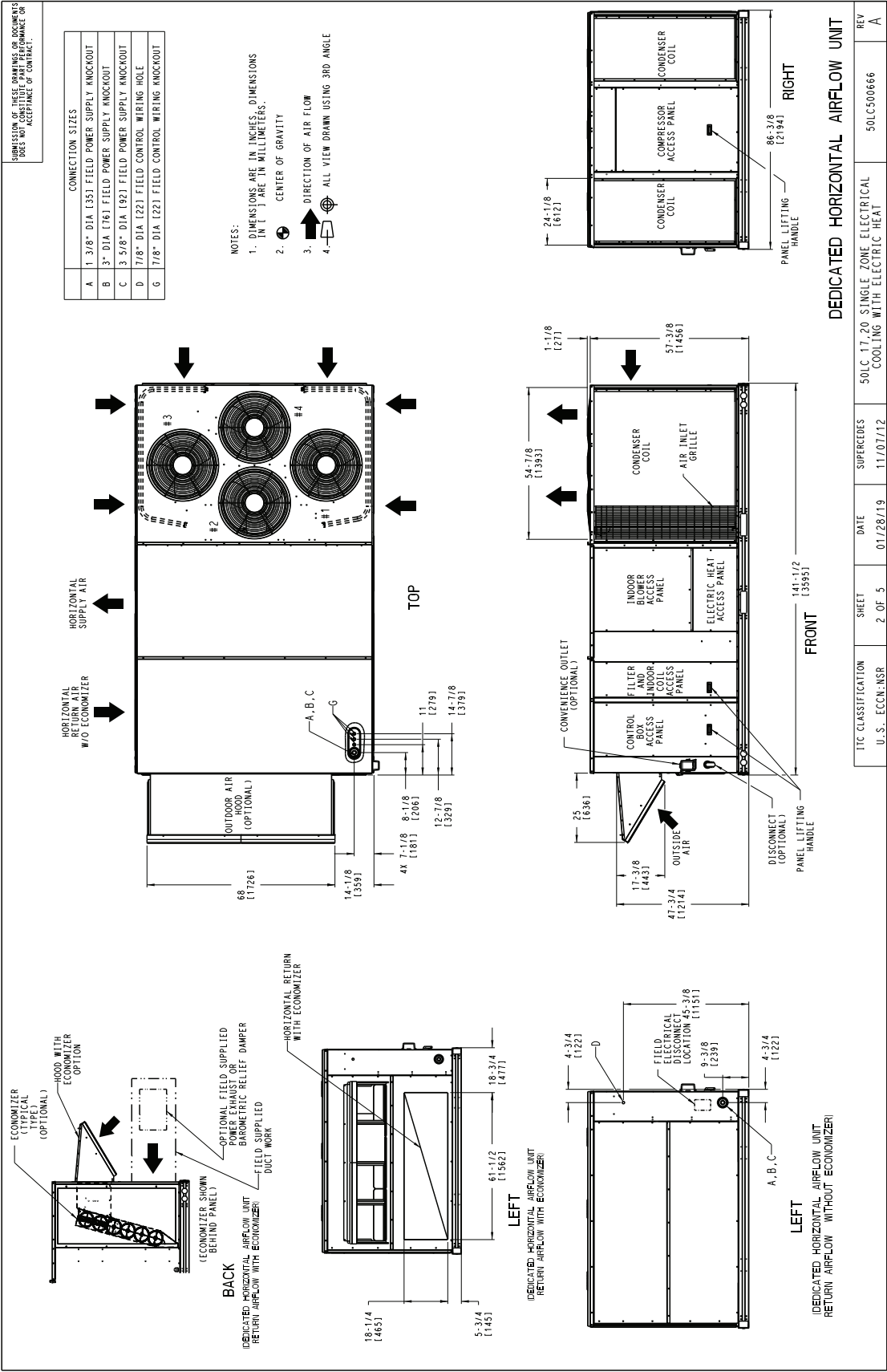
50LC 14 BOTTOM VIEW



50LC 17-20 VERTICAL AIRFLOW



50LC 17-20 HORIZONTAL AIRFLOW



CONNECTION SIZES

E 3/4" - 1 1/4" NPT CONDENSATE DRAIN

CONNECTION SIZES

E 3/4" - 1 1/4" NPT CONDENSATE DRAIN

CONNECTION SIZES

E 3/4" - 1 1/4" NPT CONDENSATE DRAIN

REVIEW OF THESE DRAWINGS OR DOCUMENTS
DOES NOT CONSTITUTE WARRANTY OR
ACCEPTANCE OF CONTRACT.

UNIT	STD UNIT WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.					
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y				
50LC17	1996	907.3	510.2	231.9	487.5	221.6	479.8	218.1	412.2	187.3	38 1/2 [1977.90]	76 [1930.40]	19 [482.6]	Z
50LC20	2102	955.7	537.4	244.3	625.6	284.4	505.4	229.7	434.1	197.3	38 1/2 [1977.90]	76 [1930.40]	19 [482.6]	

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

The diagram includes three views of the unit: a top view showing the four circular fans and dimensions X and Y; a front view showing the unit's profile and dimension Z; and four corner detail views (A, B, C, D) showing the fan assembly and mounting details.

This side view shows the unit's profile with dimensions for "LEFT WITH HOOD", "LEFT", "BACK", "RIGHT", and "FRONT". It also illustrates the "OPTIONAL DOOR SWINGS" with two configurations: "R9-7/8 [238]" and "R22-1/4 [565]".

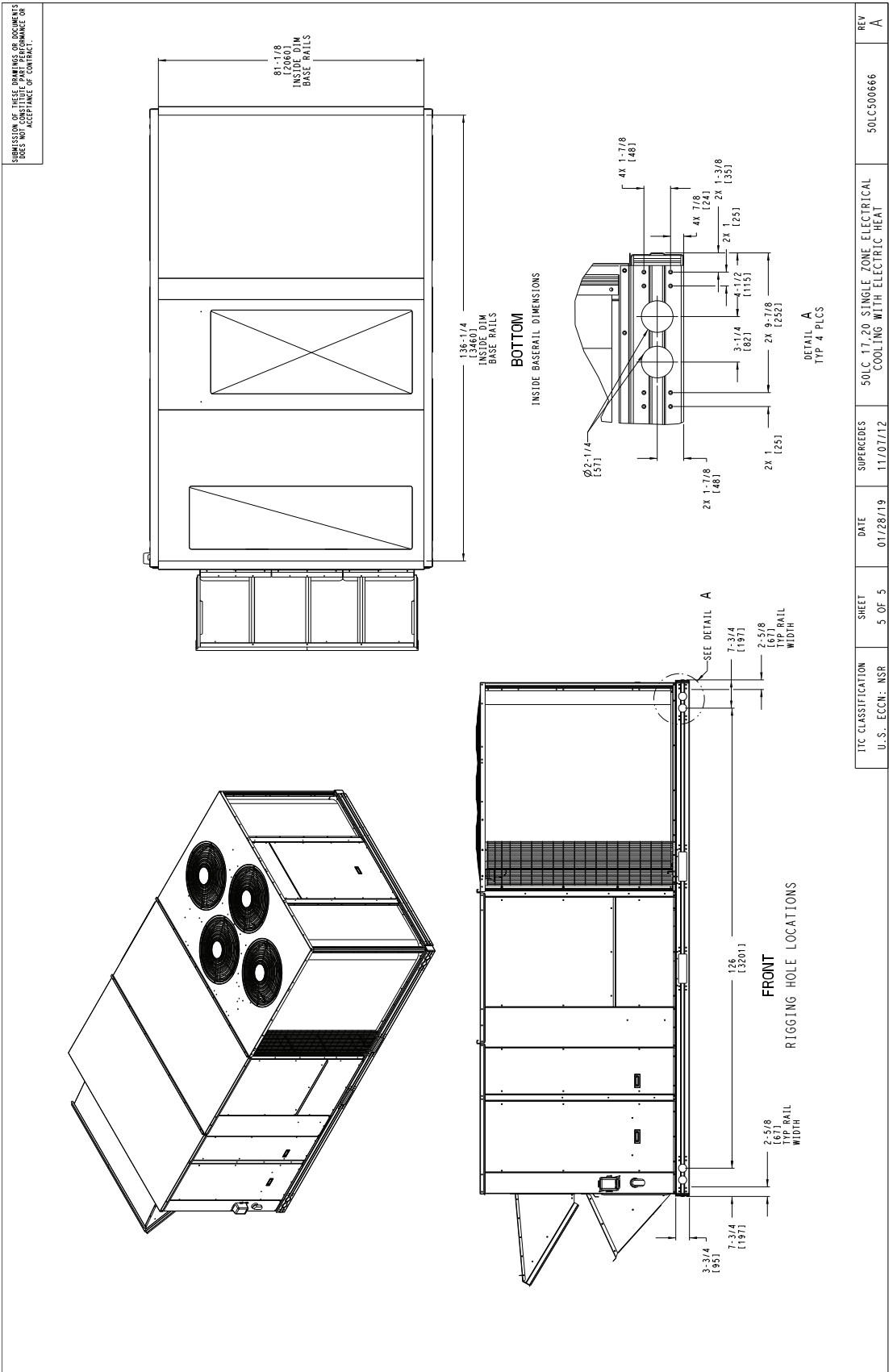
NOTES:

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

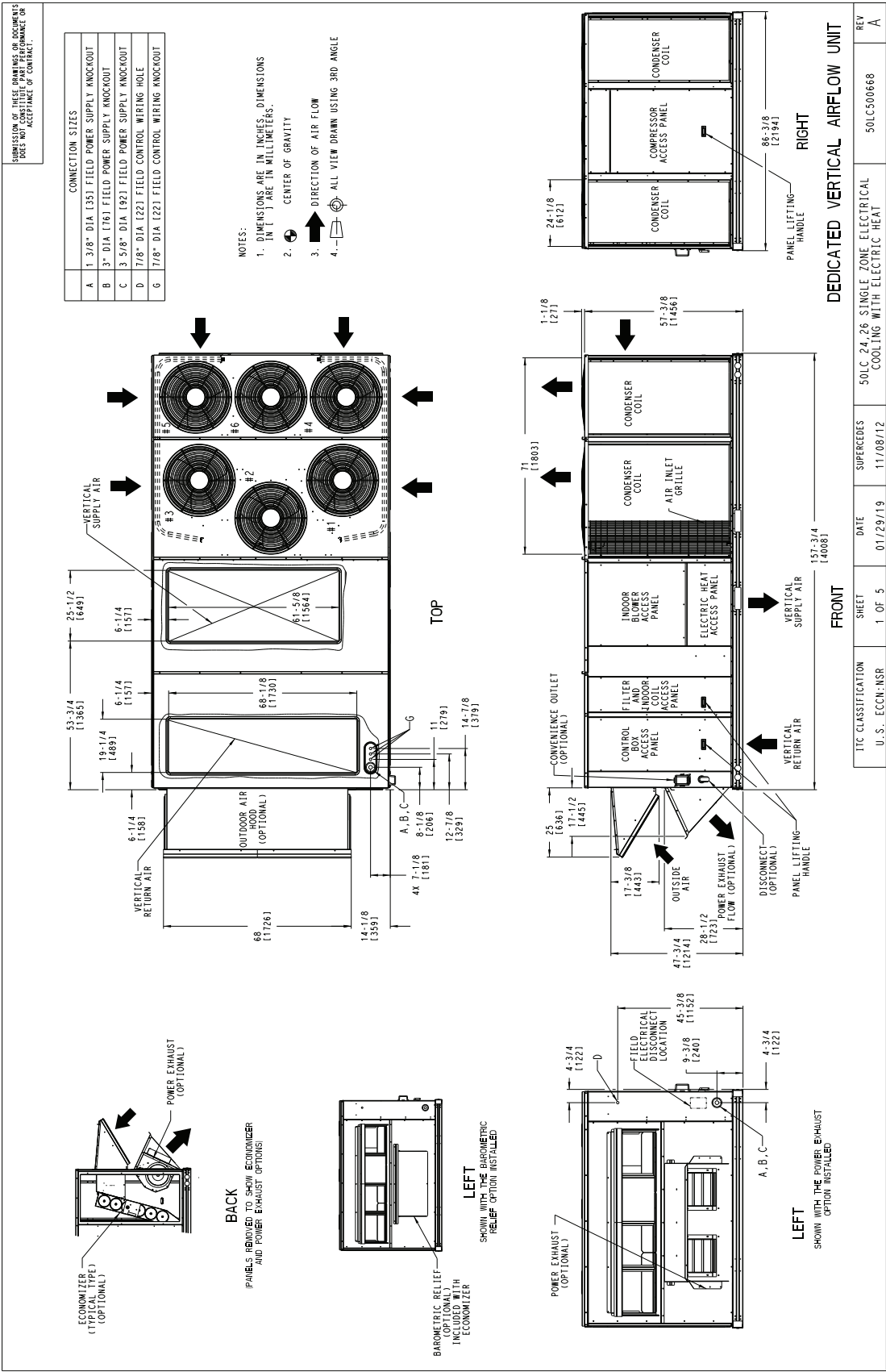
CLEARANCE			
SURFACE	SERVICE WITH: CONDUCTIVE BARRIER	SERVICE WITH: NONCONDUCTIVE BARRIER	OPERATING CLEARANCE
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK	42 [1067mm]	36 [914mm]	18 [457mm]
LEFT WITH HOOD	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]
SUPERCEDES	50LC 17,20 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT		
REV	DATE	SHEET	REV
11/07/12	01/28/19	4 OF 5	50LC500666 A



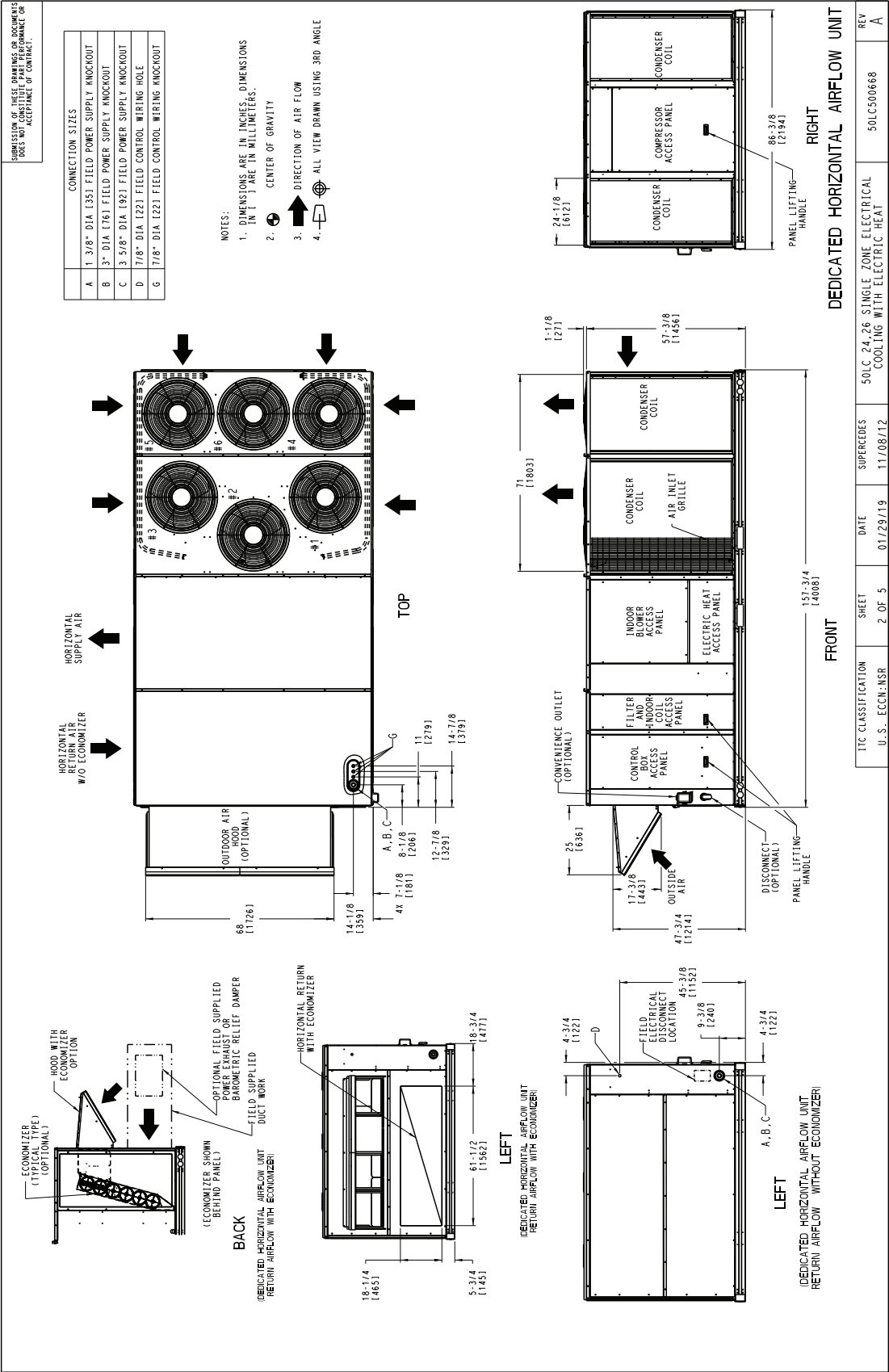
50LC 17-20 BOTTOM VIEW



50LC 24-26 VERTICAL AIRFLOW



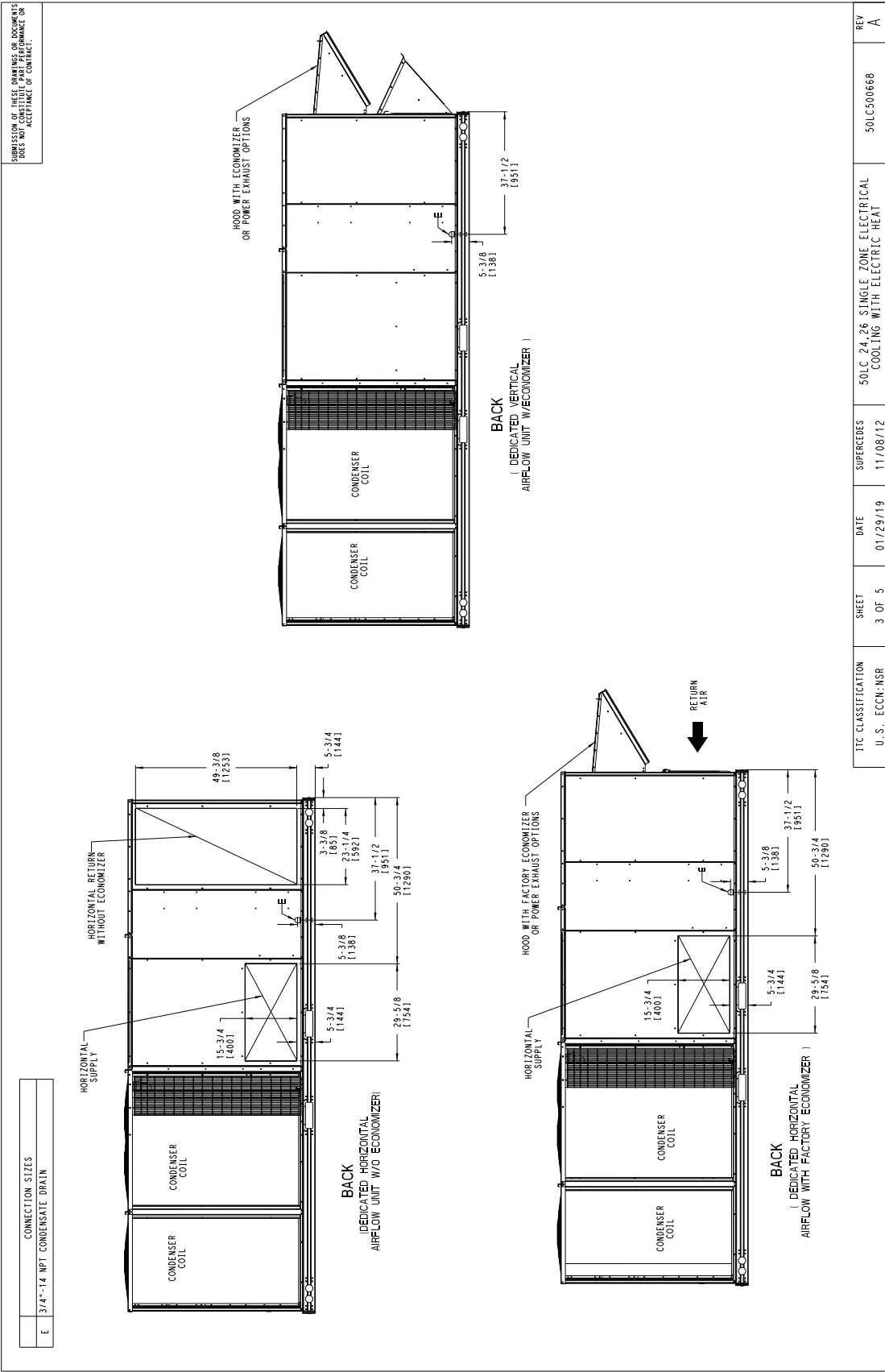
50LC 24-26 HORIZONTAL AIRFLOW



DEDICATED HORIZONTAL AIRFLOW UNIT				
TIC CLASSIFICATION	SHEET	DATE	SUPERCEDES	REV
U.S. ECCN: NSR	2 OF 5	01/29/19	11/08/12	A
50LC 24,26 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT				50LC500668

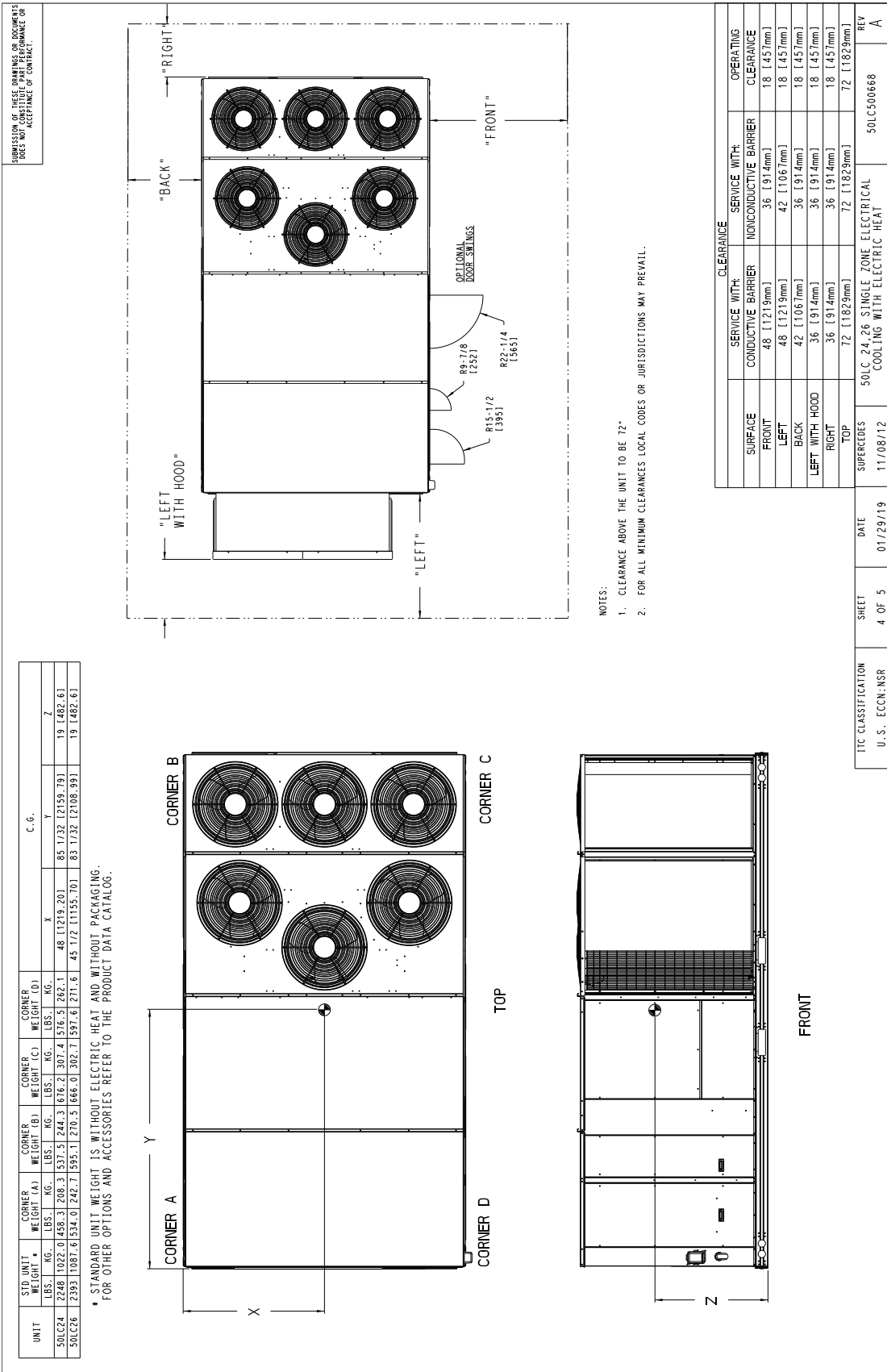


50LC 24-26 BACK VIEW AND CONDENSATE DRAIN LOCATION



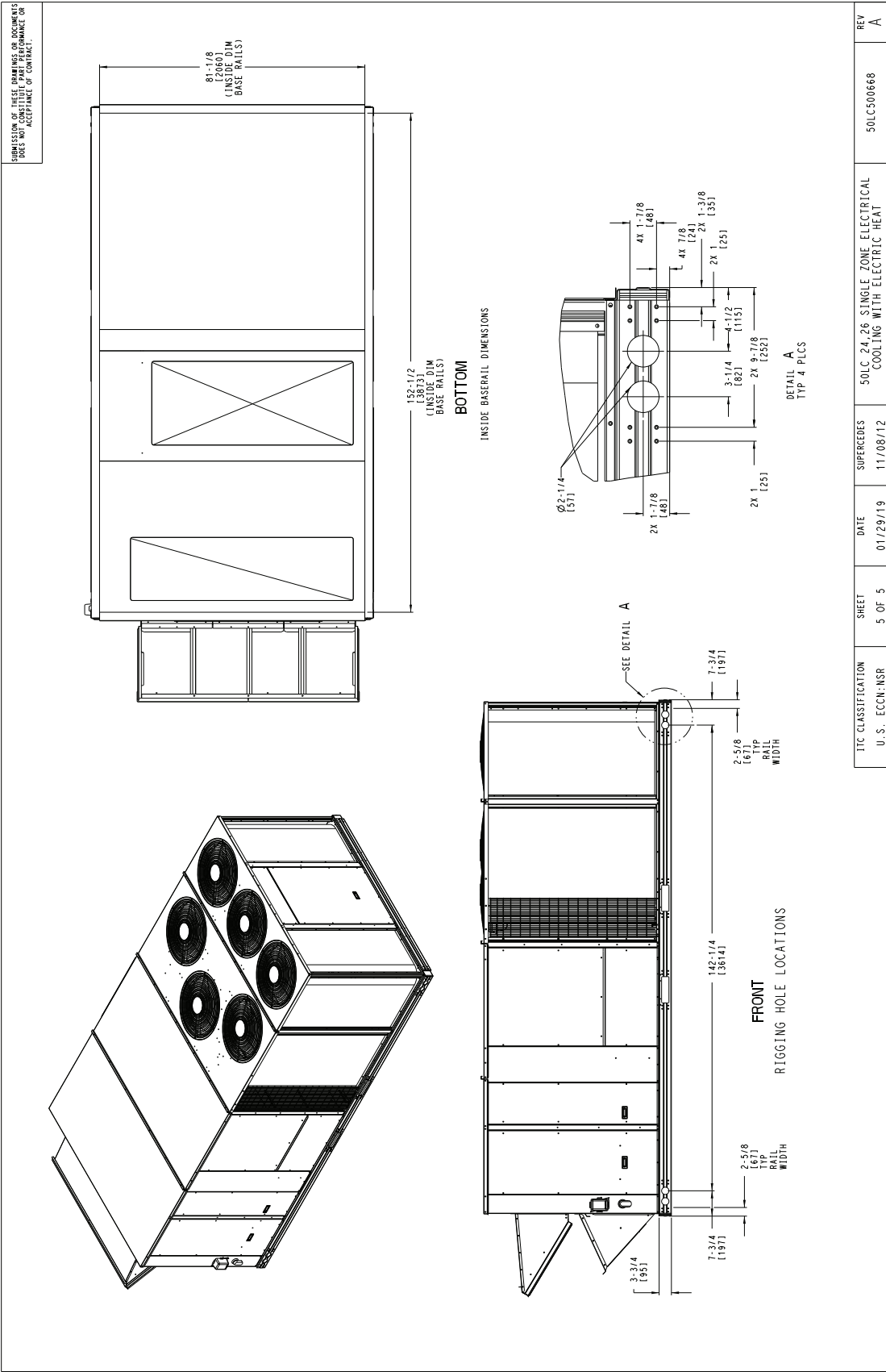


50LC 24-26 CORNER WEIGHTS AND CLEARANCES





50LC 24-26 BOTTOM VIEW

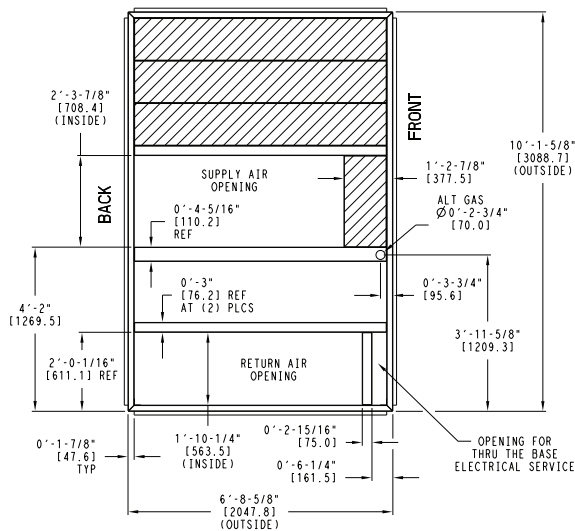


TIC CLASSIFICATION	SHEET	DATE	SUPERCEDES	REV
U.S. ECCN: NSR	5 OF 5	01/29/19	11/08/12	A

50LC 24-26 SINGLE ZONE ELECTRICAL COOLING WITH ELECTRIC HEAT	50LC500668	REV
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ROOF CURB DETAILS FOR 50LC 14

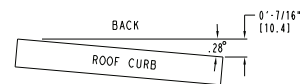
UNIT SIZE	"A"	ROOF CURB ACCESSORY
14	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB045A00 CRRFCURB046A00



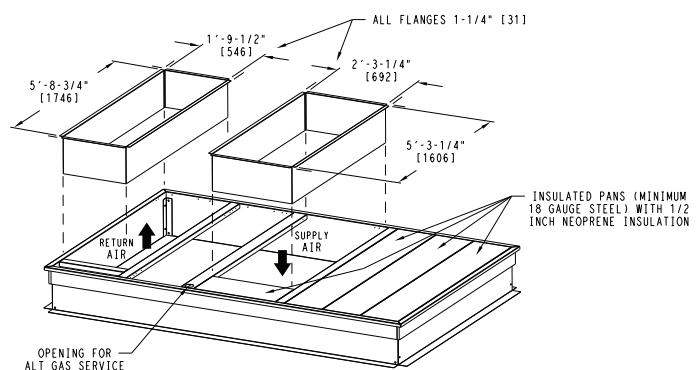
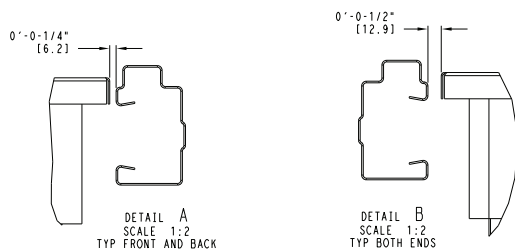
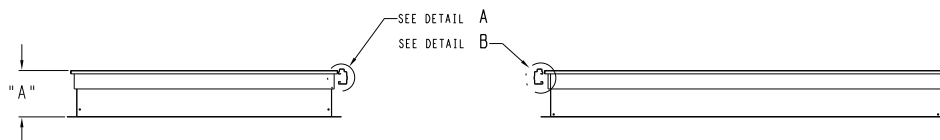
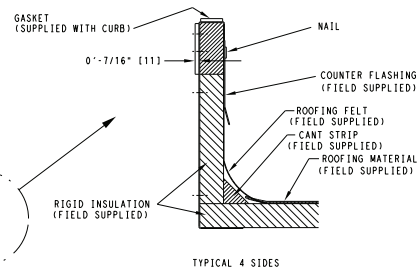
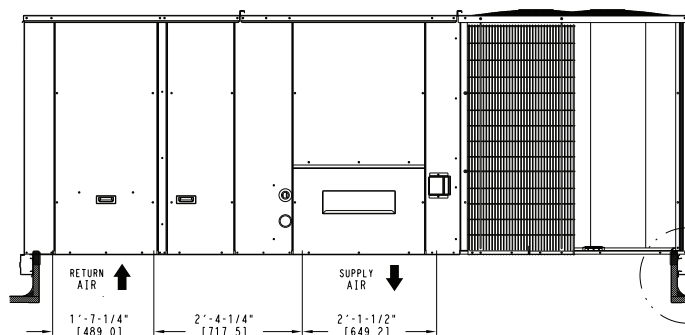
NOTES:

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

➔ DIRECTION OF AIR FLOW

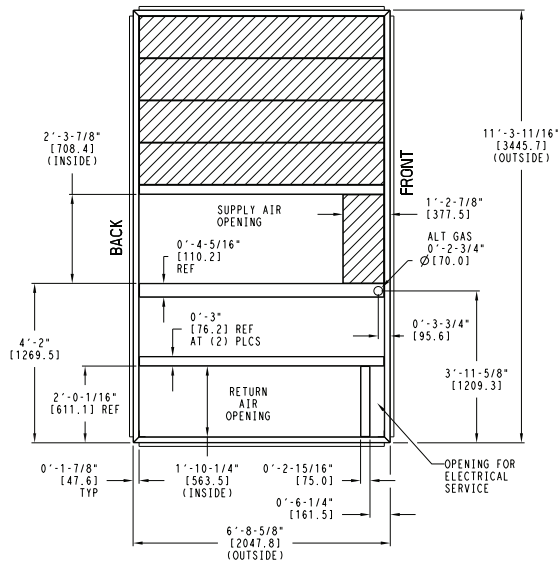


MAX CURB LEVELING TOLERANCES



ROOF CURB DETAILS FOR 50LC 17-20

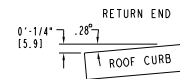
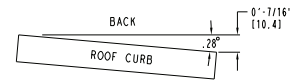
UNIT SIZE	"A"	ROOF CURB ACCESSORY
17, 20	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB047A00 CRRFCURB048A00



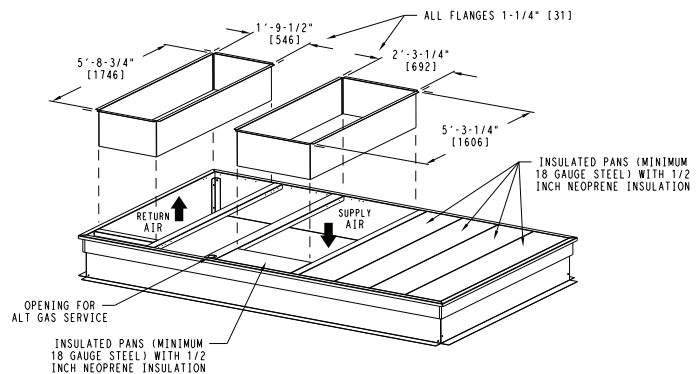
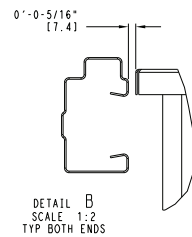
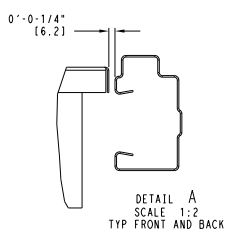
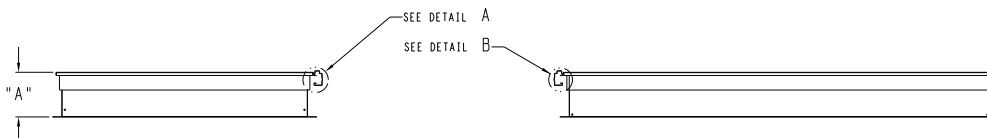
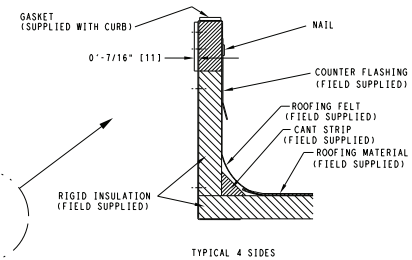
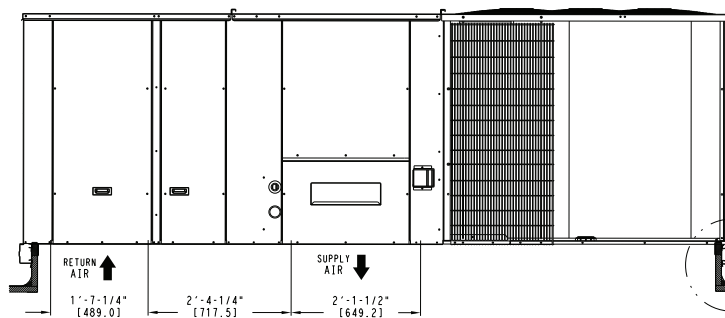
NOTES:

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

➔ DIRECTION OF AIR FLOW

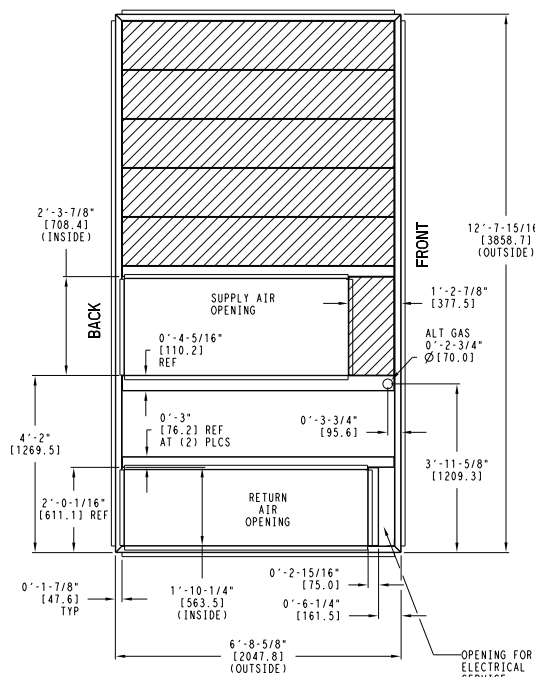


MAX CURB LEVELING TOLERANCES

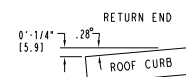
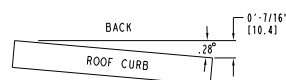


ROOF CURB DETAILS FOR 50LC 24-26

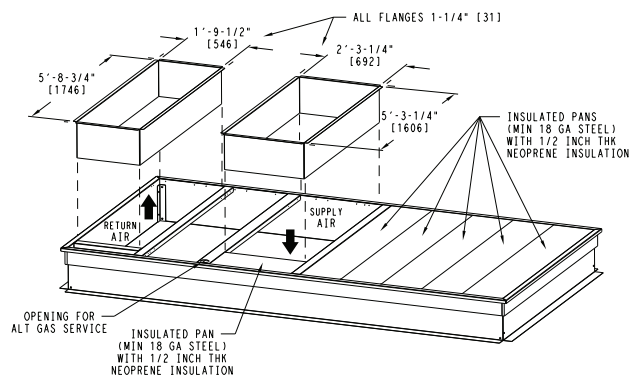
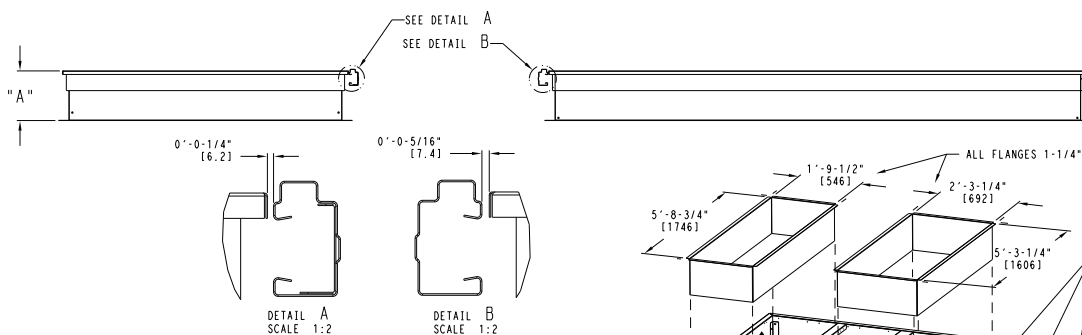
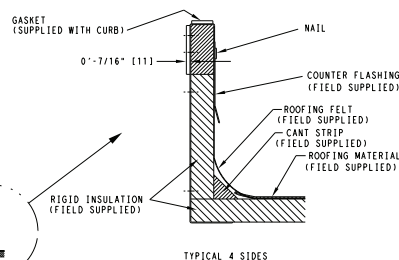
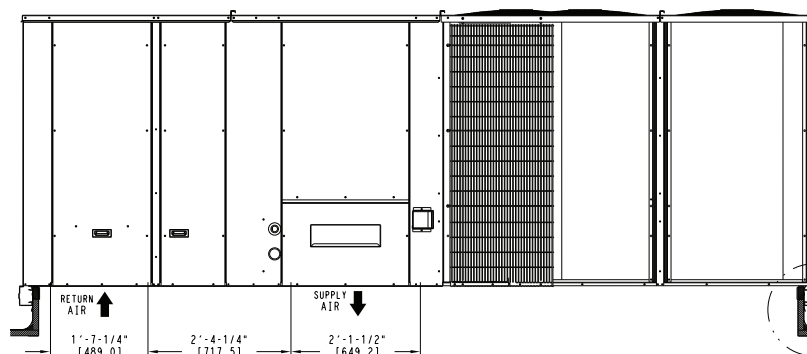
UNIT SIZE	"A"	ROOF CURB ACCESSORY
24, 26	1'-2" [356.0] 2'-0" [610.0]	CRRFCURB049A00 CRRFCURB050A00



- NOTES:
- 1 ROOF CURB ACCESSORY IS SHIPPED UNASSEMBLED.
 - 2 BOLT HEADS TO BE ON INSIDE OF FLANGE. CLEARANCE IS (TYP) 0'-0-7/16" TYP ALL CORNERS.
 - 3 DIMENSIONS IN () ARE IN MILLIMETERS.
 - 4 ROOF CURB GALVANIZED STEEL.
 - 5 ATTACH DUCTWORK TO CURB (FLANGES ON DUCT REST ON CURB)
 - 6 SERVICE CLEARANCE 4 FT ON EACH SIDE
 - 7 GAS SERVICE PLATE IS PART OF A SEPARATELY SHIPPED ACCESSORY PACKAGE.
 - 8 GAS SERVICE PLATE CAN BE USED WITH EITHER ACCESSORY ROOFCURB.
- ➔ DIRECTION OF AIR FLOW



MAX CURB LEVELING TOLERANCES



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

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. For proper minimum and maximum cfm values, see the table on page 11.

Min and max airflow (cooling mode)

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

Airflow

All units are draw-through in cooling 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 the Physical Data table on page 12 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 load, it doesn't need excess capacity. In fact, having 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.

50LC*A14 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-1 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		3750/0.03			5000/0.06			6250/0.10		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		72	67	62	72	67	62	72	67	62
75	TC	165	148	135	173	158	146	179	164	153
	SHC	72	90	111	83	109	135	93	125	153
	kW	8.2	7.9	7.7	8.3	8.1	7.9	8.4	8.2	8.0
85	TC	156	142	130	163	149	138	168	155	144
	SHC	64	85	106	73	100	128	83	117	141
	kW	9.1	8.9	8.6	9.2	9.0	8.8	9.3	9.1	8.9
95	TC	147	132	123	154	140	129	158	144	135
	SHC	56	75	100	65	92	120	74	107	135
	kW	10.1	9.8	9.7	10.3	10.0	9.8	10.3	10.1	9.9
105	TC	138	123	114	145	131	121	148	134	126
	SHC	47	67	92	57	84	112	65	98	126
	kW	11.3	11.0	10.8	11.4	11.1	10.9	11.5	11.2	11.0
115	TC	129	116	107	133	122	112	137	125	117
	SHC	39	61	85	46	76	104	55	89	113
	kW	12.6	12.3	12.1	12.6	12.4	12.2	12.7	12.5	12.3
125	TC	119	108	99	124	112	104	127	115	108
	SHC	31	54	78	39	67	97	46	80	108
	kW	14.0	13.7	13.5	14.1	13.8	13.6	14.1	13.8	13.7

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A14 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-2 (HOT GAS REHEAT MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		3750/0.03			5000/0.06			6250/0.08		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		62.5	64	65.3	62.5	64	65.3	62.5	64	65.3
75	TC	52	53	54	54	55	56	55	56	58
	SHC	10	1	−6	20	9	1	31	19	8
	kW	11.2	11.4	11.5	11.3	11.4	11.6	11.3	11.5	11.6
85	TC	54	56	57	57	58	59	58	59	61
	SHC	12	4	−4	22	12	3	33	21	11
	kW	10.7	10.9	11.0	10.8	10.9	11.1	10.8	11.0	11.1
95	TC	57	58	60	59	61	62	61	62	63
	SHC	14	6	−1	25	14	6	36	24	14
	kW	10.2	10.4	10.5	10.3	10.5	10.6	10.4	10.5	10.6
105	TC	62	63	65	64	66	68	66	68	69
	SHC	19	11	4	29	19	11	40	29	19
	kW	9.4	9.5	9.6	9.4	9.6	9.7	9.5	9.6	9.8
115	TC	67	68	70	70	71	73	71	73	75
	SHC	23	15	8	34	24	16	45	34	24
	kW	8.6	8.7	8.8	8.7	8.8	8.9	8.7	8.9	9.0
125	TC	72	74	76	75	77	79	77	79	81
	SHC	28	20	14	39	30	21	51	40	30
	kW	7.9	8.0	8.1	8.0	8.1	8.2	8.1	8.2	8.3

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A17 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-1 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		4500/0.05			6000/0.09			7500/0.12		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		72	67	62	72	67	62	72	67	62
75	TC	207	187	167	217	198	180	225	205	189
	SHC	95	116	137	107	137	164	120	155	189
	kW	10.1	9.9	9.6	10.1	10.0	9.8	10.2	10.0	9.9
85	TC	190	175	157	206	186	168	212	186	173
	SHC	79	106	128	98	126	154	109	138	173
	kW	11.0	10.9	10.7	11.3	11.0	10.8	11.3	10.9	10.8
95	TC	173	163	146	192	173	157	192	180	165
	SHC	64	95	117	85	114	143	90	132	165
	kW	12.1	12.1	11.9	12.5	12.2	12.0	12.3	12.3	12.1
105	TC	169	151	135	179	160	145	185	166	153
	SHC	61	84	107	73	102	132	84	120	153
	kW	13.7	13.4	13.2	13.8	13.6	13.4	13.9	13.6	13.5
115	TC	156	138	123	165	147	132	170	152	140
	SHC	49	72	96	60	90	120	71	107	140
	kW	15.2	14.9	14.7	15.3	15.1	14.8	15.4	15.1	15.0
125	TC	142	125	110	150	133	118	155	138	126
	SHC	37	60	85	47	78	108	57	94	126
	kW	16.9	16.6	16.3	17.0	16.7	16.5	17.1	16.8	16.6

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A17 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-2 (HOT GAS REHEAT MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		4500/0.05			6000/0.08			7500/0.11		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		62.5	64	65.3	62.5	64	65.3	62.5	64	65.3
75	TC	69	72	74	72	75	77	74	77	79
	SHC	16	8	0	28	17	8	41	28	17
	kW	12.6	12.8	12.9	12.7	12.9	13.0	12.8	12.9	13.0
85	TC	74	77	79	77	80	83	79	82	85
	SHC	21	12	5	33	22	13	46	33	22
	kW	12.1	12.2	12.3	12.2	12.3	12.4	12.3	12.4	12.5
95	TC	79	82	84	82	85	88	85	87	90
	SHC	26	17	10	38	27	18	51	38	27
	kW	11.6	11.7	11.8	11.7	11.8	11.9	11.7	11.9	12.0
105	TC	88	91	94	92	96	98	95	98	101
	SHC	35	27	19	48	37	28	61	48	37
	kW	10.6	10.7	10.9	10.7	10.8	11.0	10.8	10.9	11.0
115	TC	98	102	104	103	106	109	106	109	112
	SHC	45	37	30	58	48	39	71	59	48
	kW	9.8	9.9	10.1	9.9	10.1	10.2	10.0	10.1	10.2
125	TC	108	112	115	113	117	120	116	120	123
	SHC	55	47	41	69	59	50	83	71	60
	kW	9.1	9.3	9.4	9.3	9.4	9.5	9.3	9.5	9.6

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A20 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-1 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		5250/0.03			7000/0.06			8750/0.10		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		72	67	62	72	67	62	72	67	62
75	TC	234	210	189	246	223	202	254	231	215
	SHC	106	131	157	123	157	189	138	180	215
	kW	11.6	11.2	10.9	11.8	11.4	11.1	11.9	11.5	11.3
85	TC	219	196	176	230	208	189	238	215	200
	SHC	93	119	145	109	143	176	123	165	200
	kW	12.7	12.4	12.1	12.9	12.6	12.3	13.0	12.7	12.5
95	TC	204	182	163	214	193	175	221	199	184
	SHC	79	106	132	94	129	163	108	150	184
	kW	14.0	13.7	13.4	14.2	13.9	13.6	14.3	14.0	13.7
105	TC	188	167	149	197	177	160	204	183	170
	SHC	64	91	120	78	114	149	92	135	170
	kW	15.5	15.1	14.8	15.7	15.3	15.0	15.8	15.4	15.2
115	TC	172	152	135	180	161	145	186	166	154
	SHC	50	78	106	62	99	135	75	120	154
	kW	17.2	16.8	16.5	17.3	17.0	16.7	17.4	17.1	16.9
125	TC	155	137	120	163	144	129	168	148	138
	SHC	35	64	93	47	84	120	59	103	138
	kW	19.0	18.6	18.3	19.2	18.8	18.5	19.3	18.9	18.7

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A20 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-2 (HOT GAS REHEAT MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		5250/0.03			7000/0.05			8750/0.08		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		62.5	64	65.3	62.5	64	65.3	62.5	64	65.3
75	TC	77	80	82	80	83	85	81	84	87
	SHC	18	8	−1	33	20	9	49	34	20
	kW	11.8	12.0	12.2	12.0	12.1	12.3	12.1	12.2	12.4
85	TC	82	86	88	86	89	91	88	91	93
	SHC	24	14	5	39	26	15	55	40	26
	kW	11.3	11.5	11.6	11.5	11.6	11.8	11.6	11.7	11.9
95	TC	88	91	94	92	95	98	94	97	100
	SHC	29	19	10	45	32	21	61	46	32
	kW	10.8	11.0	11.1	11.0	11.1	11.3	11.1	11.2	11.4
105	TC	99	103	106	103	107	110	106	109	112
	SHC	40	30	22	56	43	33	72	58	45
	kW	10.0	10.1	10.2	10.1	10.3	10.4	10.2	10.4	10.5
115	TC	111	114	118	115	119	122	118	122	125
	SHC	51	42	33	68	55	45	84	70	57
	kW	9.2	9.3	9.5	9.3	9.5	9.6	9.5	9.6	9.7
125	TC	122	126	129	127	131	134	130	134	137
	SHC	63	53	45	80	68	57	97	83	70
	kW	8.5	8.7	8.8	8.7	8.8	9.0	8.8	9.0	9.1

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A24 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-1 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		6000/0.05			8000/0.08			10000/0.12		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		72	67	62	72	67	62	72	67	62
75	TC	274	246	221	292	263	238	281	273	250
	SHC	120	148	176	140	176	213	136	202	244
	kW	13.5	13.2	12.9	13.7	13.4	13.1	13.4	13.5	13.3
85	TC	261	233	208	277	249	225	287	258	237
	SHC	107	136	164	126	163	201	142	188	231
	kW	14.9	14.6	14.3	15.1	14.8	14.5	15.3	14.9	14.7
95	TC	245	219	196	261	232	211	270	243	222
	SHC	93	123	153	111	148	188	127	174	217
	kW	16.5	16.2	15.8	16.8	16.3	16.1	16.9	16.5	16.2
105	TC	230	205	182	244	218	196	253	226	209
	SHC	80	110	141	96	135	175	111	159	197
	kW	18.4	18.0	17.7	18.6	18.2	17.9	18.7	18.3	18.1
115	TC	213	189	168	226	201	181	234	209	191
	SHC	65	97	128	80	121	161	95	143	187
	kW	20.4	20.1	19.7	20.6	20.2	19.9	20.8	20.4	20.1
125	TC	196	173	153	207	183	164	214	190	173
	SHC	50	83	115	64	105	146	77	127	173
	kW	22.7	22.4	22.0	22.9	22.5	22.2	23.0	22.6	22.4

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A24 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-2 (HOT GAS REHEAT MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		6000/0.05			8000/0.08			10000/0.11		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		62.5	64	65.3	62.5	64	65.3	62.5	64	65.3
75	TC	89	93	96	92	96	99	94	98	101
	SHC	17	5	−5	32	17	5	48	31	16
	kW	19.6	19.9	20.2	19.9	20.2	20.4	20.0	20.3	20.6
85	TC	96	100	103	100	103	107	102	105	109
	SHC	24	12	2	39	24	12	55	38	23
	kW	18.7	19.0	19.3	19.0	19.3	19.5	19.2	19.5	19.7
95	TC	103	107	110	107	111	114	109	113	116
	SHC	30	18	8	46	31	19	62	45	30
	kW	17.9	18.2	18.4	18.2	18.5	18.7	18.4	18.6	18.9
105	TC	117	121	124	121	125	129	124	128	132
	SHC	43	32	22	59	45	33	76	59	45
	kW	16.4	16.7	16.9	16.7	16.9	17.2	16.9	17.1	17.4
115	TC	131	135	139	136	140	144	139	143	147
	SHC	56	45	35	73	59	47	91	74	59
	kW	15.1	15.3	15.6	15.4	15.6	15.9	15.6	15.8	16.0
125	TC	145	149	153	150	155	159	154	158	162
	SHC	70	59	49	87	74	62	105	89	75
	kW	14.0	14.2	14.4	14.3	14.5	14.7	14.4	14.7	14.9

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A26 REHEAT MODE #1 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-1 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		6750/0.06			9000/0.10			11250/0.13		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		72	67	62	72	67	62	72	67	62
75	TC	291	288	259	337	303	274	344	310	284
	SHC	116	171	203	157	198	239	170	220	270
	kW	30.0	20.3	19.8	22.7	22.1	21.4	24.7	24.0	23.2
85	TC	301	270	242	316	284	257	323	290	265
	SHC	123	155	187	139	180	223	151	201	252
	kW	22.6	22.0	21.5	24.4	23.8	23.2	26.4	25.8	24.9
95	TC	282	252	225	294	264	238	301	270	246
	SHC	105	138	171	119	162	206	131	183	234
	kW	24.6	24.0	23.4	26.3	25.7	25.1	28.4	27.7	26.8
105	TC	261	233	208	273	244	219	278	248	226
	SHC	86	121	155	100	144	188	110	163	215
	kW	26.8	26.2	25.6	28.6	27.9	27.3	30.6	29.9	29.0
115	TC	240	213	189	250	223	200	254	226	206
	SHC	68	103	138	79	124	170	89	143	196
	kW	29.2	28.6	28.1	31.0	30.4	29.7	33.0	32.3	31.4
125	TC	218	192	170	227	200	179	229	203	184
	SHC	48	84	121	59	105	151	67	122	176
	kW	32.0	31.4	30.8	33.8	33.1	32.4	35.7	35.0	34.1

LEGEND

kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

50LC*A26 REHEAT MODE #2 CAPACITIES (MBTUH), STANDARD UNITS

REHEAT-2 (SUBCOOLER MODE)		AIR ENTERING EVAPORATOR — SCFM/BF (80°F db)								
		6750/0.06			9000/0.09			11250/0.12		
		AIR ENTERING EVAPORATOR — Ewb (°F)								
TEMP (°F)		62.5	64	65.3	62.5	64	65.3	62.5	64	65.3
75	TC	119	124	128	125	130	133	129	133	137
	SHC	31	18	7	49	33	19	67	48	31
	kW	22.3	22.7	23.0	22.8	23.1	23.4	23.0	23.4	23.6
85	TC	127	132	136	133	138	142	137	141	145
	SHC	38	26	15	56	40	26	75	56	39
	kW	21.3	21.7	21.9	21.8	22.1	22.4	22.1	22.3	22.6
95	TC	134	139	143	141	146	150	145	150	154
	SHC	45	33	22	64	48	34	82	63	47
	kW	20.4	20.7	21.0	20.8	21.1	21.4	21.1	21.4	21.7
105	TC	149	154	159	157	162	166	161	166	170
	SHC	60	47	36	78	63	49	98	79	63
	kW	18.6	18.9	19.2	19.1	19.4	19.6	19.4	19.7	19.9
115	TC	164	169	174	172	178	182	177	182	187
	SHC	74	62	51	94	78	65	113	95	79
	kW	17.1	17.4	17.6	17.5	17.8	18.1	17.8	18.1	18.4
125	TC	179	185	190	188	194	199	193	199	204
	SHC	89	77	67	109	94	81	129	111	96
	kW	15.7	16.0	16.3	16.2	16.5	16.7	16.5	16.7	17.0

LEGEND

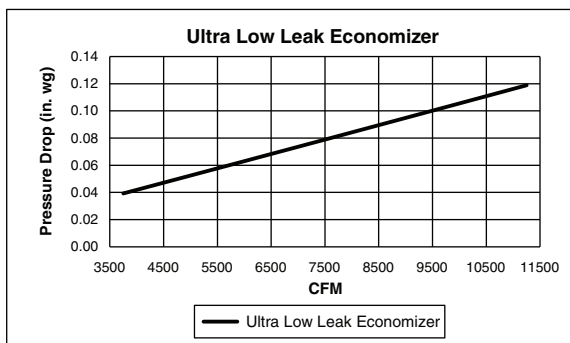
kW — Compressor power input
SHC — Sensible heat capacity (1000 Btuh) Gross
TC — Total capacity (1000 Btuh) Gross

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

ULTRA LOW LEAK ECONOMIZERS

12.5 to 23 tons

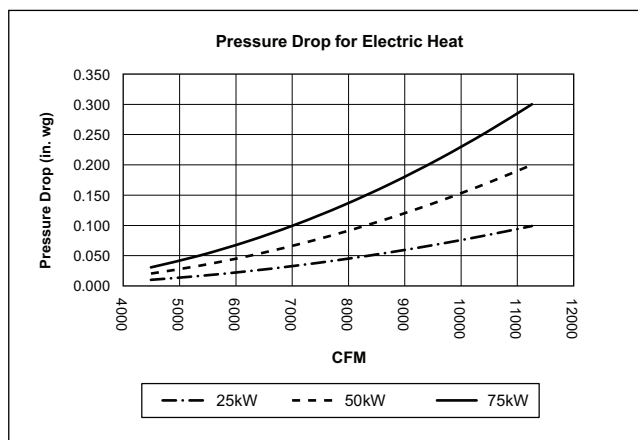
CFM	3750	4250	4750	5250	5750	6250	6750	7250
Pressure Drop (in. wg)	0.04	0.04	0.05	0.06	0.06	0.07	0.07	0.08
CFM	7750	8250	8750	9250	9750	10250	10750	11250
Pressure Drop (in. wg)	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.12



ELECTRIC HEATERS

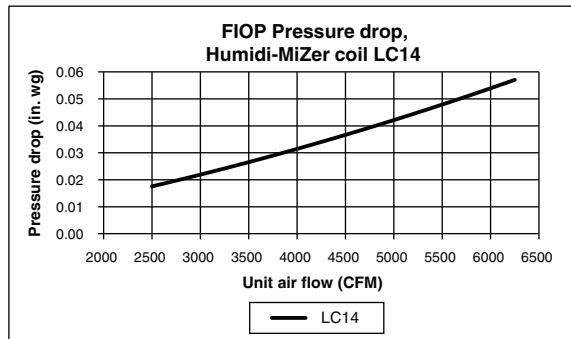
12.5 TO 23 TONS

CFM	3750	4250	4750	5250	5750	6250	6750	7250	7750	8250	8750	9250	9750	10250	10750	11250
25kW	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.08
50kW	0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.12	0.14	0.15	0.17
75kW	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.18	0.21	0.23	0.25



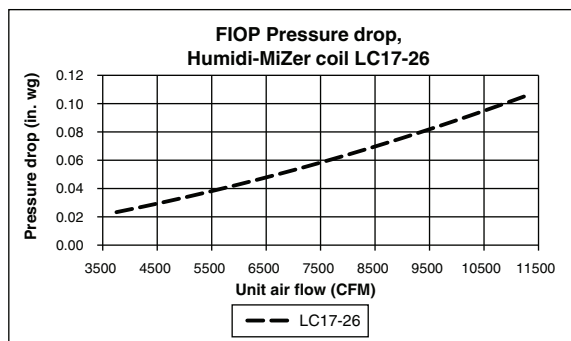
HUMIDI-MIZER COIL (12.5 TONS)

12.5 tons								
CFM	2500	2750	3000	3250	3500	3750	4000	4250
Pressure Drop (in. wg)	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
CFM	4500	4750	5000	5250	5500	5750	6000	6250
Pressure Drop (in. wg)	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06

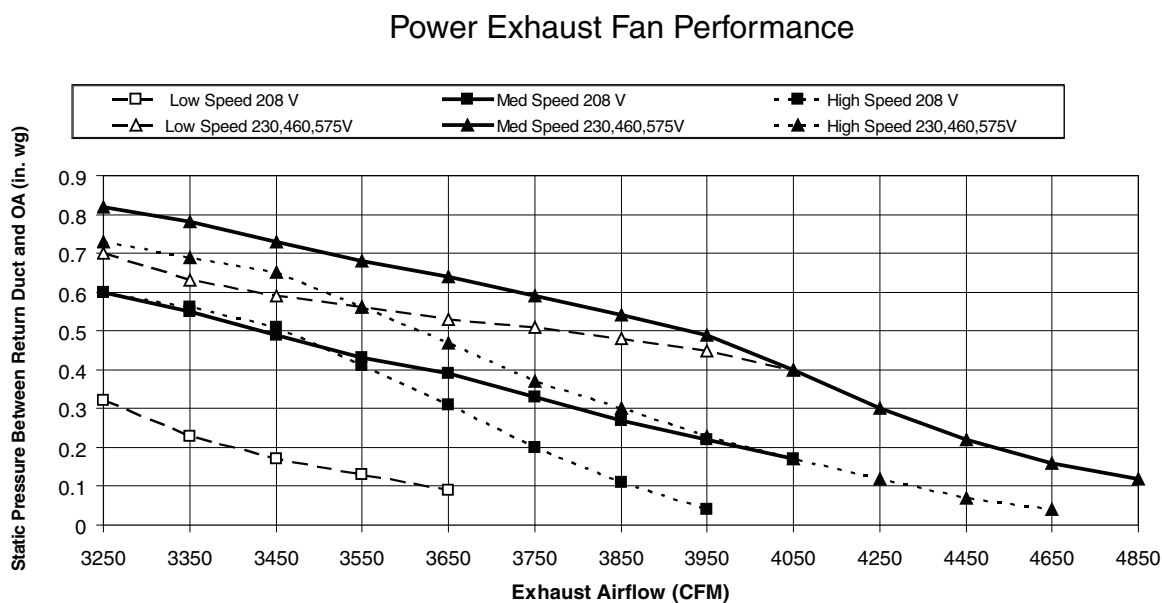
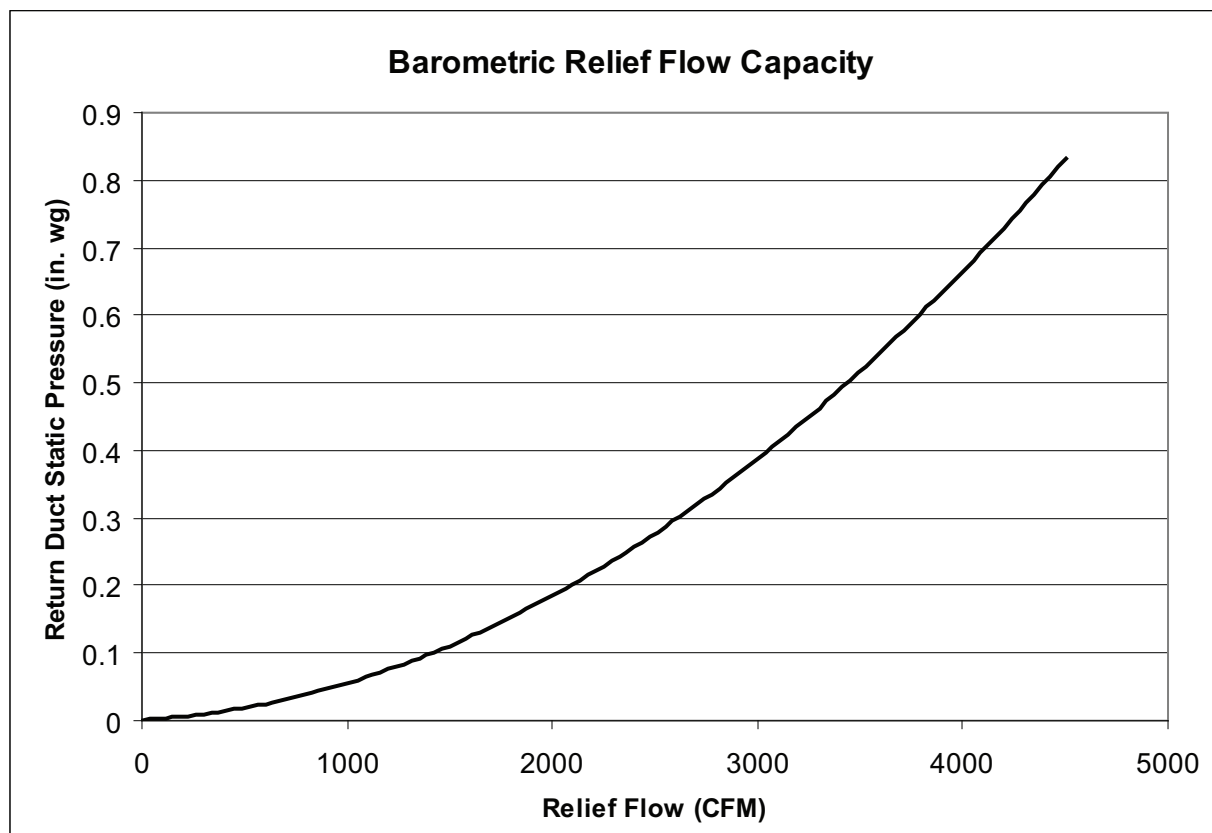


HUMIDI-MIZER COIL (15 TO 23 TONS)

15 TO 23 tons								
CFM	3750	4250	4750	5250	5750	6250	6750	7250
Pressure Drop (in. wg)	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06
CFM	7750	8250	8750	9250	9750	10250	10750	11250
Pressure Drop (in. wg)	0.06	0.07	0.07	0.08	0.09	0.09	0.10	0.11



ECONOMIZER, BAROMETRIC RELIEF, AND POWER EXHAUST PERFORMANCE



General Fan Performance Notes

1. Interpolation is permissible. Do not extrapolate.
2. External static pressure is the static pressure difference between the return duct and the supply duct plus the static pressure caused by any FIOPs or accessories.
3. Tabular data accounts for pressure loss due to clean filters, unit casing, and wet coils. Factory options and accessories may add static pressure losses. Selection software is available, through your salesperson, to help you select the best motor/drive combination for your application.
4. The Fan Performance tables offer motor/drive recommendations. In cases when 2 motor/drive combinations would work, Carrier 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 (3-digit, 143 and larger), single-speed, foot mounted, polyphase, squirrel cage induction motors of NEMA (National Electrical Manufacturers Association) design A and B, manufactured for use in the United States. Ranging from 1 to 200 Hp, these continuous-duty motors operate on 230 and 460 volt, 60 Hz power. If a motor does not fit into these specifications, the motor does not have to be replaced by an EPACT compliant energy-efficient motor. Variable-speed motors are exempt from EPACT compliance requirements.

50LC**14 — 12.5 TON VERTICAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3750	413	0.41	514	0.61	600	0.82	673	1.03	738	1.25
4063	429	0.49	526	0.70	610	0.93	684	1.15	749	1.39
4375	447	0.57	539	0.80	621	1.04	694	1.28	759	1.53
4688	466	0.67	553	0.91	633	1.16	705	1.42	769	1.69
5000	485	0.78	568	1.03	645	1.30	716	1.57	779	1.85
5313	505	0.90	584	1.16	659	1.44	727	1.74	790	2.03
5625	525	1.04	600	1.31	672	1.61	739	1.91	801	2.22
5938	546	1.20	618	1.48	687	1.78	752	2.10	813	2.42
6250	568	1.37	636	1.66	702	1.97	765	2.30	825	2.64

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3750	797	1.46	851	1.68	901	1.90	948	2.12	992	2.34
4063	807	1.62	861	1.85	912	2.09	958	2.32	1003	2.56
4375	818	1.78	872	2.03	922	2.28	969	2.53	1013	2.79
4688	828	1.95	882	2.22	932	2.49	979	2.76	1024	3.03
5000	838	2.14	892	2.42	942	2.70	990	2.99	1034	3.28
5313	848	2.33	902	2.63	952	2.93	1000	3.23	1045	3.54
5625	859	2.54	912	2.85	963	3.17	1010	3.49	1055	3.81
5938	870	2.75	923	3.09	973	3.42	1020	3.76	1065	4.10
6250	881	2.99	934	3.34	983	3.69	1030	4.04	1075	4.39

Standard Static (498-676 rpm) 2.9 Max bhp

Medium Static (682-861 rpm) 4.9 Max bhp

High Static (782-963 rpm) 7.4 Max bhp

Ultra High Static (933-1113 rpm) 9.9 Max bhp

Indicates field-supplied drive is required (Standard motor, motor pulley P/N KR11HY163, blower pulley P/N KR51BM415, belt P/N KR29AF049) for the 368-509 rpm range

Boldface

50LC**14 — 12.5 TON HORIZONTAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3750	426	0.62	513	1.01	584	1.43	645	1.88	700	2.36
4063	445	0.72	530	1.13	600	1.58	661	2.05	715	2.55
4375	465	0.83	547	1.27	617	1.74	677	2.24	731	2.75
4688	485	0.95	565	1.41	633	1.91	693	2.43	747	2.97
5000	506	1.09	584	1.58	650	2.09	709	2.64	762	3.21
5313	527	1.25	602	1.75	668	2.29	726	2.86	779	3.45
5625	549	1.42	622	1.95	686	2.51	743	3.10	795	3.72
5938	571	1.61	641	2.16	704	2.74	760	3.36	812	4.00
6250	593	1.82	661	2.39	722	3.00	778	3.64	829	4.30

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
3750	749	2.85	794	3.36	836	3.88	875	4.42	913	4.98
4063	764	3.06	809	3.60	851	4.15	891	4.71	928	5.29
4375	780	3.29	825	3.85	867	4.42	906	5.01	944	5.62
4688	795	3.54	840	4.12	882	4.71	922	5.33	959	5.95
5000	811	3.79	856	4.40	898	5.02	937	5.65	974	6.31
5313	827	4.06	871	4.69	913	5.34	953	6.00	990	6.67
5625	843	4.35	887	5.00	929	5.67	968	6.36	1005	7.06
5938	859	4.66	903	5.33	945	6.03	984	6.73	1021	7.46
6250	876	4.98	919	5.68	961	6.40	1000	7.13	1037	7.87

	Standard Static (498-676 rpm) 2.9 Max bhp
	Medium Static (682-861 rpm) 4.9 Max bhp
	High Static (782-963 rpm) 7.4 Max bhp
	Ultra High Static (933-1113 rpm) 9.9 Max bhp
Boldface	Indicates field-supplied drive is required (Standard motor, motor pulley P/N KR11HY163, blower pulley P/N KR51BM415, belt P/N KR29AF049) for the 368-509 rpm range

50LC**17 — 15 TON VERTICAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
4500	420	0.55	535	0.88	620	1.19	689	1.48	751	1.79
4875	439	0.65	547	0.99	634	1.34	703	1.66	764	1.99
5250	460	0.77	557	1.11	647	1.50	717	1.86	778	2.20
5625	483	0.91	568	1.24	659	1.67	731	2.06	793	2.44
6000	508	1.08	580	1.38	670	1.84	745	2.27	807	2.68
6375	534	1.26	595	1.55	681	2.01	757	2.49	821	2.94
6750	560	1.47	613	1.74	691	2.20	769	2.72	834	3.21
7125	587	1.71	633	1.97	702	2.40	779	2.95	847	3.48
7500	615	1.97	655	2.22	716	2.63	790	3.19	858	3.76

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
4500	809	2.10	864	2.43	917	2.78	968	3.14	1018	3.53
4875	821	2.32	874	2.66	925	3.01	975	3.38	1023	3.77
5250	834	2.55	886	2.91	936	3.28	983	3.66	1030	4.05
5625	848	2.81	899	3.18	948	3.56	994	3.96	1039	4.36
6000	862	3.08	913	3.47	961	3.87	1006	4.28	1050	4.70
6375	877	3.37	927	3.79	975	4.21	1019	4.63	1062	5.07
6750	891	3.67	942	4.12	989	4.56	1033	5.01	1076	5.46
7125	904	3.98	956	4.46	1003	4.94	1047	5.41	1090	5.88
7500	917	4.31	970	4.83	1017	5.33	1062	5.83	1104	6.32

	Standard Static (498-676 rpm) 2.9 Max bhp
	Medium Static (651-818 rpm) 7.4 Max bhp
	High Static (804-970 rpm) 9.9 Max bhp
	Ultra High Static (948-1190 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard motor P/N HD58FE654, motor pulley P/N KR11HY216, blower pulley P/N KR51BN615, belt P/N KR29BF052) in the range of 403-529 rpm

50LC**17 — 15 TON HORIZONTAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
4500	466	1.00	546	1.48	615	2.01	677	2.59	732	3.21
4875	491	1.19	567	1.69	634	2.25	695	2.86	749	3.50
5250	517	1.40	589	1.93	654	2.51	713	3.14	767	3.81
5625	543	1.65	612	2.20	674	2.80	732	3.46	785	4.15
6000	570	1.93	635	2.50	696	3.13	752	3.81	804	4.53
6375	598	2.24	660	2.83	718	3.49	772	4.19	823	4.93
6750	626	2.59	685	3.20	740	3.88	793	4.60	843	5.37
7125	654	2.98	710	3.62	764	4.31	815	5.06	863	5.85
7500	683	3.41	736	4.07	788	4.78	837	5.55	884	6.37

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
4500	783	3.85	829	4.52	873	5.22	914	5.94	953	6.68
4875	799	4.17	846	4.87	889	5.59	930	6.34	969	7.11
5250	817	4.51	863	5.24	906	5.99	947	6.77	986	7.56
5625	834	4.88	880	5.63	923	6.42	964	7.22	1002	8.05
6000	852	5.28	897	6.06	940	6.87	980	7.70	1019	8.55
6375	870	5.71	915	6.52	957	7.35	998	8.21	1036	9.09
6750	889	6.17	933	7.01	975	7.87	1015	8.75	1053	9.66
7125	909	6.67	952	7.53	993	8.42	1033	9.33	1070	10.27
7500	929	7.22	971	8.10	1012	9.01	1051	9.95	1088	10.91

	Standard Static (498-676 rpm) 2.9 Max bhp
	Medium Static (651-818 rpm) 7.4 Max bhp
	High Static (804-970 rpm) 9.9 Max bhp
	Ultra High Static (948-1190 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard motor P/N HD58FE654, motor pulley P/N KR11HY216, blower pulley P/N KR51BN615, belt P/N KR29BF052) in the range of 403-529 rpm

50LC**20 — 17.5 TON VERTICAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5250	460	0.77	557	1.11	647	1.50	717	1.86	778	2.20
5688	487	0.94	569	1.26	661	1.69	734	2.09	795	2.47
6125	517	1.14	584	1.43	674	1.89	749	2.34	812	2.76
6563	547	1.37	603	1.64	686	2.11	763	2.60	828	3.07
7000	578	1.63	626	1.89	698	2.33	776	2.87	842	3.39
7438	610	1.93	651	2.18	713	2.59	788	3.15	856	3.72
7875	642	2.26	678	2.51	731	2.89	800	3.44	869	4.05
8313	675	2.64	707	2.88	752	3.24	814	3.77	881	4.40
8750	707	3.06	737	3.30	776	3.64	830	4.13	893	4.77

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5250	834	2.55	886	2.91	936	3.27	983	3.66	1030	4.05
5688	850	2.85	901	3.23	950	3.61	996	4.01	1041	4.41
6125	867	3.17	918	3.58	965	3.98	1011	4.40	1054	4.82
6563	884	3.52	934	3.95	982	4.38	1026	4.82	1069	5.26
7000	900	3.88	951	4.35	998	4.81	1043	5.27	1085	5.74
7438	915	4.25	967	4.76	1015	5.26	1059	5.75	1101	6.25
7875	929	4.64	983	5.20	1031	5.74	1076	6.26	1118	6.78
8313	943	5.03	998	5.64	1047	6.23	1092	6.79	1135	7.35
8750	955	5.44	1011	6.10	1062	6.73	1108	7.34	1151	7.94

	Standard Static (555-753 rpm) 2.9 Max bhp
	Medium Static (707-888 rpm) 7.4 Max bhp
	High Static (872-1053 rpm) 9.9 Max bhp
	Ultra High Static (948-1190 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard Motor P/N HD60FE656, motor pulley P/N KR11HY216, blower pulley P/N KR51BM415, belt P/N KR29BF050) in the range of 435-570 rpm

50LC**20 — 17.5 TON HORIZONTAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5250	517	1.40	589	1.93	654	2.51	713	3.14	767	3.81
5688	548	1.70	615	2.24	678	2.86	735	3.52	788	4.21
6125	580	2.03	643	2.61	703	3.24	758	3.93	810	4.66
6563	612	2.41	672	3.01	729	3.68	783	4.39	833	5.15
7000	645	2.85	702	3.47	756	4.16	807	4.90	856	5.68
7438	678	3.34	732	3.99	784	4.70	833	5.47	881	6.28
7875	712	3.88	763	4.56	812	5.30	860	6.09	906	6.93
8313	746	4.49	794	5.19	841	5.96	887	6.78	931	7.64
8750	780	5.16	826	5.89	871	6.68	915	7.53	958	8.41

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
5250	817	4.51	863	5.24	906	5.99	947	6.77	986	7.56
5688	837	4.94	883	5.70	926	6.49	966	7.30	1005	8.13
6125	858	5.42	903	6.21	946	7.02	986	7.87	1024	8.73
6563	880	5.94	924	6.76	966	7.60	1006	8.48	1044	9.37
7000	902	6.50	946	7.35	987	8.23	1027	9.14	1064	10.06
7438	925	7.12	968	8.00	1009	8.91	1048	9.84	1085	10.80
7875	949	7.80	991	8.71	1031	9.64	1069	10.61	—	—
8313	974	8.54	1015	9.47	1054	10.44	1092	11.43	—	—
8750	999	9.34	1039	10.30	1077	11.29	—	—	—	—

 Standard Static (555-753 rpm) 2.9 Max bhp
 Medium Static (651-818 rpm) 7.4 Max bhp
 High Static (804-970 rpm) 9.9 Max bhp
 Ultra High Static (948-1190 rpm) 13.6 Max bhp
Boldface Indicates field-supplied drive is required (Standard Motor (HD60FE656), motor pulley KR11HY216, blower pulley KR51BM415, belt KR29BF050) in the range of 435-570 rpm

50LC**24 — 20 TON VERTICAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,000	508	1.08	580	1.38	670	1.84	745	2.27	807	2.68
6,500	543	1.33	600	1.61	684	2.07	761	2.57	825	3.03
7,000	578	1.63	626	1.89	698	2.33	776	2.87	842	3.39
7,500	615	1.97	655	2.22	716	2.63	790	3.19	858	3.76
8,000	651	2.37	686	2.61	737	2.99	804	3.53	872	4.15
8,500	689	2.81	720	3.05	762	3.41	820	3.92	886	4.55
9,000	726	3.32	754	3.56	791	3.89	840	4.37	900	4.99
9,500	764	3.87	789	4.12	822	4.44	864	4.88	917	5.47
10,000	802	4.50	825	4.74	854	5.05	891	5.47	937	6.03

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,000	862	3.08	913	3.47	961	3.87	1006	4.28	1050	4.70
6,500	881	3.47	932	3.90	979	4.33	1024	4.76	1067	5.19
7,000	900	3.88	951	4.35	998	4.81	1043	5.27	1085	5.74
7,500	917	4.31	970	4.83	1017	5.33	1062	5.83	1104	6.32
8,000	933	4.75	987	5.32	1036	5.88	1081	6.41	1123	6.94
8,500	948	5.21	1004	5.84	1054	6.44	1099	7.03	1142	7.60
9,000	962	5.68	1019	6.37	1070	7.03	1117	7.67	1160	8.29
9,500	976	6.18	1033	6.91	1086	7.63	1134	8.33	1178	9.00
10,000	991	6.71	1047	7.48	1100	8.25	1149	9.00	1195	9.73

	Standard Static (583-717 rpm) 7.4 Max bhp
	Medium Static (707-888 rpm) 7.4 Max bhp
	High Static (872-1053 rpm) 9.9 Max bhp
	Ultra High Static (1049-1291 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard Motor P/N HD60FK657, motor pulley P/N KR11HY229, blower pulley P/N KR51BQ415, belt P/N KR29BF056) in the range of 493-605 rpm

50LC**24 — 20 TON HORIZONTAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,000	570	1.93	635	2.50	696	3.13	752	3.81	804	4.53
6,500	607	2.36	668	2.95	725	3.61	779	4.32	829	5.07
7,000	645	2.85	702	3.47	756	4.16	807	4.90	856	5.68
7,500	683	3.41	736	4.07	788	4.78	837	5.55	884	6.37
8,000	721	4.05	772	4.74	821	5.48	868	6.28	913	7.12
8,500	760	4.77	808	5.48	854	6.26	899	7.09	943	7.96
9,000	799	5.57	844	6.32	889	7.13	932	7.98	974	8.88
9,500	839	6.46	882	7.25	924	8.08	965	8.97	1005	9.90
10,000	879	7.45	919	8.27	960	9.14	999	10.05	1038	11.01

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,000	852	5.28	897	6.06	940	6.87	980	7.70	1019	8.55
6,500	877	5.86	921	6.68	963	7.52	1003	8.39	1041	9.28
7,000	902	6.50	946	7.35	987	8.23	1027	9.14	1064	10.06
7,500	929	7.22	971	8.10	1012	9.01	1051	9.95	1088	10.91
8,000	956	8.00	998	8.92	1037	9.86	1076	10.84	1112	11.83
8,500	985	8.87	1025	9.82	1064	10.80	1101	11.80	1137	12.83
9,000	1014	9.83	1053	10.80	1091	11.81	1128	12.85	—	—
9,500	1044	10.87	1082	11.88	1119	12.91	—	—	—	—
10,000	1075	12.01	1112	13.05	—	—	—	—	—	—

	Standard Static (583-717 rpm) 7.4 Max bhp
	Medium Static (707-888 rpm) 7.4 Max bhp
	High Static (872-1053 rpm) 9.9 Max bhp
	Ultra High Static (948-1190 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard Motor P/N HD60FK657), motor pulley P/N KR11HY229, blower pulley P/N KR51BQ415, belt P/N KR29BF056) in the range of 493-605 rpm

50LC**26 — 23 TON VERTICAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,750	560	1.47	613	1.74	691	2.20	769	2.72	834	3.21
7,313	601	1.84	644	2.09	709	2.52	785	3.07	852	3.62
7,875	642	2.27	678	2.51	731	2.89	800	3.45	869	4.05
8,438	684	2.76	715	3.00	759	3.35	818	3.87	884	4.50
9,000	726	3.32	754	3.56	791	3.89	840	4.37	900	4.99
9,563	769	3.95	794	4.19	826	4.51	867	4.95	919	5.54
10,125	811	4.66	834	4.91	862	5.22	898	5.63	942	6.18
10,688	854	5.46	875	5.71	900	6.01	931	6.41	969	6.92
11,250	897	6.34	917	6.59	939	6.90	967	7.28	1000	7.76

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,750	891	3.67	942	4.12	989	4.56	1033	5.01	1076	5.46
7,313	911	4.14	963	4.64	1010	5.13	1055	5.61	1097	6.10
7,875	930	4.64	983	5.20	1031	5.74	1076	6.26	1118	6.79
8,438	947	5.15	1002	5.77	1052	6.37	1097	6.95	1140	7.52
9,000	962	5.68	1019	6.37	1070	7.03	1117	7.67	1160	8.29
9,563	978	6.24	1035	6.98	1088	7.71	1136	8.41	1180	9.09
10,125	995	6.86	1050	7.62	1104	8.41	1153	9.18	1199	9.92
10,688	1015	7.56	1067	8.31	1119	9.13	1169	9.96	1216	10.77
11,250	1039	8.36	1085	9.08	1135	9.90	1185	10.77	1232	11.64

	Standard Static (651-818rpm) 7.4 Max bhp
	Medium Static (804-970 rpm) 9.9 Max bhp
	High Static (948-1190 rpm) 13.6 Max bhp
Boldface	Indicates field-supplied drive is required (Standard Motor P/N HD60FK657, motor pulley P/N KR11HY194, blower pulley P/N KR51BQ415, belt P/N KR29BF057) in the range of 527-661 rpm
<i>Italics</i>	Indicates field-supplied drive (High Static Motor, motor pulley P/N KR12HY118, blower pulley P/N KR52BH615, belts P/N KR29BF034) in the range of 1049-1291 rpm

50LC**26 — 23 TON HORIZONTAL SUPPLY

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	0.2		0.4		0.6		0.8		1.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,750	626	2.59	685	3.20	740	3.88	793	4.60	843	5.37
7,313	668	3.19	723	3.84	776	4.54	826	5.30	873	6.10
7,875	712	3.88	763	4.56	812	5.30	860	6.09	906	6.93
8,438	755	4.67	803	5.39	850	6.16	895	6.98	939	7.85
9,000	799	5.57	844	6.32	889	7.13	932	7.98	974	8.88
9,563	844	6.58	886	7.37	928	8.21	969	9.10	1009	10.03
10,125	889	7.72	929	8.54	969	9.42	1008	10.34	1046	11.30
10,688	933	8.98	972	9.84	1010	10.75	1047	11.71	1083	12.71
11,250	979	10.38	1015	11.28	1051	12.22	1087	13.21	—	—

CFM	AVAILABLE EXTERNAL STATIC PRESSURE (in. wg)									
	1.2		1.4		1.6		1.8		2.0	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
6,750	889	6.17	933	7.01	975	7.87	1015	8.75	1053	9.66
7,313	919	6.94	962	7.81	1003	8.71	1042	9.64	1079	10.59
7,875	949	7.80	991	8.71	1031	9.64	1069	10.61	1106	11.60
8,438	981	8.76	1021	9.70	1060	10.67	1098	11.68	1134	12.70
9,000	1014	9.83	1053	10.80	1091	11.81	1128	12.85	—	—
9,563	1048	11.01	1086	12.02	1123	13.06	—	—	—	—
10,125	1083	12.31	1120	13.35	—	—	—	—	—	—
10,688	—	—	—	—	—	—	—	—	—	—
11,250	—	—	—	—	—	—	—	—	—	—

Standard Static (707-888 rpm) 7.4 Max bhp
 Medium Static (859-1026 rpm) 9.9 Max bhp
 High Static (948-1190 rpm) 13.6 Max bhp
Boldface Indicates field-supplied drive is required (Standard Motor P/N HD60FK657, motor pulley P/N KR11HY232, blower pulley P/N KR51BQ415, belt P/N KR29BF059) in the range of 583-717 rpm

PULLEY ADJUSTMENT VERTICAL

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
14	Standard Static	N/A	N/A	676	658	640	623	605	587	569	551	534	516	498
	Medium Static	N/A	N/A	861	843	825	807	789	772	754	736	718	700	682
	High Static	963	948	933	918	903	888	873	857	842	827	812	797	782
	Ultra High Static	1113	1098	1083	1068	1053	1038	1023	1008	993	978	963	948	933
17	Standard Static	N/A	N/A	676	658	640	623	605	587	569	551	534	516	498
	Medium Static	818	804	790	776	762	748	735	721	707	693	679	665	651
	High Static	970	956	942	929	915	901	887	873	859	846	832	818	804
	Ultra High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948
20	Standard Static	N/A	N/A	753	733	713	694	674	654	634	614	595	575	555
	Medium Static	888	873	858	843	828	813	798	782	767	752	737	722	707
	High Static	1053	1038	1023	1008	993	978	963	947	932	917	902	887	872
	Ultra High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948
24	Standard Static	717	706	695	684	672	661	650	639	628	617	605	594	583
	Medium Static	888	873	858	843	828	813	798	782	767	752	737	722	707
	High Static	1053	1038	1023	1008	993	978	963	947	932	917	902	887	872
	Ultra High Static	1291	1271	1251	1231	1210	1190	1170	1150	1130	1110	1089	1069	1049
26	Standard Static	818	804	790	776	762	748	735	721	707	693	679	665	651
	Medium Static	970	956	942	929	915	901	887	873	859	846	832	818	804
	High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948

Factory setting

PULLEY ADJUSTMENT HORIZONTAL

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
14	Standard Static	N/A	N/A	676	658	640	623	605	587	569	551	534	516	498
	Medium Static	808	794	781	767	753	740	726	712	699	685	671	658	644
	High Static	888	873	858	843	828	813	798	782	767	752	737	722	707
	Ultra High Static	1053	1038	1023	1008	993	978	963	947	932	917	902	887	872
17	Standard Static	N/A	N/A	676	658	640	623	605	587	569	551	534	516	498
	Medium Static	818	804	790	776	762	748	735	721	707	693	679	665	651
	High Static	970	956	942	929	915	901	887	873	859	846	832	818	804
	Ultra High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948
20	Standard Static	N/A	N/A	753	733	713	694	674	654	634	614	595	575	555
	Medium Static	818	804	790	776	762	748	735	721	707	693	679	665	651
	High Static	970	956	942	929	915	901	887	873	859	846	832	818	804
	Ultra High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948
24	Standard Static	717	706	695	684	672	661	650	639	628	617	605	594	583
	Medium Static	888	873	858	843	828	813	798	782	767	752	737	722	707
	High Static	1053	1038	1023	1008	993	978	963	947	932	917	902	887	872
	Ultra High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948
26	Standard Static	888	873	858	843	828	813	798	782	767	752	737	722	707
	Medium Static	1026	1012	998	984	970	956	943	929	915	901	887	873	859
	High Static	1190	1170	1150	1130	1109	1089	1069	1049	1029	1009	988	968	948

Factory setting

ELECTRIC DATA — 50LC*014-026

50LC UNIT	V-Ph-Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM (EA)		IFM		
		MIN	MAX	RLA	LRA	RLA	LRA	WATTS	FLA	TYPE	EFF AT FULL LOAD	FLA
14	208-3-60	187	253	17.6	123	23.2	164	185	1.8	STD	85.0%	8.6
										MED	83.6%	13.6
										HIGH	89.5%	21.2
										ULTRA HIGH	91.7%	28.0
	230-3-6	187	253	17.6	123	23.2	164	185	1.8	STD	85.0%	7.8
										MED	83.6%	12.7
										HIGH	89.5%	21.2
										ULTRA HIGH	91.7%	28.0
	460-3-60	414	506	9.6	62	11.2	75	185	1.3	STD	85.0%	3.8
										MED	83.6%	6.4
										HIGH	89.5%	9.7
										ULTRA HIGH	91.7%	13.7
	575-3-60	518	633	6.1	40	7.9	54	185	1.3	STD	81.1%	4.5
										MED	83.6%	6.2
										HIGH	89.5%	7.2
										ULTRA HIGH	91.7%	8.9
17	208-3-60	187	253	19.1	123	27.6	191	185	1.8	STD	85.0%	8.6
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	230-3-6	187	253	19.1	123	27.6	191	185	1.8	STD	85.0%	7.8
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	460-3-60	414	506	9.8	62	12.8	100	185	1.3	STD	85.0%	3.8
										MED	89.5%	9.7
										HIGH	91.7%	13.7
										ULTRA HIGH	91.7%	16.9
	575-3-60	518	633	7.5	50	10.2	78	185	1.3	STD	81.1%	4.5
										MED	89.5%	7.2
										HIGH	91.7%	8.9
										ULTRA HIGH	91.7%	12.6
20	208-3-60	187	253	25.0	164	27.6	191	185	1.8	STD	85.0%	8.6
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	230-3-6	187	253	25.0	164	27.6	191	185	1.8	STD	85.0%	7.8
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	460-3-60	414	506	12.2	100	12.8	100	185	1.3	STD	85.0%	3.8
										MED	89.5%	9.7
										HIGH	91.7%	13.7
										ULTRA HIGH	91.7%	16.9
	575-3-60	518	633	9.3	78	10.2	78	185	1.3	STD	81.1%	4.5
										MED	89.5%	7.2
										HIGH	91.7%	8.9
										ULTRA HIGH	91.7%	12.6

ELECTRIC DATA — 50LC*014-026 (CONT)

50LC UNIT	V-Ph-Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM (EA)		IFM		
		MIN	MAX	RLA	LRA	RLA	LRA	WATTS	FLA	TYPE	EFF AT FULL LOAD	FLA
24	208-3-60	187	253	29.5	195	33.3	239	190	1.8	STD	89.5%	21.2
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	230-3-6	187	253	29.5	195	33.3	239	190	1.8	STD	89.5%	21.2
										MED	89.5%	21.2
										HIGH	91.7%	28.0
										ULTRA HIGH	91.7%	37.3
	460-3-60	414	506	14.8	95	18.0	125	190	1.6	STD	89.5%	9.7
										MED	89.5%	9.7
										HIGH	91.7%	13.7
										ULTRA HIGH	91.7%	16.9
	575-3-60	518	633	12.2	80	12.8	80	190	1.6	STD	89.5%	7.2
										MED	89.5%	7.2
										HIGH	91.7%	8.9
										ULTRA HIGH	91.7%	12.6
26	208-3-60	187	253	30.1	225	51.2	300	190	1.8	STD	89.5%	21.2
										MED	91.7%	28.0
										HIGH	91.7%	37.3
	230-3-6	187	253	30.1	225	51.2	300	190	1.8	STD	89.5%	21.2
										MED	91.7%	28.0
										HIGH	91.7%	37.3
	460-3-60	414	506	16.7	114	23.1	150	190	1.6	STD	89.5%	9.7
										MED	91.7%	13.7
										HIGH	91.7%	16.9
	575-3-60	518	633	12.2	80	19.9	109	190	1.6	STD	89.5%	7.2
										MED	91.7%	8.9
										HIGH	91.7%	12.6

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (12.5 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*014	208/230-3-60	STD	NONE	—	—	60.6/59.8	80/80	63/62	346	72.4/71.6	90/90	77/76	366
			302A00	11.3/15.0	31.3/36.1	60.6/59.8	80/80	63/62	346/346	72.4/71.6	90/90	77/76	366/366
			279A00	18.8/25.0	52.1/60.1	75.9/84.9	80/90	70/78	346/346	90.6/99.6	100/100	83/92	366/366
			309A00	37.6/50.0	104.2/120.3	141.0/130.1	150/150	130/147	346/346	155.8/144.8	175/150	143/161	366/366
		MED	NONE	—	—	65.6/64.7	80/80	69/68	381	77.4/76.5	100/90	82/81	401
			302A00	11.3/15.0	31.3/36.1	65.6/64.7	80/80	69/68	381/381	77.4/76.5	100/90	82/81	401/401
			279A00	18.8/25.0	52.1/60.1	82.1/91.0	90/100	76/84	381/381	96.9/105.8	100/110	89/97	401/401
			309A00	37.6/50.0	104.2/120.3	147.3/136.2	150/150	135/153	381/381	162.0/150.9	175/175	149/167	401/401
		HIGH	NONE	—	—	73.2	90	78	385	85.0	100	91	405
			302A00	11.3/15.0	31.3/36.1	73.2/73.2	90/90	78/78	385/385	85.0/86.4	100/100	91/91	405/405
			279A00	18.8/25.0	52.1/60.1	91.6/101.6	100/110	84/93	385/385	106.4/116.4	110/125	98/107	405/405
			309A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	385/385	171.5/161.6	175/175	158/176	405/405
		SUPER	NONE	—	—	81.2	100	85	459	93.0	110	99	479
			302A00	11.3/15.0	31.3/36.1	81.2/81.2	100/100	85/85	459/459	93.0/94.9	110/110	99/99	479/479
			279A00	18.8/25.0	52.1/60.1	100.1/110.1	110/125	92/101	459/459	114.9/124.9	125/125	106/115	479/479
			309A00	37.6/50.0	104.2/120.3	165.3/155.3	175/175	152/171	459/459	180.0/170.1	200/175	166/184	479/479
	460-3-60	STD	NONE	—	—	31.3	40	33	167	37.5	45	40	179
			303A00	15.0	18.0	31.3	40	33	167	37.5	45	40	179
			282A00	25.0	30.1	42.4	45	39	167	50.1	60	46	179
			310A00	50.0	60.1	64.9	70	73	167	72.6	80	81	179
		MED	NONE	—	—	33.9	45	36	184	40.1	50	43	196
			303A00	15.0	18.0	33.9	45	36	184	40.1	50	43	196
			282A00	25.0	30.1	45.6	50	42	184	53.4	60	49	196
			310A00	50.0	60.1	68.1	80	76	184	75.9	80	84	196
		HIGH	NONE	—	—	37.2	45	40	186	43.4	50	47	198
			303A00	15.0	18.0	37.2	45	40	186	43.4	50	47	198
			282A00	25.0	30.1	49.8	50	46	186	57.5	60	53	198
			310A00	50.0	60.1	72.2	80	80	186	80.0	90	87	198
		SUPER	NONE	—	—	41.8	50	44	223	48.0	60	51	235
			303A00	15.0	18.0	41.8	50	44	223	48.0	60	51	235
			282A00	25.0	30.1	54.8	60	50	223	62.5	70	58	235
			310A00	50.0	60.1	77.2	90	85	223	85.0	90	92	235
	575-3-60	STD	NONE	—	—	24.4	30	26	119	29.2	35	31	127
			304A00	15.0	14.4	24.4	30	26	119	29.6	35	31	127
			285A00	24.8	23.9	35.5	40	33	119	41.5	45	38	127
			311A00	49.6	47.7	65.3	70	60	119	71.3	80	66	127
		MED	NONE	—	—	26.1	30	28	133	30.9	35	33	141
			304A00	15.0	14.4	26.1	30	28	133	31.8	35	33	141
			285A00	24.8	23.9	37.6	40	35	133	43.6	45	40	141
			311A00	49.6	47.7	67.4	70	62	133	73.4	80	68	141
		HIGH	NONE	—	—	27.1	30	29	131	31.9	35	34	139
			304A00	15.0	14.4	27.1	30	29	131	33.0	35	34	139
			285A00	24.8	23.9	38.9	40	36	131	44.9	45	41	139
			311A00	49.6	47.7	68.6	70	63	131	74.6	80	69	139
		SUPER	NONE	—	—	29.0	35	31	158	33.8	40	36	166
			304A00	15.0	14.4	29.1	35	31	158	35.1	40	36	166
			285A00	24.8	23.9	41.0	45	38	158	47.0	50	43	166
			311A00	49.6	47.7	70.8	80	65	158	76.8	80	71	166

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (12.5 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*014	208/230-3-60	STD	NONE	—	—	65.4/64.6	80/80	69/68	351	77.2/76.4	100/90	82/81	371
			302A00	11.3/15.0	31.3/36.1	65.4/64.6	80/80	69/68	351/351	77.2/76.4	100/90	82/81	371/371
			279A00	18.8/25.0	52.1/60.1	81.9/90.9	90/100	75/84	351/351	96.6/105.6	100/110	89/97	371/371
			309A00	37.6/50.0	104.2/120.3	147.0/136.1	150/150	135/153	351/351	161.8/150.8	175/175	149/166	371/371
		MED	NONE	—	—	70.4/69.5	90/90	74/73	386	82.2/81.3	100/100	88/87	406
			302A00	11.3/15.0	31.3/36.1	70.4/69.5	90/90	74/73	386/386	82.2/81.8	100/100	88/87	406/406
			279A00	18.8/25.0	52.1/60.1	88.1/97.0	90/100	81/89	386/386	102.9/111.8	110/125	95/103	406/406
			309A00	37.6/50.0	104.2/120.3	153.3/142.2	175/175	141/158	386/386	168.0/156.9	175/175	155/172	406/406
		HIGH	NONE	—	—	78.0	100	83	390	89.8	100	97	410
			302A00	11.3/15.0	31.3/36.1	78.0/78.0	100/100	83/83	390/390	89.8/92.4	100/100	97/97	410/410
			279A00	18.8/25.0	52.1/60.1	97.6/107.6	100/110	90/99	390/390	112.4/122.4	125/125	103/113	410/410
			309A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	390/390	177.5/167.6	200/175	163/182	410/410
		SUPER	NONE	—	—	86.0	100	91	464	97.8	125	104	484
			302A00	11.3/15.0	31.3/36.1	86.0/86.1	100/100	91/91	464/464	97.8/100.9	125/125	104/104	484/484
			279A00	18.8/25.0	52.1/60.1	106.1/116.1	110/125	98/107	464/464	120.9/130.9	125/150	111/120	484/484
			309A00	37.6/50.0	104.2/120.3	171.3/161.3	175/175	158/176	464/464	186.0/176.1	200/200	171/190	484/484
	460-3-60	STD	NONE	—	—	33.5	40	35	169	39.7	50	42	181
			303A00	15.0	18.0	33.5	40	35	169	39.7	50	42	181
			282A00	25.0	30.1	45.1	50	42	169	52.9	60	49	181
			310A00	50.0	60.1	67.6	80	76	169	75.4	80	83	181
		MED	NONE	—	—	36.1	45	38	186	42.3	50	45	198
			303A00	15.0	18.0	36.1	45	38	186	42.3	50	45	198
			282A00	25.0	30.1	48.4	50	45	186	56.1	60	52	198
			310A00	50.0	60.1	70.9	80	79	186	78.6	80	86	198
		HIGH	NONE	—	—	39.4	50	42	188	45.6	50	49	200
			303A00	15.0	18.0	39.4	50	42	188	45.6	50	49	200
			282A00	25.0	30.1	52.5	60	48	188	60.3	70	55	200
			310A00	50.0	60.1	75.0	80	83	188	82.7	90	90	200
		SUPER	NONE	—	—	44.0	50	47	225	50.2	60	54	237
			303A00	15.0	18.0	44.0	50	47	225	50.2	60	54	237
			282A00	25.0	30.1	57.5	60	53	225	65.3	70	60	237
			310A00	50.0	60.1	80.0	90	87	225	87.7	90	95	237
	575-3-60	STD	NONE	—	—	26.1	30	28	121	30.9	35	33	129
			304A00	15.0	14.4	26.1	30	28	121	31.8	35	33	129
			285A00	24.8	23.9	37.6	40	35	121	43.6	45	40	129
			311A00	49.6	47.7	67.4	70	62	121	73.4	80	68	129
		MED	NONE	—	—	27.8	30	30	135	32.6	40	35	143
			304A00	15.0	14.4	27.9	30	30	135	33.9	40	35	143
			285A00	24.8	23.9	39.8	40	37	135	45.8	50	42	143
			311A00	49.6	47.7	69.5	70	64	135	75.5	80	69	143
		HIGH	NONE	—	—	28.8	35	31	133	33.6	40	36	141
			304A00	15.0	14.4	29.1	35	31	133	35.1	40	36	141
			285A00	24.8	23.9	41.0	45	38	133	47.0	50	43	141
			311A00	49.6	47.7	70.8	80	65	133	76.8	80	71	141
		SUPER	NONE	—	—	30.7	35	33	160	35.5	40	38	168
			304A00	15.0	14.4	31.3	35	33	160	37.3	40	38	168
			285A00	24.8	23.9	43.1	45	40	160	49.1	50	45	168
			311A00	49.6	47.7	72.9	80	67	160	78.9	80	73	168

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (15 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*017	208/230-3-60	STD	NONE	—	—	69.4/68.6	90/90	72/71	375	81.2/80.4	100/100	85/85	395
			279A00	18.8/25.0	52.1/60.1	75.9/84.9	90/90	72/78	375/375	90.6/99.6	100/100	85/92	395/395
			280A00	37.6/50.0	104.2/120.3	141.0/130.1	150/150	130/147	375/375	155.8/144.8	175/150	143/161	395/395
			281A00	56.3/75.0	156.4/180.4	167.2/190.2	200/200	190/216	375/375	181.9/204.9	200/225	203/230	395/395
		MED	NONE	—	—	82.0	100	86	414	93.8	110	100	434
			279A00	18.8/25.0	52.1/60.1	91.6/101.6	100/110	86/93	414/414	106.4/116.4	110/125	100/107	434/434
			280A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	414/414	171.5/161.6	175/175	158/176	434/434
			281A00	56.3/75.0	156.4/180.4	182.9/206.9	200/250	204/232	414/414	197.7/221.7	225/250	218/245	434/434
		HIGH	NONE	—	—	88.9	100	94	488	100.7	125	108	508
			279A00	18.8/25.0	52.1/60.1	100.1/110.1	110/125	94/101	488/488	114.9/124.9	125/125	108/115	508/508
			280A00	37.6/50.0	104.2/120.3	165.3/155.3	175/175	152/171	488/488	180.0/170.1	200/175	166/184	508/508
			281A00	56.3/75.0	156.4/180.4	191.4/215.4	200/250	212/240	488/488	206.2/230.2	225/250	226/253	508/508
		SUPER	NONE	—	—	100.5	125	105	528	112.3	125	118	548
			279A00	18.8/25.0	52.1/60.1	111.8/121.8	125/125	105/112	528/528	126.5/136.5	150/150	118/126	548/548
			280A00	37.6/50.0	104.2/120.3	176.9/166.9	200/200	163/181	528/528	191.6/181.7	200/200	176/195	548/548
			281A00	56.3/75.0	156.4/180.4	203.0/227.0	225/250	223/250	528/528	217.8/241.8	250/250	236/264	548/548
	460-3-60	STD	NONE	—	—	34.8	45	36	193	41.0	50	43	205
			282A00	25.0	30.1	42.4	45	39	193	50.1	60	46	205
			283A00	50.0	60.1	64.9	70	73	193	72.6	80	81	205
			284A00	75.0	90.2	95.0	100	108	193	102.7	110	115	205
		MED	NONE	—	—	40.7	50	43	212	46.9	60	50	224
			282A00	25.0	30.1	49.8	50	46	212	57.5	60	53	224
			283A00	50.0	60.1	72.2	80	80	212	80.0	90	87	224
			284A00	75.0	90.2	102.3	125	115	212	110.1	125	122	224
		HIGH	NONE	—	—	44.9	50	48	249	51.1	60	55	261
			282A00	25.0	30.1	54.8	60	50	249	62.5	70	58	261
			283A00	50.0	60.1	77.2	90	85	249	85.0	90	92	261
			284A00	75.0	90.2	107.3	125	119	249	115.1	125	127	261
		SUPER	NONE	—	—	48.9	60	51	269	55.1	60	59	281
			282A00	25.0	30.1	58.8	60	54	269	66.5	70	61	281
			283A00	50.0	60.1	81.2	90	89	269	89.0	100	96	281
			284A00	75.0	90.2	111.3	125	123	269	119.1	125	130	281
	575-3-60	STD	NONE	—	—	30.0	40	32	154	34.8	40	37	162
			285A00	24.8	23.9	35.5	40	33	154	41.5	45	38	162
			286A00	49.6	47.7	65.3	70	60	154	71.3	80	66	162
			287A00	74.4	71.6	77.2	90	88	154	83.2	90	93	162
		MED	NONE	—	—	32.7	40	35	166	37.5	45	40	174
			285A00	24.8	23.9	38.9	40	36	166	44.9	45	41	174
			286A00	49.6	47.7	68.6	70	63	166	74.6	80	69	174
			287A00	74.4	71.6	80.6	90	91	166	86.6	90	96	174
		HIGH	NONE	—	—	34.4	40	37	193	39.2	45	42	201
			285A00	24.8	23.9	41.0	45	38	193	47.0	50	43	201
			286A00	49.6	47.7	70.8	80	65	193	76.8	80	71	201
			287A00	74.4	71.6	82.7	90	93	193	88.7	90	98	201
		SUPER	NONE	—	—	38.7	50	41	204	43.5	50	46	212
			285A00	24.8	23.9	45.6	50	42	204	51.6	60	47	212
			286A00	49.6	47.7	75.4	80	69	204	81.4	90	75	212
			287A00	74.4	71.6	87.4	100	97	204	93.4	100	102	212

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (15 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*17	208/230-3-60	STD	NONE	—	—	74.2/73.4	100/100	77/76	380	86.0/85.2	100/100	91/90	400
			279A00	18.8/25.0	52.1/60.1	81.9/90.9	100/100	77/84	380/380	96.6/105.6	100/110	91/97	400/400
			280A00	37.6/50.0	104.2/120.3	147.0/136.1	150/150	135/153	380/380	161.8/150.8	175/175	149/166	400/400
			281A00	56.3/75.0	156.4/180.4	173.2/196.2	200/225	195/222	380/380	187.9/210.9	200/225	209/236	400/400
		MED	NONE	—	—	86.8	100	92	419	98.6	125	105	439
			279A00	18.8/25.0	52.1/60.1	97.6/107.6	100/110	92/99	419/419	112.4/122.4	125/125	105/113	439/439
			280A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	419/419	177.5/167.6	200/175	163/182	439/439
			281A00	56.3/75.0	156.4/180.4	188.9/212.9	200/250	210/237	419/419	203.7/227.7	225/250	223/251	439/439
		HIGH	NONE	—	—	93.7	110	100	493	105.5	125	113	513
			279A00	18.8/25.0	52.1/60.1	106.1/116.1	110/125	100/107	493/493	120.9/130.9	125/150	113/120	513/513
			280A00	37.6/50.0	104.2/120.3	171.3/161.3	175/175	158/176	493/493	186.0/176.1	200/200	171/190	513/513
			281A00	56.3/75.0	156.4/180.4	197.4/221.4	225/250	218/245	493/493	212.2/236.2	225/250	231/259	513/513
		SUPER	NONE	—	—	105.3	125	110	533	117.1	150	124	553
			279A00	18.8/25.0	52.1/60.1	117.8/127.8	125/150	110/118	533/533	132.5/142.5	150/150	124/131	553/553
			280A00	37.6/50.0	104.2/120.3	182.9/172.9	200/200	168/187	533/533	197.6/187.7	200/200	182/200	553/553
			281A00	56.3/75.0	156.4/180.4	209.0/233.0	225/250	228/256	533/533	223.8/247.8	250/300	242/269	553/553
	460-3-60	STD	NONE	—	—	37.0	45	39	195	43.2	50	46	207
			282A00	25.0	30.1	45.1	50	42	195	52.9	60	49	207
			283A00	50.0	60.1	67.6	80	76	195	75.4	80	83	207
			284A00	75.0	90.2	97.7	100	111	195	105.5	110	118	207
		MED	NONE	—	—	42.9	50	46	214	49.1	60	53	226
			282A00	25.0	30.1	52.5	60	48	214	60.3	70	55	226
			283A00	50.0	60.1	75.0	80	83	214	82.7	90	90	226
			284A00	75.0	90.2	105.1	125	117	214	112.8	125	125	226
		HIGH	NONE	—	—	47.1	60	50	251	53.3	60	57	263
			282A00	25.0	30.1	57.5	60	53	251	65.3	70	60	263
			283A00	50.0	60.1	80.0	90	87	251	87.7	90	95	263
			284A00	75.0	90.2	110.1	125	122	251	117.8	125	129	263
		SUPER	NONE	—	—	51.1	60	54	271	57.3	70	61	283
			282A00	25.0	30.1	61.5	70	57	271	69.3	70	64	283
			283A00	50.0	60.1	84.0	100	91	271	91.7	100	98	283
			284A00	75.0	90.2	114.1	125	126	271	121.8	125	133	283
	575-3-60	STD	NONE	—	—	31.7	40	33	156	36.5	45	39	164
			285A00	24.8	23.9	37.6	40	35	156	43.6	45	40	164
			286A00	49.6	47.7	67.4	70	62	156	73.4	80	68	164
			287A00	74.4	71.6	79.4	90	89	156	85.4	90	95	164
		MED	NONE	—	—	34.4	40	37	168	39.2	45	42	176
			285A00	24.8	23.9	41.0	45	38	168	47.0	50	43	176
			286A00	49.6	47.7	70.8	80	65	168	76.8	80	71	176
			287A00	74.4	71.6	82.7	90	93	168	88.7	90	98	176
		HIGH	NONE	—	—	36.1	45	39	195	40.9	50	44	203
			285A00	24.8	23.9	43.1	45	40	195	49.1	50	45	203
			286A00	49.6	47.7	72.9	80	67	195	78.9	80	73	203
			287A00	74.4	71.6	84.9	90	95	195	90.9	100	100	203
		SUPER	NONE	—	—	40.4	50	43	206	45.2	50	48	214
			285A00	24.8	23.9	47.8	50	44	206	53.8	60	49	214
			286A00	49.6	47.7	77.5	80	71	206	83.5	90	77	214
			287A00	74.4	71.6	89.5	100	99	206	95.5	100	104	214

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (17.5 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*020	208/230-3-60	STD	NONE	—	—	75.3/74.5	100/100	79/78	416	87.1/86.3	100/100	92/91	436
			279A00	18.8/25.0	52.1/60.1	75.9/84.9	100/100	79/78	416/416	90.6/99.6	100/100	92/92	436/436
			280A00	37.6/50.0	104.2/120.3	141.0/130.1	150/150	130/147	416/416	155.8/144.8	175/150	143/161	436/436
			281A00	56.3/75.0	156.4/180.4	167.2/190.2	200/200	190/216	416/416	181.9/204.9	200/225	203/230	436/436
		MED	NONE	—	—	87.9	100	93	455	99.7	125	107	475
			279A00	18.8/25.0	52.1/60.1	91.6/101.6	100/110	93/93	455/455	106.4/116.4	125/125	107/107	475/475
			280A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	455/455	171.5/161.6	175/175	158/176	475/475
			281A00	56.3/75.0	156.4/180.4	182.9/206.9	200/250	204/232	455/455	197.7/221.7	225/250	218/245	475/475
		HIGH	NONE	—	—	94.8	110	101	529	106.6	125	115	549
			279A00	18.8/25.0	52.1/60.1	100.1/110.1	110/125	101/101	529/529	114.9/124.9	125/125	115/115	549/549
			280A00	37.6/50.0	104.2/120.3	165.3/155.3	175/175	152/171	529/529	180.0/170.1	200/175	166/184	549/549
			281A00	56.3/75.0	156.4/180.4	191.4/215.4	200/250	212/240	529/529	206.2/230.2	225/250	226/253	549/549
		SUPER	NONE	—	—	106.4	125	112	569	118.2	150	125	589
			279A00	18.8/25.0	52.1/60.1	111.8/121.8	125/125	112/112	569/569	126.5/136.5	150/150	125/126	589/589
			280A00	37.6/50.0	104.2/120.3	176.9/166.9	200/200	163/181	569/569	191.6/181.7	200/200	176/195	589/589
			281A00	56.3/75.0	156.4/180.4	203.0/227.0	225/250	223/250	569/569	217.8/241.8	250/250	236/264	589/589
	460-3-60	STD	NONE	—	—	37.2	50	39	231	43.4	50	46	243
			282A00	25.0	30.1	42.4	50	39	231	50.1	60	46	243
			283A00	50.0	60.1	64.9	70	73	231	72.6	80	81	243
			284A00	75.0	90.2	95.0	100	108	231	102.7	110	115	243
		MED	NONE	—	—	43.1	50	46	250	49.3	60	53	262
			282A00	25.0	30.1	49.8	50	46	250	57.5	60	53	262
			283A00	50.0	60.1	72.2	80	80	250	80.0	90	87	262
			284A00	75.0	90.2	102.3	125	115	250	110.1	125	122	262
		HIGH	NONE	—	—	47.3	60	50	287	53.5	60	58	299
			282A00	25.0	30.1	54.8	60	50	287	62.5	70	58	299
			283A00	50.0	60.1	77.2	90	85	287	85.0	90	92	299
			284A00	75.0	90.2	107.3	125	119	287	115.1	125	127	299
		SUPER	NONE	—	—	51.3	60	54	307	57.5	70	61	319
			282A00	25.0	30.1	58.8	60	54	307	66.5	70	61	319
			283A00	50.0	60.1	81.2	90	89	307	89.0	100	96	319
			284A00	75.0	90.2	111.3	125	123	307	119.1	125	130	319
	575-3-60	STD	NONE	—	—	31.8	40	34	182	36.6	45	39	190
			285A00	24.8	23.9	35.5	40	34	182	41.5	45	39	190
			286A00	49.6	47.7	65.3	70	60	182	71.3	80	66	190
			287A00	74.4	71.6	77.2	90	88	182	83.2	90	93	190
		MED	NONE	—	—	34.5	40	37	194	39.3	45	42	202
			285A00	24.8	23.9	38.9	40	37	194	44.9	45	42	202
			286A00	49.6	47.7	68.6	70	63	194	74.6	80	69	202
			287A00	74.4	71.6	80.6	90	91	194	86.6	90	96	202
		HIGH	NONE	—	—	36.2	45	39	221	41.0	50	44	229
			285A00	24.8	23.9	41.0	45	39	221	47.0	50	44	229
			286A00	49.6	47.7	70.8	80	65	221	76.8	80	71	229
			287A00	74.4	71.6	82.7	90	93	221	88.7	90	98	229
		SUPER	NONE	—	—	40.5	50	43	232	45.3	50	48	240
			285A00	24.8	23.9	45.6	50	43	232	51.6	60	48	240
			286A00	49.6	47.7	75.4	80	69	232	81.4	90	75	240
			287A00	74.4	71.6	87.4	100	97	232	93.4	100	102	240

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (17.5 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*20	208/230-3-60	STD	NONE	—	—	80.1/79.3	100/100	84/83	421	91.9/91.1	100/100	98/97	441
			279A00	18.8/25.0	52.1/60.1	81.9/90.9	100/100	84/84	421/421	96.6/105.6	100/110	98/97	441/441
			280A00	37.6/50.0	104.2/120.3	147.0/136.1	150/150	135/153	421/421	161.8/150.8	175/175	149/166	441/441
			281A00	56.3/75.0	156.4/180.4	173.2/196.2	200/225	195/222	421/421	187.9/210.9	200/225	209/236	441/441
		MED	NONE	—	—	92.7	100	99	460	104.5	125	112	480
			279A00	18.8/25.0	52.1/60.1	97.6/107.6	100/110	99/99	460/460	112.4/122.4	125/125	112/113	480/480
			280A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	460/460	177.5/167.6	200/175	163/182	480/480
			281A00	56.3/75.0	156.4/180.4	188.9/212.9	200/250	210/237	460/460	203.7/227.7	225/250	223/251	480/480
		HIGH	NONE	—	—	99.6	125	106	534	111.4	125	120	554
			279A00	18.8/25.0	52.1/60.1	106.1/116.1	125/125	106/107	534/534	120.9/130.9	125/150	120/120	554/554
			280A00	37.6/50.0	104.2/120.3	171.3/161.3	175/175	158/176	534/534	186.0/176.1	200/200	171/190	554/554
			281A00	56.3/75.0	156.4/180.4	197.4/221.4	225/250	218/245	534/534	212.2/236.2	225/250	231/259	554/554
		SUPER	NONE	—	—	111.2	125	117	574	123.0	150	131	594
			279A00	18.8/25.0	52.1/60.1	117.8/127.8	125/150	117/118	574/574	132.5/142.5	150/150	131/131	594/594
			280A00	37.6/50.0	104.2/120.3	182.9/172.9	200/200	168/187	574/574	197.6/187.7	200/200	182/200	594/594
			281A00	56.3/75.0	156.4/180.4	209.0/233.0	225/250	228/256	574/574	223.8/247.8	250/300	242/269	594/594
	460-3-60	STD	NONE	—	—	39.4	50	42	233	45.6	50	49	245
			282A00	25.0	30.1	45.1	50	42	233	52.9	60	49	245
			283A00	50.0	60.1	67.6	80	76	233	75.4	80	83	245
			284A00	75.0	90.2	97.7	100	111	233	105.5	110	118	245
		MED	NONE	—	—	45.3	50	48	252	51.5	60	56	264
			282A00	25.0	30.1	52.5	60	48	252	60.3	70	56	264
			283A00	50.0	60.1	75.0	80	83	252	82.7	90	90	264
			284A00	75.0	90.2	105.1	125	117	252	112.8	125	125	264
		HIGH	NONE	—	—	49.5	60	53	289	55.7	60	60	301
			282A00	25.0	30.1	57.5	60	53	289	65.3	70	60	301
			283A00	50.0	60.1	80.0	90	87	289	87.7	90	95	301
			284A00	75.0	90.2	110.1	125	122	289	117.8	125	129	301
		SUPER	NONE	—	—	53.5	60	57	309	59.7	70	64	321
			282A00	25.0	30.1	61.5	70	57	309	69.3	70	64	321
			283A00	50.0	60.1	84.0	100	91	309	91.7	100	98	321
			284A00	75.0	90.2	114.1	125	126	309	121.8	125	133	321
	575-3-60	STD	NONE	—	—	33.5	40	36	184	38.3	45	41	192
			285A00	24.8	23.9	37.6	40	36	184	43.6	45	41	192
			286A00	49.6	47.7	67.4	70	62	184	73.4	80	68	192
			287A00	74.4	71.6	79.4	90	89	184	85.4	90	95	192
		MED	NONE	—	—	36.2	45	39	196	41.0	50	44	204
			285A00	24.8	23.9	41.0	45	39	196	47.0	50	44	204
			286A00	49.6	47.7	70.8	80	65	196	76.8	80	71	204
			287A00	74.4	71.6	82.7	90	93	196	88.7	90	98	204
		HIGH	NONE	—	—	37.9	45	41	223	42.7	50	46	231
			285A00	24.8	23.9	43.1	45	41	223	49.1	50	46	231
			286A00	49.6	47.7	72.9	80	67	223	78.9	80	73	231
			287A00	74.4	71.6	84.9	90	95	223	90.9	100	100	231
		SUPER	NONE	—	—	42.2	50	45	234	47.0	60	50	242
			285A00	24.8	23.9	47.8	50	45	234	53.8	60	50	242
			286A00	49.6	47.7	77.5	80	71	234	83.5	90	77	242
			287A00	74.4	71.6	89.5	100	99	234	95.5	100	104	242

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (20 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*024	208/230-3-60	STD	NONE	—	—	103.1	125	109	538	114.9	125	123	558
			279A00	18.8/25.0	52.1/60.1	103.1/103.1	125/125	109/109	538/538	114.9/116.4	125/125	123/123	558/558
			280A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	538/538	171.5/161.6	175/175	158/176	558/558
			281A00	56.3/75.0	156.4/180.4	182.9/206.9	200/250	204/232	538/538	197.7/221.7	225/250	218/245	558/558
		MED	NONE	—	—	103.1	125	109	538	114.9	125	123	558
			279A00	18.8/25.0	52.1/60.1	103.1/103.1	125/125	109/109	538/538	114.9/116.4	125/125	123/123	558/558
			280A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	538/538	171.5/161.6	175/175	158/176	558/558
			281A00	56.3/75.0	156.4/180.4	182.9/206.9	200/250	204/232	538/538	197.7/221.7	225/250	218/245	558/558
		HIGH	NONE	—	—	109.9	125	117	612	121.7	150	130	632
			279A00	18.8/25.0	52.1/60.1	109.9/110.1	125/125	117/117	612/612	121.7/124.9	150/150	130/130	632/632
			280A00	37.6/50.0	104.2/120.3	165.3/155.3	175/175	152/171	612/612	180.0/170.1	200/175	166/184	632/632
			281A00	56.3/75.0	156.4/180.4	191.4/215.4	200/250	212/240	612/612	206.2/230.2	225/250	226/253	632/632
		SUPER	NONE	—	—	120.2	150	128	652	132.0	150	141	672
			279A00	18.8/25.0	52.1/60.1	120.2/121.8	150/150	128/128	652/652	132.0/136.5	150/150	141/141	672/672
			280A00	37.6/50.0	104.2/120.3	176.9/166.9	200/200	163/181	652/652	191.6/181.7	200/200	176/195	672/672
			281A00	56.3/75.0	156.4/180.4	203.0/227.0	225/250	223/250	652/652	217.8/241.8	250/250	236/264	672/672
	460-3-60	STD	NONE	—	—	56.6	70	60	278	62.8	80	67	290
			282A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
			283A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
			284A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		MED	NONE	—	—	56.6	70	60	278	62.8	80	67	290
			282A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
			283A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
			284A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		HIGH	NONE	—	—	60.6	70	65	315	66.8	80	72	327
			282A00	25.0	30.1	60.6	70	65	315	66.8	80	72	327
			283A00	50.0	60.1	77.2	90	85	315	85.0	90	92	327
			284A00	75.0	90.2	107.3	125	119	315	115.1	125	127	327
		SUPER	NONE	—	—	63.8	80	68	335	70.0	80	75	347
			282A00	25.0	30.1	63.8	80	68	335	70.0	80	75	347
			283A00	50.0	60.1	81.2	90	89	335	89.0	100	96	347
			284A00	75.0	90.2	111.3	125	123	335	119.1	125	130	347
	575-3-60	STD	NONE	—	—	45.0	50	48	206	49.8	60	54	214
			285A00	24.8	23.9	45.0	50	48	206	49.8	60	54	214
			286A00	49.6	47.7	68.6	70	63	206	74.6	80	69	214
			287A00	74.4	71.6	80.6	90	91	206	86.6	90	96	214
		MED	NONE	—	—	45.0	50	48	206	49.8	60	54	214
			285A00	24.8	23.9	45.0	50	48	206	49.8	60	54	214
			286A00	49.6	47.7	68.6	70	63	206	74.6	80	69	214
			287A00	74.4	71.6	80.6	90	91	206	86.6	90	96	214
		HIGH	NONE	—	—	46.7	50	50	233	51.5	60	56	241
			285A00	24.8	23.9	46.7	50	50	233	51.5	60	56	241
			286A00	49.6	47.7	70.8	80	65	233	76.8	80	71	241
			287A00	74.4	71.6	82.7	90	93	233	88.7	90	98	241
		SUPER	NONE	—	—	50.4	60	54	244	55.2	60	60	252
			285A00	24.8	23.9	50.4	60	54	244	55.2	60	60	252
			286A00	49.6	47.7	75.4	80	69	244	81.4	90	75	252
			287A00	74.4	71.6	87.4	100	97	244	93.4	100	102	252

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (20 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*24	208/230-3-60	STD	NONE	—	—	107.9	125	115	543	119.7	150	128	563
			279A00	18.8/25.0	52.1/60.1	107.9/107.9	125/125	115/115	543/543	119.7/122.4	150/150	128/128	563/563
			280A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	543/543	177.5/167.6	200/175	163/182	563/563
			281A00	56.3/75.0	156.4/180.4	188.9/212.9	200/250	210/237	543/543	203.7/227.7	225/250	223/251	563/563
		MED	NONE	—	—	107.9	125	115	543	119.7	150	128	563
			279A00	18.8/25.0	52.1/60.1	107.9/107.9	125/125	115/115	543/543	119.7/122.4	150/150	128/128	563/563
			280A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	543/543	177.5/167.6	200/175	163/182	563/563
			281A00	56.3/75.0	156.4/180.4	188.9/212.9	200/250	210/237	543/543	203.7/227.7	225/250	223/251	563/563
		HIGH	NONE	—	—	114.7	125	122	617	126.5	150	136	637
			279A00	18.8/25.0	52.1/60.1	114.7/116.1	125/125	122/122	617/617	126.5/130.9	150/150	136/136	637/637
			280A00	37.6/50.0	104.2/120.3	171.3/161.3	175/175	158/176	617/617	186.0/176.1	200/200	171/190	637/637
			281A00	56.3/75.0	156.4/180.4	197.4/221.4	225/250	218/245	617/617	212.2/236.2	225/250	231/259	637/637
		SUPER	NONE	—	—	125.0	150	133	657	136.8	150	147	677
			279A00	18.8/25.0	52.1/60.1	125.0/127.8	150/150	133/133	657/657	136.8/142.5	150/150	147/147	677/677
			280A00	37.6/50.0	104.2/120.3	182.9/172.9	200/200	168/187	657/657	197.6/187.7	200/200	182/200	677/677
			281A00	56.3/75.0	156.4/180.4	209.0/233.0	225/250	228/256	657/657	223.8/247.8	250/300	242/269	677/677
	460-3-60	STD	NONE	—	—	58.8	70	62	280	65.0	80	70	292
			282A00	25.0	30.1	58.8	70	62	280	65.0	80	70	292
			283A00	50.0	60.1	75.0	80	83	280	82.7	90	90	292
			284A00	75.0	90.2	105.1	125	117	280	112.8	125	125	292
		MED	NONE	—	—	58.8	70	62	280	65.0	80	70	292
			282A00	25.0	30.1	58.8	70	62	280	65.0	80	70	292
			283A00	50.0	60.1	75.0	80	83	280	82.7	90	90	292
			284A00	75.0	90.2	105.1	125	117	280	112.8	125	125	292
		HIGH	NONE	—	—	62.8	80	67	317	69.0	80	74	329
			282A00	25.0	30.1	62.8	80	67	317	69.0	80	74	329
			283A00	50.0	60.1	80.0	90	87	317	87.7	90	95	329
			284A00	75.0	90.2	110.1	125	122	317	117.8	125	129	329
		SUPER	NONE	—	—	66.0	80	71	337	72.2	90	78	349
			282A00	25.0	30.1	66.0	80	71	337	72.2	90	78	349
			283A00	50.0	60.1	84.0	100	91	337	91.7	100	98	349
			284A00	75.0	90.2	114.1	125	126	337	121.8	125	133	349
	575-3-60	STD	NONE	—	—	46.7	50	50	208	51.5	60	56	216
			285A00	24.8	23.9	46.7	50	50	208	51.5	60	56	216
			286A00	49.6	47.7	70.8	80	65	208	76.8	80	71	216
			287A00	74.4	71.6	82.7	90	93	208	88.7	90	98	216
		MED	NONE	—	—	46.7	50	50	208	51.5	60	56	216
			285A00	24.8	23.9	46.7	50	50	208	51.5	60	56	216
			286A00	49.6	47.7	70.8	80	65	208	76.8	80	71	216
			287A00	74.4	71.6	82.7	90	93	208	88.7	90	98	216
		HIGH	NONE	—	—	48.4	60	52	235	53.2	60	58	243
			285A00	24.8	23.9	48.4	60	52	235	53.2	60	58	243
			286A00	49.6	47.7	72.9	80	67	235	78.9	80	73	243
			287A00	74.4	71.6	84.9	90	95	235	90.9	100	100	243
		SUPER	NONE	—	—	52.1	60	56	246	56.9	70	62	254
			285A00	24.8	23.9	52.1	60	56	246	56.9	70	62	254
			286A00	49.6	47.7	77.5	80	71	246	83.5	90	77	254
			287A00	74.4	71.6	89.5	100	99	246	95.5	100	104	254

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (23 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*026	208/230-3-60	STD	NONE	—	—	126.1	175	130	629	137.9	175	144	649
			279A00	18.8/25.0	52.1/60.1	126.1/126.1	175/175	130/130	629/629	137.9/137.9	175/175	144/144	649/649
			280A00	37.6/50.0	104.2/120.3	156.8/146.8	175/175	144/163	629/629	171.5/161.6	175/175	158/176	649/649
			281A00	56.3/75.0	156.4/180.4	182.9/206.9	200/250	204/232	629/629	197.7/221.7	225/250	218/245	649/649
		MED	NONE	—	—	132.9	175	138	703	144.7	175	152	723
			279A00	18.8/25.0	52.1/60.1	132.9/132.9	175/175	138/138	703/703	144.7/144.7	175/175	152/152	723/723
			280A00	37.6/50.0	104.2/120.3	165.3/155.3	175/175	152/171	703/703	180.0/170.1	200/175	166/184	723/723
			281A00	56.3/75.0	156.4/180.4	191.4/215.4	200/250	212/240	703/703	206.2/230.2	225/250	226/253	723/723
		HIGH	NONE	—	—	142.2	175	149	743	154.0	200	162	763
			279A00	18.8/25.0	52.1/60.1	142.2/142.2	175/175	149/149	743/743	154.0/154.0	200/200	162/162	763/763
			280A00	37.6/50.0	104.2/120.3	176.9/166.9	200/200	163/181	743/743	191.6/181.7	200/200	176/195	763/763
			281A00	56.3/75.0	156.4/180.4	203.0/227.0	225/250	223/250	743/743	217.8/241.8	250/250	236/264	763/763
	460-3-60	STD	NONE	—	—	64.9	80	68	322	71.1	90	75	334
			282A00	25.0	30.1	64.9	80	68	322	71.1	90	75	334
			283A00	50.0	60.1	72.2	80	80	322	80.0	90	87	334
			284A00	75.0	90.2	102.3	125	115	322	110.1	125	122	334
		MED	NONE	—	—	68.9	90	73	359	75.1	90	80	371
			282A00	25.0	30.1	68.9	90	73	359	75.1	90	80	371
			283A00	50.0	60.1	77.2	90	85	359	85.0	90	92	371
			284A00	75.0	90.2	107.3	125	119	359	115.1	125	127	371
		HIGH	NONE	—	—	72.1	90	76	379	78.3	100	83	391
			282A00	25.0	30.1	72.1	90	76	379	78.3	100	83	391
			283A00	50.0	60.1	81.2	90	89	379	89.0	100	96	391
			284A00	75.0	90.2	111.3	125	123	379	119.1	125	130	391
	575-3-60	STD	NONE	—	—	53.9	60	56	235	58.7	70	62	243
			285A00	24.8	23.9	53.9	60	56	235	58.7	70	62	243
			286A00	49.6	47.7	68.6	70	63	235	74.6	80	69	243
			287A00	74.4	71.6	80.6	90	91	235	86.6	90	96	243
		MED	NONE	—	—	55.6	70	58	262	60.4	80	64	270
			285A00	24.8	23.9	55.6	70	58	262	60.4	80	64	270
			286A00	49.6	47.7	70.8	80	65	262	76.8	80	71	270
			287A00	74.4	71.6	82.7	90	93	262	88.7	90	98	270
		HIGH	NONE	—	—	59.3	70	62	273	64.1	80	68	281
			285A00	24.8	23.9	59.3	70	62	273	64.1	80	68	281
			286A00	49.6	47.7	75.4	80	69	273	81.4	90	75	281
			287A00	74.4	71.6	87.4	100	97	273	93.4	100	102	281

See Legends and Notes on page 100.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA (23 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*026	208/230-3-60	STD	NONE	—	—	130.9	175	136	634	142.7	175	149	654
			279A00	18.8/25.0	52.1/60.1	130.9/130.9	175/175	136/136	634/634	142.7/142.7	175/175	149/149	654/654
			280A00	37.6/50.0	104.2/120.3	162.8/152.8	175/175	150/168	634/634	177.5/167.6	200/175	163/182	654/654
			281A00	56.3/75.0	156.4/180.4	188.9/212.9	200/250	210/237	634/634	203.7/227.7	225/250	223/251	654/654
		MED	NONE	—	—	137.7	175	144	708	149.5	200	157	728
			279A00	18.8/25.0	52.1/60.1	137.7/137.7	175/175	144/144	708/708	149.5/149.5	200/200	157/157	728/728
			280A00	37.6/50.0	104.2/120.3	171.3/161.3	175/175	158/176	708/708	186.0/176.1	200/200	171/190	728/728
			281A00	56.3/75.0	156.4/180.4	197.4/221.4	225/250	218/245	708/708	212.2/236.2	225/250	231/259	728/728
		HIGH	NONE	—	—	147.0	175	154	748	158.8	200	168	768
			279A00	18.8/25.0	52.1/60.1	147.0/147.0	175/175	154/154	748/748	158.8/158.8	200/200	168/168	768/768
			280A00	37.6/50.0	104.2/120.3	182.9/172.9	200/200	168/187	748/748	197.6/187.7	200/200	182/200	768/768
			281A00	56.3/75.0	156.4/180.4	209.0/233.0	225/250	228/256	748/748	223.8/247.8	250/300	242/269	768/768
	460-3-60	STD	NONE	—	—	67.1	90	70	324	73.3	90	78	336
			282A00	25.0	30.1	67.1	90	70	324	73.3	90	78	336
			283A00	50.0	60.1	75.0	90	83	324	82.7	90	90	336
			284A00	75.0	90.2	105.1	125	117	324	112.8	125	125	336
		MED	NONE	—	—	71.1	90	75	361	77.3	100	82	373
			282A00	25.0	30.1	71.1	90	75	361	77.3	100	82	373
			283A00	50.0	60.1	80.0	90	87	361	87.7	100	95	373
			284A00	75.0	90.2	110.1	125	122	361	117.8	125	129	373
		HIGH	NONE	—	—	74.3	90	79	381	80.5	100	86	393
			282A00	25.0	30.1	74.3	90	79	381	80.5	100	86	393
			283A00	50.0	60.1	84.0	100	91	381	91.7	100	98	393
			284A00	75.0	90.2	114.1	125	126	381	121.8	125	133	393
	575-3-60	STD	NONE	—	—	55.6	70	58	237	60.4	80	64	245
			285A00	24.8	23.9	55.6	70	58	237	60.4	80	64	245
			286A00	49.6	47.7	70.8	80	65	237	76.8	80	71	245
			287A00	74.4	71.6	82.7	90	93	237	88.7	90	98	245
		MED	NONE	—	—	57.3	70	60	264	62.1	80	66	272
			285A00	24.8	23.9	57.3	70	60	264	62.1	80	66	272
			286A00	49.6	47.7	72.9	80	67	264	78.9	80	73	272
			287A00	74.4	71.6	84.9	90	95	264	90.9	100	100	272
		HIGH	NONE	—	—	61.0	80	64	275	65.8	80	70	283
			285A00	24.8	23.9	61.0	80	64	275	65.8	80	70	283
			286A00	49.6	47.7	77.5	80	71	275	83.5	90	77	283
			287A00	74.4	71.6	89.5	100	99	275	95.5	100	104	283

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (12.5 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR PWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*14	208/230-3-60	STD	NONE	—	—	60.6/60.6	80/80	63/62	346	72.4/72.4	90/90	77/76	366
			302A00	11.3/15.0	31.3/36.1	60.6/60.6	80/80	63/62	346/346	72.4/72.4	90/90	77/76	366/366
			279A00	18.8/25.0	52.1/60.1	84.9/84.9	90/90	70/78	346/346	99.6/99.6	100/100	83/92	366/366
			309A00	37.6/50.0	104.2/120.3	141.0/141.0	150/150	130/147	346/346	155.8/155.8	175/175	143/161	366/366
		MED	NONE	—	—	65.6/65.6	80/80	69/68	381	77.4/77.4	100/100	82/81	401
			302A00	11.3/15.0	31.3/36.1	65.6/65.6	80/80	69/68	381/381	77.4/77.4	100/100	82/81	401/401
			279A00	18.8/25.0	52.1/60.1	91.0/91.0	100/100	76/84	381/381	105.8/105.8	110/110	89/97	401/401
			309A00	37.6/50.0	104.2/120.3	147.3/147.3	150/150	135/153	381/381	162.0/162.0	175/175	149/167	401/401
		HIGH	NONE	—	—	73.2	90	78	385	85.0	100	91	405
			302A00	11.3/15.0	31.3/36.1	73.2/73.2	90/90	78/78	385/385	86.4/86.4	100/100	91/91	405/405
			279A00	18.8/25.0	52.1/60.1	101.6/101.6	110/110	84/93	385/385	116.4/116.4	125/125	98/107	405/405
			309A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	385/385	171.5/171.5	175/175	158/176	405/405
		SUPER	NONE	—	—	81.2	100	85	459	93.0	110	99	479
			302A00	11.3/15.0	31.3/36.1	81.2/81.2	100/100	85/85	459/459	94.9/94.9	110/110	99/99	479/479
			279A00	18.8/25.0	52.1/60.1	110.1/110.1	125/125	92/101	459/459	124.9/124.9	125/125	106/115	479/479
			309A00	37.6/50.0	104.2/120.3	165.3/165.3	175/175	152/171	459/459	180.0/180.0	200/200	166/184	479/479
	460-3-60	STD	NONE	—	—	31.3	40	33	167	37.5	45	40	179
			303A00	15.0	18.0	31.3	40	33	167	37.5	45	40	179
			282A00	25.0	30.1	42.4	45	39	167	50.1	60	46	179
			310A00	50.0	60.1	64.9	70	73	167	72.6	80	81	179
		MED	NONE	—	—	33.9	45	36	184	40.1	50	43	196
			303A00	15.0	18.0	33.9	45	36	184	40.1	50	43	196
			282A00	25.0	30.1	45.6	50	42	184	53.4	60	49	196
			310A00	50.0	60.1	68.1	80	76	184	75.9	80	84	196
		HIGH	NONE	—	—	37.2	45	40	186	43.4	50	47	198
			303A00	15.0	18.0	37.2	45	40	186	43.4	50	47	198
			282A00	25.0	30.1	49.8	50	46	186	57.5	60	53	198
			310A00	50.0	60.1	72.2	80	80	186	80.0	90	87	198
		SUPER	NONE	—	—	41.8	50	44	223	48.0	60	51	235
			303A00	15.0	18.0	41.8	50	44	223	48.0	60	51	235
			282A00	25.0	30.1	54.8	60	50	223	62.5	70	58	235
			310A00	50.0	60.1	77.2	90	85	223	85.0	90	92	235
	575-3-60	STD	NONE	—	—	24.4	30	26	119	29.2	35	31	127
			304A00	15.0	14.4	24.4	30	26	119	29.6	35	31	127
			285A00	24.8	23.9	35.5	40	33	119	41.5	45	38	127
			311A00	49.6	47.7	65.3	70	60	119	71.3	80	66	127
		MED	NONE	—	—	26.1	30	28	133	30.9	35	33	141
			304A00	15.0	14.4	26.1	30	28	133	31.8	35	33	141
			285A00	24.8	23.9	37.6	40	35	133	43.6	45	40	141
			311A00	49.6	47.7	67.4	70	62	133	73.4	80	68	141
		HIGH	NONE	—	—	27.1	30	29	131	31.9	35	34	139
			304A00	15.0	14.4	27.1	30	29	131	33.0	35	34	139
			285A00	24.8	23.9	38.9	40	36	131	44.9	45	41	139
			311A00	49.6	47.7	68.6	70	63	131	74.6	80	69	139
		SUPER	NONE	—	—	29.0	35	31	158	33.8	40	36	166
			304A00	15.0	14.4	29.1	35	31	158	35.1	40	36	166
			285A00	24.8	23.9	41.0	45	38	158	47.0	50	43	166
			311A00	49.6	47.7	70.8	80	65	158	76.8	80	71	166

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (12.5 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*14	208/230-3-60	STD	NONE	—	—	65.4/65.4	80/80	69/68	351	77.2/77.2	100/100	82/81	371
			302A00	11.3/15.0	31.3/36.1	65.4/65.4	80/80	69/68	351/351	77.2/77.2	100/100	82/81	371/371
			279A00	18.8/25.0	52.1/60.1	90.9/90.9	100/100	75/84	351/351	105.6/105.6	110/110	89/97	371/371
			309A00	37.6/50.0	104.2/120.3	147.0/147.0	150/150	135/153	351/351	161.8/161.8	175/175	149/166	371/371
		MED	NONE	—	—	70.4/70.4	90/90	74/73	386	82.2/82.2	100/100	88/87	406
			302A00	11.3/15.0	31.3/36.1	70.4/70.4	90/90	74/73	386/386	82.2/82.2	100/100	88/87	406/406
			279A00	18.8/25.0	52.1/60.1	97.0/97.0	100/100	81/89	386/386	111.8/111.8	125/125	95/103	406/406
			309A00	37.6/50.0	104.2/120.3	153.3/153.3	175/175	141/158	386/386	168.0/168.0	175/175	155/172	406/406
		HIGH	NONE	—	—	78.0	100	83	390	89.8	100	97	410
			302A00	11.3/15.0	31.3/36.1	78.0/78.0	100/100	83/83	390/390	92.4/92.4	100/100	97/97	410/410
			279A00	18.8/25.0	52.1/60.1	107.6/107.6	110/110	90/99	390/390	122.4/122.4	125/125	103/113	410/410
			309A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	390/390	177.5/177.5	200/200	163/182	410/410
		SUPER	NONE	—	—	86.0	100	91	464	97.8	125	104	484
			302A00	11.3/15.0	31.3/36.1	86.1/86.1	100/100	91/91	464/464	100.9/100.9	125/125	104/104	484/484
			279A00	18.8/25.0	52.1/60.1	116.1/116.1	125/125	98/107	464/464	130.9/130.9	150/150	111/120	484/484
			309A00	37.6/50.0	104.2/120.3	171.3/171.3	175/175	158/176	464/464	186.0/186.0	200/200	171/190	484/484
	460-3-60	STD	NONE	—	—	33.5	40	35	169	39.7	50	42	181
			303A00	15.0	18.0	33.5	40	35	169	39.7	50	42	181
			282A00	25.0	30.1	45.1	50	42	169	52.9	60	49	181
			310A00	50.0	60.1	67.6	80	76	169	75.4	80	83	181
		MED	NONE	—	—	36.1	45	38	186	42.3	50	45	198
			303A00	15.0	18.0	36.1	45	38	186	42.3	50	45	198
			282A00	25.0	30.1	48.4	50	45	186	56.1	60	52	198
			310A00	50.0	60.1	70.9	80	79	186	78.6	80	86	198
		HIGH	NONE	—	—	39.4	50	42	188	45.6	50	49	200
			303A00	15.0	18.0	39.4	50	42	188	45.6	50	49	200
			282A00	25.0	30.1	52.5	60	48	188	60.3	70	55	200
			310A00	50.0	60.1	75.0	80	83	188	82.7	90	90	200
		SUPER	NONE	—	—	44.0	50	47	225	50.2	60	54	237
			303A00	15.0	18.0	44.0	50	47	225	50.2	60	54	237
			282A00	25.0	30.1	57.5	60	53	225	65.3	70	60	237
			310A00	50.0	60.1	80.0	90	87	225	87.7	90	95	237
	575-3-60	STD	NONE	—	—	26.1	30	28	121	30.9	35	33	129
			304A00	15.0	14.4	26.1	30	28	121	31.8	35	33	129
			285A00	24.8	23.9	37.6	40	35	121	43.6	45	40	129
			311A00	49.6	47.7	67.4	70	62	121	73.4	80	68	129
		MED	NONE	—	—	27.8	30	30	135	32.6	40	35	143
			304A00	15.0	14.4	27.9	30	30	135	33.9	40	35	143
			285A00	24.8	23.9	39.8	40	37	135	45.8	50	42	143
			311A00	49.6	47.7	69.5	70	64	135	75.5	80	69	143
		HIGH	NONE	—	—	28.8	35	31	133	33.6	40	36	141
			304A00	15.0	14.4	29.1	35	31	133	35.1	40	36	141
			285A00	24.8	23.9	41.0	45	38	133	47.0	50	43	141
			311A00	49.6	47.7	70.8	80	65	133	76.8	80	71	141
		SUPER	NONE	—	—	30.7	35	33	160	35.5	40	38	168
			304A00	15.0	14.4	31.3	35	33	160	37.3	40	38	168
			285A00	24.8	23.9	43.1	45	40	160	49.1	50	45	168
			311A00	49.6	47.7	72.9	80	67	160	78.9	80	73	168

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (15 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*17	208/230-3-60	STD	NONE	—	—	69.4/69.4	90/90	72/71	375	81.2/81.2	100/100	85/85	395
			279A00	18.8/25.0	52.1/60.1	84.9/84.9	90/90	72/78	375/375	99.6/99.6	100/100	85/92	395/395
			280A00	37.6/50.0	104.2/120.3	141.0/141.0	150/150	130/147	375/375	155.8/155.8	175/175	143/161	395/395
			281A00	56.3/75.0	156.4/180.4	190.2/190.2	200/200	190/216	375/375	204.9/204.9	225/225	203/230	395/395
		MED	NONE	—	—	82.0	100	86	414	93.8	110	100	434
			279A00	18.8/25.0	52.1/60.1	101.6/101.6	110/110	86/93	414/414	116.4/116.4	125/125	100/107	434/434
			280A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	414/414	171.5/171.5	175/175	158/176	434/434
			281A00	56.3/75.0	156.4/180.4	206.9/206.9	225/250	204/232	414/414	221.7/221.7	225/250	218/245	434/434
		HIGH	NONE	—	—	88.9	100	94	488	100.7	125	108	508
			279A00	18.8/25.0	52.1/60.1	110.1/110.1	125/125	94/101	488/488	124.9/124.9	125/125	108/115	508/508
			280A00	37.6/50.0	104.2/120.3	165.3/165.3	175/175	152/171	488/488	180.0/180.0	200/200	166/184	508/508
			281A00	56.3/75.0	156.4/180.4	215.4/215.4	225/250	212/240	488/488	230.2/230.2	250/250	226/253	508/508
		SUPER	NONE	—	—	100.5	125	105	528	112.3	125	118	548
			279A00	18.8/25.0	52.1/60.1	121.8/121.8	125/125	105/112	528/528	136.5/136.5	150/150	118/126	548/548
			280A00	37.6/50.0	104.2/120.3	176.9/176.9	200/200	163/181	528/528	191.6/191.6	200/200	176/195	548/548
			281A00	56.3/75.0	156.4/180.4	227.0/227.0	250/250	223/250	528/528	241.8/241.8	250/250	236/264	548/548
	460-3-60	STD	NONE	—	—	34.8	45	36	193	41.0	50	43	205
			282A00	25.0	30.1	42.4	45	39	193	50.1	60	46	205
			283A00	50.0	60.1	64.9	70	73	193	72.6	80	81	205
			284A00	75.0	90.2	95.0	100	108	193	102.7	110	115	205
		MED	NONE	—	—	40.7	50	43	212	46.9	60	50	224
			282A00	25.0	30.1	49.8	50	46	212	57.5	60	53	224
			283A00	50.0	60.1	72.2	80	80	212	80.0	90	87	224
			284A00	75.0	90.2	102.3	125	115	212	110.1	125	122	224
		HIGH	NONE	—	—	44.9	50	48	249	51.1	60	55	261
			282A00	25.0	30.1	54.8	60	50	249	62.5	70	58	261
			283A00	50.0	60.1	77.2	90	85	249	85.0	90	92	261
			284A00	75.0	90.2	107.3	125	119	249	115.1	125	127	261
		SUPER	NONE	—	—	48.9	60	51	269	55.1	60	59	281
			282A00	25.0	30.1	58.8	60	54	269	66.5	70	61	281
			283A00	50.0	60.1	81.2	90	89	269	89.0	100	96	281
			284A00	75.0	90.2	111.3	125	123	269	119.1	125	130	281
	575-3-60	STD	NONE	—	—	30.0	40	32	154	34.8	40	37	162
			285A00	24.8	23.9	35.5	40	33	154	41.5	45	38	162
			286A00	49.6	47.7	65.3	70	60	154	71.3	80	66	162
			287A00	74.4	71.6	77.2	90	88	154	83.2	90	93	162
		MED	NONE	—	—	32.7	40	35	166	37.5	45	40	174
			285A00	24.8	23.9	38.9	40	36	166	44.9	45	41	174
			286A00	49.6	47.7	68.6	70	63	166	74.6	80	69	174
			287A00	74.4	71.6	80.6	90	91	166	86.6	90	96	174
		HIGH	NONE	—	—	34.4	40	37	193	39.2	45	42	201
			285A00	24.8	23.9	41.0	45	38	193	47.0	50	43	201
			286A00	49.6	47.7	70.8	80	65	193	76.8	80	71	201
			287A00	74.4	71.6	82.7	90	93	193	88.7	90	98	201
		SUPER	NONE	—	—	38.7	50	41	204	43.5	50	46	212
			285A00	24.8	23.9	45.6	50	42	204	51.6	60	47	212
			286A00	49.6	47.7	75.4	80	69	204	81.4	90	75	212
			287A00	74.4	71.6	87.4	100	97	204	93.4	100	102	212

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (15 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*17	208/230-3-60	STD	NONE	—	—	74.2/74.2	100/100	77/76	380	86.0/86.0	100/100	91/90	400
			279A00	18.8/25.0	52.1/60.1	90.9/90.9	100/100	77/84	380/380	105.6/105.6	110/110	91/97	400/400
			280A00	37.6/50.0	104.2/120.3	147.0/147.0	150/150	135/153	380/380	161.8/161.8	175/175	149/166	400/400
			281A00	56.3/75.0	156.4/180.4	196.2/196.2	200/225	195/222	380/380	210.9/210.9	225/225	209/236	400/400
		MED	NONE	—	—	86.8	100	92	419	98.6	125	105	439
			279A00	18.8/25.0	52.1/60.1	107.6/107.6	110/110	92/99	419/419	122.4/122.4	125/125	105/113	439/439
			280A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	419/419	177.5/177.5	200/200	163/182	439/439
			281A00	56.3/75.0	156.4/180.4	212.9/212.9	225/250	210/237	419/419	227.7/227.7	250/250	223/251	439/439
		HIGH	NONE	—	—	93.7	110	100	493	105.5	125	113	513
			279A00	18.8/25.0	52.1/60.1	116.1/116.1	125/125	100/107	493/493	130.9/130.9	150/150	113/120	513/513
			280A00	37.6/50.0	104.2/120.3	171.3/171.3	175/175	158/176	493/493	186.0/186.0	200/200	171/190	513/513
			281A00	56.3/75.0	156.4/180.4	221.4/221.4	225/250	218/245	493/493	236.2/236.2	250/250	231/259	513/513
		SUPER	NONE	—	—	105.3	125	110	533	117.1	150	124	553
			279A00	18.8/25.0	52.1/60.1	127.8/127.8	150/150	110/118	533/533	142.5/142.5	150/150	124/131	553/553
			280A00	37.6/50.0	104.2/120.3	182.9/182.9	200/200	168/187	533/533	197.6/197.6	200/200	182/200	553/553
			281A00	56.3/75.0	156.4/180.4	233.0/233.0	250/250	228/256	533/533	247.8/247.8	250/300	242/269	553/553
	460-3-60	STD	NONE	—	—	37.0	45	39	195	43.2	50	46	207
			282A00	25.0	30.1	45.1	50	42	195	52.9	60	49	207
			283A00	50.0	60.1	67.6	80	76	195	75.4	80	83	207
			284A00	75.0	90.2	97.7	100	111	195	105.5	110	118	207
		MED	NONE	—	—	42.9	50	46	214	49.1	60	53	226
			282A00	25.0	30.1	52.5	60	48	214	60.3	70	55	226
			283A00	50.0	60.1	75.0	80	83	214	82.7	90	90	226
			284A00	75.0	90.2	105.1	125	117	214	112.8	125	125	226
		HIGH	NONE	—	—	47.1	60	50	251	53.3	60	57	263
			282A00	25.0	30.1	57.5	60	53	251	65.3	70	60	263
			283A00	50.0	60.1	80.0	90	87	251	87.7	90	95	263
			284A00	75.0	90.2	110.1	125	122	251	117.8	125	129	263
		SUPER	NONE	—	—	51.1	60	54	271	57.3	70	61	283
			282A00	25.0	30.1	61.5	70	57	271	69.3	70	64	283
			283A00	50.0	60.1	84.0	100	91	271	91.7	100	98	283
			284A00	75.0	90.2	114.1	125	126	271	121.8	125	133	283
	575-3-60	STD	NONE	—	—	31.7	40	33	156	36.5	45	39	164
			285A00	24.8	23.9	37.6	40	35	156	43.6	45	40	164
			286A00	49.6	47.7	67.4	70	62	156	73.4	80	68	164
			287A00	74.4	71.6	79.4	90	89	156	85.4	90	95	164
		MED	NONE	—	—	34.4	40	37	168	39.2	45	42	176
			285A00	24.8	23.9	41.0	45	38	168	47.0	50	43	176
			286A00	49.6	47.7	70.8	80	65	168	76.8	80	71	176
			287A00	74.4	71.6	82.7	90	93	168	88.7	90	98	176
		HIGH	NONE	—	—	36.1	45	39	195	40.9	50	44	203
			285A00	24.8	23.9	43.1	45	40	195	49.1	50	45	203
			286A00	49.6	47.7	72.9	80	67	195	78.9	80	73	203
			287A00	74.4	71.6	84.9	90	95	195	90.9	100	100	203
		SUPER	NONE	—	—	40.4	50	43	206	45.2	50	48	214
			285A00	24.8	23.9	47.8	50	44	206	53.8	60	49	214
			286A00	49.6	47.7	77.5	80	71	206	83.5	90	77	214
			287A00	74.4	71.6	89.5	100	99	206	95.5	100	104	214

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (17.5 TONS, NO CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*20	208/230-3-60	STD	NONE	—	—	75.3/75.3	100/100	79/78	416	87.1/87.1	100/100	92/91	436
			279A00	18.8/25.0	52.1/60.1	84.9/84.9	100/100	79/78	416/416	99.6/99.6	100/100	92/92	436/436
			280A00	37.6/50.0	104.2/120.3	141.0/141.0	150/150	130/147	416/416	155.8/155.8	175/175	143/161	436/436
			281A00	56.3/75.0	156.4/180.4	190.2/190.2	200/200	190/216	416/416	204.9/204.9	225/225	203/230	436/436
		MED	NONE	—	—	87.9	100	93	455	99.7	125	107	475
			279A00	18.8/25.0	52.1/60.1	101.6/101.6	110/110	93/93	455/455	116.4/116.4	125/125	107/107	475/475
			280A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	455/455	171.5/171.5	175/175	158/176	475/475
			281A00	56.3/75.0	156.4/180.4	206.9/206.9	225/250	204/232	455/455	221.7/221.7	225/250	218/245	475/475
		HIGH	NONE	—	—	94.8	110	101	529	106.6	125	115	549
			279A00	18.8/25.0	52.1/60.1	110.1/110.1	125/125	101/101	529/529	124.9/124.9	125/125	115/115	549/549
			280A00	37.6/50.0	104.2/120.3	165.3/165.3	175/175	152/171	529/529	180.0/180.0	200/200	166/184	549/549
			281A00	56.3/75.0	156.4/180.4	215.4/215.4	225/250	212/240	529/529	230.2/230.2	250/250	226/253	549/549
		SUPER	NONE	—	—	106.4	125	112	569	118.2	150	125	589
			279A00	18.8/25.0	52.1/60.1	121.8/121.8	125/125	112/112	569/569	136.5/136.5	150/150	125/126	589/589
			280A00	37.6/50.0	104.2/120.3	176.9/176.9	200/200	163/181	569/569	191.6/191.6	200/200	176/195	589/589
			281A00	56.3/75.0	156.4/180.4	227.0/227.0	250/250	223/250	569/569	241.8/241.8	250/250	236/264	589/589
	460-3-60	STD	NONE	—	—	37.2	50	39	231	43.4	50	46	243
			282A00	25.0	30.1	42.4	50	39	231	50.1	60	46	243
			283A00	50.0	60.1	64.9	70	73	231	72.6	80	81	243
			284A00	75.0	90.2	95.0	100	108	231	102.7	110	115	243
		MED	NONE	—	—	43.1	50	46	250	49.3	60	53	262
			282A00	25.0	30.1	49.8	50	46	250	57.5	60	53	262
			283A00	50.0	60.1	72.2	80	80	250	80.0	90	87	262
			284A00	75.0	90.2	102.3	125	115	250	110.1	125	122	262
		HIGH	NONE	—	—	47.3	60	50	287	53.5	60	58	299
			282A00	25.0	30.1	54.8	60	50	287	62.5	70	58	299
			283A00	50.0	60.1	77.2	90	85	287	85.0	90	92	299
			284A00	75.0	90.2	107.3	125	119	287	115.1	125	127	299
		SUPER	NONE	—	—	51.3	60	54	307	57.5	70	61	319
			282A00	25.0	30.1	58.8	60	54	307	66.5	70	61	319
			283A00	50.0	60.1	81.2	90	89	307	89.0	100	96	319
			284A00	75.0	90.2	111.3	125	123	307	119.1	125	130	319
	575-3-60	STD	NONE	—	—	31.8	40	34	182	36.6	45	39	190
			285A00	24.8	23.9	35.5	40	34	182	41.5	45	39	190
			286A00	49.6	47.7	65.3	70	60	182	71.3	80	66	190
			287A00	74.4	71.6	77.2	90	88	182	83.2	90	93	190
		MED	NONE	—	—	34.5	40	37	194	39.3	45	42	202
			285A00	24.8	23.9	38.9	40	37	194	44.9	45	42	202
			286A00	49.6	47.7	68.6	70	63	194	74.6	80	69	202
			287A00	74.4	71.6	80.6	90	91	194	86.6	90	96	202
		HIGH	NONE	—	—	36.2	45	39	221	41.0	50	44	229
			285A00	24.8	23.9	41.0	45	39	221	47.0	50	44	229
			286A00	49.6	47.7	70.8	80	65	221	76.8	80	71	229
			287A00	74.4	71.6	82.7	90	93	221	88.7	90	98	229
		SUPER	NONE	—	—	40.5	50	43	232	45.3	50	48	240
			285A00	24.8	23.9	45.6	50	43	232	51.6	60	48	240
			286A00	49.6	47.7	75.4	80	69	232	81.4	90	75	240
			287A00	74.4	71.6	87.4	100	97	232	93.4	100	102	240

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (17.5 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-PH-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*20	208/230-3-60	STD	NONE	—	—	80.1/80.1	100/100	84/83	421	91.9/91.9	100/100	98/97	441
			279A00	18.8/25.0	52.1/60.1	90.9/90.9	100/100	84/84	421/421	105.6/105.6	110/110	98/97	441/441
			280A00	37.6/50.0	104.2/120.3	147.0/147.0	150/150	135/153	421/421	161.8/161.8	175/175	149/166	441/441
			281A00	56.3/75.0	156.4/180.4	196.2/196.2	200/225	195/222	421/421	210.9/210.9	225/225	209/236	441/441
		MED	NONE	—	—	92.7	100	99	460	104.5	125	112	480
			279A00	18.8/25.0	52.1/60.1	107.6/107.6	110/110	99/99	460/460	122.4/122.4	125/125	112/113	480/480
			280A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	460/460	177.5/177.5	200/200	163/182	480/480
			281A00	56.3/75.0	156.4/180.4	212.9/212.9	225/250	210/237	460/460	227.7/227.7	250/250	223/251	480/480
		HIGH	NONE	—	—	99.6	125	106	534	111.4	125	120	554
			279A00	18.8/25.0	52.1/60.1	116.1/116.1	125/125	106/107	534/534	130.9/130.9	150/150	120/120	554/554
			280A00	37.6/50.0	104.2/120.3	171.3/171.3	175/175	158/176	534/534	186.0/186.0	200/200	171/190	554/554
			281A00	56.3/75.0	156.4/180.4	221.4/221.4	225/250	218/245	534/534	236.2/236.2	250/250	231/259	554/554
		SUPER	NONE	—	—	111.2	125	117	574	123.0	150	131	594
			279A00	18.8/25.0	52.1/60.1	127.8/127.8	150/150	117/118	574/574	142.5/142.5	150/150	131/131	594/594
			280A00	37.6/50.0	104.2/120.3	182.9/182.9	200/200	168/187	574/574	197.6/197.6	200/200	182/200	594/594
			281A00	56.3/75.0	156.4/180.4	233.0/233.0	250/250	228/256	574/574	247.8/247.8	250/300	242/269	594/594
	460-3-60	STD	NONE	—	—	39.4	50	42	233	45.6	50	49	245
			282A00	25.0	30.1	45.1	50	42	233	52.9	60	49	245
			283A00	50.0	60.1	67.6	80	76	233	75.4	80	83	245
			284A00	75.0	90.2	97.7	100	111	233	105.5	110	118	245
		MED	NONE	—	—	45.3	50	48	252	51.5	60	56	264
			282A00	25.0	30.1	52.5	60	48	252	60.3	70	56	264
			283A00	50.0	60.1	75.0	80	83	252	82.7	90	90	264
			284A00	75.0	90.2	105.1	125	117	252	112.8	125	125	264
		HIGH	NONE	—	—	49.5	60	53	289	55.7	60	60	301
			282A00	25.0	30.1	57.5	60	53	289	65.3	70	60	301
			283A00	50.0	60.1	80.0	90	87	289	87.7	90	95	301
			284A00	75.0	90.2	110.1	125	122	289	117.8	125	129	301
		SUPER	NONE	—	—	53.5	60	57	309	59.7	70	64	321
			282A00	25.0	30.1	61.5	70	57	309	69.3	70	64	321
			283A00	50.0	60.1	84.0	100	91	309	91.7	100	98	321
			284A00	75.0	90.2	114.1	125	126	309	121.8	125	133	321
	575-3-60	STD	NONE	—	—	33.5	40	36	184	38.3	45	41	192
			285A00	24.8	23.9	37.6	40	36	184	43.6	45	41	192
			286A00	49.6	47.7	67.4	70	62	184	73.4	80	68	192
			287A00	74.4	71.6	79.4	90	89	184	85.4	90	95	192
		MED	NONE	—	—	36.2	45	39	196	41.0	50	44	204
			285A00	24.8	23.9	41.0	45	39	196	47.0	50	44	204
			286A00	49.6	47.7	70.8	80	65	196	76.8	80	71	204
			287A00	74.4	71.6	82.7	90	93	196	88.7	90	98	204
		HIGH	NONE	—	—	37.9	45	41	223	42.7	50	46	231
			285A00	24.8	23.9	43.1	45	41	223	49.1	50	46	231
			286A00	49.6	47.7	72.9	80	67	223	78.9	80	73	231
			287A00	74.4	71.6	84.9	90	95	223	90.9	100	100	231
		SUPER	NONE	—	—	42.2	50	45	234	47.0	60	50	242
			285A00	24.8	23.9	47.8	50	45	234	53.8	60	50	242
			286A00	49.6	47.7	77.5	80	71	234	83.5	90	77	242
			287A00	74.4	71.6	89.5	100	99	234	95.5	100	104	242

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (20 TONS, NO CO)

UNIT SIZE	NOM. V-PH-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*24	208/230-3-60	STD	NONE	—	—	103.1	125	109	538	114.9	125	123	558
			279A00	18.8/25.0	52.1/60.1	103.1/103.1	125/125	109/109	538/538	116.4/116.4	125/125	123/123	558/558
			280A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	538/538	171.5/171.5	175/175	158/176	558/558
			281A00	56.3/75.0	156.4/180.4	206.9/206.9	225/250	204/232	538/538	221.7/221.7	225/250	218/245	558/558
		MED	NONE	—	—	103.1	125	109	538	114.9	125	123	558
			279A00	18.8/25.0	52.1/60.1	103.1/103.1	125/125	109/109	538/538	116.4/116.4	125/125	123/123	558/558
			280A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	538/538	171.5/171.5	175/175	158/176	558/558
			281A00	56.3/75.0	156.4/180.4	206.9/206.9	225/250	204/232	538/538	221.7/221.7	225/250	218/245	558/558
		HIGH	NONE	—	—	109.9	125	117	612	121.7	150	130	632
			279A00	18.8/25.0	52.1/60.1	110.1/110.1	125/125	117/117	612/612	124.9/124.9	150/150	130/130	632/632
			280A00	37.6/50.0	104.2/120.3	165.3/165.3	175/175	152/171	612/612	180.0/180.0	200/200	166/184	632/632
			281A00	56.3/75.0	156.4/180.4	215.4/215.4	225/250	212/240	612/612	230.2/230.2	250/250	226/253	632/632
		SUPER	NONE	—	—	120.2	150	128	652	132.0	150	141	672
			279A00	18.8/25.0	52.1/60.1	121.8/121.8	150/150	128/128	652/652	136.5/136.5	150/150	141/141	672/672
			280A00	37.6/50.0	104.2/120.3	176.9/176.9	200/200	163/181	652/652	191.6/191.6	200/200	176/195	672/672
			281A00	56.3/75.0	156.4/180.4	227.0/227.0	250/250	223/250	652/652	241.8/241.8	250/250	236/264	672/672
	460-3-60	STD	NONE	—	—	56.6	70	60	278	62.8	80	67	290
			282A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
			283A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
			284A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		MED	NONE	—	—	56.6	70	60	278	62.8	80	67	290
			282A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
			283A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
			284A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		HIGH	NONE	—	—	60.6	70	65	315	66.8	80	72	327
			282A00	25.0	30.1	60.6	70	65	315	66.8	80	72	327
			283A00	50.0	60.1	77.2	90	85	315	85.0	90	92	327
			284A00	75.0	90.2	107.3	125	119	315	115.1	125	127	327
		SUPER	NONE	—	—	63.8	80	68	335	70.0	80	75	347
			282A00	25.0	30.1	63.8	80	68	335	70.0	80	75	347
			283A00	50.0	60.1	81.2	90	89	335	89.0	100	96	347
			284A00	75.0	90.2	111.3	125	123	335	119.1	125	130	347
	575-3-60	STD	NONE	—	—	45.0	50	48	206	49.8	60	54	214
			285A00	24.8	23.9	45.0	50	48	206	49.8	60	54	214
			286A00	49.6	47.7	68.6	70	63	206	74.6	80	69	214
			287A00	74.4	71.6	80.6	90	91	206	86.6	90	96	214
		MED	NONE	—	—	45.0	50	48	206	49.8	60	54	214
			285A00	24.8	23.9	45.0	50	48	206	49.8	60	54	214
			286A00	49.6	47.7	68.6	70	63	206	74.6	80	69	214
			287A00	74.4	71.6	80.6	90	91	206	86.6	90	96	214
		HIGH	NONE	—	—	46.7	50	50	233	51.5	60	56	241
			285A00	24.8	23.9	46.7	50	50	233	51.5	60	56	241
			286A00	49.6	47.7	70.8	80	65	233	76.8	80	71	241
			287A00	74.4	71.6	82.7	90	93	233	88.7	90	98	241
		SUPER	NONE	—	—	50.4	60	54	244	55.2	60	60	252
			285A00	24.8	23.9	50.4	60	54	244	55.2	60	60	252
			286A00	49.6	47.7	75.4	80	69	244	81.4	90	75	252
			287A00	74.4	71.6	87.4	100	97	244	93.4	100	102	252

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (20 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-Ph-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*24	208/230-3-60	STD	NONE	—	—	107.9	125	115	543	119.7	150	128	563
			279A00	18.8/25.0	52.1/60.1	107.9/107.9	125/125	115/115	543/543	122.4/122.4	150/150	128/128	563/563
			280A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	543/543	177.5/177.5	200/200	163/182	563/563
			281A00	56.3/75.0	156.4/180.4	212.9/212.9	225/250	210/237	543/543	227.7/227.7	250/250	223/251	563/563
		MED	NONE	—	—	107.9	125	115	543	119.7	150	128	563
			279A00	18.8/25.0	52.1/60.1	107.9/107.9	125/125	115/115	543/543	122.4/122.4	150/150	128/128	563/563
			280A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	543/543	177.5/177.5	200/200	163/182	563/563
			281A00	56.3/75.0	156.4/180.4	212.9/212.9	225/250	210/237	543/543	227.7/227.7	250/250	223/251	563/563
		HIGH	NONE	—	—	114.7	125	122	617	126.5	150	136	637
			279A00	18.8/25.0	52.1/60.1	116.1/116.1	125/125	122/122	617/617	130.9/130.9	150/150	136/136	637/637
			280A00	37.6/50.0	104.2/120.3	171.3/171.3	175/175	158/176	617/617	186.0/186.0	200/200	171/190	637/637
			281A00	56.3/75.0	156.4/180.4	221.4/221.4	225/250	218/245	617/617	236.2/236.2	250/250	231/259	637/637
		SUPER	NONE	—	—	125.0	150	133	657	136.8	150	147	677
			279A00	18.8/25.0	52.1/60.1	127.8/127.8	150/150	133/133	657/657	142.5/142.5	150/150	147/147	677/677
			280A00	37.6/50.0	104.2/120.3	182.9/182.9	200/200	168/187	657/657	197.6/197.6	200/200	182/200	677/677
			281A00	56.3/75.0	156.4/180.4	233.0/233.0	250/250	228/256	657/657	247.8/247.8	250/300	242/269	677/677
	460-3-60	STD	NONE	—	—	58.8	70	62	280	65.0	80	70	292
			282A00	25.0	30.1	58.8	70	62	280	65.0	80	70	292
			283A00	50.0	60.1	75.0	80	83	280	82.7	90	90	292
			284A00	75.0	90.2	105.1	125	117	280	112.8	125	125	292
		MED	NONE	—	—	58.8	70	62	280	65.0	80	70	292
			282A00	25.0	30.1	58.8	70	62	280	65.0	80	70	292
			283A00	50.0	60.1	75.0	80	83	280	82.7	90	90	292
			284A00	75.0	90.2	105.1	125	117	280	112.8	125	125	292
		HIGH	NONE	—	—	62.8	80	67	317	69.0	80	74	329
			282A00	25.0	30.1	62.8	80	67	317	69.0	80	74	329
			283A00	50.0	60.1	80.0	90	87	317	87.7	90	95	329
			284A00	75.0	90.2	110.1	125	122	317	117.8	125	129	329
		SUPER	NONE	—	—	66.0	80	71	337	72.2	90	78	349
			282A00	25.0	30.1	66.0	80	71	337	72.2	90	78	349
			283A00	50.0	60.1	84.0	100	91	337	91.7	100	98	349
			284A00	75.0	90.2	114.1	125	126	337	121.8	125	133	349
	575-3-60	STD	NONE	—	—	46.7	50	50	208	51.5	60	56	216
			285A00	24.8	23.9	46.7	50	50	208	51.5	60	56	216
			286A00	49.6	47.7	70.8	80	65	208	76.8	80	71	216
			287A00	74.4	71.6	82.7	90	93	208	88.7	90	98	216
		MED	NONE	—	—	46.7	50	50	208	51.5	60	56	216
			285A00	24.8	23.9	46.7	50	50	208	51.5	60	56	216
			286A00	49.6	47.7	70.8	80	65	208	76.8	80	71	216
			287A00	74.4	71.6	82.7	90	93	208	88.7	90	98	216
		HIGH	NONE	—	—	48.4	60	52	235	53.2	60	58	243
			285A00	24.8	23.9	48.4	60	52	235	53.2	60	58	243
			286A00	49.6	47.7	72.9	80	67	235	78.9	80	73	243
			287A00	74.4	71.6	84.9	90	95	235	90.9	100	100	243
		SUPER	NONE	—	—	52.1	60	56	246	56.9	70	62	254
			285A00	24.8	23.9	52.1	60	56	246	56.9	70	62	254
			286A00	49.6	47.7	77.5	80	71	246	83.5	90	77	254
			287A00	74.4	71.6	89.5	100	99	246	95.5	100	104	254

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (23 TONS, NO CO)

UNIT SIZE	NOM. V-PH-Hz	IFM TYPE	ELEC. HTR			NO CO OR UNPWR CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*026	208/230-3-60	STD	NONE	—	—	126.1	175	130	629	137.9	175	144	649
			279A00	18.8/25.0	52.1/60.1	126.1/126.1	175/175	130/130	629/629	137.9/137.9	175/175	144/144	649/649
			280A00	37.6/50.0	104.2/120.3	156.8/156.8	175/175	144/163	629/629	171.5/171.5	175/175	158/176	649/649
			281A00	56.3/75.0	156.4/180.4	206.9/206.9	225/250	204/232	629/629	221.7/221.7	225/250	218/245	649/649
		MED	NONE	—	—	132.9	175	138	703	144.7	175	152	723
			279A00	18.8/25.0	52.1/60.1	132.9/132.9	175/175	138/138	703/703	144.7/144.7	175/175	152/152	723/723
			280A00	37.6/50.0	104.2/120.3	165.3/165.3	175/175	152/171	703/703	180.0/180.0	200/200	166/184	723/723
			281A00	56.3/75.0	156.4/180.4	215.4/215.4	225/250	212/240	703/703	230.2/230.2	250/250	226/253	723/723
		HIGH	NONE	—	—	142.2	175	149	743	154.0	200	162	763
			279A00	18.8/25.0	52.1/60.1	142.2/142.2	175/175	149/149	743/743	154.0/154.0	200/200	162/162	763/763
			280A00	37.6/50.0	104.2/120.3	176.9/176.9	200/200	163/181	743/743	191.6/191.6	200/200	176/195	763/763
			281A00	56.3/75.0	156.4/180.4	227.0/227.0	250/250	223/250	743/743	241.8/241.8	250/250	236/264	763/763
	460-3-60	STD	NONE	—	—	64.9	80	68	322	71.1	90	75	334
			282A00	25.0	30.1	64.9	80	68	322	71.1	90	75	334
			283A00	50.0	60.1	72.2	80	80	322	80.0	90	87	334
			284A00	75.0	90.2	102.3	125	115	322	110.1	125	122	334
		MED	NONE	—	—	68.9	90	73	359	75.1	90	80	371
			282A00	25.0	30.1	68.9	90	73	359	75.1	90	80	371
			283A00	50.0	60.1	77.2	90	85	359	85.0	90	92	371
			284A00	75.0	90.2	107.3	125	119	359	115.1	125	127	371
		HIGH	NONE	—	—	72.1	90	76	379	78.3	100	83	391
			282A00	25.0	30.1	72.1	90	76	379	78.3	100	83	391
			283A00	50.0	60.1	81.2	90	89	379	89.0	100	96	391
			284A00	75.0	90.2	111.3	125	123	379	119.1	125	130	391
	575-3-60	STD	NONE	—	—	53.9	60	56	235	58.7	70	62	243
			285A00	24.8	23.9	53.9	60	56	235	58.7	70	62	243
			286A00	49.6	47.7	68.6	70	63	235	74.6	80	69	243
			287A00	74.4	71.6	80.6	90	91	235	86.6	90	96	243
		MED	NONE	—	—	55.6	70	58	262	60.4	80	64	270
			285A00	24.8	23.9	55.6	70	58	262	60.4	80	64	270
			286A00	49.6	47.7	70.8	80	65	262	76.8	80	71	270
			287A00	74.4	71.6	82.7	90	93	262	88.7	90	98	270
		HIGH	NONE	—	—	59.3	70	62	273	64.1	80	68	281
			285A00	24.8	23.9	59.3	70	62	273	64.1	80	68	281
			286A00	49.6	47.7	75.4	80	69	273	81.4	90	75	281
			287A00	74.4	71.6	87.4	100	97	273	93.4	100	102	281

See Legends and Notes on page 100.

UNIT WIRE SIZING DATA WITH FACTORY-INSTALLED HACR BREAKER (23 TONS, WITH POWERED CO)

UNIT SIZE	NOM. V-PH-Hz	IFM TYPE	ELEC. HTR			W/ PWRD CO							
			CRHEATER PART NUMBER	NOM (kW)	FLA	NO PE				W/ PE (PWRD FR/UNIT)			
						MCA	HACR BRKR	DISC. SIZE		MCA	HACR BRKR	DISC. SIZE	
								FLA	LRA			FLA	LRA
50LC*026	208-230-3-60	STD	NONE	—	—	130.9	175	136	634	142.7	175	149	654
			279A00	18.8/25.0	52.1/60.1	130.9/130.9	175/175	136/136	634/634	142.7/142.7	175/175	149/149	654/654
			280A00	37.6/50.0	104.2/120.3	162.8/162.8	175/175	150/168	634/634	177.5/177.5	200/200	163/182	654/654
			281A00	56.3/75.0	156.4/180.4	212.9/212.9	225/250	210/237	634/634	227.7/227.7	250/250	223/251	654/654
		MED	NONE	—	—	137.7	175	144	708	149.5	200	157	728
			279A00	18.8/25.0	52.1/60.1	137.7/137.7	175/175	144/144	708/708	149.5/149.5	200/200	157/157	728/728
			280A00	37.6/50.0	104.2/120.3	171.3/171.3	175/175	158/176	708/708	186.0/186.0	200/200	171/190	728/728
			281A00	56.3/75.0	156.4/180.4	221.4/221.4	225/250	218/245	708/708	236.2/236.2	250/250	231/259	728/728
		HIGH	NONE	—	—	147.0	175	154	748	158.8	200	168	768
			279A00	18.8/25.0	52.1/60.1	147.0/147.0	175/175	154/154	748/748	158.8/158.8	200/200	168/168	768/768
			280A00	37.6/50.0	104.2/120.3	182.9/182.9	200/200	168/187	748/748	197.6/197.6	200/200	182/200	768/768
			281A00	56.3/75.0	156.4/180.4	233.0/233.0	250/250	228/256	748/748	247.8/247.8	250/300	242/269	768/768
	460-3-60	STD	NONE	—	—	67.1	90	70	324	73.3	90	78	336
			282A00	25.0	30.1	67.1	90	70	324	73.3	90	78	336
			283A00	50.0	60.1	75.0	90	83	324	82.7	90	90	336
			284A00	75.0	90.2	105.1	125	117	324	112.8	125	125	336
		MED	NONE	—	—	71.1	90	75	361	77.3	100	82	373
			282A00	25.0	30.1	71.1	90	75	361	77.3	100	82	373
			283A00	50.0	60.1	80.0	90	87	361	87.7	100	95	373
			284A00	75.0	90.2	110.1	125	122	361	117.8	125	129	373
		HIGH	NONE	—	—	74.3	90	79	381	80.5	100	86	393
			282A00	25.0	30.1	74.3	90	79	381	80.5	100	86	393
			283A00	50.0	60.1	84.0	100	91	381	91.7	100	98	393
			284A00	75.0	90.2	114.1	125	126	381	121.8	125	133	393
	575-3-60	STD	NONE	—	—	55.6	70	58	237	60.4	80	64	245
			285A00	24.8	23.9	55.6	70	58	237	60.4	80	64	245
			286A00	49.6	47.7	70.8	80	65	237	76.8	80	71	245
			287A00	74.4	71.6	82.7	90	93	237	88.7	90	98	245
		MED	NONE	—	—	57.3	70	60	264	62.1	80	66	272
			285A00	24.8	23.9	57.3	70	60	264	62.1	80	66	272
			286A00	49.6	47.7	72.9	80	67	264	78.9	80	73	272
			287A00	74.4	71.6	84.9	90	95	264	90.9	100	100	272
		HIGH	NONE	—	—	61.0	80	64	275	65.8	80	70	283
			285A00	24.8	23.9	61.0	80	64	275	65.8	80	70	283
			286A00	49.6	47.7	77.5	80	71	275	83.5	90	77	283
			287A00	74.4	71.6	89.5	100	99	275	95.5	100	104	283

See Legends and Notes on page 100.

3-STAGE COOLING WITH 3-SPEED INDOOR FAN MOTOR, SIZES 14-26 (12.5-23 TONS) — HIGH SCCR

50LC** UNIT	V-Ph-Hz	VOLTAGE RANGE		HIGH SCCR kA	COMP 1		COMP 2		OFM (ea)		IFM		
		MIN	MAX		RLA	LRA	RLA	LRA	WATTS	FLA	TYPE	EFF AT FULL LOAD	FLA
14	208-3-60	253	187	60	17.6	123	23.2	164	185	1.3	STD	85.0%	8.6
											MED	83.6%	13.6
											HIGH	89.5%	21.2
											SUPER	91.7%	28.0
	230-3-60	253	187	60	17.6	123	23.2	164	185	1.3	STD	85.0%	7.8
											MED	83.6%	12.7
											HIGH	89.5%	21.2
											SUPER	91.7%	28.0
	460-3-60	506	414	65	9.6	62	11.2	75	185	1.3	STD	85.0%	3.8
											MED	83.6%	6.4
											HIGH	89.5%	9.7
											SUPER	91.7%	13.7
17	208-3-60	253	187	60	19.1	123	27.6	191	185	1.3	STD	85.0%	8.6
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	230-3-60	253	187	60	19.1	123	27.6	191	185	1.3	STD	85.0%	7.8
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	460-3-60	506	414	65	9.8	62	12.8	100	185	1.3	STD	85.0%	3.8
											MED	89.5%	9.7
											HIGH	91.7%	13.7
											SUPER	91.7%	16.9
20	208-3-60	253	187	60	25.0	164	27.6	191	185	1.3	STD	85.0%	8.6
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	230-3-60	253	187	60	25.0	164	27.6	191	185	1.3	STD	85.0%	7.8
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	460-3-60	506	414	65	12.2	100	12.8	100	185	1.3	STD	85.0%	3.8
											MED	89.5%	9.7
											HIGH	91.7%	13.7
											SUPER	91.7%	16.9
24	208-3-60	253	187	60	29.5	195	33.3	239	190	1.6	STD	89.5%	21.2
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	230-3-60	253	187	60	29.5	195	33.3	239	190	1.6	STD	89.5%	21.2
											MED	89.5%	21.2
											HIGH	91.7%	28.0
											SUPER	91.7%	37.3
	460-3-60	506	414	65	14.8	95	18.0	125	190	1.6	STD	89.5%	9.7
											MED	89.5%	9.7
											HIGH	91.7%	13.7
											SUPER	91.7%	16.9
26	208-3-60	253	187	60	30.1	225	51.2	300	190	1.6	STD	89.5%	21.2
											MED	91.7%	28.0
											HIGH	91.7%	37.3
											STD	89.5%	21.2
	230-3-60	253	187	60	30.1	225	51.2	300	190	1.6	MED	91.7%	28.0
											HIGH	91.7%	37.3
											STD	89.5%	9.7
											MED	91.7%	13.7
	460-3-60	506	414	65	16.7	114	23.1	150	190	1.6	HIGH	91.7%	16.9
											STD	89.5%	9.7
											MED	91.7%	13.7
											HIGH	91.7%	16.9

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZE 14 (12.5 TONS) — HIGH SCCR

50LC** UNIT	NOM. V-Ph-Hz	IFM TYPE	HIGH SCCR kA	CRHEATER PART NUMBER	NOM (kW)	FLA	NO CO OR UNPWR CO							
							NO PE				W/ PE (PWRD FR/UNIT)			
							MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
14	208/230-3-60	STD	60	—	—	—	59.1/ 58.3	80/80	61/60	343	70.9/ 70.1	90/90	75/74	363
				400A00	11.3/15.0	31.3/36.1	59.1/ 58.3	80/80	61/60	343/343	70.9/ 70.1	90/90	75/74	363/363
				402A00	18.8/25.0	52.1/60.1	75.9/ 84.9	80/90	70/78	343/343	90.6/ 99.6	100/100	83/92	363/363
				404A00	37.6/50.0	104.2/120.3	141.0/ 130.1	150/150	130/147	343/343	155.8/ 144.8	175/150	143/161	363/363
		MED	60	—	—	—	64.1/ 63.2	80/80	67/66	378	75.9/ 75.0	90/90	81/80	398
				400A00	11.3/15.0	31.3/36.1	64.1/ 63.2	80/80	67/66	378/378	75.9/ 75.8	90/90	81/80	398/398
				402A00	18.8/25.0	52.1/60.1	82.1/ 91.0	90/100	76/84	378/378	96.9/ 105.8	100/110	89/97	398/398
				404A00	37.6/50.0	104.2/120.3	147.3/ 136.2	150/150	135/153	378/378	162.0/ 150.9	175/175	149/167	398/398
		HIGH	60	—	—	—	71.7	90	76	382	83.5	100	89	402
				400A00	11.3/15.0	31.3/36.1	71.7/ 71.7	90/90	76/76	382/382	83.5/ 86.4	100/100	89/89	402/402
				402A00	18.8/25.0	52.1/60.1	91.6/ 101.6	100/110	84/93	382/382	106.4/ 116.4	110/125	98/107	402/402
				404A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	382/382	171.5/ 161.6	175/175	158/176	402/402
		SUPER	60	—	—	—	79.7	100	84	456	91.5	100	97	476
				400A00	11.3/15.0	31.3/36.1	79.7/ 80.1	100/100	84/84	456/456	91.5/ 94.9	100/100	97/97	476/476
				402A00	18.8/25.0	52.1/60.1	100.1/ 110.1	110/125	92/101	456/456	114.9/ 124.9	125/125	106/115	476/476
				404A00	37.6/50.0	104.2/120.3	165.3/ 155.3	175/175	152/171	456/456	180.0/ 170.1	200/175	166/184	476/476
	460-3-60	STD	65	—	—	—	31.3	40	33	167	37.5	45	40	179
				401A00	15.0	18.0	31.3	40	33	167	37.5	45	40	179
				403A00	25.0	30.1	42.4	45	39	167	50.1	60	46	179
				405A00	50.0	60.1	64.9	70	73	167	72.6	80	81	179
		MED	65	—	—	—	33.9	45	36	184	40.1	50	43	196
				401A00	15.0	18.0	33.9	45	36	184	40.1	50	43	196
				403A00	25.0	30.1	45.6	50	42	184	53.4	60	49	196
				405A00	50.0	60.1	68.1	80	76	184	75.9	80	84	196
		HIGH	65	—	—	—	37.2	45	40	186	43.4	50	47	198
				401A00	15.0	18.0	37.2	45	40	186	43.4	50	47	198
				403A00	25.0	30.1	49.8	50	46	186	57.5	60	53	198
				405A00	50.0	60.1	72.2	80	80	186	80.0	90	87	198
		SUPER	65	—	—	—	41.8	50	44	223	48.0	60	51	235
				401A00	15.0	18.0	41.8	50	44	223	48.0	60	51	235
				403A00	25.0	30.1	54.8	60	50	223	62.5	70	58	235
				405A00	50.0	60.1	77.2	90	85	223	85.0	90	92	235

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZE 17 (15 TONS) — HIGH SCCR

50LC** UNIT	NOM. V-Ph-Hz	IFM TYPE	HIGH SCCR kA	CRHEATER PART NUMBER	NOM (kW)	FLA	NO CO OR UNPWR CO							
							NO PE				W/ PE (PWRD FR/UNIT)			
							MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
17	208/230-3-60	STD	60	—	—	—	67.4/ 66.6	90/90	70/69	371	79.2/ 78.4	100/100	83/82	391
				402A00	18.8/25.0	52.1/60.1	75.9/ 84.9	90/90	70/78	371/371	90.6/ 99.6	100/100	83/92	391/391
				406A00	37.6/50.0	104.2/120.3	141.0/ 130.1	150/150	130/147	371/371	155.8/ 144.8	175/150	143/161	391/391
				408A00	56.3/75.0	156.4/180.4	167.2/ 190.2	200/200	190/216	371/371	181.9/ 204.9	200/225	203/230	391/391
		MED	60	—	—	—	80.0	100	84	410	91.8	100	98	430
				402A00	18.8/25.0	52.1/60.1	91.6/ 101.6	100/110	84/93	410/410	106.4/ 116.4	110/125	98/107	430/430
				406A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	410/410	171.5/ 161.6	175/175	158/176	430/430
				408A00	56.3/75.0	156.4/180.4	182.9/ 206.9	200/250	204/232	410/410	197.7/ 221.7	225/250	218/245	430/430
		HIGH	60	—	—	—	86.9	100	92	484	98.7	125	105	504
				402A00	18.8/25.0	52.1/60.1	100.1/ 110.1	110/125	92/101	484/484	114.9/ 124.9	125/125	106/115	504/504
				406A00	37.6/50.0	104.2/120.3	165.3/ 155.3	175/175	152/171	484/484	180.0/ 170.1	200/175	166/184	504/504
				408A00	56.3/75.0	156.4/180.4	191.4/ 215.4	200/250	212/240	484/484	206.2/ 230.2	225/250	226/253	504/504
		SUPER	60	—	—	—	98.5	125	103	524	110.3	125	116	544
				402A00	18.8/25.0	52.1/60.1	111.8/ 121.8	125/125	103/112	524/524	126.5/ 136.5	150/150	116/126	544/544
				406A00	37.6/50.0	104.2/120.3	176.9/ 166.9	200/200	163/181	524/524	191.6/ 181.7	200/200	176/195	544/544
				408A00	56.3/75.0	156.4/180.4	203.0/ 227.0	225/250	223/250	524/524	217.8/ 241.8	250/250	236/264	544/544
	460-3-60	STD	65	—	—	—	34.8	45	36	193	41.0	50	43	205
				403A00	25.0	30.1	42.4	45	39	193	50.1	60	46	205
				407A00	50.0	60.1	64.9	70	73	193	72.6	80	81	205
				409A00	75.0	90.2	95.0	100	108	193	102.7	110	115	205
		MED	65	—	—	—	40.7	50	43	212	46.9	60	50	224
				403A00	25.0	30.1	49.8	50	46	212	57.5	60	53	224
				407A00	50.0	60.1	72.2	80	80	212	80.0	90	87	224
				409A00	75.0	90.2	102.3	125	115	212	110.1	125	122	224
		HIGH	65	—	—	—	44.9	50	48	249	51.1	60	55	261
				403A00	25.0	30.1	54.8	60	50	249	62.5	70	58	261
				407A00	50.0	60.1	77.2	90	85	249	85.0	90	92	261
				409A00	75.0	90.2	107.3	125	119	249	115.1	125	127	261
		SUPER	65	—	—	—	48.9	60	51	269	55.1	60	59	281
				403A00	25.0	30.1	58.8	60	54	269	66.5	70	61	281
				407A00	50.0	60.1	81.2	90	89	269	89.0	100	96	281
				409A00	75.0	90.2	111.3	125	123	269	119.1	125	130	281

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZE 20 (17.5 TONS) — HIGH SCCR

50LC** UNIT	NOM. V-Ph-Hz	IFM TYPE	HIGH SCCR kA	CRHEATER PART NUMBER	NOM (kW)	FLA	NO CO OR UNPWR CO							
							NO PE				W/ PE (PWRD FR/UNIT)			
							MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
20	208/230-3-60	STD	60	—	—	—	73.3/ 72.5	100/100	76/75	412	85.1/ 84.3	100/100	90/89	432
				402A00	18.8/25.0	52.1/60.1	75.9/ 84.9	100/100	76/78	412/412	90.6/ 99.6	100/100	90/92	432/432
				406A00	37.6/50.0	104.2/120.3	141.0/ 130.1	150/150	130/147	412/412	155.8/ 144.8	175/150	143/161	432/432
				408A00	56.3/75.0	156.4/180.4	167.2/ 190.2	200/200	190/216	412/412	181.9/ 204.9	200/225	203/230	432/432
		MED	60	—	—	—	85.9	100	91	451	97.7	125	104	471
				402A00	18.8/25.0	52.1/60.1	91.6/ 101.6	100/110	91/93	451/451	106.4/ 116.4	125/125	104/107	471/471
				406A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	451/451	171.5/ 161.6	175/175	158/176	471/471
				408A00	56.3/75.0	156.4/180.4	182.9/ 206.9	200/250	204/232	451/451	197.7/ 221.7	225/250	218/245	471/471
		HIGH	60	—	—	—	92.8	100	99	525	104.6	125	112	545
				402A00	18.8/25.0	52.1/60.1	100.1/ 110.1	110/125	99/101	525/525	114.9/ 124.9	125/125	112/115	545/545
				406A00	37.6/50.0	104.2/120.3	165.3/ 155.3	175/175	152/171	525/525	180.0/ 170.1	200/175	166/184	545/545
				408A00	56.3/75.0	156.4/180.4	191.4/ 215.4	200/250	212/240	525/525	206.2/ 230.2	225/250	226/253	545/545
		SUPER	60	—	—	—	104.4	125	109	565	116.2	150	123	585
				402A00	18.8/25.0	52.1/60.1	111.8/ 121.8	125/125	109/112	565/565	126.5/ 136.5	150/150	123/126	585/585
				406A00	37.6/50.0	104.2/120.3	176.9/ 166.9	200/200	163/181	565/565	191.6/ 181.7	200/200	176/195	585/585
				408A00	56.3/75.0	156.4/180.4	203.0/ 227.0	225/250	223/250	565/565	217.8/ 241.8	250/250	236/264	585/585
	460-3-60	STD	65	—	—	—	37.2	50	39	231	43.4	50	46	243
				403A00	25.0	30.1	42.4	50	39	231	50.1	60	46	243
				407A00	50.0	60.1	64.9	70	73	231	72.6	80	81	243
				409A00	75.0	90.2	95.0	100	108	231	102.7	110	115	243
		MED	65	—	—	—	43.1	50	46	250	49.3	60	53	262
				403A00	25.0	30.1	49.8	50	46	250	57.5	60	53	262
				407A00	50.0	60.1	72.2	80	80	250	80.0	90	87	262
				409A00	75.0	90.2	102.3	125	115	250	110.1	125	122	262
		HIGH	65	—	—	—	47.3	60	50	287	53.5	60	58	299
				403A00	25.0	30.1	54.8	60	50	287	62.5	70	58	299
				407A00	50.0	60.1	77.2	90	85	287	85.0	90	92	299
				409A00	75.0	90.2	107.3	125	119	287	115.1	125	127	299
		SUPER	65	—	—	—	51.3	60	54	307	57.5	70	61	319
				403A00	25.0	30.1	58.8	60	54	307	66.5	70	61	319
				407A00	50.0	60.1	81.2	90	89	307	89.0	100	96	319
				409A00	75.0	90.2	111.3	125	123	307	119.1	125	130	319

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZE 24 (20 TONS) — HIGH SCCR

50LC** UNIT	NOM. V-Ph-Hz	IFM TYPE	HIGH SCCR kA	CRHEATER PART NUMBER	NOM (kW)	FLA	NO CO OR UNPWR CO							
							NO PE				W/ PE (PWRD FR/UNIT)			
							MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
24	208/230-3-60	STD	60	—	—	—	101.9	125	108	538	113.7	125	121	558
				402A00	18.8/25.0	52.1/60.1	101.9/ 101.9	125/125	108/108	538/538	113.7/ 116.4	125/125	121/121	558/558
				406A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	538/538	171.5/ 161.6	175/175	158/176	558/558
				408A00	56.3/75.0	156.4/180.4	182.9/ 206.9	200/250	204/232	538/538	197.7/ 221.7	225/250	218/245	558/558
		MED	60	—	—	—	101.9	125	108	538	113.7	125	121	558
				402A00	18.8/25.0	52.1/60.1	101.9/ 101.9	125/125	108/108	538/538	113.7/ 116.4	125/125	121/121	558/558
				406A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	538/538	171.5/ 161.6	175/175	158/176	558/558
				408A00	56.3/75.0	156.4/180.4	182.9/ 206.9	200/250	204/232	538/538	197.7/ 221.7	225/250	218/245	558/558
		HIGH	60	—	—	—	108.7	125	115	612	120.5	150	129	632
				402A00	18.8/25.0	52.1/60.1	108.7/ 110.1	125/125	115/115	612/612	120.5/ 124.9	150/150	129/129	632/632
				406A00	37.6/50.0	104.2/120.3	165.3/ 155.3	175/175	152/171	612/612	180.0/ 170.1	200/175	166/184	632/632
				408A00	56.3/75.0	156.4/180.4	191.4/ 215.4	200/250	212/240	612/612	206.2/ 230.2	225/250	226/253	632/632
		SUPER	60	—	—	—	119.0	150	126	652	130.8	150	140	672
				402A00	18.8/25.0	52.1/60.1	119.0/ 121.8	150/150	126/126	652/652	130.8/ 136.5	150/150	140/140	672/672
				406A00	37.6/50.0	104.2/120.3	176.9/ 166.9	200/200	163/181	652/652	191.6/ 181.7	200/200	176/195	672/672
				408A00	56.3/75.0	156.4/180.4	203.0/ 227.0	225/250	223/250	652/652	217.8/ 241.8	250/250	236/264	672/672
	460-3-60	STD	65	—	—	—	56.6	70	60	278	62.8	80	67	290
				403A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
				407A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
				409A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		MED	65	—	—	—	56.6	70	60	278	62.8	80	67	290
				403A00	25.0	30.1	56.6	70	60	278	62.8	80	67	290
				407A00	50.0	60.1	72.2	80	80	278	80.0	90	87	290
				409A00	75.0	90.2	102.3	125	115	278	110.1	125	122	290
		HIGH	65	—	—	—	60.6	70	65	315	66.8	80	72	327
				403A00	25.0	30.1	60.6	70	65	315	66.8	80	72	327
				407A00	50.0	60.1	77.2	90	85	315	85.0	90	92	327
				409A00	75.0	90.2	107.3	125	119	315	115.1	125	127	327
		SUPER	65	—	—	—	63.8	80	68	335	70.0	80	75	347
				403A00	25.0	30.1	63.8	80	68	335	70.0	80	75	347
				407A00	50.0	60.1	81.2	90	89	335	89.0	100	96	347
				409A00	75.0	90.2	111.3	125	123	335	119.1	125	130	347

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

UNIT WIRE/FUSE OR HACR BREAKER SIZING DATA, 3-SPEED INDOOR FAN MOTOR, SIZE 26 (23 TONS) — HIGH SCCR

50LC** UNIT	NOM. V-Ph-Hz	IFM TYPE	HIGH SCCR KA	CRHEATER PART NUMBER	NOM (kW)	FLA	NO CO OR UNPWR CO							
							NO PE				W/ PE (PWRD FR/UNIT)			
							MCA	FUSE OR HACR BRKR	DISC. SIZE		MCA	FUSE OR HACR BRKR	DISC. SIZE	
									FLA	LRA			FLA	LRA
26	208/230-3-60	STD	60	—	—	—	124.9	175	129	629	136.7	175	142	649
				402A00	18.8/25.0	52.1/60.1	124.9/ 124.9	175/175	129/129	629/629	136.7/ 136.7	175/175	142/142	649/649
				406A00	37.6/50.0	104.2/120.3	156.8/ 146.8	175/175	144/163	629/629	171.5/ 161.6	175/175	158/176	649/649
				408A00	56.3/75.0	156.4/180.4	182.9/ 206.9	200/250	204/232	629/629	197.7/ 221.7	225/250	218/245	649/649
		MED	60	—	—	—	131.7	175	137	703	143.5	175	150	723
				402A00	18.8/25.0	52.1/60.1	131.7/ 131.7	175/175	137/137	703/703	143.5/ 143.5	175/175	150/150	723/723
				406A00	37.6/50.0	104.2/120.3	165.3/ 155.3	175/175	152/171	703/703	180.0/ 170.1	200/175	166/184	723/723
				408A00	56.3/75.0	156.4/180.4	191.4/ 215.4	200/250	212/240	703/703	206.2/ 230.2	225/250	226/253	723/723
		HIGH	60	—	—	—	141.0	175	147	743	152.8	200	161	763
				402A00	18.8/25.0	52.1/60.1	141.0/ 141.0	175/175	147/147	743/743	152.8/ 152.8	200/200	161/161	763/763
				406A00	37.6/50.0	104.2/120.3	176.9/ 166.9	200/200	163/181	743/743	191.6/ 181.7	200/200	176/195	763/763
				408A00	56.3/75.0	156.4/180.4	203.0/ 227.0	225/250	223/250	743/743	217.8/ 241.8	250/250	236/264	763/763
	460-3-60	STD	65	—	—	—	64.9	80	68	322	71.1	90	75	334
				403A00	25.0	30.1	64.9	80	68	322	71.1	90	75	334
				407A00	50.0	60.1	72.2	80	80	322	80.0	90	87	334
				409A00	75.0	90.2	102.3	125	115	322	110.1	125	122	334
		MED	65	—	—	—	68.9	90	73	359	75.1	90	80	371
				403A00	25.0	30.1	68.9	90	73	359	75.1	90	80	371
				407A00	50.0	60.1	77.2	90	85	359	85.0	90	92	371
				409A00	75.0	90.2	107.3	125	119	359	115.1	125	127	371
		HIGH	65	—	—	—	72.1	90	76	379	78.3	100	83	391
				403A00	25.0	30.1	72.1	90	76	379	78.3	100	83	391
				407A00	50.0	60.1	81.2	90	89	379	89.0	100	96	391
				409A00	75.0	90.2	111.3	125	123	379	119.1	125	130	391

See Legends and Notes on page 100.

NOTE: High SCCR is not available for units with 575v.

LEGEND AND NOTES

Applicable for Electrical Data Tables on pages 72-99

LEGEND

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

NOTES:

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

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

Example: Supply voltage is 230-3-60



AB = 224 v

BC = 231 v

AC = 226 v

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

Determine maximum deviation from average voltage.

(AB) 227-224 = 3 v

(BC) 231-227 = 4 v

(AC) 227-226 = 1 v

Maximum deviation is 4 v.

Determine percent of voltage imbalance.

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

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

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

HIGH TRIER PAC CONTROL 208/230V, 460V, ST5V

ELECTRIC HEAT ACCESSORY CLASS II WIRING

DEHUMIDIFICATION FLOP FOR FIELD USE

CSC NOTE 1

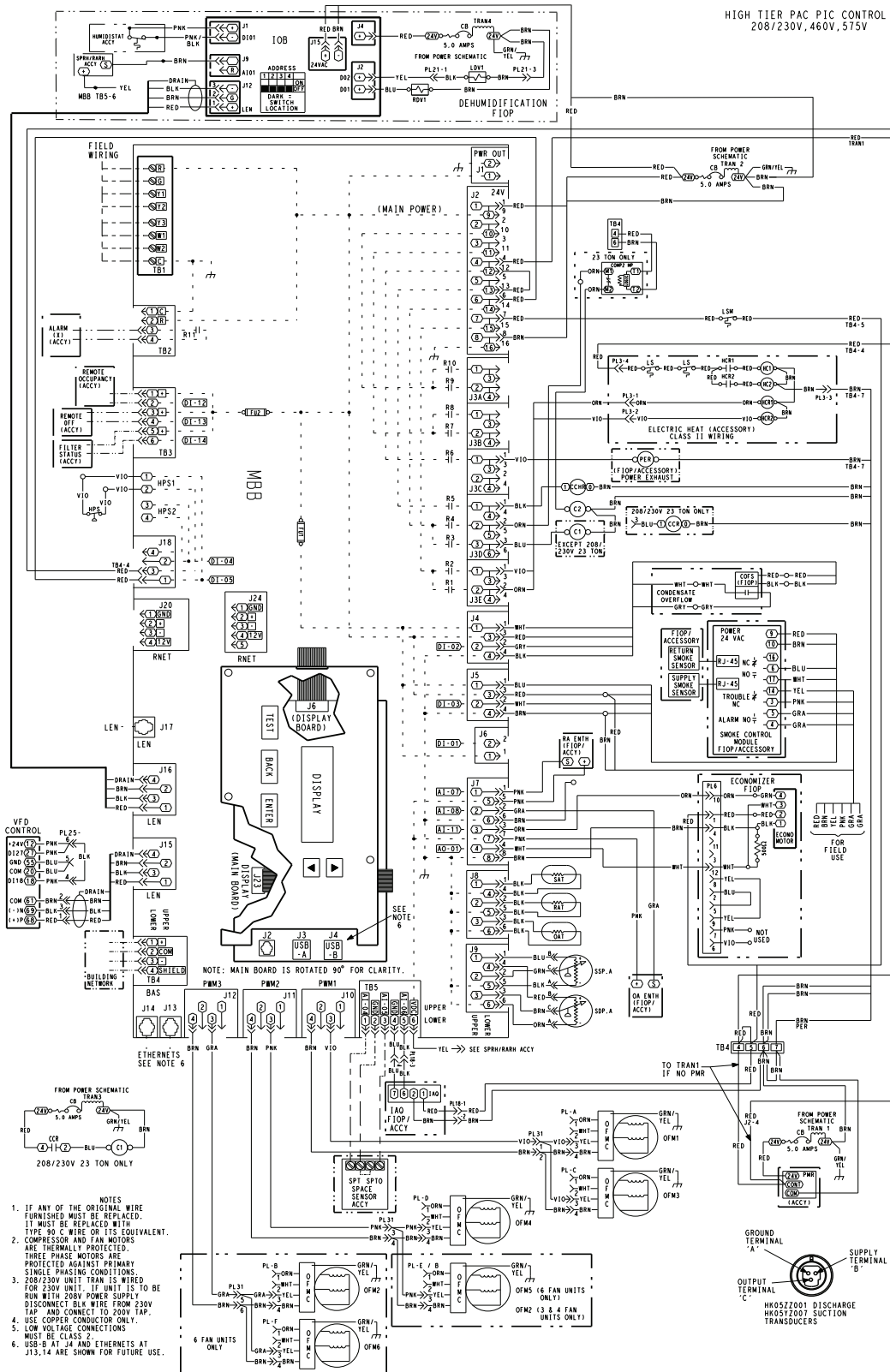
ECONOMIZER (FLOP/ACCESSORY)

ELECTRO-MECH VFD CONTROL

NOTES

- IF ANY OF THE ORIGINAL WIRE FURNISHED MUST BE REPLACED - IT MUST BE REPLACED WITH TYPE 90 C WIRE OR ITS EQUIVALENT.
- COMPRESSOR AND FAN MOTOR ARE PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
- 208/230V UNIT TRIN IS WIRED FOR 230V UNIT. IF UNIT IS TO BE RUN WITH 230V POWER SUPPLY DISCONNECT BLN WIRE FROM 230V TAP AND CONNECT TO 230V TAP.
- USE COPPER CONDUCTOR ONLY.
- IFM OL IS NOT USED ON ALL MODELS. IF NOT USED, THEN RED LEADS ARE CONNECTED TOGETHER.
- FOR ELECTRIC HEATER, REMOVE JUMPER 2.
- LOW VOLTAGE CONNECTIONS MUST BE CLASS 2.

50LC 14-26 SYSTEMVU CONTROL SCHEMATIC



[illegible]

12.5 - 20 TON YAC, PAC POWER 208/230V 3 PH
WITH/WITHOUT HOT GAS REHEAT FIOP



Sequence of operation



General

The Carrier Integrated Staging Control Board (ISC) is intended for use with a standard thermostat capable of 3 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 (24 vac) available at TB-4 Terminal is provided to power auxiliary equipment. An optional Phase Monitor Relay can be wired to the PMR terminal by removing Jumper 5.

Ventilation

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

Cooling

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

The outdoor fan and VFD-controlled indoor fan will operate at low, medium 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.

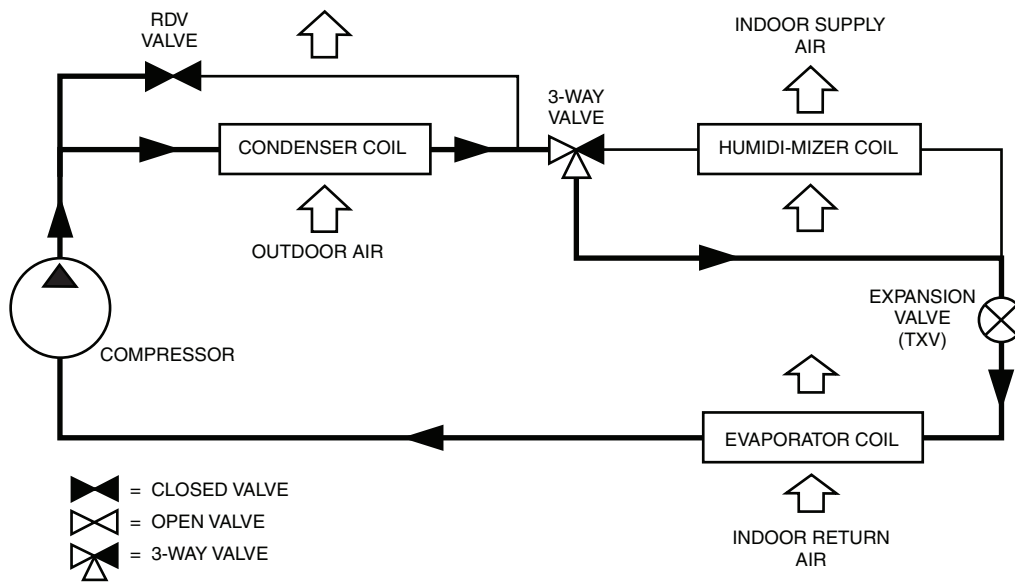
In hot gas reheat mode (reheat-2), when there is a call for dehumidification without a call for cooling, a portion of the hot gas from the compressor bypasses the condenser coil when RDV opens and hot gas is fed into the liquid line, TWV closes in this mode and the system provides mainly latent cooling. 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.

50LC SIZE	RPM	NUMBER OF FANS ON	NUMBER OF FANS OFF
14	250	3	0
17	255	4	0
20	160	4	0
24	250	6	0
26	250	6	0

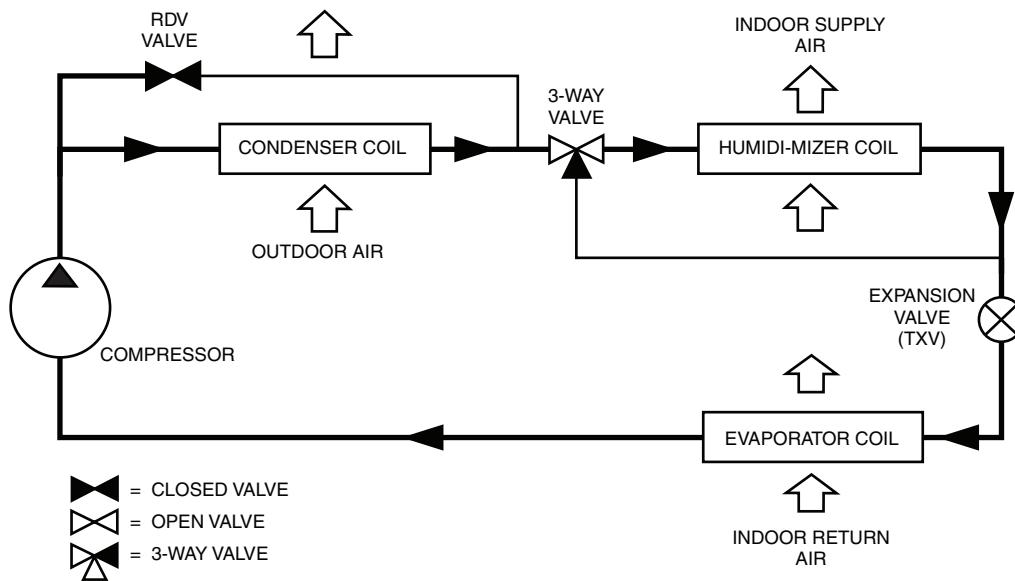
COOLING OPERATION

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	Medium	Medium (800 rpm)
THIRD STAGE COOLING (Y3)	On	On	High	High (1,000 rpm)

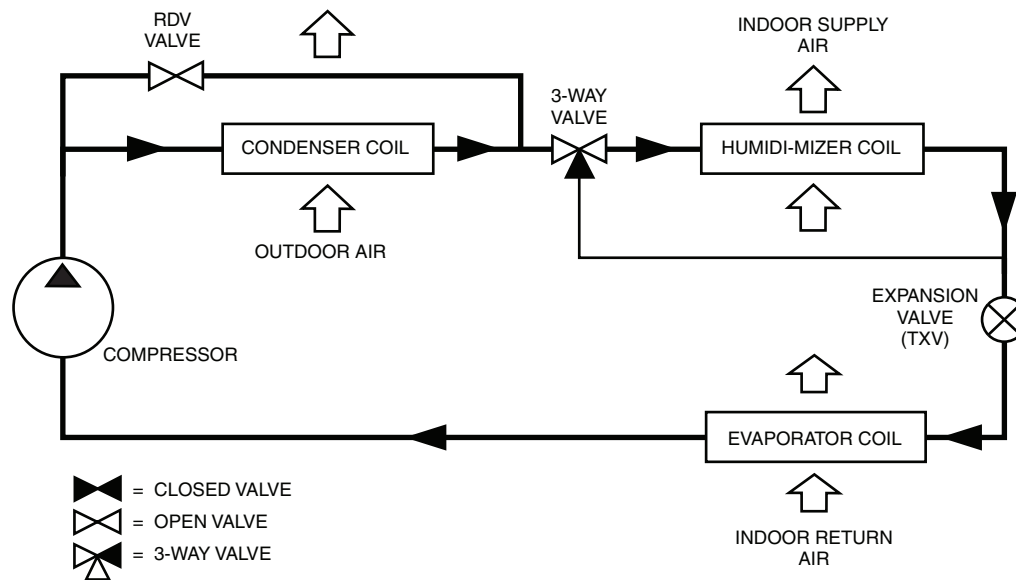
HUMIDI-MIZER PIPING SCHEMATIC — NORMAL COOLING



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



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



Economizer (Optional)

When the Economizer is in Free Cooling Mode and a demand for cooling exists (Y1 on the thermostat), the Economizer will modulate the outdoor-air damper to provide a 50°F (10°C) to 55°F (13°C) mixed-air temperature into the zone and run the indoor-fan at high speed. As mixed-air temperature fluctuates above 55°F (13°C) or below 50°F (10°C) dampers will be modulated (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.

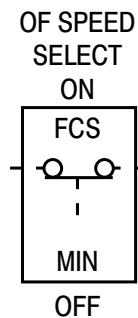
If field-installed accessory CO₂ sensors are connected to the Economizer, a demand controlled ventilation strategy will begin to operate. As the CO₂ level in the zone increases above the CO₂ setpoint, the minimum position of the damper will be increased proportionally. As the CO₂ level decreases because 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 Cooling Operation down to 40°F (4°C)

In Low Ambient RTU conditions when the temperature is between 55°F (13°C) and 40°F (4°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 (see the figure below) 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.

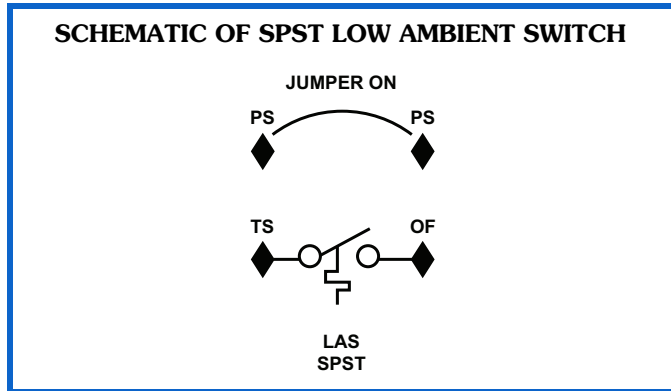
OUTDOOR FAN SPEED SELECT SWITCH



Sequence of operation (cont)



50LC sizes 14 through 26 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 the figure below). 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.



The Low Ambient Outdoor Fan Control chart (table shown below) shows the operation of the outdoor fans for each unit.

Heating

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

SystemVu™ Control (Factory Option)

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

RTU Open (Factory Option)

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

LOW AMBIENT TEMPERATURE OUTDOOR FAN CONTROL

50LC SIZE	NUMBER OF FANS ON	NUMBER OF FANS OFF	SWITCH	OUTDOOR FAN SELECT SWITCH	RPM
14	3	0	(1) SPST	Up	250
17	4	0	(1) SPST	Up	250
20	4	0	(1) SPST	Up	250
24	6	0	(1) SPST	Up	250
26	6	0	(1) SPST	Up	250

Note about this specification:

These specifications are written in "Masterformat" as published by the Construction Specification Institute. Please feel free to copy this specification directly into your building spec.

WeatherExpert® Ultra High-Efficiency Cooling Only/Electric Heat Packaged Rooftop

HVAC Guide Specifications:

Size Range: **12.5 to 23 Nominal Tons**

Carrier Model Number: **50LC 14-26**

Part 1 — 23 06 80 Schedules for Decentralized HVAC Equipment

1.01 23 06 80.13 Decentralized Unitary HVAC Equipment Schedule

A. 23 06 80.13.A. Rooftop unit schedule

1. Schedule is per the project specification requirements.

Part 2 — 23 07 16 HVAC Equipment Insulation

2.01 23 07 16.13 Decentralized, Rooftop Units:

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

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

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

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

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

3.01 23 09 13.23 Sensors and Transmitters

A. 23 09 13.23.A. Thermostats

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

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

4.01 23 09 23.13 Decentralized, Rooftop Units:

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

1. Integrated unit operation for comfort cooling, heating ventilation as well as all monitoring, recording and reporting capabilities. Controller shall also provide diagnostics and alarms of abnormal unit operation through the controller. Controller shall have an intuitive user display and be able to be used in a standalone operation or via building automation system (BAS).
2. Quick Unit Status 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:
 - a. Shutdown Unit
 - b. Run Status
 - c. Settings
 - d. Alerts/Faults
 - e. Service
 - f. Inputs
 - g. Outputs
 - h. USB
5. The capability for standalone operation with conventional thermostat/sensor or use with building automation systems (BAS) of Carrier i-Vu®, BACnet¹ 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, Suction Pressure and Liquid Line Pressure. Traditional refrigerant gauges are not required.
7. USB Data Port for flash drive exchange. 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 3 phase wiring is misapplied.
9. Provide Service Capabilities of:
 - a. Auto run test

1. BACnet is a trademark of ASHRAE.

- b. Manual run test
- c. Component run hours and starts
- d. Commissioning reports
- e. Data logging
- f. Alarm history
- 10. Economizer control and diagnostics. Set up economizer operation, receive feedback from actuator. Also meets the most recent California Title 24 Fault Detection and Diagnostic (FDD) requirements.
- 11. Unit cooling operation down to 0°F (-18°C).
- 12. Controller shall have easy access connections around the controller perimeter area and consist of Mate-N-Lok, terminal block and RJ style modular jack connections.
- 13. 365 day real time clock, 20 holiday schedules along with occupied and unoccupied scheduling.
- 14. Auto-Recognition for easy installation and commissioning of devices like economizers, space sensors, etc.
- 15. A 5°F temperature difference between cooling and heating set points to meet the latest ASHRAE 90.1-2013 Energy Standard.
- 16. Contain return air sensor, supply air sensor and outdoor air sensor to help monitor and provide data for the unit comfort operation, diagnostic and alarms.
- 17. Use of Carrier's field accessory hand-held Navigator™ display.
- 18. Control of the operation of unit VFD (Variable Frequency Drive) to work in conjunction with the cooling, heating and ventilation modes.
- 19. 3-year limited part warranty.
- B. 23 09 23.13.B. RTU Open - multi-protocol, direct digital controller:
 - 1. Shall be ASHRAE 62 compliant.
 - 2. Shall accept 18-30VAC, 50-60Hz, and consume 15VA or less power.
 - 3. Shall have an operating temperature range from -40°F (-40°C) to 130°F (54°C), 10% to 90% RH (non-condensing).
 - 4. Shall include built-in protocol for BACnet (MS/TP and PTP modes), Modbus¹ (RTU and ASCII), Johnson N2 and LonWorks². 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.

1. Modbus is a registered trademark of Schneider Electric.

2. LonWorks is a registered trademark of Echelon Corporation.

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

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

5.01 23 09 33.13 Decentralized, Rooftop Units:

A. 23 09 33.13.A. General:

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

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

4. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.
- B. 23 09 33.13.B. Safeties:
 1. Compressor over-temperature, over current.
 2. Low-pressure switch.
 - a. Low-pressure switch shall use different color wire than the high pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
NOTE: Does not apply to units equipped with SystemVu controls.
 3. High-pressure switch.
 - a. High-pressure switch shall use different color wire than the low pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
 4. Automatic reset, motor thermal overload protector.

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

6.01 23 09 93.13 Decentralized, Rooftop Units:

- A. 23 09 93.13.A. INSERT SEQUENCE OF OPERATION

Part 7 — 23 40 13 Panel Air Filters

7.01 23 40 13.13 Decentralized, Rooftop Units:

- A. 23 40 13.13.A. Standard filter section
 1. Shall consist of factory-installed, low velocity, 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 a dedicated, weather-tight panel.
 4. 4 in. filter capabilities shall be capable with pre-engineered and approved Carrier filter track field-installed accessory. This kit requires field furnished filters.

Part 8 — 23 81 19 Self-Contained Air Conditioners

8.01 23 81 19.13 Medium-Capacity Self-Contained Air Conditioners (50LC**14-26)

- A. 23 81 19.13.A. General
 1. Outdoor, rooftop mounted, ISC electrically controlled, heating and cooling unit utilizing hermetic scroll compressors for cooling duty and optional electric heat for heating duty.
 2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
 3. Unit shall use Puron® (R-410A) refrigerant.

4. Unit shall be installed in accordance with the manufacturer's instructions.
5. Unit must be selected and installed in compliance with local, state, and federal codes.

B. 23 81 19.13.B. Quality Assurance

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

C. 23 81 19.13.C. Delivery, Storage, and Handling

1. Unit shall be stored and handled per manufacturer's recommendations.
2. Lifted by crane requires either shipping top panel or spreader bars.
3. Unit shall only be stored or positioned in the upright position.

D. 23 81 19.13.D. Project Conditions

1. As specified in the contract.

E. 23 81 19.13.E. Operating Characteristics

1. Unit shall be capable of starting and running at 125°F (52°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 340/360 at $\pm 10\%$ voltage.
2. Compressor with standard controls shall be capable of operation from 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 and ordered for vertical supply and return configurations.
5. Unit shall be factory furnished for either vertical or horizontal configuration without the use of special conversion kits. No field kits conversion is possible.
6. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.

F. 23 81 19.13.F. Electrical Requirements

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

G. 23 81 19.13.G. Unit Cabinet

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

- b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.

- c. Holes shall be provided in the base rail for moving the rooftop by fork truck.

- d. Base rail shall be a minimum of 16 gauge thickness.

7. Condensate pan and connections:

- a. Shall be a sloped condensate drain pan made of a non-corrosive material.

- b. Shall comply with ASHRAE Standard 62.

- c. Shall use a 3/4 in. 14 NPT drain connection at the end of the drain pan. Connection shall be made per manufacturer's recommendations.

8. Top panel:

- a. Shall be a multi-piece top panel linked with water tight flanges and interlocking systems.

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) Thru-the-base provisions/connections are available as standard with every unit. When bottom connections are required, field furnished couplings are required.
- 2) No basepan penetration, other than those authorized by the manufacturer, is permitted.

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 and filters shall have molded composite handles while the blower access door shall have an integrated flange for easy removal.

- d. Handles shall be UV modified, composite, permanently attached, and recessed into the panel.

- e. Screws on the vertical portion of all removable access panel shall engage into heat resistant, molded composite collars.

- f. Collars shall be removable and easily replaceable using manufacturer recommended parts.

H. 23 81 19.13.H. Coils

1. Standard Aluminum Fin/Copper Tube Coils:

- a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved 5/16 in. diameter copper tubes with all joints brazed.

- b. Evaporator coils shall be leak tested to 150 psig, pressure tested to 450 psig, and qualified to UL 1995 burst test at 1775 psig.
- c. Condenser coils shall be leak tested to 150 psig, pressure tested to 650 psig, and qualified to UL 1995 burst test at 1980 psig.
2. Optional Pre-coated aluminum-fin condenser coils:
 - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
 - b. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube.
 - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.
 - d. Corrosion durability of fin stock shall be confirmed through testing to be no less than 1000 hours salt spray per ASTM B117-90.
 - e. Corrosion durability of fin stock shall be confirmed through testing to have no visible corrosion after 48 hour immersion in a room temperature solution of 5% salt, 1% acetic acid.
 - f. Fin stock coating shall pass 2000 hours of the following: one week exposure in the prohesion chamber followed by one week of accelerated ultraviolet light testing. Prohesion chamber: the solution shall contain 3.5% sodium chloride and 0.35% ammonium sulfate. The exposure cycle is one hour of salt fog application at ambient followed by one hour drying at 95°F (35°C).
3. Optional Copper-fin evaporator and condenser coils:
 - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
 - b. Galvanized steel tube sheets shall not be acceptable.
 - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
4. Optional E-coated aluminum-fin evaporator and condenser coils:
 - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.
 - b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
 - c. Color shall be high gloss black with gloss per ASTM D523-89.
 - d. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas, including fin edges.
 - e. Superior hardness characteristics of 2H per ASTM D3363-92A and cross-hatch adhesion of 4B-5B per ASTM D3359-93.
 - f. Impact resistance shall be up to 160 in.-lb (ASTM D2794-93).
 - g. Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92).
 - h. Corrosion durability shall be confirmed through testing to be no less than 6000 hours salt spray per ASTM B117-90.
- I. 23 81 19.13.I. Refrigerant Components
 1. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range. Shall contain removable power element to allow change out of power element and bulb without removing the valve body.
 - b. Refrigerant filter drier.
 - c. Service gauge connections on suction and discharge lines.
 - d. Pressure gauge access through a specially designed screen on the side of the unit.
 - e. Single circuit design with tandem compressor and fully activated evaporator coil.
 2. Compressors
 - a. Models shall use one fully hermetic tandem scroll compressors optimized for comfort staging and IEER energy savings.
 - b. Models shall be available with a single refrigerant circuit and 3 stage 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 heaters shall be standard on each compressor and deactivated whenever a compressor is in operation.
- J. 23 81 19.13.J. Filter Section
 1. Filters access is specified in the unit cabinet section of this specification.

2. Filters shall be held in place by a preformed slide out 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.
 6. 4 in. filter capability is possible with a field-installed pre-engineered slide out filter track accessory. 4 in. filters are field furnished.
- K. 23 81 19.13.K. Evaporator Fan and Motor
1. Evaporator fan motor:
 - a. Shall have permanently lubricated bearings.
 - b. Shall have inherent automatic-reset thermal overload protection or circuit breaker.
 - c. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.
 - d. Shall be Variable Frequency duty to match the 3 stage compression logic.
 - e. Shall contain motor shaft grounding ring to prevent electrical bearing fluting damage by safely diverting harmful shaft voltages and bearing currents to ground.
 2. Variable Frequency Drive (VFD). For indoor fan motor Staged Air Volume (SAV™) operation:
 - a. Shall be installed inside the unit cabinet, mounted, wired and tested.
 - b. Shall contain Electromagnetic Interference (EMI) frequency protection.
 - c. Insulated Gate Bi-Polar Transistors (IGBT) used to produce the output pulse width modulated (PWM) waveform, allowing for quiet motor operation.
 - d. Self-diagnostics with fault and power code LED indicator. Field accessory Display Kit available for further diagnostics and special setup applications.
 - e. RS485 capability standard.
 - f. Electronic thermal overload protection.
 - g. 5% swinging chokes for harmonic reduction and improved power factor.
 - h. All printed circuit boards shall be conformal coated.
 - i. Shall not contain visual display to adjust internal setting. Only available as field-installed kit.
 3. Belt-driven Evaporator Fan:
 - a. Belt drive shall include an adjustable-pitch motor pulley and belt break protection system.
 - b. Shall use rigid pillow block bearing system with lubricate fittings at are accessible or lubrication line.
- c. Blower fan shall be double-inlet type with forward-curved blades.
- d. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
- L. 23 81 19.13.L. Condenser Fans and Motors
1. Condenser fan motors:
 - a. Shall be a totally enclosed, multi-speed ECM motor.
 - b. Shall use permanently lubricated bearings.
 - c. Shall have inherent thermal overload protection with an automatic reset feature.
 - d. Shall use a shaft-down design.
 2. Condenser Fans:
 - a. Shall be a direct-driven propeller type fan.
 - b. Shall have galvanized aluminum (galvalume) blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.
- M. 23 81 19.13.M. Special Features, Options and Accessories
1. Low Leak Economizers:
 - a. Available as factory-installed option (vertical or horizontal) or field-installed accessory (vertical or horizontal) on all electro-mechanical, RTU Open, and SystemVu™ models.
 - b. Low leak economizers are available with EconoMi\$er® X controls for electromechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.
 - c. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
 - d. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
 - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - f. Low 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 or horizontal) or field-installed accessory (vertical or horizontal) on all models including: electro-mechanical, RTU Open, and SystemVu controls.
 - b. Ultra-Low Leak economizer dampers meet California's Title 24 section 140.4

- prescriptive requirements for leakage, reliability testing, etc., and ASHRAE 90.1-2013 requirements for damper leakage.
- c. Economizers are available with EconoMi\$er X controls for electro-mechanical units, or EconoMi\$er2 controls for RTU Open or SystemVu units.
 - d. Integrated, gear driven opposed blade design type capable of simultaneous economizer and compressor operation.
 - e. Damper blades shall be galvanized steel with composite gears. Plastic or composite blades on intake or return shall not be acceptable.
 - f. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - g. Shall be capable of introducing up to 100% outdoor air.
 - h. Economizer's barometric relief dampers shall be sized to allow up to 100% relief (actual results will be based on specific job conditions).
3. EconoMi\$er X Economizer Controls:
 - a. For use with factory-installed (vertical or horizontal) or field-installed accessory (vertical or horizontal) on electro-mechanical units with low leak or ultra-low leak economizers.
 - b. Meets California's Title 24 section 120.2 mandatory requirements for economizer Fault Detection and Diagnosis (FDD).
 - c. Economizer controller shall be Honeywell W7220 that provides:
 - 1) 2-line LCD interface screen for setup, configuration and troubleshooting.
 - 2) On-board FDD detects and alerts when economizer is not operating properly.
 - 3) Sensor failure loss of communication identification.
 - 4) Automatic sensor detection.
 - 5) Capabilities for use with multi-speed indoor fan units.
 - d. Compressor lockout temperature on W7220 is adjustable from -45°F to 80°F (-43°C to 27°C), set at a factory default of 32°F (0°C).
 - e. Shall be designed to spring return close outside air damper during loss of power.
 - f. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - g. Utilizes digital dry bulb or enthalpy outside air sensors. Factory-installed economizers available with dry bulb or enthalpy. Dry bulb sensors installed on all field-installed economizer accessories.
 4. EconoMi\$er2 Economizer Controls:
 - a. For use with factory-installed (vertical or horizontal) or field-installed accessory (vertical or horizontal) on RTU Open or SystemVu units with low leak or ultra-low leak economizers.

NOTE: Factory-installed EconoMi\$er2 is available on SystemVu units with ultra-low leak economizers only.

 - b. EconoMi\$er2 economizers are controlled by RTU Open or SystemVu unit controllers, which shall be 4 to 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°F to 100°F (4°C to 38°C). Additional sensor options shall be available as accessories.
 - f. Shall be designed to spring return close outside air damper during loss of power.
 - g. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - h. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 100%, with a range of 0% to 100%.
 - i. The economizer shall maintain minimum air-flow into the building during occupied period and provide design ventilation rate for full occupancy.
 - j. Controller shall drive outside air dampers completely closed when the unit is in the unoccupied mode.
 - k. Economizer controller shall accept a 4 to 20mA 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.
 5. Condenser Coil Hail Guard Assembly
 - a. Shall protect against damage from hail.
 - b. Shall be louvered style design.
 6. Unit-Mounted, Non-Fused Disconnect Switch:
 - a. Switch shall be factory-installed, internally mounted.
 - b. National Electric Code (NEC) and ETL approved non-fused switch shall provide unit power shutoff.
 - c. Shall be accessible from outside the unit.

- d. Shall provide local shutdown and lockout capability.
 - e. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
7. HACR Breaker
- a. These manual reset devices provide overload and short circuit protection for the unit. Factory wired and mounted with the units, with access cover to help provide environmental protection. On 575v applications, HACR breaker can only be used with WYE power distribution systems. Use on Delta power distribution systems is prohibited.
 - b. Sized only for the unit as ordered from the factory. Does not accommodate field-installed devices.
8. Convenience Outlet:
- a. Powered convenience outlet.
 - 1) Outlet shall be powered from main line power to the rooftop unit.
 - 2) Outlet shall be powered from line side of disconnect by installing contractor, as required by code. If outlet is powered from load side of disconnect, unit electrical ratings shall be ETL certified and rated for additional outlet amperage.
 - 3) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - 4) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - 5) Voltage required to operate convenience outlet shall be provided by a factory-installed step-down transformer.
 - 6) Outlet shall be accessible from outside the unit.
 - 7) Outlet shall include a field-installed "Wet in Use" cover.
 - b. Non-Powered convenience outlet.
 - 1) Outlet shall be powered from a separate 115/120v power source.
 - 2) A transformer shall not be included.
 - 3) Outlet shall be factory-installed and internally mounted with easily accessible 115-v female receptacle.
 - 4) Outlet shall include 15 amp GFI receptacles with independent fuse protection.
 - 5) Outlet shall be accessible from outside the unit.
 - 6) Outlet shall include a field-installed "Wet in Use" cover.
9. Fan/Filter Status Switch:
- a. Switch shall provide status of indoor evaporator fan (ON/OFF) or filter (CLEAN/DIRTY).
 - b. Status shall be displayed either over communication bus (when used with direct digital controls) or with an indicator light at the thermostat.
10. Centrifugal Power Exhaust:
- a. Power exhaust shall be used in conjunction with an integrated economizer.
 - b. Independent modules for vertical or horizontal return configurations shall be available.
 - c. Horizontal power exhaust is shall be mounted in return ductwork.
 - d. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.
11. Roof Curbs (Vertical):
- a. Full perimeter roof curb with exhaust capability providing separate air streams for energy recovery from the exhaust air without supply air contamination.
 - b. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
 - c. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
12. High-Static Indoor Fan Motor(s) and Drive(s):
- a. High-static motor(s) and drive(s) shall be factory-installed to provide additional performance range.
13. Outdoor Air Enthalpy Sensor:
- a. The outdoor air enthalpy sensor shall be used to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.
14. Return Air Enthalpy Sensor:
- a. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
15. Indoor Air Quality (CO₂) Sensor:
- a. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
 - b. The IAQ sensor shall be available in duct mount, wall mount, or wall mount with LED display. The setpoint shall have adjustment capability.
16. Smoke detectors:
- a. Shall be a 4-Wire Controller and Detector.
 - b. Shall be environmental compensated with differential sensing for reliable, stable, and drift-free sensitivity.

- c. Shall use magnet-activated test/reset sensor switches.
- d. Shall have tool-less connection terminal access.
- e. Shall have a recessed momentary switch for testing and resetting the detector.
- f. Controller shall include:
 - 1) One set of normally open alarm initiation contacts for connection to an initiating device circuit on a fire alarm control panel.
 - 2) Two Form-C auxiliary alarm relays for interface with rooftop unit or other equipment.
 - 3) One Form-C supervision (trouble) relay to control the operation of the Trouble LED on a remote test/reset station.
 - 4) Capable of direct connection to 2 individual detector modules.
 - 5) Can be wired to up to 14 other duct smoke detectors for multiple fan shutdown applications.
- 17. 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.
- 18. 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.
- 19. Electric Heat:
 - a. Heating Section
 - 1) Heater element open coil resistance wire, nickel-chrome alloy, 0.29 in. inside diameter, strung through ceramic insulators mounted on metal frame. Coil ends are staked and welded to terminal screw slots.
 - 2) Heater assemblies are provided with integral fusing for protection of internal heater circuits 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.
- 20. Barometric Hood (Horizontal Economizer Applications)
 - a. Shall be required when a horizontal economizer and barometric relief are required. Barometric relief damper must be installed in the return air (horizontal) duct work. This hood provides weather protection.
- 21. Hinged Access Panels
 - a. Shall provide easy access through integrated quarter turn latches.
 - b. Shall be on major panels of – filter, control box, fan motor and compressor.
- 22. Display Kit for Variable Frequency Drive
 - a. Kit allows the ability to access the VFD controller programs to provide special setup capabilities and diagnostics.
 - b. Kit contains display module and communication cable.
 - c. Display Kit can be permanently installed in the unit or used on any SAV™ system VFD controller as needed.
- 23. Thermostat:
 - a. Due to the 3 stage cooling capacity design of these units, a 3 stage cooling thermostat is required for the unit to perform at listed operating efficiencies.
 - b. Carrier offers a Honeywell branded T7350D (3 Cool/3 Heat) Commercial Programmable Thermostat. This provides:
 - 1) 7-day programmable 365-day clock with holiday programming
 - 2) Automatic Daylight Saving Time adjustment
 - 3) Backlit display
 - 4) Changeover selections: automatic or manual
 - 5) Fan configurable: continuous or intermittent during occupied
- 24. Humidi-MiZer Adaptive® Dehumidification System:
 - a. The Humidi-MiZer Adaptive Dehumidification System shall be factory-installed, certified and tested to provide greater dehumidification of the occupied space by providing 2 distinct modes of dehumidification operation in addition to its normal design cooling mode:
 - 1) Subcooling mode further sub cools the hot liquid refrigerant leaving the condenser coil as well as reheat leaving air stream. It can provide both better cooling capacity as well as dehumidification process when both temperature and humidity in the space are not satisfied.

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

temperature when only humidity in the space is not satisfied.

25. High Short Circuit Current Rating (SCCR):

- a. An optional SCCR of 65kA shall be provided for 460 volt and 60kA for 208/230 volt units.

