

# LCX

## XION™ ROOFTOP UNITS

Standard Efficiency | Lennox® CORE Lite Controller | Environ™ Coil | **R-454B** | 60Hz

### COMMERCIAL PRODUCT SPECIFICATIONS (EHB)

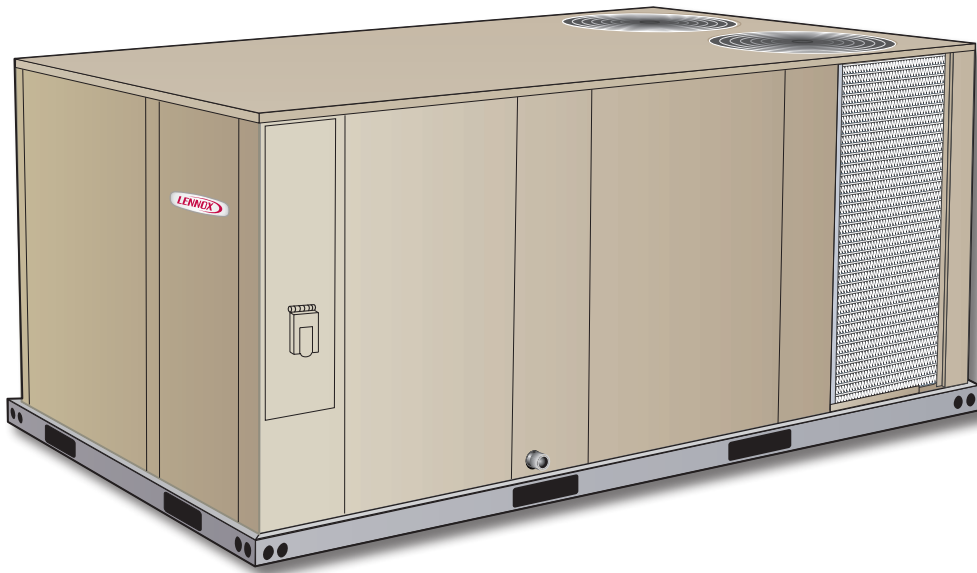


7.5 to 12.5 Tons

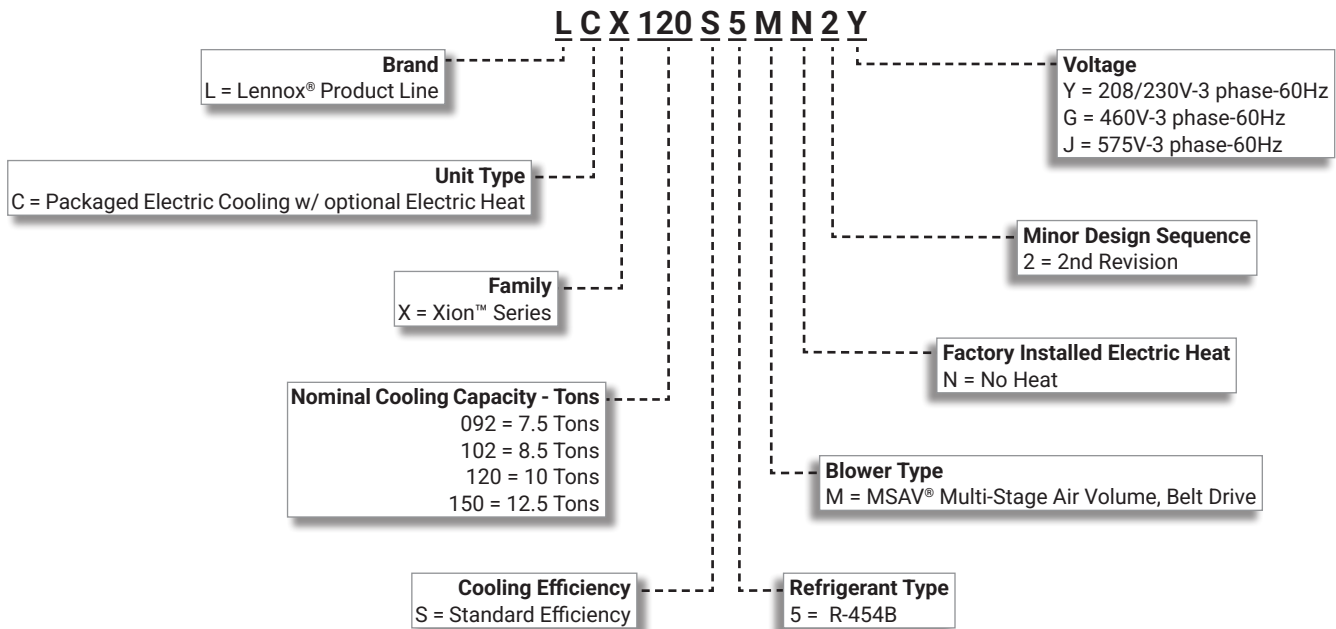
Net Cooling Capacity – 88,000 to 138,000 Btuh

Optional Electric Heat - 7.5 to 60 kW

# XION



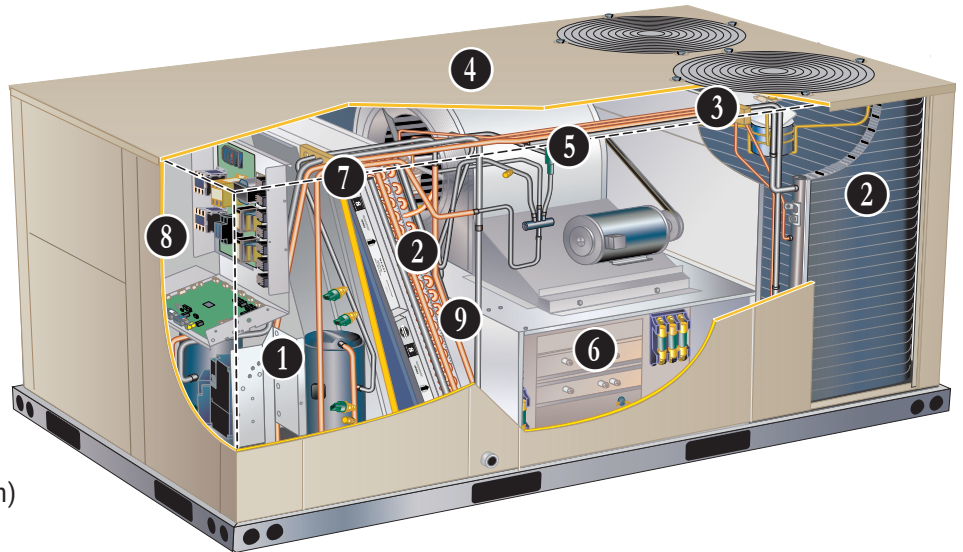
### MODEL NUMBER IDENTIFICATION



## FEATURE HIGHLIGHTS

Xion™ rooftop units are engineered with the right technologies and options to meet standard efficiency requirements while delivering reliable performance and year-round comfort.

1. Scroll Compressors
2. Environ™ Coil System:  
Condenser and Evaporator  
(092, 102 and 120 Models only)  
Condenser (150 Model only)
3. Outdoor Coil Fan Motors
4. Heavy Gauge Steel Cabinet
5. MSAV Multi-Stage Air Volume  
Blower
6. Electric Heat (option)
7. Air Filter
8. Lennox® CORE Lite Control System
9. Humiditrol® Dehumidification (option)



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## APPROVALS AND WARRANTY

### **APPROVALS**

- All models are AHRI Standard 340/360-2023 certified
- ETL and CSA listed
- All models are ASHRAE 90.1-2025 compliant
- All models meet DOE 2023 energy efficiency standards
- All models are listed to UL 60335-1 and UL 60335-2-40 and meet the Refrigerant Detection and Dissipation Requirements
- Components are bonded for grounding to meet safety standards for servicing required by ETL, NEC and CEC
- All models meet California Code of Regulations, Title 24 and ASHRAE 90.1-2025 Section 6.4.3.10 requirements for staged airflow
- All models have been sound tested in accordance with test conditions included in AHRI Standard 270 or 370
- All models have HCAI (formerly OSHPD) OSP and Special Seismic Certification (Number: [OSP-0596](#)), and meet 2021 International Building Code (IBC), 2022 California Building Code (CBC) ASCE 7, and ICC-ES AC156
- All models have FSA approval and are compliant with standard ASCE 7-22 (ASD) and the Florida Building Code Eighth Edition (2023)
- Units are charged with virgin refrigerant to comply with NYCRR Part 494
- All models are fully charged and run tested to verify unit operation and functionality

### **WARRANTY**

- Compressors - Limited five years
- Environ™ Coil System - Limited three years
- Lennox® CORE Lite Unit Controller - Limited three years
- Variable-Frequency Drive (VFD) - Limited five years
- High Performance Economizers (optional) - Limited five years
- All other covered components - Limited one year

## FEATURES AND BENEFITS

### **COOLING SYSTEM**

- Designed to maximize sensible and latent cooling performance at design conditions
- System can operate from 45°F to 125°F without any additional controls

#### **R-454B Refrigerant**

- Low GWP (Global Warming Potential)
- Zero ODP (Ozone Depletion Potential)
- Low Toxicity/Lower Flammability - A2L
- Unit is factory pre-charged

#### **1 Compressor System**

- System consists of one two-stage scroll compressor and one single-stage scroll compressor
- Resiliently mounted on rubber grommets for quiet operation

#### **Compressor Crankcase Heaters**

- Protects against refrigerant migration that can occur during low ambient operation or during extended off cycles

#### **Thermal Expansion Valves**

- Ensures optimal performance throughout the application range
- Removeable power element

#### **Filter/Driers**

- High capacity filter/drier protects the system from dirt and moisture

#### **High Pressure Switches**

- Protects the compressor from overload conditions such as dirty condenser coils, blocked refrigerant flow or loss of outdoor fan operation

#### **Low Pressure Switches**

- Protects the compressors from low pressure conditions such as low refrigerant charge or low/no airflow

#### **Indoor Coil Freeze Protection**

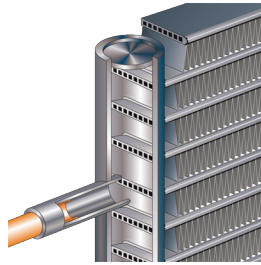
- Protects the evaporator coil from damaging ice build-up due to conditions such as low/no airflow or low refrigerant charge

## FEATURES AND BENEFITS

### **COOLING SYSTEM (continued)**

#### **2** Environ™ Coil System

- Condenser (all models) and evaporator (092, 102 and 120 models)
- Lightweight, all aluminum brazed fin construction
- Constructed of three components
  - A flat extrusion tube
  - Fins in-between the flat extrusion tube
  - Two refrigerant manifolds



#### **Environ™ Coil System Features:**

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins)
- Smaller internal volume (reduced refrigerant charge)
- High durability
- All aluminum construction
- Fewer brazed joints
- Compact design
- Reduced unit weight
- Easy maintenance/cleaning
- Mounting brackets with rubber inserts which secures coil to unit providing vibration dampening and corrosion protection

#### **Evaporator Coil (150 Models Only)**

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction
- Factory leak tested
- Cross-row circuiting with rifled tubing

#### **Antimicrobial Condensate Drain Pan**

- Composite pan, sloped to meet drainage requirements of ASHRAE 62.1
- Antimicrobial additive resists growth of mold and mildew on drain pan, which improves indoor air quality and reduces drain line blockage
- Side or bottom drain connections
- Reversible to allow connection at back of unit

#### **3** Outdoor Coil Fan Motors

- Thermal overload protected
- Totally enclosed
- Permanently lubricated ball bearings
- Shaft up
- Wire basket mount

#### **Outdoor Coil Fans**

- PVC coated fan guard furnished

### **Required Selections**

#### **Cooling Capacity**

- Specify nominal cooling capacity

### **Options/Accessories**

#### **Field Installed**

##### **Condensate Drain Trap**

- Available in copper or PVC

##### **Drain Pan Overflow Switch**

- Monitors condensate level in drain pan
- Shuts down unit if drain becomes clogged

##### **Low Ambient Controls (0°F)**

- Units operate satisfactorily down to 45°F outdoor air temperature without any additional controls
- Allows unit operation down to 0°F without evaporator coil icing
- Head pressure speed control reduces outdoor fan operation during low ambient conditions unit head pressure rises to the setpoint
- Pressure transducers are mounted on the liquid lines
- Liquid line pressure switches and temperature switches are provided for field installation
- Wiring harnesses are furnished for simple plug-in wiring to fans and controller

### **LOW GWP REFRIGERANT DETECTION SYSTEM (RDS)**

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Factory installed on all units
- Consists of a refrigerant detection sensor(s) and a mitigation control
- Ensures safe operation for systems equipped with R-454B refrigerant
- Sensor(s) monitors indoor coil area for R-454B refrigerant
- If R-454B refrigerant is detected the refrigerant detection system will prevent compressor and heating operation until R-454B refrigerant is no longer detected
- Refrigeration detection system energizes blower if any R-454B refrigerant is detected to mitigate any concentrations of refrigerant from the unit and the system

## FEATURES AND BENEFITS

### CABINET

4

#### Construction

- Heavy-gauge steel panels
- Full perimeter heavy-gauge galvanized steel base rail
- Base rails have rigging holes
- Three sides of the base rail have forklift slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection

#### Airflow Choice

- Units are shipped in downflow (vertical) return air flow configuration

**NOTE** - Units can be field converted to horizontal airflow with Horizontal Discharge Kit.

#### Duct Flanges

- Provided for horizontal duct attachment

#### Power Entry

- Electrical lines can be routed through the unit base or through horizontal access knock-outs

#### Exterior Panels

- Constructed of heavy-gauge, galvanized steel
- Textured pre-paint with polyurethane finish
- Cyclic salt fog and UV exposure up to 1,680 hours per ASTM D5894

#### Insulation

- Fully insulated with non-hygroscopic fiberglass insulation (conditioned areas)
- Unit base is fully insulated
- Base insulation serves as an air seal to the roof curb, eliminating the need to add a seal during installation

#### Access Panels

- Filter section
- Blower/heating section
- Compressor/controls section

### Options/Accessories

#### **Factory Installed**

##### Hinged Access Panels

- Tool-less access
- Filter section
- Blower/heating section
- Compressor/controls section
- Panel seals and quarter-turn latching handles provide a tight air and water seal

#### **Factory or Field Installed**

##### Combination Coil/Hail Guards

- Heavy gauge steel frame
- Painted to match cabinet
- Expanded metal mesh protects outdoor coil

#### **Field Installed**

##### Horizontal Discharge Kit

- Consists of duct covers to block off downflow supply and return air openings for horizontal applications
- Also includes return air duct flanges for end return air when economizer is used in horizontal applications

**NOTE** - When configuring unit for horizontal application with economizer, a separate Horizontal Barometric Relief Damper with Hood must be ordered separately for installation in the return air duct.

##### Return Air Adaptor Plate

- For same size LCA/LGA/LHA, LCC/LGC/LHC and TCA/TGA/THA unit replacement
- Installs on return air opening in unit to match return air opening on existing roof curbs
- Also see Accessory Air Resistance table

##### Burglar Bars

- Heavy gauge galvanized frame
- Fully welded
- 3/4 in. bar meets ASTM specification
- Frame meets ASTM A446, A525, A526 and A527 specification
- Burglar bars designed to fit ductwork

## FEATURES AND BENEFITS

### **BLOWER**

A wide selection of supply air blower options are available to meet a variety of airflow requirements

#### **5 Blower Motor**

- Overload protected
- Ball bearings
- Available in several different sizes to maximize air performance

#### **Supply Air Blower**

- Forward curved blades
- Double inlet
- Blower wheel statically and dynamically balanced
- Ball bearings
- Adjustable pulley (allows speed change).
- Blower assembly slides out of unit for servicing

#### **MSAV Multi-Stage Air Volume Operation**

- MSAV Multi-Stage Air Volume stages the amount of airflow according to compressor stages, heating demand, and ventilation demand
- Units utilize a Variable Frequency Drive (VFD) to stage the supply air blower airflow
- VFD alters the frequency and voltage of the power supply to the blower to control blower speed
- The supply air blower has three speeds:
  1. **Low Speed** - 1st Stage Cooling
  2. **Medium Speed** - 2nd Stage Cooling
  3. **High Speed** - Full load cooling and all heat modes
- Full speed blower operation is set by adjusting the motor pulley to deliver the desired air volume
- Ventilation speed is selectable between high and low speed

**NOTE** - Part load airflow in cooling mode should not be set below 220 cfm/nominal full load ton to reduce the risk of evaporator coil freeze-up.

- VFD has an operational range of -40 to 125° F outdoor air ambient temperature

**NOTE** - Lower operating costs are obtained when the blower is operated on lower speeds.

**NOTE** - Variable Frequency Drive (VFD) is designed to operate on balanced, three-phase power. Operating units on unbalanced three-phase power will reduce the reliability of all electrical components in the unit. Unbalanced power is a result of the power delivery system supplied by the local utility company. Factory-installed inverters are sized to drive blower motors with an equivalent current rating using balanced three-phase power. If unbalanced three-phase power is supplied the installer must replace the existing factory-installed inverter with an inverter that has a higher current rating to allow for the imbalance. Refer to the installation instructions for additional information and replacement information.

#### **Blower Proving Switch**

- Monitors blower operation, shuts down unit if blower fails

#### **Required Selections**

- Order blower motor horsepower and drive kit number required when base unit is ordered
- See Drive Kit Specifications Table

#### **Options/Accessories**

#### **Field Installed**

##### **VFD Manual Bypass Kit**

- Bypass Kit can be used to operate the unit in single speed (CAV) blower mode if the inverter needs to be serviced or replaced
- VFD Manual Bypass Control is a manual bypass and is set by re-configuring the wiring on the unit

## FEATURES AND BENEFITS

### ELECTRICAL

#### Marked & Color-Coded Wiring

- All electrical wiring is color-coded and marked to identify which components it is connecting

#### Electrical Plugs

- Positive connection electrical plugs are used to connect common accessories or maintenance parts for easy removal or installation

#### Phase/Voltage Detection

- Monitors power supply to assure phase is correct at unit start-up
  - If phase is incorrect, the unit will not start and an alarm code is reported to the unit controller
- Protects unit from being started with incorrect phasing which could lead to issues such as compressors running backwards
- Voltage detection monitors power supply voltage to assure proper voltage
  - If voltage is not correct (over/under voltage conditions) the unit will not start and an alarm code is reported to the unit controller

### Required Selections

#### Voltage Choice

- Specify when ordering base unit

### Options/Accessories

#### Factory or Field Installed

##### Disconnect Switch

- Accessible from outside of unit
- Spring loaded weatherproof cover
- See Electrical/Electric Heat tables for ordering information, page 33

##### GFI Service Outlets (2)

- 115V ground fault circuit interrupter (GFCI) type options:
  - Factory installed, non-powered, field wired
  - Field installed, non-powered, field wired

#### Field Installed

### 6 Electric Heat

- Helix wound nichrome elements
- Individual element limit controls
- Wiring harness
- Unit fuse block
- See Options / Accessories tables for ordering information

#### GFI Weatherproof Cover

- Single-gang cover
- Heavy-duty UV-resistant polycarbonate case construction
- Hinged base cover with gasket

### INDOOR AIR QUALITY

### 7 Air Filters

- Disposable 2 inch MERV 4 filters furnished as standard

### Options/Accessories

#### Field Installed

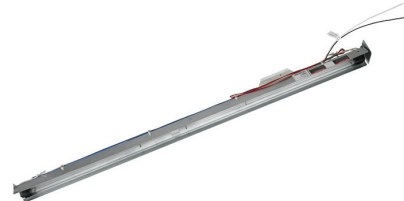
##### Healthy Climate® High Efficiency Air Filters

- Disposable MERV 8, MERV 13, or MERV 16 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency
- 2 inch pleated filters

##### Replacement Filter Media Kit With Frame

- Replaces existing pleated filter media
- Includes washable metal mesh screen and metal frame with clip for holding replaceable non-pleated filter

##### Healthy Climate® UVC Germicidal Lamps



- Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds
- UV-C energy greatly reduces the growth and proliferation of mold and other bioaerosols (bacteria and viruses) on illuminated surfaces (particularly coil and drain pan)
- Destroys the organism or controls its ability to reproduce
- Field installed in the blower/evaporator coil section
- Magnetic safety interlock terminates power when access panels are removed
- All necessary hardware for installation is included
- Lamps operate on 110/230V-1ph power supply
- **NOTE** - Step-down transformer may be ordered separately for 460V and 575V units.
- Approved by ETL

##### Needlepoint Bipolar Ionization (NPBI) Kit

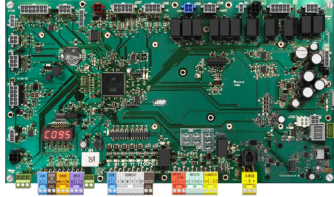
- NPBI technology has been shown to effectively reduce harmful pathogens, pollutants, and odors
- Brush-type ionizer introduces a high concentration of both positive and negative ions into the air stream
- These bipolar ions are then dispersed into the occupied space through the duct system proactively reducing the airborne contaminants
- Ions travel within the building air stream and attach to particles, pathogens, and gas molecules, making them larger and easier to capture in the filtration system
- UL 2998 certified for zero ozone emission

##### Indoor Air Quality (CO<sub>2</sub>) Sensors

- Monitors CO<sub>2</sub> levels
- Reports to the Lennox® CORE Lite Unit Controller, which adjusts economizer dampers as needed

## CONTROL SYSTEM

### LENNOX® CORE LITE CONTROL SYSTEM



8 The Lennox® CORE Lite Control system is designed to accelerate equipment install and service. Standard with all Xion™ rooftop units, control system integrates key technologies that lower installation costs, drive system efficiency, and protect your investments.

The Lennox® CORE Lite Unit Controller is a microprocessor-based controller that provides flexible control of all unit functions.

#### CORE Mobile Service App

- Guided Setup with progress indicators, detailed help, and exportable summaries to manage simple, trouble-free setup, reducing commissioning times
- Enhanced Test Functionality provides real-time sensor readings, trending, and reports that enable easy troubleshooting
- Ability to set and configure parameters of the CORE Control System to manage sequence of operation
- Economizer test function ensures economizer is operating correctly



#### Additional Features:

- Built-In 7-Segment Display shows Unit Status and active alarms for easy troubleshooting
- Buttons for test and clearing delays
- SmartWire™ System with keyed and removable screw terminals ensure correct field wiring
- Profile setup copies key settings between units with the same configuration to reduce setup time
- USB port allows a technician to download and transfer unit information to help verify service was performed
- USB software updates on the Lennox® CORE Lite Unit Controller enhance functionality without the need to change components

#### Configurable Built-In Functions

- Up to three distinct Cooling Airflows in Thermostat Mode
- Programmable independent heating, ventilation and cooling blower speeds
- Economizer Control Options (See Economizer / Exhaust Air / Outdoor Air sections)
- Exhaust Fan Control Modes for fresh air damper position
- Configurable Morning Warm-up
- Night Setback Mode
- Demand Control Ventilation
- Humiditrol® Operation

#### Component Protection / Unit Safeguards:

- Compressor Time-Off Delay
- Adjustable Blower On/Off Delay
- Return Air Temperature Limit Control
- Safety Switch Input allows Controller to respond to a external safety switch trip
- Service Relay Output
- Thermostat Bounce Delay
- Smoke Alarm Mode has four choices (unit off, positive pressure, negative pressure, purge)
- “Strike Three” Protection
- Gas Valve Time Delay Between First and Second Stage
- Minimum Compressor Run Time

#### Control Methods / Interfaces:

- DDC and 24V Thermostat
- BACnet MS/TP (Field Option)
- Lennox S-BUS
- Zone Temperature Sensor Input
- Dehumidistat and Humidity Sensor Inputs
- Indoor Air Quality Inputs (2)
- Built-in Control Parameter Defaults
- Permanent Diagnostic Code Storage
- Field Adjustable Control Parameters (Over 100 settings)
- Multiple Configurable Digital Inputs
- LED Indicators

**NOTE** - Lennox® CORE Control System features vary with the type of rooftop unit in which the control is installed.

## CONTROL SYSTEM

### LENNOX® CORE LITE CONTROL SYSTEM (continued)

#### Controls Options

##### Field Installed

##### Dirty Filter Switch

- Senses static pressure increase and issues alarm if necessary

##### Smoke Detector

- Photoelectric type
- Installed in supply air section, return air section or both sections
- Available with power board and single sensor (supply or return) or power board and two sensors (supply and return)
- Power board located in unit control compartment

## OPTIONS / ACCESSORIES

### ECONOMIZER

- Economizer operation is set and controlled by the Lennox® CORE Lite Unit Controller
- Simple plug-in connections from economizer to control system for easy installation
- All Xion™ rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring

**NOTE** - Optional sensors may be used instead of unit sensors to determine whether outdoor air is suitable for free cooling. See the Options/ Accessories table.

#### Factory or Field Installed

##### High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 compliant
- Downflow or Horizontal with Outdoor Air Hood
- Outdoor Air Hood is included when economizer is factory installed and is furnished with economizer when ordered for field installation
- Barometric Relief Dampers with Exhaust Hood are also furnished
- Linked damper action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit

**NOTE** - Horizontal applications use furnished outdoor air hood and barometric relief dampers with exhaust hood. Requires optional Horizontal Discharge Kit. See dimension drawing on page 43.

Horizontal applications in reduced spaces requires optional Horizontal Low Profile Barometric Relief Dampers with Exhaust Hood and Horizontal Discharge Kit. See dimension drawing on page 44.

**NOTE** - High Performance Economizers are not approved for use with enthalpy controls in Title 24 applications.

**NOTE** - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2022 Building Energy Efficiency Standards.

**NOTE** - Refer to Installation Instructions for complete setup information.

## OPTIONS / ACCESSORIES

### **ECONOMIZER (continued)**

#### **Factory or Field Installed**

##### **Single Enthalpy Control (Not for Title 24)**

- Outdoor air enthalpy sensor enables economizer if the outdoor enthalpy is less than the setpoint of the control

#### **Field Installed**

##### **Differential Enthalpy Control (Not for Title 24)**

- Order two Single Enthalpy Controls
- One is field installed in the return air section
- One is installed in the outdoor air section

Allows the economizer control to select between outdoor air or return air, whichever has lower enthalpy

##### **Differential Sensible Control**

- Factory setting
- Uses outdoor air and return air sensors that are furnished with the unit
- The Lennox® CORE Lite Unit Controller compares outdoor air and return air setpoints and activates the economizer when the outdoor air temperature is below the configured setpoint and cooler than return air

**NOTE** - Differential Sensible Control can be configured in the field to provide Offset Differential Sensible Control or Single Sensible Control.

In Offset Differential Sensible Control mode, the economizer is enabled if the temperature differential (offset) between outdoor air and return air reaches the configured setpoint.

In Single Sensible Control mode, the economizer is enabled when outdoor air temperature falls below the configured setpoint.

### **EXHAUST**

#### **Field Installed**

##### **Power Exhaust Fan**

- Installs internal to unit for downflow applications only with economizer option
- Provides exhaust air pressure relief
- Interlocked to run when supply air blower is operating
- Fan runs when outdoor air dampers are 50% open (adjustable)
- Motor is overload protected
- Fan is 20 in. diameter
- Five blades
- One 1/3 HP motor

**NOTE** - Requires Economizer and Downflow Barometric Relief Dampers.

##### **Horizontal Low Profile Barometric Relief Dampers**

- For use when unit is configured for horizontal applications requiring an economizer in a reduced space
- Allows relief of excess air
- Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Field installed in return air duct
- Bird screen and hood furnished

**NOTE** - Requires Horizontal Discharge Kit.

### **CANFAB HORIZONTAL ECONOMIZER**

#### **Field Installed**

- Heavy gauge galvanized steel construction
- Color coordinated paint finish
- Water entrainment intake filters
- 100% shut down if loss of power
- Approximately 75% to 100% relief of the economizer intake

## OPTIONS / ACCESSORIES

### **OUTDOOR AIR**

#### **Field Installed**

##### **Motorized Outdoor Air Damper**

- Linked mechanical dampers
- Fully modulating spring return damper motor with plug-in connection
- 0 to 25% (fixed) outdoor air adjustable
- Installs in unit
- Outdoor air hood with bird screen included

##### **Manual Outdoor Air Damper**

- Adjustable slide damper
- Installed in unit
- Outdoor air hood with bird screen included

### **ROOF CURBS**

#### **Field Installed**

- Nailer strip furnished (downflow only)
- Mates to unit
- US National Roofing Contractors Approved
- Shipped knocked down

##### **Hybrid Roof Curbs, Downflow**

- Interlocking tabs fasten corners together
- No tools required for assembly
- Can also be fastened together with furnished hardware
- Available in 8, 14, 18, and 24 inch heights

##### **Adjustable Pitch Curb**

- Fully adjustable pitch curbs (3/4 in. per foot in any direction) provide a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles
- Interlocking tabs fasten corners together
- No tools required for assembly
- Hardware is furnished to connect upper curb with lower curb
- Available in 14 inch height

##### **Adaptor Curbs (not shown)**

- Curbs are regionally sourced
- Dimensions vary based upon the source

**NOTE** - Contact your local sales representative for a detailed cut sheet with applicable dimensions.

### **CEILING DIFFUSERS**

#### **Field Installed**

##### **Ceiling Diffusers (Flush or Step-Down)**

- White powder coat finish on diffuser face and grilles
- Insulated UL listed duct liner
- Diffuser box has collars for duct connection
- Step-down diffusers have double deflection blades
- Flush diffusers have fixed blades
- Provisions for suspending
- Internally sealed to prevent recirculation
- Removable return air grille
- Adapts to T-bar ceiling grids or plaster ceilings

##### **Transitions (Supply and Return)**

- Used with diffusers
- Installs in roof curb
- Galvanized steel construction
- Flanges furnished for duct connection to diffusers
- Fully insulated

## HUMIDITROL® DEHUMIDIFICATION SYSTEM OPTION

### 9 OVERVIEW

- Factory installed option designed to control humidity
- Provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity control
- Unit comes equipped with one row reheat coil, solenoid valve and humidity controller

**NOTE** - A dehumidification demand from a relative humidity sensor, dehumidistat, a DDC controller or building automation system is required to control humidity.

Controls are not furnished and must be ordered separately.

**NOTE** - When the Humiditrol® Dehumidification System is ordered for 092-102-120 models, the Environ™ evaporator coil is replaced with a conventional fin/tube evaporator coil.

#### Conventional Fin/Tube Evaporator Coil Features:

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction

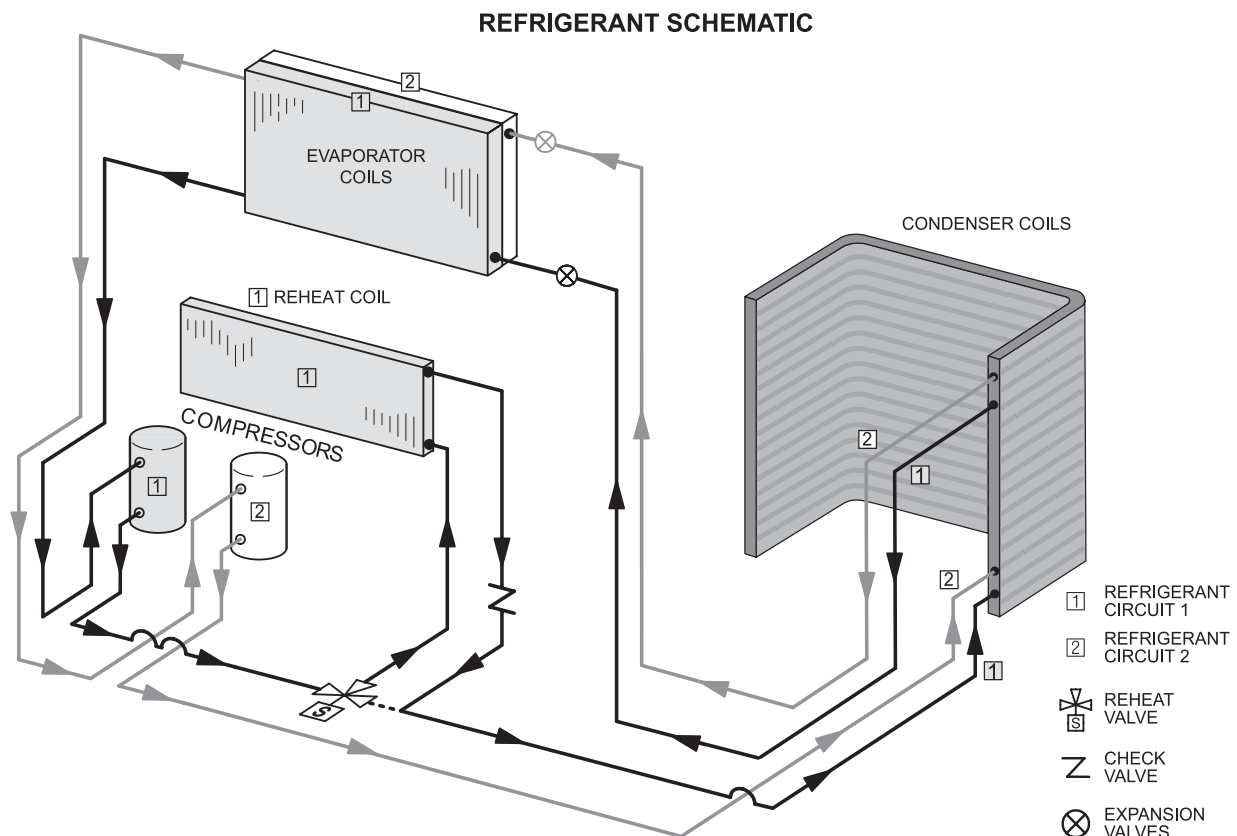
#### BENEFITS

- Improves indoor air quality
- Helps prevent damage due to high humidity levels
- Improves comfort levels by reducing space humidity levels

### OPERATION

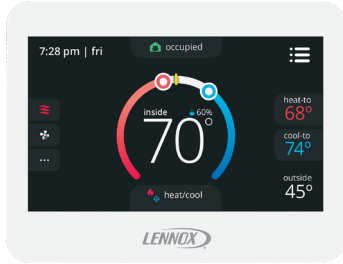
#### No Dehumidification Demand

- Unit will operate conventionally whenever there is a demand for cooling or heating and no dehumidification demand
- Free cooling is only permitted when there is no demand for dehumidification
- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- Unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- This operation reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- Cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- De-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- Unit will continue to operate in this mode until the dehumidification demand is satisfied



## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

### CS8500 Commercial 7-Day Programmable Thermostat



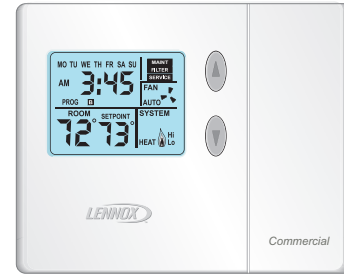
- Fully Communicating Sensor
- Full Color Touchscreen Interface
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Sensors For Temperature, Humidity And Optional CO<sub>2</sub>
- Remote Sensor Options For Occupancy, Temperature
- BACnet Capable Options
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-Changeover
- Four-Wire Installation
- FDD, ASHRAE, IECC Compliant

### CS7500 Commercial 7-Day Programmable Thermostat



- Premium Universal Thermostat
- Full Color Touchscreen Interface
- Up To 4 Heat / 3 Cool
- Built-In Sensors For Temperature and Humidity
- Remote Sensors Options For Temperature, Discharge Air, Outdoor Air
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-Changeover
- FDD, ASHRAE, IECC Compliant

### CS3000 Commercial 5-2 Day Programmable Thermostat



- Conventional Multi-Stage Thermostat
  - Intuitive Display
  - Push-Button Operation
  - Up To 2 Heat / 2 Cool
  - Built-In Temperature Sensor
  - Remote Temperature Sensing
  - Up to 5-2 Day Scheduling
  - Smooth Setback Recovery
  - Heat/Cool Auto-changeover
- Wired Temperature/Humidity Room Sensor (Non-Communicating)**



- Terminal blocks for wiring connections
- Five-wire sensor connection
- Off-white plastic enclosure
- Non-adjustable
- Relative humidity range: 0 -100%
- +/- 3% Accuracy

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

| Description  | Order Number  |
|--|---|
| <b>CS8500 Commercial 7 Day Programmable Thermostat</b>                 |   |
| CS8500 7-Day Thermostat  | No CO <sub>2</sub> Sensing<br><b>24K55</b>                          |
|  | With CO <sub>2</sub> Sensing<br><b>24K53</b>                        |
| Sensors/Accessories  | <sup>1</sup> Remote non-adjustable wall-mount 10k<br><b>47W37</b>   |
|  | <sup>1</sup> Remote non-adjustable wall-mount 11k<br><b>94L61</b>   |
| <b>CS7500 Commercial 7-Day Programmable Thermostat</b>                 |   |
| CS7500 7-Day Thermostat  | <b>24K41</b>  |
| Sensors/Accessories  | <sup>2</sup> Remote non-adjustable wall-mount 20k<br><b>47W36</b>   |
|  | <sup>2</sup> Remote non-adjustable wall-mount 10k<br><b>47W37</b>   |
|  | Remote non-adjustable discharge air (duct mount)<br><b>19L22</b>    |
|  | Outdoor temperature sensor<br><b>X2658</b>                          |
| <b>CS3000 Commercial 5-2 Day Programmable Thermostat</b>               |   |
| CS3000 5-2 Day Thermostat  | <b>11Y05</b>  |
| Sensors/Accessories  | Remote non-adjustable wall mount 10k averaging<br><b>47W37</b>      |
|  | Thermostat wall mounting plate<br><b>X2659</b>                      |
| <b>Universal Thermostat Guard with Lock (clear)</b>                    |   |
|  | Inside Dimensions (H x W x D) 5-7/8 x 8-3/8 x 3 in.<br><b>39P21</b> |
| <b>Temperature/Humidity Room Sensor</b>                                |   |
| A335MT13AE1 Wired Temperature/Humidity Room Sensor (Non-Communicating) | <b>21W06</b>  |

<sup>1</sup> Up to nine of the same type remote temperature sensors can be connected in parallel.

<sup>2</sup> Remote wall-mount sensors can be applied in any of the following combinations:  
 One Sensor - (1) 47W36, Two Sensors - (2) 47W37, Three Sensors - (2) 47W36 and (1) 47W37  
 Four Sensors - (4) 47W36, Five Sensors - (3) 47W36 and (2) 47W37

**Objective:** Outline the unit functions as a result of room thermostat or zone sensor demands.

**Given:** When economizer is present, it will function as an integral part of the unit cooling system. When not present, unit will function as if economizer is present but outdoor ambient is high and sensed as not suitable.

**UNIT OPERATION WITH 2-STAGE THERMOSTAT (2 COOL AND 2 HEAT STAGES, Y1, Y2, W1, W2)**

**SUPPLY AIR BLOWER SPEED**

Unit has following supply air blower speed setting:

- Ventilation speed
- Cooling Speed - Low
- Cooling Speed - High
- Heating speed
- Smoke speed (Used only in smoke removal option - not discussed)

**<sup>1</sup> UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE**

Cooling - Thermostat Mode (Y1, Y2)

**Y1 Demand:**

All compressors are off, supply air blower is on low cooling speed to minimize blower power consumption, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain 55°F supply air temperature.

If economizer stays at maximum open for 3 minutes, compressor 1 is energized while supply air blower stays on high cooling speed providing maximum cooling capacity.

<sup>1</sup> Outdoor air suitability is determined by the energy state of outdoor ambient (enthalpy or sensible) and its ability to achieve the desired free cooling effects. Outdoor air suitability can also be determined by a third party controller and provided to the rooftop unit via a network connection.

**UNIT DOES NOT FEATURE AN ECONOMIZER OR OUTDOOR AIR IS NOT SUITABLE**

**Y1 Demand:**

Compressor 1 operates and supply air blower operates at low cooling speed.

**Y2 Demand:**

All compressors operate and supply air blower operates at high cooling speed.

### **UNIT OPERATION WITH 3-STAGE THERMOSTAT (3 COOL AND 2 HEAT STAGES, Y1, Y2, Y3 AND W1, W2)**

#### **SUPPLY AIR BLOWER SPEED**

Unit has three distinct supply air blower speeds:

- Ventilation Speed (High or Low - adjustable)
- Cooling Speed - Low
- Cooling Speed - Medium
- Cooling Speed - High
- Heating speed - High
- Smoke speed (Used only in smoke removal option - not discussed)

#### **<sup>1</sup> Unit Features An Economizer And Outdoor Air Is Suitable**

Cooling - Thermostat Mode (Y1, Y2, Y3)

##### **Y1 Demand:**

All compressors are off, supply air blower is on low cooling speed, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature.

##### **Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed, and economizer modulates to maintain 55°F supply air temperature. If economizer stays at maximum open for 3 minutes, compressor 1 is energized in part load while supply air blower stays on high cooling speed providing maximum cooling capacity.

##### **Y3 Demand:**

Compressor 1 operates in full load, supply air blower operates at high cooling speed, and economizers modulate to maintain 55°F supply air temperature.

<sup>1</sup> *Outdoor air suitability is determined by the energy state of outdoor ambient (enthalpy or sensible) and its ability to achieve the desired free cooling effects.*

#### **Unit Does Not Feature An Economizer or Outdoor Air Is Not Suitable**

##### **Y1 Demand:**

Compressor 1 operates at part load with compressor 2 OFF, and supply air blower operates at low cooling speed.

##### **Y2 Demand:**

Compressor 1 operates at part load with compressor 2 ON, and supply air blower operates at medium cooling speed.

##### **Y3 Demand:**

Compressor 1 operates at full load with compressor 2 ON, supply air blower operates at high cooling speed.

#### **Dehumidification Mode**

If a unit with Humiditrol® Dehumidification Option receives a call for dehumidification, economizer free cooling is locked out.

##### **Call For Dehumidification, No Y1, Y2 Demand:**

1st stage compressor operates at full load, supply air blower operates at low cooling speed, and the reheat valve is energized.

##### **Y1 Demand With A Call For Dehumidification:**

Compressor 1 operates at full load with compressor 2 ON, supply air blower operates at medium cooling speed and the reheat valve is energized.

##### **Y2 Demand With A Call For Dehumidification:**

Compressor 1 operates at part load with compressor 2 ON, supply air blower operates at medium cooling speed, and the reheat valve is de-energized.

##### **Y3 Demand With A Call For Dehumidification:**

Compressor 1 operates at full load with compressor 2 ON, supply air blower operates at high cooling speed, and the reheat valve is de-energized.

**HEATING MODE (ELECTRIC HEATS - FIELD INSTALLED)**

NOTE - HEATING MODE IS THE SAME FOR ALL CONTROL OPTIONS

**W1 Demand:**

1st stage electric heat is energized and the supply air blower operates at heating speed.

**W2 Demand:**

2nd stage electric heat is energized and the supply air blower operates at heating speed (22.5 to 60 kW electric heat option only).

**POWER EXHAUST**

Power exhaust blower operates when economizer outdoor air dampers are 50% open (adjustable).

## OPTIONS / ACCESSORIES

| Item Description  | Order Number          | Size         |     |     |     |    |
|---|-----------------------|--------------|-----|-----|-----|----|
|   |                       | 092          | 102 | 120 | 150 |    |
| <b>COOLING SYSTEM</b>   |                       |              |     |     |     |    |
| Condensate Drain Trap   | PVC                   | <b>22H54</b> | X   | X   | X   | X  |
|   | Copper                | <b>76W27</b> | X   | X   | X   | X  |
| Drain Pan Overflow Switch   |                       | <b>21Z07</b> | X   | X   | X   | X  |
| Low Ambient Kit (0°F)   |                       | <b>37P82</b> | X   | X   | X   | X  |
| <b>BLOWER - SUPPLY AIR</b>  |                       |              |     |     |     |    |
| Blower Motors   | Belt Drive - 2 HP     | Factory      | O   | O   | O   | O  |
|   | Belt Drive - 3 HP     | Factory      | O   | O   | O   | O  |
|   | Belt Drive - 5 HP     | Factory      | O   | O   | O   | O  |
| Drive Kits<br>See Blower Data Tables for selection  | Kit #1 590-890 rpm    | Factory      | O   | O   | O   | O  |
|   | Kit #2 800-1105 rpm   | Factory      | O   | O   | O   | O  |
|   | Kit #3 795-1195 rpm   | Factory      | O   | O   | O   | O  |
|   | Kit #4 730-970 rpm    | Factory      | O   | O   | O   | O  |
|   | Kit #5 940-1200 rpm   | Factory      | O   | O   | O   | O  |
|   | Kit #6 1015-1300 rpm  | Factory      | O   | O   | O   | O  |
|   | Kit #10 900-1135 rpm  | Factory      | O   | O   | O   | O  |
|   | Kit #11 1050-1335 rpm | Factory      | O   | O   | O   | O  |
| VFD Manual Bypass Kit   |                       | <b>37G66</b> | X   | X   | X   | X  |
| <b>CABINET</b>  |                       |              |     |     |     |    |
| Burglar Bars  |                       | <b>Y3355</b> | X   | X   | X   | X  |
| Combination Coil/Hail Guards  |                       | <b>24M51</b> | OX  | OX  |     |    |
|   |                       | <b>24C85</b> |     |     | OX  | OX |
| Hinged Access Panels  |                       | Factory      | O   | O   | O   | O  |
| Horizontal Discharge Kit  |                       | <b>51W25</b> | X   | X   | X   | X  |
| Return Air Adaptor Plate<br>(for same size LCA/LGA/LHA, LCC/LGC/LHC and TCA/TGA/THA unit replacement) |                       | <b>54W96</b> | X   | X   | X   | X  |
| <b>CONTROLS</b>   |                       |              |     |     |     |    |
| BACnet® MS/TP Module  |                       | <b>38B35</b> | X   | X   | X   | X  |
| Dirty Filter Switch   |                       | <b>53W67</b> | X   | X   | X   | X  |
| Smoke Detector - Supply or Return (Power board and one sensor)  |                       | <b>31A68</b> | X   | X   | X   | X  |
| Smoke Detector - Supply and Return (Power board and two sensors)                                      |                       | <b>31A69</b> | X   | X   | X   | X  |

NOTE - Order numbers shown are for ordering field installed accessories.

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## OPTIONS / ACCESSORIES

| Item Description   | Order Number  | Size         |     |     |     |    |
|--|---|--------------|-----|-----|-----|----|
|  |   | 092          | 102 | 120 | 150 |    |
| <b>INDOOR AIR QUALITY</b>  |   |              |     |     |     |    |
| <b>Air Filters</b>   |   |              |     |     |     |    |
| Healthy Climate® High Efficiency Air Filters<br>20 x 25 x 2 (Order 4 per unit)                           | MERV 8  | <b>50W61</b> | X   | X   | X   | X  |
|  | MERV 13   | <b>52W41</b> | X   | X   | X   | X  |
|  | MERV 16   | <b>21U41</b> | X   | X   | X   | X  |
| Replaceable Media Filter With Metal Mesh Frame<br>(includes non-pleated filter media) (Order 4 per unit) | 20 x 25 x 2   | <b>Y3063</b> | X   | X   | X   | X  |
| <b>Indoor Air Quality (CO<sub>2</sub>) Sensors</b>   |   |              |     |     |     |    |
| Sensor - Wall-mount, off-white plastic cover with LCD display  |   | <b>77N39</b> | X   | X   | X   | X  |
| Sensor - Wall-mount, off-white plastic cover, no display   |   | <b>87N53</b> | X   | X   | X   | X  |
| Sensor - Black plastic case, LCD display, rated for plenum mounting                                      |   | <b>87N52</b> | X   | X   | X   | X  |
| Sensor - Black plastic case, no display, rated for plenum mounting                                       |   | <b>87N54</b> | X   | X   | X   | X  |
| CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications                                     |   | <b>23Y47</b> | X   | X   | X   | X  |
| Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensors ( <b>77N39</b> )             |   | <b>90N43</b> | X   | X   | X   | X  |
| <b>Needlepoint Bipolar Ionization (NPBI)</b>   |   |              |     |     |     |    |
| Needlepoint Bipolar Ionization (NPBI) Kit  |   | <b>21U36</b> | X   | X   | X   | X  |
| <b>UVC Germicidal Lamps</b>  |   |              |     |     |     |    |
| <sup>1</sup> Healthy Climate® UVC Light Kit (110/230V-1ph)   |   | <b>21A93</b> | X   | X   | X   | X  |
| Step-Down Transformers   | 460V primary, 230V secondary  | <b>10H20</b> | X   | X   | X   | X  |
|  | 575V primary, 230V secondary  | <b>10H21</b> | X   | X   | X   | X  |
| <b>HUMIDITROL® DEHUMIDIFICATION REHEAT OPTION</b>  |   |              |     |     |     |    |
| Humiditrol® Dehumidification Option  | Factory   |              | O   | O   | O   | O  |
| <b>ELECTRICAL</b>  |   |              |     |     |     |    |
| Voltage 60 Hz  | 208/230V - 3 phase  | Factory      | O   | O   | O   | O  |
|  | 460V - 3 phase  | Factory      | O   | O   | O   | O  |
|  | 575V - 3 phase  | Factory      | O   | O   | O   | O  |
| Disconnect Switch - See Electrical/Electric Heat tables for selection                                    | 80 amp  | <b>54W56</b> | OX  | OX  | OX  | OX |
|  | 150 amp   | <b>54W57</b> | OX  | OX  | OX  | OX |
| GFI Service Outlets  | 15 amp non-powered, field-wired (208/230V, 460V only)               | <b>74M70</b> | OX  | OX  | OX  | OX |
|  | <sup>2</sup> 20 amp non-powered, field-wired (208/230V, 460V, 575V) | <b>67E01</b> | X   | X   | X   | X  |
|  | <sup>2</sup> 20 amp non-powered, field-wired (575V)                 | Factory      | O   | O   | O   | O  |
| Weatherproof Cover for GFI   |   | <b>10C89</b> | X   | X   | X   | X  |
| <b>ELECTRIC HEAT</b>   |   |              |     |     |     |    |
| 7.5 kW   | 208/240V-3ph  | <b>30V21</b> | X   | X   |     |    |
|  | 460V-3ph  | <b>30V22</b> | X   | X   |     |    |
|  | 575V-3ph  | <b>30V23</b> | X   | X   |     |    |
| 15 kW  | 208/240V-3ph  | <b>30V27</b> | X   | X   | X   | X  |
|  | 460V-3ph  | <b>30V28</b> | X   | X   | X   | X  |
|  | 575V-3ph  | <b>30V29</b> | X   | X   | X   | X  |
| 22.5 kW  | 208/240V-3ph  | <b>30V33</b> | X   | X   | X   | X  |
|  | 460V-3ph  | <b>30V34</b> | X   | X   | X   | X  |
|  | 575V-3ph  | <b>30V35</b> | X   | X   | X   | X  |
| 30 kW  | 208/240V-3ph  | <b>30V39</b> | X   | X   | X   | X  |
|  | 460V-3ph  | <b>30V40</b> | X   | X   | X   | X  |
|  | 575V-3ph  | <b>30V41</b> | X   | X   | X   | X  |
| 45 kW  | 208/240V-3ph  | <b>30V45</b> | X   | X   | X   | X  |
|  | 460V-3ph  | <b>30V46</b> | X   | X   | X   | X  |
|  | 575V-3ph  | <b>30V47</b> | X   | X   | X   | X  |
| 60 kW  | 208/240V-3ph  | <b>30V51</b> |     |     | X   | X  |
|  | 460V-3ph  | <b>30V52</b> |     |     | X   | X  |
|  | 575V-3ph  | <b>30V53</b> |     |     | X   | X  |

<sup>1</sup> Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 460V and 575V units. Alternately, 110V power supply may be used to directly power the UVC ballast(s).

<sup>2</sup> Canada requires a minimum 20 amp circuit. Select 20 amp, non-powered, field wired GFI.

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## OPTIONS / ACCESSORIES

| Item Description   | Order Number                | Size |     |     |     |
|--|-----------------------------|------|-----|-----|-----|
|  |                             | 092  | 102 | 120 | 150 |
| <b>ECONOMIZER</b>  |                             |      |     |     |     |
| <b>High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)</b>   |                             |      |     |     |     |
| High Performance Economizer (Downflow or Horizontal)   | <b>20U80</b>                | OX   | OX  | OX  | OX  |
| Includes Economizer Dampers with Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood  |                             |      |     |     |     |
| Downflow Applications - Use furnished Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood   |                             |      |     |     |     |
| Horizontal Applications - Use furnished Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood - Order Horizontal Discharge Kit separately                         |                             |      |     |     |     |
| Horizontal Applications (reduced height) - Order Horizontal Low Profile Barometric Relief Dampers with Exhaust Hood and Horizontal Discharge Kit ( <b>51W25</b> ) separately |                             |      |     |     |     |
| <b>Horizontal Low Profile Barometric Relief Dampers</b>  |                             |      |     |     |     |
| Horizontal Low Profile Barometric Relief Dampers With Exhaust Hood   | <b>53K04</b>                | X    | X   | X   | X   |
| <b>CANFAB ECONOMIZER</b>   |                             |      |     |     |     |
| <b>Horizontal Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)</b>   |                             |      |     |     |     |
| Includes Outdoor Air Hood  | <b>39Q16</b>                | X    | X   | X   | X   |
| <b>Economizer Controls</b>   |                             |      |     |     |     |
| Differential Enthalpy (Not for Title 24)   | Order 2 <b>21Z09</b>        | X    | X   | X   | X   |
| Sensible Control   | Sensor is Furnished Factory | O    | O   | O   | O   |
| Single Enthalpy (Not for Title 24)   | <b>21Z09</b>                | OX   | OX  | OX  | OX  |
| <b>OUTDOOR AIR</b>   |                             |      |     |     |     |
| <b>Outdoor Air Dampers With Outdoor Air Hood</b>   |                             |      |     |     |     |
| Motorized  | <b>14G28</b>                | X    | X   | X   | X   |
| Manual   | <b>14G29</b>                | X    | X   | X   | X   |
| <b>POWER EXHAUST</b>   |                             |      |     |     |     |
| Standard Static  | 208/230V-3ph <b>53W44</b>   | X    | X   | X   | X   |
|  | 460V-3ph <b>53W45</b>       | X    | X   | X   | X   |
|  | 575V-3ph <b>53W46</b>       | X    | X   | X   | X   |
| <b>ROOF CURBS</b>  |                             |      |     |     |     |
| <b>Hybrid Roof Curbs, Downflow</b>   |                             |      |     |     |     |
| 8 in. height   | <b>11F54</b>                | X    | X   | X   | X   |
| 14 in. height  | <b>11F55</b>                | X    | X   | X   | X   |
| 18 in. height  | <b>11F56</b>                | X    | X   | X   | X   |
| 24 in. height  | <b>11F57</b>                | X    | X   | X   | X   |
| <b>Adjustable Pitch Curb</b>   |                             |      |     |     |     |
| 14 in. height  | <b>54W50</b>                | X    | X   | X   | X   |
| <b>CEILING DIFFUSERS</b>   |                             |      |     |     |     |
| Step-Down - Order one  | RTD11-95S <b>13K61</b>      | X    |     |     |     |
|  | RTD11-135S <b>13K62</b>     |      | X   | X   |     |
|  | RTD11-185S <b>13K63</b>     |      |     |     | X   |
| Flush - Order one  | FD11-95S <b>13K56</b>       | X    |     |     |     |
|  | FD11-135S <b>13K57</b>      |      | X   | X   |     |
|  | FD11-185S <b>13K58</b>      |      |     |     | X   |
| Transitions (Supply and Return) - Order one  | C1DIFF30B-1 <b>12X65</b>    | X    |     |     |     |
|  | C1DIFF31B-1 <b>12X66</b>    |      | X   | X   |     |
|  | C1DIFF32B-1 <b>12X67</b>    |      |     |     | X   |

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## SPECIFICATIONS

| Model   |  | LCX092S5M   | LCX102S5M                          | LCX120S5M                          | LCX150S5M                          |               |
|---|--|---|------------------------------------|------------------------------------|------------------------------------|---------------|
| <b>Nominal Tonnage</b>                                |  | 7.5 Ton   | 8.5 Ton                            | 10 Ton                             | 12.5 Ton                           |               |
| <b>Efficiency Type</b>                                |  | Standard  | Standard                           | Standard                           | Standard                           |               |
| <b>Blower Type</b>                                    |  | MSAV®<br>Multi-Stage<br>Air Volume                                  | MSAV®<br>Multi-Stage<br>Air Volume | MSAV®<br>Multi-Stage<br>Air Volume | MSAV®<br>Multi-Stage<br>Air Volume |               |
| <b>Cooling Performance</b>                            | Gross Cooling Capacity - Btuh            | 89,900  | 101,000                            | 119,000                            | 143,000                            |               |
|   | <sup>1</sup> Net Cooling Capacity - Btuh | 88,000  | 99,000                             | 116,000                            | 138,000                            |               |
|   | <sup>1</sup> AHRI Rated Air Flow - cfm   | 2700  | 3100                               | 3200                               | 4100                               |               |
|   | <sup>1</sup> IEER (Btuh/Watt)            | 14.8  | 14.8                               | 14.8                               | 14.2                               |               |
|   | <sup>1</sup> EER (Btuh/Watt)             | 11.2  | 11.2                               | 11.2                               | 11                                 |               |
|   | Total Unit Power - kW                    | 7.9   | 8.8                                | 10.4                               | 12.5                               |               |
| <b>Sound Rating Number</b>                            | dBA                                      | 88  | 88                                 | 90                                 | 90                                 |               |
| <b>Refrigerant Charge</b>                             | Refrigerant Type                         | R-454B  | R-454B                             | R-454B                             | R-454B                             |               |
| Environ™<br>Evaporator                                | Without Reheat Option                    | Circuit 1   | 3 lbs. 14 oz.                      | 4 lbs. 3 oz.                       | 4 lbs. 0 oz.                       | ---           |
|   |  | Circuit 2   | 3 lbs. 12 oz.                      | 4 lbs. 2 oz.                       | 3 lbs. 6 oz.                       | ---           |
| Fin/Tube<br>Evaporator                                | Without Reheat Option                    | Circuit 1   | ---                                | ---                                | ---                                | 5 lbs. 2 oz.  |
|   |  | Circuit 2   | ---                                | ---                                | ---                                | 5 lbs. 15 oz. |
|   | With Reheat Option                       | Circuit 1   | 4 lbs. 8 oz.                       | 4 lbs. 7 oz.                       | 5 lbs. 6 oz.                       | 5 lbs. 3 oz.  |
|   |  | Circuit 2   | 2 lbs. 14 oz.                      | 3 lbs. 1 oz.                       | 4 lbs. 14 oz.                      | 5 lbs. 13 oz. |
| <b>Electric Heat Available - See page 19</b>          |  | 7.5, 15, 22.5, 30 & 45 KW   |                                    |                                    | 15, 22.5, 30, 45 & 60 KW           |               |
| <b>Compressor Type (number)</b>                       |  | Two-Stage Scroll (1), Single-Stage Scroll (1)                       |                                    |                                    |                                    |               |
| <b>Outdoor Coil</b>                                   | Net face area - ft. <sup>2</sup>         | Rows  | 20.9                               | 20.9                               | 28.0                               | 27.5          |
|   |  | Fins - in.  | 1                                  | 1                                  | 1                                  | 1             |
|   |  |   | 23                                 | 23                                 | 23                                 | 20            |
| <b>Outdoor Coil Fans</b>                              | Motor HP (number and type)               | Rpm   | 1/3 (2 PSC)                        | 1/3 (2 PSC)                        | 1/2 (2 PSC)                        | 1/2 (2 PSC)   |
|   |  | Watts   | 1075                               | 1075                               | 1075                               | 1075          |
|   |  | Diameter (Number) - in.   | 740                                | 740                                | 1050                               | 1050          |
|   |  | Blades  | (2) 24                             | (2) 24                             | (2) 24                             | (2) 24        |
|   |  | Total Air volume - cfm  | 3                                  | 3                                  | 3                                  | 3             |
|   |  |   | 8800                               | 8800                               | 9700                               | 9700          |
| <b>Indoor Coil</b>                                    | Environ™<br>Evaporator                   | Net face area - ft. <sup>2</sup>                                    | 8.56                               | 8.56                               | 8.56                               | ---           |
|   |  | Rows  | 2                                  | 2                                  | 2                                  | ---           |
|   |  | Fins - in.  | 20                                 | 20                                 | 20                                 | ---           |
|   | Fin/Tube<br>Evaporator                   | Net face area - ft. <sup>2</sup>                                    | 13.54                              | 13.54                              | 13.54                              | 13.54         |
|   |  | Tube diameter - in.   | 3/8                                | 3/8                                | 3/8                                | 3/8           |
|   |  | Rows  | 3                                  | 3                                  | 4                                  | 4             |
|   |  | Fins - in.  | 14                                 | 14                                 | 14                                 | 14            |
|   |  | Condensate drain size (NPT) - in.                                   | (1) 1                              |                                    |                                    |               |
|   | Expansion device type                    | Balanced Port Thermostatic Expansion Valve, removable power element |                                    |                                    |                                    |               |
| <sup>2</sup> <b>Indoor Blower and Drive Selection</b> | Nominal motor HP                         |   | 2, 3, 5                            |                                    |                                    |               |
|   |  | Maximum usable motor HP (US)  | 2.3, 3.45, 5.75                    |                                    |                                    |               |
|   | Motor - Drive kit number                 |   | 2 HP                               |                                    |                                    |               |
|   |  |   | Kit 1 590-890 rpm                  |                                    |                                    |               |
|   |  |   | Kit 2 800-1105 rpm                 |                                    |                                    |               |
|   |  |   | Kit 3 795-1195 rpm                 |                                    |                                    |               |
|   |  |   | 3 HP                               |                                    |                                    |               |
|   |  |   | Kit 4 730-970 rpm                  |                                    |                                    |               |
|   |  | Kit 5 940-1200 rpm  |                                    |                                    |                                    |               |
|   |  | Kit 6 1015-1300 rpm   |                                    |                                    |                                    |               |
|   | 5 HP                                     |   |                                    |                                    |                                    |               |
|   | Kit 10 900-1135 rpm                      |   |                                    |                                    |                                    |               |
|   | Kit 11 1050-1335 rpm                     |   |                                    |                                    |                                    |               |
|   | Wheel (Number) diameter x width - in.    | (1) 15 X 15   |                                    |                                    |                                    |               |
| <b>Filters</b>  | Type of filter                           | MERV 4, Disposable  |                                    |                                    |                                    |               |
|   | Number and size - in.                    | (4) 20 x 25 x 2   |                                    |                                    |                                    |               |
| <b>Line voltage data (Volts-Phase-Hz)</b>             |  | 208/230-3-60  |                                    |                                    |                                    |               |
|   |  | 460-3-60  |                                    |                                    |                                    |               |
|   |  | 575-3-60  |                                    |                                    |                                    |               |

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

<sup>1</sup> AHRI Certified to AHRI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE - Motor service factor limit - 1.0.

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 7.5 TON - LCX092S5M (1 COMPRESSOR - PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 1600             | 48.02   | 1.64              | 0.72                          | 0.86 | 0.9   | 46.25           | 1.93              | 0.73                          | 0.88 | 0.9   | 44.41           | 2.27              | 0.75                          | 0.89 | 0.9   | 42.34           | 2.64              | 0.77                          | 0.9  | 0.9  |
|                               | 1980             | 51.13   | 1.63              | 0.78                          | 0.9  | 0.9   | 49.46           | 1.93              | 0.8                           | 0.9  | 0.9   | 47.57           | 2.28              | 0.82                          | 0.9  | 0.9   | 45.36           | 2.66              | 0.84                          | 0.9  | 0.9  |
|                               | 2360             | 54  | 1.63              | 0.84                          | 0.9  | 0.9   | 52.21           | 1.94              | 0.86                          | 0.9  | 0.9   | 50.12           | 2.3               | 0.88                          | 0.9  | 0.9   | 47.84           | 2.68              | 0.9                           | 0.9  | 0.9  |
| 67°F                          | 1600             | 50.9  | 1.63              | 0.56                          | 0.7  | 0.83  | 48.97           | 1.93              | 0.57                          | 0.71 | 0.85  | 46.81           | 2.28              | 0.58                          | 0.73 | 0.87  | 44.23           | 2.65              | 0.59                          | 0.75 | 0.89 |
|                               | 1980             | 53.08   | 1.63              | 0.6                           | 0.76 | 0.89  | 51.13           | 1.94              | 0.61                          | 0.77 | 0.9   | 48.72           | 2.29              | 0.62                          | 0.8  | 0.9   | 46.18           | 2.67              | 0.64                          | 0.82 | 0.9  |
|                               | 2360             | 54.93   | 1.63              | 0.64                          | 0.82 | 0.9   | 52.92           | 1.95              | 0.65                          | 0.84 | 0.9   | 50.47           | 2.3               | 0.67                          | 0.86 | 0.9   | 47.92           | 2.69              | 0.68                          | 0.89 | 0.9  |
| 71°F                          | 1600             | 54.58   | 1.63              | 0.42                          | 0.54 | 0.67  | 52.51           | 1.94              | 0.42                          | 0.55 | 0.68  | 50.17           | 2.3               | 0.42                          | 0.56 | 0.7   | 47.58           | 2.68              | 0.43                          | 0.58 | 0.72 |
|                               | 1980             | 56.7  | 1.63              | 0.43                          | 0.59 | 0.74  | 54.71           | 1.96              | 0.44                          | 0.59 | 0.75  | 51.98           | 2.31              | 0.44                          | 0.61 | 0.77  | 49.44           | 2.7               | 0.45                          | 0.62 | 0.8  |
|                               | 2360             | 58.41   | 1.63              | 0.45                          | 0.63 | 0.8   | 56.3            | 1.96              | 0.46                          | 0.64 | 0.82  | 53.57           | 2.33              | 0.46                          | 0.65 | 0.84  | 50.61           | 2.71              | 0.47                          | 0.67 | 0.86 |

## 7.5 TON - LCX092S5M (2 COMPRESSORS - PART LOAD / FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 85°F  |                   |                               |      |       | 95°F            |                   |                               |      |       | 105°F           |                   |                               |      |       | 115°F           |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 1800             | 75.48   | 4.11              | 0.63                          | 0.72 | 0.83  | 72.21           | 4.76              | 0.64                          | 0.74 | 0.85  | 68.64           | 5.44              | 0.66                          | 0.76 | 0.88  | 64.7            | 6.16              | 0.68                          | 0.79 | 0.91 |
|                               | 2250             | 80.31   | 4.15              | 0.67                          | 0.79 | 0.91  | 76.79           | 4.79              | 0.69                          | 0.81 | 0.93  | 72.83           | 5.46              | 0.71                          | 0.83 | 0.93  | 68.61           | 6.22              | 0.73                          | 0.86 | 0.93 |
|                               | 2700             | 83.94   | 4.18              | 0.71                          | 0.85 | 0.93  | 80.21           | 4.83              | 0.73                          | 0.88 | 0.93  | 76.14           | 5.51              | 0.75                          | 0.91 | 0.93  | 71.9            | 6.23              | 0.78                          | 0.93 | 0.93 |
| 67°F                          | 1800             | 79.85   | 4.14              | 0.51                          | 0.6  | 0.69  | 75.94           | 4.77              | 0.52                          | 0.61 | 0.71  | 71.96           | 5.45              | 0.53                          | 0.63 | 0.73  | 67.5            | 6.19              | 0.55                          | 0.66 | 0.75 |
|                               | 2250             | 83.89   | 4.16              | 0.54                          | 0.64 | 0.75  | 79.76           | 4.78              | 0.54                          | 0.66 | 0.77  | 75.66           | 5.48              | 0.57                          | 0.68 | 0.8   | 71.2            | 6.2               | 0.59                          | 0.7  | 0.83 |
|                               | 2700             | 87.08   | 4.18              | 0.56                          | 0.68 | 0.82  | 83.11           | 4.81              | 0.59                          | 0.7  | 0.84  | 78.73           | 5.5               | 0.61                          | 0.72 | 0.87  | 73.82           | 6.22              | 0.63                          | 0.75 | 0.9  |
| 71°F                          | 1800             | 85.71   | 4.17              | 0.4                           | 0.49 | 0.57  | 81.58           | 4.8               | 0.4                           | 0.5  | 0.59  | 77.12           | 5.48              | 0.42                          | 0.51 | 0.6   | 72.53           | 6.2               | 0.43                          | 0.53 | 0.63 |
|                               | 2250             | 89.41   | 4.19              | 0.41                          | 0.51 | 0.61  | 85.03           | 4.81              | 0.43                          | 0.52 | 0.63  | 80.27           | 5.5               | 0.44                          | 0.55 | 0.65  | 74.94           | 6.25              | 0.44                          | 0.57 | 0.68 |
|                               | 2700             | 92.53   | 4.22              | 0.43                          | 0.54 | 0.66  | 87.53           | 4.84              | 0.44                          | 0.57 | 0.67  | 82.66           | 5.51              | 0.45                          | 0.58 | 0.7   | 77.42           | 6.25              | 0.47                          | 0.61 | 0.73 |

## 7.5 TON - LCX092S5M (2 COMPRESSORS - FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 85°F  |                   |                               |      |       | 95°F            |                   |                               |      |       | 105°F           |                   |                               |      |       | 115°F           |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 2400             | 88.06   | 5.28              | 0.63                          | 0.72 | 0.86  | 84.48           | 5.93              | 0.65                          | 0.74 | 0.89  | 80.57           | 6.66              | 0.66                          | 0.76 | 0.92  | 76.49           | 7.49              | 0.68                          | 0.79 | 0.94 |
|                               | 3000             | 93.21   | 5.32              | 0.68                          | 0.81 | 0.94  | 89.31           | 5.98              | 0.7                           | 0.83 | 0.94  | 85.15           | 6.72              | 0.71                          | 0.86 | 0.94  | 80.55           | 7.53              | 0.74                          | 0.9  | 0.94 |
|                               | 3600             | 97.28   | 5.35              | 0.73                          | 0.89 | 0.94  | 93.24           | 6.02              | 0.75                          | 0.92 | 0.94  | 88.84           | 6.76              | 0.76                          | 0.94 | 0.94  | 84.14           | 7.58              | 0.8                           | 0.94 | 0.94 |
| 67°F                          | 2400             | 92.83   | 5.3               | 0.52                          | 0.6  | 0.69  | 88.83           | 5.97              | 0.53                          | 0.62 | 0.71  | 84.42           | 6.69              | 0.54                          | 0.63 | 0.73  | 79.57           | 7.51              | 0.55                          | 0.66 | 0.76 |
|                               | 3000             | 96.88   | 5.34              | 0.55                          | 0.65 | 0.76  | 92.6            | 5.99              | 0.56                          | 0.66 | 0.79  | 87.67           | 6.74              | 0.57                          | 0.7  | 0.82  | 83.16           | 7.55              | 0.59                          | 0.71 | 0.86 |
|                               | 3600             | 99.93   | 5.36              | 0.59                          | 0.7  | 0.86  | 96.08           | 6.05              | 0.59                          | 0.72 | 0.89  | 90.95           | 6.77              | 0.62                          | 0.74 | 0.92  | 85.73           | 7.58              | 0.62                          | 0.76 | 0.94 |
| 71°F                          | 2400             | 99.12   | 5.36              | 0.41                          | 0.49 | 0.57  | 94.73           | 6.01              | 0.42                          | 0.51 | 0.59  | 89.74           | 6.75              | 0.44                          | 0.53 | 0.61  | 84.67           | 7.56              | 0.43                          | 0.54 | 0.63 |
|                               | 3000             | 102.82  | 5.38              | 0.43                          | 0.53 | 0.63  | 98.09           | 6.05              | 0.45                          | 0.54 | 0.64  | 93.24           | 6.79              | 0.45                          | 0.55 | 0.66  | 87.87           | 7.59              | 0.46                          | 0.57 | 0.69 |
|                               | 3600             | 105.34  | 5.4               | 0.44                          | 0.56 | 0.67  | 100.84          | 6.06              | 0.45                          | 0.57 | 0.7   | 94.72           | 6.8               | 0.47                          | 0.6  | 0.71  | 88.76           | 7.61              | 0.47                          | 0.62 | 0.74 |

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 8.5 TON - LCX102S5M (1 COMPRESSOR - PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|--|--|--|--|
|                               |                  | 65°F  |                   |                               |      |       |                 | 75°F              |                               |      |       |                 |                   | 85°F                          |      |       |                 |                   |                               | 95°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |  |  |  |  |
| 63°F                          | 1800             | 53.3  | 1.68              | 0.71                          | 0.84 | 0.84  | 51.65           | 1.99              | 0.72                          | 0.84 | 0.84  | 49.67           | 2.34              | 0.74                          | 0.84 | 0.84  | 47.45           | 2.73              | 0.76                          | 0.84 | 0.84 |  |  |  |  |
|                               | 2250             | 57.3  | 1.68              | 0.77                          | 0.84 | 0.84  | 55.4            | 2                 | 0.79                          | 0.84 | 0.84  | 53.21           | 2.36              | 0.81                          | 0.84 | 0.84  | 50.76           | 2.75              | 0.83                          | 0.84 | 0.84 |  |  |  |  |
|                               | 2700             | 60.42   | 1.68              | 0.83                          | 0.84 | 0.84  | 58.37           | 2.01              | 0.84                          | 0.84 | 0.84  | 55.97           | 2.38              | 0.84                          | 0.84 | 0.84  | 53.4            | 2.78              | 0.84                          | 0.84 | 0.84 |  |  |  |  |
| 67°F                          | 1800             | 56.17   | 1.68              | 0.54                          | 0.68 | 0.81  | 54              | 1.99              | 0.55                          | 0.7  | 0.83  | 51.53           | 2.35              | 0.56                          | 0.71 | 0.84  | 48.88           | 2.74              | 0.58                          | 0.73 | 0.84 |  |  |  |  |
|                               | 2250             | 58.61   | 1.67              | 0.59                          | 0.75 | 0.84  | 56.64           | 2                 | 0.6                           | 0.77 | 0.84  | 53.85           | 2.36              | 0.61                          | 0.79 | 0.84  | 51.01           | 2.76              | 0.63                          | 0.81 | 0.84 |  |  |  |  |
|                               | 2700             | 60.83   | 1.68              | 0.63                          | 0.81 | 0.84  | 58.6            | 2.01              | 0.64                          | 0.83 | 0.84  | 56.04           | 2.38              | 0.66                          | 0.84 | 0.84  | 53.45           | 2.78              | 0.68                          | 0.84 | 0.84 |  |  |  |  |
| 71°F                          | 1800             | 60.17   | 1.68              | 0.4                           | 0.53 | 0.66  | 57.91           | 2.01              | 0.4                           | 0.54 | 0.67  | 55.33           | 2.37              | 0.41                          | 0.55 | 0.69  | 52.25           | 2.77              | 0.41                          | 0.56 | 0.71 |  |  |  |  |
|                               | 2250             | 62.44   | 1.68              | 0.42                          | 0.58 | 0.73  | 60.02           | 2.02              | 0.42                          | 0.59 | 0.75  | 57.25           | 2.39              | 0.43                          | 0.6  | 0.77  | 54.16           | 2.79              | 0.44                          | 0.62 | 0.79 |  |  |  |  |
|                               | 2700             | 63.99   | 1.68              | 0.44                          | 0.62 | 0.8   | 61.56           | 2.03              | 0.44                          | 0.64 | 0.82  | 58.66           | 2.4               | 0.45                          | 0.65 | 0.83  | 55.57           | 2.81              | 0.46                          | 0.67 | 0.84 |  |  |  |  |

## 8.5 TON - LCX102S5M (2 COMPRESSORS - PART LOAD / FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|--|--|--|--|
|                               |                  | 85°F  |                   |                               |      |       |                 | 95°F              |                               |      |       |                 |                   | 105°F                         |      |       |                 |                   |                               | 115°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |  |  |  |  |
| 63°F                          | 2040             | 90.47   | 4.95              | 0.62                          | 0.71 | 0.8   | 86.44           | 5.69              | 0.63                          | 0.72 | 0.82  | 82.22           | 6.53              | 0.64                          | 0.74 | 0.84  | 77.33           | 7.45              | 0.67                          | 0.76  | 0.86 |  |  |  |  |
|                               | 2550             | 96.02   | 4.98              | 0.66                          | 0.76 | 0.87  | 91.67           | 5.74              | 0.67                          | 0.78 | 0.89  | 87              | 6.58              | 0.69                          | 0.8  | 0.89  | 81.71           | 7.5               | 0.71                          | 0.83  | 0.89 |  |  |  |  |
|                               | 3060             | 100.36  | 5.01              | 0.7                           | 0.82 | 0.89  | 95.83           | 5.78              | 0.71                          | 0.84 | 0.89  | 90.77           | 6.62              | 0.73                          | 0.86 | 0.89  | 85.39           | 7.54              | 0.75                          | 0.89  | 0.89 |  |  |  |  |
| 67°F                          | 2040             | 95.18   | 4.97              | 0.5                           | 0.59 | 0.68  | 90.7            | 5.73              | 0.51                          | 0.6  | 0.69  | 85.91           | 6.57              | 0.51                          | 0.62 | 0.71  | 80.59           | 7.49              | 0.53                          | 0.64  | 0.73 |  |  |  |  |
|                               | 2550             | 99.92   | 5.01              | 0.53                          | 0.63 | 0.73  | 95.33           | 5.77              | 0.53                          | 0.64 | 0.75  | 90.56           | 6.62              | 0.54                          | 0.66 | 0.77  | 85.01           | 7.55              | 0.57                          | 0.68  | 0.79 |  |  |  |  |
|                               | 3060             | 104.16  | 5.04              | 0.54                          | 0.67 | 0.78  | 99.17           | 5.81              | 0.56                          | 0.68 | 0.8   | 93.99           | 6.66              | 0.59                          | 0.7  | 0.83  | 88.1            | 7.58              | 0.61                          | 0.73  | 0.86 |  |  |  |  |
| 71°F                          | 2040             | 102.02  | 5.02              | 0.39                          | 0.48 | 0.56  | 97.05           | 5.79              | 0.4                           | 0.49 | 0.57  | 91.98           | 6.64              | 0.4                           | 0.49 | 0.59  | 86.14           | 7.56              | 0.41                          | 0.51  | 0.6  |  |  |  |  |
|                               | 2550             | 106.61  | 5.06              | 0.4                           | 0.51 | 0.61  | 101.58          | 5.83              | 0.41                          | 0.51 | 0.62  | 95.7            | 6.68              | 0.42                          | 0.53 | 0.64  | 89.75           | 7.6               | 0.43                          | 0.55  | 0.65 |  |  |  |  |
|                               | 3060             | 109.81  | 5.08              | 0.41                          | 0.53 | 0.65  | 104.34          | 5.87              | 0.43                          | 0.54 | 0.66  | 98.17           | 6.72              | 0.44                          | 0.57 | 0.68  | 91.92           | 7.63              | 0.45                          | 0.6   | 0.71 |  |  |  |  |

## 8.5 TON - LCX102S5M (2 COMPRESSORS - FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|--|--|--|--|
|                               |                  | 85°F  |                   |                               |      |       |                 | 95°F              |                               |      |       |                 |                   | 105°F                         |      |       |                 |                   |                               | 115°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |  |  |  |  |
| 63°F                          | 2720             | 100.46  | 6.28              | 0.61                          | 0.7  | 0.82  | 96.18           | 7.06              | 0.62                          | 0.72 | 0.84  | 91.59           | 7.95              | 0.63                          | 0.74 | 0.86  | 86.58           | 8.95              | 0.65                          | 0.76  | 0.88 |  |  |  |  |
|                               | 3400             | 105.9   | 6.33              | 0.64                          | 0.78 | 0.88  | 101.34          | 7.13              | 0.66                          | 0.8  | 0.88  | 96.38           | 8.02              | 0.68                          | 0.82 | 0.88  | 91              | 9.02              | 0.7                           | 0.85  | 0.88 |  |  |  |  |
|                               | 4080             | 110.25  | 6.38              | 0.7                           | 0.85 | 0.88  | 105.48          | 7.18              | 0.72                          | 0.87 | 0.88  | 100.4           | 8.08              | 0.74                          | 0.88 | 0.88  | 95.07           | 9.08              | 0.77                          | 0.88  | 0.88 |  |  |  |  |
| 67°F                          | 2720             | 105.23  | 6.32              | 0.49                          | 0.57 | 0.67  | 100.56          | 7.12              | 0.49                          | 0.59 | 0.69  | 95.4            | 8                 | 0.51                          | 0.61 | 0.71  | 89.72           | 8.99              | 0.53                          | 0.63  | 0.73 |  |  |  |  |
|                               | 3400             | 109.67  | 6.37              | 0.51                          | 0.62 | 0.74  | 104.79          | 7.17              | 0.53                          | 0.64 | 0.76  | 99.73           | 8.07              | 0.54                          | 0.66 | 0.78  | 93.97           | 9.06              | 0.57                          | 0.68  | 0.82 |  |  |  |  |
|                               | 4080             | 113.62  | 6.41              | 0.54                          | 0.67 | 0.82  | 108.45          | 7.21              | 0.56                          | 0.69 | 0.84  | 102.93          | 8.12              | 0.58                          | 0.71 | 0.87  | 96.64           | 9.1               | 0.61                          | 0.74  | 0.88 |  |  |  |  |
| 71°F                          | 2720             | 112.07  | 6.4               | 0.38                          | 0.47 | 0.55  | 107.1           | 7.19              | 0.39                          | 0.47 | 0.56  | 101.48          | 8.09              | 0.4                           | 0.49 | 0.59  | 95.39           | 9.08              | 0.41                          | 0.51  | 0.61 |  |  |  |  |
|                               | 3400             | 116.17  | 6.44              | 0.39                          | 0.5  | 0.6   | 110.71          | 7.24              | 0.4                           | 0.52 | 0.61  | 104.94          | 8.14              | 0.42                          | 0.53 | 0.63  | 97.96           | 9.12              | 0.43                          | 0.55  | 0.65 |  |  |  |  |
|                               | 4080             | 119.14  | 6.46              | 0.41                          | 0.52 | 0.65  | 113.43          | 7.28              | 0.43                          | 0.55 | 0.67  | 107.42          | 8.18              | 0.45                          | 0.57 | 0.69  | 100.49          | 9.17              | 0.46                          | 0.6   | 0.72 |  |  |  |  |

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 10 TON - LCX120S5M (1 COMPRESSOR - PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|--|--|--|--|
|                               |                  | 65°F  |                   |                               |      |       |                 | 75°F              |                               |      |       |                 |                   | 85°F                          |      |       |                 |                   |                               | 95°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |  |  |  |  |
| 63°F                          | 2110             | 52.66   | 1.71              | 0.82                          | 0.92 | 0.92  | 51.01           | 2.03              | 0.84                          | 0.92 | 0.92  | 49.06           | 2.39              | 0.86                          | 0.92 | 0.92  | 46.84           | 2.79              | 0.88                          | 0.92 | 0.92 |  |  |  |  |
|                               | 2640             | 56.24   | 1.7               | 0.9                           | 0.92 | 0.92  | 54.42           | 2.04              | 0.91                          | 0.92 | 0.92  | 52.34           | 2.42              | 0.92                          | 0.92 | 0.92  | 49.98           | 2.82              | 0.92                          | 0.92 | 0.92 |  |  |  |  |
|                               | 3170             | 58.99   | 1.71              | 0.92                          | 0.92 | 0.92  | 56.92           | 2.05              | 0.92                          | 0.92 | 0.92  | 54.75           | 2.44              | 0.92                          | 0.92 | 0.92  | 52.2            | 2.85              | 0.92                          | 0.92 | 0.92 |  |  |  |  |
| 67°F                          | 2110             | 54.35   | 1.7               | 0.63                          | 0.8  | 0.92  | 52.34           | 2.03              | 0.64                          | 0.81 | 0.92  | 50.1            | 2.4               | 0.65                          | 0.83 | 0.92  | 47.58           | 2.79              | 0.66                          | 0.86 | 0.92 |  |  |  |  |
|                               | 2640             | 56.72   | 1.7               | 0.68                          | 0.88 | 0.92  | 54.68           | 2.04              | 0.7                           | 0.9  | 0.92  | 52.48           | 2.42              | 0.71                          | 0.91 | 0.92  | 50.03           | 2.82              | 0.73                          | 0.92 | 0.92 |  |  |  |  |
|                               | 3170             | 59.02   | 1.71              | 0.74                          | 0.92 | 0.92  | 56.98           | 2.05              | 0.75                          | 0.92 | 0.92  | 54.77           | 2.44              | 0.77                          | 0.92 | 0.92  | 52.31           | 2.85              | 0.8                           | 0.92 | 0.92 |  |  |  |  |
| 71°F                          | 2110             | 57.98   | 1.71              | 0.45                          | 0.61 | 0.77  | 55.84           | 2.05              | 0.45                          | 0.62 | 0.79  | 53.43           | 2.42              | 0.46                          | 0.64 | 0.81  | 50.65           | 2.83              | 0.47                          | 0.65 | 0.83 |  |  |  |  |
|                               | 2640             | 59.97   | 1.71              | 0.48                          | 0.67 | 0.86  | 57.7            | 2.06              | 0.48                          | 0.69 | 0.88  | 55.28           | 2.44              | 0.49                          | 0.7  | 0.9   | 52.29           | 2.85              | 0.5                           | 0.72 | 0.92 |  |  |  |  |
|                               | 3170             | 61.42   | 1.72              | 0.5                           | 0.73 | 0.92  | 59.01           | 2.07              | 0.51                          | 0.75 | 0.92  | 56.59           | 2.45              | 0.52                          | 0.77 | 0.92  | 53.5            | 2.86              | 0.53                          | 0.79 | 0.92 |  |  |  |  |

## 10 TON - LCX120S5M (2 COMPRESSORS - PART LOAD / FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|--|--|--|--|
|                               |                  | 85°F  |                   |                               |      |       |                 | 95°F              |                               |      |       |                 |                   | 105°F                         |      |       |                 |                   |                               | 115°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |  |  |  |  |
| 63°F                          | 2400             | 104.47  | 5.86              | 0.68                          | 0.76 | 0.86  | 100.02          | 6.74              | 0.69                          | 0.78 | 0.88  | 95.2            | 7.71              | 0.71                          | 0.8  | 0.9   | 90.28           | 8.78              | 0.72                          | 0.82  | 0.92 |  |  |  |  |
|                               | 3000             | 110.43  | 5.91              | 0.72                          | 0.82 | 0.93  | 105.73          | 6.81              | 0.73                          | 0.84 | 0.94  | 100.5           | 7.78              | 0.75                          | 0.86 | 0.94  | 94.78           | 8.84              | 0.76                          | 0.89  | 0.94 |  |  |  |  |
|                               | 3600             | 115.17  | 5.96              | 0.76                          | 0.88 | 0.94  | 110.1           | 6.86              | 0.77                          | 0.9  | 0.94  | 104.51          | 7.84              | 0.8                           | 0.92 | 0.94  | 98.84           | 8.91              | 0.82                          | 0.94  | 0.94 |  |  |  |  |
| 67°F                          | 2400             | 109.41  | 5.91              | 0.54                          | 0.65 | 0.74  | 104.43          | 6.8               | 0.55                          | 0.67 | 0.75  | 99.69           | 7.78              | 0.56                          | 0.68 | 0.76  | 94.2            | 8.86              | 0.57                          | 0.69  | 0.78 |  |  |  |  |
|                               | 3000             | 115.18  | 5.97              | 0.57                          | 0.7  | 0.79  | 110.01          | 6.87              | 0.59                          | 0.71 | 0.81  | 104.57          | 7.84              | 0.6                           | 0.72 | 0.83  | 98.62           | 8.92              | 0.62                          | 0.74  | 0.85 |  |  |  |  |
|                               | 3600             | 119.46  | 6.02              | 0.61                          | 0.74 | 0.85  | 114.12          | 6.91              | 0.63                          | 0.75 | 0.87  | 108.18          | 7.9               | 0.64                          | 0.76 | 0.89  | 101.99          | 8.97              | 0.67                          | 0.78  | 0.92 |  |  |  |  |
| 71°F                          | 2400             | 116.75  | 5.99              | 0.43                          | 0.53 | 0.63  | 111.42          | 6.89              | 0.42                          | 0.53 | 0.64  | 105.72          | 7.87              | 0.43                          | 0.54 | 0.66  | 99.54           | 8.95              | 0.43                          | 0.55  | 0.67 |  |  |  |  |
|                               | 3000             | 121.54  | 6.05              | 0.43                          | 0.56 | 0.67  | 115.92          | 6.95              | 0.44                          | 0.57 | 0.69  | 110.15          | 7.94              | 0.45                          | 0.58 | 0.7   | 103.51          | 9.01              | 0.46                          | 0.6   | 0.72 |  |  |  |  |
|                               | 3600             | 125.32  | 6.09              | 0.45                          | 0.6  | 0.72  | 119.46          | 7                 | 0.45                          | 0.61 | 0.73  | 113.01          | 7.99              | 0.46                          | 0.63 | 0.75  | 106.48          | 9.06              | 0.49                          | 0.64  | 0.76 |  |  |  |  |

## 10 TON - LCX120S5M (2 COMPRESSORS - FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|--|--|--|--|
|                               |                  | 85°F  |                   |                               |      |       |                 | 95°F              |                               |      |       |                 |                   | 105°F                         |      |       |                 |                   |                               | 115°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |  |  |  |  |
| 63°F                          | 3200             | 119.27  | 7.27              | 0.66                          | 0.77 | 0.88  | 114.41          | 8.18              | 0.68                          | 0.78 | 0.9   | 108.97          | 9.21              | 0.68                          | 0.8  | 0.92  | 103.46          | 10.37             | 0.7                           | 0.83  | 0.92 |  |  |  |  |
|                               | 4000             | 125.04  | 7.34              | 0.71                          | 0.84 | 0.92  | 120.11          | 8.26              | 0.73                          | 0.86 | 0.92  | 114.56          | 9.31              | 0.74                          | 0.88 | 0.92  | 108.58          | 10.46             | 0.76                          | 0.91  | 0.92 |  |  |  |  |
|                               | 4800             | 129.93  | 7.4               | 0.77                          | 0.91 | 0.92  | 124.72          | 8.33              | 0.78                          | 0.92 | 0.92  | 119.32          | 9.38              | 0.81                          | 0.92 | 0.92  | 113.31          | 10.54             | 0.83                          | 0.92  | 0.92 |  |  |  |  |
| 67°F                          | 3200             | 124.26  | 7.32              | 0.53                          | 0.64 | 0.74  | 119.03          | 8.26              | 0.53                          | 0.65 | 0.75  | 113.07          | 9.28              | 0.54                          | 0.66 | 0.77  | 107.29          | 10.44             | 0.56                          | 0.67  | 0.79 |  |  |  |  |
|                               | 4000             | 129.74  | 7.4               | 0.56                          | 0.69 | 0.81  | 124.27          | 8.32              | 0.57                          | 0.7  | 0.83  | 118.23          | 9.37              | 0.58                          | 0.72 | 0.85  | 111.98          | 10.52             | 0.61                          | 0.74  | 0.88 |  |  |  |  |
|                               | 4800             | 133.89  | 7.45              | 0.6                           | 0.74 | 0.88  | 128.04          | 8.38              | 0.61                          | 0.76 | 0.91  | 121.95          | 9.43              | 0.63                          | 0.78 | 0.92  | 115.15          | 10.58             | 0.66                          | 0.8   | 0.92 |  |  |  |  |
| 71°F                          | 3200             | 131.99  | 7.42              | 0.41                          | 0.51 | 0.61  | 125.99          | 8.36              | 0.42                          | 0.52 | 0.62  | 119.94          | 9.4               | 0.41                          | 0.53 | 0.64  | 113.67          | 10.55             | 0.43                          | 0.54  | 0.65 |  |  |  |  |
|                               | 4000             | 136.67  | 7.49              | 0.42                          | 0.55 | 0.67  | 130.2           | 8.42              | 0.43                          | 0.56 | 0.68  | 123.89          | 9.47              | 0.43                          | 0.57 | 0.7   | 117.23          | 10.63             | 0.45                          | 0.59  | 0.72 |  |  |  |  |
|                               | 4800             | 139.94  | 7.54              | 0.44                          | 0.59 | 0.72  | 133.37          | 8.48              | 0.45                          | 0.6  | 0.74  | 126.51          | 9.53              | 0.45                          | 0.62 | 0.76  | 119.44          | 10.67             | 0.48                          | 0.64  | 0.79 |  |  |  |  |

# RATINGS

NOTE – For Temperatures and Capacities not shown in tables, see bulletin – Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 12.5 TON - LCX150S5M (1 COMPRESSOR - PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|--|--|--|--|
|                               |                  | 65°F  |                   |                               |      |       |                 | 75°F              |                               |      |       |                 |                   | 85°F                          |      |       |                 |                   |                               | 95°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |  |  |  |  |
| 63°F                          | 2640             | 60.7  | 2.1               | 0.81                          | 1    | 1     | 58.5            | 2.38              | 0.83                          | 1    | 1     | 56.4            | 2.75              | 0.85                          | 1    | 1     | 53.8            | 3.17              | 0.87                          | 1    | 1    |  |  |  |  |
|                               | 3300             | 64.2  | 2.07              | 0.88                          | 1    | 1     | 61.8            | 2.37              | 0.9                           | 1    | 1     | 59.2            | 2.74              | 0.92                          | 1    | 1     | 56.8            | 3.16              | 1                             | 1    | 1    |  |  |  |  |
|                               | 3960             | 66.8  | 2.04              | 0.98                          | 1    | 1     | 64.4            | 2.35              | 1                             | 1    | 1     | 61.7            | 2.73              | 1                             | 1    | 1     | 58.8            | 3.14              | 1                             | 1    | 1    |  |  |  |  |
| 67°F                          | 2640             | 63.1  | 2.08              | 0.63                          | 0.79 | 0.98  | 60.6            | 2.38              | 0.65                          | 0.81 | 1     | 58.1            | 2.74              | 0.66                          | 0.83 | 1     | 55.1            | 3.17              | 0.68                          | 0.85 | 1    |  |  |  |  |
|                               | 3300             | 65.6  | 2.05              | 0.68                          | 0.86 | 1     | 62.9            | 2.36              | 0.69                          | 0.88 | 1     | 59.9            | 2.73              | 0.71                          | 0.91 | 1     | 57.1            | 3.16              | 0.72                          | 0.93 | 1    |  |  |  |  |
|                               | 3960             | 67.4  | 2.04              | 0.72                          | 0.92 | 1     | 64.7            | 2.35              | 0.73                          | 1    | 1     | 61.7            | 2.73              | 0.75                          | 1    | 1     | 58.8            | 3.14              | 0.77                          | 1    | 1    |  |  |  |  |
| 71°F                          | 2640             | 66.1  | 2.05              | 0.47                          | 0.63 | 0.77  | 63.4            | 2.36              | 0.47                          | 0.64 | 0.79  | 60.4            | 2.73              | 0.48                          | 0.65 | 0.81  | 57.4            | 3.15              | 0.49                          | 0.67 | 0.84 |  |  |  |  |
|                               | 3300             | 68.3  | 2.02              | 0.49                          | 0.68 | 0.84  | 65.5            | 2.35              | 0.5                           | 0.69 | 0.86  | 62.6            | 2.73              | 0.51                          | 0.7  | 0.89  | 59.6            | 3.14              | 0.52                          | 0.72 | 0.92 |  |  |  |  |
|                               | 3960             | 70.1  | 2                 | 0.51                          | 0.72 | 0.91  | 67.4            | 2.33              | 0.52                          | 0.73 | 0.93  | 64.3            | 2.72              | 0.54                          | 0.75 | 1     | 61              | 3.13              | 0.55                          | 0.77 | 1    |  |  |  |  |

## 12.5 TON - LCX150S5M (2 COMPRESSORS - PART LOAD / FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 85°F  |                   |                               |      |       | 95°F            |                   |                               |      |       | 105°F           |                   |                               |      |       | 115°F           |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 3000             | 127.7   | 7.91              | 0.65                          | 0.78 | 0.89  | 122.9           | 9.04              | 0.66                          | 0.81 | 0.91  | 116.9           | 10.31             | 0.68                          | 0.82 | 0.93  | 110.4           | 11.72             | 0.69                          | 0.86 | 0.95 |
|                               | 3750             | 134.9   | 7.91              | 0.7                           | 0.86 | 0.96  | 129.9           | 9.05              | 0.71                          | 0.86 | 0.98  | 124.2           | 10.33             | 0.73                          | 0.88 | 1     | 117.7           | 11.74             | 0.76                          | 0.9  | 1    |
|                               | 4500             | 141   | 7.9               | 0.75                          | 0.9  | 1     | 135.5           | 9.06              | 0.77                          | 0.92 | 1     | 129.4           | 10.33             | 0.79                          | 0.94 | 1     | 122.7           | 11.74             | 0.81                          | 0.97 | 1    |
| 67°F                          | 3000             | 135.3   | 7.89              | 0.53                          | 0.63 | 0.74  | 130.1           | 9.04              | 0.53                          | 0.65 | 0.77  | 124             | 10.31             | 0.54                          | 0.65 | 0.78  | 116.5           | 11.72             | 0.55                          | 0.67 | 0.82 |
|                               | 3750             | 141.8   | 7.9               | 0.55                          | 0.67 | 0.82  | 136.2           | 9.03              | 0.56                          | 0.69 | 0.83  | 129.3           | 10.32             | 0.57                          | 0.7  | 0.86  | 121.9           | 11.73             | 0.58                          | 0.72 | 0.88 |
|                               | 4500             | 146.1   | 7.88              | 0.58                          | 0.72 | 0.87  | 139.9           | 9.05              | 0.59                          | 0.73 | 0.89  | 133.1           | 10.32             | 0.59                          | 0.76 | 0.91  | 125.3           | 11.74             | 0.6                           | 0.79 | 0.94 |
| 71°F                          | 3000             | 143.3   | 7.88              | 0.4                           | 0.51 | 0.6   | 137.4           | 9.05              | 0.41                          | 0.52 | 0.62  | 131.1           | 10.3              | 0.41                          | 0.53 | 0.63  | 123.7           | 11.72             | 0.42                          | 0.54 | 0.64 |
|                               | 3750             | 149.9   | 7.88              | 0.42                          | 0.54 | 0.65  | 143.8           | 9.04              | 0.42                          | 0.55 | 0.67  | 136.7           | 10.32             | 0.43                          | 0.55 | 0.68  | 129.1           | 11.72             | 0.43                          | 0.57 | 0.69 |
|                               | 4500             | 154.6   | 7.87              | 0.43                          | 0.57 | 0.7   | 147.8           | 9.05              | 0.43                          | 0.58 | 0.71  | 140.3           | 10.31             | 0.45                          | 0.58 | 0.74  | 132.4           | 11.73             | 0.45                          | 0.59 | 0.77 |

## 12.5 TON - LCX150S5M (2 COMPRESSORS - FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |  |  |  |  |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|--|--|--|--|
|                               |                  | 85°F  |                   |                               |      |       |                 | 95°F              |                               |      |       |                 |                   | 105°F                         |      |       |                 |                   |                               | 115°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |  |  |  |  |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |  |  |  |  |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |  |  |  |  |
| 63°F                          | 4000             | 144.9   | 8.98              | 0.69                          | 0.81 | 0.92  | 139.1           | 10.18             | 0.7                           | 0.82 | 0.94  | 133.3           | 11.61             | 0.71                          | 0.84 | 0.96  | 127.2           | 13.17             | 0.73                          | 0.86  | 0.99 |  |  |  |  |
|                               | 5000             | 152.2   | 8.98              | 0.73                          | 0.87 | 1     | 146.3           | 10.22             | 0.74                          | 0.89 | 1     | 140.5           | 11.61             | 0.77                          | 0.91 | 1     | 133.1           | 13.2              | 0.79                          | 0.94  | 1    |  |  |  |  |
|                               | 6000             | 158.4   | 9.02              | 0.78                          | 0.93 | 1     | 152.1           | 10.24             | 0.8                           | 0.95 | 1     | 146             | 11.64             | 0.82                          | 0.98 | 1     | 138.2           | 13.2              | 0.85                          | 1     | 1    |  |  |  |  |
| 67°F                          | 4000             | 151.9   | 8.97              | 0.55                          | 0.67 | 0.78  | 145.1           | 10.2              | 0.55                          | 0.67 | 0.8   | 138.7           | 11.58             | 0.56                          | 0.68 | 0.81  | 131.8           | 13.17             | 0.58                          | 0.7   | 0.84 |  |  |  |  |
|                               | 5000             | 157.7   | 9.02              | 0.58                          | 0.71 | 0.84  | 151.1           | 10.25             | 0.58                          | 0.73 | 0.86  | 144.1           | 11.62             | 0.6                           | 0.75 | 0.88  | 136.1           | 13.19             | 0.61                          | 0.78  | 0.91 |  |  |  |  |
|                               | 6000             | 162.5   | 9.06              | 0.61                          | 0.77 | 0.91  | 155.4           | 10.29             | 0.62                          | 0.8  | 0.93  | 147.9           | 11.64             | 0.63                          | 0.8  | 0.95  | 140.5           | 13.17             | 0.64                          | 0.83  | 0.99 |  |  |  |  |
| 71°F                          | 4000             | 160   | 9.03              | 0.42                          | 0.53 | 0.64  | 153.5           | 10.24             | 0.42                          | 0.54 | 0.66  | 146.6           | 11.63             | 0.43                          | 0.55 | 0.66  | 138.8           | 13.19             | 0.42                          | 0.56  | 0.68 |  |  |  |  |
|                               | 5000             | 166.1   | 9.06              | 0.43                          | 0.57 | 0.69  | 159.2           | 10.32             | 0.44                          | 0.57 | 0.71  | 151.7           | 11.68             | 0.44                          | 0.59 | 0.72  | 143.1           | 13.19             | 0.43                          | 0.59  | 0.74 |  |  |  |  |
|                               | 6000             | 170.5   | 9.1               | 0.44                          | 0.59 | 0.74  | 163.5           | 10.35             | 0.44                          | 0.6  | 0.77  | 154.8           | 11.71             | 0.45                          | 0.62 | 0.78  | 146.3           | 13.22             | 0.46                          | 0.63  | 0.8  |  |  |  |  |

# HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 7.5 TON - LCX092S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |       |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |
| 63°F                          | 1800             | 38.7  | 2.70              | 0.56                          | 0.78 | 0.98  | 29.1            | 2.93              | 0.49                          | 0.78 | 1.00  | 19.5            | 3.21              | 0.31                          | 0.76 | 1.00  | 9.8             | 3.57              | -0.18                         | 0.76  | 1.00 |
|                               | 2150             | 41.2  | 2.75              | 0.63                          | 0.86 | 1.00  | 31.2            | 2.97              | 0.56                          | 0.88 | 1.00  | 20.9            | 3.25              | 0.43                          | 0.92 | 1.00  | 10.9            | 3.61              | 0.00                          | 1.00  | 1.00 |
|                               | 2500             | 43.1  | 2.80              | 0.68                          | 0.94 | 1.00  | 32.6            | 3.01              | 0.64                          | 0.97 | 1.00  | 21.9            | 3.29              | 0.55                          | 1.00 | 1.00  | 11.6            | 3.65              | 0.25                          | 1.00  | 1.00 |
| 67°F                          | 1800             | 43.8  | 2.76              | 0.37                          | 0.57 | 0.75  | 34.3            | 2.98              | 0.25                          | 0.51 | 0.75  | 24.7            | 3.26              | 0.03                          | 0.40 | 0.72  | 15.3            | 3.62              | -0.53                         | 0.17  | 0.69 |
|                               | 2150             | 46.2  | 2.81              | 0.41                          | 0.62 | 0.82  | 36.1            | 3.03              | 0.30                          | 0.58 | 0.83  | 26.0            | 3.31              | 0.09                          | 0.50 | 0.84  | 16.2            | 3.66              | -0.39                         | 0.32  | 0.88 |
|                               | 2500             | 48.1  | 2.86              | 0.45                          | 0.68 | 0.89  | 37.7            | 3.07              | 0.34                          | 0.64 | 0.92  | 27.0            | 3.35              | 0.15                          | 0.58 | 0.96  | 16.2            | 3.69              | -0.33                         | 0.44  | 1.00 |
| 71°F                          | 1800             | 48.8  | 2.83              | 0.21                          | 0.39 | 0.56  | 39.4            | 3.04              | 0.09                          | 0.30 | 0.51  | 29.9            | 3.32              | -0.18                         | 0.15 | 0.44  | 20.5            | 3.68              | -0.67                         | -0.11 | 0.30 |
|                               | 2150             | 51.3  | 2.89              | 0.23                          | 0.43 | 0.62  | 41.3            | 3.10              | 0.09                          | 0.35 | 0.58  | 31.1            | 3.37              | -0.16                         | 0.22 | 0.53  | 20.9            | 3.72              | -0.58                         | -0.04 | 0.42 |
|                               | 2500             | 53.2  | 2.93              | 0.24                          | 0.47 | 0.67  | 42.6            | 3.13              | 0.11                          | 0.40 | 0.64  | 31.9            | 3.40              | -0.12                         | 0.27 | 0.60  | 21.1            | 3.74              | -0.62                         | 0.02  | 0.53 |

## 7.5 TON - LCX092S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 2000             | 67.6  | 3.96              | 0.55                          | 0.70 | 0.81  | 56.9            | 4.42              | 0.50                          | 0.68 | 0.82  | 46.0            | 4.96              | 0.44                          | 0.67 | 0.83  | 35.6            | 5.61              | 0.35                          | 0.64 | 0.86 |
|                               | 2450             | 72.7  | 4.00              | 0.59                          | 0.74 | 0.87  | 61.3            | 4.46              | 0.57                          | 0.74 | 0.89  | 49.5            | 5.00              | 0.52                          | 0.74 | 0.91  | 38.6            | 5.64              | 0.44                          | 0.72 | 0.96 |
|                               | 2900             | 76.5  | 4.05              | 0.63                          | 0.79 | 0.93  | 64.3            | 4.50              | 0.61                          | 0.79 | 0.95  | 52.1            | 5.05              | 0.57                          | 0.79 | 0.99  | 40.3            | 5.68              | 0.50                          | 0.80 | 1.00 |
| 67°F                          | 2000             | 75.5  | 4.00              | 0.40                          | 0.54 | 0.66  | 64.2            | 4.45              | 0.34                          | 0.50 | 0.66  | 53.5            | 5.00              | 0.26                          | 0.46 | 0.64  | 42.3            | 5.64              | 0.15                          | 0.39 | 0.62 |
|                               | 2450             | 79.4  | 4.05              | 0.43                          | 0.58 | 0.73  | 67.7            | 4.51              | 0.38                          | 0.55 | 0.72  | 55.7            | 5.04              | 0.30                          | 0.52 | 0.71  | 44.1            | 5.67              | 0.18                          | 0.46 | 0.70 |
|                               | 2900             | 82.5  | 4.09              | 0.44                          | 0.62 | 0.75  | 69.9            | 4.54              | 0.39                          | 0.61 | 0.77  | 57.2            | 5.08              | 0.33                          | 0.57 | 0.77  | 45.2            | 5.72              | 0.20                          | 0.52 | 0.76 |
| 71°F                          | 2000             | 82.9  | 4.06              | 0.28                          | 0.39 | 0.52  | 72.2            | 4.52              | 0.21                          | 0.35 | 0.50  | 61.0            | 5.06              | 0.12                          | 0.29 | 0.46  | 50.1            | 5.69              | -0.01                         | 0.21 | 0.40 |
|                               | 2450             | 81.8  | 4.38              | 0.29                          | 0.40 | 0.55  | 75.6            | 4.56              | 0.21                          | 0.39 | 0.54  | 63.7            | 5.11              | 0.12                          | 0.33 | 0.51  | 51.9            | 5.74              | -0.01                         | 0.25 | 0.46 |
|                               | 2900             | 84.9  | 4.43              | 0.24                          | 0.42 | 0.58  | 78.0            | 4.60              | 0.23                          | 0.41 | 0.56  | 65.3            | 5.14              | 0.13                          | 0.36 | 0.57  | 53.0            | 5.78              | -0.03                         | 0.28 | 0.53 |

## 8.5 TON - LCX102S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |       |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |
| 63°F                          | 1800             | 42.0  | 2.67              | 0.53                          | 0.73 | 0.92  | 34.2            | 2.76              | 0.47                          | 0.73 | 0.95  | 26.3            | 2.92              | 0.37                          | 0.70 | 0.97  | 18.5            | 3.17              | 0.19                          | 0.68  | 0.97 |
|                               | 2400             | 45.0  | 2.78              | 0.63                          | 0.88 | 0.96  | 36.3            | 2.88              | 0.59                          | 0.89 | 0.96  | 27.4            | 3.04              | 0.52                          | 0.92 | 0.97  | 13.7            | 3.58              | 0.39                          | 1.00  | 0.97 |
|                               | 3000             | 48.0  | 2.89              | 0.73                          | 0.96 | 0.96  | 38.8            | 2.99              | 0.71                          | 0.97 | 0.97  | 29.5            | 3.16              | 0.69                          | 0.98 | 0.97  | 14.5            | 3.75              | 0.63                          | 1.00  | 1.00 |
| 67°F                          | 1800             | 46.9  | 2.78              | 0.34                          | 0.53 | 0.71  | 39.2            | 2.87              | 0.25                          | 0.48 | 0.70  | 31.3            | 3.04              | 0.11                          | 0.41 | 0.68  | 18.6            | 3.56              | -0.12                         | 0.16  | 0.66 |
|                               | 2400             | 50.4  | 2.90              | 0.40                          | 0.63 | 0.84  | 41.5            | 2.99              | 0.32                          | 0.60 | 0.86  | 32.5            | 3.15              | 0.19                          | 0.55 | 0.87  | 17.8            | 3.73              | -0.04                         | 0.35  | 0.91 |
|                               | 3000             | 52.5  | 2.98              | 0.46                          | 0.72 | 0.95  | 42.9            | 3.08              | 0.39                          | 0.71 | 0.97  | 32.7            | 3.23              | 0.27                          | 0.69 | 0.98  | 17.0            | 3.83              | 0.05                          | 0.59  | 1.00 |
| 71°F                          | 1800             | 51.7  | 2.89              | 0.18                          | 0.35 | 0.52  | 43.9            | 2.99              | 0.08                          | 0.29 | 0.49  | 35.9            | 3.15              | -0.08                         | 0.19 | 0.43  | 22.7            | 3.72              | -0.33                         | -0.15 | 0.35 |
|                               | 2400             | 55.3  | 3.02              | 0.20                          | 0.42 | 0.62  | 46.6            | 3.11              | 0.10                          | 0.36 | 0.60  | 37.4            | 3.27              | -0.06                         | 0.27 | 0.56  | 22.5            | 3.88              | -0.31                         | -0.07 | 0.44 |
|                               | 3000             | 57.9  | 3.10              | 0.24                          | 0.48 | 0.71  | 48.3            | 3.19              | 0.13                          | 0.43 | 0.70  | 38.0            | 3.35              | -0.04                         | 0.35 | 0.66  | 21.9            | 3.98              | -0.31                         | 0.02  | 0.63 |

## 8.5 TON - LCX102S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 2400             | 82.9  | 4.74              | 0.55                          | 0.69 | 0.81  | 70.5            | 5.30              | 0.52                          | 0.70 | 0.83  | 55.9            | 6.30              | 0.48                          | 0.70 | 0.86  | 44.9            | 6.70              | 0.42                          | 0.68 | 0.89 |
|                               | 2900             | 87.3  | 4.80              | 0.59                          | 0.74 | 0.87  | 74.4            | 5.36              | 0.56                          | 0.75 | 0.89  | 60.9            | 6.00              | 0.52                          | 0.75 | 0.93  | 47.4            | 6.75              | 0.47                          | 0.76 | 0.98 |
|                               | 3400             | 91.1  | 4.88              | 0.63                          | 0.79 | 0.93  | 77.4            | 5.40              | 0.61                          | 0.80 | 0.95  | 62.9            | 6.04              | 0.57                          | 0.82 | 0.99  | 49.9            | 6.78              | 0.56                          | 0.83 | 1.00 |
| 67°F                          | 2400             | 91.9  | 4.81              | 0.40                          | 0.54 | 0.66  | 79.4            | 5.36              | 0.36                          | 0.51 | 0.66  | 66.6            | 6.00              | 0.30                          | 0.48 | 0.66  | 54.4            | 6.74              | 0.21                          | 0.43 | 0.64 |
|                               | 2900             | 96.1  | 4.90              | 0.42                          | 0.57 | 0.72  | 82.8            | 5.44              | 0.37                          | 0.56 | 0.72  | 69.3            | 6.06              | 0.33                          | 0.53 | 0.72  | 55.4            | 6.81              | 0.23                          | 0.50 | 0.72 |
|                               | 3400             | 100.1   | 4.94              | 0.45                          | 0.60 | 0.76  | 85.9            | 5.48              | 0.40                          | 0.60 | 0.77  | 71.0            | 6.09              | 0.33                          | 0.58 | 0.78  | 57.0            | 6.84              | 0.26                          | 0.56 | 0.79 |
| 71°F                          | 2400             | 100.3   | 4.91              | 0.28                          | 0.40 | 0.53  | 87.9            | 5.45              | 0.22                          | 0.36 | 0.49  | 75.2            | 6.07              | 0.14                          | 0.31 | 0.46  | 62.3            | 6.82              | 0.04                          | 0.25 | 0.43 |
|                               | 2900             | 105.7   | 4.98              | 0.29                          | 0.43 | 0.56  | 92.0            | 5.51              | 0.23                          | 0.40 | 0.54  | 78.7            | 6.48              | 0.14                          | 0.35 | 0.52  | 65.1            | 6.87              | 0.03                          | 0.28 | 0.49 |
|                               | 3400             | 109.2   | 5.03              | 0.30                          | 0.45 | 0.59  | 94.7            | 5.56              | 0.25                          | 0.42 | 0.59  | 81.0            | 6.54              | 0.16                          | 0.36 | 0.58  | 66.4            | 6.92              | 0.03                          | 0.29 | 0.55 |

# HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

## 10 TON - LCX120S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |       |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |
| 63°F                          | 2000             | 42.2  | 2.83              | 0.57                          | 0.75 | 0.78  | 39.8            | 2.80              | 0.53                          | 0.74 | 0.77  | 31.2            | 2.97              | 0.47                          | 0.72 | 0.74  | 15.1            | 3.51              | 0.36                          | 0.63  | 0.71 |
|                               | 2600             | 45.0  | 2.89              | 0.66                          | 0.78 | 0.79  | 42.9            | 2.85              | 0.64                          | 0.76 | 0.78  | 33.6            | 3.02              | 0.61                          | 0.73 | 0.75  | 15.9            | 3.61              | 0.54                          | 0.64  | 0.72 |
|                               | 3200             | 46.8  | 2.94              | 0.75                          | 0.79 | 0.80  | 45.0            | 2.88              | 0.73                          | 0.77 | 0.79  | 35.1            | 3.05              | 0.70                          | 0.74 | 0.76  | 16.2            | 3.67              | 0.60                          | 0.64  | 0.72 |
| 67°F                          | 2000             | 46.4  | 2.89              | 0.40                          | 0.55 | 0.74  | 43.9            | 2.84              | 0.34                          | 0.55 | 0.74  | 35.0            | 3.01              | 0.24                          | 0.51 | 0.74  | 17.6            | 3.56              | 0.06                          | 0.33  | 0.72 |
|                               | 2600             | 47.3  | 2.93              | 0.46                          | 0.64 | 0.80  | 45.0            | 2.87              | 0.40                          | 0.65 | 0.79  | 35.2            | 3.03              | 0.30                          | 0.63 | 0.77  | 16.6            | 3.62              | 0.12                          | 0.55  | 0.73 |
|                               | 3200             | 47.7  | 2.95              | 0.51                          | 0.73 | 0.81  | 45.5            | 2.88              | 0.45                          | 0.75 | 0.80  | 35.2            | 3.05              | 0.36                          | 0.74 | 0.77  | 16.3            | 3.67              | 0.19                          | 0.67  | 0.74 |
| 71°F                          | 2000             | 50.5  | 2.94              | 0.26                          | 0.38 | 0.58  | 48.7            | 2.89              | 0.18                          | 0.38 | 0.56  | 39.7            | 3.05              | 0.05                          | 0.30 | 0.49  | 21.8            | 3.65              | -0.15                         | -0.01 | 0.48 |
|                               | 2600             | 51.7  | 2.97              | 0.29                          | 0.43 | 0.67  | 49.9            | 2.90              | 0.20                          | 0.44 | 0.66  | 40.0            | 3.08              | 0.07                          | 0.37 | 0.62  | 20.8            | 3.69              | -0.17                         | 0.07  | 0.63 |
|                               | 3200             | 52.1  | 3.00              | 0.30                          | 0.49 | 0.74  | 50.2            | 2.93              | 0.22                          | 0.50 | 0.75  | 39.8            | 3.10              | 0.08                          | 0.43 | 0.75  | 19.9            | 3.73              | -0.17                         | 0.16  | 0.74 |

## 10 TON - LCX120S5 HUMIDITROL® DEHUMIDIFICATION OPERATING (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 2400             | 96.6  | 5.09              | 0.51                          | 0.65 | 0.77  | 85.6            | 5.71              | 0.50                          | 0.64 | 0.78  | 74.3            | 6.14              | 0.47                          | 0.64 | 0.78  | 63.1            | 6.81              | 0.42                          | 0.62 | 0.78 |
|                               | 3000             | 103.1   | 5.30              | 0.56                          | 0.72 | 0.83  | 86.5            | 5.86              | 0.55                          | 0.72 | 0.84  | 79.5            | 6.46              | 0.53                          | 0.73 | 0.85  | 67.6            | 7.13              | 0.49                          | 0.70 | 0.87 |
|                               | 3600             | 103.2   | 5.34              | 0.60                          | 0.76 | 0.88  | 91.1            | 6.10              | 0.59                          | 0.76 | 0.90  | 78.0            | 6.59              | 0.56                          | 0.77 | 0.92  | 65.6            | 7.31              | 0.53                          | 0.77 | 0.96 |
| 67°F                          | 2400             | 100.0   | 5.18              | 0.38                          | 0.50 | 0.62  | 94.7            | 6.00              | 0.33                          | 0.50 | 0.61  | 83.2            | 6.47              | 0.31                          | 0.47 | 0.60  | 65.9            | 7.08              | 0.21                          | 0.40 | 0.58 |
|                               | 3000             | 105.9   | 5.39              | 0.40                          | 0.54 | 0.68  | 95.5            | 6.18              | 0.36                          | 0.52 | 0.68  | 82.5            | 6.67              | 0.31                          | 0.51 | 0.68  | 70.3            | 7.39              | 0.25                          | 0.48 | 0.68 |
|                               | 3600             | 118.0   | 5.68              | 0.42                          | 0.61 | 0.75  | 99.5            | 6.38              | 0.39                          | 0.58 | 0.74  | 86.1            | 6.88              | 0.34                          | 0.56 | 0.75  | 72.9            | 7.60              | 0.30                          | 0.54 | 0.75 |
| 71°F                          | 2400             | 115.1   | 5.56              | 0.24                          | 0.40 | 0.50  | 98.5            | 6.20              | 0.19                          | 0.34 | 0.46  | 87.0            | 6.71              | 0.14                          | 0.29 | 0.44  | 74.8            | 7.42              | 0.06                          | 0.24 | 0.40 |
|                               | 3000             | 121.7   | 5.76              | 0.29                          | 0.43 | 0.54  | 103.9           | 6.46              | 0.22                          | 0.36 | 0.51  | 92.0            | 6.99              | 0.15                          | 0.34 | 0.50  | 79.3            | 7.71              | 0.07                          | 0.27 | 0.47 |
|                               | 3600             | 126.9   | 5.90              | 0.30                          | 0.45 | 0.59  | 108.6           | 6.66              | 0.22                          | 0.40 | 0.56  | 95.7            | 7.20              | 0.17                          | 0.37 | 0.55  | 83.2            | 7.91              | 0.09                          | 0.33 | 0.54 |

## 12.5 TON - LCX150S5 HUMIDITROL® OPERATING (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |       |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|-------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |       |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |       |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F  |      |
| 63°F                          | 2500             | 53.7  | 3.03              | 0.57                          | 0.78 | 0.93  | 41.7            | 3.32              | 0.49                          | 0.76 | 0.93  | 29.8            | 3.66              | 0.15                          | 0.73 | 0.91  | 12.8            | 4.39              | 0.00                          | 0.57  | 0.86 |
|                               | 3200             | 57.2  | 3.12              | 0.66                          | 0.89 | 0.94  | 44.7            | 3.38              | 0.61                          | 0.90 | 0.94  | 32.1            | 3.73              | 0.39                          | 0.91 | 0.93  | 20.3            | 4.14              | 0.29                          | 0.89  | 0.89 |
|                               | 3900             | 61.1  | 3.16              | 0.74                          | 0.95 | 0.95  | 48.2            | 3.45              | 0.72                          | 0.94 | 0.94  | 35.0            | 3.79              | 0.61                          | 0.93 | 0.94  | 22.4            | 4.21              | 0.54                          | 0.91  | 0.91 |
| 67°F                          | 2500             | 58.2  | 3.11              | 0.38                          | 0.57 | 0.75  | 47.7            | 3.39              | 0.28                          | 0.52 | 0.74  | 35.9            | 3.73              | -0.15                         | 0.42 | 0.72  | 23.9            | 4.13              | -0.28                         | 0.24  | 0.64 |
|                               | 3200             | 63.3  | 3.17              | 0.44                          | 0.66 | 0.86  | 50.4            | 3.46              | 0.34                          | 0.62 | 0.88  | 37.4            | 3.79              | -0.03                         | 0.56 | 0.89  | 24.7            | 4.20              | -0.16                         | 0.44  | 0.91 |
|                               | 3900             | 66.2  | 3.20              | 0.50                          | 0.74 | 0.95  | 52.6            | 3.50              | 0.41                          | 0.72 | 0.95  | 38.3            | 3.83              | 0.26                          | 0.70 | 0.95  | 25.3            | 4.24              | -0.39                         | 0.64  | 0.94 |
| 71°F                          | 2500             | 66.0  | 3.18              | 0.22                          | 0.41 | 0.58  | 54.1            | 3.47              | 0.09                          | 0.32 | 0.53  | 41.9            | 3.80              | -0.11                         | 0.19 | 0.46  | 30.2            | 4.21              | -0.47                         | -0.03 | 0.19 |
|                               | 3200             | 69.6  | 3.22              | 0.26                          | 0.47 | 0.66  | 57.1            | 3.52              | 0.13                          | 0.40 | 0.64  | 43.7            | 3.86              | -0.07                         | 0.28 | 0.59  | 31.2            | 4.27              | -0.76                         | 0.08  | 0.42 |
|                               | 3900             | 72.5  | 3.26              | 0.29                          | 0.53 | 0.74  | 58.6            | 3.56              | 0.17                          | 0.47 | 0.73  | 44.8            | 3.90              | -0.04                         | 0.36 | 0.71  | 25.9            | 4.63              | -0.94                         | 0.01  | 0.68 |

## 12.5 TON - LCX150S5 HUMIDITROL® OPERATING (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|
|                               |                  | 65°F  |                   |                               |      |       | 75°F            |                   |                               |      |       | 85°F            |                   |                               |      |       | 95°F            |                   |                               |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 2900             | 123.8   | 6.61              | 0.55                          | 0.67 | 0.78  | 102.0           | 7.24              | 0.52                          | 0.67 | 0.79  | 93.5            | 7.86              | 0.51                          | 0.67 | 0.80  | 78.5            | 8.73              | 0.47                          | 0.65 | 0.81 |
|                               | 3650             | 132.1   | 6.72              | 0.59                          | 0.74 | 0.83  | 115.5           | 7.32              | 0.58                          | 0.74 | 0.86  | 99.8            | 8.05              | 0.55                          | 0.73 | 0.86  | 84.6            | 9.60              | 0.52                          | 0.73 | 0.89 |
|                               | 4400             | 137.6   | 6.82              | 0.62                          | 0.77 | 0.88  | 120.5           | 7.46              | 0.63                          | 0.78 | 0.90  | 103.5           | 8.19              | 0.61                          | 0.79 | 0.93  | 87.3            | 9.78              | 0.58                          | 0.79 | 0.96 |
| 67°F                          | 2900             | 135.7   | 6.73              | 0.42                          | 0.54 | 0.65  | 120.4           | 7.33              | 0.40                          | 0.52 | 0.64  | 105.1           | 8.06              | 0.35                          | 0.50 | 0.63  | 90.2            | 8.93              | 0.29                          | 0.47 | 0.63 |
|                               | 3650             | 143.5   | 6.85              | 0.45                          | 0.58 | 0.69  | 127.6           | 7.50              | 0.42                          | 0.57 | 0.71  | 104.5           | 8.33              | 0.37                          | 0.54 | 0.71  | 94.6            | 9.79              | 0.33                          | 0.53 | 0.71 |
|                               | 4400             | 148.5   | 6.96              | 0.46                          | 0.62 | 0.75  | 130.9           | 7.61              | 0.44                          | 0.61 | 0.76  | 114.7           | 9.01              | 0.41                          | 0.58 | 0.77  | 97.7            | 9.98              | 0.33                          | 0.59 | 0.77 |
| 71°F                          | 2900             | 138.8   | 6.93              | 0.29                          | 0.40 | 0.52  | 133.0           | 7.51              | 0.27                          | 0.39 | 0.51  | 117.3           | 8.25              | 0.22                          | 0.35 | 0.48  | 102.8           | 9.85              | 0.15                          | 0.31 | 0.46 |
|                               | 3650             | 156.5   | 7.00              | 0.31                          | 0.44 | 0.57  | 140.1           | 7.66              | 0.28                          | 0.41 | 0.55  | 124.9           | 9.09              | 0.23                          | 0.39 | 0.53  | 108.7           | 10.08             | 0.14                          | 0.34 | 0.52 |
|                               | 4400             | 160.0   | 7.10              | 0.32                          | 0.47 | 0.59  | 145.5           | 8.41              | 0.27                          | 0.43 | 0.59  | 128.0           | 9.25              | 0.22                          | 0.41 | 0.58  | 104.1           | 10.38             | 0.12                          | 0.36 | 0.58 |

**BLOWER DATA**

**BELT DRIVE - 7.5 | 8.5 | 10 TON (ENVIRON™ INDOOR COIL)**

**LCX092S5M, LCX102S5M AND LCX120S5M - BASE UNIT**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY (NO HEAT SECTION) WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE. FOR ALL UNITS ADD:**

- 1 – Wet indoor coil air resistance of selected unit.
- 2 – Any factory installed options air resistance (heat section, economizer, etc.)
- 3 – Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 31 for blower motors and drives.

See page 31 for wet coil and option/accessory air resistance data.

**Minimum Air Volume Required For Use With Optional Electric Heat (Maximum Static Pressure - 2.0 in. w.g.)**

7.5 kW, 15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm; 60 kW - 4000 cfm

| Total Air Volume cfm | Total Static Pressure – in. w.g. |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
|----------------------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
|                      | 0.2                              |      | 0.4  |      | 0.6  |      | 0.8  |      | 1.0  |      | 1.2  |      | 1.4  |      | 1.6  |      | 1.8  |      | 2.0  |      | 2.2  |      | 2.4  |      | 2.6  |      |     |
|                      | RPM                              | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM |
| 1800                 | 570                              | 0.51 | 648  | 0.66 | 725  | 0.8  | 797  | 0.93 | 865  | 1.09 | 926  | 1.26 | 982  | 1.44 | 1038 | 1.6  | 1092 | 1.77 | 1140 | 1.96 | 1183 | 2.16 | 1222 | 2.36 | 1258 | 2.54 |     |
| 2050                 | 594                              | 0.63 | 672  | 0.78 | 748  | 0.92 | 818  | 1.07 | 883  | 1.25 | 942  | 1.44 | 997  | 1.61 | 1051 | 1.78 | 1104 | 1.97 | 1150 | 2.18 | 1191 | 2.4  | 1229 | 2.62 | 1265 | 2.83 |     |
| 2300                 | 620                              | 0.76 | 698  | 0.91 | 772  | 1.06 | 840  | 1.23 | 902  | 1.43 | 959  | 1.63 | 1013 | 1.81 | 1066 | 1.98 | 1117 | 2.19 | 1160 | 2.43 | 1200 | 2.67 | 1237 | 2.9  | 1272 | 3.13 |     |
| 2550                 | 649                              | 0.91 | 725  | 1.07 | 797  | 1.23 | 863  | 1.43 | 923  | 1.64 | 978  | 1.85 | 1031 | 2.03 | 1083 | 2.21 | 1130 | 2.44 | 1171 | 2.7  | 1209 | 2.96 | 1245 | 3.21 | 1279 | 3.44 |     |
| 2800                 | 680                              | 1.08 | 756  | 1.25 | 825  | 1.42 | 887  | 1.65 | 945  | 1.89 | 998  | 2.09 | 1050 | 2.27 | 1100 | 2.47 | 1144 | 2.72 | 1182 | 3    | 1218 | 3.27 | 1253 | 3.53 | 1286 | 3.78 |     |
| 3050                 | 714                              | 1.28 | 787  | 1.45 | 852  | 1.65 | 912  | 1.91 | 968  | 2.16 | 1021 | 2.36 | 1071 | 2.53 | 1117 | 2.75 | 1157 | 3.02 | 1193 | 3.32 | 1227 | 3.6  | 1261 | 3.87 | 1294 | 4.13 |     |
| 3300                 | 750                              | 1.5  | 819  | 1.69 | 881  | 1.92 | 938  | 2.2  | 993  | 2.44 | 1045 | 2.63 | 1091 | 2.82 | 1134 | 3.05 | 1170 | 3.35 | 1204 | 3.65 | 1237 | 3.95 | 1269 | 4.23 | 1301 | 4.5  |     |
| 3550                 | 786                              | 1.74 | 851  | 1.95 | 909  | 2.22 | 965  | 2.51 | 1019 | 2.73 | 1068 | 2.92 | 1111 | 3.12 | 1149 | 3.38 | 1182 | 3.69 | 1214 | 4.01 | 1245 | 4.31 | 1277 | 4.6  | 1309 | 4.88 |     |
| 3800                 | 823                              | 2.01 | 883  | 2.25 | 938  | 2.54 | 992  | 2.83 | 1045 | 3.04 | 1090 | 3.23 | 1128 | 3.46 | 1162 | 3.74 | 1194 | 4.06 | 1224 | 4.38 | 1254 | 4.69 | 1285 | 4.99 | 1316 | 5.27 |     |
| 4050                 | 859                              | 2.32 | 915  | 2.6  | 968  | 2.9  | 1020 | 3.16 | 1070 | 3.37 | 1111 | 3.57 | 1144 | 3.83 | 1175 | 4.13 | 1205 | 4.44 | 1234 | 4.76 | 1263 | 5.08 | 1292 | 5.39 | 1324 | 5.68 |     |
| 4300                 | 895                              | 2.68 | 948  | 2.98 | 998  | 3.27 | 1048 | 3.51 | 1094 | 3.72 | 1129 | 3.95 | 1159 | 4.22 | 1187 | 4.53 | 1216 | 4.84 | 1243 | 5.17 | 1271 | 5.49 | ---  | ---  | ---  | ---  |     |
| 4550                 | 930                              | 3.08 | 980  | 3.38 | 1028 | 3.66 | 1076 | 3.88 | 1117 | 4.1  | 1147 | 4.35 | 1173 | 4.64 | 1199 | 4.95 | 1225 | 5.27 | 1252 | 5.6  | ---  | ---  | ---  | ---  | ---  | ---  |     |
| 4800                 | 965                              | 3.52 | 1013 | 3.81 | 1059 | 4.06 | 1104 | 4.27 | 1138 | 4.5  | 1163 | 4.78 | 1186 | 5.08 | 1209 | 5.41 | 1234 | 5.73 | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  |     |

**BLOWER DATA**

**BELT DRIVE - 7.5 | 8.5 TON (FIN/TUBE INDOOR COIL)**

**LCX092S5M AND LCX102S5M - BASE UNIT**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY (NO HEAT SECTION) WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE. FOR ALL UNITS ADD:**

- 1 – Wet indoor coil air resistance of selected unit.
- 2 – Any factory installed options air resistance (heat section, economizer, etc.)
- 3 – Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 31 for blower motors and drives.

See page 31 for wet coil and option/accessory air resistance data.

**Minimum Air Volume Required For Use With Optional Electric Heat (Maximum Static Pressure - 2.0 in. w.g.)**

7.5 kW, 15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm; 60 kW - 4000 cfm

| Total Air Volume cfm | Total Static Pressure – in. w.g. |      |     |      |     |      |     |      |     |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|----------------------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                      | 0.2                              |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      | 1.2 |      | 1.4  |      | 1.6  |      | 1.8  |      | 2    |      | 2.2  |      | 2.4  |      | 2.6  |      |
|                      | RPM                              | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  |
| 2000                 | 593                              | 0.11 | 636 | 0.07 | 682 | 0.10 | 731 | 0.22 | 784 | 0.60 | 840 | 0.96 | 898  | 1.26 | 948  | 1.38 | 996  | 1.47 | 1045 | 1.57 | 1092 | 1.71 | 1140 | 1.92 | 1188 | 2.32 |
| 2250                 | 604                              | 0.15 | 645 | 0.11 | 690 | 0.15 | 739 | 0.39 | 790 | 0.74 | 846 | 1.08 | 901  | 1.34 | 953  | 1.48 | 1002 | 1.57 | 1052 | 1.70 | 1100 | 1.86 | 1149 | 2.09 | 1197 | 2.42 |
| 2500                 | 615                              | 0.19 | 655 | 0.15 | 699 | 0.20 | 747 | 0.55 | 797 | 0.89 | 851 | 1.20 | 906  | 1.44 | 959  | 1.58 | 1009 | 1.68 | 1059 | 1.83 | 1108 | 2.01 | 1158 | 2.26 | 1206 | 2.52 |
| 2750                 | 626                              | 0.23 | 666 | 0.19 | 709 | 0.37 | 755 | 0.71 | 805 | 1.03 | 858 | 1.32 | 912  | 1.55 | 966  | 1.70 | 1017 | 1.81 | 1067 | 1.97 | 1117 | 2.17 | 1166 | 2.44 | 1215 | 2.71 |
| 3000                 | 637                              | 0.27 | 677 | 0.24 | 719 | 0.55 | 764 | 0.87 | 813 | 1.18 | 866 | 1.45 | 920  | 1.67 | 975  | 1.82 | 1026 | 1.96 | 1076 | 2.13 | 1126 | 2.35 | 1176 | 2.63 | 1225 | 2.92 |
| 3250                 | 650                              | 0.31 | 688 | 0.43 | 730 | 0.73 | 775 | 1.04 | 823 | 1.34 | 875 | 1.60 | 930  | 1.81 | 985  | 1.97 | 1036 | 2.12 | 1086 | 2.31 | 1136 | 2.54 | 1186 | 2.83 | 1235 | 3.13 |
| 3500                 | 663                              | 0.35 | 700 | 0.63 | 741 | 0.92 | 786 | 1.22 | 834 | 1.50 | 886 | 1.76 | 942  | 1.96 | 997  | 2.14 | 1048 | 2.31 | 1097 | 2.51 | 1147 | 2.75 | 1196 | 3.04 | 1245 | 3.35 |
| 3750                 | 676                              | 0.57 | 714 | 0.84 | 754 | 1.12 | 798 | 1.41 | 846 | 1.68 | 899 | 1.93 | 956  | 2.14 | 1010 | 2.32 | 1060 | 2.51 | 1109 | 2.72 | 1158 | 2.98 | 1207 | 3.27 | 1255 | 3.58 |
| 4000                 | 691                              | 0.79 | 728 | 1.05 | 768 | 1.33 | 812 | 1.61 | 860 | 1.88 | 914 | 2.12 | 971  | 2.34 | 1023 | 2.53 | 1072 | 2.73 | 1121 | 2.95 | 1169 | 3.22 | 1218 | 3.51 | 1266 | 3.83 |
| 4250                 | 706                              | 1.03 | 743 | 1.28 | 783 | 1.55 | 827 | 1.82 | 876 | 2.09 | 931 | 2.33 | 987  | 2.55 | 1037 | 2.76 | 1085 | 2.97 | 1133 | 3.20 | 1181 | 3.47 | 1229 | 3.76 | 1277 | 4.08 |
| 4500                 | 722                              | 1.27 | 759 | 1.52 | 799 | 1.78 | 844 | 2.05 | 894 | 2.31 | 949 | 2.56 | 1003 | 2.79 | 1052 | 3.00 | 1098 | 3.22 | 1145 | 3.46 | 1193 | 3.73 | 1241 | 4.03 | 1289 | 4.34 |
| 4750                 | 739                              | 1.53 | 776 | 1.77 | 817 | 2.03 | 862 | 2.30 | 913 | 2.56 | 968 | 2.81 | 1020 | 3.04 | 1066 | 3.27 | 1112 | 3.49 | 1158 | 3.74 | 1205 | 4.01 | 1253 | 4.30 | 1301 | 4.61 |
| 5000                 | 757                              | 1.79 | 794 | 2.04 | 835 | 2.30 | 882 | 2.56 | 934 | 2.83 | 988 | 3.08 | 1036 | 3.32 | 1081 | 3.55 | 1125 | 3.78 | 1171 | 4.02 | 1218 | 4.29 | 1265 | 4.59 | 1312 | 4.89 |

**BLOWER DATA**

**BELT DRIVE - 10 | 12.5 TON (FIN/TUBE INDOOR COIL)**

**LCX120S5M AND LCX150S5M - BASE UNIT**

**BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY (NO HEAT SECTION) WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE. FOR ALL UNITS ADD:**

- 1 – Wet indoor coil air resistance of selected unit.
- 2 – Any factory installed options air resistance (heat section, economizer, etc.)
- 3 – Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 31 for blower motors and drives.

See page 31 for wet coil and option/accessory air resistance data.

**Minimum Air Volume Required For Use With Optional Electric Heat (Maximum Static Pressure - 2.0 in. w.g.)**

15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm; 60 kW - 4000 cfm

| Total Air Volume cfm | Total Static Pressure – in. w.g. |      |     |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |     |
|----------------------|----------------------------------|------|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
|                      | 0.2                              |      | 0.4 |      | 0.6 |      | 0.8  |      | 1.0  |      | 1.2  |      | 1.4  |      | 1.6  |      | 1.8  |      | 2.0  |      | 2.2  |      | 2.4  |      | 2.6  |      |     |
|                      | RPM                              | BHP  | RPM | BHP  | RPM | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM |
| 2000                 | 497                              | 0.25 | 558 | 0.44 | 624 | 0.6  | 694  | 0.74 | 764  | 0.85 | 830  | 0.99 | 889  | 1.16 | 943  | 1.34 | 994  | 1.52 | 1045 | 1.71 | 1096 | 1.89 | 1146 | 2.08 | 1197 | 2.27 |     |
| 2250                 | 511                              | 0.34 | 573 | 0.52 | 638 | 0.68 | 708  | 0.82 | 776  | 0.94 | 839  | 1.09 | 896  | 1.26 | 948  | 1.45 | 998  | 1.64 | 1048 | 1.83 | 1098 | 2.01 | 1149 | 2.2  | 1200 | 2.4  |     |
| 2500                 | 527                              | 0.44 | 589 | 0.62 | 654 | 0.78 | 723  | 0.91 | 789  | 1.05 | 850  | 1.21 | 904  | 1.39 | 955  | 1.58 | 1003 | 1.77 | 1052 | 1.96 | 1101 | 2.14 | 1152 | 2.33 | 1203 | 2.53 |     |
| 2750                 | 545                              | 0.55 | 606 | 0.72 | 672 | 0.88 | 740  | 1.03 | 804  | 1.17 | 861  | 1.34 | 914  | 1.53 | 962  | 1.72 | 1010 | 1.92 | 1057 | 2.10 | 1105 | 2.29 | 1154 | 2.47 | 1206 | 2.68 |     |
| 3000                 | 564                              | 0.66 | 626 | 0.84 | 692 | 1.01 | 759  | 1.16 | 819  | 1.32 | 874  | 1.49 | 924  | 1.68 | 971  | 1.88 | 1017 | 2.08 | 1063 | 2.26 | 1110 | 2.44 | 1158 | 2.63 | 1208 | 2.83 |     |
| 3250                 | 585                              | 0.79 | 648 | 0.98 | 714 | 1.14 | 778  | 1.31 | 836  | 1.48 | 887  | 1.66 | 935  | 1.86 | 981  | 2.06 | 1026 | 2.26 | 1071 | 2.45 | 1117 | 2.63 | 1163 | 2.80 | 1213 | 3.00 |     |
| 3500                 | 607                              | 0.93 | 672 | 1.13 | 737 | 1.31 | 798  | 1.48 | 852  | 1.66 | 901  | 1.85 | 948  | 2.05 | 993  | 2.26 | 1037 | 2.46 | 1081 | 2.65 | 1125 | 2.83 | 1171 | 3.01 | 1221 | 3.21 |     |
| 3750                 | 632                              | 1.10 | 698 | 1.31 | 762 | 1.50 | 819  | 1.67 | 869  | 1.86 | 915  | 2.05 | 961  | 2.25 | 1005 | 2.47 | 1049 | 2.68 | 1092 | 2.88 | 1136 | 3.05 | 1181 | 3.24 | 1231 | 3.45 |     |
| 4000                 | 660                              | 1.30 | 726 | 1.52 | 787 | 1.70 | 838  | 1.87 | 885  | 2.06 | 930  | 2.26 | 974  | 2.48 | 1018 | 2.71 | 1062 | 2.93 | 1105 | 3.12 | 1149 | 3.30 | 1194 | 3.49 | 1245 | 3.72 |     |
| 4250                 | 691                              | 1.53 | 755 | 1.75 | 810 | 1.91 | 857  | 2.07 | 901  | 2.27 | 945  | 2.50 | 990  | 2.74 | 1034 | 2.98 | 1077 | 3.20 | 1120 | 3.39 | 1163 | 3.58 | 1210 | 3.79 | 1262 | 4.03 |     |
| 4500                 | 724                              | 1.78 | 783 | 1.98 | 831 | 2.12 | 874  | 2.28 | 917  | 2.50 | 962  | 2.75 | 1006 | 3.02 | 1051 | 3.27 | 1094 | 3.49 | 1137 | 3.70 | 1181 | 3.89 | 1228 | 4.11 | 1281 | 4.38 |     |
| 4750                 | 757                              | 2.05 | 809 | 2.20 | 851 | 2.33 | 891  | 2.51 | 935  | 2.76 | 980  | 3.05 | 1025 | 3.33 | 1070 | 3.59 | 1113 | 3.82 | 1156 | 4.03 | 1201 | 4.24 | 1249 | 4.47 | 1303 | 4.75 |     |
| 5000                 | 787                              | 2.31 | 831 | 2.43 | 870 | 2.57 | 910  | 2.78 | 954  | 3.06 | 1000 | 3.38 | 1046 | 3.68 | 1091 | 3.95 | 1135 | 4.19 | 1178 | 4.40 | 1224 | 4.62 | 1272 | 4.86 | 1325 | 5.13 |     |
| 5250                 | 814                              | 2.55 | 852 | 2.66 | 889 | 2.83 | 930  | 3.09 | 975  | 3.41 | 1023 | 3.76 | 1070 | 4.08 | 1115 | 4.35 | 1159 | 4.59 | 1203 | 4.81 | 1248 | 5.03 | 1297 | 5.27 | ---  | ---  |     |
| 5500                 | 835                              | 2.78 | 871 | 2.91 | 909 | 3.13 | 952  | 3.44 | 999  | 3.81 | 1049 | 4.18 | 1096 | 4.51 | 1142 | 4.79 | 1186 | 5.03 | 1229 | 5.24 | 1275 | 5.46 | 1324 | 5.69 | ---  | ---  |     |
| 5750                 | 854                              | 3.01 | 890 | 3.19 | 930 | 3.48 | 977  | 3.86 | 1027 | 4.27 | 1078 | 4.66 | 1126 | 4.99 | 1171 | 5.26 | 1214 | 5.49 | 1258 | 5.70 | ---  | ---  | ---  | ---  | ---  | ---  |     |
| 6000                 | 871                              | 3.26 | 910 | 3.53 | 955 | 3.90 | 1006 | 4.34 | 1060 | 4.80 | 1111 | 5.19 | 1158 | 5.51 | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  |     |
| 6250                 | 890                              | 3.57 | 934 | 3.94 | 985 | 4.41 | 1041 | 4.91 | 1096 | 5.38 | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  |     |

## BLOWER DATA

### FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

| Nominal HP | Maximum HP | Drive Kit Number | RPM Range   |
|------------|------------|------------------|-------------|
| 2          | 2.3        | 1                | 590 - 890   |
| 2          | 2.3        | 2                | 800 - 1105  |
| 2          | 2.3        | 3                | 795 - 1195  |
| 3          | 3.45       | 4                | 730 - 970   |
| 3          | 3.45       | 5                | 940 - 1200  |
| 3          | 3.45       | 6                | 1015 - 1300 |
| 5          | 5.75       | 10               | 900 - 1135  |
| 5          | 5.75       | 11               | 1050 - 1335 |

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE - Motor service factor limit - 1.0.

### POWER EXHAUST FAN PERFORMANCE

| Return Air System Static Pressure | Air Volume Exhausted |
|-----------------------------------|----------------------|
| in. w.g.                          | cfm                  |
| 0                                 | 3175                 |
| 0.05                              | 2955                 |
| 0.10                              | 2685                 |
| 0.15                              | 2410                 |
| 0.20                              | 2165                 |
| 0.25                              | 1920                 |
| 0.30                              | 1420                 |
| 0.35                              | 1200                 |

### FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORY AIR RESISTANCE - in. w.g.

| Air Volume cfm | Wet Indoor Coil       |                   |                   | Electric Heat | Economizer | CanFab Horizontal Economizer | Reheat Coil Fin/Tube | Filters |         |         | Return Air Adaptor Plate |
|----------------|-----------------------|-------------------|-------------------|---------------|------------|------------------------------|----------------------|---------|---------|---------|--------------------------|
|                | 092, 102, 120 Environ | 092, 102 Fin/Tube | 120, 150 Fin/Tube |               |            |                              |                      | MERV 8  | MERV 13 | MERV 16 |                          |
| 1750           | 0.02                  | 0.04              | 0.04              | 0.03          | 0.05       |                              | 0.02                 | 0.01    | 0.03    | 0.06    | 0.00                     |
| 2000           | 0.05                  | 0.05              | 0.05              | 0.03          | 0.06       |                              | 0.02                 | 0.01    | 0.03    | 0.08    | 0.00                     |
| 2250           | 0.06                  | 0.06              | 0.06              | 0.04          | 0.08       |                              | 0.02                 | 0.01    | 0.04    | 0.09    | 0.00                     |
| 2500           | 0.07                  | 0.07              | 0.07              | 0.04          | 0.11       |                              | 0.03                 | 0.01    | 0.05    | 0.10    | 0.00                     |
| 2750           | 0.08                  | 0.08              | 0.08              | 0.05          | 0.12       |                              | 0.03                 | 0.02    | 0.05    | 0.11    | 0.00                     |
| 3000           | 0.09                  | 0.10              | 0.09              | 0.06          | 0.13       |                              | 0.03                 | 0.02    | 0.06    | 0.12    | 0.02                     |
| 3250           | 0.10                  | 0.11              | 0.10              | 0.06          | 0.15       |                              | 0.04                 | 0.02    | 0.06    | 0.13    | 0.02                     |
| 3500           | 0.11                  | 0.12              | 0.11              | 0.09          | 0.15       |                              | 0.04                 | 0.03    | 0.07    | 0.15    | 0.04                     |
| 3750           | 0.13                  | 0.14              | 0.13              | 0.09          | 0.15       |                              | 0.05                 | 0.03    | 0.08    | 0.16    | 0.07                     |
| 4000           | 0.14                  | 0.15              | 0.14              | 0.09          | 0.19       |                              | 0.05                 | 0.04    | 0.08    | 0.17    | 0.09                     |
| 4250           | 0.15                  | 0.17              | 0.15              | 0.13          | 0.19       |                              | 0.06                 | 0.04    | 0.09    | 0.19    | 0.11                     |
| 4500           | 0.17                  | 0.19              | 0.17              | 0.14          | 0.22       |                              | 0.07                 | 0.04    | 0.09    | 0.20    | 0.12                     |
| 4750           | 0.18                  | 0.20              | 0.18              | 0.17          | 0.25       |                              | 0.07                 | 0.05    | 0.10    | 0.21    | 0.16                     |
| 5000           | 0.20                  | 0.22              | 0.20              | 0.20          | 0.29       |                              | 0.08                 | 0.06    | 0.10    | 0.23    | 0.18                     |
| 5250           | 0.22                  | 0.24              | 0.22              | 0.22          | 0.32       |                              | 0.08                 | 0.06    | 0.11    | 0.24    | 0.19                     |
| 5500           | 0.23                  | 0.25              | 0.23              | 0.25          | 0.34       |                              | 0.09                 | 0.07    | 0.12    | 0.25    | 0.22                     |
| 5750           | 0.25                  | 0.27              | 0.25              | 0.31          | 0.45       |                              | 0.10                 | 0.07    | 0.12    | 0.27    | 0.25                     |
| 6000           | 0.27                  | 0.29              | 0.27              | 0.33          | 0.52       |                              | 0.10                 | 0.08    | 0.13    | 0.28    | 0.27                     |

## BLOWER DATA

### CEILING DIFFUSERS AIR RESISTANCE - in. w.g.

| Size      | RTD11 Step-Down Diffuser |             |                     |                       | FD11 Flush Diffuser |
|-----------|--------------------------|-------------|---------------------|-----------------------|---------------------|
|           | Air Volume cfm           | 2 Ends Open | 1 Side, 2 Ends Open | All Ends & Sides Open |                     |
| 092       | 2400                     | 0.21        | 0.18                | 0.15                  | 0.14                |
|           | 2600                     | 0.24        | 0.21                | 0.18                  | 0.17                |
|           | 2800                     | 0.27        | 0.24                | 0.21                  | 0.20                |
|           | 3000                     | 0.32        | 0.29                | 0.25                  | 0.25                |
|           | 3200                     | 0.41        | 0.37                | 0.32                  | 0.31                |
|           | 3400                     | 0.50        | 0.45                | 0.39                  | 0.37                |
|           | 3600                     | 0.61        | 0.54                | 0.48                  | 0.44                |
|           | 3800                     | 0.73        | 0.63                | 0.57                  | 0.51                |
| 102 & 120 | 3600                     | 0.36        | 0.28                | 0.23                  | 0.15                |
|           | 3800                     | 0.40        | 0.32                | 0.26                  | 0.18                |
|           | 4000                     | 0.44        | 0.36                | 0.29                  | 0.21                |
|           | 4200                     | 0.49        | 0.40                | 0.33                  | 0.24                |
|           | 4400                     | 0.54        | 0.44                | 0.37                  | 0.27                |
|           | 4600                     | 0.60        | 0.49                | 0.42                  | 0.31                |
|           | 4800                     | 0.65        | 0.53                | 0.46                  | 0.35                |
|           | 5000                     | 0.69        | 0.58                | 0.50                  | 0.39                |
| 150       | 5200                     | 0.75        | 0.62                | 0.54                  | 0.43                |
|           | 4200                     | 0.22        | 0.19                | 0.16                  | 0.10                |
|           | 4400                     | 0.28        | 0.24                | 0.20                  | 0.12                |
|           | 4600                     | 0.34        | 0.29                | 0.24                  | 0.15                |
|           | 4800                     | 0.40        | 0.34                | 0.29                  | 0.19                |
|           | 5000                     | 0.46        | 0.39                | 0.34                  | 0.23                |
|           | 5200                     | 0.52        | 0.44                | 0.39                  | 0.27                |
|           | 5400                     | 0.58        | 0.49                | 0.43                  | 0.31                |
| 5600      | 0.64                     | 0.54        | 0.47                | 0.35                  |                     |
| 5800      | 0.70                     | 0.59        | 0.51                | 0.39                  |                     |

### CEILING DIFFUSER AIR THROW DATA

| Size     | Air Volume cfm | <sup>1</sup> Effective Throw Range |            |
|----------|----------------|------------------------------------|------------|
|          |                | RTD11 Step-Down                    | FD11 Flush |
|          |                | ft.                                | ft.        |
| 092      | 2600           | 24 - 29                            | 19 - 24    |
|          | 2800           | 25 - 30                            | 20 - 28    |
|          | 3000           | 27 - 33                            | 21 - 29    |
|          | 3200           | 28 - 35                            | 22 - 29    |
|          | 3400           | 30 - 37                            | 22 - 30    |
| 102, 120 | 3600           | 25 - 33                            | 22 - 29    |
|          | 3800           | 27 - 35                            | 22 - 30    |
|          | 4000           | 29 - 37                            | 24 - 33    |
|          | 4200           | 32 - 40                            | 26 - 35    |
|          | 4400           | 34 - 42                            | 28 - 37    |
| 150      | 5600           | 39 - 49                            | 28 - 37    |
|          | 5800           | 42 - 51                            | 29 - 38    |
|          | 6000           | 44 - 54                            | 40 - 50    |
|          | 6200           | 45 - 55                            | 42 - 51    |
|          | 6400           | 46 - 55                            | 43 - 52    |
| 6600     | 47 - 56        | 45 - 56                            |            |

<sup>1</sup> Throw is the horizontal or vertical distance an air stream travels on leaving the outlet or diffuser before the maximum velocity is reduced to 50 ft. per minute. Four sides open.

**ELECTRICAL/ELECTRIC HEAT DATA**

**7.5 TON**

| Model  |                                   | LCX092S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 12.4            |      |      | 6.5         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 12.8            |      |      | 5.1         |     |     | 4.5         |     |     |
|  | Locked Rotor Amps                 | 97.5            |      |      | 44.3        |     |     | 27.1        |     |     |
| Outdoor Fan<br>Motors (2)                                | Full Load Amps (2 Non-ECM)        | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 4.8             |      |      | 2.6         |     |     | 2           |     |     |
| Power Exhaust<br>(1) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
|  | Full Load Amps                    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 50              | 50   | 60   | 25          | 25  | 30  | 20          | 20  | 25  |
|  | With (1) 0.33 HP<br>Power Exhaust | 50              | 50   | 60   | 25          | 25  | 30  | 20          | 20  | 25  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 41              | 44   | 51   | 20          | 21  | 24  | 16          | 17  | 19  |
|  | With (1) 0.33 HP<br>Power Exhaust | 44              | 47   | 54   | 21          | 22  | 26  | 17          | 18  | 20  |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage                                    |  |         | 208V | 240V | 208V | 240V | 208V | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|--|--|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat                                     | 7.5 kW  | 50   | 50   | 50   | 50   | 60   | 60   | 25   | 25   | 30   | 20   | 20   | 25   |
|  |  | 15 kW   | 50   | 60   | 60   | 60   | 60   | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 70   | 80   | 80   | 90   | 80   | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|  |  | 30 kW   | 90   | 100  | 100  | 110  | 100  | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 150  | 150  | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat                                     | 7.5 kW  | 41   | 41   | 44   | 44   | 51   | 51   | 20   | 21   | 24   | 16   | 17   | 19   |
|  |  | 15 kW   | 49   | 55   | 53   | 59   | 60   | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
|  |  | 22.5 kW | 69   | 78   | 72   | 81   | 80   | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|  |  | 30 kW   | 88   | 100  | 92   | 104  | 100  | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|  |  | 45 kW   | 127  | 145  | 131  | 149  | 139  | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 7.5 kW  | 50   | 50   | 50   | 50   | 60   | 60   | 25   | 25   | 30   | 20   | 20   | 25   |
|  |  | 15 kW   | 60   | 60   | 60   | 70   | 70   | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 80   | 90   | 80   | 90   | 90   | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|  |  | 30 kW   | 100  | 110  | 100  | 110  | 110  | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 175  | 150  | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 7.5 kW  | 44   | 44   | 47   | 47   | 54   | 54   | 21   | 22   | 26   | 17   | 18   | 20   |
|  |  | 15 kW   | 52   | 58   | 56   | 62   | 63   | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
|  |  | 22.5 kW | 72   | 81   | 75   | 84   | 83   | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|  |  | 30 kW   | 91   | 103  | 95   | 107  | 103  | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|  |  | 45 kW   | 130  | 148  | 134  | 152  | 142  | 160  | 74   | 76   | 79   | 59   | 61   | 64   |

**ELECTRICAL ACCESSORIES**

| Disconnect | 7.5 kW  | 54W56 | 54W56 | 54W56 |
|------------|---------|-------|-------|-------|
|            | 15 kW   | 54W56 | 54W56 | 54W56 |
|            | 22.5 kW | 54W56 | 54W56 | 54W56 |
|            | 30 kW   | 54W57 | 54W56 | 54W56 |
|            | 45 kW   | 54W57 | 54W56 | 54W56 |

Disconnects - 54W56 - 80A  
54W57 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**

**8.5 TON**

| Model  |                                   | LCX102S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 12.4            |      |      | 6.5         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 12.2            |      |      | 6.4         |     |     | 5.1         |     |     |
|  | Locked Rotor Amps                 | 120.4           |      |      | 50          |     |     | 41          |     |     |
| Outdoor Fan<br>Motors (2)                                | Full Load Amps (2 Non-ECM)        | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 4.8             |      |      | 2.6         |     |     | 2           |     |     |
| Power Exhaust<br>(1) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
|  | Full Load Amps                    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 50              | 50   | 60   | 25          | 25  | 30  | 20          | 20  | 25  |
|  | With (1) 0.33 HP<br>Power Exhaust | 50              | 50   | 60   | 25          | 25  | 30  | 20          | 20  | 25  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 40              | 44   | 51   | 21          | 22  | 25  | 16          | 18  | 20  |
|  | With (1) 0.33 HP<br>Power Exhaust | 43              | 46   | 53   | 22          | 24  | 27  | 17          | 19  | 21  |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage                                    |  |         | 208V | 240V | 208V | 240V | 208V | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|--|--|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat                                     | 7.5 kW  | 50   | 50   | 50   | 50   | 60   | 60   | 25   | 25   | 30   | 20   | 20   | 25   |
|  |  | 15 kW   | 50   | 60   | 60   | 60   | 60   | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 70   | 80   | 80   | 90   | 80   | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|  |  | 30 kW   | 90   | 100  | 100  | 110  | 100  | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 150  | 150  | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat                                     | 7.5 kW  | 40   | 40   | 44   | 44   | 51   | 51   | 21   | 22   | 25   | 16   | 18   | 20   |
|  |  | 15 kW   | 49   | 55   | 53   | 59   | 60   | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
|  |  | 22.5 kW | 69   | 78   | 72   | 81   | 80   | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|  |  | 30 kW   | 88   | 100  | 92   | 104  | 100  | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|  |  | 45 kW   | 127  | 145  | 131  | 149  | 139  | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 7.5 kW  | 50   | 50   | 50   | 50   | 60   | 60   | 25   | 25   | 30   | 20   | 20   | 25   |
|  |  | 15 kW   | 60   | 60   | 60   | 70   | 70   | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 80   | 90   | 80   | 90   | 90   | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|  |  | 30 kW   | 100  | 110  | 100  | 110  | 110  | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 175  | 150  | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 7.5 kW  | 43   | 43   | 46   | 46   | 53   | 53   | 22   | 24   | 27   | 17   | 19   | 21   |
|  |  | 15 kW   | 52   | 58   | 56   | 62   | 63   | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
|  |  | 22.5 kW | 72   | 81   | 75   | 84   | 83   | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|  |  | 30 kW   | 91   | 103  | 95   | 107  | 103  | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|  |  | 45 kW   | 130  | 148  | 134  | 152  | 142  | 160  | 74   | 76   | 79   | 59   | 61   | 64   |

**ELECTRICAL ACCESSORIES**

| Disconnect | 7.5 kW  | 54W56 | 54W56 | 54W56 |
|------------|---------|-------|-------|-------|
|            | 15 kW   | 54W56 | 54W56 | 54W56 |
|            | 22.5 kW | 54W56 | 54W56 | 54W56 |
|            | 30 kW   | 54W57 | 54W56 | 54W56 |
|            | 45 kW   | 54W57 | 54W56 | 54W56 |

Disconnects - 54W56 - 80A  
54W57 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA**

**10 TON**

| Model  |                                   | LCX120S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 12.4            |      |      | 6.5         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 16              |      |      | 7.1         |     |     | 6.4         |     |     |
|  | Locked Rotor Amps                 | 156.4           |      |      | 69          |     |     | 47.8        |     |     |
| Outdoor Fan<br>Motors (2)                                | Full Load Amps (2 Non-ECM)        | 3               |      |      | 1.5         |     |     | 1.2         |     |     |
|  | Total                             | 6               |      |      | 3           |     |     | 2.4         |     |     |
| Power Exhaust<br>(1) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
|  | Full Load Amps                    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 60              | 60   | 70   | 25          | 30  | 30  | 20          | 25  | 25  |
|  | With (1) 0.33 HP<br>Power Exhaust | 60              | 60   | 70   | 30          | 30  | 30  | 25          | 25  | 25  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 46              | 49   | 56   | 22          | 24  | 27  | 18          | 20  | 22  |
|  | With (1) 0.33 HP<br>Power Exhaust | 49              | 52   | 58   | 24          | 25  | 28  | 19          | 21  | 23  |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage                                    |  |         | 208V | 240V | 208V | 240V | 208V | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|--|--|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat                                     | 15 kW   | 60   | 60   | 60   | 60   | 70   | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 70   | 80   | 80   | 90   | 80   | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|  |  | 30 kW   | 90   | 100  | 100  | 110  | 100  | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 150  | 150  | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
|  |  | 60 kW   | 150  | 175  | 150  | 175  | 150  | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat                                     | 15 kW   | 49   | 55   | 53   | 59   | 60   | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
|  |  | 22.5 kW | 69   | 78   | 72   | 81   | 80   | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|  |  | 30 kW   | 88   | 100  | 92   | 104  | 100  | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|  |  | 45 kW   | 127  | 145  | 131  | 149  | 139  | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
|  |  | 60 kW   | 135  | 154  | 139  | 158  | 146  | 166  | 77   | 79   | 82   | 62   | 63   | 66   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 15 kW   | 60   | 60   | 60   | 70   | 70   | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
|  |  | 22.5 kW | 80   | 90   | 80   | 90   | 90   | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|  |  | 30 kW   | 100  | 110  | 100  | 110  | 110  | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 175  | 150  | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
|  |  | 60 kW   | 150  | 175  | 150  | 175  | 150  | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 15 kW   | 52   | 58   | 56   | 62   | 63   | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
|  |  | 22.5 kW | 72   | 81   | 75   | 84   | 83   | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|  |  | 30 kW   | 91   | 103  | 95   | 107  | 103  | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|  |  | 45 kW   | 130  | 148  | 134  | 152  | 142  | 160  | 74   | 76   | 79   | 59   | 61   | 64   |
|  |  | 60 kW   | 138  | 157  | 142  | 161  | 149  | 169  | 79   | 80   | 84   | 63   | 64   | 67   |

**ELECTRICAL ACCESSORIES**

| Disconnect | 15 kW   | 54W56         | 54W56 | 54W56 |
|------------|---------|---------------|-------|-------|
|            | 22.5 kW | 54W57         | 54W56 | 54W56 |
|            | 30 kW   | 54W57         | 54W56 | 54W56 |
|            | 45 kW   | 54W57         | 54W56 | 54W56 |
|            | 60 kW   | Not Available | 54W56 | 54W56 |

Disconnects - 54W56 - 80A  
54W57 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL/ELECTRIC HEAT DATA** **12.5 TON**

| Model  |                                   | LCX150S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 19.2            |      |      | 9.1         |     |     | 6.2         |     |     |
|  | Locked Rotor Amps                 | 162.3           |      |      | 70.8        |     |     | 58.2        |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 22.4            |      |      | 9.1         |     |     | 7.2         |     |     |
|  | Locked Rotor Amps                 | 166.2           |      |      | 74.6        |     |     | 54          |     |     |
| Outdoor Fan<br>Motors (2)                                | Full Load Amps (2 Non-ECM)        | 3               |      |      | 1.5         |     |     | 1.2         |     |     |
|  | Total                             | 6               |      |      | 3           |     |     | 2.4         |     |     |
| Power Exhaust<br>(1) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
|  | Full Load Amps                    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 80              | 80   | 90   | 35          | 35  | 40  | 25          | 25  | 30  |
|  | With (1) 0.33 HP<br>Power Exhaust | 80              | 80   | 90   | 35          | 35  | 40  | 25          | 25  | 30  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 61              | 64   | 70   | 27          | 29  | 32  | 21          | 22  | 24  |
|  | With (1) 0.33 HP<br>Power Exhaust | 64              | 67   | 73   | 29          | 30  | 33  | 22          | 23  | 25  |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage                                    |  |         | 208V | 240V | 208V | 240V | 208V | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|--|--|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat                                     | 15 kW   | 80   | 80   | 80   | 80   | 90   | 90   | 35   | 35   | 40   | 25   | 25   | 30   |
|  |  | 22.5 kW | 80   | 80   | 80   | 90   | 90   | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|  |  | 30 kW   | 90   | 100  | 100  | 110  | 100  | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 150  | 150  | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
|  |  | 60 kW   | 150  | 175  | 150  | 175  | 150  | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat                                     | 15 kW   | 61   | 61   | 64   | 64   | 70   | 70   | 27   | 29   | 33   | 22   | 23   | 26   |
|  |  | 22.5 kW | 69   | 78   | 72   | 81   | 80   | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|  |  | 30 kW   | 88   | 100  | 92   | 104  | 100  | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|  |  | 45 kW   | 127  | 145  | 131  | 149  | 139  | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
|  |  | 60 kW   | 135  | 154  | 139  | 158  | 146  | 166  | 77   | 79   | 82   | 62   | 63   | 66   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 15 kW   | 80   | 80   | 80   | 80   | 90   | 90   | 35   | 35   | 40   | 25   | 25   | 30   |
|  |  | 22.5 kW | 80   | 90   | 80   | 90   | 90   | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|  |  | 30 kW   | 100  | 110  | 100  | 110  | 110  | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|  |  | 45 kW   | 150  | 150  | 150  | 175  | 150  | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
|  |  | 60 kW   | 150  | 175  | 150  | 175  | 150  | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit+<br>Electric Heat<br>and (1) 0.33 HP<br>Power Exhaust | 15 kW   | 64   | 64   | 67   | 67   | 73   | 73   | 29   | 31   | 34   | 23   | 25   | 27   |
|  |  | 22.5 kW | 72   | 81   | 75   | 84   | 83   | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|  |  | 30 kW   | 91   | 103  | 95   | 107  | 103  | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|  |  | 45 kW   | 130  | 148  | 134  | 152  | 142  | 160  | 74   | 76   | 79   | 59   | 61   | 64   |
|  |  | 60 kW   | 138  | 157  | 142  | 161  | 149  | 169  | 79   | 80   | 84   | 63   | 64   | 67   |

**ELECTRICAL ACCESSORIES**

|            |         |               |  |  |       |  |  |       |  |  |
|------------|---------|---------------|--|--|-------|--|--|-------|--|--|
| Disconnect | 15 kW   | 54W56         |  |  | 54W56 |  |  | 54W56 |  |  |
|            | 22.5 kW | 54W57         |  |  | 54W56 |  |  | 54W56 |  |  |
|            | 30 kW   | 54W57         |  |  | 54W56 |  |  | 54W56 |  |  |
|            | 45 kW   | Not Available |  |  | 54W56 |  |  | 54W56 |  |  |
|            | 60 kW   | Not Available |  |  | 54W56 |  |  | 54W56 |  |  |

Disconnects - 54W56 - 80A

54W57 - 150A

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

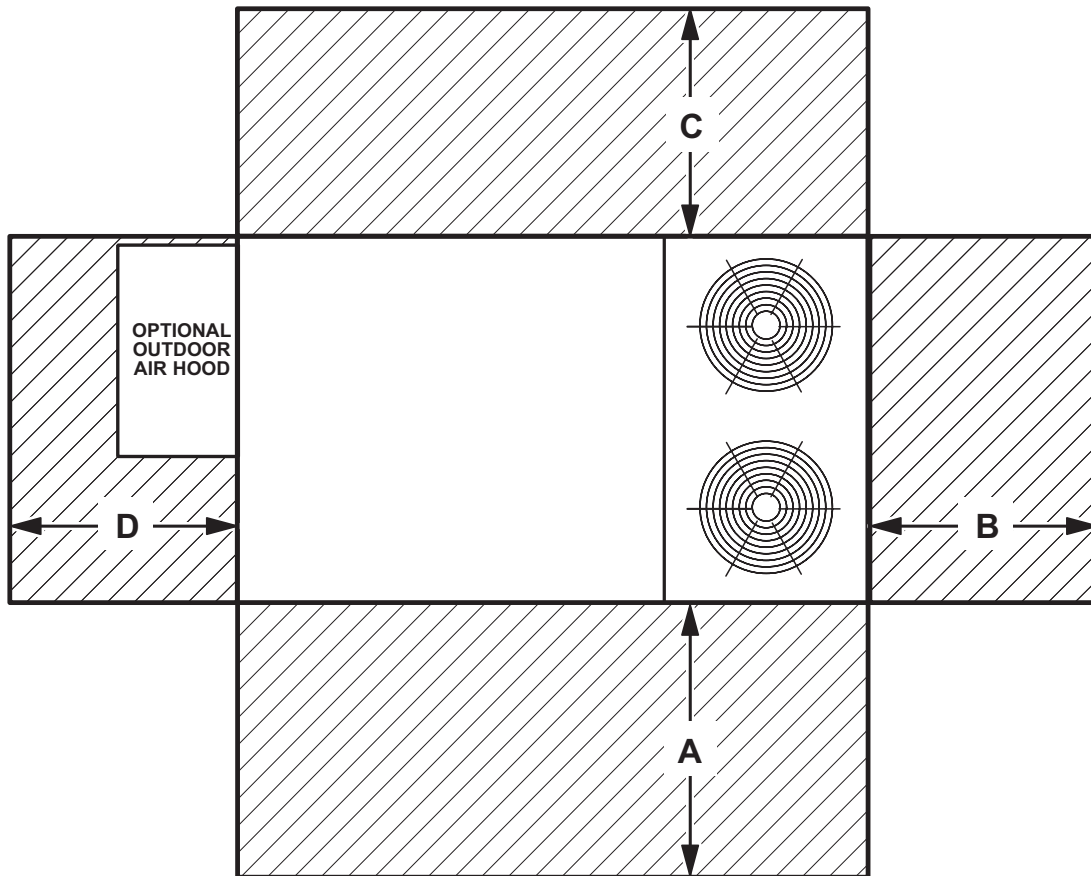
## ELECTRIC HEAT CAPACITIES

| Volts Input | 7.5 kW   |             |        | 15 kW    |             |        | 22.5 kW  |             |        | 30 kW    |             |        | 45 kW    |             |        | 60 kW    |             |        |
|-------------|----------|-------------|--------|----------|-------------|--------|----------|-------------|--------|----------|-------------|--------|----------|-------------|--------|----------|-------------|--------|
|             | kW Input | Btuh Output | Stages | kW Input | Btuh Output | Stages | kW Input | Btuh Output | Stages | kW Input | Btuh Output | Stages | kW Input | Btuh Output | Stages | kW Input | Btuh Output | Stages |
| 208         | 5.6      | 19,100      | 1      | 11.3     | 38,600      | 1      | 16.9     | 57,700      | 2      | 22.5     | 76,800      | 2      | 33.8     | 115,300     | 2      | 45.0     | 153,600     | 2      |
| 220         | 6.3      | 21,500      | 1      | 12.6     | 43,000      | 1      | 18.9     | 64,500      | 2      | 25.2     | 86,000      | 2      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      |
| 230         | 6.9      | 23,600      | 1      | 13.8     | 47,100      | 1      | 20.7     | 70,700      | 2      | 27.5     | 93,900      | 2      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      |
| 240         | 7.5      | 25,600      | 1      | 15.0     | 51,200      | 1      | 22.5     | 76,800      | 2      | 30.0     | 102,400     | 2      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      |
| 440         | 6.9      | 21,500      | 1      | 12.6     | 43,000      | 1      | 18.9     | 64,500      | 2      | 25.2     | 86,000      | 2      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      |
| 460         | 6.9      | 23,600      | 1      | 13.8     | 47,100      | 1      | 20.7     | 70,700      | 2      | 27.5     | 93,900      | 2      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      |
| 480         | 7.5      | 25,600      | 1      | 15.0     | 51,200      | 1      | 22.5     | 76,800      | 2      | 30.0     | 102,400     | 2      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      |
| 550         | 6.3      | 21,500      | 1      | 12.6     | 43,000      | 1      | 18.9     | 64,500      | 2      | 25.2     | 86,000      | 2      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      |
| 575         | 6.9      | 23,600      | 1      | 13.8     | 47,100      | 1      | 20.7     | 70,700      | 2      | 27.5     | 93,900      | 2      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      |
| 600         | 7.5      | 25,600      | 1      | 15.0     | 51,200      | 1      | 22.5     | 76,800      | 2      | 30.0     | 102,400     | 2      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      |

### FIELD WIRING NOTES

- For use with copper wiring only
- Field wiring not furnished
- All wiring must conform to NEC or CEC and local electrical codes
- For specific wiring information, please refer to the installation instructions

## UNIT CLEARANCES



| <sup>1</sup> Unit Clearance        | A   |      | B   |     | C   |     | D   |      | Top Clearance |
|------------------------------------|-----|------|-----|-----|-----|-----|-----|------|---------------|
|                                    | in. | mm   | in. | mm  | in. | mm  | in. | mm   |               |
| <b>Service Clearance</b>           | 60  | 1524 | 36  | 914 | 36  | 914 | 60  | 1524 | Unobstructed  |
| <b>Minimum Operation Clearance</b> | 36  | 914  | 36  | 914 | 36  | 914 | 36  | 914  |               |

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

<sup>1</sup> Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

## OUTDOOR SOUND DATA

| Size     | Octave Band Sound Power Levels dBA, re 10 <sup>-12</sup> Watts - Center Frequency - Hz |     |     |      |      |      |      | <sup>1</sup> Sound Rating Number (dBA) |
|----------|--|-----|-----|------|------|------|------|--|
|          | 125  | 250 | 500 | 1000 | 2000 | 4000 | 8000 |  |
| 092, 102 | 76   | 79  | 84  | 83   | 79   | 73   | 66   | 88                                     |
| 120, 150 | 75   | 81  | 87  | 85   | 80   | 73   | 67   | 90                                     |

Note - The octave sound power data does not include tonal corrections.

<sup>1</sup> Sound Rating Number according to AHRI Standard 270-95 or AHRI Standard 370-2001 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).

**WEIGHT DATA**

| Size                                 | Net  |     | Shipping |     |
|--------------------------------------|------|-----|----------|-----|
|                                      | lbs. | kg  | lbs.     | kg  |
| <b>With Environ™ Evaporator Coil</b> |      |     |          |     |
| 092S Base Unit                       | 866  | 393 | 951      | 431 |
| 092S Max. Unit                       | 1023 | 464 | 1108     | 503 |
| 102S Base Unit                       | 886  | 402 | 971      | 440 |
| 102S Max. Unit                       | 1043 | 473 | 1128     | 512 |
| 120S Base Unit                       | 950  | 431 | 1035     | 469 |
| 120S Max. Unit                       | 1114 | 505 | 1199     | 544 |
| <b>With Fin/Tube Evaporator Coil</b> |      |     |          |     |
| 092S Base Unit                       | 870  | 395 | 955      | 433 |
| 092S Max. Unit                       | 1027 | 466 | 1112     | 504 |
| 102S Base Unit                       | 890  | 404 | 975      | 442 |
| 102S Max. Unit                       | 1047 | 475 | 1132     | 513 |
| 120S Base Unit                       | 954  | 432 | 1039     | 471 |
| 120S Max. Unit                       | 1118 | 507 | 1203     | 545 |
| 150S Base Unit                       | 1004 | 456 | 1089     | 495 |
| 150S Max. Unit                       | 1154 | 524 | 1239     | 563 |

## FACTORY / FIELD INSTALLED OPTIONS AND ACCESSORIES - NET WEIGHTS

| Description  | lbs.        | kg  |    |
|--|-------------|-----|----|
| <b>ECONOMIZER / OUTDOOR AIR / POWER EXHAUST</b>    |             |     |    |
| <b>Economizer</b>                                  |             |     |    |
| Economizer Dampers                                 | 56          | 26  |    |
| Outdoor Air Hood (downflow)                        | 9           | 4   |    |
| Barometric Relief Dampers (downflow)               | 20          | 9   |    |
| Barometric Relief Dampers (low profile horizontal) | 21          | 10  |    |
| <b>CanFab Horizontal Economizer</b>                |             |     |    |
| Horizontal Economizer, Includes Outdoor Air Hood   | 115         | 52  |    |
| <b>Outdoor Air Dampers</b>                         |             |     |    |
| Motorized  | 10          | 5   |    |
| Manual   | 10          | 5   |    |
| <b>Power Exhaust</b>                               | 31          | 14  |    |
| <b>ELECTRIC HEAT</b>                               |             |     |    |
| 7.5 kW   | 50          | 23  |    |
| 15 kW  | 50          | 23  |    |
| 22.5 kW  | 57          | 26  |    |
| 30 kW  | 57          | 26  |    |
| 45 kW  | 59          | 27  |    |
| 60 kW  | 43          | 20  |    |
| <b>COMBINATION COIL/HAIL GUARDS</b>                |             |     |    |
| All models   | 21          | 10  |    |
| <b>ROOF CURBS</b>                                  |             |     |    |
| <b>Hybrid Roof Curbs, Downflow</b>                 |             |     |    |
| 8 in. height                                       | 103         | 47  |    |
| 14 in. height                                      | 125         | 57  |    |
| 18 in. height                                      | 147         | 67  |    |
| 24 in. height                                      | 169         | 77  |    |
| <b>Adjustable Pitch Curb, Downflow</b>             |             |     |    |
| 14 in. height                                      | 169         | 77  |    |
| <b>CEILING DIFFUSERS</b>                           |             |     |    |
| Step-Down  | RTD11-95S   | 118 | 54 |
|  | RTD11-135S  | 135 | 61 |
|  | RTD11-185S  | 168 | 76 |
| Flush  | FD11-95S    | 118 | 54 |
|  | FD11-135S   | 135 | 61 |
|  | FD11-185S   | 168 | 76 |
| Transitions  | C1DIFF30B-1 | 30  | 14 |
|  | C1DIFF31B-1 | 32  | 15 |
|  | C1DIFF32B-1 | 36  | 16 |
| <b>HUMIDITROL® DEHUMIDIFICATION SYSTEM</b>         |             |     |    |
| Humiditrol Dehumidification Option                 | 20          | 9   |    |

# DIMENSIONS

# UNIT

| Size | CORNER WEIGHTS |      |      |      |      |      |      |      |      |      |      |      | CENTER OF GRAVITY |      |      |      |  |  |  |  |
|------|----------------|------|------|------|------|------|------|------|------|------|------|------|-------------------|------|------|------|--|--|--|--|
|      | AA             |      | BB   |      | CC   |      | DD   |      | EE   |      | FF   |      |                   |      |      |      |  |  |  |  |
|      | Base           | Max. | Base | Max. | Base | Max. | Base | Max. | Base | Max. | Base | Max. | Base              | Max. | Base | Max. |  |  |  |  |
|      | lbs.           | kg   | lbs. | kg   | lbs. | kg   | lbs. | kg   | lbs. | kg   | in.  | mm   | in.               | mm   | in.  | mm   |  |  |  |  |

## Environ™ Evaporator Coil

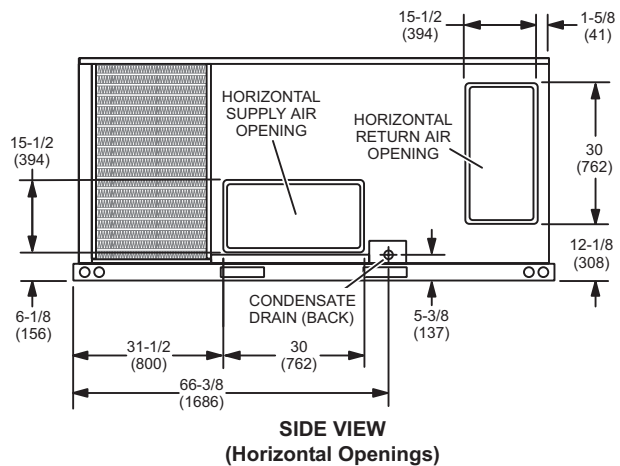
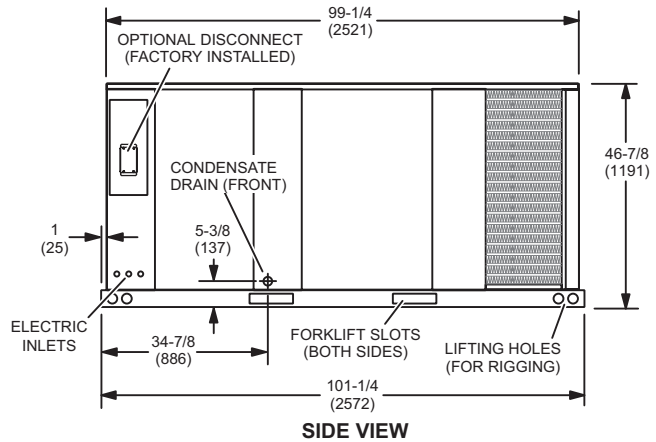
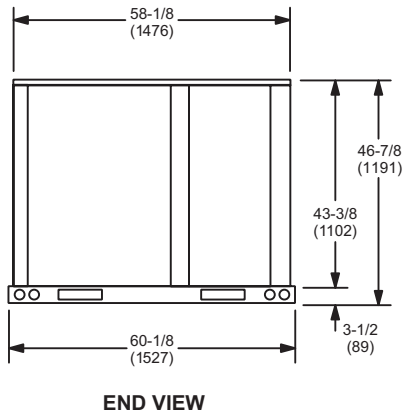
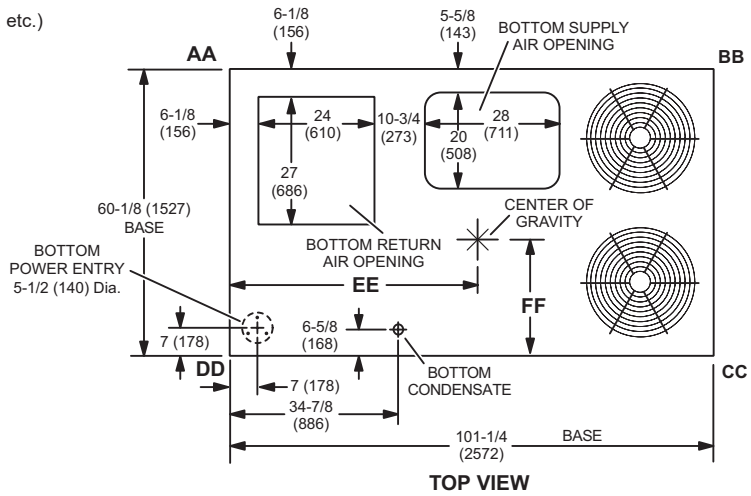
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |        |      |        |      |        |     |        |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|------|--------|------|--------|-----|--------|-----|
| 092 | 227 | 103 | 263 | 119 | 177 | 80  | 205 | 93  | 240 | 109 | 278 | 126 | 307 | 139 | 356 | 161 | 44-1/2 | 1130 | 43-1/2 | 1105 | 24-1/2 | 622 | 25-1/2 | 648 |
| 102 | 232 | 105 | 268 | 122 | 181 | 82  | 209 | 95  | 245 | 111 | 283 | 128 | 313 | 142 | 362 | 164 | 44-1/2 | 1130 | 43-1/2 | 1105 | 24-1/2 | 622 | 25-1/2 | 648 |
| 120 | 247 | 112 | 283 | 128 | 193 | 88  | 221 | 100 | 261 | 118 | 299 | 136 | 334 | 151 | 383 | 174 | 44     | 1118 | 43     | 1092 | 24-3/4 | 629 | 25-3/4 | 654 |
| 150 | 263 | 119 | 305 | 138 | 222 | 101 | 257 | 117 | 242 | 110 | 280 | 127 | 298 | 135 | 346 | 157 | 44     | 1118 | 43     | 1092 | 24     | 610 | 25     | 635 |

## Conventional Fin/Tube Evaporator Coil (Humiditrol® Dehumidification System Option)

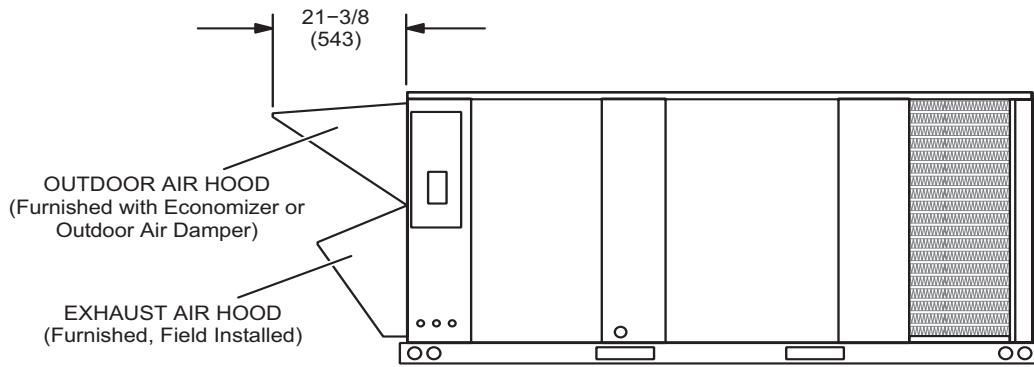
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |        |      |        |      |        |     |        |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|------|--------|------|--------|-----|--------|-----|
| 092 | 223 | 101 | 309 | 141 | 190 | 86  | 259 | 118 | 206 | 94  | 275 | 124 | 250 | 113 | 341 | 154 | 44-1/2 | 1130 | 43-1/2 | 1105 | 24-1/2 | 622 | 25-1/2 | 648 |
| 102 | 228 | 104 | 316 | 143 | 195 | 88  | 262 | 119 | 211 | 96  | 280 | 127 | 254 | 116 | 347 | 157 | 44-1/2 | 1130 | 43-1/2 | 1105 | 24-1/2 | 622 | 25-1/2 | 648 |
| 120 | 243 | 110 | 331 | 150 | 204 | 93  | 273 | 124 | 220 | 100 | 294 | 133 | 271 | 123 | 369 | 167 | 44     | 1118 | 43     | 1092 | 24-3/4 | 629 | 25-3/4 | 654 |
| 150 | 263 | 119 | 305 | 138 | 222 | 101 | 257 | 117 | 242 | 110 | 280 | 127 | 298 | 135 | 346 | 157 | 44     | 1118 | 43     | 1092 | 24     | 610 | 25     | 635 |

Base Unit - The unit with NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed. (Economizer, etc.)

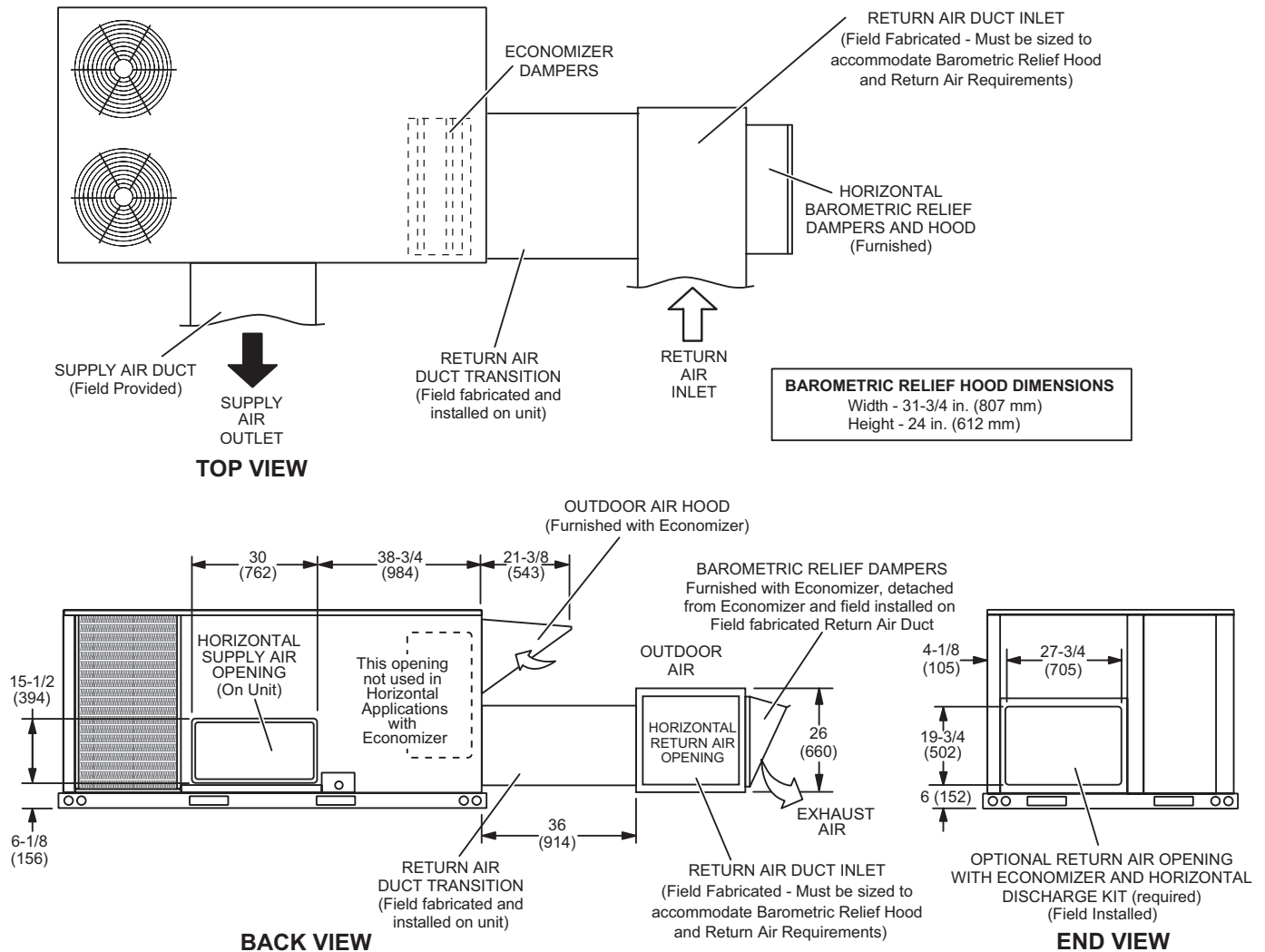


**OUTDOOR AIR HOOD DETAIL**



**HORIZONTAL ECONOMIZER APPLICATION**

**(With Furnished Barometric Relief Dampers and Optional Horizontal Discharge Kit - Required)**

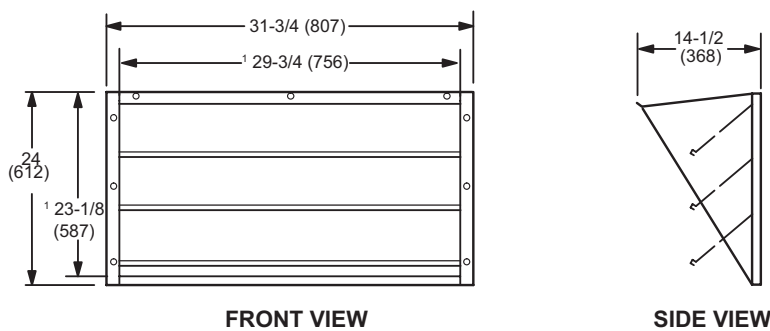


**NOTE** - Return Air Duct and Transition must be supported.

**BAROMETRIC RELIEF DAMPERS**

**(Furnished with Economizer)**

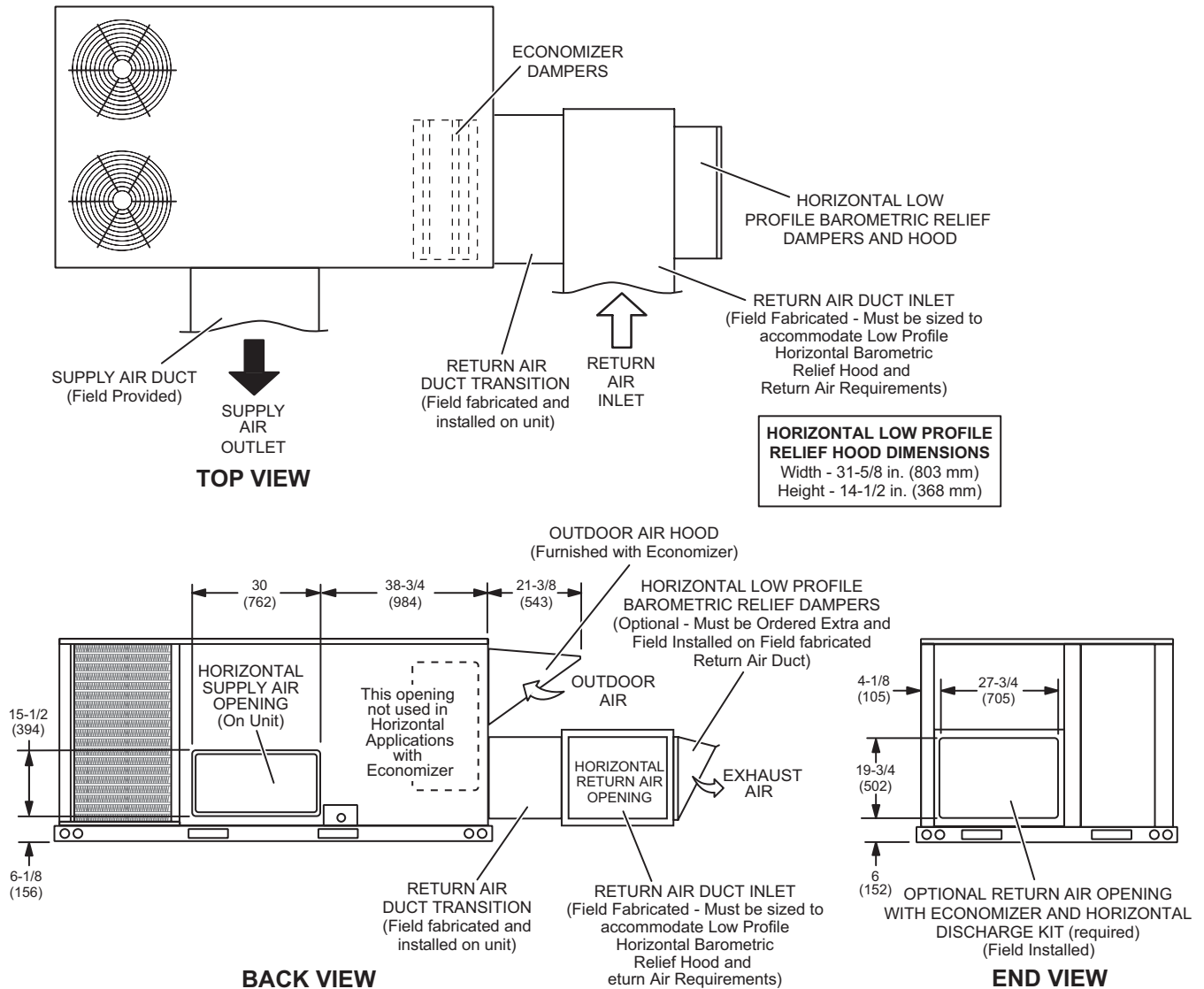
(Field installed in horizontal return air duct adjacent to unit)



<sup>1</sup> NOTE - Opening size required in return air duct.

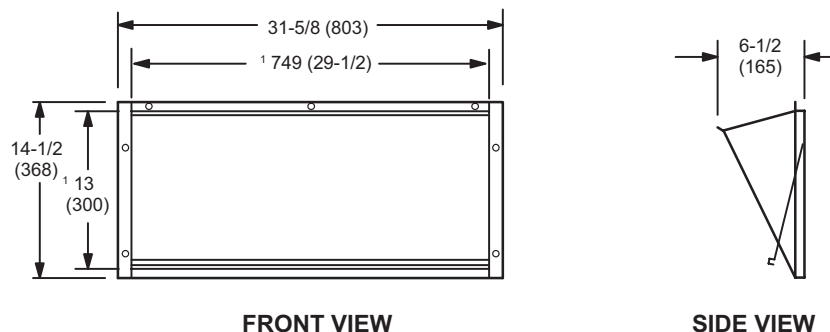
**HORIZONTAL ECONOMIZER APPLICATION**

(with Optional Low Profile Horizontal Barometric Relief Dampers and Horizontal Discharge Kit - Required)



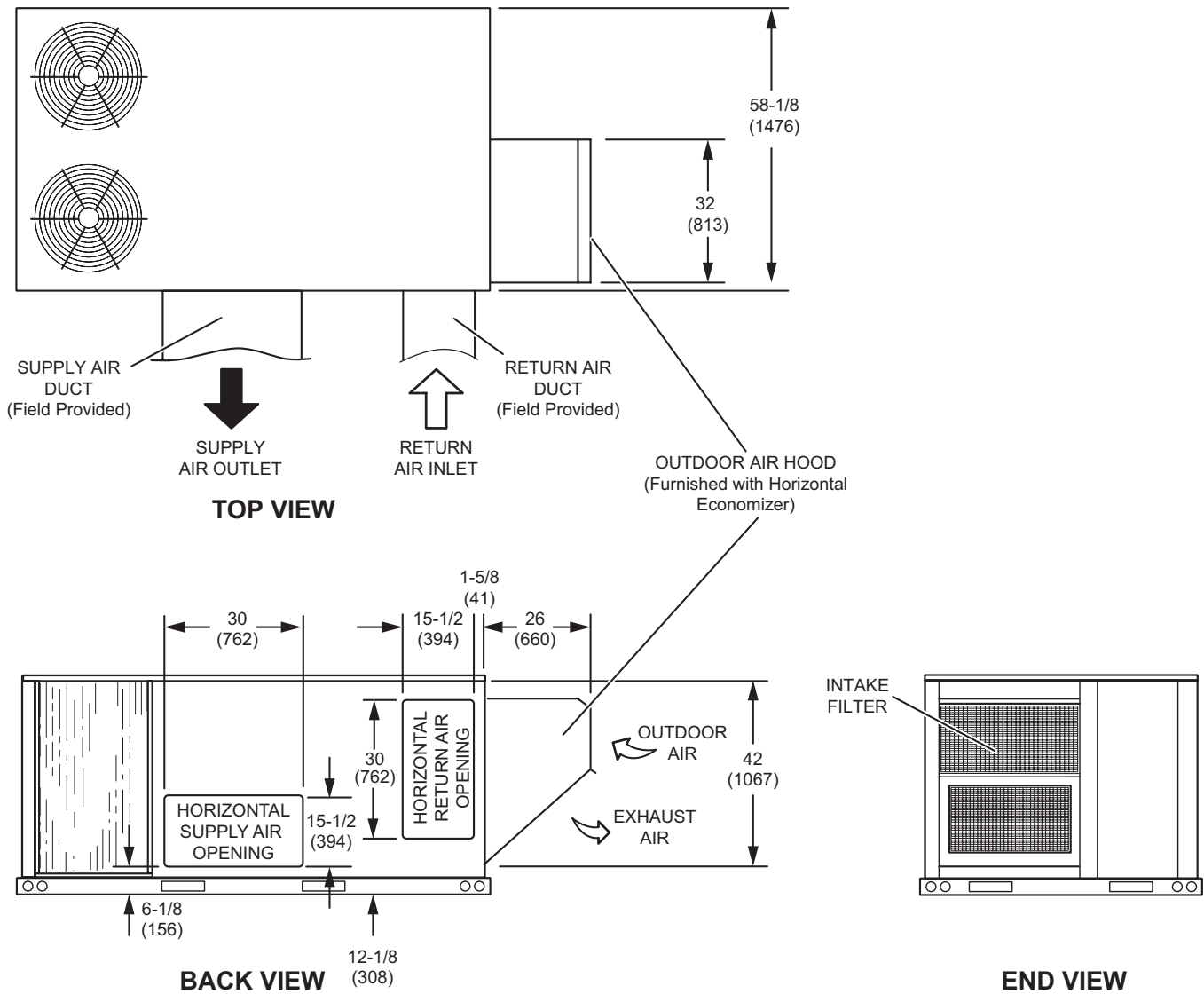
**NOTE** - Return Air Duct and Transition must be supported.

**HORIZONTAL LOW PROFILE BAROMETRIC RELIEF DAMPERS**  
 (Field installed in horizontal return air duct adjacent to unit)



<sup>1</sup> NOTE - Opening size required in return air duct.

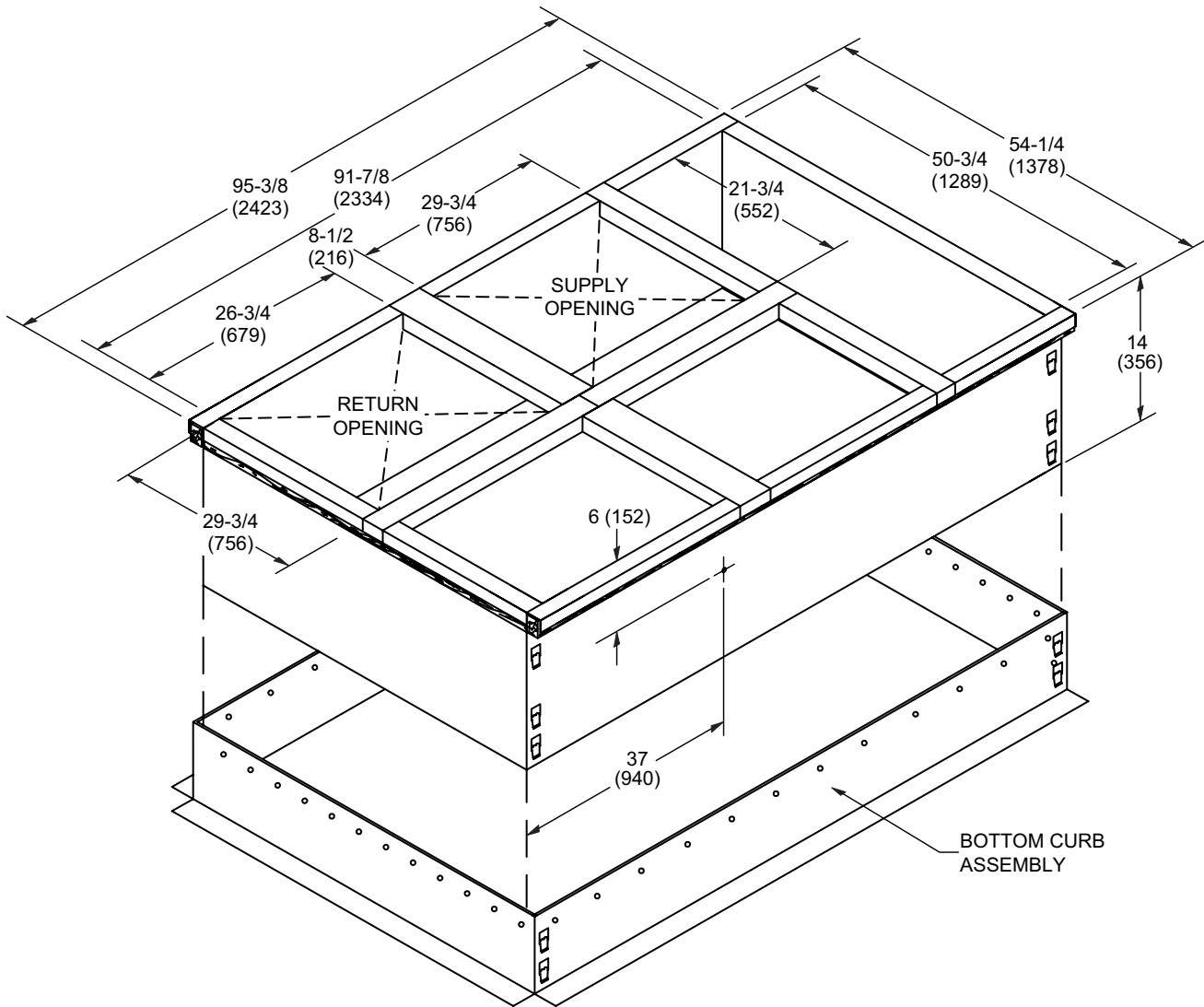
**CANFAB HORIZONTAL ECONOMIZER APPLICATIONS**



**NOTE - Return Air Duct and Transition must be supported.**

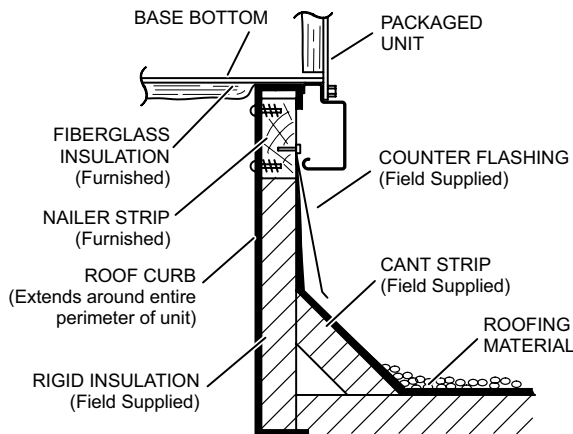


**ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING**

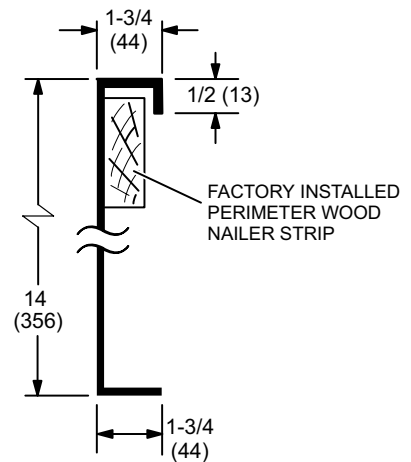


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

**TYPICAL FLASHING DETAIL FOR ROOF CURB**

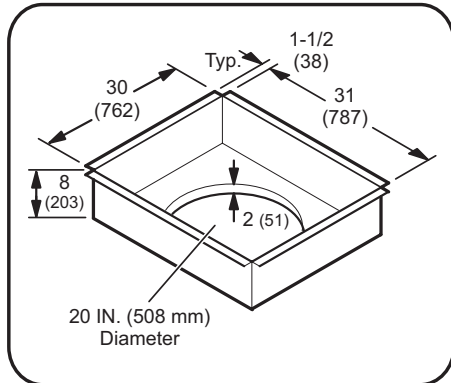


**DETAIL ROOF CURB**

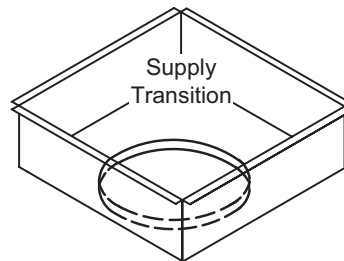
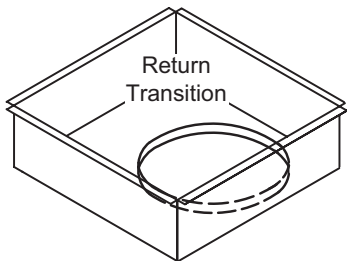
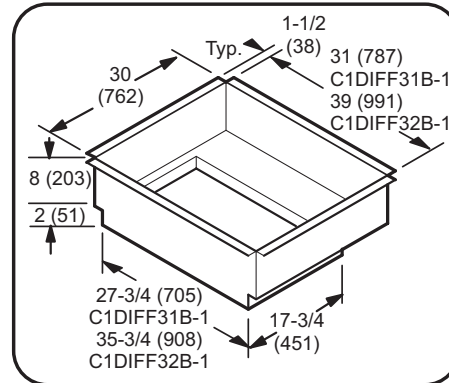


**CLIP CURB OR ADJUSTABLE PITCH CURB WITH SUPPLY & RETURN AIR TRANSITIONS**

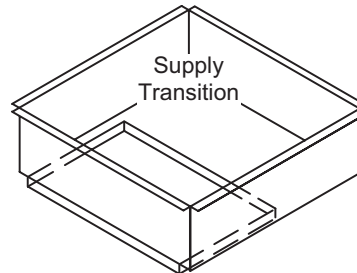
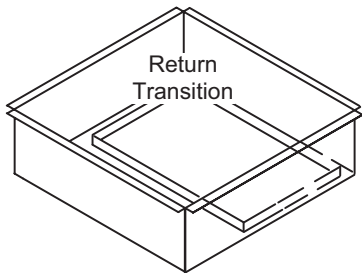
**C1DIFF30B-1  
ROUND TRANSITIONS  
(for 092 models)**



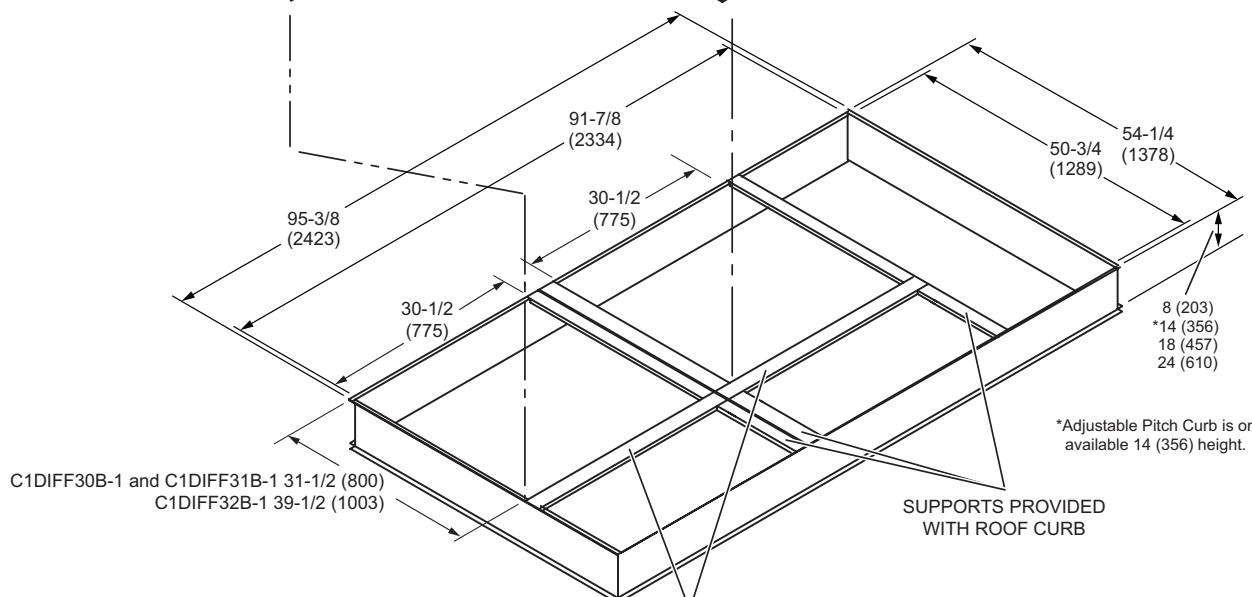
**C1DIFF31B-1 & C1DIFF32B-1  
RECTANGULAR TRANSITIONS  
(for 102 thru 150 models)**



**C1DIFF30B-1  
ROUND TRANSITIONS  
SHOWING OPENING POSITIONS**



**C1DIFF31B-1 & C1DIFF32B-1  
RECTANGULAR TRANSITIONS  
SHOWING OPENING POSITIONS**



C1DIFF30B-1 and C1DIFF31B-1 31-1/2 (800)  
C1DIFF32B-1 39-1/2 (1003)

\*Adjustable Pitch Curb is only available 14 (356) height.

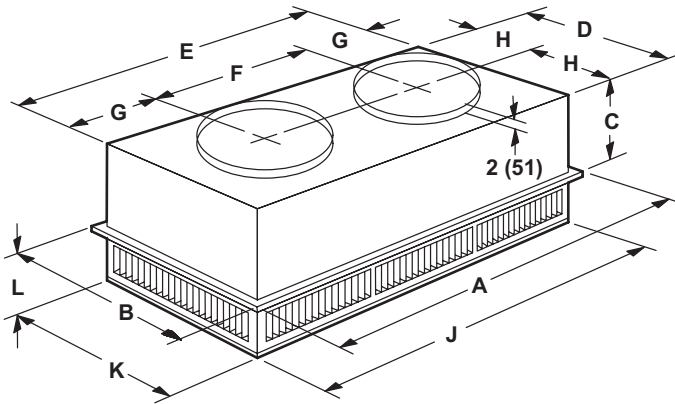
**SUPPORTS PROVIDED  
WITH ROOF CURB**

**SUPPORTS (2) PROVIDED  
WITH SUPPLY AND RETURN  
TRANSITIONS (see note)**

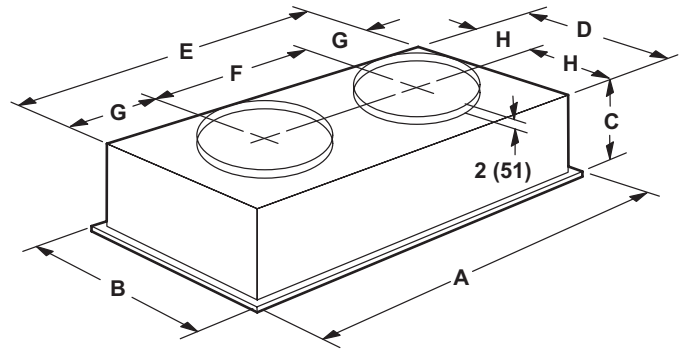
NOTE - Short supports furnished with the roof curb are discarded and replaced with two supports furnished with Transitions for proper spacing.

**COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS**

**STEP-DOWN CEILING DIFFUSER**



**FLUSH CEILING DIFFUSER**

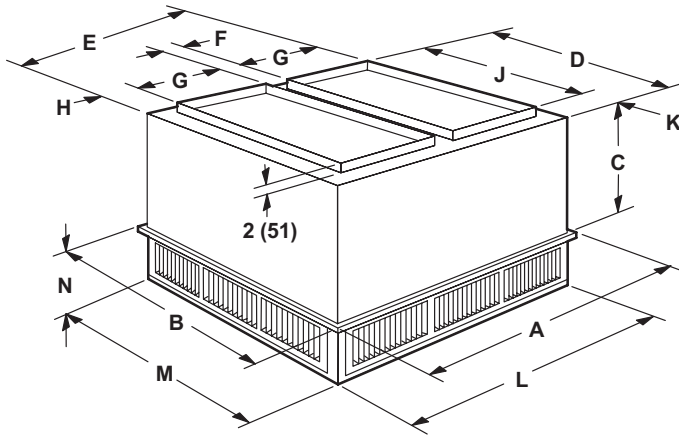


| Model Number |     | RTD11-95S |
|--------------|-----|-----------|
| A            | in. | 47-5/8    |
|              | mm  | 1159      |
| B            | in. | 29-5/8    |
|              | mm  | 752       |
| C            | in. | 14-3/8    |
|              | mm  | 365       |
| D            | in. | 27-1/2    |
|              | mm  | 699       |
| E            | in. | 45-1/2    |
|              | mm  | 1158      |
| F            | in. | 22-1/2    |
|              | mm  | 572       |
| G            | in. | 11-1/2    |
|              | mm  | 292       |
| H            | in. | 13-3/4    |
|              | mm  | 349       |
| J            | in. | 45-1/2    |
|              | mm  | 1156      |
| K            | in. | 27-1/2    |
|              | mm  | 699       |
| L            | in. | 8-1/8     |
|              | mm  | 206       |
| Duct Size    | in. | 20 round  |
|              | mm  | 508 round |

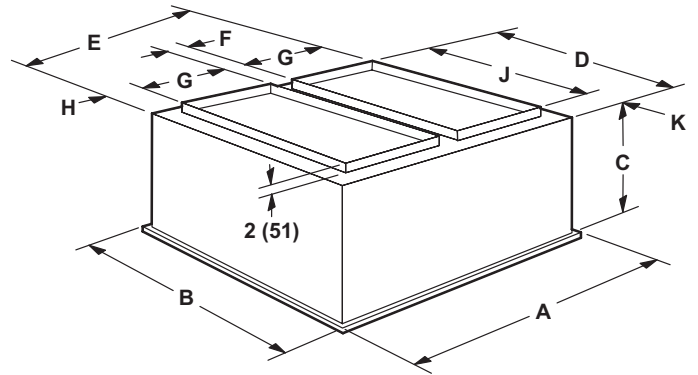
| Model Number |     | FD11-95S  |
|--------------|-----|-----------|
| A            | in. | 47-5/8    |
|              | mm  | 1159      |
| B            | in. | 29-5/8    |
|              | mm  | 752       |
| C            | in. | 16-5/8    |
|              | mm  | 422       |
| D            | in. | 27        |
|              | mm  | 686       |
| E            | in. | 45        |
|              | mm  | 1143      |
| F            | in. | 22-1/2    |
|              | mm  | 572       |
| G            | in. | 11-1/4    |
|              | mm  | 286       |
| H            | in. | 13-1/2    |
|              | mm  | 343       |
| Duct Size    | in. | 20 round  |
|              | mm  | 508 round |

**COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS**

**STEP-DOWN CEILING DIFFUSER**



**FLUSH CEILING DIFFUSER**



| Model Number |     | RTD11-135S | RTD11-185S |
|--------------|-----|------------|------------|
| A            | in. | 47-5/8     | 47-5/8     |
|              | mm  | 1210       | 1210       |
| B            | in. | 35-5/8     | 47-5/8     |
|              | mm  | 905        | 1210       |
| C            | in. | 20-5/8     | 24-5/8     |
|              | mm  | 524        | 625        |
| D            | in. | 33-1/2     | 45-1/2     |
|              | mm  | 851        | 1156       |
| E            | in. | 45-1/2     | 45-1/2     |
|              | mm  | 1156       | 1156       |
| F            | in. | 4-1/2      | 4-1/2      |
|              | mm  | 114        | 114        |
| G            | in. | 18         | 18         |
|              | mm  | 457        | 457        |
| H            | in. | 2-1/2      | 2-1/2      |
|              | mm  | 64         | 64         |
| J            | in. | 28         | 36         |
|              | mm  | 711        | 914        |
| K            | in. | 2-3/4      | 4-3/4      |
|              | mm  | 70         | 121        |
| L            | in. | 45-1/2     | 45-1/2     |
|              | mm  | 1156       | 1156       |
| M            | in. | 33-1/2     | 45-1/2     |
|              | mm  | 851        | 1156       |
| N            | in. | 9-1/8      | 10-1/8     |
|              | mm  | 232        | 257        |
| Duct Size    | in. | 18 x 28    | 18 x 36    |
|              | mm  | 457 x 711  | 457 x 914  |

| Model Number |     | FD11-135S | FD11-185S |
|--------------|-----|-----------|-----------|
| A            | in. | 47-5/8    | 47-5/8    |
|              | mm  | 1210      | 1210      |
| B            | in. | 35-5/8    | 47-5/8    |
|              | mm  | 905       | 1210      |
| C            | in. | 23-1/4    | 29-1/4    |
|              | mm  | 591       | 743       |
| D            | in. | 33        | 45        |
|              | mm  | 838       | 1143      |
| E            | in. | 45        | 45        |
|              | mm  | 1143      | 1143      |
| F            | in. | 4-1/2     | 4-1/2     |
|              | mm  | 114       | 114       |
| G            | in. | 18        | 18        |
|              | mm  | 457       | 457       |
| H            | in. | 2-1/4     | 2-1/4     |
|              | mm  | 57        | 57        |
| J            | in. | 28        | 36        |
|              | mm  | 711       | 914       |
| K            | in. | 2-1/2     | 4-1/2     |
|              | mm  | 64        | 114       |
| Duct Size    | in. | 18 x 28   | 18 x 36   |
|              | mm  | 457 x 711 | 457 x 914 |



## REVISIONS

| Sections  | Description of Change   |
|---|---|
| Approvals   | Updated.  |
| Blower Data                                       | Updated.  |
| Dimensions  | Corner Weights updated.<br>Updated dimension drawing for roof curbs with supply and return transitions. |
| Features and Benefits                             | Updated Environ™ Coil System to reflect combined condenser and evaporator coil.                         |
| Humiditrol® Dehumidification System               | Updated Refrigerant Schematic.  |
| Optional Conventional Temperature Control Systems | Removed Sysbus System Cable - Product discontinued.   |
| Options / Accessories                             | Added CanFab Horizontal Economizer.   |
| Rating Tables                                     | Updated.  |
| Weight Data                                       | Updated.  |



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