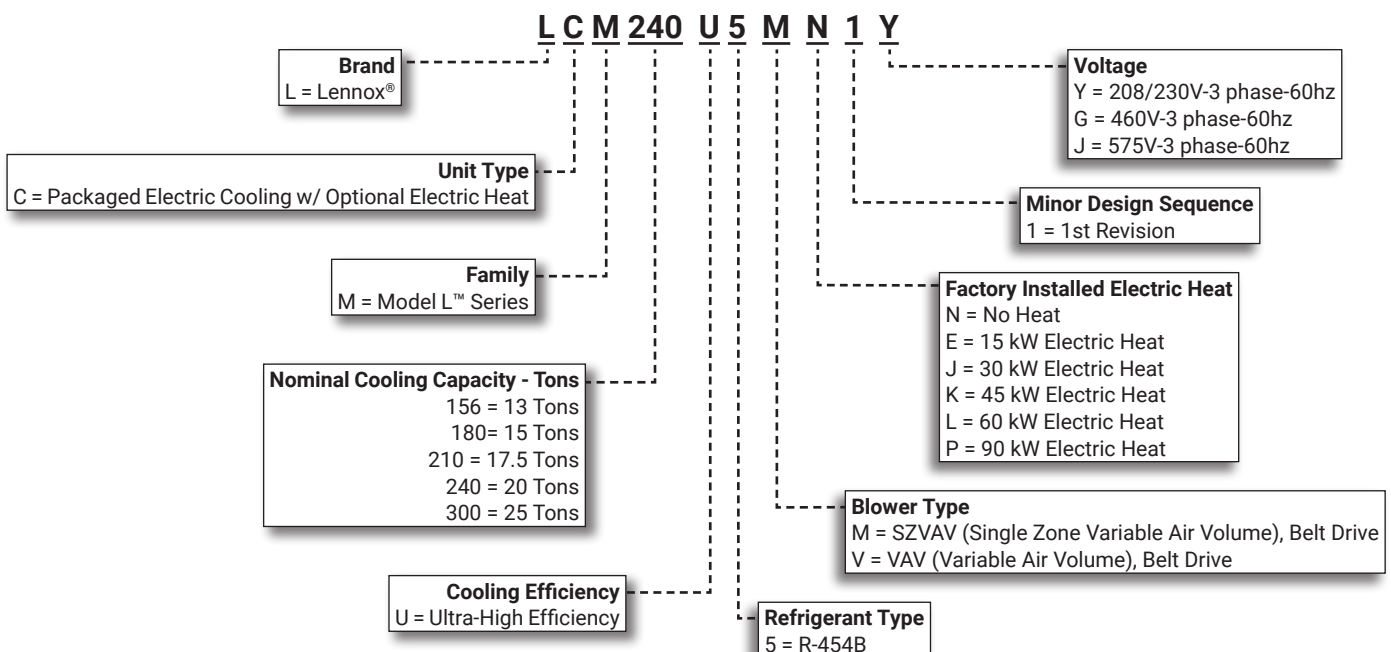
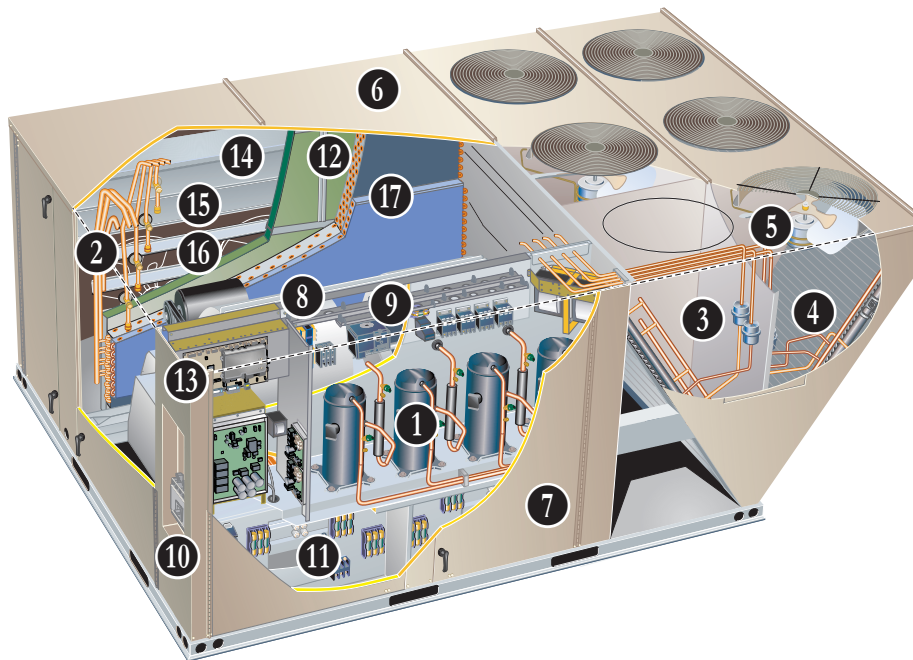


**LCM****MODEL L™ ROOFTOP UNITS**Ultra-High Efficiency | Lennox® CORE Controller | Environ™ Coil | **R-454B** | 60Hz**COMMERCIAL****PRODUCT SPECIFICATIONS (EHB)****13 to 25 Tons****Net Cooling Capacity – 150,000 to 270,000 Btuh****Optional Electric Heat - 15 to 90 kW****MODEL / L****LENNOX****CORE**  
CONTROL SYSTEM**Environ™**  
Coil System**Humiditrol+****SMARTWIRE™ SYSTEM**ASHRAE  
Standard  
**90.1****MODEL NUMBER IDENTIFICATION**

## FEATURE HIGHLIGHTS

The Model L™ packaged rooftop line is engineered with advanced variable speed technology to offer some of the highest energy efficiencies in the industry while delivering superior temperature and humidity control in a wide variety of commercial applications.



1. Variable Capacity Scroll Compressor (1) and Fixed Capacity Scroll Compressors (2 or 3)
2. Thermal Expansion Valves
3. Filter/Driers
4. Environ™ Coil System
5. Variable-Speed ECM Outdoor Coil Fan Motors (4) 156-180 and (6) 210-300
6. Heavy-Gauge Steel Cabinet
7. Hinged Access Panels
8. Supply Air Blower
9. Variable-Frequency Drive (VFD)
10. Disconnect Switch (option)
11. Electric Heat (option)
12. Air Filters
13. Lennox® CORE Control System
14. Economizer (option)
15. Downflow Barometric Relief Dampers (option)
16. Power Exhaust Fans (option)
17. Humiditrol®+ Dehumidification System (option)

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## APPROVALS AND WARRANTY

### APPROVALS

- AHRI Standard 340/360 certified
- ETL and CSA listed
- Unit and components ETL, NEC, and CEC bonded for grounding to meet safety standards for servicing
- All models are ASHRAE 90.1 compliant
- All models meet DOE 2023 energy efficiency standards and UL 60335-2-40 Refrigerant Detector Requirements
- All models meet California Code of Regulations, Title 24 requirements for staged airflow
- 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
- ENERGY STAR® certified
- ISO 9001 Registered Manufacturing Quality System

### WARRANTY

- Compressors - Limited five years
- Environ™ Coil System - Limited three years
- Lennox® CORE 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 0°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 Multiple Compressors

Cooling system consists of one variable capacity scroll compressor and multiple fixed capacity scroll compressors (two for 156-180 models, three for 210-300 models)

#### Variable Capacity Scroll Compressor

- High performance, reliability and quiet operation
- Operates on a variable-frequency determined to vary capacity based on the cooling load required

#### Fixed Capacity Scroll Compressors

- High performance, reliability and quiet operation
- Resiliently mounted on rubber grommets for quiet operation

#### DC Inverter Control (for Variable Capacity Compressor)

- Converts AC line voltage into filtered variable DC voltage
- Provides continuous compressor operation, while adjusting the capacity according to discharge air temperature
- Adjusts compressor output in increments as small as 1%

- Prevents frequent changes in capacity and ensures efficient, economical operation
- Power Factor Correction (PFC) circuit monitors the DC bus for high, low and abnormal voltage conditions to protect the compressor
- Two LEDs (red and green) indicate inverter operating status and aid in troubleshooting
- Noise filter reduces unwanted electromagnetic interference (EMI)
- Inverter reactor adds inductance to the line between the inverter and the compressor to limit current rise and protect the compressor

#### Compressor Crankcase Heaters

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

#### 2 Thermal Expansion Valves

- Ensures optimal performance throughout the application range
- Removable element head

#### 3 Filter/Driers

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

#### High Pressure Switches

- Protects the compressors 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

## FEATURES AND BENEFITS

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

#### **Diagnostic and Sensor System**

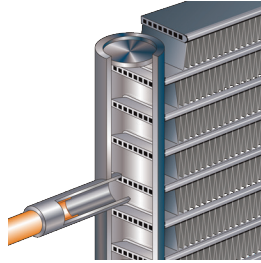
- Multiple thermistors continuously monitor the refrigeration system, providing optimum performance and complete circuit protection at all operating conditions

#### **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

#### **4 Condenser Coil - Environ™ Coil System**

- 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 secure coil to unit providing vibration dampening and corrosion protection

#### **Evaporator Coil**

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction for improved heat transfer
- Factory leak tested
- Cross row circuiting with rifled tubing optimizes both sensible and latent cooling capacity

#### **Anti-Microbial Condensate Drain Pan**

- Plastic pan, sloped to meet drainage requirements per ASHRAE 62.1
- Anti-Microbial 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

#### **5 Variable-Speed ECM Outdoor Coil Fan Motors**

- Fan speed is directly controlled by the Lennox® CORE Unit Controller
- Thermal overload protected
- Totally enclosed
- Permanently lubricated ball bearings
- Shaft up
- Wire basket mount

#### **Outdoor Coil Fans**

- PVC coated fan guards furnished

#### **Required Selections**

#### **Cooling Capacity**

- Specify nominal cooling capacity

#### **Options/Accessories**

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

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

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

#### **Field Installed**

#### **Condensate Drain Trap**

- Available in copper or PVC

#### **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**

#### **6 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) configuration

**NOTE** - Units can be field converted to horizontal air flow with optional Horizontal Return Air Panel Kit and Horizontal Roof Curb.

#### **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 1680 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

#### **7 Hinged Access Panels**

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

#### **Required Selections**

#### **Airflow Configuration**

- Specify downflow or horizontal

### **CABINET (continued)**

#### **Options/Accessories**

#### **Factory Installed**

#### **Corrosion Protection**

- Completely flexible immersed coating
- Electrodeposited dry film process (AST ElectroFin E-Coat)
- ASTM B117 / DIN 53167 Salt Spray - 15,000+ hours
- ASTM G85 Annex A3 SWAAT Modified Salt Spray - 3000 hours
- VA Master Construction Specification Division 23 for High Humidity Installations
- CID AA-52474A (GSA)
- Indoor Corrosion Protection:

- Coated coil
- Coated reheat coil (Humiditrol®+)
- Painted blower housing
- Painted indoor base
- Outdoor Corrosion Protection:
  - Coated coil
  - Painted outdoor base

#### **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 Return Air Panel Kit**

- Required for horizontal applications with Horizontal Roof Curb
- Contains panel with return air opening for field replacement of existing unit panel and panel to cover bottom return air opening in unit
- See dimension drawings

#### **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

#### **Motor**

- Overload protected, equipped with ball bearings
- Belt drive motors are offered on all models and are available in several different sizes to maximize air performance

#### **Motor Efficiency**

- All blower motors 5 HP and above meet minimum energy efficiency standards in accordance with the Energy Independence and Security Act (EISA) of 2007

### **8 Supply Air Blower**

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

#### **Blower Proving Switch**

- Monitors blower operation, shuts down unit if blower fails

#### **Supply Static Pressure Transducer (VAV Models Only)**

- Sends information to the Lennox® CORE Unit Controller to control VFD blower speed
- Shipped with the unit for remote field installation in the supply duct

### **Required Selections**

#### **Select SZVAV (Single Zone Variable Air Volume) or Variable Air Volume (VAV) Models**

- SZVAV (Single Zone Variable Air Volume) modulates the amount of airflow according to cooling demand, heating demand, ventilation demand or smoke alarm
- Variable Air Volume (VAV) modulates the air volume to maintain a constant duct static pressure

- 9** • Utilizes a Variable-Frequency Drive (VFD) to modulate the supply blower airflow
  - VFD alters the frequency and voltage of the power supply to the blower to control blower speed
  - The amount of airflow for each stage can be set according to a parameter in the Lennox® CORE unit controller
  - Unit is shipped from the factory with preset airflows
  - SZVAV can be ordered with or without an Electronic Bypass Control
  - If equipped with the bypass control the SZVAV features manual (default) or automatic electronic bypass control of the VFD
  - In case of a VFD malfunction, a VFD alarm is generated by the Lennox® CORE unit controller

- VFD can be manually bypassed to continue unit operation at full blower speed or the unit controller can be set to automatically switch to full blower speed if a VFD alarm is generated
- VFD has an operational range of -40 to 125°F outdoor air ambient temperature
- 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

#### **Ordering Information**

- Specify motor horsepower and drive kit number when base unit is ordered

### **Options/Accessories**

#### **Field Installed**

##### **Blower Belt Auto-Tensioner**

- Provides proper tension to belt drive blower belt without the need for regular adjustments
- Maintains airflow and proper performance

## FEATURES AND BENEFITS

### ELECTRICAL

**NOTE** - All units include terminal block and fuse block in power entry junction box for single power entry application.

#### SmartWire™ System

- Keyed and color-coded wiring connectors prevent miswiring
- Wire coloring scheme is standardized across all models
- Each connection is intuitively labeled to make troubleshooting and servicing quick and easy

#### Electrical Plugs

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

#### Phase/Voltage Detection

- Monitors power supply to ensure 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 ensure 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 Installed

##### Circuit Breakers

- HACR type
- Overload and short circuit protection
- Factory wired and mounted in the power entry panel
- Current sensitive and temperature activated
- Manual reset

##### Short-Circuit Current Rating (SCCR)

- Higher short-circuit protection up to 100kA

**NOTE** - Disconnect Switch not available with higher SCCR option. Short-Circuit Current Rating option not available on field installed electric heat or 90kW electric heat (208/240V) models.

### Factory or Field Installed

#### 10 Disconnect Switch

- Accessible outside of unit
- Spring loaded weatherproof cover furnished

#### 11 Electric Heat

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

#### GFI Service Outlets (2)

- 115V ground fault circuit interrupter (GFCI) type
- Available non-powered, field-wired or factory-wired and powered

### Field Installed

#### GFI Weatherproof Cover

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

## FEATURES AND BENEFITS

### INDOOR AIR QUALITY

12

#### Air Filters

- Disposable 2 inch MERV 4 filters furnished as standard

#### Options/Accessories

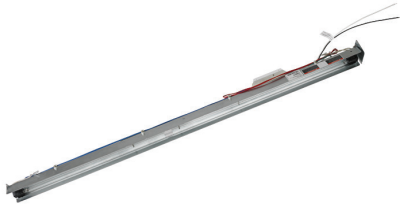
#### Factory or Field Installed

##### 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

#### Field Installed

##### Healthy Climate® UVC Germicidal Light Kit



- 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
- This process either destroys the organism or controls its ability to reproduce
- 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)
- Installed in the blower/evaporator coil section
- Safety interlock switch automatically shuts off power to the UVC light when panel is removed
- Interlock switch is factory installed or field installed in the blower/evaporator coil section panel
- All necessary hardware for installation is included
- Lamps operate on 110/230V, 1 phase power supply

**NOTE** - Step-down transformer may be ordered for field installed UVC lamps when used with 460V and 575V rooftop units. Step-down transformer is furnished with lamps when factory installed.

- Approved by ETL

#### Needlepoint Bipolar Ionization (NPBI) Kit

- NPBI technology integrates with system controls for effective air treatment
- Ionization 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 airstream
- 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 Unit Controller which adjusts Economizer dampers as needed

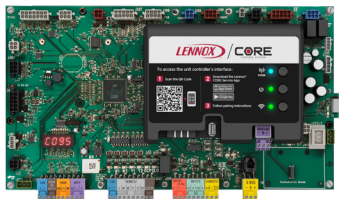
#### Replacement Filter Media Kit With Frame

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



## CONTROL SYSTEM

### LENNOX® CORE CONTROL SYSTEM



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

- 13** The Lennox® CORE 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
- Built-in BACnet MS/TP and IP allow open integration to building management systems.
- Two-port Ethernet Switch enables daisy chaining for BACnet IP and automatic firmware updates

**NOTE** - Unit Internet Connection required.

- 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 Unit Controller enhance functionality without the need to change components
- Unit Controller Software

#### Configurable Built-In Functions

- Full modulation of variable speed compressor for discharge air temperature control in room sensor or thermostat mode
- Discharge Air Cooling Control
- Up to three distinct Cooling Airflows in Thermostat Mode

- Programmable independent heating, ventilation and cooling blower speeds
- Discharge Air Heating Control
- 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
- Fresh Air Tempering for Improved Ventilation
- Demand Control Ventilation
- Low Ambient Controls for operation down to 0°F
- Humiditrol®+ Operation
- Enhanced Dehumidification (Latent Demand Control without hot gas reheat)

#### 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 and IP
- LONTalk (Factory and Field Option)
- Lennox S-BUS
- Compatibility with Lennox Wireless Room Sensors
- 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 200 settings)
- Multiple Configurable Digital Inputs
- LED Indicators
- PC Interface connects the Lennox® CORE Unit Controller to a PC with the Lennox Unit Controller Software

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

## CONTROL SYSTEM

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

#### **Control Options**

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

###### **Dirty Filter Switch**

- Senses static pressure increase and issues alarm if necessary

###### **Fresh Air Tempering**

- Used in applications with high outside air requirements
- Controller energizes the first stage heat as needed to maintain a minimum supply air temperature for comfort, regardless of the thermostat demand
- When ordered as a factory option, sensor ships with the unit for field installation

###### **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

### **COMMERCIAL CONTROL SYSTEMS**

#### **Interoperability via BACnet® or LonTalk® Protocols**

- Communication compatible with third-party automation systems that support the BACnet Application Specific Controller device profile, LonMark® Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile

##### **Field Installed**

###### **Thermostats and Room Sensors**

- Control system and thermostat options, see page 15

## OPTIONS / ACCESSORIES

### **ECONOMIZER**

- Economizer operation is set and controlled by the Lennox® CORE unit controller
- Simple plug-in connections from Economizer to unit controller for easy installation
- All Model L™ 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 Options/Accessories table.

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

#### **14 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 and IECC compliant
- Downflow or Horizontal with Outdoor Air Hood
- Outdoor Air Hood with mist elimination is included when Economizer is factory installed and is furnished with Economizer when ordered for field installation

**NOTE** - Downflow or horizontal economizer applications require optional Downflow or Horizontal Barometric Relief Dampers with Exhaust Hood.

- 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** - 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.

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

- Factory setting
- Uses outdoor air and return air sensors that are furnished with the unit
- The Lennox® CORE unit controller compares outdoor air temperature with return air
- When the outdoor air is below the configured setpoint and cooler than return air, the controller activates the Economizer

## OPTIONS / ACCESSORIES

### **ECONOMIZER (continued)**

#### **Factory or Field Installed (continued)**

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

**NOTE** - 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.

#### **Global Control**

- The unit controller communicates with a DDC system with one global sensor (enthalpy or sensible)
- Determines whether outside air is suitable for free cooling on all units connected to the control system
- Sensor must be field provided

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

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

#### **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

#### **Field Installed**

##### **Outdoor Air CFM Control**

- Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows
- Velocity sensor located in the rooftop unit outdoor air section, the Lennox® CORE unit controller changes the Economizer position to help minimize the effect of supply fan speed changes on outdoor air volume levels
- Setpoint for outdoor air volume is established by field testing

**NOTE** - Not available with Demand Control Ventilation (CO<sub>2</sub> Sensor) or Building Pressure Control.

##### **Building Pressure Control**

- Maintains constant building pressure level
- Includes a static pressure transducer and outdoor static pressure assembly
- Using differential pressure information between the outdoor air and the building air, the Lennox® CORE unit controller changes the Economizer position to help maintain a constant building pressure

**NOTE** - Not available with Demand Control Ventilation (CO<sub>2</sub> Sensor) or Outdoor Air CFM Control.

### **EXHAUST**

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

##### **15 Downflow Barometric Relief Dampers**

- Allow relief of excess air
- Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Exhaust hood is factory installed when dampers are factory installed with Economizer
- Exhaust hood is furnished with dampers when ordered for field installation
- Bird screen furnished

##### **16 Power Exhaust Fans**

- Install internal to unit for downflow applications only with Economizer option
- Provides exhaust air pressure relief
- Interlocked to run when supply air blower is operating
- Fans run when outdoor air dampers are 50% open (adjustable)
- Motor is overload protected
- Dual propeller type fans are 20 in. diameter
- Five blades
- Two 1/3 HP motors
- SCCR rated

**NOTE** - Requires Economizer with furnished Outdoor Air Hood and Downflow Barometric Relief Dampers.

**NOTE** - SZVAV (Single Zone Variable Air Volume) and VAV (Variable Air Volume) models are equipped with 2-stage power exhaust fans. Power exhaust operates in 1st stage (one fan) up to 70% of supply air blower speed. Both exhaust fans operate in 2nd stage when supply air blower speed is above 70% (adjustable) of full speed.

#### **Field Installed**

##### **Horizontal Barometric Relief Dampers**

- For use when unit is configured for horizontal applications requiring an Economizer
- 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

## OPTIONS / ACCESSORIES

### **OUTDOOR AIR OPTIONS**

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

##### **Motorized Outdoor Air Dampers**

- 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

**NOTE** - Outdoor Air Hood is shipped separately in the unit with factory installed dampers for field installation.

#### **Field Installed**

##### **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

#### **Downflow**

##### **Hybrid Roof Curbs**

- Interlocking tabs fasten corners together
- No tools required
- 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
- Hardware is furnished to connect upper curb with lower curb
- Available in 14 inch height

#### **Horizontal**

- Meet National Roofing Code requirements
- Converts unit from downflow to horizontal (side) air flow
- Return air is on unit, supply air is on curb
- See dimension drawings
- Available in 26, 30, 37 and 41 inch heights

**NOTE** - Requires Horizontal Return Air Panel Kit.

**NOTE** - Optional Insulation Kit is available to help prevent sweating.

#### **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

### **OVERVIEW**

- Factory installed option designed to control humidity
- 17 • Humiditrol®+ utilizes advanced control algorithms, variable speed technology and a reheat coil to efficiently control humidity levels independent of room temperature
- Provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity control
- Unit comes equipped with one row reheat coil and solenoid valve

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

### **BENEFITS**

- Improves indoor air quality
- Discharge air control for overcool protection
- Adjustable discharge air temperature setpoint
- Energy efficient dehumidification
- Modulating latent and sensible capacity
- Helps prevent damage due to high humidity levels
- Improves comfort levels by reducing space humidity levels

### **OPERATION**

#### **No Dehumidification Demand**

- The 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

#### **Dehumidification Demand Only**

- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- The unit will operate in hot gas reheat dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- The cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- The 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
- The reheat coil is sized to provide optimal reheat performance without overheating supply air
- The compressor will modulate based on dehumidification load

#### **Dehumidification and Cooling Demand (Thermostat/Room Sensor Application)**

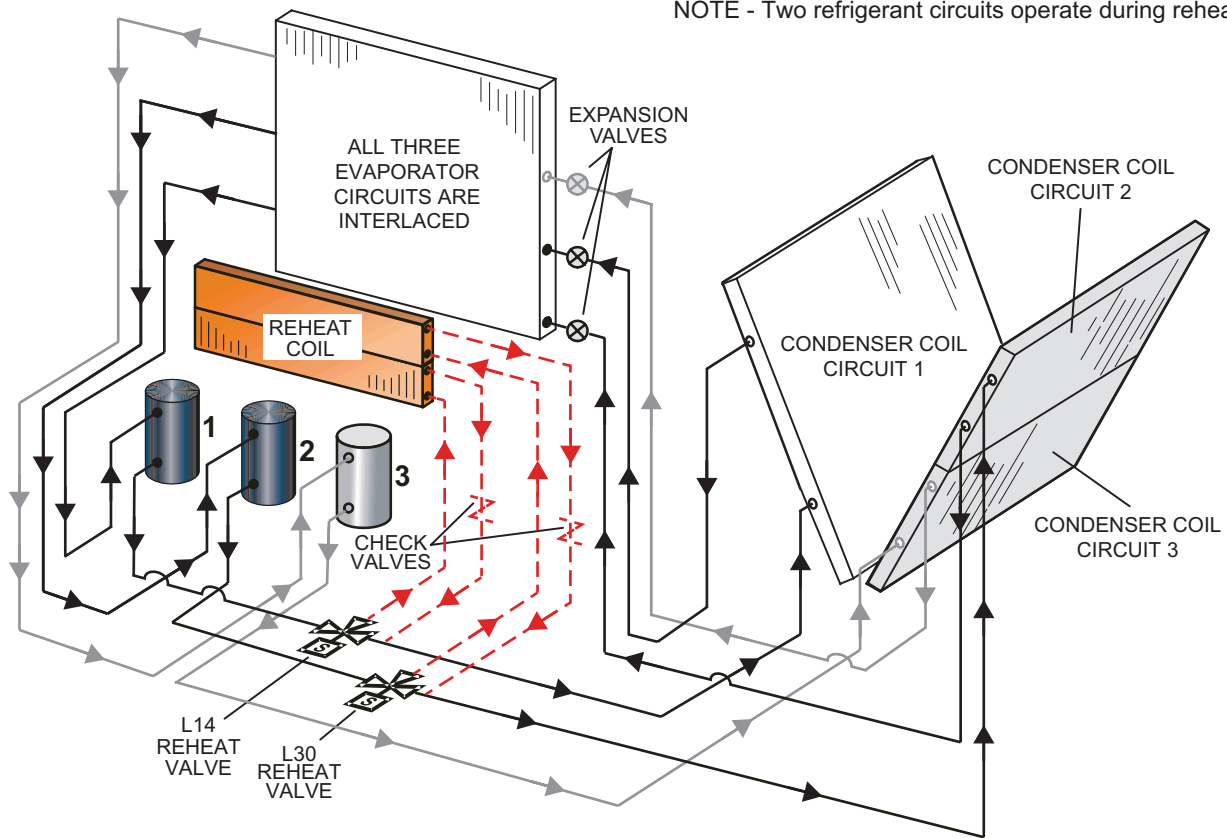
- If both a dehumidification and a cooling demand occur, the system will operate in cooling until the cooling demand is satisfied
- Then the system will energize the dehumidification mode

**NOTE** - See Sequence of Operation for additional information.

## HUMIDITROL™ + DEHUMIDIFICATION SYSTEM OPTION

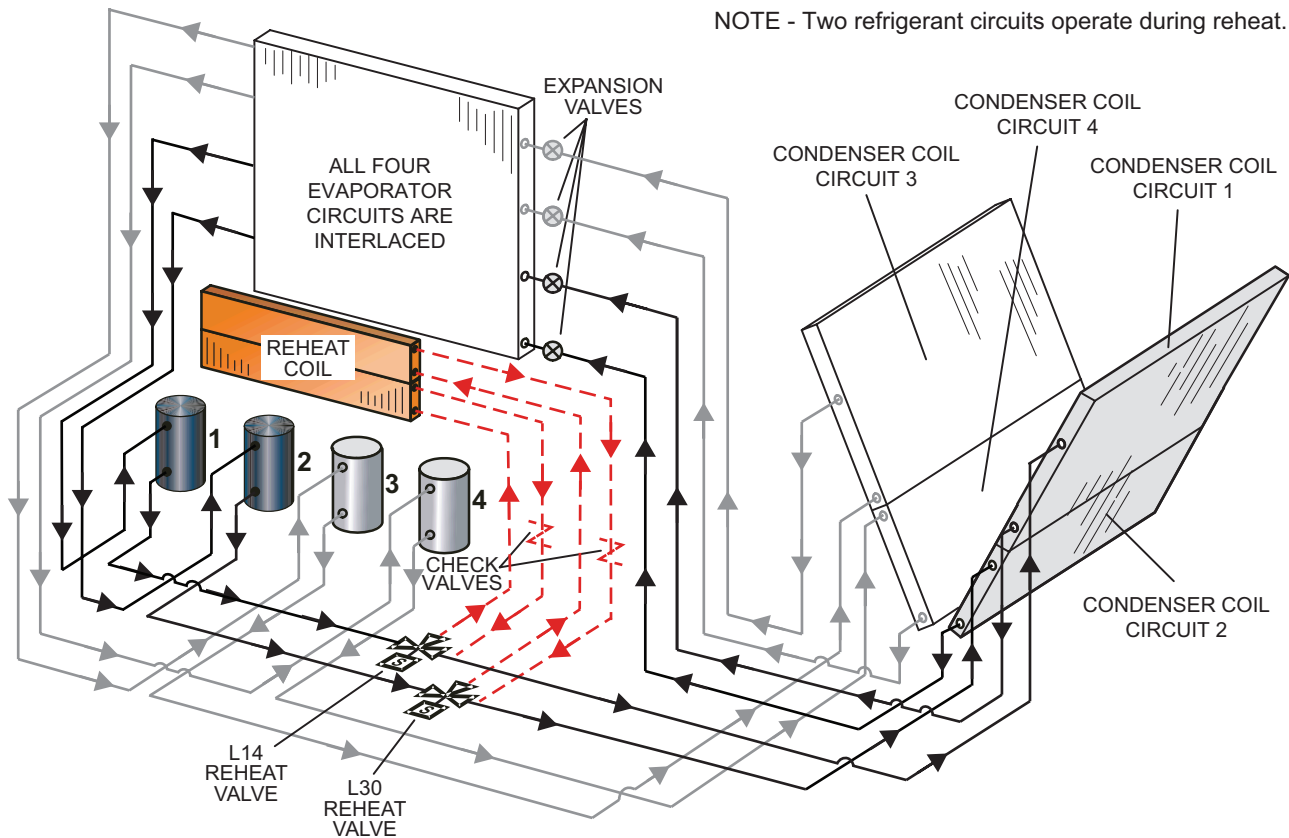
### REFRIGERANT SCHEMATIC (156 AND 180 MODELS)

NOTE - Two refrigerant circuits operate during reheat.



### REFRIGERANT SCHEMATIC (210, 240 and 300 MODELS ONLY)

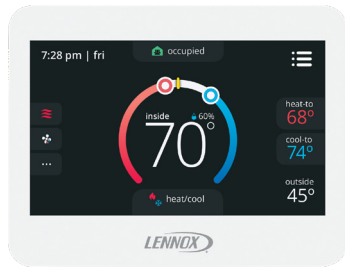
NOTE - Two refrigerant circuits operate during reheat.





## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

### CS8500 Commercial 7-Day Programmable Thermostat



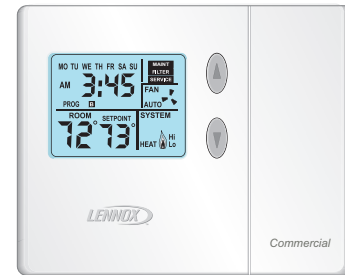
- Fully Communicating Sensor
- Full Color Touchscreen Interface
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Sensors For Temperature, Humidity And Optional CO<sub>2</sub>
- Remote Sensor Options For Occupancy, Temperature
- BACnet Capable Options
- 5-2 or 7-Day 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                          | <b>24K55</b> |
|                                                                                | With CO <sub>2</sub> Sensing                        | <b>24K53</b> |
| Sensors/Accessories                                                            | <sup>1</sup> Remote non-adjustable wall-mount 10k   | <b>47W37</b> |
|                                                                                | <sup>1</sup> Remote non-adjustable wall-mount 11k   | <b>94L61</b> |
| <b>Sysbus Network Cable (Yellow) for CS8500 and LCS-5030 Wired Room Sensor</b> |                                                     |              |
| Twisted pair 100% shielded communication cable, Red and Black                  | 500 ft. box                                         | <b>27M19</b> |
| 22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated                       | 1000 ft. box                                        | <b>94L63</b> |
| Insulation - Low smoke PVC, NEC, CMP                                           | 2500 ft. roll                                       | <b>68M25</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   | <b>47W36</b> |
|                                                                                | <sup>2</sup> Remote non-adjustable wall-mount 10k   | <b>47W37</b> |
|                                                                                | Remote non-adjustable discharge air (duct mount)    | <b>19L22</b> |
|                                                                                | Outdoor temperature sensor                          | <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      | <b>47W37</b> |
|                                                                                | Thermostat wall mounting plate                      | <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. | <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

## SEQUENCE OF OPERATION

### COOLING

#### A-Two-Stage Thermostat

##### 1 - Economizer With Outdoor Air Suitable

###### Y1 Demand

- Compressors Off
- Blower Cooling Low
- Dampers Modulate

*NOTE - If dampers are at maximum open for five minutes, blower runs at cooling high.*

###### Y2 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Maximum Open

##### 2 - No Economizer or Outdoor Air Not Suitable

###### Y1 Demand

- Compressors Modulate
- Blower Cooling Low
- Dampers Minimum Position

###### Y2 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Minimum Position

#### B-Three-Stage Thermostat

##### 1 - Economizer With Outdoor Air Suitable

###### Y1 Demand

- Compressors Off
- Blower Cooling Low
- Dampers Modulate

*NOTE - If dampers are at maximum open for five minutes, blower runs at cooling intermediate.*

###### Y2 Demand

- Compressors Modulate
- Blower Cooling Intermediate
- Dampers Maximum Open

###### Y3 Demand

- Compressors Modulate
- Blower Cooling High
- Dampers Maximum Open

## SEQUENCE OF OPERATION

### **COOLING (CONTINUED)**

2 - No Economizer or Outdoor Air Not Suitable

#### **Y1 Demand**

- Compressors Modulate
- Blower Cooling Low
- Dampers Minimum Position

#### **Y2 Demand**

- Compressors Modulate
- Blower Cooling Intermediate
- Dampers Minimum Position

#### **Y3 Demand**

- Compressors Modulate
- Blower Cooling High
- Dampers Minimum Position

### **C - Room Sensor**

1 - Economizer With Outdoor Air Suitable

- Compressors Off
- Blower Modulates
- Dampers Modulate

*NOTE - If dampers are at maximum open for five minutes, compressors are energized and the blower modulates.*

2 - No Economizer or Outdoor Air Not Suitable

- Compressors Modulate
- Blower Modulates
- Dampers Minimum Position

*NOTE - Free cooling is locked out when a dehumidification demand is received. The unit operates in dehumidification.*

### **HEATING**

#### **Heating Mode: Thermostat or Room Sensor**

*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 (45, 60 or 90 kW electric heat option only)

## SEQUENCE OF OPERATION

### **HUMIDITROL™+**

#### **A - Thermostat Mode With 24V Humidistat**

Dehumidification Demand (DI4) and No Cooling Demand

Compressor 1 operates at 100% and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, all other compressors are off.

*NOTE: After 5 minutes of only a Dehumidification demand (DI4), compressor 2 is turned on and reheat valve is energized.*

Y1 and DI4 Demand

Compressors are modulating, blower is on cooling low, and the reheat valves are de-energized.

Y2 and DI4 Demand

Compressors are modulating, blower is on cooling high, and the reheat valves are de-energized.

#### **B - Thermostat Mode With Zone Relative Humidity Sensor**

Dehumidification Demand (RH% Setpoint < Zone RH% < RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized. All other compressors are off.

Dehumidification Demand (RH% Setpoint < Zone RH% for 5 minutes or Zone RH% > RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity and reheat valve is energized, Compressor 2 is on and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures. All other compressors are off.

Y1 and Dehumidification Demand

Compressors are modulating, blower is on low, and the reheat valves are de-energized.

Y2 and Dehumidification Demand

Compressors are modulating, blower is on high, reheat valves are de-energized.

#### **C - Room Sensor Mode With 24V Humidistat**

Dehumidification Demand (DI4) and No Cooling Demand

Compressor 1 operates at 100%, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized.

*NOTE: After 5 minutes of only a Dehumidification demand (DI4), compressor 2 is turned on and the reheat valve is energized.*

Cooling and Dehumidification Demand

Compressors are modulating, blower is modulating, reheat valves are de-energized.

#### **D - Room Sensor Mode With Zone Relative Humidity Sensor**

Dehumidification Demand (RH% Setpoint < Zone RH% < RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures, reheat valve is energized. All other compressors are off.

Dehumidification Demand (RH% Setpoint < Zone RH% for 5 minutes or Zone RH% > RH% Setpoint +2%) and No Cooling Demand

Compressor 1 modulates based on zone relative humidity and reheat valve is energized, Compressor 2 is on and reheat valve is energized, blower and outdoor fans modulate to maintain indoor coil and discharge air temperatures. All other compressors are off.

Cooling and Dehumidification Demand

Compressors are modulating, blower is modulating, and the reheat valves are de-energized.

## OPTIONS / ACCESSORIES

| Item Description                                                                                           |                                                                      | Order Number               | Size  |     |     |     |     |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------|-------|-----|-----|-----|-----|
|                                                                                                            |                                                                      |                            | 156   | 180 | 210 | 240 | 300 |
| COOLING SYSTEM                                                                                             |                                                                      |                            |       |     |     |     |     |
| Condensate Drain Trap                                                                                      | PVC                                                                  | 22H54                      | X     | X   | X   | X   | X   |
|                                                                                                            | Copper                                                               | 76W27                      | X     | X   | X   | X   | X   |
| Corrosion Protection                                                                                       |                                                                      | Factory                    | O     | O   | O   | O   | O   |
| Drain Pan Overflow Switch                                                                                  |                                                                      | 21Z07                      | OX    | OX  | OX  | OX  | OX  |
| BLOWER - SUPPLY AIR                                                                                        |                                                                      |                            |       |     |     |     |     |
| Blower Option                                                                                              |                                                                      |                            |       |     |     |     |     |
|                                                                                                            | SZVAV (Single Zone Variable Air Volume) - With VFD Bypass Control    | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | SZVAV (Single Zone Variable Air Volume) - Without VFD Bypass Control | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | VAV (Variable Air Volume) - Without VFD Bypass Control               | Factory                    | O     | O   | O   | O   | O   |
| Motors                                                                                                     | Belt Drive (standard efficiency) - 3 HP                              | Factory                    | O     | O   | O   |     |     |
|                                                                                                            | Belt Drive (standard efficiency) - 5 HP                              | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | Belt Drive (standard efficiency) - 7.5 HP                            | Factory                    |       | O   | O   | O   | O   |
|                                                                                                            | Belt Drive (standard efficiency) - 10 HP                             | Factory                    |       |     |     | O   | O   |
|                                                                                                            |                                                                      |                            |       |     |     |     |     |
| Drive Kits                                                                                                 | Kit #1 535-725 rpm                                                   | Factory                    | O     | O   | O   |     |     |
| See Blower Data Tables for usage and selection                                                             | Kit #2 710-965 rpm                                                   | Factory                    | O     | O   | O   |     |     |
|                                                                                                            | Kit #3 685-856 rpm                                                   | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | Kit #4 850-1045 rpm                                                  | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | Kit #5 945-1185 rpm                                                  | Factory                    | O     | O   | O   | O   | O   |
|                                                                                                            | Kit #6 850-1045 rpm                                                  | Factory                    |       | O   | O   | O   | O   |
|                                                                                                            | Kit #7 945-1185 rpm                                                  | Factory                    |       | O   | O   | O   | O   |
|                                                                                                            | Kit #8 1045-1285 rpm                                                 | Factory                    |       | O   | O   | O   | O   |
|                                                                                                            | Kit #10 1045-1285 rpm                                                | Factory                    |       |     |     | O   | O   |
|                                                                                                            | Kit #11 1135-1330 rpm                                                | Factory                    |       |     |     | O   | O   |
|                                                                                                            |                                                                      | Blower Belt Auto-Tensioner | 24B80 | X   | X   | X   | X   |
| CABINET                                                                                                    |                                                                      |                            |       |     |     |     |     |
| Burglar Bars                                                                                               | (US)                                                                 | 44N20                      | X     | X   | X   | X   | X   |
|                                                                                                            | (CA)                                                                 | X2889                      | X     | X   | X   | X   | X   |
| Combination Coil/Hail Guards                                                                               |                                                                      | 23U71                      | OX    | OX  | OX  | OX  | OX  |
| CONTROLS                                                                                                   |                                                                      |                            |       |     |     |     |     |
| Commercial Controls                                                                                        | LonTalk® Module - For Lennox® CORE Control System                    | 54W27                      | OX    | OX  | OX  | OX  | OX  |
|                                                                                                            | Novar® LSE                                                           | Factory                    | O     | O   | O   | O   | O   |
| Dirty Filter Switch                                                                                        |                                                                      | 53W68                      | OX    | OX  | OX  | OX  | OX  |
| Fresh Air Tempering                                                                                        |                                                                      | 21Z08                      | OX    | OX  | OX  | OX  | OX  |
| Smoke Detector - Supply or Return (Power board and one sensor)                                             |                                                                      | 22H56                      | OX    | OX  | OX  | OX  | OX  |
| Smoke Detector - Supply and Return (Power board and two sensors)                                           |                                                                      | 22H57                      | OX    | OX  | OX  | OX  | OX  |
| NOTE - Order numbers shown are for ordering optional accessories if a field installed option is available. |                                                                      |                            |       |     |     |     |     |
| OX = Configure To Order (Factory Installed) or Field Installed                                             |                                                                      |                            |       |     |     |     |     |
| O = Configure To Order (Factory Installed)                                                                 |                                                                      |                            |       |     |     |     |     |
| X = Field Installed                                                                                        |                                                                      |                            |       |     |     |     |     |



## OPTIONS / ACCESSORIES

| Item Description                                                                                                                                                                                                            |                                                                     | Order Number | Size |     |     |     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------|------|-----|-----|-----|-----|
|                                                                                                                                                                                                                             |                                                                     |              | 156  | 180 | 210 | 240 | 300 |
| INDOOR AIR QUALITY                                                                                                                                                                                                          |                                                                     |              |      |     |     |     |     |
| Air Filters                                                                                                                                                                                                                 |                                                                     |              |      |     |     |     |     |
| Healthy Climate® High Efficiency Air Filters<br>24 x 24 x 2 in.                                                                                                                                                             | MERV 8 (Order 6)                                                    | 54W67        | OX   | OX  | OX  | OX  | OX  |
|                                                                                                                                                                                                                             | MERV 13 (Order 6)                                                   | 52W40        | OX   | OX  | OX  | OX  | OX  |
|                                                                                                                                                                                                                             | MERV 16 (Order 6)                                                   | 21U52        | OX   | OX  | OX  | OX  | OX  |
| Replacement Media Filter With Metal Mesh Frame<br>24 x 24 x 2 in. (includes non-pleated filter media)                                                                                                                       | (Order 6)                                                           | 44N61        | X    | X   | X   | X   | X   |
| Indoor Air Quality (CO <sub>2</sub> ) Sensors                                                                                                                                                                               |                                                                     |              |      |     |     |     |     |
| Sensor - Wall-mount, off-white plastic cover with LCD display                                                                                                                                                               |                                                                     | 24C58        | X    | X   | X   | X   | X   |
| Sensor - Wall-mount, off-white plastic cover, no display                                                                                                                                                                    |                                                                     | 23V86        | X    | X   | X   | X   | X   |
| Sensor - Black plastic case, LCD display, rated for plenum mounting                                                                                                                                                         |                                                                     | 87N52        | X    | X   | X   | X   | X   |
| Sensor - Black plastic case, no display, rated for plenum mounting                                                                                                                                                          |                                                                     | 23V87        | X    | X   | X   | X   | X   |
| CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications                                                                                                                                                        |                                                                     | 23Y47        | X    | X   | X   | X   | X   |
| Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensors (24C58)                                                                                                                                         |                                                                     | 90N43        | X    | X   | X   | X   | X   |
| Needlepoint Bipolar Ionization (NPBI)                                                                                                                                                                                       |                                                                     |              |      |     |     |     |     |
| Needlepoint Bipolar Ionization (NPBI) Kit                                                                                                                                                                                   |                                                                     | 21U37        | X    | X   | X   |     |     |
|                                                                                                                                                                                                                             |                                                                     | 21U38        |      |     |     | X   |     |
|                                                                                                                                                                                                                             |                                                                     | 21U39        |      |     |     |     | X   |
| UVC Germicidal Light Kit                                                                                                                                                                                                    |                                                                     |              |      |     |     |     |     |
| <sup>1</sup> Healthy Climate® UVC Light Kit (110/230V-1Ph)                                                                                                                                                                  |                                                                     | 21A94        | X    | X   | X   | X   | X   |
| Step-Down Transformer                                                                                                                                                                                                       | 460V primary, 230V secondary                                        | 10H20        | X    | X   | X   | X   | X   |
|                                                                                                                                                                                                                             | 575V primary, 230V secondary                                        | 10H21        | X    | X   | X   | X   | X   |
| ELECTRICAL                                                                                                                                                                                                                  |                                                                     |              |      |     |     |     |     |
| Voltage 60 Hz                                                                                                                                                                                                               | 208/230V - 3 phase                                                  | Factory      | O    | O   | O   | O   | O   |
|                                                                                                                                                                                                                             | 460V - 3 phase                                                      | Factory      | O    | O   | O   | O   | O   |
|                                                                                                                                                                                                                             | 575V - 3 phase                                                      | Factory      | O    | O   | O   | O   | O   |
| HACR Circuit Breakers                                                                                                                                                                                                       |                                                                     | Factory      | O    | O   | O   | O   | O   |
| Disconnect Switch<br>(see Electric Heat Tables for usage)                                                                                                                                                                   | 80 amp                                                              | 54W85        | OX   | OX  | OX  | OX  | OX  |
|                                                                                                                                                                                                                             | 150 amp                                                             | 54W86        | OX   | OX  | OX  | OX  | OX  |
|                                                                                                                                                                                                                             | 250 amp                                                             | 54W87        | OX   | OX  | OX  | OX  | OX  |
| <sup>2</sup> Short-Circuit Current Rating (SCCR) of 100kA (includes Phase/Voltage Detection)                                                                                                                                |                                                                     | Factory      | O    | O   | O   | O   | O   |
| GFI Service Outlets                                                                                                                                                                                                         | 15 amp non-powered, field-wired (208/230V, 460V only)               | 74M70        | OX   | OX  | OX  | OX  | OX  |
|                                                                                                                                                                                                                             | 15 amp factory-wired and powered (208/230V, 460V only)              | Factory      | O    | O   | O   | O   | O   |
|                                                                                                                                                                                                                             | <sup>3</sup> 20 amp non-powered, field-wired (208/230V, 460V, 575V) | 67E01        | X    | X   | X   | X   | X   |
|                                                                                                                                                                                                                             | <sup>3</sup> 20 amp non-powered, field-wired (575V only)            | Factory      | O    | O   | O   | O   | O   |
| Weatherproof Cover for GFI                                                                                                                                                                                                  |                                                                     | 10C89        | X    | X   | X   | 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> Disconnect Switch not available with higher SCCR option. Short-Circuit Current Rating option not available on field installed electric heat or 90kW electric heat (208/240V) models.                           |                                                                     |              |      |     |     |     |     |
| <sup>3</sup> Canada requires a minimum 20 amp circuit. Select 20 amp, non-powered, field wired GFI.                                                                                                                         |                                                                     |              |      |     |     |     |     |
| NOTE - Order numbers shown are for ordering optional accessories if a field installed option is available.                                                                                                                  |                                                                     |              |      |     |     |     |     |
| OX = Configure To Order (Factory Installed) or Field Installed                                                                                                                                                              |                                                                     |              |      |     |     |     |     |
| O = Configure To Order (Factory Installed)                                                                                                                                                                                  |                                                                     |              |      |     |     |     |     |
| X = Field Installed                                                                                                                                                                                                         |                                                                     |              |      |     |     |     |     |

## OPTIONS / ACCESSORIES

| Item Description | Order Number | Size  |     |     |     |     |    |
|------------------|--------------|-------|-----|-----|-----|-----|----|
|                  |              | 156   | 180 | 210 | 240 | 300 |    |
| ELECTRIC HEAT    |              |       |     |     |     |     |    |
| 15 kW            | 208/240V-3ph | 30U62 | OX  | OX  | OX  | OX  | OX |
|                  | 460V-3ph     | 30U63 | OX  | OX  | OX  | OX  | OX |
|                  | 575V-3ph     | 30U64 | OX  | OX  | OX  | OX  | OX |
| 30 kW            | 208/240V-3ph | 30U65 | OX  | OX  | OX  | OX  | OX |
|                  | 460V-3ph     | 30U66 | OX  | OX  | OX  | OX  | OX |
|                  | 575V-3ph     | 30U67 | OX  | OX  | OX  | OX  | OX |
| 45 kW            | 208/240V-3ph | 30U71 | OX  | OX  | OX  | OX  | OX |
|                  | 460V-3ph     | 30U72 | OX  | OX  | OX  | OX  | OX |
|                  | 575V-3ph     | 30U73 | OX  | OX  | OX  | OX  | OX |
| 60 kW            | 208/240V-3ph | 30U77 | OX  | OX  | OX  | OX  | OX |
|                  | 460V-3ph     | 30U78 | OX  | OX  | OX  | OX  | OX |
|                  | 575V-3ph     | 30U79 | OX  | OX  | OX  | OX  | OX |
| 90 kW            | 208/240V-3ph | 30U83 |     |     | OX  | OX  | OX |
|                  | 460V-3ph     | 30U84 |     |     | OX  | OX  | OX |
|                  | 575V-3ph     | 30U85 |     |     | OX  | OX  | OX |

## ECONOMIZER

### High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)

|                                                                                                                                    |              |    |    |    |    |    |
|------------------------------------------------------------------------------------------------------------------------------------|--------------|----|----|----|----|----|
| High Performance Economizer (Downflow or Horizontal)                                                                               | <b>22J18</b> | OX | OX | OX | OX | OX |
| Includes Economizer Dampers with Outdoor Air Hood                                                                                  |              |    |    |    |    |    |
| Downflow Applications - Use furnished Outdoor Air Hood - Order Downflow Barometric Relief Dampers with Exhaust Hood separately     |              |    |    |    |    |    |
| Horizontal Applications - Use furnished Outdoor Air Hood - Order Horizontal Barometric Relief Dampers with Exhaust Hood separately |              |    |    |    |    |    |

### Economizer Controls

|                                          |                       |              |    |    |    |    |    |
|------------------------------------------|-----------------------|--------------|----|----|----|----|----|
| Differential Enthalpy (Not for Title 24) | Order 2               | <b>21Z09</b> | OX | OX | OX | OX | OX |
| Sensible Control                         | Sensor is Furnished   | Factory      | O  | O  | O  | O  | O  |
| Single Enthalpy (Not for Title 24)       |                       | <b>21Z09</b> | OX | OX | OX | OX | OX |
| Global Control                           | Sensor Field Provided | Factory      | O  | O  | O  | O  | O  |
| Building Pressure Control                |                       | <b>13J77</b> | X  | X  | X  | X  | X  |
| Outdoor Air CFM Control                  |                       | <b>13J76</b> | X  | X  | X  | X  | X  |

### Barometric Relief Dampers With Exhaust Hood (required with economizer)

|                                      |              |    |    |    |    |    |
|--------------------------------------|--------------|----|----|----|----|----|
| Downflow Barometric Relief Dampers   | <b>54W78</b> | OX | OX | OX | OX | OX |
| Horizontal Barometric Relief Dampers | <b>16K99</b> | X  | X  | X  | X  | X  |

## OUTDOOR AIR

### Outdoor Air Dampers With Outdoor Air Hood

|           |              |    |    |    |    |    |
|-----------|--------------|----|----|----|----|----|
| Motorized | <b>22J27</b> | OX | OX | OX | OX | OX |
| Manual    | <b>13U05</b> | X  | X  | X  | X  | X  |

## \* POWER EXHAUST (DOWNFLOW APPLICATIONS ONLY)

|                             |          |              |    |    |    |    |    |
|-----------------------------|----------|--------------|----|----|----|----|----|
| Standard Static, SCCR Rated | 208/230V | <b>22H90</b> | OX | OX | OX | OX | OX |
|                             | 460V     | <b>22H91</b> | OX | OX | OX | OX | OX |
|                             | 575V     | <b>22V34</b> | OX | OX | OX | OX | OX |

## HUMIDITROL™+ HOT GAS REHEAT OPTION - SZVAV MODELS ONLY

|                                      |         |   |   |   |   |   |
|--------------------------------------|---------|---|---|---|---|---|
| Humiditrol®+ Dehumidification Option | Factory | O | O | O | O | O |
|--------------------------------------|---------|---|---|---|---|---|

<sup>4</sup> Field installed Power Exhaust requires Economizer with Outdoor Air Hood and Downflow Barometric Relief Dampers with Exhaust Hood. Must be ordered separately.

NOTE - Order numbers shown are for ordering optional accessories if a field installed option is available.

OX = Configure To Order (Factory Installed) or Field Installed

O = Configure To Order (Factory Installed)

X = Field Installed

## OPTIONS / ACCESSORIES

| Item Description                                                           |             |       | Order Number | Size |     |     |     |     |
|----------------------------------------------------------------------------|-------------|-------|--------------|------|-----|-----|-----|-----|
|                                                                            |             |       |              | 156  | 180 | 210 | 240 | 300 |
| ROOF CURBS                                                                 |             |       |              |      |     |     |     |     |
| Hybrid Roof Curbs, Downflow                                                |             |       |              |      |     |     |     |     |
| 8 in. height curb                                                          |             | 11F58 | X            | X    | X   | X   | X   |     |
| 14 in. height curb                                                         |             | 11F59 | X            | X    | X   | X   | X   |     |
| 18 in. height curb                                                         |             | 11F60 | X            | X    | X   | X   | X   |     |
| 24 in. height curb                                                         |             | 11F61 | X            | X    | X   | X   | X   |     |
| Adjustable Pitch Curb                                                      |             |       |              |      |     |     |     |     |
| 14 in. height curb                                                         |             | 43W26 | X            | X    | X   | X   | X   |     |
| Standard Roof Curbs, Horizontal - Requires Horizontal Return Air Panel Kit |             |       |              |      |     |     |     |     |
| 26 in. height - slab applications                                          |             | 11T89 | X            | X    | X   | X   |     |     |
| 30 in. height - slab applications                                          |             | 11T90 |              |      |     |     | X   |     |
| 37 in. height - rooftop applications                                       |             | 11T96 | X            | X    | X   | X   |     |     |
| 41 in. height - rooftop applications                                       |             | 11T97 |              |      |     |     | X   |     |
| Insulation Kit For Standard Horizontal Roof Curbs                          |             |       |              |      |     |     |     |     |
| for 26 in. height curb                                                     |             | 73K32 | X            | X    | X   | X   |     |     |
| for 30 in. height curb                                                     |             | 73K33 |              |      |     |     | X   |     |
| for 37 in. height curb                                                     |             | 73K34 | X            | X    | X   | X   |     |     |
| for 41 in. height curb                                                     |             | 73K35 |              |      |     |     | X   |     |
| Horizontal Return Air Panel Kit                                            |             |       |              |      |     |     |     |     |
| Required for Horizontal Applications with Roof Curb                        |             | 87M00 | X            | X    | X   | X   | X   |     |
| CEILING DIFFUSERS                                                          |             |       |              |      |     |     |     |     |
| Step-Down - Order one                                                      | RTD11-185S  | 13K63 | X            | X    |     |     |     |     |
|                                                                            | RTD11-275S  | 13K64 |              |      | X   | X   | X   |     |
| Flush - Order one                                                          | FD11-185S   | 13K58 | X            | X    |     |     |     |     |
|                                                                            | FD11-275S   | 13K59 |              |      | X   | X   | X   |     |
| Transitions (Supply and Return) - Order one                                | C1DIFF33C-1 | 12X68 | X            | X    |     |     |     |     |
|                                                                            | C1DIFF34C-1 | 12X70 |              |      | X   | X   | X   |     |

NOTE - Order numbers shown are for ordering optional accessories if a field installed option is available.

OX = Configure To Order (Factory Installed) or Field Installed

O = Configure To Order (Factory Installed)

X = Field Installed

| SPECIFICATIONS                                 |                                             |           | 13 TON                                                                |                                 |
|------------------------------------------------|---------------------------------------------|-----------|-----------------------------------------------------------------------|---------------------------------|
| Model                                          |                                             |           | LCM156U5M                                                             | LCM156U5V                       |
| Nominal Tonnage                                |                                             |           | 13 Ton                                                                | 13 Ton                          |
| Efficiency Type                                |                                             |           | Ultra-High                                                            | Ultra-High                      |
| Blower Type                                    |                                             |           | SZVAV<br>(Single Zone<br>Variable Air Volume)                         | VAV<br>(Variable Air<br>Volume) |
| Cooling Performance                            | Gross Cooling Capacity (Btuh)               |           | 154,000                                                               | 154,000                         |
|                                                | <sup>1</sup> Net Cooling Capacity (Btuh)    |           | 150,000                                                               | 150,000                         |
|                                                | <sup>1</sup> AHRI Rated Air Flow (cfm)      |           | 4100                                                                  | 4100                            |
|                                                | <sup>1</sup> IEER (Btuh/Watt)               |           | 19.0                                                                  | 18.5                            |
|                                                | <sup>1</sup> EER (Btuh/Watt)                |           | 12.2                                                                  | 12.2                            |
|                                                | Total Unit Power (kW)                       |           | 12.3                                                                  | 12.3                            |
| Sound Rating Number dBA                        |                                             |           | 86                                                                    | 86                              |
| Refrigerant Type                               |                                             |           | R-454B                                                                | R-454B                          |
| Refrigerant Charge                             | Without Reheat Option                       | Circuit 1 | 6 lbs. 3 oz.                                                          | 6 lbs. 3 oz.                    |
|                                                |                                             | Circuit 2 | 5 lbs. 5 oz.                                                          | 5 lbs. 5 oz.                    |
|                                                |                                             | Circuit 3 | 5 lbs. 11 oz.                                                         | 5 lbs. 11 oz.                   |
|                                                | With Reheat Option                          | Circuit 1 | 6 lbs. 3 oz.                                                          | - - -                           |
|                                                |                                             | Circuit 2 | 5 lbs. 5 oz.                                                          | - - -                           |
|                                                |                                             | Circuit 3 | 5 lbs. 11 oz.                                                         | - - -                           |
|                                                |                                             |           |                                                                       |                                 |
| Electric Heating Options Available             |                                             |           | 15-30-45-60 kW                                                        |                                 |
| Compressor Type (number)                       |                                             |           | Variable Capacity Scroll (1)<br>Fixed Capacity Scroll (2)             |                                 |
| Outdoor Coils                                  | Net face area - ft. <sup>2</sup>            |           | 55.2                                                                  | 55.2                            |
|                                                | Rows                                        |           | 1                                                                     | 1                               |
|                                                | Fins - in.                                  |           | 20                                                                    | 20                              |
| Outdoor Coil Fans                              | Motor HP (number and type)                  |           | 1/3 (4 ECM)                                                           | 1/3 (4 ECM)                     |
|                                                | Rpm                                         |           | 450-1075                                                              | 450-1075                        |
|                                                | Watts                                       |           | 155 - 1150                                                            | 155 - 1150                      |
|                                                | Diameter (Number) - in.                     |           | (4) 24                                                                | (4) 24                          |
|                                                | Blades                                      |           | 3                                                                     | 3                               |
|                                                | Total Air volume - cfm                      |           | 16,000                                                                | 16,000                          |
|                                                |                                             |           |                                                                       |                                 |
| Indoor Coils                                   | Net face area - ft. <sup>2</sup>            |           | 21.40                                                                 | 21.40                           |
|                                                | Tube diameter - in.                         |           | 3/8                                                                   | 3/8                             |
|                                                | Rows                                        |           | 3                                                                     | 3                               |
|                                                | Fins - in.                                  |           | 14                                                                    | 14                              |
|                                                | Condensate drain size (NPT) - in.           |           | (1) 1                                                                 | (1) 1                           |
|                                                | Expansion device type                       |           | Balanced Port Thermostatic Expansion Valve,removable power head       |                                 |
| <sup>2</sup> Indoor Blower and Drive Selection | Nominal motor HP                            |           | 3, 5                                                                  |                                 |
|                                                | Maximum usable motor HP (US)                |           | 3.45, 5.75                                                            |                                 |
|                                                | Motor - Drive kit number                    |           | 3 HP<br>Kit 1 535-725 rpm<br>Kit 2 710-965 rpm                        |                                 |
|                                                |                                             |           | 5 HP<br>Kit 3 685-856 rpm<br>Kit 4 850-1045 rpm<br>Kit 5 945-1185 rpm |                                 |
|                                                | Blower wheel nominal diameter x width - in. |           | (2) 15 x 15 in.                                                       | (2) 15 x 15 in.                 |
|                                                |                                             |           |                                                                       |                                 |
| Filters                                        | Type of filter                              |           | MERV 4, Disposable                                                    |                                 |
|                                                | Number and size - in.                       |           | (6) 24 x 24 x 2                                                       |                                 |
| Line voltage data (Volts-Phase-Hz)             |                                             |           | 208/230-3-60,<br>460-3-60,<br>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 – Blower motor service factor = 1.0.

| SPECIFICATIONS                                        |                                             | 15 TON   17.5 TON                                               |                                                                           |                                                           |                                 |
|-------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------|
| Model                                                 |                                             | LCM180U5M                                                       | LCM180U5V                                                                 | LCM210U5M                                                 | LCM210U5V                       |
| Nominal Tonnage                                       |                                             | 15 Ton                                                          | 15 Ton                                                                    | 17.5 Ton                                                  | 17.5 Ton                        |
| Efficiency Type                                       |                                             | Ultra-High                                                      | Ultra-High                                                                | Ultra-High                                                | Ultra-High                      |
| Blower Type                                           |                                             | SZVAV<br>(Single Zone<br>Variable Air<br>Volume)                | VAV<br>(Variable Air<br>Volume)                                           | SZVAV<br>(Single Zone<br>Variable Air<br>Volume)          | VAV<br>(Variable Air<br>Volume) |
| <b>Cooling Performance</b>                            | Gross Cooling Capacity (Btuh)               | 176,000                                                         | 176,000                                                                   | 206,000                                                   | 206,000                         |
|                                                       | <sup>1</sup> Net Cooling Capacity (Btuh)    | 172,000                                                         | 172,000                                                                   | 200,000                                                   | 200,000                         |
|                                                       | <sup>1</sup> AHRI Rated Air Flow (cfm)      | 5250                                                            | 5250                                                                      | 6100                                                      | 6100                            |
|                                                       | <sup>1</sup> IEER (Btuh/Watt)               | 19.0                                                            | 17.5                                                                      | 18.8                                                      | 18.0                            |
|                                                       | <sup>1</sup> EER (Btuh/Watt)                | 12.2                                                            | 12.2                                                                      | 12.2                                                      | 12.2                            |
|                                                       | Total Unit Power (kW)                       | 14.1                                                            | 14.1                                                                      | 16.4                                                      | 16.4                            |
| <b>Sound Rating Number</b>                            |                                             | dBA                                                             | 86                                                                        | 86                                                        | 90                              |
| <b>Refrigerant Charge</b>                             | Refrigerant Type                            |                                                                 | R-454B                                                                    | R-454B                                                    | R-454B                          |
|                                                       | Without Reheat Option                       | Circuit 1                                                       | 6 lbs. 4 oz.                                                              | 6 lbs. 4 oz.                                              | 5 lbs. 14 oz.                   |
|                                                       |                                             | Circuit 2                                                       | 6 lbs. 2 oz.                                                              | 6 lbs. 2 oz.                                              | 5 lbs. 12 oz.                   |
|                                                       |                                             | Circuit 3                                                       | 5 lbs. 8 oz.                                                              | 5 lbs. 8 oz.                                              | 5 lbs. 0 oz.                    |
|                                                       |                                             | Circuit 4                                                       | - - -                                                                     | - - -                                                     | 5 lbs. 4 oz.                    |
|                                                       | With Reheat Option                          | Circuit 1                                                       | 6 lbs. 4 oz.                                                              | - - -                                                     | 5 lbs. 14 oz.                   |
|                                                       |                                             | Circuit 2                                                       | 6 lbs. 2 oz.                                                              | - - -                                                     | 5 lbs. 12 oz.                   |
|                                                       |                                             | Circuit 3                                                       | 5 lbs. 8 oz.                                                              | - - -                                                     | 5 lbs. 0 oz.                    |
|                                                       |                                             | Circuit 4                                                       | - - -                                                                     | - - -                                                     | 5 lbs. 4 oz.                    |
|                                                       |                                             |                                                                 |                                                                           |                                                           |                                 |
| <b>Electric Heating Options Available</b>             |                                             | 15-30-45-60 kW                                                  |                                                                           | 15-30-45-60-90 kW                                         |                                 |
| <b>Compressor Type (number)</b>                       |                                             | Variable Capacity Scroll (1)<br>Fixed Capacity Scroll (2)       |                                                                           | Variable Capacity Scroll (1)<br>Fixed Capacity Scroll (3) |                                 |
| <b>Outdoor Coils</b>                                  | Net face area - ft. <sup>2</sup>            | 55.2                                                            | 55.2                                                                      | 55.2                                                      | 55.2                            |
|                                                       | Rows                                        | 1                                                               | 1                                                                         | 1                                                         | 1                               |
|                                                       | Fins - in.                                  | 20                                                              | 20                                                                        | 20                                                        | 20                              |
| <b>Outdoor Coil Fans</b>                              | Motor HP (number and type)                  | 1/3 (4 ECM)                                                     | 1/3 (4 ECM)                                                               | 1/3 (6 ECM)                                               | 1/3 (6 ECM)                     |
|                                                       | Rpm                                         | 280-1075                                                        | 280-1075                                                                  | 640-950                                                   | 640-950                         |
|                                                       | Watts                                       | 150 -1350                                                       | 150 -1350                                                                 | 290 -1250                                                 | 290 -1250                       |
|                                                       | Diameter (Number) - in.                     | (4) 24                                                          | (4) 24                                                                    | (6) 24                                                    | (6) 24                          |
|                                                       | Blades                                      | 3                                                               | 3                                                                         | 3                                                         | 3                               |
|                                                       | Total Air volume - cfm                      | 16,000                                                          | 16,000                                                                    | 18,600                                                    | 18,600                          |
| <b>Indoor Coils</b>                                   | Net face area - ft. <sup>2</sup>            | 21.40                                                           | 21.40                                                                     | 21.40                                                     | 21.40                           |
|                                                       | Tube diameter - in.                         | 3/8                                                             | 3/8                                                                       | 3/8                                                       | 3/8                             |
|                                                       | Rows                                        | 3                                                               | 3                                                                         | 3                                                         | 3                               |
|                                                       | Fins - in.                                  | 14                                                              | 14                                                                        | 14                                                        | 14                              |
|                                                       | Condensate drain size (NPT) - in.           | (1) 1                                                           | (1) 1                                                                     | (1) 1                                                     | (1) 1                           |
|                                                       | Expansion device type                       | Balanced Port Thermostatic Expansion Valve,removable power head |                                                                           |                                                           |                                 |
| <sup>2</sup> <b>Indoor Blower and Drive Selection</b> | Nominal motor HP                            |                                                                 | 3, 5, 7.5                                                                 |                                                           |                                 |
|                                                       | Maximum usable motor HP (US)                |                                                                 | 3.45, 5.75, 8.62                                                          |                                                           |                                 |
|                                                       | Motor - Drive kit number                    |                                                                 | 3 HP<br>Kit 1 535-725 rpm<br>Kit 2 710-965 rpm                            |                                                           |                                 |
|                                                       |                                             |                                                                 | 5 HP<br>Kit 3 685-856 rpm<br>Kit 4 850-1045 rpm<br>Kit 5 945-1185 rpm     |                                                           |                                 |
|                                                       |                                             |                                                                 | 7.5 HP<br>Kit 6 850-1045 rpm<br>Kit 7 945-1185 rpm<br>Kit 8 1045-1285 rpm |                                                           |                                 |
|                                                       | Blower wheel nominal diameter x width - in. |                                                                 | (2) 15 x 15                                                               |                                                           |                                 |
|                                                       | <b>Filters</b>                              |                                                                 | MERV 4, Disposable                                                        |                                                           |                                 |
|                                                       | Type of filter                              |                                                                 |                                                                           |                                                           |                                 |
|                                                       | Number and size - in.                       |                                                                 | (6) 24 x 24 x 2                                                           |                                                           |                                 |
|                                                       | <b>Line voltage data (Volts-Phase-Hz)</b>   |                                                                 | 208/230-3-60,<br>460-3-60,<br>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 – Blower motor service factor = 1.0.

| SPECIFICATIONS                                 |                                             |  | 20 TON   25 TON                                                                                                                                                                                                                   |                                        |                                 |               |                                               |               |                                 |               |  |  |
|------------------------------------------------|---------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------|---------------|-----------------------------------------------|---------------|---------------------------------|---------------|--|--|
| Model                                          |                                             |  | LCM240U5M                                                                                                                                                                                                                         |                                        | LCM240U5V                       |               | LCM300U5M                                     |               | LCM300U5V                       |               |  |  |
| Nominal Tonnage                                |                                             |  | 20 Ton                                                                                                                                                                                                                            |                                        | 20 Ton                          |               | 25 Ton                                        |               | 25 Ton                          |               |  |  |
| Efficiency Type                                |                                             |  | Ultra-High                                                                                                                                                                                                                        |                                        | Ultra-High                      |               | Ultra-High                                    |               | Ultra-High                      |               |  |  |
| Blower Type                                    |                                             |  | SZVAV<br>(Single Zone<br>Variable Air Volume)                                                                                                                                                                                     |                                        | VAV<br>(Variable Air<br>Volume) |               | SZVAV<br>(Single Zone<br>Variable Air Volume) |               | VAV<br>(Variable Air<br>Volume) |               |  |  |
| Cooling Performance                            | Gross Cooling Capacity (Btuh)               |  | 235,000                                                                                                                                                                                                                           |                                        | 235,000                         |               | 277,000                                       |               | 277,000                         |               |  |  |
|                                                | <sup>1</sup> Net Cooling Capacity (Btuh)    |  | 228,000                                                                                                                                                                                                                           |                                        | 228,000                         |               | 270,000                                       |               | 270,000                         |               |  |  |
|                                                | <sup>1</sup> AHRI Rated Air Flow (cfm)      |  | 6450                                                                                                                                                                                                                              |                                        | 6450                            |               | 7400                                          |               | 7400                            |               |  |  |
|                                                | <sup>1</sup> IEER (Btuh/Watt)               |  | 18.4                                                                                                                                                                                                                              |                                        | 17.5                            |               | 17.5                                          |               | 16.5                            |               |  |  |
|                                                | <sup>1</sup> EER (Btuh/Watt)                |  | 12.2                                                                                                                                                                                                                              |                                        | 12.2                            |               | 10.8                                          |               | 10.8                            |               |  |  |
|                                                | Total Unit Power (kW)                       |  | 18.7                                                                                                                                                                                                                              |                                        | 18.7                            |               | 25                                            |               | 25                              |               |  |  |
| Sound Rating Number                            |                                             |  | dBA 90                                                                                                                                                                                                                            |                                        | 90                              |               | 90                                            |               | 90                              |               |  |  |
| Refrigerant                                    |                                             |  | Refrigerant Type                                                                                                                                                                                                                  |                                        | R-454B                          |               | R-454B                                        |               | R-454B                          |               |  |  |
| Charge                                         | Without Reheat Option                       |  | Circuit 1                                                                                                                                                                                                                         | 6 lbs. 1 oz.                           |                                 | 6 lbs. 1 oz.  |                                               | 6 lbs. 12 oz. |                                 | 6 lbs. 12 oz. |  |  |
|                                                |                                             |  | Circuit 2                                                                                                                                                                                                                         | 5 lbs. 11 oz.                          |                                 | 5 lbs. 11 oz. |                                               | 6 lbs. 12 oz. |                                 | 6 lbs. 12 oz. |  |  |
|                                                |                                             |  | Circuit 3                                                                                                                                                                                                                         | 5 lbs. 2 oz.                           |                                 | 5 lbs. 2 oz.  |                                               | 6 lbs. 3 oz.  |                                 | 6 lbs. 3 oz.  |  |  |
|                                                |                                             |  | Circuit 4                                                                                                                                                                                                                         | 5 lbs. 8 oz.                           |                                 | 5 lbs. 8 oz.  |                                               | 5 lbs. 15 oz. |                                 | 5 lbs. 15 oz. |  |  |
|                                                | With Reheat Option                          |  | Circuit 1                                                                                                                                                                                                                         | 6 lbs. 14 oz.                          |                                 | ---           |                                               | 6 lbs. 12 oz. |                                 | ---           |  |  |
|                                                |                                             |  | Circuit 2                                                                                                                                                                                                                         | 6 lbs. 13 oz.                          |                                 | ---           |                                               | 6 lbs. 12 oz. |                                 | ---           |  |  |
|                                                |                                             |  | Circuit 3                                                                                                                                                                                                                         | 4 lbs. 11 oz.                          |                                 | ---           |                                               | 6 lbs. 3 oz.  |                                 | ---           |  |  |
|                                                |                                             |  | Circuit 4                                                                                                                                                                                                                         | 4 lbs. 13 oz.                          |                                 | ---           |                                               | 5 lbs. 15 oz. |                                 | ---           |  |  |
| Electric Heat Options Available                |                                             |  | 15-30-45-60-90 kW                                                                                                                                                                                                                 |                                        |                                 |               |                                               |               |                                 |               |  |  |
| Compressor Type (number)                       |                                             |  | Variable Capacity Scroll (1)<br>Fixed Capacity Scroll (3)                                                                                                                                                                         |                                        |                                 |               |                                               |               |                                 |               |  |  |
| Outdoor Coils                                  | Net face area - ft. <sup>2</sup>            |  | 55.2                                                                                                                                                                                                                              |                                        | 55.2                            |               | 55.2                                          |               | 55.2                            |               |  |  |
|                                                | Number of rows                              |  | 1                                                                                                                                                                                                                                 |                                        | 1                               |               | 1                                             |               | 1                               |               |  |  |
|                                                | Fins - in.                                  |  | 20                                                                                                                                                                                                                                |                                        | 20                              |               | 20                                            |               | 20                              |               |  |  |
| Outdoor Coil Fans                              | Motor HP (number and type)                  |  | 1/3 (6 ECM)                                                                                                                                                                                                                       |                                        | 1/3 (6 ECM)                     |               | 1/3 (6 ECM)                                   |               | 1/3 (6 ECM)                     |               |  |  |
|                                                | Rpm                                         |  | 450 - 950                                                                                                                                                                                                                         |                                        | 450 - 950                       |               | 515 - 1000                                    |               | 515 - 1000                      |               |  |  |
|                                                | Watts                                       |  | 130 -1530                                                                                                                                                                                                                         |                                        | 130 -1530                       |               | 180 - 1730                                    |               | 180 - 1730                      |               |  |  |
|                                                | Diameter (Number) - in.                     |  | (6) 24                                                                                                                                                                                                                            |                                        | (6) 24                          |               | (6) 24                                        |               | (6) 24                          |               |  |  |
|                                                | Blades                                      |  | 3                                                                                                                                                                                                                                 |                                        | 3                               |               | 3                                             |               | 3                               |               |  |  |
|                                                | Total Air volume - cfm                      |  | 18,000                                                                                                                                                                                                                            |                                        | 18,000                          |               | 18,300                                        |               | 18,300                          |               |  |  |
| Indoor Coils                                   | Net face area - ft. <sup>2</sup>            |  | 21.40                                                                                                                                                                                                                             |                                        | 21.40                           |               | 21.40                                         |               | 21.40                           |               |  |  |
|                                                | Tube diameter - in.                         |  | 3/8                                                                                                                                                                                                                               |                                        | 3/8                             |               | 3/8                                           |               | 3/8                             |               |  |  |
|                                                | Rows                                        |  | 4                                                                                                                                                                                                                                 |                                        | 4                               |               | 4                                             |               | 4                               |               |  |  |
|                                                | Fins - in.                                  |  | 14                                                                                                                                                                                                                                |                                        | 14                              |               | 14                                            |               | 14                              |               |  |  |
|                                                | Condensate drain size (NPT) - in.           |  | (1) 1                                                                                                                                                                                                                             |                                        | (1) 1                           |               | (1) 1                                         |               | (1) 1                           |               |  |  |
|                                                | Expansion device type                       |  | Balanced Port Thermostatic Expansion Valve,removable power head                                                                                                                                                                   |                                        |                                 |               |                                               |               |                                 |               |  |  |
| <sup>2</sup> Indoor Blower and Drive Selection | Nominal motor HP                            |  | 5, 7.5, 10                                                                                                                                                                                                                        |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Maximum usable motor HP (US)                |  | 5.75, 8.62, 11.5                                                                                                                                                                                                                  |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Motor - Drive kit number                    |  | 5 HP<br>Kit 3 685-856 rpm<br>Kit 4 850-1045 rpm<br>Kit 5 945-1185 rpm<br>7.5 HP<br>Kit 6 850-1045 rpm<br>Kit 7 945-1185 rpm<br>Kit 8 1045-1285 rpm<br>10 HP<br>Kit 7 945-1185 rpm<br>Kit 10 1045-1285 rpm<br>Kit 11 1135-1330 rpm |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Blower wheel nominal diameter x width - in. |  | (2) 15 x 15                                                                                                                                                                                                                       |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Filters                                     |  | MERV 4, Disposable                                                                                                                                                                                                                |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Type of filter                              |  |                                                                                                                                                                                                                                   |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Number and size - in.                       |  | (6) 24 x 24 x 2                                                                                                                                                                                                                   |                                        |                                 |               |                                               |               |                                 |               |  |  |
|                                                | Line voltage data (Volts-Phase-Hz)          |  |                                                                                                                                                                                                                                   | 208/230-3-60,<br>460-3-60,<br>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 - Blower motor service factor = 1.0.



## COOLING RATINGS

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

### 13 TON - LCM156U5M/V (ONE COMPRESSOR OPERATING)

| 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                      |      |      |  |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F |  |
| 63°F                          | 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 |  |
|                               | 1200             | 31.3                                          | 0.76              | 0.83                          | 0.98 | 1    | 29.4            | 0.94              | 0.83                          | 0.98 | 1    | 27.5            | 1.17              | 0.84                          | 0.99 | 1    | 25.6            | 1.43              | 0.86                          | 1    | 1    |  |
|                               | 1500             | 32.9                                          | 0.74              | 0.89                          | 1    | 1    | 31.1            | 0.94              | 0.91                          | 1    | 1    | 29.2            | 1.17              | 0.93                          | 1    | 1    | 27.3            | 1.43              | 0.94                          | 1    | 1    |  |
| 67°F                          | 1800             | 34.5                                          | 0.73              | 0.95                          | 1    | 1    | 32.6            | 0.93              | 0.96                          | 1    | 1    | 30.7            | 1.17              | 0.96                          | 1    | 1    | 28.7            | 1.43              | 0.97                          | 1    | 1    |  |
|                               | 1200             | 33                                            | 0.74              | 0.53                          | 0.78 | 0.96 | 31.1            | 0.94              | 0.53                          | 0.79 | 0.97 | 29.1            | 1.17              | 0.52                          | 0.8  | 0.98 | 27.1            | 1.43              | 0.52                          | 0.82 | 0.98 |  |
|                               | 1500             | 34.6                                          | 0.73              | 0.57                          | 0.85 | 0.99 | 32.5            | 0.93              | 0.57                          | 0.87 | 0.99 | 30.5            | 1.17              | 0.57                          | 0.89 | 1    | 28.4            | 1.43              | 0.57                          | 0.93 | 1    |  |
| 71°F                          | 1800             | 35.7                                          | 0.72              | 0.62                          | 0.93 | 1    | 33.6            | 0.92              | 0.62                          | 0.94 | 1    | 31.5            | 1.16              | 0.62                          | 0.95 | 1    | 29.3            | 1.43              | 0.63                          | 0.96 | 1    |  |
|                               | 1200             | 35                                            | 0.73              | 0.25                          | 0.5  | 0.74 | 33              | 0.93              | 0.23                          | 0.5  | 0.75 | 31              | 1.17              | 0.21                          | 0.5  | 0.76 | 28.9            | 1.43              | 0.18                          | 0.49 | 0.78 |  |
|                               | 1500             | 36.5                                          | 0.72              | 0.25                          | 0.55 | 0.81 | 34.5            | 0.92              | 0.23                          | 0.55 | 0.83 | 32.3            | 1.17              | 0.21                          | 0.55 | 0.85 | 30.1            | 1.43              | 0.19                          | 0.55 | 0.87 |  |
|                               | 1800             | 37.7                                          | 0.71              | 0.26                          | 0.59 | 0.88 | 35.5            | 0.92              | 0.24                          | 0.6  | 0.92 | 33.3            | 1.17              | 0.23                          | 0.61 | 0.94 | 31              | 1.43              | 0.21                          | 0.61 | 0.95 |  |

NOTE - Compressor operating at maximum capacity.

### 13 TON - LCM156U5M/V (TWO COMPRESSORS OPERATING)

| 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                      |      |      |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F   |                 |                   | 75°F                          | 80°F | 85°F   |                 |                   | 75°F                          | 80°F | 85°F   |                 |                   | 75°F                          | 80°F | 85°F |
| cfm                           | kBtu/h           | kW                                            | 75°F              | 80°F                          | 85°F | kBtu/h | kW              | 75°F              | 80°F                          | 85°F | kBtu/h | kW              | 75°F              | 80°F                          | 85°F | kBtu/h | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 3120             | 114                                           | 4.08              | 0.72                          | 0.84 | 0.93   | 108.3           | 4.74              | 0.73                          | 0.85 | 0.94   | 103             | 5.46              | 0.74                          | 0.86 | 0.95   | 97.6            | 6.27              | 0.75                          | 0.87 | 0.96 |
|                               | 3900             | 120.8                                         | 4.06              | 0.77                          | 0.88 | 0.97   | 114.6           | 4.74              | 0.79                          | 0.89 | 0.98   | 109.4           | 5.48              | 0.79                          | 0.9  | 0.99   | 103.3           | 6.29              | 0.79                          | 0.91 | 1    |
|                               | 4680             | 126.3                                         | 4.05              | 0.8                           | 0.92 | 0.99   | 120             | 4.74              | 0.82                          | 0.93 | 1      | 114.2           | 5.48              | 0.82                          | 0.94 | 1      | 108.3           | 6.31              | 0.83                          | 0.95 | 1    |
| 67°F                          | 3120             | 120.3                                         | 4.05              | 0.55                          | 0.69 | 0.82   | 113.9           | 4.73              | 0.54                          | 0.7  | 0.82   | 108.3           | 5.47              | 0.54                          | 0.7  | 0.83   | 102.4           | 6.28              | 0.53                          | 0.7  | 0.84 |
|                               | 3900             | 126.2                                         | 4.04              | 0.56                          | 0.74 | 0.86   | 119.4           | 4.72              | 0.58                          | 0.75 | 0.87   | 113.2           | 5.47              | 0.57                          | 0.76 | 0.87   | 106.9           | 6.3               | 0.57                          | 0.77 | 0.89 |
|                               | 4680             | 130.4                                         | 4.02              | 0.6                           | 0.78 | 0.89   | 123.3           | 4.71              | 0.59                          | 0.8  | 0.91   | 116.8           | 5.47              | 0.61                          | 0.8  | 0.92   | 110.5           | 6.31              | 0.6                           | 0.82 | 0.93 |
| 71°F                          | 3120             | 126.8                                         | 4.03              | 0.37                          | 0.51 | 0.65   | 120.3           | 4.71              | 0.35                          | 0.51 | 0.65   | 114.2           | 5.46              | 0.34                          | 0.51 | 0.66   | 108.2           | 6.3               | 0.33                          | 0.5  | 0.66 |
|                               | 3900             | 133.1                                         | 4.01              | 0.36                          | 0.54 | 0.71   | 126.1           | 4.71              | 0.36                          | 0.54 | 0.72   | 119.8           | 5.48              | 0.35                          | 0.55 | 0.72   | 113.3           | 6.32              | 0.34                          | 0.55 | 0.74 |
|                               | 4680             | 137.7                                         | 3.99              | 0.38                          | 0.58 | 0.75   | 130.3           | 4.71              | 0.37                          | 0.58 | 0.76   | 123.7           | 5.48              | 0.36                          | 0.58 | 0.79   | 116.9           | 6.33              | 0.35                          | 0.58 | 0.79 |

NOTE - Compressors operating at maximum capacity.

### 13 TON - LCM156U5M/V (THREE COMPRESSORS OPERATING)

| 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) |      |        |       |       |      |      |      |
|                               |                  |                                               |                   | Dry Bulb                      |      |        |                 |                   | Dry Bulb                      |      |        |                 |                   | Dry Bulb                      |      |        |       |       |      |      |      |
|                               |                  |                                               |                   |                               |      |        |                 |                   |                               |      |        |                 |                   |                               |      |        |       |       |      |      |      |
| cfm                           | kBtu/h           | kW                                            | 75°F              | 80°F                          | 85°F | kBtu/h | kW              | 75°F              | 80°F                          | 85°F | kBtu/h | kW              | 75°F              | 80°F                          | 85°F | kBtu/h | kW    | 75°F  | 80°F | 85°F |      |
| 63°F                          | 4160             | 155.7                                         | 7.78              | 0.71                          | 0.82 | 0.93   | 146.9           | 8.92              | 0.71                          | 0.83 | 0.94   | 139.2           | 10.25             | 0.71                          | 0.84 | 0.96   | 130.4 | 11.74 | 0.73 | 0.86 | 0.98 |
|                               | 5200             | 165.5                                         | 7.78              | 0.75                          | 0.87 | 0.98   | 156.4           | 8.93              | 0.76                          | 0.89 | 0.99   | 148.4           | 10.27             | 0.77                          | 0.9  | 1      | 138.8 | 11.72 | 0.78 | 0.92 | 1    |
|                               | 6240             | 173                                           | 7.77              | 0.79                          | 0.92 | 1      | 163.6           | 8.94              | 0.8                           | 0.94 | 1      | 154.4           | 10.26             | 0.81                          | 0.96 | 1      | 144.8 | 11.73 | 0.83 | 0.98 | 1    |
| 67°F                          | 4160             | 163.6                                         | 7.77              | 0.55                          | 0.68 | 0.8    | 152.7           | 8.91              | 0.56                          | 0.69 | 0.81   | 145.6           | 10.24             | 0.55                          | 0.69 | 0.82   | 134.9 | 11.72 | 0.55 | 0.72 | 0.83 |
|                               | 5200             | 170.6                                         | 7.76              | 0.59                          | 0.74 | 0.85   | 161.6           | 8.92              | 0.58                          | 0.74 | 0.86   | 152.4           | 10.25             | 0.6                           | 0.75 | 0.88   | 142.8 | 11.72 | 0.6  | 0.76 | 0.9  |
|                               | 6240             | 177.8                                         | 7.76              | 0.61                          | 0.77 | 0.9    | 168.1           | 8.94              | 0.62                          | 0.78 | 0.92   | 158.6           | 10.26             | 0.63                          | 0.79 | 0.94   | 148.1 | 11.74 | 0.63 | 0.81 | 0.96 |
| 71°F                          | 4160             | 173.4                                         | 7.76              | 0.41                          | 0.54 | 0.66   | 164.2           | 8.93              | 0.4                           | 0.53 | 0.68   | 153             | 10.24             | 0.4                           | 0.56 | 0.69   | 143.2 | 11.72 | 0.4  | 0.56 | 0.69 |
|                               | 5200             | 180.3                                         | 7.75              | 0.43                          | 0.58 | 0.72   | 170.5           | 8.93              | 0.43                          | 0.59 | 0.73   | 162.3           | 10.27             | 0.42                          | 0.58 | 0.73   | 151.6 | 11.75 | 0.41 | 0.59 | 0.75 |
|                               | 6240             | 186.4                                         | 7.73              | 0.43                          | 0.61 | 0.76   | 178.1           | 8.95              | 0.44                          | 0.62 | 0.77   | 166.4           | 10.27             | 0.43                          | 0.63 | 0.79   | 155   | 11.75 | 0.43 | 0.63 | 0.8  |

NOTE - Compressors operating at maximum capacity.

## COOLING RATINGS

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

### 15 TON - LCM180U5M/V (ONE COMPRESSOR OPERATING)

| 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                      |      |      |   |   |   |   |   |   |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |   |                 |                   | 75°F                          | 80°F | 85°F |   |                 |                   | 75°F                          | 80°F | 85°F |   |                 |                   | 75°F                          | 80°F | 85°F |   |   |   |   |   |   |
| 63°F                          | cfm              | kBtuh                                         | kW                |                               |      |      |   | kBtuh           | kW                |                               |      |      |   | kBtuh           | kW                |                               |      |      |   | kBtuh           | kW                |                               |      |      |   |   |   |   |   |   |
|                               | 1600             | 46.8                                          | 0.67              | 1                             | 1    | 1    | 1 | 43.6            | 0.82              | 1                             | 1    | 1    | 1 | 40.6            | 1.01              | 1                             | 1    | 1    | 1 | 37.7            | 1.23              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2000             | 49.8                                          | 0.65              | 1                             | 1    | 1    | 1 | 46.6            | 0.81              | 1                             | 1    | 1    | 1 | 43.5            | 1                 | 1                             | 1    | 1    | 1 | 40.4            | 1.23              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2400             | 52.2                                          | 0.65              | 1                             | 1    | 1    | 1 | 48.9            | 0.8               | 1                             | 1    | 1    | 1 | 45.6            | 1                 | 1                             | 1    | 1    | 1 | 42.4            | 1.22              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
| 67°F                          | 1600             | 49.5                                          | 0.66              | 1                             | 1    | 1    | 1 | 46.1            | 0.81              | 1                             | 1    | 1    | 1 | 42.8            | 1.01              | 1                             | 1    | 1    | 1 | 39.4            | 1.23              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2000             | 51.6                                          | 0.65              | 1                             | 1    | 1    | 1 | 48.1            | 0.8               | 1                             | 1    | 1    | 1 | 44.7            | 1                 | 1                             | 1    | 1    | 1 | 41.2            | 1.22              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2400             | 53.2                                          | 0.64              | 1                             | 1    | 1    | 1 | 49.6            | 0.8               | 1                             | 1    | 1    | 1 | 46.1            | 1                 | 1                             | 1    | 1    | 1 | 42.6            | 1.22              | 1                             | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
| 71°F                          | 1600             | 52.7                                          | 0.65              | 0.93                          | 1    | 1    | 1 | 49.2            | 0.8               | 0.82                          | 1    | 1    | 1 | 45.8            | 1                 | 0.74                          | 1    | 1    | 1 | 42.3            | 1.23              | 0.61                          | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2000             | 54.7                                          | 0.64              | 0.98                          | 1    | 1    | 1 | 51.1            | 0.8               | 0.89                          | 1    | 1    | 1 | 47.5            | 1                 | 0.8                           | 1    | 1    | 1 | 44              | 1.22              | 0.7                           | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |
|                               | 2400             | 56.2                                          | 0.64              | 1                             | 1    | 1    | 1 | 52.5            | 0.8               | 0.98                          | 1    | 1    | 1 | 48.8            | 1                 | 0.9                           | 1    | 1    | 1 | 45.2            | 1.23              | 0.8                           | 1    | 1    | 1 | 1 | 1 | 1 | 1 | 1 |

NOTE - Compressor operating at maximum capacity.

### 15 TON - LCM180U5M/V (TWO COMPRESSORS OPERATING)

| 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) |      |      |       |      |      |      |      |
|                               |                  |                                               |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |       |      |      |      |      |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F |       |      |      |      |      |
| 63°F                          | 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 |
|                               | 3600             | 120                                           | 3.88              | 0.79                          | 0.9  | 0.97 | 113.1           | 4.52              | 0.78                          | 0.91 | 0.97 | 105.7           | 5.22              | 0.79                          | 0.91 | 0.98 | 99.1  | 6    | 0.79 | 0.92 | 0.99 |
|                               | 4500             | 127.8                                         | 3.84              | 0.85                          | 0.93 | 0.99 | 120.8           | 4.49              | 0.84                          | 0.94 | 0.99 | 113.2           | 5.2               | 0.84                          | 0.95 | 1    | 105.7 | 5.99 | 0.86 | 0.96 | 1    |
| 67°F                          | 5400             | 134                                           | 3.81              | 0.88                          | 0.96 | 1    | 126.3           | 4.46              | 0.87                          | 0.97 | 1    | 118.5           | 5.18              | 0.88                          | 0.97 | 1    | 110.9 | 5.98 | 0.89 | 0.98 | 1    |
|                               | 3600             | 127                                           | 3.83              | 0.58                          | 0.76 | 0.88 | 119.8           | 4.47              | 0.58                          | 0.75 | 0.89 | 111.6           | 5.19              | 0.57                          | 0.75 | 0.89 | 104.2 | 5.98 | 0.56 | 0.75 | 0.9  |
|                               | 4500             | 133.4                                         | 3.79              | 0.61                          | 0.81 | 0.91 | 125.7           | 4.45              | 0.62                          | 0.81 | 0.92 | 117.4           | 5.17              | 0.61                          | 0.83 | 0.93 | 109.1 | 5.96 | 0.59 | 0.84 | 0.94 |
| 71°F                          | 5400             | 138                                           | 3.75              | 0.65                          | 0.86 | 0.94 | 129.4           | 4.43              | 0.64                          | 0.86 | 0.95 | 121.4           | 5.15              | 0.65                          | 0.87 | 0.96 | 113.5 | 5.96 | 0.63 | 0.88 | 0.97 |
|                               | 3600             | 134.9                                         | 3.77              | 0.38                          | 0.55 | 0.72 | 127             | 4.44              | 0.36                          | 0.56 | 0.71 | 118.9           | 5.15              | 0.35                          | 0.55 | 0.71 | 111.6 | 5.96 | 0.32 | 0.54 | 0.71 |
|                               | 4500             | 141.6                                         | 3.73              | 0.39                          | 0.59 | 0.78 | 133.4           | 4.4               | 0.37                          | 0.58 | 0.78 | 124.9           | 5.14              | 0.37                          | 0.59 | 0.79 | 116.8 | 5.95 | 0.35 | 0.59 | 0.79 |
|                               | 5400             | 146.5                                         | 3.69              | 0.42                          | 0.62 | 0.82 | 137.9           | 4.38              | 0.4                           | 0.63 | 0.84 | 129.1           | 5.13              | 0.39                          | 0.62 | 0.85 | 120.8 | 5.94 | 0.37 | 0.64 | 0.85 |

NOTE - Compressors operating at maximum capacity.

### 15 TON - LCM180U5M/V (THREE COMPRESSORS OPERATING)

| 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                      |      |      |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F |
| 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                          | 4800             | 175.4                                         | 9.5               | 0.7                           | 0.82 | 0.92  | 164.2           | 10.83             | 0.7                           | 0.82 | 0.93  | 152.8           | 12.32             | 0.71                          | 0.83 | 0.95  | 141.1           | 14.03             | 0.71                          | 0.84 | 0.96 |
|                               | 6000             | 187.2                                         | 9.53              | 0.75                          | 0.86 | 0.97  | 175.9           | 10.86             | 0.75                          | 0.88 | 0.98  | 163.5           | 12.37             | 0.76                          | 0.89 | 0.99  | 150.9           | 14.08             | 0.76                          | 0.91 | 1    |
|                               | 7200             | 196.5                                         | 9.55              | 0.78                          | 0.91 | 1     | 184.6           | 10.89             | 0.79                          | 0.93 | 1     | 171.5           | 12.4              | 0.8                           | 0.95 | 1     | 158.3           | 14.11             | 0.81                          | 0.97 | 1    |
| 67°F                          | 4800             | 183.9                                         | 9.52              | 0.55                          | 0.68 | 0.79  | 172.4           | 10.85             | 0.54                          | 0.69 | 0.8   | 160.5           | 12.35             | 0.53                          | 0.7  | 0.81  | 147             | 14.04             | 0.53                          | 0.69 | 0.82 |
|                               | 6000             | 193.5                                         | 9.53              | 0.57                          | 0.72 | 0.84  | 181.8           | 10.87             | 0.58                          | 0.73 | 0.85  | 169.4           | 12.38             | 0.57                          | 0.73 | 0.87  | 156.5           | 14.09             | 0.56                          | 0.74 | 0.88 |
|                               | 7200             | 202.3                                         | 9.55              | 0.62                          | 0.77 | 0.89  | 189.8           | 10.9              | 0.6                           | 0.77 | 0.9   | 176.8           | 12.42             | 0.62                          | 0.78 | 0.92  | 163.2           | 14.14             | 0.6                           | 0.79 | 0.94 |
| 71°F                          | 4800             | 196.5                                         | 9.54              | 0.41                          | 0.53 | 0.67  | 184.6           | 10.89             | 0.38                          | 0.54 | 0.67  | 171.6           | 12.39             | 0.38                          | 0.53 | 0.67  | 158.1           | 14.1              | 0.35                          | 0.52 | 0.68 |
|                               | 6000             | 206.8                                         | 9.56              | 0.41                          | 0.58 | 0.71  | 193.8           | 10.92             | 0.41                          | 0.57 | 0.72  | 180.3           | 12.44             | 0.39                          | 0.56 | 0.72  | 164.6           | 14.12             | 0.37                          | 0.58 | 0.73 |
|                               | 7200             | 212.5                                         | 9.56              | 0.44                          | 0.61 | 0.75  | 199             | 10.92             | 0.42                          | 0.6  | 0.76  | 187.1           | 12.47             | 0.41                          | 0.61 | 0.77  | 171.6           | 14.18             | 0.41                          | 0.61 | 0.78 |

NOTE - Compressors operating at maximum capacity.

## COOLING RATINGS

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

### 17.5 TON - LCM210U5M/V (ONE COMPRESSOR OPERATING)

| 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 |
| 63°F                          | 1600             | 48.2                                          | 1.57              | 0.82                          | 0.95  | 1    | 44.9            | 1.86              | 0.82                          | 0.96 | 1    | 41.7            | 2.19              | 0.82                          | 0.96 | 1    | 38.2            | 2.55              | 0.82                          | 0.97 | 1    |
|                               | 2000             | 51                                            | 1.57              | 0.88                          | 0.98  | 1    | 47.6            | 1.86              | 0.88                          | 0.98 | 1    | 44              | 2.19              | 0.88                          | 0.99 | 1    | 40.9            | 2.56              | 0.89                          | 0.99 | 1    |
|                               | 2400             | 53.2                                          | 1.57              | 0.91                          | 0.99  | 1    | 49.8            | 1.86              | 0.91                          | 1    | 1    | 46              | 2.2               | 0.92                          | 1    | 1    | 42.8            | 2.57              | 0.93                          | 1    | 1    |
| 67°F                          | 1600             | 51.1                                          | 1.57              | 0.53                          | 0.78  | 0.94 | 47.8            | 1.86              | 0.51                          | 0.78 | 0.94 | 44.5            | 2.19              | 0.49                          | 0.77 | 0.94 | 41.1            | 2.56              | 0.46                          | 0.77 | 0.95 |
|                               | 2000             | 53.9                                          | 1.57              | 0.56                          | 0.85  | 0.97 | 50.3            | 1.86              | 0.55                          | 0.85 | 0.97 | 46.6            | 2.2               | 0.54                          | 0.85 | 0.98 | 43.3            | 2.57              | 0.52                          | 0.87 | 0.98 |
|                               | 2400             | 55.9                                          | 1.57              | 0.6                           | 0.89  | 0.99 | 52.3            | 1.87              | 0.59                          | 0.89 | 0.99 | 48.4            | 2.21              | 0.58                          | 0.9  | 1    | 44.8            | 2.58              | 0.57                          | 0.91 | 1    |
| 71°F                          | 1600             | 54.7                                          | 1.57              | 0.23                          | 0.49  | 0.73 | 51.3            | 1.86              | 0.2                           | 0.48 | 0.73 | 47.9            | 2.2               | 0.16                          | 0.46 | 0.73 | 44.4            | 2.57              | 0.11                          | 0.44 | 0.73 |
|                               | 2000             | 57.3                                          | 1.57              | 0.24                          | 0.53  | 0.8  | 53.8            | 1.87              | 0.2                           | 0.52 | 0.8  | 49.9            | 2.21              | 0.17                          | 0.51 | 0.81 | 46.5            | 2.58              | 0.13                          | 0.5  | 0.82 |
|                               | 2400             | 59.3                                          | 1.57              | 0.24                          | 0.57  | 0.86 | 55.3            | 1.87              | 0.21                          | 0.57 | 0.87 | 51.6            | 2.21              | 0.18                          | 0.56 | 0.88 | 47.8            | 2.59              | 0.15                          | 0.55 | 0.89 |

NOTE - Compressor operating at maximum capacity.

### 17.5 TON - LCM210U5M/V (TWO COMPRESSORS OPERATING)

| 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 |
| 63°F                          | 2800             | 101                                           | 3.86              | 0.72                          | 0.85  | 0.97 | 94.6            | 4.47              | 0.72                          | 0.86 | 0.98 | 87.8            | 5.16              | 0.72                          | 0.87 | 0.99 | 81              | 5.94              | 0.73                          | 0.88 | 1    |
|                               | 3500             | 107.9                                         | 3.88              | 0.77                          | 0.91  | 1    | 100.7           | 4.49              | 0.77                          | 0.93 | 1    | 94              | 5.2               | 0.78                          | 0.94 | 1    | 86.7            | 5.98              | 0.78                          | 0.96 | 1    |
|                               | 4200             | 113.3                                         | 3.9               | 0.81                          | 0.97  | 1    | 106             | 4.52              | 0.82                          | 0.98 | 1    | 98.7            | 5.23              | 0.83                          | 0.99 | 1    | 91.7            | 6.02              | 0.84                          | 1    | 1    |
| 67°F                          | 2800             | 107.6                                         | 3.88              | 0.57                          | 0.71  | 0.83 | 100.5           | 4.49              | 0.57                          | 0.71 | 0.83 | 93.2            | 5.19              | 0.56                          | 0.71 | 0.84 | 86.5            | 5.98              | 0.55                          | 0.71 | 0.86 |
|                               | 3500             | 114                                           | 3.9               | 0.61                          | 0.75  | 0.89 | 106.8           | 4.52              | 0.6                           | 0.76 | 0.9  | 99.2            | 5.23              | 0.6                           | 0.76 | 0.92 | 91.4            | 6.01              | 0.59                          | 0.77 | 0.93 |
|                               | 4200             | 118.9                                         | 3.92              | 0.64                          | 0.8   | 0.94 | 111             | 4.54              | 0.64                          | 0.81 | 0.96 | 103.7           | 5.26              | 0.63                          | 0.81 | 0.97 | 95.6            | 6.04              | 0.63                          | 0.83 | 0.99 |
| 71°F                          | 2800             | 114.2                                         | 3.9               | 0.43                          | 0.57  | 0.69 | 106.9           | 4.52              | 0.41                          | 0.56 | 0.69 | 99.7            | 5.22              | 0.4                           | 0.55 | 0.69 | 92.1            | 6.01              | 0.38                          | 0.55 | 0.7  |
|                               | 3500             | 121.2                                         | 3.92              | 0.45                          | 0.6   | 0.74 | 113.3           | 4.55              | 0.44                          | 0.6  | 0.74 | 105.4           | 5.27              | 0.42                          | 0.6  | 0.75 | 97.7            | 6.06              | 0.41                          | 0.59 | 0.76 |
|                               | 4200             | 125.9                                         | 3.94              | 0.46                          | 0.63  | 0.78 | 117.9           | 4.58              | 0.46                          | 0.63 | 0.79 | 109.7           | 5.3               | 0.44                          | 0.63 | 0.8  | 101.7           | 6.1               | 0.42                          | 0.63 | 0.82 |

NOTE - Compressors operating at maximum capacity.

### 17.5 TON - LCM210U5M/V (THREE COMPRESSORS OPERATING)

| Entering<br>Wet Bulb<br>Tem-<br>perature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |       |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |
|------------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|-------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|
|                                          |                        | 85°F                                          |                         |                                  |       |      | 95°F                  |                         |                                  |      |      | 105°F                 |                         |                                  |      |      | 115°F                 |                         |                                  |      |      |
|                                          |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>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 |
| 63°F                                     | 4200                   | 142.6                                         | 8.85                    | 0.8                              | 0.96  | 1    | 131.6                 | 10.17                   | 0.78                             | 0.96 | 1    | 120.8                 | 11.64                   | 0.8                              | 0.96 | 1    | 108.8                 | 13.29                   | 0.8                              | 0.97 | 1    |
|                                          | 5250                   | 152.3                                         | 8.93                    | 0.88                             | 0.98  | 1    | 141.6                 | 10.26                   | 0.89                             | 0.98 | 1    | 129.6                 | 11.74                   | 0.9                              | 0.99 | 1    | 117.6                 | 13.39                   | 0.89                             | 0.99 | 1    |
|                                          | 6300                   | 160.2                                         | 9.01                    | 0.92                             | 0.99  | 1    | 148.9                 | 10.35                   | 0.93                             | 1    | 1    | 136.6                 | 11.82                   | 0.94                             | 1    | 1    | 124.4                 | 13.48                   | 0.95                             | 1    | 1    |
| 67°F                                     | 4200                   | 152.9                                         | 8.93                    | 0.53                             | 0.76  | 0.94 | 141.5                 | 10.25                   | 0.51                             | 0.76 | 0.94 | 129.2                 | 11.71                   | 0.46                             | 0.75 | 0.95 | 116.9                 | 13.37                   | 0.43                             | 0.75 | 0.95 |
|                                          | 5250                   | 161.1                                         | 9.01                    | 0.58                             | 0.84  | 0.97 | 148.6                 | 10.33                   | 0.55                             | 0.87 | 0.97 | 136                   | 11.8                    | 0.53                             | 0.87 | 0.98 | 123.1                 | 13.45                   | 0.5                              | 0.88 | 0.98 |
|                                          | 6300                   | 166.3                                         | 9.06                    | 0.61                             | 0.91  | 0.99 | 154.2                 | 10.4                    | 0.6                              | 0.92 | 0.99 | 141.6                 | 11.87                   | 0.57                             | 0.93 | 0.99 | 128.2                 | 13.52                   | 0.55                             | 0.93 | 1    |
| 71°F                                     | 4200                   | 165                                           | 9.03                    | 0.27                             | 0.5   | 0.71 | 152.6                 | 10.35                   | 0.23                             | 0.48 | 0.71 | 140.2                 | 11.83                   | 0.19                             | 0.46 | 0.7  | 127.4                 | 13.48                   | 0.12                             | 0.42 | 0.71 |
|                                          | 5250                   | 172.3                                         | 9.11                    | 0.27                             | 0.53  | 0.8  | 160                   | 10.45                   | 0.24                             | 0.52 | 0.81 | 147.2                 | 11.92                   | 0.2                              | 0.5  | 0.83 | 133.5                 | 13.57                   | 0.15                             | 0.48 | 0.86 |
|                                          | 6300                   | 177.9                                         | 9.18                    | 0.3                              | 0.59  | 0.89 | 164.7                 | 10.51                   | 0.26                             | 0.57 | 0.9  | 151.5                 | 11.99                   | 0.22                             | 0.58 | 0.91 | 137.8                 | 13.64                   | 0.17                             | 0.57 | 0.93 |

NOTE - Compressors operating at maximum capacity.

### 17.5 TON - LCM210U5M/V (FOUR COMPRESSORS OPERATING)

| 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) |      |      |       |       |      |      |      |
|                               |                  |                                               |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |       |       |      |      |      |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |                 |                   | 75°F                          | 80°F | 85°F | 75°F            |                   |                               |      |      | 80°F  | 85°F  | 75°F | 80°F | 85°F |
| 63°F                          | 5600             | 205.8                                         | 11.2              | 0.69                          | 0.83 | 0.92 | 191.4           | 12.86             | 0.68                          | 0.83 | 0.93 | 176.5           | 14.73             | 0.69                          | 0.84 | 0.95 | 160.2 | 16.85 | 0.69 | 0.85 | 0.96 |
|                               | 7000             | 221.1                                         | 11.25             | 0.75                          | 0.88 | 0.98 | 206             | 12.92             | 0.76                          | 0.89 | 0.99 | 190.5           | 14.8              | 0.76                          | 0.9  | 1    | 173.2 | 16.92 | 0.78 | 0.91 | 1    |
|                               | 8400             | 233.1                                         | 11.29             | 0.8                           | 0.92 | 1    | 217             | 12.97             | 0.81                          | 0.94 | 1    | 200.8           | 14.86             | 0.82                          | 0.95 | 1    | 183   | 16.98 | 0.83 | 0.97 | 1    |
| 67°F                          | 5600             | 219.1                                         | 11.25             | 0.52                          | 0.66 | 0.81 | 203.5           | 12.91             | 0.51                          | 0.67 | 0.81 | 187.5           | 14.78             | 0.5                           | 0.67 | 0.82 | 170.2 | 16.89 | 0.48 | 0.67 | 0.83 |
|                               | 7000             | 231.5                                         | 11.3              | 0.55                          | 0.74 | 0.86 | 215.2           | 12.97             | 0.54                          | 0.73 | 0.87 | 198.3           | 14.85             | 0.55                          | 0.75 | 0.88 | 180.1 | 16.95 | 0.53 | 0.77 | 0.89 |
|                               | 8400             | 241                                           | 11.34             | 0.59                          | 0.8  | 0.9  | 224.5           | 13.02             | 0.58                          | 0.79 | 0.92 | 207.2           | 14.9              | 0.58                          | 0.8  | 0.93 | 189.4 | 17.02 | 0.58 | 0.81 | 0.95 |
| 71°F                          | 5600             | 235.4                                         | 11.3              | 0.37                          | 0.52 | 0.64 | 218.9           | 12.98             | 0.35                          | 0.49 | 0.66 | 202.8           | 14.86             | 0.33                          | 0.5  | 0.66 | 184.2 | 16.97 | 0.29 | 0.47 | 0.66 |
|                               | 7000             | 247.2                                         | 11.36             | 0.39                          | 0.56 | 0.7  | 230.4           | 13.04             | 0.37                          | 0.54 | 0.72 | 212.6           | 14.93             | 0.36                          | 0.54 | 0.73 | 193.8 | 17.05 | 0.32 | 0.53 | 0.74 |
|                               | 8400             | 256.6                                         | 11.4              | 0.41                          | 0.58 | 0.77 | 238.5           | 13.09             | 0.39                          | 0.58 | 0.78 | 219.9           | 14.98             | 0.36                          | 0.59 | 0.79 | 200.8 | 17.11 | 0.32 | 0.59 | 0.8  |

NOTE - Compressors operating at maximum capacity.

## COOLING RATINGS

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

### 20 TON - LCM240U5M/V (ONE COMPRESSOR OPERATING)

| 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 |
| 63°F                          | 1600             | 50                                            | 1.85              | 0.6                           | 0.76  | 0.91 | 47.3            | 2.16              | 0.59                          | 0.77 | 0.92 | 44.9            | 2.5               | 0.6                           | 0.79 | 0.94 | 42.3            | 2.87              | 0.6                           | 0.8  | 0.96 |
|                               | 2000             | 53                                            | 1.85              | 0.63                          | 0.82  | 0.97 | 50.2            | 2.17              | 0.63                          | 0.83 | 0.98 | 47.6            | 2.51              | 0.64                          | 0.85 | 1    | 44.5            | 2.89              | 0.65                          | 0.87 | 1    |
|                               | 2400             | 55.4                                          | 1.85              | 0.67                          | 0.87  | 1    | 52.5            | 2.17              | 0.68                          | 0.89 | 1    | 49.6            | 2.52              | 0.69                          | 0.91 | 1    | 46.7            | 2.9               | 0.7                           | 0.93 | 1    |
| 67°F                          | 1600             | 52.7                                          | 1.85              | 0.39                          | 0.55  | 0.72 | 50              | 2.16              | 0.38                          | 0.55 | 0.73 | 47.4            | 2.51              | 0.37                          | 0.55 | 0.74 | 44.5            | 2.88              | 0.36                          | 0.56 | 0.75 |
|                               | 2000             | 55.6                                          | 1.85              | 0.4                           | 0.59  | 0.78 | 52.7            | 2.17              | 0.4                           | 0.6  | 0.79 | 49.9            | 2.52              | 0.39                          | 0.6  | 0.81 | 47.1            | 2.9               | 0.39                          | 0.61 | 0.82 |
|                               | 2400             | 57.8                                          | 1.85              | 0.42                          | 0.63  | 0.83 | 54.8            | 2.18              | 0.42                          | 0.64 | 0.85 | 51.6            | 2.53              | 0.42                          | 0.66 | 0.87 | 48.8            | 2.92              | 0.41                          | 0.66 | 0.89 |
| 71°F                          | 1600             | 55.9                                          | 1.85              | 0.18                          | 0.36  | 0.52 | 53.1            | 2.17              | 0.16                          | 0.35 | 0.51 | 50.1            | 2.52              | 0.14                          | 0.34 | 0.51 | 47.5            | 2.9               | 0.12                          | 0.33 | 0.52 |
|                               | 2000             | 58.8                                          | 1.85              | 0.17                          | 0.37  | 0.55 | 55.5            | 2.18              | 0.16                          | 0.37 | 0.56 | 52.6            | 2.54              | 0.14                          | 0.36 | 0.57 | 49.8            | 2.92              | 0.12                          | 0.36 | 0.57 |
|                               | 2400             | 60.9                                          | 1.85              | 0.17                          | 0.39  | 0.59 | 57.4            | 2.18              | 0.16                          | 0.39 | 0.6  | 54.7            | 2.55              | 0.14                          | 0.39 | 0.62 | 51.6            | 2.94              | 0.13                          | 0.39 | 0.63 |

NOTE - Compressor operating at maximum capacity.

### 20 TON - LCM240U5M/V (TWO COMPRESSORS OPERATING)

| 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) |      |      |       |       |      |      |      |
|                               |                  |                                               |                   | 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 |
| 63°F                          | 3200             | 108.7                                         | 4.1               | 0.73                          | 0.85  | 0.96 | 103             | 4.74              | 0.73                          | 0.86 | 0.97 | 97.2            | 5.43              | 0.74                          | 0.87 | 0.98 | 91    | 6.19  | 0.74 | 0.88 | 0.99 |
|                               | 4000             | 115.8                                         | 4.11              | 0.77                          | 0.9   | 1    | 109.6           | 4.74              | 0.78                          | 0.91 | 1    | 102.7           | 5.44              | 0.78                          | 0.93 | 1    | 96.7  | 6.21  | 0.79 | 0.95 | 1    |
|                               | 4800             | 120.9                                         | 4.11              | 0.8                           | 0.95  | 1    | 114.6           | 4.75              | 0.81                          | 0.96 | 1    | 108.2           | 5.45              | 0.83                          | 0.98 | 1    | 101.6 | 6.22  | 0.84 | 0.99 | 1    |
| 67°F                          | 3200             | 114.5                                         | 4.11              | 0.58                          | 0.71  | 0.82 | 108.4           | 4.74              | 0.58                          | 0.71 | 0.83 | 102             | 5.44              | 0.57                          | 0.72 | 0.84 | 95.4  | 6.2   | 0.57 | 0.72 | 0.86 |
|                               | 4000             | 121.2                                         | 4.11              | 0.6                           | 0.75  | 0.88 | 114.3           | 4.75              | 0.6                           | 0.76 | 0.89 | 107.7           | 5.45              | 0.61                          | 0.77 | 0.9  | 101.1 | 6.22  | 0.61 | 0.78 | 0.93 |
|                               | 4800             | 125.7                                         | 4.1               | 0.63                          | 0.79  | 0.93 | 119.2           | 4.75              | 0.63                          | 0.8  | 0.94 | 112.1           | 5.46              | 0.64                          | 0.81 | 0.96 | 105.2 | 6.23  | 0.64 | 0.82 | 0.97 |
| 71°F                          | 3200             | 121.2                                         | 4.1               | 0.43                          | 0.56  | 0.69 | 114.5           | 4.75              | 0.43                          | 0.56 | 0.7  | 108             | 5.45              | 0.42                          | 0.56 | 0.7  | 101.6 | 6.22  | 0.41 | 0.56 | 0.7  |
|                               | 4000             | 127.9                                         | 4.1               | 0.44                          | 0.6   | 0.73 | 121.1           | 4.76              | 0.44                          | 0.59 | 0.74 | 113.7           | 5.46              | 0.43                          | 0.6  | 0.75 | 106.7 | 6.23  | 0.43 | 0.6  | 0.76 |
|                               | 4800             | 133                                           | 4.1               | 0.46                          | 0.63  | 0.78 | 125.8           | 4.76              | 0.45                          | 0.63 | 0.79 | 117.9           | 5.47              | 0.45                          | 0.63 | 0.8  | 110.6 | 6.25  | 0.44 | 0.64 | 0.81 |

NOTE - Compressors operating at maximum capacity.

### 20 TON - LCM240U5M/V (THREE COMPRESSORS OPERATING)

| Entering<br>Wet Bulb<br>Temperature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |       |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |
|-------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|-------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|
|                                     |                        | 85°F                                          |                         |                                  |       |      | 95°F                  |                         |                                  |      |      | 105°F                 |                         |                                  |      |      | 115°F                 |                         |                                  |      |      |
|                                     |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>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 |
| 63°F                                | 4800                   | 161                                           | 8.99                    | 0.77                             | 0.92  | 0.98 | 151.5                 | 10.23                   | 0.77                             | 0.93 | 0.98 | 140.7                 | 11.58                   | 0.77                             | 0.94 | 0.99 | 130.8                 | 13.12                   | 0.78                             | 0.95 | 0.99 |
|                                     | 6000                   | 170.1                                         | 9.02                    | 0.83                             | 0.96  | 0.99 | 160.2                 | 10.26                   | 0.83                             | 0.96 | 0.99 | 150.5                 | 11.62                   | 0.86                             | 0.97 | 1    | 139.9                 | 13.16                   | 0.87                             | 0.97 | 1    |
|                                     | 7200                   | 178.3                                         | 9.04                    | 0.88                             | 0.97  | 1    | 168.3                 | 10.28                   | 0.9                              | 0.98 | 1    | 157.9                 | 11.65                   | 0.9                              | 0.98 | 1    | 146.8                 | 13.18                   | 0.91                             | 0.99 | 1    |
| 67°F                                | 4800                   | 170.2                                         | 9.02                    | 0.5                              | 0.71  | 0.9  | 160.1                 | 10.26                   | 0.49                             | 0.71 | 0.91 | 149.8                 | 11.62                   | 0.45                             | 0.71 | 0.92 | 138.8                 | 13.15                   | 0.44                             | 0.74 | 0.93 |
|                                     | 6000                   | 178.8                                         | 9.04                    | 0.51                             | 0.79  | 0.94 | 168.8                 | 10.29                   | 0.52                             | 0.82 | 0.95 | 157.4                 | 11.65                   | 0.51                             | 0.83 | 0.95 | 145.7                 | 13.18                   | 0.49                             | 0.84 | 0.96 |
|                                     | 7200                   | 185.5                                         | 9.06                    | 0.56                             | 0.85  | 0.96 | 174.3                 | 10.31                   | 0.54                             | 0.88 | 0.97 | 163.1                 | 11.68                   | 0.54                             | 0.88 | 0.97 | 150.8                 | 13.2                    | 0.56                             | 0.9  | 0.98 |
| 71°F                                | 4800                   | 181.9                                         | 9.05                    | 0.25                             | 0.47  | 0.67 | 170.1                 | 10.29                   | 0.23                             | 0.43 | 0.66 | 159.6                 | 11.66                   | 0.22                             | 0.43 | 0.66 | 148.2                 | 13.19                   | 0.17                             | 0.41 | 0.67 |
|                                     | 6000                   | 189.9                                         | 9.08                    | 0.26                             | 0.48  | 0.75 | 178.8                 | 10.32                   | 0.25                             | 0.47 | 0.75 | 167.5                 | 11.69                   | 0.21                             | 0.46 | 0.79 | 155                   | 13.22                   | 0.19                             | 0.46 | 0.82 |
|                                     | 7200                   | 196.6                                         | 9.09                    | 0.27                             | 0.52  | 0.84 | 184.6                 | 10.34                   | 0.26                             | 0.53 | 0.84 | 172.5                 | 11.71                   | 0.22                             | 0.54 | 0.86 | 160.3                 | 13.24                   | 0.19                             | 0.53 | 0.87 |

NOTE - Compressors operating at maximum capacity.

### 20 TON - LCM240U5M/V (FOUR COMPRESSORS OPERATING)

| 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) |       |      |       |       |      |       |      |
|                               |                  |                                               |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |       |      |       |       |      |       |      |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |                 |                   | kBTuh                         | kW   | 75°F | 80°F            |                   | 85°F                          | kBTuh | kW   | 75°F  | 80°F  | 85°F | kBTuh | kW   |
| 63°F                          | 6400             | 236.5                                         | 13.65             | 0.68                          | 0.84 | 0.92 | 224             | 15.45             | 0.68                          | 0.83 | 0.93 | 209.8           | 17.44             | 0.7                           | 0.85  | 0.94 | 195.1 | 19.71 | 0.71 | 0.86  | 0.96 |
|                               | 8000             | 252.4                                         | 13.69             | 0.74                          | 0.87 | 0.97 | 238.6           | 15.49             | 0.74                          | 0.88 | 0.98 | 223.8           | 17.48             | 0.77                          | 0.9   | 0.99 | 209   | 19.74 | 0.79 | 0.91  | 1    |
|                               | 9600             | 265.5                                         | 13.71             | 0.8                           | 0.91 | 1    | 250.1           | 15.52             | 0.8                           | 0.93 | 1    | 234.9           | 17.51             | 0.82                          | 0.94  | 1    | 219.1 | 19.77 | 0.83 | 0.96  | 1    |
| 67°F                          | 6400             | 251                                           | 13.68             | 0.51                          | 0.65 | 0.81 | 236.6           | 15.48             | 0.51                          | 0.67 | 0.81 | 221             | 17.46             | 0.51                          | 0.68  | 0.82 | 205.3 | 19.73 | 0.5  | 0.69  | 0.83 |
|                               | 8000             | 264.3                                         | 13.71             | 0.53                          | 0.72 | 0.85 | 249             | 15.51             | 0.55                          | 0.72 | 0.86 | 232.9           | 17.5              | 0.54                          | 0.75  | 0.87 | 216.1 | 19.76 | 0.54 | 0.76  | 0.89 |
|                               | 9600             | 274                                           | 13.73             | 0.57                          | 0.77 | 0.89 | 257.5           | 15.53             | 0.58                          | 0.79 | 0.91 | 241.3           | 17.52             | 0.58                          | 0.81  | 0.92 | 224.7 | 19.78 | 0.58 | 0.83  | 0.94 |
| 71°F                          | 6400             | 266.4                                         | 13.71             | 0.37                          | 0.49 | 0.63 | 251.3           | 15.51             | 0.35                          | 0.49 | 0.63 | 235.3           | 17.5              | 0.34                          | 0.5   | 0.65 | 219.3 | 19.76 | 0.33 | 0.5   | 0.66 |
|                               | 8000             | 279.1                                         | 13.74             | 0.39                          | 0.53 | 0.69 | 263.3           | 15.54             | 0.38                          | 0.53 | 0.71 | 247.2           | 17.53             | 0.36                          | 0.52  | 0.71 | 230   | 19.79 | 0.33 | 0.54  | 0.74 |
|                               | 9600             | 288.8                                         | 13.76             | 0.39                          | 0.58 | 0.76 | 272             | 15.56             | 0.36                          | 0.58 | 0.76 | 255.2           | 17.55             | 0.37                          | 0.57  | 0.78 | 237.5 | 19.81 | 0.36 | 0.59  | 0.8  |

NOTE - Compressors operating at maximum capacity.

## COOLING RATINGS

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

### 25 TON - LCM300U5M/V (ONE COMPRESSOR OPERATING)

| 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) |      |      |      |       |      |      |      |
|                               |                  |                                               |                   | 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 |
| 63°F                          | 2000             | 55.9                                          | 2.02              | 0.86                          | 1     | 1    | 53.8            | 2.36              | 0.88                          | 1    | 1    | 51.8            | 2.73              | 0.9                           | 1    | 1    | 49.5 | 3.12  | 0.92 | 1    | 1    |
|                               | 2500             | 58.7                                          | 2.02              | 0.93                          | 1     | 1    | 56.6            | 2.37              | 0.95                          | 1    | 1    | 54.4            | 2.74              | 0.96                          | 1    | 1    | 51.9 | 3.14  | 0.97 | 1    | 1    |
|                               | 3000             | 60.9                                          | 2.02              | 0.97                          | 1     | 1    | 58.3            | 2.37              | 0.97                          | 1    | 1    | 56.1            | 2.75              | 0.98                          | 1    | 1    | 54.2 | 3.15  | 0.99 | 1    | 1    |
| 67°F                          | 2000             | 58.5                                          | 2.02              | 0.56                          | 0.81  | 0.98 | 56.3            | 2.37              | 0.56                          | 0.83 | 0.99 | 53.9            | 2.74              | 0.57                          | 0.85 | 0.99 | 52   | 3.14  | 0.58 | 0.86 | 1    |
|                               | 2500             | 61.2                                          | 2.02              | 0.59                          | 0.88  | 1    | 58.5            | 2.37              | 0.6                           | 0.91 | 1    | 56.2            | 2.75              | 0.62                          | 0.93 | 1    | 54.1 | 3.15  | 0.63 | 0.95 | 1    |
|                               | 3000             | 63.1                                          | 2.01              | 0.63                          | 0.95  | 1    | 60.3            | 2.37              | 0.65                          | 0.96 | 1    | 58.1            | 2.76              | 0.66                          | 0.97 | 1    | 55.3 | 3.16  | 0.68 | 0.98 | 1    |
| 71°F                          | 2000             | 61.2                                          | 2.02              | 0.23                          | 0.51  | 0.76 | 58.7            | 2.37              | 0.23                          | 0.52 | 0.77 | 56.4            | 2.75              | 0.23                          | 0.53 | 0.79 | 54.4 | 3.15  | 0.23 | 0.54 | 0.81 |
|                               | 2500             | 63.8                                          | 2.01              | 0.24                          | 0.55  | 0.83 | 61.2            | 2.37              | 0.24                          | 0.57 | 0.85 | 59              | 2.76              | 0.24                          | 0.58 | 0.87 | 56.3 | 3.17  | 0.24 | 0.59 | 0.9  |
|                               | 3000             | 65.9                                          | 2.01              | 0.25                          | 0.6   | 0.9  | 63.3            | 2.38              | 0.25                          | 0.61 | 0.93 | 60.5            | 2.77              | 0.25                          | 0.63 | 0.95 | 57.9 | 3.18  | 0.26 | 0.65 | 0.96 |

NOTE - Compressor operating at maximum capacity.

### 25 TON - LCM300U5M/V (TWO COMPRESSORS OPERATING)

| 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) |      |      |       |       |      |      |      |
|                               |                  |                                               |                   | 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 |
| 63°F                          | 4000             | 128.2                                         | 5.34              | 0.75                          | 0.89  | 0.99 | 123.1           | 6.13              | 0.76                          | 0.9  | 1    | 117.7           | 7.02              | 0.77                          | 0.92 | 1    | 112.7 | 8.02  | 0.79 | 0.94 | 1    |
|                               | 5000             | 134.2                                         | 5.36              | 0.8                           | 0.95  | 1    | 129.3           | 6.17              | 0.81                          | 0.96 | 1    | 123.7           | 7.07              | 0.83                          | 0.98 | 1    | 118.7 | 8.08  | 0.84 | 0.99 | 1    |
|                               | 6000             | 139.6                                         | 5.39              | 0.85                          | 0.99  | 1    | 134.3           | 6.21              | 0.86                          | 1    | 1    | 128.7           | 7.11              | 0.88                          | 1    | 1    | 123.5 | 8.13  | 0.9  | 1    | 1    |
| 67°F                          | 4000             | 134.7                                         | 5.37              | 0.59                          | 0.73  | 0.86 | 129.8           | 6.18              | 0.6                           | 0.74 | 0.87 | 123.6           | 7.07              | 0.6                           | 0.75 | 0.89 | 118.7 | 8.08  | 0.61 | 0.77 | 0.91 |
|                               | 5000             | 140.8                                         | 5.4               | 0.62                          | 0.78  | 0.93 | 135.2           | 6.22              | 0.63                          | 0.79 | 0.94 | 128.9           | 7.12              | 0.64                          | 0.81 | 0.96 | 123.2 | 8.14  | 0.65 | 0.83 | 0.98 |
|                               | 6000             | 145.3                                         | 5.43              | 0.66                          | 0.83  | 0.97 | 139.1           | 6.26              | 0.67                          | 0.85 | 0.99 | 133.1           | 7.17              | 0.68                          | 0.86 | 0.99 | 126.5 | 8.17  | 0.69 | 0.89 | 1    |
| 71°F                          | 4000             | 140.8                                         | 5.39              | 0.45                          | 0.58  | 0.71 | 135.8           | 6.21              | 0.45                          | 0.59 | 0.72 | 129.6           | 7.12              | 0.45                          | 0.59 | 0.73 | 124.2 | 8.14  | 0.45 | 0.6  | 0.75 |
|                               | 5000             | 148                                           | 5.44              | 0.46                          | 0.62  | 0.76 | 141.8           | 6.27              | 0.46                          | 0.63 | 0.78 | 135.8           | 7.19              | 0.46                          | 0.63 | 0.79 | 129.3 | 8.2   | 0.47 | 0.65 | 0.81 |
|                               | 6000             | 152.7                                         | 5.47              | 0.47                          | 0.65  | 0.81 | 145.9           | 6.31              | 0.48                          | 0.66 | 0.83 | 139.7           | 7.23              | 0.48                          | 0.67 | 0.85 | 133.5 | 8.26  | 0.48 | 0.68 | 0.87 |

NOTE - Compressors operating at maximum capacity.

### 25 TON - LCM300U5M/V (THREE COMPRESSORS OPERATING)

| 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 |
| 63°F                          | 5600             | 192.9                                         | 11.98             | 0.78                          | 0.9   | 0.96 | 184.8           | 13.65             | 0.8                           | 0.91 | 0.97 | 176.7           | 15.55             | 0.82                          | 0.92 | 0.97 | 167.3           | 17.68             | 0.83                          | 0.93 | 0.98 |
|                               | 7000             | 203.5                                         | 12.1              | 0.83                          | 0.94  | 0.98 | 194.4           | 13.78             | 0.85                          | 0.94 | 0.99 | 185.4           | 15.68             | 0.85                          | 0.95 | 0.99 | 175.7           | 17.83             | 0.87                          | 0.96 | 1    |
|                               | 8400             | 211.1                                         | 12.2              | 0.87                          | 0.96  | 1    | 201.9           | 13.9              | 0.88                          | 0.96 | 1    | 192.4           | 15.79             | 0.9                           | 0.97 | 1    | 182.9           | 17.94             | 0.91                          | 0.98 | 1    |
| 67°F                          | 5600             | 201.7                                         | 12.09             | 0.54                          | 0.73  | 0.87 | 193             | 13.78             | 0.54                          | 0.74 | 0.89 | 183.2           | 15.66             | 0.55                          | 0.77 | 0.9  | 173.5           | 17.81             | 0.57                          | 0.78 | 0.91 |
|                               | 7000             | 210.1                                         | 12.2              | 0.57                          | 0.81  | 0.92 | 200.6           | 13.89             | 0.58                          | 0.82 | 0.93 | 190.9           | 15.79             | 0.59                          | 0.83 | 0.94 | 180.2           | 17.93             | 0.61                          | 0.86 | 0.95 |
|                               | 8400             | 216.1                                         | 12.27             | 0.63                          | 0.85  | 0.94 | 207.2           | 13.99             | 0.64                          | 0.87 | 0.95 | 196.8           | 15.89             | 0.66                          | 0.88 | 0.96 | 186.5           | 18.04             | 0.67                          | 0.9  | 0.97 |
| 71°F                          | 5600             | 212.9                                         | 12.22             | 0.33                          | 0.5   | 0.68 | 204             | 13.93             | 0.33                          | 0.51 | 0.7  | 193.8           | 15.83             | 0.31                          | 0.52 | 0.72 | 183.4           | 17.99             | 0.33                          | 0.54 | 0.75 |
|                               | 7000             | 221.4                                         | 12.34             | 0.33                          | 0.55  | 0.75 | 211.6           | 14.06             | 0.34                          | 0.56 | 0.77 | 201             | 15.96             | 0.33                          | 0.58 | 0.8  | 189.5           | 18.11             | 0.34                          | 0.6  | 0.82 |
|                               | 8400             | 228.2                                         | 12.44             | 0.35                          | 0.6   | 0.82 | 218             | 14.17             | 0.35                          | 0.61 | 0.84 | 205.9           | 16.05             | 0.36                          | 0.63 | 0.87 | 194.7           | 18.22             | 0.37                          | 0.65 | 0.88 |

NOTE - Compressors operating at maximum capacity.

### 25 TON - LCM300U5M/V (FOUR COMPRESSORS OPERATING)

| 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                      |      |       |
|                               |                  |                                               |                   | 75°F                          | 80°F | 85°F |                 |                   | kBtuh                         | kW   | 75°F | 80°F            |                   | 85°F                          | kBtuh | kW   | 75°F            |                   | 80°F                          | 85°F | kBtuh |
| 63°F                          | 7000             | 270.7                                         | 17.35             | 0.69                          | 0.82 | 0.91 | 260.5           | 19.68             | 0.69                          | 0.83 | 0.92 | 248.6           | 22.28             | 0.7                           | 0.84  | 0.93 | 235.8           | 25.23             | 0.72                          | 0.85 | 0.95  |
|                               | 8500             | 284.2                                         | 17.48             | 0.72                          | 0.85 | 0.95 | 272.3           | 19.82             | 0.74                          | 0.87 | 0.97 | 259.9           | 22.43             | 0.75                          | 0.88  | 0.98 | 246.6           | 25.4              | 0.77                          | 0.9  | 0.99  |
|                               | 10000            | 294.2                                         | 17.58             | 0.76                          | 0.89 | 0.99 | 282.1           | 19.94             | 0.78                          | 0.91 | 1    | 269.5           | 22.57             | 0.8                           | 0.92  | 1    | 255.8           | 25.55             | 0.82                          | 0.94 | 1     |
| 67°F                          | 7000             | 282.7                                         | 17.47             | 0.54                          | 0.66 | 0.79 | 270.1           | 19.8              | 0.53                          | 0.66 | 0.8  | 260.3           | 22.45             | 0.54                          | 0.69  | 0.81 | 246             | 25.41             | 0.55                          | 0.71 | 0.83  |
|                               | 8500             | 296.4                                         | 17.63             | 0.56                          | 0.71 | 0.83 | 283.6           | 19.98             | 0.56                          | 0.72 | 0.84 | 270.7           | 22.61             | 0.56                          | 0.73  | 0.86 | 255.5           | 25.57             | 0.57                          | 0.76 | 0.87  |
|                               | 10000            | 305.6                                         | 17.72             | 0.58                          | 0.75 | 0.87 | 292.1           | 20.09             | 0.59                          | 0.77 | 0.88 | 277.8           | 22.72             | 0.59                          | 0.78  | 0.9  | 263.9           | 25.71             | 0.6                           | 0.79 | 0.92  |
| 71°F                          | 7000             | 302.1                                         | 17.68             | 0.4                           | 0.52 | 0.64 | 289.8           | 20.05             | 0.4                           | 0.52 | 0.65 | 275.7           | 22.68             | 0.4                           | 0.53  | 0.65 | 261.7           | 25.67             | 0.39                          | 0.53 | 0.67  |
|                               | 8500             | 314.3                                         | 17.81             | 0.4                           | 0.54 | 0.68 | 300.3           | 20.19             | 0.4                           | 0.55 | 0.69 | 286             | 22.84             | 0.4                           | 0.56  | 0.71 | 267.4           | 25.76             | 0.41                          | 0.57 | 0.73  |
|                               | 10000            | 322.7                                         | 17.89             | 0.41                          | 0.57 | 0.72 | 305.4           | 20.25             | 0.42                          | 0.58 | 0.74 | 293.5           | 22.96             | 0.41                          | 0.6   | 0.76 | 276.8           | 25.95             | 0.42                          | 0.61 | 0.78  |

NOTE - Compressors operating at maximum capacity.



# HUMIDITROL™ + DEHUMIDIFICATION SYSTEM RATINGS

## 13 TON - HIGH EFFICIENCY LCM156U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT)

| 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 |
| 63°F                          | 1788             | 52.1                                          | 3.74              | 0.44                          | 0.58  | 0.72 | 39.8            | 4.26              | 0.33                          | 0.54 | 0.71 | 29.0            | 4.81              | 0.15                          | 0.39 | 0.67 | 16.9            | 5.40              | 0.61                          | 0.19 | 0.56 |      |      |       |    |
|                               | 1950             | 54.6                                          | 3.73              | 0.45                          | 0.60  | 0.74 | 41.8            | 4.26              | 0.43                          | 0.58 | 0.71 | 29.8            | 4.81              | 0.37                          | 0.51 | 0.66 | 17.1            | 5.39              | 0.63                          | 0.41 | 0.59 |      |      |       |    |
|                               | 2113             | 57.1                                          | 3.71              | 0.46                          | 0.61  | 0.76 | 43.8            | 4.26              | 0.53                          | 0.62 | 0.71 | 30.6            | 4.82              | 0.59                          | 0.63 | 0.66 | 17.3            | 5.37              | 0.65                          | 0.64 | 0.62 |      |      |       |    |
| 67°F                          | 1788             | 61.4                                          | 3.73              | 0.29                          | 0.43  | 0.57 | 48.9            | 4.27              | 0.17                          | 0.35 | 0.52 | 37.0            | 4.81              | 0.14                          | 0.23 | 0.45 | 25.1            | 5.44              | 0.56                          | 0.19 | 0.29 |      |      |       |    |
|                               | 1950             | 63.6                                          | 3.71              | 0.29                          | 0.44  | 0.59 | 50.6            | 4.26              | 0.29                          | 0.41 | 0.52 | 37.8            | 4.82              | 0.33                          | 0.35 | 0.44 | 25.1            | 5.42              | 0.59                          | 0.34 | 0.32 |      |      |       |    |
|                               | 2113             | 65.8                                          | 3.69              | 0.30                          | 0.45  | 0.61 | 52.2            | 4.26              | 0.40                          | 0.46 | 0.52 | 38.7            | 4.83              | 0.51                          | 0.47 | 0.44 | 25.1            | 5.39              | 0.61                          | 0.48 | 0.35 |      |      |       |    |
| 71°F                          | 1788             | 71.5                                          | 3.72              | 0.18                          | 0.30  | 0.43 | 58.9            | 4.26              | 0.07                          | 0.21 | 0.36 | 46.0            | 4.82              | 0.21                          | 0.08 | 0.27 | 33.9            | 5.47              | 0.58                          | 0.27 | 0.09 |      |      |       |    |
|                               | 1950             | 73.3                                          | 3.71              | 0.18                          | 0.31  | 0.44 | 60.2            | 4.26              | 0.21                          | 0.28 | 0.35 | 46.9            | 4.83              | 0.35                          | 0.22 | 0.25 | 34.1            | 5.44              | 0.61                          | 0.33 | 0.11 |      |      |       |    |
|                               | 2113             | 75.1                                          | 3.69              | 0.19                          | 0.32  | 0.45 | 61.5            | 4.27              | 0.34                          | 0.34 | 0.34 | 47.9            | 4.84              | 0.49                          | 0.36 | 0.23 | 34.3            | 5.42              | 0.65                          | 0.38 | 0.12 |      |      |       |    |

## 13 TON - HIGH EFFICIENCY LCM156U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT , COMPRESSOR 3 ON)

| 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) |      |      |      |       |      |      |      |
|                               |                  |                                               |                   | 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 |
| 63°F                          | 3575             | 105.2                                         | 5.58              | 0.52                          | 0.68  | 0.80 | 84.8            | 6.37              | 0.48                          | 0.67 | 0.83 | 65.0            | 7.28              | 0.40                          | 0.66 | 0.82 | 48.0 | 8.25  | 0.23 | 0.54 | 0.78 |
|                               | 3900             | 109.3                                         | 5.56              | 0.54                          | 0.69  | 0.82 | 88.6            | 6.41              | 0.47                          | 0.66 | 0.82 | 68.3            | 7.31              | 0.39                          | 0.63 | 0.81 | 49.3 | 8.24  | 0.25 | 0.54 | 0.79 |
|                               | 4225             | 113.4                                         | 5.55              | 0.56                          | 0.70  | 0.84 | 92.4            | 6.45              | 0.47                          | 0.64 | 0.82 | 71.5            | 7.34              | 0.37                          | 0.59 | 0.81 | 50.5 | 8.23  | 0.28 | 0.54 | 0.80 |
| 67°F                          | 3575             | 118.8                                         | 5.58              | 0.36                          | 0.51  | 0.65 | 98.5            | 6.37              | 0.30                          | 0.48 | 0.63 | 78.4            | 7.29              | 0.20                          | 0.41 | 0.61 | 60.2 | 8.26  | 0.14 | 0.31 | 0.54 |
|                               | 3900             | 123.0                                         | 5.56              | 0.37                          | 0.52  | 0.67 | 102.1           | 6.40              | 0.29                          | 0.47 | 0.64 | 81.3            | 7.31              | 0.19                          | 0.41 | 0.62 | 61.4 | 8.25  | 0.11 | 0.32 | 0.57 |
|                               | 4225             | 127.3                                         | 5.53              | 0.38                          | 0.53  | 0.68 | 105.7           | 6.43              | 0.28                          | 0.47 | 0.65 | 84.2            | 7.33              | 0.18                          | 0.40 | 0.63 | 62.6 | 8.23  | 0.08 | 0.34 | 0.60 |
| 71°F                          | 3575             | 134.4                                         | 5.57              | 0.24                          | 0.37  | 0.50 | 130.4           | 6.36              | 0.16                          | 0.32 | 0.46 | 91.6            | 7.29              | 0.10                          | 0.23 | 0.41 | 71.0 | 8.28  | 0.19 | 0.11 | 0.32 |
|                               | 3900             | 136.6                                         | 5.55              | 0.27                          | 0.39  | 0.51 | 123.5           | 6.40              | 0.22                          | 0.35 | 0.47 | 93.2            | 7.32              | 0.18                          | 0.28 | 0.42 | 71.9 | 8.27  | 0.20 | 0.20 | 0.34 |
|                               | 4225             | 138.7                                         | 5.54              | 0.31                          | 0.42  | 0.53 | 116.7           | 6.44              | 0.28                          | 0.38 | 0.47 | 94.8            | 7.35              | 0.25                          | 0.33 | 0.42 | 72.8 | 8.25  | 0.22 | 0.29 | 0.36 |

## 15 TON - HIGH EFFICIENCY LCM180U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT)

| 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 |
| 63°F                          | 2063             | 62.4                                          | 4.44              | 0.42                          | 0.59  | 0.73 | 49.0            | 5.00              | 0.33                          | 0.53 | 0.70 | 36.6            | 5.61              | 0.16                          | 0.44 | 0.65 | 23.5            | 6.30              | 0.35                          | 0.24 | 0.55 |      |
|                               | 2250             | 65.0                                          | 4.43              | 0.44                          | 0.60  | 0.75 | 51.1            | 5.02              | 0.38                          | 0.55 | 0.71 | 37.6            | 5.63              | 0.28                          | 0.49 | 0.67 | 23.8            | 6.28              | 0.36                          | 0.37 | 0.60 |      |
|                               | 2438             | 67.6                                          | 4.42              | 0.45                          | 0.61  | 0.76 | 53.1            | 5.03              | 0.42                          | 0.57 | 0.73 | 38.6            | 5.65              | 0.39                          | 0.54 | 0.69 | 24.1            | 6.26              | 0.36                          | 0.50 | 0.65 |      |
| 67°F                          | 2063             | 73.5                                          | 4.45              | 0.28                          | 0.43  | 0.55 | 59.8            | 5.02              | 0.18                          | 0.35 | 0.52 | 46.7            | 5.65              | 0.06                          | 0.22 | 0.44 | 32.8            | 6.32              | 0.41                          | 0.09 | 0.31 |      |
|                               | 2250             | 76.0                                          | 4.43              | 0.29                          | 0.44  | 0.57 | 61.7            | 5.03              | 0.26                          | 0.39 | 0.52 | 47.6            | 5.66              | 0.22                          | 0.32 | 0.44 | 33.2            | 6.31              | 0.42                          | 0.25 | 0.35 |      |
|                               | 2438             | 78.5                                          | 4.42              | 0.30                          | 0.44  | 0.59 | 63.5            | 5.05              | 0.34                          | 0.43 | 0.52 | 48.5            | 5.67              | 0.38                          | 0.42 | 0.45 | 33.5            | 6.29              | 0.43                          | 0.40 | 0.38 |      |
| 71°F                          | 2063             | 84.4                                          | 4.46              | 0.17                          | 0.29  | 0.41 | 71.4            | 5.04              | 0.06                          | 0.21 | 0.36 | 57.2            | 5.69              | 0.16                          | 0.08 | 0.27 | 43.6            | 6.39              | 0.46                          | 0.19 | 0.12 |      |
|                               | 2250             | 87.3                                          | 4.45              | 0.17                          | 0.30  | 0.43 | 73.0            | 5.06              | 0.17                          | 0.26 | 0.35 | 58.1            | 5.71              | 0.28                          | 0.20 | 0.26 | 43.6            | 6.38              | 0.49                          | 0.26 | 0.13 |      |
|                               | 2438             | 90.1                                          | 4.43              | 0.17                          | 0.31  | 0.44 | 74.6            | 5.07              | 0.29                          | 0.32 | 0.34 | 59.1            | 5.72              | 0.40                          | 0.33 | 0.25 | 43.5            | 6.37              | 0.52                          | 0.34 | 0.15 |      |

## 15 TON HIGH EFFICIENCY LCM180U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT , COMPRESSOR 3 ON)

| 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 |
| 63°F                          | 4125             | 121.0                                         | 6.67              | 0.52                          | 0.68  | 0.81 | 101.6           | 7.59              | 0.47                          | 0.66 | 0.82 | 81.0            | 8.62              | 0.40                          | 0.64 | 0.82 | 59.9            | 9.74              | 0.27                          | 0.59 | 0.83 |
|                               | 4500             | 125.4                                         | 6.67              | 0.54                          | 0.69  | 0.83 | 104.7           | 7.64              | 0.48                          | 0.66 | 0.83 | 83.3            | 8.66              | 0.40                          | 0.63 | 0.83 | 61.6            | 9.73              | 0.30                          | 0.59 | 0.84 |
|                               | 4875             | 129.9                                         | 6.67              | 0.55                          | 0.70  | 0.84 | 107.7           | 7.69              | 0.48                          | 0.66 | 0.85 | 85.5            | 8.70              | 0.40                          | 0.63 | 0.85 | 63.3            | 9.72              | 0.33                          | 0.59 | 0.85 |
| 67°F                          | 4125             | 137.6                                         | 6.68              | 0.36                          | 0.50  | 0.65 | 117.4           | 7.62              | 0.30                          | 0.47 | 0.63 | 96.5            | 8.66              | 0.20                          | 0.41 | 0.61 | 75.4            | 9.81              | 0.05                          | 0.32 | 0.55 |
|                               | 4500             | 141.7                                         | 6.68              | 0.38                          | 0.52  | 0.67 | 120.3           | 7.67              | 0.29                          | 0.47 | 0.65 | 98.6            | 8.71              | 0.19                          | 0.41 | 0.62 | 76.8            | 9.80              | 0.07                          | 0.33 | 0.58 |
|                               | 4875             | 145.9                                         | 6.69              | 0.39                          | 0.54  | 0.69 | 123.3           | 7.72              | 0.29                          | 0.48 | 0.67 | 100.7           | 8.75              | 0.18                          | 0.41 | 0.64 | 78.2            | 9.78              | 0.08                          | 0.35 | 0.62 |
| 71°F                          | 4125             | 154.8                                         | 6.71              | 0.23                          | 0.37  | 0.49 | 134.7           | 7.66              | 0.16                          | 0.32 | 0.46 | 111.1           | 8.69              | 0.07                          | 0.24 | 0.41 | 88.9            | 9.88              | 0.18                          | 0.13 | 0.34 |
|                               | 4500             | 158.3                                         | 6.71              | 0.24                          | 0.38  | 0.51 | 136.8           | 7.71              | 0.20                          | 0.34 | 0.47 | 113.5           | 8.75              | 0.14                          | 0.28 | 0.42 | 90.9            | 9.86              | 0.19                          | 0.21 | 0.36 |
|                               | 4875             | 161.8                                         | 6.71              | 0.26                          | 0.39  | 0.53 | 138.9           | 7.76              | 0.24                          | 0.36 | 0.48 | 115.9           | 8.80              | 0.22                          | 0.33 | 0.43 | 92.9            | 9.85              | 0.20                          | 0.29 | 0.39 |

# HUMIDITROL™ + DEHUMIDIFICATION SYSTEM RATINGS

## 17.5 TON - HIGH EFFICIENCY LCM210U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT)

| Entering<br>Wet Bulb<br>Tem-<br>perature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |       |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |                       |                         |                                  |       |      |
|------------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|-------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|-------|------|
|                                          |                        | 65°F                                          |                         |                                  |       |      | 75°F                  |                         |                                  |      |      | 85°F                  |                         |                                  |      |      | 95°F                  |                         |                                  |       |      |
|                                          |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>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 |
| 63°F                                     | 2406                   | 47.3                                          | 4.54                    | 0.41                             | 0.67  | 0.90 | 47.7                  | 4.39                    | 0.41                             | 0.70 | 0.92 | 36.9                  | 4.84                    | 0.33                             | 0.71 | 0.88 | 23.4                  | 5.50                    | -0.03                            | 0.53  | 0.89 |
|                                          | 2625                   | 49.0                                          | 4.49                    | 0.44                             | 0.69  | 0.93 | 44.5                  | 4.58                    | 0.37                             | 0.68 | 0.96 | 34.6                  | 4.97                    | 0.26                             | 0.67 | 0.97 | 23.2                  | 5.47                    | 0.02                             | 0.56  | 1.00 |
|                                          | 2844                   | 50.6                                          | 4.44                    | 0.47                             | 0.71  | 0.96 | 41.4                  | 4.77                    | 0.33                             | 0.67 | 1.01 | 32.2                  | 5.10                    | 0.20                             | 0.63 | 1.06 | 23.0                  | 5.43                    | 0.07                             | 0.59  | 1.11 |
| 67°F                                     | 2406                   | 66.5                                          | 4.12                    | 0.30                             | 0.48  | 0.67 | 60.1                  | 4.32                    | 0.25                             | 0.46 | 0.66 | 47.9                  | 4.85                    | 0.11                             | 0.34 | 0.61 | 33.3                  | 5.53                    | -0.21                            | 0.15  | 0.54 |
|                                          | 2625                   | 68.5                                          | 4.08                    | 0.32                             | 0.50  | 0.69 | 59.2                  | 4.42                    | 0.20                             | 0.44 | 0.67 | 46.9                  | 4.92                    | 0.04                             | 0.33 | 0.63 | 33.5                  | 5.50                    | -0.20                            | 0.18  | 0.58 |
|                                          | 2844                   | 70.6                                          | 4.04                    | 0.34                             | 0.53  | 0.71 | 58.3                  | 4.51                    | 0.16                             | 0.42 | 0.68 | 46.0                  | 4.99                    | -0.02                            | 0.32 | 0.65 | 33.7                  | 5.46                    | -0.19                            | 0.22  | 0.62 |
| 71°F                                     | 2406                   | 86.4                                          | 3.70                    | 0.22                             | 0.37  | 0.51 | 72.2                  | 4.29                    | 0.09                             | 0.28 | 0.48 | 59.3                  | 4.85                    | -0.04                            | 0.18 | 0.39 | 45.5                  | 5.50                    | -0.33                            | -0.02 | 0.25 |
|                                          | 2625                   | 89.3                                          | 3.65                    | 0.22                             | 0.38  | 0.54 | 74.4                  | 4.26                    | 0.06                             | 0.27 | 0.48 | 60.1                  | 4.85                    | -0.10                            | 0.15 | 0.39 | 45.4                  | 5.49                    | -0.35                            | -0.02 | 0.28 |
|                                          | 2844                   | 92.1                                          | 3.60                    | 0.23                             | 0.40  | 0.57 | 76.5                  | 4.23                    | 0.03                             | 0.26 | 0.48 | 60.9                  | 4.85                    | -0.17                            | 0.12 | 0.40 | 45.2                  | 5.48                    | -0.37                            | -0.03 | 0.31 |

## 17.5 TON - HIGH EFFICIENCY LCM210U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT, COMPRESSOR 3-4 ON)

| Entering<br>Wet Bulb<br>Tem-<br>perature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |        |      |       |                       |                         |                                  |      |        |       |                       |                         |                                  |       |        |      |                       |                         |                                  |      |        |    |
|------------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|--------|------|-------|-----------------------|-------------------------|----------------------------------|------|--------|-------|-----------------------|-------------------------|----------------------------------|-------|--------|------|-----------------------|-------------------------|----------------------------------|------|--------|----|
|                                          |                        | 65°F                                          |                         |                                  |        |      |       | 75°F                  |                         |                                  |      |        |       | 85°F                  |                         |                                  |       |        |      | 95°F                  |                         |                                  |      |        |    |
|                                          |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |        |      |       | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |        |       | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |        |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |        |    |
|                                          |                        |                                               |                         | Dry Bulb                         |        |      |       |                       |                         | Dry Bulb                         |      |        |       |                       |                         | Dry Bulb                         |       |        |      |                       |                         | Dry Bulb                         |      |        |    |
|                                          |                        |                                               |                         | cfm                              | kBtu/h | kW   | 75°F  |                       |                         | 80°F                             | 85°F | kBtu/h | kW    | 75°F                  |                         | 80°F                             | 85°F  | kBtu/h | kW   | 75°F                  |                         | 80°F                             | 85°F | kBtu/h | kW |
| 63°F                                     | 4813                   | 135.3                                         | 8.17                    | 0.54                             | 0.71   | 0.85 | 115.1 | 9.27                  | 0.51                    | 0.71                             | 0.87 | 96.5   | 10.43 | 0.47                  | 0.71                    | 0.88                             | 87.3  | 11.43  | 0.43 | 0.69                  | 0.88                    |                                  |      |        |    |
|                                          | 5250                   | 139.2                                         | 8.15                    | 0.55                             | 0.72   | 0.88 | 120.5 | 9.25                  | 0.53                    | 0.72                             | 0.89 | 102.5  | 10.37 | 0.49                  | 0.71                    | 0.90                             | 89.3  | 11.41  | 0.46 | 0.70                  | 0.90                    |                                  |      |        |    |
|                                          | 5688                   | 143.1                                         | 8.14                    | 0.57                             | 0.74   | 0.90 | 125.9 | 9.22                  | 0.54                    | 0.73                             | 0.91 | 108.6  | 10.31 | 0.52                  | 0.72                    | 0.92                             | 91.3  | 11.39  | 0.49 | 0.71                  | 0.92                    |                                  |      |        |    |
| 67°F                                     | 4813                   | 151.9                                         | 8.34                    | 0.35                             | 0.52   | 0.66 | 132.2 | 9.41                  | 0.31                    | 0.49                             | 0.66 | 128.9  | 10.06 | 0.30                  | 0.51                    | 0.67                             | 105.5 | 11.48  | 0.22 | 0.46                  | 0.65                    |                                  |      |        |    |
|                                          | 5250                   | 155.7                                         | 8.33                    | 0.37                             | 0.53   | 0.69 | 137.3 | 9.38                  | 0.32                    | 0.51                             | 0.69 | 127.1  | 10.22 | 0.29                  | 0.51                    | 0.70                             | 106.8 | 11.45  | 0.23 | 0.47                  | 0.69                    |                                  |      |        |    |
|                                          | 5688                   | 159.6                                         | 8.32                    | 0.38                             | 0.55   | 0.71 | 142.4 | 9.35                  | 0.34                    | 0.53                             | 0.72 | 125.3  | 10.39 | 0.29                  | 0.51                    | 0.73                             | 108.1 | 11.42  | 0.24 | 0.49                  | 0.73                    |                                  |      |        |    |
| 71°F                                     | 4813                   | 175.5                                         | 8.30                    | 0.23                             | 0.37   | 0.51 | 170.6 | 8.82                  | 0.23                    | 0.38                             | 0.52 | 151.2  | 9.96  | 0.16                  | 0.33                    | 0.49                             | 127.1 | 11.46  | 0.07 | 0.26                  | 0.50                    |                                  |      |        |    |
|                                          | 5250                   | 181.4                                         | 8.25                    | 0.23                             | 0.38   | 0.53 | 168.7 | 9.05                  | 0.20                    | 0.37                             | 0.52 | 148.7  | 10.16 | 0.14                  | 0.32                    | 0.49                             | 126.5 | 11.46  | 0.07 | 0.26                  | 0.48                    |                                  |      |        |    |
|                                          | 5688                   | 187.3                                         | 8.19                    | 0.23                             | 0.39   | 0.56 | 166.8 | 9.28                  | 0.18                    | 0.35                             | 0.52 | 146.3  | 10.37 | 0.12                  | 0.30                    | 0.49                             | 125.8 | 11.46  | 0.06 | 0.26                  | 0.46                    |                                  |      |        |    |

## 20 TON - HIGH EFFICIENCY LCM240U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT)

| Entering<br>Wet Bulb<br>Tem-<br>perature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |       |      |      |                       |                         |                                  |      |       |      |                       |                         |                                  |      |       |      |      |      |      |       |    |      |
|------------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|-------|------|------|-----------------------|-------------------------|----------------------------------|------|-------|------|-----------------------|-------------------------|----------------------------------|------|-------|------|------|------|------|-------|----|------|
|                                          |                        | 65°F                                          |                         |                                  |       |      |      | 75°F                  |                         |                                  |      |       |      | 85°F                  |                         |                                  |      |       |      | 95°F |      |      |       |    |      |
|                                          |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |       |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |       |      |      |      |      |       |    |      |
|                                          |                        |                                               |                         | 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 |
| 63°F                                     | 2750                   | 58.1                                          | 5.83                    | 0.40                             | 0.65  | 0.86 | 58.8 | 5.68                  | 0.40                    | 0.65                             | 0.84 | 44.3  | 6.19 | 0.30                  | 0.66                    | 0.89                             | 29.5 | 6.96  | 1.04 | 0.48 | 0.86 |      |       |    |      |
|                                          | 3000                   | 61.7                                          | 5.77                    | 0.42                             | 0.66  | 0.88 | 56.0 | 5.90                  | 0.36                    | 0.63                             | 0.88 | 42.7  | 6.36 | 0.25                  | 0.61                    | 0.91                             | 29.3 | 6.96  | 0.56 | 0.50 | 0.91 |      |       |    |      |
|                                          | 3250                   | 65.3                                          | 5.70                    | 0.44                             | 0.67  | 0.90 | 53.3 | 6.12                  | 0.32                    | 0.62                             | 0.92 | 41.2  | 6.54 | 0.20                  | 0.57                    | 0.93                             | 29.1 | 6.95  | 0.08 | 0.52 | 0.95 |      |       |    |      |
| 67°F                                     | 2750                   | 81.3                                          | 5.33                    | 0.28                             | 0.47  | 0.64 | 74.5 | 5.59                  | 0.22                    | 0.43                             | 0.62 | 57.7  | 6.23 | 0.10                  | 0.35                    | 0.59                             | 41.5 | 7.04  | 1.25 | 0.15 | 0.50 |      |       |    |      |
|                                          | 3000                   | 85.1                                          | 5.27                    | 0.30                             | 0.48  | 0.66 | 73.7 | 5.70                  | 0.42                    | 0.54                             | 0.64 | 57.3  | 6.32 | 0.51                  | 0.57                    | 0.61                             | 41.2 | 7.03  | 1.24 | 0.54 | 0.56 |      |       |    |      |
|                                          | 3250                   | 88.8                                          | 5.20                    | 0.31                             | 0.50  | 0.69 | 72.8 | 5.80                  | 0.61                    | 0.64                             | 0.67 | 56.9  | 6.41 | 0.91                  | 0.78                    | 0.64                             | 40.9 | 7.02  | 1.22 | 0.92 | 0.62 |      |       |    |      |
| 71°F                                     | 2750                   | 105.4                                         | 4.78                    | 0.21                             | 0.36  | 0.49 | 87.7 | 5.63                  | 0.09                    | 0.27                             | 0.43 | 71.4  | 6.27 | 1.05                  | 0.17                    | 0.37                             | 42.5 | 7.13  | 1.00 | 1.03 | 0.24 |      |       |    |      |
|                                          | 3000                   | 107.5                                         | 4.83                    | 0.20                             | 0.36  | 0.51 | 86.6 | 5.62                  | 0.27                    | 0.36                             | 0.44 | 66.4  | 6.31 | 0.89                  | 0.36                    | 0.37                             | 39.9 | 7.11  | 1.00 | 0.84 | 0.27 |      |       |    |      |
|                                          | 3250                   | 109.5                                         | 4.88                    | 0.19                             | 0.36  | 0.53 | 85.5 | 5.62                  | 0.46                    | 0.46                             | 0.45 | 61.5  | 6.35 | 0.73                  | 0.55                    | 0.38                             | 37.4 | 7.09  | 1.00 | 0.65 | 0.30 |      |       |    |      |

## 20 TON - HIGH EFFICIENCY LCM240U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT, COMPRESSOR 3-4 ON)

| Entering<br>Wet Bulb<br>Tem-<br>perature | Total<br>Air<br>Volume | Outdoor Air Temperature Entering Outdoor Coil |                         |                                  |       |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |                       |                         |                                  |      |      |
|------------------------------------------|------------------------|-----------------------------------------------|-------------------------|----------------------------------|-------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|
|                                          |                        | 65°F                                          |                         |                                  |       |      | 75°F                  |                         |                                  |      |      | 85°F                  |                         |                                  |      |      | 95°F                  |                         |                                  |      |      |
|                                          |                        | Total<br>Cool<br>Cap.                         | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |       |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>Ratio (S/T) |      |      | Total<br>Cool<br>Cap. | Comp.<br>Motor<br>Input | Sensible To Total<br>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 |
| 63°F                                     | 5500                   | 160.7                                         | 10.46                   | 0.51                             | 0.67  | 0.80 | 129.3                 | 11.74                   | 0.50                             | 0.68 | 0.85 | 109.6                 | 12.99                   | 0.46                             | 0.70 | 0.86 | 98.6                  | 14.09                   | 0.45                             | 0.67 | 0.89 |
|                                          | 6000                   | 161.1                                         | 10.42                   | 0.54                             | 0.70  | 0.84 | 135.6                 | 11.68                   | 0.52                             | 0.70 | 0.88 | 115.9                 | 12.91                   | 0.49                             | 0.71 | 0.89 | 100.6                 | 14.07                   | 0.47                             | 0.69 | 0.91 |
|                                          | 6500                   | 161.5                                         | 10.39                   | 0.57                             | 0.72  | 0.88 | 141.9                 | 11.61                   | 0.54                             | 0.72 | 0.90 | 122.2                 | 12.84                   | 0.51                             | 0.71 | 0.91 | 102.6                 | 14.06                   | 0.49                             | 0.71 | 0.93 |
| 67°F                                     | 5500                   | 177.5                                         | 10.65                   | 0.33                             | 0.49  | 0.63 | 151.7                 | 11.80                   | 0.29                             | 0.49 | 0.66 | 144.4                 | 12.56                   | 0.30                             | 0.50 | 0.67 | 119.3                 | 14.16                   | 0.21                             | 0.45 | 0.66 |
|                                          | 6000                   | 178.5                                         | 10.61                   | 0.35                             | 0.51  | 0.66 | 156.0                 | 11.78                   | 0.31                             | 0.50 | 0.68 | 142.8                 | 12.75                   | 0.29                             | 0.50 | 0.69 | 120.7                 | 14.15                   | 0.23                             | 0.46 | 0.69 |
|                                          | 6500                   | 179.4                                         | 10.57                   | 0.37                             | 0.53  | 0.69 | 160.3                 | 11.76                   | 0.33                             | 0.51 | 0.70 | 141.2                 | 12.95                   | 0.29                             | 0.50 | 0.71 | 122.1                 | 14.13                   | 0.24                             | 0.48 | 0.72 |
| 71°F                                     | 5500                   | 204.3                                         | 10.48                   | 0.21                             | 0.36  | 0.49 | 195.9                 | 11.03                   | 0.22                             | 0.37 | 0.51 | 171.4                 | 12.47                   | 0.16                             | 0.33 | 0.49 | 140.5                 | 14.27                   | 0.06                             | 0.26 | 0.45 |
|                                          | 6000                   | 212.3                                         | 10.23                   | 0.23                             | 0.38  | 0.52 | 195.5                 | 11.22                   | 0.20                             | 0.37 | 0.52 | 170.6                 | 12.65                   | 0.14                             | 0.32 | 0.50 | 142.5                 | 14.25                   | 0.05                             | 0.26 | 0.47 |
|                                          | 6500                   | 220.4                                         | 9.98                    | 0.26                             | 0.41  | 0.56 | 195.1                 | 11.40                   | 0.19                             | 0.36 | 0.53 | 169.8                 | 12.82                   | 0.11                             | 0.31 | 0.51 | 144.5                 | 14.24                   | 0.04                             | 0.27 | 0.49 |



# HUMIDITROL™ + DEHUMIDIFICATION SYSTEM RATINGS

## 25 TON - HIGH EFFICIENCY LGM300U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT)

| 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 |
| 63°F                          | 3438             | 58.1                                          | 5.8               | 0.40                          | 0.65  | 0.86 | 58.8 | 5.7             | 0.40              | 0.65                          | 0.84 | 44.3  | 6.2 | 0.30            | 0.66              | 0.89                          | 29.5 | 7.0  | 1.04  | 0.48            | 0.86              |                               |      |      |      |
|                               | 3750             | 61.7                                          | 5.8               | 0.42                          | 0.66  | 0.88 | 56.0 | 5.9             | 0.36              | 0.63                          | 0.88 | 42.7  | 6.4 | 0.25            | 0.61              | 0.91                          | 29.3 | 6.96 | 0.56  | 0.50            | 0.91              |                               |      |      |      |
|                               | 4063             | 65.3                                          | 5.7               | 0.44                          | 0.67  | 0.90 | 53.3 | 6.1             | 0.32              | 0.62                          | 0.92 | 41.2  | 6.5 | 0.20            | 0.57              | 0.93                          | 29.1 | 7.0  | 0.08  | 0.52            | 0.95              |                               |      |      |      |
| 67°F                          | 3438             | 81.3                                          | 5.3               | 0.28                          | 0.47  | 0.64 | 74.5 | 5.6             | 0.22              | 0.43                          | 0.62 | 57.7  | 6.2 | 0.10            | 0.35              | 0.59                          | 41.5 | 7.0  | 1.25  | 0.15            | 0.50              |                               |      |      |      |
|                               | 3750             | 85.1                                          | 5.3               | 0.30                          | 0.48  | 0.66 | 73.7 | 5.7             | 0.42              | 0.54                          | 0.64 | 57.3  | 6.3 | 0.51            | 0.57              | 0.61                          | 41.2 | 7.03 | 1.24  | 0.54            | 0.56              |                               |      |      |      |
|                               | 4063             | 88.8                                          | 5.2               | 0.31                          | 0.50  | 0.69 | 72.8 | 5.8             | 0.61              | 0.64                          | 0.67 | 56.9  | 6.4 | 0.91            | 0.78              | 0.64                          | 40.9 | 7.0  | 1.22  | 0.92            | 0.62              |                               |      |      |      |
| 71°F                          | 3438             | 105.4                                         | 4.8               | 0.21                          | 0.36  | 0.49 | 87.7 | 5.6             | 0.09              | 0.27                          | 0.43 | 71.4  | 6.3 | 1.05            | 0.17              | 0.37                          | 42.5 | 7.1  | 1.00  | 1.03            | 0.24              |                               |      |      |      |
|                               | 3750             | 107.5                                         | 4.8               | 0.20                          | 0.36  | 0.51 | 86.6 | 5.6             | 0.27              | 0.36                          | 0.44 | 66.4  | 6.3 | 0.89            | 0.36              | 0.37                          | 39.9 | 7.11 | 1.00  | 0.84            | 0.27              |                               |      |      |      |
|                               | 4063             | 109.5                                         | 4.9               | 0.19                          | 0.36  | 0.53 | 85.5 | 5.6             | 0.46              | 0.46                          | 0.45 | 61.5  | 6.4 | 0.73            | 0.55              | 0.38                          | 37.4 | 7.1  | 1.00  | 0.65            | 0.30              |                               |      |      |      |

## 25 TON - HIGH EFFICIENCY LGM300U5M WITH HUMIDITROL® (COMPRESSOR 1-2 IN REHEAT, COMPRESSOR 3-4 ON)

| 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 |
| 63°F                          | 6875             | 192.5                                         | 13.7              | 0.54                          | 0.71  | 0.84 | 160.9           | 15.3              | 0.53                          | 0.72 | 0.89 | 136.9           | 16.9              | 0.50                          | 0.72 | 0.91 | 126.8           | 18.4              | 0.45                          | 0.72 | 0.89  |    |      |      |      |
|                               | 7500             | 196.4                                         | 13.7              | 0.56                          | 0.72  | 0.87 | 168.9           | 15.3              | 0.55                          | 0.73 | 0.90 | 145.3           | 16.9              | 0.53                          | 0.73 | 0.91 | 128.5           | 18.37             | 0.49                          | 0.73 | 0.90  |    |      |      |      |
|                               | 8125             | 200.3                                         | 13.7              | 0.58                          | 0.74  | 0.90 | 177.0           | 15.2              | 0.57                          | 0.74 | 0.91 | 153.6           | 16.8              | 0.55                          | 0.73 | 0.92 | 130.3           | 18.4              | 0.54                          | 0.73 | 0.92  |    |      |      |      |
| 67°F                          | 6875             | 212.7                                         | 13.9              | 0.36                          | 0.52  | 0.67 | 181.9           | 15.7              | 0.32                          | 0.50 | 0.70 | 173.8           | 16.8              | 0.30                          | 0.49 | 0.70 | 153.7           | 18.4              | 0.26                          | 0.49 | 0.68  |    |      |      |      |
|                               | 7500             | 217.1                                         | 13.9              | 0.37                          | 0.54  | 0.70 | 190.8           | 15.5              | 0.33                          | 0.52 | 0.71 | 175.9           | 16.9              | 0.31                          | 0.51 | 0.71 | 155.0           | 18.42             | 0.27                          | 0.50 | 0.71  |    |      |      |      |
|                               | 8125             | 221.4                                         | 13.9              | 0.38                          | 0.55  | 0.72 | 199.7           | 15.4              | 0.35                          | 0.54 | 0.73 | 178.0           | 16.9              | 0.31                          | 0.52 | 0.73 | 156.3           | 18.4              | 0.28                          | 0.51 | 0.74  |    |      |      |      |
| 71°F                          | 6875             | 241.0                                         | 14.1              | 0.21                          | 0.36  | 0.51 | 234.4           | 15.0              | 0.23                          | 0.37 | 0.53 | 213.1           | 16.5              | 0.18                          | 0.36 | 0.51 | 179.6           | 18.6              | 0.08                          | 0.30 | 0.48  |    |      |      |      |
|                               | 7500             | 250.0                                         | 13.9              | 0.22                          | 0.38  | 0.53 | 233.0           | 15.2              | 0.21                          | 0.37 | 0.54 | 208.6           | 16.8              | 0.16                          | 0.35 | 0.53 | 178.2           | 18.63             | 0.08                          | 0.30 | 0.51  |    |      |      |      |
|                               | 8125             | 259.1                                         | 13.8              | 0.23                          | 0.39  | 0.55 | 231.6           | 15.4              | 0.18                          | 0.37 | 0.55 | 204.1           | 17.0              | 0.13                          | 0.34 | 0.55 | 176.7           | 18.7              | 0.08                          | 0.31 | 0.55  |    |      |      |      |

## BLOWER DATA

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL & AIR FILTERS IN PLACE

### FOR ALL UNITS ADD:

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

Then determine from blower table blower motor output and drive required.

See page 36 for wet coil and option/accessory air resistance data.

See page 36 for factory installed drive kit specifications.

### MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT

15-60 kW Electric Heat - 5200 cfm minimum air volume.

90 kW Electric Heat - 6000 cfm minimum air volume.

| Air Volume<br>cfm | TOTAL STATIC PRESSURE - Inches Water Gauge (Pa) |      |      |      |      |      |      |      |      |      |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|-------------------|-------------------------------------------------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                   | 0.20                                            |      | 0.40 |      | 0.60 |      | 0.80 |      | 1.00 |      | 1.20 |       | 1.40 |       | 1.60 |       | 1.80 |       | 2.00 |       | 2.20 |       | 2.40 |       | 2.60 |       |
|                   | 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   |
| 2750              | 385                                             | 0.30 | 505  | 0.50 | 600  | 0.70 | 680  | 0.90 | 755  | 1.10 | 820  | 1.30  | 885  | 1.50  | 950  | 1.70  | 1005 | 1.90  | 1060 | 2.10  | 1110 | 2.30  | 1160 | 2.50  | 1205 | 2.70  |
| 3000              | 395                                             | 0.35 | 515  | 0.55 | 610  | 0.75 | 685  | 1.00 | 760  | 1.20 | 825  | 1.45  | 885  | 1.70  | 955  | 1.90  | 1010 | 2.10  | 1065 | 2.30  | 1115 | 2.50  | 1165 | 2.70  | 1210 | 2.90  |
| 3250              | 405                                             | 0.40 | 520  | 0.60 | 615  | 0.85 | 695  | 1.10 | 765  | 1.30 | 830  | 1.60  | 890  | 1.85  | 955  | 2.05  | 1010 | 2.25  | 1065 | 2.45  | 1115 | 2.65  | 1165 | 2.85  | 1210 | 3.05  |
| 3500              | 415                                             | 0.45 | 530  | 0.70 | 620  | 0.95 | 700  | 1.20 | 775  | 1.45 | 840  | 1.70  | 900  | 2.00  | 955  | 2.20  | 1010 | 2.40  | 1065 | 2.60  | 1115 | 2.80  | 1165 | 3.00  | 1210 | 3.20  |
| 3750              | 425                                             | 0.50 | 540  | 0.75 | 630  | 1.05 | 710  | 1.30 | 780  | 1.60 | 845  | 1.85  | 905  | 2.15  | 960  | 2.35  | 1015 | 2.55  | 1070 | 2.75  | 1120 | 2.95  | 1170 | 3.15  | 1220 | 3.35  |
| 4000              | 435                                             | 0.55 | 545  | 0.85 | 635  | 1.10 | 715  | 1.40 | 785  | 1.70 | 850  | 2.00  | 910  | 2.30  | 965  | 2.50  | 1020 | 2.70  | 1075 | 2.90  | 1125 | 3.10  | 1175 | 3.30  | 1225 | 3.50  |
| 4250              | 445                                             | 0.60 | 555  | 0.90 | 645  | 1.25 | 725  | 1.55 | 795  | 1.85 | 855  | 2.15  | 915  | 2.45  | 970  | 2.65  | 1025 | 2.85  | 1080 | 3.05  | 1130 | 3.25  | 1180 | 3.45  | 1230 | 3.65  |
| 4500              | 455                                             | 0.70 | 565  | 1.00 | 655  | 1.35 | 730  | 1.65 | 800  | 2.00 | 865  | 2.35  | 925  | 2.65  | 980  | 2.85  | 1030 | 3.05  | 1085 | 3.25  | 1135 | 3.45  | 1185 | 3.65  | 1235 | 3.85  |
| 4750              | 470                                             | 0.75 | 575  | 1.10 | 660  | 1.45 | 740  | 1.80 | 810  | 2.15 | 870  | 2.50  | 930  | 2.85  | 985  | 3.05  | 1040 | 3.25  | 1095 | 3.45  | 1145 | 3.65  | 1195 | 3.85  | 1245 | 4.05  |
| 5000              | 480                                             | 0.85 | 585  | 1.25 | 670  | 1.60 | 750  | 1.95 | 815  | 2.30 | 880  | 2.70  | 940  | 3.05  | 995  | 3.25  | 1045 | 3.45  | 1095 | 3.65  | 1145 | 3.85  | 1195 | 4.05  | 1245 | 4.25  |
| 5250              | 495                                             | 0.95 | 595  | 1.35 | 680  | 1.70 | 755  | 2.10 | 825  | 2.50 | 890  | 2.90  | 945  | 3.25  | 1000 | 3.45  | 1050 | 3.65  | 1100 | 3.85  | 1150 | 4.05  | 1200 | 4.25  | 1250 | 4.45  |
| 5500              | 505                                             | 1.05 | 605  | 1.45 | 690  | 1.85 | 765  | 2.25 | 835  | 2.65 | 895  | 3.05  | 955  | 3.45  | 1010 | 3.65  | 1060 | 3.85  | 1110 | 4.05  | 1160 | 4.25  | 1210 | 4.45  | 1260 | 4.65  |
| 5750              | 520                                             | 1.15 | 615  | 1.60 | 700  | 2.00 | 775  | 2.45 | 840  | 2.85 | 905  | 3.25  | 960  | 3.65  | 1015 | 4.05  | 1065 | 4.25  | 1115 | 4.45  | 1165 | 4.65  | 1215 | 4.85  | 1265 | 5.05  |
| 6000              | 530                                             | 1.30 | 630  | 1.75 | 710  | 2.15 | 785  | 2.60 | 850  | 3.05 | 910  | 3.45  | 970  | 3.90  | 1025 | 4.35  | 1075 | 4.55  | 1125 | 4.75  | 1175 | 4.95  | 1225 | 5.15  | 1275 | 5.35  |
| 6250              | 545                                             | 1.40 | 640  | 1.90 | 720  | 2.35 | 795  | 2.80 | 860  | 3.25 | 920  | 3.70  | 975  | 4.15  | 1030 | 4.60  | 1080 | 5.00  | 1130 | 5.40  | 1180 | 5.80  | 1230 | 6.20  | 1280 | 6.60  |
| 6500              | 560                                             | 1.55 | 650  | 2.05 | 730  | 2.50 | 805  | 3.00 | 870  | 3.45 | 930  | 3.95  | 985  | 4.40  | 1040 | 4.85  | 1090 | 5.30  | 1140 | 5.70  | 1190 | 6.10  | 1240 | 6.50  | 1290 | 6.90  |
| 6750              | 570                                             | 1.70 | 665  | 2.20 | 745  | 2.70 | 815  | 3.20 | 880  | 3.70 | 940  | 4.20  | 995  | 4.65  | 1045 | 5.10  | 1095 | 5.60  | 1145 | 6.00  | 1195 | 6.40  | 1245 | 6.80  | 1295 | 7.20  |
| 7000              | 585                                             | 1.85 | 675  | 2.35 | 755  | 2.90 | 825  | 3.40 | 890  | 3.95 | 950  | 4.45  | 1005 | 4.95  | 1055 | 5.40  | 1105 | 5.95  | 1155 | 6.35  | 1205 | 6.75  | 1255 | 7.15  | 1305 | 7.55  |
| 7250              | 600                                             | 2.00 | 690  | 2.60 | 765  | 3.10 | 835  | 3.65 | 900  | 4.15 | 955  | 4.65  | 1015 | 5.25  | 1065 | 5.75  | 1115 | 6.25  | 1165 | 6.75  | 1215 | 7.15  | 1265 | 7.55  | 1315 | 7.95  |
| 7500              | 615                                             | 2.20 | 700  | 2.75 | 775  | 3.30 | 845  | 3.85 | 910  | 4.45 | 965  | 4.95  | 1020 | 5.50  | 1075 | 6.05  | 1125 | 6.60  | 1175 | 7.10  | 1225 | 7.50  | 1275 | 7.90  | 1325 | 8.30  |
| 7750              | 630                                             | 2.40 | 715  | 3.00 | 790  | 3.55 | 855  | 4.10 | 920  | 4.70 | 975  | 5.25  | 1030 | 5.80  | 1080 | 6.35  | 1130 | 6.90  | 1180 | 7.40  | 1230 | 7.80  | 1280 | 8.20  | 1330 | 8.60  |
| 8000              | 640                                             | 2.55 | 725  | 3.20 | 800  | 3.80 | 865  | 4.35 | 930  | 4.95 | 985  | 5.50  | 1040 | 6.10  | 1090 | 6.70  | 1140 | 7.25  | 1195 | 7.85  | 1240 | 8.35  | 1290 | 8.75  | 1340 | 9.15  |
| 8250              | 655                                             | 2.80 | 740  | 3.40 | 810  | 4.00 | 880  | 4.65 | 940  | 5.25 | 995  | 5.85  | 1050 | 6.45  | 1100 | 7.05  | 1150 | 7.65  | 1195 | 8.25  | 1240 | 8.85  | 1290 | 9.25  | 1340 | 9.65  |
| 8500              | 670                                             | 3.00 | 750  | 3.65 | 825  | 4.30 | 890  | 4.90 | 950  | 5.55 | 1005 | 6.15  | 1060 | 6.80  | 1110 | 7.40  | 1160 | 8.05  | 1205 | 8.65  | 1250 | 9.25  | 1290 | 9.85  | 1330 | 10.05 |
| 8750              | 685                                             | 3.25 | 765  | 3.90 | 835  | 4.55 | 900  | 5.20 | 960  | 5.85 | 1015 | 6.45  | 1070 | 7.15  | 1120 | 7.75  | 1165 | 8.35  | 1215 | 9.05  | 1255 | 9.65  | 1300 | 10.30 | 1340 | 10.45 |
| 9000              | 700                                             | 3.50 | 780  | 4.20 | 850  | 4.85 | 910  | 5.50 | 970  | 6.15 | 1025 | 6.80  | 1080 | 7.50  | 1130 | 8.15  | 1175 | 8.75  | 1220 | 9.40  | 1265 | 10.10 | 1310 | 10.80 | 1350 | 10.95 |
| 9250              | 715                                             | 3.75 | 790  | 4.45 | 860  | 5.15 | 925  | 5.85 | 985  | 6.55 | 1040 | 7.20  | 1090 | 7.85  | 1140 | 8.55  | 1185 | 9.20  | 1230 | 9.85  | 1275 | 10.55 | 1320 | 11.20 | 1360 | 11.35 |
| 9500              | 730                                             | 4.00 | 805  | 4.75 | 875  | 5.45 | 935  | 6.15 | 995  | 6.90 | 1050 | 7.60  | 1100 | 8.25  | 1150 | 8.95  | 1195 | 9.60  | 1240 | 10.30 | 1285 | 11.00 | 1330 | 11.70 | 1370 | 11.85 |
| 9750              | 745                                             | 4.30 | 820  | 5.05 | 885  | 5.75 | 950  | 6.55 | 1005 | 7.20 | 1060 | 7.95  | 1110 | 8.65  | 1160 | 9.40  | 1205 | 10.05 | 1250 | 10.80 | 1295 | 11.50 | 1340 | 12.20 | 1380 | 12.35 |
| 10,000            | 760                                             | 4.60 | 835  | 5.40 | 900  | 6.15 | 960  | 6.85 | 1015 | 7.60 | 1070 | 8.35  | 1120 | 9.05  | 1170 | 9.80  | 1215 | 10.50 | 1260 | 11.25 | 1305 | 12.00 | 1350 | 12.70 | 1390 | 12.85 |
| 10,250            | 775                                             | 4.90 | 845  | 5.65 | 910  | 6.45 | 970  | 7.20 | 1030 | 8.00 | 1080 | 8.75  | 1135 | 9.55  | 1180 | 10.25 | 1225 | 10.95 | 1270 | 11.70 | 1315 | 12.45 | 1360 | 13.15 | 1400 | 13.30 |
| 10,500            | 790                                             | 5.20 | 860  | 6.00 | 925  | 6.85 | 985  | 7.65 | 1040 | 8.40 | 1095 | 9.20  | 1145 | 10.00 | 1190 | 10.75 | 1235 | 11.45 | 1280 | 12.20 | 1325 | 12.95 | 1370 | 13.65 | 1410 | 13.80 |
| 10,750            | 805                                             | 5.55 | 875  | 6.40 | 940  | 7.25 | 1000 | 8.05 | 1055 | 8.85 | 1105 | 9.65  | 1155 | 10.45 | 1200 | 11.20 | 1245 | 12.00 | 1290 | 12.75 | 1335 | 13.50 | 1380 | 14.20 | 1420 | 14.35 |
| 11,000            | 820                                             | 5.90 | 890  | 6.80 | 950  | 7.60 | 1010 | 8.45 | 1065 | 9.30 | 1115 | 10.05 | 1165 | 10.85 | 1210 | 11.60 | 1255 | 12.35 | 1300 | 13.10 | 1345 | 13.85 | 1390 | 14.55 | 1430 | 14.70 |

## BLOWER DATA

### FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

| Nominal HP | Maximum HP | Drive Kit Number | RPM Range   |
|------------|------------|------------------|-------------|
| 3          | 3.45       | 1                | 535 - 725   |
| 3          | 3.45       | 2                | 710 - 965   |
| 5          | 5.75       | 3                | 685 - 856   |
| 5          | 5.75       | 4                | 850 - 1045  |
| 5          | 5.75       | 5                | 945 - 1185  |
| 7.5        | 8.63       | 6                | 850 - 1045  |
| 7.5        | 8.63       | 7                | 945 - 1185  |
| 7.5        | 8.63       | 8                | 1045 - 1285 |
| 10         | 11.50      | 7                | 945 - 1185  |
| 10         | 11.50      | 10               | 1045 - 1285 |
| 10         | 11.50      | 11               | 1135 - 1330 |

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 – Blower motor service factor = 1.0.

### FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORY AIR RESISTANCE

| Air Volume cfm | Wet Indoor Coil |             | Humiditrol®+ Reheat Coil | Electric Heat | Economizer | Filters |         |         | Horizontal Roof Curb |          |
|----------------|-----------------|-------------|--------------------------|---------------|------------|---------|---------|---------|----------------------|----------|
|                | 156 180         | 210 240 300 |                          |               |            |         |         |         | 156 thru 240         | 300      |
|                | in. w.g.        | in. w.g.    | in. w.g.                 | in. w.g.      | in. w.g.   | MERV 8  | MERV 13 | MERV 16 | in. w.g.             | in. w.g. |
| 2750           | .01             | .02         | .01                      | ---           | ---        | .01     | .03     | 0.06    | .03                  | -        |
| 3000           | .01             | .02         | .01                      | ---           | ---        | .01     | .03     | 0.06    | .04                  | -        |
| 3250           | .01             | .03         | .01                      | ---           | ---        | .01     | .04     | 0.07    | .04                  | .01      |
| 3500           | .01             | .03         | .02                      | ---           | ---        | .01     | .04     | 0.08    | .05                  | .01      |
| 3750           | .01             | .03         | .02                      | ---           | ---        | .01     | .04     | 0.08    | .05                  | .01      |
| 4000           | .02             | .04         | .02                      | ---           | ---        | .01     | .04     | 0.09    | .06                  | .02      |
| 4250           | .02             | .04         | .02                      | ---           | ---        | .01     | .05     | 0.10    | .07                  | .02      |
| 4500           | .02             | .05         | .02                      | ---           | ---        | .01     | .05     | 0.10    | .07                  | .02      |
| 4750           | .02             | .05         | .02                      | ---           | ---        | .02     | .05     | 0.11    | .08                  | .03      |
| 5000           | .02             | .05         | .02                      | ---           | ---        | .02     | .06     | 0.12    | .08                  | .03      |
| 5250           | .02             | .06         | .03                      | ---           | ---        | .02     | .06     | 0.12    | .09                  | .04      |
| 5500           | .02             | .07         | .03                      | ---           | ---        | .02     | .06     | 0.13    | .10                  | .04      |
| 5750           | .03             | .07         | .03                      | ---           | ---        | .02     | .07     | 0.14    | .11                  | .05      |
| 6000           | .03             | .08         | .03                      | .01           | ---        | .03     | .07     | 0.14    | .11                  | .06      |
| 6250           | .03             | .08         | .03                      | .01           | .01        | .03     | .07     | 0.15    | .12                  | .07      |
| 6500           | .03             | .09         | .04                      | .01           | .02        | .03     | .08     | 0.16    | .13                  | .08      |
| 6750           | .04             | .10         | .04                      | .01           | .03        | .03     | .08     | 0.17    | .14                  | .08      |
| 7000           | .04             | .10         | .04                      | .01           | .04        | .04     | .08     | 0.17    | .15                  | .09      |
| 7250           | .04             | .11         | .04                      | .01           | .05        | .04     | .09     | 0.18    | .16                  | .10      |
| 7500           | .05             | .12         | .05                      | .01           | .06        | .04     | .09     | 0.19    | .17                  | .11      |
| 8000           | .05             | .13         | .05                      | .02           | .09        | .05     | .10     | 0.21    | .19                  | .13      |
| 8500           | .06             | .15         | .05                      | .02           | .11        | .05     | .10     | 0.22    | .21                  | .15      |
| 9000           | .07             | .16         | .06                      | .04           | .14        | .06     | .11     | 0.24    | .24                  | .17      |
| 9500           | .08             | .18         | .07                      | .05           | .16        | .07     | .12     | 0.25    | .26                  | .19      |
| 10,000         | .08             | .20         | .07                      | .06           | .19        | .07     | .12     | 0.27    | .29                  | .21      |
| 10,500         | .09             | .22         | .08                      | .09           | .22        | .08     | .13     | 0.29    | .31                  | .24      |
| 11,000         | .11             | .24         | .08                      | .11           | .25        | .09     | .14     | 0.30    | .34                  | .27      |

## BLOWER DATA

### POWER EXHAUST FAN PERFORMANCE

| Return Air System Static Pressure | Air Volume Exhausted |
|-----------------------------------|----------------------|
| in. w.g.                          | cfm                  |
| 0.00                              | 8630                 |
| 0.05                              | 8210                 |
| 0.10                              | 7725                 |
| 0.15                              | 7110                 |
| 0.20                              | 6470                 |
| 0.25                              | 5790                 |
| 0.30                              | 5060                 |
| 0.35                              | 4300                 |
| 0.40                              | 3510                 |
| 0.45                              | 2690                 |
| 0.50                              | 1840                 |

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

| Air Volume cfm | Step-Down Diffuser |                    |                       |             |                    |                       | Flush Diffuser |           |
|----------------|--------------------|--------------------|-----------------------|-------------|--------------------|-----------------------|----------------|-----------|
|                | RTD11-185S         |                    |                       | RTD11-275S  |                    |                       | FD11-185S      | FD11-275S |
|                | 2 Ends Open        | 1 Side/2 Ends Open | All Ends & Sides Open | 2 Ends Open | 1 Side/2 Ends Open | All Ends & Sides Open |                |           |
| 5000           | .51                | .44                | .39                   | ---         | ---                | ---                   | .27            | ---       |
| 5200           | .56                | .48                | .42                   | ---         | ---                | ---                   | .30            | ---       |
| 5400           | .61                | .52                | .45                   | ---         | ---                | ---                   | .33            | ---       |
| 5600           | .66                | .56                | .48                   | ---         | ---                | ---                   | .36            | ---       |
| 5800           | .71                | .59                | .51                   | ---         | ---                | ---                   | .39            | ---       |
| 6000           | .76                | .63                | .55                   | .36         | .31                | .27                   | .42            | .29       |
| 6200           | .80                | .68                | .59                   | ---         | ---                | ---                   | .46            | ---       |
| 6400           | .86                | .72                | .63                   | ---         | ---                | ---                   | .50            | ---       |
| 6500           | ---                | ---                | ---                   | .42         | .36                | .31                   | ---            | .34       |
| 6600           | .92                | .77                | .67                   | ---         | ---                | ---                   | .54            | ---       |
| 6800           | .99                | .83                | .72                   | ---         | ---                | ---                   | .58            | ---       |
| 7000           | 1.03               | .87                | .76                   | .49         | .41                | .36                   | .62            | .40       |
| 7200           | 1.09               | .92                | .80                   | ---         | ---                | ---                   | .66            | ---       |
| 7400           | 1.15               | .97                | .84                   | ---         | ---                | ---                   | .70            | ---       |
| 7500           | ---                | ---                | ---                   | .51         | .46                | .41                   | ---            | .45       |
| 7600           | 1.20               | 1.02               | .88                   | ---         | ---                | ---                   | .74            | ---       |
| 8000           | ---                | ---                | ---                   | .59         | .49                | .43                   | ---            | .50       |
| 8500           | ---                | ---                | ---                   | .69         | .58                | .50                   | ---            | .57       |
| 9000           | ---                | ---                | ---                   | .79         | .67                | .58                   | ---            | .66       |
| 9500           | ---                | ---                | ---                   | .89         | .75                | .65                   | ---            | .74       |
| 10,000         | ---                | ---                | ---                   | 1.00        | .84                | .73                   | ---            | .81       |
| 10,500         | ---                | ---                | ---                   | 1.10        | .92                | .80                   | ---            | .89       |
| 11,000         | ---                | ---                | ---                   | 1.21        | 1.01               | .88                   | ---            | .96       |

### CEILING DIFFUSER AIR THROW DATA - ft.

| Size       | Air Volume cfm | <sup>1</sup> Effective Throw Range - ft. |                 | Size              | Air Volume cfm | <sup>1</sup> Effective Throw Range - ft. |                 |
|------------|----------------|------------------------------------------|-----------------|-------------------|----------------|------------------------------------------|-----------------|
|            |                | RTD11-185S Step-Down                     | FD11-185S Flush |                   |                | RTD11-275S Step-Down                     | FD11-275S Flush |
| 156<br>180 | 5600           | 39 - 49                                  | 28 - 37         | 210<br>240<br>300 | 7200           | 33 - 38                                  | 26 - 35         |
|            | 5800           | 42 - 51                                  | 29 - 38         |                   | 7400           | 35 - 40                                  | 28 - 37         |
|            | 6000           | 44 - 54                                  | 40 - 50         |                   | 7600           | 36 - 41                                  | 29 - 38         |
|            | 6200           | 45 - 55                                  | 42 - 51         |                   | 7800           | 38 - 43                                  | 40 - 50         |
|            | 6400           | 46 - 55                                  | 43 - 52         |                   | 8000           | 39 - 44                                  | 42 - 51         |
|            | 6600           | 47 - 56                                  | 45 - 56         |                   | 8200           | 41 - 46                                  | 43 - 52         |
|            |                |                                          |                 |                   | 8400           | 43 - 49                                  | 44 - 54         |
|            |                |                                          |                 |                   | 8600           | 44 - 50                                  | 46 - 57         |
|            |                |                                          |                 |                   | 8800           | 47 - 55                                  | 48 - 59         |
|            |                |                                          |                 |                   |                |                                          |                 |

<sup>1</sup> Throw is the horizontal or vertical distance an airstream 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

13 TON

| Model                                                    |                                   | LCM156U5     |      |          |     |          |     |
|----------------------------------------------------------|-----------------------------------|--------------|------|----------|-----|----------|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V-3ph |      | 460V-3ph |     | 575V-3ph |     |
| Compressor 1<br>(Inverter)                               | Rated Load Amps                   | 10.2         |      | 6.2      |     | 5.6      |     |
|                                                          | Locked Rotor Amps                 | 21           |      | 12       |     | 12       |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      | 6.4      |     | 5.1      |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      | 50       |     | 41       |     |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      | 6.4      |     | 5.1      |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      | 50       |     | 41       |     |
| Outdoor Fan<br>Motors (4)                                | Full Load Amps (4 ECM)            | 2.8          |      | 1.4      |     | 1.1      |     |
|                                                          | Total                             | 11.2         |      | 5.6      |     | 4.4      |     |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4          |      | 1.3      |     | 1        |     |
|                                                          | Total                             | 4.8          |      | 2.6      |     | 2        |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15           |      | 15       |     | 20       |     |
| Indoor Blower<br>Motor                                   | HP                                | 3            | 5    | 3        | 5   | 3        | 5   |
|                                                          | Full Load Amps                    | 10.6         | 16.7 | 4.8      | 7.6 | 3.9      | 6.1 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 70           | 80   | 35       | 40  | 30       | 30  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 80           | 90   | 40       | 40  | 30       | 35  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 63           | 70   | 31       | 35  | 26       | 28  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 68           | 75   | 34       | 37  | 28       | 30  |

## ELECTRIC HEAT DATA

| Electric Heat Voltage                                       |                                                            |       | 208V             | 240V | 208V             | 240V | 480V | 480V | 600V | 600V |
|-------------------------------------------------------------|------------------------------------------------------------|-------|------------------|------|------------------|------|------|------|------|------|
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit+<br>Electric Heat                                     | 15 kW | 70               | 70   | 80               | 80   | 35   | 40   | 30   | 30   |
|                                                             |                                                            | 30 kW | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | 60   | 60   | 45   | 45   |
|                                                             |                                                            | 45 kW | 150              | 150  | <sup>4</sup> 150 | 175  | 80   | 80   | 60   | 70   |
|                                                             |                                                            | 60 kW | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 90   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat                                     | 15 kW | 63               | 63   | 70               | 70   | 31   | 35   | 26   | 28   |
|                                                             |                                                            | 30 kW | 92               | 104  | 100              | 112  | 52   | 55   | 41   | 44   |
|                                                             |                                                            | 45 kW | 131              | 149  | 139              | 157  | 74   | 78   | 60   | 62   |
|                                                             |                                                            | 60 kW | 139              | 158  | 146              | 166  | 79   | 82   | 63   | 66   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 80               | 80   | 90               | 90   | 40   | 40   | 30   | 35   |
|                                                             |                                                            | 30 kW | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | 60   | 60   | 45   | 50   |
|                                                             |                                                            | 45 kW | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 90   | 70   | 70   |
|                                                             |                                                            | 60 kW | <sup>4</sup> 150 | 175  | 175              | 175  | 90   | 90   | 70   | 70   |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 68               | 68   | 75               | 75   | 34   | 37   | 28   | 30   |
|                                                             |                                                            | 30 kW | 98               | 110  | 106              | 118  | 55   | 58   | 44   | 47   |
|                                                             |                                                            | 45 kW | 137              | 155  | 145              | 163  | 77   | 81   | 62   | 65   |
|                                                             |                                                            | 60 kW | 145              | 164  | 152              | 172  | 82   | 85   | 66   | 68   |

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.<sup>4</sup> Factory installed circuit breaker not available.

## ELECTRICAL/ELECTRIC HEAT DATA

15 TON

| Model                                                    |                                   | LCM180U5     |      |      |          |     |     |          |     |     |
|----------------------------------------------------------|-----------------------------------|--------------|------|------|----------|-----|-----|----------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V-3ph |      |      | 460V-3ph |     |     | 575V-3ph |     |     |
| Compressor 1<br>(Inverter)                               | Rated Load Amps                   | 14.1         |      |      | 7.8      |     |     | 7        |     |     |
|                                                          | Locked Rotor Amps                 | 21           |      |      | 12       |     |     | 12       |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      |      | 6.4      |     |     | 5.1      |     |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      |      | 50       |     |     | 41       |     |     |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 16           |      |      | 7.1      |     |     | 6.4      |     |     |
|                                                          | Locked Rotor Amps                 | 156.4        |      |      | 69       |     |     | 47.8     |     |     |
| Outdoor Fan<br>Motors (4)                                | Full Load Amps (4 ECM)            | 2.8          |      |      | 1.4      |     |     | 1.1      |     |     |
|                                                          | Total                             | 11.2         |      |      | 5.6      |     |     | 4.4      |     |     |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4          |      |      | 1.3      |     |     | 1        |     |     |
|                                                          | Total                             | 4.8          |      |      | 2.6      |     |     | 2        |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15           |      |      | 15       |     |     | 20       |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 3            | 5    | 7.5  | 3        | 5   | 7.5 | 3        | 5   | 7.5 |
|                                                          | Full Load Amps                    | 10.6         | 16.7 | 24.2 | 4.8      | 7.6 | 11  | 3.9      | 6.1 | 9   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 80           | 90   | 100  | 40       | 40  | 50  | 35       | 35  | 40  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 90           | 90   | 110  | 40       | 45  | 50  | 35       | 35  | 45  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 70           | 76   | 86   | 34       | 37  | 41  | 29       | 31  | 35  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 75           | 81   | 90   | 37       | 40  | 44  | 31       | 33  | 37  |

## ELECTRIC HEAT DATA

| Electric Heat Voltage                              |                                                   |              | 208V             | 240V | 208V             | 240V | 208V             | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|----------------------------------------------------|---------------------------------------------------|--------------|------------------|------|------------------|------|------------------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum Overcurrent Protection (MOCP) | Unit+ Electric Heat                               | <b>15 kW</b> | 80               | 80   | 90               | 90   | 100              | 100  | 40   | 40   | 50   | 35   | 35   | 40   |
|                                                    |                                                   | <b>30 kW</b> | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | <sup>4</sup> 110 | 125  | 60   | 60   | 60   | 45   | 45   | 50   |
|                                                    |                                                   | <b>45 kW</b> | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 90   | 60   | 70   | 70   |
|                                                    |                                                   | <b>60 kW</b> | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 175              | 175  | 80   | 90   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum Circuit Ampacity (MCA)        | Unit+ Electric Heat                               | <b>15 kW</b> | 70               | 70   | 76               | 76   | 86               | 86   | 34   | 37   | 41   | 29   | 31   | 35   |
|                                                    |                                                   | <b>30 kW</b> | 92               | 104  | 100              | 112  | 109              | 121  | 52   | 55   | 59   | 41   | 44   | 48   |
|                                                    |                                                   | <b>45 kW</b> | 131              | 149  | 139              | 157  | 148              | 166  | 74   | 78   | 82   | 60   | 62   | 66   |
|                                                    |                                                   | <b>60 kW</b> | 139              | 158  | 146              | 166  | 156              | 175  | 79   | 82   | 86   | 63   | 66   | 69   |
| <sup>2</sup> Maximum Overcurrent Protection (MOCP) | Unit+ Electric Heat and (2) 0.33 HP Power Exhaust | <b>15 kW</b> | 90               | 90   | 90               | 90   | 110              | 110  | 40   | 45   | 50   | 35   | 35   | 45   |
|                                                    |                                                   | <b>30 kW</b> | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | <sup>4</sup> 125 | 150  | 60   | 60   | 70   | 45   | 50   | 50   |
|                                                    |                                                   | <b>45 kW</b> | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 175              | 175  | 80   | 90   | 90   | 70   | 70   | 70   |
|                                                    |                                                   | <b>60 kW</b> | <sup>4</sup> 150 | 175  | 175              | 175  | <sup>4</sup> 175 | 200  | 90   | 90   | 90   | 70   | 70   | 80   |
| <sup>3</sup> Minimum Circuit Ampacity (MCA)        | Unit+ Electric Heat and (2) 0.33 HP Power Exhaust | <b>15 kW</b> | 75               | 75   | 81               | 81   | 90               | 90   | 37   | 40   | 44   | 31   | 33   | 37   |
|                                                    |                                                   | <b>30 kW</b> | 98               | 110  | 106              | 118  | 115              | 127  | 55   | 58   | 63   | 44   | 47   | 50   |
|                                                    |                                                   | <b>45 kW</b> | 137              | 155  | 145              | 163  | 154              | 172  | 77   | 81   | 85   | 62   | 65   | 68   |
|                                                    |                                                   | <b>60 kW</b> | 145              | 164  | 152              | 172  | 162              | 181  | 82   | 85   | 90   | 66   | 68   | 72   |

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.<sup>4</sup> Factory installed circuit breaker not available.



## ELECTRICAL/ELECTRIC HEAT DATA

17.5 TON

| Model                                                    |                                   | LCM210U5     |      |      |          |     |     |          |     |     |
|----------------------------------------------------------|-----------------------------------|--------------|------|------|----------|-----|-----|----------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V-3ph |      |      | 460V-3ph |     |     | 575V-3ph |     |     |
| Compressor 1<br>(Inverter)                               | Rated Load Amps                   | 10.3         |      |      | 6.2      |     |     | 5.6      |     |     |
|                                                          | Locked Rotor Amps                 | 21           |      |      | 12       |     |     | 12       |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      |      | 6.4      |     |     | 5.1      |     |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      |      | 50       |     |     | 41       |     |     |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      |      | 6.4      |     |     | 5.1      |     |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      |      | 50       |     |     | 41       |     |     |
| Compressor 4<br>(Non-Inverter)                           | Rated Load Amps                   | 13.5         |      |      | 6.4      |     |     | 5.1      |     |     |
|                                                          | Locked Rotor Amps                 | 120.4        |      |      | 50       |     |     | 41       |     |     |
| Outdoor Fan<br>Motors (6)                                | Full Load Amps (6 ECM)            | 2.8          |      |      | 1.4      |     |     | 1.1      |     |     |
|                                                          | Total                             | 16.8         |      |      | 8.4      |     |     | 6.6      |     |     |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4          |      |      | 1.3      |     |     | 1        |     |     |
|                                                          | Total                             | 4.8          |      |      | 2.6      |     |     | 2        |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15           |      |      | 15       |     |     | 20       |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 3            | 5    | 7.5  | 3        | 5   | 7.5 | 3        | 5   | 7.5 |
|                                                          | Full Load Amps                    | 10.6         | 16.7 | 24.2 | 4.8      | 7.6 | 11  | 3.9      | 6.1 | 9   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 90           | 100  | 110  | 45       | 50  | 50  | 35       | 40  | 45  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 90           | 100  | 125  | 45       | 50  | 60  | 40       | 40  | 45  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 82           | 89   | 98   | 41       | 44  | 48  | 33       | 36  | 39  |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 87           | 94   | 103  | 43       | 46  | 51  | 35       | 38  | 41  |

## 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<br>(MOCP) | Unit+<br>Electric Heat                                     | 15 kW | 90               | 90   | 100              | 100  | 110              | 110              | 45   | 50   | 50   | 35   | 40   | 45   |
|                                                             |                                                            | 30 kW | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | <sup>4</sup> 110 | 125              | 60   | 60   | 60   | 45   | 45   | 50   |
|                                                             |                                                            | 45 kW | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175              | 80   | 80   | 90   | 60   | 70   | 70   |
|                                                             |                                                            | 60 kW | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 175              | 175              | 80   | 90   | 90   | 70   | 70   | 70   |
|                                                             |                                                            | 90 kW | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | 250              | 125  | 125  | 125  | 100  | 100  | 100  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat                                     | 15 kW | 82               | 82   | 89               | 89   | 98               | 98               | 41   | 44   | 48   | 33   | 36   | 39   |
|                                                             |                                                            | 30 kW | 92               | 104  | 100              | 112  | 109              | 121              | 52   | 55   | 59   | 41   | 44   | 48   |
|                                                             |                                                            | 45 kW | 131              | 149  | 139              | 157  | 148              | 166              | 74   | 78   | 82   | 60   | 62   | 66   |
|                                                             |                                                            | 60 kW | 139              | 158  | 146              | 166  | 156              | 175              | 79   | 82   | 86   | 63   | 66   | 69   |
|                                                             |                                                            | 90 kW | 201              | 230  | 209              | 238  | 218              | 247              | 115  | 118  | 123  | 92   | 95   | 98   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 90               | 90   | 100              | 100  | 125              | 125              | 45   | 50   | 60   | 40   | 40   | 45   |
|                                                             |                                                            | 30 kW | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | <sup>4</sup> 125 | 150              | 60   | 60   | 70   | 45   | 50   | 50   |
|                                                             |                                                            | 45 kW | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 175              | 175              | 80   | 90   | 90   | 70   | 70   | 70   |
|                                                             |                                                            | 60 kW | <sup>4</sup> 150 | 175  | 175              | 175  | <sup>4</sup> 175 | 200              | 90   | 90   | 90   | 70   | 70   | 80   |
|                                                             |                                                            | 90 kW | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | <sup>4</sup> 300 | 125  | 125  | 150  | 100  | 100  | 110  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 87               | 87   | 94               | 94   | 103              | 103              | 43   | 46   | 51   | 35   | 38   | 41   |
|                                                             |                                                            | 30 kW | 98               | 110  | 106              | 118  | 115              | 127              | 55   | 58   | 63   | 44   | 47   | 50   |
|                                                             |                                                            | 45 kW | 137              | 155  | 145              | 163  | 154              | 172              | 77   | 81   | 85   | 62   | 65   | 68   |
|                                                             |                                                            | 60 kW | 145              | 164  | 152              | 172  | 162              | 181              | 82   | 85   | 90   | 66   | 68   | 72   |
|                                                             |                                                            | 90 kW | 207              | 236  | 215              | 244  | 224              | 253              | 118  | 122  | 126  | 94   | 97   | 101  |

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.<sup>4</sup> Factory installed circuit breaker not available.

## ELECTRICAL/ELECTRIC HEAT DATA

20 TON

| Model                                                    |                                   | LCM240U5     |      |      |          |     |    |          |     |    |
|----------------------------------------------------------|-----------------------------------|--------------|------|------|----------|-----|----|----------|-----|----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V-3ph |      |      | 460V-3ph |     |    | 575V-3ph |     |    |
| Compressor 1<br>(Inverter)                               | Rated Load Amps                   | 13.3         |      |      | 7.4      |     |    | 6.9      |     |    |
|                                                          | Locked Rotor Amps                 | 21           |      |      | 12       |     |    | 12       |     |    |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1         |      |      | 6.6      |     |    | 4.8      |     |    |
|                                                          | Locked Rotor Amps                 | 93           |      |      | 60       |     |    | 41       |     |    |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1         |      |      | 6.6      |     |    | 4.8      |     |    |
|                                                          | Locked Rotor Amps                 | 93           |      |      | 60       |     |    | 41       |     |    |
| Compressor 4<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1         |      |      | 6.6      |     |    | 4.8      |     |    |
|                                                          | Locked Rotor Amps                 | 93           |      |      | 60       |     |    | 41       |     |    |
| Outdoor Fan<br>Motors (6)                                | Full Load Amps (6 ECM)            | 2.8          |      |      | 1.4      |     |    | 1.1      |     |    |
|                                                          | Total                             | 16.8         |      |      | 8.4      |     |    | 6.6      |     |    |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4          |      |      | 1.3      |     |    | 1        |     |    |
|                                                          | Total                             | 4.8          |      |      | 2.6      |     |    | 2        |     |    |
| Service Outlet 115V GFI (amps)                           |                                   | 15           |      |      | 15       |     |    | 20       |     |    |
| Indoor Blower<br>Motor                                   | HP                                | 5            | 7.5  | 10   | 5        | 7.5 | 10 | 5        | 7.5 | 10 |
|                                                          | Full Load Amps                    | 16.7         | 24.2 | 30.8 | 7.6      | 11  | 14 | 6.1      | 9   | 11 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 100          | 110  | 125  | 50       | 60  | 60 | 40       | 45  | 50 |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 110          | 125  | 125  | 50       | 60  | 60 | 40       | 50  | 50 |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 91           | 100  | 108  | 46       | 50  | 54 | 36       | 40  | 42 |
|                                                          | With (2) 0.33 HP<br>Power Exhaust | 96           | 105  | 113  | 48       | 52  | 56 | 38       | 42  | 44 |

## 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<br>(MOCP) | Unit+<br>Electric Heat                                     | <b>15 kW</b> | 100              | 100  | 110              | 110              | 125              | 125              | 50   | 60   | 60   | 40   | 45   | 50   |
|                                                             |                                                            | <b>30 kW</b> | <sup>4</sup> 100 | 125  | <sup>4</sup> 110 | 125              | <sup>4</sup> 125 | 150              | 60   | 60   | 70   | 45   | 50   | 50   |
|                                                             |                                                            | <b>45 kW</b> | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175              | 175              | 175              | 80   | 90   | 90   | 70   | 70   | 70   |
|                                                             |                                                            | <b>60 kW</b> | <sup>4</sup> 150 | 175  | 175              | 175              | <sup>4</sup> 175 | 200              | 90   | 90   | 90   | 70   | 70   | 80   |
|                                                             |                                                            | <b>90 kW</b> | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | 250              | <sup>4</sup> 250 | <sup>4</sup> 300 | 125  | 125  | 150  | 100  | 100  | 110  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat                                     | <b>15 kW</b> | 91               | 91   | 100              | 100              | 108              | 108              | 46   | 50   | 54   | 36   | 40   | 42   |
|                                                             |                                                            | <b>30 kW</b> | 100              | 112  | 109              | 121              | 117              | 129              | 55   | 59   | 63   | 44   | 48   | 50   |
|                                                             |                                                            | <b>45 kW</b> | 139              | 157  | 148              | 166              | 156              | 174              | 78   | 82   | 86   | 62   | 66   | 68   |
|                                                             |                                                            | <b>60 kW</b> | 146              | 166  | 156              | 175              | 164              | 183              | 82   | 86   | 90   | 66   | 69   | 72   |
|                                                             |                                                            | <b>90 kW</b> | 209              | 238  | 218              | 247              | 227              | 256              | 118  | 123  | 126  | 95   | 98   | 101  |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | <b>15 kW</b> | 110              | 110  | 125              | 125              | 125              | 125              | 50   | 60   | 60   | 40   | 50   | 50   |
|                                                             |                                                            | <b>30 kW</b> | <sup>4</sup> 110 | 125  | <sup>4</sup> 125 | 150              | <sup>4</sup> 125 | 150              | 60   | 70   | 70   | 50   | 50   | 60   |
|                                                             |                                                            | <b>45 kW</b> | <sup>4</sup> 150 | 175  | 175              | 175              | <sup>4</sup> 175 | 200              | 90   | 90   | 90   | 70   | 70   | 80   |
|                                                             |                                                            | <b>60 kW</b> | 175              | 175  | <sup>4</sup> 175 | 200              | <sup>4</sup> 175 | 200              | 90   | 90   | 100  | 70   | 80   | 80   |
|                                                             |                                                            | <b>90 kW</b> | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | <sup>4</sup> 300 | <sup>4</sup> 250 | <sup>4</sup> 300 | 125  | 150  | 150  | 100  | 110  | 110  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | <b>15 kW</b> | 96               | 96   | 105              | 105              | 113              | 113              | 48   | 52   | 56   | 38   | 42   | 44   |
|                                                             |                                                            | <b>30 kW</b> | 106              | 118  | 115              | 127              | 123              | 135              | 58   | 63   | 66   | 47   | 50   | 53   |
|                                                             |                                                            | <b>45 kW</b> | 145              | 163  | 154              | 172              | 162              | 180              | 81   | 85   | 89   | 65   | 68   | 71   |
|                                                             |                                                            | <b>60 kW</b> | 152              | 172  | 162              | 181              | 170              | 189              | 85   | 90   | 93   | 68   | 72   | 74   |
|                                                             |                                                            | <b>90 kW</b> | 215              | 244  | 224              | 253              | 233              | 262              | 122  | 126  | 130  | 97   | 101  | 103  |

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.<sup>4</sup> Factory installed circuit breaker not available.

## ELECTRICAL/ELECTRIC HEAT DATA

25 TON

| Model                                                       |                                   | LCM300U5     |      |      |          |     |    |          |     |    |
|-------------------------------------------------------------|-----------------------------------|--------------|------|------|----------|-----|----|----------|-----|----|
| <sup>1</sup> Voltage - 60Hz                                 |                                   | 208/230V-3ph |      |      | 460V-3ph |     |    | 575V-3ph |     |    |
| Compressor 1<br>(Inverter)                                  | Rated Load Amps                   | 12.9         |      |      | 7.3      |     |    | 6.7      |     |    |
|                                                             | Locked Rotor Amps                 | 21           |      |      | 12       |     |    | 12       |     |    |
| Compressor 2<br>(Non-Inverter)                              | Rated Load Amps                   | 21.2         |      |      | 9.1      |     |    | 7.7      |     |    |
|                                                             | Locked Rotor Amps                 | 156.5        |      |      | 74.8     |     |    | 47.8     |     |    |
| Compressor 3<br>(Non-Inverter)                              | Rated Load Amps                   | 22.4         |      |      | 9.1      |     |    | 7.2      |     |    |
|                                                             | Locked Rotor Amps                 | 166.2        |      |      | 74.6     |     |    | 54       |     |    |
| Compressor 4<br>(Non-Inverter)                              | Rated Load Amps                   | 22.4         |      |      | 9.1      |     |    | 7.2      |     |    |
|                                                             | Locked Rotor Amps                 | 166.2        |      |      | 74.6     |     |    | 54       |     |    |
| Outdoor Fan<br>Motors (6)                                   | Full Load Amps (6 ECM)            | 2.8          |      |      | 1.4      |     |    | 1.1      |     |    |
|                                                             | Total                             | 16.8         |      |      | 8.4      |     |    | 6.6      |     |    |
| Power Exhaust<br>(2) 0.33 HP                                | Full Load Amps                    | 2.4          |      |      | 1.3      |     |    | 1        |     |    |
|                                                             | Total                             | 4.8          |      |      | 2.6      |     |    | 2        |     |    |
| Service Outlet 115V GFI (amps)                              |                                   | 15           |      |      | 15       |     |    | 20       |     |    |
| Indoor Blower<br>Motor                                      | HP                                | 5            | 7.5  | 10   | 5        | 7.5 | 10 | 5        | 7.5 | 10 |
|                                                             | Full Load Amps                    | 16.7         | 24.2 | 30.8 | 7.6      | 11  | 14 | 6.1      | 9   | 11 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit Only                         | 125          | 150  | 150  | 60       | 60  | 70 | 50       | 50  | 60 |
|                                                             | With (2) 0.33 HP<br>Power Exhaust | 125          | 150  | 150  | 60       | 70  | 70 | 50       | 50  | 60 |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)           | Unit Only                         | 118          | 126  | 135  | 53       | 57  | 61 | 44       | 47  | 50 |
|                                                             | With (2) 0.33 HP<br>Power Exhaust | 123          | 131  | 139  | 56       | 60  | 64 | 46       | 49  | 52 |

## 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<br>(MOCP) | Unit+<br>Electric Heat                                     | 15 kW | 125              | 125  | 150              | 150              | 150              | 150              | 60   | 60   | 70   | 50   | 50   | 60   |
|                                                             |                                                            | 30 kW | 125              | 125  | 150              | 150              | 150              | 150              | 60   | 60   | 70   | 50   | 50   | 60   |
|                                                             |                                                            | 45 kW | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175              | 175              | 175              | 80   | 90   | 90   | 70   | 70   | 70   |
|                                                             |                                                            | 60 kW | <sup>4</sup> 150 | 175  | 175              | 175              | <sup>4</sup> 175 | 200              | 90   | 90   | 90   | 70   | 70   | 80   |
|                                                             |                                                            | 90 kW | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | 250              | <sup>4</sup> 250 | <sup>4</sup> 300 | 125  | 125  | 150  | 100  | 100  | 110  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat                                     | 15 kW | 118              | 118  | 126              | 126              | 135              | 135              | 53   | 57   | 61   | 44   | 47   | 50   |
|                                                             |                                                            | 30 kW | 118              | 118  | 126              | 126              | 135              | 135              | 55   | 59   | 63   | 44   | 48   | 50   |
|                                                             |                                                            | 45 kW | 139              | 157  | 148              | 166              | 156              | 174              | 78   | 82   | 86   | 62   | 66   | 68   |
|                                                             |                                                            | 60 kW | 146              | 166  | 156              | 175              | 164              | 183              | 82   | 86   | 90   | 66   | 69   | 72   |
|                                                             |                                                            | 90 kW | 209              | 238  | 218              | 247              | 227              | 256              | 118  | 123  | 126  | 95   | 98   | 101  |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection<br>(MOCP) | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 125              | 125  | 150              | 150              | 150              | 150              | 60   | 70   | 70   | 50   | 50   | 60   |
|                                                             |                                                            | 30 kW | 125              | 125  | 150              | 150              | 150              | 150              | 60   | 70   | 70   | 50   | 50   | 60   |
|                                                             |                                                            | 45 kW | <sup>4</sup> 150 | 175  | 175              | 175              | <sup>4</sup> 175 | 200              | 90   | 90   | 90   | 70   | 70   | 80   |
|                                                             |                                                            | 60 kW | 175              | 175  | <sup>4</sup> 175 | 200              | <sup>4</sup> 175 | 200              | 90   | 90   | 100  | 70   | 80   | 80   |
|                                                             |                                                            | 90 kW | <sup>4</sup> 225 | 250  | <sup>4</sup> 225 | <sup>4</sup> 300 | <sup>4</sup> 250 | <sup>4</sup> 300 | 125  | 150  | 150  | 100  | 110  | 110  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity<br>(MCA)        | Unit+<br>Electric Heat<br>and (2) 0.33 HP<br>Power Exhaust | 15 kW | 123              | 123  | 131              | 131              | 139              | 139              | 56   | 60   | 64   | 46   | 49   | 52   |
|                                                             |                                                            | 30 kW | 123              | 123  | 131              | 131              | 139              | 139              | 58   | 63   | 66   | 47   | 50   | 53   |
|                                                             |                                                            | 45 kW | 145              | 163  | 154              | 172              | 162              | 180              | 81   | 85   | 89   | 65   | 68   | 71   |
|                                                             |                                                            | 60 kW | 152              | 172  | 162              | 181              | 170              | 189              | 85   | 90   | 93   | 68   | 72   | 74   |
|                                                             |                                                            | 90 kW | 215              | 244  | 224              | 253              | 233              | 262              | 122  | 126  | 130  | 97   | 101  | 103  |

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.<sup>4</sup> Factory installed circuit breaker not available.

## ELECTRICAL ACCESSORIES - DISCONNECTS

### 13 TON | LCM156U5

| Motor HP                           | 3     |       | 5     |       | 3     | 5     | 3     | 5     |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                    | 208V  | 240V  | 208V  | 240V  | 480V  | 480V  | 600V  | 600V  |
| Unit Only                          | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust                    | 54W85 | 54W85 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 15 kW              | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 30 kW              | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 45 kW              | 54W87 | 54W86 | 54W87 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 60 kW              | 54W87 | 54W87 | 54W87 | 54W87 | 54W86 | 54W86 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 15 kW | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 30 kW | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 45 kW | 54W87 | 54W86 | 54W87 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 60 kW | 54W87 | 54W87 | 54W87 | 54W87 | 54W86 | 54W86 | 54W85 | 54W85 |

### 15 TON | LCM180U5

| Motor HP                           | 3     |       | 5     |       | 7.5   |       | 3     | 5     | 7.5   | 3     | 5     | 7.5   |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                    | 208V  | 240V  | 208V  | 240V  | 208V  | 240V  | 480V  | 480V  | 480V  | 600V  | 600V  | 600V  |
| Unit Only                          | 54W85 | 54W85 | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust                    | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 15 kW              | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 30 kW              | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 45 kW              | 54W87 | 54W86 | 54W87 | 54W86 | 54W87 | 54W87 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 60 kW              | 54W87 | 54W87 | 54W87 | 54W87 | 54W87 | 54W87 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 15 kW | 54W85 | 54W85 | 54W85 | 54W85 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 30 kW | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 45 kW | 54W87 | 54W86 | 54W87 | 54W86 | 54W87 | 54W87 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 60 kW | 54W87 | 54W87 | 54W87 | 54W87 | 54W87 | 54W87 | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |

### 17.5 TON | LCM210U5

| Motor HP                           | 3               |                 | 5               |                 | 7.5             |                 | 3     | 5     | 7.5   | 3     | 5     | 7.5   |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|
|                                    | 208V            | 240V            | 208V            | 240V            | 208V            | 240V            | 480V  | 480V  | 480V  | 600V  | 600V  | 600V  |
| Unit Only                          | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust                    | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 15 kW              | 54W85           | 54W85           | 54W85           | 54W85           | 54W85           | 54W85           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 30 kW              | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 45 kW              | 54W87           | 54W86           | 54W87           | 54W86           | 54W87           | 54W87           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 60 kW              | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 90 kW              | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |
| + Power Exhaust + Elec. Heat 15 kW | 54W85           | 54W85           | 54W85           | 54W85           | 54W86           | 54W85           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 30 kW | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 45 kW | 54W87           | 54W86           | 54W87           | 54W86           | 54W87           | 54W87           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 60 kW | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 90 kW | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |

Disconnects - 54W85 - 80A  
54W86 - 150A  
54W87 - 250A

<sup>1</sup> Disconnect must be field furnished.

## ELECTRICAL ACCESSORIES - DISCONNECTS

### 20 TON | LCM240U5

| Motor HP<br>Electric Heat Voltage  | 5               |                 | 7.5             |                 | 10              |                 | 5     | 7.5   | 10    | 5     | 7.5   | 10    |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|
|                                    | 208V            | 240V            | 208V            | 240V            | 208V            | 240V            | 480V  | 480V  | 480V  | 600V  | 600V  | 600V  |
| Unit Only                          | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust                    | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 15 kW              | 54W85           | 54W85           | 54W85           | 54W85           | 54W86           | 54W85           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 30 kW              | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 45 kW              | 54W87           | 54W86           | 54W87           | 54W87           | 54W87           | 54W87           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 60 kW              | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 90 kW              | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |
| + Power Exhaust + Elec. Heat 15 kW | 54W85           | 54W85           | 54W86           | 54W85           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 30 kW | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 45 kW | 54W87           | 54W86           | 54W87           | 54W87           | 54W87           | 54W87           | 54W85 | 54W85 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 60 kW | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W86 |
| + Power Exhaust + Elec. Heat 90 kW | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |

### 25 TON | LCM300U5

| Motor HP<br>Electric Heat Voltage  | 5               |                 | 7.5             |                 | 10              |                 | 5     | 7.5   | 10    | 5     | 7.5   | 10    |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|
|                                    | 208V            | 240V            | 208V            | 240V            | 208V            | 240V            | 480V  | 480V  | 480V  | 600V  | 600V  | 600V  |
| Unit Only                          | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust                    | 54W86           | 54W86           | 54W86           | 54W86           | 54W87           | 54W87           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 15 kW              | 54W85           | 54W85           | 54W85           | 54W85           | 54W86           | 54W85           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 30 kW              | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 45 kW              | 54W87           | 54W86           | 54W87           | 54W87           | 54W87           | 54W87           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 60 kW              | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Electric Heat 90 kW              | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |
| + Power Exhaust + Elec. Heat 15 kW | 54W85           | 54W85           | 54W86           | 54W85           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 30 kW | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W86           | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 45 kW | 54W87           | 54W86           | 54W87           | 54W87           | 54W87           | 54W87           | 54W85 | 54W85 | 54W86 | 54W85 | 54W85 | 54W85 |
| + Power Exhaust + Elec. Heat 60 kW | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W87           | 54W86 | 54W86 | 54W86 | 54W85 | 54W85 | 54W86 |
| + Power Exhaust + Elec. Heat 90 kW | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | <sup>1</sup> NA | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 | 54W86 |

Disconnects - 54W85 - 80A  
54W86 - 150A  
54W87 - 250A

<sup>1</sup> Disconnect must be field furnished.

#### FIELD WIRING NOTES

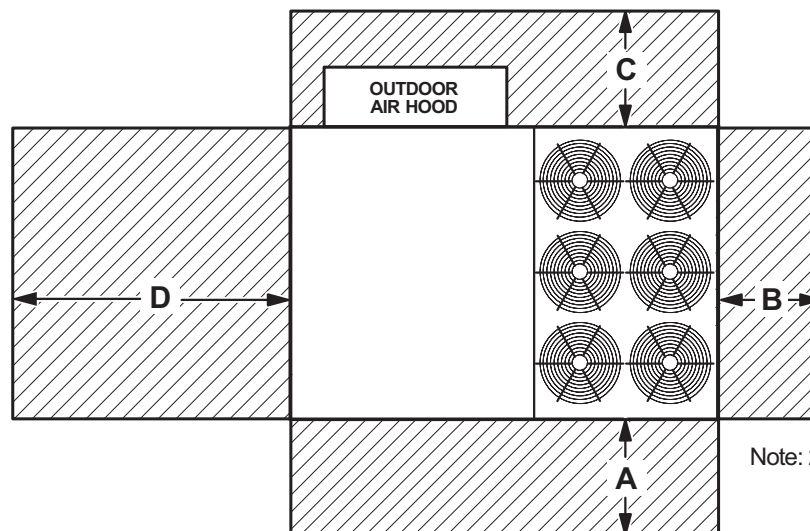
- For use with copper wiring only
- Field wiring not furnished
- All wiring must conform to NEC or CEC and local electrical codes
- For specific wiring information, please refer to the installation instructions

## ELECTRIC HEAT CAPACITIES

| Volts Input | 15 kW    |             |        | 30 kW    |             |        | 45 kW    |             |        | 60 kW    |             |        | 90 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 |
| 208         | 11.3     | 38,600      | 1      | 22.5     | 76,800      | 1      | 33.8     | 115,300     | 2      | 45.0     | 153,600     | 2      | 67.6     | 230,700     | 2      |
| 220         | 12.6     | 43,000      | 1      | 25.2     | 86,000      | 1      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      | 75.6     | 258,000     | 2      |
| 230         | 13.8     | 47,100      | 1      | 27.5     | 93,900      | 1      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      | 82.7     | 282,200     | 2      |
| 240         | 15.0     | 51,200      | 1      | 30.0     | 102,400     | 1      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      | 90.0     | 307,100     | 2      |
| 440         | 12.6     | 43,000      | 1      | 25.2     | 86,000      | 1      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      | 75.6     | 258,000     | 2      |
| 460         | 13.8     | 47,100      | 1      | 27.5     | 93,900      | 1      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      | 82.7     | 282,200     | 2      |
| 480         | 15.0     | 51,200      | 1      | 30.0     | 102,400     | 1      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      | 90.0     | 307,100     | 2      |
| 550         | 12.6     | 43,000      | 1      | 25.2     | 86,000      | 1      | 37.8     | 129,000     | 2      | 50.4     | 172,000     | 2      | 75.6     | 258,000     | 2      |
| 575         | 13.8     | 47,100      | 1      | 27.5     | 93,900      | 1      | 41.3     | 141,000     | 2      | 55.1     | 188,000     | 2      | 82.7     | 282,200     | 2      |
| 600         | 15.0     | 51,200      | 1      | 30.0     | 102,400     | 1      | 45.0     | 153,600     | 2      | 60.0     | 204,800     | 2      | 90.0     | 307,100     | 2      |

## UNIT CLEARANCES

### Unit With Economizer



Note: 210-240-300 sizes shown

| <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  | 934 | 66  | 1676 | Unobstructed  |
| <b>Clearance to Combustibles</b>   | 36  | 914  | 1   | 25  | 1   | 25  | 1   | 25   |               |
| <b>Minimum Operation Clearance</b> | 45  | 1143 | 36  | 914 | 36  | 914 | 41  | 1041 |               |

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.

Clearance to Combustibles - Required clearance to combustible material.

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 |                                        |
| 156, 180      | 71                                                                                     | 76  | 80  | 78   | 74   | 70   | 63   | 86                                     |
| 210, 240, 300 | 73                                                                                     | 81  | 86  | 84   | 78   | 73   | 67   | 90                                     |

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

<sup>1</sup> Sound Rating Number according to AHRI Standard 370-2001 (includes pure tone penalty).

Sound Rating Number is the overall A-Weighted Sound Power Level (L<sub>WA</sub>), dBA (100 Hz to 10,000 Hz).



| WEIGHT DATA   |      |      |          | UNIT |
|---------------|------|------|----------|------|
| Size          | Net  |      | Shipping |      |
|               | lbs. | kg   | lbs.     | kg   |
| 156 Base Unit | 2051 | 930  | 2251     | 1021 |
| 156 Max. Unit | 2336 | 1060 | 2536     | 1150 |
| 180 Base Unit | 2054 | 932  | 2254     | 1022 |
| 180 Max. Unit | 2339 | 1061 | 2539     | 1152 |
| 210 Base Unit | 2499 | 1133 | 2698     | 1224 |
| 210 Max. Unit | 2784 | 1262 | 2983     | 1353 |
| 240 Base Unit | 2525 | 1145 | 2725     | 1236 |
| 240 Max. Unit | 2810 | 1274 | 3010     | 1365 |
| 300 Base Unit | 2566 | 1164 | 2766     | 1254 |
| 300 Max. Unit | 2851 | 1293 | 3051     | 1384 |

NOTE - Max. Unit is the unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories EXTERNAL to unit.

| FACTORY / FIELD INSTALLED OPTIONS AND ACCESSORIES - NET WEIGHTS    |             |     |     |
|--------------------------------------------------------------------|-------------|-----|-----|
| Description                                                        | lbs.        | kg  |     |
| ECONOMIZER / OUTDOOR AIR / EXHAUST                                 |             |     |     |
| Economizer                                                         |             |     |     |
| Economizer Dampers (with Outdoor Air Hood)                         | 167         | 76  |     |
| Barometric Relief Dampers (downflow)                               | 30          | 14  |     |
| Barometric Relief Dampers (horizontal)                             | 20          | 9   |     |
| Outdoor Air Dampers                                                |             |     |     |
| Outdoor Air Damper Section (downflow) - Automatic (including Hood) | 39          | 18  |     |
| Outdoor Air Damper Section (downflow) - Manual (including Hood)    | 22          | 10  |     |
| Power Exhaust                                                      | 62          | 28  |     |
| ELECTRIC HEAT                                                      |             |     |     |
| 15 kW                                                              | 59          | 27  |     |
| 30 kW                                                              | 59          | 27  |     |
| 45 kW                                                              | 76          | 34  |     |
| 60 kW                                                              | 76          | 34  |     |
| 90 kW                                                              | 84          | 38  |     |
| COMBINATION COIL/HAIL GUARDS                                       |             |     |     |
| All Models                                                         | 36          | 16  |     |
| ROOF CURBS                                                         |             |     |     |
| Hybrid Roof Curbs, Downflow                                        |             |     |     |
| 8 in. height                                                       | 136         | 62  |     |
| 14 in. height                                                      | 169         | 77  |     |
| 18 in. height                                                      | 191         | 87  |     |
| 24 in. height                                                      | 224         | 102 |     |
| Adjustable Pitch Curb, Downflow                                    |             |     |     |
| 14 in. height                                                      | 224         | 102 |     |
| Horizontal, Standard                                               |             |     |     |
| 26 in. height                                                      | 450         | 204 |     |
| 37 in. height                                                      | 540         | 245 |     |
| 30 in. height                                                      | 495         | 225 |     |
| 41 in. height                                                      | 575         | 261 |     |
| CEILING DIFFUSERS                                                  |             |     |     |
| Step-Down                                                          | RTD11-185S  | 168 | 76  |
|                                                                    | RTD11-275S  | 238 | 108 |
| Flush                                                              | FD11-185S   | 168 | 76  |
|                                                                    | FD11-275S   | 238 | 108 |
| Transitions                                                        | C1DIFF33C-1 | 80  | 36  |
|                                                                    | C1DIFF34C-1 | 75  | 34  |
| HUMIDITROL™+ HOT GAS REHEAT SYSTEM                                 |             |     |     |
| Humiditrol®+ Dehumidification Option                               | 50          | 23  |     |

# DIMENSIONS

LCM156 | LCM180

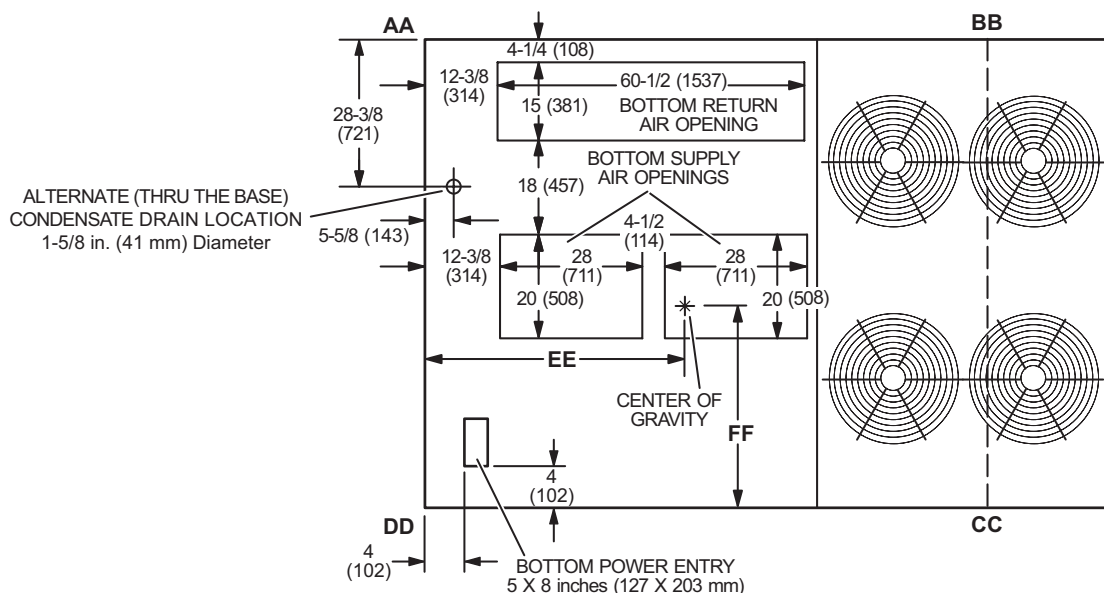
## CORNER WEIGHTS

## CENTER OF GRAVITY

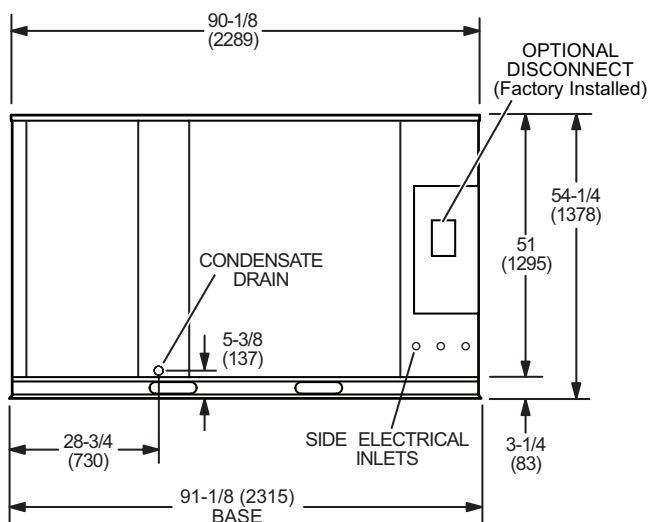
| Model            | AA   |     | BB   |     | CC   |     | DD   |     | EE     |      | FF     |      |
|------------------|------|-----|------|-----|------|-----|------|-----|--------|------|--------|------|
|                  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.    | mm   | in.    | mm   |
| LCM156 Base Unit | 446  | 203 | 416  | 189 | 573  | 261 | 615  | 279 | 52     | 1321 | 38-3/8 | 974  |
| LCM156 Max. Unit | 552  | 251 | 499  | 227 | 610  | 277 | 674  | 306 | 51-1/4 | 1300 | 41     | 1042 |
| LCM180 Base Unit | 447  | 203 | 416  | 189 | 574  | 261 | 616  | 280 | 52     | 1320 | 38-1/4 | 973  |
| LCM180 Max. Unit | 552  | 251 | 499  | 227 | 611  | 278 | 676  | 307 | 51-1/8 | 1300 | 41     | 1041 |

Base Unit - The unit with NO INTERNAL OPTIONS.

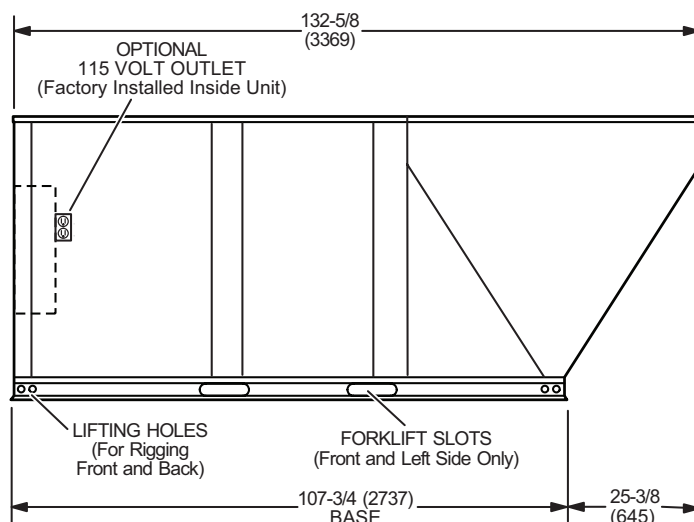
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW



END VIEW



SIDE VIEW

# DIMENSIONS

LCM210 | LCM240 | LCM300

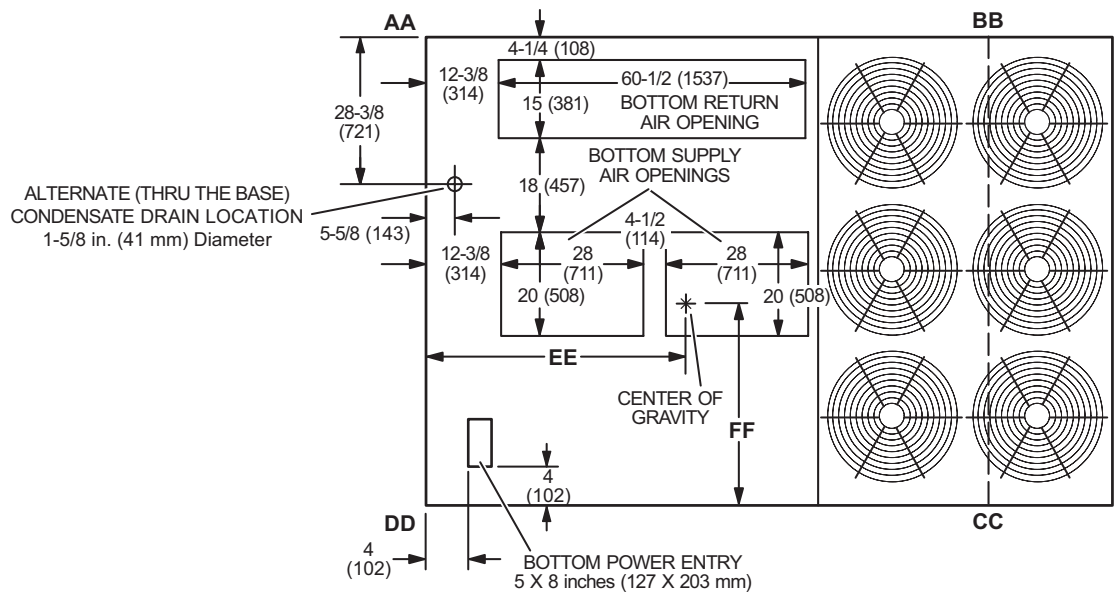
## CORNER WEIGHTS

## CENTER OF GRAVITY

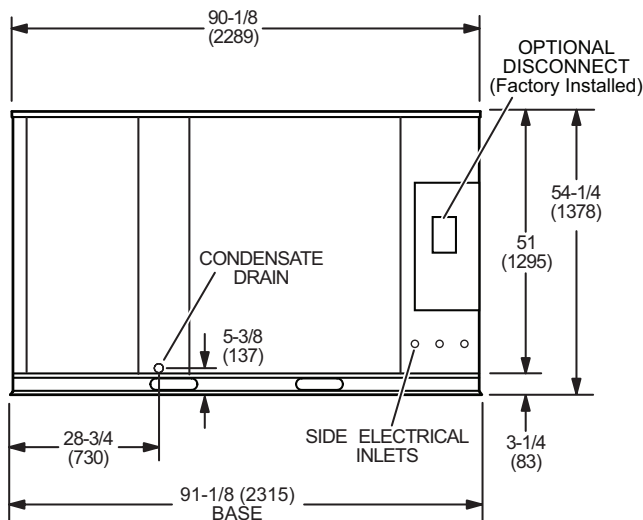
| Model            | AA   |     | BB   |     | CC   |     | DD   |     | EE     |      | FF     |      |
|------------------|------|-----|------|-----|------|-----|------|-----|--------|------|--------|------|
|                  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.    | mm   | in.    | mm   |
| LCM210 Base Unit | 478  | 217 | 600  | 273 | 790  | 359 | 629  | 286 | 60     | 1523 | 39 1/3 | 999  |
| LCM210 Max. Unit | 582  | 265 | 693  | 315 | 819  | 372 | 688  | 313 | 58-1/2 | 1487 | 41-3/4 | 1061 |
| LCM240 Base Unit | 481  | 219 | 594  | 270 | 800  | 364 | 648  | 295 | 59-1/2 | 1512 | 38-7/8 | 986  |
| LCM240 Max. Unit | 586  | 266 | 686  | 312 | 830  | 377 | 709  | 322 | 58-1/8 | 1476 | 41-1/4 | 1047 |
| LCM300 Base Unit | 486  | 221 | 580  | 264 | 816  | 371 | 684  | 311 | 58-5/8 | 1489 | 37-7/8 | 961  |
| LCM300 Max. Unit | 591  | 269 | 672  | 305 | 845  | 384 | 743  | 338 | 57-3/8 | 1456 | 40-3/8 | 1025 |

Base Unit - The unit with NO INTERNAL OPTIONS.

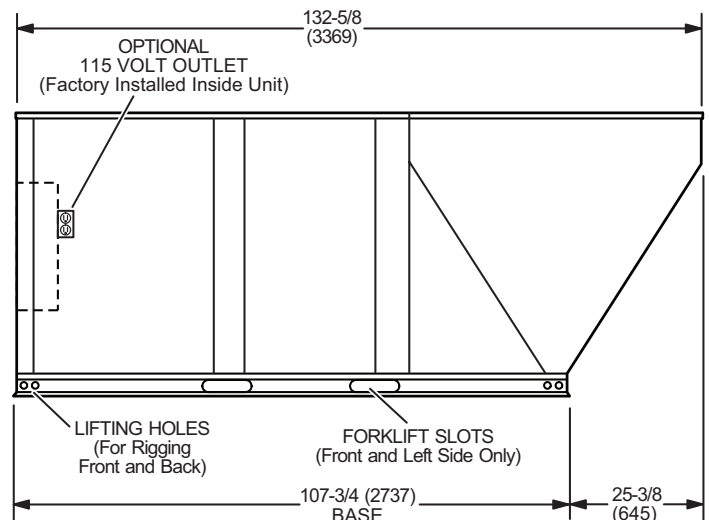
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW

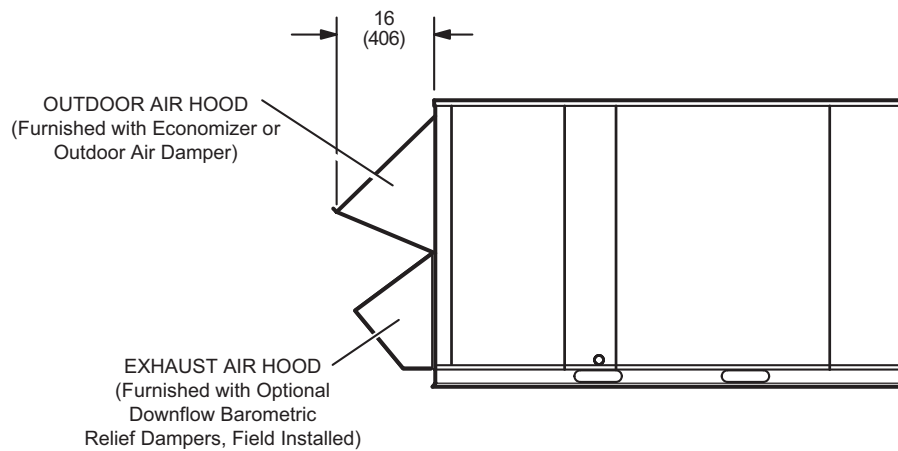


END VIEW



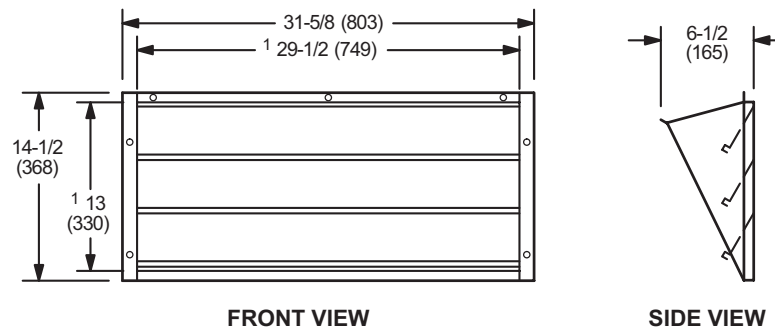
SIDE VIEW

### OUTDOOR AIR HOOD DETAIL



### OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

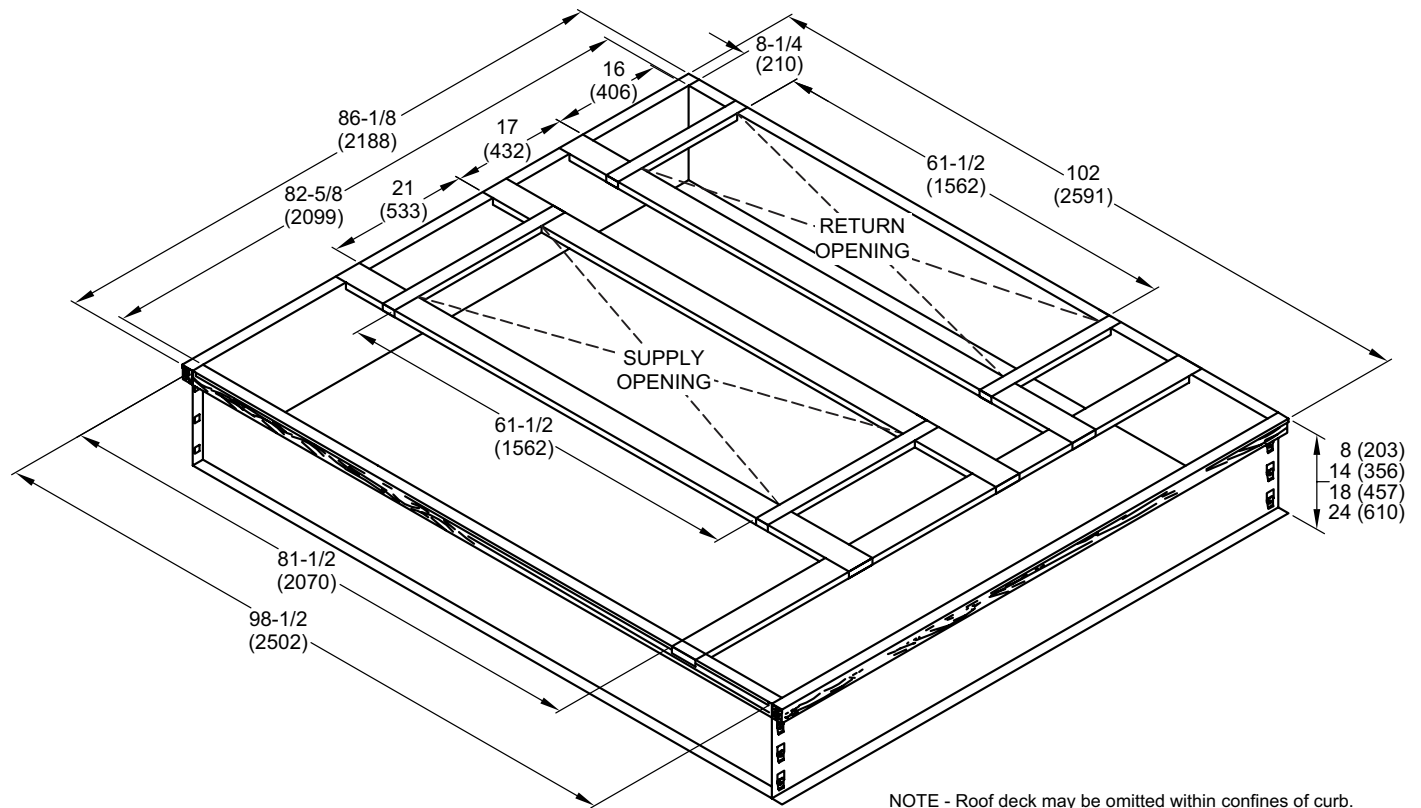
(Field installed in horizontal return air duct adjacent to unit)



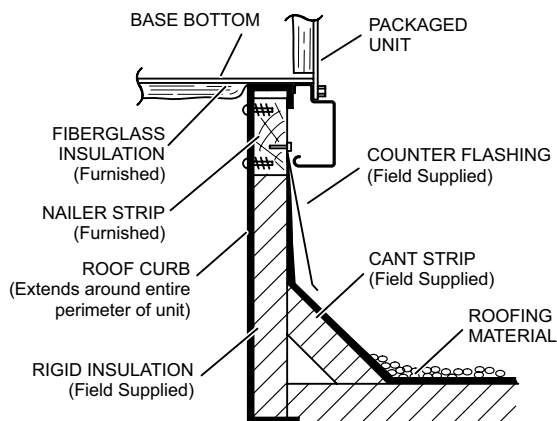
NOTE - Two furnished per order no.

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

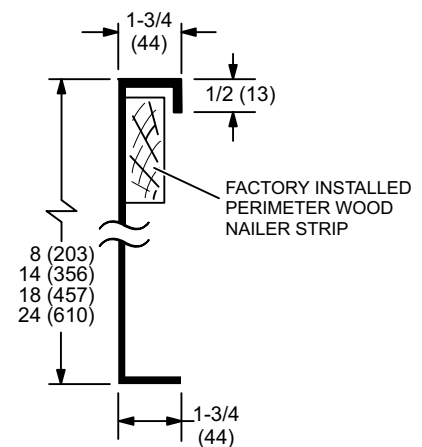
**HYBRID ROOF CURBS - DOUBLE DUCT OPENING**



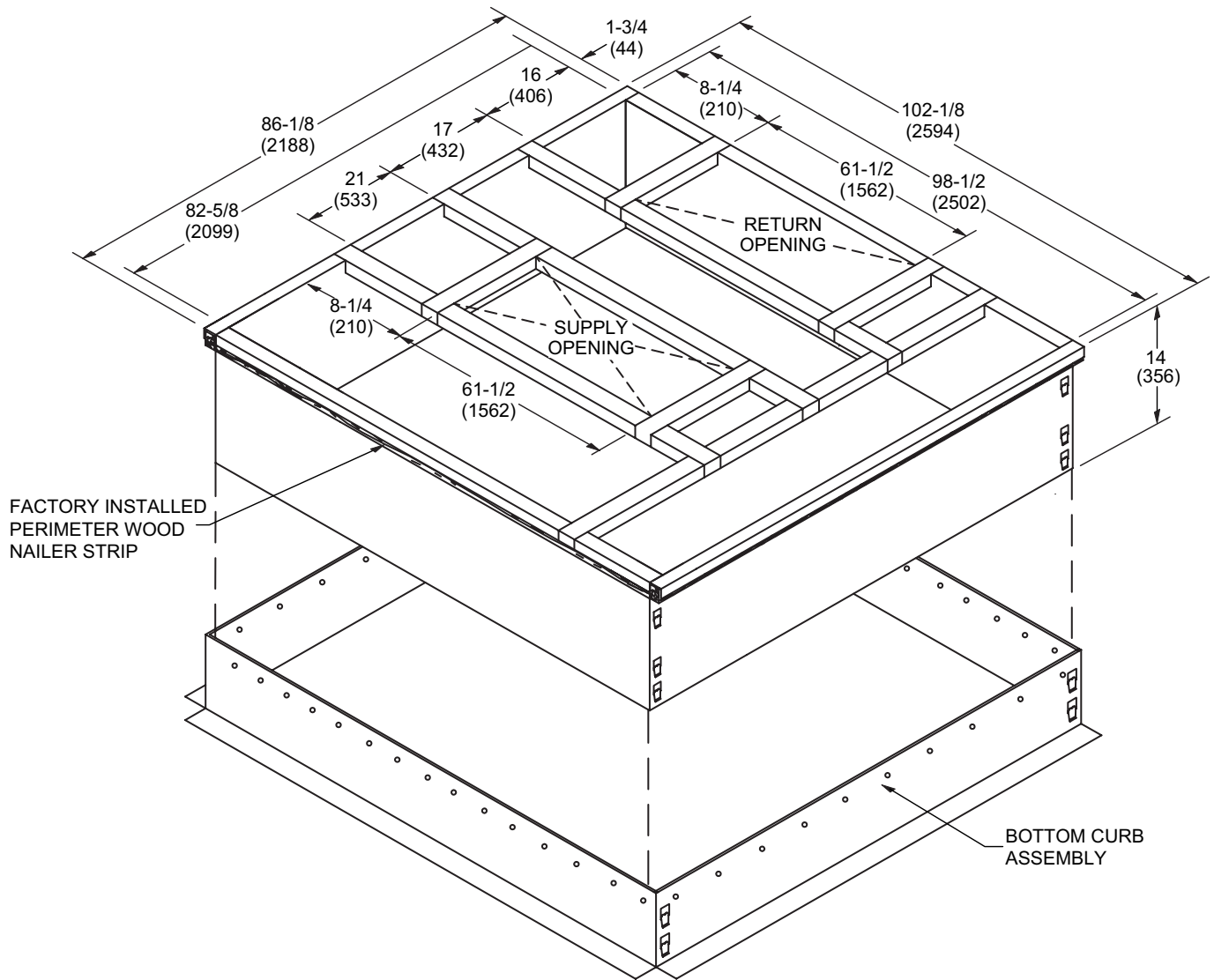
**TYPICAL FLASHING DETAIL FOR ROOF CURB**



**DETAIL ROOF CURB**

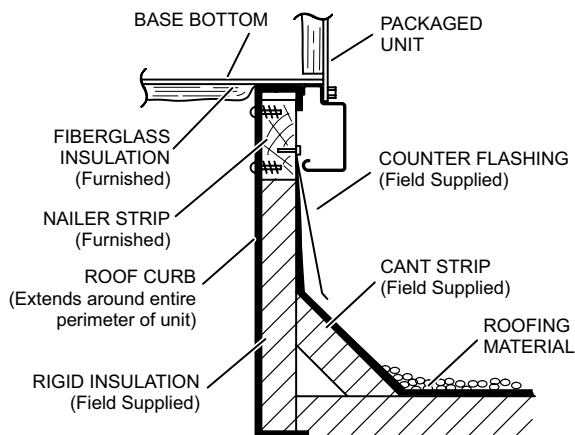


**ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING**

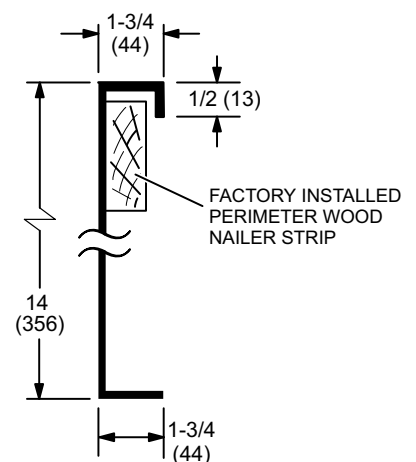


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

**TYPICAL FLASHING DETAIL FOR ROOF CURB**

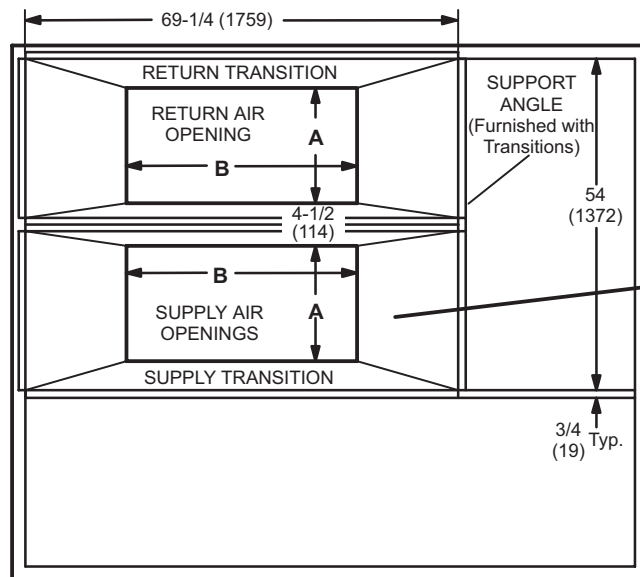


**DETAIL ROOF CURB**

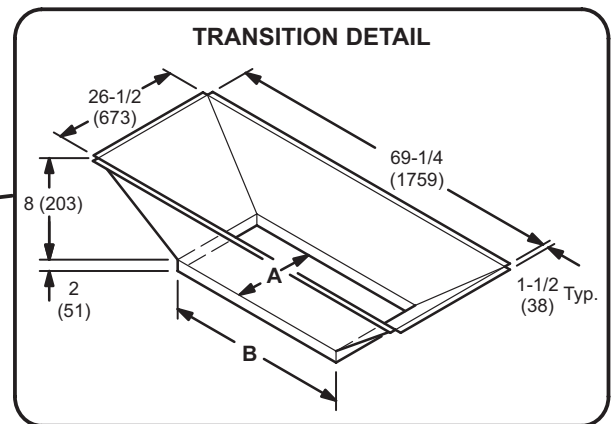




**ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS**



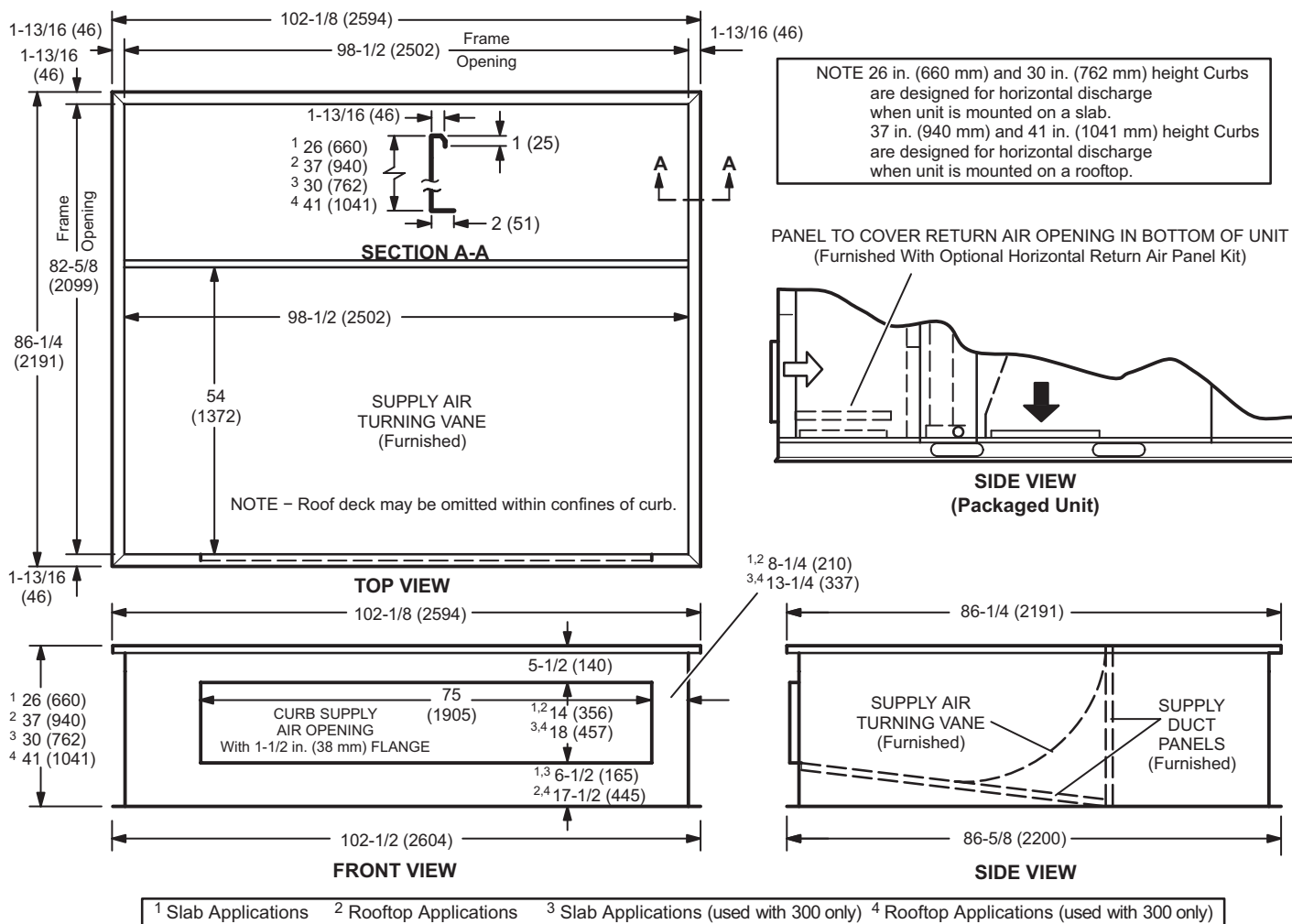
**TOP VIEW**



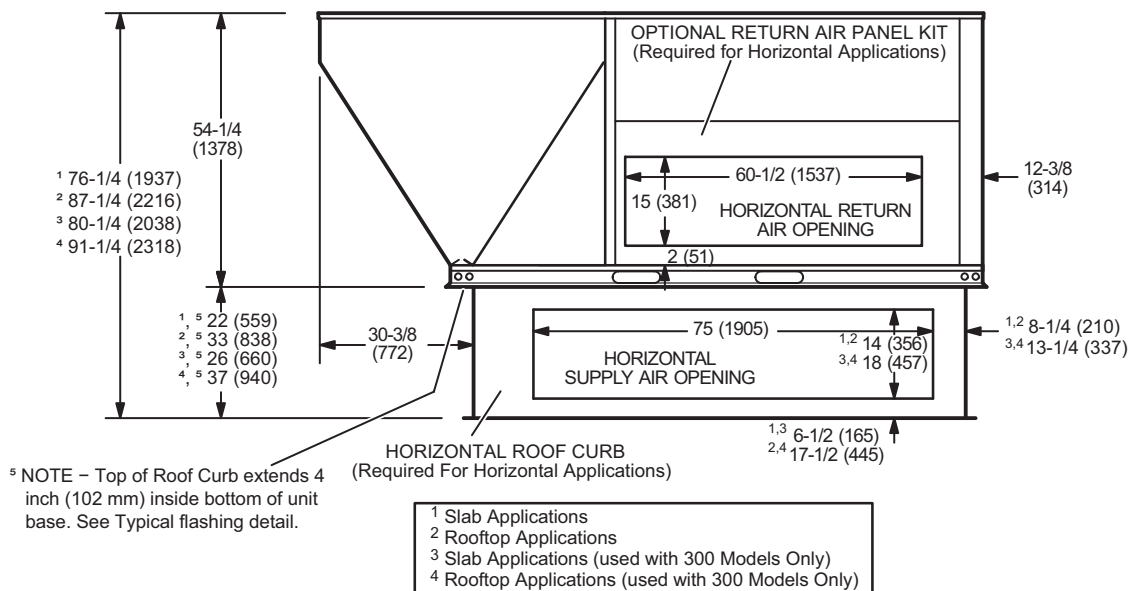
**TRANSITION OPENING SIZES**

| Model Number | A    |     | B    |      |
|--------------|------|-----|------|------|
|              | inch | mm  | inch | mm   |
| C1DIFF33C-1  | 18   | 457 | 36   | 914  |
| C1DIFF34C-1  | 24   | 610 | 48   | 1219 |

**HORIZONTAL ROOF CURBS – Requires Optional Horizontal Return Air Panel Kit**

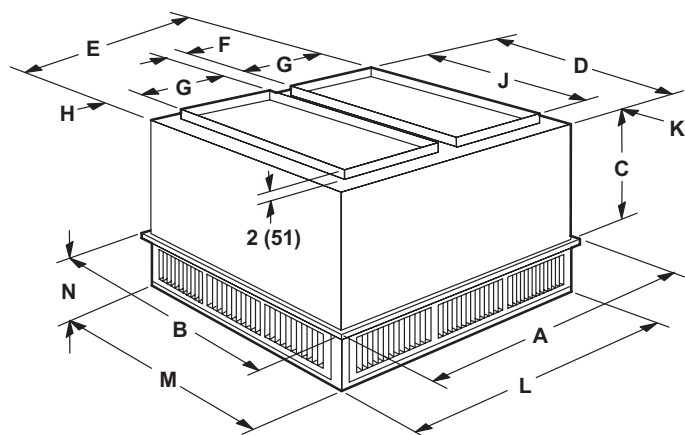


**HORIZONTAL SUPPLY AND RETURN AIR OPENINGS WITH HORIZONTAL ROOF CURB**

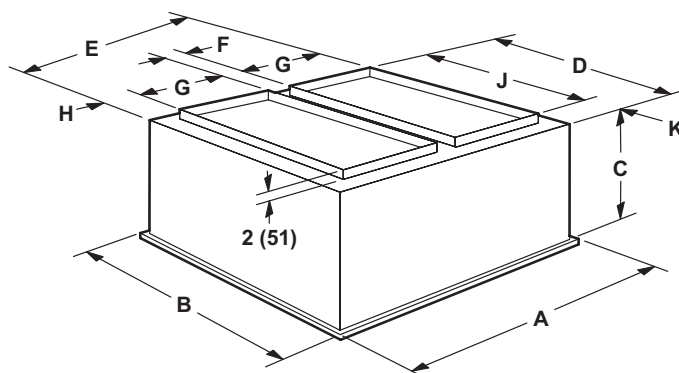


**COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS**

**STEP-DOWN CEILING DIFFUSER**



**FLUSH CEILING DIFFUSER**



| Model     |     | RTD11-185S | RTD11-275S |
|-----------|-----|------------|------------|
| A         | in. | 47-5/8     | 59-5/8     |
|           | mm  | 1210       | 1514       |
| B         | in. | 47-5/8     | 59-5/8     |
|           | mm  | 1210       | 1514       |
| C         | in. | 24-5/8     | 30-5/8     |
|           | mm  | 625        | 778        |
| D         | in. | 45-1/2     | 57-1/2     |
|           | mm  | 1156       | 1461       |
| E         | in. | 45-1/2     | 57-1/2     |
|           | mm  | 1156       | 1461       |
| F         | in. | 4-1/2      | 4-1/2      |
|           | mm  | 114        | 114        |
| G         | in. | 18         | 24         |
|           | mm  | 457        | 610        |
| H         | in. | 2-1/2      | 2-1/2      |
|           | mm  | 64         | 64         |
| J         | in. | 36         | 48         |
|           | mm  | 914        | 1219       |
| K         | in. | 4-3/4      | 4-3/4      |
|           | mm  | 121        | 121        |
| L         | in. | 45-1/2     | 57-1/2     |
|           | mm  | 1156       | 1461       |
| M         | in. | 45-1/2     | 57-1/2     |
|           | mm  | 1156       | 1461       |
| N         | in. | 10-1/8     | 11-1/8     |
|           | mm  | 257        | 283        |
| Duct Size | in. | 18 x 36    | 24 x 48    |
|           | mm  | 457 x 914  | 610 x 1219 |

| Model     |     | FD11-185S | FD11-275S  |
|-----------|-----|-----------|------------|
| A         | in. | 47-5/8    | 59-5/8     |
|           | mm  | 1210      | 1514       |
| B         | in. | 47-5/8    | 59-5/8     |
|           | mm  | 1210      | 1514       |
| C         | in. | 29-1/4    | 35-1/4     |
|           | mm  | 743       | 895        |
| D         | in. | 45        | 57         |
|           | mm  | 1143      | 1148       |
| E         | in. | 45        | 57         |
|           | mm  | 1143      | 1448       |
| F         | in. | 4-1/2     | 4-1/2      |
|           | mm  | 114       | 114        |
| G         | in. | 18        | 24         |
|           | mm  | 457       | 610        |
| H         | in. | 2-1/4     | 2-1/4      |
|           | mm  | 57        | 57         |
| J         | in. | 36        | 48         |
|           | mm  | 914       | 1219       |
| K         | in. | 4-1/2     | 4-1/2      |
|           | mm  | 114       | 114        |
| Duct Size | in. | 18 x 36   | 24 x 48    |
|           | mm  | 457 x 914 | 610 x 1219 |



## REVISIONS

| Sections              | Description of Change |
|-----------------------|-----------------------|
| Options / Accessories | Added Burglar Bars.   |



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