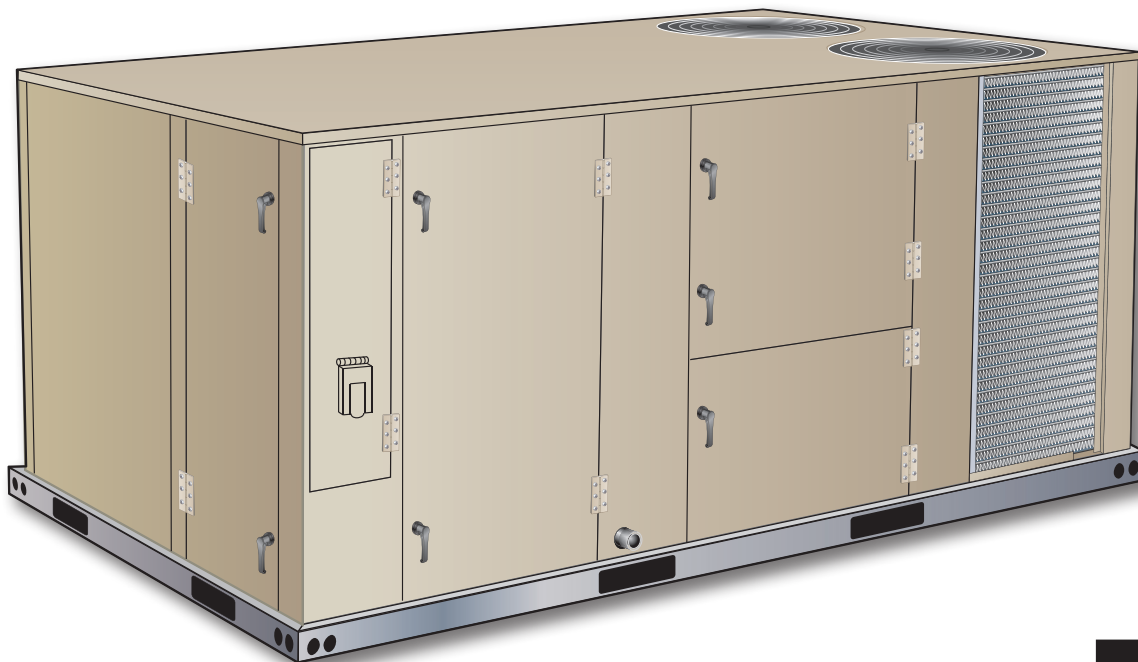


## PRODUCT SPECIFICATIONS

Bulletin No. LCH-092-150 (5/2016)

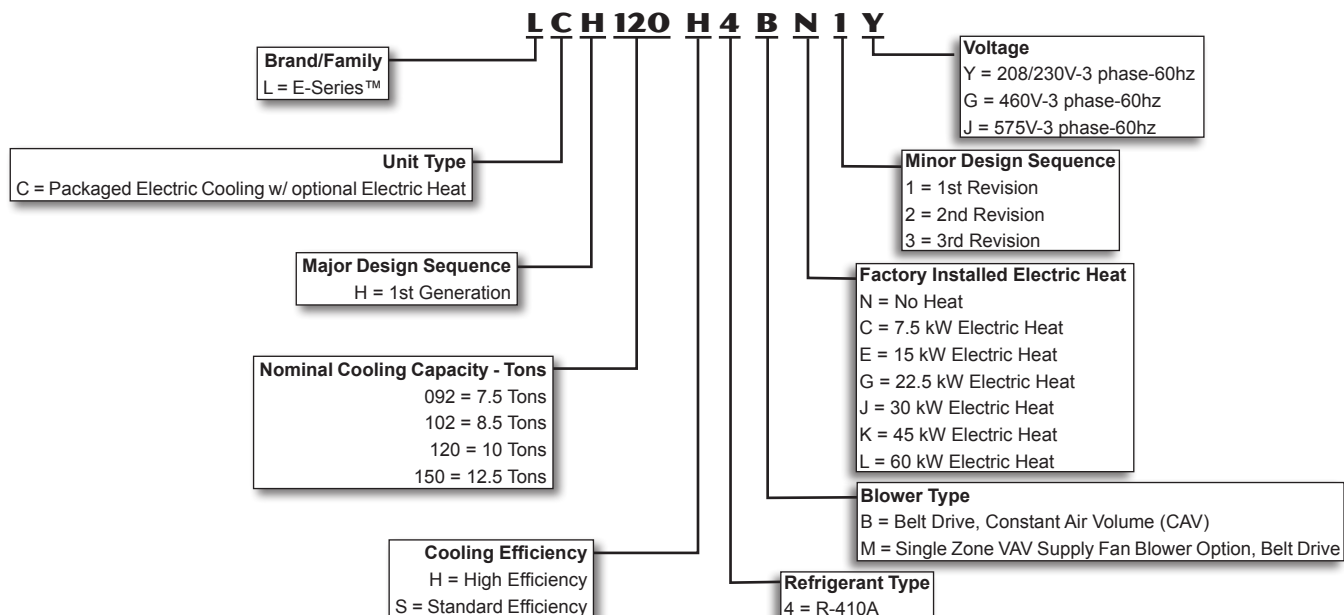


**ASHRAE 90.1  
COMPLIANT**

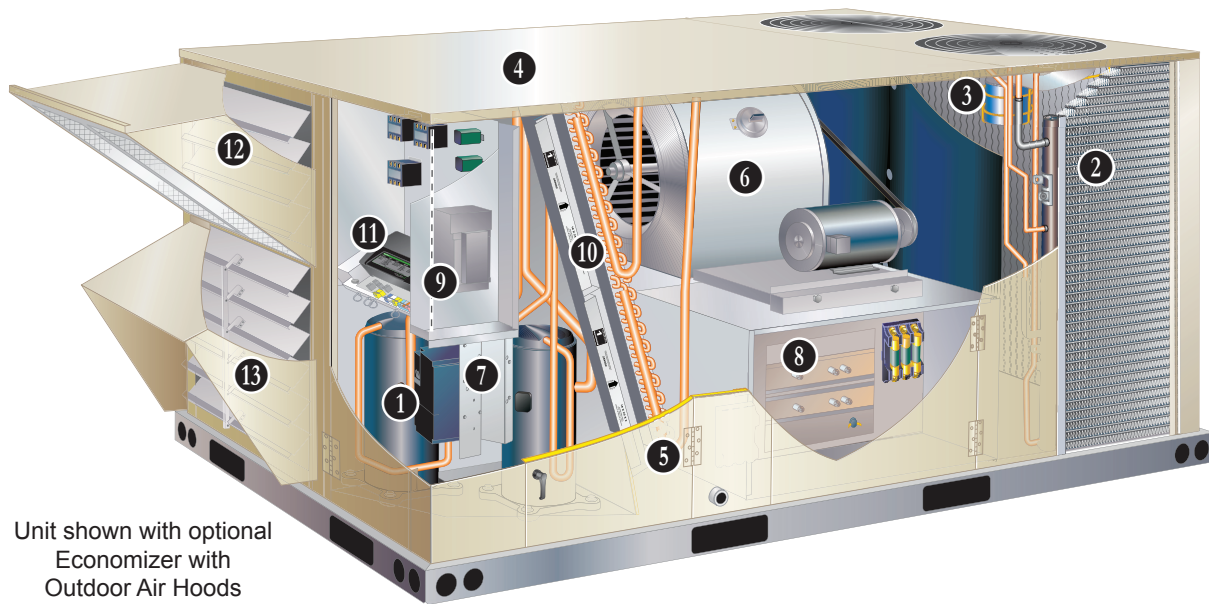


**7.5 to 12.5 Tons**  
**Net Cooling Capacity – 90,000 to 136,000 Btuh**  
**Optional Electric Heat - 7.5 to 60 kW**

## MODEL NUMBER IDENTIFICATION



## FEATURES AND BENEFITS



Unit shown with optional  
Economizer with  
Outdoor Air Hoods

E-Series™ packaged rooftop unit product line was created to save energy with intelligence by offering some of the highest energy efficiency ratings available with a powerful, easy to use unit controller. This makes E-Series™ rooftop units perfect for business owners looking for an HVAC product with the lowest total cost of ownership. E-Series™ rooftop units feature:

- **Hinged Access Panels** - Provide quick access to components and protect panels and roof from damage during servicing.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Corrosion-Resistant Removable, Reversible Drain Pan** - Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves (High Efficiency Models)** - Provide peak cooling performance across the entire application range.
- **Scroll Compressors** - Standard on all units for reliable, long-term operation.
- **Eco-last™ Coil System** - Smaller, lighter condenser coil.
- **Dehumidification System** - Patented system allows for independent control of temperature and humidity, providing enhanced comfort control.
- **Constant Air Volume (CAV) or Supply Air Single Zone VAV Supply Fan Blower Option** - Allows constant or multi-staged air delivery.
- **Auto-Tensioner for Blower Belt** - Factory option ensures blower is delivering the proper airflow for comfort, while maximizing efficiency and belt life.
- **MERV 13 Filters** - Available as factory or field option, provide an enhanced level of indoor air quality, and can help the building qualify for additional LEED credits.
- **Foil-Faced Insulation** - Insulation on all internal surfaces that have contact with airflow helps minimize airborne fibers and improve IAQ.
- **Common Components** - Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

### Intelli-Guide™ Control System

Standard on every E-Series™ rooftop unit, the new Intelli-guide™ unit controller is the heart of the Allied controls offering. The intuitive user interface makes setup, troubleshooting and service easier than ever. Each unit tracks the runtime of every major component and records the date and time when service or maintenance is performed.



### WireRight™ System

The SmartWire WireRight system simplifies field sensor or thermostat installation through advanced connectors that are keyed and color-coded to help prevent miswiring. Not only is the wire coloring scheme standardized across all models, each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

## FEATURES AND BENEFITS

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### APPROVALS

AHRI Certified to AHRI Standard 340/360-2007.

ETL listed.

Efficiency ratings are certified by CSA.

Components are bonded for grounding to meet safety standards for servicing required by UL, ULC and National and Canadian Electrical Codes.

All models are ASHRAE 90.1-2010 energy efficiency compliant and meet or exceed requirements of Section 6.8.

VAV models meet California Code of Regulations, Title 24 and ASHRAE 90.1-2010 Section 6.4.3.10 requirements for staged airflow.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the ment.

The ENERGY STAR® Partner of the Year Award signifies that Allied has made outstanding contributions to design energy efficient units that will lower energy bills, while meeting industry standards for comfort and indoor air quality.

ISO 9001 Registered  
Manufacturing Quality System.

### WARRANTY

Limited five years on compressors.

Limited three years on the Eco-last™ Coil System.

Limited three years on Intelli-guide™ Unit Controller.

Limited five years on Optional High Performance Economizers.

Limited one year all other covered components.

### 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-410A Refrigerant

Non-chlorine based, ozone friendly, R-410A.

#### 1 Scroll Compressors

Scroll compressors on all models for high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

#### Compressor Crankcase Heaters

Protects against refrigerant migration that can occur during low ambient operation.

#### Thermal Expansion Valves (High Efficiency Models)

Assures optimal performance throughout the application range.

Removable element head.

#### Refrigerant Metering Orifice (Standard Efficiency Models)

Accurately meters refrigerant in system.

Refrigerant control is accomplished by exact sizing of refrigerant metering orifice.

#### 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.

#### Freezestats

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

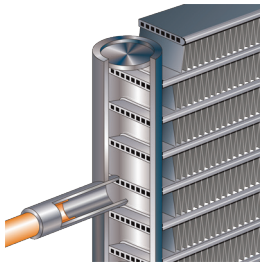
## FEATURES AND BENEFITS

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

#### **2 Eco-last™ Coil System**

Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components: a flat extrusion tube, fins in-between the flat extrusion tube and two refrigerant manifolds.



Eco-last™ 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 (reduces unit weight).
- Easy maintenance/cleaning.

Face-split design.

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.

Cross row circuiting with rifled copper tubing optimizes both sensible and latent cooling capacity.

#### **Condensate Drain Pan**

Plastic pan, sloped to meet drainage requirements per ASHRAE 62.1.

Side or bottom drain connections.

Reversible to allow connection at back of unit.

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

Thermal overload protected, totally enclosed, permanently lubricated ball bearings, shaft up, wire basket mount.

#### **Outdoor Coil Fans**

PVC coated fan guard furnished.

### **Required Selections**

#### **Cooling Capacity**

Specify nominal cooling capacity of the unit

### **Options/Accessories**

#### **Factory Installed**

##### **Conventional Fin/Tube**

##### **Condenser Coil**

**(replaces Eco-last™ Coil System)**

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction.

*NOTE - Required if Dehumidification System is ordered.*

##### **Service Valves**

Fully serviceable brass valves installed in discharge & liquid lines.

Not available for units equipped with Eco-last™ Coil System or Dehumidification option.

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

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

Available in copper or PVC.

Field installed only, may be factory ordered to ship with unit.

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

Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.



## FEATURES AND BENEFITS

### CABINET

#### 4 Construction

Heavy-gauge steel panels and full perimeter heavy-gauge galvanized steel base rail provides structural integrity for transportation, handling, and installation.

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 provide additional protection against water entering the building.

#### Airflow Choice

Units are shipped in downflow (vertical) configuration, can be field converted to horizontal airflow with optional Horizontal Discharge Kit.

#### Duct Flanges

Provided for horizontal duct attachment.

#### Power Entry

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

#### Exterior Panels

Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.

#### Insulation

All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation.

Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.

#### 5 Hinged Access Panels

Hinged tool-less access panels are provided for the filter section, blower/heating section and compressor/controls section.

All hinged panels have seals and quarter-turn latching handles to provide a tight air and water seal.

### Required Selections

#### Airflow Configuration

Specify downflow or horizontal.

### Options/Accessories

#### Factory or Field Installed

##### Return Air Adaptor Plate

For same size LC/LG/LH and TC/TG/TH unit replacement.

Installs on return air opening in unit to match return air opening on existing roof curbs. Also see Accessory Air Resistance table.

#### Factory Installed

##### Corrosion Protection

A completely flexible immersed coating with an electrodeposited dry film process. (AST ElectroFin E-Coat) Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing.

Indoor Corrosion Protection:

- Coated coil
- Coated reheat coil (Humiditrol)
- Painted blower housing
- Painted base

Outdoor Corrosion Protection:

- Coated coil
- Painted base

#### Field Installed

##### Combination Coil/Hail Guards

Heavy gauge steel frame painted to match cabinet with expanded metal mesh to protect the outdoor coil from damage.

#### Horizontal Discharge Kit

Consists of duct covers to block off downflow supply and return air openings for horizontal applications.

Also includes return air duct flanges for end return air when economizer is used in horizontal applications.

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

### 6 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.

#### Supply Air Blower

Forward curved blades, double inlet, blower wheel is statically and dynamically balanced. Equipped with ball bearings and adjustable pulley (allows speed change).

Blower assembly slides out of unit for servicing.

### Required Selections

#### Select Constant Air Volume (CAV) or Single Zone VAV Supply Fan Supply Air Blower Option

On Constant Air Volume (CAV) models, the supply air blower will provide a constant volume of air.

On Single Zone VAV Supply Fan supply air blower option models the supply air blower will stage the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm.

*NOTE - Units with the Single Zone VAV Supply Fan supply air blower option have the same face split indoor coils as units with the CAV supply air blower option. Part load airflow in cooling mode on Single Zone VAV Supply Fan units should not be set below 220 cfm/nominal full load ton to reduce the risk of evaporator coil freeze-up.*

## FEATURES AND BENEFITS

### **BLOWER (continued)**

- 7 Utilizes a Variable Frequency Drive (VFD) to stage the supply blower airflow. The 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 an ECTO parameter in the Intelli-guide Unit Controller. Unit is shipped from the factory with preset airflow.

The Single Zone VAV Supply Fan supply air blower option can be ordered with or without an Electronic Bypass Control. If equipped with the bypass control the Single Zone VAV Supply Fan features manual (default) or automatic electronic bypass control of the VFD. In case of a VFD malfunction, a VFD alarm is generated by the Intelli-guide™ Unit Controller. The 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.

The 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.

#### **Ordering Information**

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

### **Options/Accessories**

#### **Factory Installed**

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

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

### **ELECTRICAL**

#### **WireRight™ System**

Advanced wiring connectors are keyed and color-coded to 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 are used to connect common accessories or maintenance parts for easy removal or installation.

### **Required Selections**

#### **Voltage Choice**

Specify when ordering base unit.

### **Options/Accessories**

#### **Factory Installed**

##### **Circuit Breakers**

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

##### **Phase/Voltage Detection (Optional for CAV Models Only)**

Phase detection monitors power supply to assure phase is correct at unit start-up. If phase is incorrect, the unit will not start and an alarm code is reported to the unit controller. Protects unit from being started with incorrect phasing which could lead to issues such as compressors running backwards.

Voltage detection monitors power supply voltage to assure proper voltage. If voltage is not correct (over/under voltage conditions) the unit will not start and an alarm code is reported to the unit controller.

*NOTE - Phase/voltage detection is furnished when the Single Zone VAV Supply Fan option is ordered.*

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

##### **Disconnect Switch**

Accessible from outside of unit, spring loaded weatherproof cover furnished.

## FEATURES AND BENEFITS

### **ELECTRICAL (continued)**

- 8 Electric Heat**  
Helix wound nichrome elements, individual element limit controls, wiring harness. Unit fuse block is furnished as standard. See Options / Accessories tables for ordering information.
- 9 GFI Service Outlets (2)**  
115V ground fault circuit interrupter (GFCI) type, non-powered, field-wired.

#### **Field Installed**

##### **GFI Weatherproof Cover**

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

### **INDOOR AIR QUALITY**

- 10 Air Filters**  
Disposable 2-inch filters furnished as standard.

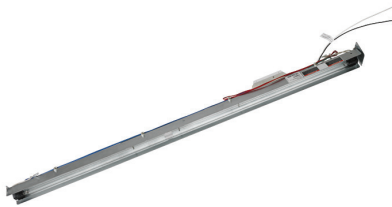
#### **Options/Accessories**

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

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

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

##### **Healthy Climate® UVC Germicidal Lamps**



Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds. 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).

Lamps are field installed in the blower/evaporator coil section.

All necessary hardware for installation is included.

Lamps operate on 208/230V power supply. Step-down transformer must be field supplied when used with 460V and 575V rooftop units.

Magnetic safety interlock terminates power when access panels are removed.

Approved by ETL.

#### **Field Installed**

##### **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.

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

Monitors CO<sub>2</sub> levels, reports to the Intelli-guide™ Unit Controller which adjusts economizer dampers as needed.

## 11 INTELLI-GUIDE CONTROLLER



The Intelli-Guide unit controller is a microprocessor-based control board that provides flexible control of all unit functions.

### Unit Features:

**LCD Display** - Easy to read menu with buttons for menu navigation. during setup and diagnostics. 4 lines x 20 character display.

**Menu LEDs** - Four LEDs (*Data, Setup, Service, Settings*) aid in menu navigation.

**Main Menu and Help Buttons** - Quick navigation to home screen and built-in help functions.

**Scroll, Value Adjustment Select and Save Buttons**

**Simplified Setup Procedure** - SETUP menu insures proper installation and setup of the rooftop unit.

**Profile Setup** - Copy key settings between units with the same configuration greatly reducing setup time.

**USB Port** - Allows a technician to download and transfer unit information to help verify service was performed.

USB drive will also allow updating software on the Control System to obtain enhanced functionality without the need to change components.



### Unit Controller Software

**Unit Self-Test** - Unit Controller can perform a rooftop unit self-test to verify individual critical component and system performance. Included is an economizer test function that helps assure the economizer is operating correctly.

### Built-In Functions Include:

**Adjustable Blower On/Off Delay**

**Built-in** Control Parameter Defaults

**Compressor Time-Off Delay**

**DDC Compatible**

**Dirty Filter Switch Input**

**Discharge Air Temperature Control**

**Display/Sensor Readout**

**Economizer Control Options** - See Economizer / Outdoor Air / Exhaust Options.

**Fresh Air Tempering**

**Extensive Unit Diagnostics** - Over 100 diagnostic and status messages in English.

**Exhaust Fan Control Modes** - Fresh air damper position.

**Permanent Diagnostic Code Storage**

**Field Changeable Control Setpoints** - Over 200 different control setpoints.

**Indoor Air Quality Input** - Demand Control Ventilation ready

**Low Ambient Controls** - Cooling operation down to 40°F.

**Gas Valve Time Delay Between First and Second Stage**

**Minimum Compressor Run Time**

**Network Capable** - Can be daisy chained to other units or controls.

**Night Setback Mode**

**Return Air Temperature Limit Control**

**Safety Switch Input** - Allows Controller to respond to a external safety switch trip.

**Service Relay Output**

**Smoke Alarm Mode** - Four choices.

**Staging** - Up to 2 heat/2 cool (standard Intelli-guide unit controller thermostat input). Up to 3 cool with additional relay. Up to 4 cool with zone sensor or network operation.

**“Strike Three” Protection**

**Gas Reheat Control** - Simultaneous heating and cooling operation for controlling humidity for process air applications such as supermarkets.

NOTE - Intelli-guide Control System features shown vary with the type of rooftop unit the control is installed in.

NOTE - See separate Intelli-guide Control System Product Specifications Bulletin for additional information.

**On Demand Dehumidification** - Monitors and controls condenser hot gas reheat operation with dehumidification option.

**Thermostat Bounce Delay**

**Warm Up Mode Delay**

**LED Indicators**

**PC Interface** - For use with PC with optional Unit Controller software.

**Room Sensor Operation** - Controls temperature.

### Options / Accessories

#### Factory or Field Installed

**Blower Proving Switch**

Monitors blower operation, shuts down unit if blower fails.

**Dirty Filter Switch**

Senses static pressure increase indicating dirty filter condition.

### Controls Options

#### Factory or Field Installed

**Fresh Air Tempering**

Used in applications with high outside air requirements. The 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, the sensor ships with the unit but must be field installed.

**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.

**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.



## OPTIONS / ACCESSORIES

### Controls Options (continued)

#### Commercial Control Systems

##### Network Control System

Complete building automation control system for single or multi-zone applications. Options include local interface, software for local or remote communication, and hardware for networking other control functions. See Network Control System Product Specifications Bulletin for details.

##### Aftermarket DDC

Novar® ETM modules and options.

##### Thermostats

Control system and thermostat options. Aftermarket unit controller options.

#### Field Installed

##### General Purpose Control Kit

Plug-in control provides additional analog and digital inputs/outputs for field installed options.

##### Humidity Sensor Kit

Humidity sensor required with factory installed dehumidification option or Supermarket reheat field selectable option.

### 12 ECONOMIZER OPTIONS

Standard and High Performance Models available.

Economizer operation is set and controlled by the Intelli-guide Unit Controller.

Simple plug-in connections from economizer to unit controller for easy installation.

All E-Series rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring.

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

##### Economizer

##### (Standard and High Performance Common Features)

Downflow or Horizontal with Outdoor Air Hood.

Outdoor Air Hood is included when economizer is factory installed and is furnished with economizer when ordered for field installation.

- 13 Downflow Barometric Relief Dampers with Exhaust Hood is also furnished.

##### Standard Economizer Features (Not for Title 24)

Gear-driven action, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, neoprene seals, 24-volt, fully-modulating spring return motor.

*NOTE: The Free Cooling default setting for outdoor air temperature sensor is 55°F.*

##### High Performance Economizer Features

Approved for California Title 24 building standards.

ASHRAE 90.1-2010 compliant.

Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, stainless steel bearings, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage.

*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 2013 Building Energy Efficiency Standards.*

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 Intelli-guide 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.

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

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

##### Global Control

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

*NOTE - Global control with enthalpy is not approved for Title 24 applications.*

#### Factory or Field Installed

##### 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, the other in the outdoor air section. Allows the economizer control to select between outdoor air or return air, whichever has lower enthalpy.

## OPTIONS / ACCESSORIES

### **ECONOMIZER OPTIONS** **(continued)**

#### **Field Installed**

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

Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows. Using information from a velocity sensor located in the rooftop unit outdoor air section, the Prodigy® 2.0 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.

Using information from a differential pressure between the outdoor air and the building air, the Prodigy® 2.0 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 OPTIONS**

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

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

Installs internal to unit for downflow applications only with Economizer option. Provides exhaust air pressure relief. Interlocked to run when supply air blower is operating, fans run when outdoor air dampers are 50% open (adjustable), motor is overload protected. Requires Economizer and Downflow Barometric Relief Dampers. Fan is 20 in. diameter with 5 blades (K1PWRE10B) WITH 1/3 hp motor.

#### **Field Installed**

##### **Horizontal Low Profile 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 exhaust hood furnished.

Requires Horizontal Discharge Kit.

### **OUTDOOR AIR OPTIONS**

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

##### **Outdoor Air Damper - Downflow or Horizontal With Air Hood**

Linked mechanical dampers, 0 to 25% (fixed) outdoor air adjustable, installs in unit. Includes outdoor air hood.

Automatic model features fully modulating spring return damper motor with plug-in connection.

Manual model features a slide damper.

Maximum mixed air temperature in cooling mode: 100°F.

### **ROOF CURBS**

Nailer strip furnished, mates to unit, US National Roofing Contractors Approved, shipped knocked down.

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

Roof curb can be assembled using interlocking tabs to fasten corners together. No tools required.

Curb can also be fastened together with furnished hardware.

Available in 8, 14, 18, and 24 inch heights.

See Options/Accessories table.

#### **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.

Uses interlocking tabs to fasten corners together. No tools required.

Hardware is furnished to connect upper curb with lower curb.

Available in 14 inch height.

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

Curbs are regionally sourced. Dimensions will vary based upon the source. Contact your local sales representative for a detailed cut sheet with applicable dimensions.

### **CEILING DIFFUSERS**

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

Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), 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.

## OPTIONS / ACCESSORIES

### DEHUMIDIFICATION SYSTEM

**NOTE - Not available with Eco-last™ Coil System. Conventional Fin/Tube condenser coil must be ordered as a factory option.**

Factory installed option designed to control humidity.

Provides dehumidification on demand using ASHRAE 90.1 recommended method for comfort conditioning humidity control.

Unit comes equipped with one row reheat coil, solenoid valve and humidity controller.

In addition to a thermostat or room sensor used for conventional operation, a humidity sensor is required and must be located in the occupied space. Remote Mounted Humidity Sensor Kit is required for field installation.

The humidity sensor provides input to the Unit Controller which is used to control activation of the dehumidification operation.

Reheat controls are located in the compressor control section of the unit for easy access.

#### Benefits

Improves indoor air quality.

Helps prevent damage due to high humidity levels.

Improves comfort levels by reducing space humidity levels.

#### OPERATION

##### No Dehumidification Demand

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

The Unit Controller is factory set at 60% relative humidity setpoint and can be adjusted at the Unit Controller or with optional Unit Controller Software.

For Network Control Panel (NCP) applications, the humidity setpoint can be adjusted at the NCP.

Reheat operation will initiate on a dehumidification demand and does not require a cooling demand.

The unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint.

The reheat coil is sized to provide 68°F to 75°F supply air during reheat operation.

This reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low.

A solenoid valve diverts hot gas from the compressor to the reheat coil.

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. The unit will continue to operate in this mode until the dehumidification demand is satisfied.

See Sequence of Operation for additional information.

**NOTE - 150 models ordered with the Dehumidification option are equipped with factory installed expansion valves.**

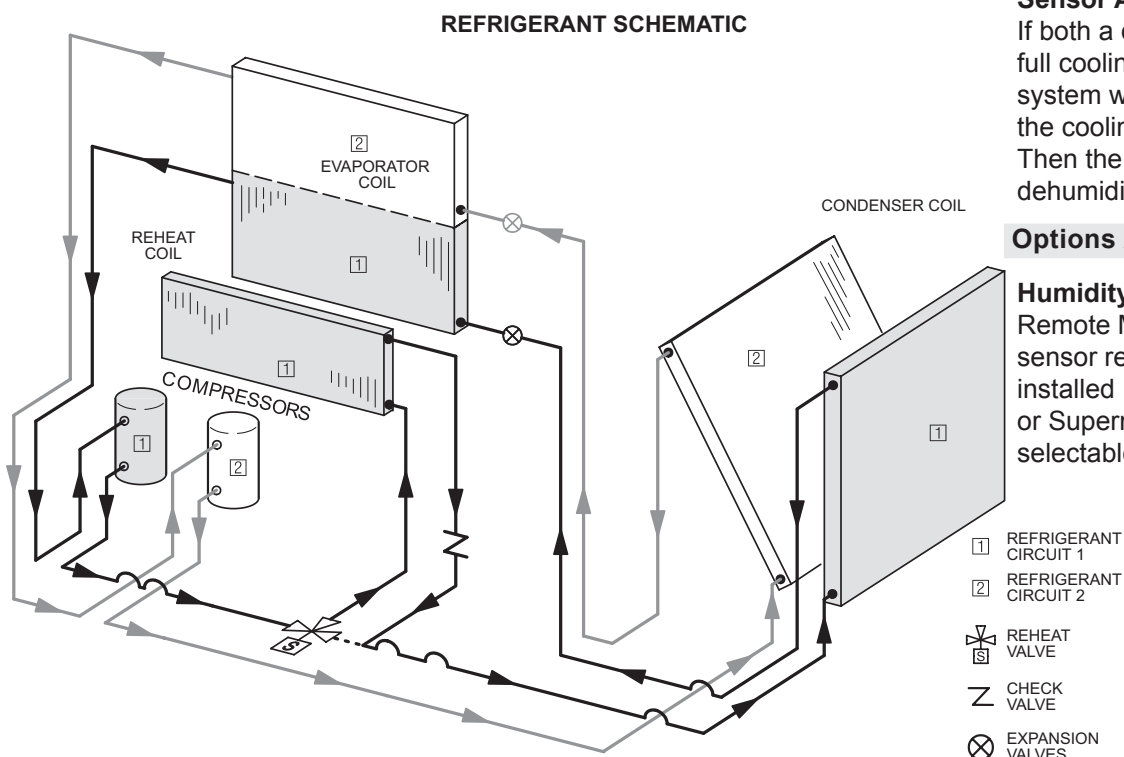
#### Dehumidification and Cooling Demand (Thermostat/Room Sensor Application)

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

#### Options / Accessories

##### Humidity Sensor Kit

Remote Mounted Humidity sensor required with factory installed Dehumidification Option or Supermarket reheat field selectable option.



## SEQUENCE OF OPERATION - SINGLE ZONE VAV SUPPLY FAN MODELS

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

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

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

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

Unit has following supply air blower speed setting:

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

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

Cooling - Thermostat Mode (Y1, Y2)

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

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

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

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

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

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

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

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

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

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

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

#### **DEHUMIDIFICATION MODE**

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

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

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

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

All compressors operate, supply air blower operates at high cooling speed and the reheat valve is energized.

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

All compressors operate, supply air blower operates at high cooling speed, and the reheat valve is de-energized.



## SEQUENCE OF OPERATION - SINGLE ZONE VAV SUPPLY FAN MODELS

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

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

Unit has following supply air blower speed setting:

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

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

Cooling - Thermostat or Zone Sensor Mode (Y1, Y2, Y3)

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

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

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

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

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

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

Compressors 1 and 2 are energized while supply air blower stays on high cooling speed.

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

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

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

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

##### **Y2 or Y3 Demand:**

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

#### **DEHUMIDIFICATION MODE**

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

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

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

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

All compressors operate, supply air blower operates at high cooling speed and the reheat valve is energized.

##### **Y2 Or Y3 Demand With A Call For Dehumidification:**

All compressors operate, supply air blower operates at high cooling speed, and the reheat valve is de-energized.

## **SEQUENCE OF OPERATION - SINGLE ZONE VAV SUPPLY FAN MODELS**

### **HEATING MODE (ELECTRIC HEAT)**

**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 or 60 kW electric heat option only).

### **MODULATING OUTDOOR AIR DAMPER**

The minimum damper position for “occupied low blower” and “occupied high blower” is adjusted during unit setup to provide minimum fresh air requirements per ASHRAE 62.1 at the corresponding supply air blower speeds.

- When supply air blower is off or the unit is in unoccupied mode, the outdoor air damper is closed.
- When unit is in occupied mode and supply air blower is operating at a speed below the “midpoint” blower speed, the outdoor air damper is at minimum “low blower” position.
- When unit is in occupied mode and supply air blower is operating at a speed equal to or above the “midpoint” blower speed, the outdoor air damper is at minimum “high blower” position.

**NOTE - The “midpoint” blower speed is an average of the minimum and maximum blower speed (minimum speed + maximum speed divided by 2).**

### **POWER EXHAUST OPERATION**

**NOTE - POWER EXHAUST OPERATION IS THE SAME FOR ALL CONTROL OPTIONS**

Power exhaust blower operates when economizer outdoor air dampers are 50% open (adjustable) and when supply air blower speed is above 70% (adjustable) of full speed.

## OPTIONS / ACCESSORIES

| Item Description                                                                  | Model Number                                                          | Catalog Number | Unit Model No |     |     |     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------|---------------|-----|-----|-----|
|                                                                                   |                                                                       |                | 092           | 102 | 120 | 150 |
| COOLING SYSTEM                                                                    |                                                                       |                |               |     |     |     |
| Condensate Drain Trap                                                             | PVC - C1TRAP20AD2                                                     | 76W26          | OX            | OX  | OX  | OX  |
|                                                                                   | Copper - C1TRAP10AD2                                                  | 76W27          | OX            | OX  | OX  | OX  |
| Conventional Fin/Tube Condenser Coil (replaces Eco-last™ Coil System)             |                                                                       | Factory        | O             | O   | O   | O   |
| Corrosion Protection                                                              |                                                                       | Factory        | O             | O   | O   | O   |
| Drain Pan Overflow Switch                                                         | E1SNSR71AD1                                                           | 68W88          | OX            | OX  | OX  | OX  |
| Refrigerant Type                                                                  |                                                                       | R-410A         | O             | O   | O   | O   |
| Service valves (not for Eco-last™ Coil System or Dehumidification equipped units) |                                                                       | Factory        | O             | O   | O   | O   |
| BLOWER - SUPPLY AIR                                                               |                                                                       |                |               |     |     |     |
| Blower Option                                                                     | CAV (Constant Air Volume)                                             | Factory        | O             | O   | O   | O   |
|                                                                                   | Single Zone VAV Supply Fan blower option (With VFD Bypass Control)    | Factory        | O             | O   | O   | O   |
|                                                                                   | Single Zone VAV Supply Fan blower option (Without VFD Bypass Control) | Factory        | O             | O   | O   | O   |
| Motors - Constant Air Volume (CAV)                                                | Belt Drive (standard or high efficiency) - 2 hp                       | Factory        | O             | O   | O   | O   |
|                                                                                   | Belt Drive (standard or high efficiency) - 3 hp                       | Factory        | O             | O   | O   | O   |
|                                                                                   | Belt Drive (standard efficiency) - 5 hp                               | Factory        | O             | O   | O   | O   |
| Motors - Single Zone VAV Supply Fan                                               | Belt Drive (high efficiency) - 2 hp                                   | Factory        | O             | O   | O   | O   |
|                                                                                   | Belt Drive (standard or high efficiency) - 3 hp                       | Factory        | O             | O   | O   | O   |
|                                                                                   | Belt Drive (standard efficiency) - 5 hp                               | Factory        | O             | O   | O   | O   |
| Drive Kits                                                                        | Kit #1 590-890 rpm                                                    | Factory        | O             | O   | O   | O   |
| See Blower Data Tables for selection                                              | Kit #2 800-1105 rpm                                                   | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #3 795-1195 rpm                                                   | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #4 730-970 rpm                                                    | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #5 940-1200 rpm                                                   | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #6 1015-1300 rpm                                                  | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #7 730-970 rpm                                                    | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #8 940-1200 rpm                                                   | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #9 1015-1300 rpm                                                  | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #10 900-1135 rpm                                                  | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #11 1040-1315 rpm                                                 | Factory        | O             | O   | O   | O   |
|                                                                                   | Kit #12 1125-1425 rpm                                                 | Factory        | O             | O   | O   | O   |
|                                                                                   | Blower Belt Auto-Tensioner                                            | Factory        | O             | O   | O   | O   |
| CABINET                                                                           |                                                                       |                |               |     |     |     |
| Combination Coil/Hail Guards                                                      | Eco-last Coil System - C1GARD52B-1                                    | 13T05          | X             | X   | X   | X   |
|                                                                                   | Conventional Fin/Tube Condenser Coil - E1GARD51B-1                    | 13T04          | X             | X   | X   | X   |
| Horizontal Discharge Kit                                                          | K1HECK00B-1                                                           | 51W25          | X             | X   | X   | X   |
| Return Air Adaptor Plate (for LC/LG/LH and TC/TG/TH unit replacement)             | C1CONV10B-1                                                           | 54W96          | OX            | OX  | OX  | OX  |
| CONTROLS                                                                          |                                                                       |                |               |     |     |     |
| Blower Proving Switch                                                             | C1SNSR35FF1                                                           | 53W65          | OX            | OX  | OX  | OX  |
| Commercial Controls                                                               | Building Automation System                                            | Factory        | X             | X   | X   | X   |
|                                                                                   | Intelli-guide™ System - BACnet® Module - C0CTRL60AE1L                 | 59W51          | OX            | OX  | OX  | OX  |
|                                                                                   | Intelli-guide™ System - LonTalk® Module - C0CTRL65FF1                 | 54W27          | OX            | OX  | OX  | OX  |
|                                                                                   | Novar® ETM-2051 - E0CTRL30B1                                          | 64W73          | OX            | OX  | OX  | OX  |
|                                                                                   | Novar® LSM                                                            | Factory        | O             | O   | O   | O   |
| General Purpose Control Kit                                                       | E1GPBK30C1                                                            | 13J78          | X             | X   | X   | X   |
| Dirty Filter Switch                                                               | E1SNSR55B-1                                                           | 53W67          | OX            | OX  | OX  | OX  |
| Fresh Air Tempering                                                               | C1SNSR75AD1                                                           | 58W63          | OX            | OX  | OX  | OX  |
| Smoke Detector - Supply or Return (Power board and one sensor)                    | C1SNSR44B-1                                                           | 53W80          | OX            | OX  | OX  | OX  |
| Smoke Detector - Supply and Return (Power board and two sensors)                  | C1SNSR43B-1                                                           | 53W81          | OX            | OX  | OX  | OX  |

NOTE - Catalog and model numbers shown are for ordering field installed accessories.

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

O = Configure To Order (Factory Installed)

X = Field Installed

## OPTIONS / ACCESSORIES

| Item Description                                                                                                                                               | Model Number                                                       | Catalog Number | Unit Model No |     |     |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------|---------------|-----|-----|-----|
|                                                                                                                                                                |                                                                    |                | 092           | 102 | 120 | 150 |
| INDOOR AIR QUALITY                                                                                                                                             |                                                                    |                |               |     |     |     |
| Air Filters                                                                                                                                                    |                                                                    |                |               |     |     |     |
| Healthy Climate® High Efficiency Air Filters                                                                                                                   | MERV 8 - C1FLTR15B-1                                               | 50W61          | OX            | OX  | OX  | OX  |
| 20 x 25 x 2 (Order 4 per unit)                                                                                                                                 | MERV 13 - C1FLTR40B-1                                              | 52W41          | OX            | OX  | OX  | OX  |
| Replacement Media Filter With Metal Mesh Frame (includes non-pleated filter media)                                                                             | C1FLTR30B-1-                                                       | Y3063          | X             | X   | X   | X   |
| Indoor Air Quality (CO <sub>2</sub> ) Sensors                                                                                                                  |                                                                    |                |               |     |     |     |
| Sensor - Wall-mount, off-white plastic cover with LCD display                                                                                                  | C0SNSR50AE1L                                                       | 77N39          | X             | X   | X   | X   |
| Sensor - Wall-mount, off-white plastic cover, no display                                                                                                       | C0SNSR52AE1L                                                       | 87N53          | X             | X   | X   | X   |
| Sensor - Black plastic case with LCD display, rated for plenum mounting                                                                                        | C0SNSR51AE1L                                                       | 87N52          | X             | X   | X   | X   |
| Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting                                                                                 | C0MISC19AE1                                                        | 87N54          | X             | X   | X   | X   |
| CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications                                                                                           | C0MISC19AE1-                                                       | 85L43          | X             | X   | X   | X   |
| Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensors (87N53 or 77N39)                                                                   | C0MISC16AE1-                                                       | 90N43          | X             | X   | X   | X   |
| UVC Germicidal Lamps                                                                                                                                           |                                                                    |                |               |     |     |     |
| <sup>1</sup> Healthy Climate® UVC Light Kit (208/230v-1ph)                                                                                                     | C1UVCL10B-1                                                        | 54W62          | OX            | OX  | OX  | OX  |
| CONDENSER REHEAT OPTION                                                                                                                                        |                                                                    |                |               |     |     |     |
| Humiditrol Dehumidification Option (NOTE - Not available with Eco-last™ Coil System. Conventional Fin/Tube condenser coil must be ordered as a factory option) |                                                                    | Factory        | O             | O   | O   | O   |
| Humidity Sensor Kit, Remote mounted (required)                                                                                                                 | C0SNSR31AE-1                                                       | 17M50          | X             | X   | X   | X   |
| ELECTRICAL                                                                                                                                                     |                                                                    |                |               |     |     |     |
| Voltage 60 hz                                                                                                                                                  | 208/230V - 3 phase                                                 | Factory        | O             | O   | O   | O   |
|                                                                                                                                                                | 460V - 3 phase                                                     | Factory        | O             | O   | O   | O   |
|                                                                                                                                                                | 575V - 3 phase                                                     | Factory        | O             | O   | O   | O   |
| HACR Circuit Breakers                                                                                                                                          |                                                                    | Factory        | O             | O   | O   | O   |
| Disconnect Switch - See Electrical/Electric Heat tables for selection                                                                                          | 80 amp - C1DISC080B-1                                              | 54W56          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 150 amp - C1DISC150B-1                                             | 54W57          | OX            | OX  | OX  | OX  |
| GFI Service Outlets                                                                                                                                            | 15 amp non-powered, field-wired (208/230V, 460V only) LTAGFIK10/15 | 74M70          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 20 amp non-powered, field-wired (575V only) C1GFCI20FF1            | 67E01          | OX            | OX  | OX  | OX  |
| Weatherproof Cover for GFI                                                                                                                                     | C1GFCI99FF1                                                        | 10C89          | X             | X   | X   | X   |
| Phase/Voltage Detection (Optional for CAV options only, furnished with Single Zone VAV Supply Fan option)                                                      |                                                                    | Factory        | O             | O   | O   | O   |
| ELECTRIC HEAT                                                                                                                                                  |                                                                    |                |               |     |     |     |
| 7.5 kW                                                                                                                                                         | 208/230V-3ph - C1EH0075B-1Y                                        | 56W38          | OX            | OX  |     |     |
|                                                                                                                                                                | 460V-3ph - C1EH0075B-1G                                            | 56W39          | OX            | OX  |     |     |
|                                                                                                                                                                | 575V-3ph - C1EH0075B-1J                                            | 56W40          | OX            | OX  |     |     |
| 15 kW                                                                                                                                                          | 208/230V-3ph - C1EH0015B-1Y                                        | 56W41          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 460V-3ph - C1EH0150B-1G                                            | 56W42          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 575V-3ph - C1EH0150B-1J                                            | 56W43          | OX            | OX  | OX  | OX  |
| 22.5 kW                                                                                                                                                        | 208/230V-3ph - C1EH0225B-1Y                                        | 56W44          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 460V-3ph - C1EH0225B-1G                                            | 56W45          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 575V-3ph - C1EH0225B-1J                                            | 56W46          | OX            | OX  | OX  | OX  |
| 30 kW                                                                                                                                                          | 208/230V-3ph - C1EH0300B-1Y                                        | 56W47          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 460V-3ph - C1EH0300B-1G                                            | 56W48          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 575V-3ph - C1EH0300B-1J                                            | 56W49          | OX            | OX  | OX  | OX  |
| 45 kW                                                                                                                                                          | 208/230V-3ph - C1EH0450B-1Y                                        | 56W50          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 460V-3ph - C1EH0450B-1G                                            | 56W51          | OX            | OX  | OX  | OX  |
|                                                                                                                                                                | 575V-3ph - C1EH0450B-1J                                            | 56W52          | OX            | OX  | OX  | OX  |
| 60 kW                                                                                                                                                          | 208/230V-3ph - C1EH0600B-1Y                                        | 55W02          |               |     | OX  | OX  |
|                                                                                                                                                                | 460V-3ph - C1EH0600B-1G                                            | 55W03          |               |     | OX  | OX  |
|                                                                                                                                                                | 575V-3ph - C1EH0600B-1J                                            | 55W04          |               |     | OX  | OX  |

<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)

NOTE - Catalog and model numbers shown are for ordering field installed accessories.

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

O = Configure To Order (Factory Installed)

X = Field Installed



## OPTIONS / ACCESSORIES

| Item Description                                                                  | Model Number                | Catalog Number | Unit Model No |     |     |     |
|-----------------------------------------------------------------------------------|-----------------------------|----------------|---------------|-----|-----|-----|
|                                                                                   |                             |                | 092           | 102 | 120 | 150 |
| ECONOMIZER                                                                        |                             |                |               |     |     |     |
| Standard Economizer (Not for Title 24)                                            |                             |                |               |     |     |     |
| Standard Economizer                                                               | E1ECON20B-2                 | 13U45          | OX            | OX  | OX  | OX  |
| Downflow or Horizontal - Includes Outdoor Air Hood and Downflow                   |                             |                |               |     |     |     |
| Barometric Relief Dampers with Exhaust Hood                                       |                             |                |               |     |     |     |
| Order Horizontal Barometric Relief Dampers separately                             |                             |                |               |     |     |     |
| High Performance Economizer (Approved for California Title 24 Building Standards) |                             |                |               |     |     |     |
| High Performance Economizer                                                       | E1ECON17B-1                 | 10U59          | OX            | OX  | OX  | OX  |
| Downflow or Horizontal - Includes Outdoor Air Hood and Downflow                   |                             |                |               |     |     |     |
| Barometric Relief Dampers with Exhaust Hood                                       |                             |                |               |     |     |     |
| Order Horizontal Barometric Relief Dampers separately                             |                             |                |               |     |     |     |
| Horizontal Barometric Relief Dampers                                              |                             |                |               |     |     |     |
| Horizontal Low Profile Barometric With Exhaust Hood                               | LAGEDH03/15                 | 53K04          | X             | X   | X   | X   |
| Economizer Controls (Not for Title 24)                                            |                             |                |               |     |     |     |
| Differential Enthalpy                                                             | Order 2 - C1SNSR64FF1       | 53W64          | OX            | OX  | OX  | OX  |
| Sensible Control                                                                  | Sensor is Furnished         | Factory        | O             | O   | O   | O   |
| Single Enthalpy                                                                   | C1SNSR64FF1                 | 53W64          | OX            | OX  | OX  | OX  |
| Building Pressure Control                                                         | E1GPBK20C1                  | 13J77          | X             | X   | X   | X   |
| Outdoor Air CFM Control                                                           | E1GPBK10C1                  | 13J76          | X             | X   | X   | X   |
| Global Control                                                                    | Sensor Field Provided       | Factory        | O             | O   | O   | O   |
| OUTDOOR AIR                                                                       |                             |                |               |     |     |     |
| Outdoor Air Dampers                                                               |                             |                |               |     |     |     |
| Motorized Dampers (Hood furnished)                                                | C1DAMP20B-1                 | 14G28          | OX            | OX  | OX  | OX  |
| Manual Dampers (Hood furnished)                                                   | C1DAMP10B-2                 | 14G29          | OX            | OX  | OX  | OX  |
| POWER EXHAUST                                                                     |                             |                |               |     |     |     |
| Standard Static                                                                   | 208/230V-3ph - K1PWRE10B-1Y | 53W44          | OX            | OX  | OX  | OX  |
|                                                                                   | 460V-3ph - K1PWRE10B-1G     | 53W45          | OX            | OX  | OX  | OX  |
|                                                                                   | 575V-3ph - K1PWRE10B-1J     | 53W46          | OX            | OX  | OX  | OX  |
| ROOF CURBS                                                                        |                             |                |               |     |     |     |
| Hybrid Roof Curbs, Downflow                                                       |                             |                |               |     |     |     |
| 8 in. height                                                                      | C1CURB70B-1                 | 11F54          | X             | X   | X   | X   |
| 14 in. height                                                                     | C1CURB71B-1                 | 11F55          | X             | X   | X   | X   |
| 18 in. height                                                                     | C1CURB72B-1                 | 11F56          | X             | X   | X   | X   |
| 24 in. height                                                                     | C1CURB73B-1                 | 11F57          | X             | X   | X   | X   |
| Adjustable Pitch Curb                                                             |                             |                |               |     |     |     |
| 14 in. height                                                                     | C1CURB55B-1                 | 54W50          | X             | X   | X   | X   |
| CEILING DIFFUSERS                                                                 |                             |                |               |     |     |     |
| Step-Down - Order one                                                             | RTD11-95                    | 29G04          | X             |     |     |     |
|                                                                                   | RTD11-135                   | 29G05          |               | X   | X   |     |
|                                                                                   | RTD11-185                   | 29G06          |               |     |     | X   |
| Flush - Order one                                                                 | FD11-95                     | 29G08          | X             |     |     |     |
|                                                                                   | FD11-135                    | 29G09          |               | X   | X   |     |
|                                                                                   | FD11-185                    | 29G10          |               |     |     | X   |
| Transitions (Supply and Return) - Order one                                       | C1DIFF30B-1                 | 12X65          | X             |     |     |     |
|                                                                                   | C1DIFF31B-1                 | 12X66          |               | X   | X   |     |
|                                                                                   | C1DIFF32B-1                 | 12X67          |               |     |     | X   |

NOTE - Catalog and model numbers shown are for ordering field installed accessories.  
OX = Configure To Order (Factory Installed) or Field Installed  
O = Configure To Order (Factory Installed)  
X = Field Installed

## SPECIFICATIONS

| General Data                                   |                                             |           | Nominal Tonnage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.5 Ton                 | 7.5 Ton                    | 8.5 Ton                 | 8.5 Ton                    |
|------------------------------------------------|---------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------|-------------------------|----------------------------|
|                                                |                                             |           | Model Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LCH092H4B               | LCH092H4M                  | LCH102H4B               | LCH102H4M                  |
|                                                |                                             |           | Efficiency Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | High                    | High                       | High                    | High                       |
|                                                |                                             |           | Blower Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Constant Air Volume CAV | Single Zone VAV Supply Fan | Constant Air Volume CAV | Single Zone VAV Supply Fan |
| Cooling Performance                            | Gross Cooling Capacity - Btuh               |           | 93,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 93,000                  | 103,800                    | 103,800                 |                            |
|                                                | <sup>1</sup> Net Cooling Capacity - Btuh    |           | 90,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 90,000                  | 100,000                    | 100,000                 |                            |
|                                                | AHRI Rated Air Flow - cfm                   |           | 3000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2800                    | 3400                       | 3400                    |                            |
|                                                | Total Unit Power - kW                       |           | 7.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.5                     | 8.1                        | 8.1                     |                            |
|                                                | <sup>1</sup> EER (Btuh/Watt)                |           | 12.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12.7                    | 12.4                       | 12.4                    |                            |
|                                                | <sup>2</sup> IEER (Btuh/Watt)               |           | 13.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14.0                    | 12.9                       | 14.0                    |                            |
|                                                | Refrigerant Type                            |           | R-410A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | R-410A                  | R-410A                     | R-410A                  |                            |
| Refrigerant Charge                             | Eco-last™ Coil System                       | Circuit 1 | 7 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7 lbs. 8 oz.            | 7 lbs. 8 oz.               | 7 lbs. 8 oz.            |                            |
|                                                |                                             | Circuit 2 | 7 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7 lbs. 8 oz.            | 7 lbs. 8 oz.               | 7 lbs. 8 oz.            |                            |
|                                                | Conventional Fin/Tube Coil Option           | Circuit 1 | 13 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 13 lbs. 8 oz.           | 13 lbs. 8 oz.              | 13 lbs. 8 oz.           |                            |
|                                                |                                             | Circuit 2 | 12 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 12 lbs. 8 oz.           | 12 lbs. 8 oz.              | 12 lbs. 8 oz.           |                            |
|                                                | Conventional Fin/Tube With Dehumidification | Circuit 1 | 17 lbs. 0 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 17 lbs. 0 oz.           | 17 lbs. 0 oz.              | 17 lbs. 0 oz.           |                            |
|                                                |                                             | Circuit 2 | 12 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 12 lbs. 8 oz.           | 12 lbs. 8 oz.              | 12 lbs. 8 oz.           |                            |
| Electric Heat Available - See page 16          |                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.5,15,22.5,30 & 45 KW  |                            |                         |                            |
| Compressor Type (number)                       |                                             |           | Scroll (2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Scroll (2)              | Scroll (2)                 | Scroll (2)              |                            |
| Outdoor Coils                                  | Net face area (total) - sq. ft.             |           | 28.0 (29.33)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 28.0 (29.33)            | 28.0 (29.33)               | 28.0 (29.33)            |                            |
|                                                | Eco-last™ Number of rows                    |           | 1 (3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1 (3)                   | 1 (3)                      | 1 (3)                   |                            |
|                                                | (Fin/Tube) Fins per inch                    |           | 20 (20)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 20 (20)                 | 20 (20)                    | 20 (20)                 |                            |
| Outdoor Coil Fans                              | Motor - (No.) hp                            |           | (2) 1/3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (2) 1/3                 | (2) 1/3                    | (2) 1/3                 |                            |
|                                                | Motor rpm                                   |           | 1075                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1075                    | 1075                       | 1075                    |                            |
|                                                | Total Motor watts                           |           | 800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 800                     | 800                        | 800                     |                            |
|                                                | Diameter - (No.) in.                        |           | (2) 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | (2) 24                  | (2) 24                     | (2) 24                  |                            |
|                                                | Number of blades                            |           | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3                       | 3                          | 3                       |                            |
|                                                | Total Air volume - cfm                      |           | 8800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8800                    | 8800                       | 8800                    |                            |
|                                                |                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                            |                         |                            |
| Indoor Coil                                    | Net face area (total) - sq. ft.             |           | 12.78                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12.78                   | 12.78                      | 12.78                   |                            |
|                                                | Tube diameter - in.                         |           | 3/8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3/8                     | 3/8                        | 3/8                     |                            |
|                                                | Number of rows                              |           | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4                       | 4                          | 4                       |                            |
|                                                | Fins per inch                               |           | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 14                      | 14                         | 14                      |                            |
|                                                | Drain connection - Number and size          |           | (1) 1 in. NPT coupling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         |                            |                         |                            |
| Expansion device type                          |                                             |           | Balance port TXV, removable head                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                            |                         |                            |
| <sup>3</sup> Indoor Blower and Drive Selection | Nominal motor output                        |           | 2 hp, 3 hp, 5 hp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                            |                         |                            |
|                                                | Maximum usable motor output (US Only)       |           | 2.3 hp, 3.45 hp, 5.75 hp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                            |                         |                            |
|                                                | Motor - Drive kit number                    |           | 2 hp<br>Kit 1 590-890 rpm (std. and high efficiency)<br>Kit 2 800-1105 rpm (std. and high efficiency)<br>Kit 3 795-1195 rpm (std. and high efficiency)<br>3 hp<br>Kit 4 730-970 rpm (std. efficiency)<br>Kit 5 940-1200 rpm (std. efficiency)<br>Kit 6 1015-1300 rpm (std. efficiency)<br>Kit 7 730-970 rpm (high efficiency)<br>Kit 8 940-1200 rpm (high efficiency)<br>Kit 9 1015-1300 rpm (high efficiency)<br>5 hp<br>Kit 10 900-1135 rpm (std. efficiency)<br>Kit 11 1040-1315 rpm (std. efficiency)<br>Kit 12 1125-1425 rpm (std. efficiency) |                         |                            |                         |                            |
|                                                | Blower wheel nominal diameter x width - in. |           | (1) 15 X 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | (1) 15 X 15             | (1) 15 X 15                | (1) 15 X 15             |                            |
|                                                |                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                            |                         |                            |
| Filters                                        | Type of filter                              |           | Disposable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                            |                         |                            |
|                                                | Number and size - in.                       |           | (4) 20 x 25 x 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                            |                         |                            |
| Electrical characteristics                     |                                             |           | 208/230V, 460V or 575V - 60 hertz - 3 phase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                            |                         |                            |

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> Integrated Energy Efficiency Ratio certified and tested according to AHRI Standard 340/360.

<sup>3</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 - Units equipped with Single Zone VAV Supply Fan option are limited to a motor service factor of 1.0.

## SPECIFICATIONS

| General Data                                   |                                             |                                  | Nominal Tonnage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10 Ton                                          | 10 Ton                     | 12.5 Ton                | 12.5 Ton                   |
|------------------------------------------------|---------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------|-------------------------|----------------------------|
|                                                |                                             |                                  | Model Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LCH120H4B                                       | LCH120H4M                  | LCH150S4B               | LCH150S4M                  |
|                                                |                                             |                                  | Efficiency Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | High                                            | High                       | Standard                | Standard                   |
|                                                |                                             |                                  | Blower Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Constant Air Volume CAV                         | Single Zone VAV Supply Fan | Constant Air Volume CAV | Single Zone VAV Supply Fan |
| Cooling Performance                            | Gross Cooling Capacity - Btuh               |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 122,000                                         | 122,000                    | 142,600                 | 142,600                    |
|                                                | <sup>1</sup> Net Cooling Capacity - Btuh    |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 118,000                                         | 118,000                    | 138,000                 | 138,000                    |
|                                                | AHRI Rated Air Flow - cfm                   |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3600                                            | 3300                       | 4100                    | 4100                       |
|                                                | Total Unit Power - kW                       |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9.9                                             | 9.8                        | 12.3                    | 12.3                       |
|                                                | <sup>1</sup> EER (Btuh/Watt)                |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 12.2                                            | 12.2                       | 11.0                    | 11.0                       |
|                                                | <sup>2</sup> IEER (Btuh/Watt)               |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13.2                                            | 14.0                       | 11.6                    | 13.1                       |
|                                                | Refrigerant Type                            |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | R-410A                                          | R-410A                     | R-410A                  | R-410A                     |
| Refrigerant Charge                             | Eco-last™ Coil System                       | Circuit 1                        | 7 lbs. 4 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7 lbs. 4 oz.                                    | 7 lbs. 4 oz.               | 7 lbs. 4 oz.            |                            |
|                                                |                                             | Circuit 2                        | 7 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7 lbs. 8 oz.                                    | 6 lbs. 12 oz.              | 6 lbs. 12 oz.           |                            |
|                                                | Conventional Fin/Tube Coil Option           | Circuit 1                        | 14 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 14 lbs. 8 oz.                                   | 17 lbs. 8 oz.              | 17 lbs. 8 oz.           |                            |
|                                                |                                             | Circuit 2                        | 13 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 13 lbs. 8 oz.                                   | 12 lbs. 12 oz.             | 12 lbs. 12 oz.          |                            |
|                                                | Conventional Fin/Tube With Dehumidification | Circuit 1                        | 18 lbs. 0 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 18 lbs. 0 oz.                                   | 18 lbs. 8 oz.              | 18 lbs. 8 oz.           |                            |
|                                                |                                             | Circuit 2                        | 13 lbs. 8 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 13 lbs. 8 oz.                                   | 14 lbs. 8 oz.              | 14 lbs. 8 oz.           |                            |
|                                                | Electric Heat Available - See page 16       |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                 | 15,22.5,30,45 & 60 KW      |                         |                            |
| Compressor Type (number)                       |                                             |                                  | Scroll (2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Scroll (2)                                      | Scroll (2)                 | Scroll (2)              |                            |
| Outdoor Coils                                  | Net face area (total) - sq. ft.             |                                  | 28.0 (29.33)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 28.0 (29.33)                                    | 28.0 (29.33)               | 28.0 (29.33)            |                            |
|                                                | Eco-last™ (Fin/Tube)                        | Number of rows                   | 1 (3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1 (3)                                           | 1 (3)                      | 1 (3)                   |                            |
|                                                |                                             | Fins per inch                    | 20 (20)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 20 (20)                                         | 20 (20)                    | 20 (20)                 |                            |
| Outdoor Coil Fans                              | Motor - (No.) hp                            | (2) 1/3                          | (2) 1/3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (2) 1/3                                         | (2) 1/2                    | (2) 1/2                 |                            |
|                                                |                                             | Motor rpm                        | 1075                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1075                                            | 1075                       | 1075                    |                            |
|                                                | Total Motor watts                           |                                  | 800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 800                                             | 1050                       | 1050                    |                            |
|                                                | Diameter - (No.) in.                        |                                  | (2) 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | (2) 24                                          | (2) 24                     | (2) 24                  |                            |
|                                                | Number of blades                            |                                  | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3                                               | 3                          | 3                       |                            |
|                                                | Total Air volume - cfm                      |                                  | 8800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8800                                            | 9700                       | 9700                    |                            |
|                                                | Indoor Coil                                 | Net face area (total) - sq. ft.  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13.54                                           | 13.54                      | 13.54                   | 13.54                      |
| Tube diameter - in.                            |                                             | 3/8                              | 3/8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3/8                                             | 3/8                        |                         |                            |
| Number of rows                                 |                                             | 4                                | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4                                               | 4                          |                         |                            |
| Fins per inch                                  |                                             | 14                               | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 14                                              | 14                         |                         |                            |
| Drain connection - Number and size             |                                             | (1) 1 in. NPT coupling           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                 |                            |                         |                            |
| Expansion device type                          |                                             | Balance port TXV, removable head |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <sup>5</sup> Refrigerant Metering Orifice (RFC) |                            |                         |                            |
| <sup>3</sup> Indoor Blower and Drive Selection |                                             | Nominal motor output             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2 hp, 3 hp, 5 hp                                |                            |                         |                            |
|                                                | Maximum usable motor output (US Only)       |                                  | 2.3 hp, 3.45 hp, 5.75 hp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                            |                         |                            |
|                                                | Motor - Drive kit number                    |                                  | 2 hp<br>Kit 1 590-890 rpm (std. and high efficiency)<br>Kit 2 800-1105 rpm (std. and high efficiency)<br>Kit 3 795-1195 rpm (std. and high efficiency)<br>3 hp<br>Kit 4 730-970 rpm (std. efficiency)<br>Kit 5 940-1200 rpm (std. efficiency)<br>Kit 6 1015-1300 rpm (std. efficiency)<br>Kit 7 730-970 rpm (high efficiency)<br>Kit 8 940-1200 rpm (high efficiency)<br>Kit 9 1015-1300 rpm (high efficiency)<br>5 hp<br>Kit 10 900-1135 rpm (std. efficiency)<br>Kit 11 1040-1315 rpm (std. efficiency)<br>Kit 12 1125-1425 rpm (std. efficiency) |                                                 |                            |                         |                            |
|                                                | Blower wheel nominal diameter x width - in. |                                  | (1) 15 X 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | (1) 15 X 15                                     | (1) 15 X 15                | (1) 15 X 15             |                            |
|                                                | Filters                                     | Type of filter                   | Disposable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                 |                            |                         |                            |
|                                                |                                             | Number and size - in.            | (4) 20 x 25 x 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                 |                            |                         |                            |
|                                                | Electrical characteristics                  |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 208/230V, 460V or 575V - 60 hertz - 3 phase     |                            |                         |                            |

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> Integrated Energy Efficiency Ratio certified and tested according to AHRI Standard 340/360.

<sup>3</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.

<sup>5</sup> 150 models ordered with the Dehumidification option are equipped with factory installed expansion valves.

NOTE - Units equipped with Single Zone VAV Supply Fan option are limited to a motor service factor of 1.0.

## RATINGS

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

### 7.5 TON HIGH EFFICIENCY LCH092H4B (1ST STAGE) - CONSTANT AIR VOLUME

| 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                           | kBtuh            | kW                                            | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |  |
| 63°F                          | 2400             | 48.6                                          | 1.95              | 0.63                          | 0.76 | 0.93  | 46.8            | 2.21              | 0.64                          | 0.78 | 0.95  | 44.9            | 2.49              | 0.65                          | 0.80 | 0.98  | 42.9            | 2.81              | 0.66                          | 0.83 | 1.00 |  |
|                               | 3000             | 51.0                                          | 1.96              | 0.67                          | 0.85 | 1.00  | 49.1            | 2.22              | 0.68                          | 0.88 | 1.00  | 47.2            | 2.50              | 0.70                          | 0.90 | 1.00  | 45.0            | 2.82              | 0.72                          | 0.94 | 1.00 |  |
|                               | 3600             | 52.9                                          | 1.97              | 0.72                          | 0.95 | 1.00  | 50.9            | 2.22              | 0.74                          | 0.97 | 1.00  | 48.9            | 2.50              | 0.76                          | 0.99 | 1.00  | 46.7            | 2.82              | 0.79                          | 1.00 | 1.00 |  |
| 67°F                          | 2400             | 51.3                                          | 1.96              | 0.50                          | 0.61 | 0.72  | 49.5            | 2.22              | 0.51                          | 0.62 | 0.73  | 47.6            | 2.50              | 0.51                          | 0.63 | 0.76  | 45.5            | 2.82              | 0.52                          | 0.64 | 0.78 |  |
|                               | 3000             | 53.9                                          | 1.97              | 0.53                          | 0.65 | 0.80  | 51.9            | 2.22              | 0.53                          | 0.66 | 0.83  | 49.7            | 2.50              | 0.55                          | 0.67 | 0.86  | 47.7            | 2.82              | 0.56                          | 0.69 | 0.89 |  |
|                               | 3600             | 55.9                                          | 1.98              | 0.55                          | 0.70 | 0.90  | 53.7            | 2.23              | 0.56                          | 0.71 | 0.93  | 51.5            | 2.51              | 0.57                          | 0.74 | 0.96  | 48.9            | 2.83              | 0.58                          | 0.76 | 0.99 |  |
| 71°F                          | 2400             | 54.1                                          | 1.97              | 0.39                          | 0.49 | 0.59  | 52.2            | 2.22              | 0.39                          | 0.49 | 0.60  | 50.2            | 2.50              | 0.39                          | 0.51 | 0.60  | 48.0            | 2.82              | 0.39                          | 0.51 | 0.61 |  |
|                               | 3000             | 56.8                                          | 1.98              | 0.39                          | 0.51 | 0.63  | 54.7            | 2.23              | 0.40                          | 0.52 | 0.64  | 52.4            | 2.51              | 0.40                          | 0.53 | 0.65  | 50.1            | 2.83              | 0.41                          | 0.55 | 0.67 |  |
|                               | 3600             | 58.6                                          | 1.99              | 0.41                          | 0.54 | 0.67  | 56.5            | 2.24              | 0.41                          | 0.55 | 0.69  | 54.1            | 2.51              | 0.42                          | 0.56 | 0.71  | 51.5            | 2.83              | 0.42                          | 0.57 | 0.73 |  |

### 7.5 TON HIGH EFFICIENCY LCH092H4B (2ND STAGE) - CONSTANT AIR VOLUME

| 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                           | 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                          | 2400             | 87.9                                          | 5.19              | .69                           | .83  | .98    | 84.0            | 5.86              | .70                           | .85  | 1.00   | 79.8            | 6.64              | .72                           | .88  | 1.00   | 75.2            | 7.55              | .74                           | .92   | 1.00 |  |  |  |  |
|                               | 3000             | 92.3                                          | 5.20              | .74                           | .92  | 1.00   | 88.0            | 5.87              | .76                           | .95  | 1.00   | 83.5            | 6.64              | .78                           | .98  | 1.00   | 78.7            | 7.54              | .81                           | 1.00  | 1.00 |  |  |  |  |
|                               | 3600             | 95.6                                          | 5.21              | .79                           | 1.00 | 1.00   | 91.4            | 5.87              | .82                           | 1.00 | 1.00   | 87.3            | 6.64              | .85                           | 1.00 | 1.00   | 82.9            | 7.55              | .88                           | 1.00  | 1.00 |  |  |  |  |
| 67°F                          | 2400             | 93.0                                          | 5.20              | .55                           | .66  | .79    | 89.0            | 5.87              | .55                           | .68  | .81    | 84.5            | 6.64              | .56                           | .69  | .84    | 79.5            | 7.54              | .58                           | .71   | .87  |  |  |  |  |
|                               | 3000             | 97.3                                          | 5.21              | .58                           | .71  | .88    | 93.0            | 5.88              | .59                           | .73  | .91    | 88.2            | 6.65              | .60                           | .76  | .94    | 82.8            | 7.54              | .61                           | .78   | .98  |  |  |  |  |
|                               | 3600             | 100.6                                         | 5.22              | .61                           | .77  | .97    | 95.7            | 5.88              | .62                           | .79  | .99    | 90.8            | 6.65              | .63                           | .82  | 1.00   | 85.2            | 7.54              | .64                           | .86   | 1.00 |  |  |  |  |
| 71°F                          | 2400             | 98.2                                          | 5.21              | .42                           | .53  | .64    | 93.8            | 5.88              | .42                           | .54  | .65    | 89.0            | 6.65              | .42                           | .54  | .67    | 84.2            | 7.54              | .43                           | .56   | .69  |  |  |  |  |
|                               | 3000             | 102.5                                         | 5.23              | .43                           | .56  | .69    | 97.9            | 5.89              | .43                           | .58  | .71    | 92.9            | 6.65              | .44                           | .59  | .73    | 87.5            | 7.54              | .44                           | .60   | .76  |  |  |  |  |
|                               | 3600             | 105.9                                         | 5.24              | .44                           | .60  | .75    | 100.8           | 5.89              | .45                           | .61  | .77    | 95.4            | 6.65              | .45                           | .62  | .79    | 89.9            | 7.54              | .46                           | .64   | .84  |  |  |  |  |

### 8.5 TON HIGH EFFICIENCY LCH102H4B (1ST STAGE) - CONSTANT AIR VOLUME

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |  |  |  |  |
|-------------------------------|------------------|-----------------------------------------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|------|--|--|--|--|
|                               |                  | 65°F                                          |                   |                               |      |       |                 | 75°F              |                               |      |       |                 |                   | 85°F                          |      |       |                 |                   |                               | 95°F |      |  |  |  |  |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |  |  |  |  |
|                               |                  |                                               |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |      |  |  |  |  |
|                               |                  |                                               |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |      |  |  |  |  |
| cfm                           | kBtuh            | kW                                            | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |  |  |  |  |
| 63°F                          | 2720             | 52.3                                          | 2.13              | .62                           | .76  | .96   | 50.4            | 2.41              | .63                           | .78  | .98   | 48.4            | 2.73              | .64                           | .81  | 1.00  | 46.3            | 3.08              | .65                           | .84  | 1.00 |  |  |  |  |
|                               | 3400             | 54.8                                          | 2.14              | .66                           | .87  | 1.00  | 52.7            | 2.42              | .67                           | .90  | 1.00  | 50.6            | 2.73              | .69                           | .93  | 1.00  | 48.4            | 3.09              | .71                           | .97  | 1.00 |  |  |  |  |
|                               | 4080             | 56.6                                          | 2.15              | .72                           | .97  | 1.00  | 54.6            | 2.43              | .74                           | .99  | 1.00  | 52.4            | 2.74              | .77                           | 1.00 | 1.00  | 50.3            | 3.09              | .80                           | 1.00 | 1.00 |  |  |  |  |
| 67°F                          | 2720             | 55.2                                          | 2.14              | .49                           | .60  | .71   | 53.2            | 2.42              | .50                           | .61  | .73   | 51.2            | 2.73              | .50                           | .62  | .76   | 48.7            | 3.09              | .50                           | .63  | .79  |  |  |  |  |
|                               | 3400             | 57.7                                          | 2.15              | .52                           | .64  | .82   | 55.6            | 2.43              | .52                           | .65  | .84   | 53.3            | 2.74              | .54                           | .67  | .88   | 50.9            | 3.09              | .55                           | .68  | .92  |  |  |  |  |
|                               | 4080             | 59.7                                          | 2.16              | .55                           | .69  | .93   | 57.4            | 2.44              | .56                           | .71  | .96   | 54.9            | 2.74              | .56                           | .73  | .99   | 52.4            | 3.10              | .57                           | .76  | 1.00 |  |  |  |  |
| 71°F                          | 2720             | 58.0                                          | 2.16              | .38                           | .48  | .58   | 56.1            | 2.43              | .38                           | .49  | .59   | 53.8            | 2.74              | .38                           | .49  | .60   | 51.3            | 3.09              | .38                           | .50  | .61  |  |  |  |  |
|                               | 3400             | 60.7                                          | 2.16              | .39                           | .51  | .62   | 58.4            | 2.44              | .39                           | .51  | .63   | 56.0            | 2.75              | .39                           | .53  | .65   | 53.6            | 3.10              | .40                           | .54  | .67  |  |  |  |  |
|                               | 4080             | 62.5                                          | 2.17              | .40                           | .53  | .67   | 60.2            | 2.45              | .40                           | .55  | .68   | 57.8            | 2.75              | .40                           | .56  | .71   | 55.0            | 3.10              | .41                           | .56  | .73  |  |  |  |  |

### 8.5 TON HIGH EFFICIENCY LCH102H4B (2ND STAGE) - CONSTANT AIR VOLUME

| 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                          | 2720             | 98.8                                          | 5.54              | .70                           | .85  | 1.00  | 94.4            | 6.27              | .72                           | .88  | 1.00  | 89.7            | 7.10              | .73                           | .91  | 1.00  | 84.7            | 8.09              | .76                           | .95   | 1.00 |  |  |  |  |
|                               | 3400             | 103.3                                         | 5.56              | .76                           | .95  | 1.00  | 98.6            | 6.27              | .78                           | .98  | 1.00  | 93.5            | 7.11              | .80                           | 1.00 | 1.00  | 88.7            | 8.08              | .83                           | 1.00  | 1.00 |  |  |  |  |
|                               | 4080             | 106.9                                         | 5.56              | .82                           | 1.00 | 1.00  | 102.6           | 6.28              | .84                           | 1.00 | 1.00  | 98.2            | 7.12              | .88                           | 1.00 | 1.00  | 93.1            | 8.08              | .91                           | 1.00  | 1.00 |  |  |  |  |
| 67°F                          | 2720             | 104.3                                         | 5.56              | .55                           | .68  | .81   | 99.6            | 6.28              | .56                           | .69  | .84   | 94.7            | 7.11              | .57                           | .71  | .87   | 89.3            | 8.08              | .59                           | .73   | .91  |  |  |  |  |
|                               | 3400             | 108.8                                         | 5.57              | .59                           | .74  | .91   | 103.8           | 6.29              | .60                           | .76  | .94   | 98.5            | 7.12              | .61                           | .78  | .97   | 92.7            | 8.08              | .62                           | .81   | 1.00 |  |  |  |  |
|                               | 4080             | 112.0                                         | 5.58              | .62                           | .80  | .99   | 106.6           | 6.30              | .63                           | .82  | 1.00  | 101.2           | 7.12              | .65                           | .85  | 1.00  | 95.2            | 8.08              | .66                           | .89   | 1.00 |  |  |  |  |
| 71°F                          | 2720             | 109.6                                         | 5.57              | .42                           | .54  | .66   | 104.7           | 6.29              | .43                           | .55  | .67   | 99.7            | 7.12              | .43                           | .56  | .69   | 94.1            | 8.08              | .43                           | .58   | .71  |  |  |  |  |
|                               | 3400             | 114.3                                         | 5.59              | .43                           | .58  | .72   | 109.2           | 6.30              | .44                           | .59  | .74   | 103.6           | 7.12              | .45                           | .60  | .76   | 97.4            | 8.08              | .45                           | .61   | .78  |  |  |  |  |
|                               | 4080             | 117.8                                         | 5.60              | .45                           | .61  | .77   | 112.2           | 6.31              | .45                           | .62  | .80   | 106.4           | 7.13              | .46                           | .64  | .83   | 100.0           | 8.08              | .47                           | .66   | .86  |  |  |  |  |

## RATINGS

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

### 10 TON HIGH EFFICIENCY LCH120H4B (1ST STAGE) - CONSTANT AIR VOLUME

| 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                           | kBtuh            | kW                                            | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F |      |
| 63°F                          | 3200             | 61.5                                          | 2.61              | .64                           | .78  | .95   | 59.3            | 2.96              | .65                           | .80  | .97   | 56.8            | 3.34              | .66                           | .82  | 1.00  | 54.3            | 3.77              | .67                           | .85  | 1.00 |
|                               | 4000             | 64.5                                          | 2.64              | .68                           | .86  | 1.00  | 62.2            | 2.99              | .70                           | .89  | 1.00  | 59.5            | 3.37              | .71                           | .93  | 1.00  | 56.8            | 3.80              | .74                           | .96  | 1.00 |
|                               | 4800             | 66.8                                          | 2.67              | .73                           | .95  | 1.00  | 64.3            | 3.02              | .76                           | .98  | 1.00  | 61.5            | 3.40              | .78                           | 1.00 | 1.00  | 58.8            | 3.83              | .81                           | 1.00 | 1.00 |
| 67°F                          | 3200             | 64.8                                          | 2.65              | .51                           | .62  | .73   | 62.5            | 2.99              | .52                           | .63  | .75   | 60.0            | 3.38              | .52                           | .64  | .78   | 57.2            | 3.81              | .53                           | .65  | .80  |
|                               | 4000             | 68.1                                          | 2.68              | .53                           | .66  | .82   | 65.5            | 3.03              | .54                           | .67  | .84   | 62.7            | 3.41              | .55                           | .69  | .88   | 59.8            | 3.84              | .56                           | .70  | .91  |
|                               | 4800             | 70.3                                          | 2.71              | .56                           | .70  | .91   | 67.7            | 3.06              | .58                           | .73  | .94   | 64.7            | 3.44              | .58                           | .75  | .98   | 61.6            | 3.87              | .60                           | .78  | 1.00 |
| 71°F                          | 3200             | 68.5                                          | 2.69              | .40                           | .50  | .60   | 66.0            | 3.04              | .39                           | .50  | .61   | 63.4            | 3.42              | .40                           | .51  | .62   | 60.5            | 3.85              | .40                           | .52  | .63  |
|                               | 4000             | 71.5                                          | 2.72              | .40                           | .52  | .64   | 68.9            | 3.07              | .40                           | .53  | .65   | 65.9            | 3.46              | .41                           | .54  | .67   | 62.7            | 3.88              | .41                           | .55  | .68  |
|                               | 4800             | 73.9                                          | 2.75              | .41                           | .55  | .68   | 70.9            | 3.10              | .42                           | .56  | .70   | 67.9            | 3.48              | .43                           | .57  | .73   | 64.7            | 3.91              | .43                           | .58  | .75  |

### 10 TON HIGH EFFICIENCY LCH120H4B (2ND STAGE) - CONSTANT AIR VOLUME

| 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  |       |       |      |      |      |
| cfm                           | kBtuh            | kW                                            | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW    | 75°F  | 80°F | 85°F |      |
| 63°F                          | 3200             | 118.3                                         | 7.09              | .67                           | .83  | 1.00  | 113.1           | 8.00              | .68                           | .86  | 1.00  | 107.4           | 9.04              | .70                           | .89  | 1.00  | 101.4 | 10.23 | .72  | .93  | 1.00 |
|                               | 4000             | 123.7                                         | 7.16              | .72                           | .94  | 1.00  | 118.2           | 8.07              | .75                           | .97  | 1.00  | 112.2           | 9.11              | .78                           | 1.00 | 1.00  | 106.1 | 10.29 | .81  | 1.00 | 1.00 |
|                               | 4800             | 127.9                                         | 7.21              | .79                           | 1.00 | 1.00  | 122.7           | 8.13              | .82                           | 1.00 | 1.00  | 116.9           | 9.17              | .85                           | 1.00 | 1.00  | 111.3 | 10.37 | .90  | 1.00 | 1.00 |
| 67°F                          | 3200             | 124.8                                         | 7.17              | .53                           | .65  | .79   | 119.2           | 8.08              | .54                           | .66  | .81   | 113.4           | 9.12              | .54                           | .68  | .84   | 106.8 | 10.30 | .56  | .70  | .89  |
|                               | 4000             | 130.2                                         | 7.24              | .56                           | .70  | .90   | 124.4           | 8.16              | .57                           | .72  | .93   | 118.1           | 9.19              | .58                           | .75  | .97   | 111.1 | 10.36 | .60  | .78  | 1.00 |
|                               | 4800             | 134.2                                         | 7.29              | .59                           | .77  | .99   | 127.9           | 8.21              | .61                           | .80  | 1.00  | 121.0           | 9.23              | .62                           | .82  | 1.00  | 114.1 | 10.40 | .64  | .87  | 1.00 |
| 71°F                          | 3200             | 131.6                                         | 7.26              | .40                           | .52  | .63   | 125.7           | 8.17              | .41                           | .52  | .64   | 119.6           | 9.21              | .41                           | .53  | .66   | 112.8 | 10.38 | .41  | .55  | .68  |
|                               | 4000             | 136.6                                         | 7.33              | .42                           | .55  | .68   | 130.6           | 8.24              | .42                           | .56  | .70   | 123.7           | 9.27              | .43                           | .58  | .72   | 116.7 | 10.45 | .43  | .59  | .75  |
|                               | 4800             | 140.5                                         | 7.38              | .43                           | .58  | .74   | 134.1           | 8.29              | .44                           | .60  | .77   | 127.3           | 9.32              | .44                           | .62  | .80   | 119.5 | 10.49 | .45  | .63  | .84  |

### 12.5 TON STANDARD EFFICIENCY LCH150S4B (1ST STAGE) - CONSTANT AIR VOLUME

| 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                           | 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                          | 3800             | 80.2                                          | 3.25              | 0.63                          | 0.78 | 0.94  | 74.7            | 3.64              | 0.63                          | 0.79 | 0.96  | 69.1            | 4.08              | 0.64                          | 0.81 | 0.99  | 63.1            | 4.58              | 0.64                          | 0.83 | 1.00 |
|                               | 4400             | 83.6                                          | 3.27              | 0.66                          | 0.83 | 1.00  | 77.8            | 3.66              | 0.67                          | 0.85 | 1.00  | 72.0            | 4.11              | 0.67                          | 0.87 | 1.00  | 65.9            | 4.60              | 0.69                          | 0.91 | 1.00 |
|                               | 5000             | 86.3                                          | 3.29              | 0.69                          | 0.88 | 1.00  | 80.5            | 3.69              | 0.71                          | 0.91 | 1.00  | 74.3            | 4.12              | 0.71                          | 0.94 | 1.00  | 68.1            | 4.62              | 0.74                          | 0.98 | 1.00 |
| 67°F                          | 3800             | 85.9                                          | 3.28              | 0.50                          | 0.62 | 0.74  | 80.3            | 3.68              | 0.50                          | 0.62 | 0.75  | 74.4            | 4.12              | 0.49                          | 0.62 | 0.77  | 68.2            | 4.62              | 0.48                          | 0.62 | 0.79 |
|                               | 4400             | 89.3                                          | 3.31              | 0.52                          | 0.64 | 0.79  | 83.4            | 3.71              | 0.52                          | 0.65 | 0.81  | 77.4            | 4.15              | 0.51                          | 0.65 | 0.83  | 71.0            | 4.65              | 0.51                          | 0.66 | 0.87 |
|                               | 5000             | 92.1                                          | 3.33              | 0.54                          | 0.67 | 0.84  | 86.2            | 3.73              | 0.53                          | 0.68 | 0.86  | 79.7            | 4.17              | 0.53                          | 0.69 | 0.90  | 73.2            | 4.67              | 0.53                          | 0.71 | 0.93 |
| 71°F                          | 3800             | 91.7                                          | 3.32              | 0.38                          | 0.49 | 0.60  | 85.8            | 3.73              | 0.38                          | 0.49 | 0.60  | 79.8            | 4.17              | 0.36                          | 0.49 | 0.60  | 73.3            | 4.67              | 0.35                          | 0.48 | 0.61 |
|                               | 4400             | 95.2                                          | 3.35              | 0.40                          | 0.51 | 0.62  | 89.1            | 3.76              | 0.39                          | 0.51 | 0.63  | 82.8            | 4.20              | 0.37                          | 0.51 | 0.63  | 76.2            | 4.70              | 0.36                          | 0.50 | 0.64 |
|                               | 5000             | 97.9                                          | 3.37              | 0.40                          | 0.53 | 0.65  | 91.7            | 3.78              | 0.40                          | 0.53 | 0.66  | 85.2            | 4.22              | 0.38                          | 0.53 | 0.67  | 78.4            | 4.72              | 0.37                          | 0.53 | 0.68 |

### 12.5 TON STANDARD EFFICIENCY LCH150S4B (2ND STAGE) - CONSTANT AIR VOLUME

| 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                           | 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                          | 3800             | 139.7                                         | 8.40              | 0.69                          | 0.85 | 1.00   | 127.4           | 9.42              | 0.70                          | 0.87 | 1.00   | 114.8           | 10.59             | 0.71                          | 0.90 | 1.00   | 101.5           | 11.94             | 0.72                          | 0.94 | 1.00 |
|                               | 4400             | 145.4                                         | 8.45              | 0.73                          | 0.90 | 1.00   | 132.9           | 9.47              | 0.74                          | 0.93 | 1.00   | 119.8           | 10.64             | 0.76                          | 0.97 | 1.00   | 106.2           | 11.99             | 0.79                          | 1.00 | 1.00 |
|                               | 5000             | 150.3                                         | 8.49              | 0.77                          | 0.96 | 1.00   | 137.4           | 9.52              | 0.79                          | 0.99 | 1.00   | 124.4           | 10.69             | 0.81                          | 1.00 | 1.00   | 111.7           | 12.05             | 0.84                          | 1.00 | 1.00 |
| 67°F                          | 3800             | 150.3                                         | 8.49              | 0.53                          | 0.67 | 0.82   | 137.9           | 9.52              | 0.53                          | 0.68 | 0.84   | 124.7           | 10.69             | 0.52                          | 0.69 | 0.86   | 111.1           | 12.04             | 0.51                          | 0.71 | 0.90 |
|                               | 4400             | 156.2                                         | 8.55              | 0.56                          | 0.71 | 0.87   | 143.3           | 9.57              | 0.55                          | 0.72 | 0.89   | 129.7           | 10.75             | 0.55                          | 0.74 | 0.93   | 115.4           | 12.10             | 0.55                          | 0.76 | 0.97 |
|                               | 5000             | 161.1                                         | 8.59              | 0.58                          | 0.75 | 0.92   | 147.6           | 9.62              | 0.58                          | 0.77 | 0.95   | 133.7           | 10.79             | 0.59                          | 0.79 | 0.99   | 119.1           | 12.14             | 0.59                          | 0.82 | 1.00 |
| 71°F                          | 3800             | 161.9                                         | 8.60              | 0.39                          | 0.53 | 0.66   | 148.7           | 9.63              | 0.38                          | 0.52 | 0.66   | 135.1           | 10.80             | 0.36                          | 0.52 | 0.67   | 120.8           | 12.15             | 0.34                          | 0.51 | 0.68 |
|                               | 4400             | 167.4                                         | 8.65              | 0.41                          | 0.55 | 0.69   | 153.9           | 9.68              | 0.39                          | 0.55 | 0.70   | 139.8           | 10.85             | 0.38                          | 0.54 | 0.72   | 124.9           | 12.20             | 0.36                          | 0.55 | 0.74 |
|                               | 5000             | 171.9                                         | 8.70              | 0.42                          | 0.57 | 0.73   | 158.0           | 9.73              | 0.41                          | 0.58 | 0.75   | 143.5           | 10.90             | 0.39                          | 0.58 | 0.77   | 128.5           | 12.24             | 0.37                          | 0.59 | 0.80 |



## RATINGS

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

### 7.5 TON HIGH EFFICIENCY LCH092H4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                          | 1680             | 43.9                                          | 1.94              | 0.59                          | 0.69  | 0.81 | 42.4            | 2.20              | 0.60                          | 0.70 | 0.82 | 40.9            | 2.48              | 0.60                          | 0.71 | 0.84 | 39.2            | 2.81              | 0.61                          | 0.73 | 0.86 |
|                               | 2100             | 46.9                                          | 1.95              | 0.61                          | 0.74  | 0.88 | 45.2            | 2.20              | 0.62                          | 0.76 | 0.90 | 43.5            | 2.49              | 0.63                          | 0.78 | 0.93 | 41.6            | 2.81              | 0.64                          | 0.80 | 0.95 |
|                               | 2520             | 49.2                                          | 1.96              | 0.65                          | 0.8   | 0.96 | 47.3            | 2.21              | 0.66                          | 0.81 | 0.98 | 45.4            | 2.49              | 0.67                          | 0.84 | 1.00 | 43.4            | 2.82              | 0.69                          | 0.87 | 1.00 |
| 67°F                          | 1680             | 46.6                                          | 1.95              | 0.48                          | 0.56  | 0.65 | 45.2            | 2.20              | 0.48                          | 0.57 | 0.66 | 43.5            | 2.49              | 0.48                          | 0.58 | 0.68 | 41.7            | 2.81              | 0.49                          | 0.58 | 0.69 |
|                               | 2100             | 49.6                                          | 1.96              | 0.49                          | 0.59  | 0.70 | 47.8            | 2.21              | 0.50                          | 0.59 | 0.72 | 46.0            | 2.49              | 0.50                          | 0.60 | 0.73 | 44.0            | 2.81              | 0.51                          | 0.61 | 0.75 |
|                               | 2520             | 51.9                                          | 1.96              | 0.51                          | 0.62  | 0.76 | 50.1            | 2.22              | 0.52                          | 0.63 | 0.77 | 48.1            | 2.50              | 0.52                          | 0.64 | 0.79 | 45.9            | 2.82              | 0.53                          | 0.66 | 0.82 |
| 71°F                          | 1680             | 49.4                                          | 1.96              | 0.38                          | 0.46  | 0.54 | 47.8            | 2.21              | 0.38                          | 0.47 | 0.55 | 46.1            | 2.50              | 0.39                          | 0.47 | 0.55 | 44.2            | 2.82              | 0.38                          | 0.47 | 0.56 |
|                               | 2100             | 52.5                                          | 1.97              | 0.38                          | 0.48  | 0.57 | 50.7            | 2.22              | 0.39                          | 0.48 | 0.57 | 48.8            | 2.50              | 0.39                          | 0.49 | 0.58 | 46.7            | 2.82              | 0.39                          | 0.49 | 0.59 |
|                               | 2520             | 54.6                                          | 1.97              | 0.39                          | 0.49  | 0.59 | 52.7            | 2.23              | 0.39                          | 0.50 | 0.60 | 50.6            | 2.51              | 0.40                          | 0.50 | 0.62 | 48.4            | 2.82              | 0.40                          | 0.51 | 0.63 |

### 7.5 TON HIGH EFFICIENCY LCH092H4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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) |      |      |       |        |     |      |      |
|                                     |                        |                                               |                         | 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 |
| 63°F                                | 2400                   | 87.9                                          | 5.19                    | .69                              | .83    | .98  | 84.0                  | 5.86                    | .70                              | .85  | 1.00 | 79.8                  | 6.64                    | .72                              | .88  | 1.00 | 75.2  | 7.55   | .74 | .92  | 1.00 |
|                                     | 3000                   | 92.3                                          | 5.20                    | .74                              | .92    | 1.00 | 88.0                  | 5.87                    | .76                              | .95  | 1.00 | 83.5                  | 6.64                    | .78                              | .98  | 1.00 | 78.7  | 7.54   | .81 | 1.00 | 1.00 |
|                                     | 3600                   | 95.6                                          | 5.21                    | .79                              | 1.00   | 1.00 | 91.4                  | 5.87                    | .82                              | 1.00 | 1.00 | 87.3                  | 6.64                    | .85                              | 1.00 | 1.00 | 82.9  | 7.55   | .88 | 1.00 | 1.00 |
| 67°F                                | 2400                   | 93.0                                          | 5.20                    | .55                              | .66    | .79  | 89.0                  | 5.87                    | .55                              | .68  | .81  | 84.5                  | 6.64                    | .56                              | .69  | .84  | 79.5  | 7.54   | .58 | .71  | .87  |
|                                     | 3000                   | 97.3                                          | 5.21                    | .58                              | .71    | .88  | 93.0                  | 5.88                    | .59                              | .73  | .91  | 88.2                  | 6.65                    | .60                              | .76  | .94  | 82.8  | 7.54   | .61 | .78  | .98  |
|                                     | 3600                   | 100.6                                         | 5.22                    | .61                              | .77    | .97  | 95.7                  | 5.88                    | .62                              | .79  | .99  | 90.8                  | 6.65                    | .63                              | .82  | 1.00 | 85.2  | 7.54   | .64 | .86  | 1.00 |
| 71°F                                | 2400                   | 98.2                                          | 5.21                    | .42                              | .53    | .64  | 93.8                  | 5.88                    | .42                              | .54  | .65  | 89.0                  | 6.65                    | .42                              | .54  | .67  | 84.2  | 7.54   | .43 | .56  | .69  |
|                                     | 3000                   | 102.5                                         | 5.23                    | .43                              | .56    | .69  | 97.9                  | 5.89                    | .43                              | .58  | .71  | 92.9                  | 6.65                    | .44                              | .59  | .73  | 87.5  | 7.54   | .44 | .60  | .76  |
|                                     | 3600                   | 105.9                                         | 5.24                    | .44                              | .60    | .75  | 100.8                 | 5.89                    | .45                              | .61  | .77  | 95.4                  | 6.65                    | .45                              | .62  | .79  | 89.9  | 7.54   | .46 | .64  | .84  |

### 8.5 TON HIGH EFFICIENCY LCH102H4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                           | kBtu/h | kW   |                 |                   | 75°F                          | 80°F | 85°F | kBtu/h          |                   | kW                            | 75°F | 80°F | 85°F            |                   | kBtu/h                        | kW   | 75°F |
| 63°F                          | 1920             | 49.5                                          | 2.12              | 0.61                          | 0.72   | 0.84 | 47.8            | 2.4               | 0.63                          | 0.73 | 0.86 | 46.1            | 2.71              | 0.63                          | 0.75 | 0.87 | 44.2            | 3.07              | 0.63                          | 0.76 | 0.9  |
|                               | 2400             | 52.6                                          | 2.13              | 0.64                          | 0.78   | 0.92 | 50.8            | 2.41              | 0.65                          | 0.79 | 0.94 | 48.8            | 2.72              | 0.66                          | 0.81 | 0.96 | 46.6            | 3.08              | 0.68                          | 0.83 | 0.98 |
|                               | 2880             | 54.8                                          | 2.14              | 0.68                          | 0.83   | 0.99 | 52.9            | 2.42              | 0.69                          | 0.85 | 1    | 50.8            | 2.73              | 0.71                          | 0.87 | 1    | 48.4            | 3.08              | 0.72                          | 0.9  | 1    |
| 67°F                          | 1920             | 52.3                                          | 2.13              | 0.5                           | 0.59   | 0.69 | 50.7            | 2.41              | 0.51                          | 0.6  | 0.7  | 48.8            | 2.72              | 0.51                          | 0.6  | 0.71 | 46.9            | 3.08              | 0.51                          | 0.61 | 0.72 |
|                               | 2400             | 55.4                                          | 2.14              | 0.52                          | 0.62   | 0.73 | 53.6            | 2.42              | 0.52                          | 0.63 | 0.75 | 51.5            | 2.73              | 0.52                          | 0.64 | 0.77 | 49.3            | 3.08              | 0.53                          | 0.65 | 0.79 |
|                               | 2880             | 57.8                                          | 2.15              | 0.53                          | 0.65   | 0.79 | 55.8            | 2.43              | 0.53                          | 0.66 | 0.81 | 53.6            | 2.73              | 0.54                          | 0.68 | 0.83 | 51.2            | 3.09              | 0.56                          | 0.7  | 0.87 |
| 71°F                          | 1920             | 55.5                                          | 2.14              | 0.4                           | 0.48   | 0.57 | 53.7            | 2.42              | 0.4                           | 0.49 | 0.57 | 51.7            | 2.73              | 0.39                          | 0.49 | 0.58 | 49.5            | 3.09              | 0.4                           | 0.49 | 0.59 |
|                               | 2400             | 58.6                                          | 2.15              | 0.4                           | 0.5    | 0.6  | 56.5            | 2.43              | 0.4                           | 0.51 | 0.6  | 54.4            | 2.74              | 0.41                          | 0.51 | 0.61 | 52              | 3.09              | 0.4                           | 0.52 | 0.62 |
|                               | 2880             | 60.9                                          | 2.16              | 0.41                          | 0.52   | 0.63 | 58.6            | 2.43              | 0.41                          | 0.52 | 0.64 | 56.3            | 2.74              | 0.41                          | 0.53 | 0.65 | 53.9            | 3.09              | 0.41                          | 0.54 | 0.67 |

### 8.5 TON HIGH EFFICIENCY LCH102H4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F | kBtuh           |                   | kW                            | 75°F | 80°F | 85°F  | kBtuh | kW  | 75°F | 80°F |
| 63°F                          | 2720             | 98.8                                          | 5.54              | .70                           | .85   | 1.00 | 94.4            | 6.27              | .72                           | .88  | 1.00 | 89.7            | 7.10              | .73                           | .91  | 1.00 | 84.7  | 8.09  | .76 | .95  | 1.00 |
|                               | 3400             | 103.3                                         | 5.56              | .76                           | .95   | 1.00 | 98.6            | 6.27              | .78                           | .98  | 1.00 | 93.5            | 7.11              | .80                           | 1.00 | 1.00 | 88.7  | 8.08  | .83 | 1.00 | 1.00 |
|                               | 4080             | 106.9                                         | 5.56              | .82                           | 1.00  | 1.00 | 102.6           | 6.28              | .84                           | 1.00 | 1.00 | 98.2            | 7.12              | .88                           | 1.00 | 1.00 | 93.1  | 8.08  | .91 | 1.00 | 1.00 |
| 67°F                          | 2720             | 104.3                                         | 5.56              | .55                           | .68   | .81  | 99.6            | 6.28              | .56                           | .69  | .84  | 94.7            | 7.11              | .57                           | .71  | .87  | 89.3  | 8.08  | .59 | .73  | .91  |
|                               | 3400             | 108.8                                         | 5.57              | .59                           | .74   | .91  | 103.8           | 6.29              | .60                           | .76  | .94  | 98.5            | 7.12              | .61                           | .78  | .97  | 92.7  | 8.08  | .62 | .81  | 1.00 |
|                               | 4080             | 112.0                                         | 5.58              | .62                           | .80   | .99  | 106.6           | 6.30              | .63                           | .82  | 1.00 | 101.2           | 7.12              | .65                           | .85  | 1.00 | 95.2  | 8.08  | .66 | .89  | 1.00 |
| 71°F                          | 2720             | 109.6                                         | 5.57              | .42                           | .54   | .66  | 104.7           | 6.29              | .43                           | .55  | .67  | 99.7            | 7.12              | .43                           | .56  | .69  | 94.1  | 8.08  | .43 | .58  | .71  |
|                               | 3400             | 114.3                                         | 5.59              | .43                           | .58   | .72  | 109.2           | 6.30              | .44                           | .59  | .74  | 103.6           | 7.12              | .45                           | .60  | .76  | 97.4  | 8.08  | .45 | .61  | .78  |
|                               | 4080             | 117.8                                         | 5.60              | .45                           | .61   | .77  | 112.2           | 6.31              | .45                           | .62  | .80  | 106.4           | 7.13              | .46                           | .64  | .83  | 100.0 | 8.08  | .47 | .66  | .86  |

## RATINGS

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

### 10 TON HIGH EFFICIENCY LCH120H4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                           | 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                          | 2240             | 59                                            | 2.61              | 0.68                          | 0.77 | 0.87  | 57              | 2.96              | 0.68                          | 0.78 | 0.88  | 54.9            | 3.34              | 0.69                          | 0.8  | 0.89  | 52.6            | 3.78              | 0.7                           | 0.81 | 0.91 |
|                               | 2800             | 62.9                                          | 2.64              | 0.71                          | 0.82 | 0.92  | 60.6            | 2.99              | 0.72                          | 0.83 | 0.94  | 58.2            | 3.38              | 0.72                          | 0.84 | 0.96  | 55.6            | 3.82              | 0.74                          | 0.86 | 0.98 |
|                               | 3360             | 65.7                                          | 2.67              | 0.74                          | 0.86 | 0.98  | 63.3            | 3.02              | 0.75                          | 0.87 | 0.99  | 60.6            | 3.41              | 0.76                          | 0.89 | 1     | 58              | 3.85              | 0.77                          | 0.91 | 1    |
| 67°F                          | 2240             | 62.5                                          | 2.64              | 0.55                          | 0.65 | 0.74  | 60.5            | 2.99              | 0.56                          | 0.65 | 0.75  | 58.2            | 3.38              | 0.56                          | 0.67 | 0.76  | 55.8            | 3.82              | 0.56                          | 0.67 | 0.77 |
|                               | 2800             | 66.2                                          | 2.67              | 0.57                          | 0.68 | 0.79  | 64              | 3.03              | 0.57                          | 0.69 | 0.8   | 61.4            | 3.42              | 0.58                          | 0.7  | 0.81  | 58.9            | 3.86              | 0.58                          | 0.71 | 0.83 |
|                               | 3360             | 69.3                                          | 2.7               | 0.58                          | 0.71 | 0.83  | 66.8            | 3.06              | 0.59                          | 0.72 | 0.84  | 64              | 3.45              | 0.6                           | 0.73 | 0.86  | 61.1            | 3.88              | 0.6                           | 0.75 | 0.88 |
| 71°F                          | 2240             | 66.3                                          | 2.67              | 0.44                          | 0.53 | 0.62  | 64              | 3.03              | 0.44                          | 0.54 | 0.63  | 61.6            | 3.42              | 0.44                          | 0.54 | 0.64  | 59.1            | 3.86              | 0.44                          | 0.55 | 0.65 |
|                               | 2800             | 70.2                                          | 2.71              | 0.44                          | 0.55 | 0.65  | 67.8            | 3.07              | 0.44                          | 0.56 | 0.67  | 65.1            | 3.46              | 0.45                          | 0.56 | 0.67  | 62.2            | 3.9               | 0.45                          | 0.57 | 0.68 |
|                               | 3360             | 73.1                                          | 2.74              | 0.45                          | 0.57 | 0.69  | 70.3            | 3.1               | 0.45                          | 0.58 | 0.7   | 67.6            | 3.49              | 0.45                          | 0.59 | 0.71  | 64.5            | 3.93              | 0.45                          | 0.59 | 0.72 |

### 10 TON HIGH EFFICIENCY LCH120H4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                          | 3200             | 118.3                                         | 7.09              | .67                           | .83  | 1.00  | 113.1           | 8.00              | .68                           | .86  | 1.00  | 107.4           | 9.04              | .70                           | .89  | 1.00  | 101.4           | 10.23             | .72                           | .93  | 1.00 |
|                               | 4000             | 123.7                                         | 7.16              | .72                           | .94  | 1.00  | 118.2           | 8.07              | .75                           | .97  | 1.00  | 112.2           | 9.11              | .78                           | 1.00 | 1.00  | 106.1           | 10.29             | .81                           | 1.00 | 1.00 |
|                               | 4800             | 127.9                                         | 7.21              | .79                           | 1.00 | 1.00  | 122.7           | 8.13              | .82                           | 1.00 | 1.00  | 116.9           | 9.17              | .85                           | 1.00 | 1.00  | 111.3           | 10.37             | .90                           | 1.00 | 1.00 |
| 67°F                          | 3200             | 124.8                                         | 7.17              | .53                           | .65  | .79   | 119.2           | 8.08              | .54                           | .66  | .81   | 113.4           | 9.12              | .54                           | .68  | .84   | 106.8           | 10.30             | .56                           | .70  | .89  |
|                               | 4000             | 130.2                                         | 7.24              | .56                           | .70  | .90   | 124.4           | 8.16              | .57                           | .72  | .93   | 118.1           | 9.19              | .58                           | .75  | .97   | 111.1           | 10.36             | .60                           | .78  | 1.00 |
|                               | 4800             | 134.2                                         | 7.29              | .59                           | .77  | .99   | 127.9           | 8.21              | .61                           | .80  | 1.00  | 121.0           | 9.23              | .62                           | .82  | 1.00  | 114.1           | 10.40             | .64                           | .87  | 1.00 |
| 71°F                          | 3200             | 131.6                                         | 7.26              | .40                           | .52  | .63   | 125.7           | 8.17              | .41                           | .52  | .64   | 119.6           | 9.21              | .41                           | .53  | .66   | 112.8           | 10.38             | .41                           | .55  | .68  |
|                               | 4000             | 136.6                                         | 7.33              | .42                           | .55  | .68   | 130.6           | 8.24              | .42                           | .56  | .70   | 123.7           | 9.27              | .43                           | .58  | .72   | 116.7           | 10.45             | .43                           | .59  | .75  |
|                               | 4800             | 140.5                                         | 7.38              | .43                           | .58  | .74   | 134.1           | 8.29              | .44                           | .60  | .77   | 127.3           | 9.32              | .44                           | .62  | .80   | 119.5           | 10.49             | .45                           | .63  | .84  |

### 12.5 TON STANDARD EFFICIENCY LCH150S4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                           | 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                          | 2560             | 68.1                                          | 3.12              | 0.63                          | 0.73 | 0.83  | 63.3            | 3.50              | 0.62                          | 0.73 | 0.84  | 58.5            | 3.93              | 0.61                          | 0.73 | 0.85  | 53.3            | 4.42              | 0.60                          | 0.74 | 0.87 |
|                               | 3200             | 74.0                                          | 3.15              | 0.66                          | 0.78 | 0.90  | 69.0            | 3.54              | 0.66                          | 0.79 | 0.91  | 63.6            | 3.97              | 0.66                          | 0.79 | 0.93  | 58.1            | 4.46              | 0.65                          | 0.80 | 0.96 |
|                               | 3840             | 78.3                                          | 3.18              | 0.69                          | 0.83 | 0.95  | 73.0            | 3.57              | 0.69                          | 0.83 | 0.97  | 67.4            | 4.00              | 0.70                          | 0.85 | 1.00  | 61.5            | 4.49              | 0.70                          | 0.87 | 1.00 |
| 67°F                          | 2560             | 73.4                                          | 3.15              | 0.50                          | 0.60 | 0.70  | 68.7            | 3.53              | 0.49                          | 0.59 | 0.70  | 63.6            | 3.97              | 0.48                          | 0.59 | 0.70  | 58.2            | 4.46              | 0.46                          | 0.59 | 0.71 |
|                               | 3200             | 79.4                                          | 3.19              | 0.53                          | 0.64 | 0.75  | 74.2            | 3.58              | 0.52                          | 0.64 | 0.75  | 68.8            | 4.01              | 0.51                          | 0.64 | 0.76  | 62.9            | 4.50              | 0.49                          | 0.63 | 0.77 |
|                               | 3840             | 83.9                                          | 3.22              | 0.55                          | 0.67 | 0.79  | 78.4            | 3.61              | 0.54                          | 0.67 | 0.80  | 72.6            | 4.04              | 0.54                          | 0.68 | 0.82  | 66.5            | 4.53              | 0.53                          | 0.68 | 0.84 |
| 71°F                          | 2560             | 79.2                                          | 3.19              | 0.40                          | 0.49 | 0.58  | 74.2            | 3.58              | 0.38                          | 0.48 | 0.57  | 69.0            | 4.01              | 0.36                          | 0.47 | 0.57  | 63.4            | 4.50              | 0.34                          | 0.45 | 0.57 |
|                               | 3200             | 85.1                                          | 3.22              | 0.41                          | 0.52 | 0.62  | 79.8            | 3.62              | 0.39                          | 0.51 | 0.62  | 74.2            | 4.06              | 0.38                          | 0.50 | 0.62  | 68.2            | 4.55              | 0.36                          | 0.49 | 0.61 |
|                               | 3840             | 89.5                                          | 3.26              | 0.42                          | 0.54 | 0.65  | 83.6            | 3.65              | 0.41                          | 0.53 | 0.65  | 77.7            | 4.09              | 0.40                          | 0.53 | 0.66  | 71.4            | 4.58              | 0.38                          | 0.52 | 0.66 |

### 12.5 TON STANDARD EFFICIENCY LCH150S4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN BLOWER

| 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                          | 3800             | 139.7                                         | 8.40              | 0.69                          | 0.85 | 1.00  | 127.4           | 9.42              | 0.70                          | 0.87 | 1.00  | 114.8           | 10.59             | 0.71                          | 0.90 | 1.00  | 101.5           | 11.94             | 0.72                          | 0.94 | 1.00 |
|                               | 4400             | 145.4                                         | 8.45              | 0.73                          | 0.90 | 1.00  | 132.9           | 9.47              | 0.74                          | 0.93 | 1.00  | 119.8           | 10.64             | 0.76                          | 0.97 | 1.00  | 106.2           | 11.99             | 0.79                          | 1.00 | 1.00 |
|                               | 5000             | 150.3                                         | 8.49              | 0.77                          | 0.96 | 1.00  | 137.4           | 9.52              | 0.79                          | 0.99 | 1.00  | 124.4           | 10.69             | 0.81                          | 1.00 | 1.00  | 111.7           | 12.05             | 0.84                          | 1.00 | 1.00 |
| 67°F                          | 3800             | 150.3                                         | 8.49              | 0.53                          | 0.67 | 0.82  | 137.9           | 9.52              | 0.53                          | 0.68 | 0.84  | 124.7           | 10.69             | 0.52                          | 0.69 | 0.86  | 111.1           | 12.04             | 0.51                          | 0.71 | 0.90 |
|                               | 4400             | 156.2                                         | 8.55              | 0.56                          | 0.71 | 0.87  | 143.3           | 9.57              | 0.55                          | 0.72 | 0.89  | 129.7           | 10.75             | 0.55                          | 0.74 | 0.93  | 115.4           | 12.10             | 0.55                          | 0.76 | 0.97 |
|                               | 5000             | 161.1                                         | 8.59              | 0.58                          | 0.75 | 0.92  | 147.6           | 9.62              | 0.58                          | 0.77 | 0.95  | 133.7           | 10.79             | 0.59                          | 0.79 | 0.99  | 119.1           | 12.14             | 0.59                          | 0.82 | 1.00 |
| 71°F                          | 3800             | 161.9                                         | 8.60              | 0.39                          | 0.53 | 0.66  | 148.7           | 9.63              | 0.38                          | 0.52 | 0.66  | 135.1           | 10.80             | 0.36                          | 0.52 | 0.67  | 120.8           | 12.15             | 0.34                          | 0.51 | 0.68 |
|                               | 4400             | 167.4                                         | 8.65              | 0.41                          | 0.55 | 0.69  | 153.9           | 9.68              | 0.39                          | 0.55 | 0.70  | 139.8           | 10.85             | 0.38                          | 0.54 | 0.72  | 124.9           | 12.20             | 0.36                          | 0.55 | 0.74 |
|                               | 5000             | 171.9                                         | 8.70              | 0.42                          | 0.57 | 0.73  | 158.0           | 9.73              | 0.41                          | 0.58 | 0.75  | 143.5           | 10.90             | 0.39                          | 0.58 | 0.77  | 128.5           | 12.24             | 0.37                          | 0.59 | 0.80 |

## DEHUMIDIFICATION SYSTEM RATINGS

### 7.5 TON HIGH EFFICIENCY LCH092H4 WITH DEHUMIDIFICATION OPERATING (1ST STAGE)

| Entering<br>Wet Bulb<br>Temperature | 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 |
| 63°F                                | 2400                   | 26.1                                          | 1.9                     | .45                              | .63   | .81 | 22.1                  | 2.2                     | .33                              | .55  | .77  | 18.0                  | 2.4                     | .21                              | .47 | .73  | 14.0                  | 2.6                     | .09                              | .39  | .69   |
|                                     | 3000                   | 30.8                                          | 1.9                     | .49                              | .69   | .89 | 26.0                  | 2.2                     | .36                              | .59  | .82  | 21.2                  | 2.4                     | .22                              | .48 | .74  | 16.4                  | 2.6                     | .09                              | .37  | .66   |
|                                     | 3600                   | 35.5                                          | 1.9                     | .54                              | .76   | .98 | 29.9                  | 2.2                     | .39                              | .62  | .86  | 24.3                  | 2.4                     | .24                              | .49 | .74  | 18.7                  | 2.6                     | .09                              | .36  | .63   |
| 67°F                                | 2400                   | 33.8                                          | 2.0                     | .32                              | .48   | .64 | 29.1                  | 2.2                     | .20                              | .39  | .58  | 24.3                  | 2.4                     | .07                              | .30 | .52  | 19.5                  | 2.7                     | -.05                             | .21  | .46   |
|                                     | 3000                   | 38.0                                          | 2.0                     | .35                              | .52   | .70 | 32.8                  | 2.2                     | .20                              | .41  | .62  | 27.6                  | 2.4                     | .06                              | .30 | .54  | 22.4                  | 2.7                     | -.08                             | .19  | .47   |
|                                     | 3600                   | 42.1                                          | 2.0                     | .37                              | .56   | .75 | 36.5                  | 2.2                     | .21                              | .44  | .66  | 30.9                  | 2.4                     | .05                              | .31 | .56  | 25.4                  | 2.7                     | -.10                             | .18  | .47   |
| 71°F                                | 2400                   | 41.6                                          | 2.0                     | .19                              | .33   | .47 | 37.0                  | 2.2                     | .07                              | .23  | .39  | 30.5                  | 2.5                     | -.06                             | .12 | .31  | 25.0                  | 2.7                     | -.19                             | .02  | .23   |
|                                     | 3000                   | 45.1                                          | 2.0                     | .20                              | .35   | .50 | 39.6                  | 2.2                     | .05                              | .24  | .42  | 34.1                  | 2.5                     | -.10                             | .12 | .35  | 28.5                  | 2.7                     | -.24                             | .01  | .27   |
|                                     | 3600                   | 48.7                                          | 2.0                     | .20                              | .37   | .53 | 43.1                  | 2.2                     | .03                              | .25  | .46  | 41.5                  | 2.5                     | -.13                             | .13 | .39  | 32.0                  | 2.7                     | -.30                             | .01  | .31   |

### 7.5 TON HIGH EFFICIENCY LCH092H4 WITH DEHUMIDIFICATION OPERATING (2ND STAGE)

| 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 |
| 63°F                          | 2400             | 75.3                                          | 4.0               | .63                           | .76   | .89  | 68.2            | 4.5               | .62                           | .78  | .92  | 61.2            | 5.0               | .61                           | .80 | .96  | 54.1            | 5.5               | .60                           | .82  | 1.00  |
|                               | 3000             | 78.8                                          | 4.0               | .68                           | .81   | .94  | 71.2            | 4.5               | .68                           | .82  | .96  | 63.5            | 5.0               | .67                           | .83 | .98  | 55.9            | 5.5               | .67                           | .83  | 1.00  |
|                               | 3600             | 82.3                                          | 4.0               | .73                           | .90   | 1.00 | 74.1            | 4.5               | .73                           | .90  | 1.00 | 65.9            | 5.0               | .73                           | .89 | 1.00 | 57.7            | 5.5               | .74                           | .88  | 1.00  |
| 67°F                          | 2400             | 84.0                                          | 4.0               | .48                           | .61   | .73  | 78.0            | 4.5               | .46                           | .60  | .75  | 72.0            | 5.0               | .43                           | .60 | .76  | 66.1            | 5.5               | .41                           | .60  | .77   |
|                               | 3000             | 88.6                                          | 4.0               | .51                           | .65   | .79  | 81.7            | 4.5               | .49                           | .64  | .79  | 74.8            | 5.1               | .47                           | .63 | .80  | 68.0            | 5.6               | .45                           | .63  | .81   |
|                               | 3600             | 93.3                                          | 4.1               | .53                           | .71   | .84  | 85.5            | 4.6               | .52                           | .69  | .84  | 77.6            | 5.1               | .50                           | .68 | .84  | 69.8            | 5.6               | .49                           | .67  | .84   |
| 71°F                          | 2400             | 92.7                                          | 4.1               | .33                           | .45   | .58  | 87.8            | 4.6               | .29                           | .43  | .57  | 82.9            | 5.1               | .25                           | .40 | .55  | 78.0            | 5.6               | .22                           | .38  | .54   |
|                               | 3000             | 98.5                                          | 4.1               | .34                           | .48   | .63  | 92.3            | 4.6               | .30                           | .46  | .62  | 86.2            | 5.1               | .26                           | .44 | .62  | 80.0            | 5.6               | .22                           | .42  | .61   |
|                               | 3600             | 104.2                                         | 4.1               | .34                           | .51   | .68  | 96.8            | 4.6               | .30                           | .49  | .68  | 89.4            | 5.1               | .27                           | .48 | .68  | 82.0            | 5.6               | .23                           | .46  | .68   |

### 8.5 TON HIGH EFFICIENCY LCH102H4 WITH DEHUMIDIFICATION OPERATING (1ST STAGE)

| Entering<br>Wet Bulb<br>Temperature | 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                    | 80°F                             | 85°F | kBtuh | kW                    | 75°F                    | 80°F                             | 85°F |      |
| 63°F                                | 2720                   | 34.2                                          | 2.1                     | .47                              | .57  | .67   | 28.5                  | 2.3                     | .34                              | .51  | .68   | 22.7                  | 2.6                     | .22                              | .45  | .68   | 17.0                  | 2.9                     | .09                              | .39  | .69  |
|                                     | 3400                   | 39.1                                          | 2.1                     | .49                              | .64  | .78   | 32.4                  | 2.3                     | .37                              | .58  | .80   | 25.8                  | 2.6                     | .24                              | .53  | .82   | 19.1                  | 2.8                     | .12                              | .48  | .84  |
|                                     | 4080                   | 44.0                                          | 2.1                     | .51                              | .70  | .89   | 36.4                  | 2.3                     | .39                              | .66  | .93   | 28.9                  | 2.6                     | .26                              | .62  | .96   | 21.3                  | 2.8                     | .14                              | .57  | 1.00 |
| 67°F                                | 2720                   | 42.5                                          | 2.1                     | .33                              | .44  | .55   | 37.8                  | 2.4                     | .19                              | .36  | .52   | 33.2                  | 2.6                     | .06                              | .27  | .48   | 28.5                  | 2.9                     | -.07                             | .19  | .45  |
|                                     | 3400                   | 47.0                                          | 2.1                     | .33                              | .48  | .62   | 41.5                  | 2.4                     | .20                              | .40  | .60   | 31.8                  | 2.6                     | .06                              | .32  | .57   | 30.5                  | 2.9                     | -.07                             | .24  | .55  |
|                                     | 4080                   | 51.5                                          | 2.1                     | .34                              | .52  | .70   | 45.1                  | 2.4                     | .20                              | .44  | .68   | 38.8                  | 2.6                     | .06                              | .36  | .66   | 32.4                  | 2.9                     | -.08                             | .29  | .65  |
| 71°F                                | 2720                   | 50.7                                          | 2.1                     | .18                              | .31  | .44   | 47.2                  | 2.4                     | .05                              | .20  | .36   | 43.6                  | 2.7                     | -.09                             | .10  | .29   | 40.1                  | 2.9                     | -.23                             | -.01 | .21  |
|                                     | 3400                   | 54.9                                          | 2.2                     | .18                              | .32  | .47   | 50.5                  | 2.4                     | .03                              | .21  | .40   | 46.2                  | 2.7                     | -.12                             | .11  | .33   | 41.8                  | 2.9                     | -.26                             | .00  | .25  |
|                                     | 4080                   | 59.0                                          | 2.2                     | .17                              | .34  | .50   | 51.8                  | 2.4                     | .02                              | .23  | .44   | 48.7                  | 2.7                     | -.14                             | .11  | .37   | 43.5                  | 2.9                     | -.29                             | .00  | .30  |

### 8.5 TON HIGH EFFICIENCY LCH102H4 WITH DEHUMIDIFICATION OPERATING (2ND STAGE)

| 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 |
| 63°F                          | 2720             | 85.3                                          | 4.3               | .64                           | .81   | .97 | 77.9            | 4.9               | .63                           | .82  | 1.00 | 70.5            | 5.5               | .62                           | .84 | 1.00 | 63.1            | 6.0               | .60                           | .86  | 1.00  |
|                               | 3400             | 89.2                                          | 4.3               | .69                           | .84   | .98 | 81.7            | 4.9               | .69                           | .84  | 1.00 | 74.2            | 5.5               | .68                           | .84 | 1.00 | 66.7            | 6.0               | .68                           | .84  | 1.00  |
|                               | 4080             | 93.1                                          | 4.4               | .75                           | .87   | .99 | 85.5            | 4.9               | .75                           | .88  | 1.00 | 77.8            | 5.5               | .75                           | .89 | 1.00 | 70.2            | 6.0               | .76                           | .90  | 1.00  |
| 67°F                          | 2720             | 100.8                                         | 4.4               | .48                           | .63   | .77 | 93.3            | 5.0               | .45                           | .62  | .77  | 85.9            | 5.5               | .43                           | .62 | .77  | 78.5            | 6.1               | .40                           | .62  | .78   |
|                               | 3400             | 104.5                                         | 4.4               | .51                           | .66   | .80 | 97.8            | 5.0               | .49                           | .65  | .80  | 89.2            | 5.5               | .46                           | .64 | .81  | 81.5            | 6.1               | .44                           | .62  | .81   |
|                               | 4080             | 108.2                                         | 4.4               | .54                           | .69   | .83 | 100.3           | 5.0               | .52                           | .68  | .84  | 92.4            | 5.5               | .50                           | .68 | .84  | 84.6            | 6.1               | .48                           | .67  | .84   |
| 71°F                          | 2720             | 116.2                                         | 4.4               | .32                           | .45   | .58 | 112.6           | 5.0               | .28                           | .42  | .57  | 101.3           | 5.6               | .24                           | .40 | .56  | 93.8            | 6.2               | .20                           | .37  | .55   |
|                               | 3400             | 119.7                                         | 4.5               | .33                           | .48   | .63 | 115.2           | 5.0               | .29                           | .45  | .62  | 104.1           | 5.6               | .24                           | .43 | .62  | 96.4            | 6.2               | .20                           | .41  | .62   |
|                               | 4080             | 123.2                                         | 4.5               | .34                           | .51   | .68 | 118.1           | 5.1               | .29                           | .49  | .68  | 107.0           | 5.6               | .25                           | .46 | .68  | 98.9            | 6.2               | .20                           | .44  | .68   |

# DEHUMIDIFICATION SYSTEM RATINGS

## 10 TON HIGH EFFICIENCY LCH120H4 WITH DEHUMIDIFICATION OPERATING (1ST STAGE)

| Entering<br>Wet Bulb<br>Temperature | 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                         |      |      |  |  |  |  |  |
|                                     |                        |                                               |                         | 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   |      |                       |                         | kBtuh                            | kW   |      |  |  |  |  |  |
|                                     | 3200                   | 49.5                                          | 2.6                     | .48                              | .70  | .92  | 42.3  | 2.9                   | .39                     | .66                              | .94  | 35.1  | 3.2 | .22                   | .60                     | .98                              | 27.9  | 3.5  | .01  | .46                   | 1.00                    |                                  |      |      |  |  |  |  |  |
|                                     | 4000                   | 59.0                                          | 2.6                     | .56                              | .82  | 1.00 | 49.1  | 2.9                   | .45                     | .81                              | 1.00 | 39.1  | 3.2 | .31                   | .80                     | .93                              | 29.2  | 3.5  | -.01 | .77                   | .97                     |                                  |      |      |  |  |  |  |  |
| 67°F                                | 4800                   | 68.6                                          | 2.6                     | .62                              | .92  | 1.00 | 55.9  | 2.9                   | .56                     | .96                              | 1.00 | 43.2  | 3.2 | .41                   | 1.00                    | 1.00                             | 30.5  | 3.5  | -.02 | .97                   | .80                     |                                  |      |      |  |  |  |  |  |
|                                     | 3200                   | 61.2                                          | 2.7                     | .30                              | .49  | .66  | 52.4  | 3.0                   | .20                     | .41                              | .64  | 43.5  | 3.3 | .01                   | .30                     | .59                              | 34.7  | 3.6  | -.06 | .08                   | .50                     |                                  |      |      |  |  |  |  |  |
|                                     | 4000                   | 68.2                                          | 2.7                     | .34                              | .55  | .77  | 57.7  | 3.0                   | .23                     | .49                              | .75  | 47.1  | 3.3 | .05                   | .38                     | .75                              | 36.5  | 3.6  | -.12 | .15                   | .72                     |                                  |      |      |  |  |  |  |  |
| 71°F                                | 4800                   | 75.2                                          | 2.7                     | .37                              | .62  | .87  | 62.9  | 3.0                   | .26                     | .57                              | .89  | 50.7  | 3.3 | .06                   | .50                     | .92                              | 38.4  | 3.6  | -.18 | .28                   | .98                     |                                  |      |      |  |  |  |  |  |
|                                     | 3200                   | 73.0                                          | 2.7                     | .17                              | .32  | .48  | 62.5  | 3.0                   | .06                     | .24                              | .42  | 52.0  | 3.3 | -.12                  | .11                     | .34                              | 41.5  | 3.6  | -.13 | .03                   | .19                     |                                  |      |      |  |  |  |  |  |
|                                     | 4000                   | 77.4                                          | 2.7                     | .17                              | .35  | .54  | 66.2  | 3.0                   | .05                     | .28                              | .50  | 55.1  | 3.3 | -.14                  | .15                     | .42                              | 43.9  | 3.6  | -.23 | -.04                  | .28                     |                                  |      |      |  |  |  |  |  |
|                                     | 4800                   | 81.9                                          | 2.8                     | .19                              | .39  | .61  | 70.0  | 3.1                   | .06                     | .31                              | .57  | 58.1  | 3.4 | -.16                  | .18                     | .51                              | 46.3  | 3.7  | -.34 | -.09                  | .40                     |                                  |      |      |  |  |  |  |  |

## 10 TON HIGH EFFICIENCY LCH120H4 WITH DEHUMIDIFICATION OPERATING (2ND STAGE)

| Entering<br>Wet Bulb<br>Temperature | 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                         |      |      |
|                                     |                        |                                               |                         | 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                                | 3200                   | 104.7                                         | 5.4                     | .61                              | .73  | .86   | 95.0                  | 6.1                     | .58                              | .75  | .91   | 85.3                  | 6.8                     | .56                              | .76  | .95   | 75.5                  | 7.5                     | .53                              | .77  | 1.00 |
|                                     | 4000                   | 114.8                                         | 5.5                     | .63                              | .78  | .93   | 103.4                 | 6.2                     | .62                              | .78  | .95   | 91.9                  | 6.8                     | .60                              | .79  | .98   | 80.5                  | 7.5                     | .59                              | .79  | 1.00 |
|                                     | 4800                   | 125.0                                         | 5.5                     | .65                              | .82  | .99   | 111.8                 | 6.2                     | .65                              | .82  | 1.00  | 98.6                  | 6.9                     | .65                              | .82  | 1.00  | 85.4                  | 7.5                     | .64                              | .82  | 1.00 |
| 67°F                                | 3200                   | 118.9                                         | 5.5                     | .45                              | .57  | .69   | 108.5                 | 6.2                     | .42                              | .57  | .71   | 98.1                  | 6.9                     | .39                              | .56  | .73   | 87.7                  | 7.6                     | .36                              | .56  | .74  |
|                                     | 4000                   | 128.7                                         | 5.6                     | .47                              | .60  | .74   | 117.3                 | 6.3                     | .44                              | .59  | .75   | 105.9                 | 6.9                     | .42                              | .59  | .75   | 94.5                  | 7.6                     | .39                              | .58  | .76  |
|                                     | 4800                   | 138.4                                         | 5.6                     | .48                              | .64  | .79   | 126.1                 | 6.3                     | .46                              | .62  | .79   | 113.8                 | 7.0                     | .44                              | .61  | .78   | 101.4                 | 7.6                     | .42                              | .60  | .78  |
| 71°F                                | 3200                   | 133.1                                         | 5.6                     | .29                              | .41  | .53   | 122.0                 | 6.3                     | .26                              | .39  | .51   | 110.9                 | 7.0                     | .23                              | .36  | .50   | 99.8                  | 7.7                     | .20                              | .34  | .49  |
|                                     | 4000                   | 142.5                                         | 5.7                     | .30                              | .43  | .56   | 131.2                 | 6.4                     | .27                              | .41  | .55   | 119.9                 | 7.1                     | .23                              | .38  | .53   | 108.6                 | 7.7                     | .19                              | .36  | .52  |
|                                     | 4800                   | 151.9                                         | 5.8                     | .31                              | .45  | .59   | 140.4                 | 6.4                     | .27                              | .42  | .58   | 128.9                 | 7.1                     | .23                              | .40  | .57   | 117.5                 | 7.7                     | .19                              | .37  | .56  |

## 12.5 TON STANDARD EFFICIENCY LCH150S4 WITH DEHUMIDIFICATION OPERATING (1ST STAGE)

| 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                          | 3800             | 55.2                                          | 3.4               | .48                           | .70  | .91    | 45.8            | 3.8               | .40                           | .67  | .94    | 36.4            | 4.1               | .25                           | .61  | .97    | 27.0            | 4.5               | .33                           | .51  | .99  |
|                               | 4400             | 58.2                                          | 3.5               | .53                           | .77  | 1.00   | 47.9            | 3.8               | .45                           | .76  | 1.00   | 37.6            | 4.1               | .31                           | .73  | 1.00   | 27.3            | 4.5               | .22                           | .69  | 1.00 |
|                               | 5000             | 61.2                                          | 3.5               | .57                           | .84  | 1.00   | 50.0            | 3.8               | .50                           | .85  | 1.00   | 38.8            | 4.1               | .33                           | .73  | .90    | 27.6            | 4.5               | .10                           | .89  | 1.00 |
| 67°F                          | 3800             | 63.7                                          | 3.5               | .29                           | .48  | .66    | 53.8            | 3.9               | .20                           | .41  | .63    | 44.0            | 4.2               | .04                           | .32  | .59    | 34.1            | 4.6               | .03                           | .12  | .52  |
|                               | 4400             | 66.6                                          | 3.6               | .32                           | .51  | .73    | 56.1            | 3.9               | .21                           | .46  | .72    | 45.7            | 4.2               | .05                           | .36  | .68    | 35.3            | 4.6               | -.04                          | .19  | .65  |
|                               | 5000             | 69.4                                          | 3.6               | .33                           | .55  | .79    | 58.4            | 3.9               | .24                           | .51  | .79    | 47.4            | 4.2               | .08                           | .42  | .79    | 36.4            | 4.6               | -.10                          | .25  | .60  |
| 71°F                          | 3800             | 72.2                                          | 3.6               | .15                           | .31  | .47    | 61.9            | 4.0               | .05                           | .23  | .42    | 51.6            | 4.3               | -.10                          | .12  | .35    | 41.3            | 4.6               | -.28                          | -.07 | .22  |
|                               | 4400             | 74.9                                          | 3.7               | .16                           | .33  | .51    | 64.4            | 4.0               | .05                           | .25  | .45    | 53.8            | 4.3               | -.11                          | .14  | .39    | 43.3            | 4.7               | -.29                          | -.06 | .27  |
|                               | 5000             | 77.7                                          | 3.7               | .16                           | .35  | .55    | 66.9            | 4.0               | .05                           | .28  | .51    | 56.1            | 4.4               | -.12                          | .16  | .45    | 45.3            | 4.7               | -.30                          | -.04 | .33  |

## 12.5 TON STANDARD EFFICIENCY LCH150S4 WITH DEHUMIDIFICATION OPERATING (2ND STAGE)

| Entering<br>Wet Bulb<br>Temperature | 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                         |      |      |
|                                     |                        |                                               |                         | 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                                | 3800                   | 122.7                                         | 7.3                     | .63                              | .79  | .96   | 110.6                 | 8.0                     | .62                              | .80  | .99   | 98.6                  | 8.8                     | .61                              | .81  | 1.00  | 86.5                  | 9.6                     | .60                              | .82  | 1.00 |
|                                     | 4400                   | 127.4                                         | 7.3                     | .66                              | .82  | .97   | 114.4                 | 8.1                     | .65                              | .83  | 1.00  | 101.4                 | 8.8                     | .65                              | .84  | 1.00  | 88.4                  | 9.6                     | .64                              | .85  | 1.00 |
|                                     | 5000                   | 132.1                                         | 7.3                     | .69                              | .84  | .99   | 118.2                 | 8.1                     | .69                              | .86  | 1.00  | 104.2                 | 8.9                     | .69                              | .87  | 1.00  | 90.3                  | 9.6                     | .69                              | .88  | 1.00 |
| 67°F                                | 3800                   | 137.7                                         | 7.5                     | .47                              | .62  | .76   | 124.7                 | 8.2                     | .44                              | .61  | .78   | 111.8                 | 9.0                     | .42                              | .60  | .79   | 98.8                  | 9.8                     | .39                              | .60  | .80  |
|                                     | 4400                   | 142.5                                         | 7.5                     | .49                              | .64  | .79   | 128.7                 | 8.3                     | .46                              | .63  | .80   | 115.0                 | 9.0                     | .44                              | .63  | .81   | 101.3                 | 9.8                     | .42                              | .62  | .83  |
|                                     | 5000                   | 147.2                                         | 7.6                     | .50                              | .66  | .81   | 132.7                 | 8.3                     | .48                              | .65  | .82   | 118.2                 | 9.1                     | .46                              | .65  | .84   | 103.7                 | 9.8                     | .44                              | .65  | .85  |
| 71°F                                | 3800                   | 152.7                                         | 7.7                     | .31                              | .44  | .57   | 138.8                 | 8.4                     | .27                              | .42  | .56   | 125.0                 | 9.2                     | .23                              | .39  | .55   | 111.1                 | 10.0                    | .19                              | .37  | .55  |
|                                     | 4400                   | 157.5                                         | 7.7                     | .31                              | .46  | .60   | 143.1                 | 8.5                     | .27                              | .43  | .60   | 128.6                 | 9.2                     | .23                              | .41  | .59   | 114.2                 | 10.0                    | .19                              | .39  | .59  |
|                                     | 5000                   | 162.4                                         | 7.8                     | .31                              | .47  | .63   | 147.3                 | 8.5                     | .27                              | .45  | .63   | 132.2                 | 9.3                     | .23                              | .43  | .63   | 117.2                 | 10.0                    | .19                              | .41  | .63  |

## BLOWER DATA

### 092 AND 102 BELT DRIVE BLOWER – BASE UNIT

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

FOR ALL UNITS ADD:

1 – Wet indoor coil air resistance of selected unit.

2 – Any factory installed options air resistance (heat section, economizer, etc.)

3 – Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 28 for blower motors and drives. See page 28 for wet coil and option/accessory air resistance data.

**MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT (Maximum Static Pressure - 2.0 in. w.g.)**

7.5 kW, 15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm

| Total<br>Air<br>Volume<br>cfm | Total Static Pressure – in. w.g. |      |     |      |     |      |     |      |     |      |     |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |
|-------------------------------|----------------------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
|                               | 0.2                              |      | 0.4 |      | 0.6 |      | 0.8 |      | 1.0 |      | 1.2 |      | 1.4 |      | 1.6  |      | 1.8  |      | 2.0  |      | 2.2  |      | 2.4  |      | 2.6  |      |  |  |
|                               | RPM                              | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  |  |  |
| 1750                          | 481                              | 0.21 | 549 | 0.4  | 618 | 0.57 | 688 | 0.7  | 758 | 0.82 | 824 | 0.93 | 885 | 1.08 | 941  | 1.23 | 991  | 1.39 | 1038 | 1.54 | 1082 | 1.68 | 1124 | 1.82 | 1166 | 1.95 |  |  |
| 2000                          | 493                              | 0.29 | 561 | 0.47 | 629 | 0.64 | 700 | 0.77 | 768 | 0.9  | 832 | 1.02 | 892 | 1.17 | 946  | 1.33 | 995  | 1.49 | 1041 | 1.66 | 1085 | 1.81 | 1126 | 1.97 | 1167 | 2.12 |  |  |
| 2250                          | 507                              | 0.37 | 574 | 0.56 | 643 | 0.72 | 712 | 0.86 | 779 | 0.99 | 842 | 1.13 | 900 | 1.28 | 953  | 1.44 | 1001 | 1.61 | 1045 | 1.78 | 1088 | 1.95 | 1128 | 2.12 | 1168 | 2.3  |  |  |
| 2500                          | 521                              | 0.46 | 588 | 0.64 | 657 | 0.81 | 727 | 0.95 | 792 | 1.09 | 853 | 1.24 | 909 | 1.4  | 960  | 1.57 | 1007 | 1.74 | 1050 | 1.93 | 1091 | 2.11 | 1130 | 2.29 | 1170 | 2.48 |  |  |
| 2750                          | 537                              | 0.56 | 604 | 0.74 | 674 | 0.91 | 743 | 1.06 | 806 | 1.21 | 865 | 1.36 | 920 | 1.53 | 969  | 1.71 | 1014 | 1.89 | 1055 | 2.08 | 1095 | 2.27 | 1133 | 2.47 | 1172 | 2.66 |  |  |
| 3000                          | 554                              | 0.67 | 622 | 0.86 | 692 | 1.02 | 760 | 1.18 | 822 | 1.34 | 878 | 1.5  | 931 | 1.68 | 979  | 1.86 | 1021 | 2.06 | 1061 | 2.26 | 1099 | 2.46 | 1136 | 2.65 | 1174 | 2.85 |  |  |
| 3250                          | 572                              | 0.78 | 641 | 0.98 | 712 | 1.15 | 778 | 1.32 | 838 | 1.49 | 892 | 1.66 | 943 | 1.84 | 989  | 2.03 | 1030 | 2.24 | 1068 | 2.45 | 1105 | 2.65 | 1141 | 2.85 | 1178 | 3.06 |  |  |
| 3500                          | 592                              | 0.9  | 663 | 1.12 | 733 | 1.3  | 798 | 1.47 | 855 | 1.65 | 907 | 1.83 | 956 | 2.02 | 1000 | 2.22 | 1039 | 2.44 | 1076 | 2.65 | 1111 | 2.86 | 1146 | 3.07 | 1183 | 3.27 |  |  |
| 3750                          | 614                              | 1.04 | 687 | 1.28 | 756 | 1.47 | 818 | 1.65 | 872 | 1.83 | 923 | 2.02 | 970 | 2.22 | 1011 | 2.43 | 1049 | 2.65 | 1084 | 2.87 | 1118 | 3.09 | 1152 | 3.29 | 1189 | 3.51 |  |  |
| 4000                          | 639                              | 1.22 | 713 | 1.48 | 780 | 1.66 | 838 | 1.83 | 890 | 2.02 | 939 | 2.22 | 984 | 2.44 | 1023 | 2.66 | 1059 | 2.89 | 1093 | 3.11 | 1126 | 3.33 | 1160 | 3.54 | 1197 | 3.77 |  |  |
| 4250                          | 667                              | 1.43 | 741 | 1.69 | 805 | 1.86 | 859 | 2.02 | 909 | 2.22 | 956 | 2.45 | 998 | 2.68 | 1036 | 2.92 | 1070 | 3.15 | 1103 | 3.37 | 1135 | 3.59 | 1169 | 3.81 | 1207 | 4.05 |  |  |



## BLOWER DATA

### 120 AND 150 BELT DRIVE BLOWER – BASE UNIT

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

FOR ALL UNITS ADD:

1 – Wet indoor coil air resistance of selected unit.

2 – Any factory installed options air resistance (heat section, economizer, etc.)

3 – Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 28 for blower motors and drives. See page 28 for wet coil and option/accessory air resistance data.

**MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT (Maximum Static Pressure - 2.0 in. w.g.)**

15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm

60 kW - 4000 cfm

| Total<br>Air<br>Volume<br>cfm | Total Static Pressure – in. w.g. |      |     |      |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------------------|----------------------------------|------|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                               | 0.2                              |      | 0.4 |      | 0.6 |      | 0.8  |      | 1.0  |      | 1.2  |      | 1.4  |      | 1.6  |      | 1.8  |      | 2.0  |      | 2.2  |      | 2.4  |      | 2.6  |      |
|                               | RPM                              | BHP  | RPM | BHP  | RPM | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  |
| 2000                          | 497                              | 0.25 | 558 | 0.44 | 624 | 0.6  | 694  | 0.74 | 764  | 0.85 | 830  | 0.99 | 889  | 1.16 | 943  | 1.34 | 994  | 1.52 | 1045 | 1.71 | 1096 | 1.89 | 1146 | 2.08 | 1197 | 2.27 |
| 2250                          | 511                              | 0.34 | 573 | 0.52 | 638 | 0.68 | 708  | 0.82 | 776  | 0.94 | 839  | 1.09 | 896  | 1.26 | 948  | 1.45 | 998  | 1.64 | 1048 | 1.83 | 1098 | 2.01 | 1149 | 2.2  | 1200 | 2.4  |
| 2500                          | 527                              | 0.44 | 589 | 0.62 | 654 | 0.78 | 723  | 0.91 | 789  | 1.05 | 850  | 1.21 | 904  | 1.39 | 955  | 1.58 | 1003 | 1.77 | 1052 | 1.96 | 1101 | 2.14 | 1152 | 2.33 | 1203 | 2.53 |
| 2750                          | 545                              | 0.55 | 606 | 0.72 | 672 | 0.88 | 740  | 1.03 | 804  | 1.17 | 861  | 1.34 | 914  | 1.53 | 962  | 1.72 | 1010 | 1.92 | 1057 | 2.10 | 1105 | 2.29 | 1154 | 2.47 | 1206 | 2.68 |
| 3000                          | 564                              | 0.66 | 626 | 0.84 | 692 | 1.01 | 759  | 1.16 | 819  | 1.32 | 874  | 1.49 | 924  | 1.68 | 971  | 1.88 | 1017 | 2.08 | 1063 | 2.26 | 1110 | 2.44 | 1158 | 2.63 | 1208 | 2.83 |
| 3250                          | 585                              | 0.79 | 648 | 0.98 | 714 | 1.14 | 778  | 1.31 | 836  | 1.48 | 887  | 1.66 | 935  | 1.86 | 981  | 2.06 | 1026 | 2.26 | 1071 | 2.45 | 1117 | 2.63 | 1163 | 2.80 | 1213 | 3.00 |
| 3500                          | 607                              | 0.93 | 672 | 1.13 | 737 | 1.31 | 798  | 1.48 | 852  | 1.66 | 901  | 1.85 | 948  | 2.05 | 993  | 2.26 | 1037 | 2.46 | 1081 | 2.65 | 1125 | 2.83 | 1171 | 3.01 | 1221 | 3.21 |
| 3750                          | 632                              | 1.10 | 698 | 1.31 | 762 | 1.50 | 819  | 1.67 | 869  | 1.86 | 915  | 2.05 | 961  | 2.25 | 1005 | 2.47 | 1049 | 2.68 | 1092 | 2.88 | 1136 | 3.05 | 1181 | 3.24 | 1231 | 3.45 |
| 4000                          | 660                              | 1.30 | 726 | 1.52 | 787 | 1.70 | 838  | 1.87 | 885  | 2.06 | 930  | 2.26 | 974  | 2.48 | 1018 | 2.71 | 1062 | 2.93 | 1105 | 3.12 | 1149 | 3.30 | 1194 | 3.49 | 1245 | 3.72 |
| 4250                          | 691                              | 1.53 | 755 | 1.75 | 810 | 1.91 | 857  | 2.07 | 901  | 2.27 | 945  | 2.50 | 990  | 2.74 | 1034 | 2.98 | 1077 | 3.20 | 1120 | 3.39 | 1163 | 3.58 | 1210 | 3.79 | 1262 | 4.03 |
| 4500                          | 724                              | 1.78 | 783 | 1.98 | 831 | 2.12 | 874  | 2.28 | 917  | 2.50 | 962  | 2.75 | 1006 | 3.02 | 1051 | 3.27 | 1094 | 3.49 | 1137 | 3.70 | 1181 | 3.89 | 1228 | 4.11 | 1281 | 4.38 |
| 4750                          | 757                              | 2.05 | 809 | 2.20 | 851 | 2.33 | 891  | 2.51 | 935  | 2.76 | 980  | 3.05 | 1025 | 3.33 | 1070 | 3.59 | 1113 | 3.82 | 1156 | 4.03 | 1201 | 4.24 | 1249 | 4.47 | 1303 | 4.75 |
| 5000                          | 787                              | 2.31 | 831 | 2.43 | 870 | 2.57 | 910  | 2.78 | 954  | 3.06 | 1000 | 3.38 | 1046 | 3.68 | 1091 | 3.95 | 1135 | 4.19 | 1178 | 4.40 | 1224 | 4.62 | 1272 | 4.86 | 1325 | 5.13 |
| 5250                          | 814                              | 2.55 | 852 | 2.66 | 889 | 2.83 | 930  | 3.09 | 975  | 3.41 | 1023 | 3.76 | 1070 | 4.08 | 1115 | 4.35 | 1159 | 4.59 | 1203 | 4.81 | 1248 | 5.03 | 1297 | 5.27 | 1350 | 5.53 |
| 5500                          | 835                              | 2.78 | 871 | 2.91 | 909 | 3.13 | 952  | 3.44 | 999  | 3.81 | 1049 | 4.18 | 1096 | 4.51 | 1142 | 4.79 | 1186 | 5.03 | 1229 | 5.24 | 1275 | 5.46 | 1324 | 5.69 | ---  | ---  |
| 5750                          | 854                              | 3.01 | 890 | 3.19 | 930 | 3.48 | 977  | 3.86 | 1027 | 4.27 | 1078 | 4.66 | 1126 | 4.99 | 1171 | 5.26 | 1214 | 5.49 | 1258 | 5.70 | ---  | ---  | ---  | ---  | ---  | ---  |
| 6000                          | 871                              | 3.26 | 910 | 3.53 | 955 | 3.90 | 1006 | 4.34 | 1060 | 4.80 | 1111 | 5.19 | 1158 | 5.51 | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  |
| 6250                          | 890                              | 3.57 | 934 | 3.94 | 985 | 4.41 | 1041 | 4.91 | 1096 | 5.38 | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  | ---  |

## BLOWER DATA

### FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

| Motor Efficiency | Nominal<br>hp | Maximum<br>hp | Drive Kit Number | RPM Range   |
|------------------|---------------|---------------|------------------|-------------|
| Standard & High  | 2             | 2.3           | 1                | 590 - 890   |
| Standard & High  | 2             | 2.3           | 2                | 800 - 1105  |
| Standard & High  | 2             | 2.3           | 3                | 795 - 1195  |
| Standard         | 3             | 3.45          | 4                | 730 - 970   |
| Standard         | 3             | 3.45          | 5                | 940 - 1200  |
| Standard         | 3             | 3.45          | 6                | 1015 - 1300 |
| High             | 3             | 3.45          | 7                | 730 - 970   |
| High             | 3             | 3.45          | 8                | 940 - 1200  |
| High             | 3             | 3.45          | 9                | 1015 - 1300 |
| Standard         | 5             | 5.75          | 10               | 900 - 1135  |
| Standard         | 5             | 5.75          | 11               | 1040 - 1315 |
| Standard         | 5             | 5.75          | 12               | 1125 - 1425 |

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 - Units equipped with Single Zone VAV Supply Fan option are limited to a motor service factor of 1.0.

### POWER EXHAUST FAN PERFORMANCE

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

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

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

## BLOWER DATA

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

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

### CEILING DIFFUSER AIR THROW DATA

| Model No.       | Air Volume<br>cfm | <sup>1</sup> Effective Throw Range |            |
|-----------------|-------------------|------------------------------------|------------|
|                 |                   | RTD11 Step-Down                    | FD11 Flush |
|                 |                   | ft.                                | ft.        |
| 092 Models      | 2600              | 24 - 29                            | 19 - 24    |
|                 | 2800              | 25 - 30                            | 20 - 28    |
|                 | 3000              | 27 - 33                            | 21 - 29    |
|                 | 3200              | 28 - 35                            | 22 - 29    |
|                 | 3400              | 30 - 37                            | 22 - 30    |
| 102, 120 Models | 3600              | 25 - 33                            | 22 - 29    |
|                 | 3800              | 27 - 35                            | 22 - 30    |
|                 | 4000              | 29 - 37                            | 24 - 33    |
|                 | 4200              | 32 - 40                            | 26 - 35    |
|                 | 4400              | 34 - 42                            | 28 - 37    |
| 150 Models      | 5600              | 39 - 49                            | 28 - 37    |
|                 | 5800              | 42 - 51                            | 29 - 38    |
|                 | 6000              | 44 - 54                            | 40 - 50    |
|                 | 6200              | 45 - 55                            | 42 - 51    |
|                 | 6400              | 46 - 55                            | 43 - 52    |
|                 | 6600              | 47 - 56                            | 45 - 56    |

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

## ELECTRICAL/ELECTRIC HEAT DATA

7.5 TON

## 7.5 TON HIGH EFFICIENCY (R-410A)

LCH092H4

| <sup>1</sup> Voltage - 60hz    |                        | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
|--------------------------------|------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| Compressor 1                   | Rated Load Amps        | 13.1            |      |      | 6.1         |     |     | 4.4         |     |     |
|                                | Locked Rotor Amps      | 83.1            |      |      | 41          |     |     | 33          |     |     |
| Compressor 2                   | Rated Load Amps        | 13.1            |      |      | 6.1         |     |     | 4.4         |     |     |
|                                | Locked Rotor Amps      | 83.1            |      |      | 41          |     |     | 33          |     |     |
| Outdoor Fan Motors (2)         | Full Load Amps (total) | 2.4 (4.8)       |      |      | 1.3 (2.6)   |     |     | 1 (2)       |     |     |
|                                |                        |                 |      |      |             |     |     |             |     |     |
| Power Exhaust (1) 0.33 HP      | Full Load Amps         | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps) |                        | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower Motor            | Horsepower             | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
|                                | Full Load Amps         | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum           | Unit Only              | 50              | 50   | 60   | 25          | 25  | 30  | 15          | 20  | 20  |
| Overcurrent Protection         | With (1) 0.33 HP       | 50              | 60   | 70   | 25          | 25  | 30  | 20          | 20  | 25  |
|                                | Power Exhaust          |                 |      |      |             |     |     |             |     |     |
| <sup>3</sup> Minimum           | Unit Only              | 42              | 45   | 52   | 20          | 22  | 25  | 15          | 16  | 19  |
| Circuit Ampacity               | With (1) 0.33 HP       | 45              | 48   | 55   | 22          | 23  | 26  | 16          | 17  | 20  |
|                                | Power Exhaust          |                 |      |      |             |     |     |             |     |     |

## ELECTRIC HEAT DATA

| Electric Heat Voltage |                                                |                     | 208V             | 240V | 208V             | 240V | 208V             | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|-----------------------|------------------------------------------------|---------------------|------------------|------|------------------|------|------------------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum  | Unit+ Electric Heat Protection                 | 7.5 kW              | 50               | 50   | 50               | 50   | 60               | 60   | 25   | 25   | 30   | 15   | 20   | 20   |
|                       |                                                | 15 kW               | <sup>4</sup> 50  | 60   | 60               | 60   | <sup>4</sup> 60  | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
|                       |                                                | 22.5 kW             | <sup>4</sup> 70  | 80   | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|                       |                                                | 30 kW               | <sup>4</sup> 90  | 100  | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|                       |                                                | 45 kW               | 150              | 150  | 150              | 150  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
| <sup>3</sup> Minimum  | Unit+ Electric Heat Ampacity                   | 7.5 kW              | 42               | 42   | 45               | 45   | 51               | 51   | 20   | 22   | 24   | 15   | 16   | 18   |
|                       |                                                | 15 kW               | 49               | 55   | 53               | 59   | 60               | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
|                       |                                                | 22.5 kW             | 69               | 78   | 72               | 81   | 80               | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|                       |                                                | 30 kW               | 88               | 100  | 92               | 104  | 100              | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|                       |                                                | 45 kW               | 127              | 145  | 131              | 149  | 139              | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
| <sup>2</sup> Maximum  | Unit+ Electric Heat Protection and (1) 0.33 HP | 7.5 kW              | 50               | 50   | 60               | 60   | 70               | 70   | 25   | 25   | 30   | 20   | 20   | 25   |
|                       |                                                | 15 kW               | 60               | 60   | <sup>4</sup> 60  | 70   | 70               | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
|                       |                                                | 22.5 kW             | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | <sup>4</sup> 90  | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|                       |                                                | 30 kW               | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|                       |                                                | Power Exhaust 45 kW | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
| <sup>3</sup> Minimum  | Unit+ Electric Heat Ampacity and (1) 0.33 HP   | 7.5 kW              | 45               | 45   | 48               | 48   | 54               | 54   | 22   | 23   | 26   | 16   | 17   | 19   |
|                       |                                                | 15 kW               | 52               | 58   | 56               | 62   | 63               | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
|                       |                                                | 22.5 kW             | 72               | 81   | 75               | 84   | 83               | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|                       |                                                | 30 kW               | 91               | 103  | 95               | 107  | 103              | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|                       |                                                | Power Exhaust 45 kW | 130              | 148  | 134              | 152  | 142              | 160  | 74   | 76   | 79   | 59   | 61   | 64   |

## ELECTRICAL ACCESSORIES

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

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****8.5 TON****8.5 TON HIGH EFFICIENCY (R-410A)****LCH102H4**

| <sup>1</sup> Voltage - 60hz    |                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
|--------------------------------|-------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| Compressor 1                   | Rated Load Amps   | 13.7            |      |      | 6.2         |     |     | 4.8         |     |     |
|                                | Locked Rotor Amps | 83.1            |      |      | 41          |     |     | 33          |     |     |
| Compressor 2                   | Rated Load Amps   | 13.7            |      |      | 6.2         |     |     | 4.8         |     |     |
|                                | Locked Rotor Amps | 83.1            |      |      | 41          |     |     | 33          |     |     |
| Outdoor Fan                    | Full Load Amps    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Motors (2)                     | (total)           | (4.8)           |      |      | (2.6)       |     |     | (2)         |     |     |
| Power Exhaust                  | Full Load Amps    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| (1) 0.33 HP                    |                   |                 |      |      |             |     |     |             |     |     |
| Service Outlet 115V GFI (amps) |                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower                  | Horsepower        | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
| Motor                          | Full Load Amps    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum           | Unit Only         | 50              | 50   | 60   | 25          | 25  | 30  | 20          | 20  | 25  |
| Overcurrent                    | With (1) 0.33 HP  | 50              | 60   | 70   | 25          | 25  | 30  | 20          | 20  | 25  |
| Protection                     | Power Exhaust     |                 |      |      |             |     |     |             |     |     |
| <sup>3</sup> Minimum           | Unit Only         | 44              | 47   | 54   | 20          | 22  | 25  | 16          | 17  | 20  |
| Circuit                        | With (1) 0.33 HP  | 46              | 49   | 56   | 22          | 23  | 26  | 17          | 18  | 21  |
| Ampacity                       | Power Exhaust     |                 |      |      |             |     |     |             |     |     |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage |                         | 208V             | 240V | 208V             | 240V | 208V             | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|-----------------------|-------------------------|------------------|------|------------------|------|------------------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum  | Unit+ 7.5 kW            | 50               | 50   | 50               | 50   | 60               | 60   | 25   | 25   | 30   | 20   | 20   | 25   |
| Overcurrent           | Electric Heat 15 kW     | <sup>4</sup> 50  | 60   | 60               | 60   | <sup>4</sup> 60  | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
| Protection            | 22.5 kW                 | <sup>4</sup> 70  | 80   | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|                       | 30 kW                   | <sup>4</sup> 90  | 100  | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|                       | 45 kW                   | 150              | 150  | 150              | 150  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
| <sup>3</sup> Minimum  | Unit+ 7.5 kW            | 44               | 44   | 47               | 47   | 54               | 54   | 20   | 22   | 25   | 16   | 17   | 20   |
| Circuit               | Electric Heat 15 kW     | 49               | 55   | 53               | 59   | 60               | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
| Ampacity              | 22.5 kW                 | 69               | 78   | 72               | 81   | 80               | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|                       | 30 kW                   | 88               | 100  | 92               | 104  | 100              | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|                       | 45 kW                   | 127              | 145  | 131              | 149  | 139              | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
| <sup>2</sup> Maximum  | Unit+ 7.5 kW            | 50               | 50   | 60               | 60   | 70               | 70   | 25   | 25   | 30   | 20   | 20   | 25   |
| Overcurrent           | Electric Heat 15 kW     | 60               | 60   | <sup>4</sup> 60  | 70   | 70               | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
| Protection            | and (1) 0.33 HP 22.5 kW | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | <sup>4</sup> 90  | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|                       | 30 kW                   | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|                       | Power Exhaust 45 kW     | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
| <sup>3</sup> Minimum  | Unit+ 7.5 kW            | 46               | 46   | 49               | 49   | 56               | 56   | 22   | 23   | 26   | 17   | 18   | 21   |
| Circuit               | Electric Heat 15 kW     | 52               | 58   | 56               | 62   | 63               | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
| Ampacity              | and (1) 0.33 HP 22.5 kW | 72               | 81   | 75               | 84   | 83               | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|                       | 30 kW                   | 91               | 103  | 95               | 107  | 103              | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|                       | Power Exhaust 45 kW     | 130              | 148  | 134              | 152  | 142              | 160  | 74   | 76   | 79   | 59   | 61   | 64   |

**ELECTRICAL ACCESSORIES**

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

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

10 TON

## 10 TON HIGH EFFICIENCY (R-410A)

LCH120H4

| <sup>1</sup> Voltage - 60hz    |                                | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
|--------------------------------|--------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| Compressor 1                   | Rated Load Amps                | 13.5            |      |      | 8           |     |     | 5           |     |     |
|                                | Locked Rotor Amps              | 109             |      |      | 59          |     |     | 40          |     |     |
| Compressor 2                   | Rated Load Amps                | 13.5            |      |      | 8           |     |     | 5           |     |     |
|                                | Locked Rotor Amps              | 109             |      |      | 59          |     |     | 40          |     |     |
| Outdoor Fan Motors (2)         | Full Load Amps                 | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|                                | (total)                        | (4.8)           |      |      | (2.6)       |     |     | (2)         |     |     |
| Power Exhaust (1) 0.33 HP      | Full Load Amps                 | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps) |                                | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower                  | Horsepower                     | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
| Motor                          | Full Load Amps                 | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum           | Unit Only                      | 50              | 50   | 60   | 30          | 30  | 35  | 20          | 20  | 25  |
| Overcurrent Protection         | With (1) 0.33 HP Power Exhaust | 50              | 60   | 70   | 30          | 30  | 35  | 20          | 20  | 25  |
| <sup>3</sup> Minimum           | Unit Only                      | 43              | 46   | 53   | 24          | 26  | 29  | 16          | 18  | 20  |
| Circuit Ampacity               | With (1) 0.33 HP Power Exhaust | 46              | 49   | 56   | 26          | 27  | 30  | 17          | 19  | 21  |

## ELECTRIC HEAT DATA

| Electric Heat Voltage                       |                                                   |         | 208V             | 240V | 208V             | 240V | 208V             | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|---------------------------------------------|---------------------------------------------------|---------|------------------|------|------------------|------|------------------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.33 HP Power Exhaust | 15 kW   | <sup>4</sup> 50  | 60   | 60               | 60   | <sup>4</sup> 60  | 70   | 30   | 30   | 35   | 25   | 25   | 30   |
|                                             |                                                   | 22.5 kW | <sup>4</sup> 70  | 80   | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
|                                             |                                                   | 30 kW   | <sup>4</sup> 90  | 100  | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|                                             |                                                   | 45 kW   | 150              | 150  | 150              | 150  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
|                                             |                                                   | 60 kW   | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit+ Electric Heat and (1) 0.33 HP Power Exhaust | 15 kW   | 49               | 55   | 53               | 59   | 60               | 66   | 27   | 29   | 33   | 22   | 23   | 26   |
|                                             |                                                   | 22.5 kW | 69               | 78   | 72               | 81   | 80               | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
|                                             |                                                   | 30 kW   | 88               | 100  | 92               | 104  | 100              | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|                                             |                                                   | 45 kW   | 127              | 145  | 131              | 149  | 139              | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
|                                             |                                                   | 60 kW   | 135              | 154  | 139              | 158  | 146              | 166  | 77   | 79   | 82   | 62   | 63   | 66   |
| <sup>2</sup> Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.33 HP Power Exhaust | 15 kW   | 60               | 60   | <sup>4</sup> 60  | 70   | 70               | 70   | 30   | 35   | 35   | 25   | 25   | 30   |
|                                             |                                                   | 22.5 kW | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | <sup>4</sup> 90  | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
|                                             |                                                   | 30 kW   | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|                                             |                                                   | 45 kW   | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
|                                             |                                                   | 60 kW   | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit+ Electric Heat and (1) 0.33 HP Power Exhaust | 15 kW   | 52               | 58   | 56               | 62   | 63               | 69   | 29   | 31   | 34   | 23   | 25   | 27   |
|                                             |                                                   | 22.5 kW | 72               | 81   | 75               | 84   | 83               | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
|                                             |                                                   | 30 kW   | 91               | 103  | 95               | 107  | 103              | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|                                             |                                                   | 45 kW   | 130              | 148  | 134              | 152  | 142              | 160  | 74   | 76   | 79   | 59   | 61   | 64   |
|                                             |                                                   | 60 kW   | 138              | 157  | 142              | 161  | 149              | 169  | 79   | 80   | 84   | 63   | 64   | 67   |

## ELECTRICAL ACCESSORIES

|            |         |                  |                  |                  |                  |                  |                  |       |       |                  |       |       |       |       |
|------------|---------|------------------|------------------|------------------|------------------|------------------|------------------|-------|-------|------------------|-------|-------|-------|-------|
| Disconnect | 15 kW   | 54W56            | 54W56            | 54W56            | 54W56            | 54W56            | 54W56            | 54W56 | 54W56 | 54W56            | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 22.5 kW | 54W56            | 54W56            | 54W56            | 54W56            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56            | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 30 kW   | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56            | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 45 kW   | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56            | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 60 kW   | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | 54W56 | 54W56 | <sup>5</sup> N/A | 54W56 | 54W56 | 54W56 | 54W56 |

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.<sup>5</sup> Disconnect must be field furnished.

**ELECTRICAL/ELECTRIC HEAT DATA****12.5 TON****12.5 TON STANDARD EFFICIENCY (R-410A)****LCH150S4**

| <sup>1</sup> Voltage - 60hz    |                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
|--------------------------------|-------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| Compressor 1                   | Rated Load Amps   | 19.6            |      |      | 8.2         |     |     | 6.6         |     |     |
|                                | Locked Rotor Amps | 136             |      |      | 66.1        |     |     | 55.3        |     |     |
| Compressor 2                   | Rated Load Amps   | 19.6            |      |      | 8.2         |     |     | 6.6         |     |     |
|                                | Locked Rotor Amps | 136             |      |      | 66.1        |     |     | 55.3        |     |     |
| Outdoor Fan                    | Full Load Amps    | 3               |      |      | 1.5         |     |     | 1.2         |     |     |
| Motors (2)                     | (total)           | (6)             |      |      | (3)         |     |     | (2.4)       |     |     |
| Power Exhaust<br>(1) 0.33 HP   | Full Load Amps    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
| Service Outlet 115V GFI (amps) |                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower                  | Horsepower        | 2               | 3    | 5    | 2           | 3   | 5   | 2           | 3   | 5   |
| Motor                          | Full Load Amps    | 7.5             | 10.6 | 16.7 | 3.4         | 4.8 | 7.6 | 2.7         | 3.9 | 6.1 |
| <sup>2</sup> Maximum           | Unit Only         | 70              | 80   | 80   | 30          | 30  | 35  | 25          | 25  | 25  |
| Overcurrent                    | With (1) 0.33 HP  | 70              | 80   | 80   | 30          | 35  | 35  | 25          | 25  | 30  |
| Protection                     | Power Exhaust     |                 |      |      |             |     |     |             |     |     |
| <sup>3</sup> Minimum           | Unit Only         | 58              | 61   | 67   | 25          | 27  | 30  | 20          | 22  | 24  |
| Circuit                        | With (1) 0.33 HP  | 60              | 64   | 70   | 27          | 28  | 31  | 21          | 23  | 25  |
| Ampacity                       | Power Exhaust     |                 |      |      |             |     |     |             |     |     |

**ELECTRIC HEAT DATA**

| Electric Heat Voltage |                       | 208V             | 240V | 208V             | 240V | 208V             | 240V | 480V | 480V | 480V | 600V | 600V | 600V |
|-----------------------|-----------------------|------------------|------|------------------|------|------------------|------|------|------|------|------|------|------|
| <sup>2</sup> Maximum  | Unit+ 15 kW           | 70               | 70   | 80               | 80   | 80               | 80   | 30   | 30   | 35   | 25   | 25   | 30   |
| Overcurrent           | Electric Heat 22.5 kW | <sup>4</sup> 70  | 80   | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | 40   | 40   | 45   | 35   | 35   | 35   |
| Protection            | 30 kW                 | <sup>4</sup> 90  | 100  | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 125  | 50   | 60   | 60   | 40   | 45   | 45   |
|                       | 45 kW                 | 150              | 150  | 150              | 150  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 60   | 70   |
|                       | 60 kW                 | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum  | Unit+ 15 kW           | 58               | 58   | 61               | 61   | 67               | 67   | 27   | 29   | 33   | 22   | 23   | 26   |
| Circuit               | Electric Heat 22.5 kW | 69               | 78   | 72               | 81   | 80               | 89   | 39   | 40   | 44   | 31   | 32   | 35   |
| Ampacity              | 30 kW                 | 88               | 100  | 92               | 104  | 100              | 112  | 50   | 52   | 55   | 40   | 41   | 44   |
|                       | 45 kW                 | 127              | 145  | 131              | 149  | 139              | 157  | 72   | 74   | 78   | 58   | 60   | 62   |
|                       | 60 kW                 | 135              | 154  | 139              | 158  | 146              | 166  | 77   | 79   | 82   | 62   | 63   | 66   |
| <sup>2</sup> Maximum  | Unit+ 15 kW           | 70               | 70   | 80               | 80   | 80               | 80   | 30   | 35   | 35   | 25   | 25   | 30   |
| Overcurrent           | Electric Heat 22.5 kW | <sup>4</sup> 80  | 90   | <sup>4</sup> 80  | 90   | <sup>4</sup> 90  | 100  | 40   | 45   | 45   | 35   | 35   | 40   |
| Protection            | and (1) 0.33 HP 30 kW | <sup>4</sup> 100 | 110  | <sup>4</sup> 100 | 110  | <sup>4</sup> 110 | 125  | 60   | 60   | 60   | 45   | 45   | 45   |
|                       | 45 kW                 | 150              | 150  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 80   | 60   | 70   | 70   |
|                       | Power Exhaust 60 kW   | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | <sup>4</sup> 150 | 175  | 80   | 80   | 90   | 70   | 70   | 70   |
| <sup>3</sup> Minimum  | Unit+ 15 kW           | 60               | 60   | 64               | 64   | 70               | 70   | 29   | 31   | 34   | 23   | 25   | 27   |
| Circuit               | Electric Heat 22.5 kW | 72               | 81   | 75               | 84   | 83               | 92   | 40   | 42   | 45   | 32   | 34   | 36   |
| Ampacity              | and (1) 0.33 HP 30 kW | 91               | 103  | 95               | 107  | 103              | 115  | 51   | 53   | 57   | 41   | 43   | 45   |
|                       | 45 kW                 | 130              | 148  | 134              | 152  | 142              | 160  | 74   | 76   | 79   | 59   | 61   | 64   |
|                       | Power Exhaust 60 kW   | 138              | 157  | 142              | 161  | 149              | 169  | 79   | 80   | 84   | 63   | 64   | 67   |

**ELECTRICAL ACCESSORIES**

|            |         |                  |                  |                  |                  |                  |                  |       |       |       |       |       |       |
|------------|---------|------------------|------------------|------------------|------------------|------------------|------------------|-------|-------|-------|-------|-------|-------|
| Disconnect | 15 kW   | 54W56            | 54W56            | 54W56            | 54W56            | 54W56            | 54W56            | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 22.5 kW | 54W56            | 54W56            | 54W56            | 54W56            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 30 kW   | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 45 kW   | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W57            | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 | 54W56 |
|            | 60 kW   | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | <sup>5</sup> N/A | 54W56 | 54W56 | 54W57 | 54W56 | 54W56 | 54W56 |

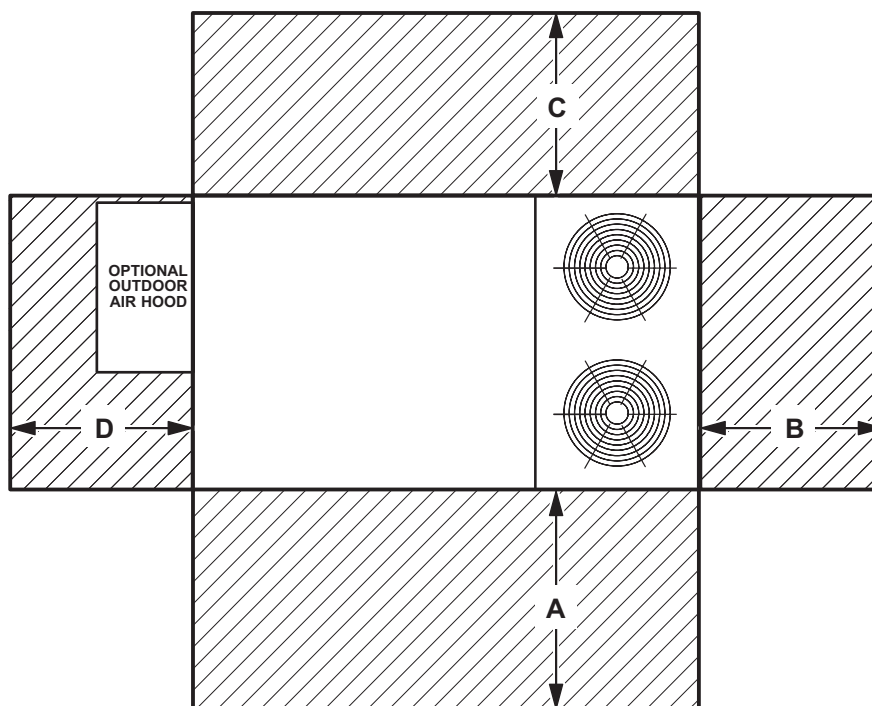
NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<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.<sup>5</sup> Disconnect must be field furnished.

## ELECTRIC HEAT CAPACITIES

| Volts Input | 7.5 kW   |             |               | 15 kW    |             |               | 22.5 kW  |             |               | 30 kW    |             |               | 45 kW    |             |               | 60 kW    |             |               |
|-------------|----------|-------------|---------------|----------|-------------|---------------|----------|-------------|---------------|----------|-------------|---------------|----------|-------------|---------------|----------|-------------|---------------|
|             | kW Input | Btuh Output | No. of Stages | kW Input | Btuh Output | No. of Stages | kW Input | Btuh Output | No. of Stages | kW Input | Btuh Output | No. of Stages | kW Input | Btuh Output | No. of Stages | kW Input | Btuh Output | No. of Stages |
| 208         | 5.6      | 19,100      | 1             | 11.3     | 38,600      | 1             | 16.9     | 57,700      | 2             | 22.5     | 76,800      | 2             | 33.8     | 115,300     | 2             | 45.0     | 153,600     | 2             |
| 220         | 6.3      | 21,500      | 1             | 12.6     | 43,000      | 1             | 18.9     | 64,500      | 2             | 25.2     | 86,000      | 2             | 37.8     | 129,000     | 2             | 50.4     | 172,000     | 2             |
| 230         | 6.9      | 23,600      | 1             | 13.8     | 47,100      | 1             | 20.7     | 70,700      | 2             | 27.5     | 93,900      | 2             | 41.3     | 141,000     | 2             | 55.1     | 188,000     | 2             |
| 240         | 7.5      | 25,600      | 1             | 15.0     | 51,200      | 1             | 22.5     | 76,800      | 2             | 30.0     | 102,400     | 2             | 45.0     | 153,600     | 2             | 60.0     | 204,800     | 2             |
| 440         | 6.9      | 21,500      | 1             | 12.6     | 43,000      | 1             | 18.9     | 64,500      | 2             | 25.2     | 86,000      | 2             | 37.8     | 129,000     | 2             | 50.4     | 172,000     | 2             |
| 460         | 6.9      | 23,600      | 1             | 13.8     | 47,100      | 1             | 20.7     | 70,700      | 2             | 27.5     | 93,900      | 2             | 41.3     | 141,000     | 2             | 55.1     | 188,000     | 2             |
| 480         | 7.5      | 25,600      | 1             | 15.0     | 51,200      | 1             | 22.5     | 76,800      | 2             | 30.0     | 102,400     | 2             | 45.0     | 153,600     | 2             | 60.0     | 204,800     | 2             |
| 550         | 6.3      | 21,500      | 1             | 12.6     | 43,000      | 1             | 18.9     | 64,500      | 2             | 25.2     | 86,000      | 2             | 37.8     | 129,000     | 2             | 50.4     | 172,000     | 2             |
| 575         | 6.9      | 23,600      | 1             | 13.8     | 47,100      | 1             | 20.7     | 70,700      | 2             | 27.5     | 93,900      | 2             | 41.3     | 141,000     | 2             | 55.1     | 188,000     | 2             |
| 600         | 7.5      | 25,600      | 1             | 15.0     | 51,200      | 1             | 22.5     | 76,800      | 2             | 30.0     | 102,400     | 2             | 45.0     | 153,600     | 2             | 60.0     | 204,800     | 2             |

## UNIT CLEARANCES - INCHES (MM)



| <sup>1</sup> Unit Clearance | A   |      | B   |     | C   |     | D   |      | Top Clearance |
|-----------------------------|-----|------|-----|-----|-----|-----|-----|------|---------------|
|                             | in. | mm   | in. | mm  | in. | mm  | in. | mm   |               |
| Service Clearance           | 60  | 1524 | 36  | 914 | 36  | 934 | 60  | 1524 | Unobstructed  |
| Minimum Operation Clearance | 36  | 914  | 36  | 914 | 36  | 914 | 36  | 914  |               |

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

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

Minimum Operation Clearance - Required clearance for proper unit operation.

## OUTDOOR SOUND DATA

| Unit<br>Model Number | Octave Band Linear Sound Power Levels dB, re 10 <sup>-12</sup> Watts - Center Frequency - Hz |     |     |      |      |      |      | <sup>1</sup> Sound Rating<br>Number (SRN)<br>(dBA) |
|----------------------|----------------------------------------------------------------------------------------------|-----|-----|------|------|------|------|----------------------------------------------------|
|                      | 125                                                                                          | 250 | 500 | 1000 | 2000 | 4000 | 8000 |                                                    |
| 092, 102 and 120     | 76                                                                                           | 79  | 84  | 83   | 79   | 73   | 66   | 88                                                 |
| 150                  | 77                                                                                           | 80  | 85  | 84   | 79   | 74   | 66   | 88                                                 |

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

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

## WEIGHT DATA

| Model Number  | Outdoor Coil | Net  |     | Shipping |     | Outdoor Coil | Net  |     | Shipping |     |
|---------------|--------------|------|-----|----------|-----|--------------|------|-----|----------|-----|
|               |              | lbs. | kg  | lbs.     | kg  |              | lbs. | kg  | lbs.     | kg  |
| 092 Base Unit | Eco-last     | 1040 | 472 | 1125     | 510 | Fin/Tube     | 1120 | 508 | 1205     | 547 |
| 092 Max. Unit | Eco-last     | 1197 | 543 | 1282     | 582 | Fin/Tube     | 1277 | 579 | 1362     | 618 |
| 102 Base Unit | Eco-last     | 1047 | 475 | 1132     | 513 | Fin/Tube     | 1127 | 511 | 1212     | 550 |
| 102 Max. Unit | Eco-last     | 1204 | 546 | 1289     | 585 | Fin/Tube     | 1284 | 582 | 1369     | 621 |
| 120 Base Unit | Eco-last     | 1082 | 491 | 1167     | 529 | Fin/Tube     | 1162 | 527 | 1247     | 566 |
| 120 Max. Unit | Eco-last     | 1246 | 565 | 1331     | 604 | Fin/Tube     | 1326 | 601 | 1411     | 640 |
| 150 Base Unit | Eco-last     | 1122 | 509 | 1207     | 547 | Fin/Tube     | 1202 | 545 | 1287     | 584 |
| 150 Max. Unit | Eco-last     | 1286 | 583 | 1371     | 622 | Fin/Tube     | 1366 | 620 | 1451     | 658 |

## OPTIONS / ACCESSORIES

| Description                                              | Shipping Weight |     |     |
|----------------------------------------------------------|-----------------|-----|-----|
|                                                          | lbs.            | kg  |     |
| CONVENTIONAL FIN/TUBE CONDENSER COIL                     |                 |     |     |
| Fin/Tube Condenser Coil                                  | 80              | 36  |     |
| ECONOMIZER / OUTDOOR AIR / EXHAUST                       |                 |     |     |
| Economizer                                               |                 |     |     |
| Economizer Dampers                                       | 60              | 27  |     |
| Outdoor Air Hood (downflow)                              | 23              | 10  |     |
| Barometric Relief Dampers (downflow)                     | 8               | 4   |     |
| Barometric Relief Dampers (low profile horizontal)       | 20              | 9   |     |
| Outdoor Air Dampers                                      |                 |     |     |
| Outdoor Air Damper Section - Automatic                   | 51              | 23  |     |
| Outdoor Air Damper Section - Manual                      | 39              | 18  |     |
| Power Exhaust                                            | 31              | 14  |     |
| ELECTRIC HEAT                                            |                 |     |     |
| 7.5 kW                                                   | 50              | 23  |     |
| 15 kW                                                    | 50              | 23  |     |
| 22.5 kW                                                  | 57              | 26  |     |
| 30 kW                                                    | 57              | 26  |     |
| 45 kW                                                    | 59              | 27  |     |
| 60 kW                                                    | 68              | 31  |     |
| DEHUMIDIFICATION SYSTEM                                  |                 |     |     |
| Humiditrol Dehumification Option                         | 20              | 9   |     |
| SINGLE ZONE VAV SUPPLY FAN SUPPLY AIR BLOWER OPTION      |                 |     |     |
| Variable Frequency Drive (VFD) and associated components | 10              | 5   |     |
| ROOF CURBS                                               |                 |     |     |
| Hybrid Roof Curbs, Downflow                              |                 |     |     |
| 8 in. height                                             | 60              | 27  |     |
| 14 in. height                                            | 85              | 39  |     |
| 18 in. height                                            | 100             | 45  |     |
| 24 in. height                                            | 125             | 57  |     |
| Adjustable Pitch Curb, Downflow                          |                 |     |     |
| 14 in. height                                            | 191             | 82  |     |
| CEILING DIFFUSERS                                        |                 |     |     |
| Step-Down                                                |                 |     |     |
|                                                          | RTD11-95        | 88  | 40  |
|                                                          | RTD11-135       | 205 | 93  |
|                                                          | RTD11-185       | 392 | 178 |
| Flush                                                    |                 |     |     |
|                                                          | FD11-95         | 75  | 34  |
|                                                          | FD11-135        | 174 | 79  |
|                                                          | FD11-185        | 289 | 131 |
| Transitions                                              |                 |     |     |
|                                                          | LASRT08/10      | 30  | 14  |
|                                                          | LASRT10/12      | 32  | 15  |
|                                                          | LASRT15         | 36  | 16  |
| PACKAGING                                                |                 |     |     |
| LTL Packaging (less than truck load)                     | 105             | 48  |     |

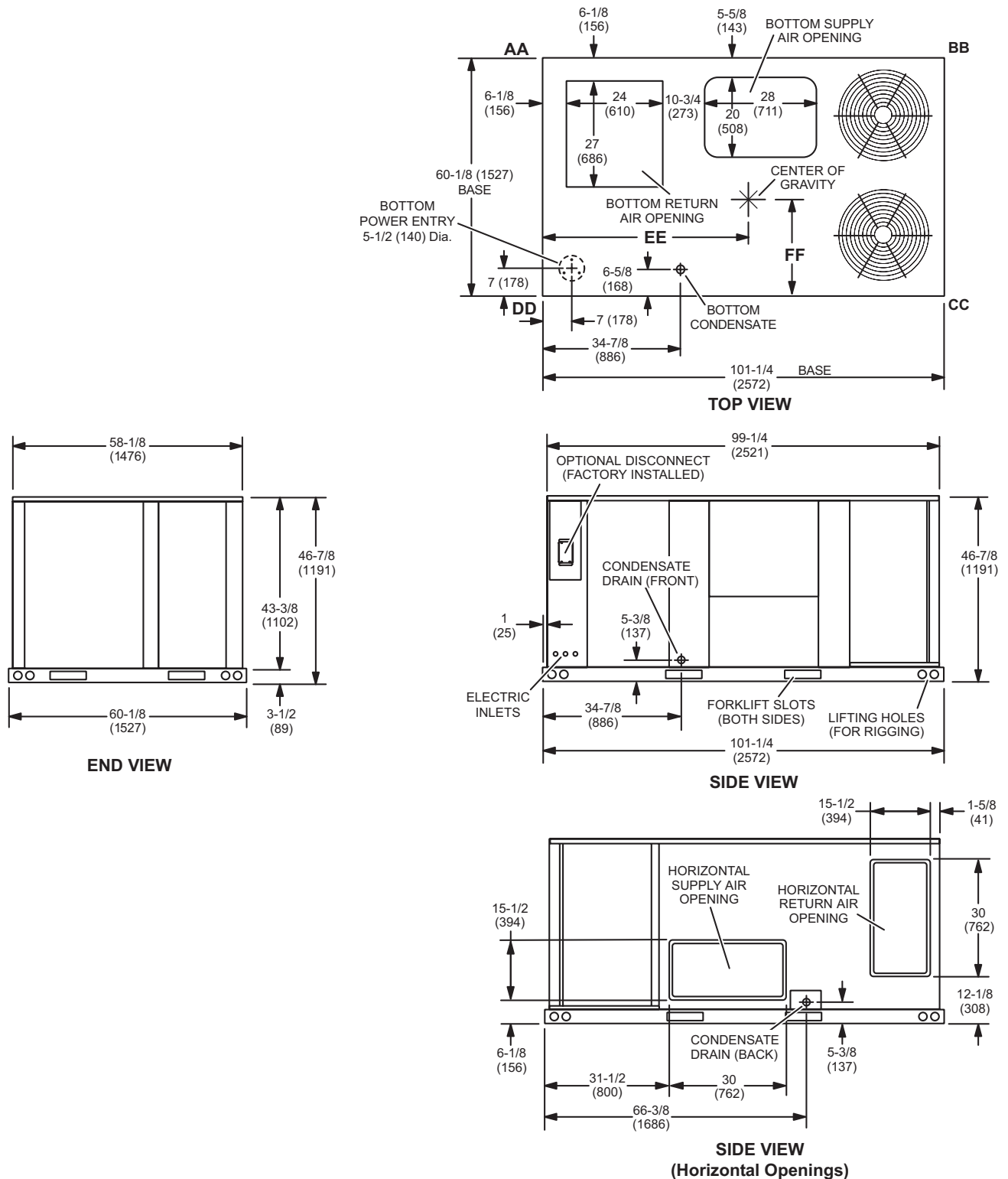


## DIMENSIONS - UNIT - INCHES (MM)

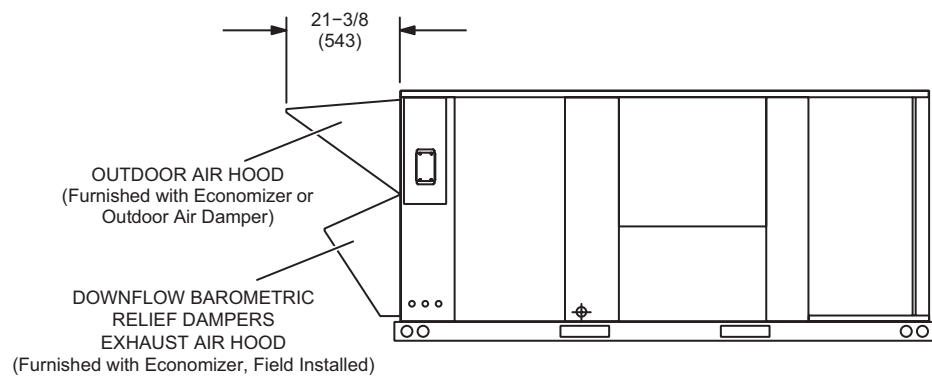
| Model No. | CORNER WEIGHTS |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     | CENTER OF GRAVITY |      |      |      |      |     |      |     |
|-----------|----------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------------------|------|------|------|------|-----|------|-----|
|           | AA             |     |      |     | BB   |     |      |     | CC   |     |      |     | DD   |     |      |     | EE                |      |      |      | FF   |     |      |     |
|           | Base           |     | Max. |     | Base |     | Max. |     | Base |     | Max. |     | Base |     | Max. |     | Base              |      | Max. |      | Base |     | Max. |     |
|           | lbs.           | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.               | mm   | in.  | mm   | in.  | mm  | in.  | mm  |
| 092       | 281            | 127 | 327  | 148 | 252  | 114 | 286  | 130 | 275  | 125 | 306  | 139 | 312  | 142 | 358  | 162 | 46.5              | 1181 | 45.5 | 1156 | 24.5 | 622 | 25.5 | 648 |
| 102       | 282            | 128 | 329  | 149 | 254  | 115 | 287  | 130 | 276  | 125 | 308  | 139 | 314  | 143 | 360  | 163 | 46.5              | 1181 | 45.5 | 1156 | 24.5 | 622 | 25.5 | 648 |
| 120       | 294            | 133 | 340  | 154 | 264  | 120 | 297  | 135 | 283  | 128 | 318  | 144 | 321  | 146 | 372  | 169 | 46.5              | 1181 | 45.5 | 1156 | 24.5 | 622 | 25.5 | 648 |
| 150       | 304            | 138 | 350  | 159 | 273  | 124 | 306  | 139 | 293  | 133 | 327  | 148 | 332  | 151 | 383  | 174 | 46.5              | 1181 | 45.5 | 1156 | 24.5 | 622 | 25.5 | 648 |

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 or high static power exhaust.



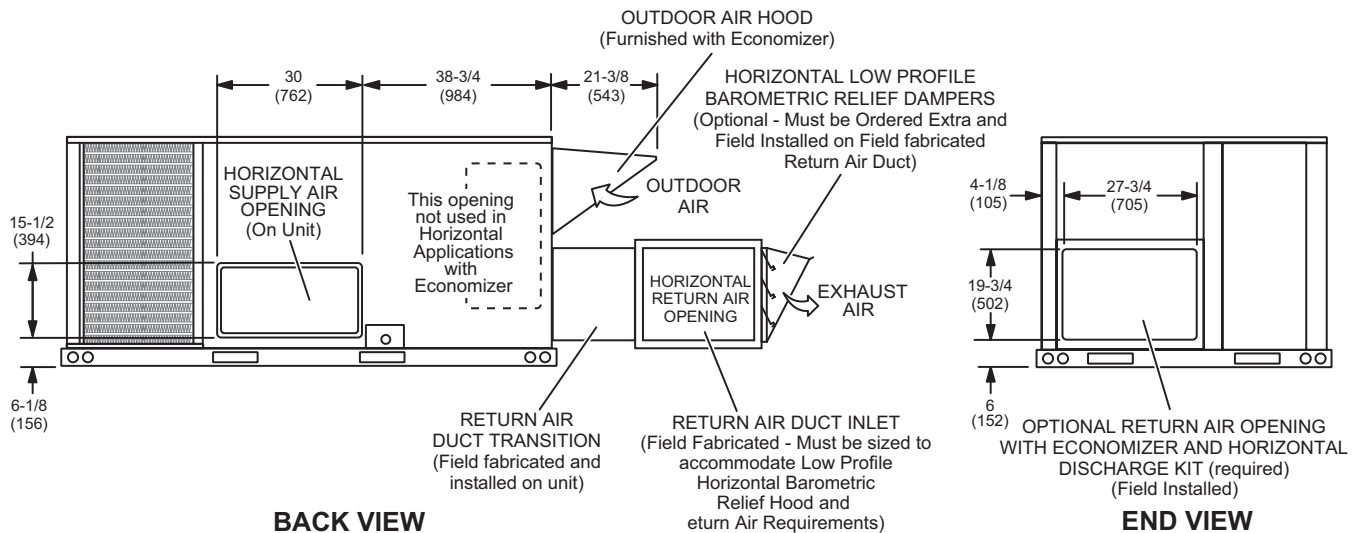
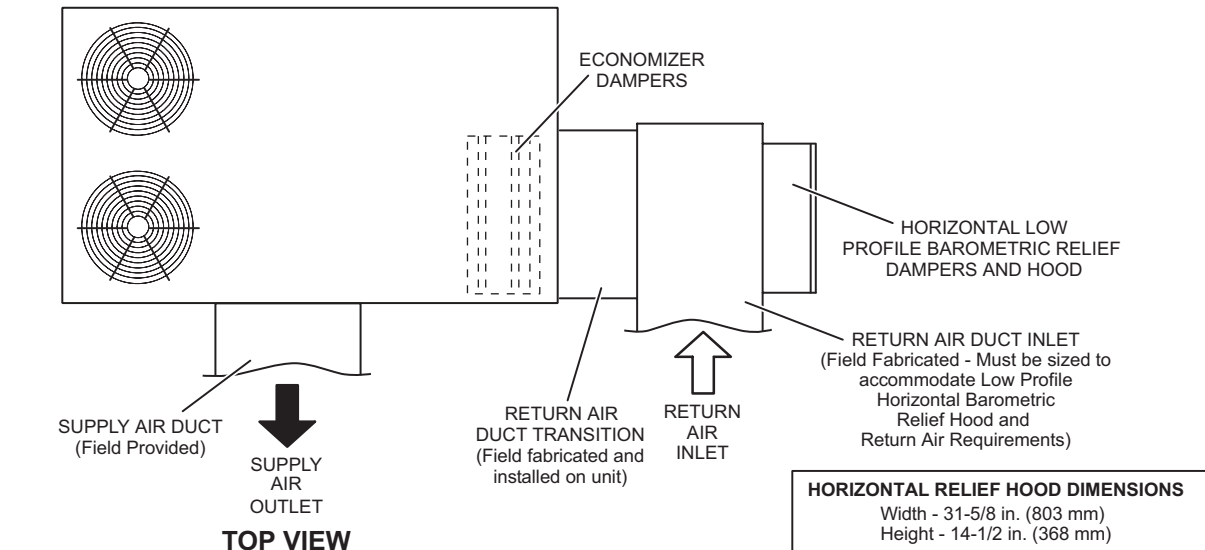
**OUTDOOR AIR HOOD DETAIL**



## DIMENSIONS - ACCESSORIES - INCHES (MM)

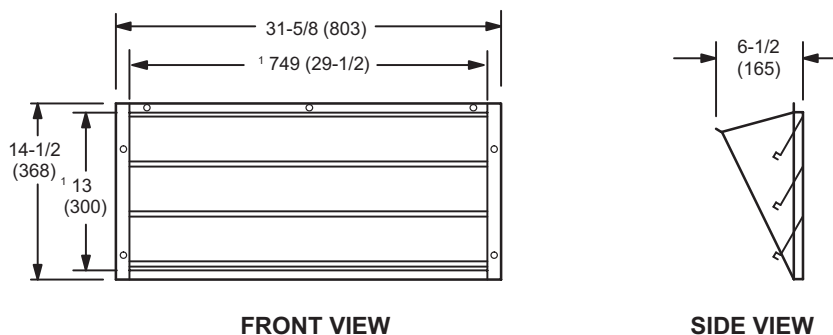
### HORIZONTAL ECONOMIZER APPLICATION

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



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

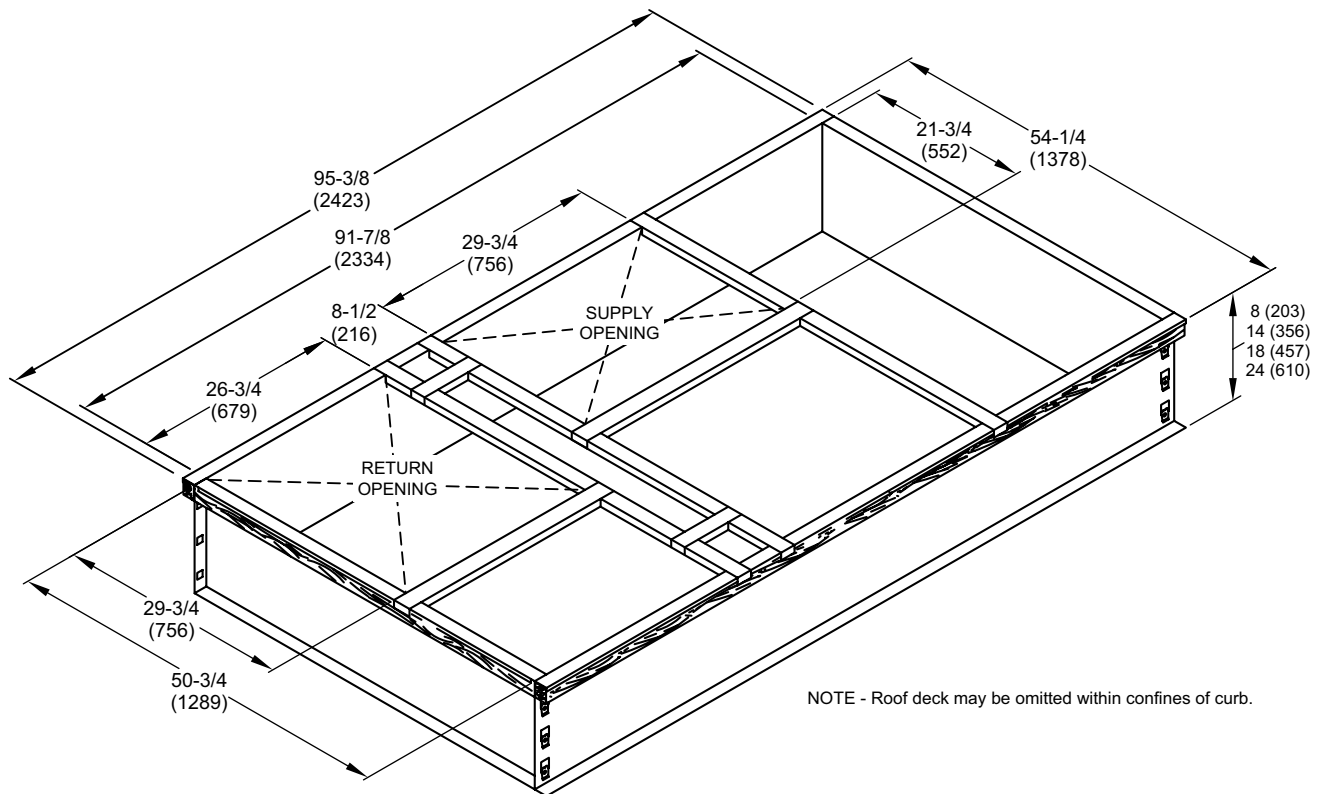
### HORIZONTAL LOW PROFILE BAROMETRIC RELIEF DAMPERS (Field installed in horizontal return air duct adjacent to unit)



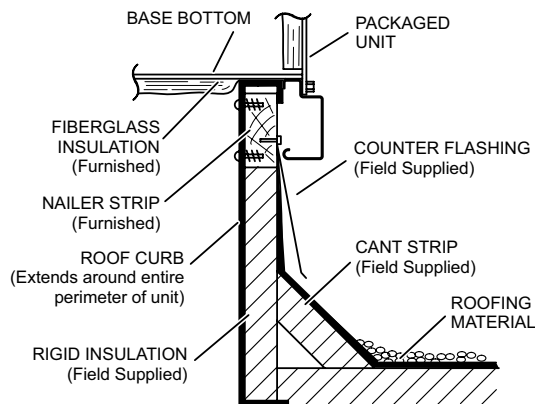
<sup>1</sup> NOTE - Opening size required in return air duct.

## DIMENSIONS - ACCESSORIES - INCHES (MM)

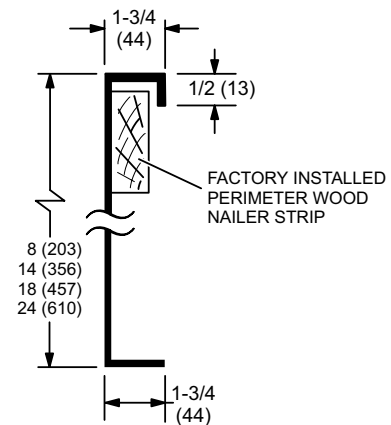
### HYBRID ROOF CURBS - DOUBLE DUCT OPENING



#### TYPICAL FLASHING DETAIL FOR ROOF CURB

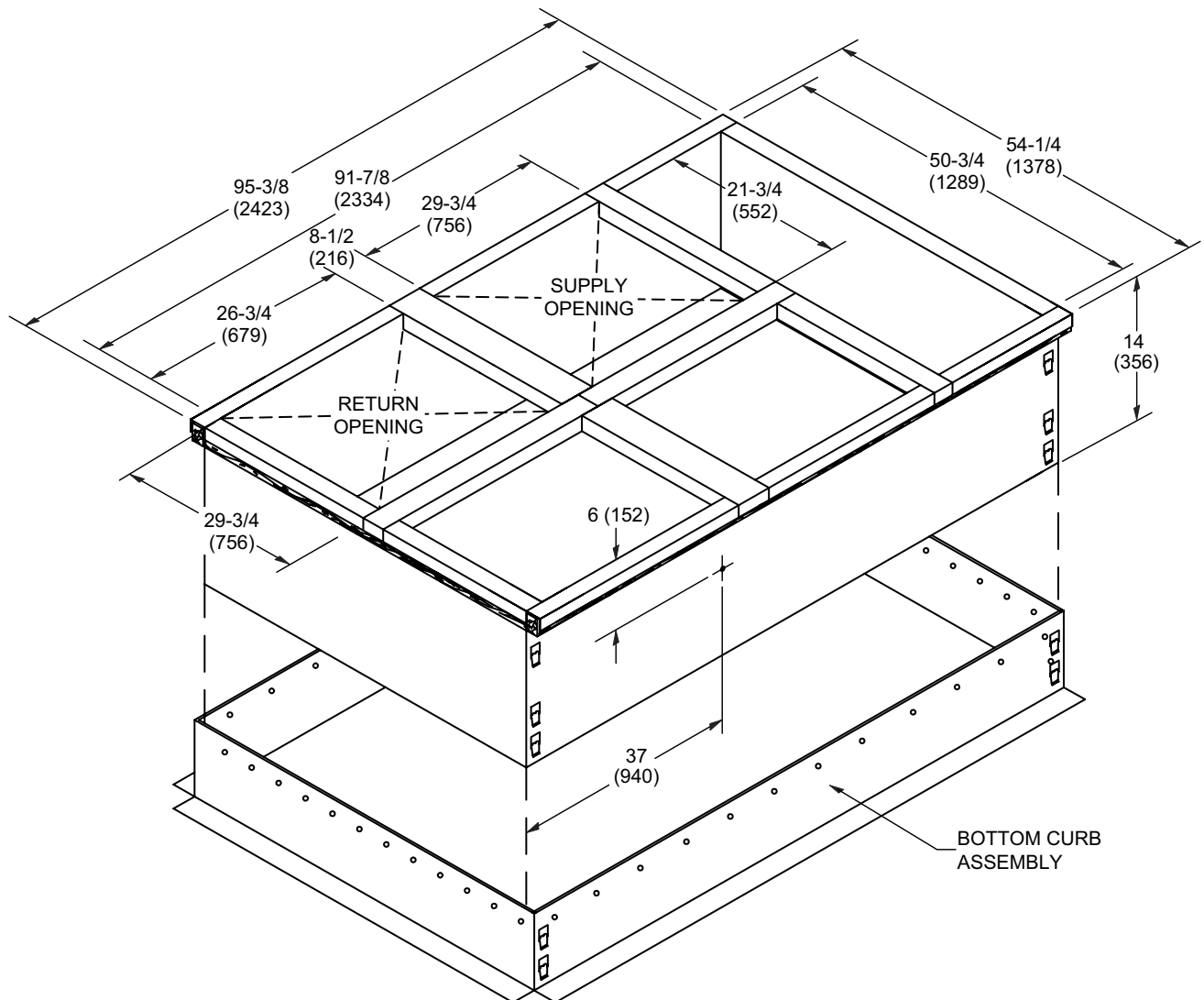


#### DETAIL ROOF CURB



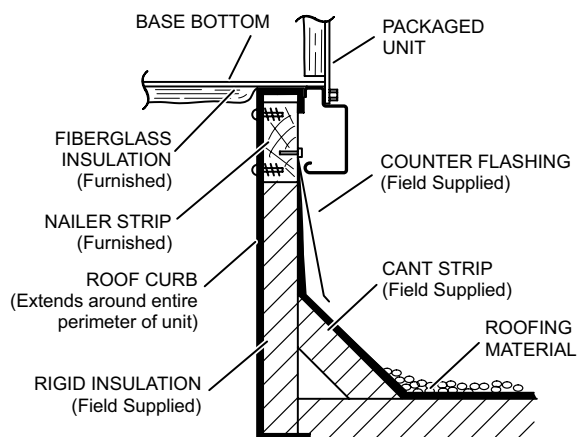
## DIMENSIONS - ACCESSORIES - INCHES (MM)

### ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING

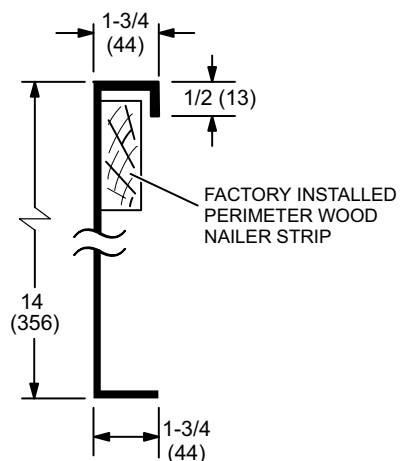


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

### TYPICAL FLASHING DETAIL FOR ROOF CURB



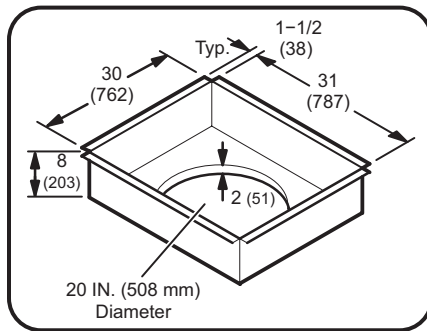
### DETAIL ROOF CURB



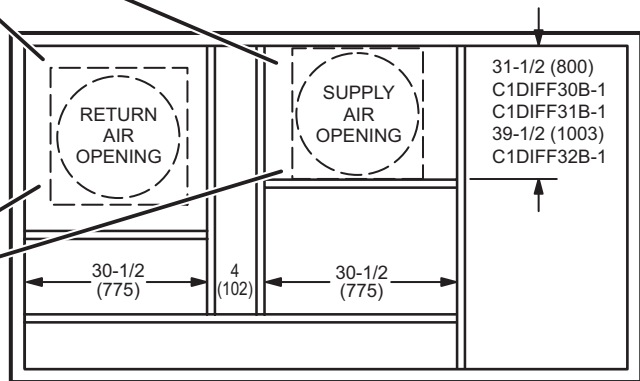
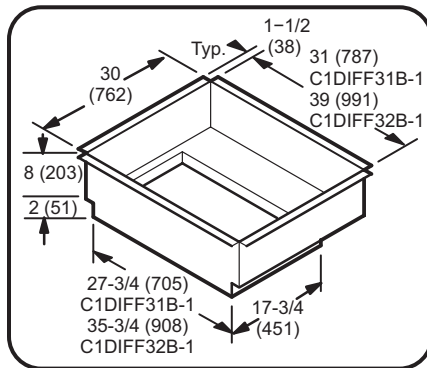
## DIMENSIONS - ACCESSORIES - INCHES (MM)

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

**C1DIFF30B-1 ROUND TRANSITIONS**  
(for 092 models with FD11-95, RTD11-95 Diffusers)



**C1DIFF31B-1 & C1DIFF32B-1 RECTANGULAR TRANSITIONS**  
(for 102 thru 150 models with FD11-135-185, RTD11-135-185 Diffusers)



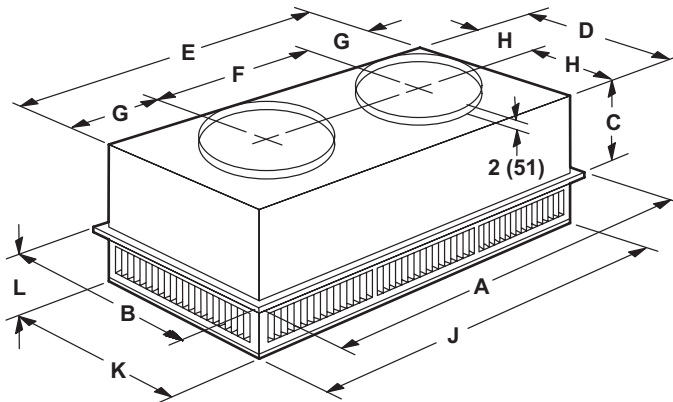
**TOP VIEW**



## DIMENSIONS - ACCESSORIES - INCHES (MM)

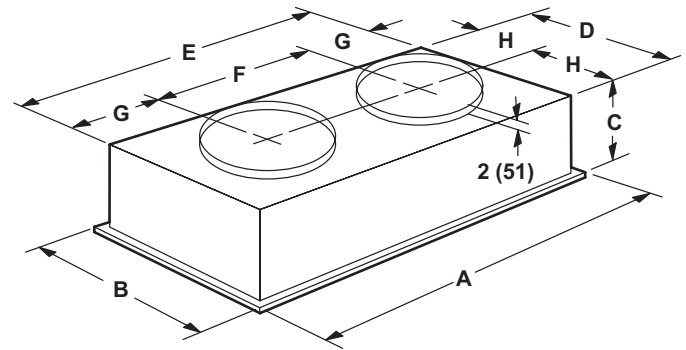
### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



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

#### FLUSH CEILING DIFFUSER

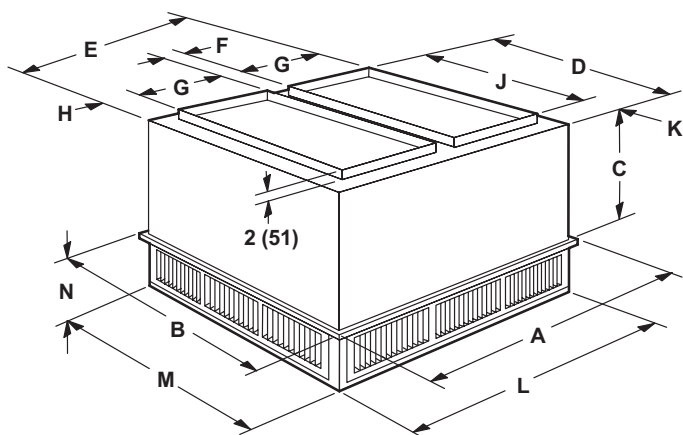


| Model Number |     | FD11-95   |
|--------------|-----|-----------|
| A            | in. | 47-5/8    |
|              | mm  | 1159      |
| B            | in. | 29-5/8    |
|              | mm  | 752       |
| C            | in. | 16-5/8    |
|              | mm  | 422       |
| D            | in.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

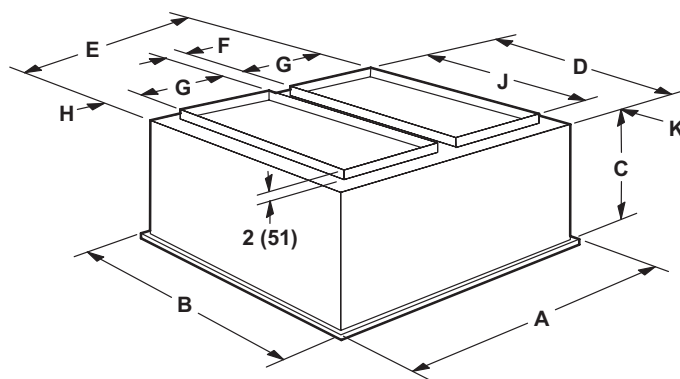
## ACCESSORY DIMENSIONS - INCHES (MM)

### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



#### FLUSH CEILING DIFFUSER



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

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

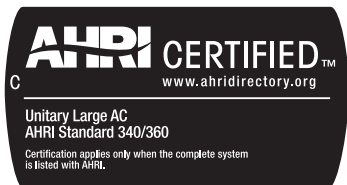






## REVISIONS

| Section             | Description                                                                      |
|---------------------|----------------------------------------------------------------------------------|
| Options/Accessories | Updated model numbers for Building Pressure Control and Outdoor Air CFM Control. |



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