

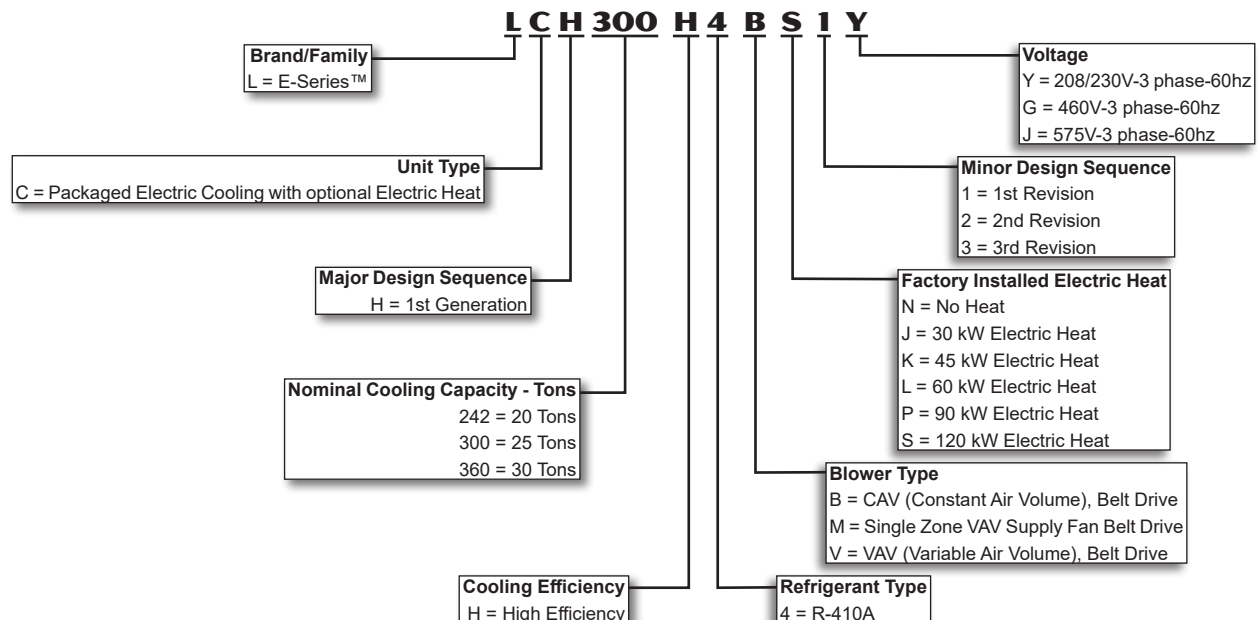


**ASHRAE 90.1
COMPLIANT**

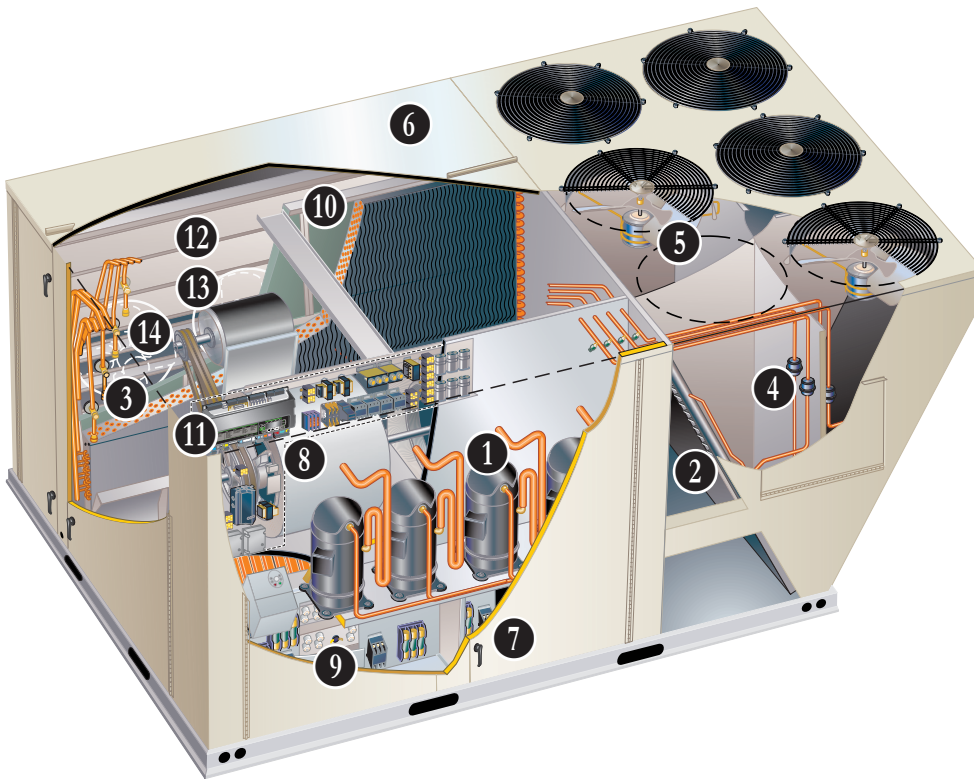


20 to 30 Tons
Net Cooling Capacity – 238,000 to 354,000 Btuh
Optional Electric Heat - 30 to 120 kW

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



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 Drain Pan** - Provides improved serviceability.
- **Thermostatic Expansion Valves** - 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.
- **Constant Air Volume (CAV), Variable Air Volume (VAV) Blower Option or Single Zone VAV Supply Fan** - Allows constant air, variable air 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 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

CONTENTS

Blower Data	.28
Dimensions - Accessories.	.50
Dimensions - Unit	.49
Electrical Accessories.	.42
Electrical Data.	.32
Features And Benefits	2
Model Number Identification	1
Options / Accessories.	.17
Outdoor Sound Data	.48
Intelli-Guide™ Control System	7
Ratings	.23
Sequence Of Operation.	.11
Specifications	.21
Unit Clearances.	.44
Weight Data.	.48

APPROVALS

242 models are AHRI Certified to AHRI Standard 340/360.

300 and 360 models are tested at conditions included in AHRI Standard 340/360.

ETL listed.

Components 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 compliant.

All models meet DOE 2018 energy efficiency standards.

Single Zone VAV Supply Fan models meet California Code of Regulations, Title 24 requirements for staged airflow.

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

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 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.

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™ 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.

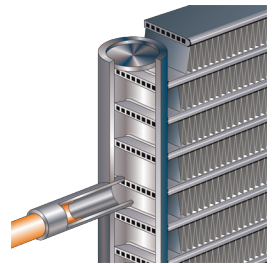
Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection.

Angled design in cabinet helps protect coil from possible contact or hail damage.

Evaporator Coil

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested. Cross row circuiting with rifled tubing optimizes both sensible and latent cooling capacity. Low fin per inch count minimizes air pressure drop. Constant air volume (CAV) models have face-split evaporator coils designed to keep condensate water off of an inactive part of the coil so the condensate will not re-enter the air stream.

Variable air volume (VAV) and Single Zone VAV Supply Fan models have row-split evaporator coils.



FEATURES AND BENEFITS

COOLING SYSTEM

(continued)

- 3 Thermal Expansion Valves**
Assures optimal performance throughout the application range.
Removable element head.

- 4 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. Automatic reset.

Low Pressure Switches
Protects the compressors from low pressure conditions such as low refrigerant charge, or low/no airflow.

Condensate Drain Pan
Plastic pan, sloped to meet drainage requirements of ASHRAE 62.1.

Side drain connections.

Stainless steel drain pan available as a factory installed option.

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

- 5 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

Discharge Air Temperature Sensor

Sensor sends information to the unit controller to cycle up to 2 stages of heating or 4 stages of cooling to maintain the discharge air setpoints for heating or cooling.

Optional for CAV units (single zone or bypass zoning control). Automatically furnished with all Variable Air Volume (VAV) units. Sensor is shipped with the unit for remote field installation in the supply duct.

Factory or Field Installed

Condensate Drain Trap
Field installed only, may be factory enclosed to ship with unit.
Available in copper or PVC.

Drain Pan Overflow Switch
Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

Stainless Steel Drain Pan
Non-corrosive drain pan.

CABINET

- 6 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 available in downflow (vertical) or horizontal return air flow configuration.

Horizontal air flow requires Horizontal Roof Curb.

Horizontal Return Air Panel Kit is also required if converting a downflow configured unit to horizontal air flow.

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.

- 7 Hinged Access Panels**

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

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

Options/Accessories

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
- Painted blower housing
- Painted indoor base

Outdoor Corrosion Protection:

- Coated coil
- Painted outdoor 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.

Grille Guards

Protects the space between outdoor coils and main cabinet.

Horizontal Return Air Panel Kit

Required for horizontal applications with Horizontal Roof Curb, contains panel with return air opening for field replacement of existing unit panel and panel to cover bottom return air opening in unit, see dimension drawings.

FEATURES AND BENEFITS

8 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 for speed change.

Blower assembly slides out of unit for servicing.

Grease fittings furnished.

Supply Static Pressure Transducer (VAV Models Only)

Transducer sends information to the Intelli-Guide™ unit controller to control VFD blower speed.

Transducer is shipped with the unit for remote field installation in the supply duct.

Required Selections

Supply Air Blower Selection

Specify Constant Air Volume (CAV), Variable Air Volume (VAV) or Single Zone VAV Supply Fan.

Constant Air Volume (CAV)

The supply air blower provides a constant volume of air.

Variable Air Volume (VAV)

The supply air variable frequency drive (VFD) will vary the air volume to maintain a constant duct static pressure.

Single Zone VAV

The supply air variable frequency drive (VFD) will stage the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm.

Utilizes a Variable Frequency Drive (VFD) to stage the supply air 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 a parameter in the Intelli-Guide™ unit controller. Unit is shipped from the factory with preset airflows.

The Single Zone VAV supply air blower option can be ordered with or without an Electronic Bypass Control. If equipped with the bypass control the Single Zone VAV features 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 unit controller will automatically switch to full blower speed if a VFD alarm is generated.

The VFD has an operational range of 0 to 125° F outdoor air ambient temperature.

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

Drive Kit

Order one drive kit, see Drive Kit Specifications Table.

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.

Supply VFD Blower Bypass Control

Allows Single Zone VAV or VAV Single Zone VAV Supply Fan units to operate as a constant air volume (CAV) unit in case of variable frequency drive (VFD) failure.

NOTE - Bypass control for VAV

models is a manual operation only. All supply air duct registers must be opened manually before operating bypass control.

Field Installed

Supply Static Limit Switch

Field installed manual reset switch for supply static high pressure limit. Prevents exceeding pressure limit in supply air duct. Optional Mounting Kit includes tubing and adaptors.

ELECTRICAL

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

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.

FEATURES AND BENEFITS

ELECTRICAL (continued)

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.

SCR (Silicon Controlled Rectifier) Electric Heat Control

The SCR Electric Heat Control modulates small, precise increments of power to the electric heat load eliminating temperature fluctuations associated with mechanical controls.

Almost instantaneous operation with no moving parts.

Zero-Cross (fast cycling) feature improves electric heater life with less contraction and expansion of the heating elements.

The SCR operates when there is no call for heat from the building control system or thermostat. SCR air tempering is controlled by a secondary thermostat and remote duct sensor (ordered separately). A call for heat overrides the SCR and modulates the SCR to 100% heat output. A call for cooling overrides the SCR.

NOTE - The SCR option is not available with 45 kW, 60 kW and 90kW electric heat (208/230V) models.

NOTE - Blower Proving Switch is required and must be ordered separately for factory installation. See Controls in the Options/Accessories table.

NOTE - Available for use with conventional thermostat controls or Novar® control systems only.

Phase/Voltage Detection

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 or VAV (Variable Air Volume) option is ordered.

Factory or Field Installed

Disconnect Switch

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

9 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.

GFI Service Outlets (2)

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

Field Installed

GFI Weatherproof Cover

Single-gang cover.

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

INDOOR AIR QUALITY

10 Air Filters

Disposable 2 inch filters furnished as standard.

Options/Accessories

Factory or Field Installed

High Efficiency Air Filters

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

Replacement Filter Media Kit With Frame

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

Field Installed

Indoor Air Quality (CO₂) Sensors

Monitors CO₂ levels, reports to the Intelli-guide™ unit controller which adjusts economizer dampers as needed.

INTELLI-GUIDE™ CONTROL SYSTEM

11 INTELLI-GUIDE UNIT CONTROLLER



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

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 Intelli-Guide 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.

Time Clock with Run-time Information

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, differential pressure transducer or pressure switches.

Permanent Diagnostic Code Storage

Field Adjustable Control Parameters - Over 200 different control settings.

Indoor Air Quality Input - Demand Control Ventilation ready

Low Ambient Controls - Cooling operation down to 0°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 (unit off, positive pressure, negative pressure, purge).

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 room 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.

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 - Connect to the Intelli-Guide unit controller from a PC with the Unit Controller Software.

Room Sensor Operation - Controls temperature.

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.

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

OPTIONS / ACCESSORIES

INTELLI-GUIDE 2.0 UNIT CONTROLLER (continued)

Controls Options (continued)

Commercial Control Systems

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.

12 ECONOMIZER OPTIONS

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

High Performance

Economizer Features

Approved for California Title 24 building standards.

Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.

ASHRAE 90.1 compliant.

IECC compliant.

Outdoor air hoods for economizer dampers furnished.

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

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.

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 and return air and using setpoints, enables the economizer when the outdoor air temperature is below the configured setpoint and cooler than return air.

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

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

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

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

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.

Outdoor Air CFM Control

Maintains constant outdoor air CFM levels for VAV units with variable frequency drives on the supply fan and varying unit airflows. Using information from a velocity sensor located in the units' outdoor air section, the Intelli-Guide™ unit controller changes the economizer position to help minimize the effect of supply fan speed changes on outdoor air CFM levels. Setpoint for outdoor air CFM is established by field testing.

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor).

OPTIONS / ACCESSORIES

ECONOMIZER OPTIONS (continued)

Field Installed

Building Pressure Control

Maintains constant building pressure level.

Includes a static pressure transducer and outdoor static pressure assembly.

Using differential pressure information between the outdoor air and the building air, the Intelli-Guide™ unit controller changes the economizer position to help maintain a constant building pressure.

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor) or Outdoor Air CFM Control.

EXHAUST OPTIONS

Factory or Field Installed

Downflow Barometric Relief Dampers

- 13** Allow relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished.

Hood for downflow barometric relief dampers is factory installed when dampers are factory installed with economizer. Hood is furnished with dampers when ordered for field installation.

14 Standard Static Power Exhaust

Three, 1/3 hp motors with 20 in., five blade propeller-type fans with a total power input of 1125 Watts and a total air volume of 12,800 cfm at 0 in. w.g.

Motor is inherently protected and enclosed for maximum protection from weather, dust and corrosion. Installs internal to unit for downflow applications only with economizer option, provides exhaust air pressure relief, interlocked to run when return air dampers are closed and supply air blower is operating, fans run based on air damper position (adjustable), motor is overload protected, steel cabinet and hood painted to match unit, requires optional Downflow Economizer Barometric Relief Dampers. See Standard Static

Power Exhaust Blower Tables.

Horizontal Barometric Relief Dampers

For use when unit is configured for horizontal applications requiring an economizer.

Allows relief of excess air.

Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle.

Field installed in return air duct.

Bird screen and hood furnished.

Horizontal Economizer Conversion kit is available for field installation.

Field Installed

High Static Power Exhaust

Choice of 50% (two, 2 hp motors) or 100% (three, 2 hp motors) centrifugal-type power exhaust blowers. Overload and sub-fuse protected, equipped with ball bearings. Forward curved blades, blower wheel is statically and dynamically balanced. Constant volume high static power exhaust blowers have adjustable pulleys for speed adjustments and are controlled by damper position.

VAV/Single Zone VAV Supply Fan units can be ordered with High Static Power Exhaust (with VFD) and an optional factory installed Manual Supply VFD Blower Bypass for the Power Exhaust VFD's (see page 5).

High Static Power Exhaust (with VFD) features a solid-state analog pressure transducer control which senses differential pressure between conditioned space and outdoor air to regulate exhaust blower speed.

See High Static Power Exhaust Blower Tables.

NOTE - High Static Power Exhaust is field installed but must be ordered at the same time as the rooftop unit so the unit can be factory configured for this option.

Power Exhaust Control Options:

Damper Position Control

For Standard or High Static Power Exhaust without VFD. Intelli-Guide™ unit controller controls the power exhaust based on economizer damper position.

Differential Pressure Transducer

For High Static Power Exhaust with VFD. Intelli-Guide™ unit controller controls the power exhaust system based on a 0-10VDC signal from a differential pressure transducer which compares atmospheric pressure to conditioned space static pressure. The transducer is factory installed in the power exhaust section.

Field Installed

Pressure Switch

For Standard or High Static Power Exhaust without VFD, Intelli-Guide™ unit controller controls the power exhaust system based on one or two pressure switch(es).

NOTE - Order one per unit with Standard or High Static Power Exhaust without VFD.

NOTE - Order two per unit with Standard Static Power Exhaust for Single Zone VAV Supply Fan or VAV models.

OPTIONS / ACCESSORIES

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 parallel blade, gear-driven dampers with adjustable fixed position.

Minimum mixed air temperature in heating mode is 30°F. Maximum mixed air temperature in cooling mode is 90°F.

ROOF CURBS

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

Downflow

Hybrid Roof Curbs

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 14, 18, and 24 inch heights.

See Options/Accessories table.

Horizontal

Converts unit from downflow to horizontal (side) air flow, return air is on unit, supply air is on curb, see dimension drawings.

Requires Horizontal Return Air Panel Kit.

Available in 37 inch and 41 inch heights.

Optional Insulation Kit is available to help prevent sweating.

CEILING DIFFUSERS

Ceiling Diffusers (Flush or Step-Down)

Diffuser face and grilles with white powder coat finish, insulated (UL listed duct liner), diffuser box with collars for duct connection, fixed blades (flush diffusers) and double deflection blades (step-down diffusers), provisions for suspending, internally sealed (prevents recirculation), removable return air grille, adapts to T-bar ceiling grids or plaster ceilings.

Transitions (Supply and Return)

Used with diffusers, installs in roof curb, galvanized steel construction, flanges furnished for duct connection to diffusers, fully insulated.

SEQUENCE OF OPERATION

Objective: Outline the unit functions as a result of room thermostat or room 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.

CAV Units with 2-Stage Thermostat or Third Party Unit Controllers (2 Heat / 2 Cool) (This section not applicable for Discharge Air Temperature control)

SUPPLY AIR BLOWER SPEED

Unit has one blower speed for all modes of operation.

COOLING MODE (2 Cool)

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Y1 Demand - All compressors are off, supply air blower is on; economizer modulates (minimum to maximum open position) to satisfy thermostat demand.

Y2 Demand - All compressors are off, supply air blower is on, and economizer modulates (minimum to maximum open position) to maintain 55°F discharge air temperature.

NOTE - If economizer stays at maximum open for 3 minutes, compressors 1 and 2 are energized with the supply air blower on, providing maximum cooling capacity.

NOTE - The thermostat or third party unit controller has direct control over the rooftop unit's staging capability. While the unit controller typically has direct control over the economizer, it is possible for a thermostat or third party unit controller to directly control this functionality

¹ *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 RTU via a network connection.*

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

Y1 Demand - The first two compressors operate and the supply air blower is activated. This is ~50% of the cooling capacity.

Y2 Demand - All compressors operate and supply air blower is activated. This is 100% of the cooling capacity.

HEATING MODE (2 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, 60, 90 or 120 kW electric heat option only).

SEQUENCE OF OPERATION

CAV Units Operating in Room Sensor Mode or Discharge Air Temperature Control (4 Heat / 4 Cool)

SUPPLY AIR BLOWER SPEED

Unit has one blower speed for all modes of operation.

COOLING MODE (4 Cool)

Room sensors (when connected to S-Bus) or Discharge air temperature (DAT) can be used to control unit staging.

- DAT default setpoint = 55°F. Unit will stage compressors as required to maintain the setpoint when provided with Y1 thermostat demand.
- Room sensor occupied default setpoint = 75°F. Unit will stage compressors as required to maintain the setpoint.
- Increasing compressor stages provides more cooling capacity while decreasing compressor stages provides less cooling capacity.

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Cooling Stage 1 - All compressors are off, supply air blower is on; economizer modulates (minimum to maximum open position) to maintain setpoint.

Cooling Stage 2 - One compressor is activated; supply air blower is on; economizer modulates (minimum to maximum open position) to maintain setpoint.

Cooling Stage 3 - Two compressors are activated; supply air blower is on; economizer modulates (minimum to maximum open position) to maintain setpoint.

Cooling Stage 4 - All compressors are activated; supply air blower is on; economizer modulates (minimum to maximum open position) to maintain setpoint.

NOTE - The thermostat or third party unit controller has direct control over the rooftop unit's staging capability. While the unit controller typically has direct control over the economizer, it is possible for a thermostat or third party unit controller to directly control this functionality

¹ 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 RTU via a network connection.

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

Cooling Stage 1 - The first compressor is activated; supply air blower is on. This is ~25% of the cooling capacity.

Cooling Stage 2 - The first and second compressors are activated; supply air blower is on. This is ~50% of the cooling capacity.

Cooling Stage 3 - The first three compressors are activated; supply air blower is on. This is ~75% of the cooling capacity.

Cooling Stage 4 - All compressors operate and supply air blower is activated. This is 100% of the cooling capacity.

HEATING MODE (4 Heat)

Room sensors (when connected to S-Bus) or Discharge air temperature (DAT) can be used to control up to four stages of electric heat.

- DAT default setpoint = 110°F. Unit will stage heating as required to maintain the setpoint when provided with W1 demand.
- Room sensor occupied setpoint default = 70°F. Unit will stage heating as required to maintain the setpoint.
- Increasing heat stages provides more heating capacity while decreasing heat stages provides less heating capacity.
- Blower set to Heating Speed for all stages.

SEQUENCE OF OPERATION

Single Zone VAV **Units With 2-Stage Thermostat or Third Party Unit Controllers (2 Heat / 2 Cool)**
(This section not applicable for Discharge Air Temperature control)

SUPPLY AIR BLOWER SPEED

Unit has the following supply air blower speed settings:

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

COOLING MODE (2 Cool)

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Y1 Demand - All compressors are off, supply air blower is set to Low Cooling Speed; economizer modulates (minimum to maximum open position) to maintain 55°F discharge air temperature.

Y2 Demand - All compressors are off, supply air blower is set to High Cooling Speed, and economizer modulates (minimum to maximum open position) to maintain 55°F discharge air temperature.

NOTE - If economizer stays at maximum open for 3 minutes, 1st stage compressors (compressor 1 and 2) are energized while supply air blower stays on high cooling speed providing maximum cooling capacity.

¹ 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 RTU via a network connection.

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

Y1 Demand - The first two compressors operate and the supply air blower is activated. The blower is set to the Low Cooling Speed.

Y2 Demand - All compressors operate and supply air blower is activated. The blower is set to the High Cooling Speed.

HEATING MODE (2 Heat)

W1 Demand - The first two stages of mechanical heat are activated; the blower is set to Heating Speed.

W2 Demand - The third and fourth stages of mechanical heat are activated; the blower is set to the Heating Speed.

SEQUENCE OF OPERATION

Single Zone VAV Units Operating in Room Sensor Mode or Discharge Air Temperature Control (4 Heat / 4 Cool)

SUPPLY AIR BLOWER SPEED

Unit has the following supply air blower speed settings:

- Ventilation speed
- Cooling Speed 1 (low)
- Cooling Speed 2 (medium-low)
- Cooling Speed 3 (medium-high)
- Cooling Speed 4 (high)
- Heating Speed
- Smoke Speed (Used only in smoke removal option - not discussed)

COOLING MODE (4 Cool)

Room sensors (when connected to S-Bus) or Discharge air temperature (DAT) can be used to control unit staging.

- DAT default setpoint = 55°F. Unit will stage compressors as required to maintain the setpoint when provided with Y1 thermostat demand.
- Room sensor occupied default setpoint = 75°F. Unit will stage compressors as required to maintain the setpoint.
- Increasing compressor stages provides more cooling capacity while decreasing compressor stages provides less cooling capacity.

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Cooling Stage 1 - All compressors are off, supply air blower is on Cooling Speed 1 to minimize blower power consumption, economizer modulates (minimum to maximum open position) to maintain setpoint.

Cooling Stage 2 - All compressors are off, supply air blower is on Cooling Speed 4 to provide higher cooling capacity, and economizer modulates to maintain setpoint. If economizer stays at maximum open for 3 minutes, compressor 1 is energized while supply air blower stays on Cooling Speed 4. After compressor 1 is energized, the economizer stays at maximum open.

Cooling Stage 3 - Compressor 1 and 2 are energized while supply air blower is on Cooling speed 4 to provide even higher cooling capacity.

Cooling Stage 4 - All compressors are energized while supply air blower is on Cooling speed 4 to provide maximum cooling capacity. 1 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 RTU via a network connection.

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

Cooling Stage 1 - Compressor 1 operates and supply air blower operates at Cooling Speed 1.

Cooling Stage 2 - Compressors 1 and 2 operate and supply air blower operates at Cooling Speed 2.

Cooling Stage 3 - Compressors 1, 2, and 3 operate and supply air blower operates at Cooling Speed 3.

Cooling Stage 4 - All compressors operate and supply air blower operates at Cooling Speed 4.

HEATING MODE (4 Heat)

Room sensors (when connected to S-Bus) or Discharge air temperature (DAT) can be used to control up to four stages of electric heat.

- DAT default setpoint = 110°F. Unit will stage heating as required to maintain the setpoint when provided with W1 demand.
- Room sensor occupied setpoint default = 70°F. Unit will stage heating as required to maintain the setpoint.
- Increasing heat stages provides more heating capacity while decreasing heat stages provides less heating capacity.
- Blower set to Heating Speed for all stages.

SEQUENCE OF OPERATION

VAV Units in Zoning Applications Operating with Discharge Air Control (4 Heat / 4 Cool)

SUPPLY AIR BLOWER SPEED

Unit has the following supply air blower speed settings:

- Ventilation Speed
- Cooling Speed - Fully modular based on supply duct static pressure
- Heating Speed
- Smoke Speed (Used only in smoke removal option - not discussed)

COOLING MODE (4 Cool)

Discharge air temperature (DAT) can be used to control unit staging.

- DAT default setpoint = 55°F. Unit will stage compressors as required to maintain the setpoint when provided with Y1 thermostat demand.
- Increasing compressor stages provides more cooling capacity while decreasing compressor stages provides less cooling capacity.

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Cooling Stage 1 - All compressors are off, supply air blower operates to maintain duct static pressure, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

Cooling Stage 2 - All compressors are off, supply air blower operates to maintain duct static pressure, 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 operates to maintain duct static pressure. After compressor 1 is energized, the economizer stays at maximum open.

Cooling Stage 3 - Compressor 1 and 2 are energized while supply air blower operates to maintain duct static pressure.

Cooling Stage 4 - All compressors are energized while supply air blower operates to maintain duct static pressure.

¹ 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 RTU via a network connection.

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

Cooling Stage 1 - Compressor 1 operates and supply air blower operates to maintain duct static pressure.

Cooling Stage 2 - Compressors 1 and 2 operate and supply air blower operates to maintain duct static pressure.

Cooling Stage 3 - Compressors 1, 2, and 3 operate and supply air blower operates to maintain duct static pressure.

Cooling Stage 4 - All compressors operate and supply air blower operates to maintain duct static pressure.

HEATING MODE (4 Heat)

Room sensors (when connected to S-Bus) or Discharge air temperature (DAT) can be used to control up to four stages of electric heat.

- DAT default setpoint = 110°F. Unit will stage heating as required to maintain the setpoint when provided with W1 demand.
- Room sensor occupied setpoint default = 70°F. Unit will stage heating as required to maintain the setpoint.
- Increasing heat stages provides more heating capacity while decreasing heat stages provides less heating capacity.
- Blower set to Heating Speed for all stages.

SEQUENCE OF OPERATION

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).

OPTIONS / ACCESSORIES

Item Description	Model Number	Catalog Number	Unit Model No.		
			242	300	360
COOLING SYSTEM					
Condensate Drain Trap	PVC - C1TRAP20AD2	76W26	OX	OX	OX
	Copper - C1TRAP10AD2	76W27	OX	OX	OX
Corrosion Protection		Factory	O	O	O
Drain Pan Overflow Switch	E1SNSR71AD1	68W88	OX	OX	OX
Efficiency	High	Factory	O	O	O
Refrigerant Type	R-410A	Factory	O	O	O
Plastic Condensate Drain Pan		Factory	O	O	O
Stainless Steel Condensate Drain Pan	C1DPAN10D-1-	83W42	OX	OX	OX
BLOWER - SUPPLY AIR					
Motors	Belt Drive (standard efficiency) - 5 hp	Factory	O	O	O
	Belt Drive (standard efficiency) - 7.5 hp	Factory	O	O	O
	Belt Drive (standard efficiency) - 10 hp	Factory	O	O	O
Supply VFD Blower Bypass (VAV/Single Zone VAV Supply Fan units w/VFD only)		Factory	O	O	O
Drive Kits	Kit #1 740-895 rpm	Factory	O	O	O
See Blower Data Tables for usage and selection	Kit #2 870-1045 rpm	Factory	O	O	O
	Kit #3 715-880 rpm	Factory	O	O	O
	Kit #4 770-965 rpm	Factory	O	O	O
	Kit #5 660-810 rpm	Factory	O	O	O
	Kit #6 770-965 rpm	Factory	O	O	O
	Kit #7 570-720 rpm	Factory	O	O	O
	Kit #8 480-630 rpm	Factory	O	O	O
	Kit #9 410-535 rpm	Factory	O	O	O
	Blower Belt Auto-Tensioner		Factory	O	O
CABINET					
Combination Coil/Hail Guards	C1GARD52D-1	13T16	X	X	X
Grille Guards	C1GARD39D-1-	86K30	X	X	X
Horizontal Return Air Panel Kit		38K48	X	X	X
CONTROLS					
Blower Proving Switch	C1SNSR35FF1	53W65	OX	OX	OX
Commercial Controls	CPC Einstein Integration	Factory	O	O	O
	Intelli-guide™ System - BACnet® Module - C0CTRL60AE1L	59W51	OX	OX	OX
	Intelli-guide™ System - LonTalk® Module - C0CTRL65FF1	54W27	OX	OX	OX
	Novar® LSE	Factory	O	O	O
Dirty Filter Switch	E1SNSR55C-1	53W68	OX	OX	OX
Discharge Air Temperature Sensor		Factory	O	O	O
Fresh Air Tempering	C1SNSR75AD1	58W63	OX	OX	OX
General Purpose Control Kit	E1GPBK30C1	13J78	X	X	X
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44C-1	83W40	OX	OX	OX
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43C-1	83W41	OX	OX	OX
Supply Static Limit Switch	C0SNSR11AE1	79M80	X	X	X
Supply Static Limit Switch - Mounting Kit	C0SNSR12AE1	79M81	X	X	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

OPTIONS / ACCESSORIES

Item Description	Model Number	Catalog Number	Unit Model No.		
			242	300	360
INDOOR AIR QUALITY					
Air Filters					
High Efficiency Air Filters 20 x 20 x 2 - order 12 per unit	MERV 8 - C1FLTR15D-1-	54W21	OX	OX	OX
	MERV 13 - C1FLTR40D-1-	52W39	OX	OX	OX
Replaceable Media Filter with Metal Mesh Frame (includes Non-Pleated Filter Media) 20 x 20 x 2- order 12 per unit	C1FLTR30D-1-	44N60	X	X	X
Indoor Air Quality (CO ₂) Sensors					
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display	C0SNSR52AE1L	87N53	X	X	X
Sensor - Black plastic case with LCD display, rated for plenum mounting	C0SNSR51AE1L	87N52	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0MISC19AE1	87N54	X	X	X
CO ₂ Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	85L43	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensors (87N53 or 77N39)	C0MISC16AE1-	90N43	X	X	X
ELECTRICAL					
Voltage 60 hz	208/230V - 3 phase	Factory	O	O	O
	460V - 3 phase	Factory	O	O	O
	575V - 3 phase	Factory	O	O	O
HACR Circuit Breakers		Factory	O	O	O
Disconnect Switch - See Electrical Accessories Tables on page 42 for selection	80 amp	54W85	OX	OX	OX
	150 amp	54W86	OX	OX	OX
	250 amp	54W87	OX	OX	OX
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V) LTAGFIK10/15	74M70	OX	OX	OX
	15 amp factory-wired and powered (208/230V, 460V, 575V)	Factory	O	O	O
	20 amp non-powered, field-wired (575V only) C1GFCI20FF1	67E01	OX	OX	OX
Weatherproof Cover for GFI	C1GFCI99FF1	10C89	X	X	X
Phase/Voltage Detection		Factory	O	O	O
ELECTRIC HEAT					
30 kW	208/230V-3ph - C1EH0300C21Y	53W92	OX	OX	OX
	460V-3ph - C1EH0300C21G	53W94	OX	OX	OX
	575V-3ph - C1EH0300C21J	53W95	OX	OX	OX
45 kW	208/230V-3ph - C1EH0450C21Y	54W00	OX	OX	OX
	460V-3ph - C1EH0450C21G	54W02	OX	OX	OX
	575V-3ph - C1EH0450C21J	54W03	OX	OX	OX
60 kW	208/230V-3ph - C1EH0600C21Y	54W08	OX	OX	OX
	460V-3ph - C1EH0600C21G	54W10	OX	OX	OX
	575V-3ph - C1EH0600C21J	54W11	OX	OX	OX
90 kW	208/230V-3ph - C1EH0900C21Y	54W12	OX	OX	OX
	460V-3ph - C1EH0900C21G	54W14	OX	OX	OX
	575V-3ph - C1EH0900C21J	54W15	OX	OX	OX
120 kW	208/230V-3ph - E1EH1200D-1Y	73W98	OX	OX	OX
	460V-3ph - E1EH1200D-1G	73W99	OX	OX	OX
	575V-3ph - E1EH1200D-1J	74W00	OX	OX	OX
SCR (Silicon Controlled Rectifier) Electric Heat Control		Factory	O	O	O
NOTE - The SCR option is not available with 60 kW, 90 kW (208/230V) and 120 kW (208/230V, 460V, 575V) electric heat models.					
Thermostat (required)		Y9682	X	X	X
Duct Sensor (required)		Y9683	X	X	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

OPTIONS / ACCESSORIES

Item Description	Model Number	Catalog Number	Unit Model No.			
			242	300	360	
ECONOMIZER						
High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)						
High Performance Economizer	E1ECON17D-2	18X87	OX	OX	OX	
Downflow or Horizontal Applications - Includes Outdoor Air Hood. Order Downflow or Horizontal Barometric Relief Dampers separately.						
Economizer Controls						
Differential Enthalpy (Not for Title 24)	Order 2 - C1SNSR64FF1	53W64	OX	OX	OX	
Sensible Control	Sensor is Furnished	Factory	O	O	O	
Single Enthalpy (Not for Title 24)	C1SNSR64FF1	53W64	OX	OX	OX	
Global, Enthalpy	Sensor Field Provided	Factory	O	O	O	
Building Pressure Control	E1GPBK20C1	13K77	X	X	X	
Differential Sensible	Sensor is Furnished	Factory	O	O	O	
Outdoor Air CFM Control	E1GPBK10C1	13K76	OX	OX	OX	
Barometric Relief Dampers With Exhaust Hood						
Downflow Barometric Relief Dampers	E1DAMP60D-2	76W17	OX	OX	OX	
Horizontal Barometric Relief Dampers	LAGEDH30/36	33K78	OX	OX	OX	
OUTDOOR AIR						
Outdoor Air Dampers With Outdoor Air Hood						
Motorized	E1DAMP25D-2-	18X89	OX	OX	OX	
Manual	E1DAMO15D-2-	18X88	OX	OX	OX	
POWER EXHAUST						
Standard Static	208/230V - E1PWRE40D-1Y	74W21	OX	OX	OX	
	460V - E1PWRE40D-1G	74W22	OX	OX	OX	
	575V - E1PWRE40D-1J	74W23	OX	OX	OX	
High Static - 50%	208/230V - Drive Kit #1 (405-533 rpm) - LAPEB30/36AY	83M83	X	X	X	
	208/230V - Drive Kit #2 (531-731 rpm) - LAPEB30/36BY	84M34	X	X	X	
	208/230V - Drive Kit #3 (731-932 rpm) - LAPEB30/36CY	84M35	X	X	X	
	460V - Drive Kit #1 (405-533 rpm) - LAPEB30/36AG	83M84	X	X	X	
	460V - Drive Kit #2 (531-731 rpm) - LAPEB30/36BG	84M36	X	X	X	
	460V - Drive Kit #3 (731-932 rpm) - LAPEB30/36CG	84M37	X	X	X	
	575V - Drive Kit #1 (405-533 rpm) - LAPEB30/36AJ	83M85	X	X	X	
	575V - Drive Kit #2 (531-731 rpm) - LAPEB30/36BJ	84M38	X	X	X	
	575V - Drive Kit #3 (731-932 rpm) - LAPEB30/36CJ	84M39	X	X	X	
	High Static - 100%	208/230V - Drive Kit #1 (406-533 rpm) - LAPEB30/36DY	83M86	X	X	X
		208/230V - Drive Kit #2 (531-731 rpm) - LAPEB30/36EY	84M40	X	X	X
		208/230V - Drive Kit #3 (731-932 rpm) - LAPEB30/36FY	84M41	X	X	X
460V - Drive Kit #1 (406-533 rpm) - LAPEB30/36DG		83M87	X	X	X	
460V - Drive Kit #2 (531-731 rpm) - LAPEB30/36EG		84M42	X	X	X	
460V - Drive Kit #3 (731-932 rpm) - LAPEB30/36FG		84M43	X	X	X	
575V - Drive Kit #1 (406-533 rpm) - LAPEB30/36DJ		83M88	X	X	X	
575V - Drive Kit #2 (531-731 rpm) - LAPEB30/36EJ		84M44	X	X	X	
575V - Drive Kit #3 (731-932 rpm) - LAPEB30/36FJ		84M45	X	X	X	
100% with VFD		208/230V - LAPEV30/36GY	83M89	X	X	X
		460V - LAPEV30/36GG	83M90	X	X	X
		575V - LAPEV30/36GJ	83M91	X	X	X
100% with VFD and Bypass	208/230V - LAPEV30/36HY	83M92	X	X	X	
	460V - LAPEV30/36HG	83M93	X	X	X	
	575V - LAPEV30/36HJ	83M94	X	X	X	

¹ Order one per unit with Standard or High Static Power Exhaust without VFD. Order two per unit with standard static power exhaust for Single Zone VAV Supply Fan or VAV models.

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.		
			242	300	360
ROOF CURBS					
Hybrid Roof Curbs, Downflow					
14 in. height	C1CURB71D-1	11F62	X	X	X
18 in. height	C1CURB72D-1	11F63	X	X	X
24 in. height	C1CURB73D-1	11F64	X	X	X
Standard Roof Curbs, Horizontal - Requires Horizontal Return Air Panel Kit					
30 in. height - slab applications	C1CURB15C-1	11T90	X	X	X
41 in. height - rooftop applications	C1CURB17C-1	11T97	X	X	X
Horizontal Return Air Panel Kit (Required)		38K48	X	X	X
Insulation Kit For Standard Horizontal Curbs					
	for C1CURB15C-1	73K33	X	X	X
	for C1CURB17C-1	73K35	X	X	X
CEILING DIFFUSERS					
Step-Down - Order one	LARTD30/36S	45K74	X	X	X
Flush - Order one	LAFD30/36S	45K75	X	X	X
Transitions (Supply and Return) - Order one	LASRT30/36	33K80	X	X	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	20 Ton	25 Ton	25 Ton	25 Ton
		Model Number	LCH242H4V	LCH300H4B	LCH300H4V	LCH300H4M
		Efficiency Type	High	High	High	High
		Blower Type	VAV (Variable Air Volume)	CAV (Constant Air Volume)	VAV (Variable Air Volume)	Single Zone VAV Supply Fan
Cooling Performance	Gross Cooling Capacity - Btuh		244,000	310,000	310,000	310,000
	Net Cooling Capacity - Btuh		¹ 238,000	² 300,000	² 300,000	² 300,000
	AHRI Rated Air Flow - cfm		6800	8100	8100	8100
	Total Unit Power - kW		19	25.4	25.8	25.8
	EER (Btuh/Watt)		¹ 12.5	² 11.8	² 11.6	² 11.6
	IEER (Btuh/Watt)		¹ 15.5	² 12.5	² 14.3	² 14.4
AHRI Reference Number			N/A	N/A	N/A	N/A
Refrigerant Charge	Refrigerant Type		R-410A	R-410A	R-410A	R-410A
	Circuit 1		8 lbs. 0 oz.	9 lbs. 4 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 2		8 lbs. 0 oz.	9 lbs. 0 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 3		8 lbs. 8 oz.	8 lbs. 12 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 4		8 lbs. 8 oz.	8 lbs. 8 oz.	8 lbs. 8 oz.	8 lbs. 8 oz.
Electric Heat Available - See page 32			30-45-60-90-120 kW			
Compressor Type (number)			Scroll (4)	Scroll (4)	Scroll (4)	Scroll (4)
Outdoor Coils	Net face area (total) - sq. ft.		68.3	68.3	68.3	68.3
	Number of rows		1	1	1	1
	Fins per inch		23	23	23	23
Outdoor Coil Fans	Motor - (No.) horsepower		(6) 1/3	(6) 1/3	(6) 1/3	(6) 1/3
	Motor rpm		1075	1075	1075	1075
	Total Motor watts		2500	2500	2500	2500
	Diameter - (No.) in.		(6) 24	(6) 24	(6) 24	(6) 24
	Number of blades		3	3	3	3
	Total Air volume - cfm		21,500	21,500	21,500	21,500
Indoor Coils	Net face area (total) - sq. ft.		31.40	31.40	31.40	31.40
	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 - No. and size		(1) 1 in. NPT	(1) 1 in. NPT	(1) 1 in. NPT	(1) 1 in. NPT
		Expansion device type	Balance port TXV, removable head			
³ Indoor Blower and Kit Selection	Nominal motor output		5 hp, 7.5 hp, 10 hp			
	Maximum usable motor output (US Only)		5.75 hp, 8.63 hp, 11.5 hp			
	Motor - Kit kit number		5 hp Kit 5 660-810 rpm Kit 6 770-965 rpm Kit 7 570-720 rpm Kit 8 480-630 rpm Kit 9 410-535 rpm 7.5 hp Kit 3 715-880 rpm Kit 4 770-965 rpm 10 hp Kit 1 740-895 rpm Kit 2 870-1045 rpm			
	Blower wheel nom. D x W - in.		(2) 18 x 15	(2) 18 x 15	(2) 18 x 15	(2) 18 x 15
Filters	Type of filter		Fiberglass, disposable			
	Number and size - in.		(12) 20 x 20 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.

¹ 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.

² Tested at conditions included in with AHRI Standard 340/360.

³ 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.

SPECIFICATIONS

General Data		30 Ton	30 Ton	30 Ton
Nominal Tonnage		30 Ton	30 Ton	30 Ton
Model Number		LCH360H4B	LCH360H4V	LCH360H4M
Efficiency Type		High	High	High
Blower Type		CAV (Constant Air Volume)	VAV (Variable Air Volume)	Single Zone VAV Supply Fan
Cooling Performance	Gross Cooling Capacity - Btuh	370,000	370,000	370,000
	¹ Net Cooling Capacity - Btuh	354,000	350,000	350,000
	AHRI Rated Air Flow - cfm	9600	8600	8600
	Total Unit Power - kW	32.8	32.4	32.4
	¹ EER (Btuh/Watt)	10.8	10.8	10.8
	¹ IEER (Btuh/Watt)	11.6	13.5	14.0
AHRI Reference Number		N/A	N/A	N/A
Refrigerant Charge	Refrigerant Type	R-410A	R-410A	R-410A
	Circuit 1	9 lbs. 0 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 2	8 lbs. 0 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 3	9 lbs. 0 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
	Circuit 4	7 lbs. 8 oz.	8 lbs. 0 oz.	8 lbs. 0 oz.
Electric Heat Available - See page 32		30-45-60-90-120 kW		
Compressor Type (number)		Scroll (4)	Scroll (4)	Scroll (4)
Outdoor Coils	Net face area (total) - sq. ft.	68.3	68.3	68.3
	Number of rows	1	1	1
	Fins per inch	23	23	23
Outdoor Coil Fans	Motor - (No.) horsepower	(6) 1/3	(6) 1/3	(6) 1/3
	Motor rpm	1075	1075	1075
	Total Motor watts	2500	2500	2500
	Diameter - (No.) in.	(6) 24	(6) 24	(6) 24
	Number of blades	3	3	3
	Total Air volume - cfm	21,500	21,500	21,500
Indoor Coils	Net face area (total) - sq. ft.	31.40	31.40	31.40
	Tube diameter - in.	3/8	3/8	3/8
	Number of rows	4	4	4
	Fins per inch	14	14	14
	Drain connection - No. and size	(1) 1 in. NPT	(1) 1 in. NPT	(1) 1 in. NPT
Expansion device type		Balance port TXV, removable head		
³ Indoor Blower and Kit Selection	Nominal motor output	5 hp, 7.5 hp, 10 hp		
	Maximum usable motor output (US Only)	5.75 hp, 8.63 hp, 11.5 hp		
	Motor - Kit kit number	5 hp Kit 5 660-810 rpm Kit 6 770-965 rpm Kit 7 570-720 rpm Kit 8 480-630 rpm Kit 9 410-535 rpm 7.5 hp Kit 3 715-880 rpm Kit 4 770-965 rpm 10 hp Kit 1 740-895 rpm Kit 2 870-1045 rpm		
	Blower wheel nom. D x W - in.	(2) 18 x 15	(2) 18 x 15	(2) 18 x 15
Filters	Type of filter	Fiberglass, disposable		
	Number and size - in.	(12) 20 x 20 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.

¹ 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.

³ 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.

RATINGS

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

20 TON HIGH EFFICIENCY LCH242H4V (1 COMPRESSOR OPERATING) - VARIABLE 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	1600	47.2	2.44	0.62	0.7	0.79	45.3	2.83	0.62	0.7	0.79	43.1	3.25	0.61	0.7	0.79	40.9	3.72	0.6	0.7	0.8
	2000	51.5	2.44	0.63	0.73	0.82	49.6	2.83	0.63	0.73	0.83	47.6	3.26	0.63	0.73	0.83	45	3.73	0.63	0.74	0.85
	2400	55.2	2.44	0.65	0.76	0.86	53.2	2.84	0.65	0.76	0.87	50.9	3.27	0.65	0.77	0.88	48.2	3.74	0.65	0.78	0.89
67°F	1600	49.3	2.44	0.51	0.59	0.67	47.6	2.83	0.5	0.58	0.67	45.5	3.25	0.5	0.58	0.67	43.3	3.73	0.49	0.58	0.67
	2000	54.3	2.44	0.52	0.6	0.7	52.4	2.83	0.52	0.6	0.7	50.1	3.27	0.51	0.6	0.7	47.6	3.74	0.51	0.61	0.71
	2400	58.1	2.44	0.53	0.63	0.73	56.1	2.84	0.53	0.63	0.73	53.8	3.28	0.52	0.63	0.73	51	3.75	0.52	0.63	0.74
71°F	1600	51.7	2.44	0.41	0.49	0.57	49.9	2.83	0.4	0.49	0.56	47.9	3.26	0.39	0.48	0.56	45.5	3.74	0.38	0.47	0.56
	2000	56.8	2.44	0.41	0.5	0.58	54.9	2.84	0.41	0.5	0.58	52.6	3.27	0.4	0.5	0.58	50	3.75	0.39	0.49	0.58
	2400	60.9	2.43	0.42	0.52	0.6	58.8	2.84	0.41	0.51	0.6	56.4	3.28	0.4	0.51	0.6	53.5	3.75	0.4	0.51	0.61

20 TON HIGH EFFICIENCY LCH242H4V (2 COMPRESSORS OPERATING) - VARIABLE 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	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	3200	106.4	4.89	0.63	0.71	0.78	102.2	5.67	0.63	0.71	0.78	97.6	6.52	0.62	0.71	0.79	92.3	7.46	0.61	0.71	0.8
	4000	114.4	4.89	0.64	0.73	0.82	109.9	5.68	0.64	0.73	0.82	105	6.54	0.63	0.74	0.83	99.3	7.48	0.63	0.74	0.84
	4800	120.9	4.89	0.66	0.76	0.85	116.2	5.69	0.65	0.76	0.86	110.7	6.55	0.65	0.77	0.86	105	7.5	0.66	0.78	0.88
67°F	3200	113.1	4.89	0.52	0.6	0.67	108.6	5.68	0.51	0.59	0.67	104	6.54	0.5	0.59	0.67	98.7	7.48	0.5	0.58	0.67
	4000	121.9	4.89	0.52	0.61	0.7	117.2	5.69	0.52	0.61	0.7	112	6.56	0.52	0.61	0.7	106.1	7.5	0.51	0.61	0.71
	4800	128.6	4.89	0.53	0.63	0.73	123.6	5.69	0.53	0.63	0.73	117.8	6.57	0.53	0.64	0.74	111.8	7.52	0.53	0.63	0.74
71°F	3200	119.9	4.89	0.42	0.5	0.57	115.4	5.69	0.41	0.49	0.57	110.6	6.56	0.4	0.49	0.56	105.1	7.5	0.39	0.48	0.56
	4000	129.2	4.88	0.42	0.5	0.58	124.4	5.69	0.41	0.5	0.59	119	6.57	0.4	0.5	0.59	113	7.53	0.4	0.5	0.59
	4800	136.4	4.88	0.42	0.51	0.61	131.4	5.7	0.41	0.51	0.61	125.4	6.58	0.41	0.51	0.61	119	7.54	0.4	0.51	0.62

20 TON HIGH EFFICIENCY LCH242H4V (3 COMPRESSORS OPERATING) - VARIABLE 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	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	4800	190.6	7.35	0.69	0.82	0.9	182.8	8.56	0.7	0.83	0.91	173.9	9.86	0.7	0.84	0.91	164.5	11.27	0.71	0.86	0.92
	6000	201.5	7.35	0.73	0.87	0.93	193.6	8.57	0.74	0.87	0.94	184.9	9.88	0.75	0.88	0.95	175.5	11.31	0.77	0.89	0.96
	7200	211.3	7.34	0.78	0.9	0.96	203.1	8.58	0.78	0.9	0.97	193.9	9.89	0.8	0.91	0.98	183.9	11.33	0.82	0.92	0.99
67°F	4800	202.1	7.35	0.56	0.67	0.79	194	8.57	0.56	0.67	0.79	184.6	9.88	0.56	0.68	0.81	174.7	11.3	0.56	0.69	0.82
	6000	212.7	7.34	0.58	0.71	0.85	203.9	8.58	0.58	0.72	0.85	194.2	9.9	0.59	0.73	0.86	183.2	11.32	0.58	0.74	0.87
	7200	220.2	7.34	0.61	0.76	0.88	211.2	8.58	0.61	0.76	0.88	201.1	9.91	0.61	0.78	0.89	189.8	11.34	0.62	0.79	0.9
71°F	4800	213.3	7.34	0.43	0.54	0.65	205.1	8.58	0.43	0.54	0.66	195.5	9.9	0.42	0.54	0.66	185.2	11.33	0.41	0.55	0.67
	6000	224.4	4.92	0.44	0.55	0.66	215.7	8.58	0.43	0.57	0.7	205.5	9.91	0.43	0.57	0.7	194.4	11.35	0.43	0.58	0.72
	7200	232.4	4.91	0.45	0.56	0.68	223.4	8.58	0.45	0.6	0.74	212.7	9.92	0.45	0.6	0.75	201	11.37	0.44	0.61	0.77

20 TON HIGH EFFICIENCY LCH242H4V (ALL COMPRESSORS OPERATING) - VARIABLE 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	6400	244	13.17	0.71	0.83	0.94	231.5	15.08	0.71	0.84	0.96	217.6	17.18	0.73	0.86	0.98	202.5	19.57	0.73	0.88	1
	8000	258	13.19	0.75	0.89	1	244.4	15.1	0.76	0.91	1	229.6	17.21	0.78	0.93	1	213.7	19.61	0.8	0.96	1
	9600	268.4	13.21	0.8	0.95	1	254.2	15.13	0.82	0.97	1	238.9	17.25	0.84	0.99	1	222.6	19.65	0.86	1	1
67°F	6400	255.5	13.19	0.55	0.68	0.8	241.4	15.09	0.56	0.69	0.81	226.8	17.2	0.55	0.7	0.83	210.4	19.59	0.56	0.71	0.85
	8000	267.3	13.21	0.58	0.72	0.86	252.6	15.12	0.58	0.74	0.88	236.9	17.24	0.59	0.76	0.9	220.3	19.63	0.59	0.77	0.92
	9600	276.4	13.22	0.61	0.78	0.92	261.4	15.15	0.62	0.79	0.94	245.5	17.27	0.63	0.81	0.97	228.4	19.67	0.64	0.83	0.99
71°F	6400	271.1	13.21	0.42	0.55	0.66	256.7	15.13	0.41	0.54	0.67	240.9	17.26	0.41	0.55	0.68	224.1	19.65	0.4	0.55	0.69
	8000	283.4	13.23	0.42	0.57	0.7	267.9	15.17	0.42	0.58	0.72	251.4	17.29	0.42	0.58	0.74	233	19.7	0.41	0.59	0.76
	9600	291.8	13.24	0.43	0.6	0.76	275.4	15.18	0.43	0.61	0.78	258.1	17.32	0.43	0.62	0.8	239.1	19.72	0.43	0.63	0.82

RATINGS

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

25 TON HIGH EFFICIENCY LCH300H4B (1ST STAGE) - CONSTANT AIR VOLUME

Outdoor Air Temperature Entering Outdoor Coil																					
Entering Wet Bulb Temperature	Total Air Volume	65°F						75°F				85°F				95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)							
				Dry Bulb					Dry Bulb					Dry Bulb							
												75°F					80°F	85°F	75°F	80°F	85°F
		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
63°F	8000	160.5	7.35	0.73	0.84	0.95	153.9	8.21	0.73	0.85	0.96	146.7	9.16	0.74	0.86	0.98	139	10.27	0.74	0.88	0.99
	10000	169.9	7.48	0.77	0.9	1	162.5	8.33	0.78	0.91	1	154.9	9.29	0.79	0.93	1	147	10.38	0.8	0.94	1
	12000	176.7	7.58	0.81	0.95	1	169.1	8.42	0.82	0.97	1	161.4	9.38	0.83	0.98	1	153.2	10.47	0.84	0.99	1
67°F	8000	171.1	7.5	0.58	0.7	0.81	164	8.35	0.58	0.71	0.82	156.6	9.3	0.58	0.71	0.83	148.5	10.39	0.58	0.72	0.84
	10000	180.3	7.63	0.61	0.75	0.87	172.4	8.47	0.61	0.76	0.89	164.4	9.42	0.61	0.76	0.9	156.2	10.51	0.62	0.78	0.91
	12000	186.5	7.73	0.64	0.8	0.93	178.8	8.57	0.64	0.81	0.94	170.3	9.51	0.65	0.81	0.96	161.5	10.59	0.65	0.83	0.97
71°F	8000	182.5	7.67	0.44	0.56	0.68	175.1	8.51	0.44	0.56	0.68	167.3	9.46	0.43	0.56	0.69	159	10.55	0.43	0.57	0.7
	10000	191.8	7.8	0.45	0.6	0.73	183.9	8.64	0.45	0.59	0.74	175.6	9.59	0.45	0.6	0.75	166.7	10.67	0.45	0.6	0.76
	12000	198.3	7.91	0.47	0.62	0.78	190.1	8.74	0.47	0.63	0.79	181.8	9.69	0.47	0.64	0.8	172.1	10.77	0.46	0.64	0.8

25 TON HIGH EFFICIENCY LCH300H4B (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	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	8000	296.2	18.34	0.74	0.87	0.98	281.2	20.54	0.75	0.88	1	264.8	23.12	0.76	0.9	1	245.8	26.15	0.77	0.92	1
	10000	312	18.57	0.79	0.94	1	296.6	20.78	0.8	0.95	1	279.7	23.34	0.82	0.97	1	260	26.33	0.84	0.99	1
	12000	324.6	18.75	0.84	0.99	1	308.9	20.94	0.85	1	1	292.8	23.53	0.87	1	1	275	26.56	0.89	1	1
67°F	8000	316.1	18.62	0.58	0.71	0.84	300.8	20.82	0.58	0.72	0.85	283.8	23.4	0.58	0.73	0.87	263.9	26.39	0.59	0.75	0.89
	10000	331.9	18.86	0.61	0.77	0.91	315.7	21.05	0.62	0.78	0.92	298	23.61	0.63	0.8	0.94	276.9	26.57	0.63	0.81	0.97
	12000	343.8	19.04	0.65	0.82	0.97	326.6	21.22	0.65	0.83	0.98	308.3	23.78	0.66	0.85	1	286.7	26.73	0.67	0.87	1
71°F	8000	336.9	18.93	0.43	0.57	0.69	321	21.12	0.43	0.57	0.7	303.8	23.7	0.42	0.57	0.71	283.2	26.66	0.42	0.57	0.73
	10000	353.5	19.19	0.45	0.6	0.75	336.7	21.38	0.45	0.61	0.76	318.6	23.94	0.45	0.62	0.78	296.9	26.89	0.44	0.62	0.79
	12000	365.8	19.38	0.47	0.64	0.8	347.7	21.55	0.46	0.64	0.81	328.6	24.1	0.46	0.65	0.83	306.2	27.06	0.46	0.67	0.8

25 TON HIGH EFFICIENCY LCH300H4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN

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	4000	157.6	7.58	0.71	0.82	0.93	152	8.45	0.72	0.83	0.94	146	9.42	0.73	0.85	0.96	139.3	10.52	0.74	0.86	0.98
	5000	166.4	7.72	0.74	0.87	0.99	160.3	8.58	0.75	0.89	1	153.5	9.55	0.77	0.9	1	146.4	10.64	0.78	0.92	1
	6000	172.9	7.81	0.78	0.92	1	166.3	8.68	0.79	0.94	1	159.4	9.64	0.8	0.96	1	151.8	10.73	0.82	0.98	1
67°F	4000	165.1	7.7	0.57	0.68	0.79	159.3	8.56	0.58	0.69	0.8	153	9.53	0.58	0.7	0.82	146.2	10.64	0.59	0.71	0.83
	5000	174.5	7.84	0.59	0.72	0.84	168.2	8.71	0.6	0.73	0.86	161.4	9.68	0.61	0.74	0.87	153.9	10.77	0.62	0.76	0.89
	6000	181.4	7.95	0.61	0.76	0.89	174.6	8.81	0.62	0.77	0.91	167.4	9.78	0.63	0.78	0.93	159.5	10.87	0.64	0.8	0.95
71°F	4000	171.7	7.8	0.45	0.56	0.66	165.8	8.67	0.45	0.56	0.67	159.5	9.65	0.45	0.57	0.68	152.4	10.75	0.45	0.57	0.69
	5000	181.8	7.96	0.45	0.58	0.7	175.5	8.83	0.45	0.59	0.71	168.3	9.8	0.46	0.59	0.72	160.6	10.89	0.46	0.6	0.74
	6000	189.2	8.08	0.47	0.6	0.74	182.3	8.95	0.46	0.61	0.75	174.9	9.91	0.47	0.62	0.76	166.7	11.01	0.46	0.63	0.78

25 TON HIGH EFFICIENCY LCH300H4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN

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	8000	308.3	19.12	0.72	0.85	0.94	294.8	21.33	0.74	0.86	0.95	279.7	23.81	0.75	0.88	0.97	263.4	26.66	0.77	0.89	1				
	10000	324.8	19.41	0.77	0.9	1	309.6	21.59	0.79	0.91	1	293.4	24.07	0.8	0.93	1	276	26.92	0.83	0.95	1				
	12000	336.6	19.63	0.82	0.94	1	320.9	21.8	0.83	0.96	1	303.8	24.28	0.85	0.98	1	285.5	27.12	0.87	1	1				
67°F	8000	323.4	19.39	0.57	0.7	0.82	307.9	21.55	0.58	0.71	0.83	291.3	24.03	0.58	0.72	0.85	272.6	26.84	0.59	0.74	0.87				
	10000	336.5	19.62	0.6	0.75	0.87	319.9	21.78	0.6	0.76	0.89	302.3	24.25	0.62	0.78	0.91	283.2	27.06	0.64	0.8	0.93				
	12000	346.3	19.79	0.63	0.8	0.92	329.4	21.96	0.65	0.81	0.94	311.1	24.42	0.66	0.83	0.96	291.7	27.25	0.67	0.85	0.99				
71°F	8000	341.9	19.72	0.43	0.55	0.67	325.4	21.88	0.43	0.56	0.68	307.1	24.35	0.43	0.58	0.7	288.4	27.17	0.43	0.58	0.73				
	10000	355	19.95	0.44	0.58	0.72	337.6	22.12	0.44	0.59	0.75	318.5	24.57	0.44	0.61	0.76	298.1	27.38	0.45	0.62	0.79				
	12000	364.5	20.13	0.44	0.61	0.78	345.9	22.28	0.45	0.63	0.8	326.3	24.74	0.46	0.65	0.82	304.7	27.53	0.47	0.67	0.84				

RATINGS

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

25 TON HIGH EFFICIENCY LCH300H4V (1 COMPRESSOR OPERATING) - VARIABLE 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
63°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
	2000	61.6	3.65	0.63	0.7	0.78	58.9	4.07	0.63	0.71	0.79	55.9	4.57	0.62	0.7	0.79	52.7	5.13	0.61	0.7	0.8
	2500	67.4	3.68	0.63	0.72	0.81	64.5	4.1	0.63	0.73	0.82	61.5	4.59	0.63	0.73	0.83	58.2	5.15	0.63	0.74	0.84
67°F	3000	72.3	3.73	0.65	0.75	0.84	69.2	4.15	0.65	0.75	0.85	66	4.63	0.65	0.76	0.87	62.4	5.19	0.66	0.77	0.88
	2000	64.9	3.67	0.53	0.6	0.67	61.6	4.09	0.52	0.59	0.67	58.8	4.58	0.51	0.59	0.67	55.8	5.15	0.5	0.59	0.67
	2500	70.9	3.72	0.52	0.6	0.69	68	4.14	0.52	0.6	0.69	64.9	4.62	0.52	0.61	0.7	61.5	5.18	0.51	0.61	0.7
	3000	76.2	3.76	0.53	0.62	0.72	73.1	4.17	0.53	0.62	0.72	69.7	4.64	0.53	0.63	0.73	66	5.2	0.53	0.63	0.74
	2000	67.3	3.68	0.42	0.5	0.56	64.6	4.11	0.41	0.49	0.57	61.8	4.59	0.4	0.49	0.57	58.7	5.16	0.39	0.48	0.56
71°F	2500	74.2	3.73	0.42	0.51	0.58	71.2	4.15	0.41	0.5	0.58	68	4.63	0.41	0.5	0.59	64.6	5.19	0.4	0.5	0.59
	3000	79.8	3.79	0.42	0.51	0.6	76.6	4.2	0.42	0.51	0.6	73	4.68	0.41	0.51	0.61	69.3	5.23	0.41	0.51	0.61

25 TON HIGH EFFICIENCY LCH300H4V (2 COMPRESSORS OPERATING) - VARIABLE 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	4000	137.9	7.46	0.61	0.68	0.76	131.9	8.29	0.62	0.71	0.78	125.6	9.23	0.63	0.71	0.79	118.8	10.31	0.62	0.71	0.8
	5000	149.2	7.52	0.65	0.73	0.81	142.4	8.37	0.63	0.73	0.81	135.4	9.31	0.64	0.74	0.83	128.1	10.4	0.63	0.74	0.84
	6000	157.3	7.59	0.65	0.75	0.84	150.7	8.44	0.66	0.76	0.85	143.3	9.38	0.66	0.77	0.86	135.4	10.44	0.66	0.77	0.87
67°F	4000	146.8	7.51	0.53	0.6	0.67	140.8	8.35	0.52	0.6	0.67	134	9.31	0.51	0.59	0.68	126.9	10.37	0.51	0.59	0.68
	5000	158.5	7.61	0.53	0.61	0.69	151.9	8.44	0.53	0.61	0.7	144.7	9.39	0.52	0.61	0.7	136.9	10.46	0.51	0.62	0.7
	6000	167.6	7.7	0.54	0.62	0.72	160.5	8.53	0.53	0.63	0.72	152.7	9.46	0.53	0.64	0.74	144.4	10.53	0.53	0.64	0.74
71°F	4000	155.5	7.58	0.43	0.5	0.57	149.2	8.42	0.42	0.49	0.57	142.5	9.37	0.41	0.49	0.57	135.4	10.45	0.4	0.49	0.57
	5000	168.1	7.71	0.43	0.51	0.59	161.2	8.52	0.42	0.5	0.58	154.1	9.47	0.41	0.5	0.59	146.1	10.55	0.41	0.49	0.59
	6000	177.8	7.79	0.43	0.52	0.6	170.5	8.62	0.42	0.51	0.61	162.2	9.56	0.41	0.52	0.61	153.7	10.63	0.4	0.51	0.61

25 TON HIGH EFFICIENCY LCH300H4V (3 COMPRESSORS OPERATING) - VARIABLE 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	6000	247.6	11.46	0.69	0.81	0.9	236.6	12.72	0.7	0.82	0.9	224.8	14.12	0.7	0.83	0.91	212.3	15.72	0.71	0.84	0.92
	7500	261.7	11.61	0.72	0.86	0.93	250.1	12.85	0.73	0.87	0.93	237.6	14.24	0.74	0.88	0.94	225.2	15.86	0.76	0.89	0.95
	9000	273	11.73	0.76	0.89	0.95	261.6	12.98	0.77	0.9	0.96	249.3	14.38	0.79	0.9	0.97	236.2	16	0.8	0.91	0.98
67°F	6000	262.6	11.63	0.56	0.66	0.77	251.2	12.87	0.56	0.67	0.78	238.9	14.27	0.56	0.68	0.8	225.8	15.87	0.56	0.69	0.81
	7500	276.9	11.78	0.58	0.7	0.83	264.6	13.01	0.58	0.71	0.84	251.5	14.41	0.58	0.72	0.86	237.2	15.99	0.59	0.73	0.87
	9000	287.4	11.89	0.6	0.74	0.87	274.3	13.12	0.6	0.75	0.88	260.3	14.52	0.6	0.77	0.89	245.2	16.11	0.61	0.79	0.89
71°F	6000	277	11.78	0.43	0.54	0.64	265.4	13.03	0.43	0.54	0.65	252.4	14.43	0.42	0.55	0.65	239.1	16.03	0.42	0.55	0.66
	7500	291.9	11.95	0.44	0.57	0.68	279.3	13.19	0.44	0.57	0.69	266	14.59	0.43	0.57	0.7	251.2	16.18	0.43	0.57	0.71
	9000	303.1	12.08	0.45	0.59	0.72	289.6	13.32	0.45	0.6	0.73	275.3	14.71	0.44	0.6	0.74	259.9	16.3	0.44	0.6	0.76

25 TON HIGH EFFICIENCY LCH300H4V (ALL COMPRESSORS OPERATING) - VARIABLE 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	8000	308.3	19.12	0.72	0.85	0.94	294.8	21.33	0.74	0.86	0.95	279.7	23.81	0.75	0.88	0.97	263.4	26.66	0.77	0.89	1
	10000	324.8	19.41	0.77	0.9	1	309.6	21.59	0.79	0.91	1	293.4	24.07	0.8	0.93	1	276	26.92	0.83	0.95	1
	12000	336.6	19.63	0.82	0.94	1	320.9	21.8	0.83	0.96	1	303.8	24.28	0.85	0.98	1	285.5	27.12	0.87	1	1
67°F	8000	323.4	19.39	0.57	0.7	0.82	307.9	21.55	0.58	0.71	0.83	291.3	24.03	0.58	0.72	0.85	272.6	26.84	0.59	0.74	0.87
	10000	336.5	19.62	0.6	0.75	0.87	319.9	21.78	0.6	0.76	0.89	302.3	24.25	0.62	0.78	0.91	283.2	27.06	0.64	0.8	0.93
	12000	346.3	19.79	0.63	0.8	0.92	329.4	21.96	0.65	0.81	0.94	311.1	24.42	0.66	0.83	0.96	291.7	27.25	0.67	0.85	0.99
71°F	8000	341.9	19.72	0.43	0.55	0.67	325.4	21.88	0.43	0.56	0.68	307.1	24.35	0.43	0.58	0.7	288.4	27.17	0.43	0.58	0.73
	10000	355	19.95	0.44	0.58	0.72	337.6	22.12	0.44	0.59	0.75	318.5	24.57	0.44	0.61	0.76	298.1	27.38	0.45	0.62	0.79
	12000	364.5	20.13	0.44	0.61	0.78	345.9	22.28	0.45	0.63	0.8	326.3	24.74	0.46	0.65	0.82	304.7	27.53	0.47	0.67	0.84

RATINGS

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

30 TON HIGH EFFICIENCY LCH360H4B (1ST STAGE) - CONSTANT AIR VOLUME

Outdoor Air Temperature Entering Outdoor Coil																						
Entering Wet Bulb Temperature	Total Air Volume	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	9440	193.7	9.57	0.71	0.83	0.94	185.6	10.61	0.71	0.84	0.96	177.6	11.79	0.72	0.85	0.97	168.9	13.16	0.72	0.86	0.98	
	11800	204.3	9.73	0.75	0.89	1	195.5	10.76	0.76	0.9	1	187	11.95	0.77	0.92	1	177.8	13.31	0.78	0.93	1	
	14160	212.1	9.86	0.8	0.95	1	202.9	10.89	0.81	0.96	1	194.1	12.07	0.82	0.98	1	184.9	13.44	0.83	0.99	1	
67°F	9440	206.1	9.76	0.57	0.68	0.8	197.7	10.8	0.56	0.69	0.81	189	11.98	0.56	0.69	0.82	180	13.35	0.56	0.7	0.83	
	11800	215.9	9.92	0.59	0.73	0.86	206.7	10.95	0.6	0.74	0.87	197.7	12.13	0.6	0.75	0.89	188.1	13.5	0.6	0.76	0.9	
	14160	222.9	10.04	0.62	0.78	0.92	213.4	11.07	0.62	0.79	0.94	204.1	12.24	0.63	0.8	0.95	194.4	13.6	0.63	0.81	0.97	
71°F	9440	218.8	9.97	0.43	0.55	0.66	209.8	11	0.43	0.56	0.67	200.8	12.19	0.43	0.55	0.67	191.4	13.55	0.42	0.55	0.68	
	11800	228.7	10.14	0.45	0.58	0.71	219.1	11.17	0.44	0.58	0.72	210	12.35	0.44	0.59	0.73	200	13.71	0.43	0.59	0.74	
	14160	236.2	10.27	0.46	0.61	0.76	226.3	11.3	0.45	0.62	0.77	216.6	12.47	0.46	0.62	0.78	206.8	13.83	0.45	0.63	0.79	

30 TON HIGH EFFICIENCY LCH360H4B (2ND STAGE) - CONSTANT AIR VOLUME

Outdoor Air Temperature Entering Outdoor Coil																									
Entering Wet Bulb Temperature	Total Air Volume	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	9440	357.9	23.62	0.72	0.85	0.98	339.6	26.32	0.73	0.87	0.99	320.3	29.45	0.74	0.88	1	298.7	33.06	0.75	0.91	1				
	11800	376.2	23.92	0.77	0.92	1	356.7	26.61	0.78	0.94	1	336.8	29.76	0.8	0.96	1	314.1	33.33	0.82	0.98	1				
	14160	390.1	24.16	0.82	0.98	1	371	26.86	0.84	0.99	1	351.1	30	0.85	1	1	329.1	33.62	0.88	1	1				
67°F	9440	380.8	24	0.57	0.7	0.82	361.9	26.69	0.57	0.7	0.83	341.9	29.83	0.57	0.71	0.85	318.5	33.41	0.57	0.73	0.87				
	11800	398.8	24.3	0.6	0.75	0.89	378.5	27.01	0.6	0.76	0.91	357.2	30.12	0.61	0.78	0.93	332.8	33.7	0.62	0.8	0.96				
	14160	411.3	24.53	0.63	0.81	0.96	390.7	27.22	0.64	0.82	0.98	368.6	30.34	0.64	0.83	0.99	342.8	33.9	0.65	0.86	1				
71°F	9440	403.5	24.4	0.43	0.55	0.68	383.9	27.09	0.42	0.55	0.68	363.4	30.23	0.42	0.56	0.69	339.3	33.82	0.41	0.56	0.71				
	11800	422.3	24.72	0.44	0.59	0.73	401.5	27.42	0.44	0.59	0.74	379.4	30.54	0.43	0.6	0.76	353.9	34.12	0.43	0.61	0.78				
	14160	435	24.95	0.45	0.62	0.79	414.7	27.65	0.45	0.63	0.8	390.6	30.75	0.45	0.63	0.81	363.9	34.32	0.45	0.65	0.84				

30 TON HIGH EFFICIENCY LCH360H4M (1ST STAGE) - SINGLE ZONE VAV SUPPLY FAN

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	4800	188.6	9.73	0.7	0.81	0.92	181.6	10.79	0.7	0.82	0.94	174	11.99	0.71	0.83	0.95	165.9	13.35	0.72	0.85	0.97			
	6000	198.4	9.9	0.73	0.86	0.98	190.9	10.97	0.74	0.88	1	182.6	12.16	0.75	0.89	1	173.7	13.52	0.76	0.91	1			
	7200	205.5	10.03	0.77	0.91	1	197.7	11.09	0.78	0.93	1	189.1	12.29	0.79	0.95	1	180.1	13.64	0.81	0.97	1			
67°F	4800	197.2	9.88	0.56	0.67	0.78	190	10.95	0.57	0.68	0.79	182.2	12.15	0.57	0.69	0.8	173.7	13.51	0.58	0.7	0.82			
	6000	207.8	10.07	0.59	0.71	0.83	200	11.13	0.59	0.72	0.85	191.5	12.33	0.59	0.73	0.86	182.5	13.7	0.6	0.74	0.88			
	7200	215.4	10.21	0.61	0.75	0.88	207.1	11.27	0.61	0.76	0.9	198.2	12.47	0.62	0.77	0.92	188.8	13.83	0.63	0.79	0.94			
71°F	4800	204.9	10.02	0.44	0.55	0.65	197.7	11.09	0.44	0.55	0.66	189.9	12.3	0.44	0.56	0.67	181	13.66	0.43	0.56	0.68			
	6000	216.1	10.22	0.45	0.57	0.69	208.2	11.29	0.44	0.58	0.7	199.7	12.5	0.45	0.58	0.71	190.3	13.86	0.45	0.59	0.72			
	7200	224.4	10.38	0.45	0.6	0.73	215.7	11.44	0.45	0.6	0.74	206.6	12.64	0.45	0.61	0.75	197	14.02	0.45	0.62	0.77			

30 TON HIGH EFFICIENCY LCH360H4M (2ND STAGE) - SINGLE ZONE VAV SUPPLY FAN

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	9600	366.9	24.6	0.71	0.84	0.94	350	27.35	0.72	0.85	0.95	332.2	30.52	0.74	0.87	0.97	312.1	34.14	0.76	0.89	0.99				
	12000	385.3	24.99	0.76	0.89	0.99	366.8	27.74	0.78	0.91	1	347.1	30.89	0.79	0.93	1	325.6	34.48	0.81	0.95	1				
	14400	398.1	25.26	0.81	0.94	1	378.9	28.01	0.83	0.96	1	358.6	31.15	0.84	0.98	1	336.4	34.78	0.86	1	1				
67°F	9600	384.1	24.96	0.56	0.69	0.82	365.7	27.7	0.56	0.7	0.83	345.3	30.82	0.58	0.71	0.84	323.1	34.42	0.59	0.74	0.86				
	12000	398.9	25.26	0.59	0.73	0.87	379	28	0.6	0.75	0.88	357.3	31.12	0.6	0.78	0.9	334.9	34.72	0.62	0.79	0.93				
	14400	409.7	25.5	0.63	0.79	0.92	389.2	28.24	0.63	0.81	0.94	367.3	31.36	0.65	0.82	0.96	343.5	34.93	0.66	0.84	0.98				
71°F	9600	404.4	25.39	0.42	0.55	0.68	385.4	28.15	0.42	0.55	0.68	363.8	31.26	0.43	0.56	0.7	339.7	34.83	0.43	0.57	0.71				
	12000	419.5	25.72	0.44	0.57	0.71	398.4	28.44	0.43	0.58	0.73	375.1	31.53	0.43	0.61	0.75	351.1	35.12	0.43	0.61	0.78				
	14400	428.8	25.92	0.44	0.62	0.77	407.6	28.66	0.44	0.62	0.79	384.2	31.77	0.45	0.64	0.81	358.5	35.33	0.45	0.66	0.83				

RATINGS

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

30 TON HIGH EFFICIENCY LCH360H4V (1 COMPRESSOR OPERATING) - VARIABLE 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	2360	72.8	4.44	0.63	0.71	0.79	69.7	4.96	0.63	0.71	0.79	66.3	5.54	0.63	0.71	0.8	62.7	6.19	0.62	0.71	0.8
	2950	78.9	4.53	0.64	0.73	0.82	75.6	5.05	0.64	0.73	0.83	72.2	5.63	0.64	0.74	0.84	68.4	6.29	0.64	0.75	0.85
	3540	84.1	4.6	0.66	0.75	0.85	80.6	5.13	0.66	0.76	0.86	76.9	5.7	0.66	0.77	0.88	72.8	6.36	0.67	0.78	0.89
67°F	2360	76.1	4.49	0.53	0.6	0.67	72.8	5	0.52	0.6	0.67	69.5	5.59	0.51	0.6	0.68	66.1	6.25	0.5	0.59	0.68
	2950	82.8	4.58	0.53	0.61	0.7	79.5	5.1	0.52	0.62	0.7	75.9	5.68	0.52	0.62	0.71	72.1	6.35	0.52	0.62	0.71
	3540	88.3	4.66	0.54	0.63	0.72	84.8	5.19	0.54	0.63	0.73	80.9	5.77	0.54	0.64	0.74	76.7	6.43	0.53	0.64	0.75
71°F	2360	79.3	4.53	0.42	0.5	0.57	76.2	5.05	0.41	0.5	0.57	72.9	5.64	0.4	0.49	0.57	69.2	6.29	0.39	0.49	0.57
	2950	86.5	4.63	0.42	0.51	0.59	83.2	5.16	0.41	0.51	0.59	79.4	5.74	0.41	0.51	0.59	75.4	6.4	0.4	0.5	0.6
	3540	92.3	4.72	0.43	0.52	0.61	88.6	5.25	0.42	0.52	0.61	84.6	5.83	0.42	0.52	0.62	80.4	6.49	0.41	0.52	0.62

30 TON HIGH EFFICIENCY LCH360H4V (2 COMPRESSORS OPERATING) - VARIABLE 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	4720	188.3	9.54	0.69	0.8	0.92	180.7	10.59	0.69	0.81	0.93	172.1	11.74	0.7	0.83	0.95	162.3	13.04	0.71	0.84	0.97
	5900	198.9	9.7	0.72	0.86	0.98	190.5	10.74	0.73	0.87	1	181.1	11.9	0.74	0.89	1	170.8	13.19	0.75	0.91	1
	7080	206.4	9.82	0.76	0.91	1	197.8	10.86	0.77	0.93	1	188	12.02	0.78	0.95	1	177.2	13.31	0.8	0.97	1
67°F	4720	197.6	9.68	0.56	0.67	0.77	189.7	10.73	0.56	0.67	0.78	180.7	11.89	0.56	0.68	0.8	171	13.2	0.56	0.69	0.81
	5900	208.9	9.86	0.58	0.7	0.83	200.3	10.91	0.58	0.71	0.84	190.5	12.06	0.58	0.72	0.86	180	13.36	0.59	0.73	0.88
	7080	216.8	9.99	0.6	0.74	0.88	207.9	11.03	0.6	0.75	0.9	197.6	12.19	0.61	0.76	0.92	186.6	13.48	0.61	0.78	0.94
71°F	4720	206	9.81	0.44	0.54	0.65	198.1	10.87	0.43	0.54	0.65	189	12.03	0.43	0.54	0.66	178.8	13.33	0.42	0.55	0.67
	5900	217.8	10.01	0.44	0.57	0.68	209.2	11.05	0.44	0.57	0.69	199.2	12.21	0.44	0.57	0.7	188.4	13.51	0.44	0.58	0.71
	7080	226.4	10.15	0.45	0.59	0.72	217.4	11.2	0.45	0.59	0.73	206.9	12.36	0.45	0.6	0.74	195.6	13.66	0.45	0.61	0.76

30 TON HIGH EFFICIENCY LCH360H4V (3 COMPRESSORS OPERATING) - VARIABLE 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
63°F	7080	289.6	14.37	0.7	0.81	0.9	279.4	15.96	0.7	0.82	0.91	266.5	17.72	0.71	0.83	0.91	251.4	19.67	0.71	0.84	0.92
	8850	304.2	14.6	0.73	0.86	0.93	293.5	16.19	0.74	0.87	0.94	279.4	17.94	0.74	0.88	0.95	264.5	19.9	0.76	0.89	0.95
	10620	315.8	14.79	0.77	0.9	0.96	305.2	16.39	0.78	0.9	0.97	291.4	18.15	0.79	0.91	0.98	276	20.12	0.81	0.92	0.99
67°F	7080	305.3	14.62	0.56	0.67	0.78	295	16.22	0.56	0.67	0.79	281.3	17.97	0.56	0.68	0.8	265.9	19.93	0.56	0.69	0.82
	8850	320.2	14.87	0.58	0.71	0.84	309.1	16.46	0.59	0.71	0.85	294.5	18.21	0.59	0.72	0.86	278	20.16	0.59	0.74	0.87
	10620	330.9	15.04	0.6	0.75	0.88	319.2	16.63	0.61	0.76	0.89	303.9	18.38	0.61	0.77	0.89	286.2	20.31	0.62	0.79	0.9
71°F	7080	320.8	14.87	0.44	0.55	0.65	310	16.47	0.43	0.54	0.66	296.1	18.24	0.43	0.55	0.66	280.2	20.21	0.43	0.55	0.67
	8850	336.1	15.13	0.44	0.57	0.69	324.8	16.72	0.44	0.57	0.69	309.8	18.49	0.44	0.57	0.71	292.6	20.44	0.43	0.58	0.72
	10620	347.4	15.34	0.44	0.59	0.7	335.4	16.92	0.44	0.6	0.74	319.6	18.66	0.43	0.6	0.75	301.9	20.61	0.43	0.61	0.77

30 TON HIGH EFFICIENCY LCH360H4V (ALL COMPRESSORS OPERATING) - VARIABLE 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	9600	366.9	24.6	0.71	0.84	0.94	350	27.35	0.72	0.85	0.95	332.2	30.52	0.74	0.87	0.97	312.1	34.14	0.76	0.89	0.99
	12000	385.3	24.99	0.76	0.89	0.99	366.8	27.74	0.78	0.91	1	347.1	30.89	0.79	0.93	1	325.6	34.48	0.81	0.95	1
	14400	398.1	25.26	0.81	0.94	1	378.9	28.01	0.83	0.96	1	358.6	31.15	0.84	0.98	1	336.4	34.78	0.86	1	1
67°F	9600	384.1	24.96	0.56	0.69	0.82	365.7	27.7	0.56	0.7	0.83	345.3	30.82	0.58	0.71	0.84	323.1	34.42	0.59	0.74	0.86
	12000	398.9	25.26	0.59	0.73	0.87	379	28	0.6	0.75	0.88	357.3	31.12	0.6	0.78	0.9	334.9	34.72	0.62	0.79	0.93
	14400	409.7	25.5	0.63	0.79	0.92	389.2	28.24	0.63	0.81	0.94	367.3	31.36	0.65	0.82	0.96	343.5	34.93	0.66	0.84	0.98
71°F	9600	404.4	25.39	0.42	0.55	0.68	385.4	28.15	0.42	0.55	0.68	363.8	31.26	0.43	0.56	0.7	339.7	34.83	0.43	0.57	0.71
	12000	419.5	25.72	0.44	0.57	0.71	398.4	28.44	0.43	0.58	0.73	375.1	31.53	0.43	0.61	0.75	351.1	35.12	0.43	0.61	0.78
	14400	428.8	25.92	0.44	0.62	0.77	407.6	28.66	0.44	0.62	0.79	384.2	31.77	0.45	0.64	0.81	358.5	35.33	0.45	0.66	0.83

BLOWER DATA

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

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

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

See page 29 for wet coil and option/accessory air resistance data.

See page 29 for factory installed drive kit specifications.

MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT

All units require 10,500 cfm minimum air with electric heat.

Air Volume cfm	TOTAL STATIC PRESSURE - In. w.g.																	
	0.20		0.40		0.60		0.80		1.00		1.20		1.40		1.60		1.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	372	0.26	433	0.65	497	0.99	565	1.27	630	1.54	687	1.79	738	2.04	784	2.30	824	2.56
4500	382	0.41	441	0.79	506	1.12	574	1.41	638	1.69	694	1.95	744	2.22	790	2.50	831	2.77
5000	392	0.56	451	0.93	516	1.25	584	1.55	646	1.85	702	2.12	751	2.41	796	2.70	837	3.00
5500	402	0.73	462	1.08	527	1.40	594	1.72	655	2.02	710	2.31	758	2.61	802	2.92	843	3.24
6000	414	0.89	473	1.24	539	1.56	605	1.90	665	2.21	718	2.51	766	2.83	809	3.16	850	3.51
6500	426	1.07	486	1.41	551	1.74	616	2.10	675	2.42	727	2.73	774	3.07	817	3.43	857	3.80
7000	439	1.26	499	1.60	565	1.93	628	2.31	685	2.64	737	2.97	782	3.34	825	3.72	864	4.11
7500	453	1.46	513	1.79	579	2.14	641	2.55	696	2.88	747	3.24	792	3.63	833	4.04	872	4.45
8000	467	1.66	528	2.00	593	2.38	653	2.81	708	3.15	757	3.53	801	3.95	843	4.39	881	4.82
8500	483	1.88	544	2.22	608	2.65	667	3.10	720	3.44	768	3.85	812	4.30	852	4.78	890	5.22
9000	499	2.11	561	2.47	624	2.95	681	3.41	733	3.76	780	4.20	823	4.69	862	5.19	900	5.65
9500	516	2.36	578	2.75	640	3.26	696	3.73	746	4.10	792	4.58	834	5.11	873	5.64	910	6.12
10,000	534	2.64	596	3.06	657	3.60	711	4.07	760	4.48	805	5.00	845	5.57	884	6.12	921	6.61
10,500	553	2.93	615	3.39	674	3.95	727	4.44	775	4.90	817	5.46	857	6.06	895	6.62	932	7.12
11,000	572	3.24	634	3.74	692	4.31	744	4.83	789	5.35	830	5.95	869	6.58	907	7.16	943	7.65
11,500	592	3.58	653	4.12	711	4.70	760	5.27	803	5.85	843	6.49	881	7.13	918	7.71	954	8.21
12,000	613	3.95	674	4.53	729	5.14	776	5.75	818	6.39	857	7.06	894	7.71	930	8.30	965	8.80
12,500	635	4.37	695	4.98	748	5.62	792	6.29	832	6.98	870	7.67	906	8.33	941	8.91	976	9.42
13,000	657	4.83	715	5.50	766	6.18	808	6.89	847	7.61	883	8.32	918	8.98	953	9.56	988	10.06
13,500	680	5.35	736	6.06	784	6.78	824	7.53	861	8.29	896	9.00	930	9.66	965	10.24	1000	10.74
14,000	704	5.92	757	6.67	801	7.44	839	8.23	875	9.00	909	9.72	943	10.38	977	10.94	1012	11.43
14,500	727	6.55	777	7.34	818	8.16	854	8.97	889	9.75	922	10.48	955	11.12	988	11.58	1024	12.00
15,000	750	7.23	797	8.07	834	8.92	868	9.75	902	10.54	935	11.26	968	12.00	1000	12.58	1036	13.06

BLOWER DATA

DRIVE KIT SPECIFICATIONS

Motor Efficiency	Nominal hp	Maximum hp	Drive Kit Number	RPM Range
Standard	5	5.75	5	660 - 810
Standard	5	5.75	6	770 - 965
Standard	5	5.75	7	570 - 720
Standard	5	5.75	8	480 - 630
Standard	5	5.75	9	410 - 535
Standard	7.5	8.63	3	715 - 880
Standard	7.5	8.63	4	770 - 965
Standard	10	11.50	1	740 - 895
Standard	10	11.50	2	870 - 1045

NOTES

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.

For VFD applications, nominal motor output is also maximum usable motor output.

FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORY AIR RESISTANCE

Air Volume cfm	Wet Indoor Coil in. w.g.	Electric Heat in. w.g.	Economizer in. w.g.	Filters		Horizontal Roof Curb in. w.g.
				MERV 8	MERV 13	
				in. w.g.	in. w.g.	
4000	0.04	0.01	0.00	0.00	0.00	0.04
4500	0.04	0.01	0.00	0.00	0.00	0.05
5000	0.05	0.01	0.00	0.00	0.00	0.06
5500	0.06	0.02	0.01	0.00	0.01	0.07
6000	0.07	0.02	0.01	0.00	0.02	0.08
6500	0.08	0.02	0.01	0.01	0.02	0.09
7000	0.09	0.03	0.02	0.01	0.03	0.10
7500	0.10	0.03	0.02	0.01	0.04	0.11
8000	0.11	0.03	0.02	0.01	0.04	0.13
8500	0.12	0.04	0.03	0.01	0.04	0.15
9000	0.13	0.04	0.04	0.01	0.04	0.17
9500	0.14	0.05	0.04	0.02	0.06	0.19
10,000	0.15	0.05	0.05	0.02	0.06	0.21
10,500	0.16	0.06	0.06	0.02	0.06	0.24
11,000	0.18	0.06	0.07	0.02	0.07	0.27
11,500	0.19	0.07	0.08	0.02	0.08	0.30
12,000	0.20	0.07	0.10	0.02	0.08	0.33
12,500	0.21	0.08	0.11	0.03	0.10	0.37
13,000	0.23	0.08	0.13	0.03	0.10	0.40
13,500	0.24	0.09	0.14	0.03	0.11	0.44
14,000	0.26	0.10	0.16	0.03	0.12	0.49
14,500	0.27	0.10	0.18	0.04	0.13	0.53
15,000	0.29	0.11	0.21	0.04	0.13	0.58

BLOWER DATA

POWER EXHAUST PERFORMANCE - STANDARD STATIC

Return Duct Negative Static Pressure	Air Volume Exhausted
in. w.g.	cfm
0.00	12,800
0.05	12,200
0.10	11,500
0.15	10,800
0.20	9900
0.25	9000
0.30	7900
0.35	6750
0.40	5450
0.45	4150
0.50	2900

POWER EXHAUST - 50% HIGH STATIC OPERATION

Air Volume cfm	RETURN DUCT NEGATIVE STATIC PRESSURE - In. w.g.																					
	0		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	---	---	---	---	430	0.40	475	0.45	520	0.50	570	0.55	615	0.65	665	0.70	710	0.75	755	0.85	---	---
4500	---	---	415	0.45	460	0.55	500	0.60	545	0.65	585	0.70	625	0.80	670	0.85	710	0.95	750	1.00	795	1.10
5000	415	0.55	455	0.65	490	0.70	530	0.75	570	0.85	605	0.90	645	1.00	680	1.05	720	1.15	755	1.20	795	1.30
5500	460	0.75	495	0.85	525	0.90	560	0.95	595	1.05	630	1.10	665	1.20	700	1.30	735	1.35	765	1.45	800	1.55
6000	500	1.00	530	1.05	565	1.15	595	1.20	625	1.30	660	1.40	690	1.45	720	1.55	750	1.65	785	1.70	815	1.80
6500	540	1.25	570	1.30	600	1.40	630	1.50	660	1.60	685	1.65	715	1.75	745	1.85	775	1.95	805	2.05	830	2.10
7000	585	1.55	610	1.65	635	1.70	665	1.85	690	1.90	720	2.00	745	2.10	770	2.20	800	2.30	825	2.40	855	2.50
7500	625	1.90	650	2.00	675	2.10	700	2.20	725	2.30	750	2.40	775	2.50	800	2.60	825	2.70	850	2.80	875	2.90
8000	665	2.30	690	2.40	715	2.55	735	2.60	760	2.70	785	2.85	810	2.95	830	3.05	855	3.15	880	3.25	905	3.40
8500	710	2.80	730	2.90	755	3.00	775	3.10	795	3.20	820	3.35	840	3.45	865	3.55	885	3.65	910	3.80	930	3.90

POWER EXHAUST - 100% HIGH STATIC OPERATION

Air Volume cfm	RETURN DUCT NEGATIVE STATIC PRESSURE - In. w.g.																					
	0		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.0	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8500	475	1.30	500	1.30	525	1.40	550	1.50	585	1.60	625	1.75	670	1.90	710	2.10	745	2.30	780	2.50	815	2.70
9000	520	1.55	535	1.60	550	1.65	570	1.70	605	1.85	640	1.95	685	2.15	720	2.35	760	2.55	790	2.75	825	3.00
9500	550	1.80	560	1.85	575	1.90	600	2.00	620	2.10	655	2.20	695	2.40	735	2.60	770	2.80	800	3.00	835	3.25
10,000	575	2.10	590	2.15	605	2.20	620	2.30	645	2.40	675	2.50	710	2.65	745	2.85	780	3.05	815	3.30	845	3.50
10,500	605	2.45	615	2.45	625	2.50	645	2.60	670	2.75	690	2.80	725	3.00	755	3.15	790	3.35	825	3.60	855	3.80
11,000	630	2.80	645	2.85	660	2.95	675	3.00	685	3.05	715	3.20	740	3.30	770	3.50	805	3.70	835	3.90	870	4.20
11,500	665	3.25	675	3.30	680	3.30	695	3.40	715	3.50	735	3.60	755	3.70	785	3.85	815	4.05	850	4.30	880	4.50
12,000	685	3.60	700	3.70	710	3.75	725	3.85	740	3.95	755	4.00	780	4.15	805	4.30	830	4.45	860	4.65	890	4.90
12,500	720	4.10	730	4.20	740	4.25	750	4.30	765	4.40	780	4.50	800	4.60	820	4.75	845	4.90	875	5.10	905	5.35
13,000	745	4.60	750	4.65	765	4.75	780	4.85	790	4.90	805	5.00	820	5.10	840	5.25	865	5.40	890	5.60	915	5.80
13,500	775	5.15	785	5.25	795	5.35	805	5.40	815	5.50	830	5.60	845	5.70	865	5.80	880	5.95	905	6.10	930	6.30
14,000	805	5.80	810	5.80	820	5.90	830	6.00	845	6.10	855	6.20	870	6.30	885	6.40	905	6.55	925	6.70	---	---

HIGH STATIC POWER EXHAUST WITH CONSTANT AIR VOLUME - DRIVE KIT SPECIFICATIONS

Power Exhaust Model No.	Motor HP	Drive Kit Number	RPM Range
LAPEB30/36A (50%)	(2) 2 hp	1	406 - 533
LAPEB30/36B (50%)	(2) 2 hp	2	531 - 731
LAPEB30/36C (50%)	(2) 2 hp	3	731 - 932
LAPEB30/36D (100%)	(3) 2 hp	1	406 - 533
LAPEB30/36E (100%)	(3) 2 hp	2	531 - 731
LAPEB30/36F (100%)	(3) 2 hp	3	731 - 932

NOTE - Using total air volume and system static pressure requirements, determine from blower performance tables rpm and motor output required.

BLOWER DATA

CEILING DIFFUSER AIR RESISTANCE - in. w.g.

Air Volume cfm	Step-Down Diffuser			Flush Diffuser
	LARTD30/36S			LAFD30/36S
	2 Ends Open	1 Side/2 Ends Open	All Ends & Sides Open	
7500	0.37	0.31	0.25	0.29
8000	0.42	0.36	0.29	0.34
8500	0.48	0.41	0.34	0.39
9000	0.55	0.47	0.39	0.44
9500	0.62	0.53	0.45	0.51
10,000	0.70	0.60	0.51	0.57
10,500	0.78	0.68	0.58	0.65
11,000	0.87	0.76	0.65	0.72
11,500	0.97	0.85	0.73	0.81
12,000	1.08	0.94	0.82	0.9
12,500	1.19	1.04	0.91	0.99
13,000	1.30	1.15	1.00	1.10
13,500	1.43	1.26	1.10	1.20
14,000	1.56	1.38	1.20	1.31
14,500	1.69	1.50	1.31	1.43
15,000	1.84	1.63	1.43	1.56

CEILING DIFFUSER AIR THROW DATA - ft.

Air Volume cfm	¹ Effective Throw Range - ft.	
	Step-Down	Flush
9000	40 - 47	29 - 35
9500	43 - 50	33 - 41
10,000	46 - 54	37 - 46
10,500	50 - 58	42 - 51
11,000	53 - 61	46 - 56
11,500	55 - 64	50 - 61
12,000	58 - 67	54 - 66
12,500	61 - 71	58 - 71
13,000	64 - 74	62 - 75
13,500	67 - 77	66 - 79

¹ Throw is the horizontal or vertical distance an airstream travels on leaving the outletor diffuser before the maximum velocity is reduced to 50 ft. per minute. Four sides open.

ELECTRICAL DATA						20 TON				
20 TON HIGH EFFICIENCY - VARIABLE AIR VOLUME (VAV)						LCH242H4V				
¹ 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		
Compressor 3	Rated Load Amps	13.5			8			5		
	Locked Rotor Amps	109			59			40		
Compressor 4	Rated Load Amps	13.5			8			5		
	Locked Rotor Amps	109			59			40		
Outdoor Fan Motors (6)	Full Load Amps	2.4			1.3			1		
	(total)	(14.4)			(7.8)			(6)		
Standard Power Exhaust (3) 0.33 HP	Full Load Amps	2.4			1.3			1		
	(total)	(7.2)			(3.9)			(3)		
50% High Static Power Exhaust (2) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(15)			(6.8)			(5.4)		
100% High Static Power Exhaust (3) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(22.5)			(10.2)			(8.1)		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	Horsepower	5	7.5	10	5	7.5	10	5	7.5	10
	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
² Maximum Overcurrent Protection	Unit Only	100	110	125	50	60	70	35	45	50
	With (3) 0.33 HP Standard Power Exhaust	110	125	125	60	60	70	40	45	50
	With 50% High Static Power Exhaust (2) 2 HP	110	125	150	60	70	70	45	50	50
	With 100% High Static Power Exhaust (3) 2 HP	125	125	150	60	70	80	45	50	50
³ Minimum Circuit Ampacity	Unit Only	90	99	107	50	54	58	34	38	40
	With (3) 0.33 HP Standard Power Exhaust	97	106	115	54	58	62	37	41	43
	With 50% High Static Power Exhaust (2) 2 HP	105	114	122	57	61	65	40	43	46
	With 100% High Static Power Exhaust (3) 2 HP	112	122	130	60	64	68	42	46	48

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

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

ELECTRIC HEAT DATA

20 TON

20 TON HIGH EFFICIENCY - VARIABLE AIR VOLUME (VAV)

LCH242H4V

¹ Voltage - 60hz - 3 phase			208/230V - 3 Ph						460V - 3 Ph			575V - 3 Ph		
Indoor Blower Motor	Horsepower		5		7.5		10		5	7.5	10	5	7.5	10
Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	480V	600V	600V	600V
² Maximum Overcurrent Protection	Unit+ Electric Heat	30 kW	⁴ 100	125	⁴ 110	125	⁴ 125	150	60	60	70	45	50	50
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	90	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	⁴ 110	125	⁴ 125	150	150	150	60	70	70	50	60	60
		45 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	100	70	70	80
		60 kW	175	175	⁴ 175	200	⁴ 175	200	90	100	100	70	80	80
		90 kW	⁴ 225	250	⁴ 250	⁴ 300	⁴ 250	⁴ 300	125	150	150	100	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	⁴ 125	150	150	150	150	150	70	70	80	60	60	60
		45 kW	175	175	⁴ 175	200	⁴ 175	200	90	90	100	70	80	80
		60 kW	⁴ 175	200	⁴ 175	200	⁴ 200	225	100	100	100	80	80	80
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	⁴ 250	⁴ 300	150	150	150	110	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	350	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	150	150	150	150	⁴ 150	175	70	80	80	60	60	60
		45 kW	⁴ 175	200	200	200	⁴ 200	225	90	100	100	80	80	80
		60 kW	⁴ 175	200	⁴ 200	225	⁴ 200	225	100	100	110	80	80	90
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	300	⁴ 300	150	150	150	110	110	125
		120 kW	⁴ 300	⁴ 350	350	⁴ 350	⁴ 350	⁴ 400	175	175	175	150	150	150
³ Minimum Circuit Ampacity	Unit+ Electric Heat	30 kW	100	112	109	121	117	129	55	59	63	44	48	50
		45 kW	139	157	148	166	156	174	78	82	86	62	66	68
		60 kW	146	166	156	175	164	183	82	86	90	66	69	72
		90 kW	209	238	218	247	227	256	118	123	126	95	98	101
		120 kW	272	310	281	319	289	328	154	159	162	124	127	130
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	109	121	118	130	126	138	60	64	68	48	52	54
		45 kW	148	166	157	175	165	183	83	87	91	66	70	72
		60 kW	155	175	165	184	173	192	87	91	95	70	73	76
		90 kW	218	247	227	256	236	265	123	127	131	98	102	105
		120 kW	281	319	290	328	298	337	159	163	167	127	131	133
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	118	130	128	140	136	148	64	68	72	51	55	57
		45 kW	157	175	167	185	175	193	86	90	94	69	73	75
		60 kW	165	184	175	194	183	202	91	95	99	73	76	79
		90 kW	228	257	237	266	245	274	127	131	135	101	105	108
		120 kW	290	329	300	338	308	346	163	167	171	130	134	136
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	128	140	137	149	145	157	68	72	76	54	58	60
		45 kW	167	185	176	194	184	202	90	95	98	72	76	79
		60 kW	175	194	184	203	192	211	95	99	103	76	80	82
		90 kW	237	266	247	275	255	284	131	135	139	105	108	111
		120 kW	300	338	309	348	317	356	167	171	175	134	137	140

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

⁴ Factory installed circuit breaker not available.

ELECTRICAL DATA**25 TON****25 TON HIGH EFFICIENCY - CONSTANT AIR VOLUME (CAV)****LCH300H4B**

¹ Voltage - 60hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 2	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 3	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 4	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Outdoor Fan Motors (6)	Full Load Amps	2.4			1.3			1		
	(total)	(14.4)			(7.8)			(6)		
Standard Power Exhaust (3) 0.33 HP	Full Load Amps	2.4			1.3			1		
	(total)	(7.2)			(3.9)			(3)		
50% High Static Power Exhaust (2) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(15)			(6.8)			(5.4)		
100% High Static Power Exhaust (3) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(22.5)			(10.2)			(8.1)		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	Horsepower	5	7.5	10	5	7.5	10	5	7.5	10
	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
² Maximum Overcurrent Protection	Unit Only	150	150	150	70	70	80	50	50	60
	With (3) 0.33 HP Standard Power Exhaust	150	150	150	70	70	80	60	60	60
	With 50% High Static Power Exhaust (2) 2 HP	150	150	175	70	80	80	60	60	60
	With 100% High Static Power Exhaust (3) 2 HP	150	175	175	80	80	90	60	60	60
³ Minimum Circuit Ampacity	Unit Only	127	135	143	61	64	68	45	49	51
	With (3) 0.33 HP Standard Power Exhaust	128	134	142	62	65	68	46	48	52
	With 50% High Static Power Exhaust (2) 2 HP	142	150	158	68	71	75	51	54	56
	With 100% High Static Power Exhaust (3) 2 HP	149	157	165	71	75	78	53	57	59

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

¹ Extremes of operating range are plus and minus 10% of line voltage.² HACR type breaker or fuse.³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRIC HEAT DATA

25 TON

25 TON HIGH EFFICIENCY - CONSTANT AIR VOLUME (CAV)

LCH300H4B

¹ Voltage - 60hz - 3 phase			208/230V - 3 Ph						460V - 3 Ph			575V - 3 Ph		
Indoor Blower Motor	Horsepower		5		7.5		10		5	7.5	10	5	7.5	10
Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	480V	600V	600V	600V
² Maximum Overcurrent Protection	Unit+ Electric Heat	30 kW	150	150	150	150	150	150	70	70	80	50	50	60
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	90	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	150	150	150	150	150	150	70	70	70	50	50	60
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	100	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	150	150	150	150	175	175	70	80	80	60	60	60
		45 kW	175	175	⁴ 175	200	⁴ 175	200	90	90	100	70	80	80
		60 kW	⁴ 175	200	⁴ 175	200	⁴ 200	225	100	100	100	80	80	80
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	⁴ 250	⁴ 300	150	150	150	110	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	350	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	150	150	175	175	175	175	80	80	90	60	60	60
		45 kW	⁴ 175	200	200	200	⁴ 200	225	90	100	100	80	80	80
		60 kW	⁴ 175	200	⁴ 200	225	⁴ 200	225	100	100	110	80	80	90
		90 kW	⁴ 250	⁴ 300	⁴ 250	4 300	300	⁴ 300	150	150	150	110	110	125
		120 kW	⁴ 300	⁴ 350	350	4 350	⁴ 350	⁴ 400	175	175	175	150	150	150
³ Minimum Circuit Ampacity	Unit+ Electric Heat	30 kW	127	127	135	135	143	143	61	64	68	45	49	51
		45 kW	139	157	148	166	156	174	78	82	86	62	66	68
		60 kW	146	166	156	175	164	183	82	86	90	66	69	72
		90 kW	209	238	218	247	227	256	118	123	126	95	98	101
		120 kW	272	310	281	319	289	328	154	159	162	124	127	130
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	128	128	134	134	142	142	62	65	68	46	48	52
		45 kW	140	158	148	166	157	175	79	83	87	63	66	70
		60 kW	148	167	155	175	165	184	84	87	91	67	70	73
		90 kW	210	239	218	247	227	256	120	123	127	96	98	102
		120 kW	273	311	281	319	290	328	156	159	163	125	127	131
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	142	142	150	150	158	158	68	71	75	51	55	57
		45 kW	157	175	167	185	175	193	86	90	94	69	73	75
		60 kW	165	184	175	194	183	202	91	95	99	73	76	79
		90 kW	228	257	237	266	245	274	127	131	135	101	105	108
		120 kW	290	329	300	338	308	346	163	167	171	130	134	136
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	149	149	157	157	165	165	71	75	78	54	58	60
		45 kW	167	185	176	194	184	202	90	95	98	72	76	79
		60 kW	175	194	184	203	192	211	95	99	103	76	80	82
		90 kW	237	266	247	275	255	284	131	135	139	105	108	111
		120 kW	300	338	309	348	317	356	167	171	175	134	137	140

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

⁴ Factory installed circuit breaker not available.

ELECTRICAL DATA**25 TON****25 TON HIGH EFFICIENCY - VARIABLE AND MULTI-STAGE AIR VOLUME****LCH300H4V,M**

¹ Voltage - 60hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 2	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 3	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Compressor 4	Rated Load Amps	22.4			10.6			7.7		
	Locked Rotor Amps	149			75			54		
Outdoor Fan Motors (6)	Full Load Amps	2.4			1.3			1		
	(total)	(14.4)			(7.8)			(6)		
Standard Power Exhaust (3) 0.33 HP	Full Load Amps	2.4			1.3			1		
	(total)	(7.2)			(3.9)			(3)		
50% High Static Power Exhaust (2) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(15)			(6.8)			(5.4)		
100% High Static Power Exhaust (3) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(22.5)			(10.2)			(8.1)		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	Horsepower	5	7.5	10	5	7.5	10	5	7.5	10
	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
² Maximum Overcurrent Protection	Unit Only	150	150	150	70	70	80	50	50	60
	With (3) 0.33 HP Standard Power Exhaust	150	150	175	70	70	80	50	60	60
	With 50% High Static Power Exhaust (2) 2 HP	150	150	175	70	80	80	60	60	60
	With 100% High Static Power Exhaust (3) 2 HP	150	175	175	80	80	90	60	60	60
³ Minimum Circuit Ampacity	Unit Only	127	135	143	61	64	68	45	49	51
	With (3) 0.33 HP Standard Power Exhaust	134	142	150	65	68	72	48	52	54
	With 50% High Static Power Exhaust (2) 2 HP	142	150	158	68	71	75	51	54	56
	With 100% High Static Power Exhaust (3) 2 HP	149	157	165	71	75	78	53	57	59

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

¹ Extremes of operating range are plus and minus 10% of line voltage.² HACR type breaker or fuse.³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRIC HEAT DATA

25 TON

25 TON HIGH EFFICIENCY - VARIABLE AND MULTI-STAGE AIR VOLUME

LCH300H4V,M

¹ Voltage - 60hz - 3 phase			208/230V - 3 Ph						460V - 3 Ph			575V - 3 Ph		
Indoor Blower Motor	Horsepower		5		7.5		10		5	7.5	10	5	7.5	10
Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	480V	600V	600V	600V
² Maximum Overcurrent Protection	Unit+ Electric Heat	30 kW	150	150	150	150	150	150	70	70	80	50	50	60
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	90	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	150	150	150	150	175	175	70	70	80	50	60	60
		45 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	100	70	70	80
		60 kW	175	175	⁴ 175	200	⁴ 175	200	90	100	100	70	80	80
		90 kW	⁴ 225	250	⁴ 250	⁴ 300	⁴ 250	⁴ 300	125	150	150	100	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	150	150	150	150	175	175	70	80	80	60	60	60
		45 kW	175	175	⁴ 175	200	⁴ 175	200	90	90	100	70	80	80
		60 kW	⁴ 175	200	⁴ 175	200	⁴ 200	225	100	100	100	80	80	80
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	⁴ 250	⁴ 300	150	150	150	110	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	350	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	150	150	175	175	175	175	80	80	90	60	60	60
		45 kW	⁴ 175	200	200	200	⁴ 200	225	90	100	100	80	80	80
		60 kW	⁴ 175	200	⁴ 200	225	⁴ 200	225	100	100	110	80	80	90
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	300	⁴ 300	150	150	150	110	110	125
		120 kW	⁴ 300	⁴ 350	350	⁴ 350	⁴ 350	⁴ 400	175	175	175	150	150	150
³ Minimum Circuit Ampacity	Unit+ Electric Heat	30 kW	127	127	135	135	143	143	61	64	68	45	49	51
		45 kW	139	157	148	166	156	174	78	82	86	62	66	68
		60 kW	146	166	156	175	164	183	82	86	90	66	69	72
		90 kW	209	238	218	247	227	256	118	123	126	95	98	101
		120 kW	272	310	281	319	289	328	154	159	162	124	127	130
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	134	134	142	142	150	150	65	68	72	48	52	54
		45 kW	148	166	157	175	165	183	83	87	91	66	70	72
		60 kW	155	175	165	184	173	192	87	91	95	70	73	76
		90 kW	218	247	227	256	236	265	123	127	131	98	102	105
		120 kW	281	319	290	328	298	337	159	163	167	127	131	133
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	142	142	150	150	158	158	68	71	75	51	55	57
		45 kW	157	175	167	185	175	193	86	90	94	69	73	75
		60 kW	165	184	175	194	183	202	91	95	99	73	76	79
		90 kW	228	257	237	266	245	274	127	131	135	101	105	108
		120 kW	290	329	300	338	308	346	163	167	171	130	134	136
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	149	149	157	157	165	165	71	75	78	54	58	60
		45 kW	167	185	176	194	184	202	90	95	98	72	76	79
		60 kW	175	194	184	203	192	211	95	99	103	76	80	82
		90 kW	237	266	247	275	255	284	131	135	139	105	108	111
		120 kW	300	338	309	348	317	356	167	171	175	134	137	140

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

⁴ Factory installed circuit breaker not available.

ELECTRICAL DATA

30 TON

30 TON HIGH EFFICIENCY - CONSTANT AIR VOLUME (CAV)

LCH360H4B

¹ Voltage - 60hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 2	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 3	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 4	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Outdoor Fan Motors (6)	Full Load Amps	2.4			1.3			1		
	(total)	(14.4)			(7.8)			(6)		
Standard Power Exhaust (3) 0.33 HP	Full Load Amps	2.4			1.3			1		
	(total)	(7.2)			(3.9)			(3)		
50% High Static Power Exhaust (2) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(15)			(6.8)			(5.4)		
100% High Static Power Exhaust (3) 2 HP	Full Load Amps	7.5			3.4			2.7		
	(total)	(22.5)			(10.2)			(8.1)		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	Horsepower	5	7.5	10	5	7.5	10	5	7.5	10
	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
² Maximum Overcurrent Protection	Unit Only	150	150	175	70	80	80	60	60	60
	With (3) 0.33 HP Standard Power Exhaust	150	175	175	80	80	90	60	60	60
	With 50% High Static Power Exhaust (2) 2 HP	175	175	175	80	80	90	60	60	70
	With 100% High Static Power Exhaust (3) 2 HP	175	175	200	80	90	90	60	70	70
³ Minimum Circuit Ampacity	Unit Only	138	145	153	68	71	75	51	54	56
	With (3) 0.33 HP Standard Power Exhaust	145	153	161	72	75	78	54	57	59
	With 50% High Static Power Exhaust (2) 2 HP	153	160	168	75	78	81	56	59	62
	With 100% High Static Power Exhaust (3) 2 HP	160	168	176	78	81	85	59	62	64

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

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

ELECTRIC HEAT DATA

30 TON

30 TON HIGH EFFICIENCY - CONSTANT AIR VOLUME (CAV)

LCH360H4B

¹ Voltage - 60hz - 3 phase			208/230V - 3 Ph						460V - 3 Ph			575V - 3 Ph		
Indoor Blower Motor	Horsepower		5		7.5		10		5	7.5	10	5	7.5	10
Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	480V	600V	600V	600V
² Maximum Overcurrent Protection	Unit+ Electric Heat	30 kW	150	150	150	150	175	175	70	80	80	60	60	60
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	90	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	150	150	175	175	175	175	80	80	90	60	60	60
		45 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	100	70	70	80
		60 kW	175	175	⁴ 175	200	⁴ 175	200	90	100	100	70	80	80
		90 kW	⁴ 225	250	⁴ 250	⁴ 300	⁴ 250	⁴ 300	125	150	150	100	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	175	175	175	175	175	175	80	80	90	60	60	70
		45 kW	175	175	⁴ 175	200	⁴ 175	200	90	90	100	70	80	80
		60 kW	⁴ 175	200	⁴ 175	200	⁴ 200	225	100	100	100	80	80	80
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	⁴ 250	⁴ 300	150	150	150	110	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	350	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	175	175	175	175	200	200	80	90	90	60	70	70
		45 kW	⁴ 175	200	200	200	⁴ 200	225	90	100	100	80	80	80
		60 kW	⁴ 175	200	⁴ 200	225	⁴ 200	225	100	100	110	80	80	90
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	300	⁴ 300	150	150	150	110	110	125
		120 kW	⁴ 300	⁴ 350	350	⁴ 350	⁴ 350	⁴ 400	175	175	175	150	150	150
³ Minimum Circuit Ampacity	Unit+ Electric Heat	30 kW	138	138	145	145	153	153	68	71	75	51	54	56
		45 kW	139	157	148	166	156	174	78	82	86	62	66	68
		60 kW	146	166	156	175	164	183	82	86	90	66	69	72
		90 kW	209	238	218	247	227	256	118	123	126	95	98	101
		120 kW	272	310	281	319	289	328	154	159	162	124	127	130
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	145	145	153	153	161	161	72	75	78	54	57	59
		45 kW	148	166	157	175	165	183	83	87	91	66	70	72
		60 kW	155	175	165	184	173	192	87	91	95	70	73	76
		90 kW	218	247	227	256	236	265	123	127	131	98	102	105
		120 kW	281	319	290	328	298	337	159	163	167	127	131	133
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	153	153	160	160	168	168	75	78	81	56	59	62
		45 kW	157	175	167	185	175	193	86	90	94	69	73	75
		60 kW	165	184	175	194	183	202	91	95	99	73	76	79
		90 kW	228	257	237	266	245	274	127	131	135	101	105	108
		120 kW	290	329	300	338	308	346	163	167	171	130	134	136
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	160	160	168	168	176	176	78	81	85	59	62	64
		45 kW	167	185	176	194	184	202	90	95	98	72	76	79
		60 kW	175	194	184	203	192	211	95	99	103	76	80	82
		90 kW	237	266	247	275	255	284	131	135	139	105	108	111
		120 kW	300	338	309	348	317	356	167	171	175	134	137	140

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

⁴ Factory installed circuit breaker not available.

ELECTRICAL DATA**30 TON****30 TON HIGH EFFICIENCY - VARIABLE AND MULTI-STAGE AIR VOLUME****LCH360H4V,M**

¹ Voltage - 60hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 2	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 3	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Compressor 4	Rated Load Amps	25			12.2			9		
	Locked Rotor Amps	164			100			78		
Outdoor Fan Motors (6)	Full Load Amps	2.4			1.3			1		
	(total)	(14.4)			(7.8)			(6)		
Standard Power Exhaust (3) 0.33 HP	Full Load Amps	2.4			1.3			1		
	(total)	(7.2)			(3.9)			(3)		
50% High Static Power Exhaust (2) 2 HP		7.5 (15)			3.4 (6.8)			2.7 (5.4)		
100% High Static Power Exhaust (3) 2 HP		7.5 (22.5)			3.4 (10.2)			2.7 (8.1)		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	Horsepower	5	7.5	10	5	7.5	10	5	7.5	10
	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
² Maximum Overcurrent Protection	Unit Only	150	150	175	70	80	80	60	60	60
	With (3) 0.33 HP Standard Power Exhaust	150	175	175	80	80	90	60	60	60
	With 50% High Static Power Exhaust (2) 2 HP	175	175	175	80	80	90	60	60	70
	With 100% High Static Power Exhaust (3) 2 HP	175	175	200	80	90	90	60	70	70
³ Minimum Circuit Ampacity	Unit Only	138	145	153	68	71	75	51	54	56
	With (3) 0.33 HP Standard Power Exhaust	145	153	161	72	75	78	54	57	59
	With 50% High Static Power Exhaust (2) 2 HP	153	160	168	75	78	81	56	59	62
	With 100% High Static Power Exhaust (3) 2 HP	160	168	176	78	81	85	59	62	64

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

¹ Extremes of operating range are plus and minus 10% of line voltage.² HACR type breaker or fuse.³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRIC HEAT DATA

30 TON

30 TON HIGH EFFICIENCY - VARIABLE AND MULTI-STAGE AIR VOLUME

LCH360H4V,M

¹ Voltage - 60hz - 3 phase			208/230V - 3 Ph						460V - 3 Ph			575V - 3 Ph		
Indoor Blower Motor	Horsepower		5		7.5		10		5	7.5	10	5	7.5	10
Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	480V	480V	600V	600V	600V
² Maximum Overcurrent Protection	Unit+ Electric Heat	30 kW	150	150	150	150	175	175	70	80	80	60	60	60
		45 kW	⁴ 150	175	⁴ 150	175	175	175	80	90	90	70	70	70
		60 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	90	70	70	80
		90 kW	⁴ 225	250	⁴ 225	250	⁴ 250	⁴ 300	125	125	150	100	100	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	125	150	150
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	150	150	175	175	175	175	80	80	90	60	60	60
		45 kW	⁴ 150	175	175	175	⁴ 175	200	90	90	100	70	70	80
		60 kW	175	175	⁴ 175	200	⁴ 175	200	90	100	100	70	80	80
		90 kW	⁴ 225	250	⁴ 250	⁴ 300	⁴ 250	⁴ 300	125	150	150	100	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	⁴ 300	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	175	175	175	175	175	175	80	80	90	60	60	70
		45 kW	175	175	⁴ 175	200	⁴ 175	200	90	90	100	70	80	80
		60 kW	⁴ 175	200	⁴ 175	200	⁴ 200	225	100	100	100	80	80	80
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	⁴ 250	⁴ 300	150	150	150	110	110	110
		120 kW	⁴ 300	⁴ 350	⁴ 300	⁴ 350	350	⁴ 350	175	175	175	150	150	150
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	175	175	175	175	200	200	80	90	90	60	70	70
		45 kW	⁴ 175	200	200	200	⁴ 200	225	90	100	100	80	80	80
		60 kW	⁴ 175	200	⁴ 200	225	⁴ 200	225	100	100	110	80	80	90
		90 kW	⁴ 250	⁴ 300	⁴ 250	⁴ 300	300	⁴ 300	150	150	150	110	110	125
		120 kW	⁴ 300	⁴ 350	350	⁴ 350	⁴ 350	⁴ 400	175	175	175	150	150	150
³ Minimum Circuit Ampacity	Unit+ Electric Heat	30 kW	138	138	145	145	153	153	68	71	75	51	54	56
		45 kW	139	157	148	166	156	174	78	82	86	62	66	68
		60 kW	146	166	156	175	164	183	82	86	90	66	69	72
		90 kW	209	238	218	247	227	256	118	123	126	95	98	101
		120 kW	272	310	281	319	289	328	154	159	162	124	127	130
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	30 kW	145	145	153	153	161	161	72	75	78	54	57	59
		45 kW	148	166	157	175	165	183	83	87	91	66	70	72
		60 kW	155	175	165	184	173	192	87	91	95	70	73	76
		90 kW	218	247	227	256	236	265	123	127	131	98	102	105
		120 kW	281	319	290	328	298	337	159	163	167	127	131	133
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	30 kW	153	153	160	160	168	168	75	78	81	56	59	62
		45 kW	157	175	167	185	175	193	86	90	94	69	73	75
		60 kW	165	184	175	194	183	202	91	95	99	73	76	79
		90 kW	228	257	237	266	245	274	127	131	135	101	105	108
		120 kW	290	329	300	338	308	346	163	167	171	130	134	136
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	30 kW	160	160	168	168	176	176	78	81	85	59	62	64
		45 kW	167	185	176	194	184	202	90	95	98	72	76	79
		60 kW	175	194	184	203	192	211	95	99	103	76	80	82
		90 kW	237	266	247	275	255	284	131	135	139	105	108	111
		120 kW	300	338	309	348	317	356	167	171	175	134	137	140

¹ Extremes of operating range are plus and minus 10% of line voltage.

² HACR type breaker or fuse.

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

⁴ Factory installed circuit breaker not available.

ELECTRIC HEAT CAPACITIES

Volts Input	30 kW			45 kW			60 kW			90 kW			120 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
208	22.5	76,800	1	33.8	115,300	2	45.0	153,600	2	67.6	230,700	2	90.2	307,800	2
220	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2	100.8	344,000	2
230	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2	110.2	376,100	2
240	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2	120.0	409,500	2
440	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2	100.8	344,000	2
460	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2	110.2	376,100	2
480	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2	120.0	409,500	2
550	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2	100.8	344,000	2
575	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2	110.2	376,100	2
600	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2	120.0	409,500	2

ELECTRICAL ACCESSORIES

20 TON HIGH EFFICIENCY

LCH242H4

Voltage - 60hz - 3 phase			208/230V			460V			575V		
Indoor Blower Motor Horsepower			5	7.5	10	5	7.5	10	5	7.5	10
Disconnect	Unit Only		54W86	54W86	54W86	54W85	54W85	54W85	54W85	54W85	54W85
		0 kW	54W86	54W86	54W86	54W85	54W85	54W85	54W85	54W85	54W85
		30 kW	54W86	54W86	54W86	54W85	54W85	54W85	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W85	54W85	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W86
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	0 kW	54W86	54W86	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		30 kW	54W86	54W86	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W87
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	0 kW	54W86	54W87	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		30 kW	54W86	54W87	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W86	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W87	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W87	54W87

ELECTRICAL ACCESSORIES

25 TON HIGH EFFICIENCY

LCH300H4

Voltage - 60hz - 3 phase			208/230V			460V			575V		
Indoor Blower Motor	Horsepower		5	7.5	10	5	7.5	10	5	7.5	10
Disconnect	Unit Only		54W86	54W87	54W87	54W85	54W85	54W85	54W85	54W85	54W85
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	0 kW	54W86	54W87	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		30 kW	54W86	54W87	54W87	54W85	54W85	54W85	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W85	54W85	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W86
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	0 kW	54W87	54W87	54W87	54W85	54W85	54W86	54W85	54W85	54W85
		30 kW	54W87	54W87	54W87	54W85	54W85	54W86	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W87
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	0 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		30 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W86	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W87	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W87	54W87

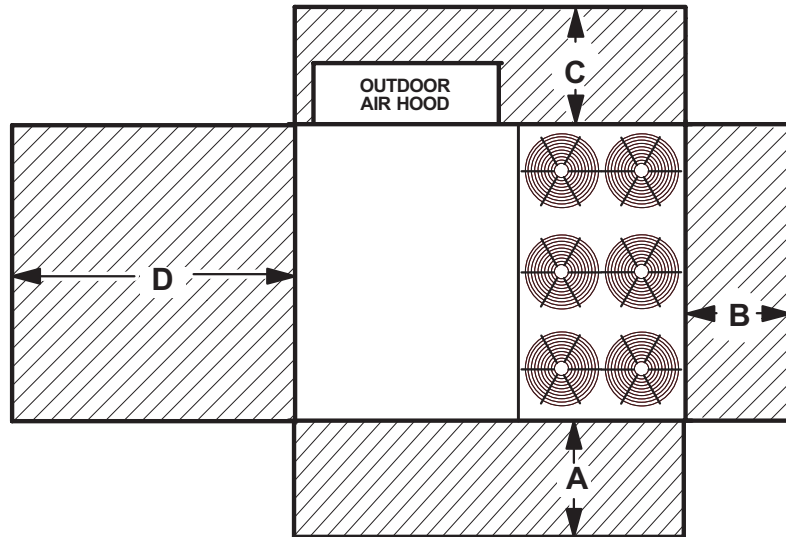
30 TON HIGH EFFICIENCY

LCH360H4

Voltage - 60hz - 3 phase			208/230V			460V			575V		
Indoor Blower Motor	Horsepower		5	7.5	10	5	7.5	10	5	7.5	10
Disconnect	Unit Only		54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
	Unit+ Electric Heat and Standard Power Exhaust (3) 0.33 HP	0 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		30 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W85	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W86
	Unit+ Electric Heat and 50% High Static Power Exhaust (2) 2 HP	0 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		30 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W86	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W86	54W87
	Unit+ Electric Heat and 100% High Static Power Exhaust (3) 2 HP	0 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		30 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		45 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W85	54W85	54W85
		60 kW	54W87	54W87	54W87	54W86	54W86	54W86	54W86	54W86	54W86
		90 kW	N/A	N/A	N/A	54W86	54W86	54W87	54W86	54W86	54W86
		120 kW	N/A	N/A	N/A	54W87	54W87	54W87	54W86	54W87	54W87

UNIT CLEARANCES

Unit With Economizer



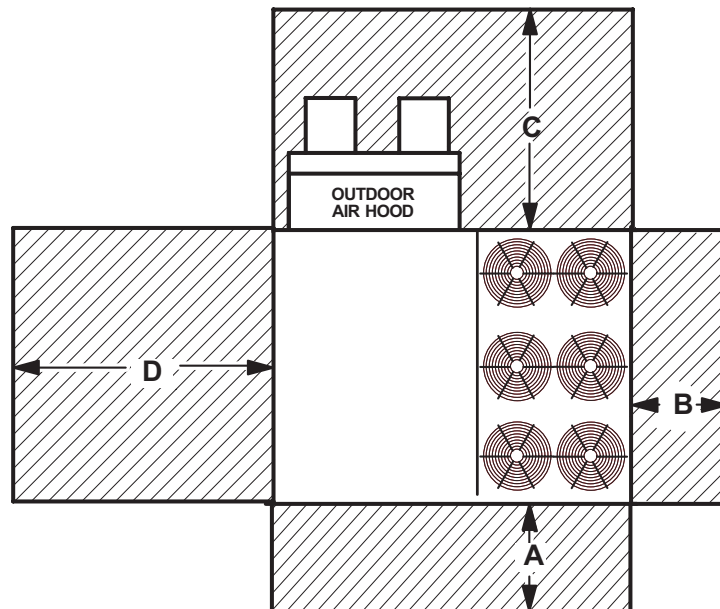
¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	914	66	1676	Unobstructed
Minimum Operation Clearance	45	1143	36	914	36	914	41	1041	

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

¹ **Service Clearance** - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

Unit With High Static Power Exhaust Fans



¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	80	2032	66	1676	Unobstructed
Minimum Operation Clearance	45	1143	36	914	80	2032	41	1041	

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

¹ **Service Clearance** - Required for removal of serviceable parts.

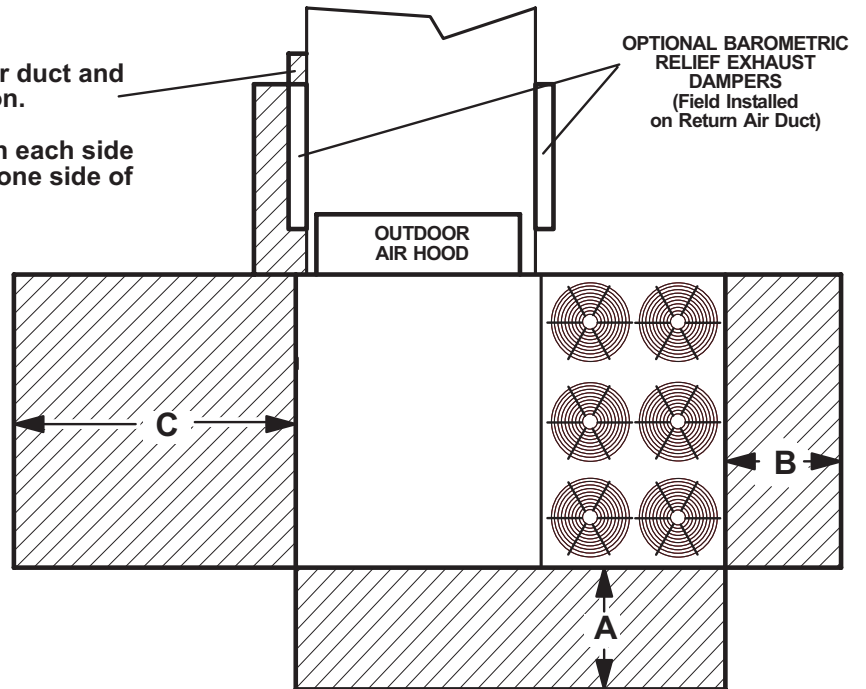
Minimum Operation Clearance - Required clearance for proper unit operation.

UNIT CLEARANCES

Unit With Horizontal Barometric Relief Dampers

NOTE Allow adequate clearance for duct and barometric relief damper installation.

NOTE Dampers may be installed on each side of return air duct or end to end on one side of return air duct.



¹ Unit Clearance	A		B		C		Top Clearance
	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	66	1676	Unobstructed
Minimum Operation Clearance	45	1143	36	914	41	1041	

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

¹ **Service Clearance** - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

OUTDOOR SOUND DATA

Unit Model Number	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts - Center Frequency - Hz							¹ Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
242, 300, 360	84	85	90	90	85	80	72	95

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

¹ Tested according to AHRI Standard 370-2001 test conditions (includes pure tone penalty).

Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

WEIGHT DATA

Model Number	Net		Shipping	
	lbs.	kg	lbs.	kg
242 Base Unit	2997	1359	3207	1455
242 Max. Unit	3409	1546	3619	1642
300 Base Unit	2997	1359	3207	1455
300 Max. Unit	3409	1546	3619	1642
360 Base Unit	2997	1359	3207	1455
360 Max. Unit	3409	1546	3619	1642

OPTIONS / ACCESSORIES

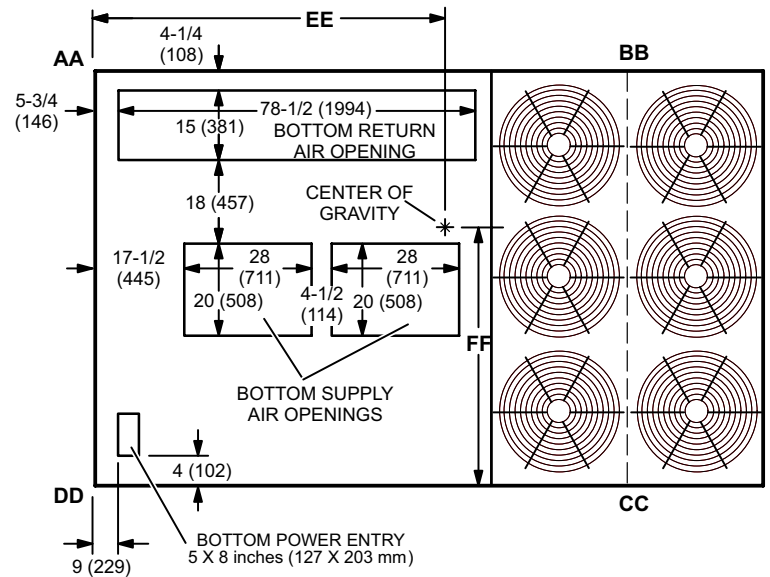
Description		Shipping Weight	
		lbs.	kg
CEILING DIFFUSERS			
Step-Down	LARTD30/36S	625	283
Flush	LAFD30/36S	625	283
Transitions	LASRT30/36	85	39
ECONOMIZER / OUTDOOR AIR / EXHAUST			
Economizer		138	63
Barometric Relief			
Downflow Barometric Relief Dampers		45	20
Horizontal Barometric Relief Dampers		20	9
Outdoor Air Dampers			
Damper Section (downflow)	Motorized	72	33
Damper Section (downflow)	Manual	68	31
Outdoor Air Hood (downflow)		76	34
Power Exhaust			
Standard Static		99	45
50% High Static		460	209
100% High Static with or without VFD		525	238
ELECTRIC HEAT			
30 KW		59	27
45 KW		76	34
60 KW		76	34
90 KW		84	38
120 KW		98	44
PACKAGING			
LTL Packaging (less than truck load)		300	136
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
14 in. height		115	52
18 in. height		140	64
24 in. height		170	77
Standard Curbs, Horizontal			
30 in. height		445	202
41 in. height		725	329

DIMENSIONS - UNIT

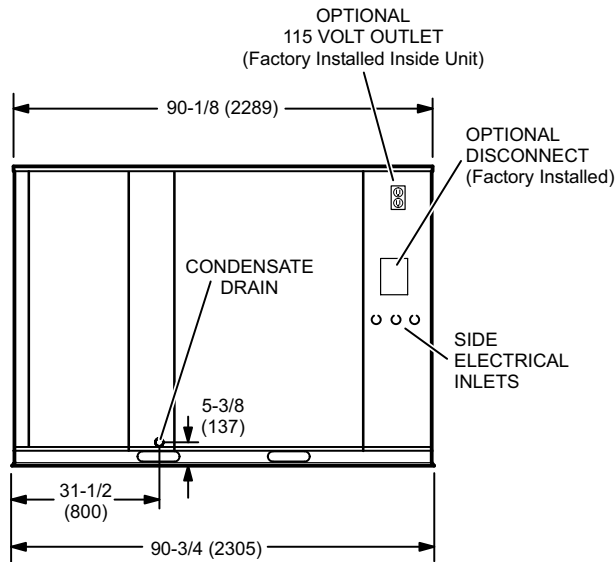
CORNER WEIGHTS									CENTER OF GRAVITY			
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LCH242 Base Unit	610	277	612	278	880	399	895	406	60	1524	37	940
LCH242 Max. Unit	693	315	696	316	1001	454	1018	462	60	1524	37	940
LCH300 Base Unit	610	277	612	278	880	399	895	406	60	1524	37	940
LCH300 Max. Unit	693	315	696	316	1001	454	1018	462	60	1524	37	940
LCH360 Base Unit	610	277	612	278	880	399	895	406	60	1524	37	940
LCH360 Max. Unit	693	315	696	316	1001	454	1018	462	60	1524	37	940

Base Unit - The unit with NO INTERNAL OPTIONS.

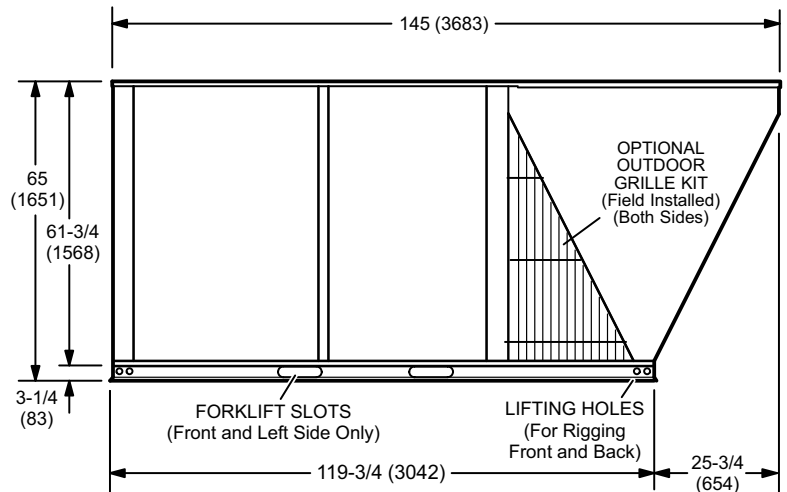
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



TOP VIEW

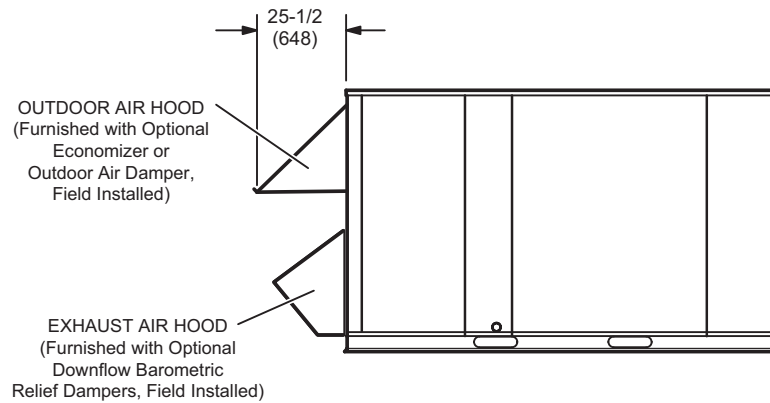


END VIEW

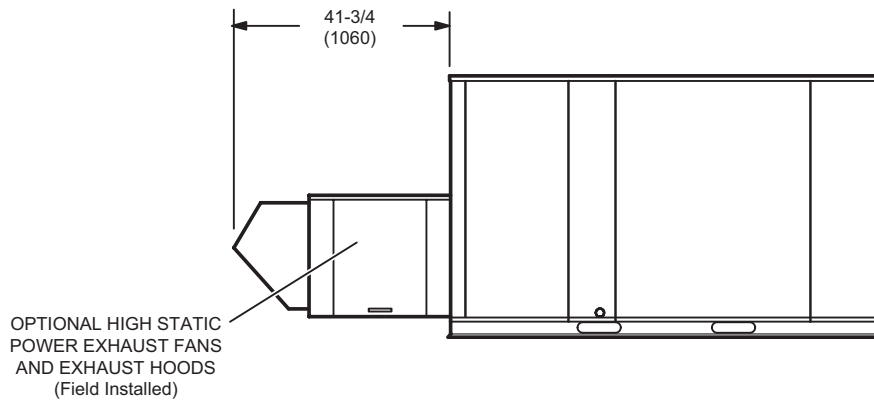


SIDE VIEW

OUTDOOR AIR HOOD DETAIL

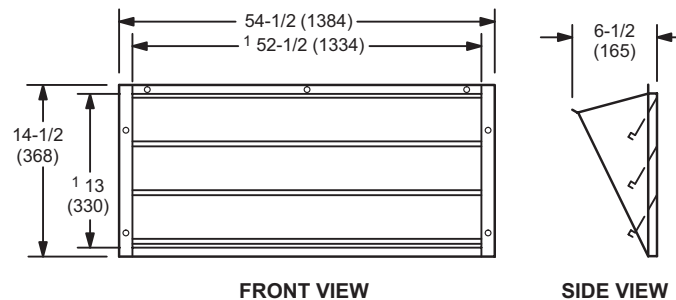


OPTIONAL HIGH STATIC POWER EXHAUST FANS DETAIL



OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

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



FRONT VIEW

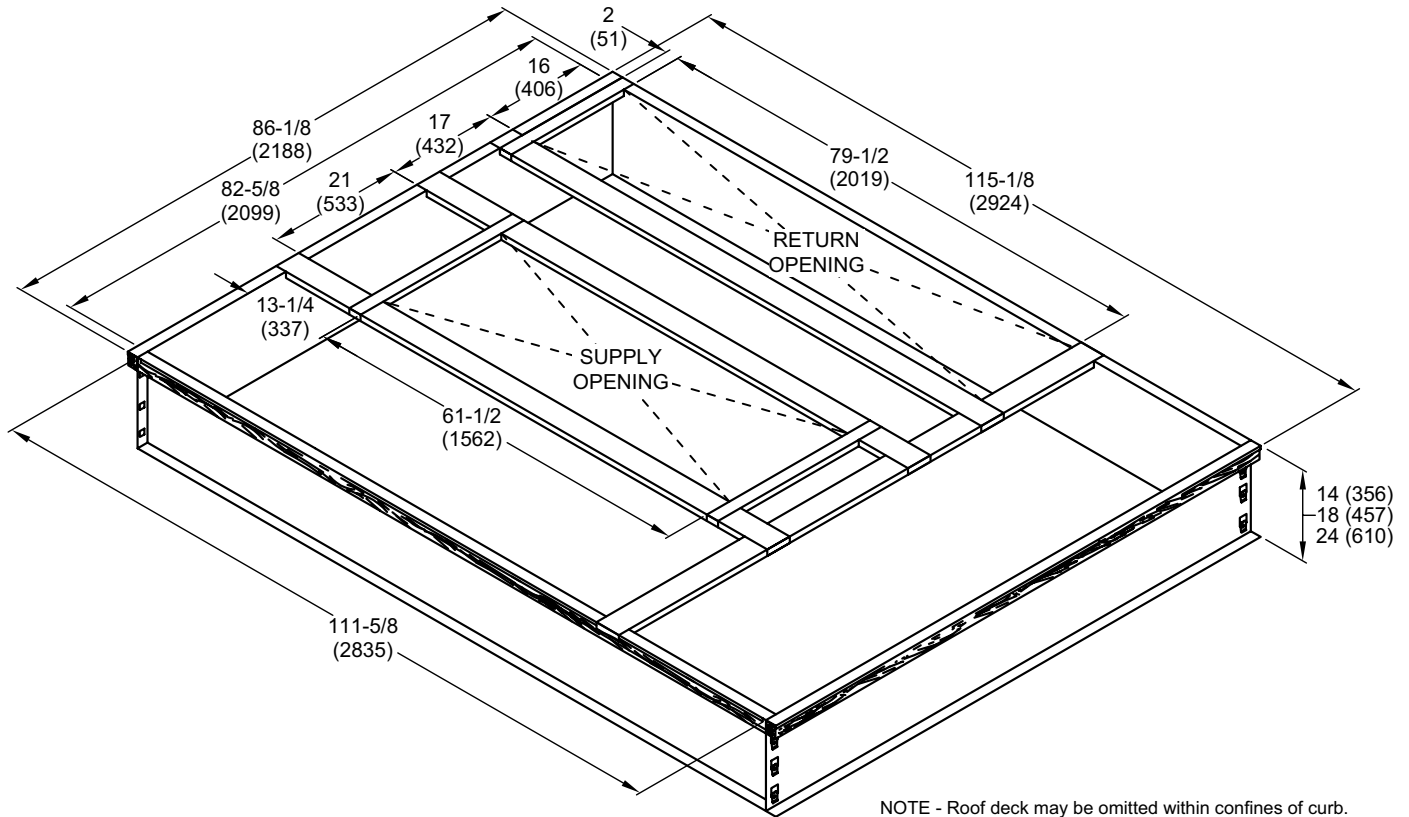
SIDE VIEW

NOTE - Two furnished per order no.

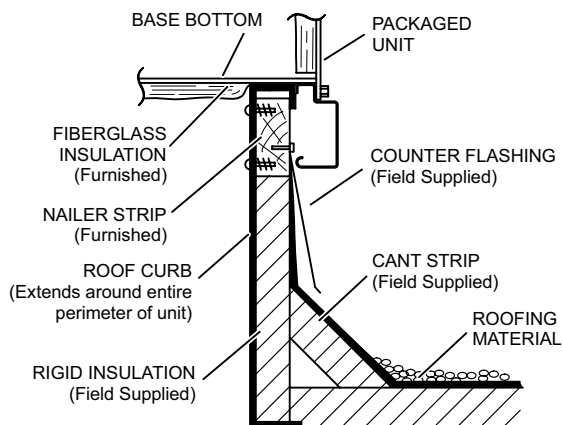
¹ NOTE - Opening size required in return air duct.

DIMENSIONS - ACCESSORIES

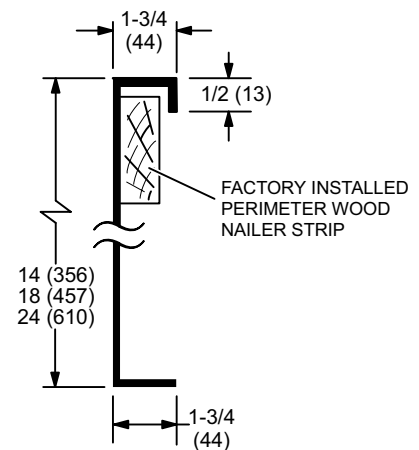
HYBRID ROOF CURBS - DOUBLE DUCT OPENING



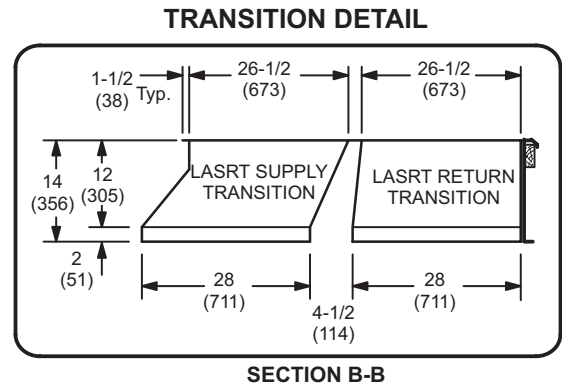
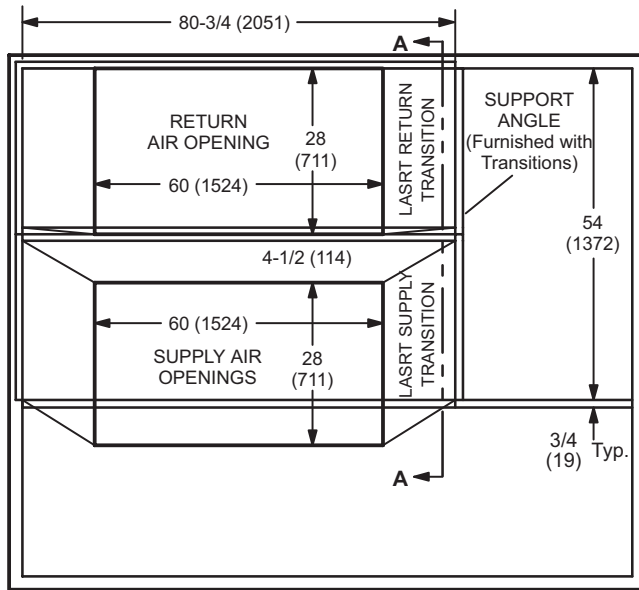
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

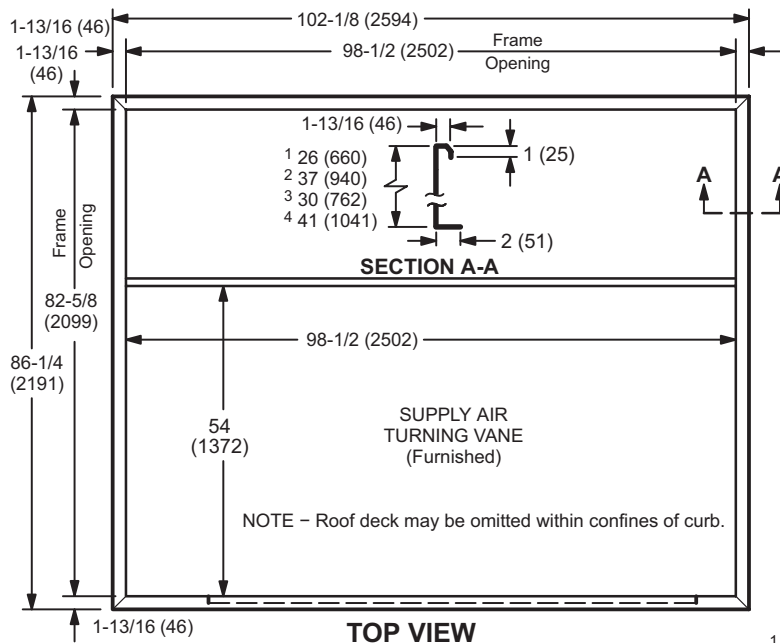


ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS



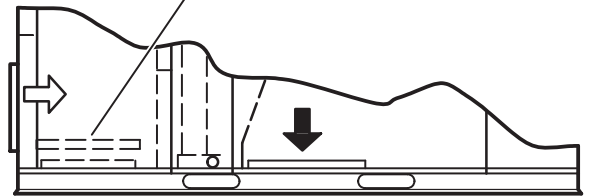
DIMENSIONS - ACCESSORIES

HORIZONTAL ROOF CURBS – Requires Optional Horizontal Return Air Panel Kit

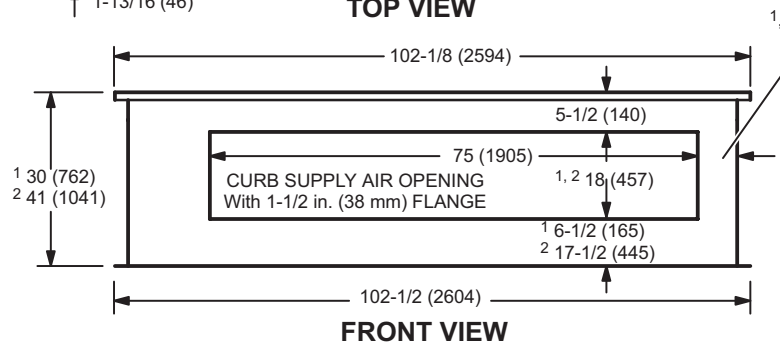


NOTE - C1CURB15C-1 is designed for horizontal discharge when unit is mounted on a slab.
C1CURB17C-1 is designed for horizontal discharge when unit is mounted on a rooftop.

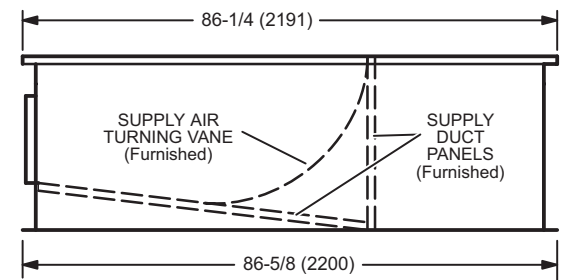
PANEL TO COVER RETURN AIR OPENING IN BOTTOM OF UNIT
(Furnished With Optional Horizontal Return Air Panel Kit)



**SIDE VIEW
(PACKAGED UNIT)**



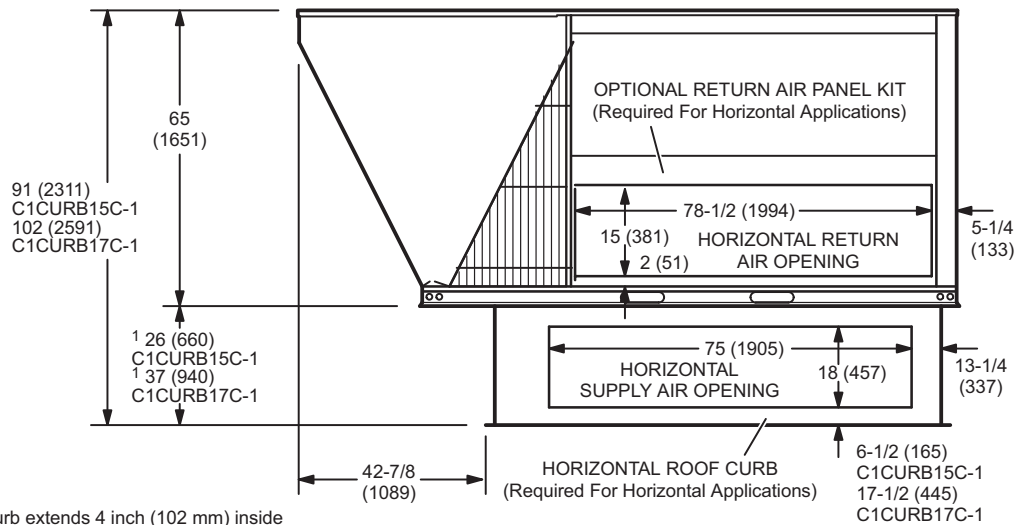
1,2 13-1/4 (337)



SIDE VIEW

¹ C1CURB15C-1 ² C1CURB17C-1

HORIZONTAL SUPPLY AND RETURN AIR OPENINGS ROOFTOP UNIT WITH HORIZONTAL ROOF CURB



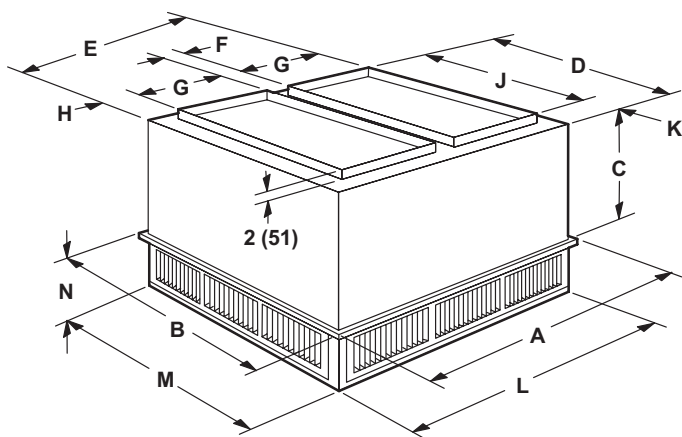
**SIDE VIEW
(Horizontal Openings)**

¹ NOTE – Top of Curb extends 4 inch (102 mm) inside bottom of unit base. See Typical Flashing Detail.

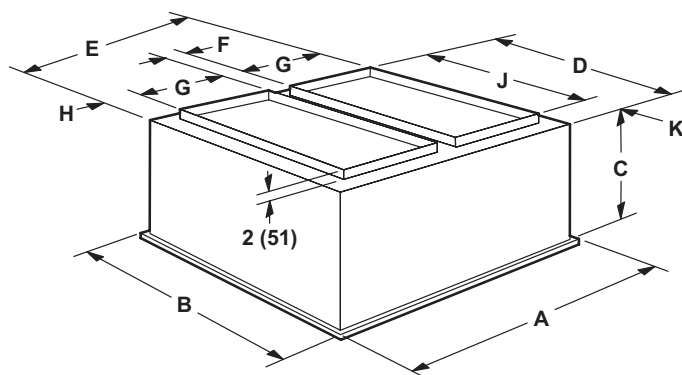
DIMENSIONS - ACCESSORIES

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



Model Number		LARTD30/36S
A	in.	65-5/8
	mm	1667
B	in.	65-5/8
	mm	1667
C	in.	40-1/2
	mm	1029
D	in.	63-1/2
	mm	1613
E	in.	63-1/2
	mm	1613
F	in.	4-1/2
	mm	114
G	in.	28
	mm	711
H	in.	1-1/2
	mm	38
J	in.	60
	mm	1524
K	in.	1-3/4
	mm	44
L	in.	63-1/2
	mm	1613
M	in.	63-1/2
	mm	1613
N	in.	12-1/8
	mm	308
Duct Size	in.	28 x 60
	mm	711 x 1524

Model Number		LAFD30/36S
A	in.	65-5/8
	mm	1667
B	in.	65-5/8
	mm	1667
C	in.	40
	mm	1016
D	in.	63-1/2
	mm	1613
E	in.	63-1/2
	mm	1613
F	in.	4-1/4
	mm	108
G	in.	28
	mm	711
H	in.	1-5/8
	mm	32
J	in.	60
	mm	1524
K	in.	1-3/4
	mm	44
Duct Size	in.	28 x 60
	mm	711 x 1524

REVISIONS

Section	Description
Options/Accessories	Removed Standard Efficiency Economizer option. New model/catalog number for High Efficiency Economizer. New model/catalog numbers for Outdoor Air Dampers. Removed Novar 2051 option.



ALLIED

Commercial

Visit us at www.allied-commercial.com

For the latest technical information, visit us at www.allied-commercial.com

Contact us at 1-800-448-5872

NOTE - Due to Allied Commercial ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

©2019 Allied Air Enterprises LLC, a Lennox International Inc. Company