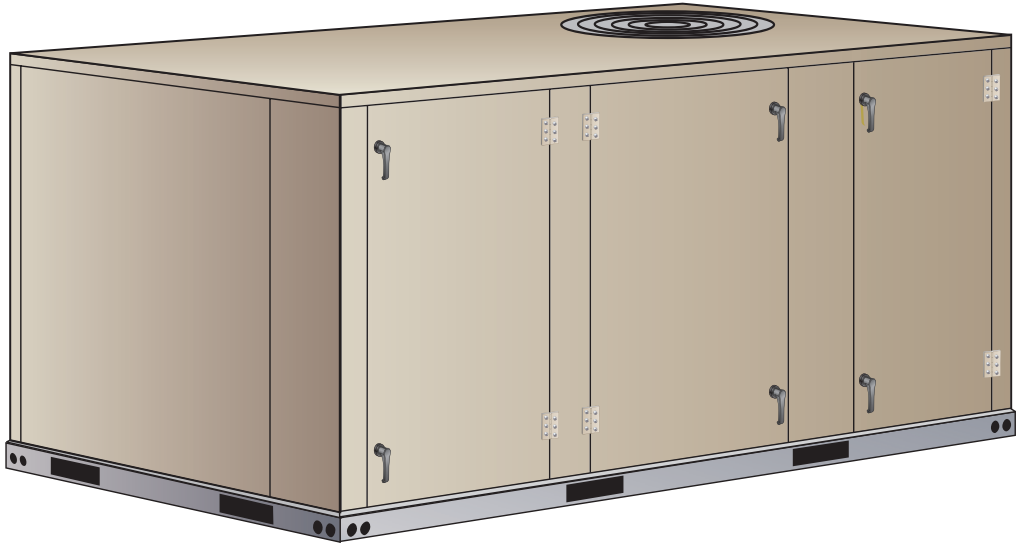




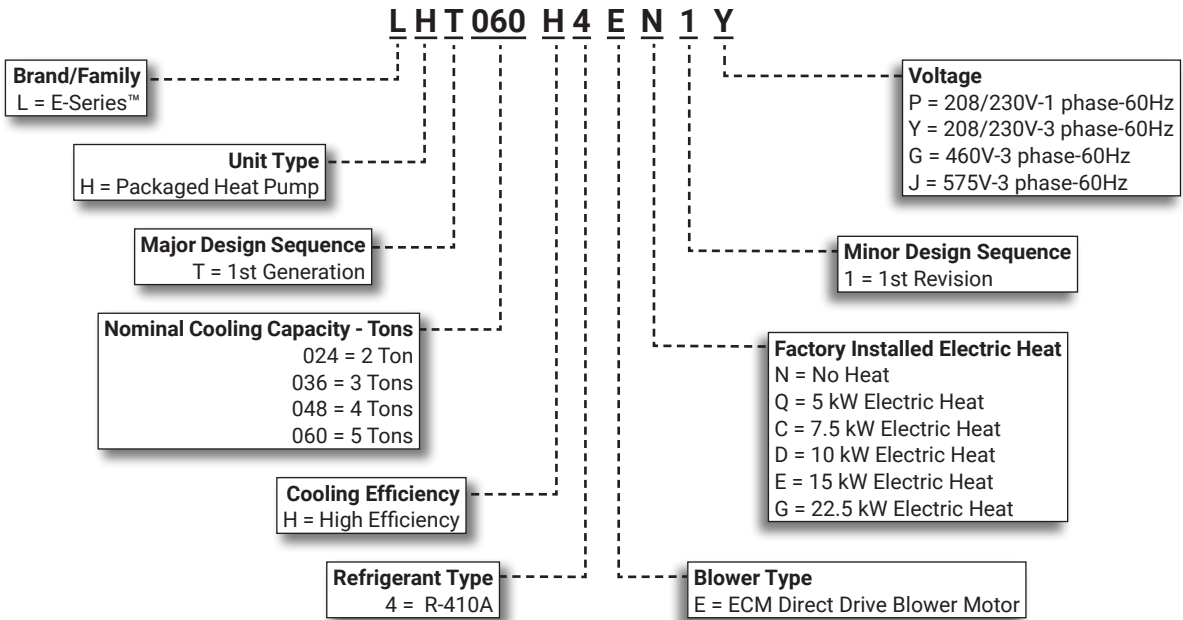
COMMERCIAL
PRODUCT SPECIFICATIONS

Bulletin No. 310984
August 2023
Supersedes April 2023



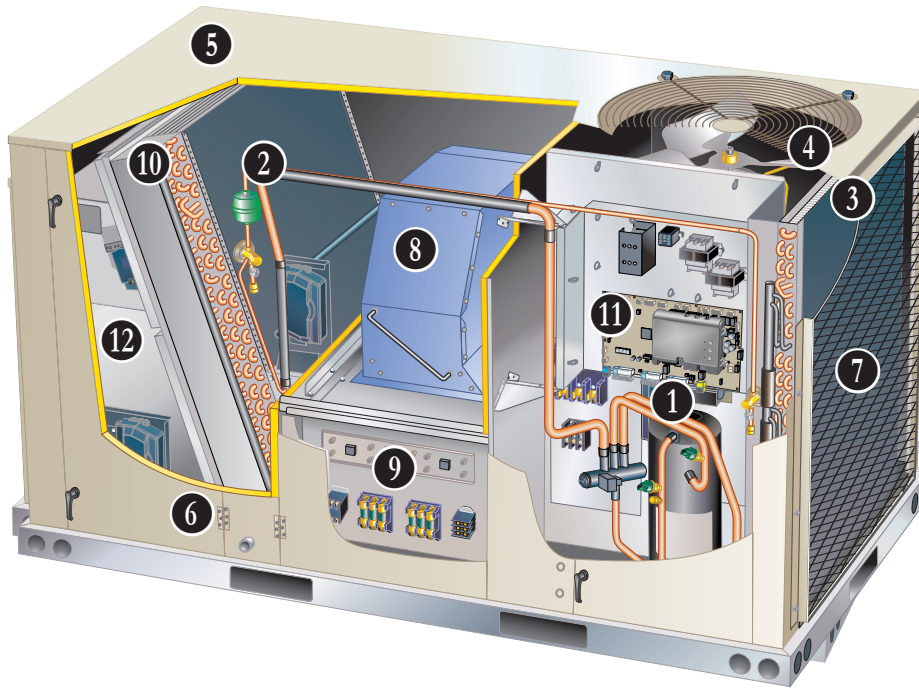
3 to 6 Tons
Net Cooling Capacity - 34,800 to 72,000 Btuh
Optional Electric Heat - 7.5 to 30 kW

MODEL NUMBER IDENTIFICATION



FEATURE HIGHLIGHTS

E-Series™ rooftop units featuring the Intelli-Guide™ 2.0 Control System create a bright future through a highly energy-efficient and environmentally sustainable design. Comprehensive configurations meet a wide range of applications, making it the most flexible product line Allied has to offer.



1. Two Stage Compressor
2. Filter/Drier
3. Outdoor Coil
4. Variable Speed (ECM) Fan Motor
5. Heavy Gauge Steel Cabinet
6. Hinged Access Panels
7. Combination Coil/Hail Guards (option)
8. Supply Air Direct Drive (ECM) Blower
9. Electric Heat (option)
10. Air Filters
11. Intelli-Guide™ 2.0 Control System
12. Economizer (option)

CONTENTS

Approvals And Warranty	3
Blower Data	23
- 0.5 Hp 3 Row (024, 036)	23
- 1.0 Hp 3 Row (048)	24
- 1.0 Hp 4 Row (060)	25
- 1.5 Hp 3 Row (036, 048)	26
- 1.5 Hp 4 Row (060)	28
Control System	7
Cooling / Heating Ratings	19
Dimensions	37
- Accessories	38
Electrical/Electric Heat Data	31
Electric Heat Capacities	35
Features And Benefits	3
Model Number Identification	1
Optional Conventional Temperature Control Systems	11
Options / Accessories	15
Outdoor Sound Data	36
Sequence Of Operation	13
Specifications	18
Unit Clearances	35
Weight Data	36
- Options / Accessories	36
- Unit	36

APPROVALS AND WARRANTY

APPROVALS

- AHRI Certified to AHRI Standard 210/240
- ETL and CSA listed
- Efficiency rating certified by CSA
- 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 2023 energy efficiency standards
- All models are ENERGY STAR® certified to use less energy, help save money on utility bills, and help protect the environment
- ISO 9001 Registered Manufacturing Quality System

WARRANTY

- Compressors - Limited five years
- Intelli-Guide™ 2.0 Unit Controller - Limited three years
- Optional High Performance Economizers - Limited five years
- All other covered components - Limited one year

FEATURES AND BENEFITS

COOLING / HEATING 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

1 Two-Stage Compressor

- Two-stage scroll compressors on all models for high performance, reliability, quiet operation and increased part-load efficiency
- Resiliently mounted on rubber grommets for quiet operation

Compressor Crankcase Heater

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

Thermal Check/Expansion Valve

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

Reversing Valve

- 4-way interchange reversing valve rapidly changes the direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa

2 Filter/Drier

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

High Pressure Switch

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

Low Pressure Switch

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

Indoor Coil Freeze Protection

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

3 Outdoor Coil

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

Indoor 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

Antimicrobial Condensate Drain Pan

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

FEATURES AND BENEFITS

COOLING / HEATING SYSTEM (continued)

- 4** **Variable Speed Outdoor Coil Fan Motor**
- Variable speed (ECM) fan motor for energy efficient Single Zone VAV performance and quiet operation
 - Thermal overload protected
 - Totally enclosed
 - Permanently lubricated ball bearings
 - Shaft up
 - Wire basket mount

Outdoor Coil Fan

- PVC coated fan guard furnished

Required Selections

Cooling Capacity

- Specify nominal cooling capacity

Options/Accessories

Factory or Field Installed

Drain Pan Overflow Switch

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

Field Installed

Condensate Drain Trap

- Constructed of PVC or copper

CABINET

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

Airflow Choice

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

NOTE - Can be field converted to horizontal airflow configuration without any optional kits.

Duct Flanges

- Provided for horizontal duct attachment

Power Entry

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

Exterior Panels

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

Insulation

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

6 **Hinged Access Panels**

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

NOTE - Optional Economizers, Power Exhaust, Outdoor Air Dampers and Barometric Relief Dampers include a filler panel for proper cabinet fit.

Required Selections

Airflow Configuration

- Specify horizontal or downflow

Options/Accessories

Factory Installed

Corrosion Protection

- Completely flexible immersed coating
- Electrodeposited dry film process (AST ElectroFin E-Coat)
- ASTM B117 / DIN 53167 Salt Spray - 15,000+ hours
- ASTM G85 Annex A3 SWAAT Modified Salt Spray - 3,000 hours
- VA Master Construction Specification Division 23 for High Humidity Installations
- CID AA-52474A (GSA)

Factory or Field Installed

7 **Combination Coil/Hail Guards**

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

FEATURES AND BENEFITS

8 BLOWER

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

Variable-Speed ECM Direct Drive Motor

- All models (forward curved blades)

E-Direct™ Direct Drive ECM Blower System

- 036, 048 and 060 models (backward curved blades)
- High-efficiency, variable-speed ECM (electronically commutated) motor
- Eliminates the need for a separate variable-frequency drive
- Advanced Blower Diagnostics: Intelli-Guide™ 2.0 Unit Controller communicates via Modbus with E-Direct™ blower to provide control commands, blower proving functionality, and detailed alarm codes
- Single Zone VAV control modulates the amount of supply blower airflow according to cooling demand, heating demand, ventilation demand or smoke alarm
- The amount of airflow for each stage can be set according to a parameter in the Intelli-Guide™ 2.0 Unit Controller
- Unit is shipped from the factory with preset airflows
- Fully variable speed motor modulates to maximize system efficiency
- Combines the motor and electronics into one unit
- Aerodynamically optimized impeller with curved blades mounted directly onto the rotor



- Air inlet grill reduces indoor sound levels without affecting air performance



Required Selections

Blower Motor

- Specify Standard Static or High Static

ELECTRICAL

WireRight™ System

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

Electrical Plugs

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

Required Selections

Voltage Choice

- Specify when ordering base unit

Options/Accessories

Factory Installed

Circuit Breakers

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

Phase/Voltage Detection (3 Phase models only)

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

Short-Circuit Current Rating (SCCR)

- Higher short circuit protection up to 100kA

NOTE - Disconnect Switch not available with higher SCCR option. SCCR option only available with factory installed electric heat..

Factory or Field Installed

Disconnect Switch

- Accessible from outside of unit
- Spring loaded weatherproof cover furnished
 - Factory installed, non-powered, field wired
 - Field installed, non-powered, field wired

Field Installed

Electric Heat

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

GFI Weatherproof Cover

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

FEATURES AND BENEFITS

INDOOR AIR QUALITY

- 10** Air Filters
- Disposable 2 inch MERV 4 filters furnished as standard

Options/Accessories

Factory or Field Installed

High Efficiency Air Filters

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

Field Installed

- Intelli-Guide™ 2.0 Unit Controller, which adjusts economizer dampers as needed

Replacement Filter Media Kit With Frame

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

CONTROL SYSTEM

INTELLI-GUIDE™ 2.0 CONTROL SYSTEM



Intelli-Guide™ 2.0 Control System is designed to accelerate equipment install and service. Standard with all E-Series™ rooftop units, control system integrates key technologies that lower installation costs, drive system efficiency, and protect your investments.

The Intelli-Guide™ 2.0 Unit Controller is a microprocessor-based controller that provides flexible control of all unit functions.

Mobile Service App

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

Additional Features:

- Built-In 7-Segment Display shows Unit Status and active alarms for easy troubleshooting
- Buttons for test and clearing delays
- WireRight™ System with keyed and removable screw terminals ensure correct field wiring
- Built-in BACnet MS/TP and IP allow open integration to building management systems.
- Two-port Ethernet Switch enables daisy chaining for BACnet IP and automatic firmware updates

NOTE - Unit Internet Connection required.

- Profile setup copies key settings between units with the same configuration to reduce setup time
- USB port allows a technician to download and transfer unit information to help verify service was performed
- USB software updates on the Intelli-Guide™ 2.0 Unit Controller enhance functionality without the need to change components
- Unit Controller Software

Configurable Built-In Functions

- Discharge Air Cooling Control
- Up to three distinct Cooling Airflows in Thermostat Mode
- Programmable independent heating, ventilation and cooling blower speeds
- Discharge Air Heating Control

- Economizer Control Options (See Economizer / Exhaust Air / Outdoor Air sections)
- Exhaust Fan Control Modes for fresh air damper position
- Configurable Morning Warm-up
- Night Setback Mode
- Fresh Air Tempering for Improved Ventilation
- Demand Control Ventilation
- Low Ambient Controls for operation down to 0°F
- Two Defrost Control Methods (demand and timed - heat pumps only)

Component Protection / Unit Safeguards:

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

Control Methods / Interfaces:

- DDC and 24V Thermostat
- BACnet MS/TP and IP
- LONTalk (Factory and Field Option)
- S-BUS
- Zone Temperature Sensor Input
- Dehumidistat and Humidity Sensor Inputs
- Indoor Air Quality Inputs (2)
- Built-in Control Parameter Defaults
- Permanent Diagnostic Code Storage
- Field Adjustable Control Parameters (Over 200 settings)
- Multiple Configurable Digital Inputs
- LED Indicators

Intelli-Guide™ 2.0 Control System features vary with the type of rooftop unit in which the control is installed.

CONTROL SYSTEM

INTELLI-GUIDE™ 2.0 CONTROL SYSTEM (continued)

Controls Options

Factory or Field Installed

Blower Proving Switch

- Monitors blower operation, shuts down unit if blower fails

Dirty Filter Switch

- Senses static pressure increase and issues alarm if necessary
-

OPTIONS / ACCESSORIES

ECONOMIZER

- 12 • Economizer operation is set and controlled by the Intelli-Guide™ 2.0 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

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

Factory or Field Installed

High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 compliant
- Combination Outdoor Air Hood is furnished
- Factory installed Economizer can be ordered with three exhaust options:
 - Barometric Relief Dampers
 - Power Exhaust Fan

NOTE - See Power Exhaust Fan section for additional requirements.

- No Exhaust
- Field installed Economizer includes Barometric Relief Dampers with Combination Hood
- Barometric Relief Dampers allow relief of excess air
- Dampers prevent blow back and outdoor air infiltration during off cycle
- Bird screen furnished

NOTE - Barometric Relief Dampers are required when Economizer is factory installed with factory installed Power Exhaust Fan option. See Power Exhaust Fan section and Options/Accessories table.

- Demand Control Ventilation (DCV) ready using optional CO₂ sensors.
- Horizontal Barometric Dampers are required for horizontal Economizer applications and must be ordered separately.
- Linked damper action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit

OPTIONS / ACCESSORIES

ECONOMIZER (continued)

Factory or Field Installed (continued)

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

NOTE - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2013 Building Energy Efficiency Standards.

NOTE - Refer to Installation Instructions for complete setup information.

Differential Sensible Control

- Factory setting
- Uses outdoor air and return air sensors that are furnished with the unit
- The Intelli-Guide™ 2.0 Unit Controller compares outdoor air and return air setpoints and activates the economizer when the outdoor air temperature is below the configured setpoint and cooler than return air

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

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

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

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.

Single Enthalpy Temperature Control (Not for Title 24)

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

Differential Enthalpy Control (Not for Title 24)

- Order two Single Enthalpy Controls.
 - One is field installed in the return air section
 - One in the outdoor air section
- Allows the economizer control to select between outdoor air or return air, whichever has lower enthalpy

Field Installed

Outdoor Air CFM Control

- Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows
- References a velocity sensor located in the rooftop unit outdoor air section
- Intelli-Guide™ 2.0 Unit Controller changes the economizer position to help minimize the effect of supply fan speed changes on outdoor air volume levels
- Setpoint for outdoor air volume is established by field testing

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

Building Pressure Control

- Maintains constant building pressure level
- Using differential pressure information between the outdoor air and the building air, the Intelli-Guide™ 2.0 Unit Controller changes the economizer position to help maintain a constant building pressure

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

Horizontal Barometric Relief Dampers

- For use when unit is configured for horizontal applications with an economizer
- Allows relief of excess air
- Blade type dampers prevent blow back and outdoor air infiltration during off cycle
- Field installed in return air duct
- Exhaust hood with bird screen furnished
- Requires Horizontal Economizer Conversion Kit

Horizontal Economizer Conversion Kit

- Insulated panel covers the bottom return air opening on the unit base to convert downflow economizer to horizontal air flow

OPTIONS / ACCESSORIES

EXHAUST

Factory or Field Installed

Power Exhaust Fan

- Installs internal to unit for downflow applications only with economizer option
- Provides exhaust air pressure relief
- Interlocked to run when supply air blower is operating
- Fan runs when outdoor air dampers are 50% open (adjustable)
- Motor is overload protected
- Fan is 16 in. diameter
- Four blades
- One 1/3 hp motor

NOTE - If Power Exhaust is field installed with a factory installed Economizer, the Economizer must be ordered with No Exhaust option. Barometric Relief Dampers must also be ordered separately for field installation.

NOTE - If Power Exhaust is factory installed with a factory installed Economizer, Barometric Relief Dampers must also be ordered separately for field installation.

OUTDOOR AIR

Factory or Field Installed

Outdoor Air Damper

- Downflow or Horizontal
- 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

NOTE - Manual Outdoor Air Damper is a field installed option only

ROOF CURBS

Field Installed

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

Hybrid Roof Curbs, Downflow

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

Adjustable Pitch Curb

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

Adaptor Curbs (not shown)

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

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

CEILING DIFFUSERS

Field Installed

Ceiling Diffusers

(Flush or Step-Down)

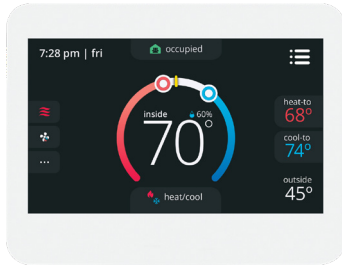
- White powder coat finish on diffuser face and grilles
- Insulated UL listed duct liner
- Diffuser box has collars for duct connection
- Step-down diffusers have double deflection blades
- Flush diffusers have fixed blades
- Provisions for suspending
- Internally sealed to prevent recirculation
- Removable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

Transitions (Supply and Return)

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

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

CS8500 Commercial 7-Day Programmable Thermostat



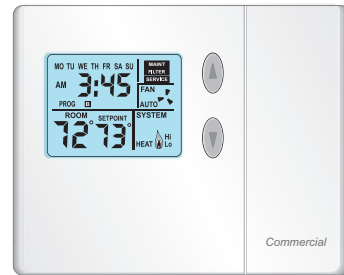
- Fully Communicating Sensor
- Full Color Touchscreen Interface
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Sensors For Temperature, Humidity And Optional CO₂
- Remote Sensor Options For Occupancy, Temperature
- BACnet Capable Options
- 5-2 or 7-Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-Changeover
- Four-Wire Installation
- FDD, ASHRAE, IECC Compliant

CS7500 Commercial 7-Day Programmable Thermostat



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

CS3000 Commercial 5-2 Day Programmable Thermostat



- Conventional Multi-Stage Thermostat
- Intuitive Display
- Push-Button Operation
- Up To 2 Heat / 2 Cool
- Built-In Temperature Sensor
- Remote Temperature Sensing
- Up to 5-2 Day Scheduling
- Smooth Setback Recovery
- Heat/Cool Auto-changeover

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Description	Catalog No.
CS8500 Commercial 7 Day Programmable Thermostat	
CS8500 7-Day Thermostat	No CO ₂ Sensing 24K55
	With CO ₂ Sensing 24K53
Sensors/Accessories	¹ Remote non-adjustable wall-mount 10k 47W37
	¹ Remote non-adjustable wall-mount 11k 94L61
Sysbus Network Cable (Yellow) for CS8500 and LCS-5030 Wired Room Sensor	
Twisted pair 100% shielded communication cable, Red and Black	500 ft. box 27M19
22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated	1000 ft. box 94L63
Insulation - Low smoke PVC, NEC, CMP	2500 ft. roll 68M25
CS7500 Commercial 7-Day Programmable Thermostat	
CS7500 7-Day Thermostat	24K41
Sensors/Accessories	² Remote non-adjustable wall-mount 20k 47W36
	² Remote non-adjustable wall-mount 10k 47W37
	Remote non-adjustable discharge air (duct mount) 19L22
	Outdoor temperature sensor X2658
CS3000 Commercial 5-2 Day Programmable Thermostat	
CS3000 5-2 Day Thermostat	11Y05
Sensors/Accessories	Remote non-adjustable wall mount 10k averaging 47W37
	Thermostat wall mounting plate X2659
Universal Thermostat Guard with Lock (clear)	
	Inside Dimensions (H x W x D) 5-7/8 x 8-3/8 x 3 in. 39P21

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

² Remote wall-mount sensors can be applied in any of the following combinations:

One Sensor - (1) 47W36, Two Sensors - (2) 47W37, Three Sensors - (2) 47W36 and (1) 47W37

Four Sensors - (4) 47W36, Five Sensors - (3) 47W36 and (2) 47W37

SEQUENCE OF OPERATION

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

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

NOTE: When the compressor is operating at first stage, the condenser fan is operating at low speed. The condenser fan switches to high speed when the compressor switches to second stage to match operation.

Modulating Outdoor Air Damper:

Damper minimum positions #1 and 2 are adjusted during unit setup to provide minimum fresh air requirements at the indicated supply fan speeds per ASHRAE 62.1.

- Supply fan is off and the outdoor air damper is closed
- Supply fan is on low speed and the outdoor air damper is at minimum position 1
- Supply fan is on high speed and the outdoor air damper is at minimum position 2

¹ Unit Features an Economizer and Outdoor Air is Suitable

Cooling - Thermostat or Zone Sensor Mode (Up to 3 stages Y1, Y2, Y3)

Y1 Demand:

Compressor is off, supply fan is on low speed, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

After 5 minutes (default unit controller setting), supply fan switches to high speed. Economizer continues modulating with supply fan on high speed to maintain 55°F supply air temperature.

Y2 Demand:

Compressor is off, supply fan is on high speed, and economizer modulates to maintain 55°F supply air temperature.

Economizer opens to maximum. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor is energized and operates at first stage while supply fan stays on high speed.

NOTE - The reversing valve is energized at the same time as the compressor.

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.

Y3 Demand:

Economizer is at maximum open and compressor operates at first stage. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor switches to second stage operation while supply fan stays on high speed.

Unit Does Not Feature an Economizer (or Outdoor Air Is Not Suitable)

Cooling - Thermostat or Zone Sensor (Up to 2 stages Y1, Y2)

Y1 Demand:

Compressor operates at first stage and supply fan operates at low speed.

Y2 Demand:

Compressor operates at second stage and supply fan operates at high speed.

SEQUENCE OF OPERATION

Heating Mode: Thermostat or Zone Sensor (1 stage W1)

W1 Demand:

A first-stage heating demand (W1) will energize compressor 1 and the outdoor fan

NOTE - L1 reversing valve is de-energized in the heating mode

Units With Optional Electric Heat

An increased heating demand (W2) will energize electric heat.

Electric heat is also energized during the defrost cycle (W1) to maintain discharge air temperature.

Defrost Mode

Coil Sensor (RT48) and Ambient Sensor (RT17) provides input to the Intelli-Guide™ 2.0 Unit Controller to initiate a defrost cycle if needed.

Coil sensor is located on a return bend on the front of the outdoor coil.

Ambient sensor is located on the inside of the corner mullion on the back of the outdoor coil section.

If the coil sensor measures a temperature below 35°F during mechanical heating mode, defrost logic is enabled. The system will constantly monitor coil and ambient temperatures and will initiate a defrost cycle if the controller determines that the target temperature difference between the coil and ambient temperature has been satisfied, or when the accumulated run time with coil temperature below 35°F reaches 6 hours.

If the ambient sensor fails, or the circuit is in uncalibrated state, the controller will switch to time/temperature defrost operation.

Electric heat is energized during a defrost cycle to maintain discharge air temperature.

OPTIONS / ACCESSORIES

Item	Catalog Number	Unit Model Number				
		024	036	048	060	
COOLING SYSTEM						
Condensate Drain Trap	PVC	22H54	X	X	X	X
	Copper	76W27	X	X	X	X
Drain Pan Overflow Switch		21Z07	OX	OX	OX	OX
BLOWER - SUPPLY AIR						
Motors - Standard Static (All voltages)	Direct Drive ECM Blower - 0.50 hp	Factory	O	O		
	1.0 hp	Factory			O	O
Motors - High Static (3 phase only)	E-Direct™ Direct Drive ECM Blower System Single Zone VAV- 1.5 hp	Factory		O	O	O
CABINET						
Combination Coil/Hail Guards		13T03	OX	OX	OX	OX
Corrosion Protection (outdoor)		Factory	O	O	O	O
CONTROLS						
Blower Proving Switch		21Z10	OX	OX	OX	OX
Commercial Controls	CPC Einstein Integration	Factory	O	O	O	O
	LonTalk® Module	54W27	OX	OX	OX	OX
	Novar® LSE	Factory	O	O	O	O
Dirty Filter Switch		53W66	OX	OX	OX	OX
Smoke Detector - Supply or Return (Power board and one sensor)		21Z11	OX	OX	OX	OX
Smoke Detector - Supply and Return (Power board and two sensors)		21Z12	OX	OX	OX	OX
ELECTRICAL						
Voltage 60 Hz	208/230V - 1 phase	Factory	O	O	O	O
	208/230V - 3 phase	Factory		O	O	O
	460V - 3 phase	Factory		O	O	O
	575V - 3 phase	Factory		O	O	O
¹ HACR Circuit Breakers		Factory	O	O	O	O
¹ Disconnect Switch	80 amp	22A23	OX	OX	OX	OX
	150 amp	22A24		OX	OX	OX
² Short-Circuit Current Rating (SCCR) of 100kA (includes Phase/Voltage Detection)		Factory	O	O	O	O
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V only)	74M70	X	X	X	X
	³ 20 amp non-powered, field-wired (208/230V, 460V, 575V)	67E01	X	X	X	X
Weatherproof Cover for GFI		10C89	X	X	X	X
Phase/Voltage Detection - 3 Phase Models Only		Factory		O	O	O

¹ HACR Circuit Breaker or Disconnect switch is required and must be ordered separately.

² Disconnect Switch not available with SCCR option.

SCCR option is only available with factory installed electric heat or no electric.
SCCR option is not available if the MOCP of the configured unit is greater than 200A.

³ Canada requires a minimum 20 amp circuit. Select 20 amp, non-powered, field wired GFI.

NOTE - Catalog 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	Catalog Number	Unit Model Number				
		024	036	048	060	
ELECTRIC HEAT						
5 kW	208/240V-1ph	22V76	X			
7.5 kW	208/240V-1ph	22V73	X	X	X	X
	208/240V-3ph	21Z26		X	X	X
	460V-3ph	21Z27		X	X	X
	575V-3ph	22U17		OX	OX	OX
10 kW	208/240V-1ph	22V77	X			
15 kW	208/240V-1ph	22V74		X	X	X
	208/240V-3ph	21Z28		X	X	X
	460V-3ph	21Z29		X	X	X
	575V-3ph	22U18		X	X	X
22.5 kW	208/240V-1ph	22V75				X
	208/240V-3ph	21Z30				X
	460V-3ph	21Z31				X
	575V-3ph	22U19				X

ECONOMIZER

High Performance Economizer With Outdoor Air Hood (Sensible Control) (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)

High Performance Economizer - Includes Barometric Relief Dampers and Combination Hood	20H48	OX	OX	OX	OX
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Economizer Accessories

Horizontal Economizer Conversion Kit	17W45	X	X	X	X
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Economizer Controls (Not for Title 24)

Differential Enthalpy	Order 2	21Z09	OX	OX	OX	OX
Sensible Control	Sensor is Furnished	Factory	O	O	O	O
Outdoor Air CFM Control		13J76	X	X	X	X
Single Enthalpy		21Z09	OX	OX	OX	OX
Global Control	Sensor Field Provided	Factory	O	O	O	O
Building Pressure Control		13J77	X	X	X	X

POWER EXHAUST FAN (DOWNFLOW ONLY)

Standard Static	208/230V-1 or 3ph	21Z13	OX	OX	OX	OX
<i>NOTE - Factory or Field installed Power Exhaust Fan requires "Barometric Relief Dampers for Power Exhaust Kit" for field installation. See below.</i>	460V-3ph	21Z14		OX	OX	OX
	575V-3ph	21Z15		OX	OX	OX

BAROMETRIC RELIEF

¹ Barometric Relief Dampers for Power Exhaust Kit	21Z21	X	X	X	X
² Horizontal Barometric Relief Dampers With Exhaust Hood	19F01	X	X	X	X

OUTDOOR AIR

Outdoor Air Dampers With Outdoor Air Hood

Motorized	15D17	OX	OX	OX	OX
Manual	15D18	X	X	X	X

¹ Required when Economizer is factory installed with factory installed Power Exhaust Fan option.

² Required when Economizer is configured for horizontal airflow.

NOTE - Catalog 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	Catalog Number	Unit Model Number				
		024	036	048	060	
INDOOR AIR QUALITY						
Air Filters						
High Efficiency Air Filters 20 x 20 x 2 in.	MERV 8 (Order 4)	54W21	OX	OX	OX	OX
	MERV 13 (Order 4)	52W39	OX	OX	OX	OX
Replaceable Media Filter With Metal Mesh Frame (includes non-pleated filter media)	20 x 20 x 2 in. (Order 4)	44N60	X	X	X	X
Indoor Air Quality (CO₂) Sensors						
Sensor - Wall-mount, off-white plastic cover with LCD display		77N39	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display		23V86	X	X	X	X
Sensor - Black plastic case with LCD display, rated for plenum mounting		87N52	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting		87N54	X	X	X	X
CO ₂ Sensor Duct Mounting Kit - for downflow applications		85L43	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensors (77N39)		90N43	X	X	X	X
ROOF CURBS						
Hybrid Roof Curbs, Downflow						
8 in. height		11F50	X	X	X	X
14 in. height		11F51	X	X	X	X
18 in. height		11F52	X	X	X	X
24 in. height		11F53	X	X	X	X
CEILING DIFFUSERS						
Step-Down - Order one	RTD11-95S	13K61	X	X	X	X
Flush - Order one	FD11-95S	13K56	X	X	X	X
Transitions (Supply and Return) - Order one	T1TRAN20N-1	17W54	X	X	X	X

NOTE - Catalog 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	2 Ton	3 Ton	4 Ton	5 Ton	
		Model Number	LHT024H4E	LHT036H4E	LHT048H4E	LHT060H4E	
		Efficiency Type	High	High	High	High	
		Blower Type	ECM Direct Drive	ECM Direct Drive	ECM Direct Drive	ECM Direct Drive	
Cooling Performance	Gross Cooling Capacity (Btuh)		25,000	37,000	46,800	58,000	
	¹ Net Cooling Capacity (Btuh) 3ph		---	35,000	44,500	55,000	
	¹ AHRI Rated Air Flow (cfm-high/low) 3ph		---	1400/935	1400/1100	1800/1300	
	¹ SEER (Btuh/Watt) 3ph		---	16.1	16.1	16.1	
	¹ EER (Btuh/Watt) 3ph		---	12.3	12.8	12.2	
	Total Unit Power (kW) 3ph		---	2.8	3.5	4.5	
	¹ Net Cooling Capacity (Btuh) 1ph			23,600	35,000	44,500	55,000
	¹ AHRI Rated Air Flow (cfm-high/low) 1ph			1050	1400/935	1400/1100	1800/1300
	¹ SEER2 (Btuh/Watt) 1ph			15.4	15.2	15.6	15.2
	¹ EER2 (Btuh/Watt) 1ph			11.4	11.4	12.0	11.4
	Total Unit Power (kW) 1ph			2.1	3.1	3.7	4.8
	Heating Performance	¹ Total High Heating Capacity (Btuh)		23,000	35,000	44,000	55,000
¹ AHRI Rated Air Flow (cfm) 3ph			1050	1400	1400	1900	
¹ HSPF (Region IV) - 3ph			---	8.5	8.5	8.5	
COP			3.6	3.8	3.9	3.7	
Total Unit Power (kW)			1.9	2.9	3.6	4.3	
¹ HSPF2 (Region IV) - 1ph			7.3	7.2	7.2	7.2	
¹ Total Low Heating Capacity (Btuh)			17,000	19,000	26,000	30,000	
COP			2.1	2.3	2.4	2.3	
Total Unit Power (kW)		2.4	2.6	3.3	3.8		
² Sound Rating Number (SRN) (dBA)			75	75	82	82	
Refrigerant	Type		R-410A	R-410A	R-410A	R-410A	
	Charge Furnished		17 lbs. 14 oz.	18 lbs. 12 oz.	14 lbs. 0 oz.	17 lbs. 1 oz.	
Electric Heat Available - See Page 16			5, 7.5, 10 kW	7.5 and 15 kW	7.5 and 15 kW	7.5, 15 and 22.5 kW	
Compressor Type (one per unit)			Two-Stage Scroll	Two-Stage Scroll	Two-Stage Scroll	Two-Stage Scroll	
Outdoor Coil	Net face area (total) - sq. ft.		19.3	19.3	19.3	19.3	
	Tube diameter - in.		3/8	3/8	3/8	3/8	
	Number of rows		2	2	2	3	
	Fins per inch		20	20	20	20	
Outdoor Coil Fans	Motor - (No.) horsepower		(1) 1/3 (ECM)	(1) 1/3 (ECM)	(1) 1/3 (ECM)	(1) 1/3 (ECM)	
	Motor rpm		730	850/575	850/700	945/725	
	Total Motor watts		130	70-240	140-240	140-310	
	Diameter - (No.) in. and no. of blades		(1) 24	(1) 24	(1) 24	(1) 24	
	Total air volume - cfm		3500	4060/2740	4060/3330	4400/3550	
Indoor Coil	Net face area (total) - sq. ft.		9.7	9.7	9.7	9.7	
	Tube diameter - in.		3/8	3/8	3/8	3/8	
	Number of rows		3	3	3	4	
	Fins per inch		14	14	14	14	
	Drain connection (Number) and size - in.		(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	
	Expansion device type		Balanced Port Thermostatic Expansion Valve,removable power head				
Indoor Blower	Standard	Blower Type	Direct Drive ECM				
	Static	Blade Type	Forward Curved				
	(All Voltages)	Nominal motor HP	0.50	0.50	1	1	
		Blower wheel D x W - in.	(1) 10 X 10	(1) 10 X 10	(1) 11 X 10	(1) 11 X 10	
	High	Blower Type	E-Direct™ Direct Drive ECM				
	Static	Blade Type	Backward Curved				
(3ph Only)	Nominal motor HP	---	1.5	1.5	1.5		
	Blower wheel D x W - in.	---	(1) 14 X 5	(1) 14 X 5	(1) 14 X 5		
Filters	Type of filter		MERV 4, Disposable				
	Number and size		(4) 20 x 20 x 2				
Electrical characteristics			208/230V - 60 Hz - 1 phase	208/230V - 60 Hz - 1 phase 208/230V, 460V, or 575V - 60 Hz - 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 210/240 (2-5 ton):

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

² 1 hp motor only available in single phase.

COOLING / HEATING RATINGS

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

2 TON COOLING LHT024H4E (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	640	25.5	1.14	.69	.82	.94	23.5	1.30	.69	.83	.97	21.4	1.50	.69	.84	.99	19.3	1.74	.70	.87	1.00				
	800	27.5	1.13	.74	.89	1.00	25.3	1.29	.75	.90	1.00	23.2	1.49	.76	.93	1.00	20.9	1.73	.77	.96	1.00				
	960	28.9	1.12	.79	.95	1.00	26.7	1.28	.80	.98	1.00	24.6	1.48	.81	1.00	1.00	22.5	1.72	.84	1.00	1.00				
67°F	640	27.5	1.13	.55	.67	.79	25.5	1.29	.54	.67	.80	23.3	1.49	.53	.67	.81	21.2	1.73	.51	.67	.83				
	800	29.5	1.11	.58	.72	.85	27.3	1.28	.58	.73	.87	25.2	1.48	.57	.74	.89	22.8	1.72	.57	.75	.92				
	960	31.0	1.10	.61	.77	.92	28.8	1.27	.61	.78	.94	26.4	1.47	.61	.79	.97	24.0	1.71	.61	.82	1.00				
71°F	640	29.6	1.11	.42	.54	.65	27.4	1.28	.40	.53	.65	25.2	1.48	.38	.52	.65	23.0	1.72	.36	.51	.65				
	800	31.6	1.10	.44	.57	.70	29.4	1.26	.42	.57	.71	27.1	1.47	.40	.56	.71	24.8	1.71	.39	.56	.73				
	960	33.1	1.09	.45	.60	.75	30.8	1.25	.44	.61	.76	28.5	1.46	.42	.60	.77	26.0	1.70	.41	.61	.79				

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil									
		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)		
				Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	640	17.1	2.02	.70	.90	1.00	14.7	2.33	.72	.94	1.00
	800	18.6	2.01	.78	1.00	1.00	16.4	2.32	.81	1.00	1.00
	960	20.4	2.00	.87	1.00	1.00	18.1	2.31	.91	1.00	1.00
67°F	640	18.8	2.01	.50	.68	.85	16.4	2.32	.49	.69	.89
	800	20.4	2.00	.56	.76	.95	17.8	2.32	.55	.79	1.00
	960	21.5	1.99	.61	.84	1.00	18.7	2.31	.61	.88	1.00
71°F	640	20.7	2.00	.33	.50	.66	18.2	2.31	.30	.49	.67
	800	22.2	1.99	.37	.56	.74	19.5	2.31	.33	.55	.76
	960	23.3	1.99	.39	.61	.82	20.5	2.30	.37	.61	.85

2 TON HEATING LHT024H4E

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil									
	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
640	36.4	2.98	21.6	1.92	19.8	2.72	12.7	2.40	6.2	1.84
800	36.9	2.80	22.0	1.75	20.7	2.41	13.5	2.09	7.1	1.53
960	37.3	2.70	22.4	1.64	21.1	2.22	14.0	1.89	7.5	1.33

COOLING / HEATING RATINGS

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

3 TON COOLING LHT036H4E (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	640	26.4	1.17	.70	.83	.95	24.3	1.34	.70	.84	.97	22.2	1.54	.70	.85	1.00	20.0	1.79	.71	.88	1.00
	800	28.3	1.16	.75	.89	1.00	26.1	1.33	.75	.91	1.00	23.9	1.54	.76	.94	1.00	21.7	1.78	.78	.97	1.00
	960	29.8	1.15	.80	.96	1.00	27.6	1.32	.81	.98	1.00	25.4	1.53	.83	1.00	1.00	23.4	1.78	.85	1.00	1.00
67°F	640	28.4	1.16	.55	.67	.79	26.3	1.33	.54	.68	.80	24.1	1.54	.53	.68	.82	21.9	1.78	.52	.68	.84
	800	30.5	1.15	.58	.73	.86	28.3	1.32	.58	.73	.88	26.0	1.53	.58	.74	.90	23.6	1.78	.57	.75	.93
	960	32.0	1.14	.62	.78	.93	29.7	1.31	.62	.79	.95	27.2	1.53	.61	.80	.98	24.8	1.77	.62	.83	1.00
71°F	640	30.5	1.15	.42	.54	.65	28.4	1.32	.40	.53	.65	26.1	1.53	.38	.52	.65	23.8	1.78	.36	.51	.66
	800	32.7	1.14	.43	.57	.70	30.3	1.31	.42	.57	.71	28.0	1.53	.41	.57	.72	25.6	1.77	.39	.57	.73
	960	34.2	1.13	.45	.61	.76	31.8	1.31	.44	.61	.77	29.3	1.52	.42	.61	.78	26.7	1.77	.41	.61	.80

3 TON COOLING LHT036H4E (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	960	33.8	2.19	.72	.86	1.00	31.1	2.46	.73	.89	1.00	28.3	2.78	.74	.92	1.00	25.2	3.14	.76	.96	1.00
	1200	35.9	2.20	.78	.95	1.00	33.1	2.48	.80	.98	1.00	30.3	2.79	.81	1.00	1.00	27.5	3.15	.84	1.00	1.00
	1440	37.8	2.22	.84	1.00	1.00	35.3	2.49	.86	1.00	1.00	32.5	2.81	.89	1.00	1.00	29.4	3.17	.93	1.00	1.00
67°F	960	36.1	2.20	.55	.70	.83	33.3	2.47	.55	.70	.85	30.5	2.79	.55	.72	.88	27.4	3.16	.54	.73	.92
	1200	38.3	2.22	.59	.76	.92	35.4	2.49	.60	.78	.94	32.3	2.80	.60	.79	.98	29.0	3.17	.60	.82	1.00
	1440	39.9	2.24	.63	.82	.99	36.9	2.50	.64	.84	1.00	33.6	2.81	.65	.87	1.00	30.1	3.17	.66	.91	1.00
71°F	960	38.6	2.22	.41	.54	.67	35.7	2.49	.40	.54	.68	32.7	2.81	.38	.54	.70	29.5	3.17	.36	.54	.71
	1200	40.8	2.24	.43	.59	.74	37.8	2.51	.42	.59	.76	34.6	2.82	.41	.59	.77	31.0	3.17	.39	.60	.80
	1440	42.4	2.26	.44	.63	.80	39.1	2.52	.44	.64	.82	35.9	2.83	.43	.65	.85	32.2	3.18	.42	.66	.89

3 TON HEATING LHT036H4E

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil									
	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
960	44.3	2.68	33.3	2.48	22.0	2.28	13.8	2.02	6.9	1.53
1200	45.1	2.50	34.1	2.30	22.8	2.10	14.6	1.84	7.7	1.35
1440	45.7	2.39	34.7	2.19	23.4	1.99	15.2	1.73	8.3	1.23

COOLING / HEATING RATINGS

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

4 TON COOLING LHT048H4E (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	895	35.9	1.46	.71	.85	.97	33.5	1.71	.71	.85	.99	30.9	2.00	.72	.88	1.00	28.2	2.34	.74	.90	1.00				
	1120	38.3	1.45	.76	.91	1.00	35.7	1.70	.77	.94	1.00	33.0	1.99	.79	.96	1.00	30.2	2.32	.81	.99	1.00				
	1345	40.1	1.43	.81	.98	1.00	37.6	1.69	.83	1.00	1.00	35.0	1.97	.85	1.00	1.00	32.3	2.31	.88	1.00	1.00				
67°F	895	38.4	1.45	.56	.69	.81	35.9	1.70	.56	.69	.82	33.3	1.99	.55	.70	.84	30.4	2.32	.55	.71	.87				
	1120	40.9	1.43	.59	.74	.88	38.3	1.68	.60	.75	.90	35.4	1.97	.60	.77	.92	32.3	2.31	.60	.78	.96				
	1345	42.7	1.42	.63	.79	.95	39.9	1.67	.63	.81	.97	36.9	1.96	.64	.83	1.00	33.7	2.29	.64	.86	1.00				
71°F	895	41.0	1.43	.43	.55	.67	38.4	1.68	.42	.55	.67	35.6	1.97	.40	.54	.68	32.7	2.31	.39	.54	.69				
	1120	43.5	1.41	.45	.59	.72	40.7	1.66	.44	.59	.73	37.8	1.96	.43	.59	.75	34.6	2.29	.41	.60	.76				
	1345	45.3	1.40	.46	.62	.77	42.4	1.65	.45	.63	.79	39.3	1.94	.44	.63	.81	36.0	2.27	.44	.64	.84				

4 TON COOLING LHT048H4E (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85°F						95°F						105°F						115°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1280	45.1	2.77	.73	.88	1.00	41.9	3.12	.74	.90	1.00	38.4	3.52	.76	.93	1.00	34.7	3.99	.78	.97	1.00				
	1600	47.9	2.78	.79	.96	1.00	44.5	3.14	.81	.99	1.00	40.9	3.54	.83	1.00	1.00	37.5	4.01	.86	1.00	1.00				
	1920	50.3	2.80	.85	1.00	1.00	47.1	3.15	.87	1.00	1.00	43.7	3.56	.90	1.00	1.00	39.8	4.02	.94	1.00	1.00				
67°F	1280	48.0	2.78	.56	.71	.84	44.7	3.14	.56	.72	.86	41.1	3.54	.57	.73	.89	37.4	4.01	.57	.75	.93				
	1600	50.8	2.80	.61	.77	.93	47.3	3.15	.61	.79	.96	43.4	3.56	.62	.81	.99	39.2	4.02	.63	.84	1.00				
	1920	52.8	2.81	.65	.83	1.00	48.9	3.16	.65	.85	1.00	45.0	3.57	.66	.88	1.00	40.7	4.03	.68	.92	1.00				
71°F	1280	51.1	2.80	.42	.55	.68	47.6	3.16	.41	.56	.70	43.9	3.56	.40	.56	.71	39.9	4.03	.39	.57	.73				
	1600	53.9	2.82	.44	.60	.75	50.1	3.17	.43	.60	.77	46.1	3.58	.42	.61	.79	41.7	4.04	.42	.62	.82				
	1920	55.9	2.83	.45	.64	.81	51.9	3.18	.45	.65	.83	47.7	3.59	.45	.66	.86	43.2	4.05	.44	.68	.90				

4 TON HEATING LHT048H4E

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil									
	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1280	54.5	3.14	42.1	2.95	29.4	2.76	18.9	2.47	9.3	1.85
1600	55.6	2.94	43.2	2.75	30.5	2.56	20.1	2.26	10.4	1.65
1920	56.8	2.80	44.4	2.62	31.7	2.43	21.3	2.13	11.6	1.51

COOLING / HEATING RATINGS

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

5 TON COOLING LHT060H4E (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1080	42.8	1.91	.71	.84	.97	40.4	2.20	.71	.85	.99	37.8	2.53	.72	.87	1.00	34.8	2.91	.73	.89	1.00
	1350	45.4	1.88	.76	.91	1.00	43.0	2.17	.77	.93	1.00	40.1	2.50	.79	.96	1.00	37.1	2.88	.80	.99	1.00
	1620	47.6	1.86	.81	.98	1.00	45.0	2.15	.82	1.00	1.00	42.3	2.48	.84	1.00	1.00	39.6	2.85	.87	1.00	1.00
67°F	1080	46.1	1.88	.56	.68	.81	43.5	2.17	.56	.69	.82	40.7	2.50	.56	.70	.83	37.8	2.87	.56	.71	.86
	1350	48.8	1.85	.59	.73	.87	46.1	2.14	.59	.75	.89	43.3	2.47	.60	.76	.92	39.8	2.84	.60	.78	.95
	1620	50.8	1.83	.62	.79	.94	48.0	2.12	.63	.80	.97	44.8	2.45	.63	.82	.99	41.5	2.83	.65	.84	1.00
71°F	1080	49.4	1.85	.43	.55	.66	46.7	2.14	.42	.54	.67	43.9	2.46	.41	.54	.67	40.7	2.83	.41	.55	.69
	1350	52.3	1.82	.44	.58	.71	49.4	2.11	.44	.58	.72	46.3	2.43	.43	.59	.73	43.1	2.81	.43	.60	.75
	1620	54.4	1.80	.46	.61	.76	51.3	2.09	.45	.62	.78	48.1	2.41	.45	.62	.80	44.5	2.78	.45	.63	.82

5 TON COOLING LHT060H4E (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1650	58.5	3.52	.73	.88	1.00	54.2	3.95	.74	.91	1.00	49.7	4.46	.76	.94	1.00	45.0	5.04	.78	.97	1.00
	2000	61.3	3.54	.78	.96	1.00	57.0	3.98	.81	.99	1.00	52.4	4.49	.83	1.00	1.00	48.1	5.07	.85	1.00	1.00
	2400	64.4	3.57	.85	1.00	1.00	60.4	4.02	.87	1.00	1.00	56.0	4.53	.89	1.00	1.00	51.2	5.11	.94	1.00	1.00
67°F	1650	62.8	3.56	.56	.71	.85	58.3	3.99	.56	.72	.87	53.5	4.50	.57	.73	.90	48.5	5.08	.57	.76	.94
	2000	65.6	3.59	.60	.76	.92	61.0	4.03	.60	.78	.95	56.0	4.53	.61	.80	.98	50.8	5.11	.62	.83	1.00
	2400	68.2	3.61	.64	.83	1.00	63.2	4.05	.64	.85	1.00	58.1	4.55	.65	.87	1.00	52.4	5.12	.67	.91	1.00
71°F	1650	67.2	3.60	.41	.55	.69	62.7	4.04	.41	.55	.70	57.7	4.55	.40	.56	.71	52.5	5.13	.39	.56	.73
	2000	70.2	3.63	.43	.59	.74	65.4	4.07	.43	.60	.76	60.2	4.57	.42	.61	.78	54.5	5.15	.41	.61	.81
	2400	72.6	3.66	.45	.63	.80	67.5	4.10	.45	.64	.83	61.8	4.60	.44	.65	.85	56.2	5.17	.44	.67	.89

5 TON HEATING LHT060H4E

Indoor Coil Air Volume 70°F Dry Bulb cfm	Air Temperature Entering Outdoor Coil									
	65°F		45°F		25°F		5°F		-15°F	
	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input	Total Heating Capacity	Comp. Motor Input
	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW
1650	72.8	3.89	55.4	3.62	37.1	3.34	25.1	2.96	12.3	2.22
2000	74.3	3.68	56.9	3.40	38.6	3.12	26.6	2.75	13.8	2.00
2400	76.5	3.52	59.0	3.25	40.7	2.97	28.7	2.59	15.9	1.85

0.5 HP | 3 ROW (024, 036)

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data.

DOWNFLOW

External Static Press. in. w.g.	Percentage of Total Motor Torque																										
	20%			30%			40%			50%			60%			70%			80%			90%			100%		
	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts
0	819	47	403	1006	79	463	1192	111	523	1335	152	573	1477	193	622	1580	236	661	1682	279	699	1812	353	753	1876	400	783
0.1	723	48	485	919	82	539	1114	116	593	1264	159	637	1414	202	681	1522	246	715	1629	290	749	1767	365	797	1835	414	824
0.2	636	51	565	840	88	613	1044	124	660	1201	169	699	1357	213	738	1470	258	769	1582	303	799	1726	380	841	1797	429	865
0.3	557	57	641	769	96	683	981	134	725	1144	180	760	1306	226	794	1423	273	821	1540	319	848	1689	397	885	1761	446	906
0.4	485	65	713	704	106	750	923	146	787	1091	194	818	1259	241	848	1380	289	872	1500	336	895	1653	415	929	1725	463	948
0.5	418	73	783	644	116	815	870	158	846	1043	207	873	1215	256	900	1339	305	921	1462	353	942	1618	433	973	1689	481	991
0.6	355	82	849	587	127	876	819	171	903	996	222	927	1173	272	950	1299	321	969	1425	370	987	1582	451	1016	1651	499	1034
0.7	---	---	---	---	---	---	769	184	957	950	236	978	1131	287	998	1259	337	1015	1387	387	1032	1544	468	1058	1610	516	1077
0.8	---	---	---	---	---	---	720	195	1008	904	248	1026	1088	301	1044	1218	352	1060	1347	403	1075	1503	484	1101	1565	531	1121
0.9	---	---	---	---	---	---	670	206	1057	857	260	1073	1043	314	1088	1173	366	1102	1303	417	1116	1458	498	1142	---	---	---
1.0	---	---	---	---	---	---	617	214	1102	806	269	1116	994	324	1130	1125	376	1144	1255	428	1157	1406	510	1184	---	---	---
1.1	---	---	---	---	---	---	561	219	1145	751	276	1157	941	332	1169	1071	384	1183	1200	436	1196	1347	518	1225	---	---	---
1.2	---	---	---	---	---	---	500	221	1185	691	278	1196	881	335	1207	1010	388	1221	1139	441	1234	1280	522	1265	---	---	---
1.3	---	---	---	---	---	---	---	---	---	---	---	---	814	335	1242	942	388	1256	1069	441	1270	---	---	---	---	---	---
1.4	---	---	---	---	---	---	---	---	---	---	---	---	738	330	1276	864	384	1291	989	437	1305	---	---	---	---	---	---

HORIZONTAL

External Static Press. in. w.g.	Percentage of Total Motor Torque																										
	20%			30%			40%			50%			60%			70%			80%			90%			100%		
	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts
0	794	45	388	970	76	454	1146	107	519	1281	149	575	1416	191	630	1522	110	678	1627	293	726	1715	351	768	1802	408	810
0.1	709	44	460	895	78	519	1080	111	577	1223	155	627	1366	199	677	1477	251	721	1588	303	764	1681	362	804	1773	420	843
0.2	630	46	531	855	82	583	1019	117	634	1169	163	679	1318	208	723	1435	262	763	1552	315	803	1648	375	841	1743	434	878
0.3	556	51	602	759	88	646	961	125	690	1117	172	730	1273	219	769	1395	274	805	1516	328	841	1615	388	877	1714	448	912
0.4	486	58	671	696	97	709	906	135	746	1068	184	781	1230	232	815	1356	288	848	1481	343	880	1582	403	914	1683	463	948
0.5	420	66	740	637	107	771	854	147	802	1021	196	831	1188	245	860	1317	301	890	1446	357	919	1549	418	951	1652	478	983
0.6	---	---	---	---	---	---	804	159	856	946	209	881	1147	259	905	1279	316	932	1410	372	958	1514	432	989	1618	492	1019
0.7	---	---	---	---	---	---	756	172	910	932	223	930	1107	273	949	1241	330	973	1374	386	996	1478	446	1026	1582	506	1055
0.8	---	---	---	---	---	---	709	185	962	888	236	978	1066	287	993	1201	344	1014	1336	400	1034	1440	460	1063	1544	519	1091
0.9	---	---	---	---	---	---	663	197	1013	844	249	1025	1025	300	1036	1161	357	1054	1296	413	1072	1399	472	1100	1502	530	1127
1.0	---	---	---	---	---	---	---	---	---	---	---	---	982	313	1078	1118	369	1094	1254	424	1109	1355	482	1136	1456	540	1163
1.1	---	---	---	---	---	---	---	---	---	---	---	---	938	323	1119	1073	379	1133	1208	434	1146	1307	491	1172	1406	548	1198
1.2	---	---	---	---	---	---	---	---	---	---	---	---	892	332	1158	1026	387	1170	1159	441	1182	1255	497	1208	1351	553	1233
1.3	---	---	---	---	---	---	---	---	---	---	---	---	843	340	1197	975	393	1207	1106	446	1216	1198	501	1242	1290	555	1268
1.4	---	---	---	---	---	---	---	---	---	---	---	---	790	344	1234	920	396	1242	1049	448	1250	1137	501	1276	1224	563	1302

BLOWER DATA

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

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

DOWNFLOW

External Static Press. in. w.g.	Percentage of Total Motor Torque																															
	20%			30%			40%			50%			60%			70%			80%			90%			100%							
	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts		
0	1115	124	488	1344	200	572	1573	276	655	1747	377	724	1920	477	792	2041	581	844	2161	684	896	2304	852	964	2354	936	992	1006	1024	1043	1065	1089
0.1	1012	101	536	1253	181	614	1493	261	691	1677	366	755	1860	471	819	1990	578	868	2119	685	916	2277	860	980	2339	951	1006	1024	1043	1065	1089	
0.2	926	88	584	1177	172	656	1427	256	728	1619	365	788	1811	473	848	1949	583	894	2086	693	939	2256	873	999	2328	969	1024	1043	1065	1089		
0.3	854	86	634	1113	173	701	1372	260	767	1572	371	823	1772	482	878	1916	595	921	2059	707	963	2240	891	1019	2319	991	1043	1065	1089			
0.4	794	91	684	1061	181	746	1328	270	807	1535	383	859	1741	496	910	1890	611	950	2038	725	989	2226	913	1042	2311	1014	1065	1089				
0.5	745	104	734	1019	195	791	1292	286	847	1504	401	895	1715	515	942	1868	631	979	2020	747	1016	2214	936	1066	2301	1039	1089	1114	1140	1168	1196	
0.6	704	122	785	983	215	837	1262	307	888	1478	423	932	1693	538	976	1849	654	1011	2004	770	1045	2201	960	1092	2288	1063	1114	1140	1168	1196		
0.7	671	145	836	954	238	883	1237	331	929	1456	447	969	1674	562	1009	1831	678	1041	1988	794	1073	2185	983	1118	2270	1085	1140	1168	1196			
0.8	643	171	886	929	264	928	1215	357	969	1435	472	1006	1655	587	1043	1813	703	1073	1970	818	1103	2164	1005	1145	2246	1104	1168	1196				
0.9	619	199	935	907	291	973	1194	383	1010	1415	498	1043	1635	612	1076	1792	726	1104	1948	840	1132	2138	1024	1173	2212	1119	1196					
1.0	596	228	983	884	319	1016	1172	410	1049	1392	523	1079	1612	635	1109	1766	747	1135	1920	859	1161	2104	1038	1200	2200	1119	1196	1227	1254	1280	1305	
1.1	---	---	---	---	---	---	1148	434	1087	1366	545	1115	1583	655	1142	1734	765	1166	1885	874	1189	2060	1047	1227	2200	1119	1196	1227	1254	1280	1305	
1.2	---	---	---	---	---	---	1120	456	1124	1334	564	1149	1548	671	1173	1695	777	1195	1841	883	1217	2004	1050	1254	2200	1119	1196	1227	1254	1280	1305	
1.3	---	---	---	---	---	---	1085	474	1159	1295	578	1181	1505	681	1202	1646	784	1223	1786	886	1244	1935	1044	1280	2200	1119	1196	1227	1254	1280	1305	
1.4	---	---	---	---	---	---	1043	486	1192	1247	586	1211	1451	685	1230	1585	783	1250	1718	881	1269	1851	1029	1305	2200	1119	1196	1227	1254	1280	1305	

HORIZONTAL

External Static Press. in. w.g.	Percentage of Total Motor Torque																														
	20%			30%			40%			50%			60%			70%			80%			90%			100%						
	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	Cfm	RPM	Watts	
0	1087	111	493	1304	184	579	1520	257	665	1689	368	738	1857	478	810	1972	588	864	2087	698	918	2196	844	975	2283	925	1000	1017	1034	1053	1077
0.1	1021	104	537	1246	180	618	1470	255	699	1646	368	768	1821	480	837	1941	592	888	2061	704	938	2179	852	992	2255	926	1017	1034	1053	1077	
0.2	961	102	582	1193	181	658	1425	259	734	1607	373	799	1789	487	864	1914	601	912	2039	714	960	2163	864	1012	2231	932	1034	1053	1077		
0.3	906	106	628	1145	186	699	1384	266	769	1572	382	831	1759	498	892	1889	613	938	2018	728	984	2149	879	1033	2209	941	1053	1077			
0.4	855	113	674	1101	196	740	1347	278	806	1540	396	864	1732	513	921	1866	629	965	1999	744	1008	2134	896	1054	2200	941	1053	1077			
0.5	808	125	720	1060	209	781	1312	293	842	1509	412	896	1706	530	950	1843	646	992	1980	762	1033	2119	915	1077	2200	941	1053	1077			
0.6	764	139	766	1022	225	823	1279	310	879	1481	430	930	1682	549	980	1821	666	1019	1960	782	1058	2102	935	1101	2200	941	1053	1077			
0.7	722	155	812	985	242	864	1247	328	916	1452	449	964	1657	569	1011	1799	686	1048	1940	803	1084	2084	955	1125	2200	941	1053	1077			
0.8	682	172	858	949	260	906	1216	348	953	1424	469	997	1632	589	1041	1776	706	1076	1919	823	1111	2063	974	1150	2200	941	1053	1077			
0.9	643	191	903	914	279	946	1185	367	989	1396	489	1030	1606	610	1071	1751	727	1104	1895	843	1137	2039	992	1175	2200	941	1053	1077			
1.0	---	---	---	---	---	---	1153	386	1024	1366	508	1062	1579	629	1100	1724	745	1132	1869	861	1163	2011	1008	1201	2200	941	1053	1077			
1.1	---	---	---	---	---	---	1120	404	1059	1334	525	1095	1548	646	1130	1694	761	1160	1839	876	1189	1979	1021	1226	2200	941	1053	1077			
1.2	---	---	---	---	---	---	1085	420	1093	1300	541	1126	1515	661	1158	1660	775	1186	1805	889	1214	1941	1031	1250	2200	941	1053	1077			
1.3	---	---	---	---	---	---	1047	433	1126	1263	553	1156	1478	672	1186	1622	785	1213	1766	898	1239	1897	1037	1275	2200	941	1053	1077			
1.4	---	---	---	---	---	---	1005	442	1158	1221	561	1185	1436	680	1212	1579	792	1238	1721	903	1263	1847	1037	1298	2200	941	1053	1077			

1.0 HP | 4 ROW (060)

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

DOWNFLOW

External Static Press. in. w.g.	Percentage of Total Motor Torque																											
	20%		30%		40%		50%		60%		70%		80%		90%		100%											
	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM							
0	1101	120	494	1328	196	578	1555	272	662	1728	374	731	1901	475	800	2023	580	852	2145	684	903	2292	854	970	2348	942	998	
0.1	1002	99	541	1241	180	620	1479	260	698	1662	366	763	1845	471	827	1976	579	876	2106	687	924	2268	865	987	2334	958	1013	
0.2	918	88	589	1167	173	663	1416	257	736	1608	366	796	1800	475	856	1938	586	902	2076	697	947	2249	880	1006	2324	978	1031	
0.3	848	86	638	1106	174	706	1364	261	774	1564	373	830	1763	485	886	1907	599	929	2051	712	972	2234	899	1028	2316	1000	1052	
0.4	790	92	688	1056	183	751	1321	273	814	1527	387	866	1733	501	918	1882	617	958	2031	732	998	2221	921	1051	2307	1024	1074	
0.5	742	105	738	1015	197	796	1287	289	854	1498	405	902	1709	520	950	1862	637	988	2014	754	1025	2208	944	1076	2296	1048	1099	
0.6	703	124	788	981	217	841	1258	310	894	1473	427	939	1688	543	984	1843	660	1019	1998	777	1053	2194	968	1101	2281	1071	1124	
0.7	670	146	838	952	240	887	1233	334	935	1451	451	976	1669	568	1017	1826	685	1050	1982	801	1082	2177	991	1128	2260	1092	1151	
0.8	642	172	888	927	266	932	1211	360	975	1431	477	1013	1650	593	1051	1807	709	1081	1963	825	1111	2155	1012	1155	2233	1109	1178	
0.9	618	200	937	904	294	976	1190	387	1015	1410	502	1050	1629	617	1084	1785	732	1112	1940	846	1140	2127	1029	1182	---	---	---	
1.0	595	229	985	882	321	1020	1168	413	1054	1387	526	1086	1605	639	1117	1758	752	1143	1911	864	1169	2090	1042	1209	---	---	---	
1.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

HORIZONTAL

External Static Press. in. w.g.	Percentage of Total Motor Torque																											
	20%		30%		40%		50%		60%		70%		80%		90%		100%											
	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	Cfm	Watts	RPM	
0	1077	113	502	1282	175	585	1486	237	668	1670	363	746	1854	489	823	1993	623	884	2131	757	944	2216	882	995	2268	926	1009	
0.1	1016	109	546	1227	172	624	1437	234	701	1626	361	775	1814	488	848	1956	623	906	2098	757	964	2194	887	1011	2242	928	1026	
0.2	962	111	591	1177	174	663	1392	236	735	1585	364	805	1777	492	874	1923	627	930	2069	762	985	2175	895	1029	2218	935	1044	
0.3	913	118	636	1133	181	703	1352	244	770	1548	372	836	1744	500	902	1893	636	955	2042	772	1007	2157	907	1048	2196	945	1063	
0.4	868	130	682	1092	193	744	1315	256	806	1515	384	868	1714	512	930	1866	648	980	2018	784	1030	2139	922	1069	---	---	---	
0.5	827	146	728	1054	209	785	1281	271	842	1484	399	901	1687	526	959	1841	663	1007	1995	799	1054	2121	938	1090	---	---	---	
0.6	789	165	775	1019	227	827	1249	288	879	1455	416	934	1660	543	988	1816	679	1034	1972	815	1079	2102	955	1113	---	---	---	
0.7	752	185	821	986	247	869	1219	308	916	1427	435	967	1634	562	1018	1792	698	1061	1949	833	1104	2081	972	1136	---	---	---	
0.8	718	208	867	954	268	910	1189	328	953	1399	455	1000	1608	581	1047	1767	716	1088	1925	851	1129	2058	989	1160	---	---	---	
0.9	684	231	913	922	290	951	1160	349	989	1371	475	1033	1581	600	1077	1741	734	1116	1900	868	1154	2031	1004	1185	---	---	---	
1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1.5 HP | 3 ROW (036, 048)

BLOWER DATA

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

DOWNFLOW

Total Air cfm	Total Static Pressure - in. w.g.																											
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1		1.2		1.3			
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts		
400	718	19	803	41	72	1008	92	1080	111	1149	127	1226	129	1307	126	1386	124	1574	197	1630	220	1681	250	1731	279	1779	307	
600	845	50	929	72	1057	101	1138	123	1214	143	1286	160	1362	168	1439	173	1510	181	1697	263	1747	293	1796	324	1844	353	1890	379
800	971	79	1057	101	1138	123	1214	143	1286	160	1362	168	1439	173	1510	181	1697	263	1747	293	1796	324	1844	353	1890	379	407	
1000	1136	113	1215	135	1293	157	1367	177	1438	196	1510	209	1675	250	1735	272	1788	299	1834	332	1878	368	1923	400	1970	428	2015	454
1200	1335	151	1406	172	1476	193	1544	213	1611	232	1675	250	1735	272	1788	299	1834	332	1878	368	1923	400	1970	428	2015	454	482	
1400	1560	177	1617	204	1675	231	1732	257	1788	283	1841	310	1891	339	1936	371	1978	405	2019	439	2063	469	2108	496	2152	522	550	
1600	1742	245	1792	278	1842	311	1892	344	1940	376	1988	406	2035	434	2080	461	2125	486	2169	513	2213	541	2256	570	2297	601	629	
1800	1922	330	1970	363	2017	395	2064	426	2110	457	2155	485	2200	512	2244	539	2287	568	2328	600	2369	634	2408	671	2447	708	736	
2000	2112	405	2158	438	2202	471	2246	503	2289	536	2331	568	2373	602	2413	640	2452	681	2490	723	2527	766	2564	809	2599	851	889	
2200	2305	493	2347	531	2389	569	2429	608	2469	648	2508	691	2546	737	2582	784	2619	832	2654	878	2690	923	2724	965	2758	1007	1045	
2400	2499	617	2539	660	2578	704	2615	748	2652	794	2688	841	2722	890	2757	939	2791	986	2825	1031	2858	1075	2891	1117	2923	1158	1199	
2600	2697	773	2733	818	2769	864	2803	911	2837	957	2871	1005	2903	1052	2936	1099	2968	1143	3000	1186	3031	1228	3062	1270	3092	1311	1352	
2800	2896	944	2929	990	2962	1036	2993	1082	3025	1128	3056	1173	3087	1216	3118	1259	3147	1300	3177	1341	3206	1382	3236	1423	3264	1463	1504	
3000	3093	1115	3124	1160	3154	1205	3184	1249	3214	1293	3243	1335	3272	1376	3300	1416	3327	1456	3355	1495	3383	1536	3410	1576	3437	1615	1656	

Total Air cfm	Total Static Pressure - in. w.g.													
	1.4		1.5		1.6		1.7		1.8		1.9		2.0	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
800	1826	333	1979	424	2021	444	2064	464	2106	485	2149	509	2191	533
1000	1935	403	2100	498	2142	518	2184	541	2226	565	2267	592	2308	619
1200	2058	476	2235	574	2275	601	2316	629	2356	658	2395	689	2433	720
1400	2194	548	2377	665	2415	698	2453	733	2490	768	2527	803	2563	839
1600	2337	632	2521	785	2557	824	2592	863	2627	902	2661	942	2695	981
1800	2484	746	2668	935	2701	977	2735	1018	2768	1058	2802	1099	2834	1139
2000	2634	894	2823	1090	2855	1130	2887	1170	2919	1210	2952	1250	2984	1289
2200	2790	1049	2986	1240	3017	1280	3048	1320	3080	1360	3111	1399	3142	1437
2400	2954	1200	3153	1391	3184	1431	3215	1470	3245	1509	3276	1548	3306	1586
2600	3123	1351	3323	1542	3352	1580	3382	1619	3412	1658	3442	1696	3472	1734
2800	3294	1502	3492	1691	3520	1729	3549	1767	3578	1805	3608	1844	3638	1882
3000	3464	1653												

1.5 HP | 3 ROW (036, 048)

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

HORIZONTAL

Total Air cfm	Total Static Pressure - in. w.g.																											
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1		1.2		1.3			
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts		
400	708	16	793	37	872	53	95	107	1149	107	1221	109	1365	148	1434	154	1638	227	1689	252	1737	279	1783	308	1829	335	1873	362
600	835	46	918	65	1000	82	1077	95	1149	107	1221	109	1365	148	1434	154	1638	227	1689	252	1737	279	1783	308	1829	335	1873	362
800	981	75	1064	92	1144	109	1221	124	1294	139	1365	148	1434	154	1638	227	1689	252	1737	279	1783	308	1829	335	1873	362	1873	362
1000	1166	105	1241	124	1315	141	1387	159	1454	176	1520	191	1582	207	1739	271	1787	299	1832	330	1876	361	1920	391	1964	419	2007	444
1200	1374	142	1440	162	1506	182	1569	203	1630	224	1687	246	1739	271	1899	351	1942	382	1984	412	2026	442	2068	469	2110	496	2153	520
1400	1591	183	1647	209	1701	235	1755	263	1806	291	1854	320	1899	351	2059	444	2102	470	2144	494	2185	519	2227	545	2268	572	2309	600
1600	1778	258	1827	290	1876	323	1923	355	1970	386	2015	416	2059	444	2237	531	2279	557	2319	584	2359	613	2397	645	2435	679	2471	713
1800	1973	352	2018	383	2063	415	2107	445	2151	476	2194	504	2237	531	2605	774	2637	819	2668	863	2700	907	2732	949	2764	990	2795	1029
2000	2182	437	2224	468	2265	499	2306	531	2346	563	2385	596	2424	630	2786	935	2816	980	2846	1025	2876	1068	2907	1109	2937	1149	2967	1188
2200	2388	540	2426	576	2464	613	2500	651	2536	691	2571	731	2605	774	3028	1189	3057	1147	3028	1189	3057	1230	3087	1270	1149	1149	1188	1188
2400	2589	679	2624	719	2658	761	2691	803	2724	846	2756	890	2786	935	3028	1189	3057	1147	3028	1189	3057	1230	3087	1270	1149	1149	1188	1188
2600	2787	845	2819	887	2850	930	2881	973	2911	1017	2941	1060	2970	1104	3028	1189	3057	1147	3028	1189	3057	1230	3087	1270	1149	1149	1188	1188
2800	2983	1021	3013	1063	3042	1106	3070	1149	3099	1191	3128	1170	3200	1210	3200	1210	3200	1210	3200	1210	3200	1210	3200	1210	3200	1210	3200	3200

Total Static Pressure - in. w.g.

Total Air cfm	Total Static Pressure - in. w.g.													
	1.4		1.5		1.6		1.7		1.8		1.9		2.0	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
800	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1000	1916	386	1957	408	1998	428	2037	447	2077	465	2116	484	2155	503
1200	2049	468	2089	490	2128	510	2168	529	2207	549	2246	569	2285	591
1400	2194	543	2235	565	2274	588	2313	611	2350	637	2387	664	2423	694
1600	2349	627	2387	657	2423	688	2457	722	2490	757	2522	793	2554	830
1800	2506	749	2539	787	2571	825	2602	864	2632	903	2662	942	2692	981
2000	2663	906	2694	945	2725	985	2755	1024	2785	1063	2815	1101	2845	1138
2200	2826	1068	2857	1107	2887	1146	2916	1184	2946	1221	2975	1259	3005	1296
2400	2997	1227	3027	1266	3056	1304	3085	1342	---	---	---	---	---	---
2600	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2800	---	---	---	---	---	---	---	---	---	---	---	---	---	---

BLOWER DATA

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

DOWNFLOW

Total Air cfm	Total Static Pressure - in. w.g.																													
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1		1.2		1.3					
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts				
400	720	20	805	41	933	73	1011	93	1083	112	1152	128	1229	130	1310	126	1389	125	1514	183	1578	198	1634	222	1684	252	1734	281	1783	309
600	849	51	933	73	1011	93	1083	112	1152	128	1229	130	1310	126	1389	125	1514	183	1578	198	1634	222	1684	252	1734	281	1783	309		
800	978	81	1064	103	1145	124	1220	144	1291	162	1367	170	1443	175	1514	183	1578	198	1634	222	1684	252	1734	281	1783	309				
1000	1147	116	1225	138	1302	159	1376	179	1446	198	1517	211	1586	224	1648	242	1703	266	1753	296	1801	327	1849	356	1896	382				
1200	1347	154	1418	175	1487	196	1555	216	1620	235	1684	253	1743	275	1795	302	1841	336	1884	373	1930	405	1976	433	2021	458				
1400	1571	182	1629	209	1686	236	1742	262	1798	288	1850	315	1899	346	1943	380	1984	417	2025	453	2068	485	2113	512	2156	537				
1600	1753	252	1803	286	1853	318	1902	351	1951	383	1998	415	2043	447	2087	478	2130	508	2173	539	2216	568	2259	595	2302	621				
1800	1935	339	1983	371	2030	403	2076	434	2122	465	2167	495	2210	524	2253	554	2295	586	2337	618	2378	650	2418	682	2458	714				
2000	2127	415	2172	448	2217	481	2260	513	2303	546	2345	579	2385	614	2425	653	2464	693	2503	734	2541	774	2578	814	2614	855				
2200	2321	507	2363	545	2404	583	2444	623	2484	664	2522	707	2560	753	2596	801	2632	848	2667	895	2703	939	2737	981	2770	1023				
2400	2516	635	2556	679	2594	723	2631	767	2668	813	2703	861	2737	909	2772	958	2805	1005	2839	1050	2872	1093	2905	1135	2936	1176				
2600	2715	796	2751	841	2786	887	2820	933	2854	980	2887	1027	2919	1074	2952	1120	2983	1164	3015	1207	3046	1249	3077	1290	3107	1330				
2800	2915	970	2947	1016	2979	1062	3011	1107	3042	1152	3073	1197	3104	1240	3134	1282	3164	1323	3193	1364	3222	1404	3251	1445	3280	1485				
3000	3112	1142	3142	1187	3172	1232	3202	1276	3232	1319	3261	1361	3289	1401	3317	1441	3344	1480	3371	1520	3399	1560	3426	1600	3453	1638				

Total Air cfm	Total Static Pressure - in. w.g.													
	1.4		1.5		1.6		1.7		1.8		1.9		2.0	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
800	1830	335	1940	405	2026	446	2068	466	2111	488	2154	512	2196	536
1000	2064	480	2106	501	2148	522	2190	544	2232	569	2273	595	2314	623
1400	2199	560	2241	584	2282	608	2323	634	2363	664	2402	694	2440	726
1600	2344	647	2384	675	2424	706	2462	740	2498	776	2535	811	2571	848
1800	2497	749	2533	788	2568	829	2602	872	2636	914	2671	953	2705	992
2000	2648	898	2681	941	2714	986	2746	1030	2779	1072	2812	1112	2845	1152
2200	2803	1064	2835	1105	2867	1145	2899	1186	2931	1225	2964	1265	2995	1303
2400	2968	1217	2999	1258	3031	1298	3062	1337	3093	1377	3124	1415	3156	1454
2600	3138	1371	3168	1411	3199	1450	3229	1489	3260	1528	3290	1566	3321	1604
2800	3309	1524	3338	1563	3368	1602	3398	1640	3428	1678	3458	1717	3488	1755
3000	3481	1677	3508	1715	3537	1752	3566	1790	3595	1828	3625	1866	3655	1904

BLOWER DATA

1.5 HP | 4 ROW (060)

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

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See Page <OV> for wet coil and options/accessory air resistance data. See Page 30 for minimum air volume with electric heat.

HORIZONTAL

Total Air cfm	Total Static Pressure - in. w.g.																												
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1		1.2		1.3				
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	
400	711	16	796	38	66	1006	83	1083	96	1154	107	1226	109	1226	109	1226	109	1226	109	1226	109	1226	109	1226	109	1226	109	1226	
600	840	47	924	66	1072	94	1153	111	1230	126	1301	140	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372
800	990	76	1072	94	1153	111	1230	126	1301	140	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372	148	1372
1000	1179	108	1253	126	1326	144	1397	161	1464	178	1530	194	1530	194	1530	194	1530	194	1530	194	1530	194	1530	194	1530	194	1530	194	1530
1200	1388	146	1454	166	1519	186	1582	207	1641	228	1697	251	1749	251	1749	251	1749	251	1749	251	1749	251	1749	251	1749	251	1749	251	1749
1400	1606	189	1661	216	1715	242	1768	270	1818	298	1866	328	1911	358	1953	390	1995	420	2037	449	2079	476	2121	503	2163	527	2205	553	2247
1600	1794	268	1842	301	1890	333	1938	364	1984	396	2029	426	2073	453	2115	479	2157	503	2199	528	2240	553	2281	581	2321	609	2361	637	2401
1800	1991	364	2035	395	2079	426	2123	456	2167	486	2210	515	2252	541	2294	568	2334	596	2374	625	2412	657	2448	692	2484	727	2520	761	2556
2000	2202	451	2242	482	2283	513	2323	545	2363	577	2402	611	2440	646	2477	683	2512	722	2546	763	2579	804	2613	844	2645	884	2677	924	2709
2200	2408	559	2446	596	2483	633	2520	672	2555	712	2590	753	2623	796	2655	841	2686	885	2717	928	2748	970	2780	1010	2812	1050	2844	1090	2876
2400	2609	703	2644	744	2678	786	2711	829	2744	872	2776	916	2806	961	2835	1006	2865	1050	2895	1092	2925	1133	2955	1172	2985	1212	3015	3055	3085
2600	2808	874	2840	916	2871	959	2902	1003	2932	1046	2961	1090	2990	1133	3019	1176	3048	1217	3077	1257	3106	1297	3135	1336	3164	1374	3203	3243	3273
2800	3006	1054	3035	1096	3064	1139	3092	1181	3121	1223	3149	1265	3177	1305	3205	1344	3234	1383	3262	1421	3290	1460	3317	1498	3345	1536	1574	1612	1650
3000	3202	1228	3229	1270	3257	1312	3284	1353	3312	1394	3339	1433	3366	1472	3393	1509	3419	1547	3446	1584	3472	1622	3499	1660	3525	1698	1736	1772	1808

Total Static Pressure - in. w.g.

Total Air cfm	1.4						1.5						1.6						1.7						1.8						1.9						2.0					
	1.4		1.5		1.6		1.7		1.8		1.9		2.0		1.4		1.5		1.6		1.7		1.8		1.9		2.0		1.4		1.5		1.6		1.7		1.8		1.9		2.0	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts				
800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
1000	1923	389	1964	411	2004	431	2043	450	2083	468	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
1200	2057	473	2097	494	2136	514	2176	534	2215	553	2254	574	2293	596	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
1400	2205	549	2245	571	2284	594	2322	618	2360	644	2396	672	2432	702	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
1600	2360	637	2398	667	2434	699	2468	733	2501	768	2532	805	2563	842	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
1800	2519	763	2552	801	2583	840	2614	879	2644	918	2674	957	2704	995	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
2000	2677	924	2708	963	2739	1003	2769	1041	2799	1080	2829	1118	2859	1155	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
2200	2842	1089	2873	1127	2902	1166	2932	1203	2962	1241	2991	1278	3021	1315	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
2400	3015	1250	3044	1289	3074	1327	3103	1364	3132	1402	3162	1439	3192	1476	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
2600	3192	1412	3221	1450	3250	1488	3279	1525	3308	1562	3337	1599	3367	1635	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
2800	3372	1574	3400	1611	3428	1648	3456	1685	3485	1721	3514	1758	3543	1794	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
3000	3552	1735	3578	1772	3605	1808	3633	1844	3660	1880	3689	1916	3717	1952	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				

BLOWER DATA

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

Air Volume cfm	Wet Indoor Coil		Electric Heat	Economizer	Filters	
	024, 036, 048	060			MERV 8	MERV 13
800	0.01	---	0.01	0.04	0.04	0.05
1000	0.02	0.02	0.03	0.04	0.04	0.07
1200	0.03	0.04	0.06	0.04	0.04	0.07
1400	0.04	0.05	0.09	0.04	0.04	0.07
1600	0.05	0.07	0.12	0.04	0.04	0.07
1800	0.06	0.08	0.15	0.05	0.04	0.07
2000	0.08	0.10	0.18	0.05	0.05	0.08
2200	---	0.11	0.18	0.05	0.05	0.08
2400	---	0.13	0.20	0.05	0.05	0.08

MINIMUM AIR VOLUME REQUIRED FOR ELECTRIC HEAT

Size	kW Size	Minimum CFM	
		Direct Drive ECM	E-Direct™ Direct Drive ECM
All Models	5	600	N/A
	7.5	600	1200
	10	600	N/A
	15	1100	1500
	22.5	1600	2000

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure in. w.g.	Air Volume Exhausted cfm
0.00	2000
0.05	1990
0.10	1924
0.15	1810
0.20	1664
0.25	1507
0.30	1350
0.35	1210

CEILING DIFFUSERS AIR RESISTANCE (in. w.g.)

Air Volume - cfm	RTD11-95S Step-Down Diffuser			FD11-95S Flush Diffuser
	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	
1800	0.13	0.11	0.09	0.09
2000	0.15	0.13	0.11	0.10
2200	0.18	0.15	0.12	0.12
2400	0.21	0.18	0.15	0.14
2600	0.24	0.21	0.18	0.17
2800	0.27	0.24	0.21	0.20
3000	0.32	0.29	0.25	0.25

CEILING DIFFUSER AIR THROW DATA

Air Volume - cfm	¹ Effective Throw - ft.	
	RTD11-95S	FD11-95S
2600	24 - 29	19 - 24
2800	25 - 30	20 - 28
3000	27 - 33	21 - 29

¹ Effective throw based on terminal velocities of 75 ft. per minute.

ELECTRICAL/ELECTRIC HEAT DATA
2 TON

Model No.		LHT024H4
¹ Voltage - 60Hz		208/230V - 1 Ph
Compressor (Non-Inverter)	Rated Load Amps	15.3
	Locked Rotor Amps	83
Outdoor Fan Motor	Full Load Amps (1 ECM)	2.8
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4
Service Outlet 115V GFI (amps)		15
Indoor Blower Motor	Horsepower	0.5
	Full Load Amps	4.3
² Maximum Overcurrent Protection (MOCP)	Unit Only	40
	With (1) 0.33 HP Power Exhaust	40
³ Minimum Circuit Ampacity (MCA)	Unit Only	27
	With (1) 0.33 HP Power Exhaust	29

ELECTRIC HEAT DATA

Electric Heat Voltage			208V	240V
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat	5 kW	⁴ 50	60
		7.5 kW	70	70
		10 kW	80	80
³ Minimum Circuit Ampacity	Unit+ Electric Heat	5 kW	49	53
		7.5 kW	61	66
		10 kW	72	79
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	5 kW	60	60
		7.5 kW	70	70
		10 kW	⁴ 80	90
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	5 kW	52	55
		7.5 kW	63	68
		10 kW	74	81

ELECTRICAL ACCESSORIES

Disconnects	5 kW	22A23	22A23
	7.5 kW	N/A	N/A
	10 kW	22A24	22A24

Disconnects - 22A23 - 80A
22A24 - 150A

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.

⁴ Factory installed circuit breaker not available.

ELECTRICAL/ELECTRIC HEAT DATA

3 TON

Model No.		LHT036H4									
¹ Voltage - 60Hz		208/230V - 1 Ph		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph			
Compressor (Non-Inverter)	Rated Load Amps	15.3		11.6		5.7		4			
	Locked Rotor Amps	83		73		38		25.6			
Outdoor Fan Motor	Full Load Amps (1 ECM)	2.8		2.8		1.4		1.1			
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4		2.4		1.3		1			
Service Outlet 115V GFI (amps)		15		15		15		20			
Indoor Blower Motor	Horsepower	0.5		0.5		1.5		0.5		1.5	
	Full Load Amps	4.3		4.3		4.4		2.2		2.3	
² Maximum Overcurrent Protection (MOCP)	Unit Only	40		30		30		15		15	
	With (1) 0.33 HP Power Exhaust	40		35		35		15		15	
³ Minimum Circuit Ampacity (MCA)	Unit Only	27		22		22		11		11	
	With (1) 0.33 HP Power Exhaust	29		24		25		13		13	

ELECTRIC HEAT DATA

Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V		600V	
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat	7.5 kW	70	70	⁴ 45	50	⁴ 45	50	25	25	20	20
		15 kW	⁴ 100	110	70	70	70	70	35	35	30	30
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat	7.5 kW	61	66	42	45	42	45	23	23	17	18
		15 kW	94	105	61	67	61	67	34	34	26	27
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	70	70	50	50	50	50	25	25	20	20
		15 kW	⁴ 100	110	70	70	70	70	35	35	30	30
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	63	68	44	47	44	47	24	24	18	19
		15 kW	97	107	64	70	64	70	35	35	27	28

ELECTRICAL ACCESSORIES

Disconnects	7.5 kW	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23
	15 kW	22A24	22A24	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23

Disconnects - 22A23 - 80A
22A24 - 150A

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.

⁴ Factory installed circuit breaker not available.

ELECTRICAL/ELECTRIC HEAT DATA

4 TON

Model No.		LHT048H4									
¹ Voltage - 60Hz		208/230V - 1 Ph		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph			
Compressor	Rated Load Amps	21.2		14		6.4		4.6			
	Locked Rotor Amps	104		83.1		41		33			
Outdoor Fan Motor	Full Load Amps (1 ECM)	2.8		2.8		1.4		1.1			
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4		2.4		1.3		1			
Service Outlet 115V GFI (amps)		15		15		15		20			
Indoor Blower Motor	Horsepower	1		1		1.5		1		1.5	
	Full Load Amps	7.4		7.4		4.4		3.7		2.3	
² Maximum Overcurrent Protection (MOCP)	Unit Only	50		40		35		15		15	
	With (1) 0.33 HP Power Exhaust	60		40		40		20		15	
³ Minimum Circuit Ampacity (MCA)	Unit Only	37		28		25		14		12	
	With (1) 0.33 HP Power Exhaust	40		31		28		15		14	

ELECTRIC HEAT DATA

Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V	600V		
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat	7.5 kW	80	80	⁴ 50	60	50	50	25	25	20	20
		15 kW	⁴ 110	125	⁴ 70	80	70	70	40	35	30	30
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat	7.5 kW	71	76	48	51	45	48	25	23	19	19
		15 kW	105	115	67	73	64	70	36	35	28	28
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	⁴ 80	90	⁴ 50	60	50	50	30	25	20	20
		15 kW	⁴ 110	125	⁴ 70	80	⁴ 70	80	40	40	30	30
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	73	79	50	53	47	50	26	25	20	20
		15 kW	107	118	70	76	67	73	37	36	29	29

ELECTRIC HEAT DATA

Disconnects	7.5 kW	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23
	15 kW	22A24	22A24	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23

Disconnects - **22A23** - 80A
22A24 - 150A

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.

⁴ Factory installed circuit breaker not available.

ELECTRICAL/ELECTRIC HEAT DATA

5 TON

Model No.		LHT060H4							
¹ Voltage - 60Hz		208/230V - 1 Ph	208/230V - 3 Ph			460V - 3 Ph		575V - 3 Ph	
Compressor	Rated Load Amps	23.7	16.7			7.1		5.7	
	Locked Rotor Amps	151	110			54.7		47.8	
Outdoor Fan Motor	Full Load Amps (1 ECM)	2.8	2.8			1.4		1.1	
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	2.4			1.3		1	
Service Outlet 115V GFI (amps)		15	15			15		20	
Indoor Blower Motor	Horsepower	1	1	1.5		1	1.5	1	1.5
	Full Load Amps	7.4	7.4	4.4		3.7	2.3	3	2.3
² Maximum Overcurrent Protection (MOCP)	Unit Only	60	45	40		20	15	15	15
	With (1) 0.33 HP Power Exhaust	60	50	45		20	20	15	15
³ Minimum Circuit Ampacity (MCA)	Unit Only	40	32	29		14	13	12	11
	With (1) 0.33 HP Power Exhaust	43	34	31		16	14	13	12

ELECTRIC HEAT DATA

Electric Heat Voltage			208V	240V	208V	240V	208V	240V	480V		600V	
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat	7.5 kW	90	90	60	60	60	60	30	25	25	20
		15 kW	⁴ 110	125	80	80	⁴ 70	80	40	40	30	30
		22.5 kW	⁴ 150	175	⁴ 90	100	⁴ 90	100	50	50	40	40
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat	7.5 kW	74	79	51	54	48	51	26	24	21	20
		15 kW	108	118	71	77	68	74	37	36	30	29
		22.5 kW	142	158	90	99	87	96	48	47	39	38
² Maximum Overcurrent Protection (MOCP)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	90	90	60	60	60	60	30	30	25	25
		15 kW	⁴ 110	125	80	80	⁴ 70	80	40	40	35	30
		22.5 kW	⁴ 150	175	⁴ 100	110	⁴ 90	100	50	50	40	40
³ Minimum Circuit Ampacity (MCA)	Unit+ Electric Heat and (1) 0.33 HP Power Exhaust	7.5 kW	77	82	54	57	51	54	27	26	22	21
		15 kW	110	121	73	79	70	76	38	37	31	30
		22.5 kW	144	160	93	102	90	99	50	48	40	39

ELECTRICAL ACCESSORIES

Disconnects	7.5 kW	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23
	15 kW	22A24	22A24	22A23	22A23	22A23	22A23	22A23	22A23	22A23	22A23
	22.5 kW	22A24	22A24	22A24	22A24	22A24	22A24	22A23	22A23	22A23	22A23

Disconnects - 22A23 - 80A
22A24 - 150A

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.

⁴ Factory installed circuit breaker not available.

FIELD WIRING NOTES

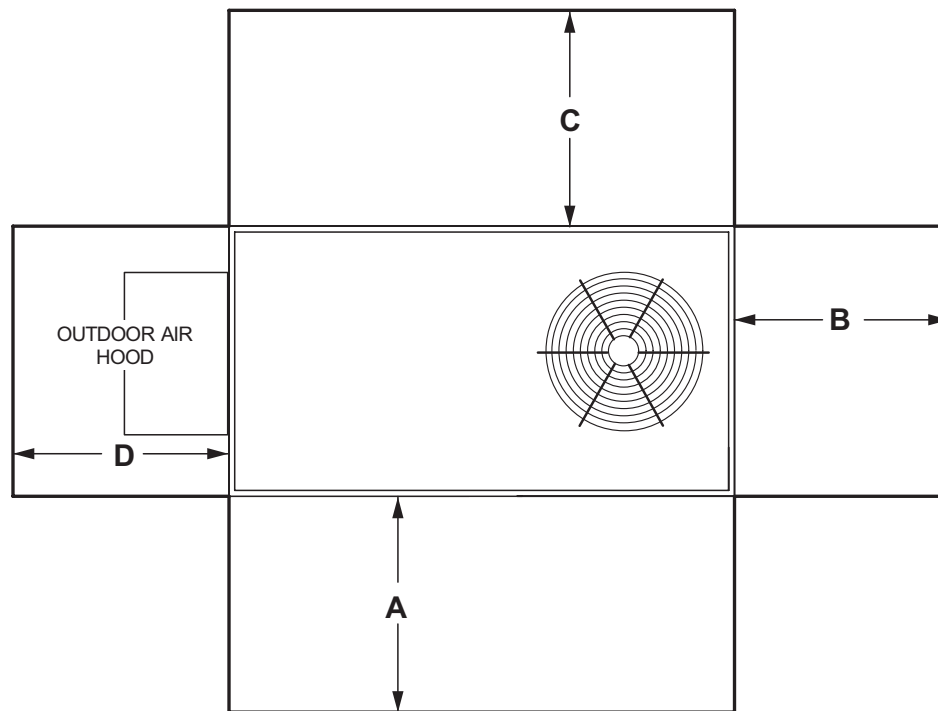
- For use with copper wiring only
- Field wiring not furnished
- All wiring must conform to NEC or CEC and local electrical codes
- For specific wiring information, please refer to the installation instructions

ELECTRIC HEAT CAPACITIES

Input Voltage	5 kW			7.5 kW			10 kW		
	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output
208	1	3.8	12,800	1	5.6	19,200	1	7.5	25,600
220	1	4.2	14,300	1	6.3	21,500	1	8.4	28,700
230	1	4.6	15,700	1	6.9	23,500	1	9.2	31,400
240	1	5.0	17,100	1	7.5	25,600	1	10.0	34,200
440	---	---	---	1	6.3	21,500	---	---	---
460	---	---	---	1	6.9	23,500	---	---	---
480	---	---	---	1	7.5	25,600	---	---	---
550	---	---	---	1	6.3	21,500	---	---	---
575	---	---	---	1	6.9	23,500	---	---	---
600	---	---	---	1	7.5	25,600	---	---	---

Input Voltage	15 kW			22.5 kW		
	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output
208	1	11.2	38,400	1	16.9	57,700
220	1	12.6	43,000	1	18.9	64,500
230	1	13.8	47,000	1	20.7	70,700
240	1	15.0	51,200	1	22.5	76,800
440	1	12.6	43,000	1	18.9	64,500
460	1	13.8	47,000	1	20.7	70,700
480	1	15.0	51,200	1	22.5	76,800
550	1	12.6	43,000	1	18.9	64,500
575	1	13.8	47,000	1	20.7	70,700
600	1	15.0	51,200	1	22.5	76,800

UNIT CLEARANCES



¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	36	914	36	914	36	934	36	914	Unobstructed
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

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

¹ Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA

1 Unit Model No.	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	
024, 036, 048	63	66	70	71	68	62	53	75
060	67	72	77	76	73	68	61	82

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

¹ Sound Rating Number according to AHRI Standard 270-95 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (Lwa), dBA (100 Hz to 10,000 Hz).

WEIGHT DATA

UNIT

Model Number	Net		Shipping	
	lbs.	kg	lbs.	kg
024 Base Unit	646	293	686	311
024 Max. Unit	765	347	805	365
036 Base Unit	645	293	685	311
036 Max. Unit	764	347	804	365
048 Base Unit	641	291	681	309
048 Max. Unit	760	345	800	363
060 Base Unit	686	311	727	330
060 Max. Unit	792	359	833	378

WEIGHT DATA

OPTIONS / ACCESSORIES

	Shipping Weight		
	lbs.	kg	
ECONOMIZER / OUTDOOR AIR / EXHAUST			
Economizer			
Economizer, Includes Combination Outdoor Air Hood and Barometric Relief Dampers	131	59	
Outdoor Air Dampers			
Motorized	40	18	
Manual	30	14	
Power Exhaust	35	17	
ELECTRIC HEAT			
5 kW	31	14	
7.5 kW	31	14	
15 kW	31	14	
22.5 kW	35	16	
30 kW	35	16	
HAIL GUARDS			
All models	31	14	
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
8 in. height	86	39	
14 in. height	108	49	
18 in. height	125	57	
24 in. height	147	67	
Adjustable Pitch Curb, Downflow			
14 in. height	147	67	
CEILING DIFFUSERS			
Step-Down	RTD11-95S	118	54
Flush	FD11-95S	118	54
Transitions	T1TRAN20N-1	21	10

DIMENSIONS

UNIT

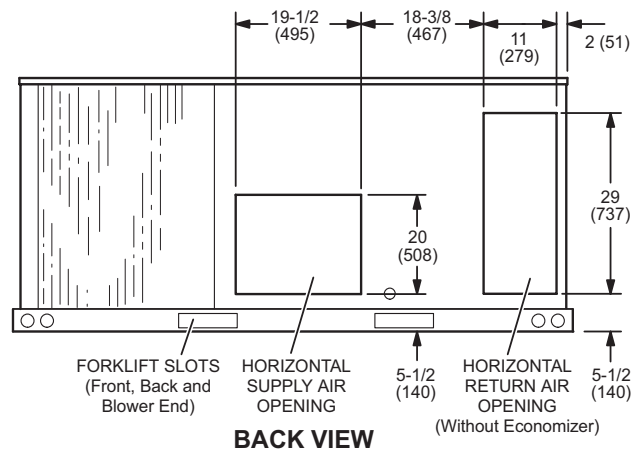
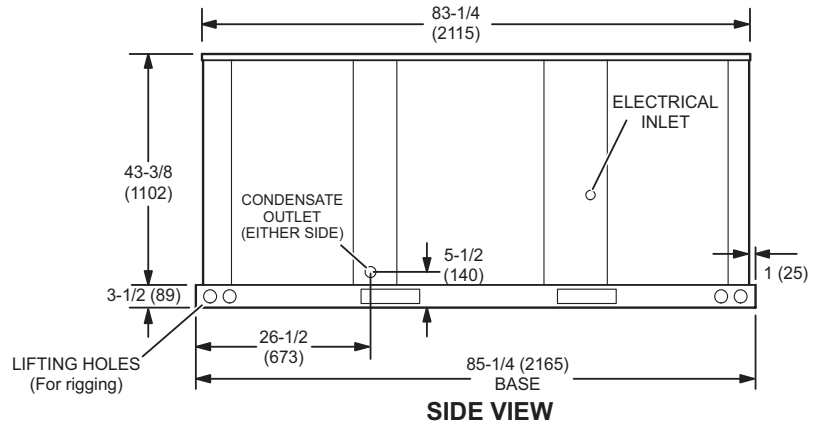
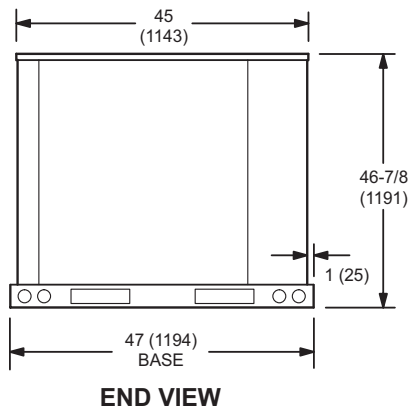
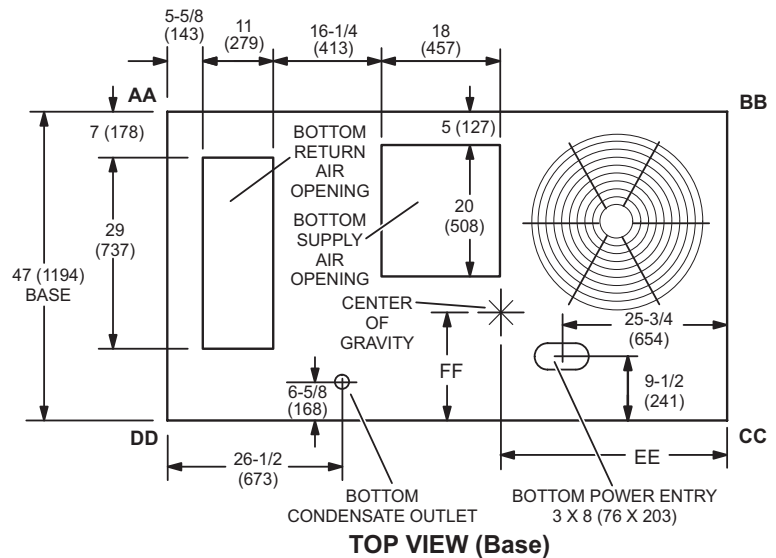
CORNER WEIGHTS

CENTER OF GRAVITY

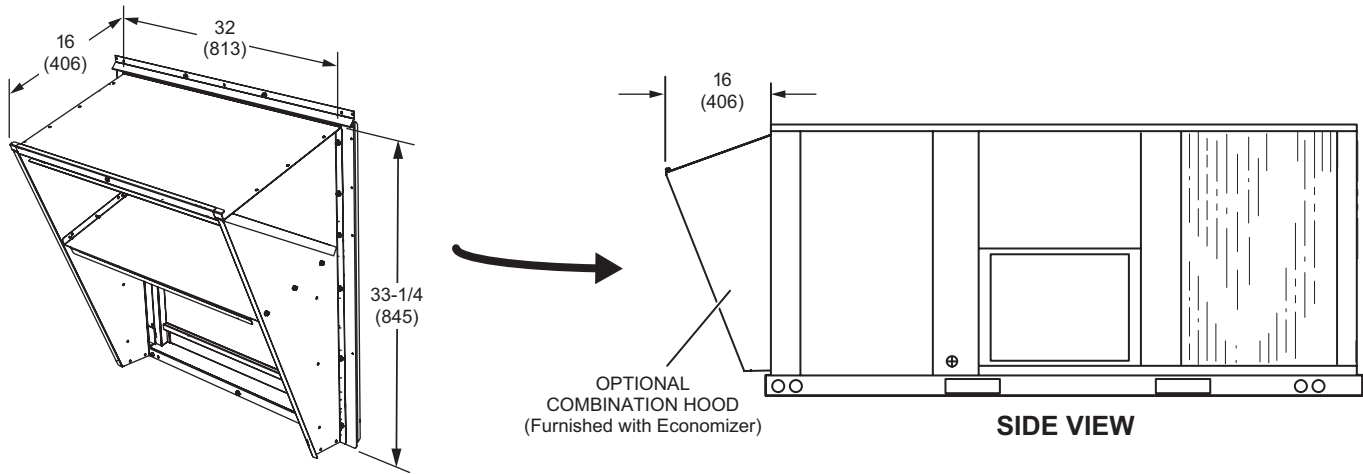
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LHT024 Base Unit	138	63	164	74	187	85	157	71	38	965	22	559
LHT024 Max. Unit	181	82	177	80	202	92	205	93	42	1067	22	559
LHT036 Base Unit	138	63	164	74	186	84	157	71	38	965	22	559
LHT036 Max. Unit	180	82	177	80	201	91	205	93	42	1067	22	559
LHT048 Base Unit	137	62	163	74	185	84	156	71	38	965	22	559
LHT048 Max. Unit	179	81	176	80	200	91	204	93	42	1067	22	559
LHT060 Base Unit	140	64	167	76	206	93	173	78	38	965	21	533
LHT060 Max. Unit	166	75	171	78	231	105	224	102	41	1041	20	508

Base Unit - The unit with NO INTERNAL OPTIONS.

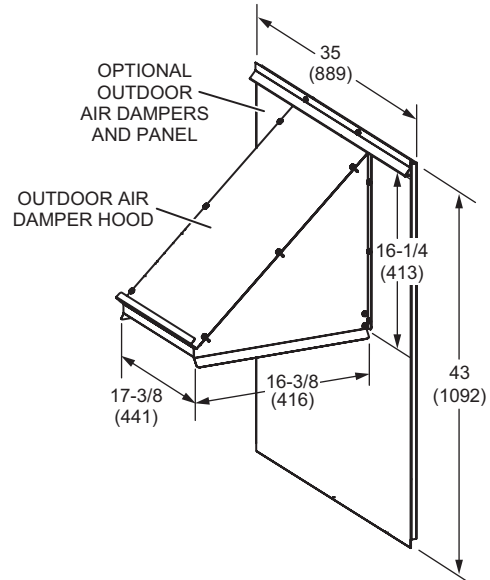
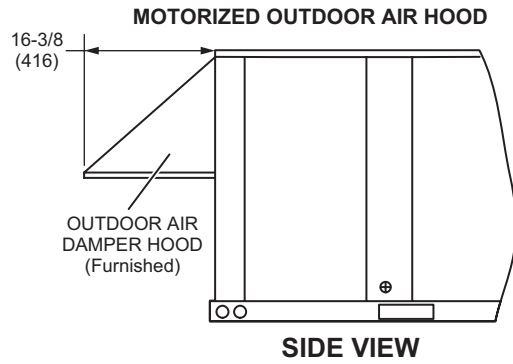
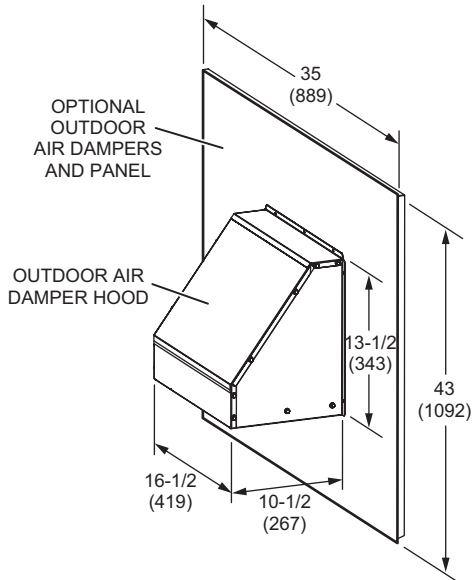
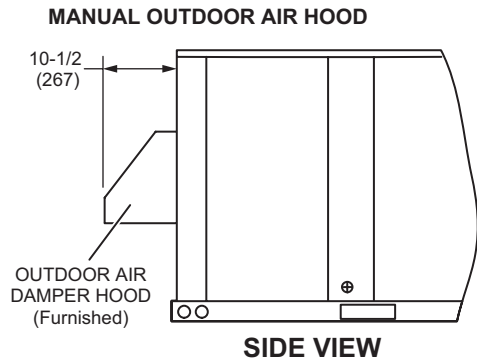
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



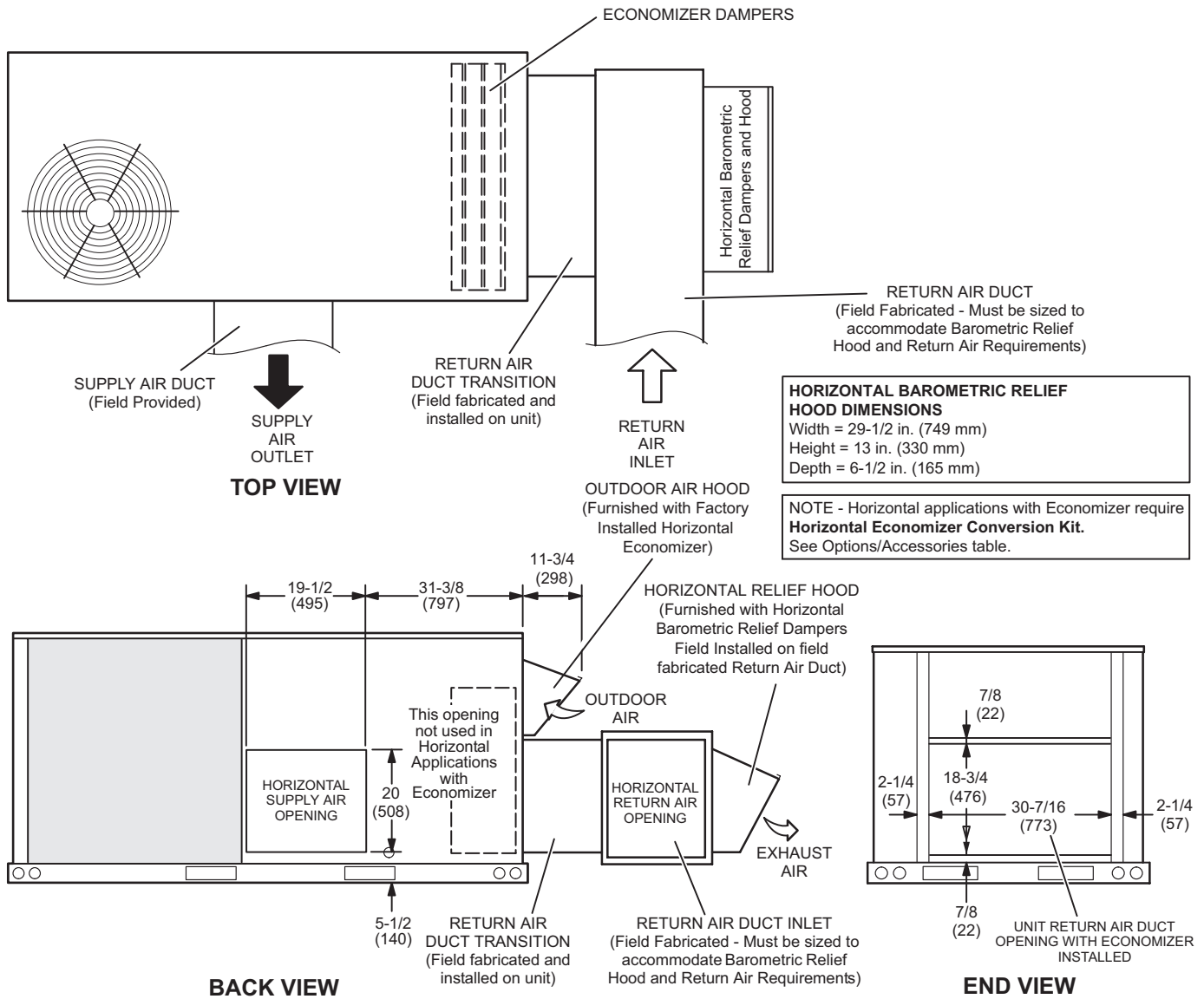
**COMBINATION OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS
(Furnished With Economizer for Downflow Applications)**



OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)

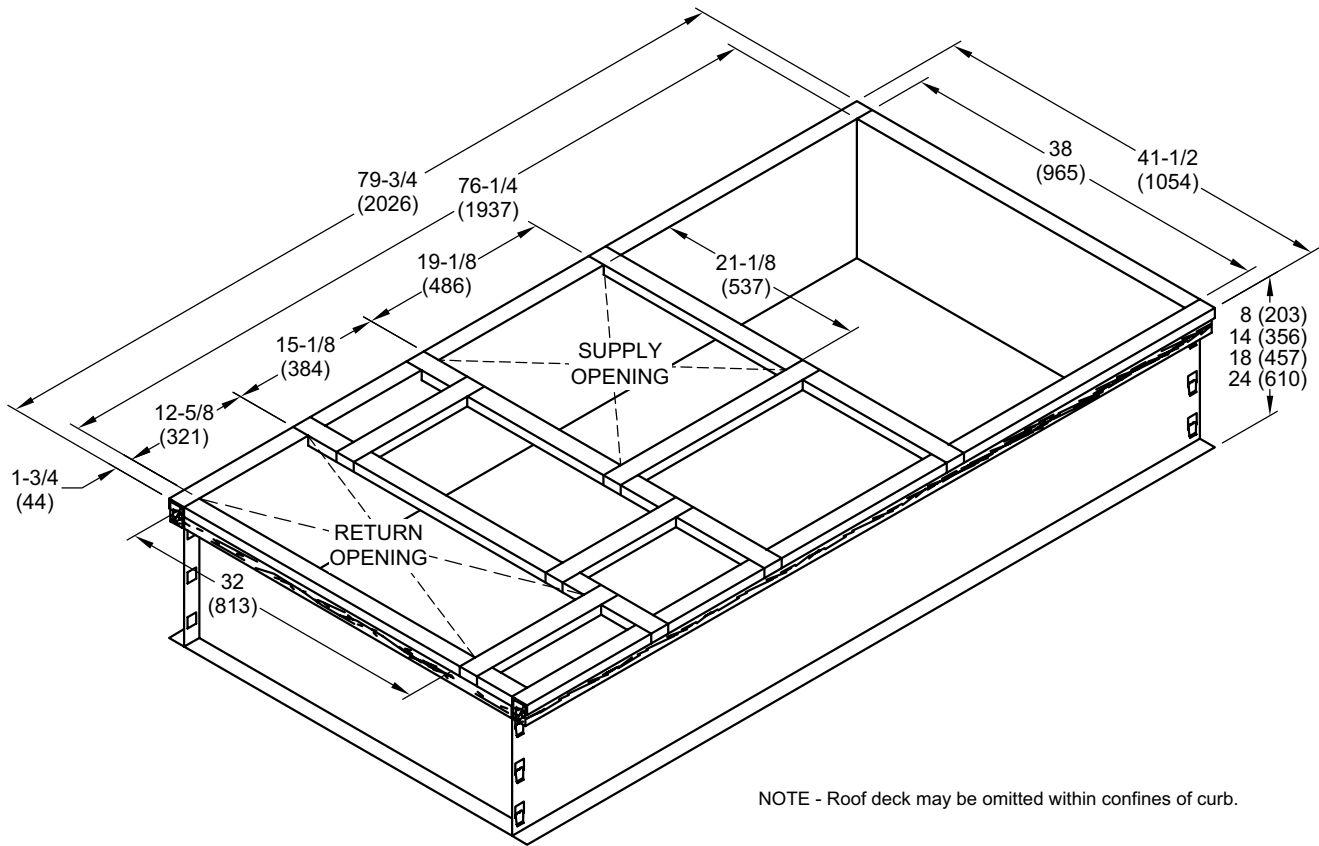


HORIZONTAL ECONOMIZER APPLICATIONS - OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER DAMPERS AND OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS AND HOOD



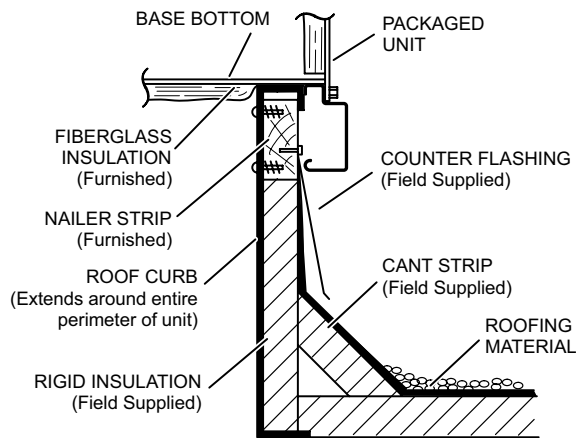
NOTE - Return Air Duct and Transition must be supported.

HYBRID ROOF CURBS - DOUBLE DUCT OPENING

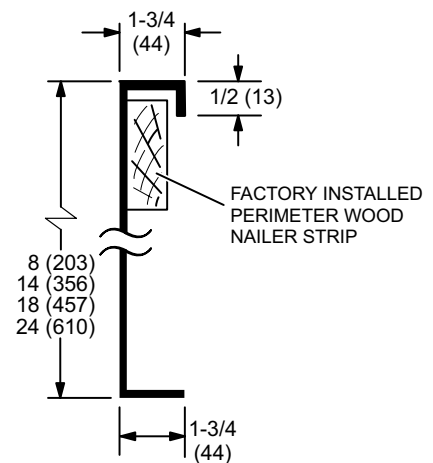


NOTE - Roof deck may be omitted within confines of curb.

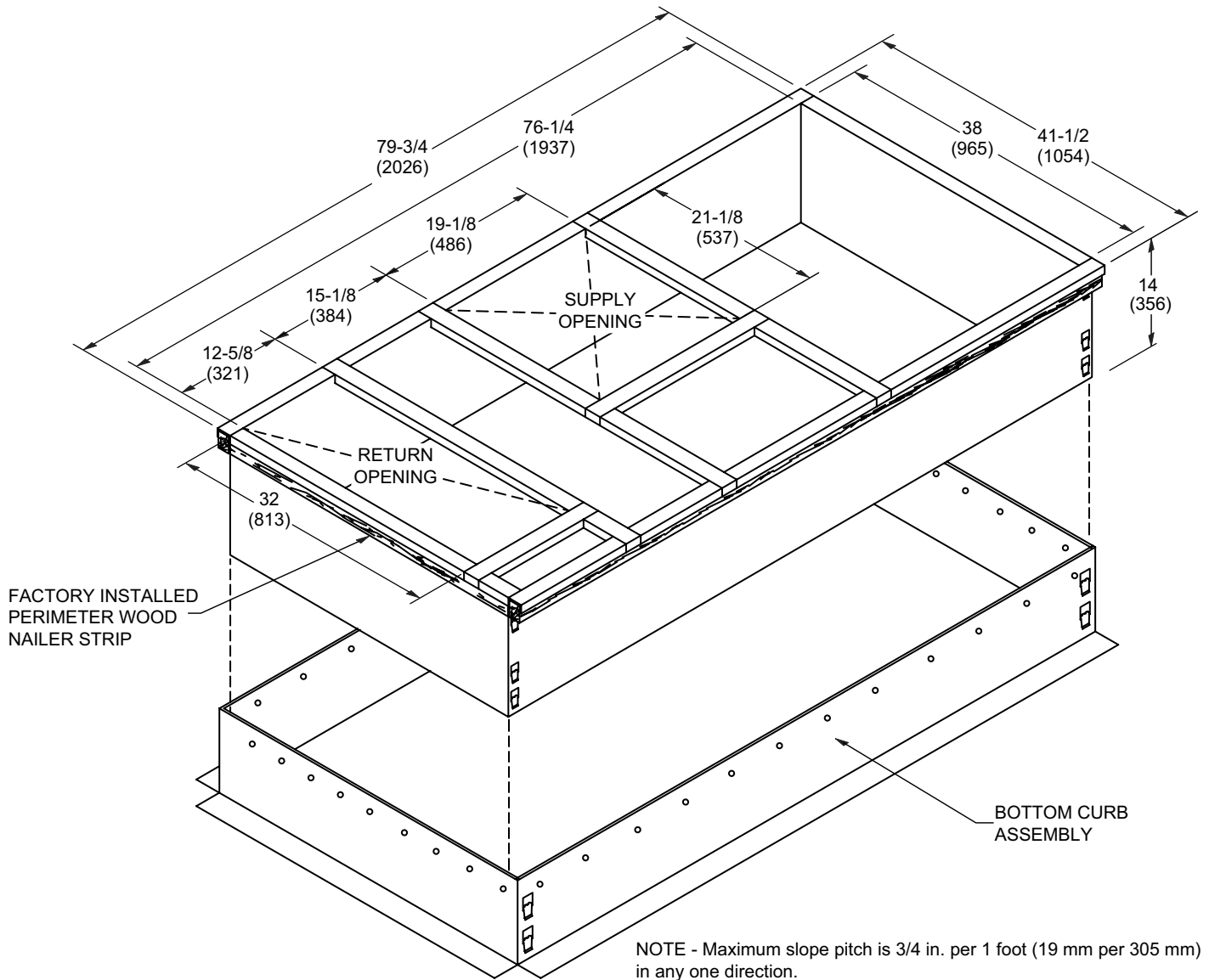
TYPICAL FLASHING DETAIL FOR ROOF CURB



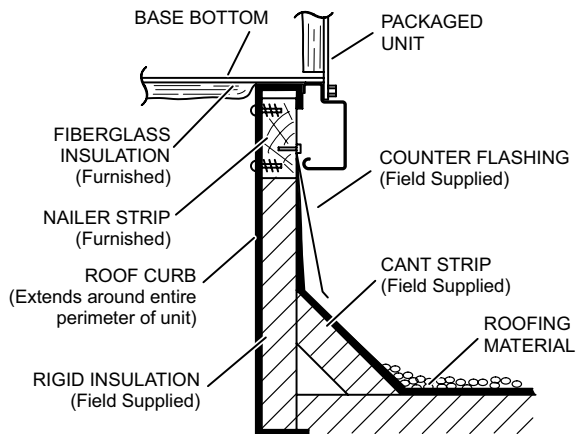
DETAIL ROOF CURB



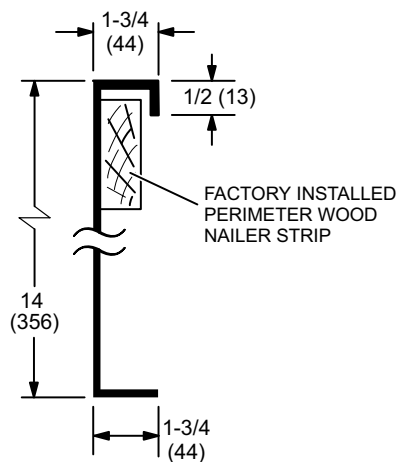
ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING



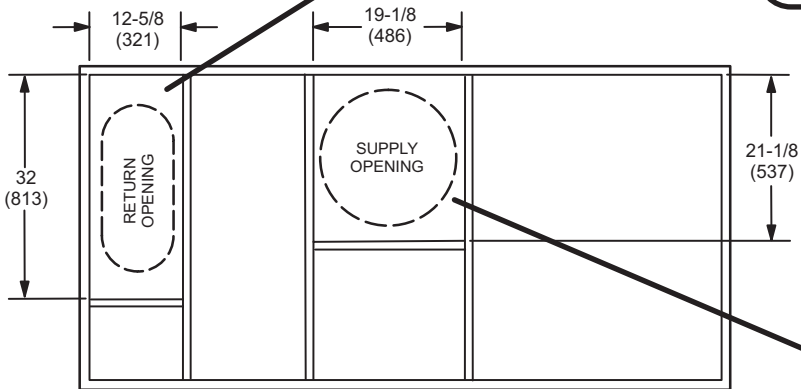
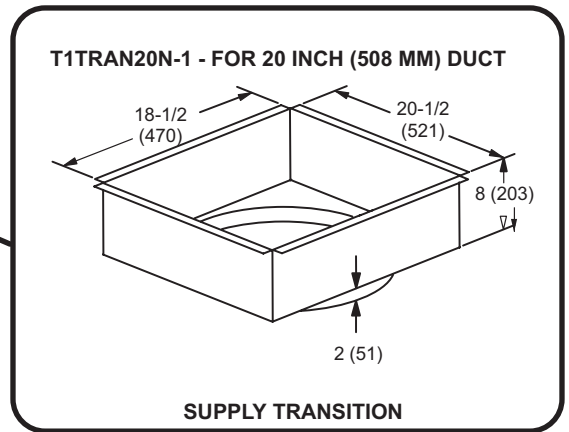
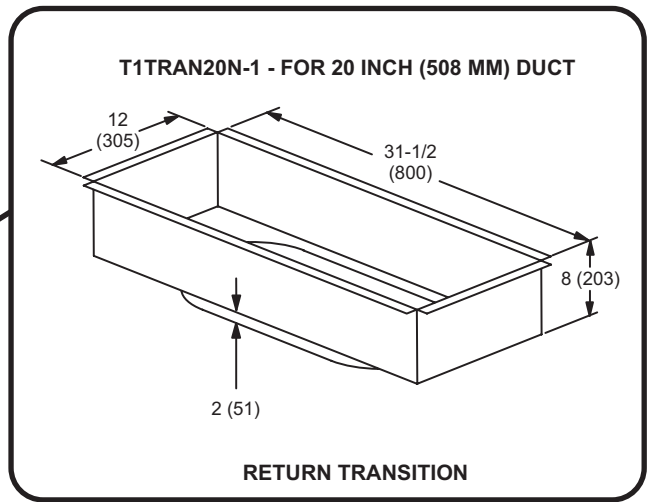
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

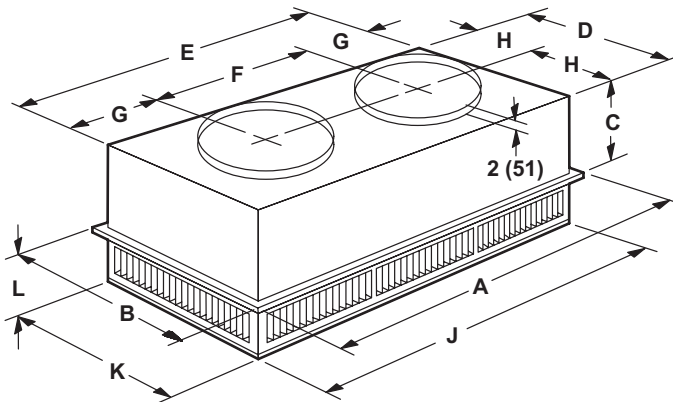


TRANSITIONS

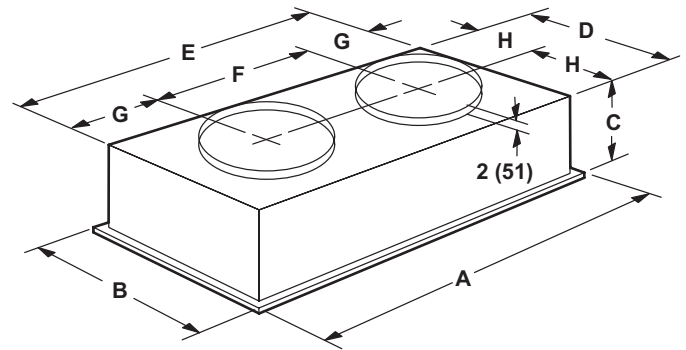


COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



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

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

REVISIONS

Sections	Description of Change
Weight Data	Updated Roof Curb weights.



Intertek



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