PACKAGED HEAT PUMP

LDT

E-SERIES™ ROOFTOP UNITS

High Efficiency | Dual-Fuel | Intelli-Guide™ Pro Controller | R-454B | 60Hz

COMMERCIAL
PRODUCT SPECIFICATIONS (EHB)

6.5 to 12.5 Tons
Net Cooling Capacity | 78,000 to 136,000 Btuh
Net Heating Capacity | 73,000 to 128,000 Btuh
Gas Input Heat Capacity | 85,000 to 240,000 Btuh

ASHRAE Standard 90.1

MODEL NUMBER IDENTIFICATION

L D T 102 H 5 E S 2 Y

Brand
L = Allied®

Unit Type
D = Packaged Dual-Fuel (Heat Pump/Gas Heating) Unit

Family
T = E-Series™ Series

Nominal Cooling Capacity - Tons
078 = 6.5 Tons
092 = 7.5 Tons
102 = 8.5 Tons
120 = 10 Tons
152 = 12.5 Tons

Cooling/Heating Efficiency
H = High Efficiency

Refrigerant Type
5 = R-454B

Blower Type
E = Single Zone VAV Supply Fan (E-Direct™ ECM Direct Drive)
M = Single Zone VAV Supply Fan Option

Heating Type
Two-Stage
S = Standard Gas Heat, 2 Stage
M = Medium Gas Heat, 2 Stage
H = High Gas Heat, 2 Stage

Minor Design Sequence
2 = 2nd Revision

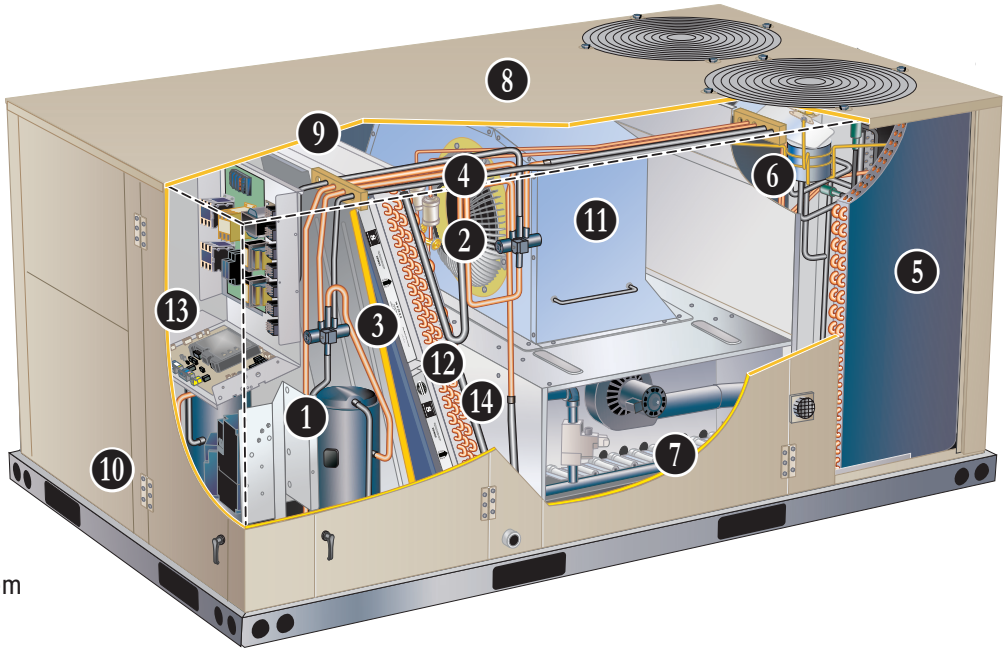
Voltage
Y = 208/230V-3 phase-60Hz
G = 460V-3 phase-60Hz
J = 575V-3 phase-60Hz

Form Number 311115 | October 2026
Supersedes all previous versions

FEATURE HIGHLIGHTS

E-Series™ rooftop units featuring the Intelli-Guide™ Pro 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. Scroll Compressors
2. Check/Thermal Expansion Valves
3. Reversing Valve
4. Filter/Driers
5. Copper Tube Coil Construction
6. Outdoor Coil Fan Motors
7. Heat Exchanger/Inshot Burners
8. Heavy Gauge Steel Cabinet
9. Cabinet Insulation
10. Hinged Access Panels
11. E-Direct™ Direct Drive ECM Blower System (Belt Drive Option Available)
12. Air Filters
13. Intelli-Guide™ Pro Control System
14. Dehumification System (option, not shown)



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APPROVALS AND WARRANTY

APPROVALS

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

WARRANTY

- Compressors - Limited five years
- Intelli-Guide™ Pro Unit Controller - Limited three years
- Stainless Steel Heat Exchanger - Limited fifteen years
- High Performance Economizers (optional) - Limited five years
- All other covered components - Limited one year

FEATURES AND BENEFITS

DUAL-FUEL OPERATION

(Heating Mode)

- Operates the heat pump for 1st stage heating
  - If 1st stage heat settings are not met, the 2nd stage activates gas heating (secondary heat source)
- Mechanical heat pump operation automatically terminates on gas heat start-up
- Intelli-Guide™ Pro Control System automatically changes blower speeds between heat pump heating and gas heating
- Blower operates in high speed during 1st stage (heat pump) operation and terminates during changeover to gas heat operation
- Blower starts when heat exchanger is warm, and runs in high speed during 2nd stage (gas heat) operation
  - If continuous blower operation is available on the thermostat, a change in blower speed automatically occurs during heat pump to gas heat changeover

COOLING/HEATING SYSTEM

- Designed to maximize sensible and latent cooling and heating performance at design conditions
- Mechanical cooling operates from 0°F to 125°F
- Mechanical heating operates down to 35°F ambient (default dual fuel balance point) adjustable 10°F to 65°F
- Mechanical heating operates at ambient temperatures above 10°F
- Gas heating operates from 35°F down to -40°F (default) dual fuel balance point) adjustable 10°F to 65°F

NOTE - Optional Low Temperature Vestibule Heater extends gas heat operation down to -60°F.

R-454B Refrigerant

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

1 Compressor System

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

Compressor Crankcase Heaters

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

2 Check/Thermal Expansion Valves

- Ensures optimal performance throughout the application range
- Removable element head
- Factory configured, no adjustment required

FEATURES AND BENEFITS

COOLING / HEATING SYSTEM (continued)

3 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

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

High Pressure Switches
- Protects the compressors from overload conditions
- Auto-reset

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

Indoor Coil Freeze Protection
- Protects the indoor coil from damaging ice build-up due to conditions such as low/no airflow, or low refrigerant charge

5 Coil Construction
- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction
- Factory leak tested
- LDT152 models have two outdoor coils assembled in a "V" configuration.

Indoor Coil
- Cross row circuiting
- Rifled copper tubing

Outdoor Coil
- Two independent formed coils allow separation for cleaning

Anti-Microbial Condensate Drain Pan
- Composite pan, sloped to meet drainage requirements per ASHRAE 62.1
- Anti-Microbial additive prevents growth of mold and mildew, which improves indoor air quality and reduces drain line blockage
- Side or bottom drain connections
- Reversible to allow connection at back of unit

6 Outdoor Coil Fan Motors
- All models have variable speed (ECM) fan motors for energy efficient operation and quiet operation
- Thermal overload protected
- Totally enclosed
- Permanently lubricated ball bearings
- Shaft up
- Wire basket mount

Outdoor Coil Fan
- PVC coated fan guards furnished

Required Selections

Cooling Capacity
- Specify nominal cooling capacity

Options/Accessories

Factory or Field Installed

Drain Pan Overflow Switch
- Monitors condensate level in drain pan
- Shuts down unit if drain becomes clogged

Field Installed

Condensate Drain Trap
- Constructed of PVC or copper

GAS HEATING SYSTEM
- Aluminized steel inshot burners
- Direct spark ignition
- Electronic flame sensor
- Combustion air inducer
- Redundant automatic gas valve with manual shut-off

7 Heat Exchanger
- Tubular construction, stainless steel
- Life cycle tested

Electronic Pilot Ignition
- Electronic spark igniter provides positive direct ignition of burners on each operating cycle
- Permits main gas valve to stay open only when the burners are proven to be lit
  - If loss of flame occurs, gas valve closes, shutting off the gas to the burners
- LED indicates status and aids in troubleshooting
- Watchguard circuit on module automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance service calls
- Factory installed in the gas heating compartment

Limit Control
- Redundant limit controls with fixed temperature setting
- Protects heat exchanger and other components from overheating

Safety Switches
- Flame roll-out switch
- Flame sensor
- Combustion air inducer proving switch
- Protects system operation

Two-Stage Gas Heat
- Two-Stage gas valve adjusts heat for low and high output

GAS HEATING SYSTEM (Continued)

Required Selections

Gas Input Choice - Order one:
- Standard Gas Heat (all models) 85,000-130,000 Btuh
- Medium Gas Heat (all models) 117,000-180,000 Btuh
- High Gas Heat (092-152) 156,000-240,000 Btuh

Options/Accessories

Factory Installed

Field Installed

Bottom Gas Piping Entry
- Allows bottom gas entry through the curb or unit

Combustion Air Intake Extensions
- Recommended for use with existing flue extension kits in areas where high snow areas can block intake air

Low Temperature Vestibule Heater
- Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F
- CSA certified to allow operation of unit down to -60°F

LPG/Propane Kit
- Conversion kit to field change over units from Natural Gas to LPG/Propane
- Includes gas valve conversion parts for both two-stage and modulating

Vertical Vent Extension Kit
- Use to exhaust flue gases vertically above unit
- Required when unit vent is too close to fresh air intakes per building codes
- Also prevents ice formation on intake louvers
- Kit contains vent transition, vent tee, drain cap and installation hardware

NOTE - Straight vent pipes (4 in. B-Vent) and caps are not furnished and must be field supplied. Refer to kit instructions for additional information.

LOW GWP REFRIGERANT DETECTION SYSTEM (RDS)

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

CABINET

8 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 fork slots
- Raised edges around duct and power entry openings in the bottom of the unit for water protection

Airflow Choice
- Units are shipped in downflow (vertical) configuration

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

Duct Flanges
- Provided for horizontal duct attachment

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

Exterior Panels
- Constructed of heavy-gauge, galvanized steel
- Textured pre-paint with polyurethane finish
- Cyclic salt fog and UV exposure up to 1680 hours per ASTM D5894

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

Access Panels
- Filter section
- Heating/blower section
- Compressor/controls section

FEATURES AND BENEFITS

CABINET (Continued)

Options/Accessories

Factory or Field Installed

Combination Coil/Hail Guards
- Heavy gauge steel frame
- Painted to match cabinet
- Expanded metal mesh protects outdoor coil

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)
- Outdoor Corrosion Protection:
  - Coated coil
  - Painted outdoor base

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

Field Installed

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

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

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

DIRECT DRIVE BLOWER

11 E-Direct™ Blower System
- High-efficiency, variable-speed ECM (electronically commutated) motor
- Eliminates the need for a separate variable-frequency drive
- 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™ Pro Unit Controller
- Direct drive blower comes standard with blower proving feedback (Blower Proving Switch is available as an option)
- 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
- Backward curved blades mounted directly onto the rotor
- Air inlet grill reduces indoor sound levels without affecting air performance

Options/Accessories

Factory or Field Installed

Blower Proving Switch
- Monitors blower operation, shuts down unit if blower fails

FEATURES AND BENEFITS

BELT DRIVE BLOWER

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

Motor

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

Supply Air Blower

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

Single Zone VAV Supply Fan Operation

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

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

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

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

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

Blower Proving Switch

- Monitors blower operation, shuts down unit if blower fails

Required Selections

- Single Zone VAV controls the speed of the blower based on the cooling and heating demands
- VAV (Variable Air Volume) blower varies the air volume to maintain a constant supply duct static pressure
- Order blower motor HP and drive kit number required when base unit is ordered
- See Drive Kit Specifications Table

Options/Accessories

Field Installed

VFD Manual Bypass Kit

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

ELECTRICAL

WireRight™ System

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

Electrical Plugs

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

Phase/Voltage Detection

- Monitors power supply to ensure correct phase at unit start-up
  - If phase is incorrect, the unit will not start and an alarm code reports to the unit controller
- Prevents unit start-up if the unit is the incorrect phase; unit start-ups in the wrong phase could lead to issues such as compressors functioning in reverse
- 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 reports to the unit controller

CONTROL SYSTEM

ELECTRICAL(Continued)

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

Short-Circuit Current Rating (SCCR)
- Higher short-circuit protection up to 100kA

NOTE - Disconnect Switch is not available as an option with High SCCR option.

Factory or Field Installed

Disconnect Switch
- Accessible from outside of unit
- Spring loaded weatherproof cover furnished
- GFI Service Outlets (2)
- 115V ground fault circuit interrupter (GFCI) type options:
  - Factory installed, non-powered, field wired
  - Field installed, non-powered, field wired

Field Installed

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

INDOOR AIR QUALITY

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

Options/Accessories

Factory or Field Installed

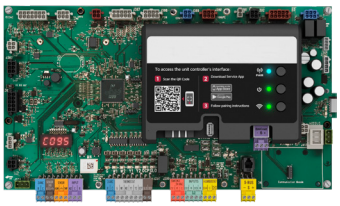
High Efficiency Air Filters
- Disposable MERV 8 and MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2 inch pleated filters**Field Installed**
-

Indoor Air Quality (CO_2) Sensors
- Monitors CO_2 levels
- Reports to the Intelli-Guide™ Pro 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

OPTIONS / ACCESSORIES

INTELLI-GUIDE™ 2.0 CONTROL SYSTEM



13 The Intelli-Guide™ Pro 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™ Pro 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 Intelli-Guide™ Pro 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™ Pro 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 - packaged heat pumps only)
- Dehumidification Operation
- Enhanced Dehumidification (Latent Demand Control without hot gas reheat)

Component Protection / Unit Safeguards:

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

Control Methods / Interfaces:

- DDC and 24V Thermostat
- BACnet MS/TP and IP
- LONTalk (Factory and Field Option)
- 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

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

INTELLI-GUIDE™ 2.0 CONTROL SYSTEM (continued)

Controls Options

Factory or Field Installed

Dirty Filter Switch

- Senses static pressure increase and issues alarm if necessary

Smoke Detector

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

ECONOMIZER

- Economizer operation is set and controlled by the Intelli-Guide™ Pro Control System
- Simple plug-in connections from economizer to control system 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 the Options/ Accessories table.

Factory or Field Installed

High Performance Economizer

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

NOTE - Horizontal applications use furnished outdoor air hood and barometric relief dampers with exhaust hood. Requires optional Horizontal Discharge Kit. See dimension drawing on page 54.

Horizontal applications in reduced spaces requires optional Horizontal Low Profile Barometric Relief Dampers with Exhaust Hood and Horizontal Discharge Kit. See dimension drawing on page 55.

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

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

NOTE - Refer to Installation Instructions for complete setup information.

OPTIONS / ACCESSORIES

Factory or Field Installed (continued)

Differential Sensible Control
- Factory setting
- Uses outdoor air and return air sensors that are furnished with the unit
- The Intelli-Guide™ Pro Control System compares outdoor air temperature with return air and activates the economizer when the outdoor air 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)
- Determines whether outside air is suitable for free cooling on all units connected to the control system
- Sensor must be field provided

Single Enthalpy Temperature Control (Not for Title 24)
- Outdoor air enthalpy sensor enables economizer if the outdoor enthalpy is less than the setpoint of the control

Differential Enthalpy Control (Not for Title 24)
- Order two Single Enthalpy Controls
- One is field installed in the return air section
- One is installed in the outdoor air section
- Allows the economizer control to select between outdoor air or return air, whichever has lower enthalpy

Field Installed

Outdoor Air CFM Control
- Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows
- Velocity sensor located in the rooftop unit outdoor air section, the Intelli-Guide™ Pro Control system changes the economizer position to help minimize the effect of supply fan speed changes on outdoor air volume levels
- Setpoint for outdoor air volume is established by field testing

NOTE - Not available with Demand Control Ventilation (CO_2 Sensor) or Building Pressure Control.

ECONOMIZER (continued)

Building Pressure Control
- Maintains constant building pressure level
- Includes a static pressure transducer and outdoor static pressure assembly
- Using differential pressure information between the outdoor air and the building air, the Intelli-Guide™ Pro Control system changes the economizer position to help maintain a constant building pressure

NOTE - Not available with Demand Control Ventilation (CO_2 Sensor) or Outdoor Air CFM Control.

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 20 in. diameter
- Five blades
- One 1/3 hp motor

NOTE - Requires Economizer and Downflow Barometric Relief Dampers

Field Installed

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

NOTE - Requires Horizontal Discharge Kit.

OPTIONS / ACCESSORIES

OUTDOOR AIR

Factory or Field Installed

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

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

Field Installed

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

ROOF CURBS

Field Installed

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

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

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

Adapter 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

DEHUMIDIFICATION SYSTEM OPTION

14 OVERVIEW

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

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

Controls are not furnished and must be ordered separately.

BENEFITS

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

OPERATION

No Dehumidification Demand

- The unit will operate conventionally whenever there is a demand for cooling or heating and no dehumidification demand
- Free cooling is only permitted when there is no demand for dehumidification

Dehumidification Demand Only

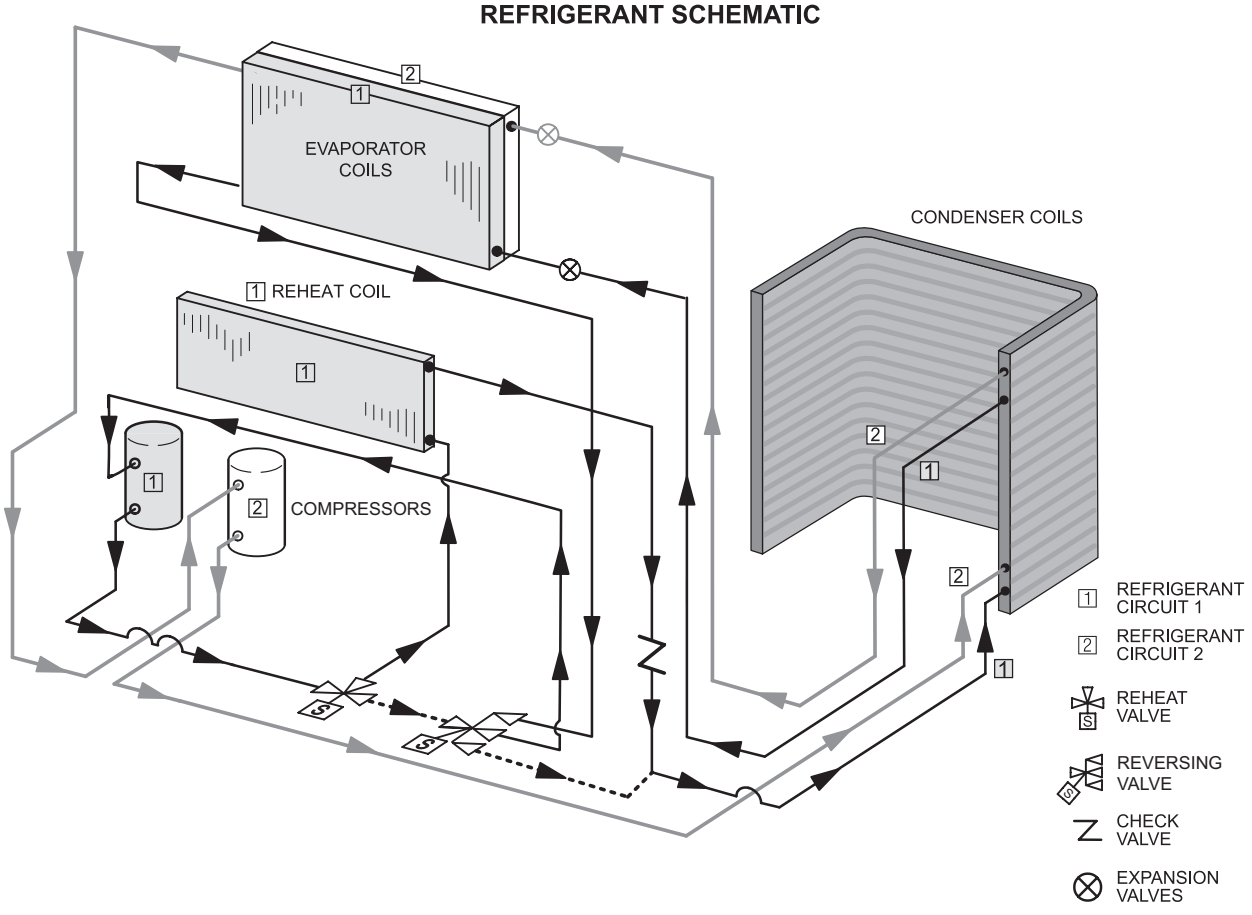
- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- The unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- This reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- The cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- The de-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- Unit will continue to operate in this mode until the dehumidification demand is satisfied

NOTE - See Sequence of Operation for additional information.

Dehumidification and Cooling Demand (Thermostat/ Room Sensor Application)

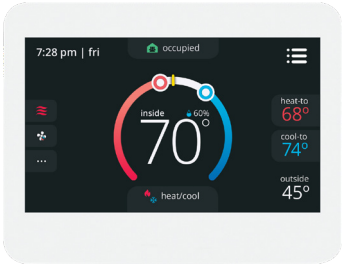
- If both a dehumidification and a full cooling load demand occur, the system will operate in cooling until the cooling demand is satisfied
- Then the system will energize the dehumidification mode

REFRIGERANT SCHEMATIC



OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

CS8500 Commercial 7-Day Programmable Thermostat

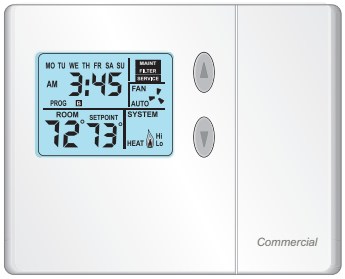


- Fully Communicating Sensor
- Full Color Touchscreen Interface
- Variable Speed System Control (On Compatible Units)
- Up To 4 Heat / 4 Cool
- Built-In Sensors For Temperature, Humidity And Optional CO_2
- Remote Sensor Options For Occupancy, Temperature
- BACnet Capable Options
- 5-2 or 7-Day Scheduling
- 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		Order Number
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**
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 an integral part of the unit cooling system. When not present, unit will function as if economizer is present but outdoor ambient is high and sensed as not suitable.

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

SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

COOLING

[1] Unit Features An Economizer And Outdoor Air Is Suitable

Thermostat Mode (Y1, Y2)

Y1 Demand:

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

Y2 Demand:

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

[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 rooftop unit via a network connection.

Unit Does Not Feature An Economizer Or Outdoor Air Is Not Suitable

Thermostat Mode (Y1, Y2)

Y1 Demand:

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

Y2 Demand:

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

DEHUMIDIFICATION

Unit Features the Dehumidification option. Economizer free cooling is locked out

Call For Dehumidification, No Y1, Y2 demand:

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

Y1 Demand With A Call For Dehumidification:

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

Y2 Demand With A Call For Dehumidification:

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

SEQUENCE OF OPERATION

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

SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

COOLING

[1] Unit Features An Economizer And Outdoor Air Is Suitable

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

Y1 Demand:

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

Y2 Demand:

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

Y3 Demand:

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

[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 rooftop unit via a network connection.

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

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

Y1 Demand:

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

Y2 Demand:

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

Y3 Demand:

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

SEQUENCE OF OPERATION

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

DEHUMIDIFICATION

Unit Features the Dehumidification option. Economizer free cooling is locked out

Call For Dehumidification, No Y1, Y2 demand:

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

Y1 Demand:

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

Y2 Demand:

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

Y3 Demand:

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

DEFROST

Coil Sensors (RT48 - Circuit 1 and RT49 - Circuit 2) and Ambient Sensor (RT17) provides input to the Intelli-Guide™ Pro Unit Controller to initiate a defrost cycle if needed.

Coil sensors are located on a return bend for each circuit 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 a 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.

Defrost will not be activated on more than one circuit at the time.

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

Whichever circuit is not in a defrost cycle will be energized during to maintain discharge air temperature.

Gas heating is not energized during a defrost cycle.

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

HEATING - TWO-STAGE

NOTE – THERMOSTAT MODE HAS TWO STAGES OF HEATING. ROOM SENSOR MODE HAS UP TO THREE STAGES OF HEATING.

3-Stage Thermostat or Zone Sensor - Outdoor Air Temperature is more than the Balance Point

W1/H1 Demand:

A first-stage heating demand (W1/H1) will energize all compressors (mechanical heating), the outdoor fans, and supply air blower operates at the heating speed.

W2/H2 Demand:

A second-stage heating demand (W2/H2) will de-energize the compressors (mechanical heating) and Low Gas Heat will be energized. The supply air blower operates at the heating speed.

H3 Demand:

A third-stage heating demand (H3) will de-energize Mechanical Heating and High Gas Heat will be energized. The supply air blower operates at the heating speed.

NOTE – L1 and L2 reversing valves are de-energized in the heating mode.

NOTE – Balance Point (default is 35°F). User adjustable from 10°F to 76°F.

3-Stage Thermostat or Zone Sensor - Outdoor Air Temperature is less than the Balance Point

W1 Demand:

A first-stage heating demand (W1/H1) will energize Low Gas Heat and the supply air blower operates at the heating speed.

W2 Demand:

A second-stage heating demand (W2/H2) will energize High Gas Heat and the supply air blower operates at the heating speed.

NOTE – L1 and L2 reversing valves are de-energized in the heating mode.

NOTE – Balance Point (default is 35°F). User adjustable from 10°F to 76°F.

NOTE - If the Outdoor Air Temperature is less than the Balance Point, the controller will lock out Mechanical Heating and will enable gas heat only.

SEQUENCE OF OPERATION

ACCESSORIES

Modulating Outdoor Air Damper

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

When supply air blower is off or the unit is in unoccupied mode, the outdoor air damper is closed.

When unit is in occupied mode and supply air blower is operating at a speed below the “midpoint” blower speed, the outdoor air damper is at minimum “low blower” position.

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

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

Power Exhaust

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

Single-stage power exhaust fan is an option available to units with Economizer and for downflow applications only.

Power exhaust fan operates when economizer outdoor air dampers are 50% open (adjustable) and when supply air blower is ON.

OPTIONS / ACCESSORIES

Item Description		Order Number	Unit Model No 078	092	102	120	152
COOLING SYSTEM							
Condensate Drain Trap	PVC	**22H54**	X	X	X	X	X
	Copper	**76W27**	X	X	X	X	X
Drain Pan Overflow Switch		**21Z07**	OX	OX	OX	OX	OX
GAS HEATING SYSTEM							
Bottom Gas Piping Kit		**54W95**	X	X	X	X	X
Combustion Air Intake Extensions		**19W51**	X	X	X	X	X
Gas Heat Input	Standard - 85,000-130,000 Btuh	Factory	O	O	O	O	O
	Medium - 117,000-180,000 Btuh	Factory	O	O	O	O	O
	High - 156,000-240,000 Btuh	Factory		O	O	O	O
LPG/Propane Conversion Kit	Two-Stage Standard Heat	**14N22**	X	X	X	X	X
	Two-Stage Medium Heat	**14N23**	X	X	X	X	X
	Two-Stage High Heat	**14N25**	X	X	X	X	X
Low Temperature Vestibule Heater	208/230V-3ph	**22A51**	X	X	X	X	X
	460V	**22A55**	X	X	X	X	X
	575V	**13X65**	X	X	X	X	X
Vertical Vent Extension		**42W16**	X	X	X	X	X
BLOWER - SUPPLY AIR							
Direct Drive Motor	E-Direct™ Blower System Single Zone VAV Supply Fan	Factory	O	O	O	O	O
Belt Drive Motors	Belt Drive - 2 HP	Factory	O	O	O	O	O
	Belt Drive - 3 HP	Factory	O	O	O	O	O
	Belt Drive - 5 HP	Factory	O	O	O	O	O
Drive Kits	Kit #1 590-890 rpm	Factory	O	O	O	O	O
See Blower Data Tables for selection	Kit #2 800-1105 rpm	Factory	O	O	O	O	O
	Kit #3 795-1195 rpm	Factory	O	O	O	O	O
	Kit #4 730-970 rpm	Factory	O	O	O	O	O
	Kit #5 940-1200 rpm	Factory	O	O	O	O	O
	Kit #6 1015-1300 rpm	Factory	O	O	O	O	O
	Kit #10 900-1135 rpm	Factory	O	O	O	O	O
	Kit #11 1050-1335 rpm	Factory	O	O	O	O	O
VFD Manual Bypass Kit (for Belt Drive)		**37G66**	X	X	X	X	X
CABINET							
Burglar Bars		**Y3355**	X	X	X	X	X
Combination Coil/Hail Guards		**24C86**	OX	OX	OX	OX	
		37A56					OX
Corrosion Protection (outdoor)		Factory	O	O	O	O	O
Horizontal Discharge Kit		**51W25**	X	X	X	X	X

CONTROLS

NOTE - Order numbers shown are for ordering field installed accessories.
OX = Configure To Order (Factory Installed) or Field Installed.
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OPTIONS / ACCESSORIES

Item Description		Order Number	Unit Model No 078	092	102	120	152
Blower Proving Switch		**21Z10**	OX	OX	OX	OX	OX
Commercial Controls	CPC Einstein Integration	Factory	O	O	O	O	O
	LonTalk® Module	**54W27**	OX	OX	OX	OX	OX
	Novar® LSE	Factory	O	O	O	O	O
Dirty Filter Switch		**53W67**	OX	OX	OX	OX	OX
Smoke Detector - Supply or Return (Power board and one sensor)		**31A68**	OX	OX	OX	OX	OX
Smoke Detector - Supply and Return (Power board and two sensors)		**31A69**	OX	OX	OX	OX	OX
INDOOR AIR QUALITY							
Air Filters							
High Efficiency Air Filters	MERV 8	**50W61**	OX	OX	OX	OX	OX
20 x 25 x 2 in. (Order 4 per unit)	MERV 13	**52W41**	OX	OX	OX	OX	OX
Replacement Media Filter With Metal Mesh Frame (includes non-pleated filter media)		**Y3063**	X	X	X	X	X
Indoor Air Quality (CO_2) Sensors							
Sensor - Wall-mount, off-white plastic cover with LCD display		**77N39**	X	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display		**87N53**	X	X	X	X	X
Sensor - Black plastic case, LCD display, rated for plenum mounting		**87N52**	X	X	X	X	X
Sensor - Black plastic case, no display, rated for plenum mounting		**87N54**	X	X	X	X	X
CO_2 Sensor Duct Mounting Kit - for downflow applications		**23Y47**	X	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO_2 sensors (**77N39**)		**90N43**	X	X	X	X	X
UVC Germicidal Lamps							
[2] UVC Light Kit (110/230v-1ph)		**21A93**	X	X	X	X	X
Step-Down Transformers	460V primary, 230V secondary	**10H20**	X	X	X	X	X
	575V primary, 230V secondary	**10H21**	X	X	X	X	X

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

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OPTIONS / ACCESSORIES

Item Description		Order Number	Unit Model No 078	092	102	120	152
ELECTRICAL							
Voltage 60 Hz	208/230V - 3 phase	Factory	O	O	O	O	O
	460V - 3 phase	Factory	O	O	O	O	O
	575V - 3 phase	Factory	O	O	O	O	O
HACR Circuit Breakers		Factory	O	O	O	O	O
Disconnect Switch	80 amp	**54W56**	OX	OX	OX	OX	OX
[3] Short-Circuit Current Rating (SCCR) of 100kA (includes Phase/Voltage Detection)							
GFI Service Outlets	15 amp non-powered, field-wired (208/230V, 460V only)	**74M70**	X	X	X	X	X
	[4] 20 amp non-powered, field-wired (208/230V, 460V, 575V)	**67E01**	X	X	X	X	X
Weatherproof Cover for GFI		**10C89**	X	X	X	X	X
ECONOMIZER							
High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)							
High Performance Economizer (Downflow or Horizontal)		**20U80**	OX	OX	OX	OX	OX
Includes Economizer Dampers with Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood							
Downflow Applications - Use furnished Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood							
Horizontal Applications - Use furnished Outdoor Air Hood and Barometric Relief Dampers with Exhaust Hood - Order Horizontal Discharge Kit separately							
Horizontal Applications (reduced height) - Order Horizontal Low Profile Barometric Relief Dampers with Exhaust Hood and Horizontal Discharge Kit (**51W25**) separately							
Horizontal Low Profile Barometric Relief Dampers							
Horizontal Low Profile Barometric Relief Dampers (Exhaust hood furnished)		**53K04**	X	X	X	X	X
Economizer Controls							
Differential Enthalpy (Not for Title 24)	Order 2	**21Z09**	OX	OX	OX	OX	OX
Sensible Control	Sensor is Furnished	Factory	O	O	O	O	O
Single Enthalpy (Not for Title 24)		**21Z09**	OX	OX	OX	OX	OX
Building Pressure Control		**13J77**	X	X	X	X	X
Outdoor Air CFM Control		**13J76**	X	X	X	X	X
Global Control	Sensor Field Provided	Factory	O	O	O	O	O
OUTDOOR AIR							
Outdoor Air Dampers With Outdoor Air Hood							
Motorized		**14G28**	OX	OX	OX	OX	OX
Manual		**14G29**	X	X	X	X	X
POWER EXHAUST							
Standard Static	208/230V-3ph	**53W44**	OX	OX	OX	OX	OX
	460V-3ph	**53W45**	OX	OX	OX	OX	OX
	575V-3ph	**53W46**	OX	OX	OX	OX	OX

[2] Disconnect Switch not available with higher SCCR option. Short-Circuit Current Rating option not available on field installed electric heat.

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

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

Item Description		Order Number	Unit Model No 078	092	102	120	152
CONDENSER REHEAT OPTION							
Dehumidification Option		Factory	O	O	O	O	O
Humidity Sensor Kit, Remote mounted (required)		**17M50**	X	X	X	X	X
ROOF CURBS							
Hybrid Roof Curbs, Downflow							
8 in. height		**11F54**	X	X	X	X	X
14 in. height		**11F55**	X	X	X	X	X
18 in. height		**11F56**	X	X	X	X	X
24 in. height		**11F57**	X	X	X	X	X
Adjustable Pitch Curb							
14 in. height		**54W50**	X	X	X	X	X
CEILING DIFFUSERS							
Step-Down - Order one	RTD11-95S	**13K61**	X	X			
	RTD11-135S	**13K62**			X	X	X
Flush - Order one	FD11-95S	**13K56**	X	X			
	FD11-135S	**13K57**			X	X	X
Transitions (Supply and Return) - Order one	C1DIFF30B-1	**12X65**	X	X			
	C1DIFF31B-1	**12X66**			X	X	X

NOTE - Order 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 — DIRECT DRIVE MODELS - 6.5 TON | 7.5 TON | 8.5 TON

Model			LDT078H5E	LDT092H5E	LDT102H5E
Nominal Tonnage			6.5 Ton	7.5 Ton	8.5 Ton
Efficiency Type			High	High	High
Blower Type			E-Direct™ ECM Direct Drive Single Zone VAV	E-Direct™ ECM Direct Drive Single Zone VAV	E-Direct™ ECM Direct Drive Single Zone VAV
Cooling Performance	Gross Cooling Capacity (Btuh)		79,000	92,000	101,000
	[1] Net Cooling Capacity (Btuh)		78,000	90,000	98,000
	[1] AHRI Rated Air Flow (cfm)		2400	2600	2800
	[1] IEER (Btuh/Watt)		17.0	16.8	16.8
	[1] EER (Btuh/Watt)		12.5	12.1	11.9
	Total Unit Power (kW)		6.5	7.4	8.4
Heating Performance	[1] Total High Heat Capacity (Btuh)		73,000	86,000	96,000
	[1] AHRI Rated Air Flow (cfm)		2600	3200	3400
	[1] COP		3.5	3.5	3.5
	Total Unit Power (kW)		6.1	7.3	8.0
	[1] Total Low Heat Capacity (Btuh)		40,000	46,000	53,000
	[1] COP		2.25	2.25	2.25
	Total Unit Power (kW)		5.2	6.7	7.3
Sound Rating Number		dBA	88	88	88
Refrigerant Charge		Refrigerant Type	R-454B	R-454B	R-454B
	Without Reheat Option	Circuit 1	11 lbs. 8 oz.	11 lbs. 0 oz.	10 lbs. 12 oz.
		Circuit 2	11 lbs. 0 oz.	11 lbs. 4 oz.	11 lbs. 4 oz.
	With Reheat Option	Circuit 1	13 lbs. 0 oz.	13 lbs. 12 oz.	15 lbs. 8 oz.
		Circuit 2	11 lbs. 0 oz.	11 lbs. 4 oz.	11 lbs. 4 oz.
Gas Heat Available			See page 29		
Compressor Type (number)			Two-Stage Scroll (1) Single-Stage Scroll (1)		
Outdoor Coil	Net face area - ft.² (total)		25.9	25.9	25.9
	Tube diameter - in.		3/8	3/8	3/8
	Rows		3	3	3
	Fins - in.		20	20	20
Outdoor Coil Fans	Motor HP (number and type)		1/3 (2 ECM)	1/3 (2 ECM)	1/3 (2 ECM)
	Rpm		300-1100	300-1100	300-1100
	Watts (total)		100-820	100-820	100-820
	Diameter (Number) - in.		(2) 24	(2) 24	(2) 24
	Blades		3	3	3
	Total Air volume - cfm		2000-7500	2000-7500	2000-7500
Indoor Coil	Net face area - ft.² (total)		13.5	13.5	13.5
	Tube diameter - in.		3/8	3/8	3/8
	Rows		4	4	4
	Fins - in.		14	14	14
	Condensate drain size (NPT) - in.		(1) 1		
	Expansion device type		Balanced Port Thermostatic Expansion Valve		
Indoor Blower	Nominal motor HP		3.75 HP (ECM)	3.75 HP (ECM)	3.75 HP (ECM)
	Wheel (Number) diameter x width - in.		(1) 22 x 19	(1) 22 x 19	(1) 22 x 19
Filters	Type of filter		MERV 4, Disposable		
	Number and size - in.		(4) 20 x 25 x 2		
Line voltage data (Volts-Phase-Hz)			208/230-3-60, 460-3-60, 575-3-60		

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

[1] AHRI Certified to AHRI Standard 340/360:
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.

SPECIFICATIONS — DIRECT DRIVE MODELS - 10 TON | 12.5 TON

Model			LDT120H5E	LDT152H5E
Nominal Tonnage			10 Ton	12.5 Ton
Efficiency Type			High	High
Blower Type			E-Direct™ ECM Direct Drive Single Zone VAV	E-Direct™ ECM Direct Drive Single Zone VAV
Cooling Performance		Gross Cooling Capacity (Btuh)	119,000	140,000
		[1] Net Cooling Capacity (Btuh)	116,000	136,000
		[1] AHRI Rated Air Flow (cfm)	3500	4200
		[1] IEER (Btuh/Watt)	16.6	15.0
		[1] EER (Btuh/Watt)	11.8	10.9
		Total Unit Power (kW)	10.1	12.7
		[1] Total High Heat Capacity (Btuh)	112,000	128,000
		[1] AHRI Rated Air Flow (cfm)	3600	4200
		[1] COP	3.5	3.4
		Total Unit Power (kW)	9.3	11.4
		[1] Total Low Heat Capacity (Btuh)	63,000	70,000
		[1] COP	2.25	2.1
		Total Unit Power (kW)	8.3	10.4
Sound Rating Number		dBA	88	87
Refrigerant Charge		Refrigerant Type	R-454B	R-454B
	Without Reheat Option	Circuit 1	10 lbs. 11 oz.	15 lbs. 0 oz.
		Circuit 2	10 lbs. 10 oz.	12 lbs. 12 oz.
	With Reheat Option	Circuit 1	13 lbs. 8 oz.	16 lbs. 0 oz.
		Circuit 2	10 lbs. 10 oz.	12 lbs. 12 oz.
Gas Heat Available			See page 29	
Compressor Type (number)			Two-Stage Scroll (1) Single-Stage Scroll (1)	
Outdoor Coil		Net face area - ft.² (total)	25.9	29.4
			3/8	3/8
		Number of rows	3	3
		Fins - in.	20	20
Outdoor Coil Fans		Motor HP (number and type)	1/3 (2 ECM)	1/3 (4 ECM)
		Rpm	300-1100	300-1100
		Watts (total)	100-820	200-1400
		Diameter (Number) - in.	(2) 24	(4) 24
		Blades	3	3
		Total Air volume - cfm	2000-7500	3000-9000
Indoor Coil		Net face area - ft.² (total)	13.54	13.54
		Tube diameter - in.	3/8	3/8
		Rows	4	4
		Fins - in.	14	14
		Condensate drain size (NPT) - in.	(1) 1	
		Expansion device type	Balanced Port Thermostatic Expansion Valve	
Indoor Blower		Nominal motor output	3.75 HP (ECM)	3.75 HP (ECM)
		Wheel (Number) diameter x width - in.	(1) 22 x 9	(1) 22 x 9
Filters		Type of filter	MERV 4, Disposable	
		Number and size - in.	(4) 20 x 25 x 2	
Line voltage data (Volts-Phase-Hz)			208/230-3-60, 460-3-60, 575-3-60	

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

[1] AHRI Certified to AHRI Standard 340/360:
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.

SPECIFICATIONS — BELT DRIVE MODELS- 6.5 TON | 7.5 TON | 8.5 TON

Model			LDT078H5M	LDT092H5M	LDT102H5M
Nominal Tonnage			6.5 Ton	7.5 Ton	8.5 Ton
Efficiency Type			High	High	High
Blower Type			Single Zone VAV Supply Fan	Single Zone VAV Supply Fan	Single Zone VAV Supply Fan
Cooling Performance		Gross Cooling Capacity (Btuh)	79,000	92,000	101,000
		[1] Net Cooling Capacity (Btuh)	78,000	90,000	98,000
		[1] AHRI Rated Air Flow (cfm)	2400	2600	2800
		[1] IEER (Btuh/Watt)	16.1	16.1	16.1
		[1] EER (Btuh/Watt)	12.4	12.1	11.7
		Total Unit Power (kW)	6.6	7.6	8.6
Heating Performance		[1] Total High Heat Capacity (Btuh)	73,000	86,000	96,000
		[1] AHRI Rated Air Flow (cfm)	2600	3200	3400
		[1] COP	3.5	3.5	3.5
		Total Unit Power (kW)	6.3	7.4	8.2
		[1] Total Low Heat Capacity (Btuh)	40,000	46,000	53,000
		[1] COP	2.25	2.25	2.25
		Total Unit Power (kW)	6.0	6.8	7.5
Sound Rating Number		dBA	88	88	88
Refrigerant Charge		Refrigerant Type	R-454B	R-454B	R-454B
	Without Reheat Option	Circuit 1	11 lbs. 8 oz.	11 lbs. 0 oz.	10 lbs. 12 oz.
		Circuit 2	11 lbs. 0 oz.	11 lbs. 4 oz.	11 lbs. 4 oz.
	With Reheat Option	Circuit 1	13 lbs. 0 oz.	13 lbs. 12 oz.	15 lbs. 8 oz.
		Circuit 2	11 lbs. 0 oz.	11 lbs. 4 oz.	11 lbs. 4 oz.
Gas Heat Available			See page 29		
Compressor Type (number)			Two-Stage Scroll (1), Single-Stage Scroll (1)		
Outdoor Coil		Net face area - ft.² (total)	25.9	25.9	25.9
		Tube diameter - in.	3/8	3/8	3/8
		Rows	3	3	3
		Fins - in.	20	20	20
Outdoor Coil Fans		Motor HP (number and type)	1/3 (2 ECM)	1/3 (2 ECM)	1/3 (2 ECM)
		Rpm	300-1100	300-1100	300-1100
		Watts (total)	100-820	100-820	100-820
		Diameter (Number) - in.	(2) 24	(2) 24	(2) 24
		Blades	3	3	3
		Total Air volume - cfm	2000-7500	2000-7500	2000-7500
Indoor Coil		Net face area - ft.² (total)	13.5	13.5	13.5
		Tube diameter - in.	3/8	3/8	3/8
		Rows	4	4	4
		Fins - in.	14	14	14
		Condensate drain size (NPT) - in.	(1) 1		
		Expansion device type	Balanced Port Thermostatic Expansion Valve		
Indoor Blower		Nominal Motor HP	2, 3, 5		
		Maximum usable motor HP (US)	2.3, 3.45, 5.75		
[2] Indoor Blower and Drive Selection		Motor - Drive kit number	2 HP Kit 1 590-890 rpm Kit 2 800-1105 rpm Kit 3 795-1195 rpm 3 HP Kit 4 730-970 rpm Kit 5 940-1200 rpm Kit 6 1015-1300 rpm 5 HP Kit 10 900-1135 rpm Kit 11 1050-1335 rpm		
		Wheel (Number) diameter x width - in.	(1) 15 X 15		
Filters		Type of filter	MERV 4, Disposable		
		Number and size - in.	(4) 20 x 25 x 2		
Line voltage data (Volts-Phase-Hz)			208/230-3-60, 460-3-60, 575-3-60		

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

[1] AHRI Certified to AHRI Standard 340/360:
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] Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE – Motor service factor limit - 1.0.

SPECIFICATIONS — BELT DRIVE MODELS- 10 TON | 12.5 TON

Model			LDT120H5M	LDT152H5M
Nominal Tonnage			10 Ton	12.5 Ton
Efficiency Type			High	High
Blower Type			Single Zone VAV Supply Fan	Single Zone VAV Supply Fan
Cooling Performance		Gross Cooling Capacity (Btuh)	119,000	140,000
		[1] Net Cooling Capacity (Btuh)	116,000	136,000
		[1] AHRI Rated Air Flow (cfm)	3500	4200
		[1] IEER (Btuh/Watt)	16.1	14.6
		[1] EER (Btuh/Watt)	11.6	10.6
		Total Unit Power (kW)	10.3	13.0
		[1] Total High Heat Capacity (Btuh)	112,000	128,000
		[1] AHRI Rated Air Flow (cfm)	3600	4200
		[1] COP	3.5	3.3
		Total Unit Power (kW)	9.5	11.9
		[1] Total Low Heat Capacity (Btuh)	63,000	70,000
		[1] COP	2.25	2.05
		Total Unit Power (kW)	8.5	10.8
Sound Rating Number		dBA	88	87
Refrigerant Charge		Refrigerant Type	R-454B	R-454B
	Without Reheat Option	Circuit 1	10 lbs. 11 oz.	15 lbs. 0 oz.
		Circuit 2	10 lbs. 10 oz.	12 lbs. 12 oz.
	With Reheat Option	Circuit 1	13 lbs. 8 oz.	16 lbs. 0 oz.
		Circuit 2	10 lbs. 10 oz.	12 lbs. 12 oz.
Gas Heat Available			See page 29	
Compressor Type (number)			Two-Stage Scroll (1), Single-Stage Scroll (1)	
Outdoor Coil		Net face area - ft.² (total)	25.9	29.4
			3/8	3/8
		Number of rows	3	3
		Fins - in.	20	20
Outdoor Coil Fans		Motor HP (number and type)	1/3 (2 ECM)	1/3 (4 ECM)
		Rpm	300-1100	300-1100
		Watts (total)	100-820	200-1400
		Diameter (Number) - in.	(2) 24	(4) 24
		Blades	3	3
		Total Air volume - cfm	2000-7500	3000-9000
Indoor Coil		Net face area - ft.² (total)	13.54	13.54
		Tube diameter - in.	3/8	3/8
		Rows	4	4
		Fins - in.	14	14
		Condensate drain size (NPT) - in.	(1) 1	
		Expansion device type	Balanced Port Thermostatic Expansion Valve	
Indoor Blower		Nominal Motor HP	2, 3, 5	
		Maximum usable motor HP (US)	2.3, 3.45, 5.75	
[2] **Indoor Blower and Drive Selection**		Motor - Drive kit number	2 HP Kit 1 590-890 rpm Kit 2 800-1105 rpm Kit 3 795-1195 rpm 3 HP Kit 4 730-970 rpm Kit 5 940-1200 rpm Kit 6 1015-1300 rpm 5 HP Kit 10 900-1135 rpm Kit 11 1050-1335 rpm	
		Wheel (Number) diameter x width - in.	(1) 15 X 15	
Filters		Type of filter	MERV 4, Disposable	
		Number and size - in.	(4) 20 x 25 x 2	
Line voltage data (Volts-Phase-Hz)			208/230-3-60, 460-3-60, 575-3-60	

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

[1] AHRI Certified to AHRI Standard 340/360:
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] Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE – Motor service factor limit - 1.0.

SPECIFICATIONS — GAS HEAT

Model			LDT078 LDT092 LDT102 LDT120 LDT152	LDT078 LDT092 LDT102 LDT120 LDT152	LDT092 LDT102 LDT120 LDT152
Heat Input Type			**Standard**	**Medium**	**High**
Gas Heat Type			Two-Stage		
Gas Heating Performance	Input - Btuh	Minimum	85,000	117,000	156,000
		Maximum	130,000	180,000	240,000
	Output - Btuh	Maximum	105,000	146,000	194,000
Temperature Rise Range - °F			15 - 45	30 - 60	40 - 70
Minimum Air Volume - cfm			2150	2250	2600
Thermal Efficiency			81%	81%	81%
Gas Supply Connections			3/4 in. NPT	3/4 in. NPT	3/4 in. NPT.
Recommended Gas Supply Pressure - Nat. / LPG			7 in. w.g. / 11 in. w.g.		
Gas Supply Pressure Range		Min./Max. (Natural)	4.7 - 10.5 in. w.g.		
		Min./Max. (LPG)	10.8 - 13.5 in. w.g.		

NOTE - Air volume may modulate below minimum volume if heat input is below maximum.

[1]

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 2000 feet above sea level without any modifications.
At altitudes above 2000 feet units must be derated to match gas manifold pressures shown in table below.
At altitudes above 4500 feet unit must be derated 4% for each 1000 feet above sea level.

NOTE - This is the only permissible derate for these units.

Refer to the Installation Instructions for more detailed information.

Heat Input Type	Altitude Feet	Gas Manifold Pressure in. w.g.		Input Rate (Btuh)
		Natural Gas	LPG/ Propane	
Standard	2001 - 4500	1.6 / 3.1	4.4 / 8.9	85,000 - 120,000
Medium	2001 - 4500	1.6 / 3.1	4.4 / 8.9	117,000 - 166,000
High	2001 - 4500	1.6 / 3.1	4.4 / 8.9	156,000 - 221,000

COOLING/HEATING RATINGS

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

6.5 TON - COOLING LDT078H5 (1 COMPRESSOR - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	1440	36.3	1.42	0.81	0.99	1	33.8	1.7	0.84	1	1	31.4	2.01	0.85	1	1	28.5	2.34	0.89	1	1
	1800	38.5	1.38	0.89	1	1	36.2	1.67	0.91	1	1	33.7	1.99	0.95	1	1	30.7	2.34	0.99	1	1
	2160	40.5	1.34	0.96	1	1	38	1.65	0.98	1	1	35.2	1.99	1	1	1	32.3	2.34	1	1	1
67°F	1440	38.8	1.37	0.59	0.78	0.96	36.2	1.67	0.59	0.8	0.99	33.3	2	0.6	0.82	1	29.9	2.35	0.62	0.86	1
	1800	40.4	1.34	0.64	0.87	1	37.7	1.65	0.64	0.89	1	34.7	1.99	0.66	0.92	1	31.3	2.34	0.68	0.96	1
	2160	41.6	1.32	0.68	0.93	1	38.7	1.64	0.7	0.97	1	35.5	1.98	0.72	1	1	32.3	2.34	0.74	1	1
71°F	1440	41.6	1.32	0.39	0.58	0.75	38.9	1.64	0.39	0.58	0.77	35.9	1.98	0.37	0.59	0.79	32.6	2.34	0.36	0.6	0.82
	1800	43.2	1.29	0.41	0.62	0.83	40.3	1.62	0.4	0.63	0.86	37	1.97	0.4	0.65	0.89	33.7	2.34	0.39	0.67	0.93
	2160	44.3	1.26	0.43	0.67	0.91	41.4	1.6	0.42	0.69	0.94	38	1.97	0.42	0.71	0.98	34.6	2.33	0.42	0.74	1

6.5 TON - COOLING LDT078H5 (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	1680	67.3	3.82	0.68	0.82	0.95	61.7	4.37	0.68	0.83	0.97	55.2	4.97	0.69	0.86	1	49	5.61	0.71	0.89	1
	2100	71.4	3.78	0.73	0.89	1	65.5	4.35	0.74	0.92	1	58.8	4.96	0.76	0.95	1	52.3	5.61	0.79	0.99	1
	2520	74.6	3.76	0.79	0.97	1	68.5	4.33	0.8	0.99	1	62.6	4.94	0.83	1	1	56.4	5.6	0.87	1	1
67°F	1680	72.4	3.78	0.53	0.66	0.78	66.7	4.35	0.52	0.66	0.8	60.3	4.95	0.51	0.67	0.82	53.5	5.6	0.51	0.68	0.85
	2100	76.8	3.73	0.56	0.71	0.86	70.5	4.32	0.56	0.72	0.88	63.9	4.93	0.56	0.74	0.91	56.8	5.6	0.56	0.76	0.96
	2520	79.7	3.7	0.59	0.77	0.93	73.3	4.3	0.6	0.78	0.96	66.5	4.93	0.6	0.81	0.99	59.1	5.59	0.61	0.84	1
71°F	1680	77.7	3.73	0.39	0.52	0.63	71.7	4.31	0.38	0.51	0.64	65.2	4.93	0.36	0.51	0.65	58.4	5.6	0.34	0.5	0.66
	2100	82.1	3.67	0.41	0.55	0.69	75.8	4.28	0.39	0.55	0.7	69.1	4.91	0.38	0.55	0.72	62	5.59	0.36	0.55	0.74
	2520	85.5	3.63	0.42	0.58	0.74	79	4.25	0.41	0.59	0.76	72	4.9	0.4	0.59	0.78	64.5	5.58	0.39	0.6	0.82

6.5 TON - COOLING LDT078H5 (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	2080	81.2	4.6	0.69	0.83	0.94	75.5	5.23	0.7	0.84	0.95	69.2	5.95	0.71	0.86	0.97	62.9	6.78	0.72	0.88	0.99
	2600	86.2	4.59	0.75	0.9	0.99	80.4	5.22	0.76	0.91	1	74	5.93	0.77	0.93	1	67.3	6.76	0.79	0.95	1
	3120	90.2	4.56	0.8	0.94	1	84.1	5.2	0.82	0.96	1	77.6	5.91	0.84	0.98	1	71.1	6.73	0.86	1	1
67°F	2080	87.1	4.58	0.54	0.67	0.8	81.1	5.22	0.53	0.67	0.81	74.4	5.92	0.53	0.68	0.83	67.6	6.76	0.53	0.69	0.85
	2600	91.7	4.56	0.57	0.72	0.87	85.4	5.2	0.57	0.73	0.89	78.4	5.91	0.57	0.75	0.9	71.3	6.73	0.57	0.77	0.92
	3120	95.1	4.54	0.6	0.78	0.92	88.5	5.18	0.61	0.79	0.94	81.5	5.9	0.61	0.81	0.96	74	6.71	0.62	0.84	0.98
71°F	2080	92.9	4.55	0.4	0.53	0.65	86.6	5.19	0.39	0.52	0.65	80.4	5.9	0.38	0.52	0.66	73.4	6.72	0.36	0.52	0.67
	2600	97.8	4.51	0.42	0.56	0.7	91.5	5.16	0.41	0.56	0.71	84.3	5.88	0.4	0.56	0.73	77	6.69	0.38	0.57	0.75
	3120	101.4	4.48	0.43	0.6	0.76	94.6	5.13	0.42	0.6	0.77	87.5	5.85	0.41	0.61	0.79	79.9	6.66	0.41	0.62	0.82

6.5 TON - HEATING LDT078H5

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
2080	93.6	5.42	71.6	4.98	51.4	4.62	32.5	4.44	16.9	4.35
2600	96.3	5.10	72.6	4.59	52.4	4.42	33.6	4.12	17.4	4.07
3120	98.4	4.57	73.5	4.35	53.6	4.17	34.0	4.12	17.7	4.10

COOLING/HEATING RATINGS

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

7.5 TON - COOLING LDT092H5 (1 COMPRESSOR - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1600	37.3	1.32	0.8	1	1	35	1.6	0.82	1	1	32.5	1.92	0.85	1	1	29.8	2.26	0.88	1	1
	2000	39.6	1.27	0.87	1	1	37.2	1.57	0.9	1	1	34.5	1.91	0.94	1	1	31.6	2.25	1	1	1
	2400	41.4	1.23	0.94	1	1	38.9	1.55	1	1	1	36.1	1.89	1	1	1	33.1	2.25	1	1	1
67°F	1600	39.7	1.27	0.59	0.78	0.96	37	1.58	0.58	0.79	1	33.9	1.91	0.59	0.82	1	30.8	2.25	0.6	0.86	1
	2000	41.1	1.24	0.63	0.85	1	38.4	1.56	0.64	0.88	1	35.2	1.9	0.65	0.92	1	32	2.25	0.67	0.96	1
	2400	42.3	1.21	0.67	0.92	1	39.1	1.54	0.69	0.96	1	36.2	1.89	0.71	1	1	33.1	2.25	0.74	1	1
71°F	1600	42.3	1.21	0.38	0.57	0.75	39.4	1.54	0.37	0.57	0.77	36.4	1.89	0.36	0.58	0.8	33.2	2.25	0.35	0.6	0.83
	2000	43.8	1.18	0.39	0.62	0.83	40.7	1.52	0.39	0.63	0.86	37.6	1.88	0.39	0.65	0.89	34.4	2.25	0.38	0.66	0.94
	2400	44.8	1.15	0.41	0.66	0.9	41.7	1.5	0.41	0.69	0.94	38.5	1.87	0.41	0.71	1	35.2	2.25	0.41	0.74	1

7.5 TON - COOLING LDT092H5 (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	1920	74	4.65	0.68	0.82	0.95	68	5.32	0.69	0.84	0.98	61.9	6.05	0.69	0.86	1	55.4	6.84	0.71	0.89	1
	2400	78.4	4.64	0.74	0.89	1	72.3	5.32	0.75	0.92	1	65.7	6.06	0.76	0.95	1	59.2	6.86	0.78	0.98	1
	2880	81.9	4.63	0.79	0.96	1	75.5	5.32	0.81	0.99	1	69.5	6.07	0.83	1	1	63	6.88	0.86	1	1
67°F	1920	79.5	4.63	0.53	0.66	0.78	73.6	5.31	0.53	0.66	0.8	67.2	6.06	0.52	0.67	0.82	60.2	6.86	0.52	0.69	0.85
	2400	84.3	4.62	0.56	0.71	0.85	77.9	5.32	0.56	0.72	0.88	71.2	6.07	0.56	0.74	0.91	63.7	6.88	0.56	0.76	0.95
	2880	87.3	4.61	0.59	0.76	0.93	80.8	5.32	0.6	0.78	0.95	73.8	6.08	0.6	0.8	0.98	66.3	6.9	0.61	0.83	1
71°F	1920	84.9	4.62	0.4	0.52	0.64	78.7	5.31	0.39	0.52	0.64	72.1	6.07	0.37	0.51	0.65	65.2	6.89	0.35	0.51	0.66
	2400	89.7	4.6	0.41	0.55	0.69	83.3	5.32	0.4	0.55	0.7	76.5	6.09	0.39	0.55	0.71	69.2	6.92	0.38	0.56	0.74
	2880	93.3	4.58	0.43	0.59	0.74	86.6	5.31	0.42	0.59	0.76	79.5	6.1	0.41	0.6	0.78	71.8	6.93	0.4	0.61	0.81

7.5 TON - COOLING LDT092H5 (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2400	91.9	5.44	0.7	0.83	0.96	85.7	6.16	0.7	0.85	0.97	78.8	6.99	0.71	0.87	0.99	72.2	7.95	0.72	0.9	1
	3000	97.1	5.45	0.75	0.91	1	90.2	6.17	0.76	0.93	1	83.7	7.01	0.78	0.95	1	76.8	7.96	0.8	0.97	1
	3600	100.8	5.45	0.8	0.97	1	94.4	6.18	0.82	0.99	1	87.9	7.01	0.84	1	1	81.3	7.97	0.87	1	1
67°F	2400	98.4	5.45	0.55	0.67	0.8	92	6.17	0.54	0.68	0.81	85.2	7.01	0.54	0.69	0.83	78.1	7.96	0.54	0.7	0.86
	3000	103.2	5.45	0.58	0.73	0.87	96.5	6.18	0.58	0.74	0.9	89.5	7.01	0.58	0.75	0.92	81.9	7.96	0.58	0.77	0.95
	3600	106.9	5.45	0.61	0.78	0.94	100	6.18	0.62	0.8	0.97	92.6	7.02	0.62	0.82	0.98	85	7.97	0.63	0.84	1
71°F	2400	104.5	5.46	0.41	0.53	0.65	98	6.18	0.4	0.53	0.66	91.1	7.02	0.39	0.53	0.67	83.9	7.97	0.37	0.53	0.68
	3000	110.2	5.46	0.42	0.57	0.7	103.2	6.19	0.41	0.57	0.72	95.9	7.02	0.4	0.57	0.73	88	7.97	0.4	0.58	0.75
	3600	114	5.46	0.44	0.6	0.76	106.9	6.19	0.43	0.61	0.78	99	7.02	0.42	0.61	0.8	90.7	7.97	0.42	0.62	0.82

7.5 TON - HEATING LDT092H5

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
2400	110.5	6.48	84.8	5.88	59.6	5.37	37.8	5.15	21.1	5.04
3000	113.8	5.89	87.1	5.45	61.0	5.07	38.9	4.94	21.8	4.88
3600	116.3	5.53	88.9	5.18	62.1	4.88	39.9	4.82	22.5	4.79

COOLING/HEATING RATINGS

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

8.5 TON - COOLING LDT102H5 (1 COMPRESSOR - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	1760	39.5	1.34	0.99	1	1	37.1	1.63	0.99	1	1	34.6	1.95	1	1	1	31.8	2.29	1	1	1
	2200	41.9	1.29	1	1	1	39.4	1.6	1	1	1	36.5	1.94	1	0.99	1	33.6	2.29	0.99	0.99	1
	2640	43.7	1.26	1	0.99	1	41.1	1.58	0.99	0.99	1	38.1	1.92	1	0.99	1	35.1	2.28	1	0.99	0.99
67°F	1760	41.5	1.3	0.87	0.98	1	38.7	1.61	0.88	0.99	1	35.5	1.94	0.89	1	1	32.3	2.29	0.9	1	0.99
	2200	43	1.27	0.91	1	1	40.2	1.59	0.92	1	0.99	36.8	1.93	0.93	1	0.99	33.6	2.29	0.94	0.99	0.99
	2640	44.1	1.25	0.94	1	0.99	41.3	1.57	0.95	1	0.99	38.1	1.92	0.96	1	0.99	35	2.28	0.98	1	0.99
71°F	1760	44.3	1.24	0.66	0.86	0.98	41.5	1.57	0.65	0.87	0.98	38.2	1.92	0.64	0.88	0.99	34.8	2.28	0.63	0.9	1
	2200	45.7	1.21	0.68	0.9	1	42.6	1.55	0.68	0.92	1	39.4	1.92	0.68	0.93	1	36	2.28	0.67	0.94	1
	2640	46.8	1.19	0.7	0.94	1	43.5	1.54	0.71	0.95	1	40.3	1.91	0.71	0.96	1	36.7	2.28	1	1	1

8.5 TON - COOLING LDT102H5 (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	2160	86	5.32	0.69	0.82	0.95	79.9	6.14	0.69	0.84	0.96	73	7.05	0.7	0.86	0.98	65.6	8.03	0.72	0.89	1
	2700	91	5.32	0.74	0.89	1	84.5	6.15	0.75	0.91	1	77.9	7.05	0.77	0.94	1	70.3	8.05	0.79	0.96	1
	3240	95.3	5.31	0.79	0.95	1	88.8	6.16	0.8	0.96	1	81.9	7.07	0.83	0.98	1	74.3	8.07	0.86	1	1
67°F	2160	92.1	5.31	0.54	0.66	0.79	85.7	6.15	0.53	0.67	0.8	79	7.05	0.53	0.68	0.82	71.4	8.05	0.53	0.69	0.85
	2700	97.6	5.31	0.57	0.71	0.85	90.6	6.16	0.57	0.73	0.88	83.3	7.08	0.57	0.74	0.91	75.5	8.08	0.57	0.76	0.93
	3240	101.2	5.31	0.6	0.77	0.92	94.4	6.17	0.6	0.78	0.94	86.4	7.09	0.61	0.8	0.96	78.4	8.1	0.62	0.83	0.98
71°F	2160	98.1	5.3	0.4	0.53	0.64	92	6.16	0.39	0.52	0.65	84.6	7.08	0.38	0.52	0.65	77.3	8.09	0.37	0.52	0.67
	2700	103.6	5.31	0.42	0.56	0.69	96.7	6.17	0.41	0.56	0.7	89.4	7.11	0.4	0.56	0.72	81.6	8.12	0.39	0.57	0.74
	3240	107.7	5.31	0.43	0.59	0.74	100.6	6.19	0.42	0.59	0.76	92.9	7.14	0.42	0.6	0.78	84.5	8.15	0.41	0.61	0.81

8.5 TON - COOLING LDT102H5 (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2720	101.9	6.06	0.7	0.84	0.97	95.4	6.91	0.71	0.86	0.99	88.5	7.91	0.72	0.88	1	81.2	9.04	0.73	0.9	1
	3400	107.3	6.08	0.75	0.92	1	100.5	6.94	0.77	0.94	1	93.2	7.92	0.78	0.96	1	85.7	9.04	0.8	0.99	1
	4080	111.5	6.09	0.81	0.98	1	104.5	6.95	0.83	1	1	97.8	7.94	0.85	1	1	90.9	9.05	0.88	1	1
67°F	2720	108.9	6.08	0.55	0.68	0.81	101.8	6.94	0.55	0.69	0.82	94.7	7.93	0.55	0.7	0.84	87.5	9.04	0.54	0.71	0.87
	3400	113.9	6.09	0.58	0.74	0.88	106.8	6.96	0.58	0.75	0.9	99.4	7.94	0.58	0.76	0.93	91.6	9.05	0.59	0.78	0.96
	4080	118	6.1	0.62	0.79	0.95	110.6	6.97	0.62	0.8	0.98	102.8	7.95	0.62	0.83	1	94.7	9.06	0.64	0.85	1
71°F	2720	115.6	6.1	0.41	0.54	0.66	108.6	6.96	0.4	0.54	0.66	101.3	7.95	0.39	0.54	0.67	93.7	9.05	0.38	0.54	0.68
	3400	121.3	6.11	0.42	0.57	0.71	114	6.98	0.42	0.57	0.72	106.1	7.96	0.41	0.58	0.74	97.6	9.07	0.4	0.58	0.76
	4080	125.4	6.12	0.44	0.61	0.77	117.4	6.98	0.44	0.61	0.79	109.2	7.97	0.43	0.62	0.8	100.9	9.08	0.43	0.63	0.83

8.5 TON - HEATING LDT102H5

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
2720	122.3	7.09	93.5	6.4	65.4	5.88	41.6	5.67	23.8	5.50
3400	125.9	6.44	96.0	5.93	67.0	5.56	42.8	5.47	24.6	5.40
4080	128.8	6.03	98.0	5.65	68.6	5.37	43.9	5.38	25.4	5.39

COOLING/HEATING RATINGS

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

10 TON - COOLING LDT120H5 (1 COMPRESSOR - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	2080	48.5	1.94	0.78	1	1	45.8	2.29	0.81	1	1	42.9	2.68	0.86	1	1	39.9	3.11	0.92	1	1
	2600	51.4	1.94	0.9	1	1	48.4	2.29	0.96	1	1	45.5	2.69	1	1	1	42.4	3.11	1	1	1
	3120	53.4	1.94	1	1	1	50.5	2.3	1	1	1	47.5	2.69	1	1	1	44.3	3.11	1	1	1
67°F	2080	51	1.94	0.44	0.73	1	47.6	2.29	0.45	0.77	1	44.3	2.69	0.46	0.81	1	40.8	3.11	0.48	0.87	1
	2600	52.6	1.94	0.51	0.87	1	49.2	2.29	0.52	0.92	1	45.9	2.69	0.55	0.98	1	42.5	3.11	0.58	1	1
	3120	53.9	1.94	0.58	1	1	50.7	2.3	0.6	1	1	47.5	2.69	0.64	1	1	44.3	3.12	0.68	1	1
71°F	2080	54	1.94	0.21	0.43	0.68	50.9	2.3	0.2	0.43	0.72	47.6	2.69	0.2	0.44	0.77	44	3.11	0.21	0.46	0.82
	2600	55.9	1.94	0.23	0.49	0.82	52.6	2.3	0.23	0.51	0.87	49.1	2.69	0.22	0.54	0.94	45.4	3.12	0.22	0.57	1
	3120	57.2	1.94	0.25	0.57	0.96	53.7	2.3	0.25	0.6	1	50	2.69	0.26	0.63	1	46.5	3.12	0.25	0.68	1

10 TON - COOLING LDT120H5 (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	2560	99.9	6.17	0.71	0.85	0.98	93.3	7.06	0.72	0.87	0.99	85.8	8.07	0.73	0.89	1	78.3	9.2	0.74	0.92	1
	3200	105.2	6.2	0.76	0.93	1	98.4	7.09	0.78	0.95	1	90.6	8.09	0.79	0.97	1	83.3	9.22	0.82	0.99	1
	3840	109.8	6.21	0.82	0.98	1	102.9	7.11	0.84	0.99	1	95.8	8.13	0.86	1	1	88.6	9.25	0.89	1	1
67°F	2560	106.7	6.2	0.55	0.68	0.81	99.8	7.1	0.55	0.69	0.83	92.8	8.11	0.55	0.7	0.85	85	9.22	0.55	0.72	0.88
	3200	112.4	6.23	0.58	0.74	0.89	105.1	7.13	0.59	0.75	0.92	97.4	8.14	0.59	0.77	0.94	89.2	9.26	0.59	0.79	0.97
	3840	116.4	6.26	0.62	0.8	0.96	108.7	7.16	0.62	0.81	0.98	100.7	8.16	0.64	0.84	0.99	92.4	9.28	0.64	0.87	1
71°F	2560	114	6.24	0.41	0.54	0.66	106.9	7.14	0.4	0.54	0.67	99.2	8.15	0.39	0.54	0.68	91.2	9.26	0.38	0.54	0.69
	3200	120.2	6.27	0.43	0.57	0.72	112.3	7.17	0.42	0.58	0.73	104.5	8.18	0.41	0.58	0.75	96	9.3	0.41	0.59	0.77
	3840	124.4	6.3	0.44	0.61	0.77	116.5	7.2	0.44	0.62	0.79	108.2	8.21	0.43	0.62	0.81	98.8	9.32	0.43	0.64	0.84

10 TON - COOLING LDT120H5 (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	119.6	7.19	0.71	0.86	0.98	111.8	8.11	0.72	0.88	0.99	103.4	9.15	0.73	0.9	1	95.4	10.31	0.75	0.93	1
	4000	125.9	7.25	0.77	0.93	1	117.4	8.17	0.79	0.96	1	109.3	9.21	0.8	0.98	1	101	10.38	0.83	1	1
	4800	130.7	7.3	0.83	0.99	1	122.8	8.23	0.85	1	1	115.3	9.28	0.87	1	1	106.7	10.45	0.9	1	1
67°F	3200	127.6	7.27	0.56	0.69	0.82	119.5	8.19	0.55	0.7	0.84	111.1	9.23	0.56	0.71	0.86	102.5	10.4	0.56	0.73	0.89
	4000	133.4	7.33	0.59	0.75	0.9	125	8.26	0.59	0.76	0.93	116.2	9.29	0.6	0.78	0.95	106.7	10.45	0.6	0.81	0.98
	4800	137.5	7.38	0.63	0.81	0.97	128.6	8.3	0.63	0.83	0.99	119.6	9.33	0.64	0.85	1	110.1	10.49	0.65	0.88	1
71°F	3200	135.7	7.36	0.41	0.54	0.67	127	8.28	0.41	0.54	0.68	118.4	9.32	0.4	0.55	0.69	109.6	10.48	0.39	0.55	0.7
	4000	141.7	7.42	0.42	0.58	0.72	133.1	8.35	0.42	0.58	0.74	124.2	9.39	0.42	0.59	0.76	113.9	10.54	0.41	0.6	0.78
	4800	146.5	7.47	0.44	0.61	0.78	137.1	8.39	0.44	0.63	0.81	127.6	9.43	0.44	0.63	0.83	118	10.59	0.44	0.65	0.86

10 TON - HEATING LDT120H5

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
3200	137.5	8.26	105.8	7.39	75.3	6.69	47.9	6.13	26.3	5.74
4000	142.5	7.59	109.4	6.90	77.8	6.37	50.0	5.93	27.9	5.69
4800	147.2	7.17	112.8	6.59	80.7	6.16	52.4	5.82	29.7	5.66

COOLING/HEATING RATINGS

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

12.5 TON - COOLING LDT152H5 (1 COMPRESSOR - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2400	55.6	2.3	0.83	1	1	52.4	2.66	0.85	1	1	49.6	3.07	0.87	1	1	46.4	3.54	0.9	1	1
	3000	58.7	2.29	0.9	1	1	55.7	2.65	0.93	1	1	52.8	3.06	0.96	1	1	49.1	3.53	1	1	1
	3600	61.2	2.28	0.97	1	1	58.1	2.64	1	1	1	54.8	3.06	1	1	1	51.2	3.53	1	1	1
67°F	2400	58.6	2.29	0.59	0.8	0.98	55.3	2.65	0.6	0.82	1	51.9	3.07	0.61	0.84	1	47.9	3.53	0.62	0.87	1
	3000	60.8	2.29	0.64	0.88	1	57.3	2.64	0.65	0.9	1	53.6	3.06	0.67	0.93	1	49.7	3.53	0.68	0.97	1
	3600	62.4	2.28	0.7	0.95	1	59.1	2.64	0.71	0.98	1	55.1	3.06	0.73	1	1	51.3	3.53	0.75	1	1
71°F	2400	62.4	2.28	0.38	0.58	0.77	59.2	2.64	0.38	0.59	0.79	55.6	3.06	0.37	0.6	0.81	51.5	3.53	0.37	0.61	0.84
	3000	64.6	2.27	0.4	0.63	0.85	60.9	2.63	0.39	0.65	0.88	57.2	3.05	0.39	0.66	0.9	53.1	3.52	0.39	0.68	0.94
	3600	66.1	2.27	0.43	0.69	0.92	62.5	2.63	0.42	0.7	0.95	58.6	3.04	0.42	0.72	0.99	54.4	3.51	0.43	0.74	1

12.5 TON - COOLING LDT152H5 (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	2880	115.3	7.67	0.69	0.82	0.95	107.9	8.74	0.69	0.83	0.97	99.7	9.92	0.7	0.85	0.98	92.1	11.28	0.71	0.88	1
	3600	122.1	7.71	0.74	0.89	1	114.1	8.78	0.75	0.91	1	105.7	9.96	0.76	0.94	1	97.1	11.29	0.78	0.96	1
	4320	126.4	7.73	0.78	0.96	1	119.1	8.81	0.8	0.97	1	111.2	10	0.82	0.98	1	102.4	11.34	0.85	1	1
67°F	2880	123.1	7.71	0.54	0.66	0.78	116	8.78	0.54	0.67	0.8	107.5	9.97	0.54	0.68	0.82	99.2	11.3	0.53	0.69	0.84
	3600	130.6	7.75	0.57	0.71	0.85	122	8.82	0.57	0.72	0.87	113.5	10.01	0.57	0.74	0.9	104.7	11.36	0.58	0.76	0.93
	4320	135.1	7.77	0.6	0.76	0.92	126.7	8.85	0.6	0.78	0.94	118	10.05	0.61	0.8	0.97	108.2	11.39	0.62	0.82	0.98
71°F	2880	131.7	7.75	0.41	0.53	0.64	123.4	8.82	0.4	0.52	0.65	115.3	10.02	0.39	0.52	0.65	106.6	11.37	0.38	0.52	0.67
	3600	138.6	7.77	0.42	0.56	0.69	130.4	8.86	0.41	0.56	0.7	121.7	10.07	0.41	0.56	0.71	112.5	11.41	0.4	0.57	0.73
	4320	144.3	7.8	0.43	0.59	0.74	135.2	8.89	0.43	0.59	0.75	126	10.09	0.42	0.6	0.77	116.5	11.44	0.42	0.61	0.8

12.5 TON - COOLING LDT152H5 (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) 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	3680	136.7	8.75	0.71	0.84	0.97	128.5	9.91	0.71	0.86	0.99	118.9	11.21	0.72	0.88	1	110.2	12.68	0.74	0.91	1
	4600	142.8	8.8	0.76	0.92	1	134.6	9.97	0.77	0.94	1	125	11.27	0.79	0.97	1	115.9	12.74	0.81	0.99	1
	5520	148.4	8.84	0.81	0.98	1	139.7	10.02	0.83	1	1	131.4	11.34	0.85	1	1	122.7	12.81	0.88	1	1
67°F	3680	145	8.81	0.55	0.68	0.81	136.6	9.99	0.55	0.69	0.83	127.4	11.29	0.55	0.7	0.85	118.3	12.76	0.56	0.72	0.87
	4600	152.3	8.87	0.58	0.74	0.89	143.4	10.05	0.59	0.75	0.91	133.6	11.35	0.59	0.77	0.93	124.1	12.83	0.6	0.79	0.96
	5520	157.7	8.92	0.62	0.79	0.95	148.3	10.1	0.62	0.81	0.98	138.1	11.4	0.63	0.83	1	127.2	12.86	0.64	0.86	1
71°F	3680	154.4	8.89	0.41	0.54	0.66	145.7	10.07	0.41	0.54	0.67	136.2	11.38	0.4	0.54	0.68	126.3	12.85	0.39	0.55	0.69
	4600	161.9	8.95	0.43	0.57	0.71	152.4	10.14	0.42	0.58	0.73	142.4	11.45	0.42	0.58	0.74	131.9	12.91	0.41	0.59	0.77
	5520	166.8	8.99	0.44	0.61	0.77	156.8	10.18	0.44	0.61	0.79	147.3	11.51	0.44	0.62	0.81	136	12.96	0.43	0.64	0.84

12.5 TON - HEATING LDT152H5

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
3800	165.4	10.10	126.0	9.01	89.3	8.12	56.9	7.44	29.3	7.20
4400	169.4	9.23	128.1	8.39	91.0	7.74	58.0	7.26	30.0	7.16
5000	175.2	8.68	132.9	8.02	94.8	7.49	61.4	7.17	33.0	7.16

6.5 TON - LDT078H5 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	1440	23.45	1.98	0.41	0.75	1.00	19.47	2.06	0.35	0.76	1.00	15.45	2.15	0.25	0.76	1.00	11.53	2.26	0.08	0.77	1.00
	1800	25.54	1.99	0.44	0.82	1.00	21.16	2.07	0.37	0.84	1.00	16.47	2.16	0.28	0.87	1.00	12.02	2.27	0.12	0.93	1.00
	2160	26.97	2.00	0.47	0.89	1.00	21.99	2.08	0.41	0.93	1.00	17.46	2.17	0.32	1.00	1.00	12.49	2.28	0.15	1.00	1.00
67°F	1440	28.92	2.00	0.14	0.41	0.69	24.70	2.08	0.04	0.36	0.68	20.72	2.17	-0.08	0.30	0.68	16.39	2.29	-0.31	0.17	0.66
	1800	31.21	2.01	0.12	0.44	0.76	26.53	2.09	0.02	0.40	0.76	22.09	2.19	-0.12	0.33	0.76	17.56	2.30	-0.35	0.22	0.78
	2160	32.38	2.01	0.11	0.48	0.82	27.73	2.09	0.01	0.44	0.84	23.06	2.19	-0.14	0.38	0.87	18.25	2.31	-0.38	0.28	0.90
69°F	1440	31.87	2.01	0.03	0.28	0.54	27.60	2.09	-0.06	0.22	0.50	23.54	2.19	-0.21	0.14	0.47	19.49	2.30	-0.41	0.03	0.43
	1800	33.90	2.01	0.00	0.30	0.58	29.49	2.10	-0.11	0.23	0.56	25.07	2.20	-0.25	0.15	0.54	20.62	2.31	-0.47	0.03	0.50
	2160	35.39	2.01	-0.03	0.31	0.63	30.75	2.10	-0.15	0.25	0.63	26.01	2.20	-0.30	0.16	0.61	21.16	2.32	-0.53	0.03	0.59

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

6.5 TON - LDT078H5 WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	2080	58.58	3.21	0.40	0.59	0.77	51.08	3.42	0.38	0.59	0.81	43.47	3.62	0.34	0.60	0.85	35.79	3.83	0.30	0.61	0.91
	2600	64.13	3.21	0.43	0.64	0.83	56.00	3.42	0.41	0.65	0.86	47.65	3.63	0.37	0.67	0.90	39.53	3.84	0.34	0.69	0.96
	3120	67.84	3.21	0.46	0.70	0.87	59.11	3.42	0.44	0.72	0.91	50.59	3.63	0.42	0.74	0.95	41.91	3.85	0.38	0.77	1.00
67°F	2080	68.88	3.21	0.23	0.40	0.56	61.25	3.41	0.20	0.38	0.56	53.36	3.62	0.15	0.36	0.57	45.62	3.84	0.08	0.33	0.57
	2600	74.41	3.20	0.25	0.43	0.61	66.27	3.41	0.21	0.42	0.62	58.09	3.63	0.16	0.40	0.63	49.84	3.85	0.09	0.37	0.65
	3120	78.11	3.18	0.25	0.47	0.67	69.55	3.41	0.22	0.45	0.69	61.15	3.63	0.17	0.44	0.70	52.54	3.86	0.10	0.42	0.72
69°F	2080	74.27	3.20	0.17	0.33	0.48	66.22	3.41	0.13	0.30	0.47	58.59	3.63	0.08	0.27	0.46	50.63	3.85	0.00	0.23	0.45
	2600	79.71	3.18	0.17	0.35	0.52	71.29	3.41	0.13	0.32	0.52	63.44	3.63	0.08	0.29	0.51	55.07	3.85	0.00	0.26	0.50
	3120	83.46	3.17	0.17	0.37	0.56	75.11	3.40	0.12	0.35	0.56	66.34	3.62	0.07	0.33	0.57	57.73	3.85	-0.01	0.28	0.57

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

7.5 TON - LDT092H5 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	1600	30.11	2.07	0.40	0.69	0.96	23.99	2.14	0.33	0.70	1.00	17.66	2.24	0.21	0.72	1.00	11.54	2.34	-0.02	0.76	1.00
	2000	32.88	2.07	0.43	0.75	1.00	26.59	2.15	0.37	0.78	1.00	19.56	2.25	0.27	0.82	1.00	13.10	2.36	0.06	0.90	1.00
	2400	34.51	2.07	0.46	0.82	1.00	27.72	2.15	0.41	0.86	1.00	20.87	2.25	0.32	0.92	1.00	13.99	2.36	0.14	1.00	1.00
67°F	1600	37.23	2.08	0.17	0.40	0.64	31.17	2.16	0.07	0.36	0.64	24.86	2.26	-0.07	0.30	0.64	18.67	2.37	-0.31	0.17	0.65
	2000	39.88	2.08	0.16	0.44	0.70	33.24	2.16	0.06	0.40	0.72	26.84	2.26	-0.08	0.34	0.73	20.20	2.37	-0.31	0.24	0.76
	2400	41.77	2.08	0.18	0.47	0.77	34.91	2.16	0.05	0.43	0.79	27.92	2.26	-0.08	0.38	0.82	21.06	2.38	-0.33	0.29	0.87
69°F	1600	40.66	2.08	0.09	0.30	0.51	34.52	2.17	-0.02	0.24	0.49	28.46	2.26	-0.16	0.15	0.47	22.41	2.38	-0.39	0.04	0.42
	2000	43.49	2.08	0.06	0.32	0.57	37.12	2.17	-0.04	0.26	0.56	30.35	2.27	-0.19	0.17	0.53	23.86	2.38	-0.43	0.04	0.50
	2400	45.44	2.07	0.05	0.33	0.61	38.65	2.16	-0.06	0.28	0.61	31.82	2.26	-0.22	0.20	0.61	24.93	2.38	-0.46	0.08	0.59

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

7.5 TON - LDT092H5 WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	2400	75.87	4.04	0.42	0.59	0.75	66.46	4.24	0.40	0.59	0.78	57.36	4.45	0.37	0.59	0.81	48.11	4.70	0.32	0.59	0.85
	3000	82.70	4.06	0.45	0.64	0.82	72.68	4.27	0.43	0.64	0.85	62.82	4.49	0.41	0.65	0.89	53.05	4.74	0.37	0.67	0.95
	3600	87.14	4.08	0.47	0.69	0.89	76.92	4.29	0.46	0.70	0.93	66.54	4.51	0.44	0.72	0.98	56.42	4.76	0.41	0.74	1.00
67°F	2400	87.89	4.07	0.27	0.42	0.56	78.29	4.28	0.23	0.40	0.56	68.82	4.50	0.19	0.38	0.56	59.71	4.75	0.13	0.35	0.56
	3000	94.66	4.09	0.28	0.45	0.61	84.99	4.30	0.24	0.44	0.61	75.14	4.53	0.20	0.42	0.62	65.43	4.78	0.14	0.40	0.63
	3600	99.39	4.10	0.28	0.48	0.66	89.11	4.32	0.25	0.47	0.67	78.90	4.55	0.21	0.45	0.69	68.57	4.80	0.15	0.43	0.70
69°F	2400	93.73	4.09	0.21	0.35	0.48	84.45	4.30	0.17	0.32	0.48	74.86	4.53	0.12	0.29	0.46	65.91	4.77	0.06	0.26	0.45
	3000	100.82	4.10	0.21	0.37	0.52	90.99	4.32	0.17	0.35	0.52	81.14	4.55	0.12	0.32	0.52	71.53	4.80	0.06	0.29	0.51
	3600	105.43	4.11	0.21	0.39	0.57	95.17	4.33	0.17	0.37	0.56	84.96	4.57	0.12	0.35	0.56	74.77	4.82	0.05	0.32	0.56

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

8.5 TON - LDT102H5 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	1760	34.78	2.07	0.92	1.00	1.00	29.91	2.15	0.95	1.00	1.00	24.97	2.25	0.98	1.00	1.00	20.07	2.36	1.00	1.00	1.00
	2200	35.61	2.07	0.65	0.97	1.00	29.92	2.16	0.63	1.00	1.00	24.55	2.26	0.61	1.00	1.00	19.31	2.37	0.56	1.00	1.00
	2640	35.94	2.07	0.39	0.79	1.00	29.82	2.16	0.32	0.79	1.00	24.21	2.26	0.20	0.79	1.00	18.51	2.38	0.03	0.79	1.00
67°F	1760	39.11	2.08	0.49	0.73	0.96	34.21	2.16	0.45	0.72	0.98	29.03	2.26	0.40	0.71	1.00	24.13	2.38	0.31	0.71	1.00
	2200	39.84	2.07	0.17	0.47	0.75	34.43	2.16	0.08	0.42	0.75	29.14	2.26	-0.06	0.36	0.75	23.76	2.38	-0.25	0.26	0.74
	2640	39.97	2.07	-0.14	0.21	0.56	34.28	2.16	-0.30	0.12	0.53	28.72	2.26	-0.52	0.00	0.48	22.78	2.39	-0.86	-0.21	0.42
69°F	1760	41.41	2.08	0.31	0.53	0.75	36.44	2.16	0.24	0.50	0.75	31.29	2.26	0.16	0.46	0.75	26.36	2.38	0.04	0.41	0.75
	2200	42.05	2.07	-0.04	0.25	0.52	36.71	2.16	-0.16	0.17	0.49	31.32	2.27	-0.33	0.08	0.43	25.99	2.39	-0.56	-0.06	0.38
	2640	42.34	2.06	-0.37	-0.02	0.31	36.57	2.15	-0.56	-0.15	0.24	30.89	2.26	-0.82	-0.32	0.15	25.13	2.39	-1.18	-0.57	0.01

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

8.5 TON - LDT102H5 WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	2720	84.00	4.47	0.43	0.60	0.76	74.16	4.69	0.41	0.60	0.79	64.38	4.94	0.38	0.61	0.83	54.39	5.22	0.35	0.62	0.88
	3400	91.63	4.51	0.46	0.65	0.84	80.71	4.73	0.44	0.66	0.87	70.34	4.98	0.42	0.67	0.91	59.75	5.27	0.40	0.69	0.97
	4080	96.24	4.53	0.49	0.70	0.91	85.41	4.76	0.47	0.72	0.95	74.57	5.01	0.45	0.74	1.00	63.60	5.30	0.43	0.77	1.00
67°F	2720	96.97	4.52	0.27	0.43	0.58	86.91	4.74	0.24	0.41	0.58	76.90	5.00	0.20	0.39	0.58	67.02	5.29	0.15	0.37	0.58
	3400	104.37	4.54	0.28	0.46	0.62	93.60	4.78	0.25	0.44	0.63	83.49	5.04	0.21	0.43	0.64	72.72	5.33	0.16	0.41	0.65
	4080	109.24	4.56	0.29	0.49	0.67	98.43	4.80	0.26	0.48	0.68	87.36	5.07	0.22	0.47	0.70	76.60	5.36	0.17	0.46	0.72
69°F	2720	103.43	4.54	0.21	0.35	0.49	93.63	4.77	0.17	0.33	0.48	83.65	5.03	0.12	0.31	0.48	73.53	5.32	0.07	0.27	0.47
	3400	110.65	4.56	0.21	0.38	0.53	100.20	4.80	0.17	0.36	0.53	89.72	5.07	0.13	0.34	0.53	79.12	5.36	0.07	0.30	0.53
	4080	115.68	4.58	0.21	0.40	0.58	104.61	4.82	0.17	0.37	0.58	93.68	5.09	0.12	0.36	0.58	82.89	5.39	0.07	0.34	0.58

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

10 TON - LDT120H5 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	2080	44.96	2.59	0.32	0.57	0.81	38.95	2.48	0.26	0.55	0.82	33.24	2.39	0.18	0.52	0.83	27.39	2.31	0.05	0.47	0.86
	2600	46.86	2.72	0.35	0.64	0.90	41.05	2.62	0.29	0.62	0.92	34.65	2.53	0.21	0.61	0.95	29.00	2.46	0.10	0.59	1.00
	3120	48.57	2.83	0.38	0.71	0.97	42.05	2.71	0.32	0.70	1.00	35.46	2.62	0.24	0.70	1.00	28.97	2.55	0.14	0.69	1.00
67°F	2080	51.54	2.84	0.12	0.34	0.56	45.84	2.73	0.04	0.29	0.54	40.06	2.65	-0.06	0.24	0.52	34.36	2.57	-0.19	0.16	0.48
	2600	53.95	2.96	0.11	0.37	0.62	47.80	2.86	0.03	0.32	0.61	41.56	2.77	-0.07	0.27	0.60	35.44	2.70	-0.21	0.19	0.58
	3120	55.61	3.05	0.10	0.40	0.68	49.09	2.95	0.03	0.36	0.67	42.50	2.86	-0.09	0.31	0.68	35.88	2.78	-0.25	0.23	0.67
69°F	2080	55.18	2.97	0.03	0.24	0.44	49.55	2.87	-0.05	0.19	0.41	43.74	2.78	-0.15	0.12	0.38	37.96	2.70	-0.27	0.04	0.33
	2600	57.63	3.09	0.01	0.26	0.50	51.55	2.98	-0.07	0.20	0.47	45.34	2.90	-0.19	0.13	0.44	39.13	2.82	-0.33	0.05	0.40
	3120	59.20	3.16	-0.01	0.27	0.54	52.78	3.06	-0.10	0.22	0.52	46.16	2.98	-0.22	0.15	0.50	39.34	2.90	-0.38	0.06	0.47

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

10 TON - LDT120H5 WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	3200	97.90	5.20	0.38	0.55	0.72	88.35	5.43	0.36	0.56	0.74	78.95	5.69	0.34	0.55	0.76	69.83	5.96	0.30	0.55	0.78
	4000	104.19	5.32	0.42	0.61	0.80	94.31	5.56	0.40	0.62	0.83	84.46	5.81	0.38	0.62	0.86	74.60	6.09	0.35	0.62	0.89
	4800	108.88	5.42	0.45	0.67	0.88	98.51	5.65	0.43	0.68	0.91	87.95	5.90	0.41	0.69	0.94	77.59	6.18	0.39	0.71	0.97
67°F	3200	110.50	5.37	0.23	0.39	0.54	100.77	5.60	0.20	0.37	0.53	91.37	5.86	0.16	0.35	0.53	82.14	6.13	0.12	0.33	0.53
	4000	117.14	5.50	0.24	0.42	0.59	107.18	5.73	0.21	0.40	0.60	97.40	5.99	0.17	0.39	0.60	87.64	6.27	0.12	0.37	0.60
	4800	122.05	5.59	0.25	0.46	0.65	111.65	5.82	0.21	0.44	0.66	101.31	6.08	0.18	0.43	0.67	90.96	6.36	0.13	0.41	0.68
69°F	3200	116.59	5.45	0.16	0.31	0.46	107.26	5.69	0.13	0.29	0.45	97.90	5.94	0.09	0.27	0.44	88.73	6.23	0.04	0.24	0.43
	4000	123.90	5.58	0.16	0.34	0.50	114.00	5.82	0.13	0.32	0.50	104.32	6.08	0.08	0.30	0.49	94.12	6.36	0.03	0.27	0.49
	4800	128.60	5.68	0.16	0.36	0.55	117.86	5.91	0.13	0.34	0.55	107.57	6.17	0.08	0.32	0.55	96.74	6.44	0.03	0.29	0.55

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

12.5 TON - LDT152H5 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	2400	51.26	2.87	0.38	0.63	0.86	43.14	2.98	0.34	0.63	0.90	35.39	3.10	0.25	0.63	0.95	27.28	3.23	0.14	0.62	1.00
	3000	54.45	2.94	0.41	0.69	0.94	46.12	3.04	0.37	0.70	0.99	37.69	3.16	0.30	0.70	1.00	29.63	3.29	0.17	0.72	1.00
	3600	56.84	2.98	0.43	0.75	0.99	48.28	3.09	0.40	0.76	1.00	39.50	3.21	0.32	0.79	1.00	30.81	3.34	0.22	0.82	1.00
67°F	2400	59.99	2.98	0.17	0.39	0.59	52.13	3.09	0.10	0.35	0.58	44.20	3.21	0.01	0.30	0.58	36.28	3.34	-0.13	0.23	0.57
	3000	63.39	3.04	0.16	0.42	0.65	55.41	3.16	0.10	0.38	0.66	47.15	3.28	0.00	0.34	0.66	38.36	3.41	-0.16	0.27	0.67
	3600	65.71	3.09	0.16	0.45	0.71	57.13	3.20	0.09	0.42	0.72	48.20	3.32	-0.01	0.37	0.73	39.66	3.45	-0.17	0.31	0.75
69°F	2400	64.64	3.05	0.08	0.29	0.49	56.61	3.15	0.01	0.23	0.47	49.06	3.28	-0.09	0.19	0.44	41.32	3.41	-0.23	0.09	0.41
	3000	68.11	3.11	0.06	0.30	0.53	59.81	3.22	-0.01	0.25	0.51	51.57	3.34	-0.13	0.19	0.50	43.15	3.47	-0.27	0.11	0.46
	3600	70.56	3.15	0.04	0.32	0.57	61.87	3.26	-0.04	0.28	0.57	53.04	3.38	-0.15	0.20	0.55	44.51	3.52	-0.31	0.13	0.53

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

12.5 TON - LDT152H5 WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					70°F					75°F					80°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F	kBtuh	kW	70°F	75°F	80°F
63°F	3680	116.75	6.31	0.40	0.56	0.72	104.00	6.66	0.38	0.57	0.75	91.13	7.02	0.36	0.58	0.78	77.91	7.41	0.34	0.59	0.83
	4600	126.40	6.43	0.42	0.61	0.79	112.93	6.78	0.41	0.62	0.83	99.42	7.14	0.40	0.64	0.86	85.96	7.54	0.38	0.66	0.92
	5520	133.19	6.52	0.45	0.66	0.86	119.34	6.86	0.45	0.68	0.89	105.14	7.23	0.43	0.70	0.94	91.41	7.63	0.42	0.73	1.00
67°F	3680	133.09	6.45	0.25	0.40	0.54	120.44	6.81	0.22	0.38	0.54	107.47	7.18	0.19	0.37	0.55	94.70	7.58	0.15	0.35	0.55
	4600	142.93	6.58	0.26	0.43	0.59	129.26	6.93	0.23	0.42	0.60	115.72	7.31	0.19	0.41	0.61	102.46	7.71	0.16	0.39	0.62
	5520	149.95	6.66	0.26	0.46	0.64	135.69	7.02	0.24	0.45	0.65	121.76	7.39	0.20	0.44	0.67	107.62	7.79	0.16	0.43	0.69
69°F	3680	141.60	6.54	0.18	0.32	0.46	128.30	6.89	0.15	0.31	0.46	115.26	7.26	0.11	0.29	0.45	102.71	7.67	0.06	0.26	0.45
	4600	151.60	6.65	0.18	0.35	0.50	137.81	7.01	0.15	0.33	0.50	123.86	7.38	0.11	0.31	0.50	110.58	7.79	0.06	0.29	0.50
	5520	158.59	6.73	0.18	0.37	0.54	144.53	7.10	0.15	0.35	0.54	130.48	7.48	0.11	0.33	0.55	116.00	7.88	0.06	0.31	0.55

NOTE - Total Cooling Capacity is calculated at 75*F Dry Bulb.

LDT092H5E, LDT102H5E, LDT120H5E, LDT150H5E - BASE UNIT

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

FOR ALL UNITS ADD:

1 − Wet indoor coil air resistance of selected unit.

2 − Any factory installed options air resistance (heat section, Economizer, etc.)

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

Then determine from blower table blower motor output required.
See page 40 for wet coil and option/accessory air resistance data.

Maximum Static Pressure With Gas Heat - 2.0 in. w.g.
Minimum Air Volume Required For Different Gas Heat Sizes:
Standard - 2150 cfm; Medium - 2250 cfm; High - 2600 cfm

Total Air Volume cfm	Total Static Pressure - in. w.g.													
	0.2		0.4		0.6		0.8		1.0		1.2		1.4	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
1750	644	137	740	235	796	302	833	343	873	373	996	558	1065	664
2000	675	165	768	260	821	330	861	386	960	507	1026	629	1094	753
2250	711	195	803	290	856	375	901	497	991	564	1058	703	1128	840
2500	764	241	852	335	904	439	951	568	1025	641	1097	789	1170	934
2750	847	316	901	399	946	543	1004	674	1074	746	1146	895	1220	1041
3000	944	426	980	511	1021	671	1074	803	1136	874	1205	1021	1276	1167
3250	1022	544	1057	640	1099	810	1149	942	1207	1012	1272	1156	1338	1304
3500	1092	666	1131	770	1174	948	1225	1081	1281	1151	1342	1297	1402	1451
3750	1161	780	1202	892	1248	1079	1298	1217	1353	1291	1409	1445	1463	1609
4000	1230	888	1273	1010	1319	1212	1369	1362	1421	1441	1471	1608	1518	1784
4250	1299	1006	1342	1140	1388	1362	1436	1526	1483	1612	1528	1790	1571	1975
4500	1366	1142	1409	1289	1454	1532	1498	1708	1542	1798	1583	1984	1623	2172
4750	1432	1295	1474	1457	1516	1719	1558	1903	1598	1997	1637	2187	1674	2377
5000	1496	1471	1537	1645	1577	1921	1616	2110	1654	2205	1690	2396	1726	2586
5250	1560	1667	1598	1849	1636	2132	1673	2324	1709	2419	1744	2609	1779	2796
5500	1623	1878	1659	2064	1695	2349	1731	2539	1765	2634	- - -	- - -	- - -	- - -
5750	1686	2097	1720	2284	1755	2567	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
6000	1748	2316	1781	2502	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Total Air Volume cfm	Total Static Pressure - in. w.g.											
	1.6		1.8		2.0		2.2		2.4		2.6	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
1750	1134	775	1203	896	1275	1025	1356	1149	1422	1287	1470	1439
2000	1162	878	1231	1007	1302	1139	1379	1268	1440	1411	1486	1570
2250	1198	975	1268	1111	1338	1250	1409	1388	1464	1542	1507	1711
2500	1243	1075	1313	1217	1380	1365	1442	1517	1491	1685	1533	1860
2750	1293	1186	1361	1336	1423	1494	1477	1661	1520	1839	1561	2016
3000	1346	1317	1410	1474	1466	1642	1514	1818	1554	2000	1594	2180
3250	1402	1460	1460	1627	1511	1803	1553	1986	1591	2172	1631	2352
3500	1459	1616	1509	1793	1555	1976	1594	2165	1631	2352	1671	2531
3750	1512	1785	1557	1970	1599	2159	1636	2350	1673	2536	1713	2714
4000	1562	1969	1604	2157	1643	2347	1680	2538	1717	2722	1756	2896
4250	1611	2163	1650	2352	1688	2541	1724	2729	1762	2908	- - -	- - -
4500	1661	2362	1698	2552	1734	2739	1770	2922	- - -	- - -	- - -	- - -
4750	1710	2567	1746	2754	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
5000	1761	2774	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

LDT092H5M, LDT102H5M, LDT120H5M, LDT150H5M - BASE UNIT

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

1 − Wet indoor coil air resistance of selected unit.

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

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

Then determine from blower table blower motor output required.

See page 40 for blower motors and drives.

See page 40 for wet coil and option/accessory air resistance data.

Maximum Static Pressure With Gas Heat - 2.0 in. w.g.
Minimum Air Volume Required For Different Gas Heat Sizes:
Standard - 2150 cfm; Medium - 2250 cfm; High - 2600 cfm

Total Air Volume cfm	Total Static Pressure − in. w.g.																									
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2		2.2		2.4		2.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1750	480	0.19	548	0.39	618	0.57	689	0.70	758	0.81	824	0.92	885	1.07	941	1.23	992	1.40	1039	1.55	1084	1.70	1128	1.85	1156	2.08
2000	492	0.27	560	0.47	629	0.64	700	0.77	768	0.88	832	1.00	892	1.16	946	1.32	995	1.48	1041	1.65	1085	1.81	1127	1.97	1160	2.13
2250	505	0.35	573	0.55	643	0.72	713	0.85	780	0.97	842	1.10	900	1.25	952	1.42	999	1.59	1044	1.76	1087	1.93	1127	2.10	1164	2.27
2500	520	0.45	588	0.64	658	0.81	727	0.94	793	1.07	853	1.21	909	1.37	959	1.54	1005	1.71	1048	1.89	1089	2.07	1127	2.25	1166	2.42
2750	536	0.55	604	0.74	674	0.91	743	1.05	806	1.19	865	1.34	919	1.50	968	1.67	1012	1.86	1053	2.04	1092	2.23	1129	2.41	1167	2.60
3000	553	0.66	622	0.85	692	1.02	760	1.17	821	1.32	878	1.48	930	1.64	977	1.83	1020	2.02	1059	2.21	1096	2.41	1133	2.60	1170	2.79
3250	572	0.77	641	0.98	712	1.15	778	1.32	837	1.48	892	1.64	942	1.81	988	2.00	1028	2.20	1066	2.41	1102	2.61	1138	2.81	1174	3.01
3500	592	0.90	663	1.12	733	1.31	798	1.48	854	1.65	907	1.82	955	1.99	999	2.19	1038	2.41	1074	2.63	1109	2.84	1144	3.04	1180	3.24
3750	614	1.04	687	1.28	756	1.48	818	1.66	872	1.83	922	2.01	969	2.19	1010	2.41	1048	2.64	1084	2.87	1118	3.09	1152	3.29	1188	3.50
4000	639	1.22	712	1.47	780	1.67	838	1.85	890	2.03	939	2.22	983	2.42	1023	2.65	1060	2.90	1095	3.14	1128	3.36	1162	3.57	1198	3.77
4250	666	1.42	740	1.68	804	1.88	859	2.06	909	2.25	956	2.45	998	2.67	1036	2.92	1072	3.18	1106	3.42	1139	3.65	1172	3.86	1208	4.07
4500	697	1.65	769	1.91	829	2.10	881	2.28	929	2.48	973	2.71	1013	2.95	1050	3.22	1085	3.48	1118	3.73	1151	3.96	1184	4.17	1221	4.39
4750	729	1.91	798	2.15	854	2.34	903	2.53	948	2.75	991	3.00	1030	3.27	1065	3.55	1099	3.81	1132	4.06	1164	4.29	1198	4.51	1235	4.74
5000	763	2.18	826	2.41	878	2.60	925	2.81	968	3.05	1009	3.33	1046	3.61	1081	3.90	1114	4.17	1146	4.42	1178	4.65	1212	4.87	1250	5.09
5250	797	2.47	854	2.69	903	2.90	947	3.12	989	3.39	1028	3.69	1064	3.99	1098	4.28	1130	4.55	1162	4.80	1194	5.02	1228	5.24	1266	5.47
5500	830	2.78	882	3.00	927	3.22	969	3.48	1010	3.77	1047	4.09	1083	4.40	1116	4.69	1147	4.96	1179	5.20	1211	5.42	1246	5.63	---	---
5750	861	3.11	908	3.34	951	3.58	992	3.87	1031	4.19	1068	4.52	1102	4.84	1134	5.12	1165	5.38	1196	5.61	---	---	---	---	---	---
6000	890	3.45	935	3.71	976	3.98	1016	4.31	1053	4.65	1089	4.99	1122	5.30	1153	5.58	---	---	---	---	---	---	---	---	---	---
6250	918	3.84	961	4.12	1001	4.43	1040	4.79	1076	5.14	1110	5.48	---	---	---	---	---	---	---	---	---	---	---	---	---	---

BLOWER DATA

FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

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

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

NOTE – Motor service factor limit - 1.0.

POWER EXHAUST FAN PERFORMANCE

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

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

Air Volume cfm	Wet Indoor Coil		Reheat Coil	Gas Heat Exchanger			Economizer	Filters	
	078, 092	102, 120, 152		Standard Heat	Medium Heat	High Heat		MERV 8	MERV 13
1750	0.04	0.04	0.02	0.06	0.02	0.02	0.05	0.01	0.03
2000	0.05	0.05	0.02	0.07	0.05	0.06	0.06	0.01	0.03
2250	0.06	0.06	0.02	0.07	0.07	0.08	0.08	0.01	0.04
2500	0.07	0.07	0.03	0.09	0.10	0.11	0.11	0.01	0.05
2750	0.08	0.08	0.03	0.09	0.11	0.12	0.12	0.02	0.05
3000	0.10	0.09	0.03	0.11	0.12	0.13	0.13	0.02	0.06
3250	0.11	0.10	0.04	0.12	0.15	0.16	0.15	0.02	0.06
3500	0.12	0.11	0.04	0.12	0.16	0.17	0.15	0.03	0.07
3750	0.14	0.13	0.05	0.14	0.19	0.20	0.15	0.03	0.08
4000	0.15	0.14	0.05	0.14	0.21	0.22	0.19	0.04	0.08
4250	0.17	0.15	0.06	0.14	0.24	0.28	0.19	0.04	0.09
4500	0.19	0.17	0.07	0.15	0.26	0.32	0.22	0.04	0.09
4750	0.20	0.18	0.07	0.16	0.29	0.37	0.25	0.05	0.10
5000	0.22	0.20	0.08	0.16	0.34	0.43	0.29	0.06	0.10
5250	0.24	0.22	0.08	0.16	0.37	0.47	0.32	0.06	0.11
5500	0.25	0.23	0.09	0.18	0.44	0.54	0.34	0.07	0.12
5750	0.27	0.25	0.10	0.19	0.49	0.59	0.45	0.07	0.12
6000	0.29	0.27	0.10	0.20	0.54	0.64	0.52	0.08	0.13

BLOWER DATA

CEILING DIFFUSERS AIR RESISTANCE - in. w.g.

Unit	RTD11 Step-Down Diffuser				FD11 Flush Diffuser
	Air Volume cfm	2 Ends Open	1 Side, 2 Ends Open	All Ends & Sides Open	
078 & 092	2400	0.21	0.18	0.15	0.14
	2600	0.24	0.21	0.18	0.17
	2800	0.27	0.24	0.21	0.20
	3000	0.32	0.29	0.25	0.25
	3200	0.41	0.37	0.32	0.31
	3400	0.50	0.45	0.39	0.37
	3600	0.61	0.54	0.48	0.44
	3800	0.73	0.63	0.57	0.51
102 & 120	3600	0.36	0.28	0.23	0.15
	3800	0.40	0.32	0.26	0.18
	4000	0.44	0.36	0.29	0.21
	4200	0.49	0.40	0.33	0.24
	4400	0.54	0.44	0.37	0.27
	4600	0.60	0.49	0.42	0.31
	4800	0.65	0.53	0.46	0.35
	5000	0.69	0.58	0.50	0.39
	5200	0.75	0.62	0.54	0.43
152	4200	0.22	0.19	0.16	0.10
	4400	0.28	0.24	0.20	0.12
	4600	0.34	0.29	0.24	0.15
	4800	0.40	0.34	0.29	0.19
	5000	0.46	0.39	0.34	0.23
	5200	0.52	0.44	0.39	0.27
	5400	0.58	0.49	0.43	0.31
	5600	0.64	0.54	0.47	0.35
	5800	0.70	0.59	0.51	0.39

CEILING DIFFUSER AIR THROW DATA

Size	Air Volume	[1] Effective Throw Range	
		RTD11 Step-Down	FD11 Flush
	cfm	ft.	ft.
078, 092	2600	24 - 29	19 - 24
	2800	25 - 30	20 - 28
	3000	27 - 33	21 - 29
	3200	28 - 35	22 - 29
	3400	30 - 37	22 - 30
102, 120	3600	25 - 33	22 - 29
	3800	27 - 35	22 - 30
	4000	29- 37	24 - 33
	4200	32 - 40	26 - 35
	4400	34 - 42	28 - 37
152	5600	39 - 49	28 - 37
	5800	42 - 51	29 - 38
	6000	44 - 54	40 - 50
	6200	45 - 55	42 - 51
	6400	46 - 55	43 - 52
	6600	47 - 56	45 - 56

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

ELECTRICAL DATA — DIRECT DRIVE - 6.5 TON

Model		LDT078H5E		
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9	6.8	4.8
	Locked Rotor Amps	112	61.8	39
Compressor 2 (Non-Inverter)	Rated Load Amps	9	4.1	3.3
	Locked Rotor Amps	70	39	29
Outdoor Fan Motors (2)	Full Load Amps (2 ECM)	2.8	1.4	1.1
	Total	5.6	2.8	2.2
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	HP	3.75	3.75	3.75
	Full Load Amps	8	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	45	25	20
	With (1) 0.33 HP Power Exhaust	50	25	20
[3] Minimum Circuit Ampacity (MCA)	Unit Only	38	20	16
	With (1) 0.33 HP Power Exhaust	40	21	17

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — DIRECT DRIVE - 7.5 TON

Model		LDT092H5E		
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9	6.8	4.8
	Locked Rotor Amps	112	61.8	39
Compressor 2 (Non-Inverter)	Rated Load Amps	12.8	6	5.8
	Locked Rotor Amps	120.4	49.4	41
Outdoor Fan Motors (2)	Full Load Amps (2 ECM)	2.8	1.4	1.1
	Total	5.6	2.8	2.2
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	HP	3.75	3.75	3.75
	Full Load Amps	8	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	50	25	20
	With (1) 0.33 HP Power Exhaust	50	25	20
[3] Minimum Circuit Ampacity (MCA)	Unit Only	42	22	18
	With (1) 0.33 HP Power Exhaust	44	23	19

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — DIRECT DRIVE - 8.5 TON

Model		LDT102H5E		
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9	6.8	4.8
	Locked Rotor Amps	112	61.8	39
Compressor 2 (Non-Inverter)	Rated Load Amps	16	7.1	6.4
	Locked Rotor Amps	156.4	69	47.8
Outdoor Fan Motors (2)	Full Load Amps (2 ECM)	2.8	1.4	1.1
	Total	5.6	2.8	2.2
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	HP	3.75	3.75	3.75
	Full Load Amps	8	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	60	25	25
	With (1) 0.33 HP Power Exhaust	60	30	25
[3] Minimum Circuit Ampacity (MCA)	Unit Only	46	23	19
	With (1) 0.33 HP Power Exhaust	48	24	20

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — DIRECT DRIVE - 10 TON

Model		LDT120H5E		
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	13.8	6.9	5.8
	Locked Rotor Amps	150	58	47.8
Compressor 2 (Non-Inverter)	Rated Load Amps	18.6	8.3	7.7
	Locked Rotor Amps	155	58.1	47.8
Outdoor Fan Motors (2)	Full Load Amps (2 ECM)	2.8	1.4	1.1
	Total	5.6	2.8	2.2
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	HP	3.75	3.75	3.75
	Full Load Amps	8	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	60	30	25
	With (1) 0.33 HP Power Exhaust	70	30	25
[3] Minimum Circuit Ampacity (MCA)	Unit Only	51	25	22
	With (1) 0.33 HP Power Exhaust	54	26	23

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — DIRECT DRIVE - 12.5 TON

Model		LDT152H5E		
[1] Voltage - 60Hz		208/230V-3ph	460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	19.2	9.1	6.2
	Locked Rotor Amps	162.3	70.8	58.2
Compressor 2 (Non-Inverter)	Rated Load Amps	22.4	9.1	7.2
	Locked Rotor Amps	166.2	74.6	54
Outdoor Fan Motors (4)	Full Load Amps (4 ECM)	2.8	1.4	1.1
	Total	11.2	5.6	4.4
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4	1.3	1
Service Outlet 115V GFI (amps)		15	15	20
Indoor Blower Motor	HP	3.75	3.75	3.75
	Full Load Amps	8	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	80	35	30
	With (1) 0.33 HP Power Exhaust	90	40	30
[3] Minimum Circuit Ampacity (MCA)	Unit Only	67	31	24
	With (1) 0.33 HP Power Exhaust	69	32	25

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — BELT DRIVE - 6.5 TON

Model		LDT078H5M								
[1] Voltage - 60Hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9			6.8			4.8		
	Locked Rotor Amps	112			61.8			39		
Compressor 2 (Non-Inverter)	Rated Load Amps	9			4.1			3.3		
	Locked Rotor Amps	70			39			29		
Outdoor Fan Motors (2)	Full Load Amps (2 Non-ECM)	2.8			1.4			1.1		
	Total	5.6			2.8			2.2		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4			1.3			1		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	HP	2	3	5	2	3	5	2	3	5
	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	45	50	60	25	25	30	15	20	20
	With (1) 0.33 HP Power Exhaust	50	50	60	25	25	30	20	20	25
[3] Minimum Circuit Ampacity (MCA)	Unit Only	37	41	48	19	21	24	15	16	18
	With (1) 0.33 HP Power Exhaust	40	43	50	21	22	25	16	17	19
ELECTRICAL ACCESSORIES										
Disconnect	80 amp	**54W56** (all models)								

Disconnects - 54W56 - 80A

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.

ELECTRICAL DATA — BELT DRIVE - 7.5 TON

Model		LDT092H5M								
[1] Voltage - 60Hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9			6.8			4.8		
	Locked Rotor Amps	112			61.8			39		
Compressor 2 (Non-Inverter)	Rated Load Amps	12.8			6			5.8		
	Locked Rotor Amps	120			49.4			41		
Outdoor Fan Motors (2)	Full Load Amps (2 Non-ECM)	2.8			1.4			1.1		
	Total	5.6			2.8			2.2		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4			1.3			1		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	HP	2	3	5	2	3	5	2	3	5
	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	50	50	60	25	25	30	20	20	25
	With (1) 0.33 HP Power Exhaust	50	50	70	25	30	30	20	20	25
[3] Minimum Circuit Ampacity (MCA)	Unit Only	41	45	52	21	23	26	17	19	21
	With (1) 0.33 HP Power Exhaust	44	47	54	22	24	27	18	20	22
ELECTRICAL ACCESSORIES										
Disconnect	80 amp	**54W56** (all models)								

Disconnects - 54W56 - 80A

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.

ELECTRICAL DATA — BELT DRIVE -8.5 TON

Model		LDT102H5M								
[1] Voltage - 60Hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1 (Non-Inverter)	Rated Load Amps	11.9			6.8			4.8		
	Locked Rotor Amps	112			61.8			39		
Compressor 2 (Non-Inverter)	Rated Load Amps	16			7.1			6.4		
	Locked Rotor Amps	156			69			47.8		
Outdoor Fan Motors (2)	Full Load Amps (2 Non-ECM)	2.8			1.4			1.1		
	Total	5.6			2.8			2.2		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4			1.3			1		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	HP	2	3	5	2	3	5	2	3	5
	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	60	60	70	25	30	30	20	25	25
	With (1) 0.33 HP Power Exhaust	60	60	70	30	30	35	25	25	25
[3] Minimum Circuit Ampacity (MCA)	Unit Only	45	49	55	22	24	27	18	19	22
	With (1) 0.33 HP Power Exhaust	48	51	57	24	25	28	19	20	23
ELECTRICAL ACCESSORIES										
Disconnect	80 amp	**54W56** (all models)								

Disconnects - 54W56 - 80A

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

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

[2] 2 HACR type breaker or fuse.

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

ELECTRICAL DATA — BELT DRIVE - 10 TON

Model		LDT120H5M								
[1] Voltage - 60Hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1 (Non-Inverter)	Rated Load Amps	13.8			6.9			5.8		
	Locked Rotor Amps	150			58			47.8		
Compressor 2 (Non-Inverter)	Rated Load Amps	18.6			8.3			7.7		
	Locked Rotor Amps	155			58.1			47.8		
Outdoor Fan Motors (2)	Full Load Amps (2 Non-ECM)	2.8			1.4			1.1		
	Total	5.6			2.8			2.2		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4			1.3			1		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	HP	2	3	5	2	3	5	2	3	5
	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	60	70	70	30	30	35	25	25	30
	With (1) 0.33 HP Power Exhaust	70	70	80	30	30	35	25	30	30
[3] Minimum Circuit Ampacity (MCA)	Unit Only	51	54	60	24	25	28	21	22	24
	With (1) 0.33 HP Power Exhaust	53	56	62	25	27	29	22	23	25
ELECTRICAL ACCESSORIES										
Disconnect	80 amp	**54W56** (all models)								

Disconnects - 54W56 - 80A

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.

ELECTRICAL DATA — BELT DRIVE - 12.5 TON

Model		LDT152H5M								
[1] Voltage - 60Hz		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1 (Non-Inverter)	Rated Load Amps	19.2			9.1			6.2		
	Locked Rotor Amps	162			70.8			58.2		
Compressor 2 (Non-Inverter)	Rated Load Amps	22.4			9.1			7.2		
	Locked Rotor Amps	166			74.6			54		
Outdoor Fan Motors (2)	Full Load Amps (4 Non-ECM)	2.8			1.4			1.1		
	Total	11.2			5.6			4.4		
Power Exhaust (1) 0.33 HP	Full Load Amps	2.4			1.3			1		
Service Outlet 115V GFI (amps)		15			15			20		
Indoor Blower Motor	HP	2	3	5	2	3	5	2	3	5
	Full Load Amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	80	90	90	35	35	40	25	30	30
	With (1) 0.33 HP Power Exhaust	90	90	90	35	40	40	30	30	30
[3] Minimum Circuit Ampacity (MCA)	Unit Only	66	69	76	30	31	34	23	24	26
	With (1) 0.33 HP Power Exhaust	69	72	78	31	33	35	24	25	27
ELECTRICAL ACCESSORIES										
Disconnect	80 amp	**54W56** (all models)								

Disconnects - 54W56 - 80A

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.

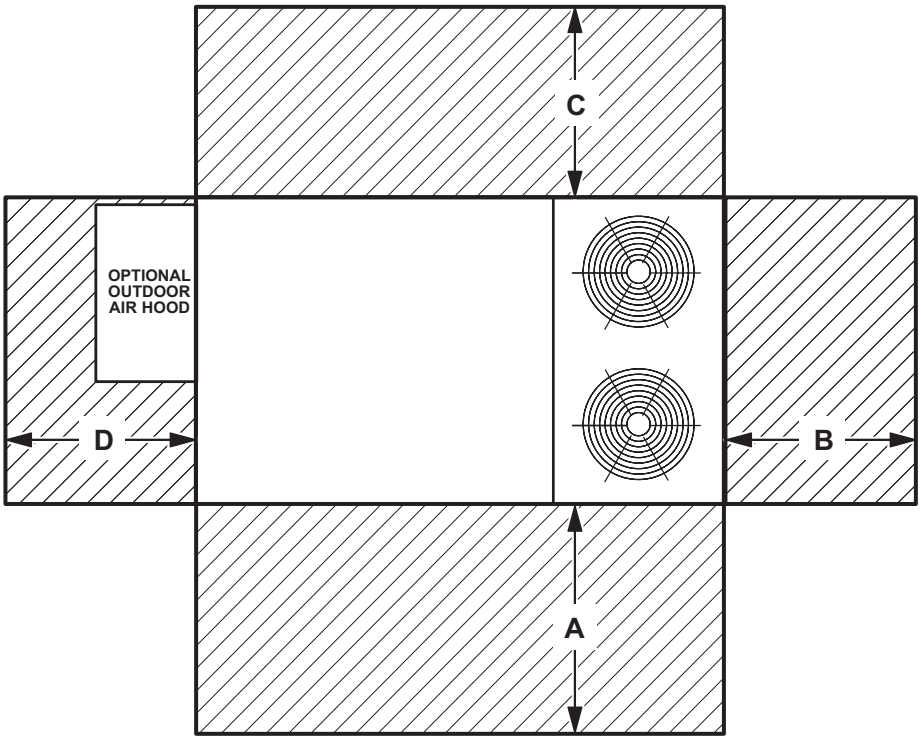
[2] HACR type breaker or fuse.

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

FIELD WIRING NOTES

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

UNIT CLEARANCES



[1] Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	934	60	1524	Unobstructed
Clearance to Combustibles	36	914	1	25	1	25	1	25	
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.
Clearance to Combustibles - Required clearance to combustible material.
Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA

Size	Octave Band Sound Power Levels dBA, re 10^{-12} Watts Center Frequency - Hz							[1] Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
078, 092, 102, 120	70	79	84	83	77	72	66	88
152	73	74	75	72	66	60	50	87

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

[1] Sound Rating Number according to AHRI Standard 270-95 or AHRI Standard 370-2001 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (Lwa), dB (100 Hz to 10,000 Hz).

WEIGHT DATA — UNIT

Size	Net		Shipping	
	lbs.	kg	lbs.	kg
Direct Drive Models				
078 Base Unit	1101	500	1353	614
078 Max. Unit	1286	573	1513	686
092 Base Unit	1121	509	1373	623
092 Max. Unit	1287	584	1539	698
102 Base Unit	1123	510	1375	624
102 Max. Unit	1293	586	1543	700
120 Base Unit	1123	510	1375	624
120 Max. Unit	1291	585	1541	699
152 Base Unit	1224	555	1476	670
152 Max. Unit	1388	630	1640	744
Belt Drive Models				
078 Base Unit	1101	500	1353	614
078 Max. Unit	1314	596	1541	699
092 Base Unit	1121	509	1373	623
092 Max. Unit	1315	597	1567	711
102 Base Unit	1123	510	1375	624
102 Max. Unit	1321	600	1571	713
120 Base Unit	1123	510	1375	624
120 Max. Unit	1319	599	1569	712
152 Base Unit	1224	555	1476	670
152 Max. Unit	1416	643	1668	757

FACTORY / FIELD INSTALLED OPTIONS AND ACCESSORIES - NET WEIGHTS

Description		lbs.	kg
ECONOMIZER / OUTDOOR AIR / EXHAUST			
Economizer			
Economizer Dampers		56	26
Outdoor Air Hood (downflow)		21	10
Barometric Relief Dampers (downflow)		9	4
Barometric Relief Dampers (low profile horizontal)		20	9
Outdoor Air Dampers			
Motorized		10	5
Manual		10	5
Power Exhaust		31	14
GAS HEAT EXCHANGER (NET WEIGHT)			
Medium Heat (adder over standard heat)		17	8
High Heat (adder over standard heat)		33	15
COMBINATION COIL/HAIL GUARDS			
078/092/102/120		21	10
152		25	11
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
8 in. height		103	47
14 in. height		125	57
18 in. height		147	67
24 in. height		169	77
Adjustable Pitch Curb, Downflow			
14 in. height		169	77
CEILING DIFFUSERS			
Step-Down	RTD11-95S	118	54
	RTD11-135S	135	61
Flush	FD11-95S	118	54
	FD11-135S	135	61
Transitions	C1DIFF30B-1	30	14
	C1DIFF31B-1	32	15
DEHUMIDIFICATION SYSTEM			
Dehumidification Option		20	9

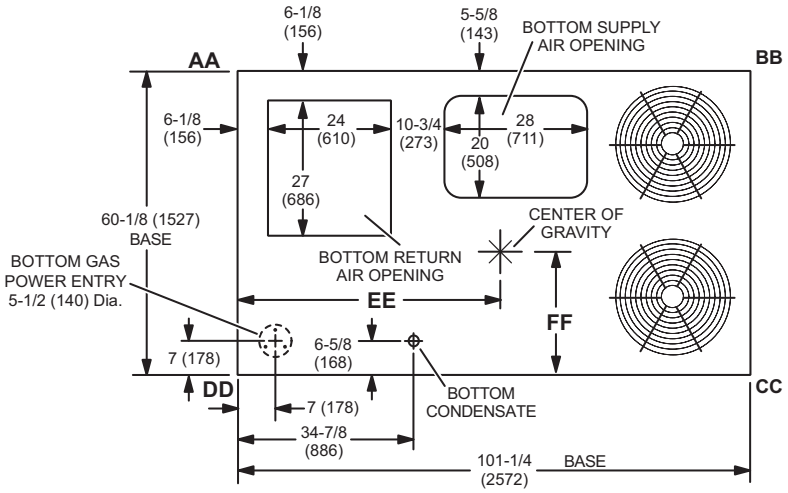
DIMENSIONS

078 | 092 | 102 | 120

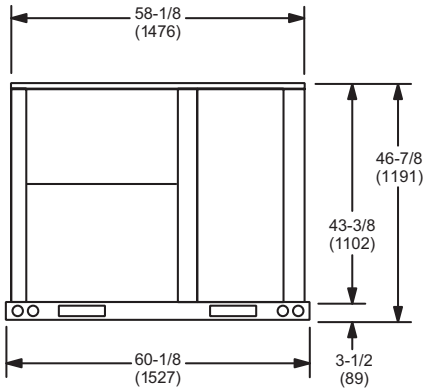
Size	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm
Direct Drive and Belt Drive Models																								
78	296	134	334	152	248	112	279	127	260	118	293	133	318	144	358	163	44	1118	43	1092	27	686	28	711
92	296	134	334	152	248	112	279	127	260	118	293	133	318	144	358	163	44	1118	43	1092	27	686	28	711
102	297	135	334	152	248	113	280	127	260	118	293	133	318	144	359	163	44	1118	43	1092	27	686	28	711
120	297	135	334	152	248	113	280	127	260	118	293	133	318	144	359	163	44	1118	43	1092	27	686	28	711

Base Unit - The unit with NO INTERNAL OPTIONS.

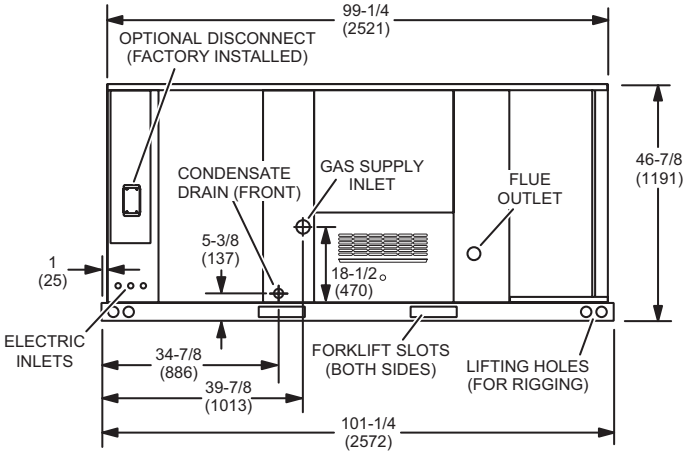
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



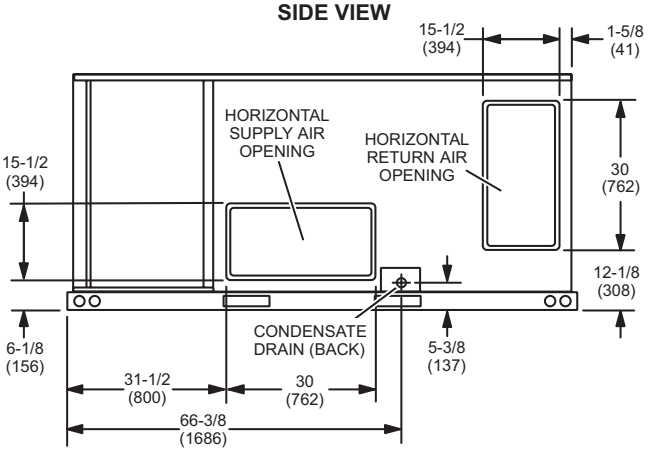
TOP VIEW



END VIEW



SIDE VIEW

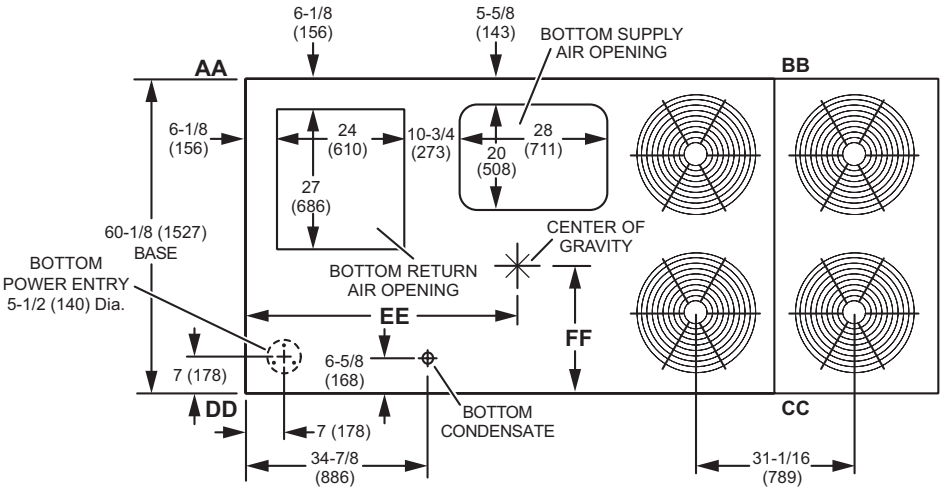


SIDE VIEW
(Horizontal Openings)

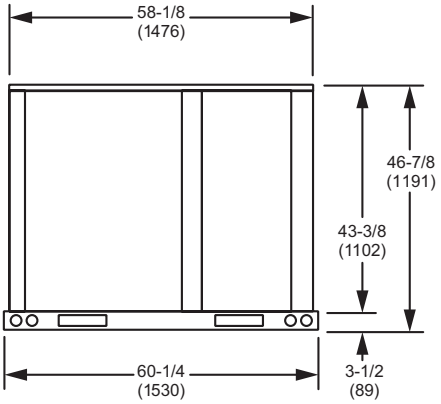
Size	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm
Direct Drive and Belt Drive Models																								
152	328	149	366	166	284	129	316	144	299	136	333	151	352	160	392	178	56.5	1435	55.5	1410	25.5	648	26.5	673

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.



TOP VIEW



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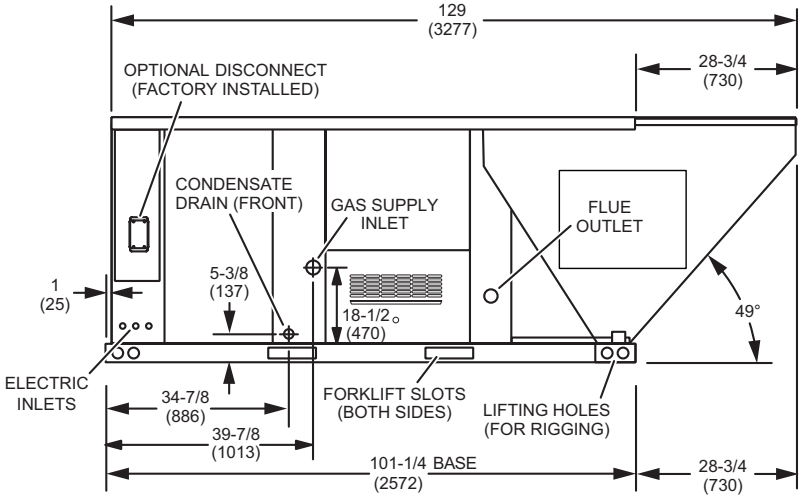
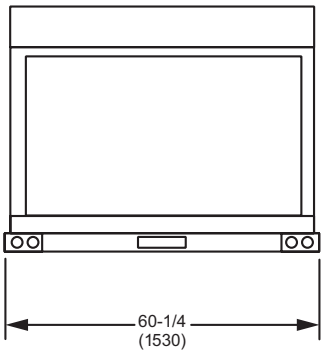


SIDE VIEW



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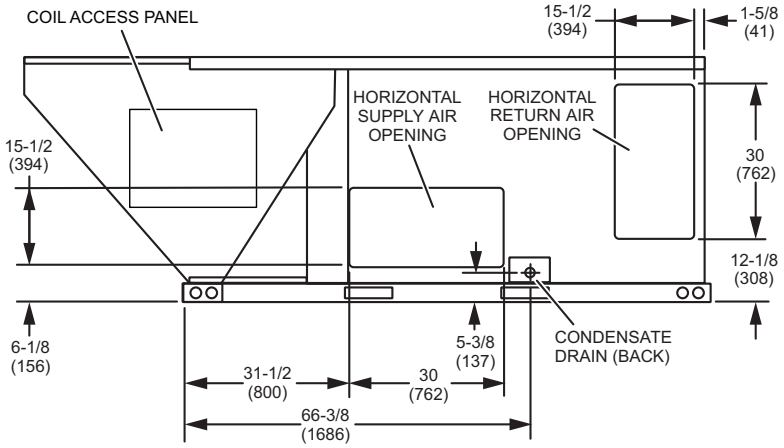
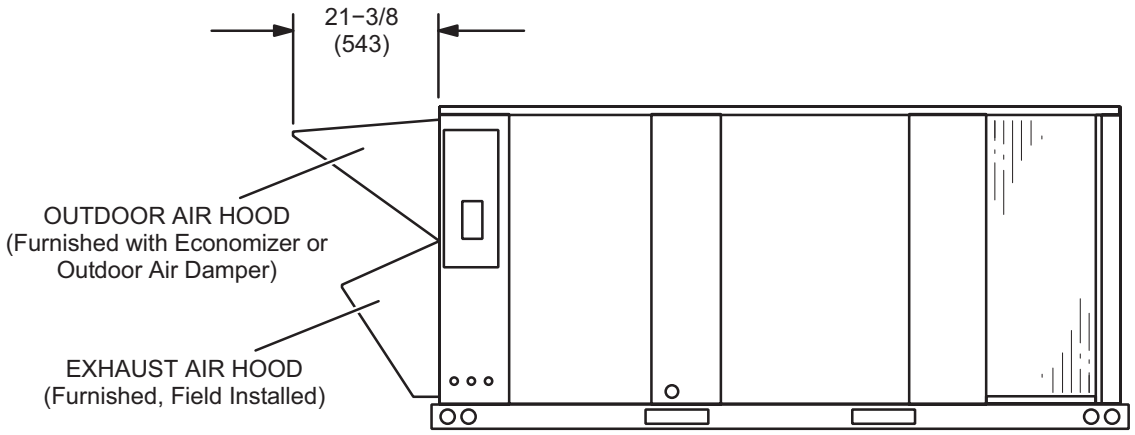
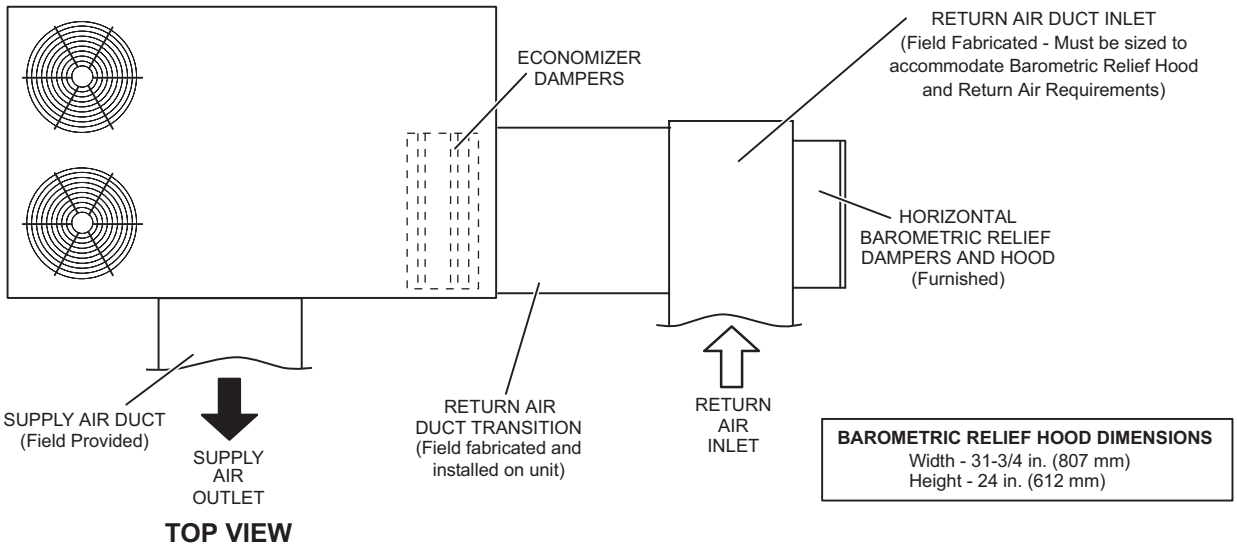


SIDE VIEW (Horizontal Openings)

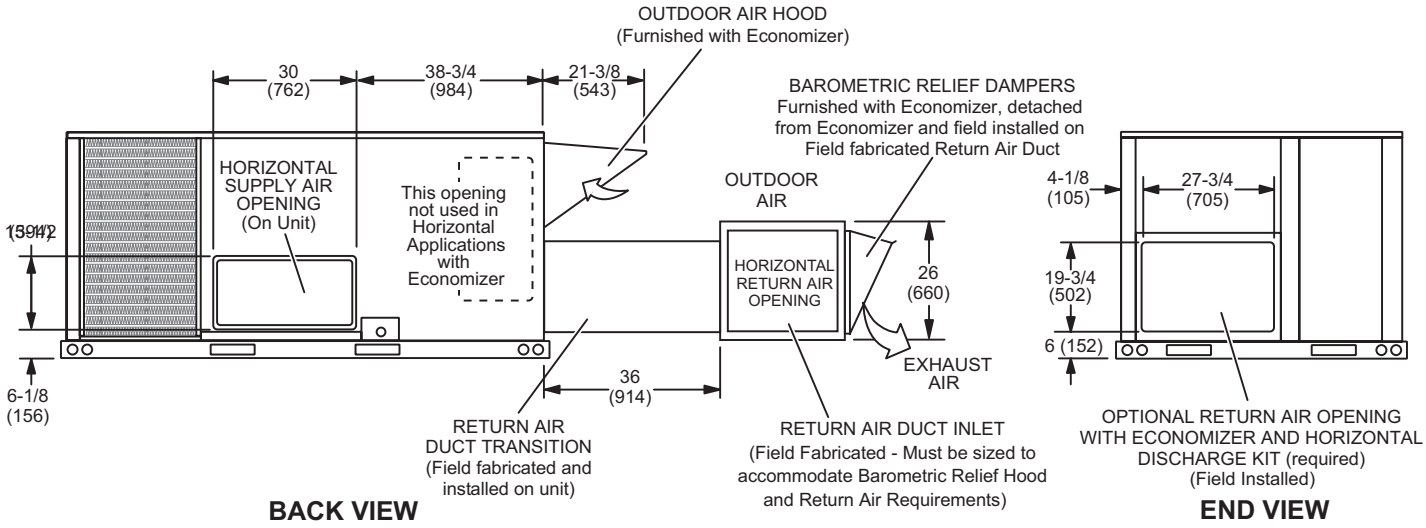
OUTDOOR AIR HOOD DETAIL (Two Fan Model Shown)



HORIZONTAL ECONOMIZER APPLICATION (Two Fan Model Shown)
(With Furnished Barometric Relief Dampers and Optional Horizontal Discharge Kit - Required)



TOP VIEW

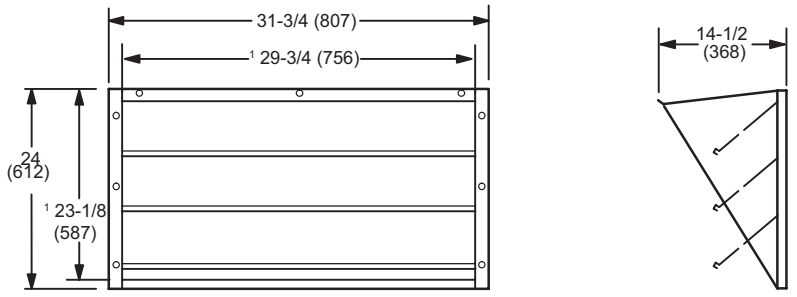


BACK VIEW **END VIEW**

NOTE - Return Air Duct and Transition must be supported.

BAROMETRIC RELIEF DAMPERS
(Furnished with Economizer)

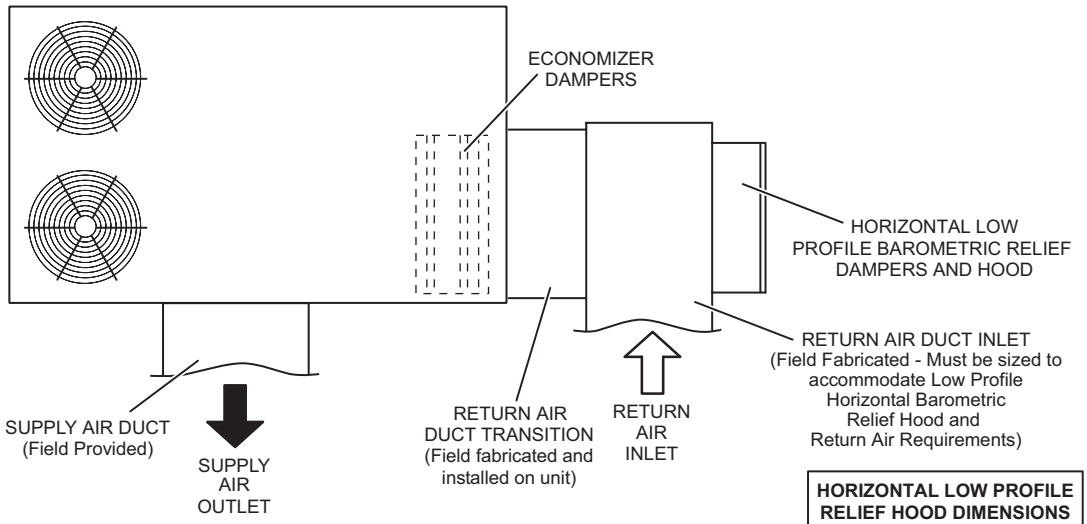
(Field installed in horizontal return air duct adjacent to unit)



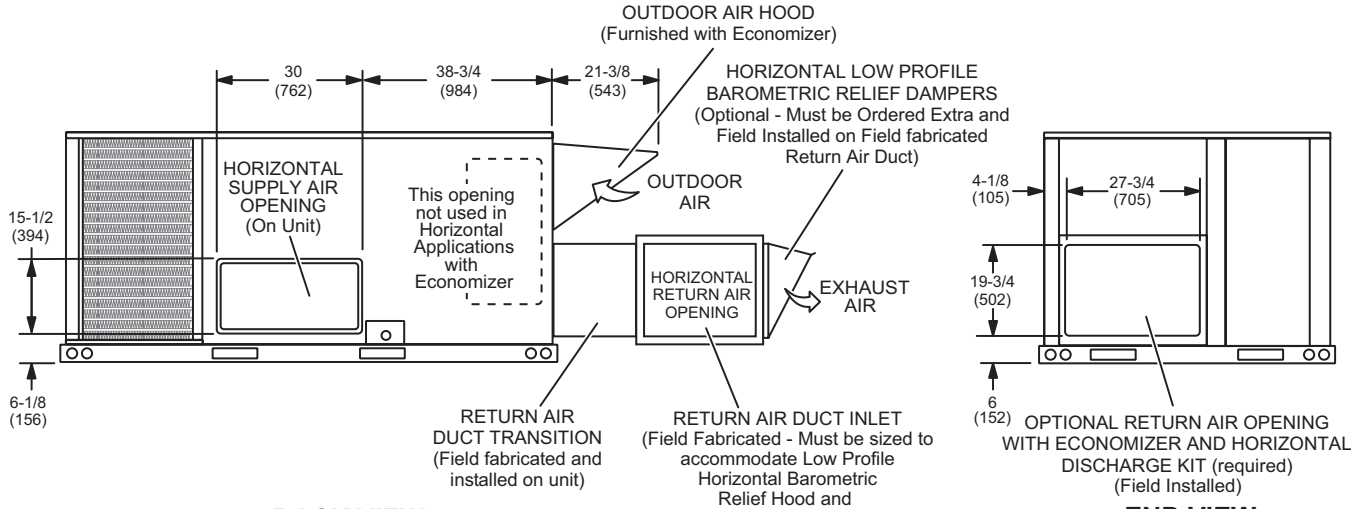
FRONT VIEW **SIDE VIEW**

[1] NOTE - Opening size required in return air duct.

HORIZONTAL ECONOMIZER APPLICATION (Two Fan Model Shown)
(with Optional Low Profile Horizontal Barometric Relief Dampers and Horizontal Discharge Kit - Required)



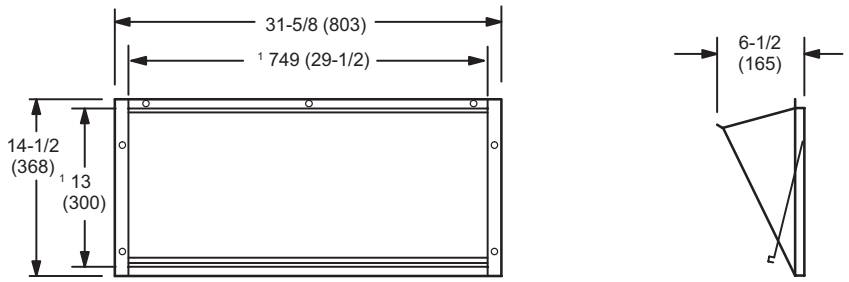
TOP VIEW



BACK VIEW **END VIEW**

NOTE - Return Air Duct and Transition must be supported.

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



FRONT VIEW **SIDE VIEW**

[1] NOTE - Opening size required in return air duct.

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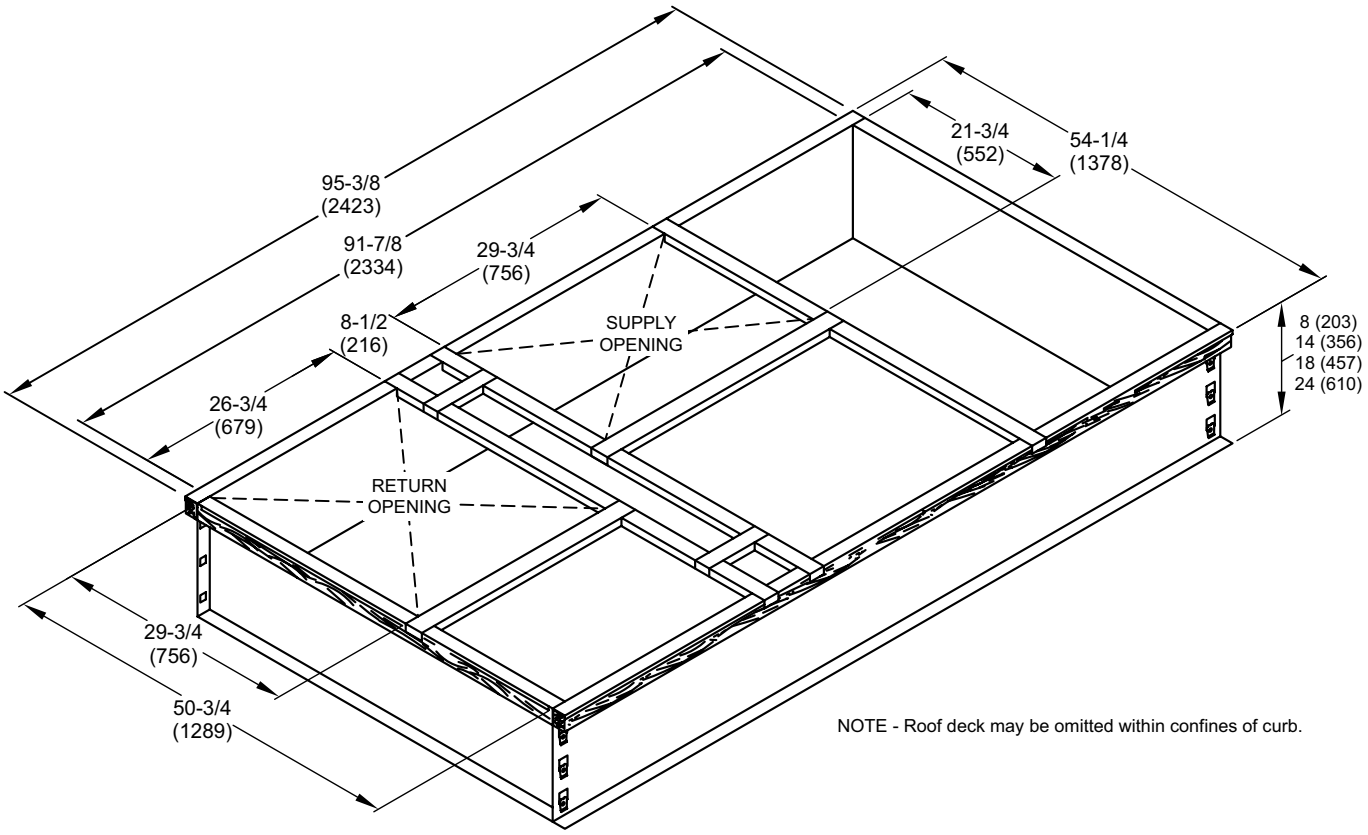
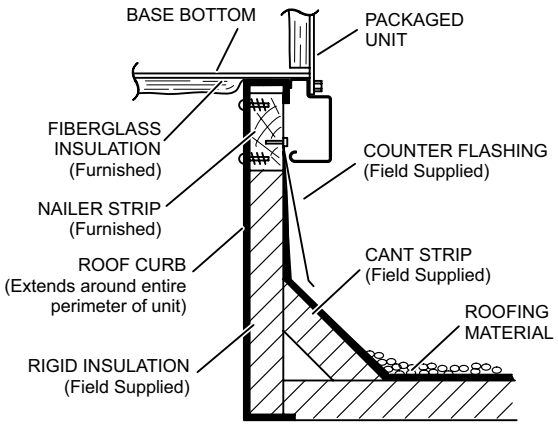
HYBRID ROOF CURBS - DOUBLE DUCT OPENING

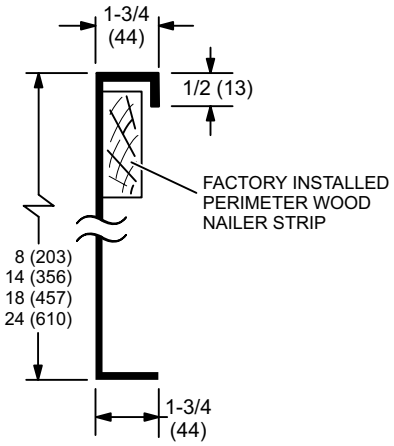


NOTE - Roof deck may be omitted within confines of curb.

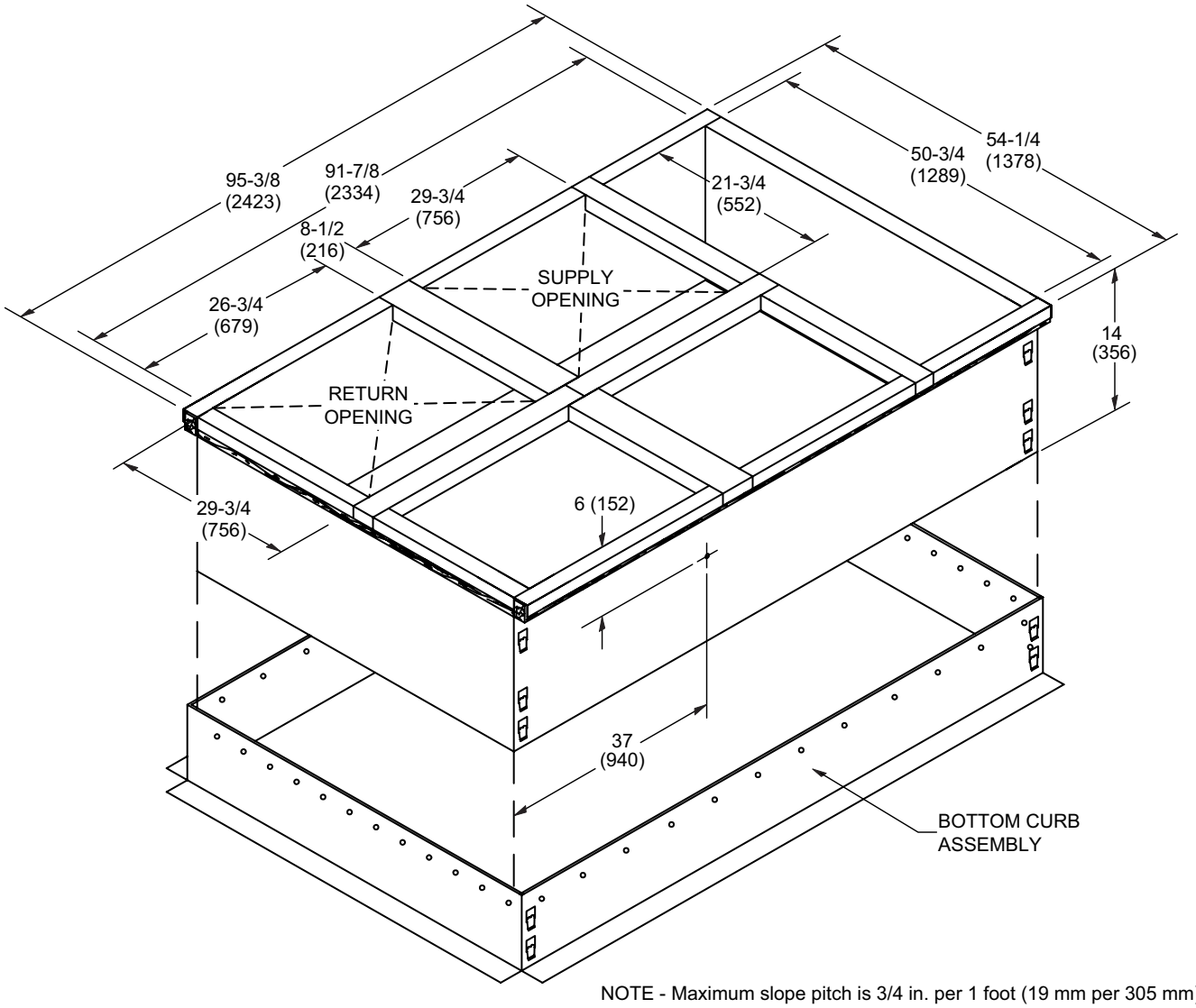
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

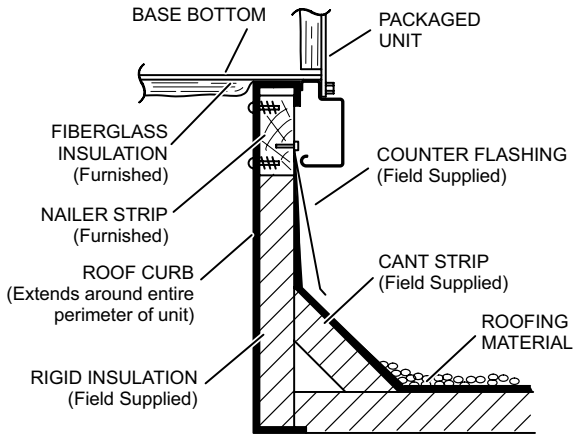


ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING

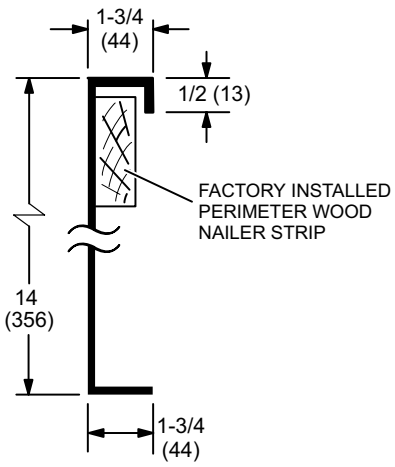


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

TYPICAL FLASHING DETAIL FOR ROOF CURB

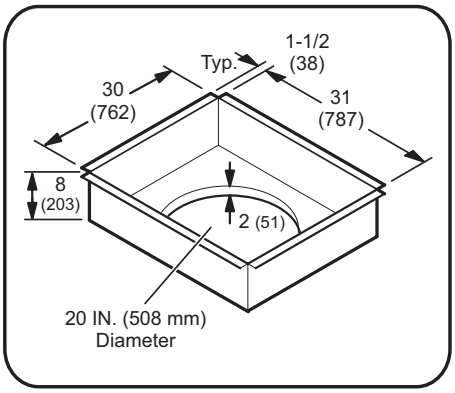


DETAIL ROOF CURB

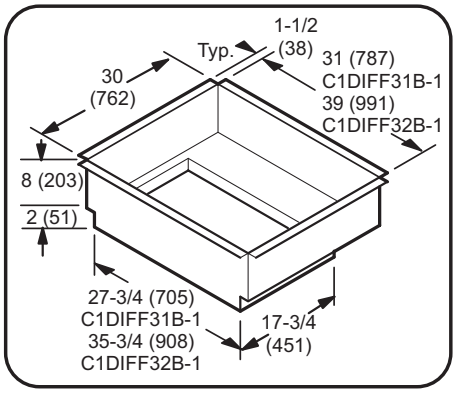


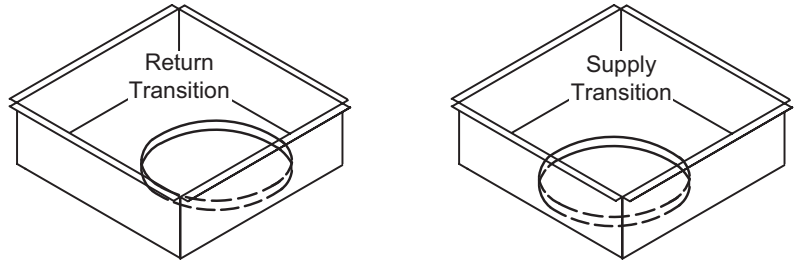
CLIP CURB OR ADJUSTABLE PITCH CURB WITH SUPPLY & RETURN AIR TRANSITIONS

C1DIFF30B-1
ROUND TRANSITIONS
(for 092 models)

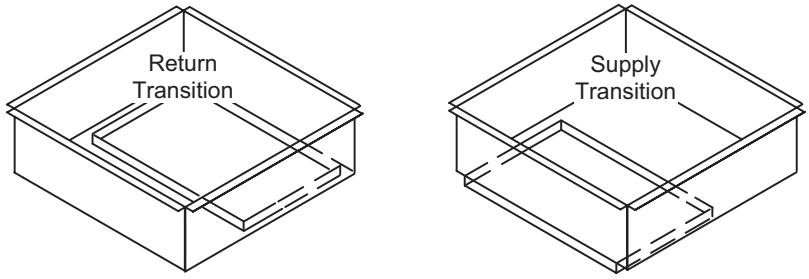


C1DIFF31B-1 & C1DIFF32B-1
RECTANGULAR TRANSITIONS
(for 102 thru 150 models)

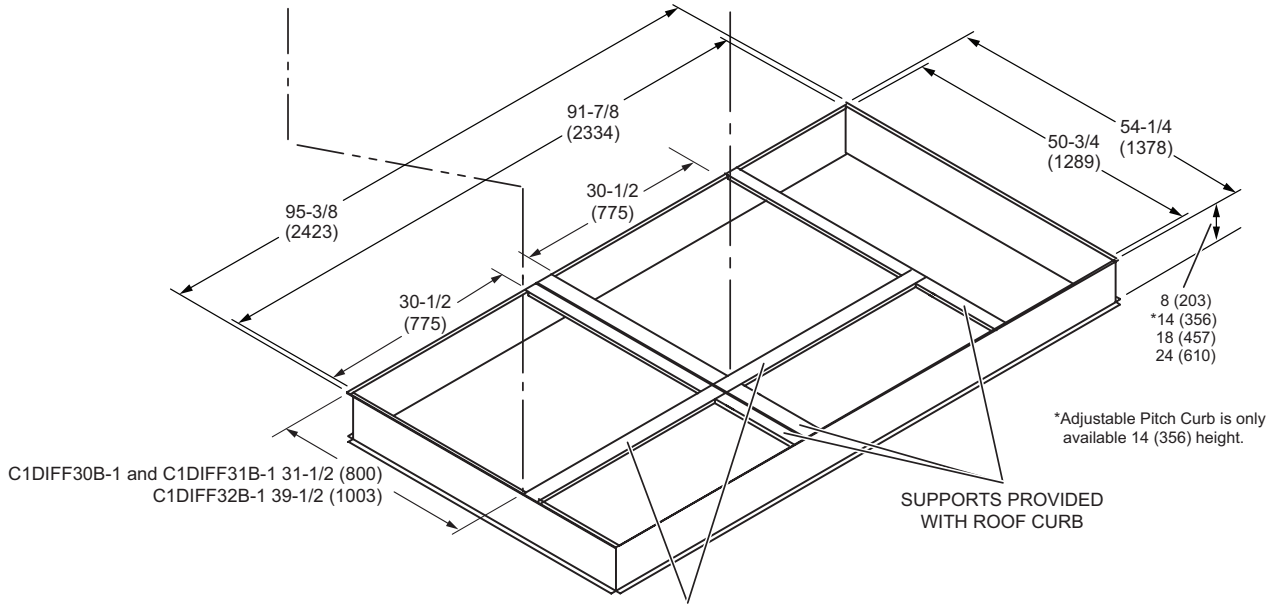




C1DIFF30B-1
ROUND TRANSITIONS
SHOWING OPENING POSITIONS



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

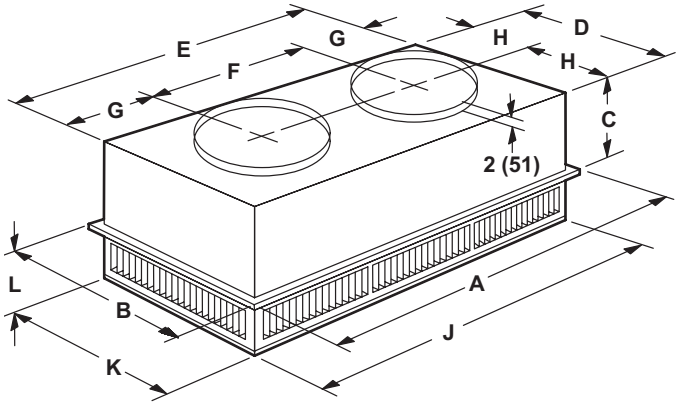


*Adjustable Pitch Curb is only available 14 (356) height.

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

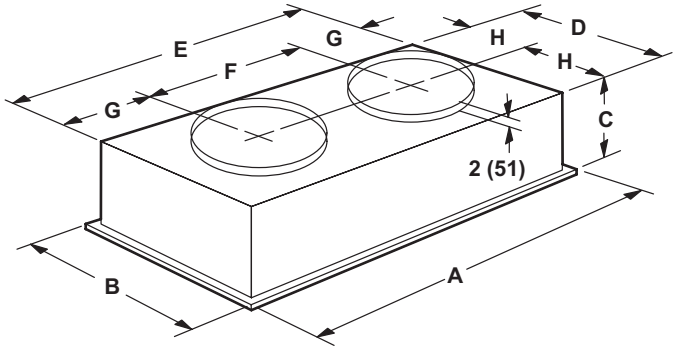
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model		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

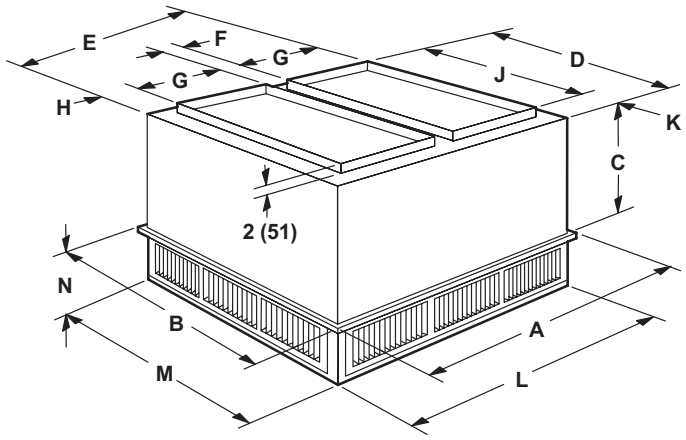
FLUSH CEILING DIFFUSER



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

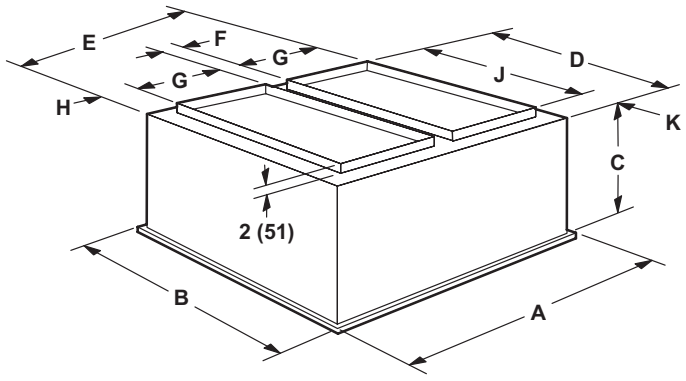
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



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

FLUSH CEILING DIFFUSER



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

REVISIONS

Sections	Description of Change
Blower Data	Added data for Blower Motors and Drive Kits for Belt Drive Models.
Electrical Data	Added data for Belt Drive Blower Models.
Features and Benefits	Added Belt Drive Blower Models.
Options / Accessories	Added Blower Motors and Drive Kits for Belt Drive Models.
Specifications	Added data for Belt Drive Blower Models.
Weight Data	Added weight data for Belt Drive Models

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