

PACKAGED GAS / ELECTRIC

**LGX**

**XION™ ROOFTOP UNITS**

Standard Efficiency | Lennox® CORE Lite Controller | Environ™ Coil | **R-454B** | 60Hz

**COMMERCIAL**

**PRODUCT SPECIFICATIONS (EHB)**

**15 to 25 Tons**

**Net Cooling Capacity | 172,000 to 270,000 Btuh**

**Gas Input Heat Capacity | 260,000 to 480,000 Btuh**

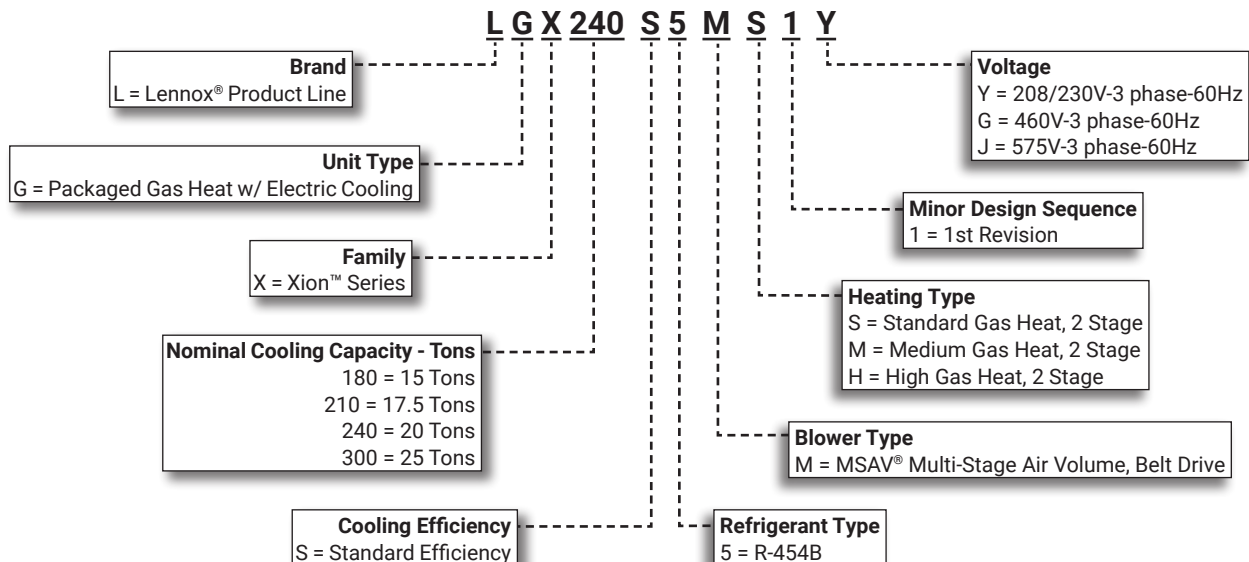
**LENNOX**

**XION**

**CORE LITE**



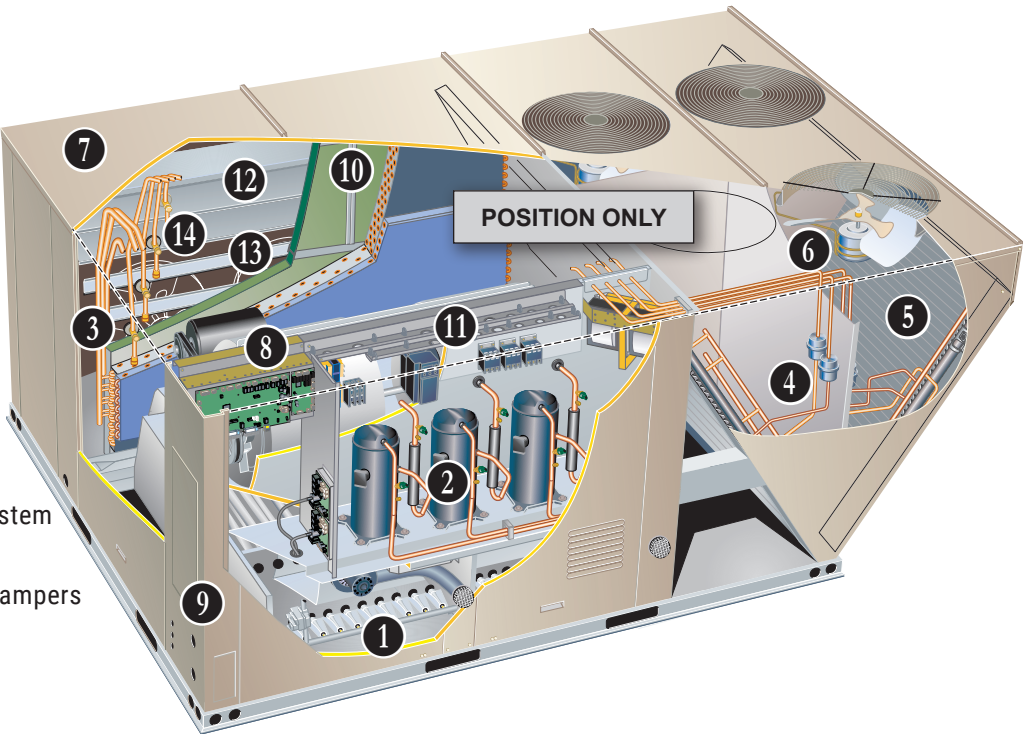
## MODEL NUMBER IDENTIFICATION



FEATURE HIGHLIGHTS

Xion™ rooftop units are engineered with the right technologies and options to meet standard efficiency requirements while delivering reliable performance and year-round comfort.

- 1. Heat Exchanger
- 2. Scroll Compressors
- 3. Thermal Expansion Valves
- 4. Filter/Driers
- 5. Environ™ Coil System
- 6. Outdoor Coil Fan Motors
- 7. Cabinet Construction
- 8. MSAV® Multi-Stage Air Volume Blower
- 9. Disconnect Switch (option)
- 10. Air Filters
- 11. Lennox® CORE Lite Control System
- 12. Economizer (option)
- 13. Downflow Barometric Relief Dampers (option)
- 14. Power Exhaust Fans



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    - LGX180 | LGX210 . . . . . 30

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    - 15 Ton | 17.5 Ton . . . . . 25

    - 20 Ton | 25 ton . . . . . 26

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## APPROVALS AND WARRANTY

### **APPROVALS**

- AHRI Standard 340/360-2023 certified
- ETL and CSA listed
- Unit and components are ETL, NEC, and CEC bonded for grounding to meet safety standards for servicing
- All models are ASHRAE 90.1 energy efficiency compliant and meet or exceed requirements of Section 6.8
- All models meet DOE 2023 energy efficiency standards and UL 60335-2-40 Refrigerant Detector Requirements
- 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 meet California Code of Regulations, Title 24 and ASHRAE 90.1 Section 6.4.3.10 requirements for staged airflow
- ISO 9001 Registered Manufacturing Quality System

### **WARRANTY**

- Aluminumized steel heat exchanger - Limited ten years
- Stainless steel heat exchanger (optional) - Limited fifteen years
- Compressors - Limited five years
- Environ™ Coil System - Limited three years
- Lennox® CORE Lite Unit Controller - Limited three years
- Variable-Frequency Drive (VFD) - Limited five years
- High Performance Economizers (optional) - Limited five years

## FEATURES AND BENEFITS

### **HEATING SYSTEM**

- Aluminumized steel inshot burners
- Direct spark ignition
- Electronic flame sensor
- Combustion air inducer
- Redundant automatic dual stage gas valve with manual shut-off

#### **1 Heat Exchanger**

- Tubular construction
- Aluminumized steel
- Life cycle tested

**NOTE** - Optional Stainless Steel Heat Exchanger is required if mixed air temperature is below 45°F.

#### **Electronic Pilot Ignition**

- Provides positive direct ignition of burners on each operating cycle
- System permits main gas valve to stay open only when the burners are proven to be lit
- Should a loss of flame occur, the gas valve closes, shutting off the gas to the burners
- LED indicates status and aid in troubleshooting
- Factory installed in the controls section

#### **Limit Controls**

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

### **Safety Switches**

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

### **Required Selections**

#### **Gas Input Choice - Order one:**

- Standard Gas Heat, 2 Stage (169,000/260,000 Btuh)
- Medium Gas Heat, 2 Stage (234,000/360,000 Btuh)
- High Gas Heat, 2 Stage (312,000/480,000 Btuh)

### **Options / Accessories**

#### **Factory Installed**

##### **Stainless Steel Heat Exchanger**

- Required if mixed air temperature is below 45°F

#### **Field Installed**

##### **Bottom Gas Piping Kit**

- Allows bottom gas entry

##### **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

## FEATURES AND BENEFITS

### HEATING SYSTEM (continued)

#### Options / Accessories

#### Field Installed

##### Combustion Air Intake Extensions

- Recommended for use with existing flue extension kits in areas where high snow areas can block intake air
- Order two kits

##### LPG/Propane Kits

- Conversion kit to field change over units from Natural Gas to LPG/Propane
- Order two kits

##### 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
- 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.

### COOLING SYSTEM

- Designed to maximize sensible and latent cooling performance at design conditions
- System can operate from 45°F to 125°F without any additional controls

##### R-454B Refrigerant

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

#### 2 Scroll Compressors

- Scroll compressors on all models for high performance, reliability, and quiet operation
- Resiliently mounted on rubber grommets for quiet operation

##### Compressor Crankcase Heaters

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

#### 3 Thermal Expansion Valves

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

#### 4 Filter/Driers

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

##### High Pressure Switches

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

##### Low Pressure Switches

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

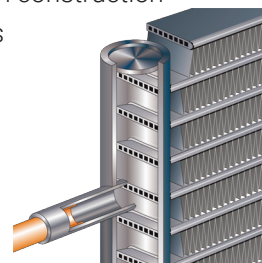
##### Indoor Coil Freeze Protection

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

#### 5 Condenser Coil - Environ™ Coil System

Lightweight, all aluminum brazed fin construction

- Constructed of three components
  - A flat extrusion tube
  - Fins in-between the flat extrusion tube
  - Two refrigerant manifolds



##### Environ™ Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins)
- Smaller internal volume (reduced refrigerant charge)
- High durability
- All aluminum construction
- Fewer brazed joints
- Compact design
- Reduced unit weight
- Easy maintenance/cleaning
- Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection
- Angled cabinet design protects coil from damage

##### Evaporator Coil

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction
- Factory leak tested
- Cross-row circuiting with rifled tubing

##### Antimicrobial Condensate Drain Pan

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

#### 6 Outdoor Coil Fan Motors

- Thermal overload protected
- Totally enclosed
- Permanently lubricated ball bearings
- Shaft up
- Wire basket mount

##### Outdoor Coil Fans

- PVC coated fan guard furnished

## FEATURES AND BENEFITS

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

#### **Required Selections**

##### **Cooling Capacity**

- Specify nominal cooling capacity

#### **Options/Accessories**

##### **Field Installed**

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

- Available in copper or PVC

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

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

###### **Low Ambient Controls (0°F)**

- Units operate satisfactorily down to 45°F outdoor air temperature without any additional controls
- Allows unit operation down to 0°F without evaporator coil icing
- Head pressure speed control reduces outdoor fan operation during low ambient conditions unit head pressure rises to the setpoint
- Pressure transducers are mounted on the liquid lines
- Liquid line pressure switches and temperature switches are provided for field installation
- Wiring harnesses are furnished for simple plug-in wiring to fans and controller

### **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**

#### **7 Construction**

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

##### **Airflow Choice**

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

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

##### **Power/Gas Entry**

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

##### **Exterior Panels**

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

##### **Insulation**

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

##### **Access Panels**

- Economizer/Filter section
- Heating/Blower section
- Compressor/Controls section

#### **Options/Accessories**

##### **Factory Installed**

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

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

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

###### **Combination Coil/Hail Guards**

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

##### **Field Installed**

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

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

## FEATURES AND BENEFITS

### **BLOWER**

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

#### **Motor**

- Overload protected
- Ball bearings

#### **8 Supply Air Blower**

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

#### **Blower Proving Switch**

- Monitors blower operation, shuts down unit if blower fails

#### **MSAV® Multi-Stage Air Volume Operation**

- MSAV® Multi-Stage Air Volume stages the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm
- 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 amount of airflow for each stage can be set according to a parameter in the Lennox® CORE Unit Controller
- Unit is shipped from the factory we preset airflow
- VFD has an operational range of -40 to 125°F outdoor air ambient temperature
- Lower operating costs are obtained when the blower is operated on lower speeds.

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

#### **Ordering Information**

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

### **Options/Accessories**

#### **Field Installed**

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

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

##### **VFD Automatic Bypass Kit**

- Bypass Kit can be used to automatically bypass the VFD and operate the unit in single speed (CAV) blower mode if the inverter needs to be serviced or replaced
- VFD Automatic Bypass Control must be enabled by Config ID on the unit controller



## FEATURES AND BENEFITS

### ELECTRICAL

#### SmartWire™ System

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

#### Electrical Plugs

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

#### Phase/Voltage Detection

- Monitors power supply to ensure correct phase at unit start-up
- If phase is incorrect, the unit will not state and an alarm code reports to the unit controller
- Prevents unit start-up if the unit is in 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

### Required Selections

#### Voltage Choice

- Specify when ordering base unit

### Options/Accessories

#### Factory or Field Installed

##### 9 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

##### 10 Air Filters

- Disposable 2 inch MERV 4 filters furnished as standard

### Options/Accessories

#### Field Installed

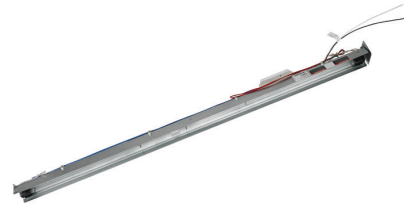
#### Healthy Climate® High Efficiency Air Filters

- Disposable MERV 8, MERV 13, or MERV 16 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency
- 2 inch pleated filters

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

- Monitors CO<sub>2</sub> levels
- Reports to the Lennox® CORE Lite Unit Controller which adjusts economizer dampers as needed

#### Healthy Climate® UVC Germicidal Lamps



- Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds
- UV-C energy greatly reduces the growth and proliferation of mold and other bioaerosols (bacteria and viruses) on illuminated surfaces (particularly coil and drain pan)
- Destroys the organism or controls its ability to reproduce
- Field installed in the blower/evaporator coil section
- Magnetic safety interlock terminates power when access panels are removed
- All necessary hardware for installation is included
- Lamps operate on 110/230V-1ph power supply
- NOTE** - Step-down transformer may be ordered separately for 460V and 575V units.
- Approved by ETL

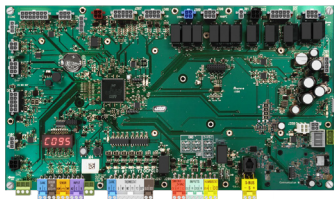
#### Needlepoint Bipolar Ionization (NPBI) Kit

- NPBI technology has been shown to effectively reduce harmful pathogens, pollutants, and odors
- Brush-type ionizer introduces a high concentration of both positive and negative ions into the air stream
- These bipolar ions are then dispersed into the occupied space through the duct system proactively reducing the airborne contaminants
- Ions travel within the building air stream and attach to particles, pathogens, and gas molecules, making them larger and easier to capture in the filtration system
- UL 2998 certified for zero ozone emission

#### 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

### **LENNOX® CORE LITE CONTROL SYSTEM**



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

The Lennox® CORE Lite Unit Controller is a microprocessor-based controller that provides flexible control of all unit functions.

#### **CORE Mobile Service App**

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



#### **Additional Features:**

- Built-In 7-Segment Display shows Unit Status and active alarms for easy troubleshooting
- Buttons for test and clearing delays
- SmartWire™ System with keyed and removable screw terminals ensure correct field wiring
- Built-in BACnet MS/TP and IP allow open integration to building management systems.
- Profile setup copies key settings between units with the same configuration to reduce setup time
- USB port allows a technician to download and transfer unit information to help verify service was performed
- USB software updates on the Lennox® CORE Lite Unit Controller enhance functionality without the need to change components

#### **Configurable Built-In Functions**

- Up to three distinct Cooling Airflows in Thermostat Mode
- Programmable independent heating, ventilation and cooling blower speeds
- 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
- Demand Control Ventilation
- Humiditrol® Operation

#### **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 (Field Option)
- Lennox 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
- PC Interface connects the Lennox® CORE Unit Controller to a PC with the Lennox Unit Controller Software

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



## CONTROL SYSTEM

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

#### Controls Options

##### 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

#### Commercial Control Systems

##### Field Installed

##### Interoperability via BACnet® Protocols

- Communication compatible with third-party automation systems that support the BACnet Application Specific Controller device profile

##### Thermostats and Room Sensors

- Control system and thermostat options, see page 12

## OPTIONS / ACCESSORIES

### ECONOMIZER

- Economizer operation is set and controlled by the Lennox® CORE Lite Unit Controller
- Simple plug-in connections from Economizer to unit controller for easy installation
- All Xion™ rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring

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

#### Factory or Field Installed

#### **12** High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 and IECC compliant
- Downflow or Horizontal with Outdoor Air Hood
- Outdoor Air Hood with mist elimination is included when Economizer is factory installed and is furnished with Economizer when ordered for field installation

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

- Linked damper action
- High torque 24-volt fully-modulating spring return damper motor
- Return air and outdoor air dampers
- Plug-in connections to unit

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

**NOTE** - The Free Cooling setpoint for Title 24 applications must be set based on the Climate Zone where the system is installed. See Section 140.4 "Prescriptive Requirements for Space Conditioning Systems" of the California Energy Commission's 2019 Building Energy Efficiency Standards.

**NOTE** - Refer to Installation Instructions for complete setup information.

#### Differential Sensible Control

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

### **ECONOMIZER (continued)**

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

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

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

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

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

#### **Field Installed**

#### **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

### **EXHAUST**

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

#### **13 Downflow Barometric Relief Dampers**

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

#### **Field Installed**

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

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

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

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

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

- For use when unit is configured for horizontal applications requiring an Economizer
- Allows relief of excess air
- Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle
- Field installed in return air duct
- Bird screen and hood furnished

## OPTIONS / ACCESSORIES

### **OUTDOOR AIR**

#### **Field Installed**

##### **Motorized Outdoor Air Damper**

- 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

##### **Manual Outdoor Air Damper**

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

### **ROOF CURBS**

#### **Field Installed**

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

#### **Downflow**

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

- Interlocking tabs fasten corners together
- No tools required 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

### **Horizontal**

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

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

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

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

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

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

### **CEILING DIFFUSERS**

#### **Field Installed**

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

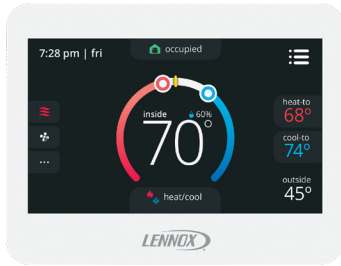
- White powder coat finish on diffuser face and grilles
- Insulated UL listed duct liner
- Diffuser box has collars for duct connection
- Step-down diffusers have double deflection blades
- Flush diffusers have fixed blades
- Provisions for suspending
- Internally sealed to prevent recirculation
- Removable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

##### **Transitions (Supply and Return)**

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

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

### CS8500 Commercial 7-Day Programmable Thermostat



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

### CS7500 Commercial 7-Day Programmable Thermostat



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

### CS3000 Commercial 5-2 Day Programmable Thermostat



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

### Wired Temperature/Humidity Room Sensor (Non-Communicating)



- Terminal blocks for wiring connections
- Five-wire sensor connection
- Off-white plastic enclosure
- Non-adjustable
- Relative humidity range: 0 -100%
- +/- 3% Accuracy

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

| Description   |   | Order Number |
|---|---|--------------|
| <b>CS8500 Commercial 7 Day Programmable Thermostat</b>  |   |              |
| CS8500 7-Day Thermostat   | No CO <sub>2</sub> Sensing                          | <b>24K55</b> |
|   | With CO <sub>2</sub> Sensing                        | <b>24K53</b> |
| Sensors/Accessories   | <sup>1</sup> Remote non-adjustable wall-mount 10k   | <b>47W37</b> |
|   | <sup>1</sup> Remote non-adjustable wall-mount 11k   | <b>94L61</b> |
| <b>Sysbus Network Cable (Yellow) for CS8500 and LCS-5030 Wired Room Sensor</b>  |   |              |
| Twisted pair 100% shielded communication cable, Red and Black<br>22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated<br>Insulation - Low smoke PVC, NEC, CMP | 500 ft. box   | <b>27M19</b> |
|   | 1000 ft. box  | <b>94L63</b> |
|   | 2500 ft. roll                                       | <b>68M25</b> |
| <b>CS7500 Commercial 7-Day Programmable Thermostat</b>  |   |              |
| CS7500 7-Day Thermostat   |   | <b>24K41</b> |
| Sensors/Accessories   | <sup>2</sup> Remote non-adjustable wall-mount 20k   | <b>47W36</b> |
|   | <sup>2</sup> Remote non-adjustable wall-mount 10k   | <b>47W37</b> |
|   | Remote non-adjustable discharge air (duct mount)    | <b>19L22</b> |
|   | Outdoor temperature sensor                          | <b>X2658</b> |
| <b>CS3000 Commercial 5-2 Day Programmable Thermostat</b>  |   |              |
| CS3000 5-2 Day Thermostat   |   | <b>11Y05</b> |
| Sensors/Accessories   | Remote non-adjustable wall mount 10k averaging      | <b>47W37</b> |
|   | Thermostat wall mounting plate                      | <b>X2659</b> |
| <b>Universal Thermostat Guard with Lock (clear)</b>   |   |              |
|   | Inside Dimensions (H x W x D) 5-7/8 x 8-3/8 x 3 in. | <b>39P21</b> |
| <b>Temperature/Humidity Room Sensor</b>   |   |              |
| A335MT13AE1 Wired Temperature/Humidity Room Sensor (Non-Communicating)  |   | <b>21W06</b> |

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

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

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

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



## OPTIONS / ACCESSORIES

| Item Description                               |                                       |         | Order Number | Size |     |     |     |
|--|---------------------------------------|---------|--------------|------|-----|-----|-----|
|  |                                       |         |              | 180  | 210 | 240 | 300 |
| COOLING SYSTEM                                 |                                       |         |              |      |     |     |     |
| Condensate Drain Trap                          | PVC                                   | 22H54   | X            | X    | X   | X   |     |
|  | Copper                                | 76W27   | X            | X    | X   | X   |     |
| Drain Pan Overflow Switch                      |                                       | 21Z07   | X            | X    | X   | X   |     |
| Low Ambient Kits (0°F)                         |                                       | 37G59   | X            | X    |     |     |     |
|  |                                       | 37G60   |              |      | X   |     |     |
|  |                                       | 37G63   |              |      |     | X   |     |
| HEATING SYSTEM                                 |                                       |         |              |      |     |     |     |
| Bottom Gas Piping Kit                          |                                       | 85M31   | X            | X    | X   | X   |     |
| Combustion Air Intake Extensions (order two)   |                                       | 89L97   | X            | X    | X   | X   |     |
| Gas Heat Input                                 | Standard - 260,000 Btuh               | Factory | O            | O    | O   | O   |     |
|  | Medium - 360,000 Btuh                 | Factory | O            | O    | O   | O   |     |
|  | High - 480,000 Btuh                   | Factory | O            | O    | O   | O   |     |
| Low Temperature Vestibule Heater               | 208/230V-3ph                          | 37G86   | X            | X    | X   | X   |     |
|  | 460V                                  | 37G90   | X            | X    | X   | X   |     |
|  | 575V                                  | 37G92   | X            | X    | X   | X   |     |
| LPG/Propane Conversion Kits<br>(Order 2 kits)  | Standard heat                         | 14N28   | X            | X    | X   | X   |     |
|  | Medium heat                           | 14N29   | X            | X    | X   | X   |     |
|  | High heat                             | 14N30   | X            | X    | X   | X   |     |
| Stainless Steel Heat Exchanger                 |                                       | Factory | O            | O    | O   | O   |     |
| Vertical Vent Extension Kit                    |                                       | 42W16   | X            | X    | X   | X   |     |
| BLOWER - SUPPLY AIR                            |                                       |         |              |      |     |     |     |
| Blower Motors                                  | Belt Drive - 3 hp                     | Factory | O            | O    |     |     |     |
|  | Belt Drive - 5 hp                     | Factory | O            | O    | O   | O   |     |
|  | Belt Drive - 7.5 hp                   | Factory | O            | O    | O   | O   |     |
|  | Belt Drive - 10 hp                    | Factory |              |      | O   | O   |     |
| VFD Manual Bypass Kit                          | 3, 5, 7.5 HP VFD Bypass - No Overload | 37G64   | X            | X    | X   | X   |     |
|  | 10 HP - With Overload                 | 37G65   |              |      | X   | X   |     |
| Drive Kits                                     | Kit #1 535-725 rpm                    | Factory | O            | O    |     |     |     |
| See Blower Data Tables for usage and selection | Kit #2 710-965 rpm                    | Factory | O            | O    |     |     |     |
|  | Kit #3 685-856 rpm                    | Factory | O            | O    | O   | O   |     |
|  | Kit #4 850-1045 rpm                   | Factory | O            | O    | O   | O   |     |
|  | Kit #5 945-1185 rpm                   | Factory | O            | O    | O   | O   |     |
|  | Kit #6 850-1045 rpm                   | Factory | O            | O    | O   | O   |     |
|  | Kit #7 945-1185 rpm                   | Factory | O            | O    | O   | O   |     |
|  | Kit #8 1045-1285 rpm                  | Factory | O            | O    | O   | O   |     |
|  | Kit #10 1045-1285 rpm                 | Factory |              |      | O   | O   |     |
|  | Kit #11 1135-1330 rpm                 | Factory |              |      | O   | O   |     |
| Blower Belt Auto-Tensioner                     | 24B80                                 | X       | X            | X    | X   |     |     |

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

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## OPTIONS / ACCESSORIES

| Item Description  |  |  | Order Number   | Size    |     |     |     |    |
|---|--|--|--|---------|-----|-----|-----|----|
|   |  |  |  | 180     | 210 | 240 | 300 |    |
| CABINET   |  |  |  |         |     |     |     |    |
| Combination Coil/Hail Guards  |  |  | 23U69  | OX      | OX  |     |     |    |
|   |  |  | 23U71  |         |     | OX  | OX  |    |
| Hinged Access Panels  |  |  | Factory  | O       | O   | O   | O   |    |
| CONTROLS  |  |  |  |         |     |     |     |    |
| NOTE - Also see Conventional Thermostat Control Systems page 12 for Additional Options. |  |  |  |         |     |     |     |    |
| BACnet® MS/TP Module  |  |  | TBD  | X       | X   | X   | X   |    |
| Dirty Filter Switch   |  |  | 53W68  | X       | X   | X   | X   |    |
| Smoke Detector - Supply or Return (Power board and one sensor)                          |  |  | 37G73  | X       | X   | X   | X   |    |
| Smoke Detector - Supply and Return (Power board and two sensors)                        |  |  | 37G74  | X       | X   | X   | X   |    |
| ELECTRICAL  |  |  |  |         |     |     |     |    |
| Voltage 60 Hz   |  |  | 208/230V - 3 phase                                       | Factory | O   | O   | O   | O  |
|   |  |  | 460V - 3 phase   | Factory | O   | O   | O   | O  |
|   |  |  | 575V - 3 phase   | Factory | O   | O   | O   | O  |
| Disconnect Switch<br>(see Disconnect Table for usage, page 27)                          |  |  | 80 amp   | 54W88   | OX  | OX  | OX  | OX |
|   |  |  | 150 amp  | 54W89   | OX  | OX  | OX  | OX |
|   |  |  | 250 amp  | 90W82   |     |     |     | OX |
| GFI Service Outlets   |  |  | 15 amp non-powered, field-wired (208/230V, 460V only)    | 74M70   | OX  | OX  | OX  | OX |
|   |  |  | 1 20 amp non-powered, field-wired (208/230V, 460V, 575V) | 67E01   | X   | X   | X   | X  |
|   |  |  | 1 20 amp non-powered, field-wired (575V)                 | Factory | O   | O   | O   | O  |
| Weatherproof Cover for GFI  |  |  | 10C89  | X       | X   | X   | X   |    |
| INDOOR AIR QUALITY  |  |  |  |         |     |     |     |    |
| Air Filters   |  |  |  |         |     |     |     |    |
| Healthy Climate® High Efficiency Air Filters<br>24 x 24 x 2 in. (Order 6 per unit)      |  |  | MERV 8   | 54W67   | X   | X   | X   | X  |
|   |  |  | MERV 13  | 52W40   | X   | X   | X   | X  |
|   |  |  | MERV 16  | 21U42   | X   | X   | X   | X  |
| Replacement Media Filter With Metal Mesh Frame<br>(includes non-pleated filter media)   |  |  | 44N61  | X       | X   | X   | X   |    |
| Indoor Air Quality (CO2) Sensors  |  |  |  |         |     |     |     |    |
| Sensor - Wall-mount, off-white plastic cover with LCD display                           |  |  | 24C58  | X       | X   | X   | X   |    |
| Sensor - Wall-mount, off-white plastic cover, no display                                |  |  | 23V86  | X       | X   | X   | X   |    |
| Sensor - Black plastic case, LCD display, rated for plenum mounting                     |  |  | 87N52  | X       | X   | X   | X   |    |
| Sensor - Black plastic case, no display, rated for plenum mounting                      |  |  | 23V87  | X       | X   | X   | X   |    |
| CO2 Sensor Duct Mounting Kit - for downflow applications                                |  |  | 23Y47  | X       | X   | X   | X   |    |
| Aspiration Box - for duct mounting non-plenum rated CO2 sensors (24C58)                 |  |  | 90N43  | X       | X   | X   | X   |    |
| Needlepoint Bipolar Ionization (NPBI)   |  |  |  |         |     |     |     |    |
| Needlepoint Bipolar Ionization (NPBI) Kits  |  |  | 21U37  | X       | X   |     |     |    |
|   |  |  | 21U38  |         |     | X   |     |    |
|   |  |  | 21U39  |         |     |     | X   |    |
| UVC Germicidal Light Kit  |  |  |  |         |     |     |     |    |
| 2 Healthy Climate® UVC Light Kit (110/230V-1ph)   |  |  | 21A94  | X       | X   | X   | X   |    |
| Step-Down Transformers  |  |  | 460V primary, 230V secondary                             | 10H20   | X   | X   | X   | X  |
|   |  |  | 575V primary, 230V secondary                             | 10H21   | X   | X   | X   | X  |

<sup>1</sup> Canada requires a minimum 20 amp circuit. Select 20 amp, non-powered, field wired GFI.

<sup>2</sup> Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 460V and 575V units. Alternately, 110V power supply may be used to directly power the UVC ballast(s)

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

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## OPTIONS / ACCESSORIES

| Item Description  | Order Number                | Size |     |     |     |
|---|-----------------------------|------|-----|-----|-----|
|   |                             | 180  | 210 | 240 | 300 |
| ECONOMIZER  |                             |      |     |     |     |
| High Performance Economizer (Approved for California Title 24 Building Standards AMCA Class 1A Certified)   |                             |      |     |     |     |
| High Performance Economizer (Downflow or Horizontal)<br>Includes Economizer Dampers with Outdoor Air Hood<br>Downflow Applications - Use furnished Outdoor Air Hood - Order Downflow Barometric Relief Dampers with Exhaust Hood separately<br>Horizontal Applications - Use furnished Outdoor Air Hood - Order Horizontal Barometric Relief Dampers with Exhaust Hood separately | 22J18                       | OX   | OX  | OX  | OX  |
| Economizer Controls   |                             |      |     |     |     |
| Differential Enthalpy (Not for Title 24)  | Order 2 21Z09               | X    | X   | X   | X   |
| Sensible Control  | Sensor is Furnished Factory | O    | O   | O   | O   |
| Single Enthalpy (Not for Title 24)  | 21Z09                       | OX   | OX  | OX  | OX  |
| Barometric Relief Dampers With Exhaust Hood   |                             |      |     |     |     |
| Downflow Barometric Relief Dampers  | 54W78                       | OX   | OX  | OX  | OX  |
| Horizontal Barometric Relief Dampers  | 16K99                       | X    | X   | X   | X   |
| OUTDOOR AIR   |                             |      |     |     |     |
| Outdoor Air Dampers With Outdoor Air Hood   |                             |      |     |     |     |
| Motorized   | 22J27                       | X    | X   | X   | X   |
| Manual  | 13U05                       | X    | X   | X   | X   |
| ³ POWER EXHAUST (DOWNFLOW APPLICATIONS ONLY)  |                             |      |     |     |     |
| Standard Static   | 208/230V 22H90              | X    | X   | X   | X   |
|   | 460V 22H91                  | X    | X   | X   | X   |
|   | 575V 22V34                  | X    | X   | X   | X   |

<sup>3</sup> Field installed Power Exhaust requires Economizer with Outdoor Air Hood and Downflow Barometric Relief Dampers with Exhaust Hood. Must be ordered separately.

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## OPTIONS / ACCESSORIES

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

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| SPECIFICATIONS                      |                                       |                 |   | UNIT                               |   |                                    |               |        |
|-------------------------------------|---------------------------------------|-----------------|---|------------------------------------|---|------------------------------------|---------------|--------|
| Model                               |                                       |                 | LGX180S5M   | LGX210S5M                          | LGX240S5M   | LGX300S5M                          |               |        |
| Nominal Tonnage                     |                                       |                 | 15 Ton  | 17.5 Ton                           | 20 Ton  | 25 Ton                             |               |        |
| Efficiency Type                     |                                       |                 | Standard  | Standard                           | Standard  | Standard                           |               |        |
| Blower Type                         |                                       |                 | MSAV®<br>Multi-Stage<br>Air Volume  | MSAV®<br>Multi-Stage<br>Air Volume | MSAV®<br>Multi-Stage<br>Air Volume  | MSAV®<br>Multi-Stage<br>Air Volume |               |        |
| Cooling Performance                 | Gross Cooling Capacity - Btuh         |                 | 178,000   | 206,000                            | 236,000   | 282,000                            |               |        |
|                                     | ¹ Net Cooling Capacity - Btuh         |                 | 172,000   | 200,000                            | 228,000   | 270,000                            |               |        |
|                                     | ¹ AHRI Rated Air Flow - cfm           |                 | 7200  | 6150                               | 7100  | 7450                               |               |        |
|                                     | ¹ IEER (Btuh/Watt)                    |                 | 14.0  | 14.0                               | 14.0  | 13.0                               |               |        |
|                                     | ¹ EER (Btuh/Watt)                     |                 | 10.8  | 10.8                               | 10.8  | 9.8                                |               |        |
|                                     | Total Unit Power - kW                 |                 | 15.9  | 18.5                               | 21.1  | 27.6                               |               |        |
| Sound Rating Number                 |                                       |                 | dBA   | 86                                 | 86  | 93                                 | 94            |        |
| Refrigerant                         |                                       |                 | Refrigerant Type  |                                    | R-454B  | R-454B                             | R-454B        | R-454B |
| Charge                              | Without Reheat Option                 |                 | Circuit 1   | 6 lbs. 11 oz.                      | 6 lbs. 6 oz.  | 7 lbs. 4 oz.                       | 5 lbs. 15 oz. |        |
|                                     |                                       |                 | Circuit 2   | 5 lbs. 3 oz.                       | 6 lbs. 2 oz.  | 7 lbs. 2 oz.                       | 5 lbs. 8 oz.  |        |
|                                     |                                       |                 | Circuit 3   | 5 lbs. 5 oz.                       | 7 lbs. 13 oz.   | 6 lbs. 15 oz.                      | 5 lbs. 5 oz.  |        |
|                                     |                                       |                 | Circuit 4   | - - -                              | - - -   | - - -                              | 5 lbs. 6 oz.  |        |
|                                     |                                       |                 |   |                                    |   |                                    |               |        |
| Gas Heat Available                  |                                       |                 | See page 19   |                                    |   |                                    |               |        |
| Compressor Type (number)            |                                       |                 | Scroll (3)  | Scroll (3)                         | Scroll (3)  | Scroll (4)                         |               |        |
| Outdoor Coils                       | Net face area - ft.² (total)          |                 | 41.1  | 41.1                               | 55.0  | 55.0                               |               |        |
|                                     | Rows                                  |                 | 1   | 1                                  | 1   | 1                                  |               |        |
|                                     | Fins - in.                            |                 | 23  | 23                                 | 23  | 23                                 |               |        |
| Outdoor Coil Fans                   | Motor HP (number and type)            |                 | 1/3 (3 PSC)   | 1/3 (3 PSC)                        | 1/3 (4 PSC)   | 1/3 (6 PSC)                        |               |        |
|                                     | Rpm                                   |                 | 1075  | 1075                               | 1075  | 1075                               |               |        |
|                                     | Watts                                 |                 | 1100  | 1100                               | 1665  | 1950                               |               |        |
|                                     | Diameter - (No.) in.                  |                 | (3) 24  | (3) 24                             | (4) 24  | (6) 24                             |               |        |
|                                     | Blades                                |                 | 3   | 3                                  | 3   | 3                                  |               |        |
|                                     | Total Air volume - cfm                |                 | 12,000  | 12,000                             | 16,000  | 20,000                             |               |        |
|                                     |                                       |                 |   |                                    |   |                                    |               |        |
| Indoor Coils                        | Net face area - ft.² (total)          |                 | 21.4  | 21.4                               | 21.4  | 21.4                               |               |        |
|                                     | Tube diameter - in.                   |                 | 3/8   | 3/8                                | 3/8   | 3/8                                |               |        |
|                                     | Rows                                  |                 | 3   | 4                                  | 4   | 4                                  |               |        |
|                                     | Fins - in.                            |                 | 14  | 14                                 | 14  | 14                                 |               |        |
|                                     | Condensate drain size (NPT) - in.     |                 | (1) 1   | (1) 1                              | (1) 1   | (1) 1                              |               |        |
|                                     | Expansion device type                 |                 | Balanced Port Thermostatic Expansion Valve, removable element head        |                                    |   |                                    |               |        |
| ² Indoor Blower and Drive Selection | Nominal motor HP                      |                 | 3, 5, 7.5   |                                    | 5, 7.5, 10  |                                    |               |        |
|                                     | Maximum usable motor HP (US)          |                 | 3.45, 5.75, 8.62  |                                    | 5.75, 8.62, 11.5  |                                    |               |        |
|                                     | Motor - Drive kit number              |                 | 3 HP<br>Kit 1 535-725 rpm<br>Kit 2 710-965 rpm                            |                                    | 5 HP<br>Kit 3 685-856 rpm<br>Kit 4 850-1045 rpm<br>Kit 5 945-1185 rpm       |                                    |               |        |
|                                     |                                       |                 | 5 HP<br>Kit 3 685-856 rpm<br>Kit 4 850-1045 rpm<br>Kit 5 945-1185 rpm     |                                    | 7.5 HP<br>Kit 6 850-1045 rpm<br>Kit 7 945-1185 rpm<br>Kit 8 1045-1285 rpm   |                                    |               |        |
|                                     |                                       |                 | 7.5 HP<br>Kit 6 850-1045 rpm<br>Kit 7 945-1185 rpm<br>Kit 8 1045-1285 rpm |                                    | 10 HP<br>Kit 7 945-1185 rpm<br>Kit 10 1045-1285 rpm<br>Kit 11 1135-1330 rpm |                                    |               |        |
|                                     |                                       |                 |   |                                    |   |                                    |               |        |
|                                     | Wheel (Number) diameter x width - in. |                 | (2) 15 x 15   |                                    |   |                                    |               |        |
|                                     | Filters                               |                 | Type of filter  |                                    |   |                                    |               |        |
|                                     |                                       |                 | MERV 4, Disposable  |                                    |   |                                    |               |        |
|                                     |                                       |                 | Number and size - in.   |                                    |   |                                    |               |        |
|                                     |                                       | (6) 24 x 24 x 2 |   |                                    |   |                                    |               |        |
| Line voltage data (Volts-Phase-Hz)  |                                       |                 | 208/230-3-60<br>460-3-60<br>575-3-60                                      |                                    |   |                                    |               |        |

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

<sup>1</sup> AHRI Certified to AHRI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>2</sup> Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

NOTE - Motor service factor limit - 1.0.



| SPECIFICATIONS                               |                             |              |           | GAS HEAT                 |            |          |
|--|-----------------------------|--------------|-----------|--------------------------|------------|----------|
| Heat Input Type                              |                             |              |           | Standard (S)             | Medium (M) | High (H) |
| Number of Gas Heat Stages                    |                             |              |           | 2                        | 2          | 2        |
| Gas Heating Performance                      | Input - Btuh                | First Stage  | 169,000   | 234,000                  | 312,000    |          |
|  |                             | Second Stage | 260,000   | 360,000                  | 480,000    |          |
|  | Output - Btuh               | First Stage  | - - -     | - - -                    | - - -      |          |
|  |                             | Second Stage | 211,000   | 292,000                  | 389,000    |          |
|  | Temperature Rise Range - °F |              |           | 15 - 45                  | 30 - 60    | 40 - 70  |
|  | Minimum air volume - cfm    |              |           | 4500                     | 4500       | 5125     |
| Thermal Efficiency                           |                             |              | 81%       | 81%                      | 81%        |          |
| Gas Supply Connections                       |                             |              | 1 in. NPT | 1 in. NPT                | 1 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.     |            |          |

## HIGH ALTITUDE DERATE

**NOTE** - Units may be installed at altitudes up to 2000 feet above sea level without any modification.

At altitudes above 2000 feet, units must be derated to match gas manifold pressures shown in table below.

At altitudes above 4500 feet units 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<br>in. w.g. |                 | Input Rate (Btuh) |
|--------------------|---------------|-----------------------------------|-----------------|-------------------|
|                    |               | Natural Gas                       | LPG/Propane Gas |                   |
| Standard (2 stage) | 2001 - 4500   | 1.6 / 3.1                         | 4.4 / 8.9       | 169,000 / 239,000 |
| Medium (2 stage)   | 2001 - 4500   | 1.6 / 3.1                         | 4.4 / 8.9       | 234,000 / 331,000 |
| High (2 stage)     | 2001 - 4500   | 1.6 / 3.1                         | 4.4 / 8.9       | 312,000 / 442,000 |

## RATINGS

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

### 15 TON - LGX180S5M (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |       |      |                 |                   |                               |      |      |                 |                   |                               |      |      |       |       |      |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-------|-------|------|------|------|
|                               |                  | 65°F  |                   |                               |       |      | 75°F            |                   |                               |      |      | 85°F            |                   |                               |      |      | 95°F  |       |      |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |       |       |      |      |      |
|                               |                  |   |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |       |       |      |      |      |
|                               |                  |   |                   | cfm                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F | kBtuh           |                   | kW                            | 75°F | 80°F | 85°F  | kBtuh | kW   | 75°F | 80°F |
| 63°F                          | 3500             | 120.2   | 4.95              | 0.76                          | 0.85  | 0.95 | 113.2           | 5.79              | 0.77                          | 0.86 | 0.96 | 106.7           | 6.65              | 0.77                          | 0.87 | 0.97 | 100.3 | 7.55  | 0.77 | 0.88 | 0.97 |
|                               | 4000             | 124.1   | 4.96              | 0.78                          | 0.88  | 0.97 | 117.6           | 5.81              | 0.78                          | 0.89 | 0.98 | 111             | 6.66              | 0.79                          | 0.9  | 0.98 | 104.2 | 7.57  | 0.79 | 0.91 | 0.99 |
|                               | 4500             | 128   | 4.98              | 0.8                           | 0.9   | 0.98 | 121.4           | 5.82              | 0.8                           | 0.91 | 0.99 | 114.5           | 6.67              | 0.81                          | 0.93 | 1    | 107.5 | 7.58  | 0.81 | 0.94 | 1    |
| 67°F                          | 3500             | 125.7   | 4.97              | 0.66                          | 0.75  | 0.83 | 119.3           | 5.82              | 0.65                          | 0.75 | 0.83 | 112.8           | 6.67              | 0.65                          | 0.75 | 0.84 | 105.7 | 7.57  | 0.65 | 0.75 | 0.86 |
|                               | 4000             | 130.6   | 4.98              | 0.67                          | 0.76  | 0.85 | 124             | 5.83              | 0.66                          | 0.77 | 0.86 | 117.1           | 6.68              | 0.66                          | 0.77 | 0.88 | 109.3 | 7.58  | 0.66 | 0.78 | 0.88 |
|                               | 4500             | 134.5   | 4.99              | 0.68                          | 0.78  | 0.88 | 127.7           | 5.84              | 0.68                          | 0.79 | 0.89 | 120.6           | 6.69              | 0.67                          | 0.79 | 0.9  | 112.8 | 7.6   | 0.67 | 0.8  | 0.92 |
| 71°F                          | 3500             | 132.2   | 4.99              | 0.55                          | 0.64  | 0.73 | 125.7           | 5.83              | 0.54                          | 0.64 | 0.73 | 118.9           | 6.69              | 0.53                          | 0.64 | 0.74 | 111.7 | 7.59  | 0.53 | 0.64 | 0.74 |
|                               | 4000             | 136.9   | 5                 | 0.55                          | 0.66  | 0.75 | 130.1           | 5.85              | 0.55                          | 0.66 | 0.75 | 122.9           | 6.7               | 0.54                          | 0.65 | 0.76 | 115   | 7.61  | 0.54 | 0.65 | 0.76 |
|                               | 4500             | 140.7   | 5.01              | 0.56                          | 0.67  | 0.77 | 134             | 5.86              | 0.56                          | 0.67 | 0.77 | 126.3           | 6.71              | 0.55                          | 0.67 | 0.78 | 119.6 | 7.62  | 0.54 | 0.66 | 0.78 |

### 15 TON - LGX180S5M (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |      |                 |                   |                               |      |      |                 |                   |                               |       |      |                 |                   |                               |      |       |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|-------|
|                               |                  | 85°F  |                   |                               |      |      | 95°F            |                   |                               |      |      | 105°F           |                   |                               |       |      | 115°F           |                   |                               |      |       |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |
|                               |                  |   |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |       |
|                               |                  |   |                   | 75°F                          | 80°F | 85°F |                 |                   | kBtuh                         | kW   | 75°F | 80°F            |                   | 85°F                          | kBtuh | kW   | 75°F            |                   | 80°F                          | 85°F | kBtuh |
| 63°F                          | 4800             | 169.2   | 9.86              | 0.71                          | 0.86 | 0.99 | 158.5           | 11.19             | 0.72                          | 0.87 | 1    | 146.9           | 12.64             | 0.73                          | 0.89  | 1    | 134.6           | 14.29             | 0.74                          | 0.92 | 1     |
|                               | 6000             | 178.3   | 9.9               | 0.77                          | 0.93 | 1    | 166.2           | 11.22             | 0.78                          | 0.95 | 1    | 154.2           | 12.67             | 0.79                          | 0.98  | 1    | 142.6           | 14.33             | 0.81                          | 1    | 1     |
|                               | 7200             | 185.8   | 9.92              | 0.82                          | 0.99 | 1    | 174.2           | 11.25             | 0.83                          | 1    | 1    | 162.8           | 12.71             | 0.86                          | 1     | 1    | 150.9           | 14.36             | 0.88                          | 1    | 1     |
| 67°F                          | 4800             | 181   | 9.91              | 0.55                          | 0.69 | 0.82 | 169.1           | 11.23             | 0.55                          | 0.7  | 0.84 | 157.5           | 12.69             | 0.55                          | 0.7   | 0.86 | 144.9           | 14.34             | 0.55                          | 0.72 | 0.88  |
|                               | 6000             | 189.9   | 9.94              | 0.59                          | 0.74 | 0.9  | 177.9           | 11.27             | 0.59                          | 0.76 | 0.92 | 165.1           | 12.72             | 0.59                          | 0.77  | 0.94 | 152.1           | 14.36             | 0.59                          | 0.79 | 0.97  |
|                               | 7200             | 196.7   | 9.96              | 0.62                          | 0.8  | 0.96 | 183.6           | 11.29             | 0.62                          | 0.82 | 0.99 | 170.5           | 12.74             | 0.63                          | 0.84  | 1    | 156.6           | 14.38             | 0.64                          | 0.86 | 1     |
| 71°F                          | 4800             | 192.4   | 9.95              | 0.41                          | 0.54 | 0.67 | 180.7           | 11.28             | 0.4                           | 0.54 | 0.67 | 167.5           | 12.73             | 0.39                          | 0.54  | 0.68 | 154.9           | 14.37             | 0.37                          | 0.54 | 0.7   |
|                               | 6000             | 201.5   | 9.98              | 0.42                          | 0.58 | 0.72 | 189             | 11.31             | 0.41                          | 0.58 | 0.74 | 176.2           | 12.76             | 0.4                           | 0.58  | 0.75 | 162.3           | 14.4              | 0.4                           | 0.59 | 0.77  |
|                               | 7200             | 208.3   | 10                | 0.43                          | 0.61 | 0.78 | 195.4           | 11.33             | 0.43                          | 0.62 | 0.8  | 181.7           | 12.78             | 0.42                          | 0.63  | 0.82 | 167.8           | 14.42             | 0.42                          | 0.64 | 0.84  |

### 17.5 TON - LGX210S5M (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |       |      |                 |                   |                               |      |      |                 |                   |                               |      |      |       |       |      |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-------|-------|------|------|------|
|                               |                  | 65°F  |                   |                               |       |      | 75°F            |                   |                               |      |      | 85°F            |                   |                               |      |      | 95°F  |       |      |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      |       |       |      |      |      |
|                               |                  |   |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |       |       |      |      |      |
|                               |                  |   |                   | cfm                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F | kBtuh           |                   | kW                            | 75°F | 80°F | 85°F  | kBtuh | kW   | 75°F | 80°F |
| 63°F                          | 4000             | 153.4   | 6.42              | 0.79                          | 0.87  | 0.96 | 146.7           | 7.31              | 0.79                          | 0.88 | 0.97 | 140.1           | 8.31              | 0.8                           | 0.89 | 0.97 | 131.8 | 9.41  | 0.8  | 0.9  | 0.98 |
|                               | 4750             | 160.5   | 6.49              | 0.81                          | 0.9   | 0.98 | 153.3           | 7.39              | 0.81                          | 0.91 | 0.99 | 145.3           | 8.37              | 0.82                          | 0.93 | 0.99 | 138   | 9.49  | 0.83 | 0.94 | 1    |
|                               | 5500             | 165.9   | 6.55              | 0.83                          | 0.94  | 1    | 158.6           | 7.45              | 0.84                          | 0.95 | 1    | 150.2           | 8.44              | 0.84                          | 0.96 | 1    | 142.3 | 9.55  | 0.86 | 0.97 | 1    |
| 67°F                          | 4000             | 161.7   | 6.51              | 0.69                          | 0.77  | 0.85 | 154.7           | 7.41              | 0.69                          | 0.77 | 0.86 | 147.2           | 8.4               | 0.69                          | 0.78 | 0.87 | 139.1 | 9.51  | 0.69 | 0.79 | 0.88 |
|                               | 4750             | 169   | 6.59              | 0.7                           | 0.79  | 0.88 | 161.4           | 7.49              | 0.7                           | 0.8  | 0.89 | 153.4           | 8.48              | 0.7                           | 0.8  | 0.91 | 144.8 | 9.59  | 0.71 | 0.81 | 0.92 |
|                               | 5500             | 174.7   | 6.65              | 0.71                          | 0.81  | 0.91 | 165.9           | 7.54              | 0.72                          | 0.82 | 0.93 | 158.3           | 8.55              | 0.72                          | 0.83 | 0.94 | 149.4 | 9.66  | 0.72 | 0.84 | 0.96 |
| 71°F                          | 4000             | 169.5   | 6.59              | 0.59                          | 0.68  | 0.75 | 162.5           | 7.5               | 0.59                          | 0.68 | 0.76 | 154             | 8.49              | 0.59                          | 0.68 | 0.76 | 146   | 9.61  | 0.58 | 0.68 | 0.77 |
|                               | 4750             | 177.3   | 6.68              | 0.6                           | 0.69  | 0.78 | 168.7           | 7.58              | 0.6                           | 0.69 | 0.78 | 160.7           | 8.58              | 0.59                          | 0.69 | 0.79 | 152.6 | 9.71  | 0.59 | 0.7  | 0.8  |
|                               | 5500             | 182.7   | 6.75              | 0.6                           | 0.7   | 0.8  | 174.1           | 7.65              | 0.6                           | 0.71 | 0.81 | 165.5           | 8.65              | 0.6                           | 0.71 | 0.82 | 156.7 | 9.77  | 0.6  | 0.72 | 0.83 |

### 17.5 TON - LGX210S5M (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |       |       |      |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-------|-------|------|------|------|
|                               |                  | 85°F  |                   |                               |      |       | 95°F            |                   |                               |      |       | 105°F           |                   |                               |      |       | 115°F |       |      |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |       |       |      |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |       |       |      |      |      |
|                               |                  |   |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F  | 75°F            |                   | 80°F                          | 85°F | 75°F  | 80°F  | 85°F  | 75°F | 80°F | 85°F |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW    | 75°F  | 80°F | 85°F |      |
| 63°F                          | 5600             | 210.4   | 12.57             | 0.72                          | 0.86 | 0.99  | 200             | 14.27             | 0.72                          | 0.87 | 1     | 186.4           | 16.17             | 0.74                          | 0.9  | 1     | 174.5 | 18.41 | 0.75 | 0.92 | 1    |
|                               | 7000             | 221   | 12.73             | 0.77                          | 0.94 | 1     | 209.3           | 14.41             | 0.78                          | 0.95 | 1     | 196.1           | 16.33             | 0.8                           | 0.98 | 1     | 183.9 | 18.58 | 0.82 | 1    | 1    |
|                               | 8400             | 231.1   | 12.88             | 0.83                          | 0.99 | 1     | 218.5           | 14.56             | 0.84                          | 1    | 1     | 206.5           | 16.51             | 0.87                          | 1    | 1     | 193.7 | 18.76 | 0.89 | 1    | 1    |
| 67°F                          | 5600             | 224.8   | 12.78             | 0.56                          | 0.69 | 0.82  | 212.7           | 14.47             | 0.56                          | 0.7  | 0.84  | 199.6           | 16.38             | 0.57                          | 0.71 | 0.86  | 186.4 | 18.62 | 0.57 | 0.73 | 0.89 |
|                               | 7000             | 234.4   | 12.93             | 0.59                          | 0.75 | 0.9   | 222             | 14.62             | 0.6                           | 0.76 | 0.93  | 208.4           | 16.54             | 0.61                          | 0.78 | 0.95  | 193.8 | 18.76 | 0.61 | 0.8  | 0.98 |
|                               | 8400             | 242.1   | 13.05             | 0.63                          | 0.81 | 0.97  | 228.4           | 14.73             | 0.64                          | 0.83 | 0.99  | 214.1           | 16.65             | 0.65                          | 0.85 | 1     | 199.3 | 18.85 | 0.66 | 0.87 | 1    |
| 71°F                          | 5600             | 238.7   | 12.99             | 0.42                          | 0.55 | 0.67  | 226.3           | 14.69             | 0.41                          | 0.55 | 0.68  | 212.3           | 16.61             | 0.41                          | 0.55 | 0.69  | 198.3 | 18.83 | 0.4  | 0.56 | 0.71 |
|                               | 7000             | 248.9   | 13.16             | 0.43                          | 0.59 | 0.73  | 235.3           | 14.85             | 0.43                          | 0.59 | 0.74  | 221.1           | 16.77             | 0.43                          | 0.6  | 0.76  | 206.5 | 18.99 | 0.43 | 0.61 | 0.78 |
|                               | 8400             | 256.4   | 13.28             | 0.45                          | 0.62 | 0.79  | 242.5           | 14.97             | 0.45                          | 0.63 | 0.81  | 227.9           | 16.89             | 0.45                          | 0.64 | 0.83  | 211.9 | 19.08 | 0.45 | 0.65 | 0.85 |

## RATINGS

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

### 20 TON - LGX240S5M (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |       |      |                 |                   |                               |      |      |                 |                   |                               |      |      |                 |                   |                               |      |       |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|-------|
|                               |                  | 65°F  |                   |                               |       |      | 75°F            |                   |                               |      |      | 85°F            |                   |                               |      |      | 95°F            |                   |                               |      |       |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |
|                               |                  |   |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |       |
|                               |                  |   |                   | cfm                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | kBtuh                         | kW   | 75°F |                 |                   | 80°F                          | 85°F | kBtuh |
| 63°F                          | 4500             | 171   | 6.96              | 0.79                          | 0.87  | 0.96 | 163.6           | 8.06              | 0.79                          | 0.88 | 0.97 | 156.5           | 9.23              | 0.8                           | 0.89 | 0.98 | 149.5           | 10.51             | 0.8                           | 0.9  | 0.98  |
|                               | 5500             | 179.9   | 6.96              | 0.81                          | 0.91  | 0.99 | 172.1           | 8.08              | 0.82                          | 0.92 | 0.99 | 163.9           | 9.27              | 0.82                          | 0.94 | 1    | 156.4           | 10.56             | 0.83                          | 0.95 | 1     |
|                               | 6500             | 186.6   | 6.95              | 0.84                          | 0.95  | 1    | 178.5           | 8.09              | 0.85                          | 0.96 | 1    | 170.2           | 9.3               | 0.85                          | 0.97 | 1    | 161.7           | 10.6              | 0.87                          | 0.98 | 1     |
| 67°F                          | 4500             | 180.3   | 6.96              | 0.69                          | 0.77  | 0.85 | 172.9           | 8.08              | 0.69                          | 0.77 | 0.86 | 164.8           | 9.28              | 0.69                          | 0.78 | 0.87 | 157.5           | 10.57             | 0.69                          | 0.79 | 0.88  |
|                               | 5500             | 189.8   | 6.95              | 0.7                           | 0.79  | 0.89 | 181.8           | 8.1               | 0.7                           | 0.8  | 0.9  | 172.7           | 9.32              | 0.71                          | 0.81 | 0.91 | 164.4           | 10.63             | 0.71                          | 0.82 | 0.92  |
|                               | 6500             | 196.7   | 6.94              | 0.72                          | 0.82  | 0.92 | 187.8           | 8.11              | 0.72                          | 0.83 | 0.94 | 179             | 9.34              | 0.73                          | 0.84 | 0.95 | 169.9           | 10.66             | 0.73                          | 0.85 | 0.96  |
| 71°F                          | 4500             | 189.2   | 6.95              | 0.59                          | 0.67  | 0.75 | 181.6           | 8.1               | 0.58                          | 0.68 | 0.76 | 173.1           | 9.32              | 0.59                          | 0.68 | 0.76 | 165.4           | 10.64             | 0.58                          | 0.68 | 0.77  |
|                               | 5500             | 199.3   | 6.94              | 0.6                           | 0.69  | 0.78 | 191             | 8.11              | 0.6                           | 0.69 | 0.79 | 181.5           | 9.35              | 0.6                           | 0.7  | 0.79 | 172.7           | 10.68             | 0.6                           | 0.7  | 0.8   |
|                               | 6500             | 206.1   | 6.92              | 0.61                          | 0.71  | 0.8  | 197.2           | 8.12              | 0.61                          | 0.71 | 0.81 | 188.5           | 9.38              | 0.61                          | 0.72 | 0.82 | 178.9           | 10.73             | 0.61                          | 0.72 | 0.83  |

### 20 TON - LGX240S5M (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |      |       |                 |                   |                               |      |       |                 |                   |                               |      |       |       |       |      |      |      |
|-------------------------------|------------------|---|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-----------------|-------------------|-------------------------------|------|-------|-------|-------|------|------|------|
|                               |                  | 85°F  |                   |                               |      |       | 95°F            |                   |                               |      |       | 105°F           |                   |                               |      |       | 115°F |       |      |      |      |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |       |       |      |      |      |
|                               |                  |   |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |                 |                   | Dry Bulb                      |      |       |       |       |      |      |      |
|                               |                  |   |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F  |                 |                   | 75°F                          | 80°F | 85°F  | 75°F  | 80°F  | 85°F |      |      |
| cfm                           | kBtuh            | kW  | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW              | 75°F              | 80°F                          | 85°F | kBtuh | kW    | 75°F  | 80°F | 85°F |      |
| 63°F                          | 6400             | 238.6   | 14.89             | 0.71                          | 0.85 | 0.98  | 225.8           | 16.88             | 0.72                          | 0.87 | 1     | 213.7           | 19.09             | 0.73                          | 0.89 | 1     | 200.8 | 21.55 | 0.75 | 0.91 | 1    |
|                               | 8000             | 250.9   | 14.97             | 0.77                          | 0.93 | 1     | 237.4           | 17                | 0.78                          | 0.95 | 1     | 224.1           | 19.22             | 0.8                           | 0.97 | 1     | 211   | 21.69 | 0.82 | 0.99 | 1    |
|                               | 9600             | 260.2   | 15.04             | 0.82                          | 0.99 | 1     | 247.4           | 17.1              | 0.84                          | 1    | 1     | 235.4           | 19.36             | 0.86                          | 1    | 1     | 222   | 21.85 | 0.88 | 1    | 1    |
| 67°F                          | 6400             | 254.3   | 15                | 0.56                          | 0.69 | 0.82  | 241.8           | 17.04             | 0.56                          | 0.7  | 0.84  | 228.9           | 19.28             | 0.56                          | 0.71 | 0.86  | 213.9 | 21.74 | 0.57 | 0.72 | 0.88 |
|                               | 8000             | 265.9   | 15.08             | 0.59                          | 0.74 | 0.9   | 252.1           | 17.14             | 0.6                           | 0.76 | 0.92  | 238.4           | 19.39             | 0.6                           | 0.77 | 0.94  | 223.5 | 21.87 | 0.61 | 0.79 | 0.97 |
|                               | 9600             | 274.1   | 15.13             | 0.62                          | 0.8  | 0.97  | 260             | 17.22             | 0.63                          | 0.82 | 0.98  | 244.7           | 19.47             | 0.64                          | 0.84 | 1     | 228.9 | 21.94 | 0.65 | 0.86 | 1    |
| 71°F                          | 6400             | 270.3   | 15.11             | 0.42                          | 0.54 | 0.67  | 256.8           | 17.19             | 0.41                          | 0.54 | 0.68  | 243.1           | 19.45             | 0.41                          | 0.55 | 0.69  | 228.2 | 21.93 | 0.4  | 0.56 | 0.7  |
|                               | 8000             | 282   | 15.18             | 0.43                          | 0.58 | 0.72  | 268.1           | 17.29             | 0.43                          | 0.58 | 0.74  | 253.4           | 19.56             | 0.43                          | 0.59 | 0.75  | 237.6 | 22.05 | 0.43 | 0.6  | 0.77 |
|                               | 9600             | 290.4   | 15.24             | 0.44                          | 0.61 | 0.78  | 275.4           | 17.35             | 0.44                          | 0.62 | 0.8   | 260.3           | 19.63             | 0.45                          | 0.63 | 0.82  | 243.7 | 22.12 | 0.45 | 0.65 | 0.81 |

### 25 TON - LGX300S5M (PART LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |       |      |                 |                   |                               |      |      |                 |                   |                               |      |      |                 |                   |                               |      |       |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|-------|
|                               |                  | 65°F  |                   |                               |       |      | 75°F            |                   |                               |      |      | 85°F            |                   |                               |      |      | 95°F            |                   |                               |      |       |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |
|                               |                  |   |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |       |
|                               |                  |   |                   | cfm                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | kBtuh                         | kW   | 75°F |                 |                   | 80°F                          | 85°F | kBtuh |
| 63°F                          | 5750             | 166.6   | 6.25              | 0.77                          | 0.92  | 1    | 159             | 7.15              | 0.78                          | 0.94 | 1    | 150.9           | 8.15              | 0.79                          | 0.95 | 1    | 142.4           | 9.28              | 0.8                           | 0.97 | 1     |
|                               | 6750             | 172.5   | 6.29              | 0.81                          | 0.97  | 1    | 164.7           | 7.2               | 0.82                          | 0.98 | 1    | 156.3           | 8.2               | 0.84                          | 0.99 | 1    | 148.1           | 9.33              | 0.85                          | 1    | 1     |
|                               | 7750             | 177.4   | 6.33              | 0.84                          | 0.99  | 1    | 169.8           | 7.24              | 0.86                          | 1    | 1    | 161.2           | 8.25              | 0.88                          | 1    | 1    | 152.6           | 9.38              | 0.9                           | 1    | 1     |
| 67°F                          | 5750             | 176.7   | 6.32              | 0.6                           | 0.75  | 0.89 | 168.5           | 7.23              | 0.61                          | 0.76 | 0.91 | 158.9           | 8.22              | 0.61                          | 0.78 | 0.93 | 149.9           | 9.35              | 0.62                          | 0.79 | 0.95  |
|                               | 6750             | 181.2   | 6.36              | 0.63                          | 0.79  | 0.94 | 172.6           | 7.27              | 0.63                          | 0.8  | 0.96 | 163.1           | 8.26              | 0.64                          | 0.82 | 0.98 | 153.9           | 9.4               | 0.65                          | 0.83 | 0.99  |
|                               | 7750             | 185   | 6.38              | 0.65                          | 0.83  | 0.98 | 175.6           | 7.29              | 0.66                          | 0.84 | 0.99 | 166.3           | 8.29              | 0.66                          | 0.86 | 1    | 156.6           | 9.43              | 0.67                          | 0.88 | 1     |
| 71°F                          | 5750             | 185.1   | 6.38              | 0.45                          | 0.59  | 0.73 | 176             | 7.29              | 0.45                          | 0.6  | 0.74 | 167.2           | 8.3               | 0.45                          | 0.61 | 0.76 | 158.2           | 9.44              | 0.44                          | 0.61 | 0.77  |
|                               | 6750             | 190.4   | 6.43              | 0.46                          | 0.62  | 0.77 | 181.2           | 7.34              | 0.46                          | 0.63 | 0.78 | 172.2           | 8.35              | 0.46                          | 0.63 | 0.8  | 162.4           | 9.49              | 0.46                          | 0.64 | 0.82  |
|                               | 7750             | 194.9   | 6.47              | 0.48                          | 0.64  | 0.81 | 185.1           | 7.38              | 0.47                          | 0.65 | 0.82 | 175.6           | 8.39              | 0.47                          | 0.66 | 0.84 | 165.2           | 9.53              | 0.47                          | 0.67 | 0.86  |

### 25 TON - LGX300S5M (FULL LOAD)

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil |                   |                               |       |      |                 |                   |                               |      |      |                 |                   |                               |      |      |                 |                   |                               |      |       |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|------|-----------------|-------------------|-------------------------------|------|-------|
|                               |                  | 85°F  |                   |                               |       |      | 95°F            |                   |                               |      |      | 105°F           |                   |                               |      |      | 115°F           |                   |                               |      |       |
|                               |                  | Total Cool Cap.                               | Comp. Motor Input | Sensible To Total Ratio (S/T) |       |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |      | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) |      |       |
|                               |                  |   |                   | Dry Bulb                      |       |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |      |                 |                   | Dry Bulb                      |      |       |
|                               |                  |   |                   | cfm                           | kBtuh | kW   |                 |                   | 75°F                          | 80°F | 85°F |                 |                   | kBtuh                         | kW   | 75°F |                 |                   | 80°F                          | 85°F | kBtuh |
| 63°F                          | 8000             | 294.6   | 17.45             | 0.7                           | 0.83  | 0.94 | 278.2           | 19.93             | 0.71                          | 0.85 | 0.95 | 262.2           | 22.71             | 0.72                          | 0.85 | 0.97 | 243.7           | 25.97             | 0.73                          | 0.87 | 0.99  |
|                               | 9500             | 307.6   | 17.53             | 0.75                          | 0.87  | 0.98 | 290.3           | 19.94             | 0.76                          | 0.89 | 0.99 | 272.8           | 22.69             | 0.78                          | 0.91 | 1    | 254.7           | 25.91             | 0.78                          | 0.92 | 1     |
|                               | 11000            | 317.2   | 17.58             | 0.79                          | 0.91  | 1    | 298.8           | 20.02             | 0.79                          | 0.93 | 1    | 281.3           | 22.78             | 0.81                          | 0.95 | 1    | 263.6           | 26.03             | 0.82                          | 0.97 | 1     |
| 67°F                          | 8000             | 309.2   | 17.64             | 0.53                          | 0.68  | 0.81 | 291             | 19.91             | 0.54                          | 0.68 | 0.82 | 273.3           | 22.7              | 0.53                          | 0.69 | 0.83 | 254.3           | 26.19             | 0.54                          | 0.7  | 0.84  |
|                               | 9500             | 319.2   | 17.69             | 0.57                          | 0.72  | 0.85 | 301.7           | 20.16             | 0.57                          | 0.73 | 0.86 | 283             | 22.76             | 0.57                          | 0.75 | 0.88 | 262.5           | 25.98             | 0.55                          | 0.77 | 0.9   |
|                               | 11000            | 328.7   | 17.74             | 0.57                          | 0.76  | 0.89 | 309.9           | 20.19             | 0.58                          | 0.78 | 0.91 | 290.4           | 22.86             | 0.58                          | 0.8  | 0.93 | 271.1           | 26.07             | 0.59                          | 0.8  | 0.95  |
| 71°F                          | 8000             | 329.8   | 17.77             | 0.39                          | 0.52  | 0.65 | 311.8           | 20.21             | 0.38                          | 0.52 | 0.65 | 292.3           | 22.89             | 0.38                          | 0.53 | 0.67 | 271.7           | 26.07             | 0.37                          | 0.52 | 0.69  |
|                               | 9500             | 340.7   | 17.82             | 0.4                           | 0.55  | 0.69 | 321.5           | 20.31             | 0.39                          | 0.56 | 0.71 | 301.3           | 23.03             | 0.39                          | 0.55 | 0.72 | 280             | 26.16             | 0.39                          | 0.56 | 0.74  |
|                               | 11000            | 348.5   | 17.79             | 0.41                          | 0.57  | 0.74 | 329             | 20.37             | 0.41                          | 0.57 | 0.75 | 307.9           | 23.09             | 0.4                           | 0.58 | 0.78 | 285.2           | 26.22             | 0.39                          | 0.59 | 0.76  |

## BLOWER DATA

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

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

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

See page 23 for wet coil, option/accessory air resistance data, and factory installed drive kit specifications.

### Minimum Air Volume Required For Different Gas Heat Sizes:

Standard and Medium Heat - 4500 cfm | High Heat - 5125 cfm

| Air<br>Volume<br>cfm | TOTAL STATIC PRESSURE - Inches Water Gauge (Pa) |      |      |      |      |      |      |      |      |      |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|----------------------|---|------|------|------|------|------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                      | 0.20  |      | 0.40 |      | 0.60 |      | 0.80 |      | 1.00 |      | 1.20 |       | 1.40 |       | 1.60 |       | 1.80 |       | 2.00 |       | 2.20 |       | 2.40 |       |
|                      | RPM   | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP  | RPM  | BHP   | RPM  | BHP   | RPM  | BHP   | RPM  | BHP   | RPM  | BHP   | RPM  | BHP   | RPM  | BHP   |
| 2750                 | 385   | 0.30 | 505  | 0.50 | 600  | 0.70 | 680  | 0.90 | 755  | 1.10 | 820  | 1.30  | 885  | 1.50  | 950  | 1.70  | 1015 | 1.90  | 1080 | 2.10  | 1145 | 2.30  | 1210 | 2.50  |
| 3000                 | 395   | 0.35 | 515  | 0.55 | 610  | 0.75 | 685  | 1.00 | 760  | 1.20 | 825  | 1.45  | 890  | 1.65  | 955  | 1.85  | 1020 | 2.05  | 1085 | 2.25  | 1150 | 2.45  | 1215 | 2.65  |
| 3250                 | 405   | 0.40 | 520  | 0.60 | 615  | 0.85 | 695  | 1.10 | 765  | 1.30 | 830  | 1.60  | 895  | 1.85  | 960  | 2.05  | 1025 | 2.25  | 1090 | 2.45  | 1155 | 2.65  | 1220 | 2.85  |
| 3500                 | 415   | 0.45 | 530  | 0.70 | 620  | 0.95 | 700  | 1.20 | 775  | 1.45 | 840  | 1.70  | 900  | 2.00  | 965  | 2.25  | 1030 | 2.45  | 1095 | 2.65  | 1160 | 2.85  | 1225 | 3.05  |
| 3750                 | 425   | 0.50 | 540  | 0.75 | 630  | 1.05 | 710  | 1.30 | 780  | 1.60 | 845  | 1.85  | 905  | 2.15  | 970  | 2.35  | 1035 | 2.55  | 1100 | 2.75  | 1165 | 2.95  | 1230 | 3.15  |
| 4000                 | 435   | 0.55 | 545  | 0.85 | 635  | 1.10 | 715  | 1.40 | 785  | 1.70 | 850  | 2.00  | 910  | 2.30  | 975  | 2.50  | 1040 | 2.70  | 1105 | 2.90  | 1170 | 3.10  | 1235 | 3.30  |
| 4250                 | 445   | 0.60 | 555  | 0.90 | 645  | 1.25 | 725  | 1.55 | 795  | 1.85 | 860  | 2.15  | 920  | 2.45  | 985  | 2.65  | 1050 | 2.85  | 1110 | 3.05  | 1175 | 3.25  | 1240 | 3.45  |
| 4500                 | 455   | 0.70 | 565  | 1.00 | 655  | 1.35 | 730  | 1.65 | 800  | 2.00 | 865  | 2.35  | 925  | 2.65  | 990  | 2.85  | 1055 | 3.05  | 1120 | 3.25  | 1185 | 3.45  | 1245 | 3.65  |
| 4750                 | 470   | 0.75 | 575  | 1.10 | 660  | 1.45 | 740  | 1.80 | 810  | 2.15 | 870  | 2.50  | 930  | 2.85  | 995  | 3.05  | 1060 | 3.25  | 1125 | 3.45  | 1190 | 3.65  | 1250 | 3.85  |
| 5000                 | 480   | 0.85 | 585  | 1.25 | 670  | 1.60 | 750  | 1.95 | 815  | 2.30 | 880  | 2.70  | 940  | 3.05  | 1005 | 3.25  | 1070 | 3.45  | 1135 | 3.65  | 1200 | 3.85  | 1260 | 4.05  |
| 5250                 | 495   | 0.95 | 595  | 1.35 | 680  | 1.70 | 755  | 2.10 | 825  | 2.50 | 890  | 2.90  | 945  | 3.25  | 1010 | 3.45  | 1075 | 3.65  | 1140 | 3.85  | 1205 | 4.05  | 1265 | 4.25  |
| 5500                 | 505   | 1.05 | 605  | 1.45 | 690  | 1.85 | 765  | 2.25 | 835  | 2.65 | 895  | 3.05  | 955  | 3.35  | 1020 | 3.55  | 1085 | 3.75  | 1150 | 3.95  | 1215 | 4.15  | 1275 | 4.35  |
| 5750                 | 520   | 1.15 | 615  | 1.60 | 700  | 2.00 | 775  | 2.45 | 840  | 2.85 | 905  | 3.25  | 965  | 3.55  | 1030 | 3.75  | 1095 | 3.95  | 1160 | 4.15  | 1225 | 4.35  | 1285 | 4.55  |
| 6000                 | 530   | 1.30 | 630  | 1.75 | 710  | 2.15 | 785  | 2.60 | 850  | 3.05 | 910  | 3.45  | 970  | 3.75  | 1035 | 3.95  | 1100 | 4.15  | 1165 | 4.35  | 1230 | 4.55  | 1290 | 4.75  |
| 6250                 | 545   | 1.40 | 640  | 1.90 | 720  | 2.35 | 795  | 2.80 | 860  | 3.25 | 920  | 3.70  | 975  | 3.95  | 1040 | 4.15  | 1105 | 4.35  | 1170 | 4.55  | 1235 | 4.75  | 1295 | 4.95  |
| 6500                 | 560   | 1.55 | 650  | 2.05 | 730  | 2.50 | 805  | 3.00 | 870  | 3.45 | 930  | 3.95  | 985  | 4.15  | 1050 | 4.35  | 1115 | 4.55  | 1180 | 4.75  | 1240 | 4.95  | 1300 | 5.15  |
| 6750                 | 570   | 1.70 | 665  | 2.20 | 745  | 2.70 | 815  | 3.20 | 880  | 3.70 | 940  | 4.20  | 995  | 4.45  | 1060 | 4.65  | 1125 | 4.85  | 1190 | 5.05  | 1250 | 5.25  | 1310 | 5.45  |
| 7000                 | 585   | 1.85 | 675  | 2.35 | 755  | 2.90 | 825  | 3.40 | 890  | 3.95 | 950  | 4.45  | 1005 | 4.65  | 1070 | 4.85  | 1135 | 5.05  | 1200 | 5.25  | 1260 | 5.45  | 1320 | 5.65  |
| 7250                 | 600   | 2.00 | 690  | 2.60 | 765  | 3.10 | 835  | 3.65 | 900  | 4.15 | 955  | 4.65  | 1015 | 4.85  | 1080 | 5.05  | 1145 | 5.25  | 1210 | 5.45  | 1270 | 5.65  | 1330 | 5.85  |
| 7500                 | 615   | 2.20 | 700  | 2.75 | 775  | 3.30 | 845  | 3.85 | 910  | 4.45 | 965  | 4.95  | 1025 | 5.15  | 1090 | 5.35  | 1155 | 5.55  | 1220 | 5.75  | 1280 | 5.95  | 1340 | 6.15  |
| 7750                 | 630   | 2.40 | 715  | 3.00 | 790  | 3.55 | 855  | 4.10 | 920  | 4.70 | 975  | 5.25  | 1035 | 5.45  | 1100 | 5.65  | 1165 | 5.85  | 1230 | 6.05  | 1290 | 6.25  | 1350 | 6.45  |
| 8000                 | 640   | 2.55 | 725  | 3.20 | 800  | 3.80 | 865  | 4.35 | 930  | 4.95 | 985  | 5.50  | 1045 | 5.65  | 1110 | 5.85  | 1175 | 6.05  | 1240 | 6.25  | 1300 | 6.45  | 1360 | 6.65  |
| 8250                 | 655   | 2.80 | 740  | 3.40 | 810  | 4.00 | 880  | 4.65 | 940  | 5.25 | 995  | 5.85  | 1055 | 6.05  | 1120 | 6.25  | 1185 | 6.45  | 1250 | 6.65  | 1310 | 6.85  | 1370 | 7.05  |
| 8500                 | 670   | 3.00 | 750  | 3.65 | 825  | 4.30 | 890  | 4.90 | 950  | 5.55 | 1005 | 6.15  | 1065 | 6.35  | 1130 | 6.55  | 1195 | 6.75  | 1260 | 6.95  | 1320 | 7.15  | 1380 | 7.35  |
| 8750                 | 685   | 3.25 | 765  | 3.90 | 835  | 4.55 | 900  | 5.20 | 960  | 5.85 | 1015 | 6.45  | 1075 | 6.65  | 1140 | 6.85  | 1205 | 7.05  | 1270 | 7.25  | 1330 | 7.45  | 1390 | 7.65  |
| 9000                 | 700   | 3.50 | 780  | 4.20 | 850  | 4.85 | 910  | 5.50 | 970  | 6.15 | 1025 | 6.80  | 1080 | 7.00  | 1145 | 7.20  | 1210 | 7.40  | 1275 | 7.60  | 1335 | 7.80  | 1400 | 8.00  |
| 9250                 | 715   | 3.75 | 790  | 4.45 | 860  | 5.15 | 925  | 5.85 | 985  | 6.55 | 1040 | 7.20  | 1095 | 7.40  | 1160 | 7.60  | 1225 | 7.80  | 1290 | 8.00  | 1355 | 8.20  | 1420 | 8.40  |
| 9500                 | 730   | 4.00 | 805  | 4.75 | 875  | 5.45 | 935  | 6.15 | 995  | 6.90 | 1050 | 7.60  | 1105 | 7.80  | 1170 | 8.00  | 1235 | 8.20  | 1300 | 8.40  | 1365 | 8.60  | 1430 | 8.80  |
| 9750                 | 745   | 4.30 | 820  | 5.05 | 885  | 5.75 | 950  | 6.55 | 1015 | 7.20 | 1070 | 7.95  | 1125 | 8.15  | 1190 | 8.35  | 1255 | 8.55  | 1320 | 8.75  | 1385 | 8.95  | 1450 | 9.15  |
| 10,000               | 760   | 4.60 | 835  | 5.40 | 900  | 6.15 | 960  | 6.85 | 1015 | 7.60 | 1070 | 8.35  | 1125 | 8.55  | 1190 | 8.75  | 1255 | 8.95  | 1320 | 9.15  | 1385 | 9.35  | 1450 | 9.55  |
| 10,250               | 775   | 4.90 | 845  | 5.65 | 910  | 6.45 | 970  | 7.20 | 1030 | 8.00 | 1080 | 8.75  | 1135 | 8.95  | 1200 | 9.15  | 1265 | 9.35  | 1330 | 9.55  | 1395 | 9.75  | 1460 | 9.95  |
| 10,500               | 790   | 5.20 | 860  | 6.00 | 925  | 6.85 | 985  | 7.65 | 1040 | 8.40 | 1095 | 9.20  | 1145 | 9.40  | 1210 | 9.60  | 1275 | 9.80  | 1340 | 10.00 | 1405 | 10.20 | 1470 | 10.40 |
| 10,750               | 805   | 5.55 | 875  | 6.40 | 940  | 7.25 | 1000 | 8.05 | 1055 | 8.85 | 1105 | 9.65  | 1155 | 9.85  | 1220 | 10.05 | 1285 | 10.25 | 1350 | 10.45 | 1415 | 10.65 | 1480 | 10.85 |
| 11,000               | 820   | 5.90 | 890  | 6.80 | 950  | 7.60 | 1010 | 8.45 | 1065 | 9.30 | 1115 | 10.05 | 1165 | 10.25 | 1230 | 10.45 | 1295 | 10.65 | 1360 | 10.85 | 1425 | 11.05 | 1490 | 11.25 |

## BLOWER DATA

### FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

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

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

NOTE – Motor service factor limit - 1.0.

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

| Air<br>Volume<br>cfm | Wet Indoor<br>Coil |                   | Gas Heat Exchanger |                |              | Economizer | Filters |         |         | Horizontal Roof Curb |     |
|----------------------|--------------------|-------------------|--------------------|----------------|--------------|------------|---------|---------|---------|----------------------|-----|
|                      | 180                | 210<br>240<br>300 | Standard<br>Heat   | Medium<br>Heat | High<br>Heat |            | MERV 8  | MERV 13 | MERV 16 | 180<br>thru<br>240   | 300 |
| 2750                 | .01                | .02               | .02                | .04            | .05          | ---        | .01     | .03     | .06     | .03                  | --- |
| 3000                 | .01                | .02               | .03                | .04            | .05          | ---        | .01     | .03     | .06     | .04                  | --- |
| 3250                 | .01                | .03               | .03                | .05            | .06          | ---        | .01     | .04     | .07     | .04                  | .01 |
| 3500                 | .01                | .03               | .03                | .05            | .06          | ---        | .01     | .04     | .08     | .05                  | .01 |
| 3750                 | .01                | .03               | .04                | .06            | .07          | ---        | .01     | .04     | .08     | .05                  | .01 |
| 4000                 | .02                | .04               | .04                | .06            | .07          | ---        | .01     | .04     | .09     | .06                  | .02 |
| 4250                 | .02                | .04               | .04                | .06            | .08          | ---        | .01     | .05     | .10     | .07                  | .02 |
| 4500                 | .02                | .05               | .05                | .07            | .09          | ---        | .01     | .05     | .10     | .07                  | .02 |
| 4750                 | .02                | .05               | .05                | .08            | .10          | ---        | .02     | .05     | .11     | .08                  | .03 |
| 5000                 | .02                | .05               | .05                | .09            | .11          | ---        | .02     | .06     | .12     | .08                  | .03 |
| 5250                 | .02                | .06               | .06                | .10            | .12          | ---        | .02     | .06     | .12     | .09                  | .04 |
| 5500                 | .02                | .07               | .06                | .10            | .13          | ---        | .02     | .06     | .13     | .10                  | .04 |
| 5750                 | .03                | .07               | .06                | .11            | .14          | ---        | .02     | .07     | .14     | .11                  | .05 |
| 6000                 | .03                | .08               | .07                | .12            | .15          | ---        | .03     | .07     | .14     | .11                  | .06 |
| 6250                 | .03                | .08               | .07                | .12            | .16          | .01        | .03     | .07     | .15     | .12                  | .07 |
| 6500                 | .03                | .09               | .08                | .13            | .17          | .02        | .03     | .08     | .16     | .13                  | .08 |
| 6750                 | .04                | .10               | .08                | .14            | .18          | .03        | .03     | .08     | .17     | .14                  | .08 |
| 7000                 | .04                | .10               | .09                | .15            | .19          | .04        | .04     | .08     | .17     | .15                  | .09 |
| 7250                 | .04                | .11               | .09                | .16            | .20          | .05        | .04     | .09     | .18     | .16                  | .10 |
| 7500                 | .05                | .12               | .10                | .17            | .21          | .06        | .04     | .09     | .19     | .17                  | .11 |
| 8000                 | .05                | .13               | .11                | .19            | .24          | .09        | .05     | .10     | .21     | .19                  | .13 |
| 8500                 | .06                | .15               | .12                | .20            | .26          | .11        | .05     | .10     | .22     | .21                  | .15 |
| 9000                 | .07                | .16               | .13                | .23            | .29          | .14        | .06     | .11     | .24     | .24                  | .17 |
| 9500                 | .08                | .18               | .14                | .25            | .32          | .16        | .07     | .12     | .25     | .26                  | .19 |
| 10,000               | .08                | .20               | .16                | .27            | .35          | .19        | .07     | .12     | .27     | .29                  | .21 |
| 10,500               | .09                | .22               | .17                | .30            | .38          | .22        | .08     | .13     | .29     | .31                  | .24 |
| 11,000               | .11                | .24               | .18                | .31            | .40          | .25        | .09     | .14     | .30     | .34                  | .27 |



## BLOWER DATA

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

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

### CEILING DIFFUSER AIR THROW DATA

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

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

### POWER EXHAUST FAN PERFORMANCE

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

# ELECTRICAL DATA

15 TON | 17.5 TON

| Model  |                                   | LGX180S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1            |      |      | 6.6         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1            |      |      | 6.6         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 13.1            |      |      | 6.6         |     |     | 4.8         |     |     |
|  | Locked Rotor Amps                 | 93              |      |      | 60          |     |     | 41          |     |     |
| Outdoor Fan<br>Motors (3)                                | Full Load Amps (3 Non-ECM)        | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 7.2             |      |      | 3.9         |     |     | 3           |     |     |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 4.8             |      |      | 2.6         |     |     | 2           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 3               | 5    | 7.5  | 3           | 5   | 7.5 | 3           | 5   | 7.5 |
|  | Full Load Amps                    | 10.6            | 16.7 | 24.2 | 4.8         | 7.6 | 11  | 3.9         | 6.1 | 9   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 70              | 80   | 100  | 35          | 40  | 45  | 25          | 30  | 35  |
|  | With (2) 0.33 HP<br>Power Exhaust | 70              | 80   | 100  | 35          | 40  | 50  | 25          | 30  | 35  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 61              | 68   | 77   | 31          | 34  | 38  | 23          | 26  | 29  |
|  | With (2) 0.33 HP<br>Power Exhaust | 66              | 73   | 82   | 33          | 36  | 41  | 25          | 28  | 31  |

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

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

| Model  |                                   | LGX210S5        |      |      |             |     |     |             |     |     |
|--|-----------------------------------|-----------------|------|------|-------------|-----|-----|-------------|-----|-----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 21.2            |      |      | 9.1         |     |     | 7.7         |     |     |
|  | Locked Rotor Amps                 | 156.5           |      |      | 74.8        |     |     | 47.8        |     |     |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 21.2            |      |      | 9.1         |     |     | 7.7         |     |     |
|  | Locked Rotor Amps                 | 156.5           |      |      | 74.8        |     |     | 47.8        |     |     |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 21.2            |      |      | 9.1         |     |     | 7.7         |     |     |
|  | Locked Rotor Amps                 | 156.5           |      |      | 74.8        |     |     | 47.8        |     |     |
| Outdoor Fan<br>Motors (3)                                | Full Load Amps (3 Non-ECM)        | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 7.2             |      |      | 3.9         |     |     | 3           |     |     |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |     | 1           |     |     |
|  | Total                             | 4.8             |      |      | 2.6         |     |     | 2           |     |     |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |     | 20          |     |     |
| Indoor Blower<br>Motor                                   | HP                                | 3               | 5    | 7.5  | 3           | 5   | 7.5 | 3           | 5   | 7.5 |
|  | Full Load Amps                    | 10.6            | 16.7 | 24.2 | 4.8         | 7.6 | 11  | 3.9         | 6.1 | 9   |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 100             | 110  | 125  | 45          | 50  | 50  | 35          | 40  | 45  |
|  | With (2) 0.33 HP<br>Power Exhaust | 110             | 110  | 125  | 45          | 50  | 50  | 40          | 40  | 45  |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 87              | 93   | 102  | 39          | 42  | 45  | 32          | 35  | 38  |
|  | With (2) 0.33 HP<br>Power Exhaust | 92              | 98   | 106  | 41          | 44  | 48  | 34          | 37  | 40  |

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

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

# ELECTRICAL DATA

20 TON | 25 TON

| Model  |                                   | LGX240S5        |      |      |             |     |    |             |     |    |
|--|-----------------------------------|-----------------|------|------|-------------|-----|----|-------------|-----|----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |    | 575V - 3 Ph |     |    |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 22.4            |      |      | 9.1         |     |    | 7.2         |     |    |
|  | Locked Rotor Amps                 | 166.2           |      |      | 74.6        |     |    | 54          |     |    |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 22.4            |      |      | 9.1         |     |    | 7.2         |     |    |
|  | Locked Rotor Amps                 | 166.2           |      |      | 74.6        |     |    | 54          |     |    |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 24.4            |      |      | 11.9        |     |    | 9.4         |     |    |
|  | Locked Rotor Amps                 | 210             |      |      | 103         |     |    | 78          |     |    |
| Outdoor Fan<br>Motors (4)                                | Full Load Amps (4 Non-ECM)        | 2.4             |      |      | 1.3         |     |    | 1           |     |    |
|  | Total                             | 9.6             |      |      | 5.2         |     |    | 4           |     |    |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |    | 1           |     |    |
|  | Total                             | 4.8             |      |      | 2.6         |     |    | 2           |     |    |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |    | 20          |     |    |
| Indoor Blower<br>Motor                                   | HP                                | 5               | 7.5  | 10   | 5           | 7.5 | 10 | 5           | 7.5 | 10 |
|  | Full Load Amps                    | 16.7            | 24.2 | 24.2 | 7.6         | 11  | 14 | 6.1         | 9   | 11 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 125             | 125  | 125  | 50          | 60  | 60 | 45          | 45  | 50 |
|  | With (2) 0.33 HP<br>Power Exhaust | 125             | 125  | 125  | 60          | 60  | 60 | 45          | 50  | 50 |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 102             | 110  | 110  | 46          | 50  | 53 | 37          | 40  | 42 |
|  | With (2) 0.33 HP<br>Power Exhaust | 107             | 114  | 114  | 49          | 52  | 56 | 39          | 42  | 44 |

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

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

| Model  |                                   | LGX300S5        |      |      |             |     |    |             |     |    |
|--|-----------------------------------|-----------------|------|------|-------------|-----|----|-------------|-----|----|
| <sup>1</sup> Voltage - 60Hz                              |                                   | 208/230V - 3 Ph |      |      | 460V - 3 Ph |     |    | 575V - 3 Ph |     |    |
| Compressor 1<br>(Non-Inverter)                           | Rated Load Amps                   | 21.2            |      |      | 9.1         |     |    | 7.7         |     |    |
|  | Locked Rotor Amps                 | 156.5           |      |      | 74.8        |     |    | 47.8        |     |    |
| Compressor 2<br>(Non-Inverter)                           | Rated Load Amps                   | 21.2            |      |      | 9.1         |     |    | 7.7         |     |    |
|  | Locked Rotor Amps                 | 156.5           |      |      | 74.8        |     |    | 47.8        |     |    |
| Compressor 3<br>(Non-Inverter)                           | Rated Load Amps                   | 22.4            |      |      | 9.1         |     |    | 7.2         |     |    |
|  | Locked Rotor Amps                 | 166.2           |      |      | 74.6        |     |    | 54          |     |    |
| Compressor 4<br>(Non-Inverter)                           | Rated Load Amps                   | 22.4            |      |      | 9.1         |     |    | 7.2         |     |    |
|  | Locked Rotor Amps                 | 166.2           |      |      | 74.6        |     |    | 54          |     |    |
| Outdoor Fan<br>Motors (6)                                | Full Load Amps (6 Non-ECM)        | 2.4             |      |      | 1.3         |     |    | 1           |     |    |
|  | Total                             | 14.4            |      |      | 7.8         |     |    | 6           |     |    |
| Power Exhaust<br>(2) 0.33 HP                             | Full Load Amps                    | 2.4             |      |      | 1.3         |     |    | 1           |     |    |
|  | Total                             | 4.8             |      |      | 2.6         |     |    | 2           |     |    |
| Service Outlet 115V GFI (amps)                           |                                   | 15              |      |      | 15          |     |    | 20          |     |    |
| Indoor Blower<br>Motor                                   | HP                                | 5               | 7.5  | 10   | 5           | 7.5 | 10 | 5           | 7.5 | 10 |
|  | Full Load Amps                    | 16.7            | 24.2 | 30.8 | 7.6         | 11  | 14 | 6.1         | 9   | 11 |
| <sup>2</sup> Maximum<br>Overcurrent<br>Protection (MOCP) | Unit Only                         | 125             | 150  | 150  | 60          | 60  | 70 | 50          | 50  | 60 |
|  | With (2) 0.33 HP<br>Power Exhaust | 150             | 150  | 175  | 60          | 70  | 70 | 50          | 50  | 60 |
| <sup>3</sup> Minimum<br>Circuit<br>Ampacity (MCA)        | Unit Only                         | 124             | 132  | 141  | 55          | 58  | 62 | 44          | 48  | 50 |
|  | With (2) 0.33 HP<br>Power Exhaust | 129             | 137  | 145  | 57          | 61  | 65 | 46          | 50  | 52 |

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

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

## ELECTRICAL ACCESSORIES - DISCONNECTS

### 15 TON | LGX180S5

| Motor HP<br>Voltage   | 3     |       | 5     |       | 7.5   |       | 3     | 5     | 7.5   | 3     | 5     | 7.5   |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                       | 208V  | 230V  | 208V  | 230V  | 208V  | 230V  | 460V  | 460V  | 460V  | 575V  | 575V  | 575V  |
| Unit Only             | 54W88 | 54W88 | 54W88 | 54W88 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |
| Unit w/ Power Exhaust | 54W88 | 54W88 | 54W88 | 54W88 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |

### 17.5 TON | LGX210S5

| Motor HP<br>Voltage   | 3     |       | 5     |       | 7.5   |       | 3     | 5     | 7.5   | 3     | 5     | 7.5   |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                       | 208V  | 230V  | 208V  | 230V  | 208V  | 230V  | 460V  | 460V  | 460V  | 575V  | 575V  | 575V  |
| Unit Only             | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |
| Unit w/ Power Exhaust | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |

### 20 TON | LGX240S5

| Motor HP<br>Voltage   | 5     |       | 7.5   |       | 10    |       | 5     | 7.5   | 10    | 5     | 7.5   | 10    |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                       | 208V  | 230V  | 208V  | 230V  | 208V  | 230V  | 460V  | 460V  | 460V  | 575V  | 575V  | 575V  |
| Unit Only             | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |
| Unit w/ Power Exhaust | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |

### 25 TON | LGX300S5

| Motor HP<br>Voltage   | 5     |       | 7.5   |       | 10    |       | 5     | 7.5   | 10    | 5     | 7.5   | 10    |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                       | 208V  | 230V  | 208V  | 230V  | 208V  | 230V  | 460V  | 460V  | 460V  | 575V  | 575V  | 575V  |
| Unit Only             | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W89 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |
| Unit w/ Power Exhaust | 54W89 | 54W89 | 54W89 | 54W89 | 90W82 | 90W82 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 | 54W88 |

Disconnects - 54W88 - 80A  
54W89 - 150A  
90W82 - 250A

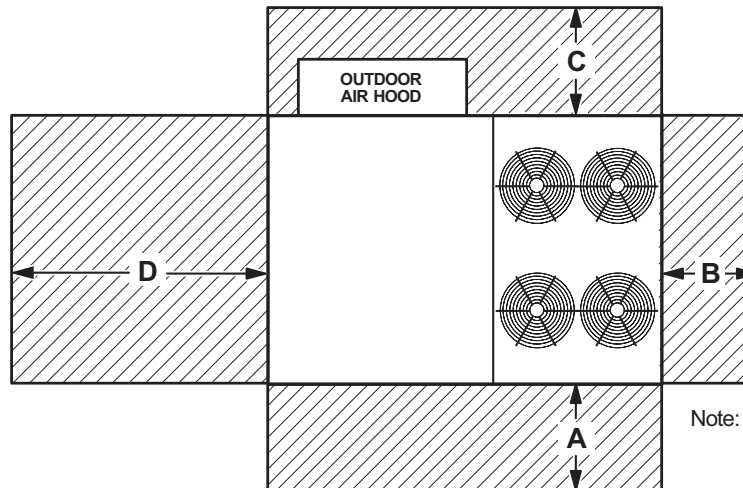
<sup>1</sup> Disconnect must be field furnished.

#### FIELD WIRING NOTES

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

## UNIT CLEARANCES

### Unit With Economizer



Note: Models with four outdoor fans shown.  
Dimension clearances are for all sizes.

| <sup>1</sup> Unit Clearance        | A   |      | B   |     | C   |     | D   |      | Top Clearance |
|------------------------------------|-----|------|-----|-----|-----|-----|-----|------|---------------|
|                                    | in. | mm   | in. | mm  | in. | mm  | in. | mm   |               |
| <b>Service Clearance</b>           | 60  | 1524 | 36  | 914 | 36  | 914 | 66  | 1676 | Unobstructed  |
| <b>Clearance to Combustibles</b>   | 36  | 914  | 1   | 25  | 1   | 25  | 1   | 25   |               |
| <b>Minimum Operation Clearance</b> | 45  | 1143 | 36  | 914 | 36  | 914 | 41  | 1041 |               |

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

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

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.

## OUTDOOR SOUND DATA

| Size     | Octave Band Sound Power Levels dBA, re 10 <sup>-12</sup> Watts - Center Frequency - Hz |     |     |      |      |      |      | <sup>1</sup> Sound Rating Number (SRN) (dBA) |
|----------|--|-----|-----|------|------|------|------|--|
|          | 125  | 250 | 500 | 1000 | 2000 | 4000 | 8000 |  |
| 180, 210 | 71   | 78  | 81  | 81   | 76   | 71   | 63   | 86   |
| 240      | 80   | 83  | 87  | 88   | 84   | 80   | 71   | 93   |
| 300      | 79   | 84  | 88  | 89   | 85   | 82   | 73   | 94   |

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

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



## WEIGHT DATA

| Size           | Net  |      | Shipping |      |
|----------------|------|------|----------|------|
|                | lbs. | kg   | lbs.     | kg   |
| 180S Base Unit | 1884 | 855  | 2084     | 945  |
| 180S Max. Unit | 2204 | 1000 | 2404     | 1090 |
| 210S Base Unit | 2044 | 927  | 2244     | 1018 |
| 210S Max. Unit | 2374 | 1077 | 2574     | 1167 |
| 240S Base Unit | 2216 | 1005 | 2416     | 1096 |
| 240S Max. Unit | 2546 | 1155 | 2746     | 1246 |
| 300S Base Unit | 2460 | 1116 | 2660     | 1207 |
| 300S Max. Unit | 2750 | 1247 | 2950     | 1338 |

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

## FACTORY / FIELD INSTALLED OPTIONS AND ACCESSORIES - NET WEIGHTS

| Description                            |             | lbs. | kg  |
|--|-------------|------|-----|
| ECONOMIZER / OUTDOOR AIR / EXHAUST     |             |      |     |
| Economizer                             |             |      |     |
| Economizer Dampers                     |             | 102  | 46  |
| Barometric Relief Dampers (downflow)   |             | 30   | 14  |
| Barometric Relief Dampers (horizontal) |             | 20   | 9   |
| Outdoor Air Dampers                    |             |      |     |
| Motorized                              |             | 52   | 24  |
| Manual                                 |             | 49   | 22  |
| Outdoor Air Damper Hood (downflow)     |             | 65   | 29  |
| Power Exhaust                          |             | 62   | 28  |
| GAS HEAT EXCHANGER (NET WEIGHT)        |             |      |     |
| Medium Heat (adder over standard heat) |             | 54   | 25  |
| High Heat (adder over standard heat)   |             | 90   | 41  |
| COIL/HAIL GUARDS                       |             |      |     |
| 180/210                                |             | 30   | 13  |
| 240/300                                |             | 36   | 16  |
| ROOF CURBS                             |             |      |     |
| Hybrid Roof Curb, Downflow             |             |      |     |
| 8 in. height                           |             | 136  | 62  |
| 14 in. height                          |             | 169  | 77  |
| 18 in. height                          |             | 191  | 87  |
| 24 in. height                          |             | 224  | 102 |
| Adjustable Pitch Curb, Downflow        |             |      |     |
| 14 in. height                          |             | 224  | 102 |
| Horizontal Roof Curbs, Standard        |             |      |     |
| 26 in. height                          |             | 450  | 204 |
| 37 in. height                          |             | 540  | 245 |
| 30 in. height                          |             | 495  | 225 |
| 41 in. height                          |             | 575  | 261 |
| CEILING DIFFUSERS                      |             |      |     |
| Step-Down                              | RTD11-185S  | 168  | 76  |
|  | RTD11-275S  | 238  | 108 |
| Flush                                  | FD11-185S   | 168  | 76  |
|  | FD11-275S   | 238  | 108 |
| Transitions                            | C1DIFF33C-1 | 80   | 36  |
|  | C1DIFF34C-1 | 75   | 34  |

## DIMENSIONS - UNIT

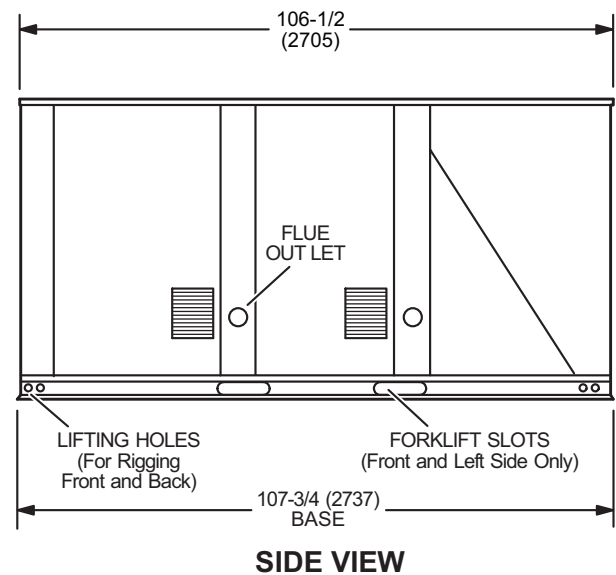
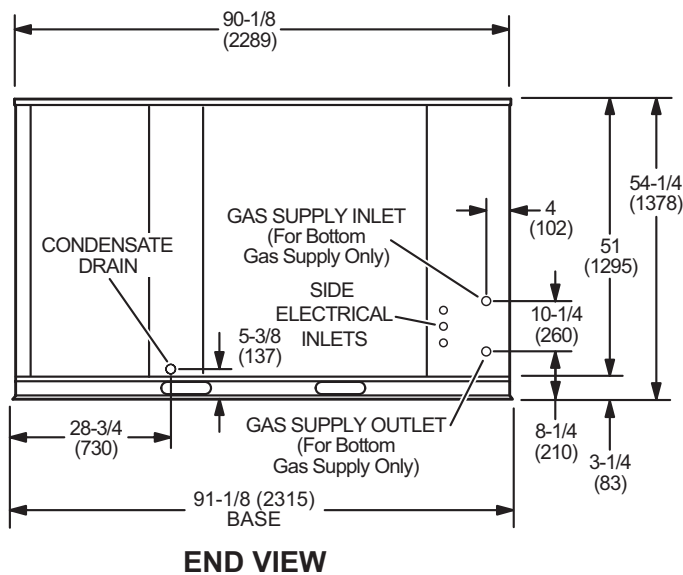
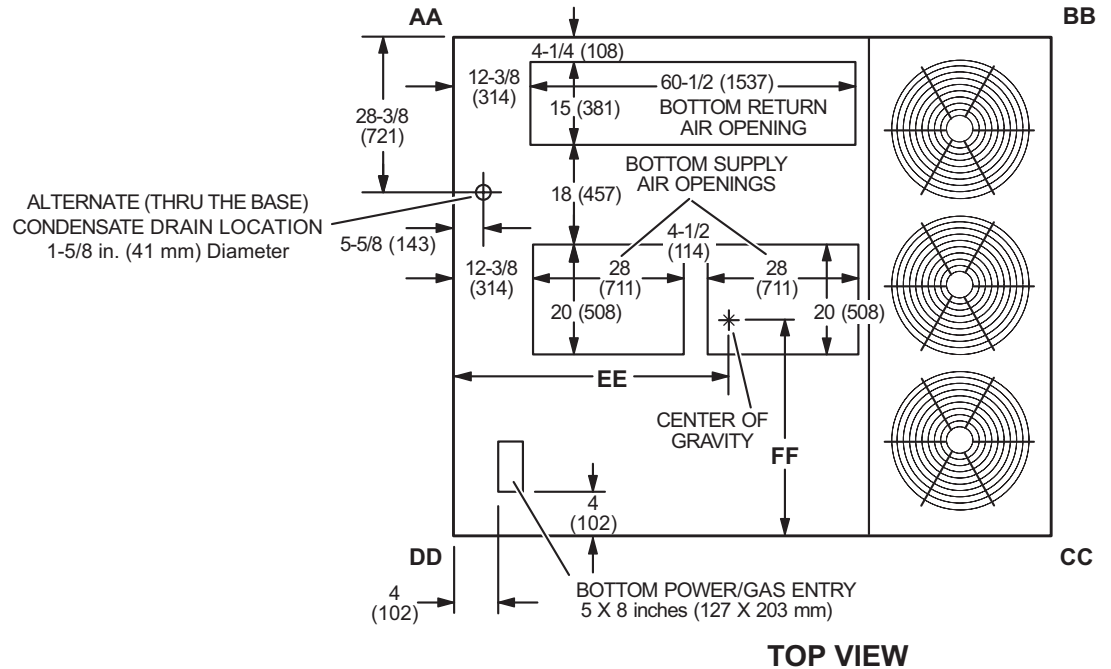
LGX180 | LGX210

### CORNER WEIGHTS

| Model             | AA   |     | BB   |     | CC   |     | DD   |     | E CENTER OF GRAVITY |      | F      |      |
|-------------------|------|-----|------|-----|------|-----|------|-----|---------------------|------|--------|------|
|                   | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.                 | mm   | in.    | mm   |
| LGX180S Base Unit | 426  | 194 | 378  | 172 | 508  | 231 | 572  | 260 | 50-5/8              | 1286 | 38-7/8 | 987  |
| LGX180S Max. Unit | 541  | 246 | 452  | 206 | 551  | 251 | 659  | 300 | 49                  | 1247 | 41     | 1043 |
| LGX210S Base Unit | 468  | 213 | 419  | 190 | 546  | 248 | 611  | 278 | 50-7/8              | 1292 | 39-1/2 | 1004 |
| LGX210S Max. Unit | 593  | 270 | 499  | 227 | 585  | 266 | 696  | 317 | 49-1/4              | 1250 | 42     | 1065 |

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.



# DIMENSIONS - UNIT

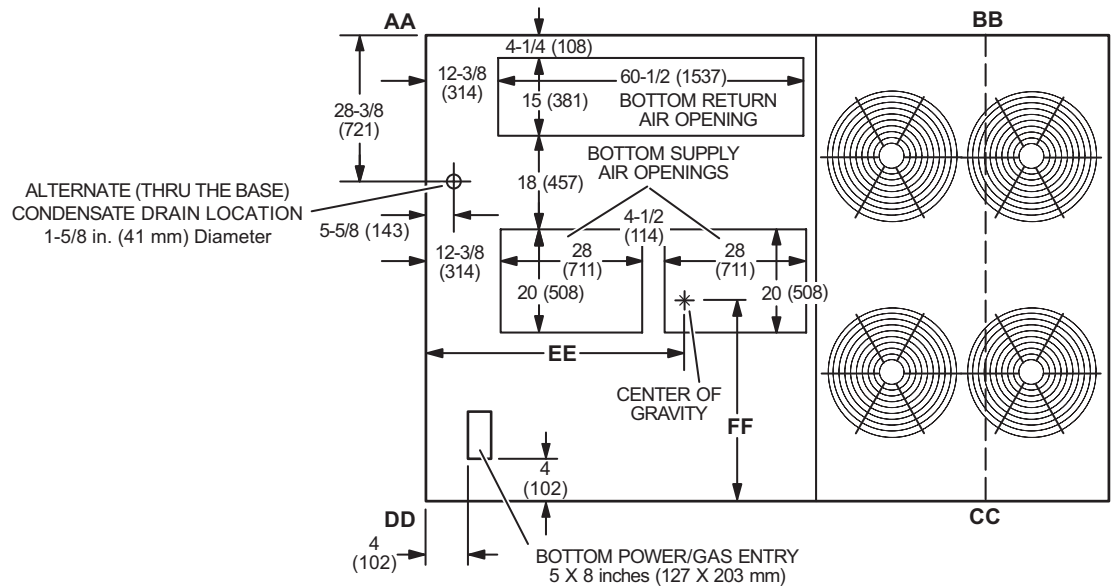
LGX240

## CORNER WEIGHTS

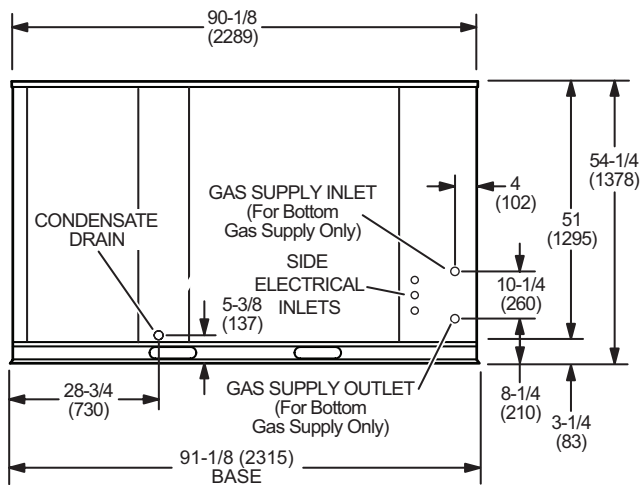
| Model             | AA   |     | BB   |     | CC   |     | DD   |     | CENTER OF GRAVITY |      | EE     |      | FF  |    |
|-------------------|------|-----|------|-----|------|-----|------|-----|-------------------|------|--------|------|-----|----|
|                   | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.               | mm   | in.    | mm   | in. | mm |
| LGX240S Base Unit | 466  | 212 | 437  | 199 | 635  | 289 | 677  | 308 | 52-1/8            | 1325 | 37-1/8 | 944  |     |    |
| LGX240S Max. Unit | 576  | 262 | 524  | 238 | 689  | 313 | 758  | 344 | 51-1/4            | 1303 | 39-3/8 | 1000 |     |    |

Base Unit - The unit with NO INTERNAL OPTIONS.

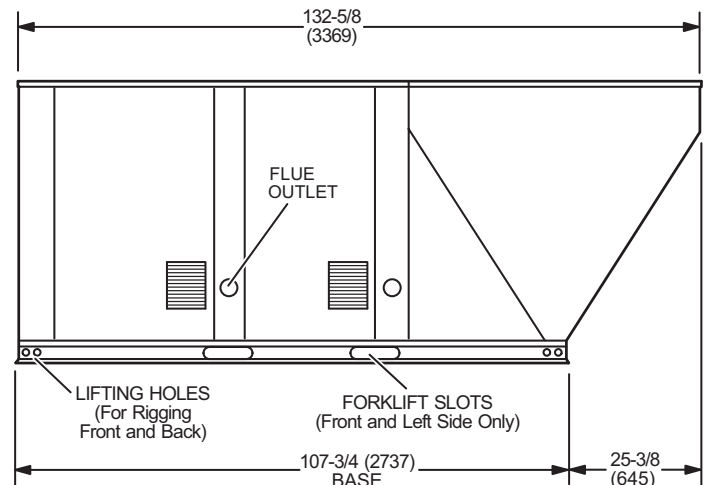
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW



END VIEW



SIDE VIEW

# DIMENSIONS - UNIT

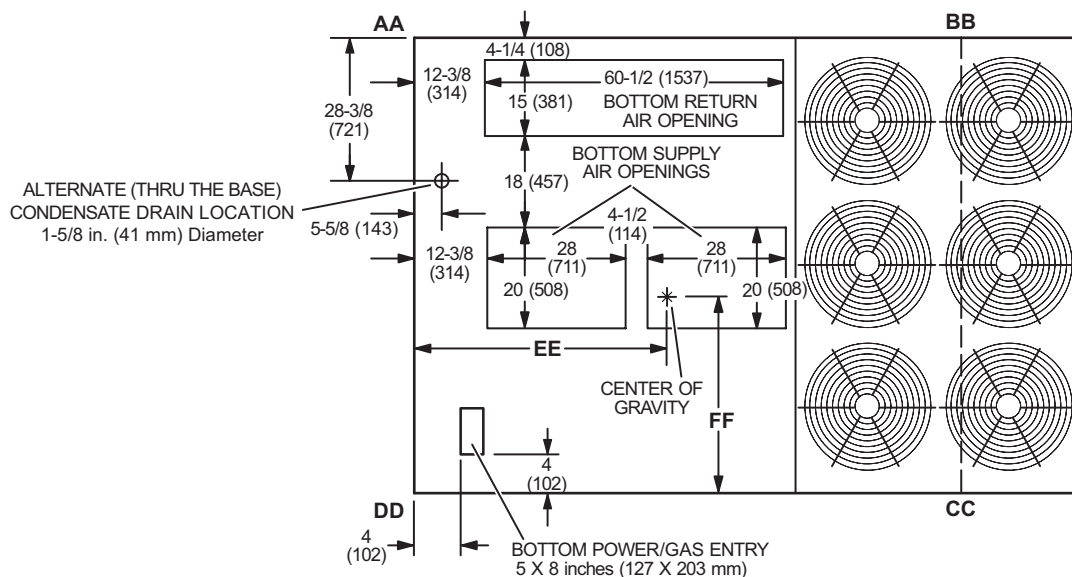
LGX300

## CORNER WEIGHTS

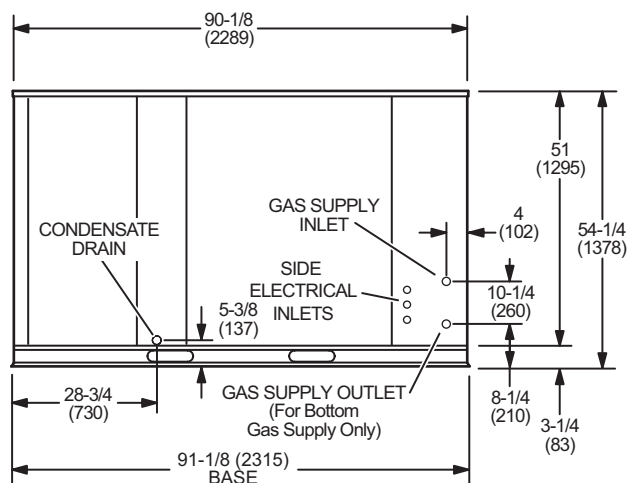
| Model             | AA   |     | BB   |     | CC   |     | DD   |     | CENTER OF GRAVITY |      |        |      |
|-------------------|------|-----|------|-----|------|-----|------|-----|-------------------|------|--------|------|
|                   | lbs. | kg  | lbs. | kg  | lbs. | kg  | lbs. | kg  | in.               | mm   | in.    | mm   |
| LGX300S Base Unit | 512  | 233 | 509  | 231 | 718  | 326 | 722  | 328 | 53-3/4            | 1364 | 37-3/4 | 960  |
| LGX300S Max. Unit | 625  | 284 | 598  | 272 | 747  | 339 | 780  | 355 | 52-3/4            | 1339 | 40-1/2 | 1029 |

Base Unit - The unit with NO INTERNAL OPTIONS.

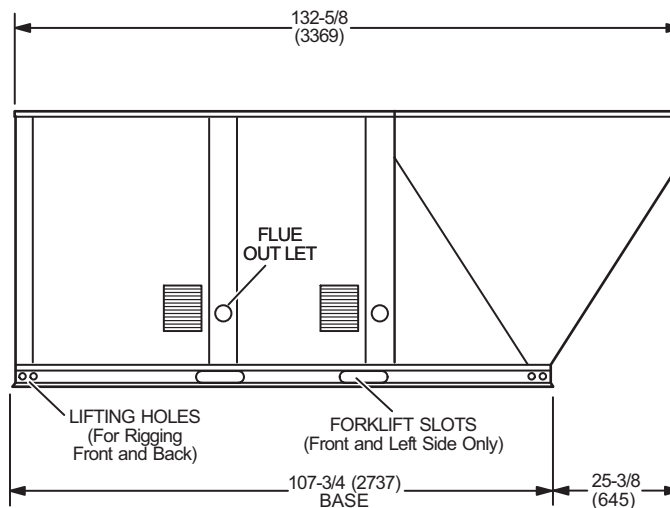
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW

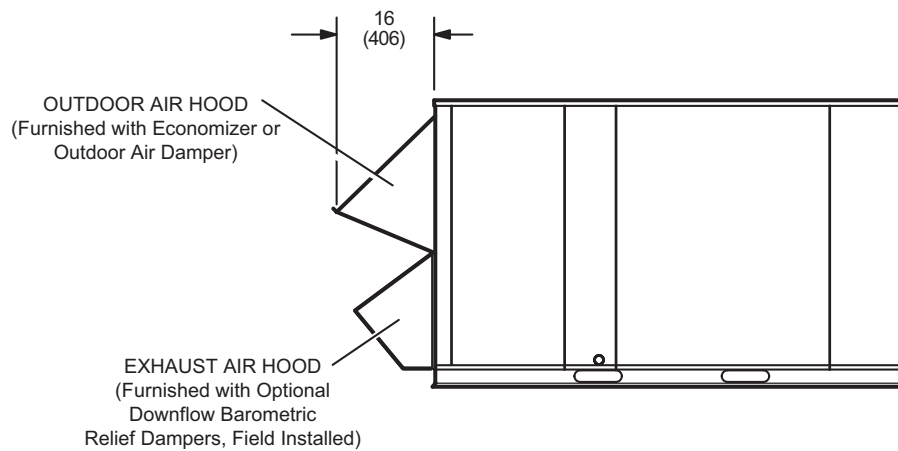


END VIEW



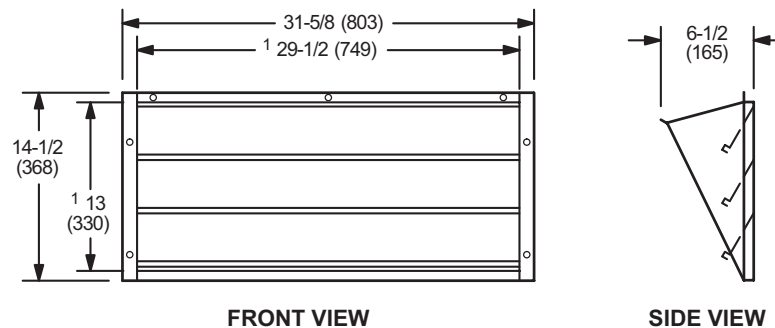
SIDE VIEW

**OUTDOOR AIR HOOD DETAIL**



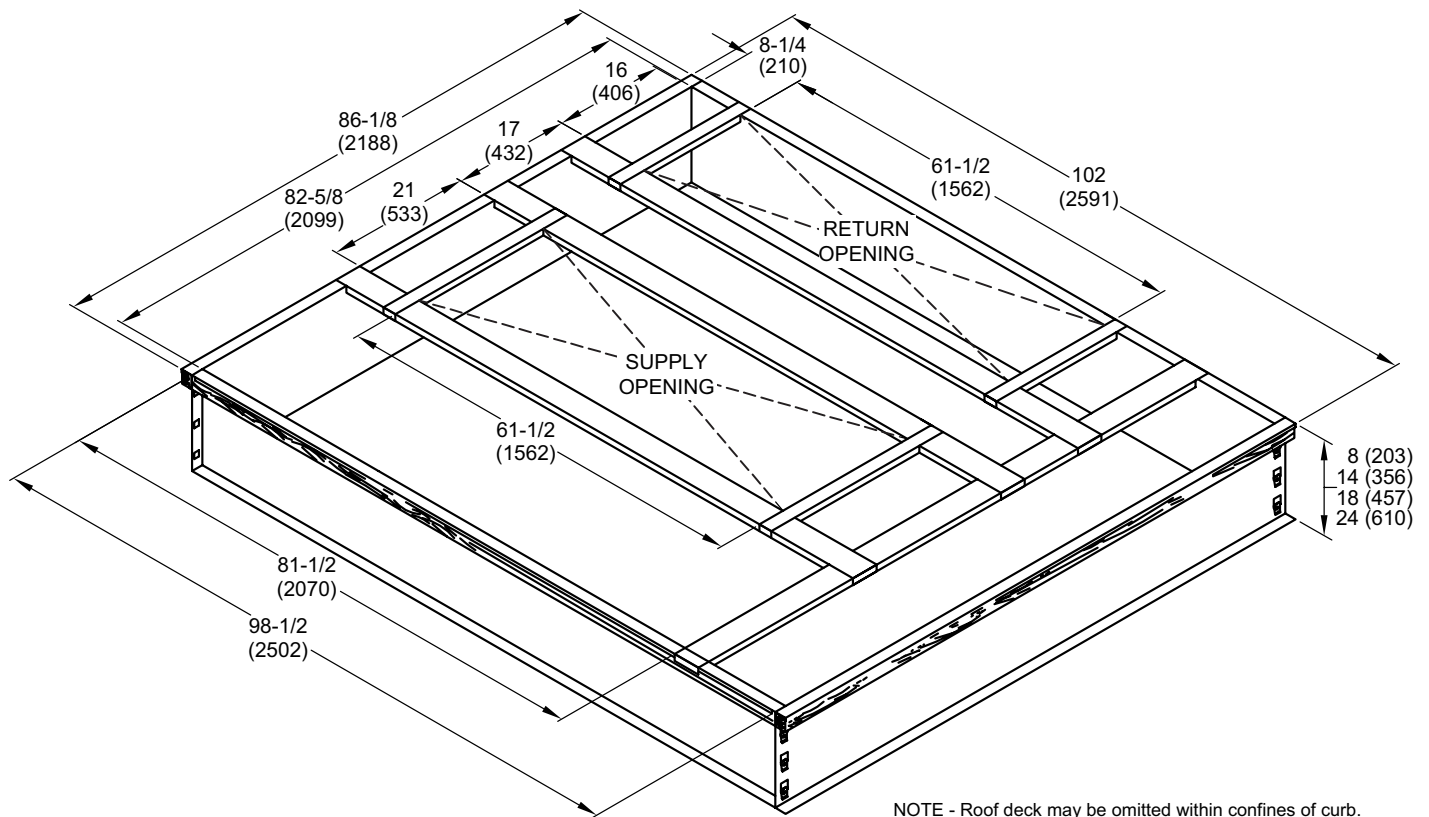
**OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD**

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

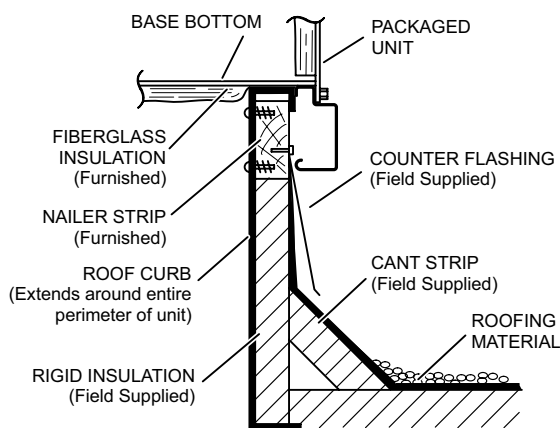


NOTE - Two furnished per order no.  
<sup>1</sup> NOTE - Opening size required in return air duct.

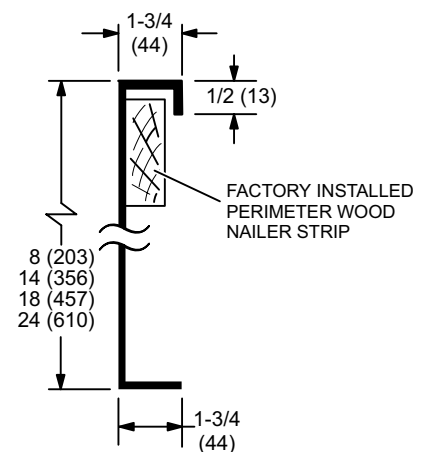
**HYBRID ROOF CURBS - DOUBLE DUCT OPENING**



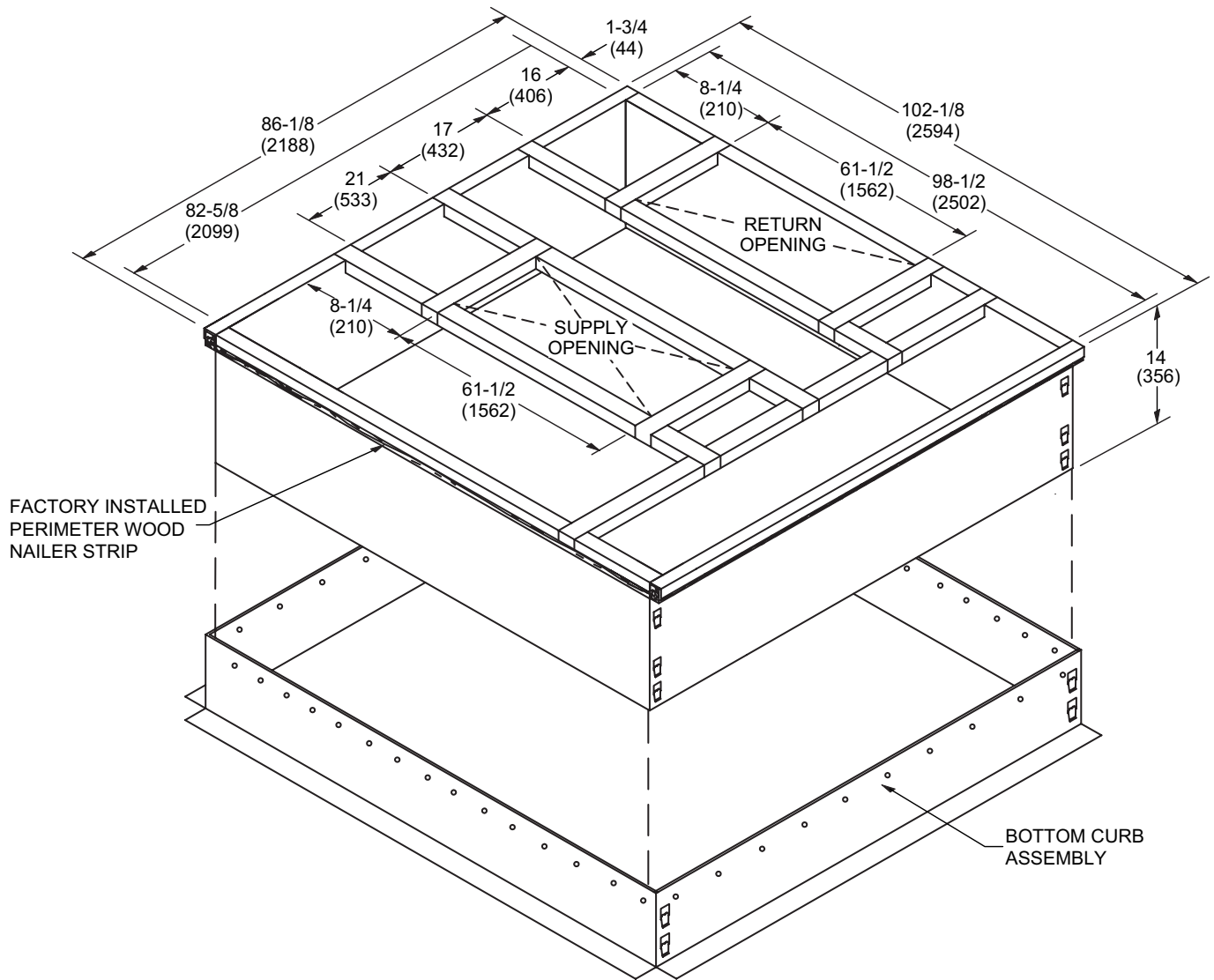
**TYPICAL FLASHING DETAIL FOR ROOF CURB**



**DETAIL ROOF CURB**

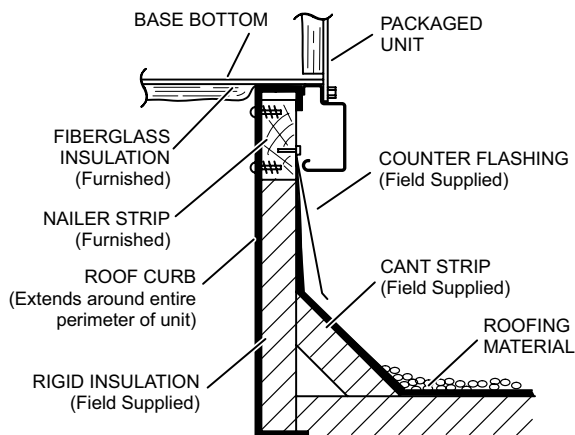


**ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING**

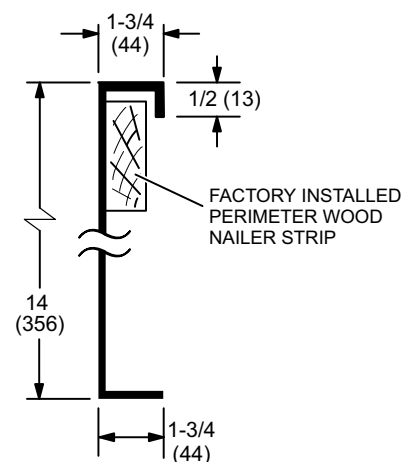


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

**TYPICAL FLASHING DETAIL FOR ROOF CURB**

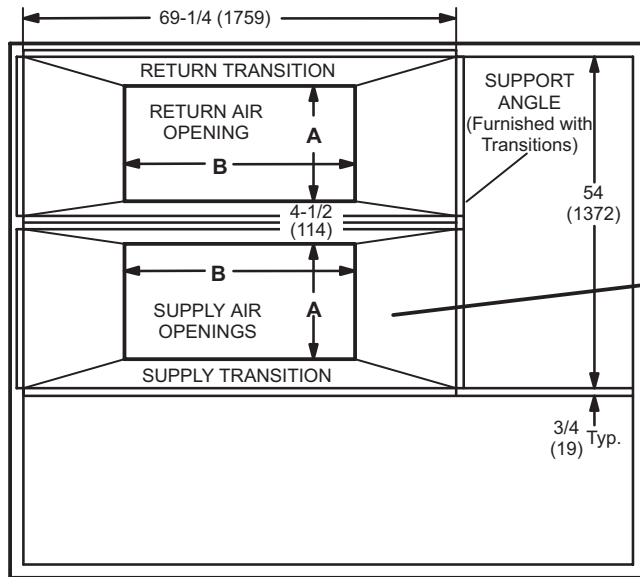


**DETAIL ROOF CURB**

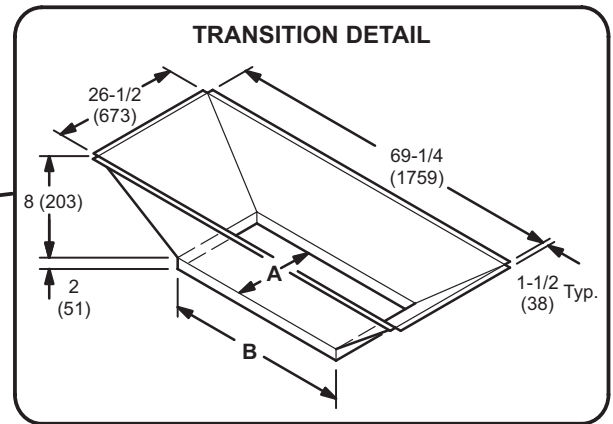




**ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS**



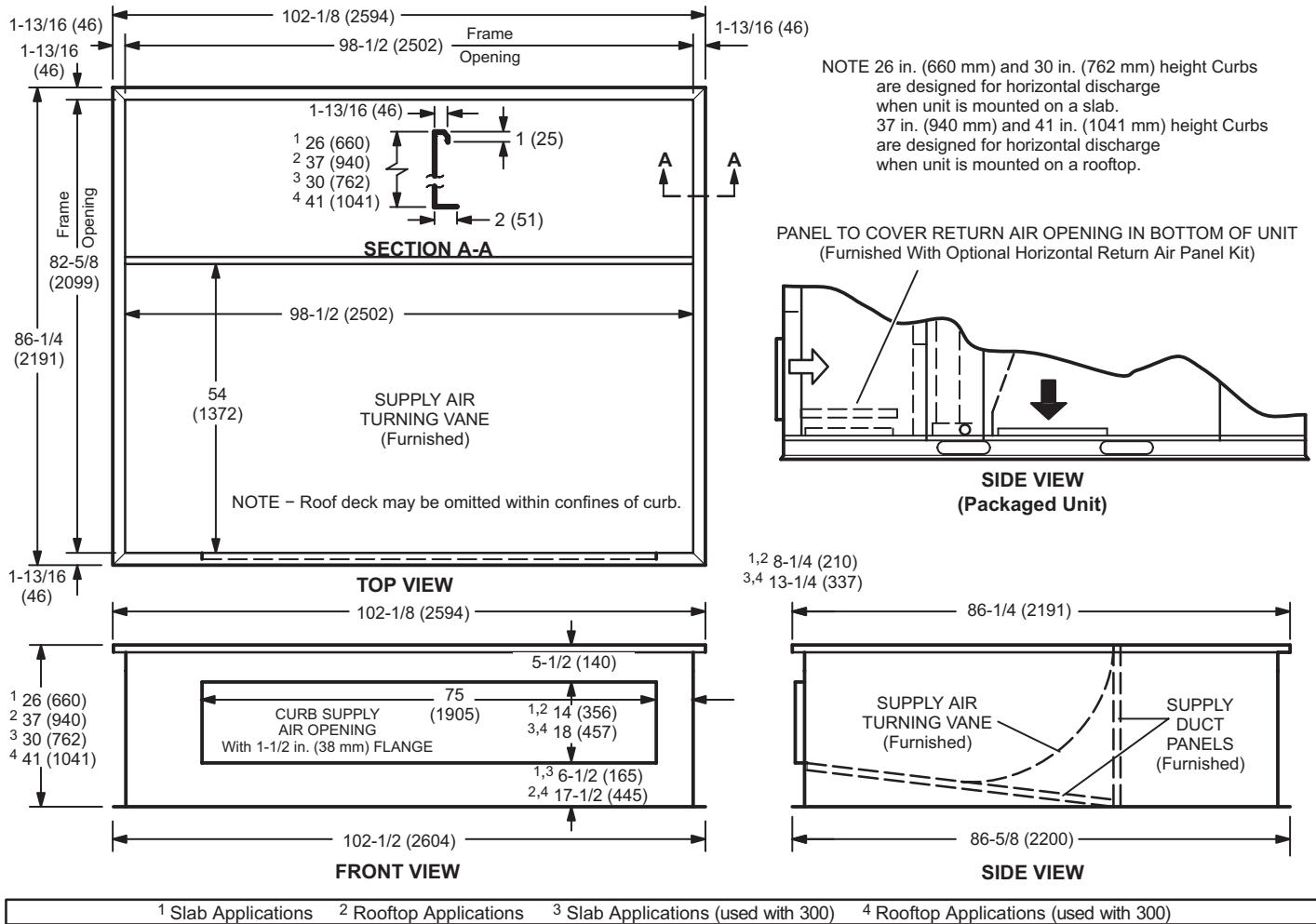
**TOP VIEW**



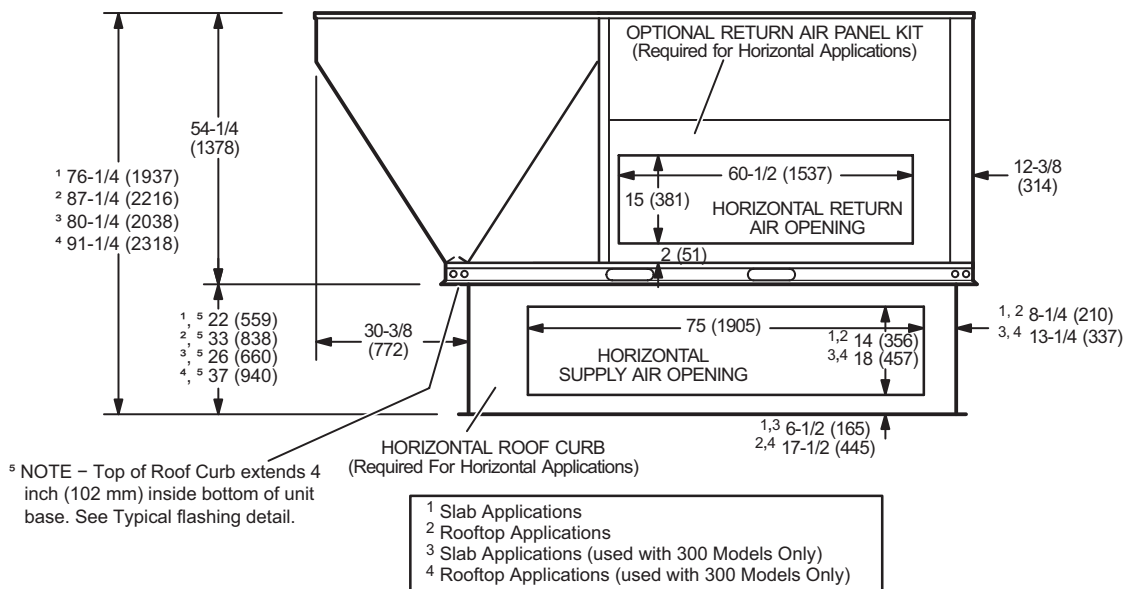
**TRANSITION OPENING SIZES**

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

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

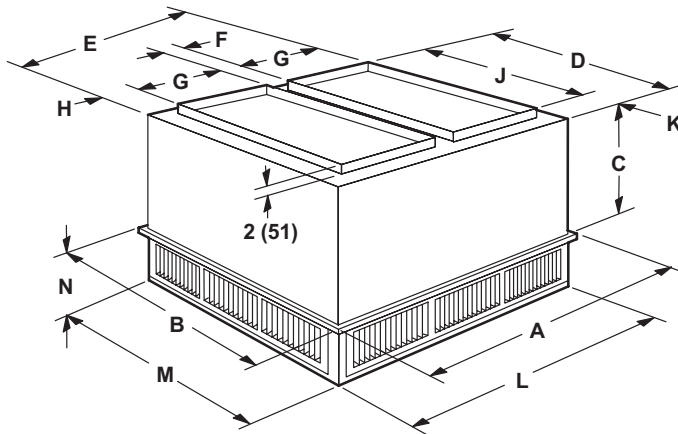


**HORIZONTAL SUPPLY AND RETURN AIR OPENINGS WITH HORIZONTAL ROOF CURB**



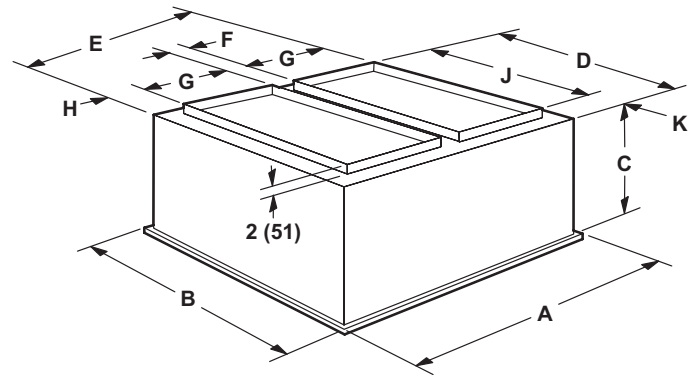
**COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS**

**STEP-DOWN CEILING DIFFUSER**



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

**FLUSH CEILING DIFFUSER**



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





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