# **LGX**

K-Series™ ROOFTOP UNITS

Standard Efficiency | Intelli-Guide™ Controller | Eco-Last™ Coil | R-454B | 60Hz

COMMERCIAL

PRODUCT SPECIFICATIONS (EHB)

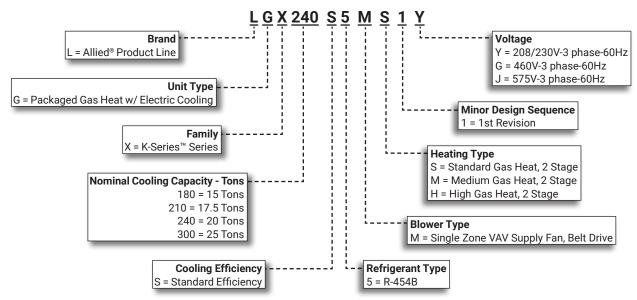
15 to 25 Tons

Net Cooling Capacity | 172,000 to 270,000 Btuh Gas Input Heat Capacity | 260,000 to 480,000 Btuh

# K-SERIES™



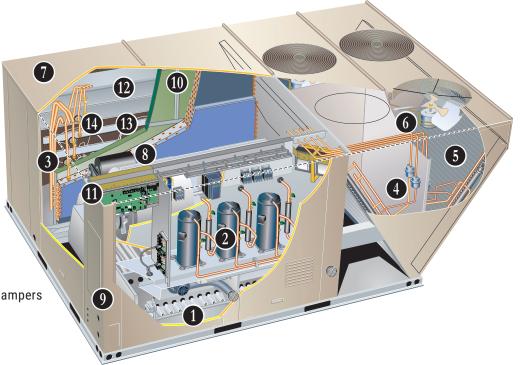
#### MODEL NUMBER IDENTIFICATION



#### FEATURE HIGHLIGHTS

K-Series 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. Eco-Last™ Coil System
- 6. Outdoor Coil Fan Motors
- 7. Cabinet Construction
- 8. Single Zone VAV Air Volume Blower
- 9. Disconnect Switch (option)
- 10. Air Filters
- 11. Intelli-Guide™ Control System
- 12. Economizer (option)
- 13. Downflow Barometric Relief Dampers (option)
- 14. Power Exhaust Fans



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- 20 Ton   25 Ton
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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 (<u>Number: OSP-0596</u>), 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

- Aluminized steel heat exchanger Limited ten years
- Stainless steel heat exchanger (optional) Limited fifteen years
- · Compressors Limited five years
- Eco-Last™ Coil System Limited three yea
- Intelli-Guide™ Unit Controller Limited three years
- Variable-Frequency Drive (VFD) Limited five years
- · High Performance Economizers (optional) Limited five years

#### FEATURES AND BENEFITS

#### **HEATING SYSTEM**

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

# Heat Exchanger

- Tubular construction
- Aluminized 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

#### **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
- · Order two kits

**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 buildup due to conditions such as low/no airflow or low refrigerant charge

# 5 Condenser Coil - Eco-Last™ 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

#### Eco-Last™Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins)
- Smaller internal volume (reduced refrigerant charge)
- · High durability
- · All aluminum construction
- · Fewer brazed joints
- · Compact design
- 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

#### **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

#### Field Installed

#### Combination Coil/Hail Guards

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

#### **CABINET** (continued)

#### Options/Accessories (continued)

#### 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

#### **Burglar Bars**

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

#### **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

#### Single Zone VAV Supply Fan Operation

- Single Zone VAV Supply Fan 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<sup>®</sup> 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

#### **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 guick 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 supple 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

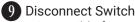
#### Required Selections

#### Voltage Choice

Specify when ordering base unit

#### Options/Accessories

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



- · Accessible from outside of unit
- · Spring loaded weatherproof cover furnished

#### GFI Service Outlets (2)

- 115V ground fault circuit interrupter (GFCI) type options:
  - · 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



#### 11) Air Filters

Disposable 2 inch MERV 4 filters furnished as standard

#### Options/Accessories

#### Field Installed

#### High Efficiency Air Filters

- Disposable MERV 8, MERV 13 (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 Intelli-Guide<sup>™</sup> Unit Controller which adjusts economizer dampers as needed

#### Replacement Filter Media Kit With Frame

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

#### **CONTROL SYSTEM**

#### INTELLI-GUIDE™ CONTROL SYSTEM



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

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

#### Mobile Service App

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

#### Additional Features:

- Built-In 7-Segment Display shows Unit Status and active alarms for easy troubleshooting
- · Buttons for test and clearing delays
- SmartWire<sup>™</sup> System with keyed and removable screw terminals ensure correct field wiring
- Profile setup copies key settings between units with the same configuration to reduce setup time
- USB port allows a technician to download and transfer unit information to help verify service was performed
- USB software updates on the Intelli-Guide<sup>™</sup> 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
- · Dehumidification 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)
- · S-BUS
- Zone Temperature Sensor Input
- Dehumidistat and Humidity Sensor Inputs
- Indoor Air Quality Inputs (2)
- · Built-in Control Parameter Defaults
- · Permanent Diagnostic Code Storage
- Field Adjustable Control Parameters (Over 200 settings)
- · Multiple Configurable Digital Inputs
- LED Indicators

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

#### **CONTROL SYSTEM**

#### INTELLI-GUIDE™ 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 compartmen

#### **OPTIONS / ACCESSORIES**

#### **ECONOMIZER**

- Economizer operation is set and controlled by the Intelli-Guide™ Unit Controller
- Simple plug-in connections from Economizer to unit controller for easy installation
- All K-Series<sup>™</sup> rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring

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

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

# High Performance Economizer

- Approved for California Title 24 building standards
- Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified -Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.
- ASHRAE 90.1 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 Intelli-Guide™ unit controller compares outdoor air temperature with return air
- When the outdoor air is below the configured setpoint and cooler than return air, the controller activates the Economizer

#### **OPTIONS / ACCESSORIES**

#### **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

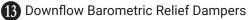
#### **Field Installed**

#### 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**



- · 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 plugin 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

# Ceilina Diffusers

(Flush or Step-Down)

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

#### Transitions (Supply and Return)

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

#### **DEHUMIDIFICATION SYSTEM OPTION**

#### **OVERVIEW**

**NOTE** - Dehumidification System only available for **Single Zone VAV Supply Fan** models

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

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

Controls are not furnished and must be ordered extra.

#### **BENEFITS**

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

#### **OPERATION**

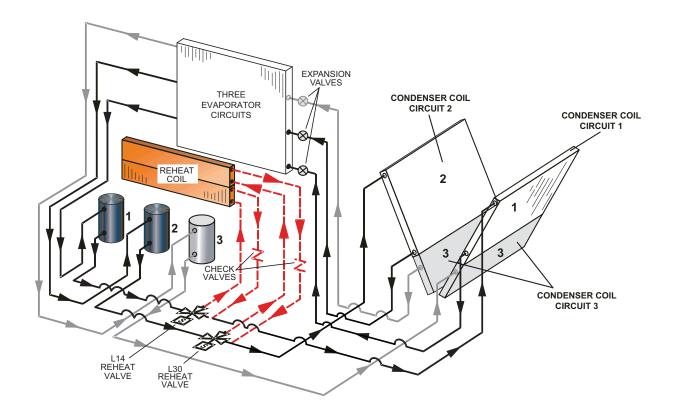
#### No Dehumidification Demand

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

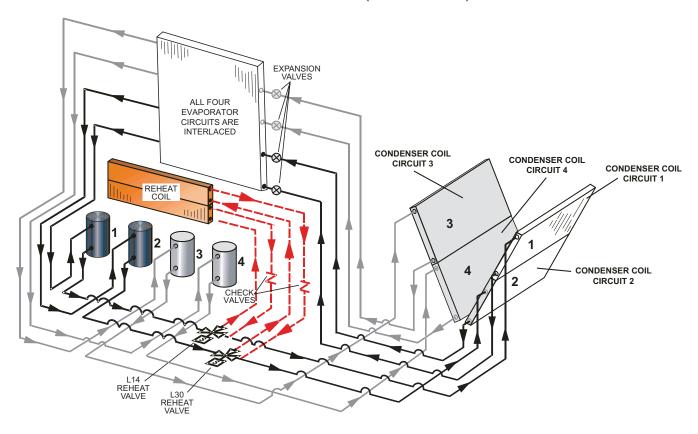
#### **Dehumidification Demand Only**

- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- Unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- Reheat coil is sized to provide 68°F to 75°F supply air during reheat operation
- This reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low
- A solenoid valve diverts hot gas from the compressor to the reheat coil
- Cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- De-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- Unit will continue to operate in this mode until the dehumidification demand is satisfied
- Dehumidification and Cooling Demand (Thermostat/ Room Sensor Application)
- If both a dehumidification and a full cooling load demand occur, the system will operate in cooling mode until the cooling demand is satisfied
- Then the system will energize the dehumidification mode

#### REFRIGERANT SCHEMATIC (180, 210 AND 240 MODELS ONLY)



#### REFRIGERANT SCHEMATIC (300 MODELS ONLY)



#### 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

K-Series<sup>™</sup> Packaged Gas / Electric 15 to 25 Ton | Page 14

OPTIONAL CONVENTIONAL TEMPERATU	RE CONTROL SYSTEMS	
Description		Order Number
CS8500 Commercial 7 Day Programmable Thermostat		
CS8500 7-Day Thermostat	No CO₂ Sensing	24K55
	With CO₂ Sensing	24K53
Sensors/Accessories	<sup>1</sup> Remote non-adjustable wall-mount 10k	47W37
	<sup>1</sup> Remote non-adjustable wall-mount 11k	94L61
Sysbus Network Cable (Yellow) for CS8500 and LCS-5030	) Wired Room Sensor	
Twisted pair 100% shielded communication cable, Red and E	Black 500 ft. box	27M19
22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated	1000 ft. box	94L63
Insulation - Low smoke PVC, NEC, CMP	2500 ft. roll	68M25
CS7500 Commercial 7-Day Programmable Thermostat		
CS7500 7-Day Thermostat		24K41
Sensors/Accessories	<sup>2</sup> Remote non-adjustable wall-mount 20k	47W36
	<sup>2</sup> Remote non-adjustable wall-mount 10k	47W37
	Remote non-adjustable discharge air (duct mount)	19L22
	Outdoor temperature sensor	X2658
<b>CS3000 Commercial 5-2 Day Programmable Thermostat</b>		
CS3000 5-2 Day Thermostat		11Y05
Sensors/Accessories	Remote non-adjustable wall mount 10k averaging	47W37
	Thermostat wall mounting plate	X2659
Universal Thermostat Guard with Lock (clear)		
	Inside Dimensions (H x W x D) 5-7/8 x 8-3/8 x 3 in.	39P21

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

# 180/210/240/300 MODELS (3 AND 4 COMPRESSORS) UNIT OPERATION WITH 2-STAGE THERMOSTAT (2 COOLING STAGES, Y1, Y2) SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

#### **COOLING**

#### <sup>1</sup> Unit Features and Economizer and Outdoor Air is Suitable

#### Thermostat Mode (Y1, Y2)Y1 Demand:

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

#### Y2 Demand:

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain 55°F supply air temperature. If economizer stays at maximum open for 3 minutes, 1st stage compressors (compressor 1 and 2) are energized while supply air blower stays on high cooling speed providing maximum cooling capacity.

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

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

#### Thermostat Mode (Y1, Y2)

#### Y1 Demand:

1st stage compressors 1 & 2 operate and supply air blower operates at low cooling speed.

#### Y2 Demand:

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

#### **Dehumidification Mode**

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

#### Call For Dehumidification, No Y1, Y2 Demand:

1st stage compressors (1 & 2) operate, supply air blower operates at low cooling speed, and the reheat valves are energized.

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

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

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

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

#### 180/210/240/300 MODELS (3 AND 4 COMPRESSORS)

#### **ZONE SENSOR**

#### SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

#### **COOLING**

#### <sup>1</sup> Unit Features and Economizer and Outdoor Air is Suitable

#### **3 Compressor Units**

#### Y1 Demand:

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

#### Y2 Demand:

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

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

#### Y3 Demand:

Compressors 1 and 2 are energized while supply air blower stays on high cooling speed. After compressors are energized the economizer stays at maximum.

#### Y4 Demand:

All compressors are energized and supply air blower stays on high cooling speed.

#### **4 Compressor Units**

#### Y1 Demand:

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

#### Y2 Demand:

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

If economizer stays at maximum open for 3 minutes then compressors 1 and 2 are energized while supply air blower stays on high cooling speed. After compressors are energized the economizer stays at maximum open.

#### Y3 Demand:

Compressors 1, 2 and 3 are energized and supply air blower stays on high cooling speed.

#### Y4 Demand (Zone Sensor Only):

All compressors are energized and supply air blower stays on high cooling speed.

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

#### **Dehumidification Mode**

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

#### Call For Dehumidification, No Y1, Y2, Y3 Demand:

Compressor 1 and 2 operate, supply air blower operates at low cooling speed, and both reheat valves are energized.

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

All compressors operate, supply air blower operates at high cooling speed and both reheat valves are energized.

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

All compressors operate, supply air blower operates at high cooling speed, and the reheat valve of refrigeration circuit 1 is energized while the reheat valve of refrigeration circuit 2 is de-energized.

#### Y3 or Y4 (Zone Sensor Only) Demand:

All compressors operate, supply air blower operates at high cooling speed, and both reheat valves are de-energized.

#### **Heating Mode (Gas Heat)**

NOTE – HEATING MODE CAN BE SET TO TWO-STAGE IN THERMOSTAT MODE OR AT FOUR-STAGE IN ROOM SENSOR MODE CONTROL OPTIONS.

#### **Two-Stage Operation (Thermostat Mode)**

#### W1 Demand:

Both gas valves are open on Low Fire (stage 1 on units with 2-stage gas valves) and supply air blower operates at heating speed

#### W2 Demand:

Both gas valves are open on High Fire (stage 2 on units with 2-stage gas valves) and supply air blower operates at heating speed

#### Four-Stage Operation (Room Sensor Mode)

#### W1 Demand:

Left heat exchanger gas valve is open on Low Fire (stage 1 on units with 4-stage gas valves) and supply air blower operates at heating speed.

#### W2 Demand:

Both gas valves are open on Low Fire (stage 2 on units with 4-stage gas valves) and supply air blower operates at heating speed.

#### W3 Demand:

Left heat exchanger gas valve will open on High Fire and the right heat exchanger will remain open on Low Fire (stage 3 on units with 4-stage gas valves) and supply air blower operates at heating speed.

#### W4 Demand:

Both gas valves are open on High Fire (stage 4 on units with 4-stage gas valves) and supply air blower operates at heating speed.

#### **Modulating Outdoor Air Damper**

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

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

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

#### **Power Exhaust Operation**

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

Single Zone VAV Supply Fan models are equipped with 2-stage power exhaust fans. Power exhaust fans operate when economizer outdoor air dampers are 50% open (adjustable). Power exhaust operates in 1st stage (one fan) up to 70% of supply air blower speed. 2nd stage power exhaust fans (both fans) operate when supply air blower speed is above 70% (adjustable) of full speed.

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

 $\ensuremath{\mathsf{NOTE}}$  - Order numbers shown are for ordering field installed accessories.

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

O = Configure To Order (Factory Installed)

X = Field Installed

Itom Description		Order		Si	ze	
Item Description		Number	180	210	240	300
CABINET						
Burglar Bars	(US)	44N20	Χ	Х	Χ	Х
	(CA)	X2889	Χ	Х	Χ	Х
Combination Coil/Hail Guards		23U69	Χ	Х		
		23U71			X	Х
Hinged Access Panels		Factory	0	0	0	0
CONTROLS						
NOTE - Also see Conventional Thermostat Control Systems page	14 for Additional Opt	tions.		-		
BACnet® MS/TP Module		38B35	Χ	Х	Х	Х
Dirty Filter Switch		53W68	Χ	Х	Х	Х
Smoke Detector - Supply or Return (Power board and one sensor)		37G73	Χ	Х	Х	Х
Smoke Detector - Supply and Return (Power board and two sensors)		37G74	Χ	Х	Х	Х
ELECTRICAL						
Voltage 60 Hz	208/230V - 3 phase	Factory	0	0	0	0
	460V - 3 phase	Factory	0	0	0	0
	575V - 3 phase	Factory	0	0	0	0
Disconnect Switch	80 amp	54W88	OX	ОХ	ОХ	ОХ
(see Disconnect Table for usage, page 35)	150 amp	54W89	OX	ОХ	ОХ	ОХ
	250 amp	90W82				OX
GFI Service 15 amp non-powered, field-wired	<u> </u>	74M70	X	Х	X	X
Outlets <sup>1</sup> 20 amp non-powered, field-wired	•	67E01	X	X	X	X
20 0	(====, ====, ====, ====, ====, ====,	0.20.				
Weatherproof Cover for GFI		10C89	Χ	Х	Х	Х
INDOOR AIR QUALITY						
Air Filters					,	
High Efficiency Air Filters	MERV 8	54W67	Χ	Х	Х	Х
24 x 24 x 2 in. (Order 6 per unit)	MERV 13	52W40	Х	Х	Х	Х
Replacement Media Filter With Metal Mesh Frame		44N61	Х	Х	Χ	Х
(includes non-pleated filter media)						
Indoor Air Quality (CO₂) Sensors						
Sensor - Wall-mount, off-white plastic cover with LCD display		77N39	Χ	Х	X	Х
Sensor - Wall-mount, off-white plastic cover, no display		23V86	Χ	Х	X	Х
Sensor - Black plastic case, LCD display, rated for plenum mounting		87N52	Χ	Х	Х	X
Sensor - Black plastic case, no display, rated for plenum mounting		23V87	Х	Х	X	X
CO₂ Sensor Duct Mounting Kit - for downflow applications		23Y47	Χ	Х	Χ	X
Aspiration Box - for duct mounting non-plenum rated CO₂ sensors (77N3	39)	90N43	Х	Х	Х	Χ
UVC Germicidal Light Kit						
<sup>2</sup> UVC Light Kit (110/230V-1ph)		21A94	X	X	X	X
·	orimary, 230V secondary	10H20	X	X	X	X
575V p	orimary, 230V secondary	10H21	Х	Х	X	X

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

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

<sup>&</sup>lt;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)

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

O = Configure To Order (Factory Installed)

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OPTIONS / ACCESSORIES						
Item Description		Order		Si	ze	
nem bescription		Number	180	210	240	300
ECONOMIZER						
High Performance Economizer (Approved for California Title 24 Building Sta	andards AM	ICA Class	1A Ce	rtified)		
High Performance Economizer (Downflow or Horizontal)		22J18	OX	OX	OX	OX
Includes Economizer Dampers with Outdoor Air Hood						
Downflow Applications - Use furnished Outdoor Air Hood - Order Downflow Baron Relief Dampers with Exhaust Hood separately	netric					
Horizontal Applications - Use furnished Outdoor Air Hood - Order Horizontal Baro Relief Dampers with Exhaust Hood separately	metric					
Economizer Controls						
Differential Enthalpy (Not for Title 24)	Order 2	21Z09	Х	Х	Х	Х
Sensible Control Sensor is	Furnished	Factory	0	0	0	0
Single Enthalpy (Not for Title 24)		21Z09	ОХ	ОХ	ОХ	ОХ
Barometric Relief Dampers With Exhaust Hood						
Downflow Barometric Relief Dampers		54W78	ОХ	ОХ	ОХ	ОХ
Horizontal Barometric Relief Dampers		16K99	Х	Х	Х	Х
OUTDOOR AIR						
Outdoor Air Dampers With Outdoor Air Hood						
Motorized		22J27	Х	Х	Х	Х
Manual		13U05	Х	Х	Х	Х
<sup>3</sup> POWER EXHAUST (DOWNFLOW APPLICATIONS ONLY)						
Standard Static	208/230V	22H90	Х	Х	Х	Х
	460V	22H91	Х	Х	Х	Х
	575V	22V34	Х	Х	Х	Х

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

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

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OPTIONS / ACCESSORIES				0:	!=a	
Item Description		Order Number	180	210	ize 240	300
ROOF CURBS			100		2.0	000
Hybrid Roof Curbs, Downflow						
8 in. height		11F58	Х	Х	Х	Х
14 in. height		11F59	Х	Х	Х	Х
18 in. height		11F60	Х	Х	Х	Х
24 in. height		11F61	Х	Х	Х	Х
Adjustable Pitch Curb						
14 in. height		43W26	Х	Х	Х	Х
Standard Roof Curbs, Horizontal - Requires Horizontal Retu	rn Air Panel Kit					
26 in. height - slab applications		11T89	Х	Х	Х	
30 in. height - slab applications		11T90				Х
37 in. height - rooftop applications		11T96	Х	Х	Х	
41 in. height - rooftop applications		11T97				Х
Insulation Kit For Standard Horizontal Curbs						
For 26 in. Curb		73K32	Х	Х	Х	
For 30 in. Curb		73K33				Х
For 37 in. Curb		73K34	Х	Х	Х	
For 41 in. Curb		73K35				Х
Horizontal Return Air Panel Kit						
Required for Horizontal Applications with Roof Curb		87M00	Χ	Х	Х	Х
CEILING DIFFUSERS						
Step-Down - Order one	RTD11-185S	13K63	Х			
	RTD11-275S	13K64		Х	Х	Х
Flush - Order one	FD11-185S	13K58	Х			
	FD11-275S	13K59		Х	Х	Х
Transitions (Supply and Return) - Order one	C1DIFF33C-1	12X68	Х			
	C1DIFF34C-1	12X70		Х	Х	Х

 $<sup>\</sup>ensuremath{\mathsf{NOTE}}$  - Order numbers shown are for ordering field installed accessories.

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SPECIFIC	CATIONS				UNIT				
Model		LGX180S5M	LGX210S5M	LGX240S5M	LGX300S5M				
Nominal Ton		15 Ton	17.5 Ton	20 Ton	25 Ton				
Efficiency Ty		Standard	Standard	Standard	Standard				
Blower Type		Single Zone VAV	Single Zone VAV	Single Zone VAV	Single Zone VAV				
Cooling	Cross Cooling Consoity Ptub	Supply Fan 178,000	Supply Fan 206,000	Supply Fan 236,000	Supply Fan 282,000				
Cooling Performance	Gross Cooling Capacity - Btuh	172,000							
Periormance	<sup>1</sup> Net Cooling Capacity - Btuh <sup>1</sup> AHRI Rated Air Flow - cfm	7200	200,000 6150	228,000 7100	270,000 7450				
		14.0	14.0	14.0	13.0				
	<sup>1</sup> IEER (Btuh/Watt)	10.8	10.8						
	<sup>1</sup> EER (Btuh/Watt) Total Unit Power - kW	15.9	18.5	10.8 21.1	9.8 27.6				
Sound Ratin		86	86	93	94				
Refrigerant		R-454B	R-454B	R-454B	R-454B				
Charge	Refrigerant Type Without Reheat Option Circuit 1	6 lbs. 11 oz.	6 lbs. 14 oz.	7 lbs. 4 oz.	5 lbs. 15 oz.				
Charge	•	5 lbs. 3 oz.	6 lbs. 14 oz.	7 lbs. 4 02.					
	Circuit 2 Circuit 3		6 lbs. 10 oz.	6 lbs. 15 oz.	5 lbs. 8 oz.				
		5 lbs. 5 oz.	0 IDS. 10 0Z.	0 IDS. 15 0Z.	5 lbs. 5 oz.				
	Circuit 4				5 lbs. 6 oz.				
	With Reheat Option Circuit 1	6 lbs. 4 oz.	6 lbs. 4 oz.	7 lbs. 10 oz.	6 lbs. 15 oz.				
	Circuit 2	6 lbs. 0 oz.	6 lbs. 4 oz.	7 lbs. 4 oz.	6 lbs. 5 oz.				
	Circuit 3	5 lbs. 12 oz.	5 lbs. 15 oz.	6 lbs. 15 oz.	4 lbs. 11 oz.				
0	Circuit 4				5 lbs. 3 oz.				
Gas Heat Ava		0 11 (0)		age 22	0 11 (4)				
	Type (number)	Scroll (3)	Scroll (3)	Scroll (3)	Scroll (4)				
Outdoor	Net face area - ft.² (total)	41.1	41.1	55.0	55.0				
Coils	Rows	1	1	1	1				
0.11	Fins - in.	23	23	23	23				
Outdoor	Motor HP (number and type)	1/3 (3 PSC)	1/3 (3 PSC)	1/3 (4 PSC)	1/3 (6 PSC)				
Coil Fans	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	Net face area - ft.² (total)	21.4	21.4	21.4	21.4				
Coils	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				
2	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable elements 3, 5, 7.5 5, 7.5, 10							
<sup>2</sup> Indoor	Nominal motor HP								
Blower	Maximum usable motor HP (US)		75, 8.62		62, 11.5				
and Drive	Motor - Drive kit number	_	HP : 705		HP				
Selection			5-725 rpm		5-856 rpm				
Selection			)-965 rpm		-1045 rpm -1185 rpm				
			HP		•				
			5-856 rpm		HP				
			-1045 rpm		-1045 rpm				
			-1185 rpm		-1185 rpm				
			HP		-1285 rpm				
			-1045 rpm		HP				
			-1185 rpm		-1185 rpm				
		Kit 8 1045-1285 rpm Kit 10 1045-1285 rpm							
		Kit 11 1135-1330 rpm							
	Wheel (Number) diameter x width - in.			5 x 15					
Filters	Type of filter			Disposable					
	Number and size - in.								
Line voltage	data (Volts-Phase-Hz)	208/230-3-60 460-3-60							
	acity includes evaporator blower meter heat deduction			3-60					

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

NOTE – Motor service factor limit - 1.0.

<sup>&</sup>lt;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>&</sup>lt;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.

SPECIFICAT	ΓIONS				GAS HEAT
<b>Heat Input Type</b>			Standard (S)	Medium (M)	High (H)
Number of Gas I	Heat Stages		¹ Two	¹ Two	¹ Two
<sup>1</sup> Gas Heating	Input - Btuh	First Stage	85,000	117,000	156,000
Performance		Second Stage	169,000	234,000	312,000
		Third Stage	214,000	297,000	396,000
		Fourth Stage	260,000	360,000	480,000
	Output - Btuh	First Stage			
		Second Stage			
		Third Stage			
		Fourth Stage	211,000	292,000	389,000
Temperature Rise	e Range - °F	First Stage	15-45	30-60	40-70
		Second Stage			
Minimum Air Volu	ıme - cfm		4500	4500	5125
Thermal Efficience	;y		81%	81%	81%
Gas Supply Conr	nections		1 in. NPT	1 in. NPT	1 in. NPT
Recommended G	Sas Supply	Natural	7	7	7
Pressure - in. w.g	J.	LPG/Propane	11	11	11
Gas Supply		Min./Max. (Natural)		4.7 - 10.5 in. w.g.	
Pressure Range		Min./Max. (LPG)		10.8 - 13.5 in. w.g.	

<sup>&</sup>lt;sup>1</sup> Two-stage heat models can be operated with four stages of gas heating when controlled in either zone sensor, Discharge Air Control, or fresh air tempering mode on the Intelli-Guide™ unit controller.

#### 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.

#### **ONE STAGE HEAT**

#### No Adjustment Required

#### **TWO STAGE HEAT**

Heat Innut Type	Altitude Feet	Gas Manifold	Pressure - in. w.g.	Input Rate (Btuh)					
Heat Input Type	Allitude reet	Natural Gas	LPG/Propane Gas	First Stage	Second Stage				
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				

#### **FOUR STAGE HEAT**

		Gas Manifold	Pressure - in. w.g.	Input Rate (Btuh)							
<sup>1</sup> Heat Input Type	Altitude Feet	Natural Gas	LPG/Propane Gas	First Stage	Second Stage	Third Stage	Fourth Stage				
Standard (4 stage)	2001 - 4500	1.6 / 3.1	4.4 / 8.9	85,000	169,000	204,000	239,000				
Medium (4 stage)	2001 - 4500	1.6 / 3.1	4.4 / 8.9	117,000	234,000	283,000	331,000				
High (4 stage)	2001 - 4500	1.6 / 3.1	4.4 / 8.9	156,000	312,000	377,000	442,000				

<sup>&</sup>lt;sup>1</sup> Four-Stage Gas Heating is field configured.

#### **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)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total		(	65°F			75°F						-	35°F					95°F		
Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ble To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor		atio (S/	
perature		Cap.	Input		ry Bul		Cap.	Input		ry Bul		Cap.	Input		ry Bul	_	Cap.	Input		ry Bull	
po. a.a.	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
	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
63°F	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
	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
67°F	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
	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
71°F	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)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Сар.	Input		ry Bull	b
poruturo	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
	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
63°F	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
	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
67°F	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
	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
71°F	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)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.		ible To		Total	Comp.		ble To		Total	Comp.		ble To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor	_	atio (S/		Cool	Motor		atio (S/	
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul		Cap.	Input	D	ry Bul	_	Сар.	Input		ry Bull	
	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
	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
63°F	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
	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
67°F	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
	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
71°F	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)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Cap.	Input	C	ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
poruturo	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
	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
63°F	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
	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
67°F	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	8.0	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
	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
71°F	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)

F . 4								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ble To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor	Ra	atio (S	T)	Cool	Motor		atio (S/		Cool	Motor	Ra	tio (S/	T)	Cool	Motor	R	atio (S/	Τ)
perature		Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Сар.	Input		ry Bull	b
portation	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
	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
63°F	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
	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
67°F	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
	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
71°F	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)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total			85°F					95°F				1	05°F					115°F		
Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To			Comp.		ble To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor	_	atio (S		Cool	Motor		atio (S/		Cool	Motor		tio (S/		Cool	Motor		atio (S/	
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	b
poruturo	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
	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
63°F	8000	250.9	14.97	0.77	0.93	1	237.4	17	0.78	0.95	1	224.1	19.22	8.0	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
	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
67°F	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
	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
71°F	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	8.0	260.3	19.63	0.45	0.63	0.82	243.7	22.12	0.45	0.65	0.84

#### 25 TON - LGX300S5M (PART LOAD)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total			65°F					75°F				8	35°F					95°F		
Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ble To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor	Ra	atio (S	(T)	Cool	Motor		atio (S/		Cool	Motor	Ra	atio (S	T)	Cool	Motor	R	atio (S/	Τ)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input		ry Bull	b
perature	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
	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	8.0	0.97	1
63°F	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
	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
67°F	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
	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
71°F	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)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			85°F					95°F				1	05°F					115°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	R	atio (S	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Сар.	Input		ry Bull	b
poruturo	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
	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
63°F	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
	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
67°F	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
	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
71°F	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	0.79

#### **DEHUMIDIFICATION SYSTEM 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 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	door C	oil						
Entering	Total		(	65°F					75°F				1	85°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	T)	Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor	R	atio (S/	Τ)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bull	<u> </u>
poruturo	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
	3500	72.59	4.57	0.54	0.69	0.85	53.64	5.21	0.47	0.69	0.88	35.15	5.86	0.31	0.65	0.93	17.07	6.60	-0.26	0.52	1.00
63°F	4000	75.44	4.61	0.57	0.74	0.89	55.69	5.25	0.50	0.73	0.91	36.13	5.90	0.35	0.71	0.96	16.84	6.64	-0.26	0.64	1.00
	4500	78.05	4.65	0.59	0.78	0.91	57.34	5.28	0.53	0.78	0.94	36.73	5.94	0.38	0.79	1.00	16.41	6.68	-0.26	0.78	1.00
	3500	82.70	4.65	0.41	0.55	0.68	64.04	5.29	0.30	0.49	0.66	45.59	5.94	0.11	0.39	0.64	26.95	6.68	-0.38	0.14	0.56
67°F	4000	86.10	4.69	0.42	0.57	0.71	66.31	5.33	0.32	0.52	0.71	46.67	5.99	0.12	0.42	0.69	26.64	6.72	-0.41	0.17	0.64
	4500	88.82	4.72	0.43	0.60	0.75	68.05	5.36	0.33	0.55	0.75	47.33	6.02	0.12	0.46	0.75	26.49	6.76	-0.45	0.21	0.73
	3500	93.34	4.72	0.29	0.42	0.55	74.66	5.37	0.17	0.35	0.51	56.03	6.03	-0.02	0.22	0.43	37.37	6.77	-0.43	-0.04	0.29
71°F	4000	96.78	4.75	0.29	0.44	0.58	76.88	5.40	0.18	0.37	0.54	57.14	6.06	-0.04	0.23	0.46	36.85	6.80	-0.49	-0.05	0.32
	4500	99.52	4.78	0.30	0.46	0.60	78.69	5.43	0.17	0.38	0.56	57.60	6.09	-0.05	0.25	0.50	36.46	6.83	-0.55	-0.05	0.36

#### 15 TON - LGX180S5M WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sensi	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	tio (S/	T)	Cool	Motor	R	atio (S/	Τ)
perature		Сар.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bulk	5
poruturo	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
	4800	120.72	6.98	0.55	0.75	0.94	96.51	8.10	0.50	0.75	0.98	72.52	9.22	0.41	0.75	1.00	48.73	10.42	0.24	0.74	1.00
63°F	6000	127.64	7.04	0.61	0.85	1.00	101.51	8.16	0.58	0.87	1.00	75.20	9.29	0.52	0.90	1.00	48.74	10.48	0.38	0.98	1.00
	7200	132.55	7.09	0.68	0.93	0.99	104.64	8.21	0.66	0.97	1.00	77.12	9.34	0.62	1.00	1.00	50.48	10.54	0.54	1.00	1.00
	4800	137.03	7.06	0.36	0.54	0.71	112.56	8.18	0.28	0.50	0.71	88.36	9.31	0.15	0.43	0.70	63.84	10.50	-0.08	0.32	0.69
67°F	6000	144.54	7.12	0.40	0.61	0.81	117.97	8.24	0.32	0.58	0.82	91.14	9.36	0.20	0.53	0.84	64.72	10.56	-0.04	0.44	0.87
	7200	149.26	7.15	0.43	0.67	0.89	120.92	8.28	0.36	0.65	0.92	92.52	9.41	0.24	0.62	0.97	63.93	10.60	0.01	0.57	1.00
	4800	152.82	7.13	0.21	0.37	0.53	128.39	8.25	0.11	0.31	0.49	103.94	9.38	-0.04	0.21	0.44	79.49	10.58	-0.28	0.05	0.36
71°F	6000	161.14	7.18	0.22	0.41	0.60	134.13	8.31	0.12	0.35	0.57	107.35	9.44	-0.03	0.26	0.53	80.79	10.64	-0.30	0.11	0.47
	7200	166.14	7.22	0.22	0.45	0.66	137.10	8.34	0.12	0.39	0.64	108.70	9.47	-0.04	0.31	0.62	80.31	10.68	-0.32	0.16	0.58

#### 17.5 TON - LGX210S5M WITH DEHUMIDIFICATION OPERATING (PART LOAD)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(	65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ible To	
Tem-	Volume	Cool	Motor		atio (S		Cool	Motor		atio (S/		Cool	Motor	_	atio (S/		Cool	Motor		atio (S/	
perature		Сар.	Input		ry Bul	b	Сар.	Input		ry Bul		Cap.	Input		ry Bul		Сар.	Input		ry Bull	
porataro	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
	4000	81.12	6.32	0.52	0.67	0.81	58.39	6.92	0.40	0.61	0.81	36.56	7.64	0.14	0.51	0.79	15.31	8.53	-0.99	0.10	0.73
63°F	4750	87.60	6.44	0.57	0.73	0.85	63.72	7.05	0.48	0.70	0.85	40.94	7.78	0.27	0.65	0.86	19.06	8.67	-0.45	0.48	0.86
	5500	92.28	6.54	0.61	0.78	0.88	67.89	7.15	0.53	0.78	0.88	44.46	7.88	0.38	0.76	0.88	22.33	8.78	-0.11	0.67	0.87
	4000	93.54	6.49	0.40	0.54	0.66	70.79	7.10	0.27	0.45	0.62	48.53	7.84	0.01	0.30	0.55	27.58	8.74	-0.67	-0.07	0.39
67°F	4750	99.88	6.61	0.43	0.58	0.72	76.35	7.23	0.32	0.52	0.70	52.97	7.96	0.10	0.40	0.66	31.04	8.87	-0.44	0.12	0.58
	5500	104.67	6.71	0.47	0.62	0.77	80.09	7.33	0.36	0.57	0.76	56.57	8.08	0.16	0.47	0.75	33.78	8.98	-0.30	0.26	0.72
	4000	105.27	6.65	0.29	0.43	0.55	82.95	7.28	0.17	0.34	0.49	60.06	8.02	-0.09	0.17	0.39	39.01	8.93	-0.57	-0.16	0.19
71°F	4750	111.93	6.78	0.32	0.46	0.59	88.05	7.41	0.19	0.38	0.54	64.84	8.16	-0.01	0.23	0.46	43.44	9.08	-0.44	-0.04	0.31
	5500	116.44	6.88	0.34	0.49	0.63	92.65	7.52	0.22	0.42	0.59	68.58	8.27	0.02	0.29	0.52	45.75	9.18	-0.37	0.04	0.41

#### 17.5 TON - LGX210S5M WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

			65°E					Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total		(	65°F					75°F				8	35°F					95°F		
Wet Bulb	Air Volume	Total Cool	Comp. Motor		ible To		Total Cool	Comp. Motor		ible To atio (S/		Total Cool	Comp. Motor		ble To		Total Cool	Comp. Motor		ible To atio (S/	
Tem- perature		Cap.	Input		ry Bul		Cap.	Input		ry Bul		Cap.	Input		ry Bul		Cap.	Input		ry Bull	
perature	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
	5600	144.60	9.52	0.54	0.73	0.92	114.40	10.52	0.49	0.74	0.98	83.79	11.69	0.40	0.75	1.00	55.02	13.11	0.22	0.77	1.00
63°F	7000	151.95	9.73	0.60	0.83	0.98	119.89	10.74	0.57	0.87	1.00	87.25	11.91	0.51	0.93	1.00	56.13	13.33	0.40	1.00	1.00
	8400	158.17	9.88	0.67	0.93	0.98	124.87	10.91	0.66	0.98	1.00	92.42	12.12	0.64	1.00	1.00	61.14	13.56	0.60	1.00	1.00
	5600	164.88	9.79	0.35	0.52	0.70	134.57	10.82	0.26	0.49	0.70	103.68	12.00	0.13	0.42	0.70	74.12	13.42	-0.09	0.32	0.70
67°F	7000	172.24	10.00	0.39	0.59	0.80	139.95	11.03	0.30	0.56	0.81	106.72	12.21	0.19	0.53	0.85	75.47	13.65	-0.03	0.45	0.90
	8400	177.60	10.14	0.42	0.66	0.89	144.10	11.19	0.35	0.65	0.92	109.15	12.37	0.24	0.64	0.98	75.85	13.79	0.04	0.61	1.00
	5600	184.72	10.06	0.20	0.36	0.51	154.48	11.11	0.09	0.29	0.48	123.04	12.30	-0.05	0.20	0.43	93.34	13.74	-0.31	0.04	0.36
71°F	7000	192.57	10.28	0.20	0.40	0.58	159.28	11.31	0.10	0.34	0.56	126.77	12.53	-0.05	0.25	0.53	94.88	13.96	-0.30	0.10	0.47
	8400	196.74	10.41	0.21	0.43	0.64	163.27	11.47	0.11	0.38	0.64	129.32	12.69	-0.04	0.31	0.62	96.15	14.13	-0.30	0.18	0.60

#### **DEHUMIDIFICATION SYSTEM 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 WITH DEHUMIDIFICATION OPERATING (PART LOAD)

								Ou	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering	Total			65°F					75°F					35°F					95°F		
Wet Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor		atio (S/		Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	Ra	atio (S/	Τ)
perature		Cap.	Input		ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bull	<u> </u>
porataro	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
	4500	96.79	7.72	0.55	0.69	0.82	73.46	8.51	0.48	0.67	0.83	50.63	9.39	0.35	0.63	0.85	28.35	10.40	-0.02	0.51	0.86
63°F	5500	103.40	7.78	0.59	0.74	0.86	77.99	8.60	0.54	0.74	0.87	53.10	9.49	0.41	0.73	0.89	28.11	10.51	0.06	0.68	0.91
	6500	108.13	7.82	0.63	0.80	0.88	81.43	8.65	0.58	0.81	0.88	54.97	9.57	0.48	0.81	0.89	29.03	10.60	0.15	0.78	0.89
	4500	110.57	7.80	0.43	0.56	0.68	87.35	8.62	0.35	0.51	0.66	64.28	9.52	0.20	0.43	0.63	41.48	10.55	-0.14	0.24	0.56
67°F	5500	117.63	7.85	0.46	0.60	0.73	92.37	8.69	0.38	0.56	0.73	66.66	9.61	0.22	0.48	0.71	41.93	10.66	-0.13	0.31	0.68
	6500	122.65	7.87	0.48	0.64	0.78	95.38	8.74	0.40	0.60	0.79	68.39	9.67	0.25	0.54	0.79	41.69	10.73	-0.13	0.38	0.79
	4500	123.86	7.87	0.33	0.46	0.57	100.70	8.71	0.23	0.39	0.53	77.36	9.64	0.08	0.29	0.47	54.51	10.69	-0.22	0.09	0.35
71°F	5500	131.52	7.90	0.35	0.48	0.60	106.29	8.78	0.25	0.42	0.57	80.40	9.72	0.09	0.32	0.52	55.27	10.79	-0.25	0.11	0.41
	6500	136.61	7.93	0.36	0.51	0.64	109.53	8.81	0.26	0.45	0.61	82.88	9.79	0.09	0.35	0.57	55.84	10.86	-0.26	0.14	0.48

#### 20 TON - LGX240S5M WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

								Out	tdoor A	ir Tem	peratu	re Enter	ing Outo	loor C	oil						
Entering Wet	Total			65°F					75°F					35°F					95°F		
Bulb	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ble To	Total	Total	Comp.	Sens	ible To	Total
Tem-	Volume	Cool	Motor	Ra	atio (S/	(T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S/	T)	Cool	Motor	R	atio (S/	T)
perature		Сар.	Input		ry Bul	b	Сар.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bulk	<b>b</b>
poruturo	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
	6400	168.32	11.65	0.57	0.77	0.95	137.65	12.99	0.54	0.77	1.00	107.51	14.46	0.48	0.79	1.00	77.36	16.11	0.39	0.82	1.00
63°F	8000	178.04	11.74	0.64	0.86	1.00	144.61	13.12	0.61	0.89	1.00	111.58	14.61	0.58	0.94	1.00	79.37	16.29	0.52	1.00	1.00
	9600	185.73	11.80	0.70	0.95	1.00	150.80	13.21	0.70	0.99	1.00	116.30	14.73	0.69	1.00	1.00	83.70	16.45	0.67	1.00	1.00
	6400	191.38	11.77	0.38	0.56	0.73	160.15	13.15	0.32	0.53	0.73	128.82	14.66	0.22	0.49	0.73	99.11	16.36	0.07	0.42	0.74
67°F	8000	201.44	11.84	0.42	0.62	0.82	167.74	13.27	0.36	0.60	0.84	133.46	14.81	0.27	0.57	0.87	101.63	16.53	0.12	0.53	0.92
	9600	208.39	11.89	0.45	0.69	0.91	173.09	13.34	0.40	0.68	0.94	137.19	14.91	0.32	0.67	0.99	102.75	16.65	0.19	0.66	1.00
	6400	213.96	11.87	0.23	0.39	0.54	182.74	13.31	0.15	0.33	0.52	150.78	14.86	0.03	0.26	0.48	120.99	16.60	-0.13	0.16	0.43
71°F	8000	224.27	11.93	0.24	0.43	0.61	189.88	13.41	0.15	0.38	0.59	156.27	15.00	0.04	0.31	0.57	123.59	16.77	-0.13	0.21	0.54
	9600	231.20	11.97	0.25	0.47	0.67	195.38	13.48	0.17	0.43	0.66	160.30	15.10	0.05	0.37	0.66	124.56	16.77	-0.13	0.27	0.65

#### 25 TON - LGX300S5M WITH DEHUMIDIFICATION OPERATING (PART LOAD)

F								Out	door A	ir Tem	peratu	re Enter	ing Outo	door C	oil						
Entering Wet	Total		(	65°F					75°F					85°F					95°F		
Rulh	Air	Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ible To		Total	Comp.		ible To	
Tem-	Volume		Motor	R	atio (S	T)	Cool	Motor		atio (S/		Cool	Motor		atio (S/		Cool	Motor		atio (S/	
perature		Cap.	Input		ry Bul	b	Cap.	Input	D	ry Bul	b	Cap.	Input		ry Bul	b	Cap.	Input		ry Bull	D
porataro	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
	5750	85.82	6.39	0.69	0.97	1.00	63.38	6.97	0.62	1.00	1.00	40.76	7.62	0.47	1.00	1.00	17.68	8.47	-0.20	1.00	1.00
63°F	6750	90.76	6.49	0.76	1.00	1.00	66.41	7.06	0.71	1.00	1.00	42.69	7.71	0.61	1.00	1.00	19.21	8.58	0.08	1.00	1.00
	7750	95.53	6.56	0.82	1.00	1.00	70.53	7.11	0.80	1.00	1.00	45.92	7.81	0.75	1.00	1.00	21.07	8.59	0.46	1.00	1.00
	5750	99.33	6.54	0.43	0.68	0.92	76.24	7.09	0.29	0.63	0.93	52.77	7.76	0.04	0.53	0.97	29.91	8.55	-0.70	0.29	1.00
67°F	6750	103.38	6.62	0.47	0.74	0.99	78.80	7.16	0.34	0.71	1.00	53.94	7.84	0.08	0.64	1.00	28.92	8.62	-0.69	0.46	1.00
	7750	106.98	6.67	0.51	0.80	1.00	80.48	7.22	0.39	0.79	1.00	54.47	7.90	0.13	0.75	1.00	27.95	8.68	-0.65	0.65	1.00
	5750	112.29	6.68	0.22	0.45	0.67	89.05	7.23	0.05	0.35	0.63	65.59	7.91	-0.24	0.19	0.56	42.17	8.70	-0.90	-0.17	0.42
71°F	6750	116.80	6.76	0.25	0.50	0.73	91.81	7.30	0.07	0.40	0.70	67.11	7.98	-0.25	0.24	0.66	41.68	8.78	-0.97	-0.12	0.55
	7750	120.70	6.81	0.27	0.53	0.78	94.30	7.36	0.10	0.44	0.77	68.13	8.05	-0.21	0.30	0.74	41.10	8.83	-0.99	-0.05	0.69

#### 25 TON - LGX300S5M WITH DEHUMIDIFICATION OPERATING (FULL LOAD)

-									4daau 1	in Town		va Fratav	in Ot.	100× C	-:1						
Entering										ur rem	peratu	re Enter	ing Out		OII						
Wet	Total			65°F					75°F					35°F					95°F		
	Air	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sens	ible To	Total	Total	Comp.	Sensi	ible To	Total	Total	Comp.	Sens	ible To	Total
Bulb	Volume	Cool	Motor	Ra	atio (S/	/T)	Cool	Motor	R	atio (S/	T)	Cool	Motor	Ra	atio (S	T)	Cool	Motor	R	atio (S/	T)
Tem- perature		Сар.	Input	D	ry Bul	b	Cap.	Input		ry Bul	b	Сар.	Input	D	ry Bul	b	Cap.	Input		ry Bull	o o
perature	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
	8000	212.97	13.23	0.62	0.83	0.95	181.79	14.73	0.59	0.82	0.98	149.47	16.46	0.59	0.83	1.00	116.66	18.45	0.55	0.86	1.00
63°F	9500	221.32	13.37	0.66	0.86	1.00	185.85	14.88	0.65	0.88	1.00	150.35	16.58	0.64	0.90	1.00	113.28	18.63	0.60	0.94	1.00
	11000	228.63	13.49	0.71	0.91	1.00	189.97	15.01	0.71	0.93	1.00	150.35	16.72	0.72	0.96	1.00	110.10	18.70	0.67	1.00	1.00
	8000	237.60	13.40	0.42	0.60	0.78	205.06	14.92	0.37	0.58	0.79	171.98	16.71	0.31	0.55	0.79	137.39	18.56	0.22	0.52	0.80
67°F	9500	245.51	13.51	0.45	0.64	0.82	209.15	15.02	0.40	0.62	0.83	171.79	16.83	0.34	0.61	0.85	134.31	18.74	0.20	0.59	0.87
	11000	251.75	13.58	0.47	0.68	0.87	212.86	15.13	0.41	0.69	0.89	172.14	16.94	0.33	0.67	0.91	131.18	18.94	0.23	0.67	0.95
	8000	264.05	13.60	0.26	0.43	0.58	230.83	15.15	0.20	0.39	0.57	196.57	16.87	0.12	0.34	0.54	162.03	18.98	0.01	0.25	0.50
71°F	9500	272.96	13.72	0.26	0.44	0.62	236.36	15.27	0.20	0.41	0.60	198.53	17.01	0.11	0.33	0.58	159.20	19.13	-0.04	0.25	0.58
	11000	280.11	13.81	0.26	0.46	0.67	239.88	15.38	0.19	0.42	0.65	199.83	17.12	0.10	0.37	0.65	157.05	19.20	-0.05	0.29	0.63

# **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 31 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

BHP         RPM         RPM         BHP         RPM         RPM <th>- - -</th> <th></th> <th></th> <th>-</th> <th></th> <th>-</th> <th>_</th> <th>_</th> <th></th> <th></th> <th>ST/</th> <th>Ĕ</th> <th>C PRES</th> <th>SURE</th> <th>- Inches</th> <th>Water</th> <th>Gauge</th> <th>(Pa)</th> <th> </th> <th></th> <th></th> <th></th> <th> </th> <th></th> <th>_</th> <th></th> <th></th>	- - -			-		-	_	_			ST/	Ĕ	C PRES	SURE	- Inches	Water	Gauge	(Pa)							_		
CAM         BHP         RPM         RPM <th>Volume</th> <th>0.20</th> <th>50</th> <th>0</th> <th>0.40</th> <th>09.0</th> <th>90</th> <th>0.80</th> <th>0</th> <th>1.00</th> <th>0</th> <th>1.2</th> <th>0</th> <th>1.4</th> <th>0</th> <th>1.6</th> <th></th> <th>1.80</th> <th></th> <th>2.00</th> <th></th> <th>2.20</th> <th>_</th> <th>2.40</th> <th></th> <th>2.60</th> <th></th>	Volume	0.20	50	0	0.40	09.0	90	0.80	0	1.00	0	1.2	0	1.4	0	1.6		1.80		2.00		2.20	_	2.40		2.60	
386         0.30         6.00         0.70         680         0.70         7.50         1.40         8.00         1.70         8.00         0.70         8.00         0.70         8.00         1.70         8.00         1.70         9.00         1.80         1.70         9.00         1.80         9.00         1.80         1.70         9.00         1.80         1.70         9.00         1.80         1.70         9.00         1.80         1.70         9.00         1.80         1.70         9.00         2.00         1.80         1.70         1.80         9.00         2.00         1.80         1.70         9.00         2.00         1.80         1.70         9.00         2.00         1.80         9.00         2.00         1.80         9.00         2.00         9		RPM		RPM		RPM	ВНР	RPM	ВНР	RPM	ВНР		ВНР	RPM				_		_		_		RPM B	BHP R	RPM E	ВНР
356         0.35         616         0.55         610         0.75         1.20         825         1.45         885         1.70  .	2750	385	0.30	505	0.50	009	0.70	089	06.0	755	1.10	820	1.30	:	:	:	:	:	:	-	-		:	:	:	:	:
406         0.40         520         0.60         617         0.65         618         9.69         1.0         6.0         7.0         7.0         1.00         4.00         7.0         7.0         1.00         9.0         1.0         7.0         7.0         1.0         7.0         1.0         7.0         1.0         7.0         1.0         2.0         2.0         2.0         2.0         1.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0         2.0	000	395	0.35	515	0.55	610	0.75	685	1.00	092	1.20	825	1.45	885	1.70		:	-	-	-					<u>'</u> ;	<u> </u>	:
415         0.45         530         0.70         620         0.85         0.20         985         2.65         1.00         0.20         0.85         0.25         1.00         0.20         0.85         0.20         0.85         0.85         0.70         0.8	250	405	0.40	520	09.0	615	0.85	695	1.10	292	1.30	830	1.60	890	1.85	920	2.10	:		-				-	<u> </u>	<u> </u>	:
425         0.05         540         0.75         540         0.75         540         0.75         540         0.75         540         0.75         540         0.75         540         0.75         540         0.75         540         0.75         545         0.06         545         0.06         545         0.06         545         0.06         545         0.00         645         1.76         1.70         1.80         2.00         910         2.45         1.00         0.00         545         1.00         0.00         545         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00         1.00         0.00	200	415	0.45	530	0.70	620	0.95	200	1.20	775	1.45	840	1.70	006	2.00	955	2.25	_	2.55	-				<u> </u>	<u>'</u> :	<u> </u>	:
435         655         646         0.085         645         1.00         645         1.00         1.0	750	425	0.50	540	0.75	630	1.05	710	1.30	780	1.60	845	1.85	902	2.15	096	2.45	_	2.70				3.30	:	:	-	:
445         0.60         555         0.90         645         1.25         7.55         1.55         7.65         1.15         7.65         1.15         7.60         655         1.00         655         1.00         655         1.20         67.0         1.60         98.0         2.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         1.00         3.55         1.00         4.00         1.00         3.50         1.00         3.50         1.00         4.00         1.00         3.50         1.00         3.50         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00         4.00         1.00<	000	435	0.55	545	0.85	635	1.10	715	1.40	785	1.70	850	2.00	910	2.30	965	2.60		2.90		•		3.55	1160 3	3.85 12	205 4	1.15
455         0.70         566         1.00         665         1.35         730         1.65         800         2.05         8.65         3.00         1.00         8.63         1.00         665         1.45         7.00         8.00         2.05         9.86         3.05         1.00         9.80         1.00         9.80         3.00         1.00         9.80         3.00         1.00         9.80         3.00         1.00         3.05         1.00         3.05         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         1.00         3.00         3.00         1.00         3.00         1.00         3.00<	250	445	09.0	555	06.0	645	1.25	725	1.55	795	1.85	_	2.15	915	2.45	970	2.80	_	3.10	_	_		3.75		4.10 12	210 4	4.45
470         0.75         575         1.10         660         1.44         1.80         1.80         2.15         970         2.85         985         3.40         1040         3.55         1.40         3.65         1.45         1.40         3.65         1.45         1.40         1.40         3.65         1.45         3.60         1.45         3.60         1.45         1.40         1.40         3.65         1.45         3.60         1.45         3.60         1.45         3.60         1.45         3.60         1.45         3.60         1.45         3.60	200	455	0.70	292	1.00	655	1.35	730	1.65	800	2.00		2.35	925	2.65	086	3.00		3.30		_		4.05	1175 4	4.35   12	1215 4	4.70
480         0.85         585         1.25         670         1.60         750         1.89         2.70         940         3.05         935         3.40         1045         3.80         1.75         6.80         2.00         2.00         945         2.20         945         3.65         100         3.85         100         4.00         110         4.00         110         4.00         110         6.00         1.85         2.65         2.20         2.20         9.25         3.25         960         3.65         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         10.00         3.85         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00         10.00         4.00	120	470	0.75	575	1.10	099	1.45	740	1.80	810	2.15		2.50	930	2.85	985	3.20		3.55	_	_	_	4.25	1180 4	4.65 12	1225	5.00
495         6.95	000	480	0.85	585	1.25	029	1.60	750	1.95	815	2.30		2.70	940	3.05	962	3.40		_		`				4.90 12	1230	5.30
505         1.05         6.05         1.45         6.90         1.85         7.65         2.25         8.35         2.65         8.95         3.45         10.01         3.85         10.60         4.25         11.01         4.70         10.65         4.50         11.05         6.05         1.15         4.00         10.85         4.50         11.05         3.65         10.15         4.50         11.05         4.50         11.05         4.00         10.85         4.50         11.05         3.05	250	495	0.95	595	1.35	089	1.70	755	2.10	825	2.50		2.90	945	3.25	1000	3.65		`	_	`		_	1195 5	5.20 12	1235	5.60
520         1.15         615         1.60         700         2.00         775         2.45         840         2.85         960         3.65         1015         4.10         1065         4.50         1115         4.10         1065         4.50         1115         4.10         1065         4.50         1115         4.35         1075         4.10         10.85         4.10         1065         4.20         1075         4.10         1075         4.10         1076         4.85         1075         4.85         1075         4.85         1170         5.20         1170         5.20         2.80         8.20         3.00         3.00         3.00         3.00         4.20         9.95         4.65         10.40         4.85         1090         5.85         1180         5.80         1170         4.10         5.80         1170         4.10         5.80         4.20         9.95         4.65         1040         4.85         1090         5.85         1180         5.80         1180         4.80         1180         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.80         4.8	200	202	1.05	909	1.45	069	1.85	292	2.25	835	2.65	_	3.05	922	3.45	1010	3.85	_	<u>`</u>	_	<u>`</u>	_	<u>`</u>		5.50   12	1240	5.90
530         1.30         630         1.75         710         2.15         785         2.60         860         3.25         970         3.45         970         3.45         970         4.05         1.05         4.05         1.05         7.25         1.05         7.25         2.80         860         3.25         870         3.70         970         4.05         1.05         1.05         1.05         1.20         2.30         870         3.20         870         3.70         970         4.05         1.05	750	520	1.15	615	1.60	200	2.00	775	2.45	840	2.85	902	3.25	096	3.65	1015	4.10						`	1205 5	5.80 12	1250 6	6.25
545         1.40         640         1.90         720         2.35         795         2.80         860         3.25         970         9.75         4.15         1030         4.60         1080         5.05         1170         940         4.15         1030         5.05         1170         940         4.85         1040         4.85         1090         5.05         1170         940         4.85         1040         4.85         1040         4.85         1040         4.85         1040         4.85         1040         5.85         1140         5.85         1140         5.85         1140         5.85         1140         6.85         1140         6.85         1140         6.85         1140         6.85         1140         6.85         1140         6.85         1140         6.85         1140         8.85         1100         8.85         4.95         1060         4.95         1060         6.75         1170         6.85         1170         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85         1180         8.85 <td>000</td> <td>530</td> <td>1.30</td> <td>630</td> <td>1.75</td> <td>710</td> <td>2.15</td> <td>785</td> <td>2.60</td> <td>820</td> <td>3.05</td> <td>_</td> <td>3.45</td> <td>970</td> <td>3.90</td> <td>1025</td> <td>4.35</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td><u>`</u></td> <td></td> <td>6.10   12</td> <td>1255 (</td> <td>6.55</td>	000	530	1.30	630	1.75	710	2.15	785	2.60	820	3.05	_	3.45	970	3.90	1025	4.35	_	_	_	_	_	<u>`</u>		6.10   12	1255 (	6.55
560         1.55         650         2.05         730         2.05         3.04         3.04         3.05         986         4.40         1040         4.85         1090         5.35         1140         5.0	250	545	1.40	640	1.90	720	2.35	795	2.80	860	3.25		3.70	975		1030	4.60				_	_	•		6.45 12	1265 (	06.9
570         1.70         665         2.20         745         2.70         815         3.20         880         3.70         940         4.20         995         4.65         1.04         6.05         5.04         1.145         6.10         1.145         6.05         1.145         6.10         1.145         6.10         1.140         6.10	200	260	1.55	650	2.05	730	2.50	805	3.00	870	3.45		3.95	985		1040	4.85		_	_	_		<u> </u>	1225   6	6.75   12	1270 7	7.25
586         1.35         675         2.36         8.25         3.40         890         3.95         4.45         1005         4.95         1055         5.40         1105         6.25         1105         5.29         1156         6.45         1105         6.25         1105         6.75         1105         6.	750	220	1.70	999	2.20	745	2.70	815	3.20	880	3.70		4.20	962		1045	5.10	_		_	_		<u> </u>		7.10 12		.60
600         2.00         690         2.60         765         3.10         8.35         3.65         9.04         4.15         9.65         4.65         1015         5.25         1065         5.75         1116         6.75         1106         6.75         11	000	585	1.85	675	2.35	755	2.90	825	3.40	890	3.95		4.45	1005		1055									_		8.00
615         2.20         700         2.75         775         3.30         845         3.85         910         4.45         965         4.95         1020         5.50         1075         6.05         1125         6.00         1170         7.15         1215           630         2.40         7.15         3.00         790         3.55         8.410         920         4.70         975         5.25         1030         6.00         6.00         1170         7.15         1130         6.90         1180         7.50         1180         7.50         1180         7.50         1225         1226         9.00         5.00         8.00         4.80         4.85         940         6.25         1000         6.10         1000         6.10         1000         6.10         1000         6.10         1000         7.00         1100         7.00         1100         7.00         1100         7.00         1100         7.00         1100         7.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         1100         1100         1100	250	009	2.00	069	2.60	292	3.10	835	3.65	006	4.15		4.65	1015		1065	_	_			_	_	_		_	1290	8.35
630         2.40         715         3.00         790         3.55         8.55         4.10         920         4.70         975         5.25         1030         5.80         1180         6.35         1180         6.30         1180         7.50         1228           640         2.55         3.20         800         3.80         865         4.35         930         4.95         985         5.50         1040         6.10         1090         6.70         1140         7.25         1185         7.85         1230         1228         1240         8.05         1180         6.70         1140         7.55         1180         8.05         1240         8.05         1280         4.95         985         5.80         1050         6.70         1100         7.00         1100         7.00         1100         7.00         1100         7.00         1100         7.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         8.00         1100         1100         1100         1100	200	615	2.20	200	2.75	775	3.30	845	3.85	910	4.45		4.95	1020		1075			_						8.25   13		8.75
640         2.55         725         3.20         800         3.80         865         4.35         930         4.95         985         5.50         1040         6.10         1090         6.70         1140         7.25         1185         7.85         1230           655         2.80         740         810         4.05         940         5.25         995         5.85         1050         6.45         1100         7.05         1150         7.65         1195         8.25         1240           670         3.00         750         860         5.55         1005         6.85         100         7.05         1160         8.05         120         120         8.05         120         8.05         100         5.85         100         5.85         100         6.85         100         6.85         100         6.85         100         6.85         100         8.05         100         8.05         100         8.05         100         8.05         100         8.05         100         8.05         100         9.05         100         9.05         100         9.05         100         9.05         100         9.05         100         9.05         100 <t< td=""><td>750</td><td>630</td><td>2.40</td><td>715</td><td>3.00</td><td>790</td><td>3.55</td><td>855</td><td>4.10</td><td>920</td><td>4.70</td><td>_</td><td>5.25</td><td>1030</td><td></td><td>1080</td><td>6.35</td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>8.60 13</td><td>1305   8</td><td>9.15</td></t<>	750	630	2.40	715	3.00	790	3.55	855	4.10	920	4.70	_	5.25	1030		1080	6.35					_			8.60 13	1305   8	9.15
655 2.80 740 3.40 8.04 8.0 4.05 880 4.05 940 5.25 995 5.85 1050 6.45 1100 7.05 1150 7.05 1150 8.05 1195 8.25 1240 670 8.00 750 8.05 8.05 8.05 8.05 8.05 8.05 8.05 8.	000	640	2.55	725	3.20	800	3.80	865	4.35	930	4.95		5.50	1040		1090	02.9						_				9.60
670         3.00         750         3.65         8.25         4.30         890         4.90         950         5.55         1005         6.10         6.80         1110         7.40         1160         8.05         1250         1250         1005         6.15         1000         6.80         1110         7.40         1160         8.05         1205         1205         1005         5.25         1000         7.50         1120         7.75         1160         8.05         1205         1205         1000         6.80         1000         7.50         1100         7.75         1160         8.05         1205         9.20         1205         9.20         1205         9.20         1205         9.20         1205         9.20         1000         7.50         1100         7.75         1100         7.75         1100         7.75         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         7.20         1100         7.20         1100         7.20         1100         7.20         1100         7.20         1100         7.20         1100         8.25         1100         9.2	250	655	2.80	740	3.40	810	4.00	880	4.65	940	5.25	_	5.85	1050		1100	7.05	_	_	_	_	_	_			1325   1	10.05
685         3.25         765         3.90         8.35         4.55         900         5.20         960         5.85         1015         6.45         1070         7.15         1120         7.75         1165         8.35         1215         9.05         1255           700         3.50         780         4.25         900         5.20         970         6.15         1026         6.80         1080         7.50         1130         8.15         1175         8.75         1205         9.00         1265         9.00         7.50         1090         7.85         1140         8.55         1185         9.20         1203         9.85         1275         9.00         1205         9.00         1205         9.00         1205         1205         1100         8.25         1160         8.25         1180         8.25         1180         9.00         1205         1205         1205         1100         8.20         1100         8.25         1100         8.20         1100         7.20         1000         7.20         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100	200	029	3.00	750	3.65	825	4.30	890	4.90	950	5.55		6.15	1060		1110	7.40				`	_	_			1330   1	10.45
700         3.50         780         4.26         8.60         6.15         970         6.15         1025         6.80         1080         7.50         1130         8.15         1175         8.75         1220         9.40         1265           715         3.75         790         4.45         860         5.15         925         6.55         1040         7.20         1090         7.85         1140         8.55         1185         9.20         1203         9.85         1275         9.80         1100         8.25         1160         9.40         1260         1280         9.80         1100         8.25         1160         9.40         1260         1280         9.80         1280	750	685	3.25	292	3.90	835	4.55	006	5.20	096	5.85		6.45	1070	_	1120	_	_	<u>`</u>	_	`	_	9.65	_	10.30	-	:
715         3.75         790         4.45         860         5.15         925         6.55         1040         7.20         1040         7.85         1140         8.55         1185         9.20         1230         9.85         1275         1275         110         8.55         1160         7.20         1060         7.80         1100         8.25         1160         8.25         1185         9.20         10.00         1286         1160         9.20         1100         8.25         1160         9.40         1205         1170         9.80         1185         9.60         11.20         11.20         9.60         11.20         9.20         1100         8.25         1160         9.40         1205         10.20         10.80         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.20         9.60         11.	0006	200	3.50	780	4.20	850	4.85	910	5.50	920	6.15		08.9	1080		1130			_	_	`	_	10.10	_	10.80	-	:
730         4.00         805         4.75         875         6.45         935         6.15         995         6.90         1050         7.60         1100         8.25         1150         8.95         1150         8.25         1150         8.25         1150         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         8.25         1100         9.20         1100         1100         1100	250	715	3.75	790	4.45	860	5.15	925	5.85	985	6.55	1040	7.20	1090	7.85	1140	8.55	_	9.20	_	_	<u> </u>	10.55	1315 1	11.20	-	:
745         4.30         820         5.05         885         5.75         950         6.55         1005         7.20         1006         7.95         110         8.65         110         8.65         110         8.65         110         8.65         110         8.65         110         8.65         110         8.65         110         8.65         110         8.65         110         9.60         11.26         11.26         11.20         11.26         11.20         11.26         11.00         11.25 <th< td=""><td>9200</td><td>730</td><td>4.00</td><td>805</td><td>4.75</td><td>875</td><td>5.45</td><td>935</td><td>6.15</td><td>962</td><td>06.9</td><td>1050</td><td>7.60</td><td>1100</td><td></td><td>1150</td><td>8.95</td><td></td><td>09.6</td><td>_</td><td>`</td><td>_</td><td>11.05</td><td>-</td><td><u> </u></td><td><u> </u></td><td>:</td></th<>	9200	730	4.00	805	4.75	875	5.45	935	6.15	962	06.9	1050	7.60	1100		1150	8.95		09.6	_	`	_	11.05	-	<u> </u>	<u> </u>	:
760         4.60         835         5.40         900         6.15         960         6.85         1015         7.60         1070         8.35         1120         9.05         1170         9.80         1215         10.50         1260         2.20           775         4.90         8.45         970         7.20         1030         8.75         1135         9.55         1180         10.25         12.25         11.00            790         5.20         860         6.00         925         6.85         985         7.65         1040         8.40         1056         9.20         1145         10.00         1190         10.70         1235         11.45            805         5.55         875         6.40         940         7.25         1000         8.05         1165         9.65         1156         10.09                                   <	750	745	4.30	820	5.05	885	5.75	920	6.55	1005	7.20	1060	7.95	1110	8.65	1160	9.40	_	0.05	_	`	_	11.50	-	<u> </u>		:
775         4.90         845         5.65         910         6.45         970         7.20         1030         8.00         1080         8.75         1135         9.55         1180         10.25         1225         11.00            790         5.20         860         6.00         925         6.85         985         7.65         1040         8.40         1095         9.20         1145         10.00         1190         10.70         1235         11.45             805         5.55         875         6.40         940         7.25         1000         8.05         1165         9.65         1155         10.45         12.00	000,	209	4.60	835	5.40	006	6.15	096	6.85	1015	7.60		8.35	1120	9.05	1170	9.80	<u> </u>	0.50	<u>`</u>	1.25				<u>'</u> :	<u> </u>	1
790         5.20         860         6.00         925         6.85         985         7.65         1040         8.40         1095         9.20         1145         10.00         1190         10.70         1235         11.45            805         5.55         875         6.40         940         7.25         1000         8.05         1055         8.65         1155         10.05         11.20   -	,250	775	4.90	842	5.65	910	6.45	920	7.20	1030	8.00		8.75	1135	9.55	1180	10.25		1.00	:			:	:	-	-	:
5.55 875 6.40 940 7.25 1000 8.05 1055 8.85 1105 9.65 1155 10.05 11.20	,500	790	5.20	860	00.9	925	6.85	985	7.65	1040	8.40	1095	9.20	1145	10.00	1190	10.70	`-	1.45	-			-		<u>'</u> :	<u> </u>	:
820   5.90   890   6.80   950   7.60   1010   8.45   1065   9.30   1115   10.05   1165   10.90	,750	805	5.55	875	6.40	940	7.25	1000	8.05	1055	8.85		9.62	1155	10.45	1200	11.20	:	-		-		:	:	:	:	:
	000,	820	2.90	890	08.9	950	7.60	1010	8.45	1065	9.30	_	10.05	1165	10.90												:

#### **BLOWER DATA**

#### **FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS**

Nominal hp	Maximum 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.

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

## **BLOWER DATA**

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

			Step-Dow	n Diffuser			Flush [	Diffuser
Air Volume		RTD11-185S			RTD11-275S			
cfm	2 Ends Open	1 Side/2 Ends Open	All Ends & Sides Open	2 Ends Open	1 Side/2 Ends Open	All Ends & Sides Open	FD11-185S	FD11-275S
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**

	Air Volume	<sup>1</sup> Effective Thr	ow Range - ft.		Air Volume	<sup>1</sup> Effective Thr	ow Range - ft.
Size	cfm	RTD11-185S Step-Down	FD11-185S Flush	Size	cfm	RTD11-275S Step-Down	FD11-275S Flush
	5600	39 - 49	28 - 37		7200	33 - 38	26 - 35
	5800	42 - 51	29 - 38		7400	35 - 40	28 - 37
400	6000	44 - 54	40 - 50		7600	36 - 41	29 - 38
180	6200	45 - 55	42 - 51	210	7800	38 - 43	40 - 50
	6400	46 - 55	43 - 52	240	8000	39 - 44	42 - 51
	6600	47 - 56	45 - 56	300	8200	41 - 46	43 - 52
	zontal or vertical distan		0	•	8400	43 - 49	44 - 54
outlet or diffuser l sides open.	before the maximum ve	elocity is reduced to 50	) ft. per minute. Four		8600	44 - 50	46 - 57
5.455 Sport.					8800	47 - 55	48 - 59

#### 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	N   17.	5 TON
Model					L	GX180S	5			
<sup>1</sup> Voltage - 60Hz		208	3/230V - 3	Ph	4	60V - 3 P	h	5	75V - 3 P	h
Compressor 1	Rated Load Amps		13.1			6.6			4.8	
(Non-Inverter)	Locked Rotor Amps		93			60			41	
Compressor 2	Rated Load Amps		13.1			6.6			4.8	
(Non-Inverter)	Locked Rotor Amps		93			60			41	
Compressor 3	Rated Load Amps		13.1			6.6			4.8	
(Non-Inverter)	Locked Rotor Amps		93			60			41	
Outdoor Fan	Full Load Amps (3 Non-ECM)		2.4			1.3			1	
Motors (3)	Total		7.2			3.9			3	
Power Exhaust (2) 0.33 HP	Full Load Amps Total		2.4 4.8			1.3 2.6			1 2	
Service Outlet 115V			15			15			20	
Indoor Blower	HP	3	5	7.5	3	5	7.5	3	5	7.5
Motor	Full Load Amps	10.6	16.7	24.2	4.8	7.6	11	3.9	6.1	9
<sup>2</sup> Maximum	Unit Only	70	80	100	35	40	45	25	30	35
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	70	80	100	35	40	50	25	30	35
<sup>3</sup> Minimum	Unit Only	61	68	77	31	34	38	23	26	29
Circuit Ampacity (MCA)	With (2) 0.33 HP 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>&</sup>lt;sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Model					L	GX210S	5			
<sup>1</sup> Voltage - 60Hz		208	3/230V - 3	3 Ph	4	60V - 3 P	h	5	75V - 3 P	h
Compressor 1	Rated Load Amps		21.2			9.1			7.7	
(Non-Inverter)	Locked Rotor Amps		156.5			74.8			47.8	
Compressor 2	Rated Load Amps		21.2			9.1			7.7	
(Non-Inverter)	Locked Rotor Amps		156.5			74.8			47.8	
Compressor 3	Rated Load Amps		21.2			9.1			7.7	
(Non-Inverter)	Locked Rotor Amps		156.5			74.8			47.8	
Outdoor Fan	Full Load Amps (3 Non-ECM)		2.4			1.3			1	
Motors (3)	Total		7.2			3.9			3	
Power Exhaust	Full Load Amps		2.4			1.3			1	
(2) 0.33 HP	Total		4.8			2.6			2	
Service Outlet 115V	GFI (amps)		15			15			20	
Indoor Blower	HP	3	5	7.5	3	5	7.5	3	5	7.5
Motor	Full Load Amps	10.6	16.7	24.2	4.8	7.6	11	3.9	6.1	9
<sup>2</sup> Maximum	Unit Only	100	110	125	45	50	50	35	40	45
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	110	110	125	45	50	50	40	40	45
<sup>3</sup> Minimum	Unit Only	87	93	102	39	42	45	32	35	38
Circuit Ampacity (MCA)	With (2) 0.33 HP Power Exhaust	92	98	106	41	44	48	34	37	40

 $\ensuremath{\mathsf{NOTE}}$  - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

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

<sup>&</sup>lt;sup>2</sup> HACR type breaker or fuse.

 $<sup>^{\</sup>scriptscriptstyle 1}\,$  Extremes of operating range are plus and minus 10% of line voltage.

<sup>&</sup>lt;sup>2</sup> HACR type breaker or fuse.

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

ELECTRICAL	DATA							20 T	ON   2	5 TON
Model					L	GX240S	5			
<sup>1</sup> Voltage - 60Hz		208	3/230V - 3	B Ph	4	60V - 3 P	h	5	75V - 3 P	h
Compressor 1	Rated Load Amps		22.4			9.1			7.2	
(Non-Inverter)	Locked Rotor Amps		166.2			74.6			54	
Compressor 2	Rated Load Amps		22.4			9.1			7.2	
(Non-Inverter)	Locked Rotor Amps		166.2			74.6			54	
Compressor 3	Rated Load Amps		24.4			11.9			9.4	
(Non-Inverter)	Locked Rotor Amps		210			103			78	
Outdoor Fan	Full Load Amps (4 Non-ECM)		2.4			1.3			1	
Motors (4)	Total		9.6			5.2			4	
Power Exhaust	Full Load Amps		2.4			1.3			1	
(2) 0.33 HP	Total		4.8			2.6			2	
Service Outlet 115V	GFI (amps)		15			15			20	
Indoor Blower	HP	5	7.5	10	5	7.5	10	5	7.5	10
Motor	Full Load Amps	16.7	24.2	24.2	7.6	11	14	6.1	9	11
<sup>2</sup> Maximum	Unit Only	125	125	125	50	60	60	45	45	50
Overcurrent	With (2) 0.33 HP	125	125	125	60	60	60	45	50	50
Protection (MOCP)	1 OWEI EXHAUST									
<sup>3</sup> Minimum	Unit Only	102	110	110	46	50	53	37	40	42
Circuit Ampacity (MCA)	With (2) 0.33 HP 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>&</sup>lt;sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

Model			-		L	GX300S	5			
<sup>1</sup> Voltage - 60Hz		208	3/230V - 3	Ph	4	60V - 3 P	h	5	75V - 3 P	h
Compressor 1	Rated Load Amps		21.2			9.1			7.7	
(Non-Inverter)	Locked Rotor Amps		156.5			74.8			47.8	
Compressor 2	Rated Load Amps		21.2			9.1			7.7	
(Non-Inverter)	Locked Rotor Amps		156.5			74.8			47.8	
Compressor 3	Rated Load Amps		22.4			9.1			7.2	
(Non-Inverter)	Locked Rotor Amps		166.2			74.6			54	
Compressor 4	Rated Load Amps		22.4			9.1			7.2	
(Non-Inverter)	Locked Rotor Amps		166.2			74.6			54	
Outdoor Fan	Full Load Amps (6 Non-ECM)		2.4			1.3			1	
Motors (6)	Total		14.4			7.8			6	
Power Exhaust (2) 0.33 HP	Full Load Amps Total		2.4 4.8			1.3 2.6			1 2	
Service Outlet 115V	GFI (amps)		15			15			20	
Indoor Blower	HP	5	7.5	10	5	7.5	10	5	7.5	10
Motor	Full Load Amps	16.7	24.2	30.8	7.6	11	14	6.1	9	11
<sup>2</sup> Maximum	Unit Only	125	150	150	60	60	70	50	50	60
Overcurrent Protection (MOCP)	With (2) 0.33 HP Power Exhaust	150	150	175	60	70	70	50	50	60
<sup>3</sup> Minimum	Unit Only	124	132	141	55	58	62	44	48	50
Circuit Ampacity (MCA)	With (2) 0.33 HP 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>^{\</sup>mbox{\tiny $1$}}$  Extremes of operating range are plus and minus 10% of line voltage.

<sup>&</sup>lt;sup>2</sup> HACR type breaker or fuse.

 $<sup>^{\</sup>mbox{\tiny $1$}}$  Extremes of operating range are plus and minus 10% of line voltage.

<sup>&</sup>lt;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	;	3		5	7	.5	3	5	7.5	3	5	7.5
Voltage	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	3		5		7.5		3	5	7.5	3	5	7.5
Voltage	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	5		7.5		10		5	7.5	10	5	7.5	10
Voltage	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	5		7.5		10		5	7.5	10	5	7.5	10
Voltage	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

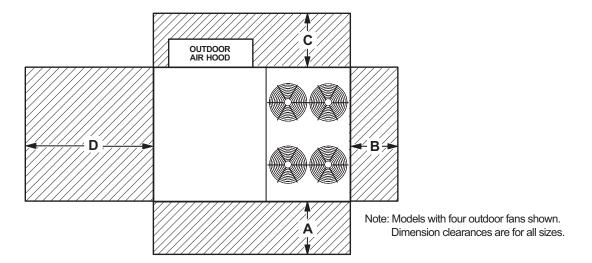
#### **FIELD WIRING NOTES**

- 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

<sup>&</sup>lt;sup>1</sup> Disconnect must be field furnished.

#### **UNIT CLEARANCES**

#### **Unit With Economizer**



<sup>1</sup> Unit Clearance	Α		В		С		D		Тор	
· Onit Clearance	in.	mm	in.	mm	in.	mm	in.	mm	Clearance	
Service Clearance	60	1524	36	914	36	914	66	1676		
Clearance to Combustibles	36	914	1	25	1	25	1	25	Unobstructed	
Minimum Operation Clearance	45	1143	36	914	36	914	41	1041		

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

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA											
	Octave E	ency - Hz	<sup>1</sup> Sound Rating								
Size	125	250	500	1000	2000	4000	8000	Number (SRN) (dBA)			
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>&</sup>lt;sup>1</sup> Service Clearance - Required for removal of serviceable parts.

<sup>&</sup>lt;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	N	et	Shipping			
Size	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.

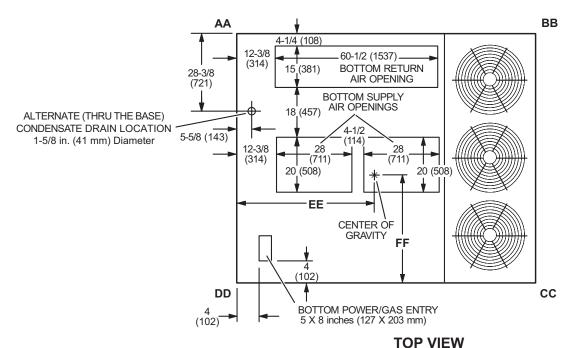
FACTORY / FIELD INSTALLED OPTIONS AND ACCES	SORIES - NET WEIG	HTS
Description	lbs.	kg
ECONOMIZER / OUTDOOR AIR / EXHAUST		
Economizer		
Economizer Dampers	102	46
Barometric Relief Dampers (downflow)	30	14
Barometric Relief Dampers (horizontal)	20	9
Outdoor Air Dampers		
Motorized	52	24
Manual	49	22
Outdoor 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
DEHUMIDIFICATION SYSTEM		
Dehumidification Option	50	23

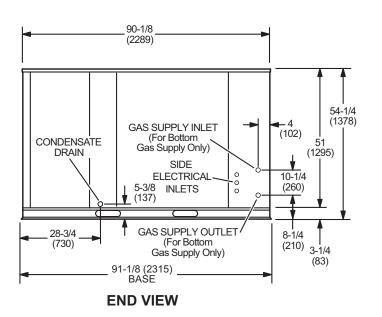
### DIMENSIONS - UNIT LGX180 | LGX210

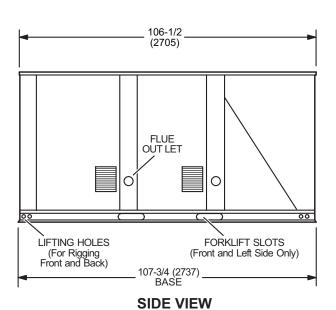
CORNER WEIGHTS									CENTE	R OF G	RAVITY	
Model	AA BB		CC		DD		EE		FF			
Wodel	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LGX180S Base Unit	426	194	378	172	508	231	572	260	50-5/8	1286	38-7/8	987
LGX180S Max. Unit (Eco-Last™ Coil)	541	246	452	206	551	251	659	300	49	1247	41	1043
LGX210S Base Unit	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.





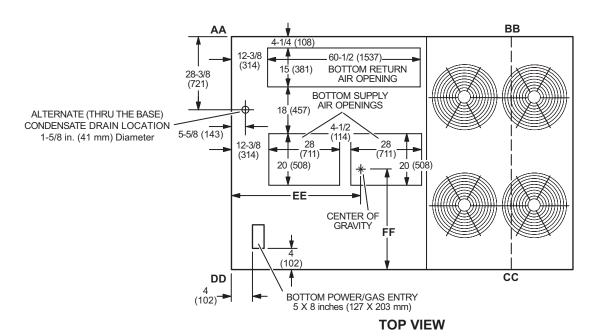


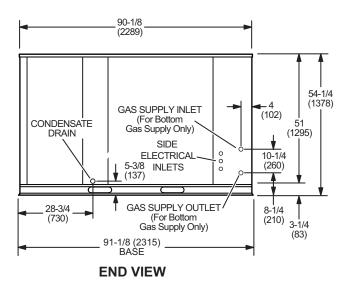
DIMENSIONS - UNIT LGX240

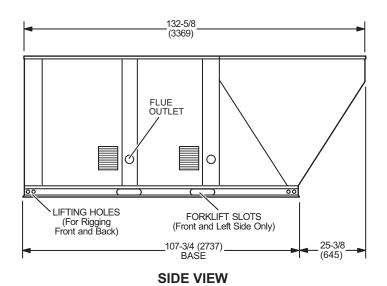
CORNER WEIGHTS								CENTE	R OF G	RAVITY		
Model	AA		ВВ		СС		DD		EE		FF	
Model	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LGX240S Base Unit	466	212	437	199	635	289	677	308	52-1/8	1325	37-1/8	944
LGX240S Max. Unit	576	262	524	238	689	313	758	344	51-1/4	1303	39-3/8	1000

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.





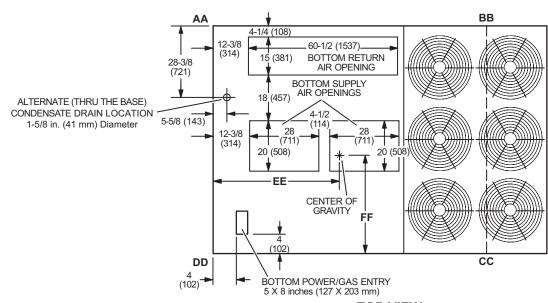


DIMENSIONS - UNIT LGX300

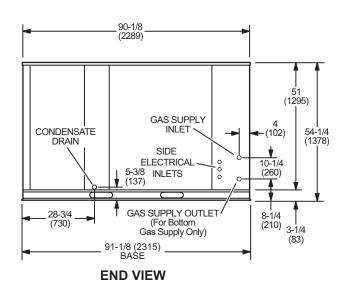
CORNER WEIGHTS								CENTE	R OF G	RAVITY		
Model	AA		A BB		CC		DD		EE		FF	
Model	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
LGX300S Base Unit	512	233	509	231	718	326	722	328	53-3/4	1364	37-3/4	960
LGX300S Max. Unit	625	284	598	272	747	339	780	355	52-3/4	1339	40-1/2	1029

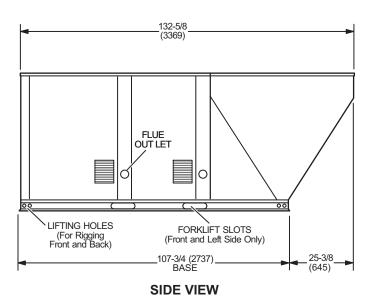
Base Unit - The unit with NO INTERNAL OPTIONS.

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

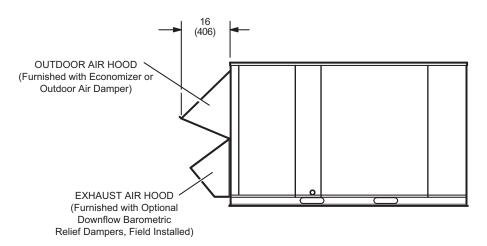


**TOP VIEW** 



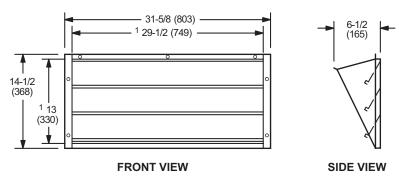


#### **OUTDOOR AIR HOOD DETAIL**



#### OPTIONAL HORIZONTAL BAROMETRIC RELIEF DAMPERS WITH HOOD

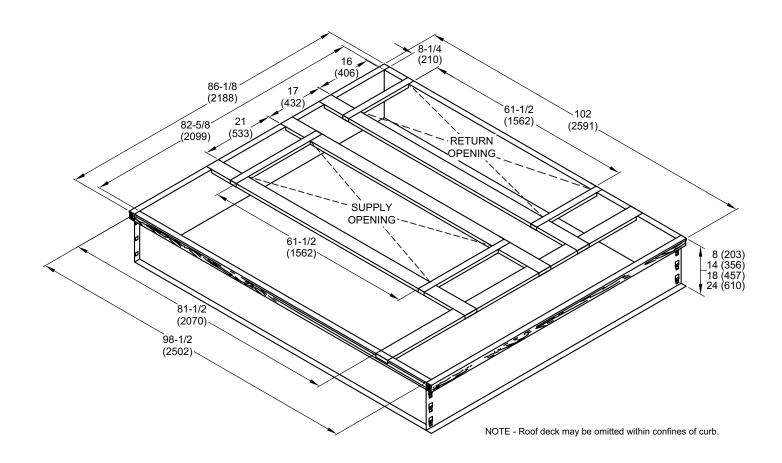
(Field installed in horizontal return air duct adjacent to unit)



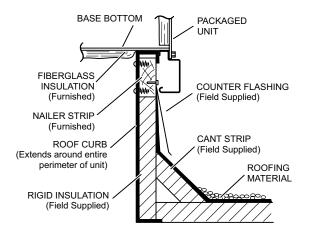
NOTE - Two furnished per order no.

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

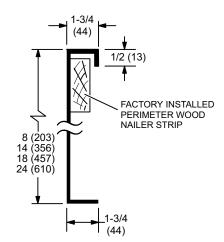
#### **HYBRID ROOF CURBS - DOUBLE DUCT OPENING**



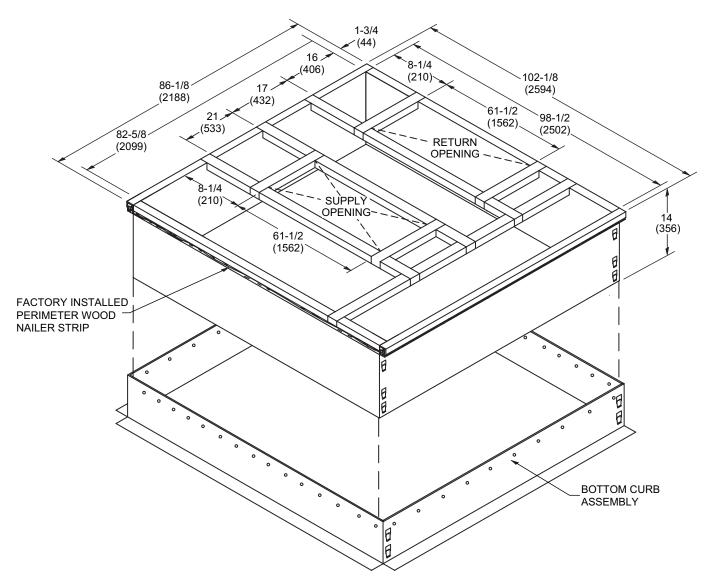
#### TYPICAL FLASHING DETAIL FOR ROOF CURB



#### **DETAIL ROOF CURB**

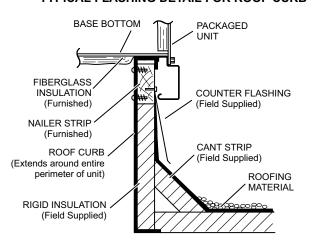


#### **ADJUSTABLE PITCH CURB - DOUBLE DUCT OPENING**

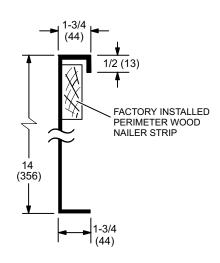


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

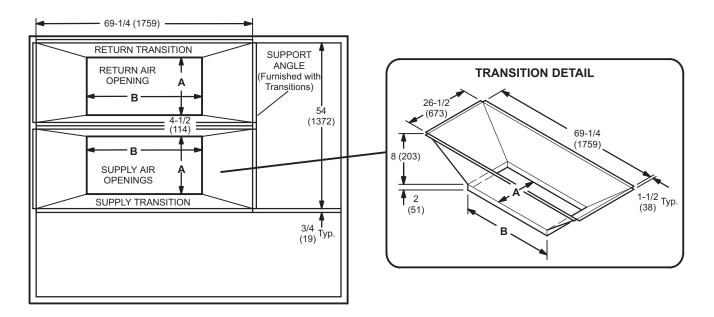
#### TYPICAL FLASHING DETAIL FOR ROOF CURB



#### **DETAIL ROOF CURB**



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

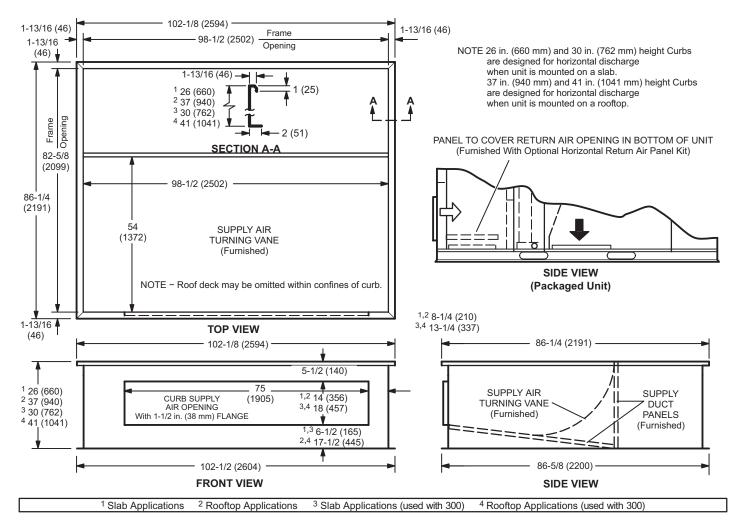


**TOP VIEW** 

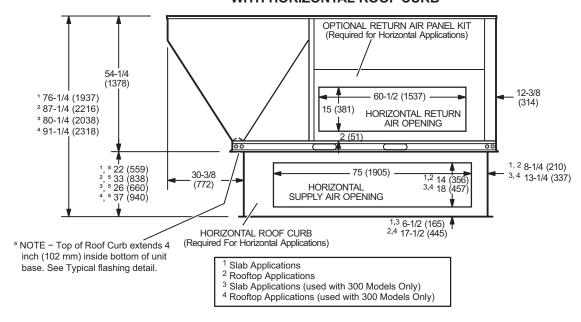
TRANSITION OPENING SIZES

Model		4	В		
Number	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



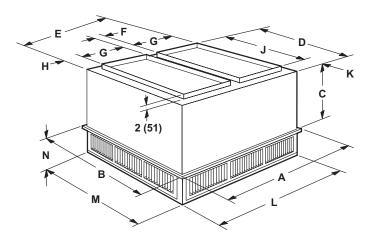
# HORIZONTAL SUPPLY AND RETURN AIR OPENINGS WITH HORIZONTAL ROOF CURB

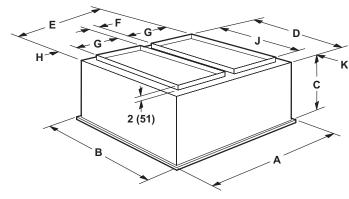


## COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER

#### **FLUSH CEILING DIFFUSER**





Model		RTD11-185S	RTD11-275
Α	in.	47-5/8	59-5/8
	mm	1210	1514
В	in.	47-5/8	59-5/8
	mm	1210	1514
С	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
Н	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

Model		FD11-185S	FD11-275
Α	in.	47-5/8	59-5/8
	mm	1210	1514
В	in.	47-5/8	59-5/8
	mm	1210	1514
С	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
Н	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
<b>Duct Size</b>	in.	18 x 36	24 x 48
	mm	457 x 914	610 x 1219

REVISIONS	
Sections	Description of Change
Specifications	Updated 17.5 Ton Refrigerant Charges.















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Contact us at 1-800-448-5872

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