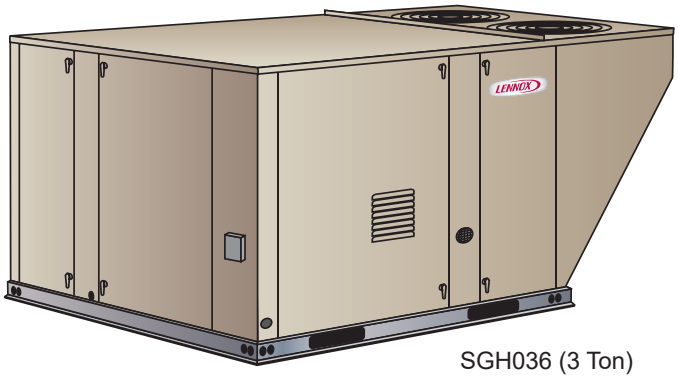
SGH

STRATEGOS® ROOFTOP UNITS

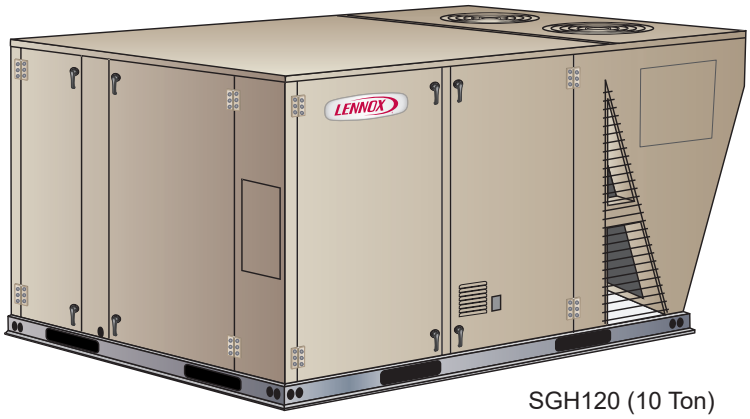
High Efficiency | Lennox® CORE Controller | Environ™ Coil | R-454B | 60Hz

COMMERCIAL
PRODUCT SPECIFICATIONS (EHB)

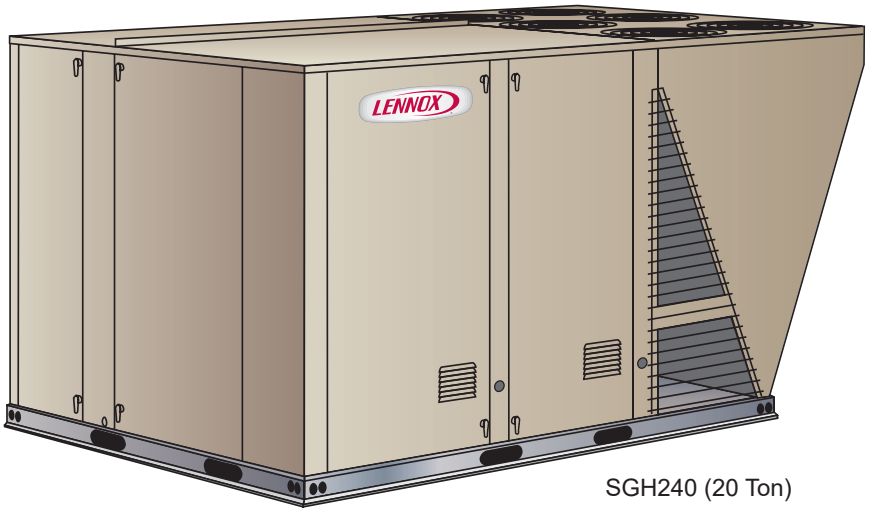
3 to 20 Tons
Net Cooling Capacity - 35,500 to 228,000 Btuh
Gas Input Heat Capacity - 70,000 to 480,000 Btuh



SGH036 (3 Ton)
SGH060 (5 Ton)



SGH120 (10 Ton)



SGH240 (20 Ton)

STRATEGOS™ COMMAND EFFICIENCY

LENNOX CORE CONTROL SYSTEM

Environ™ Coil System

MSAV™ MULTI-STAGE AIR VOLUME

Humiditrol

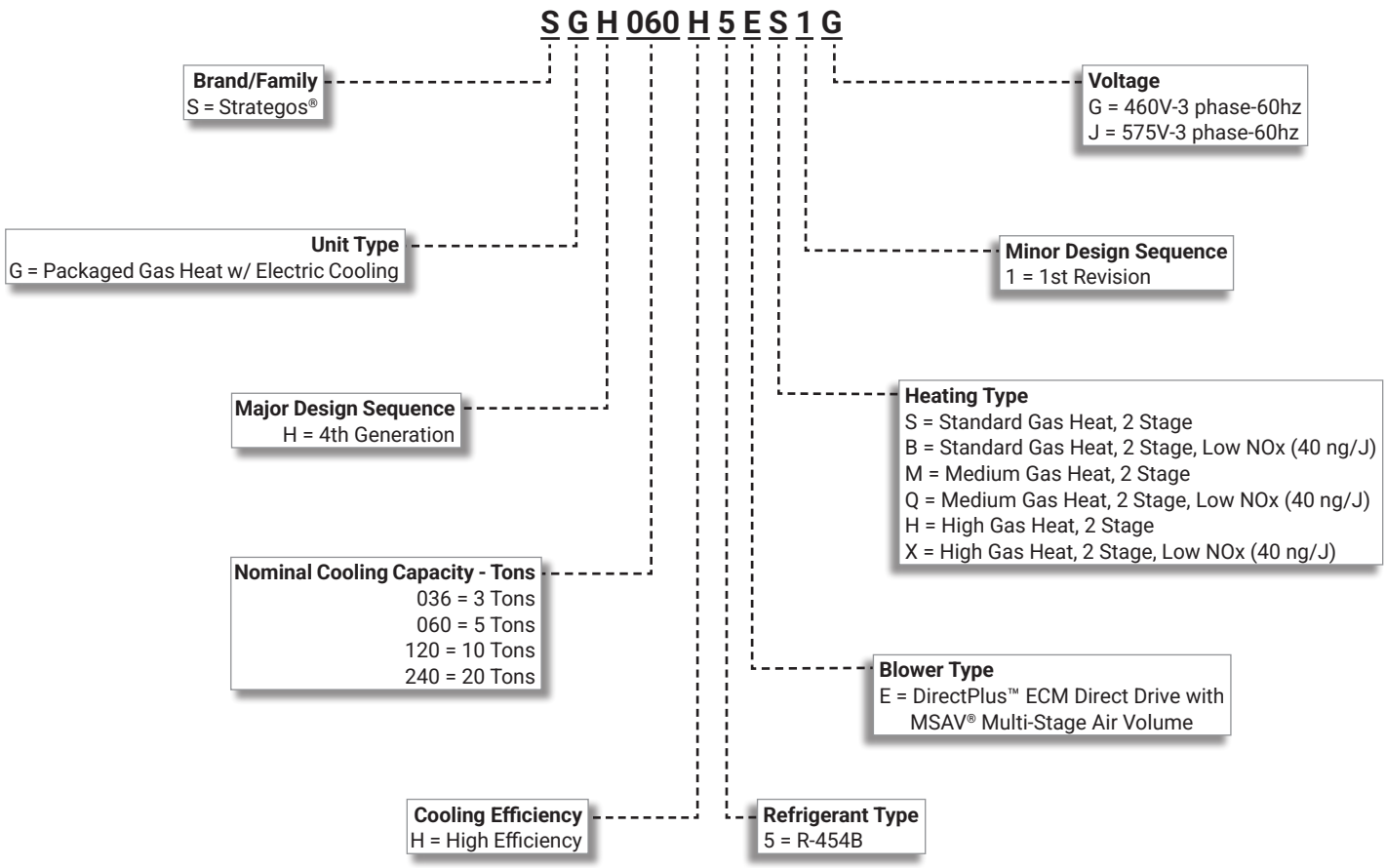
SMARTWIRE™ SYSTEM

ASHRAE Standard 90.1

ENERGY STAR

Form Number 211100 | November 2026
Supersedes all previous versions

MODEL NUMBER IDENTIFICATION

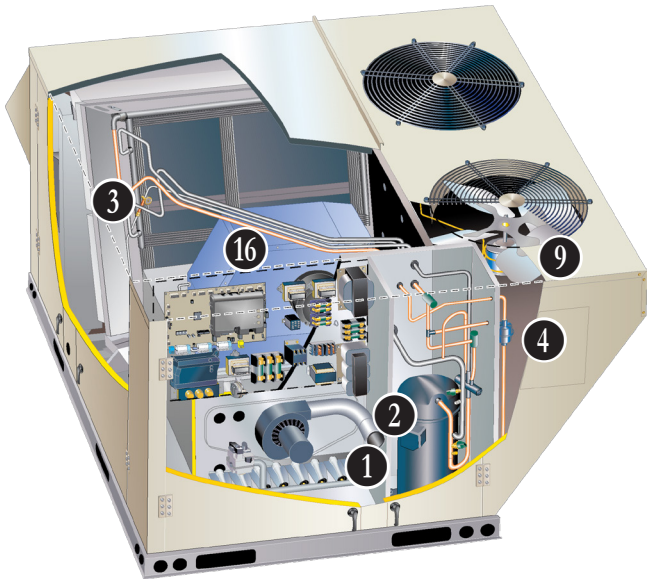


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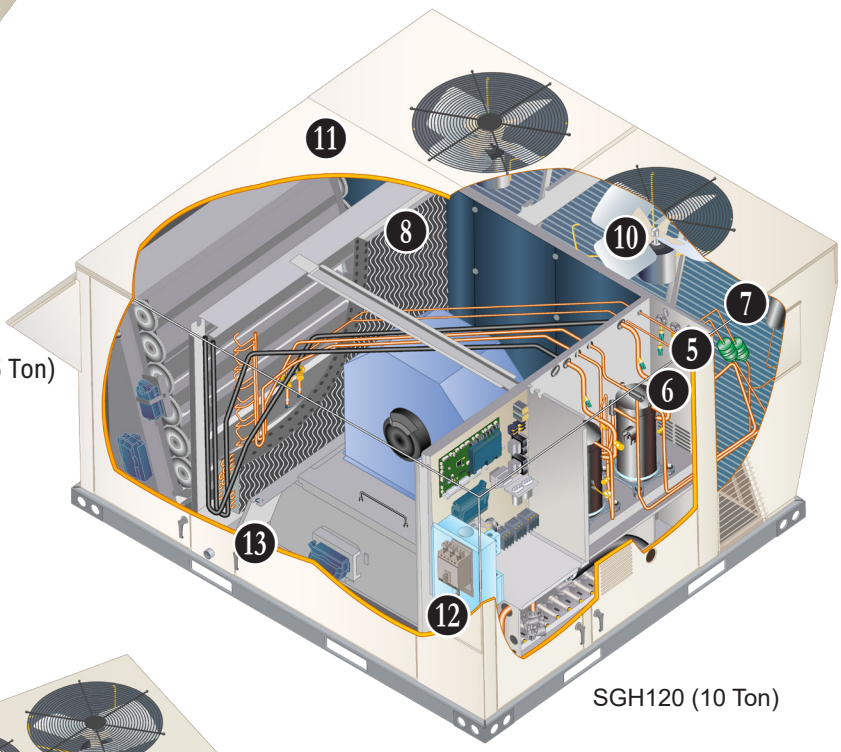
FEATURE HIGHLIGHTS

Lennox' Strategos® packaged rooftop unit product line was created to save energy with intelligence by offering some of the highest energy efficiency ratings available with a powerful, easy to use unit controller. This makes Strategos® rooftop units perfect for business owners looking for an HVAC product with the lowest total cost of ownership.



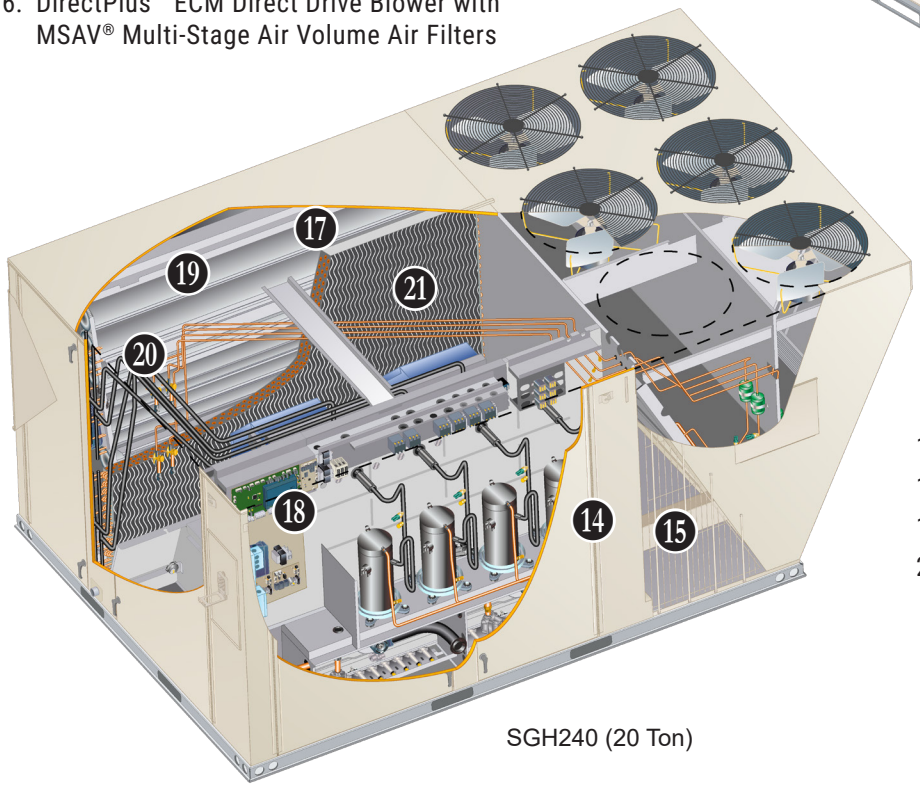
SGH036 (3 Ton)
SGH060 (5 Ton)

1. Heat Exchanger
2. Scroll Compressor
3. Thermal Expansion Valve
4. Filter/Drier
5. High Pressure Switch
6. Low Pressure Switch
7. Lennox' Environ™ Coil System
8. Evaporator Coil



SGH120 (10 Ton)

9. Variable Speed ECM Outdoor Coil Fan Motors (3-5 Ton)
10. Outdoor Coil Fan Motors (10-20 Ton)
11. Heavy Gauge Steel Cabinet
12. Power Entry
13. Fully Insulated
14. Hinged Access Panels
15. Grill Guards
16. DirectPlus™ ECM Direct Drive Blower with MSAV® Multi-Stage Air Volume Air Filters



SGH240 (20 Ton)

17. Lennnox® CORE Unit Controller
18. Economizer (option)
19. Power Exhaust Fans (240 option)
20. Humiditrol® Dehumidification (option)

APPROVALS AND WARRANTY

APPROVALS

- All 3 and 5 ton models are AHRI Standard 210/240-2023 certified
- All 10 and 20 ton models are AHRI Standard 340/360-2023 certified
- ENERGY STAR® certified (certain models), visit www.energystar.gov for a list of qualifying products
- ETL and CSA listed
- All models are ASHRAE 90.1-2022 compliant
- All models meet DOE 2023 energy efficiency standards
- All models are listed to UL 60335-1 & 60335-2-40 and meet the Refrigerant Detection and Dissipation Requirements
- Components are bonded for grounding to meet safety standards for servicing required by ETL, NEC and CEC
- ISO 9001 Registered Manufacturing Quality System
- All 10 and 20 ton models meet California Code of Regulations, Title 24 and ASHRAE 90.1-2022 Section 6.4.3.10 requirements for staged airflow
- All models have FSA approval and are compliant with standard ASCE 7-22 (ASD) and the Florida Building Code Eighth Edition (2023)
- All models are fully charged and run tested to verify unit operation and functionality

WARRANTY

- Aluminized heat exchanger - Limited ten years
- Stainless steel heat exchanger (optional) - Limited fifteen years
- Compressors - Limited five years
- Lennox' Environ™ Coil System - Limited three years
- Lennox® CORE Control System - Limited three years
- High Performance Economizers (optional) - Limited five years
- All other covered components - Limited one year

FEATURES AND BENEFITS

HEATING SYSTEM

1 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.

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

Electronic Pilot Ignition

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

Limit Controls

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

Safety Switches

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

HEATING SYSTEM (Continued)

Required Selections

NOTE - All gas heating for 036-060 models is only available as Low NOx (40 ng/J).

Gas Input Choice - Order one:

3 ton models
- Standard Gas Heat (2 Stage, Low NOX/40 ng/J) 53,000/70,000 Btuh
- Medium Gas Heat (2 Stage, Low NOX/40 ng/J) 81,000/108,000 Btuh

5 ton models
- Standard Gas Heat (2 Stage, Low NOX/40 ng/J) 53,000/70,000 Btuh
- Medium Gas Heat (2 Stage, Low NOX/40 ng/J) 81,000/108,000 Btuh
- High Gas Heat (2 Stage, Low NOX/40 ng/J) 113,000/150,000 Btuh

10 ton models
- Standard Gas Heat (2 Stage) 84,500/130,000 Btuh
- Medium Gas Heat (2 Stage) 117,000/180,000 Btuh
- High Gas Heat (2 Stage) 156,000/240,000 Btuh

20 ton model
- 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

NOTE - Natural gas values shown above.

Options/Accessories

Factory Installed

Stainless Steel Heat Exchanger
- Required if mixed air temperature is below 45°F
- CSA certified to allow operation of unit down to -60°F

Field Installed

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

Fresh Air Tempering
- Provides heating and cooling as needed to maintain the supply air temperature within a comfort range, regardless of the thermostat demand

NOTE - Requires field installed sensor kit and unit controller parameter change in the field to activate this mode of operation

Low Temperature Vestibule Heater
- Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F

LPG/Propane Kit
- Conversion kit to field change over units from Natural Gas to LPG/Propane

Vertical Vent Extension Kit
- Exhausts flue gases vertically above unit

COOLING SYSTEM

- Designed to maximize sensible and latent cooling performance at design conditions
- System operation from 0°F to 125°F without 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
- Two-stage (3 to 5 ton) for increased part load efficiency
- One two-stage and one single-stage for increased part load efficiency (10 ton models)
- Four single-stage (20 ton models)
- Resiliently mounted on rubber grommets
- Quiet operation

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

3 Thermal Expansion Valve (TXV)
- Ensures optimal performance throughout the application range
- Removable element head
- Factory configured, no adjustment required

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

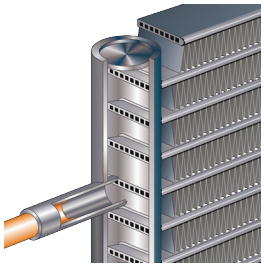
5 High Pressure Switch
- Protects the compressor from overload conditions such as dirty condenser coils, blocked refrigerant flow or loss of outdoor fan operation
- Automatic reset

6 Low Pressure Switch
- Protects the compressors from low pressure conditions such as low refrigerant charge or low/no airflow
- Automatic reset

Indoor Coil Freeze Protection
- Protects the evaporator coil from damaging ice buildup due to conditions such as low/no airflow or low refrigerant charge

COOLING SYSTEM (continued)

7 Lennox' Environ™ Coil System



- Condenser (all models) and evaporator (036-060 models)
- Lightweight, all aluminum brazed fin construction
- Constructed of three components
  - A flat extrusion tube
  - Fins in-between the flat extrusion tube
  - Two refrigerant manifolds

Environ™ Coil System Features:

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

8 Evaporator Coil (180-240 models)

- Copper tube construction
- Enhanced rippled-edge aluminum fins
- Flared shoulder tubing connections
- Silver soldered construction for improved heat transfer
- Factory leak tested
- Row-split coils on multi-stage air volume models
- Cross-row circuiting with rifled copper tubing optimizes both sensible and latent cooling capacity

Antimicrobial Condensate Drain Pan

- Plastic pan, sloped to meet drainage requirements of ASHRAE 62.1
- Anti-Microbial additive prevents growth of mold and mildew, which improves indoor air quality and reduces drain line blockage
- Drain connection extends outside unit

Condensate Drain Trap

- EPDM high density rubber material

9 Variable-Speed ECM Outdoor Coil Fan Motors (036-060 Models)

- Fan speed is controlled by the Lennox® CORE unit controller
- Thermal overload protected
- Totally enclosed
- Permanently lubricated ball bearings
- Shaft up
- Wire basket mount

10 Outdoor Coil Fan Motors (120-240 Models)

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

Outdoor Coil Fan

- PVC coated fan guard

Required Selections

Cooling Capacity

- Specify nominal cooling capacity of the unit

Options/Accessories

Factory or Field Installed

Drain Pan Overflow Switch

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

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 leak detection sensor(s) and a mitigation control
- Ensures safe operation for systems equipped with R-454B refrigerant
- Sensor(s) monitors indoor coil area for any refrigerant leaks if they occur
- If a leak is detected the refrigerant detection system will prevent compressor and heating operation until a leak is no longer detected
- Refrigeration detection system energizes blower while a leak is detected to mitigate any concentrations of refrigerant from the unit and the system

FEATURES AND BENEFITS

CABINET

11 Construction
- Heavy-gauge steel panels
- Full perimeter heavy-gauge galvanized steel base rail (provides structural integrity for transportation, handling, and installation)
- Base rails have rigging holes
- Fork slots (two sides on the 3 and 5 ton models, three sides on the 10 and 20 ton models)
- Raised edges around duct and power entry openings in the bottom of the unit for water protection

Airflow
- Units are shipped in downflow (vertical) configuration

12 Power/Gas Entry
- Electrical/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 1680 hours per ASTM D5894

13 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

14 Hinged Access Panels
- Economizer/filter section
- Blower section
- Compressor/controls/heat section
- Hinges are constructed of galvanized-steel
- Panel seals and quarter-turn latching handles provide a tight air and water seal

15 Grille Guards
- Protects space between outdoor coils and main cabinet

Options/Accessories

Factory Installed

Corrosion Protection
- Completely flexible immersed coating
- Electrodeposited dry film process
- AST ElectroFin E-Coat
- ASTM B117 / DIN 53167 Salt Spray - 15,000+ hours
- ASTM G85 Annex A3 SWAAT Modified Salt Spray - 3000 hours
- VA Master Construction Specification Division 23 for High Humidity Installations
- CID AA-52474A (GSA)

Option 1:
- Coated indoor and outdoor coil assemblies (including tube sheets)
- Painted cabinet interior

Option 2:
- Coated outdoor coil assembly (including tube sheets)

Field Installed

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

BLOWER

16 DirectPlus™ Direct Drive ECM Blower System
- High-efficiency, variable-speed ECM (electronically commutated) motor
- Eliminates the need for a variable-frequency drive



- MSAV® Multi-Stage Air Volume control modulates the amount of supply blower airflow according to cooling demand, heating demand, ventilation demand or smoke alarm
- The amount of airflow for each stage can be set according to a parameter in the Lennox® CORE Unit Controller
- Unit is shipped from the factory with preset airflows
- Fully variable speed motor modulates to maximize system efficiency
- Combines the motor and electronics into one unit
- Aerodynamically optimized impeller
- Backward curved blades mounted directly onto the rotor
- Blower assembly slides out of unit for servicing



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

FEATURES AND BENEFITS

ELECTRICAL

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

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

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

GFI Service Outlets (2)
- 115V ground fault circuit interrupter (GFCI) type
- 20 amp non-powered, field-wired (all voltages)

Short-Circuit Current Rating (SCCR)
- Higher short circuit protection up to 35kA

Required Selections

Voltage Choice
- Specify when ordering base unit

Options/Accessories

Field Installed

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

INDOOR AIR QUALITY

Options/Accessories

Factory or Field Installed

18 Standard Air Filters
- MERV 8 (Minimum Efficiency Reporting Value) based on ASHRAE 52.2 efficiency
- Disposable
- 2 inch pleated

Healthy Climate® MERV 13 High Efficiency Air Filters
- MERV 13 (Minimum Efficiency Reporting Value) based on ASHRAE 52.2 efficiency
- Disposable
- 2 inch pleated

Field Installed

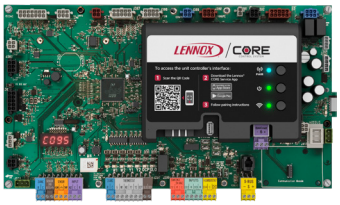
Indoor Air Quality (CO_2) Sensor
- Monitors CO_2 levels and reports to unit controller which adjusts economizer dampers as needed
- MSAV® Multi-Stage Air Volume units with an economizer require a CO_2 sensor to modulate the economizer damper and maintain the desired minimum amount of fresh outdoor air
- CO_2 sensor can be installed in either the occupied zone or the return air duct

Field Installed

Replacement Filter Media Kit With Frame (240 Models)
- Replaces existing pleated filter media
- Includes washable metal mesh screen and metal frame
- Clip holds replaceable non-pleated filter

CONTROL SYSTEM

LENNOX® CORE CONTROL SYSTEM



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

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

CORE Mobile Service App

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

Download on the App Store | ANDROID APP ON Google play

Additional Features:

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

NOTE - Unit Internet Connection required.

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

Configurable Built-In Functions

- Discharge Air Cooling Control
- Up to three distinct Cooling Airflows in Thermostat Mode
- Programmable independent heating, ventilation and cooling blower speeds
- Discharge Air Heating Control
- Economizer Control Options (See Economizer / Exhaust Air / Outdoor Air sections)
- Exhaust Fan Control Modes for fresh air damper position
- Configurable Morning Warm-up
- Night Setback Mode
- Fresh Air Tempering for Improved Ventilation
- Demand Control Ventilation
- Low Ambient Controls for operation down to 0°F
- Humiditrol® Operation
- Enhanced Dehumidification (Latent Demand Control without reheat)

Component Protection / Unit Safeguards:

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

Control Methods / Interfaces:

- DDC and 24V Thermostat
- BACnet MS/TP and IP
- LONTalk (Factory Option)
- Lennox S-BUS
- Zone Temperature Sensor Input
- Dehumidistat and Humidity Sensor Inputs
- Indoor Air Quality Inputs (2)
- Built-in Control Parameter Defaults
- Permanent Diagnostic Code Storage
- Field Adjustable Control Parameters (Over 200 settings)
- Multiple Configurable Digital Inputs
- LED Indicators
- PC Interface connects the Lennox® CORE Unit Controller to a PC with the Lennox Unit Controller Software

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

CONTROL SYSTEM

LENNOX® CORE CONTROL SYSTEM (Continued)

Control Options

Factory Installed

Dirty Filter Switch
- Senses static pressure increase indicating dirty filter condition

Factory or Field Installed

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

Interoperability via BACnet® or LonTalk® Protocols
- Communication compatible with third-party automation systems that support the BACnet Application Specific Controller device profile, LonMark® Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile

Commercial Control Systems

Thermostats
- Control system and thermostat options

OPTIONS / ACCESSORIES

20 ECONOMIZER

Factory or Field Installed
- Economizer operation is set and controlled by the Lennox® CORE Unit Controller
- Simple plug-in connections from economizer to unit controller
- All Strategos 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.

High Performance Economizer Features
- Outdoor air hood is furnished
- 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 90.1-2022 compliant
- 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 2022 Building Energy Efficiency Standards.

NOTE - Refer to Installation Instructions for complete setup information.

ECONOMIZER (continued)

Options / Accessories

Factory or Field Installed

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

Field Installed

Global Control (Not for Title 24)
- The unit controller communicates with a DDC system with one global sensor (enthalpy or sensible)
- Determines whether outside air is suitable for free cooling on all units connected to the control system
- Sensor must be field provided

EXHAUST AIR

Factory Installed

21 Power Exhaust Fans (240 Models Only)
- Installs internal to 20 ton models with economizer option
- Provides exhaust air pressure relief
- Interlocked to run when supply air blower is operating
- Fan runs when outdoor air dampers are 50% open (adjustable)
- Fan motor is overload protected
- Three, 1/3 hp motors
- 20 in. diameter, five fan blades
- Total power input - 1200 Watts
- Total air volume of 10,200 cfm at 0 in. w.g.

Barometric Relief Dampers
- Allows relief of excess air
- Dampers prevent blow back and outdoor air infiltration during off cycle
- Outdoor air hood is furnished with field installed barometric relief dampers for 240 models with Power Exhaust
- See Options/Accessories table

OUTDOOR AIR

Field Installed

Motorized Outdoor Air Dampers (240 Models)
- Linked mechanical dampers
- Fully modulating spring return damper motor
- Installed in unit
- Outdoor air hood with bird screen included

Manual Outdoor Air Dampers (240 Models Only)
- Adjustable slide damper
- Installed in unit
- Outdoor air hood with bird screen included

ROOF CURBS

Factory Installed

Curb Alignment (240 Models)
- Adapter plate mates new unit to existing roof curb for replacement of older L-Series® (LC/LG*156, 180, 210, and 240) models

NOTE - No adapter plate is required for the original Strategos (SC/SG*240), Energence, or Enlight (LC/LG*300/302) models.

Field Installed

Hybrid Roof Curbs, Downflow
- Interlocking tabs fasten corners together
- No tools required
- Can also be fastened together with furnished hardware
- Available in 14 and 24 inch heights
- See Options/Accessories table

HUMIDITROL® DEHUMIDIFICATION SYSTEM OPTION

22 OVERVIEW

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

BENEFITS

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

OPERATION

No Dehumidification Demand

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

Dehumidification Demand Only

- Reheat operation will initiate on a dehumidification demand and does not require a cooling demand
- The unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint
- The 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
- The cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil
- The de-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed
- The unit will continue to operate in this mode until the dehumidification demand is satisfied

NOTE - See Sequence of Operation for additional information.

Dehumidification and Cooling Demand (Thermostat/ Room Sensor Application)

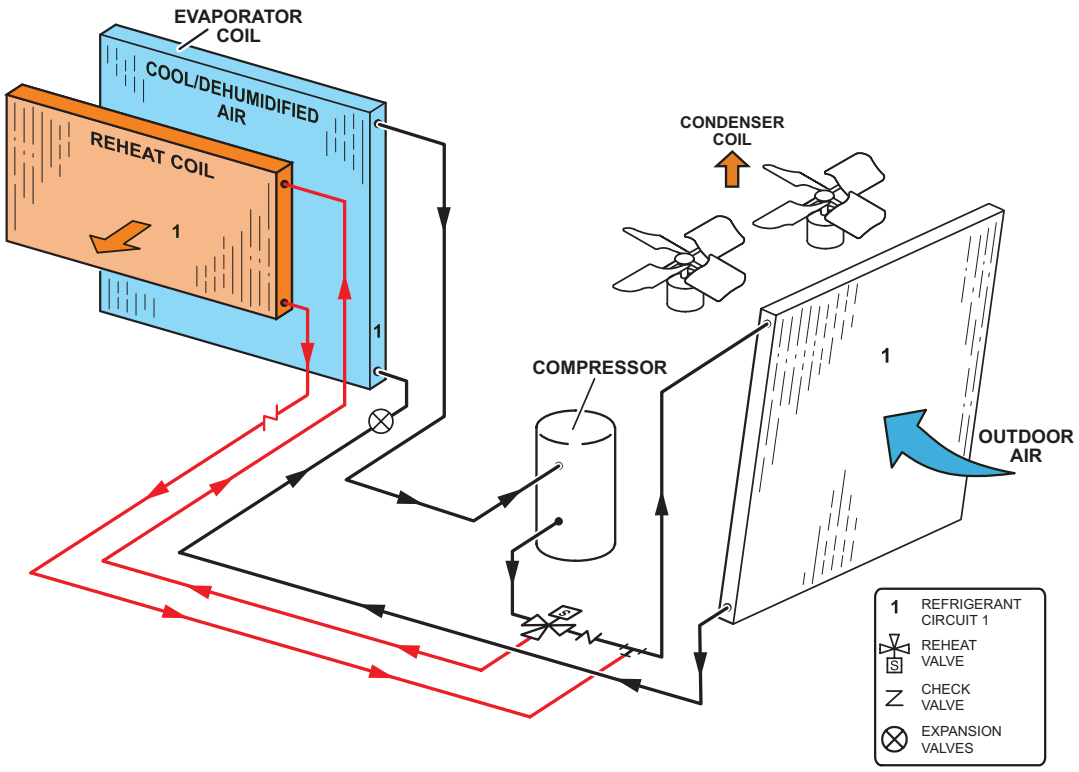
Two-stage compressor models (036 and 060)

- If both a dehumidification and a Y1 cooling demand occur, the system will operate in the full cooling mode at first stage indoor air flow
- If a Y2 cooling demand occurs along with a dehumidification demand, the system operates in full cooling mode at full cooling airflow until the Y2 cooling demand is satisfied
- Then the system will revert to the dehumidification mode if a dehumidification mode demand is present

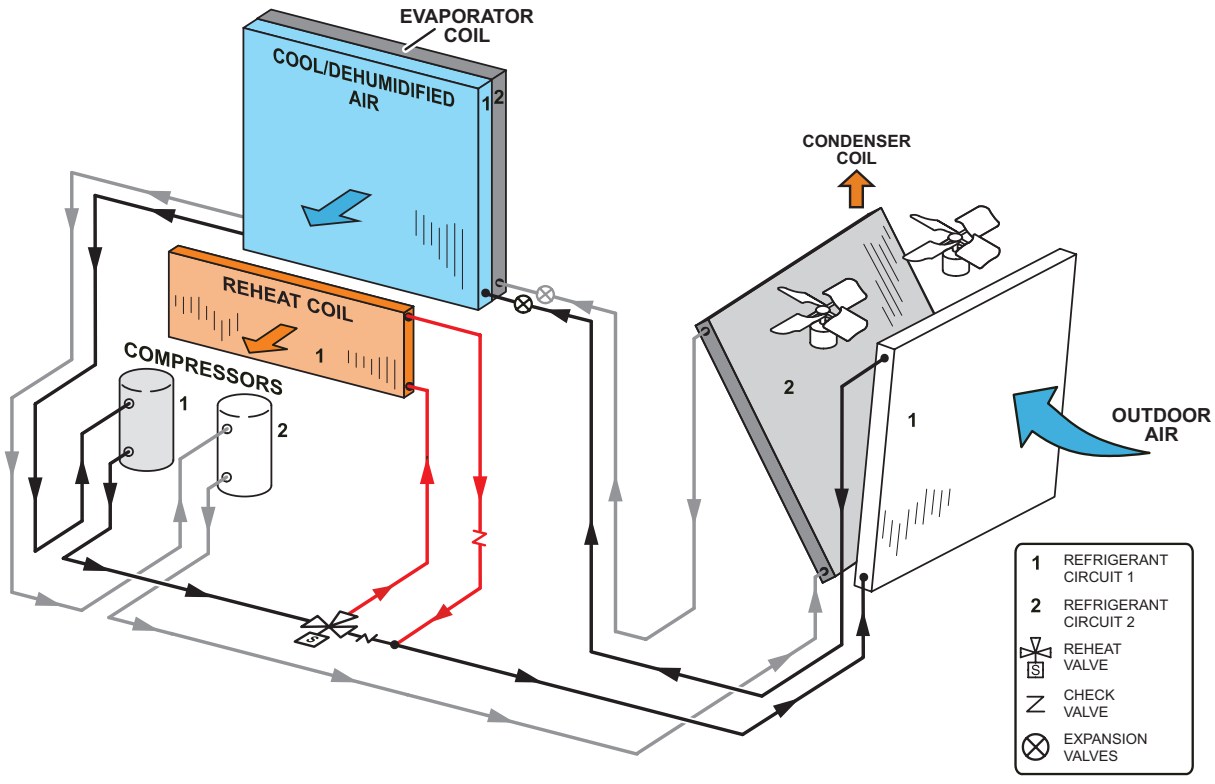
Two-stage/Single-stage compressor model (120)
Single Speed Compressor model (240)

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

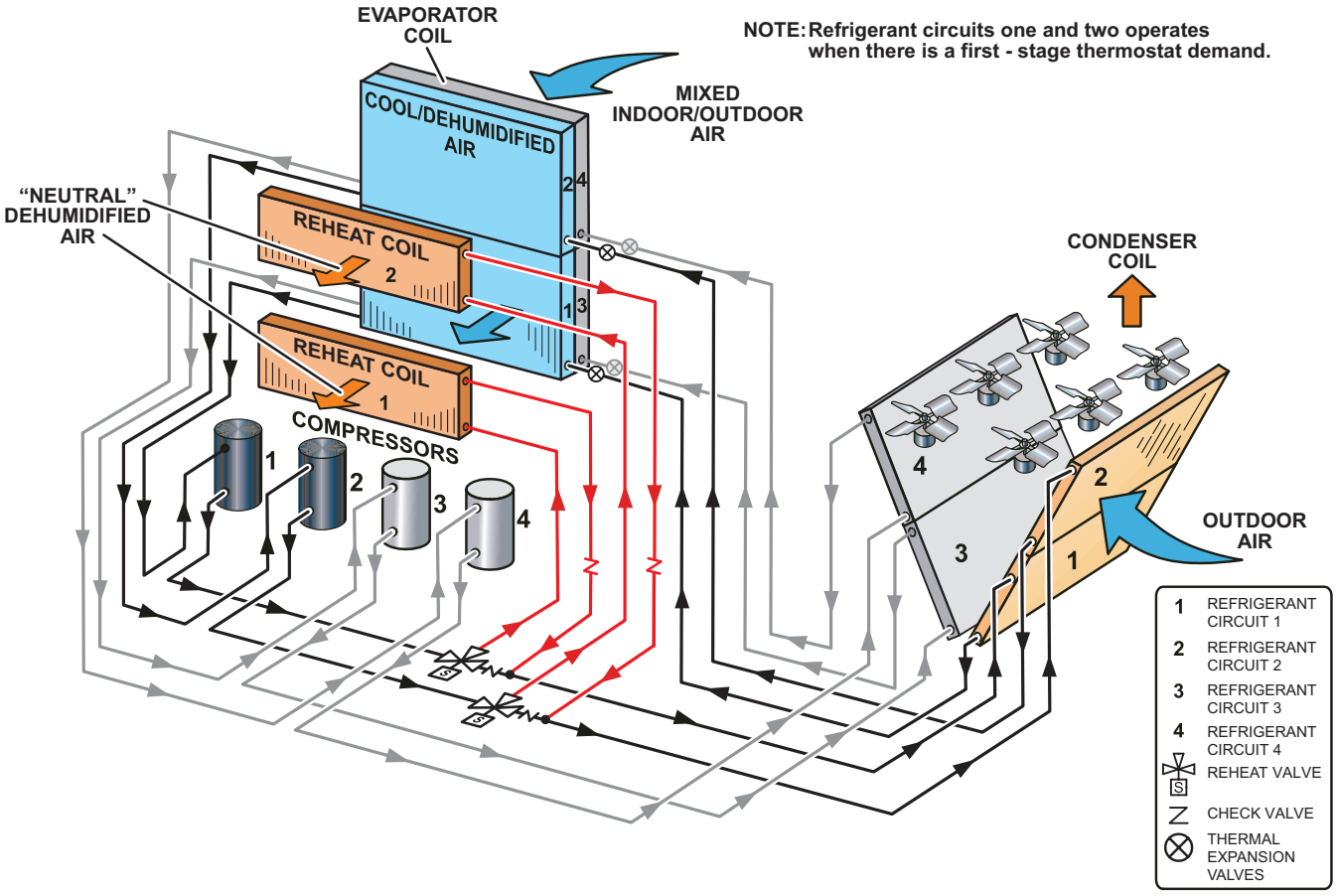
REFRIGERANT SCHEMATIC - 036H-60H MODELS



REFRIGERANT SCHEMATIC - 120H MODEL



REFRIGERANT SCHEMATIC - 240H MODEL



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

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

DIRECT DRIVE SYSTEM OPERATION (3 AND 5 TONS MODELS):

Note: 3 and 5 ton models feature ECM condenser fans that are staged to match the compressor's capacity. When the compressor is operating at first stage, the condenser fan is operating at low speed. The condenser fan switches to high speed when the compressor switches to second stage to match operation.

Modulating Outdoor Air Damper:

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

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

[1] **Unit Features an Economizer and Outdoor Air is Suitable**

Cooling - Thermostat (Up to 2 stages Y1, Y2) or Zone Sensor Mode (Up to 3 stages Y1, Y2, Y3)

Y1 Demand:

1st: Compressor is off, supply fan is on low speed, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting)

2nd: After 5 minutes (default unit controller setting), supply fan switches to high speed. Economizer continues modulating with supply fan on high speed to maintain 55°F supply air temperature

Y2 Demand:

1st: Compressor is off, supply fan is on high speed, and economizer modulates to maintain 55°F supply air temperature

2nd: Economizer opens to maximum. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor is energized and operates at first stage while supply fan stays on high speed

[1] *Outdoor air suitability is determined by the energy state of outdoor ambient (enthalpy or sensible) and its ability to achieve the desired free cooling effects. Outdoor air suitability can also be determined by a third party controller and provided to the RTU via a network connection.*

Y3 Demand:

1st: Economizer is at maximum open and compressor operates at first stage. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor switches to second stage operation while supply fan stays on high speed

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

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

Y1 Demand:

1st: Compressor operates at first stage and supply fan operates at low speed

Y2 Demand:

1st: Compressor operates at second stage and supply fan operates at high speed

3 AND 5 TONS MODELS (CONTINUED):

Dehumidification Mode (economizer free cooling is locked out):

Unit features the Humiditrol® Dehumidification option.

No Y1, Y2 Demand But A Call For Dehumidification:

1st: Compressor operates at second stage, supply fan operates at low speed, and the reheat valve is energized.

Y1 Demand:

1st: Compressor operates at second stage, outdoor fan operates at high speed, supply fan operates at low speed and the reheat valve is de-energized.

Y2 Demand:

1st: Compressor operates at second stage, supply fan operates at high speed, and the reheat valve is de-energized.

Heating Mode: (Thermostat or Zone Sensor (Up to 2 stages W1, W2)

W1 Demand:

1st: Gas valve is open (stage 1 on units with 2 stage gas valve) and the supply fan operates at high speed.

W2 Demand:

1st: Gas valve is open (stage 2 on units with 2 stage gas valve) and the supply fan operates at high speed.

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

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

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

SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

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

Cooling - Thermostat Mode (Y1, Y2)

Y1 Demand:

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

Y2 Demand:

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain 55°F supply air temperature.

If economizer stays at maximum open for 3 minutes, compressor 1 is energized while supply air blower stays on high cooling speed providing maximum cooling capacity.

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

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

Y1 Demand:

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

Y2 Demand:

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

Dehumidification Mode

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

Call For Dehumidification, No Y1, Y2 Demand:

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

Y1 Demand With A Call For Dehumidification:

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

Y2 Demand With A Call For Dehumidification:

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

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

SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

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

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

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

Y1 Demand:

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

Y2 Demand:

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain 55°F supply air temperature.

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

Y3 Demand:

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

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

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

Y1 Demand:

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

Y2 Demand:

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

Y3 Demand:

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

Dehumidification Mode

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

Call For Dehumidification, No Y1, Y2 demand:

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

Y1 Demand With A Call For Dehumidification:

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

Y2 Demand With A Call For Dehumidification:

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

Y3 Demand With A Call For Dehumidification:

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

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

Heating Mode

NOTE - Heating mode is the same for all control options

W1 Demand:

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

W2 Demand:

Gas valves are open (stage 2 on units with 2-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).

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

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

UNIT 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 (Used only in smoke removal option - not discussed)

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

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.

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

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

Y1 Demand:

1st stage compressors 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 Humiditrol® 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.

UNIT WITH ZONE SENSOR (4 COOLING STAGES, Y1, Y2, Y3, Y4)

SUPPLY AIR BLOWER SPEED

Unit has following supply air blower speed setting:

- Ventilation speed
- Cooling Speed 1 (Low)
- Cooling Speed 2 (Medium-Low)
- Cooling Speed 3 (Medium-High)
- Cooling Speed 4 (High)
- Heating Speed
- Smoke Speed (Used only in smoke removal option - not discussed)

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

Y1 Demand:

All compressors are off, supply air blower is on cooling speed 1 to minimize blower power consumption, economizer modulates (minimum to maximum open position) to maintain 55°F supply air temperature (default unit controller setting).

Y2 Demand:

All compressors are off, supply air blower is on cooling speed 4 providing higher cooling capacity, and economizer modulates to maintain 55°F supply air temperature.

If economizer stays at maximum open for 3 minutes, compressor 1 is energized while supply air blower stays on cooling speed 4. After compressor 1 is energized the economizer stays at maximum open.

Y3 Demand:

Compressor 1 and 2 are energized while supply air blower is on cooling speed 4 providing even higher cooling capacity.

Y4 Demand:

All compressors are energized while supply air blower is on cooling speed 4 providing maximum cooling capacity.

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

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

Y1 Demand:

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

Y2 Demand:

Compressors 1 and 2 operate and supply air blower operates at cooling speed 2.

Y3 Demand:

Compressors 1, 2, and 3 operate and supply air blower operates at cooling speed 3.

Y4 Demand:

All compressors operate and supply air blower operates at cooling speed 4.

UNIT WITH ZONE SENSOR (4 COOLING STAGES, Y1, Y2, Y3, Y4) (CONTINUED)

Dehumidification Mode

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

Call For Dehumidification, No Y1, Y2, Y3, Y4 Demand:

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

Y1 Demand With A Call For Dehumidification:

Compressors 1, 2, and 3 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 cooling speed 4 and both reheat valves are energized.

Y3 Demand With A Call For Dehumidification:

All compressors operate, supply air blower operates at cooling speed 4, and the reheat valve of compressor 1 is energized while the reheat valve of compressor 2 is de-energized.

Y4 Demand With A Call For Dehumidification:

All compressors operate, supply air blower operates at cooling speed 4, and the reheat valves are de-energized.

Heating Mode

NOTE - Heating Mode Is The Same For All Control Options.

W1 Demand:

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

W2 Demand:

Gas valves are open (stage 2 on units with 2-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

MSAV® Multi-Stage Air Volume 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

Item Description		Order Number	Size 036	060	120	240
COOLING SYSTEM						
Corrosion Protection	Coated indoor/outdoor coil assemblies, painted cabinet interior	Factory	O	O	O	O
	Coated outdoor coil assembly	Factory	O	O	O	O
Drain Pan Overflow Switch		**21Z07**	OX	OX	OX	OX
HEATING SYSTEM						
Combustion Air Intake Extension		**20X99**	X	X		
		33W62			X	
	Oder two	**89L97**				X
Gas Heat Input	Standard 2 Stage - 53/70 kBtuh input (Low NOx)	Factory	O	O		
	Medium 2 Stage - 81/108 kBtuh input (Low NOx)	Factory	O	O		
	High 2 Stage - 113/150 kBtuh input (Low NOx)	Factory		O		
	Standard 2 Stage - 84.5/130 kBtuh input	Factory			O	
	Medium 2 Stage - 117/180 kBtuh input	Factory			O	
	High 2 Stage - 156/240 kBtuh input	Factory			O	
	Standard 2 Stage - 169/260 kBtuh input	Factory				O
	Medium 2 Stage - 234/360 kBtuh input	Factory				O
	High 2 Stage - 312/480 kBtuh input	Factory				O
LPG/Propane Kits	2 Stage Standard Heat	**21Z24**	X	X		
	2 Stage Medium and High Heat	**21Z23**	X	X		
	Standard Heat	**14N28**			X	[1] X
	Medium Heat	**14N29**			X	[1] X
	High Heat	**14N30**			X	[1] X
Low Temperature Vestibule Heater	460V - 3 phase	**31A62**	X	X		
	575V - 3 phase	**31A63**	X	X		
	460V - 3 phase	**31A65**			X	
	575V - 3 phase	**31A66**			X	
	460V - 3 phase	**58W29**				X
	575V - 3 phase	**58W30**				X
Stainless Steel Heat Exchanger		Factory	O	O	O	O
Vertical Vent Extension		**31W62**	X	X		
		73M72			X	
		42W16				[1] X
CABINET						
Combination Coil/Hail Guards		**19H54**	X	X		
		19H55			X	
		13T16				X

[1] Order two kits.

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

OPTIONS / ACCESSORIES

Item Description		Order Number	Size 036	060	120	240
CONTROLS						
Commercial Control	LonTalk® Module	Factory	O	O	O	O
Dirty Filter Switch		Factory	O	O	O	O
[1] Smoke Detectors	Supply or Return (Power board and one sensor)	**10B40**	OX	OX		
		10B42			OX	OX
	Supply and Return (Power board and two sensors)	**10B41**	OX	OX		
		10B43			OX	OX
ELECTRICAL						
Voltage 60 hz	460V - 3 phase	Factory	O	O	O	O
	575V - 3 phase	Factory	O	O	O	O
GFI Service Outlets (**REQUIRED**)	20 amp non-powered, field-wired (all voltages)	Factory	O	O	O	O
Weatherproof Cover for GFI		**10C89**	X	X	X	X
INDOOR AIR QUALITY						
Air Filters						
Standard Air Filters	MERV 8 (16 x 20 x 2 - Order 4 per unit)	**54W20**	OX	OX		
	MERV 8 (20 x 25 x 2 - Order 4 per unit)	**50W61**			OX	
	MERV 8 (20 x 20 x 2 - Order 12 per unit)	**54W21**				OX
Healthy Climate® High Efficiency Air Filters	MERV 13 (16 x 20 x 2 - Order 4 per unit)	**52W37**	OX	OX		
	MERV 13 (20 x 25 x 2 - Order 4 per unit)	**52W41**			OX	
	MERV 13 (20 x 20 x 2 - Order 12 per unit)	**52W39**				OX
Replacement Media Filter With Metal Mesh Frame 20 x 20 x 2 Order 12 per unit (includes non-pleated filter media)		**44N60**				X
Indoor Air Quality (CO_2) Sensors						
Sensor - Wall-mount, off-white plastic cover with LCD display		**77N39**	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display		**87N53**	X	X	X	X
Sensor - Black plastic case, LCD display, rated for plenum mounting		**87N52**	X	X	X	X
Sensor - Black plastic case, no display, rated for plenum mounting		**87N54**	X	X	X	X
CO_2 Sensor Duct Mounting Kit - for downflow applications		**23Y47**	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO_2 sensors (**77N39**)		**90N43**	X	X	X	X
HUMIDITROL® CONDENSER REHEAT OPTION						
Humiditrol® Dehumidification Option		Factory	O	O	O	O

[2] Factory installed smoke detectors must be ordered for use with either 115V or 24V external power supply only.

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

OPTIONS / ACCESSORIES

Item Description		Order Number	Size 036	060	120	240
ECONOMIZER						
High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)						
Ultra-Low Leak Economizer - Includes Outdoor Air Hood		Factory	O	O	O	
(Global Sensor, field provided, order Barometric Relief Dampers separately		**18X87**				OX
Economizer Controls						
Differential Enthalpy (Not for Title 24)	Order 2	**21Z09**	OX	OX	OX	OX
Global Control	Sensor Field Provided	Factory	O	O	O	O
Barometric Relief Dampers						
Barometric Relief Dampers (No Exhaust Hood)		Factory	O	O		
Barometric Relief Dampers Without Power Exhaust Fans (No Exhaust Hood)		Factory			O	
Barometric Relief Dampers Without Power Exhaust Fans (Exhaust Hood Furnished)		Factory				O
POWER EXHAUST						
Standard Static		Factory				O
OUTDOOR AIR						
Motorized Outdoor Air Dampers with Outdoor Air Hood and Bird Screen		**18X89**				X
Manual Outdoor Air Damper with Outdoor Air Hood and Bird Screen		**18X88**				X
ROOF CURBS						
Hybrid Roof Curbs, Downflow,		**11F70**	X	X		
14 in. height		**11F72**			X	
	Full Perimeter	**11F74**				X
Hybrid Roof Curbs, Downflow		**11F71**	X	X		
24 in. height		**11F73**			X	
	Full Perimeter	**11F75**				X
Curb Alignment (Adapter plate mates new unit to existing roof curb for older unit replacement)		Factory				O

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

SPECIFICATIONS — 3 TON | 5 TON

Model		SGH036H5E	SGH060H5E
Nominal Tonnage		3	5
Efficiency Type		High	High
Blower Type		DirectPlus™ ECM Direct Drive with MSAV®	DirectPlus™ ECM Direct Drive with MSAV®
Cooling Performance	Gross Cooling Capacity - Btuh	37,000	60,300
	[1] Net Cooling Capacity - Btuh	35,500	58,000
	AHRI Rated Air Flow - Cfm	1200/850	1750/1300
	[1] SEER2 (Btuh/Watt)	17.0	16.1
	[1] EER2 (Btuh/Watt)	13.5	12.4
	Total Unit Power (kW)	2.6	4.7
Refrigerant Charge	Refrigerant Type	R-454B	R-454B
	Without Reheat Option	5 lbs. 2 oz.	5 lbs. 6 oz.
	With Reheat Option	5 lbs. 8 oz.	5 lbs. 5 oz.
Gas Heating Options Available - See page 23		Standard (2 Stage) Medium (2 Stage)	Standard (2 Stage) Medium (2 Stage) High (2 Stage)
[2] Sound Rating Number	dBA	67	78
Compressor Type (Number)		Two-Stage Scroll (1)	Two-Stage Scroll (1)
Condenser Coil	Net face area - ft.^{2}	18.7	18.7
	Rows	1	1
	Fins - in.	23	23
Condenser Fans	Motor (number) HP (type)	(2) 1/3 (ECM)	(2) 1/3 (ECM)
	Rpm	340-560	340-860
	Watts	90-136	90-354
	Diameter (Number) - in.	(2) 24	(2) 24
	Blades	3	3
	Total air volume - cfm	3900	6300
Evaporator Coil	Net face area - ft.^{2}	7.02	7.02
	Rows	1	1
	Fins - in.	20	20
	Condensate drain size (NPT) - in.	(1) 1	(1) 1
	Expansion device type	Balance Port TXV, removable head	
Indoor Blower	Nominal motor HP (type)	1.5 (ECM)	1.5 (ECM)
	Wheel nominal diameter x width - in.	(1) 14 x 5	(1) 14 x 5
Filters	Type of filter	MERV 8 or 13	
	Number and size - in.	(4) 16 x 20 x 2	(4) 16 x 20 x 2
Line voltage data (Volts-Phase-Hz)		460-3-60, 575-3-60	

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

[1] AHRI Certified to AHRI Standard 210/240; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

[2] Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270-95.

SPECIFICATIONS — 10 TON | 20 TON

Model			SGH120H5E	SGH240H5E
Nominal Tonnage			10	20
Efficiency Type			High	High
Blower Type			DirectPlus™ ECM Direct Drive with MSAV®	DirectPlus™ ECM Direct Drive with MSAV®
Cooling Performance	Gross Cooling Capacity - Btuh		123,500	236,000
	[1] Net Cooling Capacity - Btuh		120,000	228,000
	AHRI Rated Air Flow - cfm		3800	7100
	[1] IEER (Btuh/Watt)		15.2	16.8
	[1] EER (Btuh/Watt)		12.0	12.0
	Total Unit Power (kW)		10	18.8
Refrigerant Charge	Refrigerant Type		R-454B	R-454B
	Without Reheat Option	Circuit 1	7 lbs. 0 oz.	6 lbs. 11 oz.
		Circuit 2	4 lbs. 13 oz.	6 lbs. 1 oz.
		Circuit 3	- - -	5 lbs. 1 oz.
		Circuit 4	- - -	5 lbs. 3 oz.
	With Reheat Option	Circuit 1	7 lbs. 0 oz.	7 lbs. 12 oz.
		Circuit 2	5 lbs. 2 oz.	7 lbs. 3 oz.
		Circuit 3	- - -	5 lbs. 5 oz.
		Circuit 4	- - -	5 lbs. 6 oz.
Gas Heating Options Available - See page 23			Standard (2 Stage) Medium (2 Stage) High (2 Stage)	Standard (2 Stage) Medium (2 Stage) High (2 Stage)
[2] Sound Rating Number		dBA	89	92
Compressor Type (Number)			Two-Stage Scroll (1) Single-Stage Scroll (1)	Single-Stage Scroll (4)
Condenser Coil	Net face area - ft.^{2}		45.7	68.3
	Rows		1	1
	Fins - in.		23	23
Condenser Fans	Motor (number) HP (type)		(2) 1/2 (PSC)	(6) 1/3 (PSC)
	Rpm		1075	1075
	Watts		1160	1900
	Diameter (Number) - in.		(2) 24	(6) 24
	Blades		4	3
	Total air volume - cfm		10,000	22,500
Evaporator Coil	Net face area - ft.^{2}		13.54	32.2
	Tube diameter - in.		3/8	3/8
	Rows		4	3
	Fins - in.		14	14
	Condensate drain size (NPT) - in.		(1) 1	(1) 1
	Expansion device type		Balance Port TXV, removable head	
Indoor Blower	Nominal motor HP		3.75 (ECM)	(2) 5 (ECM)
	Wheel nominal diameter x width - in.		(1) 22 x 9	(2) 22 x 9
Filters	Type of filter		MERV 8 or 13	
	Number and size - in.		(4) 20 x 25 x 2	(12) 20 x 20 x 2
Line voltage data (Volts-Phase-Hz)			460-3-60, 575-3-60	

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

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

[2] Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270-95.

SPECIFICATIONS - GAS HEAT — 3 TON | 5 TON

Model		036 060	036 060	060
Heat Input Type		**Standard (2 Stage)**	**Medium (2 Stage)**	**High (2 Stage)**
Input Btuh	1st Stage	53,000	81,000	113,000
	2nd Stage	70,000	108,000	150,000
Output Btuh	2nd Stage	57,000	87,000	121,000
Temperature Rise Range - °F		15-45	25-55	40-70
[1] Thermal Efficiency		81%	81%	81%
Gas Supply Connections		3/4 in. NPT	3/4 in. NPT	3/4 in. NPT
Rec. Gas Supply Pressure - Nat./ LPG		7 in. w.g. / 11 in. w.g.		
Gas Supply Pressure Range	Min./Max. (Natural)	4.5 - 10.5 in. w.g.		
	Min./Max. (LPG)	10.8 - 13.5 in. w.g.		

NOTE - See page 37 for Minimum Air Volume Required for use with Gas Heat.

[1] Thermal Efficiency at full input.

SPECIFICATIONS - GAS HEAT — 10 TON | 20 TON

Model		120			240		
Heat Input Type		**Standard (2 Stage)**	**Medium (2 Stage)**	**High (2 Stage)**	**Standard (2 Stage)**	**Medium (2 Stage)**	**High (2 Stage)**
Input Btuh	1st Stage	85,000	117,000	156,000	169,000	234,000	312,000
	2nd Stage	130,000	180,000	240,000	260,000	360,000	480,000
Output Btuh	2nd Stage	105,000	146,000	194,000	211,000	292,000	389,000
Temperature Rise Range - °F		15-45	30-70	40-70	15-45	30-70	40-70
[1] Thermal Efficiency		81%	81%	81%	81%	81%	81%
Gas Supply Connections		3/4 in. NPT	3/4 in. NPT	3/4 in. NPT	1 in. NPT	1 in. NPT	1 in. NPT
Rec. Gas Supply Pressure - Nat. / LPG		7 in. w.g. / 11 in. w.g.					
Gas Supply Pressure Range	Min./Max. (Natural)	4.7 - 10.5 in. w.g.					
	Min./Max. (LPG)	10.8 - 13.5 in. w.g.					

NOTE - See page 37 for Minimum Air Volume Required for use with Gas Heat.

[1] Thermal Efficiency at full input.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 2000 ft. above sea level without any modifications.
At altitudes above 2000 ft. units must be derated to match information in the table shown.
036-060 Models - At altitudes above 4500 ft. unit must be derated 2% for each 1000 ft. above sea level.
120-240 Models - At altitudes above 4500 ft. unit must be derated 4% for each 1000 ft. above sea level.
NOTE - This is the only permissible derate for these units.

Model	Heat Input Type	Altitude Feet	Gas Manifold Pressure - in. w.g. (min./max.)		Input Rate Natural Gas Btuh (min./max.)	Input Rate LPG/Propane Btuh (min./max.)
			Natural Gas	LPG/Propane		
036 060	Standard (2 Stage)	0 - 2000	2.0/3.5	5.9/10.5	53,000 / 70,000	53,000 / 70,000
		2001 - 4500	1.7/3.0	5.1/9.0	49,000 / 65,000	49,000 / 65,000
	Medium (2 Stage)	0 - 2000	2.0/3.5	5.9/10.5	81,000 / 108,000	81,000 / 108,000
		2001 - 4500	1.7/3.0	5.19.0	75,000 / 100,000	75,000 / 100,000
060 only	High (2 Stage)	0 - 2000	2.0/3.5	5.9/10.5	113,000 / 150,000	113,000 / 150,000
		2001 - 4500	1.7/3.0	5.1/9.0	104,000 / 139,000	104,000 / 139,000
120	Standard (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	85,000 / 130,000	94,000 / 130,000
		2001 - 4500	1.6/3.1	5.5/8.9	85,000 / 120,000	85,000 / 120,000
	Medium (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	117,000 / 180,000	130,000 / 180,000
		2001 - 4500	1.6/3.1	5.5/8.9	117,000 / 166,000	117,000 / 166,000
	High (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	156,000 / 240,000	173,000 / 240,000
		2001 - 4500	1.6/3.1	5.5/8.9	156,000 / 221,000	156,000 / 221,000
240	Standard (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	169,000 / 260,000	187,000 / 260,000
		2001 - 4500	1.6/3.1	5.5/8.9	169,000 / 239,000	169,000 / 239,000
	Medium (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	234,000 / 360,000	259,000 / 360,000
		2001 - 4500	1.6/3.1	5.5/8.9	234,000 / 331,000	234,000 / 331,000
	High (2 Stage)	0 - 2000	1.6/3.7	5.5/10.5	312,000 / 480,000	346,000 / 480,000
		2001 - 4500	1.6/3.1	5.5/8.9	312,000 / 442,000	312,000 / 442,000

RATINGS

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

3 TON HIGH EFFICIENCY SGH036H5E - (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	640	25.5	1.01	0.68	0.81	0.93	23.8	1.18	0.68	0.81	0.95	21.9	1.38	0.67	0.82	0.97	19.8	1.6	0.67	0.84	0.99
	800	27.6	1	0.74	0.88	1	25.8	1.17	0.74	0.89	1	23.8	1.36	0.74	0.91	1	21.5	1.59	0.75	0.94	1
	960	29.1	0.99	0.79	0.96	1	27.3	1.16	0.79	0.97	1	25.3	1.35	0.8	0.99	1	23.3	1.57	0.82	1	1
67°F	640	27.9	1	0.54	0.66	0.77	26.2	1.17	0.53	0.65	0.78	24.2	1.36	0.52	0.65	0.78	22	1.58	0.5	0.65	0.79
	800	30.1	0.98	0.58	0.71	0.85	28.2	1.15	0.57	0.71	0.85	26.2	1.34	0.56	0.71	0.87	23.9	1.56	0.55	0.72	0.89
	960	31.6	0.97	0.61	0.76	0.92	29.7	1.14	0.6	0.77	0.93	27.6	1.32	0.6	0.78	0.95	25.2	1.54	0.6	0.79	0.98
71°F	640	30.5	0.98	0.42	0.53	0.63	28.7	1.15	0.41	0.52	0.63	26.7	1.34	0.39	0.51	0.62	24.5	1.55	0.36	0.49	0.62
	800	32.7	0.96	0.44	0.56	0.69	30.9	1.13	0.42	0.55	0.69	28.8	1.31	0.41	0.55	0.69	26.4	1.53	0.39	0.54	0.69
	960	34.3	0.95	0.46	0.6	0.74	32.4	1.11	0.44	0.59	0.74	30.2	1.3	0.43	0.59	0.75	27.8	1.51	0.41	0.59	0.76

3 TON HIGH EFFICIENCY SGH036H5E - (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	960	34.1	2.02	0.66	0.81	0.98	31.7	2.28	0.66	0.83	1	29.1	2.58	0.67	0.85	1	26.4	2.93	0.68	0.88	1
	1200	36.4	2.02	0.72	0.92	1	33.9	2.28	0.73	0.94	1	31.3	2.58	0.75	0.97	1	28.7	2.93	0.77	1	1
	1440	38.7	2.04	0.79	1	1	36.3	2.29	0.81	1	1	33.8	2.59	0.84	1	1	31.1	2.93	0.87	1	1
67°F	960	37.1	2.03	0.51	0.64	0.77	34.6	2.28	0.51	0.64	0.78	31.8	2.58	0.5	0.64	0.8	29	2.93	0.49	0.65	0.83
	1200	39.4	2.04	0.55	0.7	0.87	36.7	2.29	0.55	0.71	0.9	33.9	2.59	0.55	0.72	0.93	30.8	2.93	0.55	0.74	0.97
	1440	41.1	2.05	0.59	0.77	0.97	38.3	2.3	0.59	0.79	1	35.3	2.59	0.59	0.81	1	32.2	2.93	0.6	0.84	1
71°F	960	40.3	2.05	0.39	0.5	0.61	37.7	2.3	0.37	0.49	0.62	34.9	2.59	0.36	0.49	0.62	31.9	2.93	0.34	0.49	0.63
	1200	42.6	2.06	0.4	0.54	0.67	39.9	2.31	0.39	0.54	0.68	36.9	2.6	0.38	0.54	0.69	33.7	2.93	0.37	0.54	0.71
	1440	44.4	2.07	0.42	0.58	0.74	41.4	2.32	0.41	0.58	0.76	38.3	2.6	0.41	0.59	0.78	35.1	2.94	0.4	0.59	0.81

5 TON HIGH EFFICIENCY SGH060H5E - (PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1070	43.5	1.66	0.68	0.81	0.93	40	1.96	0.67	0.81	0.94	36.3	2.3	0.67	0.82	0.96	32.3	2.7	0.66	0.83	0.99
	1335	46.9	1.62	0.73	0.88	1	43.4	1.92	0.73	0.89	1	39.6	2.27	0.73	0.91	1	35.5	2.66	0.74	0.93	1
	1600	49.7	1.58	0.78	0.95	1	46.3	1.89	0.79	0.96	1	42.3	2.22	0.8	0.98	1	38.3	2.63	0.81	1	1
67°F	1070	47.6	1.61	0.54	0.66	0.77	44.3	1.91	0.52	0.65	0.77	40.5	2.26	0.51	0.64	0.78	36.3	2.66	0.49	0.64	0.79
	1335	51.1	1.56	0.57	0.71	0.84	47.8	1.87	0.56	0.71	0.85	43.7	2.22	0.55	0.71	0.87	39.3	2.59	0.54	0.71	0.89
	1600	53.7	1.53	0.61	0.76	0.91	50.2	1.84	0.6	0.76	0.93	46.1	2.18	0.59	0.77	0.95	41.5	2.57	0.59	0.79	0.98
71°F	1070	52	1.55	0.42	0.53	0.63	48.7	1.85	0.4	0.51	0.63	44.9	2.21	0.38	0.5	0.62	40.5	2.58	0.35	0.48	0.62
	1335	55.8	1.52	0.44	0.56	0.69	52.2	1.82	0.42	0.55	0.68	48.2	2.16	0.4	0.54	0.69	43.8	2.57	0.37	0.53	0.69
	1600	58.4	1.49	0.45	0.6	0.74	54.8	1.79	0.44	0.59	0.74	50.6	2.14	0.42	0.58	0.75	46	2.55	0.4	0.58	0.76

5 TON HIGH EFFICIENCY SGH060H5E - (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1600	58.2	3.3	0.66	0.82	0.98	53.6	3.73	0.67	0.84	1	48.9	4.23	0.67	0.86	1	43.9	4.81	0.68	0.89	1
	2000	62.6	3.33	0.73	0.92	1	57.8	3.75	0.74	0.94	1	52.9	4.25	0.75	0.98	1	48	4.83	0.77	1	1
	2400	66.6	3.35	0.8	1	1	62	3.78	0.81	1	1	57.2	4.28	0.84	1	1	52.4	4.86	0.87	1	1
67°F	1600	63.6	3.33	0.51	0.64	0.78	58.7	3.75	0.5	0.64	0.79	53.7	4.25	0.5	0.65	0.81	48.5	4.84	0.49	0.65	0.84
	2000	67.9	3.36	0.55	0.7	0.87	62.7	3.78	0.55	0.71	0.9	57.4	4.28	0.55	0.72	0.93	51.9	4.86	0.54	0.74	0.97
	2400	71	3.39	0.59	0.77	0.97	65.7	3.8	0.59	0.79	0.99	60.1	4.3	0.59	0.81	1	54.5	4.88	0.6	0.84	1
71°F	1600	69.5	3.37	0.38	0.5	0.62	64.4	3.79	0.37	0.49	0.62	59.2	4.29	0.35	0.49	0.62	53.7	4.87	0.33	0.48	0.63
	2000	74.1	3.41	0.4	0.54	0.68	68.6	3.82	0.39	0.54	0.69	62.9	4.32	0.37	0.54	0.7	57.1	4.9	0.36	0.54	0.72
	2400	77.1	3.44	0.42	0.58	0.74	71.5	3.85	0.41	0.58	0.76	65.5	4.34	0.4	0.59	0.78	59.5	4.92	0.39	0.59	0.81

RATINGS

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

10 TON HIGH EFFICIENCY SGH120H5E (1 COMPRESSOR - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1920	53.2	1.52	1	0.95	0.94	51	1.79	1	0.95	0.94	48.4	2.11	1	0.95	0.94	45.2	2.48	1	0.95	0.95
	2400	56.8	1.49	1	0.95	0.95	54.5	1.76	1	0.95	0.95	51.6	2.09	1	0.95	0.95	48.3	2.46	0.94	0.96	0.95
	2880	59.4	1.46	0.94	0.96	0.95	57	1.75	0.95	0.96	0.95	53.9	2.07	0.97	0.96	0.95	50.5	2.44	0.97	0.96	0.95
67°F	1920	55.9	1.49	1	1	0.93	53.5	1.77	1	1	0.94	50.6	2.1	1	1	0.95	46.9	2.47	1	1	0.96
	2400	58.1	1.47	1	1	0.96	55.5	1.76	1	1	0.96	52.1	2.08	1	1	0.96	48.6	2.45	1	0.92	0.96
	2880	59.7	1.46	1	0.93	0.96	57.1	1.74	1	0.94	0.96	53.9	2.07	1	0.96	0.96	50.6	2.44	1	0.97	0.97
71°F	1920	59.2	1.46	1	1	1	56.7	1.75	1	1	1	53.4	2.07	1	1	1	49.9	2.44	1	1	1
	2400	61.6	1.44	1	1	1	58.6	1.73	1	1	1	55.5	2.06	1	1	1	51.9	2.43	1	1	1
	2880	63.2	1.43	1	1	1	60.2	1.72	1	1	0.93	57.1	2.05	1	1	0.95	53.3	2.42	1	1	0.97

10 TON HIGH EFFICIENCY SGH120H5E (2 COMPRESSORS - PART LOAD / FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	2560	97.6	5.6	0.68	0.83	0.98	91.4	6.41	0.69	0.85	1	84.7	7.3	0.7	0.87	1	77.8	8.31	0.72	0.93	1
	3200	102.9	5.6	0.72	0.93	1	96.6	6.4	0.76	0.95	1	90.1	7.31	0.78	0.98	1	82.7	8.3	0.81	1	1
	3840	107.6	5.59	0.79	1	1	101.1	6.4	0.82	1	1	94.7	7.29	0.87	1	1	87.9	8.29	0.9	1	1
67°F	2560	104.1	5.59	0.54	0.66	0.78	98.1	6.4	0.54	0.66	0.8	91.1	7.3	0.53	0.68	0.84	83.7	8.29	0.54	0.69	0.87
	3200	109.9	5.58	0.58	0.71	0.89	103.1	6.39	0.58	0.72	0.93	96.1	7.29	0.59	0.74	0.95	88.2	8.29	0.6	0.77	1
	3840	114.2	5.58	0.61	0.78	0.98	106.8	6.39	0.61	0.8	1	99.3	7.28	0.62	0.83	1	91.2	8.29	0.63	0.87	1
71°F	2560	110.9	5.57	0.41	0.53	0.64	104.1	6.38	0.4	0.53	0.65	97.3	7.28	0.4	0.53	0.65	89.6	8.27	0.4	0.54	0.67
	3200	116.8	5.56	0.43	0.56	0.69	109.6	6.37	0.43	0.56	0.71	102.2	7.27	0.43	0.58	0.73	94.3	8.28	0.42	0.59	0.74
	3840	120.9	5.56	0.45	0.6	0.75	113.7	6.37	0.45	0.61	0.78	105.9	7.27	0.45	0.62	0.81	97.6	8.27	0.45	0.64	0.84

10 TON HIGH EFFICIENCY SGH120H5E (2 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	119.4	6.66	0.68	0.85	0.99	112.8	7.49	0.69	0.86	1	105.9	8.43	0.7	0.88	1	98.6	9.5	0.72	0.91	1
	4000	125.8	6.73	0.74	0.93	1	118.8	7.55	0.77	0.96	1	112.1	8.51	0.79	0.99	1	104.2	9.58	0.81	1	1
	4800	131	6.77	0.83	1	1	124.1	7.61	0.84	1	1	116.8	8.56	0.86	1	1	109.4	9.63	0.91	1	1
67°F	3200	126.9	6.74	0.55	0.67	0.8	120.3	7.58	0.55	0.67	0.82	112.7	8.52	0.56	0.69	0.85	104.4	9.58	0.55	0.71	0.88
	4000	133.1	6.8	0.58	0.73	0.9	124.9	7.62	0.58	0.74	0.93	117.3	8.56	0.59	0.76	0.96	109.4	9.63	0.61	0.79	1
	4800	136.8	6.84	0.62	0.8	1	128.8	7.66	0.62	0.82	1	120.9	8.6	0.63	0.84	1	112.2	9.67	0.64	0.91	1
71°F	3200	134.9	6.82	0.41	0.54	0.65	126.8	7.65	0.41	0.54	0.65	119.1	8.59	0.4	0.54	0.67	111.6	9.66	0.4	0.56	0.69
	4000	140.4	6.87	0.44	0.57	0.71	132.8	7.71	0.44	0.58	0.72	124.3	8.64	0.44	0.59	0.74	116.1	9.71	0.44	0.6	0.77
	4800	144.8	6.92	0.46	0.62	0.78	136.5	7.75	0.47	0.63	0.8	128.1	8.69	0.46	0.64	0.83	119.5	9.76	0.46	0.65	0.86

RATINGS

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

20 TON HIGH EFFICIENCY SGH240H5E (2 COMPRESSORS - PART LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	124.4	4.40	0.74	0.86	0.97	118.5	5.24	0.75	0.87	0.98	112.3	6.06	0.76	0.88	0.99	105.3	6.90	0.77	0.9	1
	4000	132.2	4.40	0.79	0.92	1	125.9	5.25	0.8	0.93	1	119.1	6.07	0.81	0.94	1	111.1	6.91	0.82	0.97	1
	4800	137.7	4.40	0.83	0.97	1	131.2	5.25	0.84	0.98	1	123.8	6.07	0.86	1	1	116.4	6.92	0.87	1	1
67°F	3200	131.2	4.40	0.6	0.72	0.84	125.2	5.25	0.6	0.73	0.85	118.7	6.07	0.59	0.73	0.86	111.1	6.91	0.59	0.74	0.87
	4000	139.2	4.40	0.63	0.77	0.89	132.6	5.25	0.63	0.78	0.9	125.2	6.07	0.63	0.79	0.92	117.3	6.92	0.64	0.81	0.94
	4800	144.9	4.41	0.66	0.82	0.94	137.7	5.26	0.66	0.83	0.96	129.9	6.08	0.67	0.84	0.98	122	6.92	0.67	0.85	1
71°F	3200	138.2	4.40	0.46	0.59	0.7	131.9	5.25	0.45	0.59	0.71	124.9	6.07	0.44	0.58	0.71	117.3	6.92	0.44	0.59	0.72
	4000	146.7	4.41	0.47	0.61	0.75	139.4	5.26	0.47	0.62	0.76	131.8	6.08	0.46	0.62	0.77	124.1	6.93	0.46	0.63	0.79
	4800	152.9	4.41	0.49	0.65	0.8	144.8	5.26	0.48	0.65	0.81	137	6.08	0.48	0.66	0.82	128.9	6.93	0.48	0.67	0.84

20 TON HIGH EFFICIENCY SGH240H5E (4 COMPRESSORS - FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	6400	238.2	12.53	0.76	0.88	0.98	223.2	14.25	0.77	0.9	0.99	209.7	16.11	0.78	0.91	1	193.8	18.19	0.8	0.93	1
	8000	251.7	12.56	0.81	0.94	1	237.3	14.28	0.82	0.96	1	222.6	16.14	0.84	0.97	1	205.8	18.21	0.86	1	1
	9600	262.7	12.58	0.86	0.99	1	247.6	14.30	0.88	1	1	232.2	16.15	0.89	1	1	216.5	18.22	0.91	1	1
67°F	6400	254.3	12.57	0.59	0.73	0.86	238.9	14.29	0.6	0.74	0.87	223.1	16.14	0.59	0.76	0.89	205.8	18.20	0.6	0.77	0.91
	8000	265.7	12.58	0.63	0.8	0.92	249.6	14.30	0.63	0.81	0.94	232.9	16.15	0.64	0.83	0.95	215	18.21	0.65	0.85	0.98
	9600	274.5	12.59	0.66	0.85	0.97	257.9	14.31	0.68	0.86	0.99	240.4	16.16	0.69	0.88	1	222.1	18.22	0.7	0.9	1
71°F	6400	269.3	12.59	0.44	0.58	0.71	253.8	14.31	0.43	0.58	0.72	236.9	16.15	0.43	0.59	0.74	220	18.22	0.42	0.59	0.76
	8000	282.2	12.60	0.46	0.62	0.77	265.3	14.32	0.45	0.63	0.79	248.1	16.17	0.45	0.64	0.81	229.7	18.22	0.45	0.65	0.83
	9600	291	12.61	0.48	0.66	0.83	273.6	14.33	0.48	0.67	0.84	255.1	16.18	0.48	0.68	0.86	236	18.23	0.48	0.7	0.89

3 TON HIGH EFFICIENCY SGH036H5E WITH HUMIDITROL® OPERATING - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	640	25.42	1.56	0.44	0.57	0.70	21.56	1.70	0.38	0.53	0.68	17.68	1.87	0.29	0.47	0.66	13.76	2.07	0.15	0.39	0.62
	800	27.19	1.61	0.47	0.62	0.77	22.60	1.74	0.40	0.59	0.77	17.94	1.91	0.30	0.53	0.76	13.23	2.11	0.13	0.44	0.75
	960	28.38	1.64	0.51	0.68	0.85	23.03	1.77	0.44	0.65	0.86	17.68	1.93	0.33	0.61	0.88	12.26	2.13	0.12	0.53	0.90
67°F	640	29.06	1.60	0.33	0.44	0.55	25.13	1.74	0.26	0.39	0.52	21.14	1.91	0.16	0.31	0.47	17.14	2.11	0.02	0.21	0.40
	800	31.27	1.66	0.34	0.47	0.60	26.51	1.79	0.26	0.42	0.57	21.73	1.95	0.15	0.34	0.53	16.91	2.14	-0.03	0.21	0.46
	960	32.76	1.70	0.36	0.51	0.66	27.26	1.82	0.27	0.45	0.63	21.79	1.98	0.14	0.37	0.60	16.21	2.17	-0.08	0.23	0.53
71°F	640	32.97	1.65	0.24	0.34	0.43	28.91	1.79	0.16	0.28	0.39	24.82	1.95	0.07	0.20	0.33	20.68	2.15	-0.07	0.09	0.25
	800	35.56	1.71	0.24	0.35	0.47	30.61	1.84	0.15	0.29	0.42	25.72	1.99	0.04	0.20	0.36	20.77	2.18	-0.14	0.06	0.26
	960	37.40	1.75	0.25	0.38	0.51	31.76	1.87	0.15	0.31	0.46	26.11	2.01	0.02	0.21	0.40	20.30	2.22	-0.20	0.04	0.29

5 TON HIGH EFFICIENCY SGH060H5E WITH HUMIDITROL® OPERATING - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1070	36.06	2.79	0.40	0.56	0.71	30.82	3.01	0.33	0.51	0.69	25.51	3.30	0.22	0.44	0.66	19.96	3.66	0.05	0.33	0.61
	1335	38.26	2.88	0.44	0.62	0.80	31.86	3.10	0.36	0.58	0.79	25.28	3.38	0.24	0.51	0.78	18.69	3.74	0.02	0.40	0.77
	1600	39.78	2.95	0.49	0.70	0.90	32.32	3.16	0.40	0.66	0.91	24.73	3.45	0.27	0.61	0.93	17.02	3.80	0.02	0.52	0.92
67°F	1070	41.44	2.88	0.27	0.40	0.54	36.03	3.10	0.18	0.34	0.49	30.43	3.38	0.07	0.25	0.43	24.87	3.75	-0.10	0.13	0.35
	1335	44.17	2.97	0.28	0.44	0.60	37.56	3.19	0.19	0.38	0.56	30.79	3.47	0.05	0.28	0.51	23.87	3.83	-0.17	0.13	0.42
	1600	46.08	3.05	0.31	0.49	0.67	38.38	3.26	0.20	0.42	0.64	30.55	3.54	0.05	0.32	0.59	22.63	3.89	-0.22	0.15	0.52
71°F	1070	47.23	2.97	0.16	0.28	0.40	41.61	3.19	0.07	0.21	0.34	35.84	3.48	-0.04	0.12	0.27	29.92	3.83	-0.20	-0.01	0.17
	1335	50.49	3.08	0.16	0.30	0.44	43.63	3.29	0.06	0.22	0.38	36.61	3.57	-0.08	0.11	0.30	29.49	3.93	-0.28	-0.04	0.19
	1600	52.74	3.16	0.16	0.32	0.48	44.83	3.37	0.05	0.24	0.43	36.76	3.65	-0.11	0.12	0.35	28.58	4.00	-0.36	-0.07	0.23

10 TON HIGH EFFICIENCY SGH120H5E WITH HUMIDITROL® OPERATING (PART LOAD) - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	1920	43.70	2.6	0.56	0.76	0.94	33.16	2.8	0.46	0.74	0.93	22.62	3.0	0.28	0.71	0.93	12.80	3.4	-0.18	0.65	0.92
	2400	45.97	2.7	0.63	0.88	0.95	34.36	2.8	0.57	0.90	0.94	23.72	3.1	0.45	0.92	0.94	13.68	3.4	0.14	0.94	0.93
	2880	49.10	2.7	0.72	0.96	0.95	37.21	2.9	0.68	0.96	0.95	26.10	3.2	0.62	0.96	0.95	15.63	3.5	0.46	0.96	0.95
67°F	1920	50.42	2.7	0.35	0.54	0.74	39.18	2.9	0.22	0.47	0.72	28.75	3.1	0.01	0.36	0.69	18.59	3.4	-0.42	0.14	0.65
	2400	52.63	2.7	0.40	0.64	0.86	40.81	2.9	0.28	0.59	0.86	29.63	3.2	0.10	0.51	0.89	18.85	3.5	-0.28	0.37	0.92
	2880	54.20	2.8	0.47	0.72	0.95	41.97	3.0	0.36	0.70	0.97	29.95	3.2	0.16	0.66	0.97	18.44	3.5	-0.25	0.59	0.98
71°F	1920	57.13	2.8	0.21	0.38	0.56	46.02	2.9	0.06	0.29	0.49	35.32	3.2	-0.11	0.14	0.41	24.96	3.5	-0.58	-0.11	0.29
	2400	59.71	2.8	0.25	0.44	0.64	47.69	3.0	0.10	0.35	0.61	36.00	3.3	-0.15	0.20	0.55	24.90	3.6	-0.61	-0.03	0.45
	2880	61.22	2.9	0.25	0.49	0.72	48.73	3.1	0.15	0.43	0.71	36.56	3.3	-0.08	0.30	0.69	24.21	3.6	-0.54	0.07	0.65

10 TON HIGH EFFICIENCY SGH120H5E WITH HUMIDITROL® OPERATING (FULL LOAD) - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	103.47	5.2	0.66	0.81	0.95	91.70	5.8	0.64	0.81	0.97	80.05	6.6	0.61	0.83	0.99	68.00	7.4	0.58	0.82	1.01
	4000	107.62	5.2	0.72	0.90	1.02	95.47	5.9	0.70	0.91	1.03	82.57	6.7	0.68	0.92	1.03	69.57	7.5	0.69	0.95	1.04
	4800	113.15	5.3	0.78	0.98	1.03	99.69	6.0	0.78	1.00	1.03	86.54	6.7	0.80	1.02	1.03	73.01	7.5	0.79	1.04	1.04
67°F	3200	112.93	5.3	0.49	0.65	0.78	101.10	5.9	0.47	0.63	0.78	89.21	6.7	0.43	0.61	0.78	77.15	7.5	0.38	0.58	0.79
	4000	117.62	5.3	0.53	0.71	0.86	104.86	6.0	0.49	0.69	0.88	91.74	6.7	0.45	0.68	0.89	77.56	7.5	0.40	0.67	0.91
	4800	122.50	5.4	0.57	0.77	0.95	108.55	6.0	0.56	0.78	0.97	94.25	6.8	0.52	0.77	1.00	79.73	7.6	0.47	0.78	1.03
71°F	3200	122.86	5.3	0.36	0.50	0.64	110.76	6.0	0.32	0.47	0.62	98.97	6.8	0.26	0.44	0.61	85.66	7.6	0.19	0.40	0.58
	4000	127.85	5.4	0.36	0.53	0.69	114.56	6.1	0.33	0.51	0.68	100.90	6.8	0.27	0.46	0.67	87.42	7.6	0.19	0.43	0.66
	4800	133.09	5.5	0.39	0.58	0.76	118.84	6.1	0.34	0.57	0.76	104.23	6.9	0.31	0.55	0.77	89.41	7.7	0.24	0.51	0.77

20 TON HIGH EFFICIENCY SGH240H5E WITH HUMIDITROL® OPERATING (PART LOAD) - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	3200	124.4	4.40	0.74	0.86	0.97	118.5	5.24	0.75	0.87	0.98	112.3	6.06	0.76	0.88	0.99	105.3	6.90	0.77	0.9	1
	4000	132.2	4.40	0.79	0.92	1	125.9	5.25	0.8	0.93	1	119.1	6.07	0.81	0.94	1	111.1	6.91	0.82	0.97	1
	4800	137.7	4.40	0.83	0.97	1	131.2	5.25	0.84	0.98	1	123.8	6.07	0.86	1	1	116.4	6.92	0.87	1	1
67°F	3200	131.2	4.40	0.6	0.72	0.84	125.2	5.25	0.6	0.73	0.85	118.7	6.07	0.59	0.73	0.86	111.1	6.91	0.59	0.74	0.87
	4000	139.2	4.40	0.63	0.77	0.89	132.6	5.25	0.63	0.78	0.9	125.2	6.07	0.63	0.79	0.92	117.3	6.92	0.64	0.81	0.94
	4800	144.9	4.41	0.66	0.82	0.94	137.7	5.26	0.66	0.83	0.96	129.9	6.08	0.67	0.84	0.98	122	6.92	0.67	0.85	1
71°F	3200	138.2	4.40	0.46	0.59	0.7	131.9	5.25	0.45	0.59	0.71	124.9	6.07	0.44	0.58	0.71	117.3	6.92	0.44	0.59	0.72
	4000	146.7	4.41	0.47	0.61	0.75	139.4	5.26	0.47	0.62	0.76	131.8	6.08	0.46	0.62	0.77	124.1	6.93	0.46	0.63	0.79
	4800	152.9	4.41	0.49	0.65	0.8	144.8	5.26	0.48	0.65	0.81	137	6.08	0.48	0.66	0.82	128.9	6.93	0.48	0.67	0.84

20 TON HIGH EFFICIENCY SGH240H5E WITH HUMIDITROL® OPERATING (FULL LOAD) - DIRECTPLUS™ WITH MSAV®

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F
63°F	6400	238.2	12.53	0.76	0.88	0.98	223.2	14.25	0.77	0.9	0.99	209.7	16.11	0.78	0.91	1	193.8	18.19	0.8	0.93	1
	8000	251.7	12.56	0.81	0.94	1	237.3	14.28	0.82	0.96	1	222.6	16.14	0.84	0.97	1	205.8	18.21	0.86	1	1
	9600	262.7	12.58	0.86	0.99	1	247.6	14.30	0.88	1	1	232.2	16.15	0.89	1	1	216.5	18.22	0.91	1	1
67°F	6400	254.3	12.57	0.59	0.73	0.86	238.9	14.29	0.6	0.74	0.87	223.1	16.14	0.59	0.76	0.89	205.8	18.20	0.6	0.77	0.91
	8000	265.7	12.58	0.63	0.8	0.92	249.6	14.30	0.63	0.81	0.94	232.9	16.15	0.64	0.83	0.95	215	18.21	0.65	0.85	0.98
	9600	274.5	12.59	0.66	0.85	0.97	257.9	14.31	0.68	0.86	0.99	240.4	16.16	0.69	0.88	1	222.1	18.22	0.7	0.9	1
71°F	6400	269.3	12.59	0.44	0.58	0.71	253.8	14.31	0.43	0.58	0.72	236.9	16.15	0.43	0.59	0.74	220	18.22	0.42	0.59	0.76
	8000	282.2	12.60	0.46	0.62	0.77	265.3	14.32	0.45	0.63	0.79	248.1	16.17	0.45	0.64	0.81	229.7	18.22	0.45	0.65	0.83
	9600	291	12.61	0.48	0.66	0.83	273.6	14.33	0.48	0.67	0.84	255.1	16.18	0.48	0.68	0.86	236	18.23	0.48	0.7	0.89

BLOWER DATA

SGH036H5E / SGH060H5E BLOWER PERFORMANCE

NOTE - Blower Table Includes Resistance For Base Unit With Wet Indoor Coil And Air Filters In Place.

See page 37 for Factory Installed Options/Accessory Air Resistance Data.

See page 37 for Minimum Air Volume Required For Use With Gas Heat.

Air Volume cfm	EXTERNAL STATIC PRESSURE - In. w.g.																			
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
900	1163	129	1253	148	1341	165	1428	181	1512	191	1587	206	1653	232	1714	266	1775	301	1835	333
1000	1315	129	1396	152	1475	174	1552	195	1626	216	1692	242	1752	277	1810	316	1870	351	1928	382
1100	1463	131	1531	164	1599	197	1666	229	1730	261	1791	295	1850	331	1907	367	1964	400	2021	432
1200	1576	173	1640	210	1705	247	1769	283	1832	319	1893	353	1952	387	2010	420	2067	452	2124	485
1300	1683	225	1749	263	1814	300	1878	337	1941	372	2002	407	2061	441	2119	474	2176	507	2235	538
1400	1796	279	1862	317	1927	354	1991	391	2054	427	2114	463	2173	497	2231	530	2289	563	2345	595
1500	1912	332	1977	371	2042	409	2105	446	2168	482	2228	517	2287	552	2345	585	2401	618	2453	652
1600	2037	368	2100	410	2163	452	2224	492	2284	532	2343	570	2399	607	2454	643	2507	679	2553	716
1700	2161	403	2221	453	2280	502	2338	548	2393	594	2445	637	2496	678	2545	718	2592	757	2633	798
1800	2271	463	2329	519	2384	574	2437	625	2487	674	2533	721	2578	765	2621	808	2663	851	2701	892
1900	2372	545	2429	602	2482	657	2533	709	2579	758	2623	805	2665	850	2705	893	2745	936	2782	977
2000	2475	631	2530	687	2582	741	2631	792	2676	840	2718	886	2758	930	2797	973	2836	1015	2872	1056
2100	2582	719	2635	774	2684	827	2731	876	2774	923	2814	968	2853	1011	2892	1054	2928	1095	2964	1136
2200	2694	811	2742	863	2789	914	2833	962	2874	1007	2913	1051	2951	1094	2987	1136	3023	1176	3058	1216
2300	2807	904	2852	954	2896	1002	2937	1048	2976	1093	3013	1136	3050	1177	3085	1218	3119	1258	3153	1298
2400	2921	998	2963	1045	3003	1091	3042	1136	3079	1179	3114	1220	3149	1261	3183	1301	3216	1341	3249	1379
Air Volume cfm	**1.1**		**1.2**		**1.3**		**1.4**		**1.5**		**1.6**		**1.7**		**1.8**		**1.9**		**2.0**	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
900	1892	364	1946	393	1997	422	2047	449	2095	476	2141	501	2186	524	2229	546	2271	569	2313	592
1000	1983	413	2036	442	2086	471	2136	498	2184	525	2232	550	2278	575	2322	600	2364	625	2403	653
1100	2076	462	2128	492	2179	521	2229	549	2279	576	2328	603	2375	630	2418	659	2456	689	2489	721
1200	2180	516	2233	546	2285	575	2336	604	2386	632	2434	660	2477	690	2515	721	2547	755	2574	791
1300	2291	569	2343	600	2392	632	2437	663	2482	694	2524	726	2562	759	2595	793	2623	829	2648	866
1400	2397	628	2440	663	2477	701	2511	739	2549	775	2585	810	2619	845	2651	880	2680	916	2709	952
1500	2496	690	2529	732	2554	776	2580	820	2614	858	2648	895	2682	931	2715	965	2747	1000	2779	1034
1600	2589	758	2616	803	2638	851	2662	895	2696	932	2735	958	2775	977	2814	996	2852	1018	2887	1046
1700	2667	841	2694	886	2720	931	2747	974	2782	1008	2825	1022	2870	1026	2913	1035	2951	1056	2982	1096
1800	2736	933	2769	974	2801	1014	2833	1054	2869	1087	2911	1102	2952	1115	2988	1143	3015	1195	3031	1277
1900	2818	1017	2852	1055	2887	1094	2921	1132	2955	1167	2991	1197	3023	1238	3045	1303	3055	1400	3053	1529
2000	2907	1095	2942	1134	2976	1173	3010	1211	3043	1248	3072	1295	3092	1366	3100	1469	3094	1608	3076	1780
2100	2999	1175	3033	1214	3067	1252	3100	1290	3132	1330	3155	1394	3163	1494	3156	1635	3134	1817	3100	2032
2200	3092	1255	3125	1294	3158	1331	3191	1369	3222	1411	3238	1492	3235	1622	3213	1801	3175	2026	3124	2283
2300	3186	1336	3218	1373	3250	1411	3283	1448	3312	1493	3321	1590	3307	1750	3270	1967	3215	2234	3147	2535
2400	3280	1417	3311	1453	3342	1490	3374	1526	3402	1574	3405	1689	3379	1878	3327	2134	3256	2443	3171	2787

SGH120H5E BLOWER PERFORMANCE

NOTE - Blower Table Includes Resistance For Base Unit With Wet Indoor Coil And Air Filters In Place.

See page 37 for Factory Installed Options/Accessory Air Resistance Data.

See page 37 for Minimum Air Volume Required For Use With Gas Heat

Total Air Volume cfm	Total Static Pressure - in. w.g.													
	0.2		0.4		0.6		0.8		1.0		1.2		1.4	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
2000	785	280	886	375	974	484	1053	593	1124	695	1191	797	1253	917
2200	842	329	937	434	1020	550	1093	662	1161	767	1226	878	1288	1011
2400	901	387	988	501	1066	621	1135	735	1201	845	1264	970	1326	1118
2600	959	454	1040	573	1113	696	1179	813	1242	933	1306	1075	1368	1240
2800	1016	528	1091	649	1160	775	1224	899	1287	1035	1350	1196	1413	1375
3000	1072	608	1143	732	1209	862	1270	998	1333	1153	1396	1331	1459	1520
3200	1129	696	1195	825	1257	963	1318	1115	1380	1289	1444	1479	1506	1674
3400	1184	794	1246	930	1306	1080	1366	1247	1429	1436	1492	1634	1554	1833
3600	1238	902	1297	1047	1355	1208	1415	1389	1478	1588	1541	1793	1602	1997
3800	1291	1018	1348	1173	1404	1344	1464	1537	1527	1746	1590	1957	1650	2163
4000	1342	1140	1397	1305	1452	1487	1512	1691	1575	1906	1638	2121	1698	2328
4200	1392	1268	1445	1443	1500	1635	1560	1848	1623	2068	1685	2284	1744	2489
4400	1440	1400	1492	1585	1547	1787	1607	2006	1670	2229	1731	2443	1790	2645
4600	1485	1535	1538	1730	1594	1940	1654	2164	1716	2387	1776	2597	1834	2793
4800	1529	1673	1583	1876	1639	2093	1700	2320	1761	2541	1820	2744	1878	2934

Total Air Volume cfm	Total Static Pressure - in. w.g.											
	1.6		1.8		2.0		2.2		2.4		2.6	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
2000	1313	1053	1372	1199	1429	1351	1484	1507	1538	1662	1590	1815
2200	1349	1160	1408	1317	1466	1479	1523	1642	1577	1804	1630	1963
2400	1388	1280	1448	1448	1507	1620	1564	1790	1619	1957	1672	2119
2600	1430	1413	1491	1592	1550	1770	1608	1946	1663	2117	1716	2280
2800	1475	1558	1536	1744	1595	1928	1652	2108	1707	2279	1761	2441
3000	1521	1711	1581	1902	1640	2090	1697	2271	1753	2442	1806	2601
3200	1568	1870	1628	2065	1686	2254	1743	2434	1798	2602	1852	2758
3400	1615	2033	1674	2229	1733	2418	1789	2595	1844	2760	1897	2913
3600	1662	2199	1721	2394	1779	2580	1835	2754	1890	2915	1943	3066
3800	1710	2364	1768	2558	1825	2739	1881	2909	1936	3067	- - -	- - -
4000	1756	2527	1814	2716	1871	2893	1927	3059	- - -	- - -	- - -	- - -
4200	1802	2684	1860	2869	1917	3042	- - -	- - -	- - -	- - -	- - -	- - -
4400	1848	2835	1905	3015	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
4600	1892	2979	1949	3156	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
4800	1936	3117	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

BLOWER DATA

20 TON

SGH240H5E BLOWER PERFORMANCE

NOTE - Blower Table Includes Resistance For Base Unit With Wet Indoor Coil And Air Filters In Place.

See page 37 for Factory Installed Options/Accessory Air Resistance Data.

See page 37 for Minimum Air Volume Required For Use With Gas Heat

Air Volume cfm	EXTERNAL STATIC PRESSURE - In. w.g.																									
	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1		1.2		1.3	
	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts	RPM	Watts
2000	474	8	516	102	562	199	611	301	662	401	710	490	758	566	805	628	852	684	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
2200	486	35	527	127	573	225	622	328	673	428	722	519	770	595	818	658	865	715	913	773	960	840	- - -	- - -	- - -	- - -
2400	499	62	540	155	586	254	635	356	685	458	735	549	783	626	831	690	879	748	927	808	973	878	1018	961	1061	1052
2600	512	91	554	185	599	284	648	387	698	489	748	581	797	657	845	722	893	782	941	844	987	917	1031	1005	1074	1101
2800	527	122	569	217	614	317	663	420	713	522	762	614	811	690	860	756	908	817	955	882	1001	960	1045	1052	1086	1153
3000	542	155	585	251	631	352	679	455	728	557	778	648	827	725	875	791	923	854	970	923	1016	1004	1059	1102	1099	1208
3200	559	190	602	287	648	388	696	491	744	593	794	684	843	761	891	828	939	893	985	965	1030	1052	1073	1154	1113	1266
3400	578	227	621	325	666	426	713	529	762	631	811	722	859	798	907	866	955	933	1001	1009	1045	1101	1087	1209	1126	1327
3600	597	267	640	365	685	466	732	569	780	670	828	761	877	837	925	906	972	976	1017	1056	1061	1154	1102	1268	1141	1390
3800	617	308	660	406	705	508	751	610	799	711	847	801	895	878	942	948	989	1021	1034	1106	1077	1209	1117	1329	1155	1457
4000	638	350	681	449	725	550	771	652	818	753	866	843	914	919	961	991	1007	1067	1051	1158	1093	1268	1133	1394	1170	1527
4200	660	394	702	493	747	594	792	696	838	796	886	886	933	963	979	1036	1025	1116	1068	1213	1110	1330	1148	1463	1185	1600
4400	682	440	724	538	768	639	814	740	859	841	906	929	953	1007	999	1083	1043	1168	1086	1271	1126	1396	1164	1535	1201	1677
4600	705	485	747	584	791	684	836	785	881	885	927	974	973	1052	1018	1131	1062	1222	1104	1333	1144	1466	1181	1611	1216	1757
4800	730	510	772	611	815	714	859	817	904	919	949	1010	994	1093	1039	1178	1082	1277	1122	1398	1161	1540	1198	1692	1232	1841
5000	757	506	799	614	842	722	885	831	928	938	972	1037	1016	1129	1059	1225	1101	1336	1141	1468	1178	1619	1214	1777	1249	1929
5200	787	487	828	603	869	720	911	838	953	954	996	1063	1038	1168	1080	1277	1120	1401	1159	1544	1196	1703	1231	1864	1265	2018
5400	817	464	857	591	897	718	937	846	978	972	1019	1094	1060	1213	1101	1337	1140	1473	1177	1626	1213	1790	1248	1953	1282	2108
5600	846	446	885	585	924	723	963	862	1003	1000	1042	1135	1082	1269	1121	1407	1158	1554	1195	1712	1231	1878	1265	2042	1299	2198
5800	874	441	912	591	950	741	988	892	1026	1042	1064	1190	1102	1337	1140	1486	1177	1641	1213	1803	1249	1969	1283	2131	1317	2288
6000	901	454	938	615	975	776	1011	937	1048	1098	1086	1258	1123	1417	1159	1575	1196	1735	1232	1897	1267	2060	1302	2221	1335	2378
6200	926	489	962	659	998	829	1034	1000	1070	1171	1106	1341	1143	1508	1179	1671	1215	1832	1251	1992	1286	2152	1321	2312	1354	2471
6400	950	548	985	724	1020	901	1055	1079	1091	1257	1127	1433	1163	1606	1198	1772	1234	1932	1270	2089	1306	2246	1340	2405	1373	2566
6600	972	629	1006	809	1041	990	1076	1171	1112	1352	1147	1532	1183	1706	1219	1872	1255	2031	1291	2187	1326	2343	1360	2503	1393	2665
6800	993	727	1027	907	1062	1088	1097	1270	1133	1452	1169	1631	1204	1804	1240	1969	1276	2128	1312	2284	1347	2442	1380	2604	1413	2770
7000	1014	827	1049	1007	1084	1189	1119	1371	1155	1553	1190	1732	1226	1903	1262	2068	1298	2227	1333	2384	1368	2544	1401	2710	1432	2879
7200	1036	928	1071	1109	1106	1291	1141	1473	1177	1654	1213	1832	1249	2004	1284	2168	1320	2328	1355	2487	1389	2650	1421	2819	1452	2991
7400	1058	1031	1093	1212	1129	1393	1165	1575	1201	1756	1237	1933	1272	2104	1308	2269	1343	2431	1377	2593	1410	2759	1442	2931	1472	3108
7600	1081	1134	1116	1315	1152	1496	1188	1677	1225	1857	1261	2034	1296	2205	1331	2371	1366	2535	1399	2701	1432	2872	1462	3048	1491	3228
7800	1104	1238	1140	1418	1176	1597	1213	1777	1249	1957	1285	2133	1320	2306	1355	2474	1389	2642	1421	2812	1453	2987	1482	3167	1510	3352
8000	1128	1341	1165	1519	1201	1698	1238	1877	1274	2056	1310	2233	1345	2407	1378	2579	1411	2751	1443	2926	1473	3105	1502	3290	1529	3479
8200	1153	1443	1190	1619	1226	1797	1263	1976	1299	2155	1335	2333	1369	2510	1402	2686	1434	2862	1464	3042	1494	3227	1521	3416	1547	3609
8400	1179	1543	1215	1718	1252	1896	1288	2075	1324	2255	1359	2436	1393	2616	1425	2796	1456	2978	1486	3163	1514	3353	1540	3546	1566	3742
8600	1205	1641	1241	1817	1278	1995	1314	2176	1349	2358	1383	2542	1416	2726	1447	2911	1477	3099	1506	3289	1533	3483	1559	3680	1584	3879
8800	1231	1740	1267	1917	1303	2097	1339	2280	1374	2465	1407	2653	1439	2841	1469	3032	1499	3225	1526	3420	1553	3618	1578	3817	- - -	- - -
9000	1257	1840	1293	2020	1329	2203	1364	2390	1398	2579	1431	2770	1462	2963	1491	3159	1520	3357	1547	3556	1572	3757	1597	3958	- - -	- - -
9200	1284	1943	1319	2127	1354	2314	1389	2504	1422	2697	1454	2893	1484	3091	1513	3291	1540	3493	1567	3696	1592	3899	- - -	- - -	- - -	- - -
9400	1310	2050	1345	2238	1380	2429	1414	2624	1446	2821	1477	3022	1506	3224	1534	3429	1561	3634	1586	3840	- - -	- - -	- - -	- - -	- - -	- - -
9600	1337	2160	1371	2353	1405	2549	1438	2748	1470	2951	1500	3156	1528	3363	1555	3571	1581	3779	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

BLOWER DATA

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

Air Volume cfm	Gas Heating			Humiditrol Dehumidification Coil	Economizer	Filters MERV 13
	Standard Heat	Medium Heat	High Heat			
036, 060 Models						
800	0.02	0.02	0.02	0.00	0.04	0.05
1000	0.02	0.02	0.02	0.00	0.04	0.07
1200	0.02	0.02	0.02	0.01	0.04	0.07
1400	0.02	0.02	0.03	0.02	0.04	0.07
1600	0.02	0.03	0.04	0.03	0.04	0.07
1800	0.03	0.04	0.05	0.04	0.05	0.07
2000	0.03	0.04	0.06	0.04	0.05	0.08
120 Model						
2000	0.07	0.05	0.06	0.03	0.06	0.03
2500	0.09	0.10	0.11	0.04	0.11	0.05
3000	0.11	0.12	0.13	0.05	0.13	0.06
3500	0.12	0.16	0.17	0.06	0.15	0.07
4000	0.14	0.21	0.22	0.08	0.19	0.08
4500	0.15	0.26	0.32	0.10	0.22	0.09
5000	0.16	0.34	0.43	0.12	0.29	0.10
5500	0.18	0.44	0.54	0.14	0.34	0.12
6000	0.2	0.54	- - -	0.15	0.52	0.13
240 Model						
3000	0.03	0.04	0.05	0.02	0.00	0.00
3500	0.03	0.05	0.06	0.04	0.00	0.00
4000	0.04	0.06	0.07	0.04	0.00	0.00
4500	0.05	0.07	0.09	0.04	0.00	0.00
5000	0.05	0.09	0.11	0.04	0.00	0.00
5500	0.06	0.10	0.13	0.06	0.01	0.01
6000	0.07	0.12	0.15	0.06	0.01	0.02
6500	0.08	0.13	0.17	0.08	0.01	0.02
7000	0.09	0.15	0.19	0.08	0.02	0.03
7500	0.10	0.17	0.21	0.10	0.02	0.04
8000	0.11	0.19	0.24	0.10	0.02	0.04
8500	0.12	0.20	0.26	0.10	0.03	0.04
9000	0.13	0.23	0.29	0.12	0.04	0.04
9500	0.14	0.25	0.32	0.14	0.04	0.06

MINIMUM AIR VOLUME REQUIRED FOR USE WITH GAS HEAT

Size	Gas Heat	Minimum cfm
036	Standard	1175
	Medium	1475
060	Standard	1175
	Medium	1475
	High	1625
120	Standard	2175
	Medium	2250
	High	2575
240	Standard	4350
	Medium	4500
	High	5150

POWER EXHAUST FANS STANDARD STATIC PERFORMANCE

240 Size

Return Air System Static Pressure	Air Volume Exhausted
in. w.g.	cfm
0	10,200
0.05	9700
0.10	9200
0.15	8600
0.20	8100
0.25	7600
0.30	6900
0.35	6000
0.40	5000
0.45	4150

ELECTRICAL DATA — 3 TON | 5 TON

Model		SGH036H5E		SGH060H5E	
[1] Voltage - 60Hz		460V-3ph	575V-3ph	460V-3ph	575V-3ph
Compressor (Non-Inverter)	Rated Load Amps	4.6	3.5	6.5	4.8
	Locked Rotor Amps	39	28.9	60	41
Outdoor Fan Motor	Full Load Amps (2 ECM)	0.3	0.3	0.7	0.7
	Total	0.6	0.6	1.4	1.4
Service Outlet 115V GFI (Amps)		20	20	20	20
Indoor Blower Motor	HP	1.5	1.5	1.5	1.5
	Type	Direct (ECM)	Direct (ECM)	Direct (ECM)	Direct (ECM)
	Full Load Amps	2.3	2.3	2.3	2.3
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	15	15	15	15
[3] Minimum Circuit Ampacity (MCA)	Unit Only	9	8	12	10

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 35kA.

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

[2] HACR type breaker or fuse.

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

ELECTRICAL DATA — 10 TON

Model		SGH120H5E	
[1] Voltage - 60Hz		460V-3ph	575V-3ph
Compressor 1 (Non-Inverter)	Rated Load Amps	6.5	4.8
	Locked Rotor Amps	60	41
Compressor 2 (Non-Inverter)	Rated Load Amps	6.6	4.8
	Locked Rotor Amps	60	41
Outdoor Fan Motors	Full Load Amps (2 Non-ECM)	1.5	1.2
	Total	3	2.4
Service Outlet 115V GFI (Amps)		20	20
Indoor Blower Motor	HP	3.75	3.75
	Type	Direct (ECM)	Direct (ECM)
	Full Load Amps	4.2	3.6
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	25	20
[3] Minimum Circuit Ampacity (MCA)	Unit Only	22	17

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 35kA.

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

[2] HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA — 20 TON

Model		SGH240H5	
[1] Voltage - 60Hz		460V-3ph	575V-3ph
Compressor (Non-Inverter)	Rated Load Amps	6.6	4.8
	Locked Rotor Amps	60	41
Compressor (Non-Inverter)	Rated Load Amps	6.6	4.8
	Locked Rotor Amps	60	41
Compressor (Non-Inverter)	Rated Load Amps	6.6	4.8
	Locked Rotor Amps	60	41
Compressor (Non-Inverter)	Rated Load Amps	6.6	4.8
	Locked Rotor Amps	60	41
Outdoor Fan Motors (6)	Full Load Amps (6 Non-ECM)	1.3	1
	Total	7.8	6
Power Exhaust (3) 0.33 HP	Full Load Amps	1.3	1
	Total	3.9	3
Service Outlet 115V GFI (Amps)		20	20
Indoor Blower Motor	HP	(2) 5	(2) 5
	Type	Direct (ECM)	Direct (ECM)
	Full Load Amps	5	4
[2] Maximum Overcurrent Protection (MOCP)	Unit Only	45	35
	With (3) 0.33 HP Power Exhaust	50	35
[3] Minimum Circuit Ampacity (MCA)	Unit Only	41	31
	With (3) 0.33 HP Power Exhaust	45	34

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 35kA.

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

[2] HACR type breaker or fuse.

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

FIELD WIRING NOTES

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

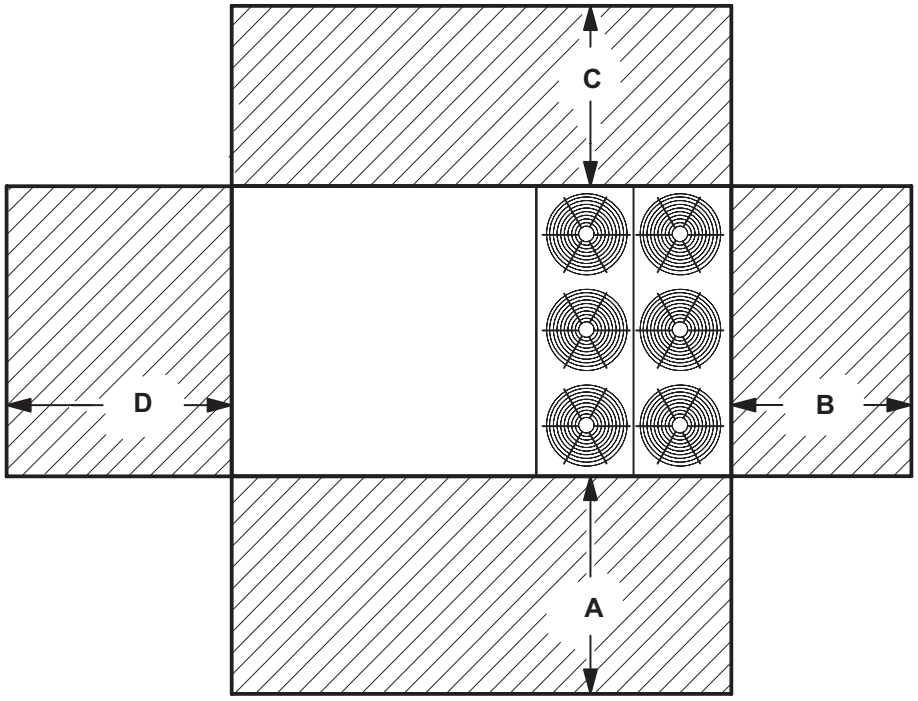
OUTDOOR SOUND DATA

Size	Octave Band Sound Power Levels dBA, re 10^{-12} Watts Center Frequency - HZ							[1] Sound Rating Number dBA
	125	250	500	1000	2000	4000	8000	
036	55	59	63	61	57	48	39	67
060	65	71	74	72	69	63	54	78
120	80	79	79	76	71	65	57	89
240	94	91	90	87	83	79	72	92

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

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

UNIT CLEARANCES



[1] Unit Clearance		A		B		C		D		Top Clearance
		in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	036, 060	48	1219	36	914	60	1524	60	1524	Unobstructed
	120	60	1524	36	914	60	1524	60	1524	Unobstructed
	240	72	1829	36	914	60	1524	96	2438	Unobstructed
Clearance to Combustibles	All	36	914	1	25	1	25	1	25	Unobstructed
Minimum Operation Clearance	All	36	914	36	914	36	914	36	914	Unobstructed

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

[1] Service Clearance - Required for removal of serviceable parts.
Clearance to Combustibles - Required clearance to combustible material.
Minimum Operation Clearance - Required clearance for proper unit operation.

WEIGHT DATA

Model	Net		Shipping	
	lbs.	kg	lbs.	kg
SGH036 Base Unit	844	383	954	433
SGH036 Max Unit	964	437	1074	487
SGH060 Base Unit	865	392	975	442
SGH060 Max Unit	985	447	1095	497
SGH120 Base Unit	1462	663	1562	709
SGH120 Max Unit	1674	759	1774	805
SGH240 Base Unit	2753	1249	2853	1294
SGH240 Max Unit	3204	1453	3304	1499

NOTE - Base Unit is with Standard Gas Heat, NO OPTIONS.

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

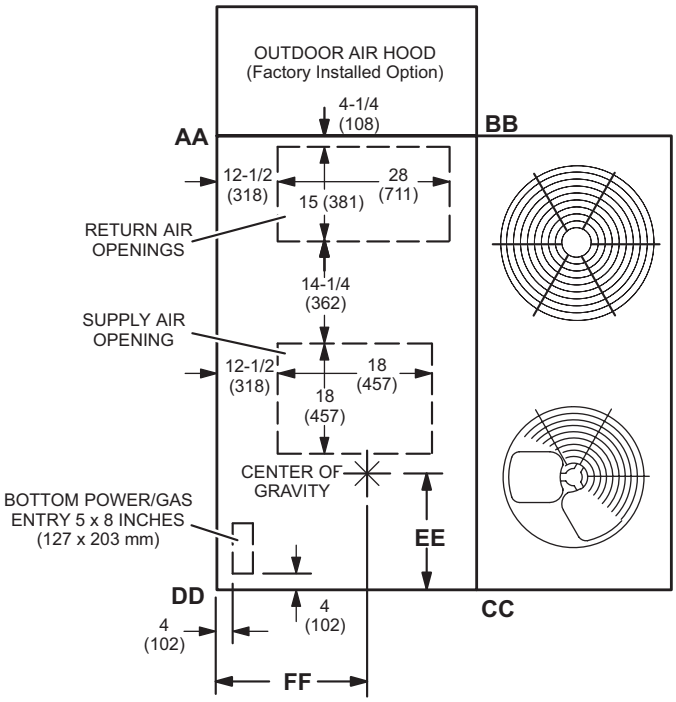
FACTORY/ FIELD INSTALLED OPTIONS AND ACCESSORIES - NET WEIGHTS

Description		lbs.	kg
CABINET			
Combination Coil/Hail Guards	036 or 060	24	11
	120	25	11
	240	50	23
ECONOMIZER / OUTDOOR AIR / EXHAUST			
Economizer	036 or 060	50	23
	120	70	32
	240	138	63
Outdoor Air Dampers	240	68	31
Power Exhaust	240	99	45
HEAT EXCHANGER			
	036-060 Medium Heat	8	4
	060 High Heat	19	9
	120 Medium Heat	9	4
	120 High Heat	32	15
	240 Medium Heat	18	8
	240 High Heat	64	29
ROOF CURBS			
Hybrid Roof Curbs, Downflow 14 in. height	036 or 060	70	32
	120	80	36
	240 (full perimeter)	115	52
Hybrid Roof Curbs, Downflow 24 in. height	036 or 060	105	48
	120	120	54
	240 (full perimeter)	170	77
HUMIDITROL® DEHUMIDIFICATION SYSTEM			
Humiditrol Dehumidification Option (Net Weight)	036 or 060	27	12
	120	57	26
	240	100	45

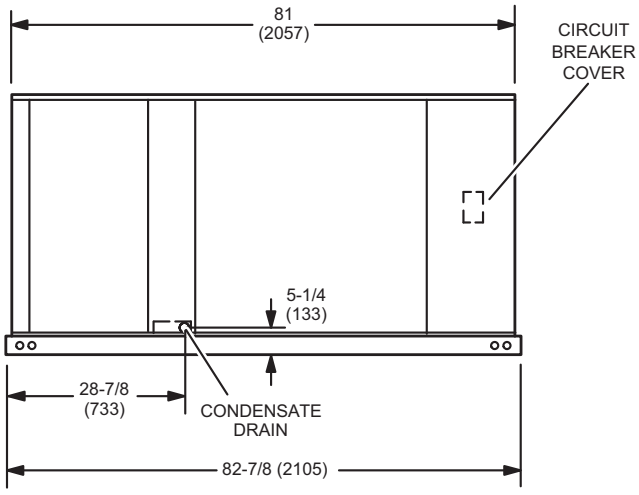
CORNER WEIGHTS | **CENTER OF GRAVITY**

Model	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
SGH036H Base Unit	151	68	218	99	281	128	194	88	34-7/8	886	31-3/8	797
SGH036H Max. Unit	172	78	250	113	321	146	221	100	34-7/8	886	31-3/8	797
SGH060H Base Unit	154	70	224	102	288	131	199	90	34-7/8	886	31-3/8	797
SGH060H Max. Unit	176	80	255	116	328	149	226	103	34-7/8	886	31-3/8	797

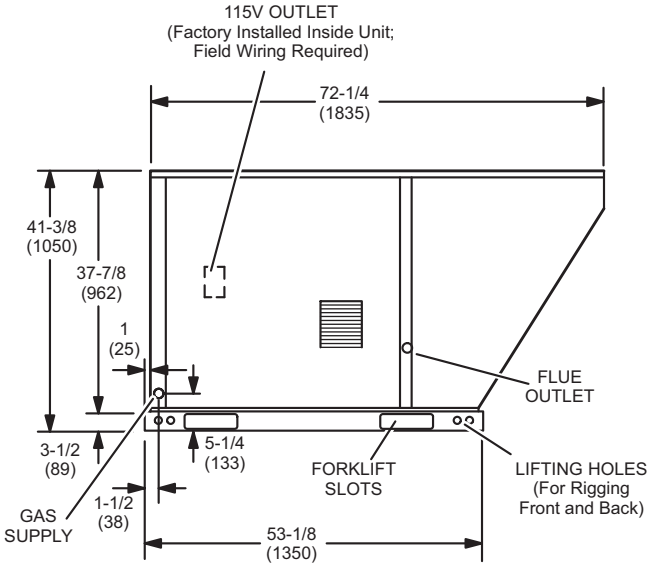
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)



TOP VIEW



SIDE VIEW



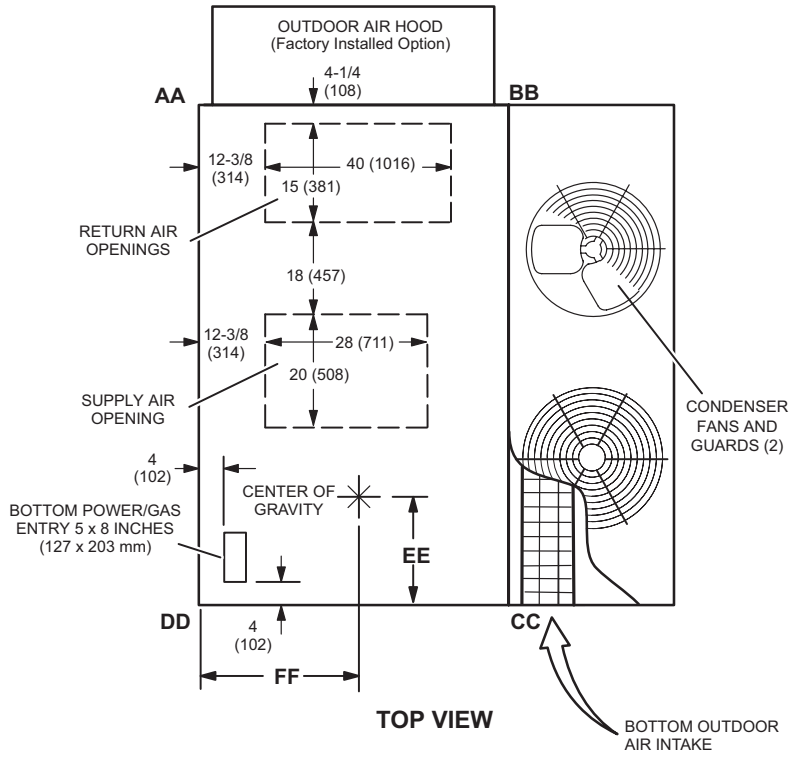
FRONT VIEW

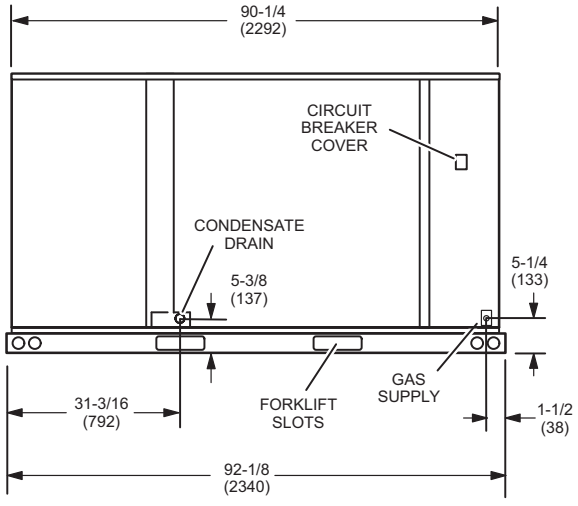
DIMENSIONS - UNIT SGH120H

CORNER WEIGHTS | **CENTER OF GRAVITY**

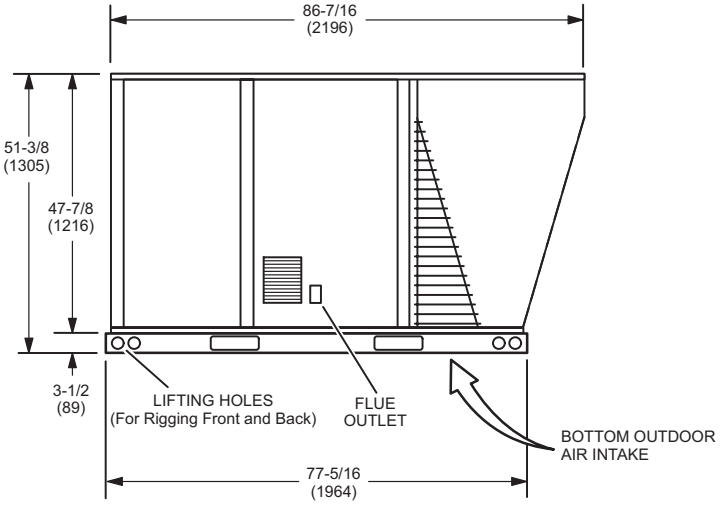
Model	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
SGH120H Base Unit	461	209	314	142	278	126	408	185	41-1/4	1048	37-3/8	949
SGH120H Max. Unit	528	239	360	163	318	144	467	212	41-1/4	1048	37-3/8	949

Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)





SIDE VIEW

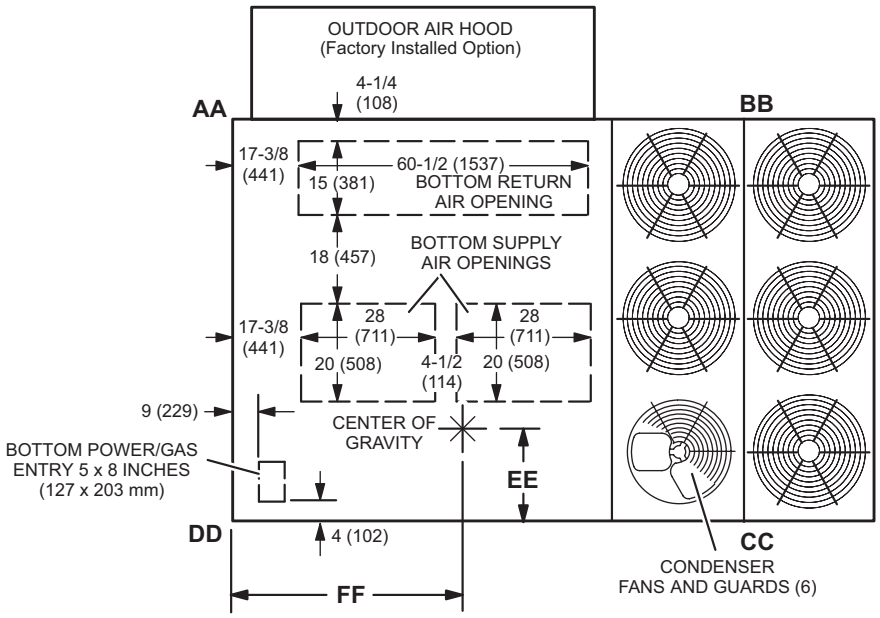


FRONT VIEW

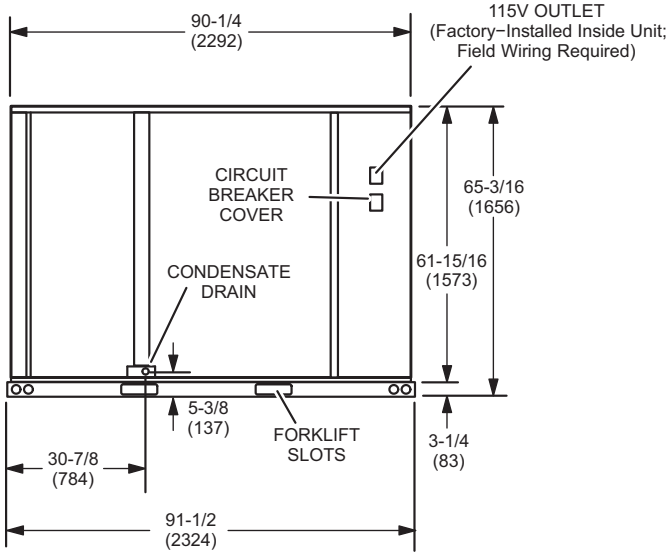
DIMENSIONS - UNIT SGH240H

CORNER WEIGHTS									CENTER OF GRAVITY			
Model	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
SGH240H Base Unit	564	256	583	264	816	370	790	358	38-1/8	968	61-1/4	1556
SGH240H Max. Unit	656	298	679	308	950	431	919	417	38-1/8	968	61-1/4	1556

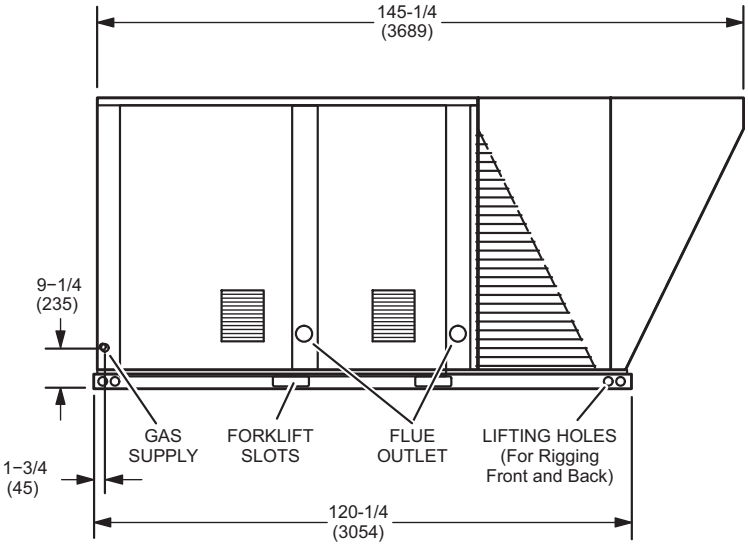
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)



TOP VIEW

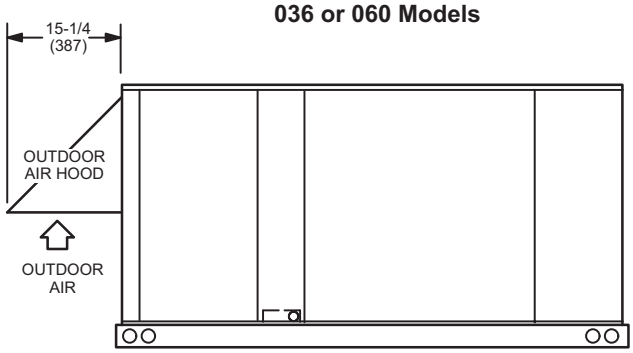


SIDE VIEW



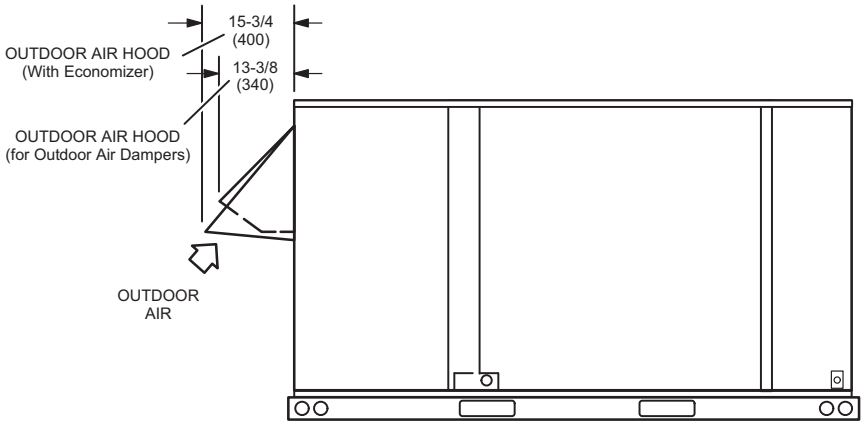
FRONT VIEW

OPTIONAL OUTDOOR AIR HOOD DETAIL
036 or 060 Models



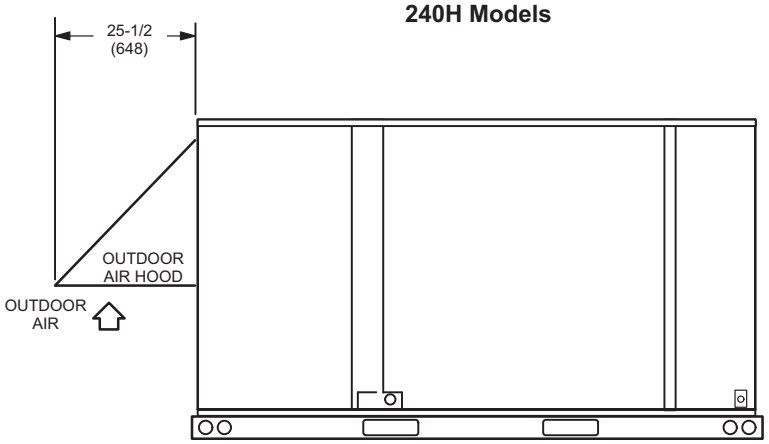
SIDE VIEW

OPTIONAL OUTDOOR AIR HOOD DETAIL
120H Models



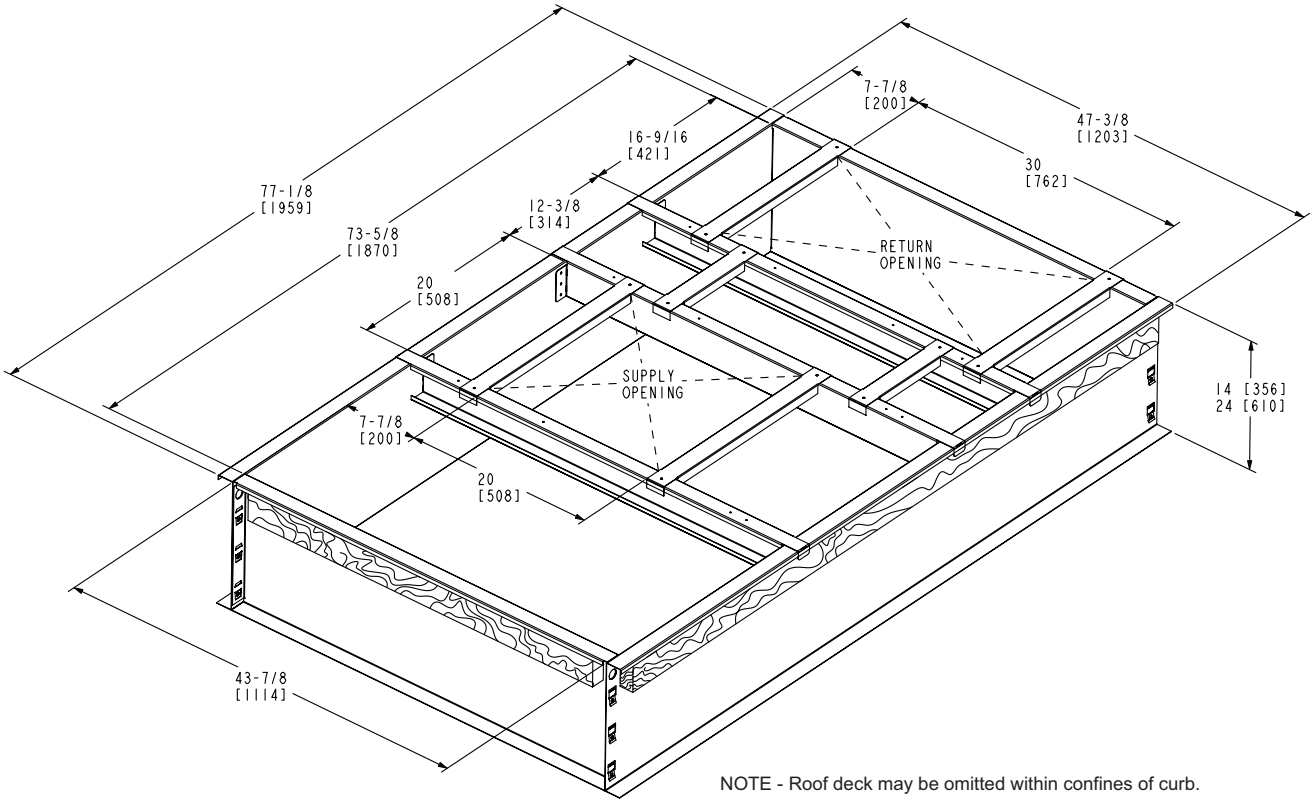
SIDE VIEW

OPTIONAL OUTDOOR AIR HOOD DETAIL
240H Models



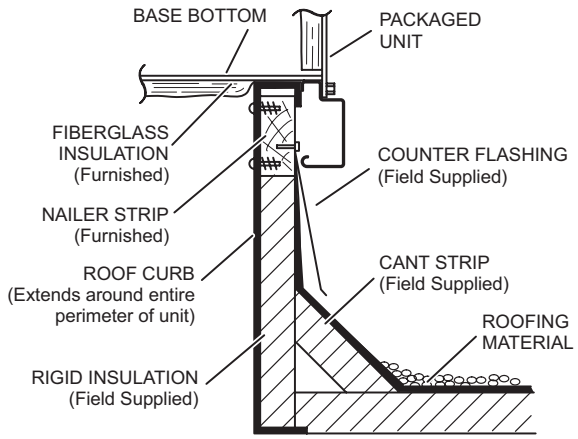
SIDE VIEW

HYBRID ROOF CURBS - 036-060 MODELS - DOUBLE DUCT OPENING

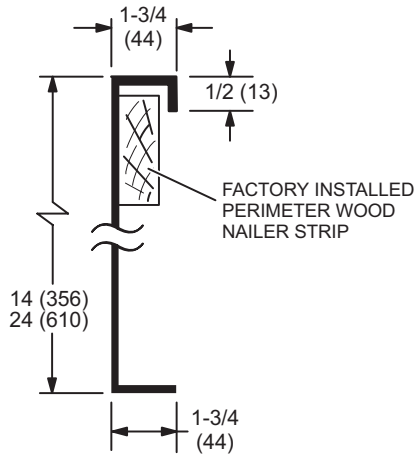


NOTE - Roof deck may be omitted within confines of curb.

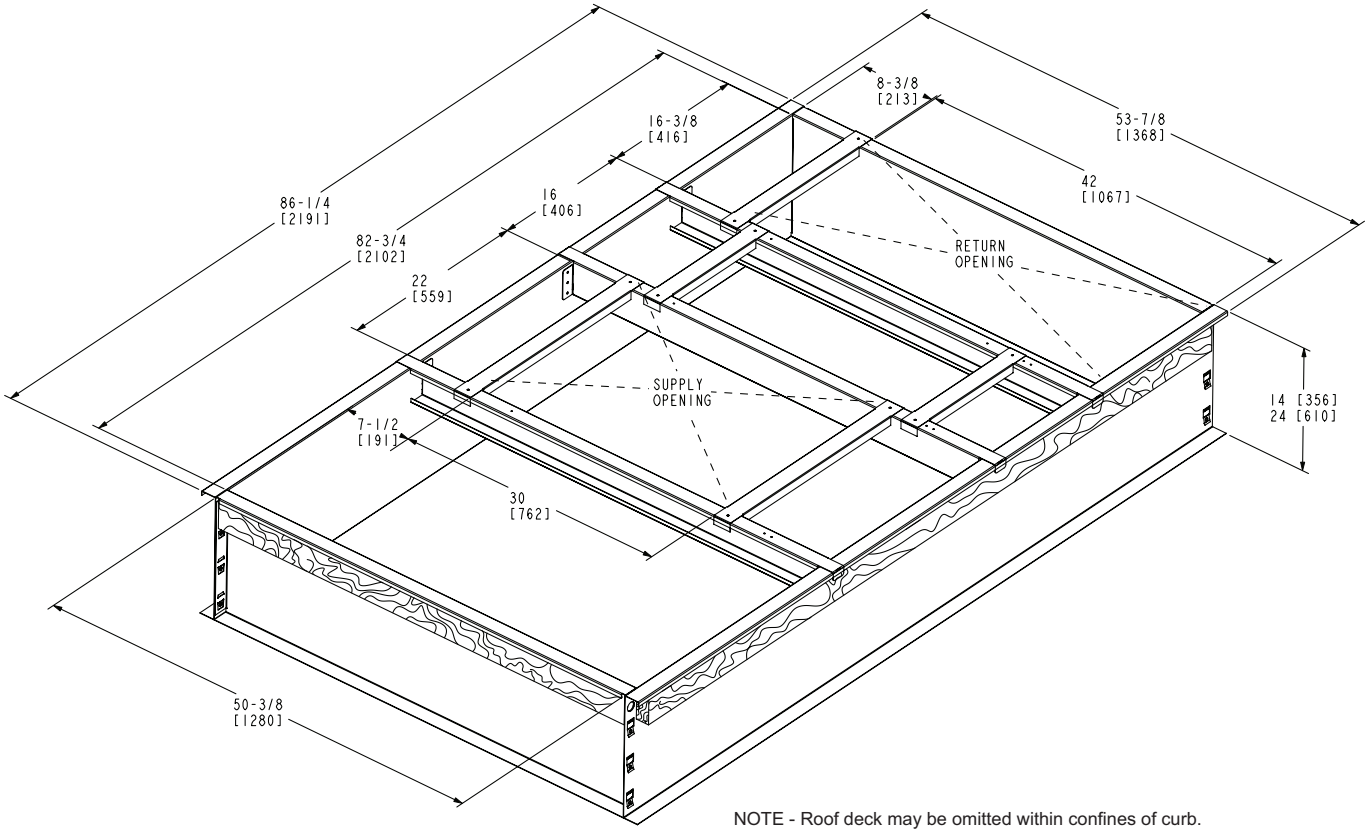
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

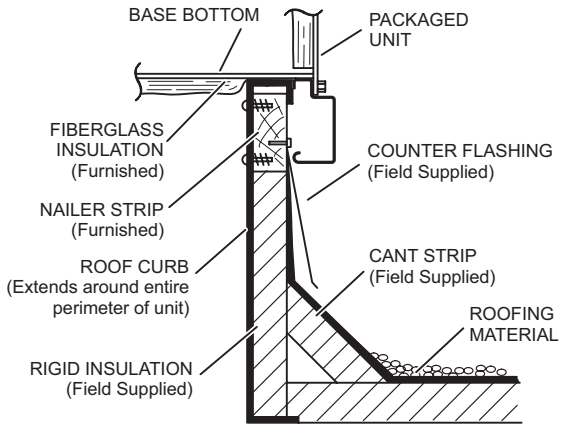


HYBRID ROOF CURBS - 120 MODEL - DOUBLE DUCT OPENING

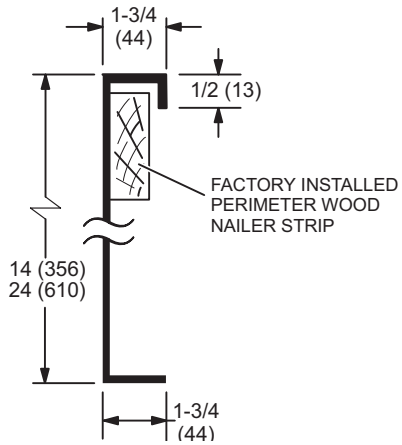


NOTE - Roof deck may be omitted within confines of curb.

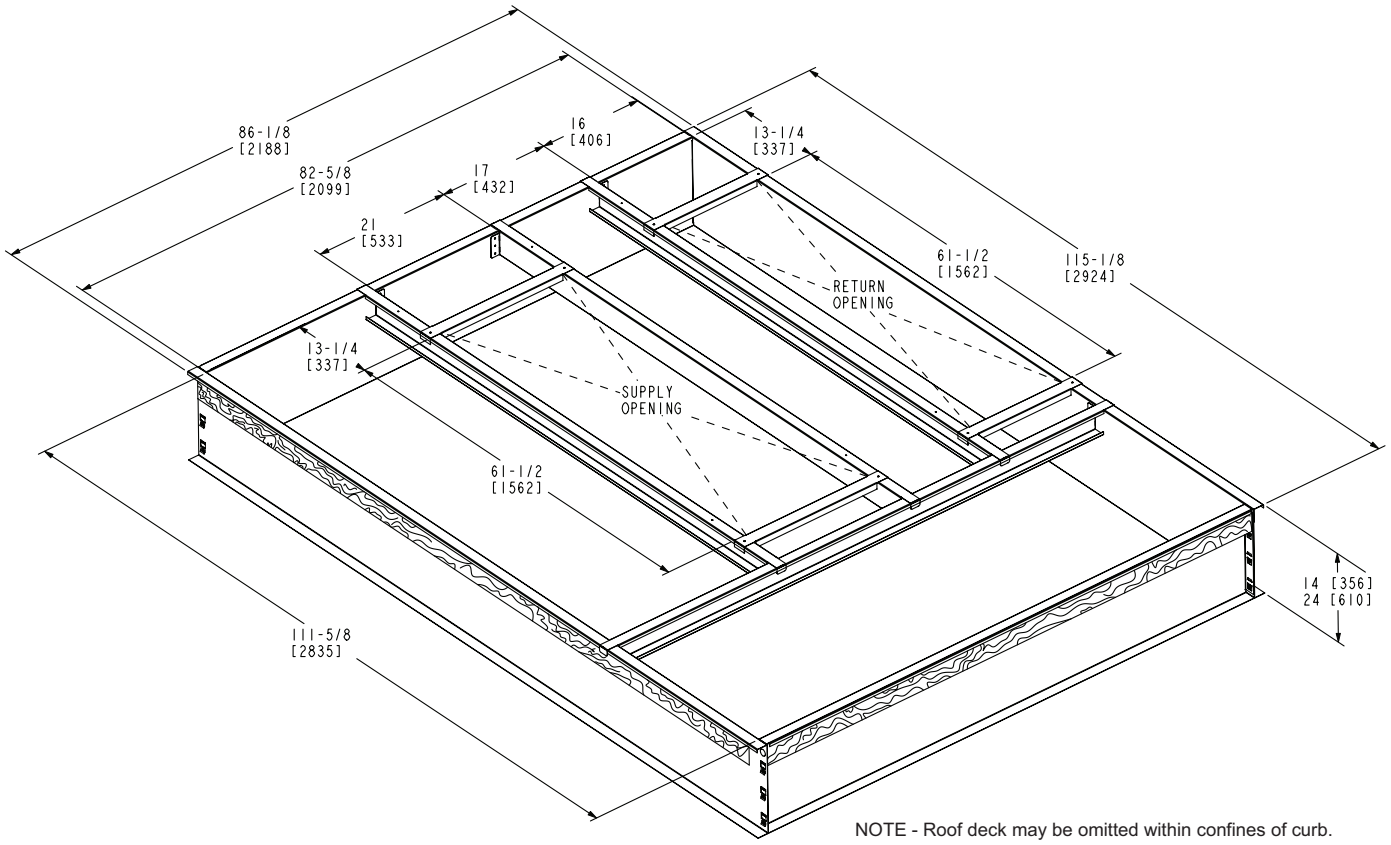
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

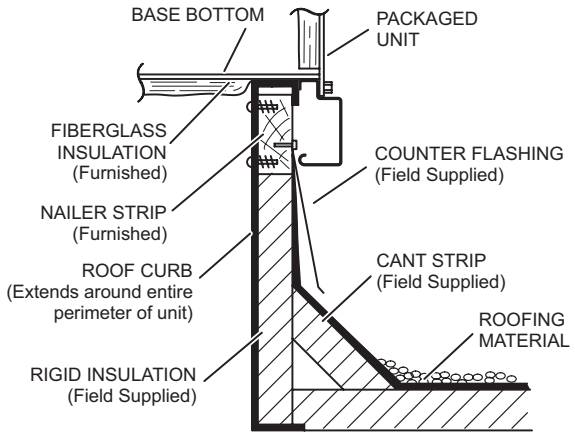


HYBRID ROOF CURBS - 240 MODEL - FULL PERIMETER - DOUBLE DUCT OPENING

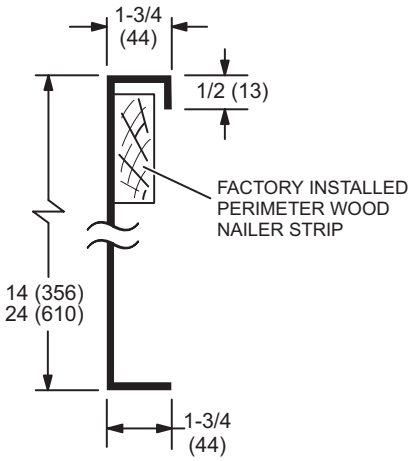


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB



REVISIONS

Sections	Description of Change
Blower Data	Updated SGH120H5E.

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Contact us at 1-800-4-LENNOX

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Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.
Installation and service must be performed by a qualified installer and servicing agency.

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