PACKAGED GAS ELECTRIC

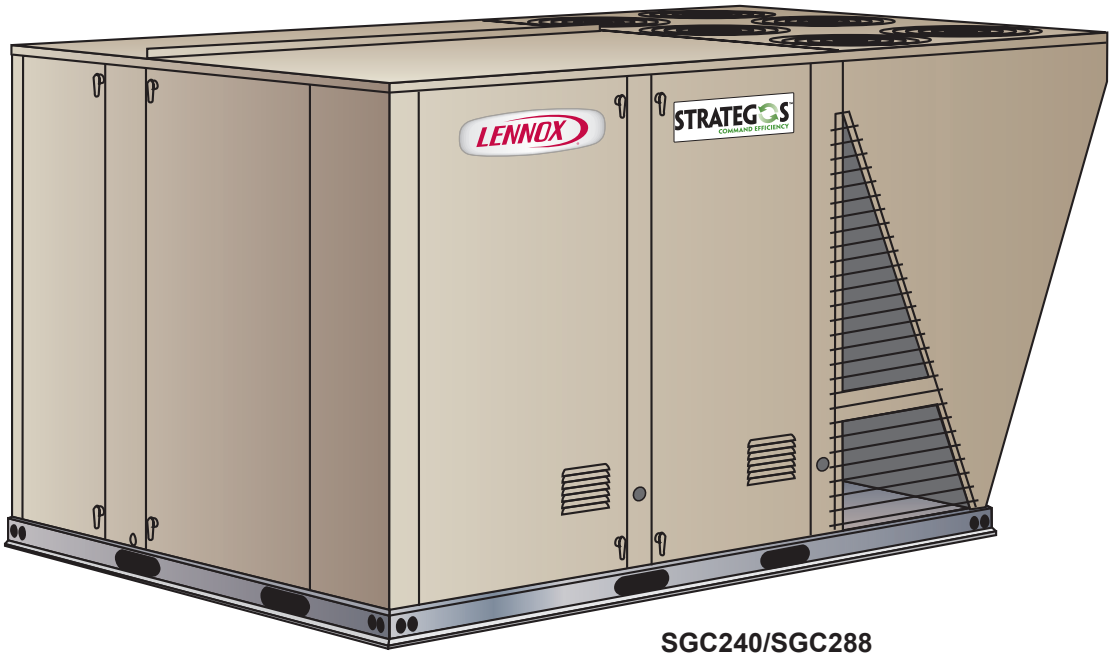
# SG

## Strategos® Rooftop Units

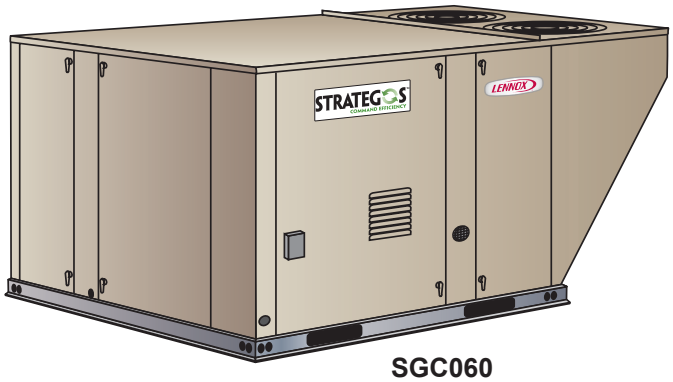
## 60 HZ

PRODUCT SPECIFICATIONS

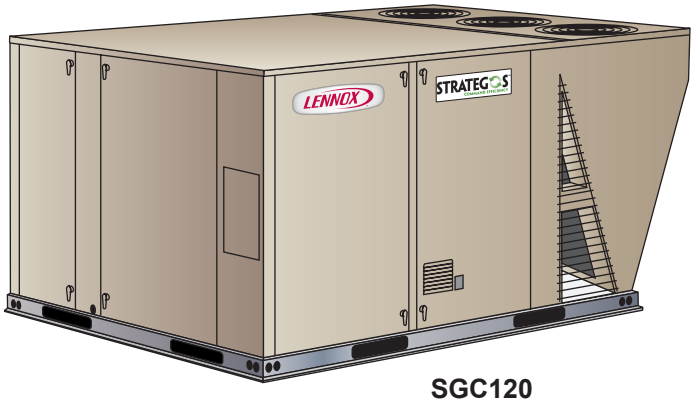
Bulletin No. 210491
May 2017
Supersedes October 2014




SGC240/SGC288




SGC060




SGC120

PRODiGY™ CONTROL SYSTEM

MSAV™ MULTI-STAGE AIR VOLUME

Environ™ Coil System

ENERGY STAR

SMARTWIRE™ SYSTEM

L Connection® NETWORK

ASHRAE 90.1 COMPLIANT

**3 to 24 Tons**
**Net Cooling Capacity - 36,000 to 288,000 Btuh**
**Gas Input Heat Capacity - 105,000 to 480,000 Btuh**

## FEATURES AND BENEFITS

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 Strategos® rooftop units feature:

- **Heat Exchanger -** Patented, dimple-design, tubular construction, aluminized steel, life-cycle tested.
- **Safety Switches -** Flame roll-out switch, flame sensor and combustion air inducer proving switch protect system operation.
- **Scroll Compressors -** Standard on all units for reliable, long-term operation.
- **Lennox' Environ™ Coil System -** Smaller, lighter condenser coil.
- **Compressor Crankcase Heater -** Protects against refrigerant migration that can occur during low ambient operation. The heater is thermostatically controlled to save energy.
- **Outdoor Coil Fan Motors -** Thermal overload protected, totally enclosed, permanently lubricated ball bearings, shaft up, wire basket mount.
- **Thermal Expansion Valve (TXV) -** Assures optimal performance throughout the application range. Removable element head.
- **Exterior Panels -** Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.
- **Insulation -** All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation. Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.
- **Access Panels -** Hinged access panels are provided for the economizer/filter section, blower section, and compressor/controls/heat section. Hinges are constructed of painted, stainless-steel. All hinged panels have seals and quarter-turn latching handles to provide a tight air and water seal.
- **Corrosion Protection -** Polymeric epoxy coating that is deposited by electrical transport (electrophoresis), using a process known as electrocoat (e-coat). Available for enhanced coil corrosion protection.
- **Select Constant Air Volume or MSAV® (Multi-Stage Air Volume) Supply Fan Option -** On Constant Air Volume (CAV) models (3 and 5 ton models only), the supply fan will provide a constant volume of air. On MSAV (multi-stage air volume) supply fan option models (10, 20 and 24 ton models only), the supply fan will stage the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm.
- **Indoor Air Quality ($CO_2$) Sensor -** Monitors $CO_2$ levels, reports to unit controller which adjusts economizer dampers as needed. MSAV (multi-stage air volume) supply fan option units with an economizer require a $CO_2$ sensor to modulate the economizer damper and maintain the desired minimum amount of fresh outdoor air.
- **Common Components -** Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

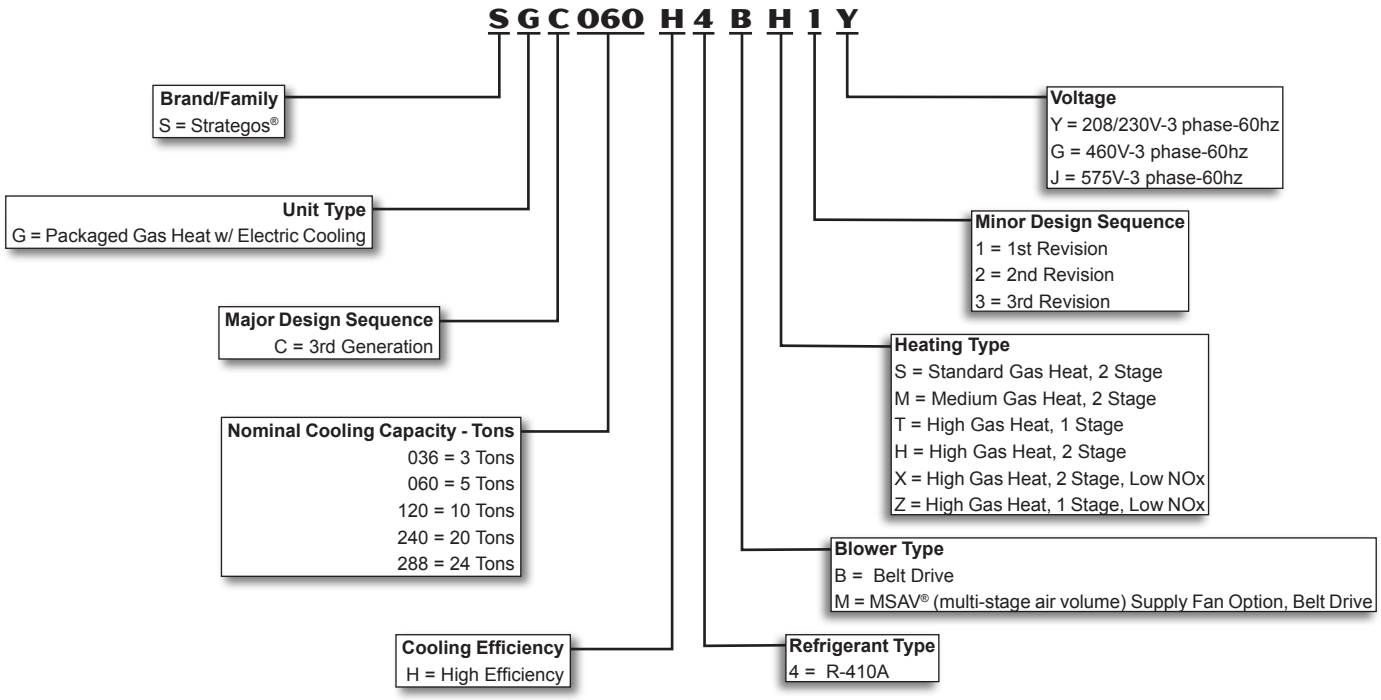
**Prodigy® Control System**

Standard on every Strategos® rooftop unit, the new Prodigy® unit controller is the heart of the Lennox® controls offering. The intuitive user interface makes setup, troubleshooting and service easier than ever. Each unit tracks the runtime of every major component and records the date and time when service or maintenance is performed.

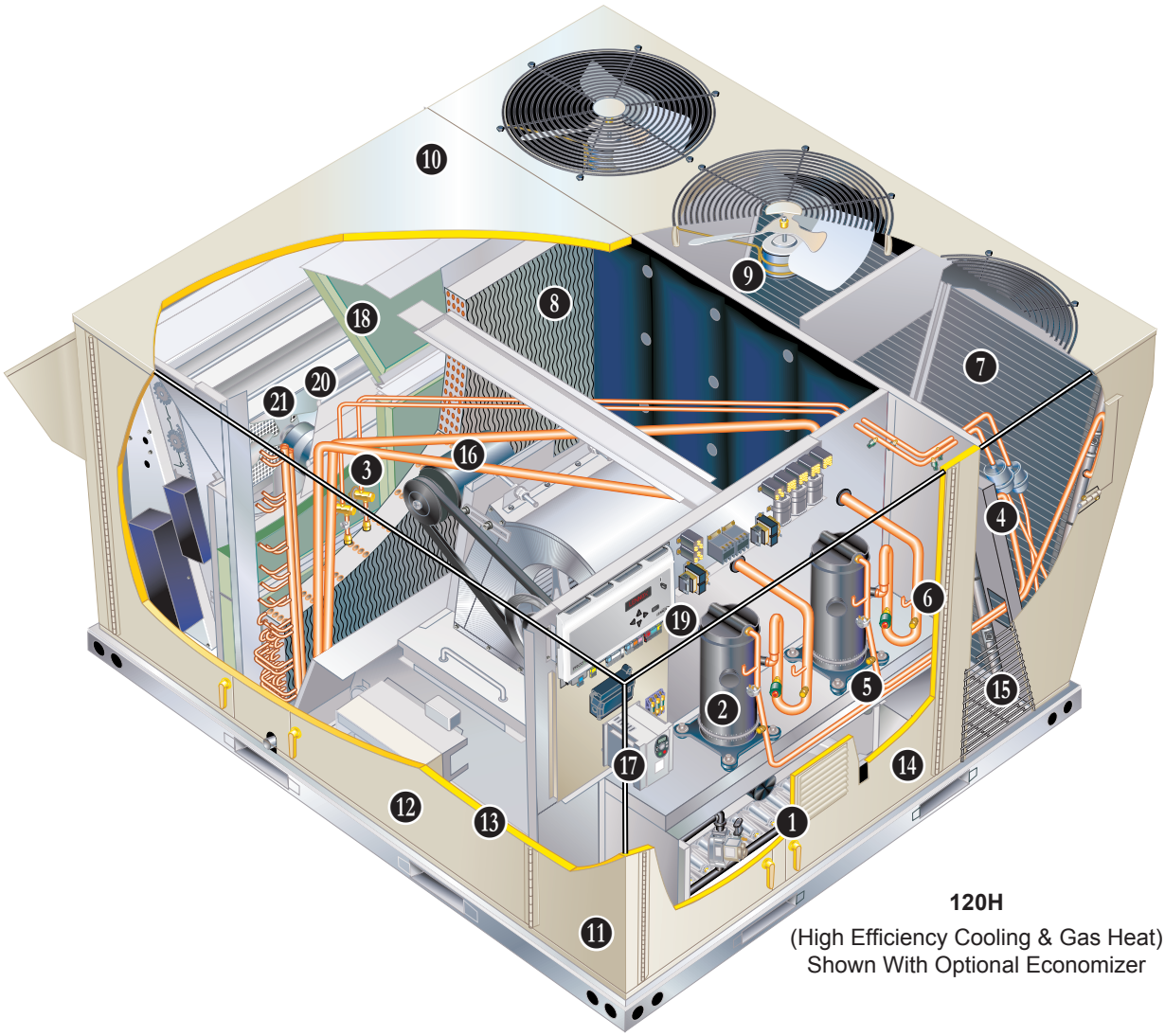

**SmartWire™ System**

The SmartWire system simplifies field sensor or thermostat installation through advanced connectors that are keyed and color-coded to help prevent miswiring. Not only is the wire coloring scheme standardized across all models, each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

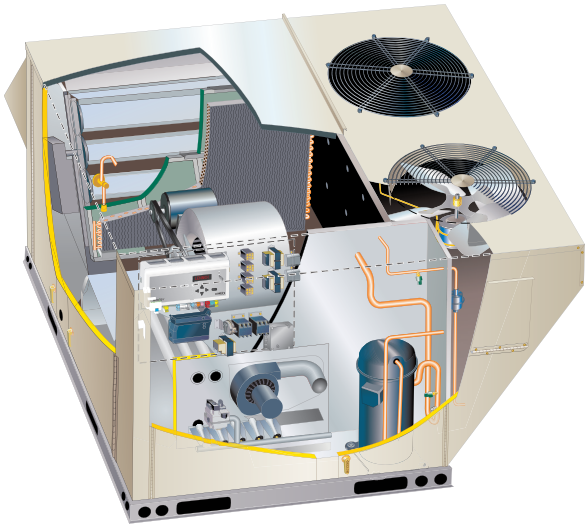
## MODEL NUMBER IDENTIFICATION



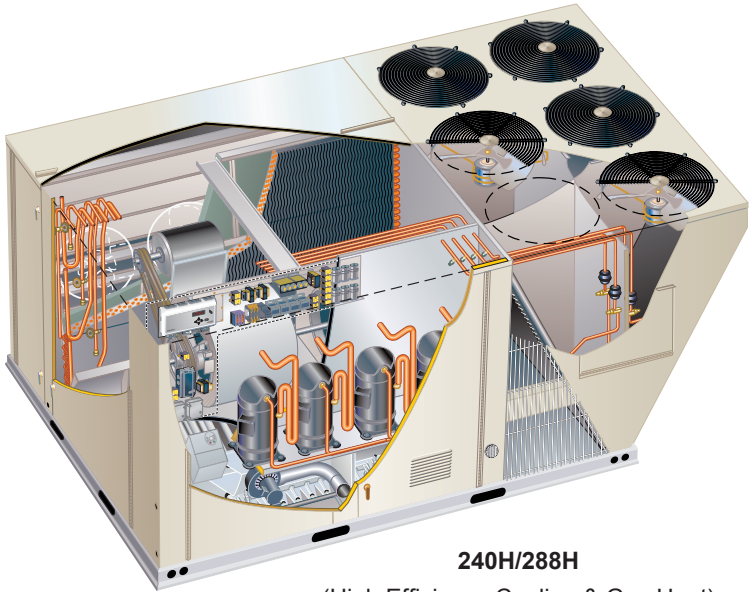

## CONTENTS




**120H**
(High Efficiency Cooling & Gas Heat)
Shown With Optional Economizer



**060H**
(High Efficiency Cooling & Gas Heat)
Shown With Optional Economizer



**240H/288H**
(High Efficiency Cooling & Gas Heat)
Shown With Optional Economizer

## APPROVALS

AHRI Certified to AHRI Standard 210/240-2008 (3 and 5 ton models) and AHRI Standard 340/360-2007 (10 and 20 ton models).

10, 20 and 24 ton MSAV® (Multi-Stage Air Volume) supply fan option models are rated at test conditions included in AHRI Standard 340/360-2007 while operating at rated voltages and air volumes.

ETL and CSA listed.

Components bonded for grounding to meet safety standards for servicing required by UL, ULC and National and Canadian Electrical Codes.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment.

The ENERGY STAR® Partner of the Year Award signifies that Lennox has made outstanding contributions to design energy efficient units that will lower energy bills, while meeting industry standards for comfort and indoor air quality. Lennox was the first HVAC manufacturer to win this award and has been a four-time recipient since 2003.

## WARRANTY

Limited five years on compressors.

Limited three years on the Lennox' Environ™ Coil System.

Limited three years on Prodigy® Unit Controller.

Limited five years Optional High Performance Economizers.

Limited one year all other covered components.

## HEATING SYSTEM

1 Aluminized steel inshot burners, direct spark ignition, electronic flame sensor, combustion air inducer, redundant automatic single or dual stage gas valve with manual shut-off.

**Heat Exchanger**
Patented, dimple-design, tubular construction, aluminized steel, life-cycle tested.

Stainless Steel Heat Exchanger is required if mixed air temperature is below 45°F.

**Limit Controls**
Factory installed limit controls with fixed temperature setting.

Heat limit controls protect heat exchanger and other components from overheating.

**Safety Switches**
Flame roll-out switch, flame sensor and combustion air inducer proving switch protect system operation.

All safety switches are monitored by the unit controller and diagnostic errors are reported and recorded.

### Required Selections

**Gas Input Choice - Order one:**

**3 ton models**
- 105 kBtuh High Gas Heat, 1 Stage

**5 ton models**
- 97.5/150 kBtuh High Gas Heat, 2 Stage

**10 ton models**
- 84.5/130 kBtuh Standard Heat Gas Input
- 117/180 kBtuh Medium Heat Gas Input
- 156/240 kBtuh High Heat Gas Input

**20 and 24 ton models**
- 169/260 kBtuh Standard Heat Gas Input
- 234/360 kBtuh Medium Heat Gas Input
- 312/480 kBtuh High Heat Gas Input

**Gas Type**
Specify Natural Gas or LPG/ Propane Gas.

### Options/Accessories

**Factory Installed**

Stainless Steel Heat Exchanger

Required if mixed air temperature is below 45°F.

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

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

**Vertical Vent Extension Kit**
Exhausts flue gases vertically above unit.

## FEATURES AND BENEFITS

### COOLING SYSTEM

Designed to maximize sensible and latent cooling performance at design conditions.

System can operate from 0°F to 125°F without any additional controls.

**2 Compressor**
Resiliently mounted on rubber grommets for quiet operation.

Scroll compressors on all models for high performance, reliability, and quiet operation.

**Compressor Crankcase Heater**
Protects against refrigerant migration that can occur during low ambient operation. The heater is thermostatically controlled to save energy.

**3 Thermal Expansion Valve (TXV)**
Assures optimal performance throughout the application range.

Removable element head.

**4 Filter/Drier**
Solid core, molecular-sieve, high capacity filter/drier protects the system from dirt and moisture.

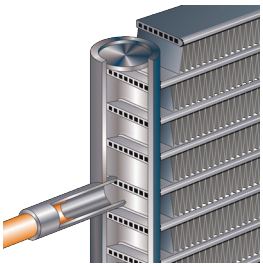
**5 High Pressure Switch**
Protects the compressor from overload conditions such as dirty condenser coils, blocked refrigerant flow, or loss of outdoor fan operation.

**6 Low Pressure Switch**
Protects the compressor from low pressure conditions such as low refrigerant charge, or low/no air flow.

**Freezestat**
Protects the evaporator coil from damaging ice build-up due to conditions such as low/no air flow, or low/no refrigerant charge.

**Low Ambient Pressure Switches**
Allows unit to cycle a portion of the condenser fan motors based on liquid line pressure enabling reliable cooling operation down to 0°F outdoor ambient.

**7 Lennox' Environ™ Coil System**
Condenser coil features lightweight, all aluminum brazed fin construction.



Constructed of three components: a flat extrusion tube, fins in-between the flat extrusion tubes and 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 (reduces unit weight).
- Easy maintenance/cleaning.

Face split design.

Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection.

Angled design in cabinet helps protect coil from possible contact or hail damage.

**8 Evaporator Coil**
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.

**Condensate Drain Pan**
Painted, galvanized pan with positive slope.

Drain connection extends outside unit.

**9 Outdoor Coil Fan Motors**
Thermal overload protected, totally enclosed, permanently lubricated ball bearings, shaft up, wire basket mount.

**Outdoor Coil Fan**
PVC coated fan guard furnished.

**R-410A Refrigerant**
Non-chlorine based, ozone friendly, R-410A.

Unit pre-charged with refrigerant.

### Required Selections

**Cooling Capacity**
Specify nominal cooling capacity of the unit.

### Options/Accessories

**Factory or Field Installed**

**Condensate Drain Trap (EPDM all sizes, Copper 240/288 only)**
Field installed only, may be factory enclosed to ship with unit. Available in copper or EPDM high density rubber material.

**Drain Pan Overflow Switch**
Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

## FEATURES AND BENEFITS

### CABINET

⑩ **Construction**
Heavy-gauge steel panels and full perimeter heavy-gauge galvanized steel base rail provides structural integrity for transportation, handling, and installation.

Base rails have rigging holes. Base rails have fork slots, two sides on the 3 and 5 ton models and three sides on the 10, 20 and 24 ton models.

Raised edges around duct and power entry openings in the bottom of the unit provide additional protection against water entering the building.

**Airflow**
Units are shipped in downflow (vertical) configuration.

⑪ **Power/Gas Entry**
Electrical or gas lines can be brought through the unit base or through horizontal access knock-outs.

⑫ **Exterior Panels**
Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.

⑬ **Insulation**
All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation.

Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.

⑭ **Access Panels**
Hinged access panels are provided for the economizer/filter section, blower section, and compressor/controls/heat section. Hinges are constructed of painted, stainless-steel.

All hinged panels have seals and quarter-turn latching handles to provide a tight air and water seal.

⑮ **Grille Guards**
Protects space between outdoor coils and main cabinet.

### Options/Accessories

#### Factory Installed

**Corrosion Protection**
A completely flexible immersed coating with an electrodeposited dry film process. (AST ElectroFin E-Coat) Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing.

**Option 1:**

- Coated indoor and outdoor coil assemblies (including tube sheets) and painted cabinet interior

**Option 2:**

- Coated outdoor coil assembly (including tube sheets)

#### Field Installed

**Coil Guards**
Painted, galvanized steel wire guards to protect outdoor coil. Not used with Hail Guards.

**Hail Guards**
Constructed of heavy gauge steel, painted to match cabinet, helps protect outdoor coils from hail damage. Not used with Coil Guards.

### BLOWER

⑯ **Motor**
Overload protected, equipped with ball bearings.

**Supply Air Blower**
Forward curved blades, blower wheel is statically and dynamically balanced.

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

### Required Selections

**Select Constant Air Volume or MSAV® (Multi-Stage Air Volume) Supply Fan Option**
On Constant Air Volume (CAV) models (3 and 5 ton models only), the supply fan will provide a constant volume of air.

On MSAV (multi-stage air volume) supply fan option models (10, 20 and 24 ton models only), the supply fan will stage the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm.

Utilizes a variable frequency drive (VFD) to stage the supply fan airflow.

⑰ The VFD alters the frequency and voltage of the power supply to the blower to control blower speed.

The amount of airflow for each stage can be set according to an ECTO parameter in the unit controller. Unit is shipped from the factory with preset airflow. See Sequence of Operation for details.

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

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

## ELECTRICAL

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

**Circuit Breakers**
HACR type. For overload and short circuit protection. Factory wired and mounted in the power entry panel.

Current sensitive and temperature activated. Manual reset.

**Electrical Plugs**
Positive connection electrical plugs are used to connect common accessories or maintenance parts for easy removal or installation.

### Required Selections

**Voltage Choice**
Specify when ordering base unit.

**Factory or Field Installed**

**GFI Service Outlets (2)**
115V ground fault circuit interrupter (GFCI) type, non-powered, field-wired (all) or factory-wired and powered (240/288 only).

**Field Installed**

**GFI Weatherproof Cover**
Single-gang cover.

Heavy-duty UV-resistant polycarbonate case construction.

Hinged base cover with gasket.

## INDOOR AIR QUALITY

**⓲ Air Filters**
Pre-painted, galvanized steel filter racks.

Filter racks can be converted to use four inch thick filters.

Disposable 2 inch pleated MERV 7 filters (Minimum Efficiency Reporting Value based on ASHRAE 52.2).

### Options/Accessories

**Factory Installed**

**Healthy Climate® MERV 8 High Efficiency Air Filters (240/288 Only)**
Disposable MERV 8 (Minimum Efficiency

Reporting Value based on ASHRAE 52.2) efficiency 2 inch pleated filters.

**Factory or Field Installed**

**Healthy Climate® MERV 11 High Efficiency Air Filters (240/288 Only)**
Disposable MERV 11 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2 inch pleated filters.

**Field Installed**

**Healthy Climate® MERV 15 High Efficiency Air Filters**
Disposable MERV 15 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2 inch pleated filters.

**Indoor Air Quality ($CO_2$) Sensor**
Monitors $CO_2$ levels, reports to unit controller board which adjusts economizer dampers as needed.

MSAV (multi-stage air volume) supply fan option 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.

**Replacement Filter Media Kit With Frame (240/288 Only)**
Replaces existing pleated filter media. Includes washable metal mesh screen and metal frame with clip for holding replaceable non-pleated filter.

## ⓳ PRODIGY UNIT CONTROLLER

The Prodigy Unit Controller is a microprocessor-based control board that provides flexible control of all unit functions.

### Prodigy Unit Controller features:

**Scrolling Display -** Scrolls full text instead of numerical codes.

**Push Buttons -** Simplified navigation during setup and diagnostics.

**Guided Setup Procedure -** Insures proper installation and setup of the rooftop unit.

**Profile setup -** Copy key setpoints between units with the same configuration greatly reducing setup time.

**USB Port -** Easily download and transfer unit information via a USB flash drive and also interface with Lennox Unit Controller Software.

**Self Test Mode -** Confirm proper component and system operation.

**Time Clock with Run-time Information**

### Built-In Functions Include:

**Adjustable Blower On/Off Delay**

**Built-in Control Parameter Defaults**

**Compressor Time-Off Delay**

**DDC Compatible**

**Dirty Filter Switch Input**

**Discharge Air Temperature Control**

**Display/Sensor Readout**

**Economizer Control Options -** See *Economizer / Outdoor Air / Exhaust Options*.

**Fresh Air Tempering**

**Extensive Unit Diagnostics -** Over 100 diagnostic and status messages in English.

**Exhaust Fan Control Modes -** Fresh air damper position.

**Permanent Diagnostic Code Storage**

**Field Changeable Control Setpoints -** Over 200 different control setpoints.

**Indoor Air Quality Input -** Demand Control Ventilation ready

**Low Ambient Controls -** Cooling operation down to 0°F.

**Gas Valve Time Delay Between First and Second Stage**

**Minimum Compressor Run Time**

**Network Capable -** Can be daisy chained to other units or controls.

**Night Setback Mode**

**Return Air Temperature Limit Control**

**Safety Switch Input -** Allows Controller to respond to a external safety switch trip.

**Service Relay Output**

**Smoke Alarm Mode -** Four choices.

**Staging -** up to 2 heat/4 cool (zone sensor or network operation). Up to 2 heat/2 cool (standard Prodigy unit controller thermostat input). Up to 3 cool (thermostat input with additional relay).

**"Strike Three" Protection**

**Thermostat Bounce Delay**

**Warm Up Mode Delay**

**LED Indicators**

**PC Interface -** For use with PC with optional Unit Controller software.

**Zone Sensor Operation -** Controls zone temperature.

### Options/Accessories

#### Factory or Field Installed

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

**Dirty Filter Switch**

Senses static pressure increase indicating dirty filter condition.

NOTE - Prodigy Control System features shown vary with the type of rooftop unit the control is installed in.

NOTE - See separate Prodigy Control System Product Specifications Bulletin for additional information.

### CONTROLS OPTIONS

#### Factory or Field Installed

**Fresh Air Tempering**
Used in applications with high outside air requirements. The Controller energizes the first stage heat as needed to maintain a minimum supply air temperature for comfort, regardless of the thermostat demand. When ordered as a factory option, the sensor ships with the unit but must be 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

**L Connection® Network Control System**
Complete building automation control system for single or multi-zone applications. Options include local interface, software for local or remote communication, and hardware for networking other control functions. See L Connection Network Control System Product Specifications Bulletin for details.

**Aftermarket DDC**
Novar® Unit Controller and options.

**Thermostats**
Control system and thermostat options. Aftermarket unit controller options.

#### Field Installed

**Humidity Sensor Kit**
Humidity sensor required with Supermarket reheat field selectable option.

## ⑳ ECONOMIZER OPTIONS

Economizer operation is set and controlled by the Prodigy Unit Controller.

Simple plug-in connections from economizer to unit controller for easy installation.

All Strategos rooftop units are equipped with factory installed CEC Title 24 approved sensors for outside, return and discharge air temperature monitoring.

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

**Factory or Field Installed**

**Economizer Features (Standard and High Performance)**
Outdoor air hood is furnished.

**Standard Economizer Features (Not for Title 24)**
Parallel gear-driven action, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, neoprene seals, 24-volt, fully-modulating spring return motor, adjustable minimum damper position.

*NOTE: The Free Cooling default setting for outdoor air temperature sensor is 55°F.*

**High Performance Economizer Features**
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 90.1-2010 compliant.

Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, nylon bearings (036-060), stainless steel bearings (120-240-288), enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage.

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

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

Refer to Installation Instructions for complete setup information.

**Field Installed**

**Global Control**
The unit controller communicates with a DDC system with one global sensor (enthalpy or sensible) to determine whether outside air is suitable for free cooling on all units connected to the control system. Sensor must be field provided.

*NOTE - Global control with enthalpy is not approved for Title 24 applications.*

**Factory or Field Installed**

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

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

## EXHAUST OPTIONS

**Factory Installed**

**㉑ Power Exhaust Fan(s) (120, 240 and 288 Models Only)**
Installs external on 10 ton model, internal to 20 and 24 ton models, installed only with economizer option. Provides exhaust air pressure relief, interlocked to run when supply air blower is operating, fan runs when outdoor air dampers are

50% open (adjustable), motor is overload protected. 10-ton model includes steel cabinet and hood painted to match unit.

**120 Models -** One, 1/2 hp motor, five blade propeller-type fan with a total power input of 300 Watts and a total air volume of 4085 cfm at 0.05 in. w.g.

**240 Models -** Three, 1/3 hp motors with 20 in., five blade propeller-type fans with a total power input of 1200 Watts and a total air volume of 10,200 cfm at 0 in. w.g.

**288 Models -** Three, 1/3 hp motors with 20 in., five blade propeller-type fans with a total power input of 1125 Watts and a total air volume of 12,800 cfm at 0 in. w.g.

**Factory or Field Installed**

**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 120 models with Power Exhaust. Outdoor air hood must be ordered separately for 120 models without Power Exhaust.

Outdoor air hood must be ordered separately for 036-060 models for field installation. See Options/Accessories table.

## OUTDOOR AIR OPTIONS

**Factory Installed**

**Manual Outdoor Air Damper (240 and 288 Models Only)**
0 to 25% (fixed) outdoor air adjustable slide damper, installed in unit, outdoor air hood with bird screen included.

**Motorized Outdoor Air Dampers (240 and 288 Models Only)**
Linked dampers with a fully

## ROOF CURBS

**Hybrid Roof Curbs, Downflow**
Roof curb can be assembled using interlocking tabs to fasten corners together. No tools required.

Curb can also be fastened together with furnished hardware.

Available in 14 and 24 inch heights. See Options/Accessories table.

## OPTIONS / ACCESSORIES

| Item Description | | Model Number | Catalog Number | 036 | 060 | 120 | 240 | 288 |
|---|---|---|---|---|---|---|---|---|
| **COOLING SYSTEM** | | | | | | | | |
| Condensate Drain Trap | | EPDM - C1TRAP30121- | **43W45** | OX | OX | OX | OX | OX |
| | | Copper - C1TRAP10AD2 | **76W27** | | | | OX | OX |
| Corrosion Protection | Coated indoor/outdoor coil assemblies, painted cabinet interior | | Factory | O | O | O | O | O |
| | | Coated outdoor coil assembly | Factory | O | O | O | O | O |
| Drain Pan Overflow Switch | | E1SNSR71AD1 | **68W88** | OX | OX | OX | OX | OX |
| **HEATING SYSTEM** | | | | | | | | |
| Combustion Air Intake Extension | | C1EXTN10FF1 | **89L97** | X | X | | [1] X | [1] X |
| | | C1EXTN10111 | **33W62** | | | X | | |
| Gas Heat Input | High One-Stage - 105 kBtuh input | | Factory | O | | | | |
| | High Two-Stage - 97.5/150 kBtuh input | | Factory | | O | | | |
| | Standard Two-Stage - 84.5/130 kBtuh input | | Factory | | | O | | |
| | Medium Two-Stage - 117/180 kBtuh input | | Factory | | | O | | |
| | High Two-Stage - 156/240 kBtuh input | | Factory | | | O | | |
| | Standard Two-Stage - 169/260 kBtuh input | | Factory | | | | O | O |
| | Medium Two-Stage - 234/360 kBtuh input | | Factory | | | | O | O |
| | High Two-Stage - 312/480 kBtuh input | | Factory | | | | O | O |
| Gas Type | | Natural Gas | Factory | O | O | O | O | O |
| | | LPG/Propane Gas | Factory | O | O | O | O | O |
| Low Temperature Vestibule Heater | | | Factory | O | O | O | O | O |
| Stainless Steel Heat Exchanger | | | Factory | O | O | O | O | |
| Vertical Vent Extension | | C1EXTN20FF1 | **31W62** | X | X | | | |
| | | LTAWEK10/15 | **73M72** | | | X | | |
| | | C1EXTN2021 | **42W16** | | | | [1] X | [1] X |
| **BLOWER - SUPPLY AIR** | | | | | | | | |
| Constant Air Volume | | 1.5 hp | Factory | O | O | | | |
| MSAV® (multi-stage air volume) supply fan option | | 3 hp | Factory | | | O | | |
| | | 5 hp | Factory | | | | O | O |
| | | 7.5 hp | Factory | | | | O | O |
| **CABINET** | | | | | | | | |
| Coil Guards | | S1GARD22101 | **50W67** | X | X | | | |
| | | S1GARD22111 | **50W68** | | | X | | |
| | | C1GARD29D-1 | **84W63** | | | | X | X |
| Hail Guards | | S1GARD10101 | **47W20** | X | X | | | |
| | | S1GARD10111 | **47W21** | | | X | | |
| | | C1GARD19D-1 | **84W62** | | | | X | X |

[1] Order two each.

NOTE - Catalog and model 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 | Model Number | Catalog Number | 036 | 060 | 120 | 240 | 288 |
|---|---|---|---|---|---|---|---|
| **CONTROLS** | | | | | | | |
| **Commercial Controls** | | | | | | | |
| CPC Einstein Integration | | Factory | O | O | O | O | O |
| Danfoss RTC Control | | Factory | O | O | O | O | O |
| Novar® 2024 | | Factory | O | O | O | O | O |
| Novar® ETM-2051 Unit Controller | | Factory | O | O | O | O | O |
| Novar® LSE | | Factory | O | O | O | O | O |
| Prodigy® Control System - BACnet® Module | | Factory | O | O | O | O | O |
| Prodigy® Control System - LonTalk® Module | | Factory | O | O | O | O | O |
| L Connection® Network | | Factory | O | O | O | O | O |
| Fresh Air Tempering | C1SNSR75AD1 | **58W63** | X | X | X | X | X |
| [1] Smoke Detector | Supply | Factory | O | O | O | O | O |
| | Return | Factory | O | O | O | O | O |
| **ELECTRICAL** | | | | | | | |
| Voltage 60 hz | 208/230V - 3 phase | Factory | O | O | O | O | O |
| | 460V - 3 phase | Factory | O | O | O | O | O |
| | 575V - 3 phase | Factory | O | O | O | O | O |
| GFI Service Outlets | 20 amp non-powered, field-wired (all voltages) C1GFCI20FF1 | **67E01** | OX | OX | OX | OX | OX |
| | 15 amp, factory-wired and powered C1GFCI15FF1 | **74M70** | | | | O | O |
| Weatherproof Cover for GFI | C1GFGCI99FF1 | **10C89** | X | X | X | X | X |
| **INDOOR AIR QUALITY** | | | | | | | |
| **Air Filters** | | | | | | | |
| Healthy Climate® High Efficiency Air Filters | MERV 8 | Factory | | | | O | O |
| | MERV11- [4] C1FLTR50D-1- | **97L88** | | | | OX | OX |
| | MERV 15- [2] C1FLTR50101 | **28W03** | X | X | | | |
| | [3] C1FLTR50EA1 | **28W02** | | | X | | |
| | [4] C1FLTR50D- | **28W06** | | | | X | X |
| Replacement Media Filter With Metal Mesh Frame (includes non-pleated filter media) | C1FLTR30D-1- | **44N60** | | | | X | X |
| **Indoor Air Quality ($CO_2$) Sensors** | | | | | | | |
| Sensor - Wall-mount, off-white plastic cover with LCD display | C0SNSR50AE1L | **77N39** | X | X | X | X | X |
| Sensor - Wall-mount, off-white plastic cover, no display | C0SNSR52AE1L | **87N53** | X | X | X | X | X |
| Sensor - Black plastic case with LCD display, rated for plenum mounting | C0SNSR51AE1L | **87N52** | X | X | X | X | X |
| Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting | C0MISC19AE1 | **87N54** | X | X | X | X | X |
| $CO_2$ Sensor Duct Mounting Kit - for downflow applications | C0MISC19AE1- | **85L43** | X | X | X | X | X |
| Aspiration Box - for duct mounting non-plenum rated $CO_2$ sensors (**87N53** or **77N39**) | C0MISC16AE1- | **90N43** | X | X | X | X | X |

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

[2] 16 x 20 x 2 - Order 4 per unit

[3] 16 x 25 x 2 - Order 6 per unit

[4] 20 x 20 x 2 - order 12 per unit

NOTE - Catalog and model numbers shown are for ordering field installed accessories.
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## OPTIONS / ACCESSORIES

| Item Description | Model Number | Catalog Number | 036 | 060 | 120 | 240 | 288 |
|---|---|---|---|---|---|---|---|
| **ECONOMIZER** | | | | | | | |
| **Standard Economizer (Not for Title 24)** | | | | | | | |
| Standard Economizer - Includes Outdoor Air Hood (Global Sensor, field provided, order Barometric Relief Dampers separately | | Factory | O | O | O | O | O |
| **High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)** | | | | | | | |
| Standard Economizer - Includes Outdoor Air Hood | | Factory | O | O | O | | |
| (Global Sensor, field provided, order Barometric Relief Dampers separately | E1ECON17D-1 | **10U62** | | | | OX | OX |
| **Economizer Controls (Not for Title 24)** | | | | | | | |
| Single Enthalpy | C1SNSR64FF1 | **53W64** | OX | OX | OX | OX | OX |
| Differential Enthalpy (Order 2) | C1SNSR64FF1 | **53W64** | OX | OX | OX | OX | OX |
| **Barometric Relief Dampers** | | | | | | | |
| Barometric Relief Dampers (No Exhaust Hood) | | **30W72** | OX | OX | | | |
| Outdoor Air Hood required - Order separately | | **30W75** | OX | OX | | | |
| Barometric Relief Dampers With Power Exhaust Fans (Exhaust Hood Furnished) | | **30W92** | | | OX | | |
| Barometric Relief Dampers Without Power Exhaust Fans (No Exhaust Hood) | | **47M14** | | | OX | | |
| Outdoor Air Hood required - Order separately | | **30W90** | | | OX | | |
| Barometric Relief Dampers Without Power Exhaust Fans (Exhaust Hood Furnished) | | **76W17** | | | | OX | OX |
| **OUTDOOR AIR** | | | | | | | |
| Manual Outdoor Air Damper with Outdoor Air Hood and Bird Screen | | Factory | | | | O | O |
| Motorized Outdoor Air Dampers with Outdoor Air Hood and Bird Screen | | Factory | | | | O | O |
| **POWER EXHAUST** | | | | | | | |
| Standard Static | | Factory | | | O | O | O |
| **ROOF CURBS** | | | | | | | |
| Hybrid Roof Curbs, Downflow, 14 in. height | S1CURB71101 | **11F70** | X | X | | | |
| | S1CURB71111 | **11F72** | | | X | | |
| | Full Perimeter - S1CURB71121 | **11F74** | | | | X | |
| | Full Perimeter - C1CURB71D-1 | **11F62** | | | | | X |
| Hybrid Roof Curbs, Downflow 24 in. height | S1CURB73101 | **11F71** | X | X | | | |
| | S1CURB73111 | **11F73** | | | X | | |
| | Full Perimeter - S1CURB73121 | **11F75** | | | | X | |
| | Full Perimeter - C1CURB73D-1 | **11F64** | | | | | X |
| **LTL PACKAGING** | | Factory | O | O | O | O | O |

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## SEQUENCE OF OPERATION

### 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).**

### THERMOSTAT MODE

The thermostat mode has specific sequence-of-operation scenarios for Lennox’ SG product line. The standard thermostat mode will typically allow up to 2 stages of heating and cooling operation. Units with a globally-controlled economizer option can have up to 2 stages of mechanical cooling and free cooling economizer operation. If using the MSAV® (Multi-Stage Air Volume) blower option, this mode will also allow up to 5 different supply blower speeds: 2 speeds for cooling mode, 1 speed for heating mode, 1 speed for ventilation, and an extra speed for when one of the smoke alarm options is used. When using the factory default, the smoke alarm mode will turn off the blower. It is important to note that the unit controller merely passes along the instructions to provide heating, cooling, or other unit operations.

#### CAV COOLING WITHOUT AN ECONOMIZER

Upon receiving a demand for cooling from a thermostat or third-party unit controller, the unit controller will activate the refrigeration circuit to bring the unit to full cooling capacity. Once the unit satisfies the cooling demand and the thermostat or third-party unit controller removes the cooling demands, the unit will stop cooling operation.

#### CAV COOLING WITH ECONOMIZER

If the unit is controlled by a standard 2-stage cooling and 2-stage heating thermostat or if controlled by a third-party unit controller using the global economizer and outdoor air is suitable for free cooling, then a first call for cooling will cause the unit controller to open the economizer to modulate damper to maintain supply air temperature to ECTO 6.23 setting. The unit will try to satisfy the cooling demand using outdoor air rather than mechanical cooling. If mechanical cooling is locked out because of low ambient outside air temperature, then mechanical cooling will not come on and the unit will attempt to satisfy any demand by modulating the economizer’s damper position to maintain a supply air temperature to ECTO 6.23 setting. The set points at which mechanical cooling locks out and the economizer supply air temperature target are adjustable.

If mechanical cooling is not locked out, and the unit is unable to satisfy the call for cooling using the economizer, the thermostat sends a second call for cooling, the unit controller will bring on full mechanical cooling. The economizer will also open to 100% during a second call for cooling.

*NOTE - If outdoor air is not suitable for free cooling then the unit will follow a different sequence of operation. This sequence of operations will mirror that of a unit without an economizer.*

## SEQUENCE OF OPERATION

### THERMOSTAT MODE - MSAV® (MULTI-STAGE AIR VOLUME)

#### 10 TON UNIT

#### OPERATION WITH 2-STAGE THERMOSTAT

**Supply Air Blower Speed**

Unit has following supply air blower speed settings:

**Ventilation Speed**

- Cooling Speed - Low
- Cooling Speed - High
- Heating Speed
- Smoke Speed (Used only in smoke removal option - not covered here)

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when 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.

**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.

## THERMOSTAT MODE - MSAV® (MULTI-STAGE AIR VOLUME) (CONTINUED)

### 10 TON UNIT

### OPERATION WITH 3-STAGE THERMOSTAT

**Supply Air Blower Speed**

Unit has following supply air blower speed settings:

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

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when 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.

**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 or Y3 Demand:**

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

## THERMOSTAT MODE - MSAV® (MULTI-STAGE AIR VOLUME) (CONTINUED)

### 20 TON UNIT

### OPERATION WITH 2-STAGE THERMOSTAT

**Supply Air Blower Speed**

Unit has the following supply air blower speed settings:

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

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

**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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when compressors 1 and 2 are energized while supply air blower stays on high cooling speed providing maximum cooling capacity. After compressors are energized the economizer stays at maximum open.

**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.

## THERMOSTAT MODE - MSAV® (MULTI-STAGE AIR VOLUME) (CONTINUED)

### 20 TON UNIT

### OPERATION WITH 3-STAGE THERMOSTAT

**Supply Air Blower Speed**

Unit has following supply air blower speed settings:

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

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

**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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, economizer modulates (minimum to maximum open position) to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when compressors 1 and 2 are 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, 2, 3 and 4 are energized and supply air blower stays on high cooling speed.

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

**Y1 Demand:**

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

**Y2 Demand:**

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

**Y3 Demand:**

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

## SEQUENCE OF OPERATION

### ZONE SENSOR MODE

When in zone sensor mode, the unit can modulate four stages of cooling or two stages of heating operation. In this case, the unit controller will control all unit staging operations. While in zone sensor mode, multi-stage air volume applications can use up to 4 different supply blower speeds for cooling. Zone sensor mode takes full advantage of the unit controller's features, increasing staging and control capabilities. To operate correctly, the unit must receive information from a temperature sensor. It may also receive setpoint information from a network device. Based on this information, the unit controller will either turn on or off various cooling and heating stages to maintain comfort control.

In zone sensor mode, it is possible to operate the unit without a network device. In this case the unit controller will control the zone temperature based on the backup occupied and unoccupied setpoints stored in the unit controller. The unit controller decides which setpoints to use based on the status of the occupied input. For example, if the unit is in occupied mode, the unit controller will use the occupied backup setpoints and if the unit is not in occupied mode the unit controller will use the unoccupied backup setpoints. In this scenario the unit controller not only records diagnostic information and makes sure the unit maintains safe operation limits,. It also controls all staging and unit operations.

#### ZONE SENSOR MODE HEATING

For heating, the unit controller monitors space temperature from the zone sensor. Based on this information and the setpoints sent to the unit controller from the Lennox or third-party network device, the unit controller turns on or off the heating stages to maintain the desired temperature setpoint.

The SG product line features up to two independent heat stages in larger equipment. The exact percent of heating capacity used will vary depending on the size of the unit and the heating capacity. Regardless of how many stages are present, the unit controller will seek to provide the right amount of heat to satisfy the demand.

The sequence of operation for increasing and decreasing heating stages is best shown by the staging chart on page 21. As you can see from the chart, the unit will activate the heating stages if the space temperature drops to certain temperatures. If the temperature continues to drop, the unit will continue to add heating stages until the unit reaches full heating capacity. Notice that the example heating setpoint is 70°F with a 1° deadband. Also notice that the stage-up timer is 15 minutes. The unit controller will call for the next heating stage if the space temperature has been in the stage-up timer deadband region for 15 continuous minutes. The stage-up timer deadband region is the range between the temperature at which the current heating stage was called, and the temperature at which the next heating stage would be called. Heating stages will deactivate immediately after the space temperature has been satisfied. These are all default setpoints and can be changed to customize the unit to the specific application.

It is important to note that units with multi-stage air volume supply blowers operate at the selected heating speed for all stages of heating. The supply blower speed will not change as heat stages increase or decrease because there is only one heating supply blower speed setpoint.

#### ZONE SENSOR MODE COOLING

For cooling, the unit controller monitors space temperature from the zone sensor. Based on this information and the setpoints sent to the unit controller from an optional Lennox or third-party network device, the unit controller turns on or off cooling stages to maintain the desired temperature setpoint.

The SG product line features up to four independent cooling stages in larger equipment. Regardless of how many stages are available, the unit controller will seek to provide the right amount of cooling to satisfy the demand. This helps provide great comfort control and to minimize energy consumption. The sequence of operation for increasing and decreasing cooling stages is best shown by the staging chart on page 21. As you can see from the chart, the unit will activate cooling stages if the space temperature rises above certain setpoints. If the temperature continues to rise, the unit will continue to add cooling stages until the unit reaches full cooling capacity. Notice that the example cooling setpoint is 75°F with a 1° deadband. Notice that the stage-up timer is 15 minutes. The unit controller will call for the next cooling stage if the space temperature has been in the stage-up timer deadband region for 15 continuous minutes. The stage-up timer deadband region is the range between the temperature at which the current cooling stage was called, and the temperature at which the next cooling stage would be called. Cooling mode has a stage-down delay default that keeps the next lower stage on for 15 minutes after a higher stage has ended. This feature is to make sure the unit doesn't prematurely shut off a cooling stage. These are all default setpoints and can be changed to customize the unit to the specific application.

## ZONE SENSOR MODE (continued)

### ZONE SENSOR MODE COOLING WITH/WITHOUT ECONOMIZER

If the outdoor air is suitable and the unit features an economizer, instead of using mechanical cooling to meet the first cooling demand, the unit controller will try to meet the demand by opening the economizer and using outdoor air. The economizer damper will modulate to maintain ECTO 6.23 setting (supply air temperature) to meet the cooling demand.

If mechanical cooling is locked out because of low ambient outside air temperature, then mechanical cooling will not come on and the unit will attempt to satisfy any demand by modulating the economizer's damper position to maintain ECTO 6.23 setting (supply air temperature). The setpoints at which mechanical cooling locks out and the economizer maintains supply air temperature are adjustable.

If mechanical cooling is not locked out and if the unit is able to satisfy the room temperature requirements using outdoor air, then the unit will close the economizer to the minimum setpoint and cease cooling operation. If the unit is unable to satisfy the room temperature requirements using outdoor air, then the unit will react to a second cooling demand, which will trigger the first stage of mechanical cooling and bring the economizer to the full open position. The unit will continue turning on stages of mechanical cooling until the unit has satisfied the space temperature setpoint. Because the unit can provide up to 4 stages of cooling, and the economizer now qualifies as the first stage of cooling, the unit controller will group the third and fourth compressors in a four compressor unit together. This means that to address the fourth stage cooling demand the unit will increase the mechanical cooling from 50 to 100%.

See table for unit operation without an economizer.

### ZONE SENSOR MODE COOLING

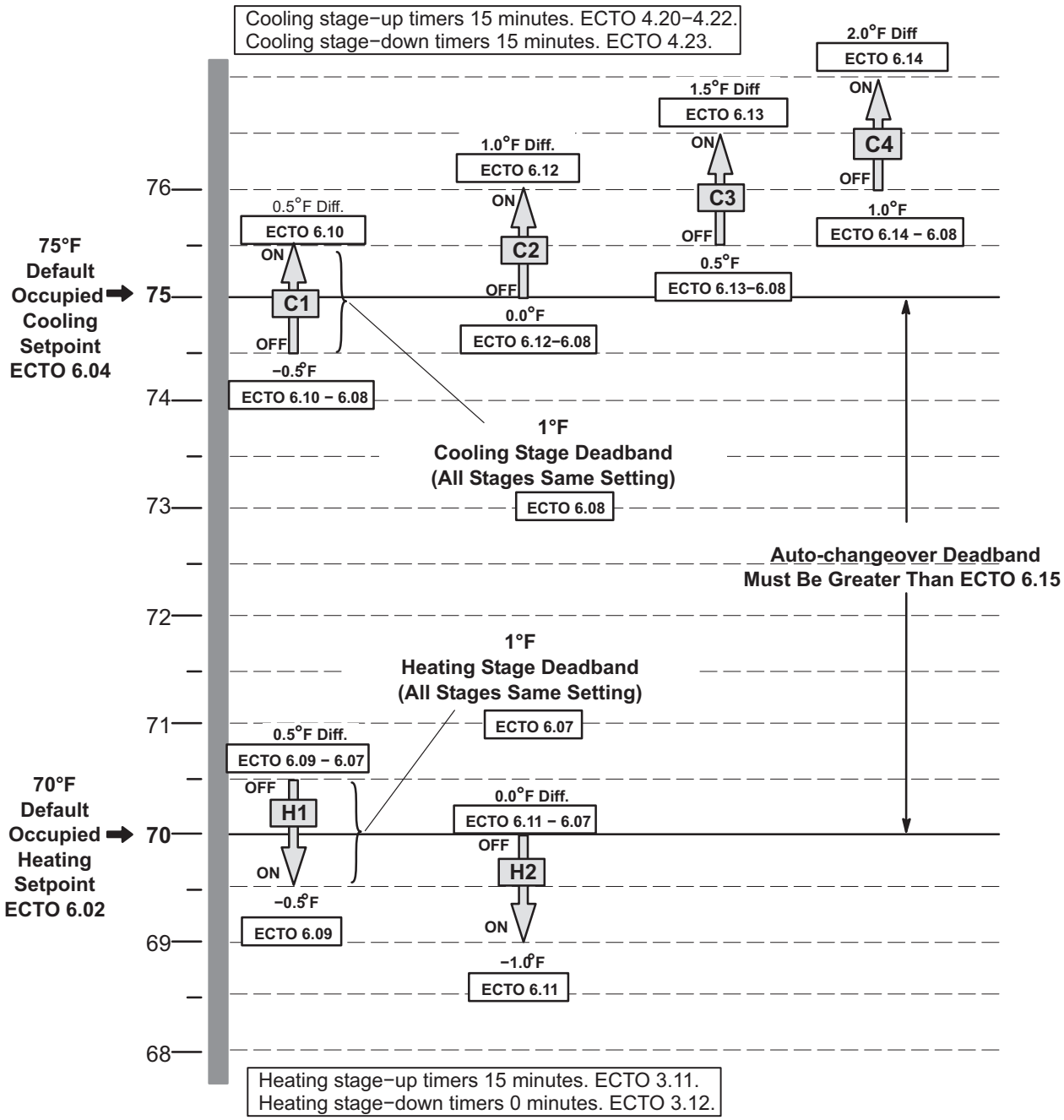
| Cooling Demand | Unit with Economizer | Unit Without Economizer or Outdoor Air is Unsuitable |
|---|---|---|
| One | Economizer | Compressor 1 |
| Two | Economizer + Compressor 1 | Compressor 1 and 2 |
| Three | Economizer + Compressor 1 and 2 | Compressor 1, 2 and 3 |
| Four | Economizer + All Compressors | All Compressors |

## ZONE SENSOR MODE (continued)

**ZONE SENSOR STAGES FOR GAS / ELECTRIC UNITS**
**Default Values Shown**

Units With Economizer:

| | | |
|---|---|---|
| C1=Free Cooling | C1=Cooling Stage 1 | H1=Heating Stage 1 |
| C2=Compressor 1 | C2=Cooling Stage 2 | H2=Heating Stage 2 |
| C3=Compressor 2 | C3=Cooling Stage 3 | |
| C4=Compressor 3 + 4 | C4=Cooling Stage 4 | |



## ZONE SENSOR MODE - MSAV® (MULTI-STAGE AIR VOLUME)

### 10 TON UNIT

**Supply Air Blower Speed**

Unit has following supply air blower speed settings:

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

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

**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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, economizer modulates (minimum to maximum open position) to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when 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 and supply air blower stays on high cooling speed.

**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 and supply air blower operates at medium cooling speed.

**Y3 Demand:**

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

## ZONE SENSOR MODE - MSAV® (MULTI-STAGE AIR VOLUME) (CONTINUED)

### 20 TON UNIT

**Supply Air Blower Speed**

Unit has following supply air blower speed settings:

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 covered here)

**Unit Features An Economizer And Outdoor Air Is Suitable**

*NOTE - 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.*

**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 ECTO 6.23 setting (supply air temperature).

**Y2 Demand:**

All compressors are off, supply air blower is on high cooling speed providing higher cooling capacity, and economizer modulates to maintain ECTO 6.23 setting (supply air temperature).

ECTO 6.27 dictates when 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:**

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

**Y4 Demand:**

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

**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:**

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

**Y3 Demand:**

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

**Y4 Demand:**

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

## SPECIFICATIONS — 3 AND 5 TON

| | | | | |
|---|---|---|---|---|
| **General Data** | | **Nominal Tonnage** | **3 Ton** | **5 Ton** |
| | | **Model No.** | **SGC036H4** | **SGC060H4** |
| | | **Efficiency Type** | **High** | **High** |
| **Cooling Performance** | | Gross Cooling Capacity - Btuh | 37,200 | 61,500 |
| | | [1] Net Cooling Capacity - Btuh | 36,000 | 59,500 |
| | | AHRI Rated Air Flow - cfm | 1200 | 1650 |
| | | Total Unit Power | 2.65 | 4.65 |
| | | [1] SEER (Btuh/Watt) | 16.1 | 15.5 |
| | | [1] EER (Btuh/Watt) | 13.6 | 12.8 |
| **Refrigerant Charge Furnished (R-410A)** | | | 7 lbs. 0 oz. | 7 lbs. 3 oz. |
| **[2] Sound Rating Number (SRN) (dBA)** | | | 76 | 78 |
| **Gas Heating Options Available - See page 26** | | | High (1 Stage) | High (2 Stage) |
| **Compressor Type (No.)** | | | Scroll (1) | Scroll (1) |
| **Condenser Coil** | | Net face area - sq. ft. | 18.7 | 18.7 |
| | | Number of rows | 1 | 1 |
| | | Fins per inch | 23 | 23 |
| **Condenser Fan(s)** | | Motor horsepower | (1) 1/6 | (2) 1/6 |
| | | Motor rpm | 825 | 825 |
| | | Total Motor watts | 190 | 380 |
| | | Diameter - in. | (1) 24 | (2) 24 |
| | | Number of blades | 3 | 3 |
| | | Total air volume - cfm | 3100 | 5600 |
| **Evaporator Coil** | | Net face area - sq. ft. | 8.0 | 8.0 |
| | | Tube diameter - in. | 3/8 | 3/8 |
| | | Number of rows | 4 | 4 |
| | | Fins per inch | 14 | 14 |
| | | Drain connection - no. & size | (1) 1 | (1) 1 |
| | | Expansion device type | Thermostatic Expansion Valve | |
| **[3] Indoor Blower** | | Nominal motor output | 1.5 | 1.5 |
| | | Maximum usable motor output | 1.7 | 1.7 |
| | | RPM Range (Standard Static) | Drive #6 - 595-890 rpm | Drive #1 - 765-1075 rpm |
| | | RPM Range (High Static) | Drive #3 - 960-1320 rpm | Drive #4 - 1070-1430 rpm |
| | | Wheel nominal diameter x width - in. | (1) 10 x 10 | (1) 10 x 10 |
| **Filters** | | Type of filter | MERV 7 or equivalent | |
| | | Number and size - in. | (4) 16 x 20 x 2 | (4) 16 x 20 x 2 |
| **Electrical characteristics** | | | 208/230V, 460V, or 575V - 60 hertz - 3 phase | |

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

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

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

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

## SPECIFICATIONS — 10 - 24 TON

| | | | | |
|---|---|---|---|---|
| **General Data** | **Nominal Tonnage** | **10 Ton** | **20 Ton** | **24 Ton** |
| | **Model No.** | **SGC120H4M** | **SGC240H4M** | **SGC288H4M** |
| | **Blower Type** | **MSAV® (Multi-Stage Air Volume) Supply Fan Option** | **MSAV® (Multi-Stage Air Volume) Supply Fan Option** | **MSAV® (Multi-Stage Air Volume) Supply Fan Option** |
| | **Efficiency Type** | **High** | **High** | **High** |
| **Cooling Performance** | Gross Cooling Capacity - Btuh | 123,000 | 242,000 | 296,000 |
| | [1] Net Cooling Capacity - Btuh | 119,000 | 236,000 | 288,000 |
| | AHRI Rated Air Flow - cfm | 3700 | 6500 | 7700 |
| | Total Unit Power - kW | 9.8 | 18.7 | 24.8 |
| | [1] IEER (Btuh/Watt) | 14.7 | 16.6 | 14.1 |
| | [1] EER (Btuh/Watt) | 12.1 | 12.6 | 11.6 |
| **Refrigerant Charge Furnished R-410A** | Circuit 1 | 8 lbs. 12 oz. | 7 lbs. 8 oz. | 7 lbs. 12 oz. |
| | Circuit 2 | 6 lbs. 4 oz. | 7 lbs. 8 oz. | 7 lbs. 12 oz. |
| | Circuit 3 | - - - | 5 lbs. 12 oz. | 6 lbs. 4 oz. |
| | Circuit 4 | - - - | 6 lbs. 0 oz. | 6 lbs. 8 oz. |
| **[2] Sound Rating Number (SRN) (dBA)** | | 90 | 92 | 94 |
| **Gas Heating Options Available - See page 26** | | Standard (2 Stage), Medium (2 Stage), or High (2 Stage) | | |
| **Compressor Type (No.)** | | Scroll (2) | Scroll (4) | Scroll (4) |
| **Condenser Coil** | Net face area - sq. ft. | 45.7 | 68.3 | 68.3 |
| | Fins per inch | 23 | 23 | 23 |
| **Condenser Fan(s)** | Motor horsepower | (3) 1/3 | (6) 1/3 | (6) 1/3 |
| | Motor rpm | 1075 | 1075 | 1075 |
| | Total Motor watts | 1160 | 1900 | 1900 |
| | Diameter - in. | (3) 24 | (6) 24 | (6) 24 |
| | Number of blades | 3 | 3 | 3 |
| | Total air volume - cfm | 13,000 | 22,500 | 24,500 |
| **Evaporator Coil** | Net face area - sq. ft. | 15.6 | 33.3 | 33.3 |
| | Tube diameter - in. | 3/8 | 3/8 | 3/8 |
| | Number of rows | 4 | 3 | 3 |
| | Fins per inch | 14 | 14 | 14 |
| | Drain connection - no. & size | (1) 1 | (1) 1 | (1) 1 |
| | Expansion device type | Thermostatic Expansion Valve | | |
| **[3] Indoor Blower** | Nominal motor HP | 3 | 5 | 5 |
| | RPM Range (Standard Static) | Drive #3 - 660-900 rpm | Drive #4 - 520-685 rpm | Drive #4 - 520-685 rpm |
| | RPM Range (High Static) | Drive #4 - 865-1080 rpm | Drive #5 - 685-865 rpm | Drive #5 - 685-865 rpm |
| | Nominal motor HP | - - - | 7.5 | 7.5 |
| | RPM Range | - - - | Drive #7 - 770-965 rpm | Drive #7 - 770-965 rpm |
| | Wheel nominal diameter x width - in. | (1) 15 x 15 | (2) 18 x 15 | (2) 18 x 15 |
| **Filters** | Type of filter | MERV 7 or equivalent | | |
| | Number and size - in. | (6) 16 x 25 x 2 | (12) 20 x 20 x 2 | |
| **Electrical characteristics** | | 208/230V, 460V, or 575V - 60 hertz - 3 phase | | |

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

[1] Rated at test conditions included in 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 (SRN) rated in accordance with test conditions included in AHRI Standard 370-2001.

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

NOTE – Units equipped with MSAV® (Multi-Stage Air Volume) option are limited to a motor service factor of 1.0.

## SPECIFICATIONS - GAS HEAT — 3 AND 5 TON

| | | | |
|---|---|---|---|
| | Model No. | **SGC036H4** | **SGC060H4** |
| | Heat Input Type | High - 1 Stage | High - 2 Stage |
| Gas Input - Btuh Natural Gas | First Stage | - - - | 97,500 |
| | Second Stage | 105,000 | 150,000 |
| | Second Stage Output | 84,000 | 120,000 |
| Gas Input - Btuh LPG/Propane | First Stage | - - - | 97,500 |
| | Second Stage | 105,000 | 150,000 |
| | Second Stage Output | 84,000 | 120,000 |
| Temperature Rise Range - °F | | 35 - 65 | 40 - 70 |
| Recommended Gas Supply Pressure - Natural | | 7.0 in. w.g. | 7.0 in. w.g. |
| LPG/Propane | | 11.0 in. w.g. | 11.0 in. w.g. |
| Thermal Efficiency | | 80% | 80% |
| Gas Supply Connections | | 3/4 in. npt | 3/4 in. npt |

## SPECIFICATIONS - GAS HEAT — 10 TON

| | | | | |
|---|---|---|---|---|
| | Heat Input Type | Standard - 2 Stage | Medium - 2 Stage | High - 2 Stage |
| Gas Input - Btuh Natural Gas | First Stage | 84,500 | 117,000 | 156,000 |
| | Second Stage | 130,000 | 180,000 | 240,000 |
| | Second Stage Output | 104,000 | 144,000 | 192,000 |
| Gas Input - Btuh LPG/Propane | First Stage | 94,000 | 130,000 | 173,000 |
| | Second Stage | 130,000 | 180,000 | 240,000 |
| | Second Stage Output | 104,000 | 144,000 | 192,000 |
| Temperature Rise Range - °F | | 15 - 45 | 30 - 60 | 40 - 70 |
| Recommended Gas Supply Pressure - Natural | | 7.0 in. w.g. | 7.0 in. w.g. | 7.0 in. w.g. |
| LPG/Propane | | 11.0 in. w.g. | 11.0 in. w.g. | 11.0 in. w.g. |
| Thermal Efficiency | | 80% | 80% | 80% |
| Gas Supply Connections | | 3/4 in. npt | 3/4 in. npt | 3/4 in. npt |

## SPECIFICATIONS - GAS HEAT — 20 AND 24 TON

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Heat Input Type | Standard - 2 Stage | | Medium - 2 Stage | | High - 2 Stage | |
| Gas Input - Btuh Natural Gas | First Stage | 169,000 | | 234,000 | | 312,000 | |
| | Second Stage | 260,000 | | 360,000 | | 480,000 | |
| | Second Stage Output | 208,000 | | 288,000 | | 384,000 | |
| Gas Input - Btuh LPG/Propane | First Stage | 187,000 | | 259,000 | | 346,000 | |
| | Second Stage | 260,000 | | 360,000 | | 480,000 | |
| | Second Stage Output | 208,000 | | 288,000 | | 384,000 | |
| Temperature Rise Range - °F | | 15 - 45 (20 ton) | 10 - 40 (24 ton) | 30 - 60 (20 ton) | 15 - 45 (24 ton) | 40 - 70 (20 ton) | 20 - 50 (24 ton) |
| Recommended Gas Supply Pressure - Natural | | 7.0 in. w.g. | | 7.0 in. w.g. | | 7.0 in. w.g. | |
| LPG/Propane | | 11.0 in. w.g. | | 11.0 in. w.g. | | 11.0 in. w.g. | |
| Thermal Efficiency | | 80% | | 80% | | 80% | |
| Gas Supply Connections | | 1 in. npt | | 1 in. npt | | 1 in. npt | |

## 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.
At altitudes above 4500 ft. unit must be derated 2% 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. | | Input Rate (Btuh) |
|---|---|---|---|---|---|
| | | | Natural Gas | LPG/Propane | |
| 3 Ton | High (1 Stage) | 2001 - 4500 | 3.4 | 9.0 | 97,000 |
| 5 Ton | High (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.0 | 97,500/138,000 |
| 10 Ton | Standard (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 84,500/124,000 |
| 10 Ton | Medium (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 117,000/172,000 |
| 10 Ton | High (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 156,000/230,000 |
| 20 and 24 Ton | Standard (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 169,000/249,000 |
| 20 and 24 Ton | Medium (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 234,000/345,000 |
| 20 and 24 Ton | High (2 Stage) | 2001 - 4500 | 1.6/3.4 | 5.5/9.6 | 312,000/460,000 |

## SPECIFICATIONS - PRODIGY® CONTROL SYSTEM

| | |
|---|---|
| Operating Environment | Temperature: -40°F to 155°F |
| | Humidity: 10% - 95% RH, Non- Condensing |
| Power Requirements | 24VAC (+/-25%), 50/60Hz |
| | 4.8 VA for M2 maximum |
| | 14.4 VA for M2 w/all expansion boards Maximum |
| Memory Type | Re-programmable Flash |
| Device Commissioning | Auto-poll (real plug and play) |
| Unit type | Electric/Electric, Gas/Electric & Heat Pumps (Rooftops) |
| Cooling stages | 4 |
| Heating stages | 4 |
| Modulating Gas Valves | 2 |
| Electronic Configure To Order Parameters | 239 |
| Alarm Codes | 107 |
| Alarm Codes Stored | 84 |
| Display Type | Scrolling, 7 plus Character Red LED |
| Indicator LEDs | 1- Heartbeat on each board |
| | 1- Bus transmit |
| | 1 - Bus receive |
| | 1- each for Y1,Y2,W1,W2,G,OCP |
| Dimensions - Main Board | Main Board:<br>Height: 8 in., Width: 14-1/2 in., Depth: 6 in. |
| Weight | 2 lbs. for M2 w/all modules installed |
| Cable Type | SysBus - Lennox yellow COMM cable:<br>C0MISC00AE1- (27M19) (500 ft. box),<br>C0MISC04AE1- (94L63) (1000 ft. box),<br>C0MISC01AE1- (68M25) (2500 ft. roll)<br>ZoneBus - Lennox purple COMM cable:<br>C0MISC05AE1- (23W99) (500 ft. box)<br>C0MISC06AE1- (24W00) (1000 ft |

## 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 SGC036H4B - CONSTANT AIR VOLUME

| 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 | 35.4 | 1.77 | 0.68 | 0.84 | 1.00 | 33.7 | 2.01 | 0.69 | 0.87 | 1.00 | 31.8 | 2.29 | 0.71 | 0.90 | 1.00 | 29.8 | 2.62 | 0.73 | 0.94 | 1.00 |
| | 1200 | 36.9 | 1.78 | 0.74 | 0.94 | 1.00 | 35.2 | 2.02 | 0.76 | 0.97 | 1.00 | 33.3 | 2.3 | 0.79 | 1.00 | 1.00 | 31.5 | 2.63 | 0.83 | 1.00 | 1.00 |
| | 1440 | 38.4 | 1.78 | 0.81 | 1.00 | 1.00 | 36.7 | 2.03 | 0.84 | 1.00 | 1.00 | 35 | 2.31 | 0.88 | 1.00 | 1.00 | 33 | 2.63 | 0.92 | 1.00 | 1.00 |
| 67°F | 960 | 37.8 | 1.78 | 0.53 | 0.66 | 0.79 | 36 | 2.03 | 0.54 | 0.67 | 0.82 | 34 | 2.3 | 0.55 | 0.69 | 0.86 | 31.9 | 2.63 | 0.56 | 0.71 | 0.89 |
| | 1200 | 39.2 | 1.79 | 0.57 | 0.71 | 0.90 | 37.2 | 2.03 | 0.58 | 0.74 | 0.94 | 35.1 | 2.31 | 0.59 | 0.76 | 0.98 | 32.8 | 2.63 | 0.61 | 0.80 | 1.00 |
| | 1440 | 40.1 | 1.79 | 0.60 | 0.79 | 1.00 | 38.1 | 2.04 | 0.62 | 0.82 | 1.00 | 35.9 | 2.32 | 0.63 | 0.85 | 1.00 | 33.6 | 2.64 | 0.65 | 0.89 | 1.00 |
| 71°F | 960 | 40.5 | 1.79 | 0.40 | 0.51 | 0.63 | 38.5 | 2.04 | 0.40 | 0.52 | 0.65 | 36.4 | 2.32 | 0.40 | 0.53 | 0.66 | 34.1 | 2.64 | 0.41 | 0.55 | 0.69 |
| | 1200 | 41.8 | 1.8 | 0.41 | 0.55 | 0.69 | 39.7 | 2.05 | 0.41 | 0.56 | 0.71 | 37.4 | 2.33 | 0.42 | 0.58 | 0.74 | 35 | 2.65 | 0.43 | 0.60 | 0.77 |
| | 1440 | 42.7 | 1.81 | 0.42 | 0.59 | 0.76 | 40.5 | 2.06 | 0.43 | 0.61 | 0.79 | 38.2 | 2.33 | 0.44 | 0.62 | 0.83 | 35.7 | 2.65 | 0.45 | 0.64 | 0.87 |

### 5 TON HIGH EFFICIENCY SGC060H4B - CONSTANT AIR VOLUME

| 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 | 61 | 3.27 | 0.67 | 0.83 | 1.00 | 57.9 | 3.72 | 0.68 | 0.87 | 1.00 | 54.5 | 4.23 | 0.70 | 0.91 | 1.00 | 50.8 | 4.82 | 0.73 | 0.96 | 1.00 |
| | 2000 | 63.2 | 3.31 | 0.72 | 0.95 | 1.00 | 60.1 | 3.75 | 0.75 | 0.98 | 1.00 | 56.9 | 4.26 | 0.79 | 1.00 | 1.00 | 53.5 | 4.86 | 0.83 | 1.00 | 1.00 |
| | 2400 | 65.7 | 3.34 | 0.81 | 1.00 | 1.00 | 62.7 | 3.79 | 0.84 | 1.00 | 1.00 | 59.3 | 4.3 | 0.88 | 1.00 | 1.00 | 55.6 | 4.9 | 0.93 | 1.00 | 1.00 |
| 67°F | 1600 | 64.7 | 3.32 | 0.52 | 0.65 | 0.79 | 61.3 | 3.77 | 0.53 | 0.66 | 0.83 | 57.6 | 4.28 | 0.54 | 0.68 | 0.86 | 53.6 | 4.87 | 0.56 | 0.71 | 0.91 |
| | 2000 | 66.6 | 3.35 | 0.55 | 0.71 | 0.91 | 63 | 3.8 | 0.57 | 0.73 | 0.95 | 59.2 | 4.31 | 0.58 | 0.76 | 0.99 | 55.1 | 4.9 | 0.60 | 0.81 | 1.00 |
| | 2400 | 68 | 3.38 | 0.59 | 0.78 | 1.00 | 64.4 | 3.82 | 0.61 | 0.82 | 1.00 | 60.5 | 4.33 | 0.62 | 0.86 | 1.00 | 56.3 | 4.92 | 0.65 | 0.91 | 1.00 |
| 71°F | 1600 | 68.8 | 3.39 | 0.39 | 0.50 | 0.62 | 65.1 | 3.83 | 0.39 | 0.52 | 0.64 | 61.2 | 4.34 | 0.39 | 0.53 | 0.66 | 57 | 4.93 | 0.40 | 0.54 | 0.69 |
| | 2000 | 70.6 | 3.42 | 0.40 | 0.54 | 0.69 | 66.8 | 3.86 | 0.40 | 0.56 | 0.71 | 62.7 | 4.37 | 0.41 | 0.57 | 0.73 | 58.2 | 4.96 | 0.42 | 0.59 | 0.78 |
| | 2400 | 71.8 | 3.44 | 0.41 | 0.58 | 0.76 | 67.9 | 3.88 | 0.42 | 0.60 | 0.79 | 63.7 | 4.39 | 0.43 | 0.62 | 0.84 | 59.1 | 4.98 | 0.44 | 0.64 | 0.89 |

### 10 TON HIGH EFFICIENCY SGC120H4M (ONE COMPRESSOR OPERATING) MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 2000 | 67.8 | 2.35 | 0.69 | 0.87 | 1.00 | 65 | 2.72 | 0.70 | 0.89 | 1.00 | 62 | 3.12 | 0.72 | 0.92 | 1.00 | 59 | 3.55 | 0.74 | 0.96 | 1.00 |
| | 2400 | 70 | 2.36 | 0.74 | 0.95 | 1.00 | 67.2 | 2.73 | 0.76 | 0.98 | 1.00 | 64.3 | 3.13 | 0.79 | 1.00 | 1.00 | 61.5 | 3.56 | 0.82 | 1.00 | 1.00 |
| | 2800 | 72.4 | 2.37 | 0.81 | 1.00 | 1.00 | 69.7 | 2.74 | 0.83 | 1.00 | 1.00 | 66.9 | 3.14 | 0.86 | 1.00 | 1.00 | 63.8 | 3.58 | 0.89 | 1.00 | 1.00 |
| 67°F | 2000 | 72.3 | 2.37 | 0.54 | 0.67 | 0.82 | 69.2 | 2.74 | 0.54 | 0.68 | 0.85 | 66 | 3.14 | 0.55 | 0.70 | 0.88 | 62.6 | 3.57 | 0.56 | 0.72 | 0.91 |
| | 2400 | 74.2 | 2.38 | 0.56 | 0.72 | 0.91 | 71 | 2.75 | 0.57 | 0.73 | 0.94 | 67.6 | 3.15 | 0.58 | 0.76 | 0.97 | 64.1 | 3.58 | 0.60 | 0.79 | 1.00 |
| | 2800 | 75.6 | 2.38 | 0.59 | 0.78 | 0.99 | 72.3 | 2.76 | 0.60 | 0.80 | 1.00 | 68.9 | 3.16 | 0.62 | 0.83 | 1.00 | 65.3 | 3.59 | 0.64 | 0.87 | 1.00 |
| 71°F | 2000 | 77.3 | 2.39 | 0.40 | 0.52 | 0.65 | 74 | 2.77 | 0.40 | 0.53 | 0.66 | 70.5 | 3.17 | 0.40 | 0.54 | 0.68 | 66.9 | 3.6 | 0.41 | 0.55 | 0.69 |
| | 2400 | 79.2 | 2.4 | 0.41 | 0.55 | 0.69 | 75.7 | 2.78 | 0.41 | 0.56 | 0.71 | 72.1 | 3.18 | 0.42 | 0.57 | 0.73 | 68.2 | 3.61 | 0.42 | 0.59 | 0.76 |
| | 2800 | 80.5 | 2.41 | 0.42 | 0.58 | 0.75 | 76.9 | 2.79 | 0.42 | 0.60 | 0.77 | 73.2 | 3.19 | 0.43 | 0.61 | 0.81 | 69.2 | 3.62 | 0.44 | 0.63 | 0.84 |

### 10 TON HIGH EFFICIENCY SGC120H4M (ALL COMPRESSOR OPERATING) MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 118.9 | 6.59 | 0.70 | 0.85 | 0.99 | 113.3 | 7.5 | 0.71 | 0.87 | 1.00 | 107.3 | 8.54 | 0.73 | 0.90 | 1.00 | 100.7 | 9.75 | 0.75 | 0.93 | 1.00 |
| | 4000 | 123.6 | 6.63 | 0.76 | 0.94 | 1.00 | 117.9 | 7.54 | 0.78 | 0.96 | 1.00 | 111.8 | 8.58 | 0.80 | 0.99 | 1.00 | 105.6 | 9.78 | 0.84 | 1.00 | 1.00 |
| | 4800 | 128.1 | 6.65 | 0.82 | 1.00 | 1.00 | 122.7 | 7.57 | 0.85 | 1.00 | 1.00 | 116.7 | 8.62 | 0.88 | 1.00 | 1.00 | 110.3 | 9.81 | 0.91 | 1.00 | 1.00 |
| 67°F | 3200 | 126.5 | 6.65 | 0.55 | 0.68 | 0.81 | 120.4 | 7.56 | 0.56 | 0.69 | 0.83 | 113.9 | 8.61 | 0.57 | 0.71 | 0.86 | 106.9 | 9.79 | 0.58 | 0.73 | 0.90 |
| | 4000 | 130.8 | 6.68 | 0.58 | 0.73 | 0.90 | 124.4 | 7.59 | 0.59 | 0.75 | 0.93 | 117.5 | 8.63 | 0.61 | 0.78 | 0.96 | 110 | 9.83 | 0.62 | 0.81 | 0.99 |
| | 4800 | 133.7 | 6.71 | 0.62 | 0.80 | 0.98 | 127 | 7.62 | 0.63 | 0.82 | 1.00 | 120 | 8.66 | 0.65 | 0.86 | 1.00 | 112.4 | 9.85 | 0.67 | 0.89 | 1.00 |
| 71°F | 3200 | 135 | 6.72 | 0.41 | 0.53 | 0.65 | 128.5 | 7.64 | 0.41 | 0.54 | 0.67 | 121.5 | 8.67 | 0.42 | 0.55 | 0.69 | 113.9 | 9.86 | 0.42 | 0.56 | 0.71 |
| | 4000 | 139 | 6.76 | 0.42 | 0.57 | 0.71 | 132.1 | 7.67 | 0.43 | 0.58 | 0.73 | 124.7 | 8.71 | 0.43 | 0.60 | 0.75 | 116.8 | 9.9 | 0.44 | 0.61 | 0.79 |
| | 4800 | 141.8 | 6.78 | 0.44 | 0.61 | 0.77 | 134.6 | 7.7 | 0.44 | 0.62 | 0.80 | 127 | 8.73 | 0.45 | 0.64 | 0.83 | 118.8 | 9.92 | 0.46 | 0.66 | 0.87 |

## 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 SGC240H4M (ONE COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 2000 | 53.9 | 2.51 | 0.63 | 0.71 | 0.80 | 52.2 | 2.88 | 0.63 | 0.72 | 0.80 | 50.4 | 3.29 | 0.64 | 0.73 | 0.81 | 48.4 | 3.75 | 0.64 | 0.73 | 0.82 |
| | 2400 | 57 | 2.53 | 0.64 | 0.74 | 0.83 | 55 | 2.9 | 0.65 | 0.75 | 0.84 | 53.1 | 3.3 | 0.65 | 0.75 | 0.85 | 50.9 | 3.77 | 0.66 | 0.76 | 0.87 |
| | 2800 | 59.3 | 2.54 | 0.66 | 0.76 | 0.86 | 57.3 | 2.91 | 0.66 | 0.77 | 0.87 | 55.1 | 3.32 | 0.67 | 0.78 | 0.89 | 52.7 | 3.78 | 0.68 | 0.80 | 0.91 |
| 67°F | 2000 | 57.9 | 2.53 | 0.53 | 0.60 | 0.68 | 56.1 | 2.9 | 0.52 | 0.60 | 0.68 | 54.2 | 3.31 | 0.52 | 0.61 | 0.69 | 52 | 3.78 | 0.53 | 0.61 | 0.70 |
| | 2400 | 61.1 | 2.55 | 0.53 | 0.61 | 0.70 | 59.1 | 2.92 | 0.53 | 0.62 | 0.71 | 56.9 | 3.33 | 0.53 | 0.62 | 0.72 | 54.6 | 3.8 | 0.53 | 0.63 | 0.73 |
| | 2800 | 63.6 | 2.56 | 0.53 | 0.63 | 0.72 | 61.4 | 2.94 | 0.54 | 0.64 | 0.73 | 59 | 3.35 | 0.54 | 0.64 | 0.75 | 56.5 | 3.82 | 0.54 | 0.65 | 0.76 |
| 71°F | 2000 | 62.2 | 2.56 | 0.43 | 0.50 | 0.57 | 60.2 | 2.93 | 0.43 | 0.50 | 0.57 | 58.1 | 3.35 | 0.42 | 0.50 | 0.58 | 55.8 | 3.81 | 0.42 | 0.50 | 0.58 |
| | 2400 | 65.6 | 2.58 | 0.42 | 0.50 | 0.58 | 63.4 | 2.96 | 0.42 | 0.50 | 0.59 | 61 | 3.37 | 0.42 | 0.51 | 0.60 | 58.5 | 3.83 | 0.42 | 0.51 | 0.60 |
| | 2800 | 68.1 | 2.6 | 0.42 | 0.51 | 0.60 | 65.7 | 2.97 | 0.42 | 0.51 | 0.61 | 63.1 | 3.39 | 0.42 | 0.52 | 0.61 | 60.4 | 3.86 | 0.42 | 0.52 | 0.62 |

### 20 TON HIGH EFFICIENCY SGC240H4M (TWO COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 127.4 | 4.97 | 0.69 | 0.82 | 0.94 | 122.7 | 5.69 | 0.70 | 0.83 | 0.96 | 117.8 | 6.49 | 0.71 | 0.85 | 0.97 | 112.5 | 7.39 | 0.72 | 0.87 | 0.99 |
| | 4000 | 132.6 | 5.01 | 0.73 | 0.88 | 1.00 | 127.6 | 5.73 | 0.75 | 0.90 | 1.00 | 122.3 | 6.53 | 0.76 | 0.92 | 1.00 | 116.7 | 7.43 | 0.78 | 0.94 | 1.00 |
| | 4800 | 136.6 | 5.03 | 0.78 | 0.94 | 1.00 | 131.4 | 5.77 | 0.80 | 0.96 | 1.00 | 126.2 | 6.57 | 0.81 | 0.98 | 1.00 | 120.7 | 7.46 | 0.83 | 1.00 | 1.00 |
| 67°F | 3200 | 136.1 | 5.03 | 0.54 | 0.66 | 0.78 | 131 | 5.76 | 0.55 | 0.67 | 0.79 | 125.7 | 6.55 | 0.56 | 0.68 | 0.81 | 120.1 | 7.46 | 0.56 | 0.69 | 0.83 |
| | 4000 | 141.1 | 5.07 | 0.57 | 0.71 | 0.85 | 135.7 | 5.8 | 0.58 | 0.72 | 0.87 | 130 | 6.59 | 0.58 | 0.73 | 0.89 | 123.8 | 7.5 | 0.59 | 0.75 | 0.91 |
| | 4800 | 144.7 | 5.09 | 0.60 | 0.76 | 0.91 | 138.9 | 5.83 | 0.61 | 0.77 | 0.93 | 133 | 6.63 | 0.62 | 0.79 | 0.95 | 126.6 | 7.52 | 0.63 | 0.81 | 0.98 |
| 71°F | 3200 | 145.5 | 5.09 | 0.42 | 0.53 | 0.64 | 140.1 | 5.83 | 0.42 | 0.53 | 0.65 | 134.3 | 6.63 | 0.42 | 0.54 | 0.66 | 128.2 | 7.54 | 0.42 | 0.55 | 0.67 |
| | 4000 | 150.6 | 5.13 | 0.42 | 0.55 | 0.68 | 144.7 | 5.89 | 0.43 | 0.56 | 0.70 | 138.5 | 6.68 | 0.43 | 0.57 | 0.71 | 132 | 7.58 | 0.43 | 0.58 | 0.73 |
| | 4800 | 154 | 5.17 | 0.43 | 0.58 | 0.73 | 147.9 | 5.91 | 0.44 | 0.59 | 0.75 | 141.5 | 6.71 | 0.44 | 0.60 | 0.77 | 134.6 | 7.62 | 0.45 | 0.62 | 0.79 |

### 20 TON HIGH EFFICIENCY SGC240H4M (THREE COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 4800 | 171.3 | 9.78 | 0.72 | 0.86 | 0.94 | 164 | 11.14 | 0.74 | 0.87 | 0.95 | 156.2 | 12.7 | 0.75 | 0.88 | 0.96 | 147.9 | 14.5 | 0.77 | 0.90 | 0.98 |
| | 6000 | 179.4 | 9.84 | 0.78 | 0.90 | 0.98 | 171.7 | 11.2 | 0.79 | 0.91 | 0.99 | 163.4 | 12.75 | 0.81 | 0.93 | 1.00 | 154.3 | 14.58 | 0.83 | 0.94 | 1.00 |
| | 7200 | 185.6 | 9.9 | 0.82 | 0.94 | 1.00 | 177.5 | 11.26 | 0.84 | 0.95 | 1.00 | 168.8 | 12.82 | 0.86 | 0.97 | 1.00 | 159.4 | 14.64 | 0.88 | 0.98 | 1.00 |
| 67°F | 4800 | 182.3 | 9.87 | 0.57 | 0.70 | 0.82 | 174.1 | 11.23 | 0.58 | 0.71 | 0.84 | 165.4 | 12.79 | 0.59 | 0.73 | 0.86 | 155.9 | 14.59 | 0.60 | 0.75 | 0.87 |
| | 6000 | 188.8 | 9.93 | 0.60 | 0.75 | 0.88 | 180.2 | 11.29 | 0.61 | 0.77 | 0.89 | 170.9 | 12.84 | 0.62 | 0.79 | 0.90 | 161 | 14.66 | 0.64 | 0.81 | 0.92 |
| | 7200 | 193.4 | 9.97 | 0.63 | 0.80 | 0.92 | 184.5 | 11.34 | 0.64 | 0.82 | 0.93 | 175.1 | 12.9 | 0.66 | 0.84 | 0.95 | 164.7 | 14.7 | 0.68 | 0.86 | 0.97 |
| 71°F | 4800 | 194.5 | 9.98 | 0.43 | 0.55 | 0.67 | 185.8 | 11.35 | 0.43 | 0.56 | 0.69 | 176.4 | 12.92 | 0.43 | 0.57 | 0.70 | 166.4 | 14.7 | 0.44 | 0.58 | 0.72 |
| | 6000 | 200.9 | 10.05 | 0.44 | 0.58 | 0.73 | 191.6 | 11.41 | 0.44 | 0.59 | 0.74 | 181.7 | 12.96 | 0.45 | 0.61 | 0.76 | 170.9 | 14.77 | 0.45 | 0.62 | 0.79 |
| | 7200 | 205.4 | 10.09 | 0.45 | 0.62 | 0.78 | 195.7 | 11.46 | 0.45 | 0.63 | 0.80 | 185.2 | 13.01 | 0.46 | 0.65 | 0.82 | 174.2 | 14.81 | 0.47 | 0.67 | 0.85 |

### 20 TON HIGH EFFICIENCY SGC240H4M (ALL COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 237.8 | 13.16 | 0.70 | 0.85 | 0.98 | 227.4 | 14.98 | 0.72 | 0.87 | 1.00 | 216.1 | 17.09 | 0.73 | 0.89 | 1.00 | 203.8 | 19.54 | 0.75 | 0.92 | 1.00 |
| | 8000 | 247 | 13.24 | 0.76 | 0.93 | 1.00 | 236 | 15.07 | 0.78 | 0.95 | 1.00 | 224.4 | 17.17 | 0.80 | 0.97 | 1.00 | 212.4 | 19.6 | 0.83 | 1.00 | 1.00 |
| | 9600 | 255 | 13.3 | 0.82 | 0.99 | 1.00 | 244.5 | 15.13 | 0.84 | 1.00 | 1.00 | 233.4 | 17.25 | 0.87 | 1.00 | 1.00 | 221.3 | 19.68 | 0.90 | 1.00 | 1.00 |
| 67°F | 6400 | 252.7 | 13.28 | 0.55 | 0.68 | 0.81 | 241.5 | 15.11 | 0.56 | 0.69 | 0.83 | 229.3 | 17.23 | 0.57 | 0.71 | 0.86 | 215.9 | 19.66 | 0.58 | 0.73 | 0.89 |
| | 8000 | 260.9 | 13.37 | 0.58 | 0.74 | 0.89 | 248.9 | 15.2 | 0.59 | 0.75 | 0.92 | 235.8 | 17.31 | 0.61 | 0.78 | 0.95 | 222.1 | 19.71 | 0.62 | 0.80 | 0.97 |
| | 9600 | 266.6 | 13.42 | 0.62 | 0.80 | 0.96 | 254.2 | 15.25 | 0.63 | 0.82 | 0.98 | 240.8 | 17.34 | 0.64 | 0.84 | 1.00 | 226.8 | 19.76 | 0.66 | 0.88 | 1.00 |
| 71°F | 6400 | 269.6 | 13.42 | 0.41 | 0.54 | 0.66 | 257.5 | 15.27 | 0.42 | 0.54 | 0.67 | 244.5 | 17.39 | 0.42 | 0.55 | 0.69 | 230.1 | 19.82 | 0.42 | 0.57 | 0.71 |
| | 8000 | 277.5 | 13.52 | 0.43 | 0.57 | 0.71 | 264.4 | 15.37 | 0.43 | 0.58 | 0.73 | 250.7 | 17.45 | 0.43 | 0.59 | 0.75 | 236 | 19.86 | 0.44 | 0.61 | 0.78 |
| | 9600 | 282.9 | 13.58 | 0.44 | 0.61 | 0.77 | 269.4 | 15.41 | 0.44 | 0.62 | 0.80 | 255.1 | 17.5 | 0.45 | 0.64 | 0.82 | 239.8 | 19.91 | 0.46 | 0.66 | 0.85 |

## RATINGS

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

### 24 TON HIGH EFFICIENCY SGC288H4M (ONE COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 65°F | | | | | 75°F | | | | | 85°F | | | | | 95°F | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) Dry Bulb | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) Dry Bulb | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) Dry Bulb | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) Dry Bulb | | |
| | cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F |
| 63°F | 2400 | 68.7 | 3.55 | 0.68 | 0.76 | 0.85 | 66.6 | 4 | 0.68 | 0.77 | 0.85 | 64.2 | 4.49 | 0.68 | 0.77 | 0.86 | 61.5 | 5.05 | 0.69 | 0.78 | 0.88 |
| | 3000 | 73.5 | 3.62 | 0.69 | 0.79 | 0.89 | 71 | 4.06 | 0.70 | 0.80 | 0.90 | 68.4 | 4.55 | 0.70 | 0.81 | 0.91 | 65.4 | 5.11 | 0.71 | 0.82 | 0.93 |
| | 3600 | 76.9 | 3.67 | 0.71 | 0.82 | 0.93 | 74.3 | 4.11 | 0.71 | 0.83 | 0.94 | 71.3 | 4.6 | 0.72 | 0.84 | 0.96 | 68.1 | 5.17 | 0.73 | 0.86 | 0.98 |
| 67°F | 2400 | 73.8 | 3.62 | 0.56 | 0.64 | 0.72 | 71.4 | 4.07 | 0.56 | 0.65 | 0.73 | 69 | 4.57 | 0.56 | 0.65 | 0.73 | 66.1 | 5.13 | 0.57 | 0.65 | 0.74 |
| | 3000 | 78.7 | 3.7 | 0.57 | 0.66 | 0.75 | 76.1 | 4.14 | 0.57 | 0.66 | 0.76 | 73.3 | 4.63 | 0.57 | 0.67 | 0.77 | 70.1 | 5.2 | 0.57 | 0.68 | 0.78 |
| | 3600 | 82.2 | 3.75 | 0.57 | 0.68 | 0.78 | 79.5 | 4.19 | 0.58 | 0.69 | 0.79 | 76.4 | 4.68 | 0.58 | 0.69 | 0.81 | 73 | 5.25 | 0.59 | 0.70 | 0.82 |
| 71°F | 2400 | 79.1 | 3.71 | 0.46 | 0.54 | 0.61 | 76.7 | 4.15 | 0.46 | 0.54 | 0.61 | 74 | 4.65 | 0.46 | 0.54 | 0.62 | 71 | 5.22 | 0.46 | 0.54 | 0.62 |
| | 3000 | 84.2 | 3.78 | 0.45 | 0.54 | 0.63 | 81.5 | 4.23 | 0.45 | 0.54 | 0.63 | 78.5 | 4.72 | 0.45 | 0.55 | 0.64 | 75.2 | 5.28 | 0.45 | 0.55 | 0.65 |
| | 3600 | 87.9 | 3.84 | 0.45 | 0.55 | 0.65 | 84.9 | 4.28 | 0.45 | 0.55 | 0.66 | 81.7 | 4.77 | 0.45 | 0.56 | 0.66 | 78.1 | 5.34 | 0.45 | 0.56 | 0.67 |

### 24 TON HIGH EFFICIENCY SGC288H4M (TWO COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 3840 | 159.3 | 7.27 | 0.71 | 0.83 | 0.95 | 153.7 | 8.13 | 0.71 | 0.85 | 0.97 | 147.6 | 9.1 | 0.72 | 0.86 | 0.99 | 140.8 | 10.18 | 0.74 | 0.88 | 1.00 |
| | 4800 | 165.8 | 7.37 | 0.75 | 0.90 | 1.00 | 159.9 | 8.22 | 0.76 | 0.91 | 1.00 | 153.4 | 9.19 | 0.77 | 0.93 | 1.00 | 146.4 | 10.28 | 0.79 | 0.95 | 1.00 |
| | 5760 | 170.8 | 7.45 | 0.79 | 0.96 | 1.00 | 164.7 | 8.3 | 0.81 | 0.97 | 1.00 | 158 | 9.26 | 0.82 | 0.99 | 1.00 | 150.8 | 10.36 | 0.84 | 1.00 | 1.00 |
| 67°F | 3840 | 170.1 | 7.44 | 0.56 | 0.68 | 0.80 | 164.1 | 8.29 | 0.57 | 0.69 | 0.81 | 157.5 | 9.26 | 0.57 | 0.70 | 0.82 | 150.4 | 10.35 | 0.58 | 0.71 | 0.84 |
| | 4800 | 176.3 | 7.54 | 0.58 | 0.72 | 0.86 | 170 | 8.38 | 0.59 | 0.73 | 0.88 | 163 | 9.36 | 0.60 | 0.75 | 0.90 | 155.3 | 10.45 | 0.61 | 0.76 | 0.92 |
| | 5760 | 180.7 | 7.61 | 0.61 | 0.77 | 0.92 | 174 | 8.46 | 0.62 | 0.78 | 0.94 | 166.8 | 9.42 | 0.63 | 0.80 | 0.96 | 158.9 | 10.51 | 0.64 | 0.82 | 0.99 |
| 71°F | 3840 | 181.4 | 7.62 | 0.43 | 0.54 | 0.65 | 175.1 | 8.48 | 0.43 | 0.55 | 0.66 | 168.2 | 9.44 | 0.43 | 0.55 | 0.67 | 160.6 | 10.53 | 0.44 | 0.56 | 0.68 |
| | 4800 | 187.8 | 7.72 | 0.44 | 0.57 | 0.70 | 181.1 | 8.58 | 0.44 | 0.57 | 0.71 | 173.7 | 9.53 | 0.44 | 0.58 | 0.72 | 165.6 | 10.64 | 0.45 | 0.59 | 0.74 |
| | 5760 | 192.2 | 7.79 | 0.45 | 0.59 | 0.74 | 185.2 | 8.65 | 0.45 | 0.60 | 0.76 | 177.5 | 9.61 | 0.45 | 0.61 | 0.78 | 169 | 10.7 | 0.46 | 0.63 | 0.80 |

### 24 TON HIGH EFFICIENCY SGC288H4M (THREE COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 5760 | 213 | 13.4 | 0.71 | 0.85 | 0.93 | 203.7 | 15.03 | 0.73 | 0.86 | 0.94 | 193.5 | 16.9 | 0.74 | 0.88 | 0.96 | 182.8 | 19.04 | 0.76 | 0.90 | 0.97 |
| | 7200 | 222.7 | 13.56 | 0.76 | 0.90 | 0.97 | 213 | 15.19 | 0.78 | 0.91 | 0.99 | 202.6 | 17.03 | 0.80 | 0.92 | 1.00 | 191.2 | 19.18 | 0.82 | 0.94 | 1.00 |
| | 8640 | 230.4 | 13.69 | 0.81 | 0.93 | 1.00 | 220.3 | 15.31 | 0.83 | 0.94 | 1.00 | 209.4 | 17.17 | 0.85 | 0.96 | 1.00 | 197.4 | 19.33 | 0.87 | 0.98 | 1.00 |
| 67°F | 5760 | 226.8 | 13.62 | 0.56 | 0.69 | 0.81 | 216.6 | 15.24 | 0.57 | 0.70 | 0.83 | 205.4 | 17.1 | 0.58 | 0.72 | 0.85 | 193.3 | 19.25 | 0.59 | 0.73 | 0.87 |
| | 7200 | 234.8 | 13.75 | 0.59 | 0.74 | 0.87 | 223.9 | 15.39 | 0.60 | 0.75 | 0.89 | 212.4 | 17.25 | 0.61 | 0.77 | 0.90 | 199.8 | 19.38 | 0.62 | 0.80 | 0.92 |
| | 8640 | 240.7 | 13.86 | 0.62 | 0.79 | 0.91 | 229.6 | 15.48 | 0.63 | 0.81 | 0.92 | 217.6 | 17.34 | 0.64 | 0.83 | 0.94 | 204.6 | 19.49 | 0.66 | 0.85 | 0.96 |
| 71°F | 5760 | 241.9 | 13.88 | 0.43 | 0.54 | 0.66 | 231.1 | 15.5 | 0.43 | 0.55 | 0.67 | 219.4 | 17.36 | 0.43 | 0.56 | 0.69 | 206.6 | 19.52 | 0.43 | 0.57 | 0.71 |
| | 7200 | 249.9 | 14.01 | 0.43 | 0.57 | 0.71 | 238.5 | 15.65 | 0.44 | 0.58 | 0.73 | 226.1 | 17.5 | 0.44 | 0.60 | 0.75 | 212.7 | 19.64 | 0.45 | 0.61 | 0.77 |
| | 8640 | 255.5 | 14.12 | 0.44 | 0.61 | 0.76 | 243.8 | 15.74 | 0.45 | 0.62 | 0.78 | 230.8 | 17.6 | 0.45 | 0.63 | 0.81 | 216.8 | 19.73 | 0.46 | 0.65 | 0.83 |

### 24 TON HIGH EFFICIENCY SGC288H4M (ALL COMPRESSOR OPERATING)
### MSAV® (Multi-Stage Air Volume) SUPPLY FAN OPTION

| 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 | 7680 | 291.5 | 17.56 | 0.71 | 0.85 | 0.97 | 278.6 | 19.68 | 0.72 | 0.86 | 0.99 | 264.4 | 22.1 | 0.74 | 0.89 | 1.00 | 249.2 | 24.88 | 0.76 | 0.91 | 1.00 |
| | 9600 | 303 | 17.72 | 0.76 | 0.92 | 1.00 | 289.5 | 19.83 | 0.78 | 0.94 | 1.00 | 274.8 | 22.28 | 0.80 | 0.96 | 1.00 | 259.2 | 25.08 | 0.82 | 0.99 | 1.00 |
| | 11520 | 312.4 | 17.87 | 0.81 | 0.97 | 1.00 | 298.7 | 19.99 | 0.83 | 0.99 | 1.00 | 284.6 | 22.43 | 0.86 | 1.00 | 1.00 | 269.6 | 25.27 | 0.89 | 1.00 | 1.00 |
| 67°F | 7680 | 309.9 | 17.83 | 0.56 | 0.68 | 0.81 | 295.9 | 19.96 | 0.57 | 0.70 | 0.83 | 280.7 | 22.39 | 0.57 | 0.71 | 0.85 | 264.4 | 25.18 | 0.59 | 0.73 | 0.88 |
| | 9600 | 319.9 | 17.99 | 0.59 | 0.74 | 0.88 | 305.4 | 20.11 | 0.60 | 0.75 | 0.91 | 289.3 | 22.56 | 0.61 | 0.78 | 0.93 | 272.1 | 25.33 | 0.62 | 0.80 | 0.96 |
| | 11520 | 327.3 | 18.11 | 0.62 | 0.79 | 0.95 | 312 | 20.25 | 0.63 | 0.81 | 0.97 | 295.6 | 22.69 | 0.65 | 0.84 | 0.99 | 277.8 | 25.45 | 0.66 | 0.87 | 1.00 |
| 71°F | 7680 | 330.4 | 18.16 | 0.42 | 0.54 | 0.66 | 315.6 | 20.3 | 0.42 | 0.55 | 0.67 | 299.7 | 22.72 | 0.43 | 0.56 | 0.69 | 282.3 | 25.53 | 0.43 | 0.57 | 0.71 |
| | 9600 | 340.1 | 18.35 | 0.43 | 0.57 | 0.71 | 324.8 | 20.46 | 0.43 | 0.58 | 0.73 | 307.9 | 22.9 | 0.44 | 0.60 | 0.75 | 289.5 | 25.68 | 0.44 | 0.61 | 0.78 |
| | 11520 | 347.1 | 18.45 | 0.44 | 0.61 | 0.77 | 330.9 | 20.58 | 0.45 | 0.62 | 0.79 | 313.4 | 23 | 0.45 | 0.64 | 0.81 | 294.4 | 25.78 | 0.46 | 0.65 | 0.84 |

## BLOWER DATA

**SGC036H BLOWER PERFORMANCE**
**NOTE - Blower Table Includes Resistance For Base Unit With Gas Heat, Wet Indoor Coil And Air Filters In Place.**
**See Blower Motor / Drive Kit Table on page 36 for Motor HP and Drive Kit RPM Ranges Available.**

| 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 | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 567 | 0.34 | 639 | 0.37 | 717 | 0.39 | 793 | 0.42 | 866 | 0.46 | 938 | 0.51 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1000 | 590 | 0.37 | 662 | 0.39 | 738 | 0.42 | 813 | 0.45 | 883 | 0.49 | 951 | 0.53 | 1015 | 0.56 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1100 | 616 | 0.39 | 687 | 0.42 | 761 | 0.44 | 834 | 0.47 | 901 | 0.51 | 966 | 0.55 | 1028 | 0.59 | 1084 | 0.62 | 1134 | 0.65 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1200 | 645 | 0.42 | 715 | 0.45 | 787 | 0.47 | 857 | 0.5 | 922 | 0.54 | 984 | 0.58 | 1043 | 0.62 | 1098 | 0.66 | 1148 | 0.69 | 1196 | 0.73 | 1245 | 0.79 | - - - | - - - | - - - | - - - |
| 1300 | 676 | 0.46 | 745 | 0.48 | 815 | 0.51 | 882 | 0.54 | 944 | 0.58 | 1003 | 0.62 | 1060 | 0.66 | 1113 | 0.7 | 1162 | 0.74 | 1210 | 0.78 | 1260 | 0.84 | 1311 | 0.91 | 1363 | 0.97 |
| 1400 | 710 | 0.49 | 777 | 0.52 | 844 | 0.54 | 909 | 0.58 | 968 | 0.62 | 1025 | 0.66 | 1080 | 0.7 | 1131 | 0.74 | 1179 | 0.79 | 1226 | 0.84 | 1276 | 0.9 | 1327 | 0.97 | 1379 | 1.03 |
| 1500 | 747 | 0.54 | 812 | 0.56 | 876 | 0.59 | 937 | 0.62 | 994 | 0.67 | 1049 | 0.71 | 1101 | 0.75 | 1151 | 0.8 | 1198 | 0.85 | 1244 | 0.9 | 1293 | 0.97 | 1344 | 1.03 | 1396 | 1.1 |
| 1600 | 787 | 0.58 | 848 | 0.61 | 909 | 0.64 | 967 | 0.68 | 1021 | 0.72 | 1074 | 0.77 | 1124 | 0.81 | 1172 | 0.86 | 1217 | 0.92 | 1263 | 0.97 | 1310 | 1.04 | 1361 | 1.1 | 1413 | 1.17 |
| 1700 | 831 | 0.63 | 888 | 0.65 | 943 | 0.69 | 997 | 0.74 | 1049 | 0.79 | 1100 | 0.83 | 1148 | 0.88 | 1194 | 0.93 | 1238 | 0.99 | 1283 | 1.05 | 1329 | 1.11 | 1378 | 1.17 | 1430 | 1.24 |
| 1800 | 875 | 0.68 | 926 | 0.71 | 978 | 0.76 | 1029 | 0.81 | 1078 | 0.86 | 1127 | 0.9 | 1174 | 0.95 | 1218 | 1.01 | 1260 | 1.07 | 1303 | 1.13 | 1348 | 1.19 | 1395 | 1.25 | 1447 | 1.32 |
| 1900 | 916 | 0.74 | 964 | 0.78 | 1012 | 0.83 | 1060 | 0.88 | 1108 | 0.93 | 1155 | 0.98 | 1200 | 1.03 | 1242 | 1.09 | 1283 | 1.15 | 1325 | 1.21 | 1368 | 1.27 | 1415 | 1.33 | 1466 | 1.4 |
| 2000 | 954 | 0.82 | 999 | 0.86 | 1045 | 0.91 | 1092 | 0.96 | 1139 | 1.01 | 1184 | 1.06 | 1226 | 1.12 | 1266 | 1.18 | 1306 | 1.24 | 1347 | 1.3 | 1389 | 1.36 | 1436 | 1.42 | 1486 | 1.49 |
| 2100 | 990 | 0.9 | 1034 | 0.95 | 1080 | 0.99 | 1125 | 1.05 | 1170 | 1.1 | 1212 | 1.15 | 1253 | 1.21 | 1291 | 1.27 | 1330 | 1.33 | 1370 | 1.39 | 1412 | 1.46 | 1458 | 1.52 | 1508 | 1.59 |
| 2200 | 1026 | 0.99 | 1070 | 1.03 | 1114 | 1.08 | 1158 | 1.14 | 1201 | 1.19 | 1241 | 1.25 | 1279 | 1.31 | 1317 | 1.37 | 1354 | 1.43 | 1394 | 1.49 | 1436 | 1.56 | 1482 | 1.62 | 1531 | 1.69 |
| 2300 | 1063 | 1.08 | 1106 | 1.13 | 1149 | 1.18 | 1192 | 1.24 | 1232 | 1.3 | 1270 | 1.36 | 1306 | 1.42 | 1342 | 1.48 | 1380 | 1.54 | 1419 | 1.6 | 1461 | 1.66 | 1507 | 1.73 | 1555 | 1.79 |
| 2400 | 1101 | 1.18 | 1143 | 1.23 | 1184 | 1.28 | 1224 | 1.35 | 1262 | 1.41 | 1298 | 1.48 | 1333 | 1.54 | 1369 | 1.6 | 1406 | 1.65 | 1445 | 1.71 | 1488 | 1.77 | 1533 | 1.83 | 1580 | 1.9 |
| 2500 | 1139 | 1.28 | 1179 | 1.34 | 1219 | 1.4 | 1256 | 1.47 | 1292 | 1.53 | 1327 | 1.6 | 1361 | 1.66 | 1396 | 1.71 | 1433 | 1.77 | 1473 | 1.83 | 1515 | 1.88 | 1559 | 1.94 | 1606 | 2.01 |

## BLOWER DATA

**SGC060H BLOWER PERFORMANCE**

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

**See Blower Motor / Drive Kit Table on page 36 for Motor HP and Drive Kit RPM Ranges Available.**

| 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 | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 567 | 0.34 | 639 | 0.37 | 717 | 0.39 | 793 | 0.42 | 866 | 0.46 | 938 | 0.51 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1000 | 590 | 0.37 | 662 | 0.39 | 738 | 0.42 | 813 | 0.45 | 883 | 0.49 | 951 | 0.53 | 1015 | 0.56 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1100 | 616 | 0.39 | 687 | 0.42 | 761 | 0.44 | 834 | 0.47 | 901 | 0.51 | 966 | 0.55 | 1028 | 0.59 | 1084 | 0.62 | 1134 | 0.65 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 1200 | 645 | 0.42 | 715 | 0.45 | 787 | 0.47 | 857 | 0.5 | 922 | 0.54 | 984 | 0.58 | 1043 | 0.62 | 1098 | 0.66 | 1148 | 0.69 | 1196 | 0.73 | 1245 | 0.79 | - - - | - - - | - - - | - - - |
| 1300 | 676 | 0.46 | 745 | 0.48 | 815 | 0.51 | 882 | 0.54 | 944 | 0.58 | 1003 | 0.62 | 1060 | 0.66 | 1113 | 0.7 | 1162 | 0.74 | 1210 | 0.78 | 1260 | 0.84 | 1311 | 0.91 | 1363 | 0.97 |
| 1400 | 710 | 0.49 | 777 | 0.52 | 844 | 0.54 | 909 | 0.58 | 968 | 0.62 | 1025 | 0.66 | 1080 | 0.7 | 1131 | 0.74 | 1179 | 0.79 | 1226 | 0.84 | 1276 | 0.9 | 1327 | 0.97 | 1379 | 1.03 |
| 1500 | 747 | 0.54 | 812 | 0.56 | 876 | 0.59 | 937 | 0.62 | 994 | 0.67 | 1049 | 0.71 | 1101 | 0.75 | 1151 | 0.8 | 1198 | 0.85 | 1244 | 0.9 | 1293 | 0.97 | 1344 | 1.03 | 1396 | 1.1 |
| 1600 | 787 | 0.58 | 848 | 0.61 | 909 | 0.64 | 967 | 0.68 | 1021 | 0.72 | 1074 | 0.77 | 1124 | 0.81 | 1172 | 0.86 | 1217 | 0.92 | 1263 | 0.97 | 1310 | 1.04 | 1361 | 1.1 | 1413 | 1.17 |
| 1700 | 831 | 0.63 | 888 | 0.65 | 943 | 0.69 | 997 | 0.74 | 1049 | 0.79 | 1100 | 0.83 | 1148 | 0.88 | 1194 | 0.93 | 1238 | 0.99 | 1283 | 1.05 | 1329 | 1.11 | 1378 | 1.17 | **1430** | **1.24** |
| 1800 | 875 | 0.68 | 926 | 0.71 | 978 | 0.76 | 1029 | 0.81 | 1078 | 0.86 | 1127 | 0.9 | 1174 | 0.95 | 1218 | 1.01 | 1260 | 1.07 | 1303 | 1.13 | 1348 | 1.19 | 1395 | 1.25 | **1447** | **1.32** |
| 1900 | 916 | 0.74 | 964 | 0.78 | 1012 | 0.83 | 1060 | 0.88 | 1108 | 0.93 | 1155 | 0.98 | 1200 | 1.03 | 1242 | 1.09 | 1283 | 1.15 | 1325 | 1.21 | 1368 | 1.27 | 1415 | 1.33 | **1466** | **1.4** |
| 2000 | 954 | 0.82 | 999 | 0.86 | 1045 | 0.91 | 1092 | 0.96 | 1139 | 1.01 | 1184 | 1.06 | 1226 | 1.12 | 1266 | 1.18 | 1306 | 1.24 | 1347 | 1.3 | 1389 | 1.36 | **1436** | **1.42** | **1486** | **1.49** |
| 2100 | 990 | 0.9 | 1034 | 0.95 | 1080 | 0.99 | 1125 | 1.05 | 1170 | 1.1 | 1212 | 1.15 | 1253 | 1.21 | 1291 | 1.27 | 1330 | 1.33 | 1370 | 1.39 | 1412 | 1.46 | **1458** | **1.52** | **1508** | **1.59** |
| 2200 | 1026 | 0.99 | 1070 | 1.03 | 1114 | 1.08 | 1158 | 1.14 | 1201 | 1.19 | 1241 | 1.25 | 1279 | 1.31 | 1317 | 1.37 | 1354 | 1.43 | 1394 | 1.49 | **1436** | **1.56** | **1482** | **1.62** | **1531** | **1.69** |
| 2300 | 1063 | 1.08 | 1106 | 1.13 | 1149 | 1.18 | 1192 | 1.24 | 1232 | 1.3 | 1270 | 1.36 | 1306 | 1.42 | 1342 | 1.48 | 1380 | 1.54 | 1419 | 1.6 | **1461** | **1.66** | **1507** | **1.73** | **1555** | **1.79** |
| 2400 | 1101 | 1.18 | 1143 | 1.23 | 1184 | 1.28 | 1224 | 1.35 | 1262 | 1.41 | 1298 | 1.48 | 1333 | 1.54 | 1369 | 1.6 | 1406 | 1.65 | **1445** | **1.71** | **1488** | **1.77** | **1533** | **1.83** | **1580** | **1.9** |
| 2500 | 1139 | 1.28 | 1179 | 1.34 | 1219 | 1.4 | 1256 | 1.47 | 1292 | 1.53 | 1327 | 1.6 | 1361 | 1.66 | 1396 | 1.71 | **1433** | **1.77** | **1473** | **1.83** | **1515** | **1.88** | **1559** | **1.94** | **1606** | **2.01** |

**NOTE - Bold = field furnished.**

## BLOWER DATA

**SGC120H BLOWER PERFORMANCE**
**NOTE - Blower Table Includes Resistance For Base Unit With Gas Heat, Wet Indoor Coil And Air Filters In Place.**
**See Blower Motor / Drive Kit Table on page 36 for Motor HP and Drive Kit RPM Ranges Available.**

| 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 | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2000 | 440 | 0.55 | 479 | 0.62 | 519 | 0.68 | 561 | 0.74 | 604 | 0.78 | 647 | 0.82 | 686 | 0.86 | 720 | 0.91 | 749 | 0.98 | 775 | 1.05 | 802 | 1.13 | 830 | 1.21 | 861 | 1.29 |
| 2200 | 458 | 0.61 | 497 | 0.68 | 538 | 0.75 | 580 | 0.8 | 624 | 0.85 | 666 | 0.89 | 704 | 0.94 | 735 | 1 | 762 | 1.08 | 788 | 1.16 | 815 | 1.24 | 844 | 1.33 | 875 | 1.41 |
| 2400 | 477 | 0.67 | 517 | 0.75 | 559 | 0.82 | 602 | 0.87 | 646 | 0.92 | 686 | 0.97 | 720 | 1.03 | 750 | 1.11 | 776 | 1.19 | 802 | 1.28 | 830 | 1.37 | 860 | 1.45 | 891 | 1.53 |
| 2600 | 497 | 0.74 | 538 | 0.82 | 581 | 0.89 | 626 | 0.95 | 668 | 1 | 706 | 1.06 | 737 | 1.14 | 765 | 1.22 | 791 | 1.32 | 818 | 1.41 | 847 | 1.5 | 876 | 1.59 | 907 | 1.67 |
| 2800 | 519 | 0.82 | 562 | 0.91 | 606 | 0.98 | 651 | 1.04 | 691 | 1.1 | 725 | 1.17 | 754 | 1.26 | 781 | 1.36 | 807 | 1.45 | 835 | 1.55 | 864 | 1.64 | 894 | 1.73 | 925 | 1.81 |
| 3000 | 544 | 0.92 | 588 | 1 | 633 | 1.07 | 676 | 1.14 | 713 | 1.21 | 744 | 1.3 | 772 | 1.4 | 798 | 1.5 | 825 | 1.61 | 853 | 1.7 | 882 | 1.8 | 912 | 1.88 | 943 | 1.97 |
| 3200 | 571 | 1.03 | 617 | 1.11 | 662 | 1.18 | 701 | 1.26 | 734 | 1.35 | 763 | 1.45 | 790 | 1.56 | 816 | 1.66 | 844 | 1.77 | 872 | 1.87 | 901 | 1.96 | 931 | 2.04 | 962 | 2.13 |
| 3400 | 602 | 1.14 | 648 | 1.22 | 690 | 1.3 | 725 | 1.4 | 755 | 1.5 | 783 | 1.62 | 809 | 1.73 | 836 | 1.84 | 864 | 1.94 | 892 | 2.04 | 921 | 2.12 | 951 | 2.21 | 982 | 2.29 |
| 3600 | 634 | 1.26 | 679 | 1.35 | 717 | 1.45 | 748 | 1.56 | 776 | 1.68 | 803 | 1.8 | 829 | 1.91 | 856 | 2.02 | 884 | 2.12 | 913 | 2.21 | 942 | 2.3 | 971 | 2.38 | 1002 | 2.46 |
| 3800 | 668 | 1.4 | 709 | 1.51 | 742 | 1.62 | 771 | 1.75 | 798 | 1.87 | 824 | 1.99 | 851 | 2.11 | 878 | 2.21 | 906 | 2.31 | 934 | 2.4 | 963 | 2.48 | 992 | 2.55 | 1023 | 2.63 |
| 4000 | 701 | 1.57 | 737 | 1.69 | 767 | 1.82 | 794 | 1.95 | 820 | 2.08 | 846 | 2.2 | 873 | 2.31 | 900 | 2.41 | 927 | 2.5 | 955 | 2.58 | 984 | 2.66 | 1014 | 2.73 | 1044 | 2.8 |
| 4200 | 732 | 1.76 | 763 | 1.9 | 791 | 2.04 | 817 | 2.17 | 843 | 2.3 | 869 | 2.41 | 896 | 2.52 | 922 | 2.61 | 949 | 2.69 | 977 | 2.77 | 1006 | 2.84 | 1035 | 2.91 | 1065 | 2.98 |
| 4400 | 761 | 1.99 | 789 | 2.14 | 815 | 2.27 | 841 | 2.4 | 866 | 2.52 | 892 | 2.63 | 919 | 2.73 | 945 | 2.81 | 972 | 2.89 | 999 | 2.96 | 1028 | 3.02 | 1057 | 3.09 | **1087** | **3.16** |
| 4600 | 788 | 2.24 | 814 | 2.38 | 840 | 2.52 | 865 | 2.64 | 890 | 2.76 | 916 | 2.86 | 942 | 2.94 | 968 | 3.01 | 995 | 3.08 | 1022 | 3.14 | 1050 | 3.21 | 1079 | 3.27 | **1109** | **3.34** |
| 4800 | 815 | 2.5 | 840 | 2.64 | 864 | 2.77 | 889 | 2.89 | 915 | 2.99 | 940 | 3.08 | 965 | 3.15 | 991 | 3.21 | 1017 | 3.27 | 1044 | 3.33 | 1072 | 3.39 | **1101** | **3.45** | **1131** | **3.51** |

**NOTE - MSAV® (Multi-Stage Air Volume) Supply Fan Option drive is capable of 350 - 1050 rpm.**
**NOTE - Bold = field furnished.**

## BLOWER DATA

**SGC240H BLOWER PERFORMANCE**

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

**See Blower Motor / Drive Kit Table on page 36 for Motor HP and Drive Kit RPM Ranges Available.**

| 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 | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2000 | 265 | 0.43 | 321 | 0.54 | 378 | 0.64 | 429 | 0.74 | 475 | 0.83 | 515 | 0.91 | 551 | 1.00 | 584 | 1.11 | 616 | 1.23 | 647 | 1.36 | 678 | 1.50 | 709 | 1.66 | 743 | 1.82 |
| 2200 | 270 | 0.46 | 326 | 0.56 | 383 | 0.67 | 434 | 0.77 | 479 | 0.86 | 519 | 0.95 | 554 | 1.04 | 587 | 1.15 | 618 | 1.28 | 649 | 1.41 | 680 | 1.56 | 712 | 1.72 | 746 | 1.88 |
| 2400 | 276 | 0.48 | 332 | 0.59 | 389 | 0.70 | 439 | 0.81 | 483 | 0.90 | 523 | 0.99 | 558 | 1.09 | 590 | 1.20 | 621 | 1.33 | 652 | 1.47 | 682 | 1.62 | 715 | 1.78 | 749 | 1.95 |
| 2600 | 282 | 0.51 | 339 | 0.62 | 395 | 0.74 | 444 | 0.85 | 488 | 0.94 | 527 | 1.03 | 561 | 1.14 | 593 | 1.26 | 624 | 1.39 | 654 | 1.53 | 685 | 1.69 | 718 | 1.85 | 752 | 2.01 |
| 2800 | 289 | 0.54 | 346 | 0.65 | 401 | 0.77 | 450 | 0.89 | 492 | 0.99 | 531 | 1.08 | 565 | 1.19 | 596 | 1.31 | 627 | 1.45 | 657 | 1.60 | 688 | 1.75 | 721 | 1.92 | 756 | 2.09 |
| 3000 | 296 | 0.58 | 354 | 0.69 | 408 | 0.82 | 455 | 0.94 | 497 | 1.04 | 535 | 1.13 | 569 | 1.25 | 600 | 1.37 | 631 | 1.52 | 661 | 1.67 | 691 | 1.82 | 724 | 1.99 | 760 | 2.16 |
| 3200 | 304 | 0.61 | 362 | 0.73 | 415 | 0.86 | 461 | 0.99 | 503 | 1.09 | 540 | 1.19 | 573 | 1.31 | 604 | 1.44 | 634 | 1.59 | 665 | 1.74 | 695 | 1.90 | 728 | 2.07 | 764 | 2.24 |
| 3400 | 313 | 0.65 | 370 | 0.77 | 423 | 0.91 | 468 | 1.04 | 508 | 1.14 | 544 | 1.24 | 577 | 1.37 | 608 | 1.51 | 639 | 1.66 | 669 | 1.82 | 699 | 1.98 | 733 | 2.15 | 768 | 2.32 |
| 3600 | 322 | 0.69 | 379 | 0.82 | 430 | 0.97 | 474 | 1.10 | 514 | 1.20 | 550 | 1.31 | 582 | 1.44 | 613 | 1.58 | 643 | 1.74 | 673 | 1.90 | 704 | 2.06 | 738 | 2.23 | 773 | 2.40 |
| 3800 | 331 | 0.74 | 389 | 0.87 | 438 | 1.02 | 481 | 1.16 | 520 | 1.26 | 555 | 1.37 | 587 | 1.51 | 618 | 1.66 | 648 | 1.82 | 678 | 1.98 | 710 | 2.15 | 743 | 2.32 | 778 | 2.49 |
| 4000 | 342 | 0.79 | 398 | 0.92 | 446 | 1.08 | 488 | 1.22 | 526 | 1.32 | 560 | 1.44 | 592 | 1.59 | 623 | 1.75 | 653 | 1.91 | 684 | 2.07 | 715 | 2.24 | 748 | 2.41 | 783 | 2.58 |
| 4200 | 353 | 0.84 | 408 | 0.98 | 455 | 1.15 | 495 | 1.28 | 532 | 1.39 | 566 | 1.52 | 598 | 1.67 | 629 | 1.83 | 659 | 2.00 | 689 | 2.17 | 721 | 2.34 | 754 | 2.51 | 789 | 2.68 |
| 4400 | 364 | 0.90 | 418 | 1.04 | 463 | 1.21 | 503 | 1.35 | 539 | 1.47 | 572 | 1.60 | 604 | 1.76 | 634 | 1.93 | 665 | 2.10 | 695 | 2.27 | 727 | 2.44 | 761 | 2.61 | 796 | 2.79 |
| 4600 | 376 | 0.96 | 428 | 1.11 | 472 | 1.28 | 510 | 1.42 | 546 | 1.54 | 579 | 1.69 | 610 | 1.85 | 641 | 2.03 | 671 | 2.20 | 701 | 2.37 | 733 | 2.54 | 767 | 2.72 | 802 | 2.90 |
| 4800 | 388 | 1.02 | 438 | 1.17 | 480 | 1.34 | 518 | 1.49 | 553 | 1.63 | 585 | 1.78 | 616 | 1.95 | 647 | 2.13 | 677 | 2.30 | 708 | 2.48 | 740 | 2.65 | 774 | 2.83 | 809 | 3.01 |
| 5000 | 400 | 1.08 | 448 | 1.24 | 489 | 1.41 | 526 | 1.57 | 560 | 1.71 | 592 | 1.87 | 623 | 2.05 | 653 | 2.23 | 683 | 2.41 | 714 | 2.59 | 747 | 2.77 | 781 | 2.95 | 816 | 3.14 |
| 5200 | 412 | 1.15 | 458 | 1.32 | 498 | 1.49 | 534 | 1.65 | 567 | 1.81 | 599 | 1.98 | 630 | 2.16 | 660 | 2.35 | 690 | 2.52 | 721 | 2.70 | 754 | 2.88 | 789 | 3.07 | 824 | 3.26 |
| 5400 | 424 | 1.22 | 468 | 1.39 | 507 | 1.57 | 542 | 1.74 | 575 | 1.91 | 606 | 2.08 | 637 | 2.27 | 667 | 2.46 | 697 | 2.64 | 728 | 2.82 | 761 | 3.01 | 796 | 3.20 | 832 | 3.39 |
| 5600 | 436 | 1.30 | 478 | 1.48 | 516 | 1.66 | 551 | 1.83 | 583 | 2.01 | 614 | 2.20 | 644 | 2.39 | 674 | 2.58 | 705 | 2.76 | 736 | 2.95 | 769 | 3.13 | 804 | 3.33 | 839 | 3.52 |
| 5800 | 447 | 1.39 | 489 | 1.57 | 525 | 1.76 | 559 | 1.94 | 591 | 2.13 | 622 | 2.32 | 652 | 2.52 | 682 | 2.71 | 712 | 2.89 | 744 | 3.07 | 777 | 3.26 | 812 | 3.45 | 847 | 3.65 |
| 6000 | 459 | 1.48 | 499 | 1.67 | 535 | 1.86 | 568 | 2.05 | 599 | 2.25 | 630 | 2.45 | 660 | 2.65 | 690 | 2.84 | 720 | 3.02 | 752 | 3.20 | 785 | 3.39 | 819 | 3.58 | 855 | 3.77 |
| 6200 | 471 | 1.58 | 509 | 1.78 | 544 | 1.98 | 577 | 2.17 | 608 | 2.38 | 638 | 2.58 | 668 | 2.78 | 698 | 2.97 | 728 | 3.15 | 760 | 3.33 | 793 | 3.52 | 828 | 3.71 | 863 | 3.90 |
| 6400 | 482 | 1.69 | 520 | 1.89 | 554 | 2.10 | 586 | 2.30 | 616 | 2.51 | 646 | 2.72 | 676 | 2.92 | 706 | 3.11 | 736 | 3.29 | 768 | 3.47 | 801 | 3.65 | 836 | 3.84 | 871 | 4.03 |
| 6600 | 494 | 1.80 | 530 | 2.01 | 563 | 2.23 | 595 | 2.44 | 625 | 2.65 | 655 | 2.86 | 685 | 3.06 | 714 | 3.25 | 745 | 3.43 | 777 | 3.61 | 810 | 3.79 | 844 | 3.97 | 879 | 4.16 |
| 6800 | 505 | 1.93 | 541 | 2.14 | 573 | 2.36 | 604 | 2.58 | 634 | 2.80 | 664 | 3.01 | 693 | 3.21 | 723 | 3.40 | 753 | 3.57 | 785 | 3.75 | 818 | 3.92 | 853 | 4.11 | 888 | 4.29 |
| 7000 | 517 | 2.06 | 551 | 2.28 | 583 | 2.50 | 614 | 2.73 | 644 | 2.95 | 673 | 3.17 | 702 | 3.36 | 732 | 3.54 | 762 | 3.72 | 794 | 3.89 | 827 | 4.06 | 861 | 4.24 | 896 | 4.42 |
| 7200 | 528 | 2.20 | 562 | 2.42 | 593 | 2.66 | 623 | 2.89 | 653 | 3.11 | 682 | 3.32 | 711 | 3.52 | 741 | 3.69 | 771 | 3.86 | 803 | 4.03 | 836 | 4.20 | 870 | 4.38 | 905 | 4.56 |
| 7400 | 540 | 2.34 | 573 | 2.58 | 603 | 2.82 | 633 | 3.05 | 662 | 3.28 | 691 | 3.48 | 720 | 3.67 | 750 | 3.84 | 780 | 4.01 | 812 | 4.18 | 845 | 4.35 | 879 | 4.52 | 914 | 4.70 |
| 7600 | 551 | 2.50 | 583 | 2.74 | 613 | 2.98 | 643 | 3.22 | 672 | 3.44 | 701 | 3.65 | 730 | 3.83 | 759 | 4.00 | 790 | 4.16 | 821 | 4.32 | 854 | 4.49 | 888 | 4.66 | 922 | 4.84 |
| 7800 | 563 | 2.66 | 594 | 2.91 | 624 | 3.16 | 653 | 3.39 | 682 | 3.61 | 710 | 3.81 | 739 | 3.99 | 769 | 4.15 | 799 | 4.31 | 830 | 4.47 | 863 | 4.64 | 897 | 4.80 | 931 | 4.97 |
| 8000 | 574 | 2.83 | 605 | 3.09 | 634 | 3.34 | 663 | 3.57 | 691 | 3.79 | 720 | 3.98 | 749 | 4.15 | 778 | 4.31 | 808 | 4.47 | 840 | 4.62 | 872 | 4.78 | 906 | 4.95 | 940 | 5.12 |
| 8200 | 586 | 3.01 | 616 | 3.27 | 645 | 3.52 | 673 | 3.75 | 701 | 3.96 | 730 | 4.15 | 758 | 4.31 | 788 | 4.47 | 818 | 4.62 | 849 | 4.77 | 882 | 4.93 | 915 | 5.09 | 950 | 5.26 |
| 8400 | 598 | 3.20 | 627 | 3.46 | 655 | 3.71 | 683 | 3.94 | 711 | 4.14 | 740 | 4.32 | 768 | 4.48 | 798 | 4.63 | 828 | 4.78 | 859 | 4.93 | 891 | 5.08 | 925 | 5.24 | 959 | 5.40 |
| 8600 | 609 | 3.40 | 638 | 3.66 | 666 | 3.91 | 694 | 4.13 | 722 | 4.32 | 750 | 4.49 | 778 | 4.64 | 807 | 4.79 | 837 | 4.93 | 869 | 5.08 | 901 | 5.23 | 934 | 5.38 | 968 | 5.54 |
| 8800 | 621 | 3.60 | 649 | 3.86 | 677 | 4.10 | 704 | 4.31 | 732 | 4.50 | 760 | 4.66 | 788 | 4.81 | 817 | 4.95 | 847 | 5.09 | 878 | 5.23 | 910 | 5.38 | 944 | 5.53 | 977 | 5.69 |
| 9000 | 632 | 3.81 | 660 | 4.07 | 687 | 4.30 | 715 | 4.50 | 742 | 4.68 | 770 | 4.83 | 798 | 4.97 | 827 | 5.11 | 857 | 5.25 | 888 | 5.39 | 920 | 5.53 | 953 | 5.68 | 987 | 5.83 |
| 9200 | 644 | 4.02 | 671 | 4.28 | 698 | 4.50 | 725 | 4.69 | 753 | 4.85 | 780 | 5.00 | 809 | 5.14 | 837 | 5.27 | 867 | 5.41 | 898 | 5.54 | 930 | 5.68 | 963 | 5.83 | 996 | 5.98 |
| 9400 | 655 | 4.24 | 682 | 4.49 | 709 | 4.70 | 736 | 4.88 | 763 | 5.03 | 791 | 5.17 | 819 | 5.31 | 848 | 5.44 | 877 | 5.57 | 908 | 5.70 | 940 | 5.84 | 973 | 5.98 | 1006 | 6.13 |
| 9600 | 667 | 4.47 | 693 | 4.70 | 720 | 4.90 | 747 | 5.06 | 774 | 5.21 | 801 | 5.35 | 829 | 5.47 | 858 | 5.60 | 888 | 5.73 | 918 | 5.86 | 950 | 5.99 | 982 | 6.13 | 1016 | 6.27 |

## BLOWER DATA

**SGC288H BLOWER PERFORMANCE**

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

**See Blower Motor / Drive Kit Table on page 36 for Motor HP and Drive Kit RPM Ranges Available.**

| 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 | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 2400 | 294 | 0.31 | 335 | 0.49 | 378 | 0.65 | 421 | 0.79 | 466 | 0.89 | 511 | 0.98 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 2600 | 298 | 0.34 | 338 | 0.52 | 382 | 0.69 | 425 | 0.83 | 470 | 0.93 | 516 | 1.02 | 561 | 1.13 | 602 | 1.25 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 2800 | 302 | 0.37 | 342 | 0.55 | 386 | 0.72 | 430 | 0.87 | 475 | 0.97 | 520 | 1.07 | 565 | 1.17 | 606 | 1.30 | 643 | 1.43 | - - - | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| 3000 | 306 | 0.41 | 347 | 0.59 | 390 | 0.76 | 434 | 0.91 | 479 | 1.02 | 525 | 1.11 | 570 | 1.22 | 610 | 1.35 | 646 | 1.48 | 678 | 1.62 | - - - | - - - | - - - | - - - | - - - | - - - |
| 3200 | 311 | 0.45 | 352 | 0.63 | 395 | 0.80 | 439 | 0.96 | 485 | 1.07 | 530 | 1.16 | 574 | 1.27 | 614 | 1.40 | 649 | 1.54 | 681 | 1.68 | 709 | 1.81 | 737 | 1.93 | - - - | - - - |
| 3400 | 316 | 0.49 | 357 | 0.67 | 400 | 0.85 | 444 | 1.00 | 490 | 1.11 | 535 | 1.21 | 579 | 1.32 | 618 | 1.45 | 653 | 1.59 | 684 | 1.74 | 712 | 1.87 | 740 | 2.00 | 768 | 2.11 |
| 3600 | 322 | 0.53 | 362 | 0.72 | 406 | 0.90 | 450 | 1.05 | 495 | 1.17 | 541 | 1.26 | 584 | 1.37 | 622 | 1.51 | 657 | 1.65 | 687 | 1.8 | 715 | 1.94 | 743 | 2.07 | 771 | 2.19 |
| 3800 | 328 | 0.58 | 369 | 0.77 | 412 | 0.95 | 456 | 1.11 | 501 | 1.22 | 546 | 1.32 | 589 | 1.43 | 627 | 1.57 | 661 | 1.72 | 691 | 1.87 | 718 | 2.01 | 746 | 2.14 | 774 | 2.27 |
| 4000 | 334 | 0.63 | 375 | 0.82 | 418 | 1.01 | 462 | 1.16 | 508 | 1.28 | 552 | 1.37 | 594 | 1.49 | 632 | 1.63 | 665 | 1.79 | 694 | 1.94 | 722 | 2.09 | 750 | 2.22 | 777 | 2.35 |
| 4200 | 341 | 0.68 | 382 | 0.88 | 425 | 1.07 | 469 | 1.23 | 514 | 1.34 | 558 | 1.44 | 600 | 1.55 | 636 | 1.70 | 669 | 1.86 | 698 | 2.02 | 725 | 2.17 | 753 | 2.31 | 781 | 2.44 |
| 4400 | 348 | 0.74 | 389 | 0.94 | 432 | 1.13 | 475 | 1.29 | 521 | 1.40 | 565 | 1.50 | 606 | 1.62 | 641 | 1.77 | 673 | 1.94 | 702 | 2.10 | 729 | 2.25 | 757 | 2.39 | 784 | 2.54 |
| 4600 | 356 | 0.80 | 397 | 1.00 | 439 | 1.19 | 483 | 1.36 | 528 | 1.47 | 571 | 1.57 | 611 | 1.69 | 647 | 1.85 | 678 | 2.02 | 706 | 2.19 | 733 | 2.34 | 760 | 2.49 | 787 | 2.64 |
| 4800 | 363 | 0.86 | 405 | 1.07 | 447 | 1.27 | 490 | 1.43 | 535 | 1.54 | 578 | 1.64 | 617 | 1.77 | 652 | 1.93 | 682 | 2.11 | 710 | 2.28 | 737 | 2.43 | 764 | 2.58 | 791 | 2.74 |
| 5000 | 372 | 0.93 | 413 | 1.14 | 455 | 1.34 | 498 | 1.50 | 542 | 1.61 | 585 | 1.71 | 623 | 1.84 | 657 | 2.02 | 687 | 2.20 | 715 | 2.38 | 741 | 2.53 | 768 | 2.69 | 795 | 2.85 |
| 5200 | 380 | 1.01 | 421 | 1.22 | 463 | 1.41 | 506 | 1.57 | 550 | 1.69 | 592 | 1.79 | 630 | 1.93 | 663 | 2.11 | 692 | 2.30 | 719 | 2.48 | 746 | 2.64 | 773 | 2.79 | 799 | 2.96 |
| 5400 | 389 | 1.09 | 430 | 1.3 | 472 | 1.49 | 515 | 1.65 | 558 | 1.76 | 599 | 1.87 | 636 | 2.02 | 668 | 2.21 | 697 | 2.41 | 724 | 2.58 | 750 | 2.75 | 777 | 2.91 | 803 | 3.08 |
| 5600 | 399 | 1.17 | 440 | 1.37 | 481 | 1.56 | 524 | 1.72 | 567 | 1.83 | 607 | 1.95 | 643 | 2.11 | 674 | 2.31 | 702 | 2.52 | 729 | 2.70 | 755 | 2.86 | 782 | 3.03 | 808 | 3.20 |
| 5800 | 409 | 1.25 | 450 | 1.45 | 491 | 1.64 | 533 | 1.79 | 576 | 1.91 | 615 | 2.04 | 649 | 2.21 | 679 | 2.42 | 707 | 2.63 | 734 | 2.81 | 760 | 2.98 | 787 | 3.15 | 812 | 3.33 |
| 6000 | 419 | 1.33 | 460 | 1.53 | 502 | 1.71 | 543 | 1.86 | 585 | 1.99 | 623 | 2.13 | 656 | 2.32 | 685 | 2.54 | 713 | 2.75 | 739 | 2.93 | 765 | 3.10 | 792 | 3.28 | 817 | 3.46 |
| 6200 | 430 | 1.41 | 471 | 1.60 | 512 | 1.78 | 553 | 1.94 | 594 | 2.07 | 630 | 2.23 | 662 | 2.43 | 691 | 2.66 | 718 | 2.87 | 745 | 3.05 | 771 | 3.23 | 797 | 3.41 | 822 | 3.60 |
| 6400 | 442 | 1.49 | 482 | 1.68 | 523 | 1.86 | 563 | 2.01 | 603 | 2.16 | 638 | 2.33 | 668 | 2.55 | 696 | 2.78 | 724 | 2.99 | 750 | 3.18 | 776 | 3.36 | 802 | 3.55 | 827 | 3.74 |
| 6600 | 454 | 1.58 | 494 | 1.76 | 533 | 1.93 | 573 | 2.10 | 612 | 2.26 | 645 | 2.45 | 675 | 2.67 | 702 | 2.90 | 730 | 3.12 | 756 | 3.31 | 782 | 3.50 | 808 | 3.69 | 832 | 3.89 |
| 6800 | 466 | 1.66 | 505 | 1.84 | 544 | 2.01 | 583 | 2.19 | 620 | 2.36 | 653 | 2.57 | 681 | 2.80 | 709 | 3.03 | 736 | 3.25 | 762 | 3.44 | 788 | 3.64 | 813 | 3.84 | 837 | 4.04 |
| 7000 | 478 | 1.75 | 517 | 1.92 | 555 | 2.10 | 593 | 2.28 | 629 | 2.48 | 660 | 2.70 | 688 | 2.93 | 715 | 3.16 | 742 | 3.38 | 768 | 3.58 | 794 | 3.79 | 819 | 4.00 | 842 | 4.20 |
| 7200 | 490 | 1.84 | 528 | 2.01 | 565 | 2.20 | 603 | 2.39 | 637 | 2.60 | 667 | 2.84 | 695 | 3.07 | 721 | 3.30 | 748 | 3.52 | 775 | 3.73 | 800 | 3.94 | 825 | 4.16 | 848 | 4.36 |
| 7400 | 502 | 1.94 | 539 | 2.12 | 576 | 2.30 | 612 | 2.51 | 645 | 2.74 | 674 | 2.98 | 701 | 3.22 | 728 | 3.44 | 755 | 3.66 | 781 | 3.88 | 807 | 4.11 | 831 | 4.32 | 853 | 4.53 |
| 7600 | 514 | 2.06 | 550 | 2.23 | 586 | 2.42 | 621 | 2.64 | 654 | 2.88 | 682 | 3.13 | 709 | 3.37 | 736 | 3.59 | 762 | 3.82 | 788 | 4.05 | 813 | 4.27 | 837 | 4.50 | 859 | 4.71 |
| 7800 | 525 | 2.17 | 561 | 2.35 | 596 | 2.55 | 631 | 2.78 | 662 | 3.03 | 690 | 3.28 | 716 | 3.52 | 743 | 3.75 | 769 | 3.98 | 795 | 4.22 | 820 | 4.45 | 843 | 4.68 | 865 | 4.89 |
| 8000 | 537 | 2.27 | 572 | 2.46 | 606 | 2.68 | 640 | 2.92 | 670 | 3.19 | 697 | 3.45 | 724 | 3.69 | 751 | 3.92 | 777 | 4.15 | 802 | 4.39 | 826 | 4.64 | 849 | 4.87 | 871 | 5.09 |
| 8200 | 549 | 2.38 | 583 | 2.59 | 617 | 2.82 | 649 | 3.08 | 678 | 3.36 | 706 | 3.62 | 732 | 3.86 | 758 | 4.09 | 784 | 4.33 | 809 | 4.58 | 833 | 4.83 | 856 | 5.07 | 877 | 5.30 |
| 8400 | 561 | 2.49 | 594 | 2.72 | 627 | 2.97 | 658 | 3.25 | 687 | 3.53 | 714 | 3.79 | 740 | 4.03 | 766 | 4.27 | 792 | 4.52 | 817 | 4.77 | 840 | 5.03 | 862 | 5.28 | 884 | 5.51 |
| 8600 | 573 | 2.61 | 605 | 2.87 | 637 | 3.14 | 667 | 3.43 | 696 | 3.71 | 722 | 3.98 | 748 | 4.22 | 774 | 4.46 | 800 | 4.71 | 824 | 4.98 | 847 | 5.25 | 869 | 5.50 | 890 | 5.73 |
| 8800 | 584 | 2.75 | 616 | 3.03 | 647 | 3.31 | 676 | 3.61 | 704 | 3.9 | 731 | 4.16 | 757 | 4.41 | 783 | 4.65 | 808 | 4.91 | 831 | 5.19 | 854 | 5.47 | 876 | 5.73 | 897 | 5.96 |
| 9000 | 596 | 2.91 | 626 | 3.20 | 656 | 3.50 | 686 | 3.80 | 713 | 4.09 | 739 | 4.35 | 765 | 4.60 | 791 | 4.86 | 816 | 5.12 | 839 | 5.41 | 862 | 5.70 | 883 | 5.96 | 904 | 6.20 |
| 9200 | 607 | 3.08 | 636 | 3.38 | 666 | 3.69 | 695 | 3.99 | 722 | 4.28 | 748 | 4.55 | 774 | 4.80 | 799 | 5.07 | 824 | 5.35 | 847 | 5.64 | 869 | 5.93 | 890 | 6.20 | 911 | 6.43 |
| 9400 | 617 | 3.27 | 647 | 3.58 | 676 | 3.89 | 704 | 4.19 | 731 | 4.48 | 757 | 4.75 | 783 | 5.01 | 808 | 5.28 | 832 | 5.58 | 855 | 5.88 | 877 | 6.18 | 898 | 6.44 | 919 | 6.67 |
| 9600 | 628 | 3.46 | 657 | 3.78 | 685 | 4.09 | 713 | 4.39 | 740 | 4.67 | 766 | 4.95 | 792 | 5.23 | 816 | 5.51 | 840 | 5.82 | 863 | 6.13 | 884 | 6.42 | 906 | 6.69 | 926 | 6.92 |
| 9800 | 638 | 3.67 | 667 | 3.99 | 695 | 4.29 | 723 | 4.59 | 749 | 4.88 | 775 | 5.16 | 801 | 5.45 | 825 | 5.75 | 849 | 6.07 | 871 | 6.38 | 893 | 6.68 | 914 | 6.94 | 934 | 7.17 |
| 10,000 | 648 | 3.88 | 677 | 4.19 | 705 | 4.50 | 732 | 4.79 | 759 | 5.09 | 785 | 5.39 | 810 | 5.69 | 834 | 6.01 | 857 | 6.33 | 880 | 6.64 | 901 | 6.94 | 922 | 7.20 | 942 | 7.42 |
| 10,200 | 659 | 4.10 | 687 | 4.41 | 715 | 4.71 | 742 | 5.01 | 769 | 5.32 | 794 | 5.63 | 819 | 5.95 | 843 | 6.28 | 866 | 6.60 | 888 | 6.91 | 909 | 7.21 | 930 | 7.46 | 951 | 7.68 |
| 10,400 | 669 | 4.32 | 697 | 4.62 | 725 | 4.93 | 752 | 5.24 | 779 | 5.56 | 804 | 5.88 | 829 | 6.22 | 853 | 6.55 | 876 | 6.88 | 897 | 7.19 | 918 | 7.48 | 939 | 7.73 | 959 | 7.94 |
| 10,600 | 680 | 4.54 | 708 | 4.85 | 736 | 5.16 | 763 | 5.48 | 789 | 5.81 | 814 | 6.15 | 839 | 6.50 | 862 | 6.84 | 885 | 7.17 | 906 | 7.48 | 927 | 7.76 | 948 | 8.00 | 968 | 8.21 |
| 10,800 | 691 | 4.76 | 719 | 5.08 | 746 | 5.40 | 773 | 5.74 | 799 | 6.08 | 824 | 6.44 | 849 | 6.80 | 872 | 7.14 | 894 | 7.47 | 916 | 7.77 | 936 | 8.05 | 957 | 8.28 | 977 | 8.49 |
| 11,000 | 702 | 4.99 | 730 | 5.32 | 757 | 5.66 | 784 | 6.01 | 810 | 6.37 | 835 | 6.74 | 859 | 7.11 | 882 | 7.45 | 904 | 7.78 | 925 | 8.08 | 946 | 8.34 | 966 | 8.57 | 986 | 8.77 |
| 11,200 | 713 | 5.24 | 741 | 5.58 | 768 | 5.93 | 795 | 6.29 | 821 | 6.67 | 846 | 7.05 | 870 | 7.43 | 892 | 7.77 | 914 | 8.09 | 935 | 8.38 | 955 | 8.64 | 975 | 8.86 | 996 | 9.06 |
| 11,400 | 725 | 5.49 | 753 | 5.84 | 780 | 6.21 | 806 | 6.60 | 832 | 6.99 | 857 | 7.38 | 880 | 7.76 | 903 | 8.10 | 924 | 8.41 | 945 | 8.70 | 965 | 8.94 | 985 | 9.16 | 1005 | 9.35 |
| 11,600 | 737 | 5.76 | 764 | 6.13 | 791 | 6.52 | 818 | 6.92 | 843 | 7.33 | 868 | 7.72 | 891 | 8.10 | 913 | 8.44 | 934 | 8.74 | 955 | 9.02 | 975 | 9.25 | 995 | 9.46 | 1014 | 9.64 |

## BLOWER DATA

### CONSTANT AIR VOLUME DRIVE KIT SPECIFICATIONS

| Model No. | Nominal hp | Maximum hp | Drive Kit Number | RPM Range |
|---|---|---|---|---|
| 036 | 1.5 | 1.7 | #6<br>#3 | 595 - 890<br>960 - 1320 |
| 060 | 1.5 | 1.7 | #1<br>#4 | 765 - 1075<br>1070 - 1430 |

### MSAV® (MULTI-STAGE AIR VOLUME) DRIVE KIT SPECIFICATIONS

| Model No. | Nominal / Maximum hp | Drive Kit Number | RPM Range |
|---|---|---|---|
| 120 | 3 | #3<br>#4 | 660 - 900<br>865 - 1080 |
| 240/288 | 5 | #4<br>#5 | 520 - 685<br>685 - 865 |
| | 7.5 | #7 | 770 - 965 |

### POWER EXHAUST FANS STANDARD STATIC PERFORMANCE

| SGC120H | | SGC240H | | SGC288H | |
|---|---|---|---|---|---|
| Return Air System Static Pressure | Air Volume Exhausted | Return Air System Static Pressure | Air Volume Exhausted | Return Air System Static Pressure | Air Volume Exhausted |
| in. w.g. | cfm | in. w.g. | cfm | in. w.g. | cfm |
| 0.05 | 4085 | 0 | 10,200 | 0 | 12,800 |
| 0.10 | 3685 | 0.05 | 9700 | 0.05 | 12,200 |
| 0.15 | 3280 | 0.10 | 9200 | 0.10 | 11,500 |
| 0.20 | 2880 | 0.15 | 8600 | 0.15 | 10,800 |
| 0.25 | 2475 | 0.20 | 8100 | 0.20 | 9900 |
| - - - | - - - | 0.25 | 7600 | 0.25 | 9000 |
| - - - | - - - | 0.30 | 6900 | 0.30 | 7900 |
| - - - | - - - | 0.35 | 6000 | 0.35 | 6750 |
| - - - | - - - | 0.40 | 5000 | 0.40 | 5450 |
| - - - | - - - | 0.45 | 4150 | 0.45 | 4150 |
| - - - | - - - | - - - | - - - | 0.50 | 2900 |

## ELECTRICAL DATA — 3 - 5 TON

| | Model No. | SGC036H4 | | | SGC060H4 | | |
|---|---|---|---|---|---|---|---|
| [1] **Voltage - 60hz** | | **208/230V-3 Ph** | **460V-3 Ph** | **575V-3 Ph** | **208/230V-3 Ph** | **460V-3 Ph** | **575V-3 Ph** |
| Compressor | Rated Load Amps | 9 | 5.6 | 3.8 | 16 | 7.8 | 5.7 |
| | Locked Rotor Amps | 71 | 38 | 36.5 | 110 | 52 | 38.9 |
| Outdoor Fan Motor(s) | Full Load Amps (total) | (1) 0.9 | (1) 0.6 | (1) 0.5 | (2) 0.9 (1.8) | (2) 0.6 (1.2) | (2) 0.5 (1) |
| Service Outlet 115V GFI (Amps) | | 20 | 20 | 20 | 20 | 20 | 20 |
| Indoor Blower Motor | Horsepower | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| | Full Load Amps | 5.7 | 2.8 | 2.4 | 5.7 | 2.8 | 2.4 |
| [2] Maximum Overcurrent Protection | Unit Only | 25 | 15 | 15 | 40 | 20 | 15 |
| [3] Minimum Circuit Ampacity | Unit Only | 18 | 11 | 8 | 28 | 14 | 11 |

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

## ELECTRICAL DATA — 10 TON

| | Model No. | SGC120H4 | | |
|---|---|---|---|---|
| [1] **Voltage - 60hz** | | **208/230V-3 Ph** | **460V-3 Ph** | **575V-3 Ph** |
| Compressor 1 | Rated Load Amps | 16 | 7.8 | 5.7 |
| | Locked Rotor Amps | 110 | 52 | 38.9 |
| Compressor 2 | Rated Load Amps | 16 | 7.8 | 5.7 |
| | Locked Rotor Amps | 110 | 52 | 38.9 |
| Outdoor Fan Motors (3) | Full Load Amps (total) | 2.4 (7.2) | 1.3 (3.9) | 1 (3) |
| Power Exhaust (1) 0.5 HP | Full Load Amps | 3 | 1.5 | 1.2 |
| Service Outlet 115V GFI (Amps) | | 20 | 20 | 20 |
| Indoor Blower Motor | Horsepower | 3 | 3 | 3 |
| | Full Load Amps | 10.6 | 4.8 | 3.9 |
| [2] Maximum Overcurrent Protection | Unit Only | 60 | 30 | 25 |
| | With (1) 0.5 HP Power Exhaust | 70 | 35 | 25 |
| [3] Minimum Circuit Ampacity | Unit Only | 54 | 27 | 20 |
| | With (1) 0.5 HP Power Exhaust | 57 | 28 | 21 |

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

[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 — 20 TON

| | Model No. | SGC240H4 | | | | | |
|---|---|---|---|---|---|---|---|
| [1] Voltage - 60hz | | 208/230V-3 Ph | | 460V-3 Ph | | 575V-3 Ph | |
| Compressor 1 | Rated Load Amps | 16 | | 7.8 | | 5.7 | |
| | Locked Rotor Amps | 110 | | 52 | | 38.9 | |
| Compressor 2 | Rated Load Amps | 16 | | 7.8 | | 5.7 | |
| | Locked Rotor Amps | 110 | | 52 | | 38.9 | |
| Compressor 3 | Rated Load Amps | 16 | | 7.8 | | 5.7 | |
| | Locked Rotor Amps | 110 | | 52 | | 38.9 | |
| Compressor 4 | Rated Load Amps | 16 | | 7.8 | | 5.7 | |
| | Locked Rotor Amps | 110 | | 52 | | 38.9 | |
| Outdoor Fan Motors (6) | Full Load Amps | 2.4 | | 1.3 | | 1 | |
| | (total) | (14.4) | | (7.8) | | (6) | |
| Power Exhaust (3) 0.33 HP | Full Load Amps | 2.4 | | 1.3 | | 1 | |
| | (total) | (7.2) | | (3.9) | | (3) | |
| Service Outlet 115V GFI (Amps) | | 20 | | 20 | | 20 | |
| Indoor Blower Motor | Horsepower | 5 | 7.5 | 5 | 7.5 | 5 | 7.5 |
| | Full Load Amps | 16.7 | 24.2 | 7.6 | 11 | 6.1 | 9 |
| [2] Maximum Overcurrent Protection | Unit Only | 110 | 125 | 50 | 60 | 40 | 45 |
| | With (3) 0.33 HP Power Exhaust | 110 | 125 | 60 | 60 | 45 | 50 |
| [3] Minimum Circuit Ampacity | Unit Only | 100 | 107 | 49 | 52 | 37 | 40 |
| | With (3) 0.33 HP Power Exhaust | 107 | 114 | 53 | 56 | 40 | 43 |

## ELECTRICAL DATA — 24 TON

| | Model No. | SGC288H4 | | | | | |
|---|---|---|---|---|---|---|---|
| [1] Voltage - 60hz | | 208/230V-3 Ph | | 460V-3 Ph | | 575V-3 Ph | |
| Compressor 1 | Rated Load Amps | 22.4 | | 10.6 | | 7.7 | |
| | Locked Rotor Amps | 149 | | 75 | | 54 | |
| Compressor 2 | Rated Load Amps | 22.4 | | 10.6 | | 7.7 | |
| | Locked Rotor Amps | 149 | | 75 | | 54 | |
| Compressor 3 | Rated Load Amps | 22.4 | | 10.6 | | 7.7 | |
| | Locked Rotor Amps | 149 | | 75 | | 54 | |
| Compressor 4 | Rated Load Amps | 22.4 | | 10.6 | | 7.7 | |
| | Locked Rotor Amps | 149 | | 75 | | 54 | |
| Outdoor Fan Motors (6) | Full Load Amps | 2.4 | | 1.3 | | 1 | |
| | (total) | 14.4 | | 7.8 | | . 6 | |
| Power Exhaust (3) 0.33 HP | Full Load Amps | 2.4 | | 1.3 | | 1 | |
| | (total) | 7.2 | | 3.9 | | 3 | |
| Service Outlet 115V GFI (Amps) | | 20 | | 20 | | 20 | |
| Indoor Blower Motor | Horsepower | 5 | 7.5 | 5 | 7.5 | 5 | 7.5 |
| | Full Load Amps | 16.7 | 24.2 | 7.6 | 11 | 6.1 | 9 |
| [2] Maximum Overcurrent Protection | Unit Only | 150 | 150 | 70 | 70 | 50 | 50 |
| | With (3) 0.33 HP Power Exhaust | 150 | 150 | 70 | 70 | 50 | 60 |
| [3] Minimum Circuit Ampacity | Unit Only | 127 | 134 | 61 | 64 | 45 | 48 |
| | With (3) 0.33 HP Power Exhaust | 134 | 141 | 65 | 68 | 48 | 51 |

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

[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.

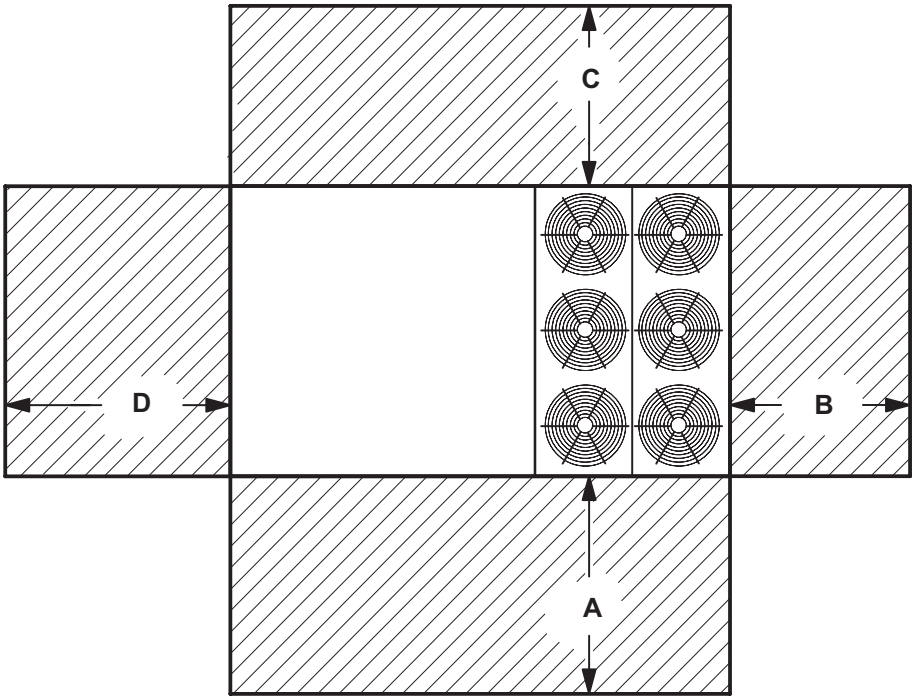
## OUTDOOR SOUND DATA

| Unit Model No. | Octave Band Linear Sound Power Levels dB, re $10^{-12}$ Watts Center Frequency - HZ | | | | | | | [1] Sound Rating Number (SRN) dBA |
|---|---|---|---|---|---|---|---|---|
| | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | |
| 036 | 78 | 75 | 74 | 72 | 68 | 62 | 55 | 76 |
| 060 | 79 | 79 | 76 | 73 | 68 | 63 | 56 | 78 |
| 120 | 91 | 89 | 87 | 83 | 78 | 73 | 68 | 90 |
| 240 | 94 | 91 | 90 | 87 | 83 | 79 | 72 | 92 |
| 288 | 95 | 93 | 92 | 88 | 84 | 81 | 75 | 94 |

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

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

## UNIT CLEARANCES - INCHES (MM)




| [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 |
| | 240/288 | 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

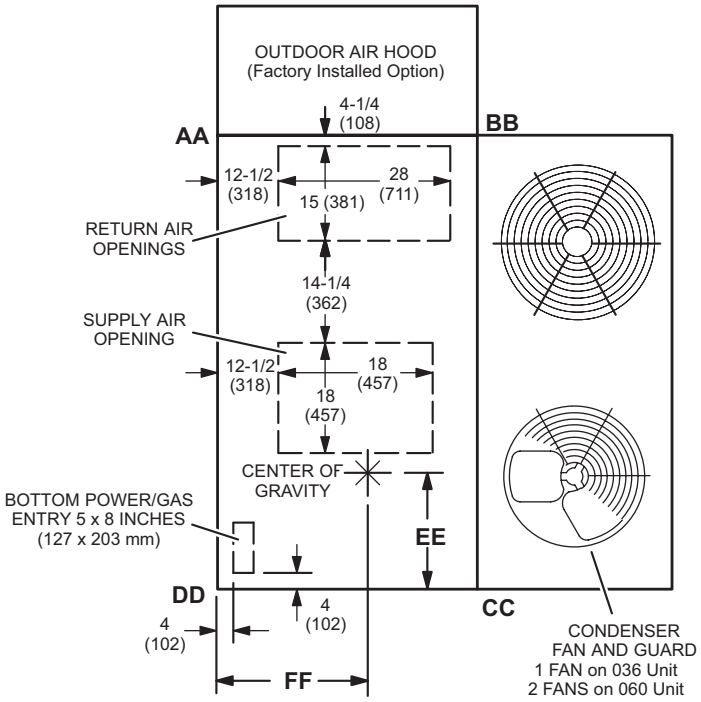
| Model Number | Net | | Shipping | |
|---|---|---|---|---|
| | lbs. | kg | lbs. | kg |
| SGC036 Base Unit | 880 | 399 | 980 | 445 |
| SGC036 Max Unit | 963 | 437 | 1063 | 482 |
| SGC060 Base Unit | 921 | 418 | 1021 | 463 |
| SGC060 Max Unit | 1004 | 455 | 1104 | 501 |
| SGC120 Base Unit | 1547 | 702 | 1647 | 748 |
| SGC120 Max Unit | 1703 | 773 | 1803 | 819 |
| SGC240 Base Unit | 2871 | 1302 | 2971 | 1348 |
| SGC240 Max Unit | 3157 | 1432 | 3257 | 1477 |
| SGC288 Base Unit | 2971 | 1348 | 3071 | 1393 |
| SGC288 Max Unit | 3257 | 1477 | 3357 | 1523 |

## OPTIONS / ACCESSORIES

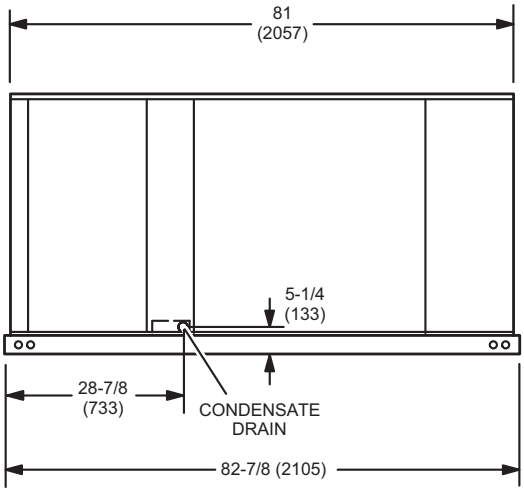
| Description | | Shipping Weight | |
|---|---|---|---|
| | | lbs. | kg |
| **ECONOMIZER / OUTDOOR AIR / EXHAUST** | | | |
| **Economizer** | 036 or 060 | 50 | 23 |
| | 120 | 70 | 32 |
| | 240 and 288 | 138 | 63 |
| **Outdoor Air Dampers** | 036 or 060 | 24 | 11 |
| | 120 | 26 | 12 |
| | 240 and 288 | 68 | 31 |
| **Power Exhaust** | 120 | 28 | 13 |
| | 240 and 288 | 99 | 45 |
| **Heat Exchanger** | 036 High Heat (1 Stage) | 55 | 25 |
| | 060 High Heat (2 Stage) | 75 | 34 |
| | 120 Standard Heat (2 Stage) | 75 | 34 |
| | 120 Medium Heat (2 Stage) | 84 | 38 |
| | 120 High Heat (2 Stage) | 107 | 49 |
| | 240 and 288 (x 2) Standard Heat (2 Stage) | 150 | 68 |
| | 240 and 288 (x 2) Medium Heat (2 Stage) | 188 | 85 |
| | 240 and 288 (x 2) High Heat (2 Stage) | 214 | 97 |
| **PACKAGING** | | | |
| LTL Packaging (less than truck load) | 036 or 060 | 90 | 41 |
| | 120 | 105 | 48 |
| | 240 and 288 | 300 | 136 |
| **ROOF CURBS** | | | |
| **Hybrid Roof Curbs, Downflow 14 in. height** | 036 or 060 | 70 | 32 |
| | 120 | 80 | 36 |
| | 240 and 288 | 115 | 52 |
| **Hybrid Roof Curbs, Downflow 24 in. height** | 036 or 060 | 105 | 48 |
| | 120 | 120 | 54 |
| | 240 and 288 | 170 | 77 |

| CORNER WEIGHTS | | | | | | | | | CENTER OF GRAVITY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model No. | AA | | BB | | CC | | DD | | EE | | FF | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| SGC036H Base Unit | 203 | 92 | 215 | 97 | 239 | 109 | 223 | 101 | 38-1/2 | 978 | 29-1/2 | 749 |
| SGC036H Max. Unit | 222 | 101 | 235 | 107 | 262 | 119 | 244 | 111 | 38-1/2 | 978 | 29-1/2 | 749 |
| SGC060H Base Unit | 212 | 96 | 225 | 102 | 250 | 114 | 234 | 106 | 38-1/2 | 978 | 29-1/2 | 749 |
| SGC060H Max. Unit | 231 | 105 | 245 | 111 | 273 | 124 | 255 | 116 | 38-1/2 | 978 | 29-1/2 | 749 |

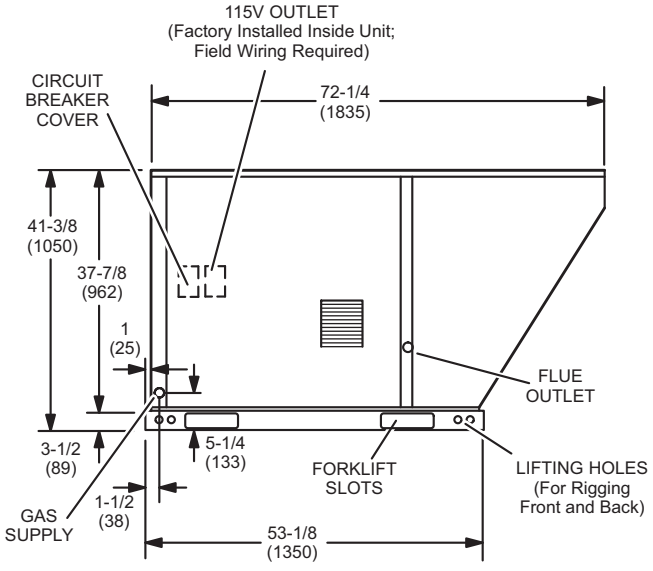
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)




**TOP VIEW**




**SIDE VIEW**

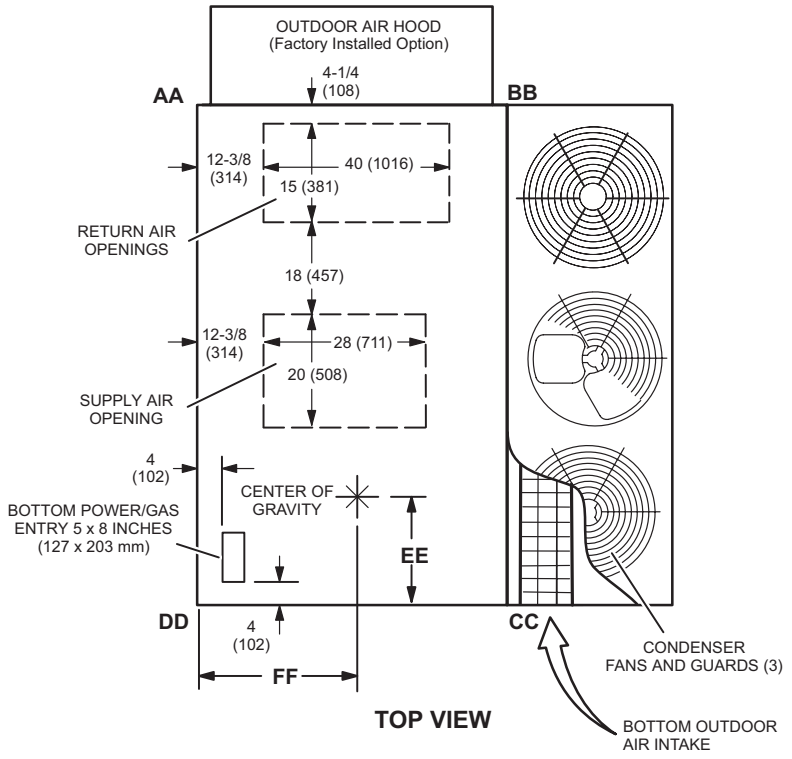



**FRONT VIEW**

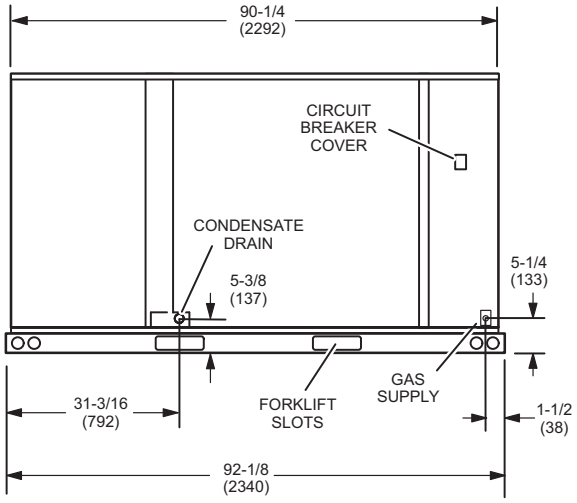
## DIMENSIONS - UNIT - INCHES (MM) SGC120H

| CORNER WEIGHTS | | | | | | | | | CENTER OF GRAVITY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model No. | AA | | BB | | CC | | DD | | EE | | FF | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| SGC120H Base Unit | 374 | 170 | 362 | 165 | 398 | 180 | 413 | 187 | 42-1/2 | 1080 | 37 | 940 |
| SGC120H Max. Unit | 412 | 187 | 399 | 181 | 438 | 199 | 455 | 206 | 42-1/2 | 1080 | 37 | 940 |

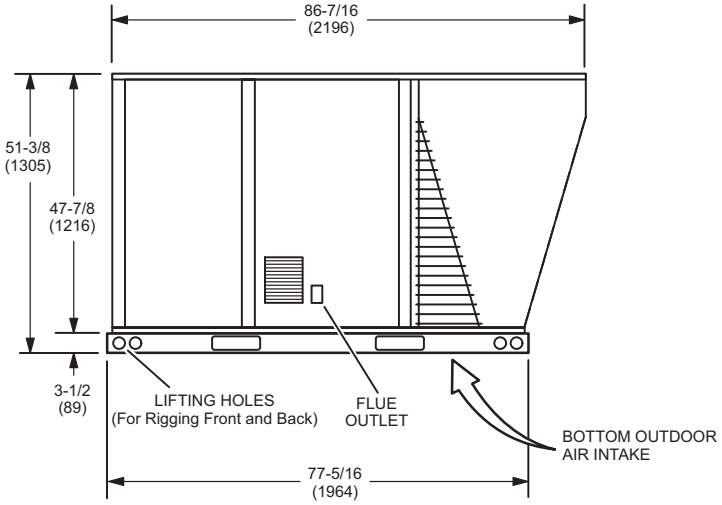
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)




TOP VIEW




SIDE VIEW



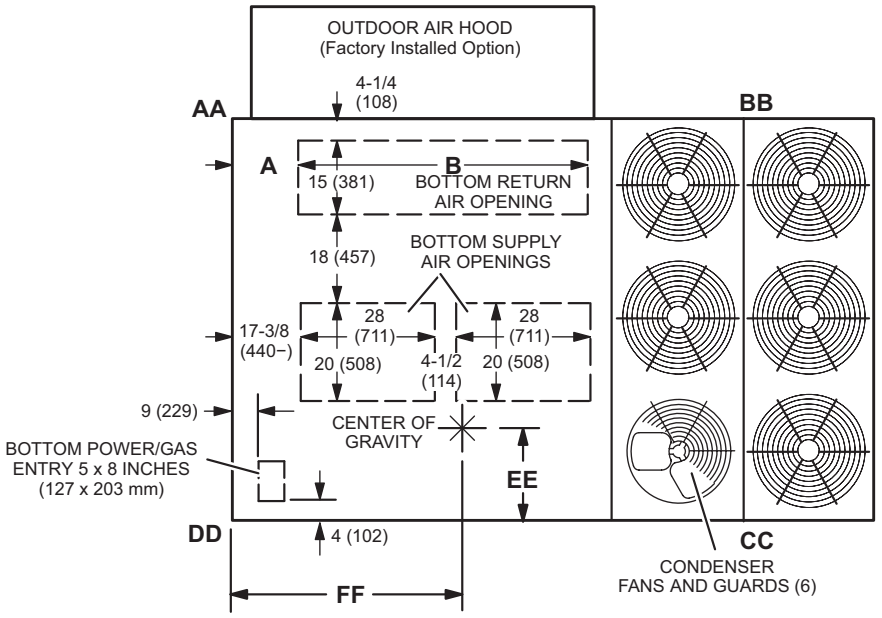

FRONT VIEW

## DIMENSIONS - UNIT - INCHES (MM) — SGC240H AND SGC288H

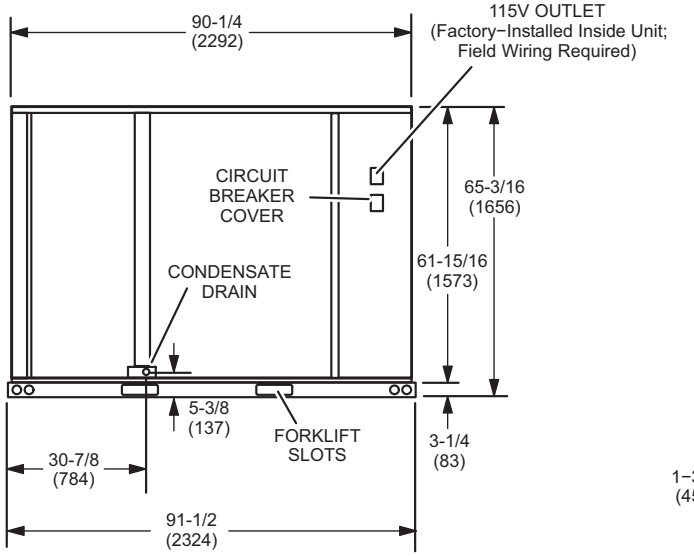
**CORNER WEIGHTS** | **CENTER OF GRAVITY**

| Model No. | AA | | BB | | CC | | DD | | EE | | FF | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm |
| SGC240H Base Unit | 617 | 280 | 638 | 289 | 821 | 373 | 795 | 360 | 40 | 1016 | 61-1/4 | 1556 |
| SGC240H Max. Unit | 759 | 344 | 734 | 333 | 819 | 371 | 846 | 384 | 43-1/4 | 1099 | 59-1/4 | 1505 |
| SGC288H Base Unit | 615 | 279 | 652 | 296 | 877 | 398 | 828 | 375 | 39 | 991 | 62 | 1575 |
| SGC288H Max. Unit | 757 | 343 | 747 | 339 | 871 | 395 | 882 | 400 | 42-1/4 | 1073 | 59-7/8 | 1521 |

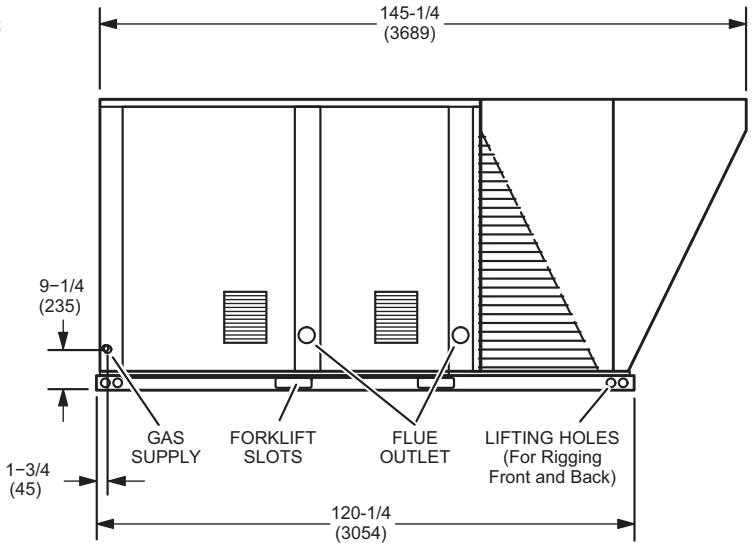
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)




**TOP VIEW**



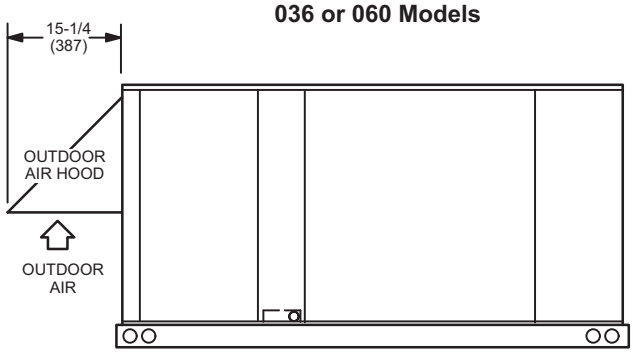

**SIDE VIEW**




**FRONT VIEW**

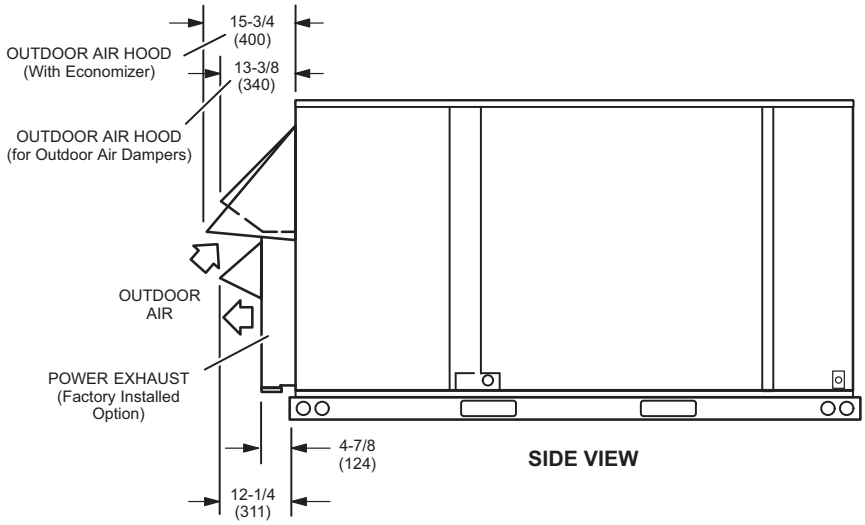
| Model No. | A | | B | |
|---|---|---|---|---|
| | in. | mm | in. | mm |
| 240 | 17-3/8 | 441 | 60-1/2 | 1537 |
| 288 | 5-3/4 | 146 | 78-1/2 | 1994 |

**OPTIONAL OUTDOOR AIR HOOD DETAIL**
**036 or 060 Models**



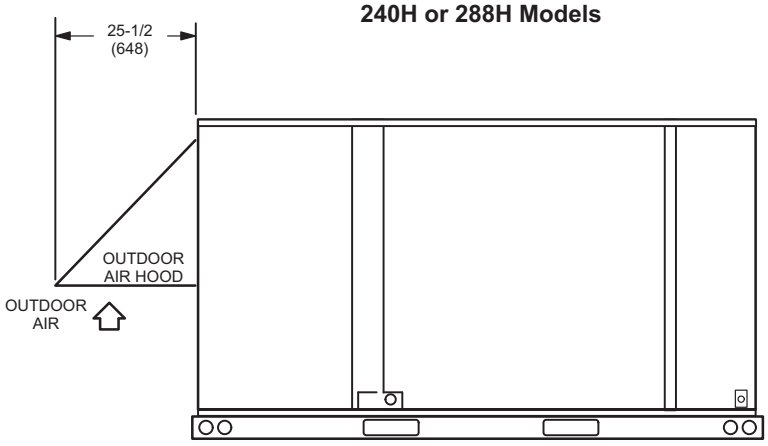

**SIDE VIEW**

**OPTIONAL OUTDOOR AIR HOOD DETAIL**
**OPTIONAL POWER EXHAUST DETAIL**
**120H Models**



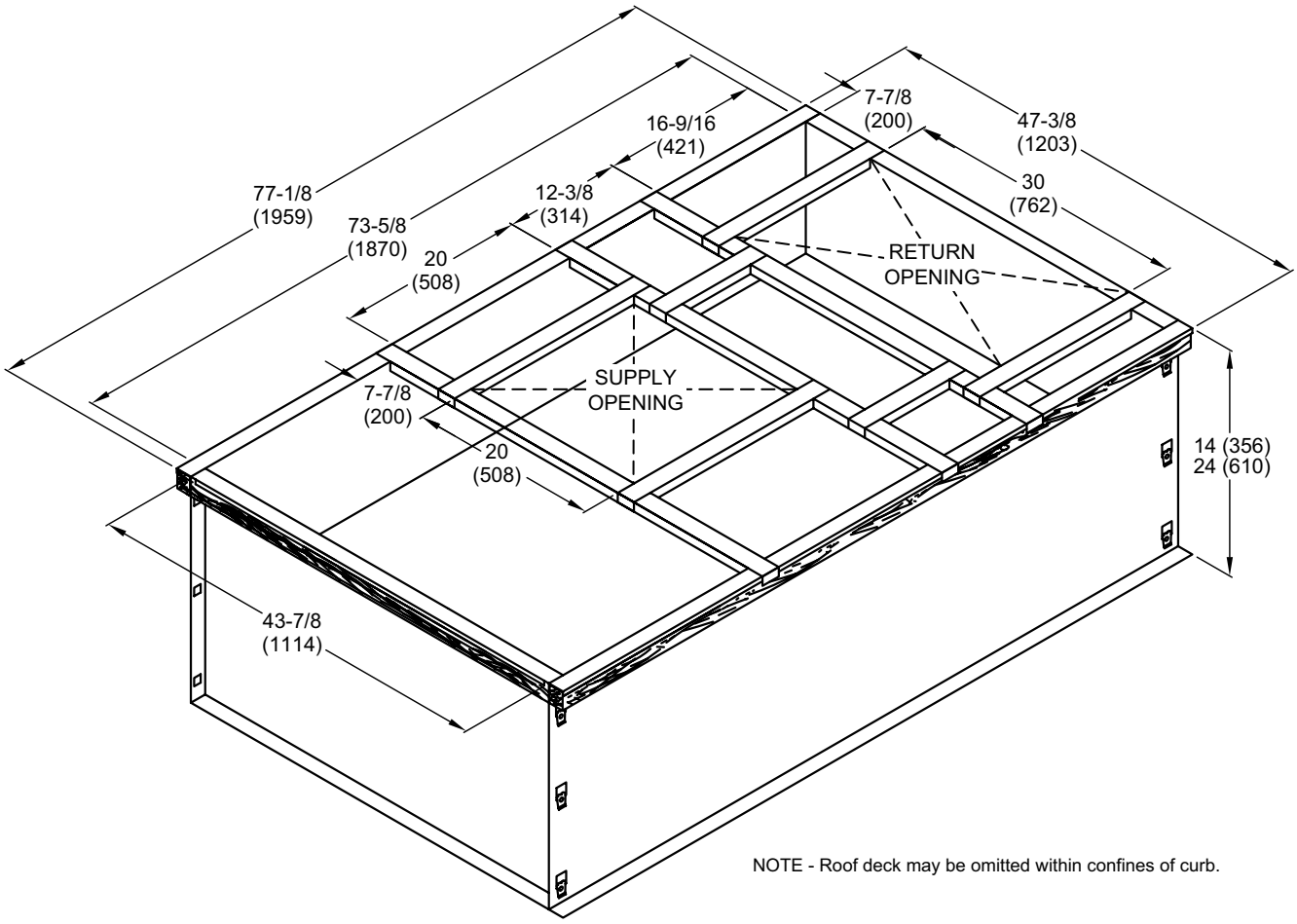

**SIDE VIEW**

**OPTIONAL OUTDOOR AIR HOOD DETAIL**
**240H or 288H Models**



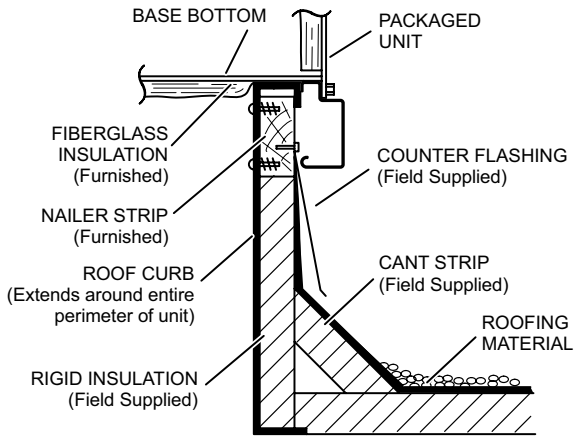

**SIDE VIEW**

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

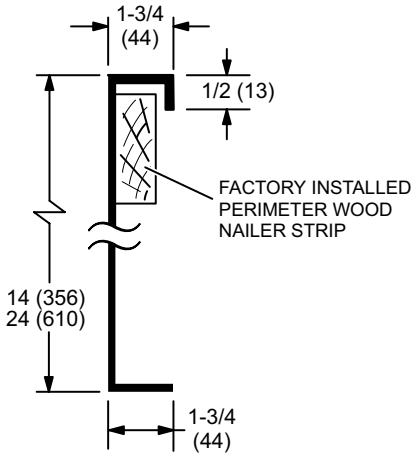



NOTE - Roof deck may be omitted within confines of curb.

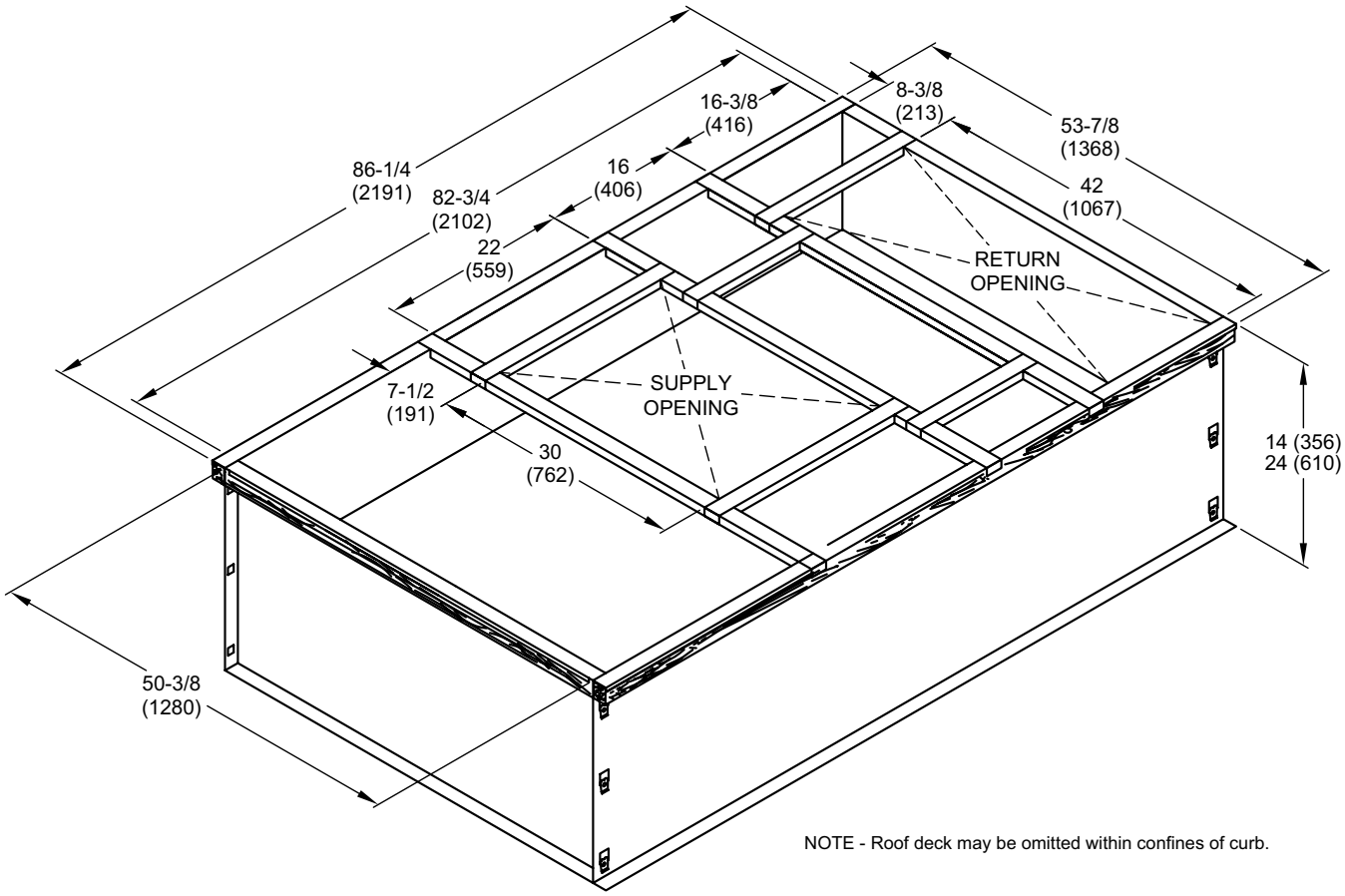
### TYPICAL FLASHING DETAIL FOR ROOF CURB




### DETAIL ROOF CURB

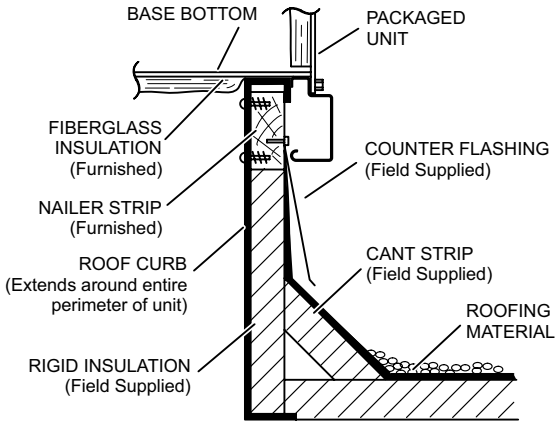


### HYBRID ROOF CURBS - 120 MODEL - DOUBLE DUCT OPENING

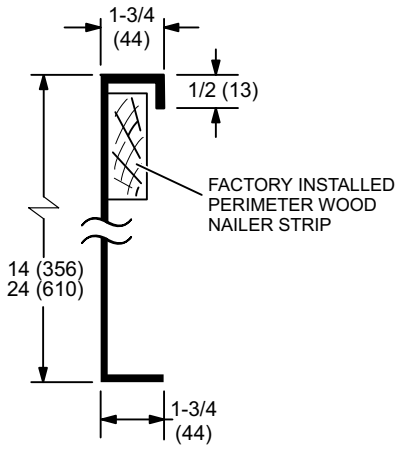



NOTE - Roof deck may be omitted within confines of curb.

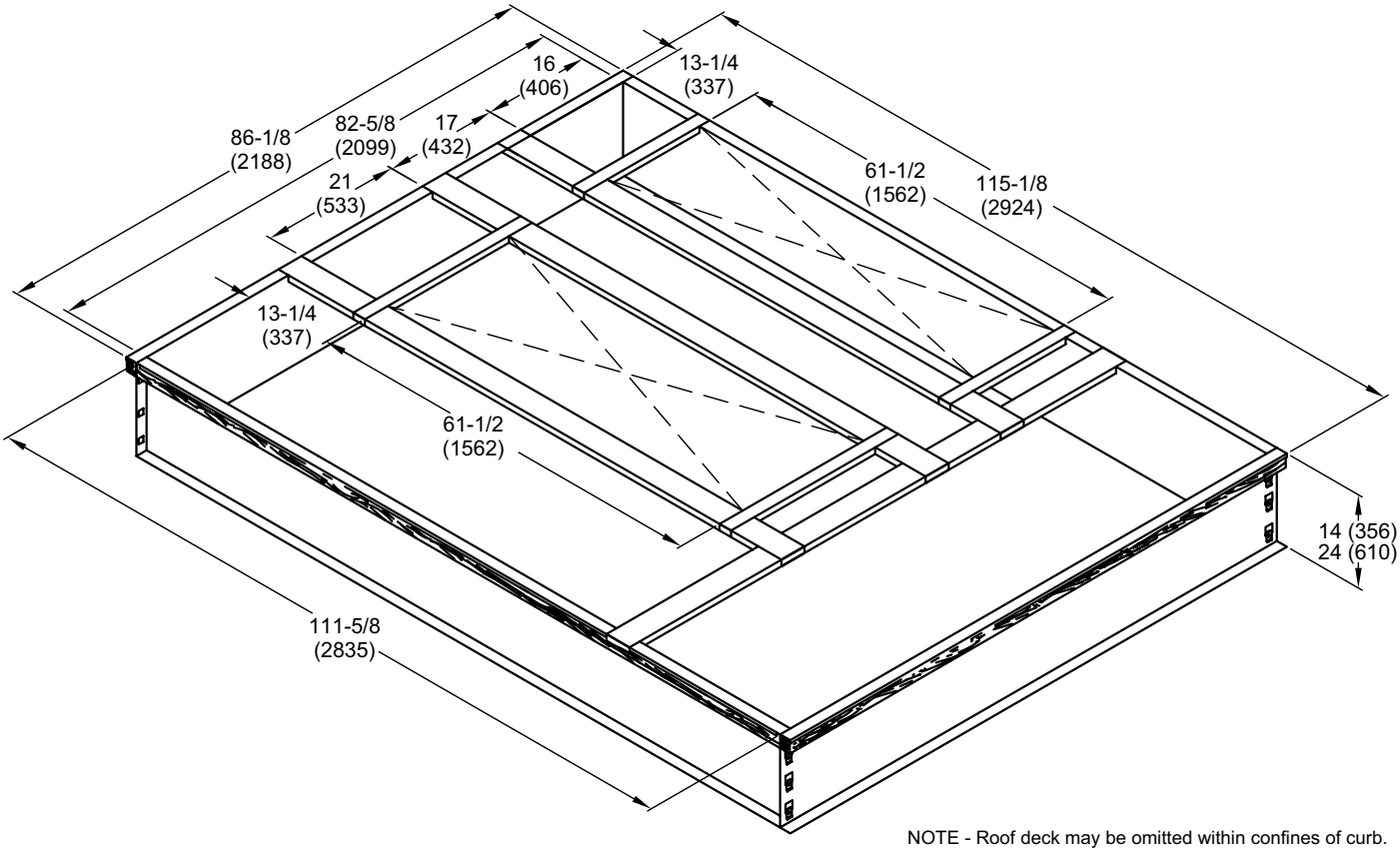
### TYPICAL FLASHING DETAIL FOR ROOF CURB




### DETAIL ROOF CURB

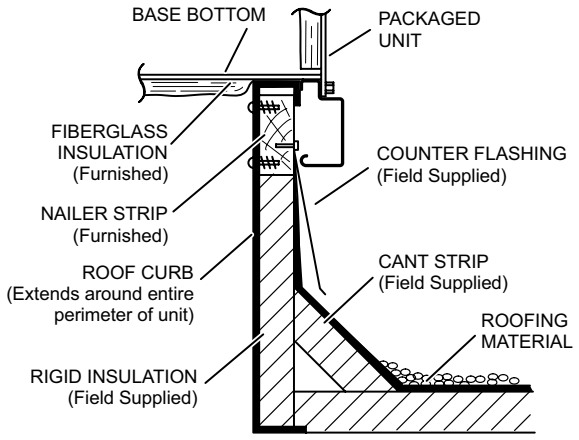


### HYBRID ROOF CURBS - 240 MODEL - FULL PERIMETER - DOUBLE DUCT OPENING

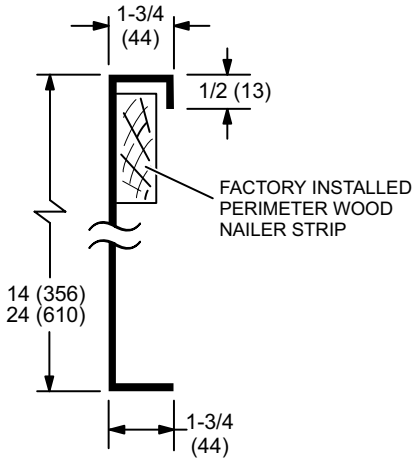



NOTE - Roof deck may be omitted within confines of curb.

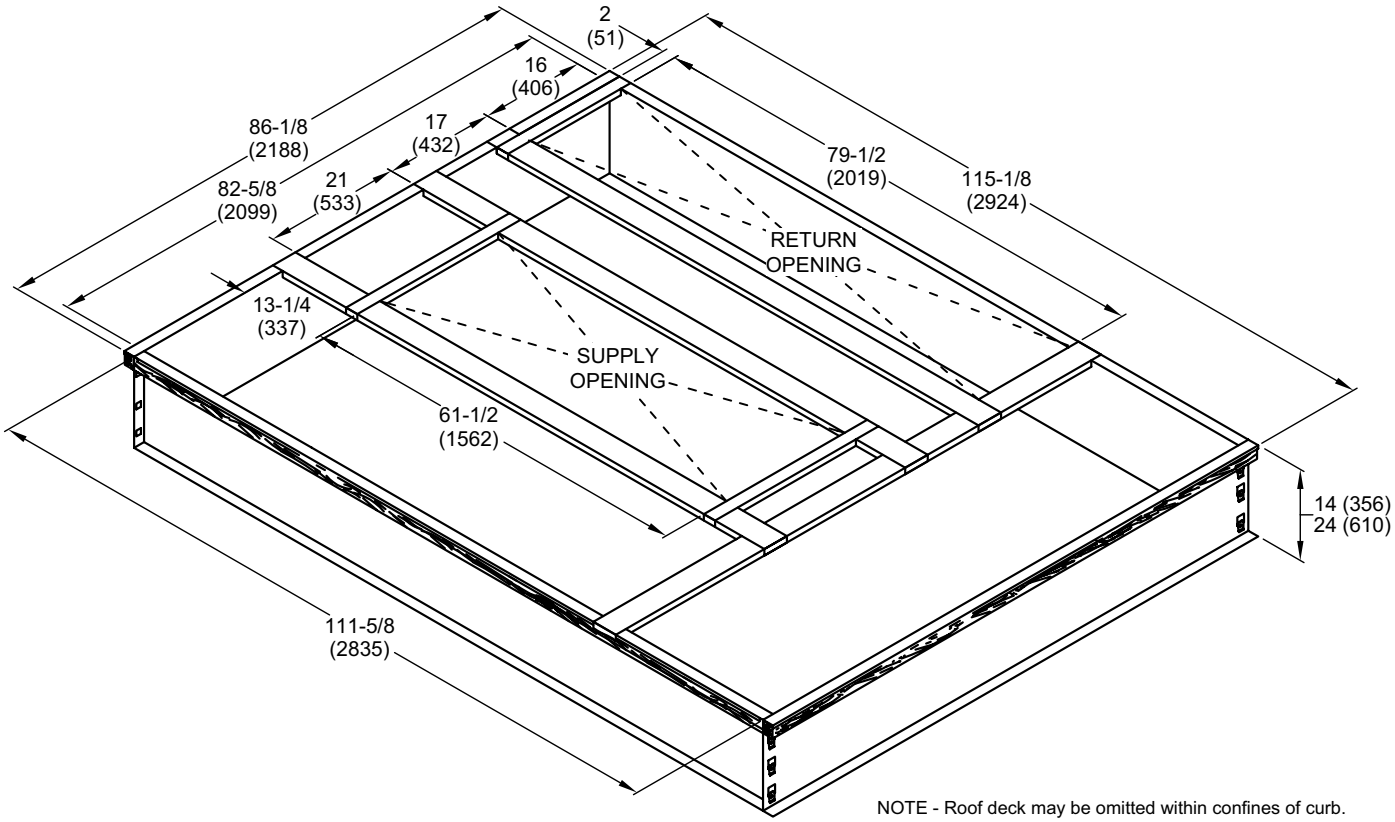
### TYPICAL FLASHING DETAIL FOR ROOF CURB




### DETAIL ROOF CURB

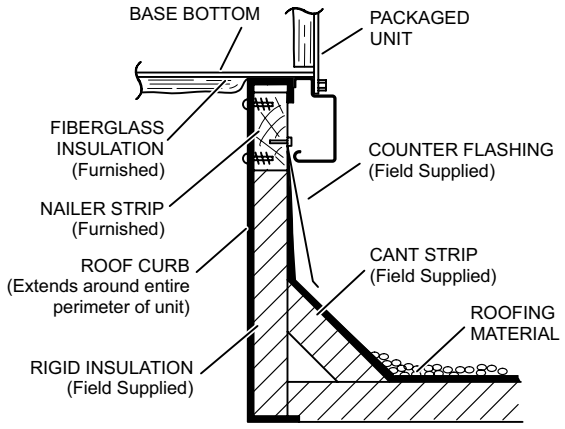


### HYBRID ROOF CURBS - 288 MODELS - FULL PERIMETER - DOUBLE DUCT OPENING

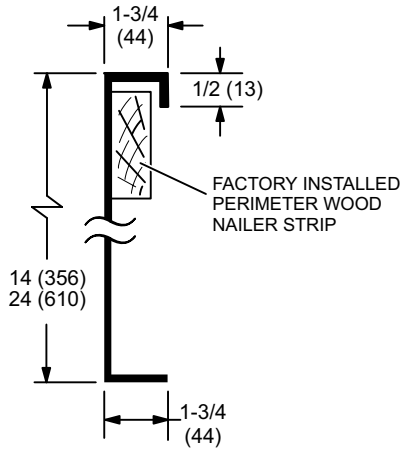



NOTE - Roof deck may be omitted within confines of curb.

### TYPICAL FLASHING DETAIL FOR ROOF CURB




### DETAIL ROOF CURB



## REVISIONS

| Section | Description |
|---|---|
| Optional Accessories | Added Air Movement and Control Association International (AMCA) Class 1A certification for High Performance Economizers. |

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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.