



PACKAGED GAS ELECTRIC

SGC

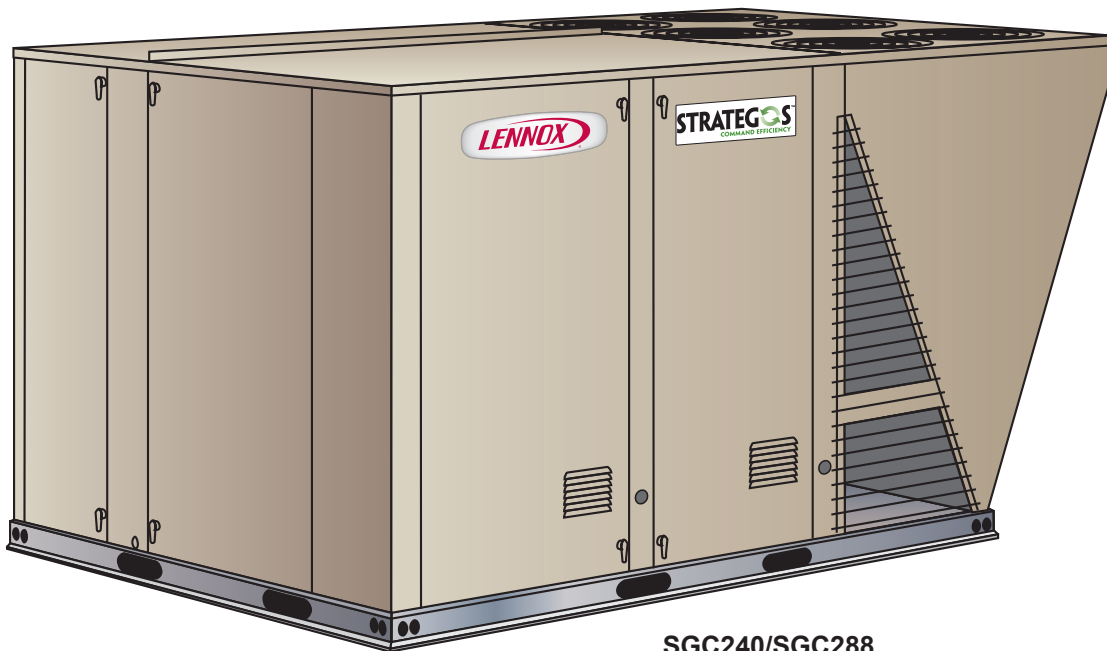
Strategos® Rooftop Units 60 HZ

PRODUCT SPECIFICATIONS

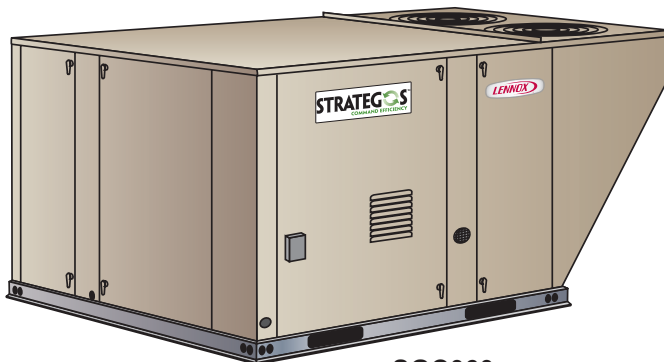
Bulletin No. 210491

July 2019

Supersedes April 2019 2018



SGC240/SGC288



SGC060



SGC120

PRODIGY™
CONTROL SYSTEM

 **MSAV™**
MULTI-STAGE AIR VOLUME

 **Environ™**
Coil System



SMARTWIRE™ SYSTEM

 **L Connection®**
N E T W O R K

**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 (CO₂) Sensor** - Monitors CO₂ 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 CO₂ 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

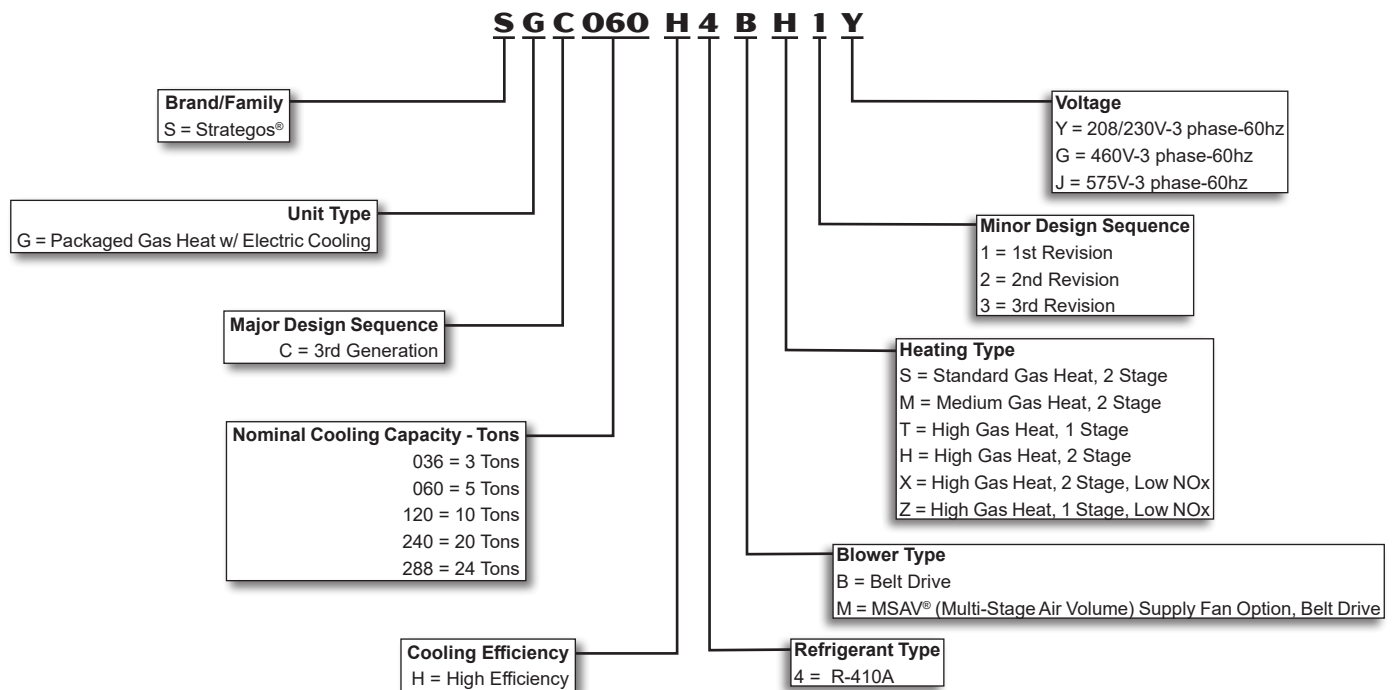
Standard on every Strategos® rooftop unit, the new Prodigy® 2.0 unit controller is the heart of the Lennox® controls offering. The intuitive user interface makes setup, troubleshooting and service easier than ever. Each unit tracks the runtime of every major component and records the date and time when 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.

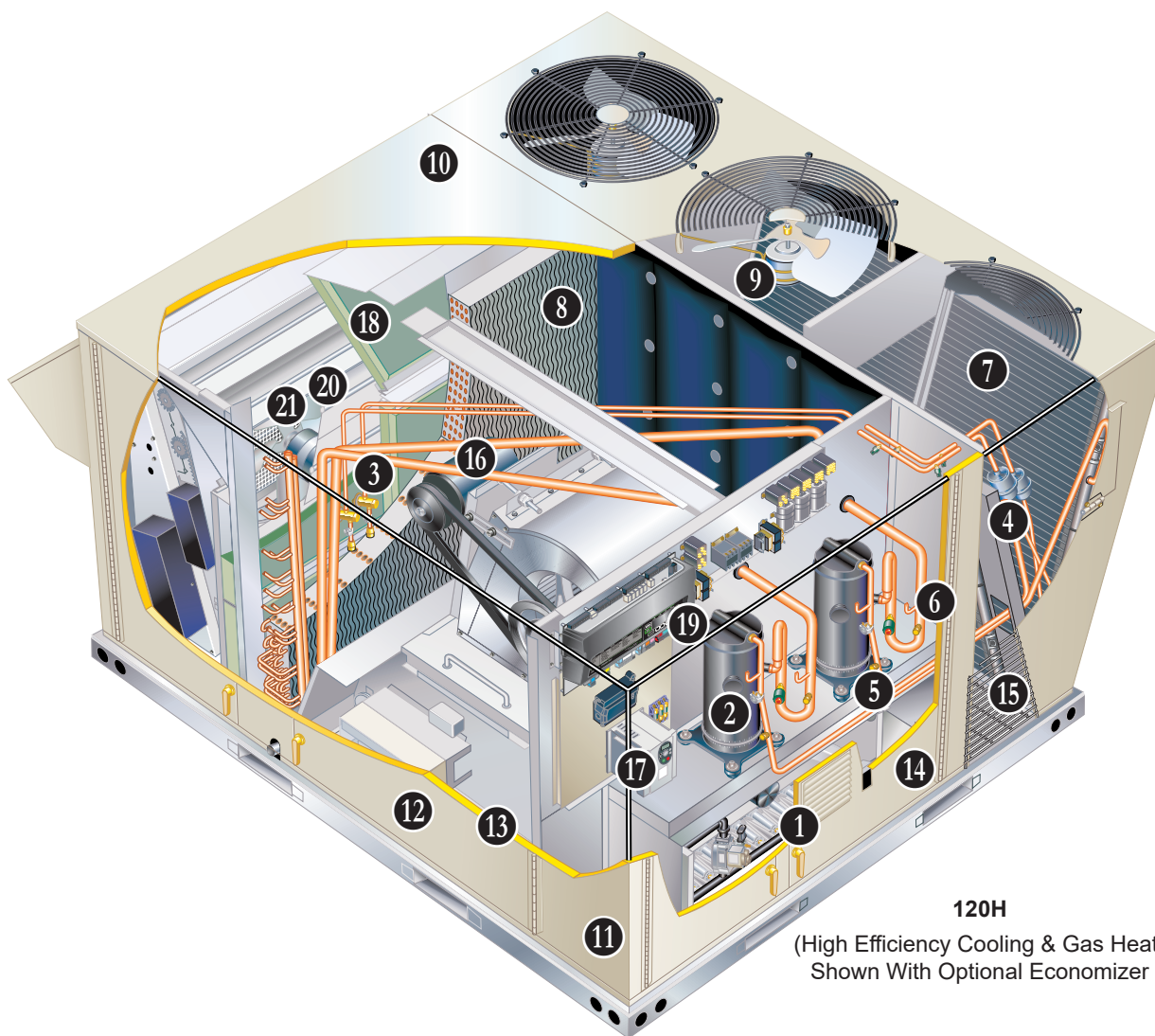
MODEL NUMBER IDENTIFICATION



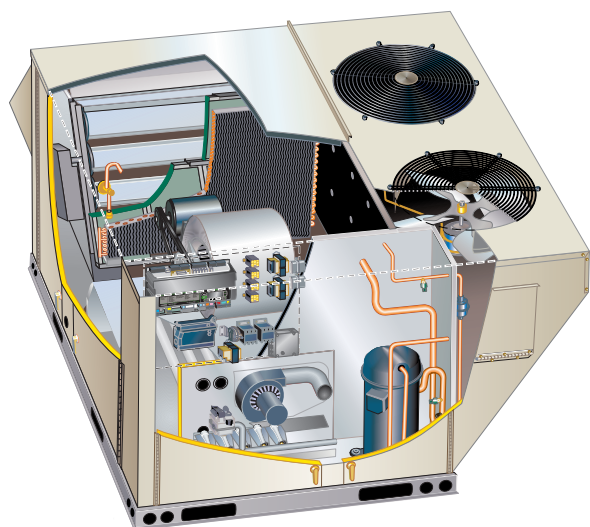
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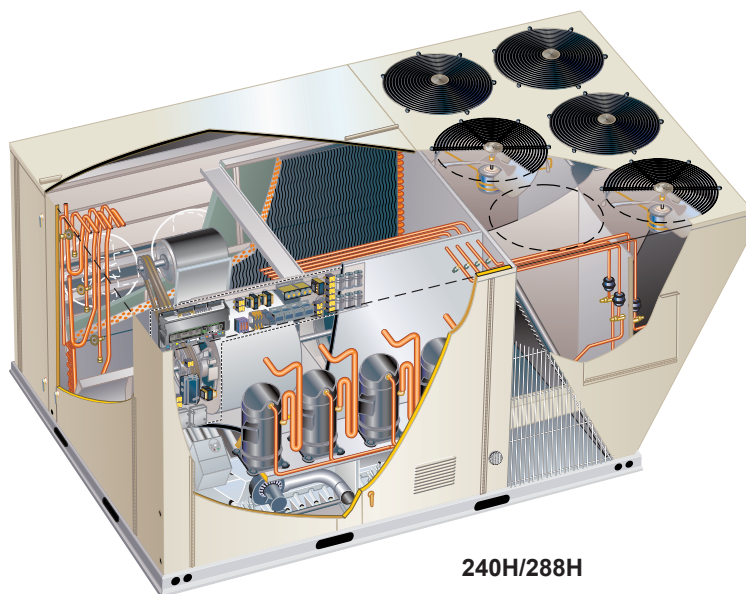
FEATURES AND BENEFITS



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

FEATURES AND BENEFITS

APPROVALS

AHRI Certified to AHRI Standard 210/240 (3 and 5 ton models) and AHRI Standard 340/360 (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 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® 2.0 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.

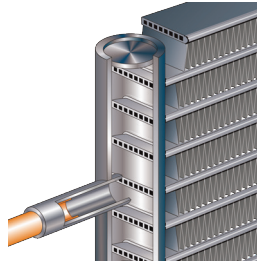
Row split coils on multi-stage air volume models.

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 a 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.

FEATURES AND BENEFITS

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

18 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 (CO₂) Sensor

Monitors CO₂ 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 CO₂ sensor to modulate the economizer damper and maintain the desired minimum amount of fresh outdoor air.

CO₂ 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.

PRODIGY® CONTROL SYSTEM

19 PRODIGY® 2.0 UNIT CONTROLLER



The Prodigy® 2.0 unit controller is a microprocessor-based controller that provides flexible control of all unit functions.

Features:

LCD Display - Easy to read menu with buttons for menu navigation during setup and diagnostics. 4 lines x 20 character display.

Menu LEDs - Four LEDs (*Data, Setup, Service, Settings*) aid in menu navigation.

Main Menu and Help Buttons - Quick navigation to home screen and built-in help functions.

Scroll, Value Adjustment Select and Save Buttons

Simplified Setup Procedure - SETUP menu ensures proper installation and setup of the rooftop unit.

Profile Setup - Copy key settings between units with the same configuration greatly reducing setup time.

USB Port - Allows a technician to download and transfer unit information to help verify service was performed.

USB drive will also allow updating software on the Prodigy Control System to obtain enhanced functionality without the need to change components.

Unit Controller Software

Unit Self-Test - Unit Controller can perform a rooftop unit self-test to verify individual critical component and system performance. Included is an economizer test function that helps assure the economizer is operating correctly.

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, differential pressure transducer or pressure switches.

Permanent Diagnostic Code Storage

Field Adjustable Control Parameters - Over 200 different control settings.

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 an external safety switch trip.

Service Relay Output

Smoke Alarm Mode - Four choices (unit off, positive pressure, negative pressure, purge).

Staging - Up to 2 heat/2 cool (standard Prodigy® 2.0 unit controller thermostat input). Up to 3 cool with additional relay. Up to 4 cool with room sensor or network operation.

“Strike Three” Protection

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

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

Gas Reheat Control -

Simultaneous heating and cooling operation for controlling humidity for process air applications such as supermarkets.

Thermostat Bounce Delay

Warm Up Mode Delay

LED Indicators

PC Interface - Connect to the Prodigy 2.0 unit controller from a PC with the Lennox Unit Controller Software.

Room Sensor Operation - Controls temperature.

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.



OPTIONS / ACCESSORIES

PRODIGY 2.0 UNIT CONTROLLER (continued)

Controls Options (continued)

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.

Commercial Control Systems

Aftermarket DDC

Novar® ETM modules and options.

Thermostats

Control system and thermostat options. Aftermarket unit controller options.

Field Installed

General Purpose Control Kit

Plug-in control provides additional analog and digital inputs/outputs for field installed options.

20 ECONOMIZER OPTIONS

Economizer operation is set and controlled by the Prodigy® 2.0 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

High Performance Economizer

Approved for California Title 24 building standards.

Low leakage dampers are Air Movement and Control Association International (AMCA) Class 1A Certified - Maximum 3 CFM per sq. ft. leakage at 1 in. w.g.

ASHRAE 90.1-2010 compliant.

Outdoor air hood is furnished.

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.

OPTIONS / ACCESSORIES

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- Copper - C1TRAP10AD2	43W45 76W27	Factory		OX	OX	OX	OX	OX
								OX	OX
Corrosion Protection	Coated indoor/outdoor coil assemblies, painted cabinet interior Coated outdoor coil assembly	Factory	Factory		O	O	O	O	O
					O	O	O	O	O
Drain Pan Overflow Switch	E1SNSR71AD1	68W88			OX	OX	OX	OX	OX
HEATING SYSTEM									
Combustion Air Intake Extension	C1EXTN10FF1 C1EXTN10111	89L97 33W62	Factory		X	X		¹ X	¹ X
							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			
	LTAW EK10/15	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
Novar® 2024		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 (CO₂) 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.

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
ECONOMIZER							
High Performance Economizer (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)							
Standard Economizer - Includes Outdoor Air Hood (Global Sensor, field provided, order Barometric Relief Dampers separately)	E1ECON17D-2	Factory 18X87	O	O	O		
						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

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

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 55°F (default unit controller 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 55°F (default unit controller 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.

ZONE SENSOR MODE

When in zone sensor mode, the unit can modulate up to 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 18. 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 18. 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 55°F supply air temperature (default unit controller setting) 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 55°F supply air temperature (default unit controller setting). 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)

ROOM SENSOR STAGES
Default Values Shown

Units With Economizer:

C1=Free Cooling

C2=Compressor 1

C3=Compressor 2

C4=Compressor 3 + 4

C1=Cooling Stage 1

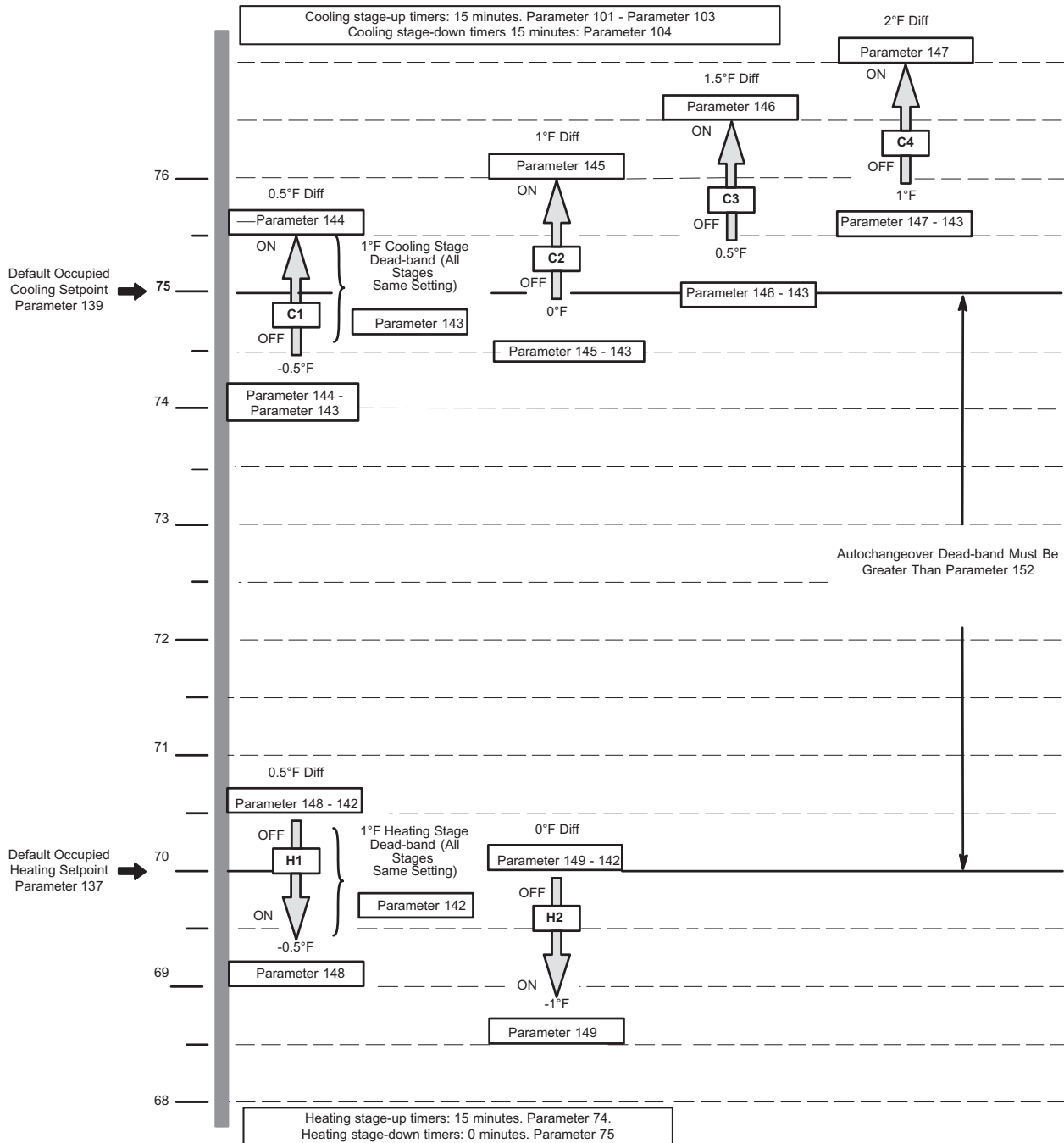
C2=Cooling Stage 2

C3=Cooling Stage 3

C4=Cooling Stage 4

H1=Heating Stage 1

H2=Heating Stage 2



THERMOSTAT MODE OR ZONE SENSOR - CAV (CONSTANT AIR VOLUME)**Modulating Outdoor Air Damper:**

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

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

¹ Unit Features an Economizer and Outdoor Air is Suitable

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

Y1 demand:

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

Y2 demand:

1st: Economizer goes to maximum open position and if the damper stays open for three minutes (default unit controller setting) the compressor is energized.

Unit Does Not Feature an Economizer (or outdoor air is not suitable)

Cooling - Thermostat or Zone Sensor (Up to 1 stage Y1).

Y1 demand:

1st: Compressor is operating and supply fan is on.

Heating mode: Thermostat or Zone Sensor (1st stage W1)

W1 demand:

(3 Ton Units) Gas heat is energized and the supply fan operates at high speed

(5 Ton Units) 1st stage of gas heat is energized and supply fan operates at high speed.

Heating mode: Thermostat or Zone Sensor (2nd stage W2)

W2 demand:

(5 Ton Units) 2nd stage of gas heat is energized and supply fan operates at high speed.

THERMOSTAT MODE - MSAV® (MULTI-STAGE AIR VOLUME)**OPERATION WITH 2-STAGE THERMOSTAT OR ZONE SENSOR****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)

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

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

Y1 Demand:

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

Y2 Demand:

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

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

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

UNIT DOES NOT FEATURE AN ECONOMIZER OR OUTDOOR AIR IS NOT SUITABLE**Y1 Demand:**

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

Y2 Demand:

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

Heating - Thermostat or Zone Sensor Mode (W1, W2)

W1 demand: 1st stage of gas heat is energized and supply fan operates at heating speed

W2 demand: 2nd stage of gas heat is energized and supply fan operates at heating speed

THERMOSTAT OR ZONE MODE - MSAV® (MULTI-STAGE AIR VOLUME)**UNIT OPERATION WITH 2-STAGE THERMOSTAT (2 COOL AND 2 HEAT STAGES, Y1, Y2, W1, W2)****SUPPLY AIR BLOWER SPEED**

Unit has following supply air blower speed setting:

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

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

Cooling - Thermostat Mode (Y1, Y2)

Y1 Demand:

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

Y2 Demand:

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

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

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

UNIT DOES NOT FEATURE AN ECONOMIZER OR OUTDOOR AIR IS NOT SUITABLE**Y1 Demand:**

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

Y2 Demand:

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

Heating - Thermostat of Zone Sensor Mode (W1, W2)

W1 demand: 1st stage of gas heat is energized and supply fan operates at heating speed

W2 demand: 2nd stage of gas heat is energized and supply fan operates at heating speed

THERMOSTAT OR ZONE SENSOR MODE - MSAV® (MULTI-STAGE AIR VOLUME)**UNIT OPERATION WITH 3-STAGE THERMOSTAT OR ZONE SENSOR****(3 COOL AND 2 HEAT STAGES, Y1, Y2, Y3 AND W1, W2)****SUPPLY AIR BLOWER SPEED**

Unit has following supply air blower speed setting:

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

¹ UNIT FEATURES AN ECONOMIZER AND OUTDOOR AIR IS SUITABLE

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

Y1 Demand:

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

Y2 Demand:

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

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

Y3 Demand:

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

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

UNIT DOES NOT FEATURE AN ECONOMIZER OR OUTDOOR AIR IS NOT SUITABLE**Y1 Demand:**

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

Y2 or Y3 Demand:

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

Heating - Thermostat or Zone Sensor Mode (W1, W2)

W1 demand: 1st stage of gas heat is energized and supply fan operates at heating speed

W2 demand: 2nd stage of gas heat is energized and supply fan operates at heating 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	5.10
	¹ SEER (Btuh/Watt)	16.1	15.5
	¹ EER (Btuh/Watt)	13.6	11.65
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 25		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.

¹AHRI 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 25		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
	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

Operating Environment	Temperature: -40°F to 155°F
	Humidity: 10% - 95% RH, Non- Condensing
Power Requirements	24VAC (+/-25%), 50/60Hz
	5 VA for M3 maximum
Memory Type	Re-programmable Flash
Device Commissioning	Auto-poll (real plug and play)
Unit type	Electric/Electric, Gas/Electric (Rooftops)
Cooling stages	4
Heating stages	4
Electronic Parameters	>250
Alarm Codes	>100
Alarm Codes Stored	128
Display Type	LCD, 4 lines x 20 character display Four LEDs (Data, Setup, Service, Settings)
Indicator LEDs	1- Heartbeat
	1- Bus transmit
	1 - Bus receive
	1- each for Y1,Y2,W1,W2,G,OCP, GLO
Dimensions - Main Board	Main Board: Height: 8 in., Width: 14-1/2 in., Depth: 6 in.
Weight	2 lbs. for M3
Cable Type	SysBus - Lennox yellow COMM cable: C0MISC00AE1- (27M19) (500 ft. box), C0MISC04AE1- (94L63) (1000 ft. box), C0MISC01AE1- (68M25) (2500 ft. roll) ZoneBus - Lennox purple COMM cable: C0MISC05AE1- (23W99) (500 ft. box) 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				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	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
	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
	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
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
	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
	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
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
	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
	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

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				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	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
	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
	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
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
	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
	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
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
	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
	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

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				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	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
	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
	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
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
	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
	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
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
	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
	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

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				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	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
	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
	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
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
	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
	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
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
	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
	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

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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)							
				Dry Bulb					Dry Bulb					Dry Bulb							
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F	75°F	80°F	85°F		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				cfm	kBtuh	kW			75°F	80°F	85°F			kBtuh	kW	75°F			80°F	85°F	kBtuh
63°F	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				cfm	kBtuh	kW			75°F	80°F	85°F			kBtuh	kW	75°F			80°F	85°F	kBtuh	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
	cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	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)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	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 35 for Motor HP and Drive Kit RPM Ranges Available.

EXTERNAL STATIC PRESSURE - In. w.g.																										
Air Volume cfm	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	1015	0.56	1084	0.62	1148	0.69	1196	0.73	1245	0.79	1311	0.91	1363	0.97
1000	590	0.37	662	0.39	738	0.42	813	0.45	883	0.49	951	0.53	1015	0.56	1084	0.62	1134	0.65	1196	0.73	1245	0.79	1311	0.91	1363	0.97
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	1196	0.73	1245	0.79	1311	0.91	1363	0.97
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	1311	0.91	1363	0.97
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 35 for Motor HP and Drive Kit RPM Ranges Available.

EXTERNAL STATIC PRESSURE - In. w.g.

Air Volume cfm	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 35 for Motor HP and Drive Kit RPM Ranges Available.

EXTERNAL STATIC PRESSURE - In. w.g.																										
Air Volume cfm	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.

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 35 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	601	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
5																										

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 35 for Motor HP and Drive Kit RPM Ranges Available.

EXTERNAL STATIC PRESSURE - In. w.g.

Air Volume cfm	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	561	1.13	602	1.25	643	1.43	678	1.62	709	1.81	737	1.93	768	2.11
2600	298	0.34	338	0.52	382	0.69	425	0.83	470	0.93	516	1.02	561	1.17	606	1.30	646	1.48	681	1.68	712	1.87	740	2.00	768	2.11
2800	302	0.37	342	0.55	386	0.72	430	0.87	475	0.97	520	1.07	565	1.22	610	1.35	653	1.59	684	1.74	712	1.87	740	2.00	768	2.11
3000	306	0.41	347	0.59	390	0.76	434	0.91	479	1.02	525	1.11	570	1.27	614	1.40	649	1.54	681	1.68	712	1.87	740	2.00	768	2.11
3200	311	0.45	352	0.63	395	0.80	439	0.96	485	1.07	530	1.16	574	1.32	614	1.45	653	1.59	684	1.74	712	1.87	740	2.00	768	2.11
3400	316	0.49	357	0.67	400	0.85	444	1.00	490	1.11	535	1.21	579	1.37	614	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	1.43	622	1.57	661	1.65	687	1.81	715	1.94	743	2.07	771	2.27
3800	328	0.58	369	0.77	412	0.95	456	1.11	501	1.22	546	1.32	589	1.49	627	1.60	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	3.57	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 #3	595 - 890 960 - 1320
060	1.5	1.7	#1 #4	765 - 1075 1070 - 1430

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

Model No.	Nominal / Maximum hp	Drive Kit Number	RPM Range
120	3	#3 #4	660 - 900 865 - 1080
240/288	5	#4 #5	520 - 685 685 - 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.

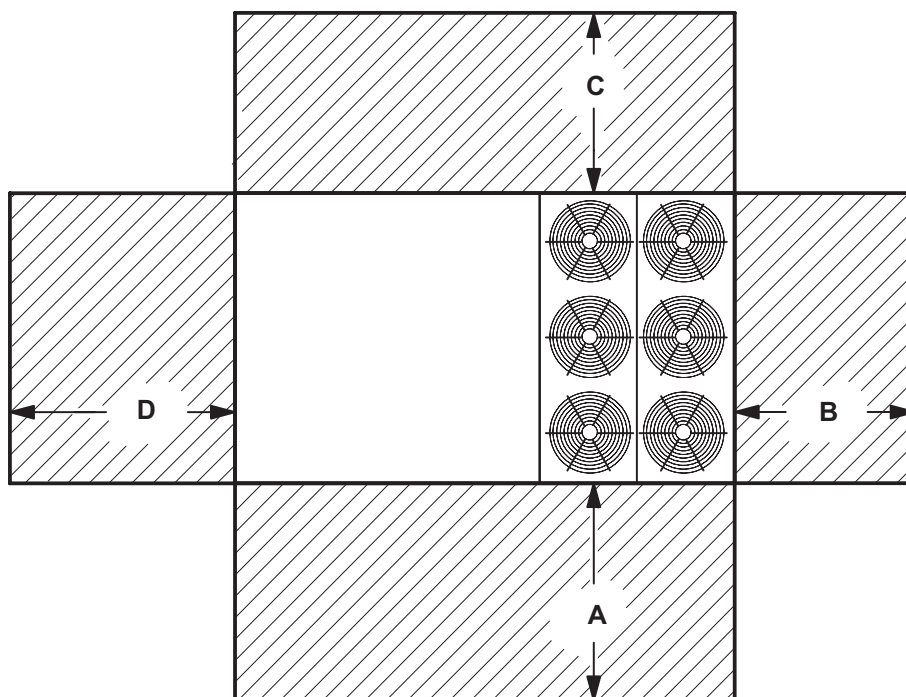
OUTDOOR SOUND DATA

Unit Model No.	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts Center Frequency - HZ							¹ Sound Rating Number (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 AHRI Standard 270-95 or AHRI Standard 370-2001 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (Lwa), dB (100 Hz to 10,000 Hz).

UNIT CLEARANCES



¹ Unit Clearance		A		B		C		D		Top Clearance
		in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	036, 060	48	1219	36	914	60	1524	60	1524	Unobstructed
	120	60	1524	36	914	60	1524	60	1524	Unobstructed
	240/288	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

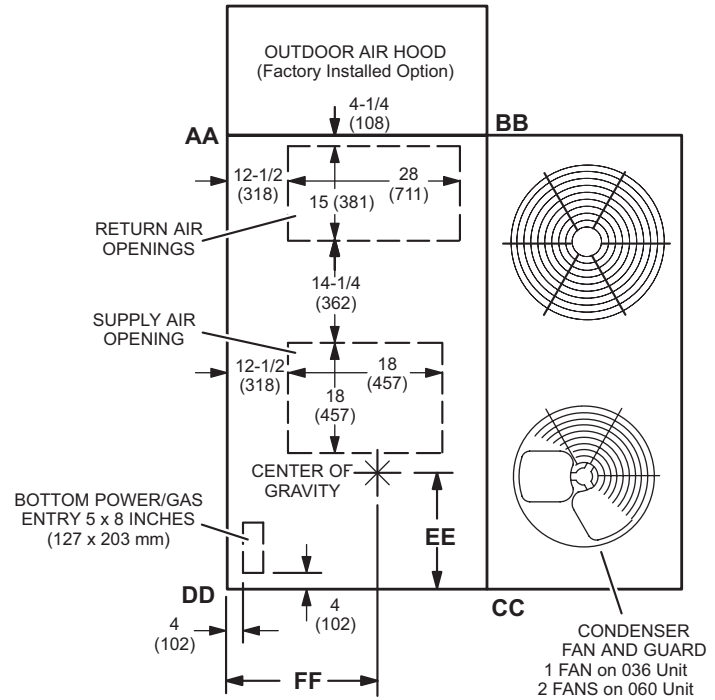
DIMENSIONS - UNIT

SGC036H AND SGC060H

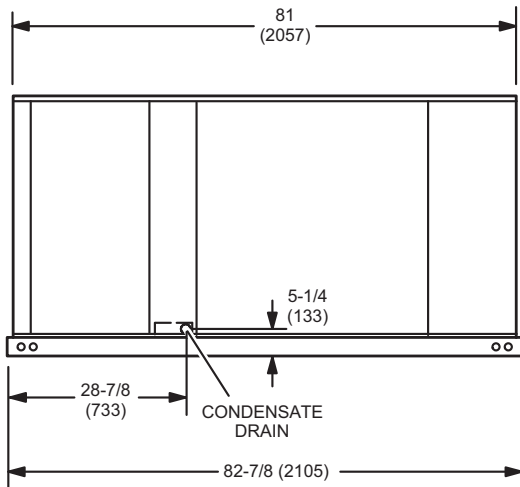
CORNER WEIGHTS

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

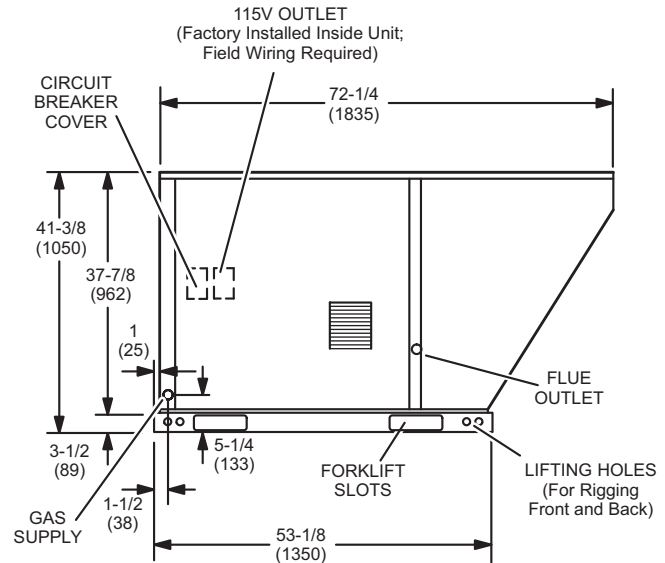
Max. Unit - The Base Unit with ALL OPTIONS Installed. (Economizer and controls)



TOP VIEW



SIDE VIEW



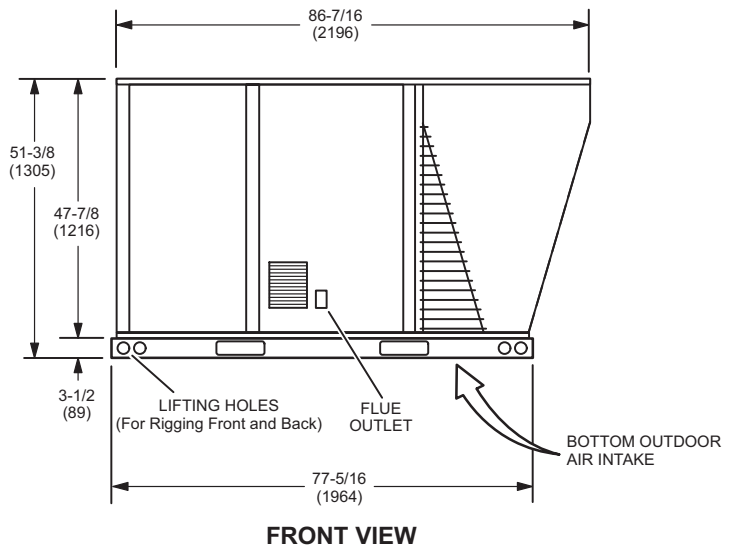
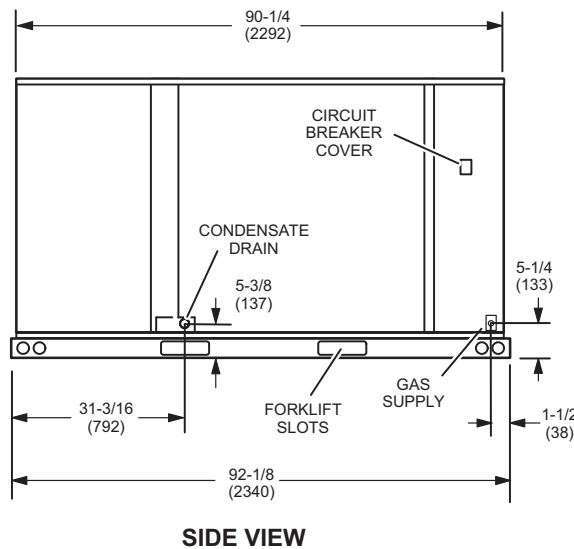
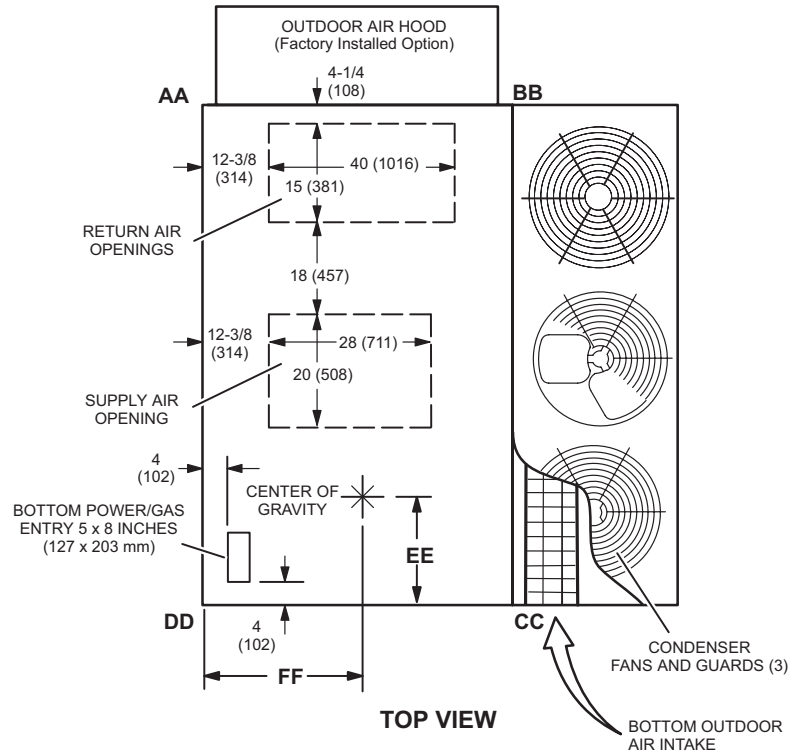
FRONT VIEW

DIMENSIONS - UNIT

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)



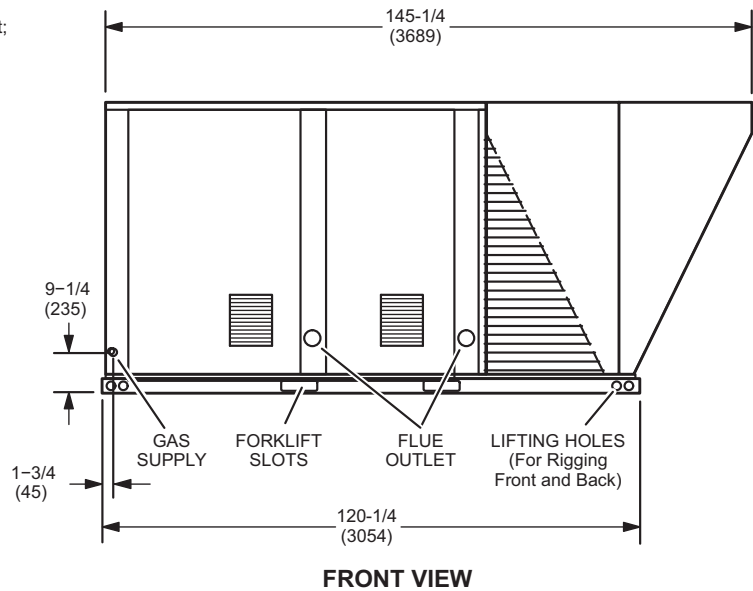
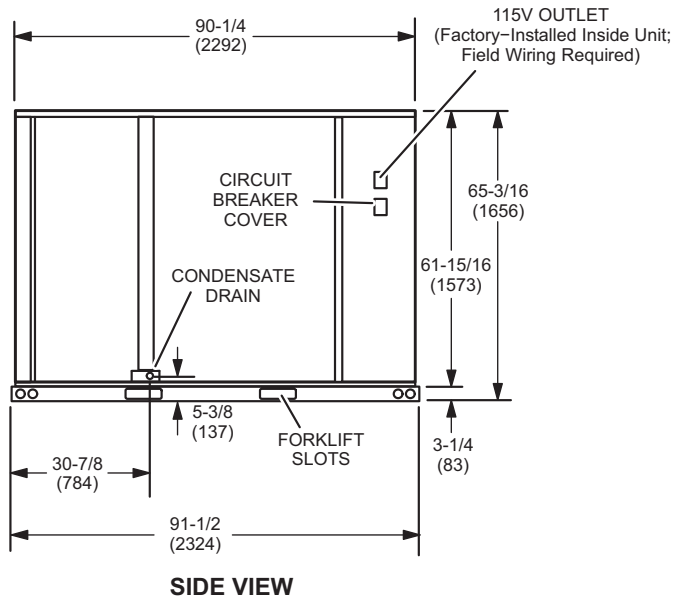
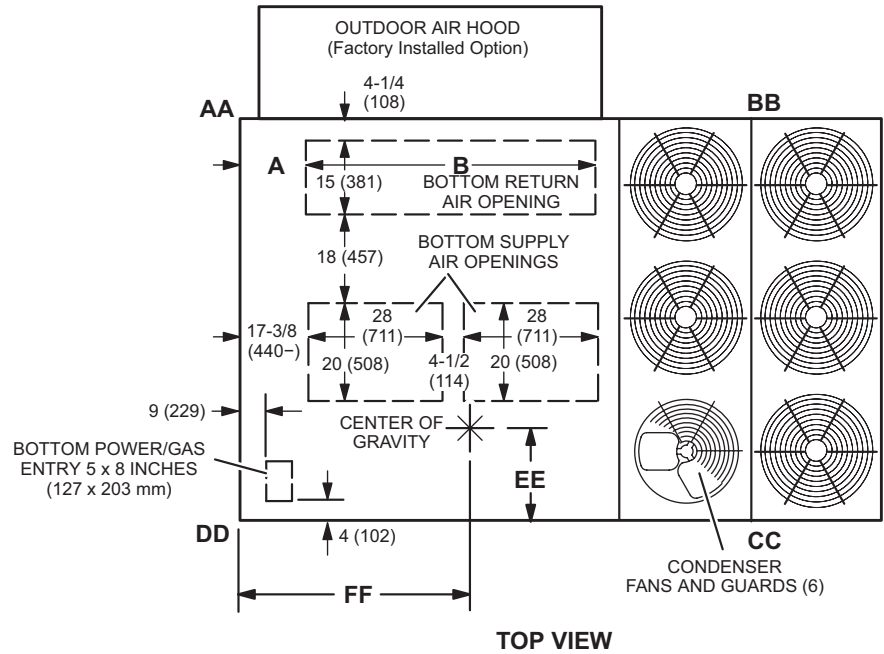
DIMENSIONS - UNIT

SGC240H AND SGC288H

CORNER WEIGHTS

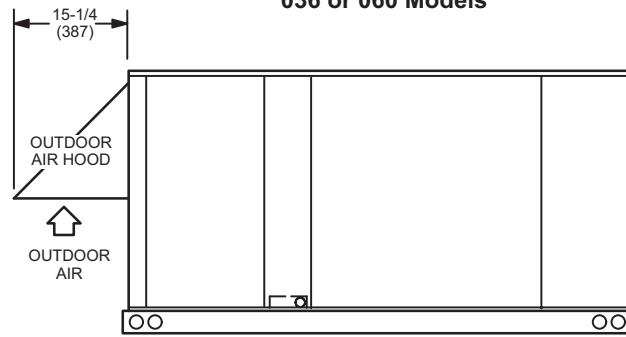
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
SGC240H Base Unit	617	280	638	289	821	373	795	360	40	1016	61-1/4	1556
SGC240H Max. Unit	759	344	734	333	819	371	846	384	43-1/4	1099	59-1/4	1505
SGC288H Base Unit	615	279	652	296	877	398	828	375	39	991	62	1575
SGC288H Max. 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)



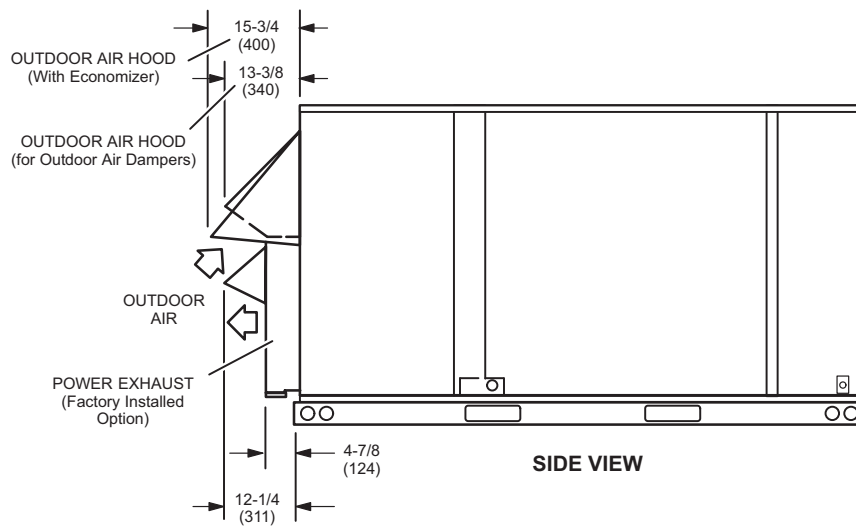
Model No.	A		B	
	in.	mm	in.	mm
240	17-3/8	441	60-1/2	1537
288	5-3/4	146	78-1/2	1994

OPTIONAL OUTDOOR AIR HOOD DETAIL 036 or 060 Models



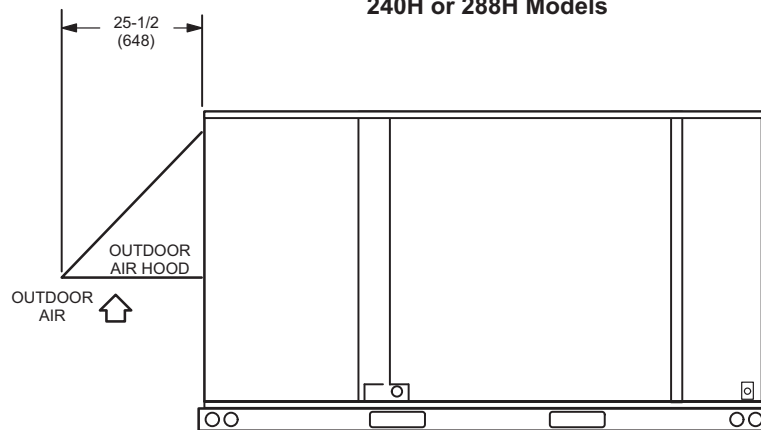
SIDE VIEW

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



SIDE VIEW

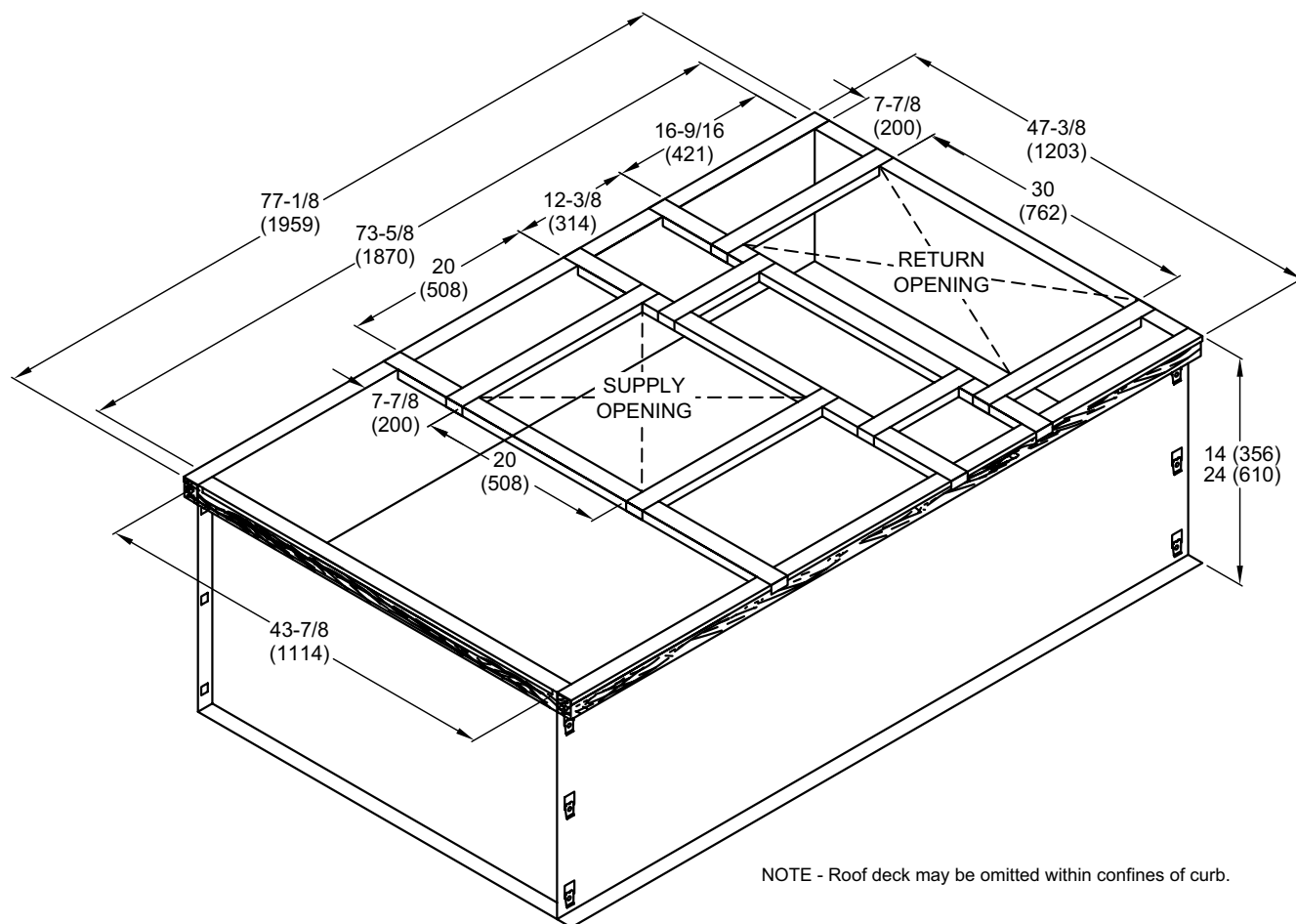
OPTIONAL OUTDOOR AIR HOOD DETAIL 240H or 288H Models



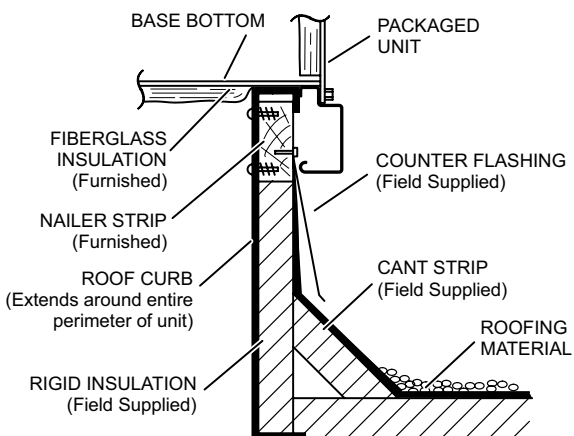
SIDE VIEW

DIMENSIONS - ACCESSORIES

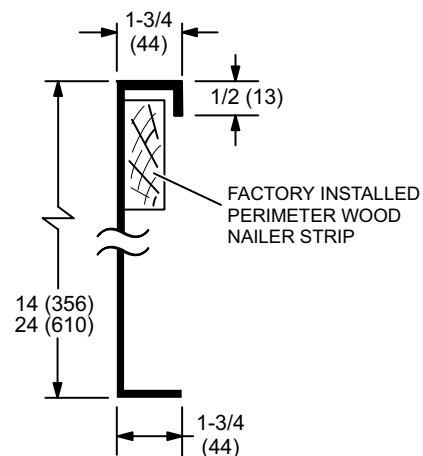
HYBRID ROOF CURBS - 036-060 MODELS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

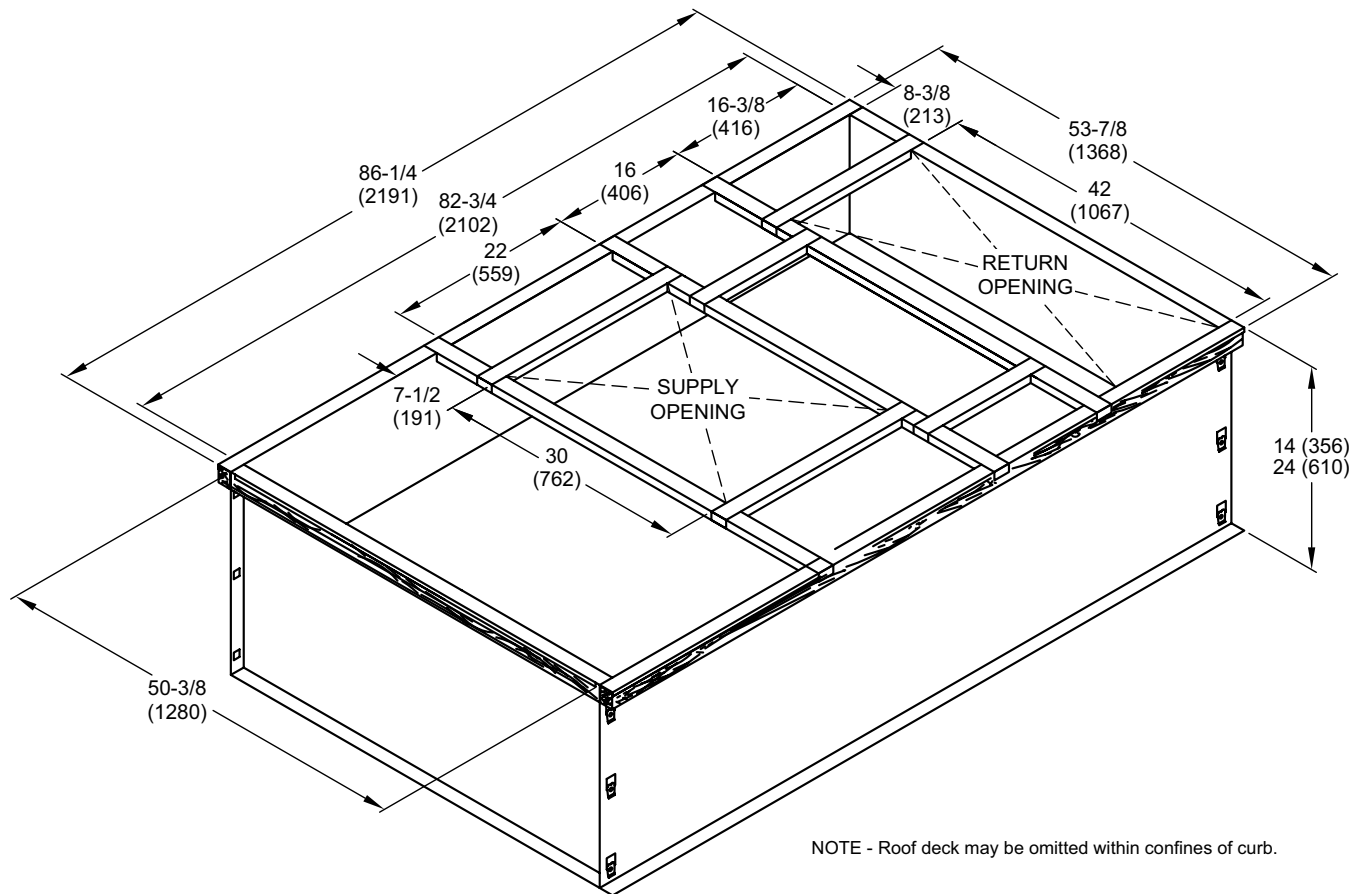


DETAIL ROOF CURB

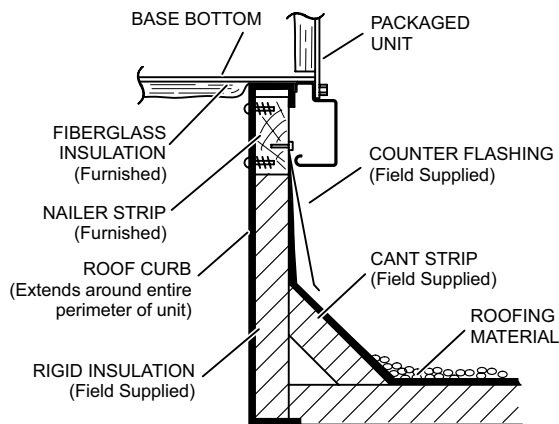


DIMENSIONS - ACCESSORIES

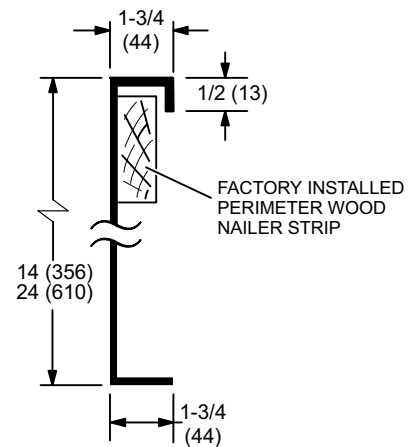
HYBRID ROOF CURBS - 120 MODEL - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

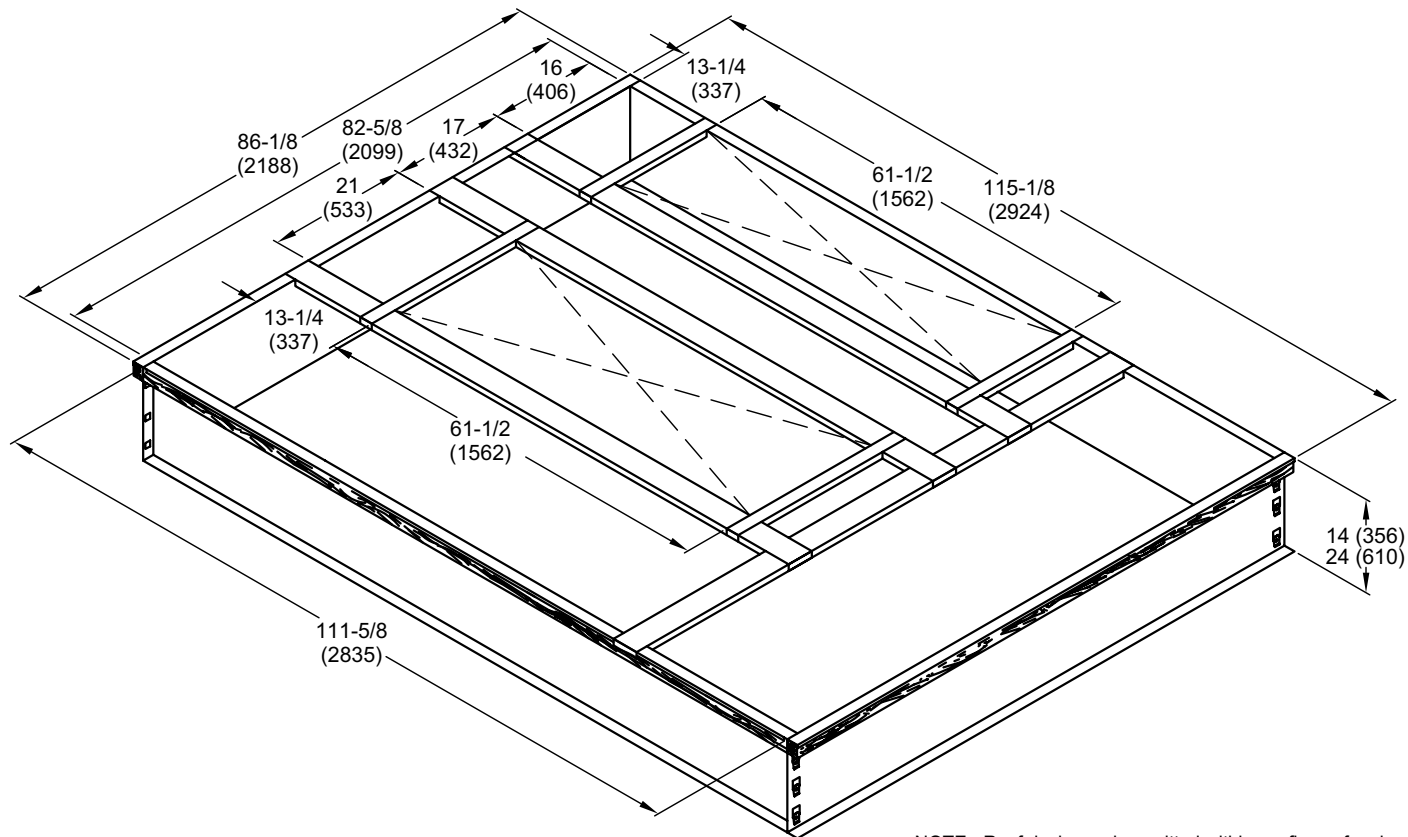


DETAIL ROOF CURB



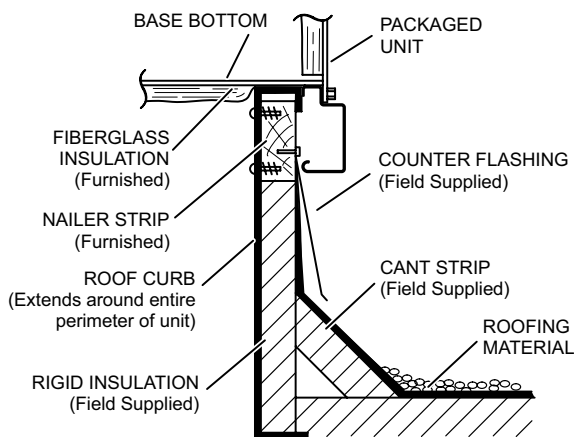
DIMENSIONS - ACCESSORIES

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

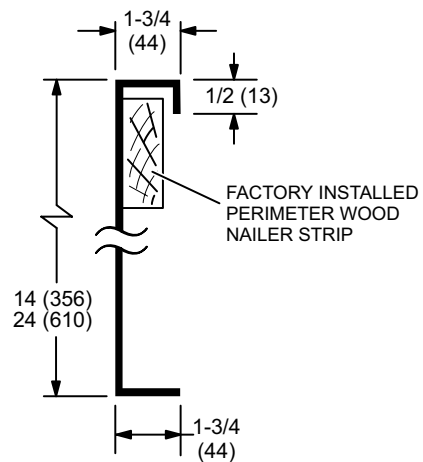


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB

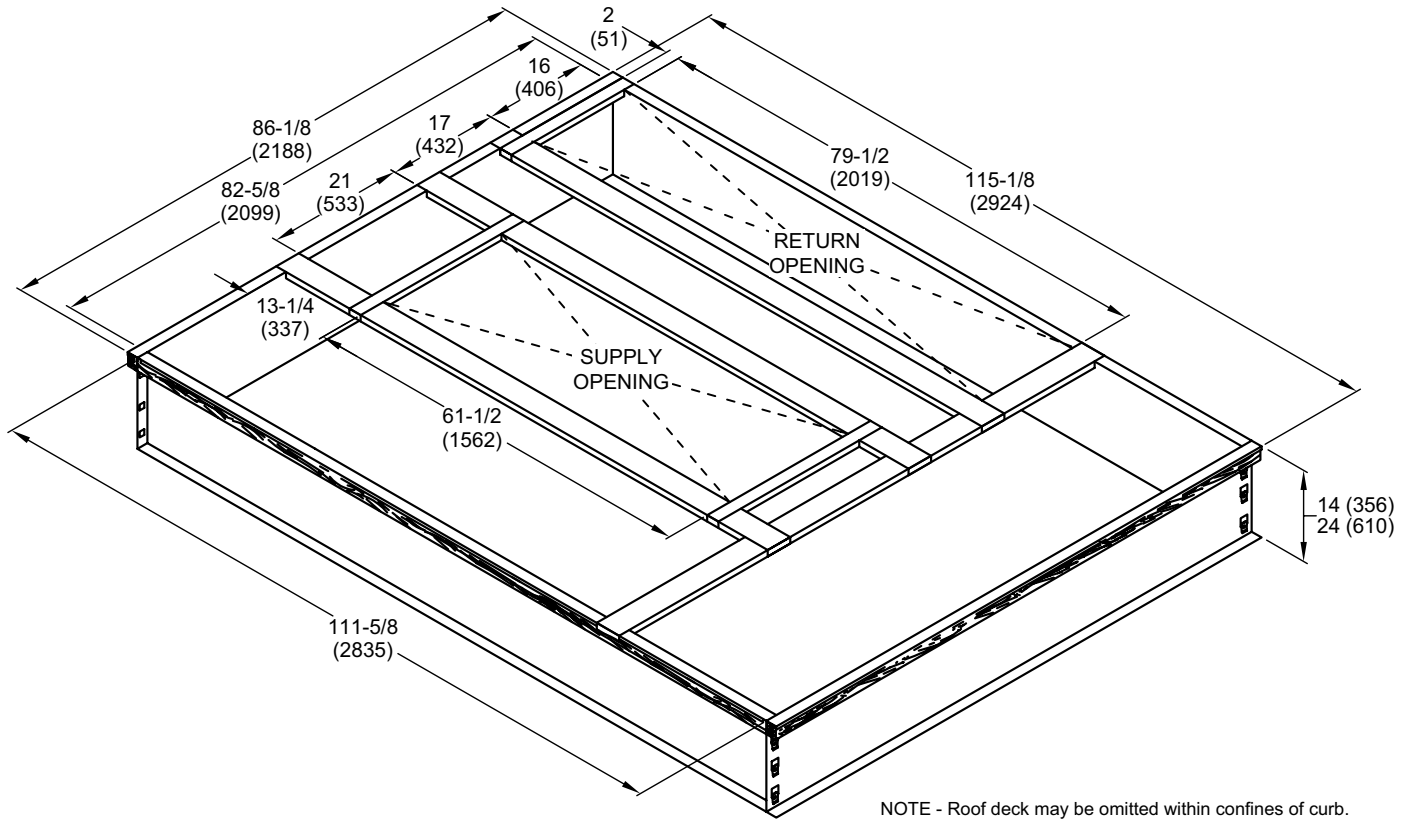


DETAIL ROOF CURB

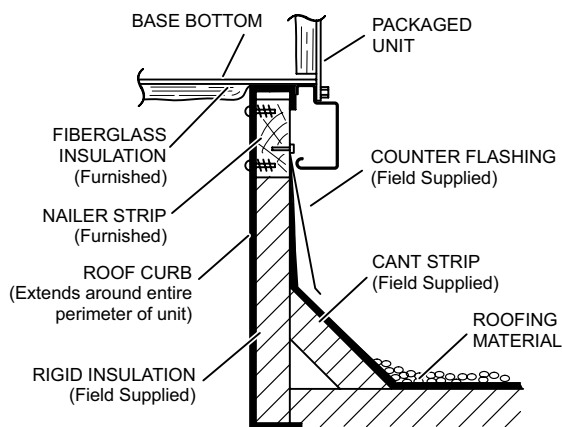


DIMENSIONS - ACCESSORIES

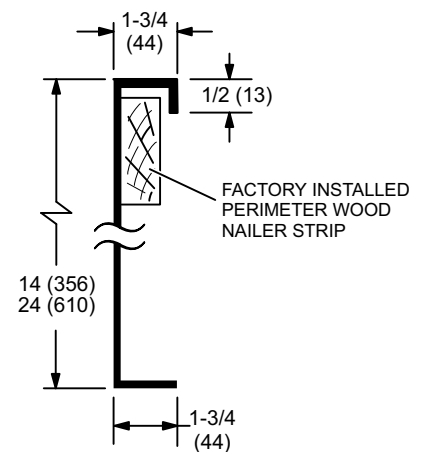
HYBRID ROOF CURBS - 288 MODELS - FULL PERIMETER - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

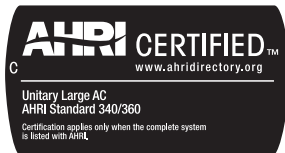


DETAIL ROOF CURB



REVISIONS

Section	Description
Options/Accessories	Removed Standard Efficiency Economizer. Updated High Efficiency Economizer model and catalog number.



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