



PRODUCT SPECIFICATIONS

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LANDMARK®

Performance Marked by Flexibility™

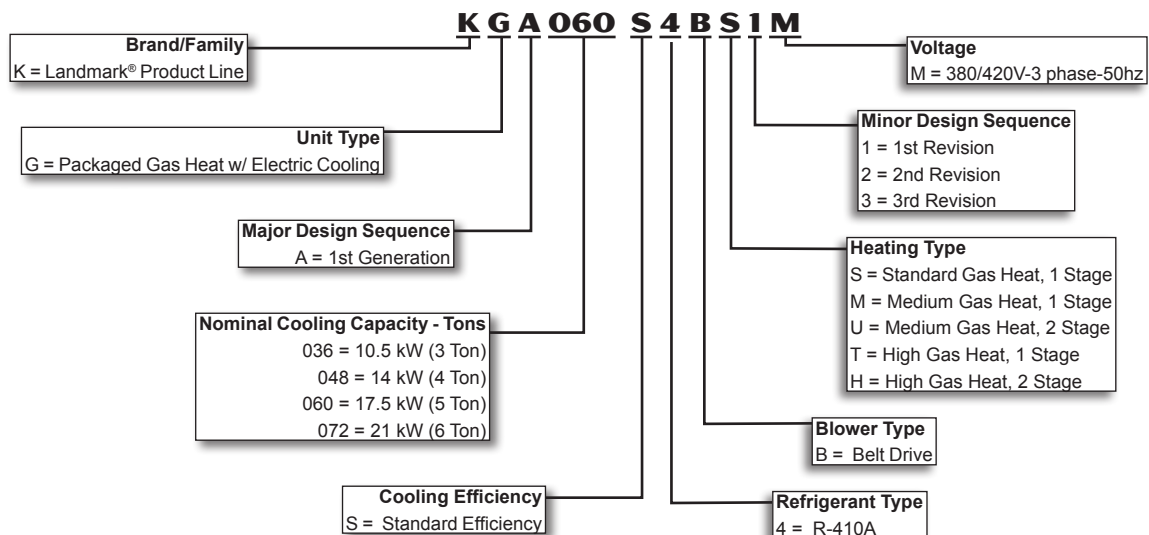


Nominal Capacity - 10.5 to 21 kW (3 to 6 Ton)

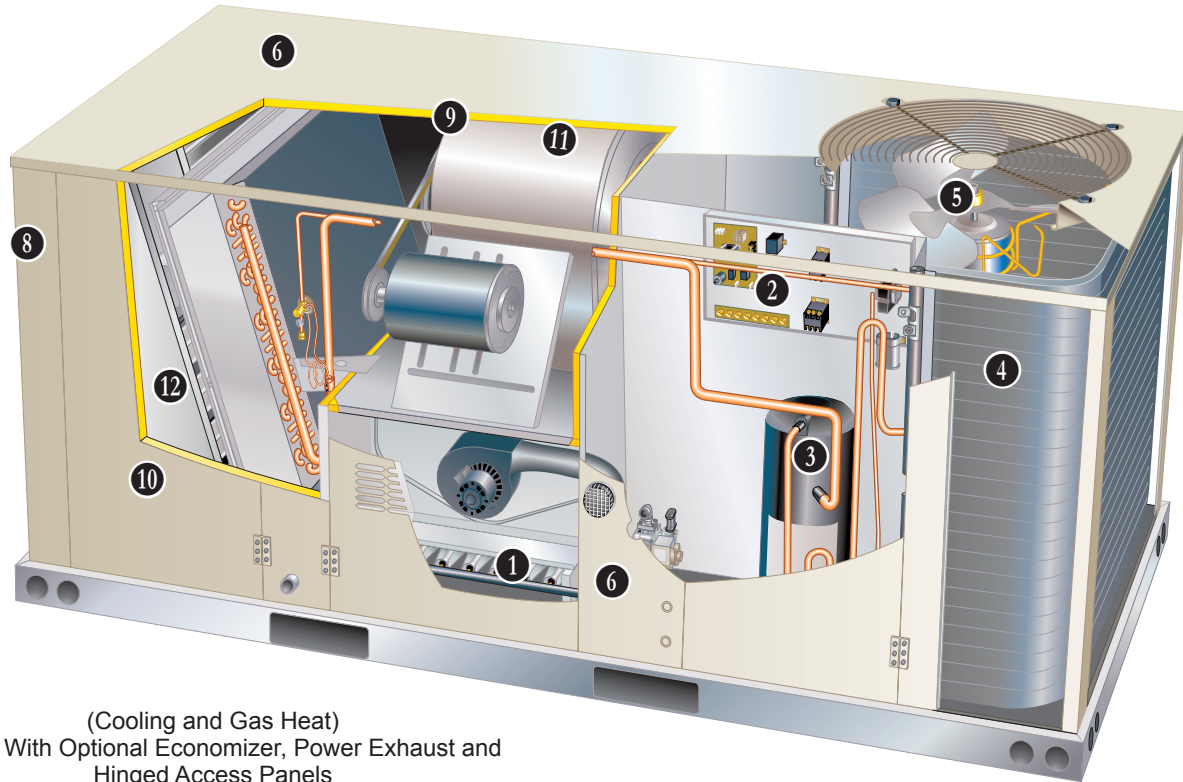
Net Cooling Capacity - 9.1 to 17.4 kW (31 000 to 59 400 Btuh)

Gas Input Heat Capacity - 16.7 to 38.7 kW (57 000 to 132 000 Btuh)

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



(Cooling and Gas Heat)
Shown With Optional Economizer, Power Exhaust and
Hinged Access Panels

Landmark® rooftop units from Lennox are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor environments. Landmark® rooftop units feature:

- **R-410A Refrigerant** - Environmentally friendly.
- **Single Speed Scroll Compressor** - Furnished on all models.
- **Lennox' Environ™ Coil System (072 Models)** - Smaller, lighter condenser coil.
- **High Pressure Switches** - Protect compressor.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Belt Drive Blower Motors** - Belt drive motors to maximize air performance.
- **Independent Motor Mounts** - Allows for easy and efficient service access without removing the top panel.
- **Downflow or Horizontal Airflow** - Easy field conversion.
- **Two Fork Lift Slots on Three Sides** - Easy to pick up and transport units from almost any angle.
- **Corrosion-Resistant Removable, Reversible Drain Pan** - Provides application flexibility, durability and improved serviceability.
- **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.

FEATURES AND BENEFITS

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TESTING

Components bonded for grounding to meet safety standards for servicing required by Underwriters Laboratories (UL) and the International Electrotechnical Commission (IEC).

Cooling performance is rated at test conditions included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 210/240-2008 while operating at rated voltage and air volumes.

21.0 kW models cooling performance is rated at test conditions included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 340/360-2007 while operating at rated voltage and air volumes.

International Organization for Standardization (ISO) 9001 Registered Manufacturing Quality System.

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

Tubular construction, aluminized steel, life cycle tested.

Stainless Steel Heat Exchanger is required if mixed air temperature is below 7°C.

- 2 **Electronic Pilot Ignition**
Electronic spark igniter provides positive direct ignition of burners on each operating cycle. The system permits main gas valve to stay open only when the burners are proven to be lit. Should a loss of flame occur, the gas valve closes, shutting off the gas to the burners. Ignition module has light emitting diode (LED) to indicate status and aid in troubleshooting.
Watchguard circuit on module automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance service calls. Ignition control is factory installed in the controls section.

Limit Controls

Factory installed, redundant 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.

Required Selections

Gas Input Choice - Order one:

- Standard Gas Heat, 1 Stage - 16.7 kW
- Medium Gas Heat, 1 Stage - 27.8 kW
- Medium Gas Heat, 2 Stage - 20.8 / 27.8 kW
- High Gas Heat, 1 Stage - 38.7 kW
- High Gas Heat, 2 Stage - 29.0 / 38.7 kW

Options / Accessories

Factory Installed

Stainless Steel Heat Exchanger

Required if mixed air temperature is below 7°C.

Field Installed

Combustion Air Intake Extensions

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

Low Temperature Vestibule Heater

Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°C. Allows operation of unit down to -51°C.

Propane Kits

Conversion kit to field change over units from Natural Gas to Propane.

Vertical Vent Extension Kit

Use to exhaust flue gases vertically above unit. Required when unit vent is too close to fresh air intakes per building codes. The vent kit also prevents ice formation on intake louvers.

FEATURES AND BENEFITS

COOLING SYSTEM

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

System can operate from -1°C to 52°C without any additional controls.

R-410A Refrigerant

Non-chlorine, ozone friendly, R-410A.



Unit pre-charged with refrigerant. See Specification table.

3 Scroll Compressor

Scroll compressors for high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

Compressor Crankcase Heater (072 Models)

Protects against refrigerant migration that can occur during low ambient operation.

Refrigerant Metering Orifice

Accurately meters refrigerant in system.

Refrigerant control is accomplished by exact sizing of refrigerant metering orifice.

High Pressure Switch

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

Filter/Drier

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

Freezestat

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

4 Lennox' Environ™ Coil System (072 Models)

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.

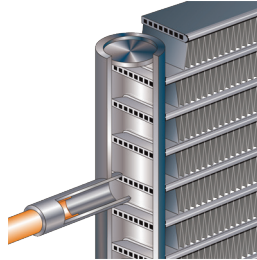
Environ™ Coil System Features:

- 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.

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

Conventional Fin/Tube Coil (Condenser Coil for KGA036 thru 060 models) and Evaporator Coil (all models)

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested. Cross row circuiting optimizes both sensible and latent cooling capacity.



Condensate Drain Pan

Plastic pan, sloped to meet drainage requirements of American Society of Heating Refrigeration and Air Conditioning Engineers 62.1.

Side or bottom drain connections.

Reversible to allow connection at back of unit.

5 Outdoor Coil Fan Motor

Thermal overload protected, totally enclosed, permanently lubricated sleeve (036 and 048 models) or ball bearings (060 and 72 models), shaft up, wire basket mount.

Outdoor Coil Fan

Polyvinyl chloride (PVC) coated fan guard furnished.

Required Selections

Cooling Capacity

Specify nominal cooling capacity of the unit.

Options / Accessories

Field Installed

Condensate Drain Trap

Field installed only.

Available in copper or polyvinyl chloride (PVC).

Compressor Crankcase Heater (Optional for 036 thru 060 Models)

Protects against refrigerant migration that can occur during low ambient operation.

Drain Pan Overflow Switch

Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

Low Ambient Kit

Cycles the outdoor fan while allowing compressor operation in the cooling cycle. This intermittent fan operation allows the system to operate without icing the evaporator coil and losing capacity.

Designed for use in ambient temperatures no lower than -18°C. A crankcase heater must be installed on the compressor.

FEATURES AND BENEFITS

CABINET

6 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. Three sides of the base rail have fork slots.

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

Air-Flow Choice

Units are shipped in downflow (vertical) configuration, can be field converted to horizontal air flow configuration without the need of a kit.

7 Power/Gas Entry

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

Optional Bottom Gas Entry Kit is available.

8 Exterior Panels

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

9 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

Access panels are provided for the economizer/filter section, heating/blower section, and the compressor/controls section.

NOTE - 072 models include a filler panel for proper cabinet fit for optional accessories (Economizers, Power Exhaust, Outdoor Air Dampers and Barometric Relief Dampers).

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.

Indoor Corrosion Protection:

- Coated coil
- Painted blower housing
- Painted base

Outdoor Corrosion Protection:

- Coated coil
- Painted base

10 Hinged Access Panels

Large access panels are hinged and have quarter-turn latches for quick and easy access to maintenance areas (economizer / filter, compressor / controls, heating / blower).

Field Installed

Combination Coil/Hail Guards

Heavy gauge steel frame painted to match cabinet with expanded metal mesh to protect the outdoor coil from damage.

Bottom Gas Entry Kit

Field installed piping kit to facilitate bottom gas entry.

CONTROLS

Unit Control

All control voltage is provided via a 24V (secondary) transformer with built-in circuit breaker protection.

Heat/Cool Staging - Capable of up to 2 heat / 2 cool staging with a third party DDC control system or thermostat.

Low Voltage Terminal Block -

Provides screw terminal connections for thermostat or controller wiring.

Night Setback Mode - Saves energy by closing outdoor air dampers and operating supply fan on thermostat demand only.

Options / Accessories

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.

Thermostats

Control system and thermostat options, see page 30.

Aftermarket unit controller options, see Options/Accessories table.

FEATURES AND BENEFITS

11 BLOWER

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

Motor

Overload protected, equipped with ball bearings.

Single Speed belt drive motors are offered on all models and are available in several different sizes to maximize air performance.

Supply Air Blower

Forward curved blades, blower wheel is statically and dynamically balanced.

Motors have adjustable pulley for speed change.

Ordering Information

Specify drive kit number when base unit is ordered.

Required Selections

Supply Air Blower

Order one drive kit, see Drive Kit Specifications Table.

INDOOR AIR QUALITY

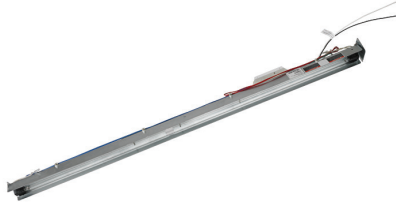
Air Filters

Disposable 51 mm filters furnished as standard.

Options / Accessories

Field Installed

Healthy Climate® UVC Germicidal Lamps



Helps eliminate mold and bacterial growth on the evaporator and drain pans. Improves indoor air quality and maintains efficiency of system by reducing fouling of evaporator coil.

Indoor Air Quality (CO₂) Sensor

Monitors CO₂ levels adjusts economizer dampers as needed for Demand Control Ventilation.

ELECTRICAL

Marked & Color-Coded Wiring

All electrical wiring is color-coded and marked to identify which components it is connecting.

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.

ECONOMIZER

Factory or Field Installed

12 Economizer (Standard and High Performance Common Features)

Outdoor Air Hood is furnished.

Factory installed Economizer can be ordered with two exhaust options:

- Barometric Relief Dampers and Exhaust Hood.
- No Exhaust.

Field installed Economizer includes Barometric Relief Dampers with Exhaust Hood.

Barometric Relief Dampers allow relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished.

Occupied/Unoccupied mode with field furnished setback thermostat.

Demand Control Ventilation (DCV) ready using optional CO₂ sensors.

Mixed Air Sensor is furnished for field installation in the rooftop unit. Sensor is factory installed when Economizers are factory installed.

Single sensible sensor is furnished with Economizer and enables economizer operation if the outdoor temperature is less than the setpoint of the control.

Horizontal Economizer Conversion kit is available for field installation.

Standard Economizer Features

Gear-driven action, return air and outdoor air dampers, plug-in connections to unit, neoprene seals, 24-volt, fully-modulating spring return motor.

Standard Economizer Control Module

The Standard Economizer Control Module can be adjusted to operate based on outdoor air temperatures.



Economizer Controls:

- Damper Minimum Position - Can be set lower than traditional minimum air requirements resulting in cost savings.
- IAQ Sensor - Signals dampers to modulate and maintain 13°C when CO₂ is higher than the CO₂ setpoint.
- Demand Control Ventilation (DCV) LED - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air.
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling.

Free Cooling runs when outdoor air temperature is lower than the set temperature on the economizer control.

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 13°C.

High Performance Economizer Features

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, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage.

High Performance Economizer Control Module

Module provides inputs and outputs to control economizer based on parameter settings.



Module automatically detects sensors by polling to determine which sensors are installed in system.

Module displays any alarm messages (fault detection and diagnostics) as an aid in troubleshooting.

Non-volatile memory retains parameter settings in case of power failure.

Keypad with four navigation buttons and LCD screen is furnished for setting economizer parameters.

- Menu Up/Exit  button returns to the main menu.
- Arrow Up  button moves to the previous or next parameter within the selected menu.
- Arrow Down  button moves to the next parameter within the selected menu.
- Select (enter)  button confirms parameter selection.

Main Menu Structure:

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO₂ settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

Refer to Installation Instructions for complete setup information and menu parameters available.

ECONOMIZER OPTIONS **(continued)**

Factory or Field Installed

Single Enthalpy Temperature Control

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

Field Installed

Differential Enthalpy Control

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 board to select between outdoor air or return air, whichever has lower enthalpy.

Horizontal Economizer Conversion Kit

Insulated panel covers the bottom return air opening on the unit base to convert downflow Economizer to horizontal airflow.

EXHAUST OPTIONS

Field Installed

Power Exhaust Fan

Installs internal to unit for downflow applications 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.

Fan is 406 mm diameter with 4 fan blades and a 0.25 kW motor.

NOTE - If Power Exhaust is field installed with a factory installed Economizer, the Economizer must be ordered with the "No Exhaust" option and the Barometric Relief Dampers with Exhaust Hood must also be ordered separately for field installation.

OUTDOOR AIR OPTIONS

Factory or Field Installed

Outdoor Air Dampers - Downflow or Horizontal

Single blade damper, 0 to 25% (fixed) outdoor air adjustable, installs in unit.

Automatic model features fully modulating spring return damper motor with plug-in connection.

Manual model features a slide damper. Maximum mixed air temperature in cooling mode: 38°C.

Outdoor Air Hood is furnished.

ROOF CURBS

Nailer strip furnished, mates to unit, US National Roofing Contractors Approved, shipped knocked down.

Hybrid Roof Curbs, Downflow

Roof curbs can be assembled using interlocking tabs to fasten corners together. No tools required.

Curbs can also be fastened together with furnished hardware.

Available in 203, 356, 457, and 610 mm heights.

Adjustable Pitch Curb

Fully adjustable pitch curb provides a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles.

Maximum slope is 19 mm per 300 mm in any direction.

Uses interlocking tabs to fasten corners together. No tools required.

Hardware is furnished to connect upper curb with lower curb.

Available in 356 mm height.

Adaptor Curbs (not shown)

Curbs are regionally sourced. Dimensions will vary based upon the source. Contact your local sales representative for a detailed cut sheet with applicable dimensions.

CEILING DIFFUSERS

Ceiling Diffusers (Flush and Step-Down)

Diffuser face and grilles with white powder coat finish, insulated (UL listed duct liner), diffuser box with collars for duct connection, fixed blades (flush diffusers) and double deflection blades (step-down diffusers), provisions for suspending, internally sealed (prevents recirculation), removable return air grille, adapts to T-bar ceiling grids or plaster ceilings.

Transitions (Supply and Return)

Used with diffusers, installs in roof curb, galvanized steel construction, flanges furnished for duct connection to diffusers, fully insulated.

OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number			
			KGA 036	KGA 048	KGA 060	KGA 072
COOLING SYSTEM						
Condensate Drain Trap	Polyvinyl Chloride (PVC) - C1TRAP20AD2	76W26	X	X	X	X
	Copper - C1TRAP10AD2	76W27	X	X	X	X
Compressor Crankcase Heater	380/420V-3ph - K1CCHT012A-2G	14D87	X	X		
	380/420V-3ph - T1CCHT01AN2G	14D84			X	
Drain Pan Overflow Switch	K1SNSR71AB1-	74W42	X	X	X	X
Low Ambient Kit	K1SNSR33AN2	14D89	X	X	X	X
Efficiency	Standard		O	O	O	O
Refrigerant Type	R-410A		O	O	O	O
HEATING SYSTEM						
Bottom Gas Piping Kit	T1GPKT01AN1	19W50	X	X	X	X
Low Temperature Vestibule Heater	T1CWKT01AN1G	19W54	X	X	X	X
Combustion Air Intake Extensions	T1EXTN10AN1	19W51	X	X	X	X
Gas Heat Input	Standard Gas Heat, 1 Stage - 16.7 kW	Factory	O	O	O	O
	Medium Gas Heat, 1 Stage - 27.8 kW	Factory	O	O	O	O
	Medium Gas Heat, 2 Stage - 20.8/ 27.8 kW	Factory	O	O	O	O
	High Gas Heat, 1 Stage - 38.7 kW	Factory		O	O	O
	High Gas Heat, 2 Stage - 29.0/38.7 kW	Factory		O	O	O
LPG/Propane Conversion Kits	For one-stage models - C1PROP10AP3	14N20	X	X	X	X
	For two-stage models - C1PROP20AP3	14N21	X	X	X	X
Stainless Steel Heat Exchanger			O	O	O	O
Vertical Vent Extension	C1EXTN20FF1	31W62	X	X	X	X
BLOWER - SUPPLY AIR						
Motors	Belt Drive - 1.5 kW Standard Efficiency	Factory	O	O	O	1 O
Drive Kits	Kit A01 - T1DRKT001-1 - 561 - 842 rev/min	Factory	O			
See Blower Data Tables for selection	Kit A02 - T1DRKT002-1 - 621 - 931 rev/min	Factory		O		
	Kit A03 - T1DRKT003-1 - 694 - 1042 rev/min	Factory			O	
	Kit A04 - T1DRKT004-1 - 807 - 1117 rev/min	Factory				1 O
	Kit A05 - T1DRKT005-1 - 748 - 1122 rev/min	Factory	O			
	Kit A06 - T1DRKT006-1 - 893 - 1191 rev/min	Factory		O		
	Kit A07 - T1DRKT007-1 - 1010 - 1290 rev/min	Factory			O	
	Kit A08 - T1DRKT008-1 - 994 - 1326 rev/min	Factory				1 O
	Kit A09 - T1DRKT009-1 - 1193 - 1594 rev/min	Factory				1 O
	Kit AA02 - T1DRKT002AP1 - 527 -729 rev/min	Factory				2 O
	Kit AA03 - T1DRKT003AP1 - 665 - 921 rev/min	Factory				2 O
	Kit AA04 - T1DRKT004AP1 - 768 - 1023 rev/min	Factory				2 O
CABINET						
Hinged Access Panels	Factory		O	O	O	O
Combination Coil/Hail Guards	C1GARD51A-1	13R98	X	X	X	
	C1GARD51AT1	13T03				X
Corrosion Protection	Factory		O	O	O	O

¹ 072S and 074S Single Speed Belt Drive models only.

² 072H Single Speed Belt Drive.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.

OX - Field Installed or Configure to Order (Factory installed)

O - Configure to Order (Factory Installed)

X - Field Installed.

OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number			
			KGA 036	KGA 048	KGA 060	KGA 072
CONTROLS						
BACnet®	K0CTRL31A-2	16X70	OX	OX	OX	OX
BACnet® Thermostat with Display	K0SNSR01FF1	97W23	X	X	X	X
BACnet® Thermostat without Display	K0SNSR00FF1	97W24	X	X	X	X
Novar® 2051	K0CTRL30A-1	96W11	OX	OX	OX	
	K0CTRL30AP1	12B98				OX
Plenum Cable - 23 m	K0MISC00FF1	97W25	X	X	X	X
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44AP1	53W78	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43AP1	53W79	X	X	X	X
ECONOMIZER						
Standard Economizer With Outdoor Air Hood (Sensible Control)						
Standard Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON30A-3-	14D90	OX	OX	OX	OX
Standard Economizer - No Exhaust		Factory	O	O	O	O
Standard Economizer Controls						
Single Enthalpy Control	C1SNSR64FF1	53W64	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR64FF1	53W64	X	X	X	X
High Performance Economizer With Outdoor Air Hood (Sensible Control)						
High Performance Economizer - Includes Barometric Relief Dampers and Exhaust Hood	K1ECON32A-3	16X75	OX	OX	OX	OX
High Performance Economizer Controls						
Single Enthalpy Control	C1SNSR60FF1	10Z75	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR60FF1	10Z75	X	X	X	X
Economizer Accessories						
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	X	X	X	X
OUTDOOR AIR						
Outdoor Air Dampers - Includes Outdoor Air Hood						
Motorized	C1DAMP21A-1	15D17	OX	OX	OX	OX
Manual	C1DAMP11A-2	15D18	OX	OX	OX	OX
POWER EXHAUST FAN						
Standard Static <i>NOTE - Order Barometric Relief Dampers with Exhaust Hood below if unit is ordered with factory installed Economizer with “No Exhaust” option</i>	380/420V-3ph - C1PWRE10A-1M	79W93	X	X	X	X
' BAROMETRIC RELIEF						
Barometric Relief Dampers with Exhaust Hood	C1DAMP50A-1-	74W38	X	X	X	X
ELECTRICAL						
Voltage 50 hz with neutral	380/420V - 3 phase		O	O	O	O

¹ Required when Economizer is factory installed (no exhaust option) with field installed Power Exhaust Fan option.

NOTE - The catalog and model numbers that appear here are for ordering field installed accessories only.

OX - Field Installed or Configure to Order (Factory installed)

O - Configure to Order (Factory Installed)

X - Field Installed.

OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number			
			KGA 036	KGA 048	KGA 060	KGA 072
INDOOR AIR QUALITY						
Air Filters						
Healthy Climate® High Efficiency Air Filters	MERV 8 (406 x 508 x 51) - C1FLTR15A-1-	54W20	X	X	X	
	MERV 13 (406 x 508 x 51) - T1FLTR40A-1-	52W37	X	X	X	
Order 4 per unit	MERV 8 (508 x 508 x 51) - C1FLTR15D-1-	54W21				X
	MERV 13 (508 x 508 x 51) - C1FLTR40D-1-	52W39				X
Indoor Air Quality (CO ₂) Sensors						
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	87N54	X	X	X	X
CO ₂ Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	85L43	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensor (77N39)	C0MISC16AE1-	90N43	X	X	X	X
UVC Germicidal Lamps						
¹ Healthy Climate® UVC Light Kit (220V-1ph)	E1UVCL10AN1-	50W90	X	X	X	X
ROOF CURBS						
Hybrid Roof Curbs, Downflow						
203 mm height	C1CURB70A-1	11F50	X	X	X	X
356 mm height	C1CURB71A-1	11F51	X	X	X	X
457 mm height	C1CURB72A-1	11F52	X	X	X	X
610 mm height	C1CURB73A-1	11F53	X	X	X	X
Adjustable Pitch Curb, Downflow						
356 mm height	C1CURB55AT1	43W27	X	X	X	X
CEILING DIFFUSERS						
Step-Down - Order one	RTD9-65S	13K60	X	X	X	
	RTD11-95S	13K61				X
Flush - Order one	FD9-65S	13K55	X	X	X	
	FD11-95S	13K56				X
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	X	X	X	
	T1TRAN20N-1	17W54				X

¹ Lamps operate on 110-230V single-phase power supply. Step-down transformer may be ordered separately for 380/420V primary to 220V secondary units. Alternately, 220V power supply may be used to directly power the UVC ballast(s).

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X - Field Installed.

SPECIFICATIONS			10.5 - 21 kW			
General Data		Nominal Size	10.5 kW (3 Ton)	14.0 kW (4 Ton)	17.5 kW (5 Ton)	21 kW (6 Ton)
		Model No.	KGA036S4B	KGA048S4B	KGA060S4B	KGA072S4B
		Efficiency Type	Standard	Standard	Standard	Standard
		Blower Type	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive
Cooling Performance	Gross Cooling Capacity - kW (Btuh)		9.5 (32 500)	12.7 (43 300)	15.8 (53 900)	18.4 (62 500)
	¹ Net Cooling Capacity - kW (Btuh)		9.1 (31 000)	12.1 (41 200)	15.0 (51 100)	17.4 (59 400)
	Rated Air Flow - L/s (cfm)		565 (1200)	755 (1600)	850 (1800)	1156 (2450)
	³ Sound Rating Number (dB)		75	75	82	79
	Total Unit Power - kW		3	3.9	4.7	5.2
	¹ SEER (Btuh/Watt)		13.0	13.0	13.0	11.3
	¹ EER (Btuh/Watt) at 35°C (95°F)		10.9	11.1	11.3	8.3
	² EER (Btuh/Watt) at 46°C (115°F)		8.5	8.7	9.6	11.9
Refrigerant		Type	R-410A	R-410A	R-410A	R-410A
		Charge Furnished	3.40 kg (7 lbs. 12 oz.)	3.97 kg (8 lbs. 12 oz.)	5.67 kg (12 lbs. 8 oz.)	3.20 kg (7 lbs. 1 oz.)
Gas Heating Options - See page 13			Standard (1 stage) or Medium (1 or 2 stage)	Standard (1 stage), Medium (1 or 2 stage) or High (1 or 2 stage)		
Compressor Type (one per unit)			Scroll	Scroll	Scroll	Scroll
Outdoor Coil	Net face area - m ² (sq. ft.)		1.45 (15.6)	1.45 (15.6)	1.45 (15.6)	1.65 (17.8)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	- - -
	Number of rows		1	1.5	2	1
	Fins per meter (Fins per inch)		788 (20)	788 (20)	788 (20)	905 (23)
Outdoor Coil Fan	Motor W (hp)		(1) 187 (1/4)	(1) 187 (1/4)	(1) 249 (1/3)	(1) 249 (1/3)
	Motor rev/min		690	690	900	900
	Total motor watts		190	190	280	280
	Diameter - mm (in.) / No. of blades		(1) 610 (24) - 3	(1) 610 (24) - 3	(1) 610 (24) - 3	(1) 610 (24) - 3
	Total air volume - L/s (cfm)		1465 (3100)	1370 (2900)	1700 (3600)	1850 (3920)
Indoor Coil	Net face area - m ² (sq. ft.)		0.72 (7.78)	0.72 (7.78)	0.72 (7.78)	0.9 (9.7)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows		3	3	4	4
	Fins per meter (Fins per inch)		551 (14)	551 (14)	551 (14)	551 (14)
	Drain Connection (no. and size) - in.		(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT
	Expansion device type		Refrigerant Metering Orifice (RFC)			
⁴ Indoor Blower & Drive Selection	Nominal Motor Size		1.5 kW (2 hp)	1.5 kW (2 hp)	1.5 kW (2 hp)	1.5 kW (2 hp)
	Maximum Usable Motor Size		1.7 kW (2.3 hp)	1.7 kW (2.3 hp)	1.7 kW (2.3 hp)	1.7 kW (2.3 hp)
	Drive Kit (rev/min range)		A01 - (561 - 842)	A02 - (621 - 931)	A03 (694 - 1042)	A04 (807 - 1117)
			A05 - (748 - 1122)	A06 - (893 - 1191)	A07 (1010 - 1290)	A08 (994 - 1326)
	Wheel nominal diameter x width - mm (in.)		254 x 254 (10 x 10)	254 x 254 (10 x 10)	254 x 254 (10 x 10)	254 x 254 (10 x 10)
Filters	Type		Disposable	Disposable	Disposable	Disposable
	Number and size - mm (in.)		(4) 406 x 508 x 51 (16 x 20 x 2)	(4) 406 x 508 x 51 (16 x 20 x 2)	(4) 406 x 508 x 51 (16 x 20 x 2)	(4) 508 x 508 x 51 (20 x 20 x 2)
Electrical Characteristics - 50 Hz			380/420V - 50 hertz - 3 phase with neutral			

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

¹ Tested at conditions which are based on AHRI Standard 210/240; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

² Rated at 46°C (115°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air (T3 Conditions).

³ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁴ Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor size required. Maximum usable size of motors furnished is shown. If motors of comparable size are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

SPECIFICATIONS - GAS HEAT

Model No.		036, 048, 060, 072	036, 048, 060, 072	036, 048, 060, 072	048, 060, 072	048, 060, 072
Heat Input Type		Standard (1 Stage)	Medium (1 Stage)	Medium (2 Stage)	High (1 Stage)	High (2 Stage)
Input kW (Btuh)	1st Stage	16.7 (57 000)	27.8 (95 000)	20.8 (71 000)	38.7 (132 000)	29.0 (99 000)
	2nd Stage	---	---	27.8 (95 000)	---	38.7 (132 000)
Output kW (Btuh)	1st Stage	13.5 (46 000)	22.3 (76 000)	16.7 (57 000)	31.1 (106 000)	23.2 (79 000)
	2nd Stage	---	---	22.3 (76 000)	---	31.1 (106 000)
Temperature Rise Range	1st stage	6 - 22°C (10 - 40°F)	14 - 36°C (25 - 65°F)	11 - 28°C (20 - 50°F)	22 - 39°C (40 - 70°F)	14 - 31°C (25 - 55°F)
	2nd Stage	---	---	14 - 36°C (25 - 65°F)	---	22 - 39°C (40 - 70°F)
¹ Thermal Efficiency		80%	80%	80%	80%	80%
Gas Supply Connections		1/2 in. NPT				
Recommended Gas Supply Pressure - Natural/ LPG		1.7 kPa (7.0 in. w.c.) / 2.7 kPa (11.0 in. w.c.)				

¹ Thermal Efficiency at full input.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 610 m (2000 ft) above sea level without any modifications. At altitudes above 610 m (2000 ft.), units must be derated to match information in the table shown. At altitudes above 1372 m (4500 ft.), unit must be derated 2% for each 305 m (1000 ft.) above sea level.

NOTE - This is the only permissible derate for these units.

Heat Input Type	Altitude Feet		Gas Manifold Pressure				Input Rate	
			kPa		in. w.g.			
	Meters	Feet	Natural Gas	LPG/ Propane	Natural Gas	LPG/ Propane	kW	Btuh
Standard (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	15.5	53 000
Medium (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	25.8	88 000
Medium (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	25.8 / 19.3	88 000 / 66 000
High (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	35.8	122 000
High (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	35.8 / 27.0	122 000 / 92 000

RATINGS

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

10.5 KW - KGA036S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		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			
				24°C	27°C	29°C	24°C			27°C	29°C	24°C	27°C			29°C	24°C	27°C	29°C			24°C	27°C	29°C	
17.2°C	455	9.4	1.82	0.78	0.91	1	8.5	2.21	0.8	0.94	1	7.6	2.68	0.83	0.98	1	7.2	2.87	0.8	0.98	1				
	565	9.9	1.83	0.84	0.98	1	9	2.22	0.85	1	1	8.1	2.7	0.89	1	1	7.8	2.87	0.88	1	1				
	680	10.4	1.84	0.88	1	1	9.5	2.23	0.91	1	1	8.6	2.71	0.95	1	1	8.2	2.89	0.95	1	1				
19.4°C	455	10	1.83	0.61	0.75	0.89	9.1	2.22	0.61	0.77	0.91	8.1	2.7	0.62	0.8	0.95	7.7	2.87	0.6	0.78	0.95				
	565	10.5	1.84	0.65	0.82	0.95	9.5	2.23	0.66	0.84	0.98	8.5	2.7	0.67	0.87	1	8.1	2.88	0.65	0.86	1				
	680	10.8	1.85	0.68	0.87	1	9.8	2.24	0.7	0.9	1	8.8	2.71	0.72	0.93	1	8.4	2.89	0.7	0.93	1				
21.7°C	455	10.5	1.84	0.45	0.6	0.73	9.6	2.23	0.45	0.61	0.75	8.6	2.71	0.44	0.61	0.78	8.2	2.89	0.42	0.6	0.76				
	565	11	1.86	0.48	0.64	0.8	10.1	2.25	0.46	0.65	0.82	9	2.72	0.46	0.66	0.86	8.6	2.89	0.45	0.65	0.84				
	680	11.4	1.87	0.49	0.67	0.85	10.4	2.25	0.48	0.69	0.88	9.3	2.73	0.49	0.71	0.92	8.9	2.9	0.48	0.7	0.91				
Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		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									
				24°C	27°C	29°C	24°C			27°C	29°C	24°C	27°C			29°C	24°C	27°C	29°C						
17.2°C	455	7	3.01	0.84	1	1	6.7	3.17	0.86	1	1	6.5	3.31	0.87	1	1									
	565	7.5	3.02	0.91	1	1	7.3	3.17	0.93	1	1	7.1	3.32	0.94	1	1									
	680	8	3.03	0.97	1	1	7.7	3.19	0.99	1	1	7.5	3.33	0.99	1	1									
19.4°C	455	7.4	3.02	0.62	0.82	0.97	7.2	3.17	0.62	0.83	0.98	6.9	3.31	0.63	0.85	0.99									
	565	7.8	3.03	0.68	0.9	1	7.5	3.18	0.69	0.91	1	7.3	3.32	0.69	0.92	1									
	680	8.1	3.03	0.73	0.96	1	7.8	3.19	0.74	0.97	1	7.5	3.33	0.75	0.98	1									
21.7°C	455	7.9	3.03	0.43	0.62	0.8	7.6	3.18	0.43	0.62	0.8	7.4	3.32	0.43	0.62	0.82									
	565	8.3	3.04	0.45	0.68	0.88	8	3.19	0.45	0.68	0.89	7.7	3.33	0.45	0.69	0.9									
	680	8.6	3.05	0.48	0.73	0.94	8.3	3.2	0.49	0.74	0.96	8	3.34	0.49	0.75	0.96									

RATINGS

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

14 KW - KGA048S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		26.7°C					35°C					43.3°C					46°C				
		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		
		L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C
17.2°C	605	12.7	2.34	0.77	0.91	1	11.3	2.85	0.79	0.94	1	10	3.43	0.81	0.98	1	9.5	3.64	0.79	0.98	1
	755	13.4	2.34	0.83	0.98	1	12	2.86	0.85	1	1	10.7	3.46	0.88	1	1	10.3	3.67	0.88	1	1
	905	14	2.35	0.87	1	1	12.7	2.88	0.91	1	1	11.3	3.47	0.95	1	1	10.8	3.69	0.95	1	1
19.4°C	605	13.4	2.34	0.6	0.75	0.88	12.1	2.87	0.6	0.77	0.91	10.7	3.46	0.6	0.79	0.95	10.2	3.66	0.59	0.77	0.96
	755	14.1	2.35	0.64	0.81	0.95	12.7	2.88	0.64	0.84	0.98	11.2	3.47	0.65	0.87	1	10.7	3.68	0.64	0.86	1
	905	14.7	2.35	0.68	0.86	1	13.1	2.89	0.69	0.89	1	11.6	3.49	0.7	0.93	1	11.1	3.7	0.69	0.94	1
21.7°C	605	14.2	2.35	0.44	0.59	0.72	12.8	2.88	0.43	0.59	0.75	11.3	3.48	0.41	0.6	0.77	10.8	3.68	0.41	0.59	0.76
	755	14.9	2.35	0.47	0.63	0.79	13.5	2.9	0.46	0.64	0.82	11.8	3.49	0.43	0.65	0.85	11.4	3.7	0.43	0.64	0.84
	905	15.4	2.35	0.48	0.67	0.85	13.9	2.9	0.48	0.68	0.88	12.3	3.51	0.47	0.7	0.91	11.7	3.72	0.46	0.69	0.92
Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		48°C					50°C					51.7°C									
		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							
		L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C				
17.2°C	605	9.2	3.82	0.83	1	1	8.8	4	0.84	1	1	8.6	4.16	0.85	1	1					
	755	9.9	3.84	0.9	1	1	9.6	4.02	0.92	1	1	9.3	4.18	0.93	1	1					
	905	10.5	3.86	0.97	1	1	10.1	4.04	0.98	1	1	9.8	4.2	0.99	1	1					
19.4°C	605	9.8	3.84	0.6	0.81	0.97	9.5	4.02	0.61	0.82	0.98	9.1	4.18	0.61	0.83	0.99					
	755	10.3	3.85	0.66	0.89	1	9.9	4.03	0.67	0.9	1	9.5	4.19	0.67	0.91	1					
	905	10.7	3.87	0.72	0.96	1	10.3	4.04	0.72	0.97	1	9.9	4.21	0.73	0.98	1					
21.7°C	605	10.5	3.86	0.41	0.6	0.79	10.1	4.03	0.4	0.6	0.8	9.7	4.19	0.4	0.61	0.8					
	755	11	3.88	0.44	0.66	0.87	10.6	4.05	0.43	0.67	0.88	10.2	4.21	0.43	0.67	0.9					
	905	11.3	3.89	0.46	0.72	0.94	10.9	4.06	0.46	0.72	0.96	10.5	4.22	0.46	0.73	0.97					

RATINGS

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

17.5 KW - KGA060S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		26.7°C					35°C						43.3°C					46°C			
		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		
		L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C
17.2°C	755	15.9	2.72	0.72	0.9	1	14.6	3.26	0.74	0.94	1	13.2	3.92	0.76	1	1	12.8	4.16	0.82	1	1
	945	16.6	2.74	0.78	1	1	15.4	3.29	0.81	1	1	14.1	3.96	0.87	1	1	13.7	4.2	0.92	1	1
	1135	17.5	2.77	0.86	1	1	16.1	3.32	0.91	1	1	14.8	3.99	0.98	1	1	14.3	4.23	1	1	1
19.4°C	755	16.9	2.75	0.56	0.7	0.85	15.5	3.29	0.57	0.72	0.9	14	3.96	0.57	0.74	0.96	13.5	4.19	0.61	0.8	0.99
	945	17.5	2.77	0.59	0.76	0.97	16.1	3.32	0.61	0.79	1	14.6	3.98	0.62	0.84	1	14.1	4.22	0.67	0.9	1
	1135	18	2.79	0.63	0.83	1	16.5	3.34	0.65	0.88	1	15	3.99	0.67	0.95	1	14.4	4.23	0.72	0.99	1
21.7°C	755	17.8	2.79	0.42	0.55	0.67	16.4	3.33	0.41	0.56	0.7	14.9	3.99	0.41	0.57	0.72	14.4	4.23	0.42	0.6	0.78
	945	18.5	2.81	0.43	0.58	0.74	17	3.36	0.44	0.6	0.76	15.4	4.02	0.43	0.63	0.81	14.8	4.25	0.45	0.66	0.88
	1135	19	2.83	0.45	0.63	0.81	17.4	3.37	0.45	0.64	0.86	15.8	4.03	0.46	0.67	0.93	15.2	4.26	0.48	0.72	0.97
Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		48°C					50°C						51.7°C								
		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		
		L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C
17.2°C	755	12.5	4.36	0.79	1	1	12.2	4.57	0.8	1	1	11.9	4.76	0.81	1	1					
	945	13.3	4.4	0.91	1	1	13	4.6	0.93	1	1	12.6	4.78	0.95	1	1					
	1135	14	4.43	1	1	1	13.6	4.63	1	1	1	13.2	4.81	1	1	1					
19.4°C	755	13.2	4.39	0.59	0.76	1	12.8	4.59	0.6	0.78	1	12.4	4.76	0.6	0.78	1					
	945	13.7	4.41	0.64	0.88	1	13.2	4.61	0.65	0.91	1	12.8	4.79	0.65	0.92	1					
	1135	14	4.42	0.7	0.99	1	13.6	4.63	0.71	1	1	13.2	4.8	0.72	1	1					
21.7°C	755	14	4.43	0.42	0.57	0.74	13.5	4.63	0.41	0.59	0.76	13.1	4.8	0.42	0.6	0.77					
	945	14.4	4.44	0.43	0.64	0.86	14	4.64	0.45	0.64	0.88	13.6	4.82	0.45	0.65	0.9					
	1135	14.8	4.46	0.46	0.7	0.98	14.3	4.66	0.47	0.71	0.99	13.9	4.84	0.47	0.72	1					

RATINGS

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

21 KW - KGA072S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						46°C					
		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			
				L/s	kW	kW	24°C			27°C	29°C	kW	kW			24°C	27°C	29°C	kW			kW	24°C	27°C	29°C
17.2°C	905	18.5	3.39	0.77	0.93	1	16.4	4	0.8	0.97	1	14.2	4.76	0.84	1	1	13.6	5.05	0.84	1	1				
	1135	19.5	3.42	0.84	1	1	17.5	4.04	0.88	1	1	15.4	4.81	0.92	1	1	14.7	5.1	0.94	1	1				
	1360	20.6	3.46	0.91	1	1	18.4	4.08	0.94	1	1	16.2	4.85	1	1	1	15.5	5.14	1	1	1				
19.4°C	905	19.8	3.43	0.6	0.75	0.9	17.5	4.04	0.61	0.78	0.94	15.2	4.81	0.61	0.81	0.99	14.5	5.09	0.61	0.82	1				
	1135	20.7	3.46	0.64	0.82	0.98	18.3	4.07	0.66	0.86	1	15.8	4.84	0.67	0.9	1	15.1	5.12	0.68	0.92	1				
	1360	21.3	3.49	0.68	0.89	1	18.8	4.1	0.7	0.93	1	16.3	4.86	0.74	0.98	1	15.6	5.14	0.74	1	1				
21.7°C	905	21	3.47	0.44	0.56	0.73	18.7	4.09	0.44	0.6	0.76	16.3	4.85	0.42	0.61	0.79	15.5	5.14	0.41	0.6	0.79				
	1135	22	3.51	0.46	0.64	0.8	19.5	4.13	0.45	0.65	0.84	16.9	4.89	0.44	0.67	0.89	16.1	5.17	0.44	0.67	0.9				
	1360	22.7	3.54	0.48	0.68	0.87	20	4.15	0.48	0.7	0.91	17.4	4.91	0.48	0.74	0.97	16.6	5.19	0.48	0.74	0.99				
Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		48°C						50°C						51.7°C											
		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									
				L/s	kW	kW	24°C			27°C	29°C	kW	kW			24°C	27°C	29°C	kW	kW	24°C	27°C	29°C		
17.2°C	905	13.2	5.29	0.86	1	1	12.7	5.54	0.87	1	1	12.3	5.78	0.88	1	1									
	1135	14.2	5.33	0.96	1	1	13.7	5.59	0.98	1	1	13.3	5.82	0.99	1	1									
	1360	14.9	5.37	1	1	1	14.4	5.63	1	1	1	14	5.86	1	1	1									
19.4°C	905	14	5.33	0.62	0.84	1	13.4	5.57	0.62	0.86	1	12.9	5.8	0.62	0.87	1									
	1135	14.5	5.35	0.69	0.94	1	14	5.6	0.7	0.96	1	13.5	5.83	0.71	0.97	1									
	1360	15	5.37	0.76	1	1	14.4	5.62	0.77	1	1	14	5.85	0.78	1	1									
21.7°C	905	15	5.37	0.4	0.62	0.82	14.4	5.62	0.41	0.63	0.83	13.8	5.85	0.41	0.62	0.85									
	1135	15.6	5.4	0.45	0.69	0.93	15	5.65	0.45	0.7	0.94	14.4	5.88	0.45	0.71	0.95									
	1360	16	5.43	0.48	0.76	1	15.3	5.68	0.48	0.77	1	14.8	5.9	0.48	0.78	1									

BLOWER DATA - BELT DRIVE - KGA036 - DOWNFLOW

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																	
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	493	0.08	0.11	564	0.11	0.15	637	0.14	0.19	711	0.16	0.22	783	0.18	0.24	851	0.19	0.26
472	1000	517	0.10	0.14	588	0.13	0.18	660	0.16	0.22	733	0.18	0.24	804	0.19	0.26	868	0.22	0.29
519	1100	544	0.13	0.17	614	0.16	0.21	685	0.19	0.25	757	0.20	0.27	826	0.22	0.29	887	0.24	0.32
566	1200	574	0.15	0.20	643	0.18	0.24	712	0.21	0.28	782	0.23	0.31	849	0.25	0.33	906	0.27	0.36
613	1300	613	0.17	0.23	679	0.21	0.28	745	0.23	0.31	811	0.25	0.34	873	0.27	0.36	926	0.30	0.40
661	1400	662	0.19	0.26	722	0.22	0.30	781	0.25	0.34	841	0.28	0.37	897	0.31	0.41	944	0.33	0.44
708	1500	710	0.22	0.29	763	0.25	0.33	816	0.28	0.38	869	0.31	0.41	919	0.34	0.45	963	0.37	0.49
Air Volume		External Static - Pa (in.w.g.)																	
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	1008	0.25	0.34	1056	0.27	0.36	1104	0.29	0.39	1149	0.31	0.41	1190	0.33	0.44	1229	0.34	0.46
472	1000	1020	0.28	0.37	1067	0.30	0.40	1115	0.31	0.42	1159	0.34	0.45	1200	0.36	0.48	1239	0.38	0.51
519	1100	1032	0.31	0.41	1078	0.32	0.43	1124	0.34	0.46	1168	0.37	0.49	1210	0.39	0.52	1249	0.41	0.55
566	1200	1045	0.34	0.45	1090	0.35	0.47	1135	0.37	0.50	1178	0.40	0.53	1220	0.43	0.57	1259	0.45	0.60
613	1300	1060	0.37	0.49	1104	0.38	0.51	1148	0.41	0.55	1190	0.43	0.58	1230	0.46	0.62	1269	0.48	0.65
661	1400	1075	0.40	0.53	1119	0.42	0.56	1162	0.45	0.60	1203	0.47	0.63	1242	0.50	0.67	1280	0.53	0.71
708	1500	1093	0.43	0.58	1136	0.46	0.61	1177	0.48	0.65	1217	0.51	0.69	1255	0.54	0.73	1292	0.57	0.77

BLOWER DATA - BELT DRIVE - KGA036 - HORIZONTAL

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																	
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	465	0.07	0.09	531	0.10	0.14	0.17	600	0.13	0.15	0.20	0.22	740	0.16	0.22	808	0.18	0.24
472	1000	483	0.09	0.12	549	0.12	0.16	0.20	617	0.15	0.16	0.22	0.24	756	0.18	0.24	822	0.19	0.26
519	1100	504	0.10	0.14	570	0.14	0.19	0.22	637	0.16	0.19	0.25	0.27	773	0.20	0.27	837	0.22	0.29
566	1200	527	0.13	0.17	592	0.16	0.22	0.25	658	0.19	0.21	0.28	0.30	792	0.22	0.30	854	0.24	0.32
613	1300	552	0.15	0.20	617	0.19	0.25	0.29	682	0.22	0.23	0.31	0.33	812	0.25	0.33	871	0.27	0.36
661	1400	580	0.18	0.24	644	0.21	0.28	0.32	708	0.24	0.26	0.35	0.37	834	0.28	0.37	890	0.30	0.40
708	1500	611	0.21	0.28	674	0.24	0.32	0.35	736	0.26	0.28	0.38	0.41	857	0.31	0.41	908	0.33	0.44
Air Volume		External Static - Pa (in.w.g.)																	
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	977	0.25	0.33	1028	0.27	0.36	1079	0.29	0.39	1127	0.31	0.42	1169	0.34	0.45	1208	0.36	0.48
472	1000	985	0.27	0.36	1036	0.29	0.39	1087	0.31	0.42	1135	0.34	0.45	1177	0.36	0.48	1216	0.39	0.52
519	1100	995	0.29	0.39	1044	0.31	0.42	1093	0.34	0.45	1140	0.37	0.49	1183	0.39	0.52	1223	0.42	0.56
566	1200	1005	0.32	0.43	1053	0.34	0.46	1100	0.37	0.49	1146	0.40	0.53	1190	0.42	0.56	1230	0.45	0.60
613	1300	1016	0.35	0.47	1063	0.37	0.50	1109	0.40	0.53	1154	0.43	0.57	1197	0.46	0.61	1237	0.48	0.64
661	1400	1029	0.38	0.51	1074	0.40	0.54	1120	0.43	0.58	1164	0.46	0.61	1205	0.48	0.65	1245	0.51	0.69
708	1500	1042	0.42	0.56	1087	0.44	0.59	1132	0.46	0.62	1174	0.49	0.66	1215	0.53	0.71	1253	0.56	0.75

BLOWER DATA - BELT DRIVE - KGA048 - DOWNFLOW

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

Seepage 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
566	1200	574	0.15	0.20	0.18	0.24	0.28	713	0.21	0.28	784	0.23	0.31	850	0.25	0.33	906	0.27	0.36	953	0.29	0.39	998	0.31	0.42
613	1300	608	0.18	0.24	0.21	0.28	0.31	744	0.23	0.31	813	0.25	0.34	874	0.28	0.37	925	0.30	0.40	969	0.32	0.43	1014	0.34	0.46
661	1400	645	0.21	0.28	0.23	0.31	0.35	778	0.26	0.35	842	0.28	0.38	898	0.31	0.41	944	0.33	0.44	986	0.36	0.48	1030	0.38	0.51
708	1500	684	0.23	0.31	0.26	0.35	0.38	811	0.28	0.38	871	0.31	0.42	921	0.34	0.45	963	0.37	0.49	1004	0.40	0.53	1048	0.42	0.56
755	1600	723	0.26	0.35	0.29	0.39	0.43	844	0.32	0.43	898	0.34	0.46	943	0.37	0.50	983	0.40	0.54	1024	0.43	0.58	1067	0.46	0.61
802	1700	761	0.30	0.40	0.33	0.44	0.48	875	0.36	0.48	924	0.39	0.52	965	0.42	0.56	1004	0.45	0.60	1045	0.47	0.63	1089	0.49	0.66
849	1800	798	0.34	0.45	0.37	0.49	0.54	905	0.40	0.54	950	0.43	0.58	990	0.46	0.62	1028	0.49	0.66	1069	0.51	0.69	1112	0.54	0.72
897	1900	834	0.38	0.51	0.41	0.55	0.60	934	0.45	0.60	977	0.48	0.64	1015	0.51	0.68	1054	0.54	0.72	1095	0.56	0.75	1137	0.59	0.79
944	2000	869	0.43	0.57	0.46	0.62	0.67	962	0.50	0.67	1004	0.53	0.71	1042	0.56	0.75	1081	0.58	0.78	1121	0.61	0.82	1162	0.64	0.86

Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
566	1200	1043	0.33	0.44	0.35	0.47	0.50	1135	0.37	0.50	1179	0.40	0.53	1220	0.43	0.57	1259	0.45	0.60	1297	0.48	0.64	1333	0.50	0.67
613	1300	1058	0.37	0.49	0.38	0.51	0.55	1148	0.41	0.55	1190	0.43	0.58	1231	0.46	0.62	1269	0.48	0.65	1306	0.51	0.69	1342	0.54	0.72
661	1400	1074	0.40	0.53	0.42	0.56	0.59	1162	0.44	0.59	1203	0.47	0.63	1242	0.50	0.67	1280	0.53	0.71	1317	0.55	0.74	1352	0.58	0.78
708	1500	1092	0.43	0.58	0.46	0.61	0.65	1177	0.48	0.65	1217	0.51	0.69	1255	0.54	0.73	1292	0.57	0.76	1328	0.60	0.80	1364	0.63	0.84
755	1600	1112	0.47	0.63	0.50	0.67	0.71	1193	0.53	0.71	1232	0.56	0.75	1269	0.59	0.79	1306	0.62	0.83	1341	0.65	0.87	1377	0.68	0.91
802	1700	1132	0.51	0.69	0.54	0.73	0.77	1211	0.57	0.77	1248	0.60	0.81	1285	0.64	0.86	1321	0.67	0.90	1356	0.70	0.94	1391	0.73	0.98
849	1800	1154	0.57	0.76	0.60	0.80	0.85	1230	0.63	0.85	1266	0.66	0.89	1302	0.69	0.93	1338	0.73	0.98	1373	0.76	1.02	1408	0.79	1.06
897	1900	1178	0.62	0.83	0.66	0.88	0.93	1250	0.69	0.93	1286	0.73	0.98	1321	0.76	1.02	1356	0.79	1.06	1391	0.82	1.10	1426	0.85	1.14
944	2000	1201	0.68	0.91	0.72	0.97	1.02	1271	0.76	1.02	1307	0.80	1.07	1342	0.83	1.11	1376	0.86	1.15	1411	0.89	1.19	1446	0.92	1.23

BLOWER DATA - BELT DRIVE - KGA048 - HORIZONTAL

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)												External Static - Pa (in.w.g.)											
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
566	1200	540	0.13	0.18	0.16	0.22	0.26	673	0.19	0.26	748	0.22	0.29	816	0.22	0.30	870	0.25	0.33	914	0.28	0.37	961	0.30	0.40
613	1300	568	0.16	0.21	0.19	0.26	0.29	699	0.22	0.29	771	0.24	0.32	835	0.25	0.34	886	0.28	0.37	929	0.31	0.41	975	0.33	0.44
661	1400	599	0.19	0.25	0.22	0.29	0.33	728	0.25	0.33	795	0.26	0.35	855	0.28	0.38	903	0.31	0.41	946	0.34	0.45	991	0.37	0.49
708	1500	632	0.22	0.29	0.25	0.33	0.36	758	0.27	0.36	821	0.29	0.39	877	0.31	0.42	922	0.34	0.46	963	0.37	0.50	1008	0.40	0.54
755	1600	667	0.25	0.33	0.27	0.36	0.40	789	0.30	0.40	848	0.32	0.43	898	0.34	0.46	941	0.38	0.51	982	0.41	0.55	1026	0.44	0.59
802	1700	702	0.27	0.36	0.30	0.40	0.44	819	0.33	0.44	873	0.36	0.48	920	0.39	0.52	960	0.42	0.56	1001	0.46	0.61	1044	0.48	0.64
849	1800	737	0.31	0.41	0.34	0.45	0.49	848	0.37	0.49	898	0.40	0.53	941	0.43	0.58	981	0.46	0.62	1021	0.49	0.66	1064	0.52	0.70
897	1900	771	0.34	0.46	0.37	0.50	0.54	877	0.40	0.54	923	0.44	0.59	964	0.48	0.64	1002	0.51	0.68	1043	0.54	0.72	1085	0.57	0.76
944	2000	805	0.38	0.51	0.42	0.56	0.61	905	0.46	0.61	948	0.49	0.66	987	0.53	0.71	1025	0.56	0.75	1065	0.59	0.79	1107	0.61	0.82
Air Volume		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
566	1200	1010	0.32	0.43	0.34	0.46	0.50	1110	0.37	0.50	1156	0.40	0.53	1199	0.43	0.57	1239	0.46	0.61	1276	0.48	0.64	1312	0.51	0.68
613	1300	1024	0.35	0.47	0.37	0.50	0.54	1120	0.40	0.54	1165	0.43	0.58	1207	0.46	0.62	1246	0.48	0.65	1284	0.51	0.69	1320	0.54	0.73
661	1400	1038	0.39	0.52	0.41	0.55	0.59	1131	0.44	0.59	1175	0.46	0.62	1216	0.49	0.66	1255	0.52	0.70	1292	0.55	0.74	1328	0.58	0.78
708	1500	1054	0.43	0.57	0.45	0.60	0.64	1144	0.48	0.64	1186	0.51	0.68	1226	0.54	0.72	1264	0.56	0.75	1301	0.59	0.79	1336	0.62	0.83
755	1600	1071	0.46	0.62	0.48	0.65	0.69	1158	0.51	0.69	1198	0.54	0.73	1237	0.57	0.77	1274	0.60	0.81	1310	0.63	0.85	1345	0.66	0.89
802	1700	1089	0.50	0.67	0.53	0.71	0.75	1172	0.56	0.75	1211	0.59	0.79	1249	0.62	0.83	1285	0.65	0.87	1321	0.68	0.91	1355	0.71	0.95
849	1800	1108	0.54	0.73	0.57	0.77	0.81	1188	0.60	0.81	1225	0.63	0.85	1262	0.67	0.90	1298	0.70	0.94	1332	0.73	0.98	1366	0.75	1.01
897	1900	1128	0.59	0.79	0.63	0.84	0.88	1204	0.66	0.88	1241	0.69	0.92	1276	0.72	0.97	1311	0.75	1.01	1345	0.78	1.05	1379	0.81	1.09
944	2000	1148	0.64	0.86	0.68	0.91	0.96	1221	0.72	0.96	1257	0.75	1.00	1292	0.78	1.05	1326	0.81	1.09	1359	0.84	1.13	1393	0.87	1.17

BLOWER DATA - BELT DRIVE - KGA060 - DOWNFLOW

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																	
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)		
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
L/s	cfm																		
755	1600	745	0.27	0.36	805	0.30	0.40	862	0.33	0.44	913	0.36	0.48	956	0.39	0.52	996	0.41	0.55
802	1700	783	0.31	0.41	840	0.34	0.45	893	0.37	0.49	940	0.40	0.53	980	0.43	0.57	1019	0.46	0.61
849	1800	820	0.35	0.47	873	0.38	0.51	923	0.41	0.55	967	0.45	0.60	1006	0.47	0.63	1045	0.50	0.67
897	1900	856	0.39	0.52	906	0.43	0.57	953	0.46	0.62	994	0.49	0.66	1032	0.52	0.70	1071	0.54	0.73
944	2000	891	0.44	0.59	937	0.48	0.64	982	0.51	0.69	1022	0.54	0.73	1060	0.57	0.76	1099	0.60	0.80
991	2100	924	0.49	0.66	968	0.53	0.71	1011	0.56	0.75	1051	0.59	0.79	1089	0.62	0.83	1128	0.65	0.87
1038	2200	956	0.55	0.74	999	0.58	0.78	1041	0.62	0.83	1080	0.65	0.87	1119	0.68	0.91	1157	0.72	0.96
1085	2300	990	0.60	0.81	1032	0.64	0.86	1072	0.68	0.91	1111	0.71	0.95	1149	0.75	1.00	1187	0.79	1.06
1133	2400	1025	0.67	0.90	1066	0.71	0.95	1105	0.75	1.00	1143	0.78	1.05	1181	0.83	1.11	1218	0.87	1.17

Air Volume		External Static - Pa (in.w.g.)																	
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)		
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
L/s	cfm																		
755	1600	1125	0.48	0.64	1167	0.51	0.68	1206	0.54	0.72	1244	0.57	0.76	1281	0.60	0.80	1317	0.63	0.84
802	1700	1147	0.52	0.70	1187	0.56	0.75	1224	0.59	0.79	1261	0.62	0.83	1298	0.65	0.87	1333	0.68	0.91
849	1800	1170	0.57	0.77	1208	0.61	0.82	1244	0.65	0.87	1280	0.68	0.91	1316	0.71	0.95	1351	0.74	0.99
897	1900	1194	0.63	0.85	1230	0.67	0.90	1265	0.71	0.95	1301	0.75	1.00	1336	0.78	1.04	1371	0.81	1.08
944	2000	1218	0.70	0.94	1253	0.75	1.00	1287	0.78	1.05	1323	0.81	1.09	1358	0.85	1.14	1392	0.87	1.17
991	2100	1243	0.77	1.03	1277	0.81	1.09	1311	0.86	1.15	1346	0.89	1.19	1381	0.92	1.23	1415	0.95	1.27
1038	2200	1268	0.85	1.14	1302	0.90	1.20	1336	0.93	1.25	1371	0.96	1.29	1405	0.99	1.33	1439	1.02	1.37
1085	2300	1295	0.93	1.25	1328	0.97	1.30	1362	1.01	1.35	1397	1.04	1.39	1431	1.07	1.43	1465	1.10	1.47
1133	2400	1324	1.01	1.36	1356	1.05	1.41	1390	1.09	1.46	1424	1.12	1.50	1458	1.14	1.53	1492	1.17	1.57

BLOWER DATA - BELT DRIVE - KGA060 - HORIZONTAL

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)				50 (0.20)				75 (0.30)				100 (0.40)				125 (0.50)				150 (0.60)				175 (0.70)				200 (0.80)	
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
755	1600	690	0.25	0.33	751	0.28	0.37	810	0.30	0.40	865	0.33	0.44	912	0.36	0.48	955	0.39	0.52	997	0.42	0.56	1041	0.45	0.60						
802	1700	725	0.28	0.38	784	0.31	0.41	839	0.34	0.45	891	0.37	0.49	935	0.40	0.53	975	0.43	0.58	1017	0.46	0.62	1060	0.48	0.65						
849	1800	761	0.31	0.42	816	0.34	0.46	868	0.37	0.50	916	0.41	0.55	957	0.44	0.59	997	0.48	0.64	1038	0.51	0.68	1081	0.53	0.71						
897	1900	795	0.36	0.48	848	0.39	0.52	897	0.42	0.56	942	0.46	0.61	981	0.49	0.66	1020	0.52	0.70	1060	0.55	0.74	1103	0.57	0.77						
944	2000	830	0.40	0.53	879	0.43	0.58	926	0.47	0.63	968	0.51	0.68	1006	0.54	0.73	1044	0.57	0.77	1084	0.60	0.80	1126	0.63	0.84						
991	2100	863	0.45	0.60	910	0.48	0.65	954	0.52	0.70	994	0.56	0.75	1032	0.60	0.80	1070	0.62	0.83	1110	0.65	0.87	1150	0.68	0.91						
1038	2200	895	0.50	0.67	939	0.54	0.73	982	0.58	0.78	1021	0.62	0.83	1058	0.65	0.87	1096	0.68	0.91	1135	0.71	0.95	1174	0.75	1.00						
1085	2300	926	0.56	0.75	969	0.60	0.81	1009	0.64	0.86	1048	0.67	0.90	1085	0.70	0.94	1122	0.74	0.99	1160	0.78	1.04	1197	0.81	1.09						
1133	2400	957	0.63	0.84	998	0.66	0.89	1038	0.70	0.94	1076	0.73	0.98	1112	0.77	1.03	1149	0.81	1.08	1185	0.85	1.14	1221	0.90	1.20						

Air Volume		External Static - Pa (in.w.g.)																													
		225 (0.90)				250 (1.00)				275 (1.10)				300 (1.20)				325 (1.30)				350 (1.40)				375 (1.50)				400 (1.60)	
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
755	1600	1086	0.47	0.63	1129	0.49	0.66	1171	0.52	0.70	1211	0.55	0.74	1249	0.58	0.78	1286	0.61	0.82	1321	0.64	0.86	1356	0.67	0.90						
802	1700	1104	0.51	0.68	1147	0.54	0.72	1186	0.57	0.76	1225	0.60	0.80	1262	0.63	0.84	1298	0.66	0.88	1333	0.69	0.92	1367	0.72	0.96						
849	1800	1124	0.55	0.74	1165	0.59	0.79	1202	0.62	0.83	1240	0.65	0.87	1276	0.68	0.91	1311	0.71	0.95	1345	0.74	0.99	1380	0.77	1.03						
897	1900	1145	0.60	0.81	1183	0.63	0.85	1220	0.67	0.90	1256	0.70	0.94	1291	0.74	0.99	1326	0.77	1.03	1360	0.80	1.07	1393	0.82	1.10						
944	2000	1167	0.66	0.88	1203	0.69	0.93	1237	0.73	0.98	1273	0.77	1.03	1307	0.80	1.07	1341	0.83	1.11	1375	0.86	1.15	1408	0.88	1.18						
991	2100	1188	0.72	0.96	1222	0.76	1.02	1256	0.80	1.07	1291	0.84	1.12	1324	0.87	1.16	1358	0.90	1.20	1391	0.92	1.23	1424	0.95	1.27						
1038	2200	1210	0.78	1.05	1243	0.83	1.11	1275	0.87	1.17	1309	0.90	1.21	1343	0.93	1.25	1376	0.96	1.29	1409	0.99	1.33	1442	1.01	1.36						
1085	2300	1232	0.87	1.16	1263	0.91	1.22	1295	0.95	1.27	1329	0.98	1.31	1362	1.01	1.35	1395	1.04	1.39	1428	1.06	1.42	1462	1.08	1.45						
1133	2400	1254	0.94	1.26	1284	0.98	1.32	1317	1.02	1.37	1350	1.05	1.41	1383	1.08	1.45	1415	1.10	1.48	1448	1.13	1.52	1483	1.16	1.55						

BLOWER DATA - BELT DRIVE - KGA072 - DOWNFLOW

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																	
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)		
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
L/s	cfm																		
897	1900	857	0.31	0.41	892	0.34	0.45	927	0.37	0.50	962	0.41	0.55	999	0.45	0.60	1036	0.48	0.65
944	2000	879	0.35	0.47	913	0.39	0.52	948	0.42	0.56	984	0.46	0.61	1020	0.50	0.67	1058	0.54	0.72
991	2100	900	0.40	0.53	935	0.43	0.58	970	0.47	0.63	1007	0.51	0.69	1044	0.55	0.74	1081	0.59	0.79
1038	2200	922	0.45	0.60	958	0.48	0.65	994	0.53	0.71	1031	0.57	0.76	1068	0.61	0.82	1106	0.65	0.87
1085	2300	947	0.50	0.67	983	0.54	0.73	1020	0.59	0.79	1057	0.63	0.85	1094	0.67	0.90	1131	0.71	0.95
1133	2400	974	0.57	0.76	1010	0.61	0.82	1047	0.66	0.88	1084	0.70	0.94	1120	0.74	0.99	1157	0.78	1.04
1180	2500	1002	0.63	0.85	1039	0.68	0.91	1075	0.72	0.97	1112	0.77	1.03	1148	0.81	1.08	1184	0.84	1.13
1227	2600	1032	0.71	0.95	1068	0.75	1.01	1105	0.80	1.07	1141	0.84	1.13	1177	0.87	1.17	1213	0.91	1.22
1274	2700	1062	0.78	1.05	1099	0.83	1.11	1136	0.87	1.17	1172	0.91	1.22	1207	0.95	1.27	1242	0.98	1.32
1321	2800	1094	0.87	1.16	1131	0.91	1.22	1167	0.95	1.27	1202	0.98	1.32	1237	1.03	1.38	1271	1.07	1.43
1369	2900	1127	0.94	1.26	1163	0.98	1.32	1198	1.03	1.38	1233	1.07	1.44	1267	1.12	1.50	1300	1.16	1.56

External Static - Pa (in.w.g.)

Air Volume		External Static - Pa (in.w.g.)																	
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)		
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
L/s	cfm																		
897	1900	1150	0.57	0.77	1188	0.60	0.81	1227	0.63	0.85	1267	0.66	0.88	1303	0.69	0.92	1333	0.72	0.97
944	2000	1172	0.63	0.84	1210	0.66	0.88	1248	0.69	0.92	1286	0.72	0.96	1321	0.75	1.00	1350	0.78	1.05
991	2100	1195	0.68	0.91	1233	0.71	0.95	1269	0.75	1.00	1306	0.78	1.04	1339	0.81	1.09	1367	0.85	1.14
1038	2200	1218	0.74	0.99	1255	0.77	1.03	1290	0.81	1.09	1324	0.85	1.14	1356	0.89	1.19	1385	0.93	1.24
1085	2300	1242	0.80	1.07	1277	0.84	1.13	1310	0.90	1.20	1343	0.94	1.26	1374	0.97	1.30	1403	1.00	1.34
1133	2400	1267	0.87	1.16	1300	0.92	1.23	1332	0.98	1.31	1364	1.02	1.37	1394	1.05	1.41	1423	1.08	1.45
1180	2500	1292	0.94	1.26	1324	1.00	1.34	1355	1.06	1.42	1387	1.10	1.48	1417	1.13	1.52	1445	1.16	1.56
1227	2600	1318	1.03	1.38	1350	1.09	1.46	1380	1.16	1.55	1411	1.19	1.60	1440	1.22	1.64	1469	1.25	1.68
1274	2700	1345	1.13	1.51	1376	1.19	1.60	1406	1.25	1.68	1436	1.29	1.73	1465	1.32	1.77	1493	1.34	1.80
1321	2800	1372	1.23	1.65	1403	1.30	1.74	1433	1.36	1.82	1462	1.39	1.86	1490	1.42	1.90	1519	1.44	1.93
1369	2900	1399	1.34	1.80	1430	1.41	1.89	1460	1.46	1.96	1489	1.49	2.00	1516	1.51	2.03	1544	1.54	2.06

BLOWER DATA - BELT DRIVE - KGA072 - HORIZONTAL

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 26 for blower motors and drives and wet coil and options/accessory air resistance data.

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)			50 (0.20)			75 (0.30)			100 (0.40)			125 (0.50)			150 (0.60)			175 (0.70)			200 (0.80)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
897	1900	796	0.28	0.38	837	0.32	0.43	878	0.36	0.48	918	0.40	0.53	958	0.43	0.58	997	0.46	0.62	1036	0.50	0.67	1074	0.53	0.71
944	2000	833	0.32	0.43	870	0.36	0.48	907	0.40	0.54	943	0.44	0.59	980	0.48	0.64	1018	0.51	0.69	1055	0.54	0.73	1093	0.57	0.77
991	2100	864	0.37	0.50	897	0.41	0.55	931	0.45	0.60	966	0.48	0.65	1002	0.53	0.71	1038	0.57	0.76	1075	0.60	0.80	1113	0.62	0.83
1038	2200	887	0.43	0.57	920	0.46	0.62	953	0.50	0.67	988	0.54	0.73	1024	0.58	0.78	1060	0.62	0.83	1097	0.65	0.87	1135	0.67	0.90
1085	2300	909	0.48	0.64	942	0.52	0.70	976	0.56	0.75	1011	0.60	0.81	1046	0.64	0.86	1083	0.68	0.91	1120	0.71	0.95	1157	0.73	0.98
1133	2400	931	0.54	0.72	965	0.58	0.78	999	0.62	0.83	1035	0.66	0.89	1071	0.70	0.94	1108	0.74	0.99	1144	0.77	1.03	1181	0.80	1.07
1180	2500	955	0.60	0.80	989	0.64	0.86	1024	0.69	0.92	1061	0.73	0.98	1097	0.77	1.03	1133	0.81	1.08	1170	0.83	1.11	1205	0.86	1.15
1227	2600	981	0.67	0.90	1016	0.72	0.96	1052	0.75	1.01	1088	0.80	1.07	1124	0.84	1.12	1160	0.87	1.16	1195	0.90	1.20	1230	0.93	1.25
1274	2700	1009	0.74	0.99	1044	0.78	1.05	1080	0.83	1.11	1116	0.87	1.16	1152	0.90	1.21	1187	0.94	1.26	1221	0.97	1.30	1254	1.01	1.35
1321	2800	1038	0.82	1.10	1073	0.87	1.16	1109	0.90	1.21	1145	0.94	1.26	1180	0.98	1.31	1214	1.01	1.36	1247	1.04	1.40	1279	1.09	1.46
1369	2900	1068	0.90	1.20	1104	0.94	1.26	1139	0.98	1.31	1174	1.01	1.36	1208	1.05	1.41	1240	1.10	1.47	1273	1.13	1.52	1304	1.18	1.58
Air Volume		External Static - Pa (in.w.g.)																							
		225 (0.90)			250 (1.00)			275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)		
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
897	1900	1112	0.55	0.74	1151	0.57	0.77	1190	0.60	0.81	1228	0.63	0.84	1265	0.66	0.88	1301	0.69	0.92	1335	0.72	0.97	1367	0.75	1.01
944	2000	1131	0.60	0.80	1170	0.62	0.83	1208	0.65	0.87	1245	0.68	0.91	1281	0.72	0.96	1316	0.75	1.00	1349	0.78	1.04	1380	0.81	1.09
991	2100	1151	0.65	0.87	1189	0.67	0.90	1227	0.70	0.94	1263	0.74	0.99	1298	0.78	1.04	1331	0.81	1.08	1363	0.84	1.13	1394	0.87	1.17
1038	2200	1173	0.70	0.94	1210	0.73	0.98	1246	0.76	1.02	1281	0.80	1.07	1315	0.84	1.12	1347	0.87	1.17	1379	0.91	1.22	1409	0.94	1.26
1085	2300	1195	0.76	1.02	1231	0.79	1.06	1266	0.83	1.11	1300	0.87	1.16	1333	0.91	1.22	1364	0.95	1.27	1395	0.98	1.32	1424	1.01	1.36
1133	2400	1217	0.82	1.10	1252	0.86	1.15	1286	0.90	1.20	1319	0.94	1.26	1351	0.98	1.32	1382	1.03	1.38	1411	1.07	1.43	1440	1.10	1.48
1180	2500	1240	0.90	1.20	1274	0.93	1.25	1307	0.98	1.31	1339	1.02	1.37	1370	1.07	1.43	1400	1.11	1.49	1428	1.16	1.55	1457	1.19	1.59
1227	2600	1264	0.97	1.30	1297	1.01	1.35	1329	1.06	1.42	1360	1.11	1.49	1389	1.16	1.55	1418	1.20	1.61	1446	1.25	1.67	1475	1.28	1.72
1274	2700	1287	1.04	1.40	1319	1.10	1.47	1350	1.15	1.54	1380	1.20	1.61	1409	1.25	1.68	1437	1.30	1.74	1465	1.34	1.79	1493	1.37	1.84
1321	2800	1311	1.13	1.52	1342	1.19	1.59	1373	1.24	1.66	1402	1.30	1.74	1430	1.34	1.80	1457	1.40	1.87	1485	1.43	1.92	1513	1.47	1.97
1369	2900	1335	1.23	1.65	1366	1.28	1.72	1395	1.34	1.79	1424	1.40	1.87	1451	1.45	1.94	1478	1.49	2.00	1505	1.53	2.05	1533	1.56	2.09

BLOWER DATA

BELT DRIVE KIT SPECIFICATIONS

Model No.	Motor kW (HP)		No. of Speeds	Drive Kits and Rev/Min Range								
	Nominal	Max		A01	A02	A03	A04	A05	A06	A07	A08	A09
036	1.5 (2)	1.7 (2.3)	1	561 - 842	---	---	---	748 - 1122	---	---	---	---
048	1.5 (2)	1.7 (2.3)	1	---	621 - 931	---	---	---	893 - 1191	---	---	---
060	1.5 (2)	1.7 (2.3)	1	---	---	694 - 1042	---	---	---	1010 - 1290	---	---
072	1.5 (2)	1.7 (2.3)	1	---	---	---	---	---	---	---	994 - 1326	1193 - 1594

NOTE – Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor kW required. Maximum usable kW of motors furnished are shown. If motors of comparable kW are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

OPTIONS / ACCESSORIES AIR RESISTANCE

Air Volume		Wet Indoor Coil						Economizer		Gas Heat				Filters			
		036-048		060		072				Medium Input		High Input		MERV 8		MERV 13	
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
375	800	2	0.01	2	0.01	2	0.01	10	0.04	5	0.02	5	0.02	10	0.04	12	0.05
470	1000	5	0.02	5	0.02	2	0.01	10	0.04	5	0.02	5	0.02	10	0.04	17	0.07
565	1200	7	0.03	7	0.04	5	0.02	10	0.04	5	0.02	5	0.02	10	0.04	17	0.07
660	1400	10	0.04	12	0.05	7	0.03	10	0.04	5	0.02	7	0.03	10	0.04	17	0.07
755	1600	12	0.05	15	0.06	7	0.04	10	0.04	7	0.03	12	0.05	10	0.04	17	0.07
850	1800	15	0.06	17	0.07	12	0.05	12	0.05	7	0.03	12	0.05	12	0.05	17	0.07
945	2000	20	0.08	22	0.09	15	0.06	12	0.05	10	0.04	15	0.06	12	0.05	20	0.08
1040	2200	22	0.09	25	0.10	17	0.07	12	0.05	10	0.04	17	0.07	12	0.05	20	0.08
1130	2400	25	0.10	30	0.12	20	0.08	12	0.05	12	0.05	20	0.08	12	0.05	20	0.08
1225	2600	27	0.11	30	0.13	22	0.09	15	0.06	12	0.05	22	0.09	12	0.05	20	0.08
1320	2800	30	0.13	37	0.15	25	0.10	15	0.06	15	0.06	25	0.10	12	0.05	20	0.08
1415	3000	35	0.14	40	0.16	30	0.12	15	0.06	17	0.07	27	0.11	12	0.05	20	0.08

BLOWER DATA

CEILING DIFFUSERS AIR RESISTANCE

Air Volume		RTD9-65S Step-Down Diffuser						FD9-65S Flush Diffuser		RTD11-95S Step-Down Diffuser						FD11-95S Flush Diffuser	
		2 Ends Open		1 Side & 2 Ends Open		All Ends & Sides Open				2 Ends Open		1 Side & 2 Ends Open		All Ends & Sides Open			
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
375	800	37	0.15	32	0.13	27	0.11	27	0.11	---	---	---	---	---	---	---	---
470	1000	47	0.19	40	0.16	35	0.14	35	0.14	---	---	---	---	---	---	---	---
565	1200	62	0.25	50	0.20	42	0.17	42	0.17	---	---	---	---	---	---	---	---
660	1400	82	0.33	65	0.26	50	0.20	50	0.20	---	---	---	---	---	---	---	---
755	1600	107	0.43	80	0.32	50	0.20	50	0.24	---	---	---	---	---	---	---	---
850	1800	139	0.56	99	0.40	75	0.30	75	0.30	32	0.13	27	0.11	22	0.09	22	0.09
945	2000	182	0.73	124	0.50	90	0.36	90	0.36	37	0.15	32	0.13	27	0.11	25	0.10
1040	2200	236	0.95	157	0.63	109	0.44	109	0.44	45	0.18	37	0.15	30	0.12	30	0.12
1130	2400	---	---	---	---	---	---	---	---	52	0.21	45	0.18	37	0.15	35	0.14
1225	2600	---	---	---	---	---	---	---	---	60	0.24	52	0.21	45	0.18	42	0.17
1320	2800	---	---	---	---	---	---	---	---	67	0.27	60	0.24	52	0.21	50	0.20
1415	3000	---	---	---	---	---	---	---	---	80	0.32	72	0.29	62	0.25	62	0.25

CEILING DIFFUSER AIR THROW DATA

Air Volume		¹ Effective Throw			
Model No.		RTD9-65S		FD9-65S	
L/s	cfm	m	ft.	m	ft.
375	800	3 - 5	10 - 17	4 - 5	14 - 18
470	1000	3 - 5	10 - 17	5 - 6	15 - 20
565	1200	3 - 5	11 - 18	5 - 7	16 - 22
660	1400	4 - 6	12 - 19	5 - 7	17 - 24
755	1600	4 - 6	12 - 20	5 - 8	18 - 25
850	1800	4 - 6	13 - 21	6 - 9	20 - 28
945	2000	4 - 7	14 - 23	6 - 9	21 - 29
1040	2200	5 - 8	16 - 25	7 - 9	22 - 30
Model No.		RTD11-95S		FD11-95S	
1225	2600	7 - 9	24 - 29	6 - 7	19 - 24
1320	2800	8 - 9	25 - 30	6 - 9	20 - 28
1415	3000	8 - 10	27 - 33	6 - 9	21 - 29

¹ Effective throw based on terminal velocities of 23 m per minute (75 ft. per minute).

ELECTRICAL DATA

Model No.		KGA036S4	KGA048S4
¹ Voltage - 50hz with Neutral (3 Ph)		380/420V	380/420V
Compressor	Rated Load Amps	4	5.5
	Locked Rotor Amps	31	37
Outdoor Fan Motor	Full Load Amps	1.1	1.1
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3
Indoor Blower Motor	kW	1.5	1.5
	Full Load Amps	3.6	3.6
² Maximum Overcurrent Protection	Unit Only	15	15
	With (1) 0.25 kW Power Exhaust	15	15
³ Minimum Circuit Ampacity	Unit Only	10	12
	With (1) 0.25 kW Power Exhaust	11	13

¹ Extremes of operating range are plus and minus 10% of line voltage.

² Heating, Air Conditioning, Refrigeration type breaker or fuse.

³ Refer to local electrical code to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA

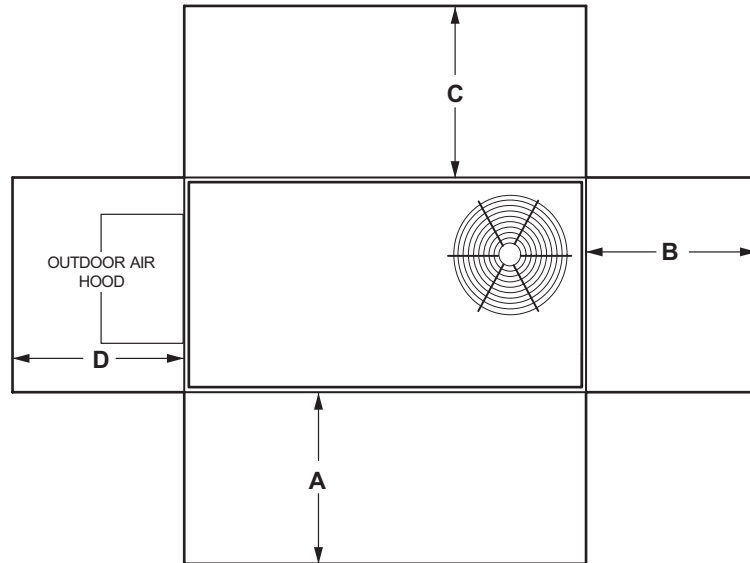
Model No.		KGA060S4	KGA072S4
¹ Voltage - 50hz with Neutral (3 Ph)		380/420V	380/420V
Compressor	Rated Load Amps	8	9.7
	Locked Rotor Amps	59	64
Outdoor Fan Motor	Full Load Amps	1.3	1.3
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3
Indoor Blower Motor	kW	1.5	1.5
	Full Load Amps	3.6	3.6
² Maximum Overcurrent Protection	Unit Only	20	25
	With (1) 0.25 kW Power Exhaust	20	25
³ Minimum Circuit Ampacity	Unit Only	15	18
	With (1) 0.25 kW Power Exhaust	17	19

¹ Extremes of operating range are plus and minus 10% of line voltage.

² Heating, Air Conditioning, Refrigeration type breaker or fuse.

³ Refer to local electrical code to determine wire, fuse and disconnect size requirements.

UNIT CLEARANCES - MM (INCHES)



¹ Unit Clearance	A		B		C		D		Top Clearance
	mm	in.	mm	in.	mm	in.	mm	in.	
Service Clearance	914	36	914	36	914	36	914	36	Unobstructed
Clearnace to Combustibles	914	36	25	1	25	1	25	1	
Minimum Operation Clearance	914	36	914	36	914	36	914	36	

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

¹ Service Clearance - Required for removal of serviceable parts.

Clearnace to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.

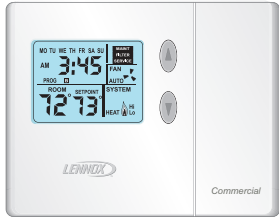
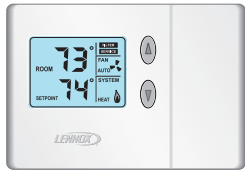
OUTDOOR SOUND DATA

Unit Model No.	Octave Band Linear Sound Power Levels dB, re 10 ⁻¹² Watts - Center Frequency - Hz							¹ Sound Rating Number (SRN) (dBA)
	125	250	500	1000	2000	4000	8000	
KGA036 and 048	63	66	70	71	68	62	53	75
KGA060	67	72	77	76	73	68	61	82
KGA072	66	71	74	73	70	65	57	79

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

¹ Sound Rating Number according to ARI Standard 270-95 (includes pure tone penalty). "SRN" is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item	Model No.	Catalog No.
COMFORTSENSE® 7500 COMMERCIAL 7-DAY PROGRAMMABLE THERMOSTAT		
 • Four-Stage Heating / Two-Stage Cooling Universal Multi-Stage • Intuitive Touchscreen Interface • Remote Indoor Temperature Sensing with Averaging • Outside or Discharge Air Temperature Display • Full Seven-Day Programming • Four Time Periods Per Day • Occupancy Scheduling with Economizer Relay Control • Away Mode • Holiday Scheduling • Smooth Setback Recovery (SSR) • Performance Reports • Notifications/Reminders • Dehumidification/Humiditrol® Control for Split Systems and Rooftop Units • Economizer Relay Control • Backlit Display • Wallplate Furnished	C0STAT06FF1L	13H15
Optional Accessories		
¹ Remote non-adjustable wall mount 20k temperature sensor	C0SNZN01AE2-	47W36
¹ Remote non-adjustable wall mount 10k temperature sensor	C0SNZN73AE1-	47W37
Remote non-adjustable discharge air (duct mount) temperature sensor	C0SNDC00AE1-	19L22
Outdoor temperature sensor	C0SNSR03AE1-	X2658
Locking cover (clear)	C0MISC15AE1-	39P21
¹ Remote sensors can be applied in any of the following combinations: One Sensor - (1) 47W36 Two Sensors - (2) 47W37 Three Sensors - (2) 47W36 and (1) 47W37 Four Sensors - (4) 47W36 Five Sensors - (3) 47W36 and (2) 47W37		
COMFORTSENSE® 3000 COMMERCIAL 5-2 DAY PROGRAMMABLE THERMOSTAT		
 • Two-Stage Heating / Two-Stage Cooling Conventional Systems • Intuitive Interface • 5-2 Day Programming • Program Hold • Remote Indoor Temperature Sensing • Smooth Setback Recovery (SSR) • Economizer Relay Control • Maintenance/Filter/Service Reminders • Backlit Display • Wallplate Furnished • Simple Up and Down Temperature Control.	C0STAT05FF1L	11Y05
Optional Accessories		
Remote non-adjustable wall mount 10k averaging temperature sensor	C0SNZN73AE1-	47W37
Optional wall mounting plate	C0MISC17AE1-	X2659
DIGITAL NON-PROGRAMMABLE THERMOSTAT		
 • One-Stage Heating / Cooling Conventional Systems • Intuitive Interface • Automatic Changeover • Backlit Display • Simple Up and Down Temperature Control.	C0STAT12AE1L	51M32
Optional Accessories		
Outdoor temperature sensor	C0SNSR04AE1-	X2658
Optional wall mounting plate	C0MISC17AE1-	X2659

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
KGA036S	242	534	288	634	269	594	319	703
KGA048S	258	571	309	682	286	631	341	751
KGA060S	273	601	323	712	300	661	354	781
KGA072S	294	649	369	813	313	690	387	854

Base Unit - The unit with standard heat exchanger NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed. (High Input Heat Exchanger, Economizer, etc.)

OPTIONS / ACCESSORIES

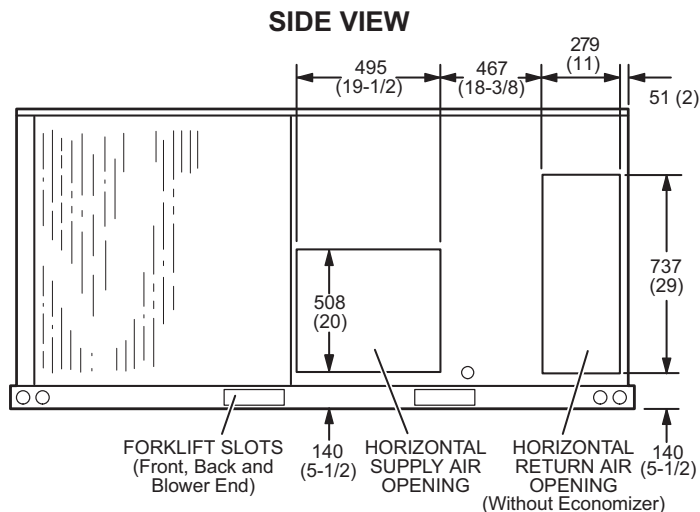
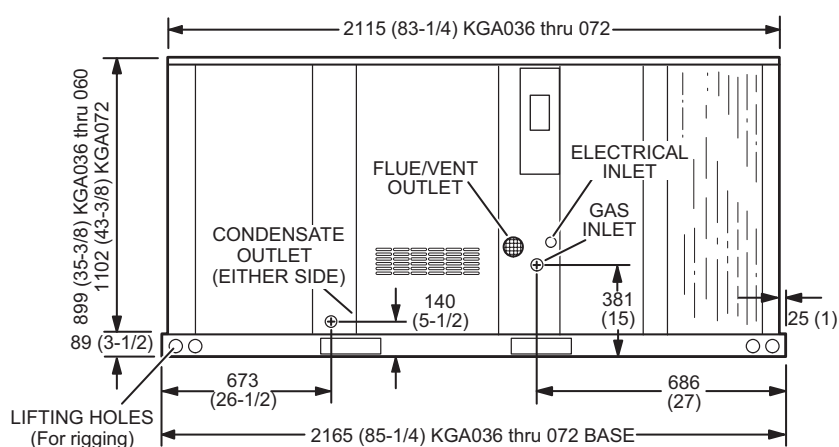
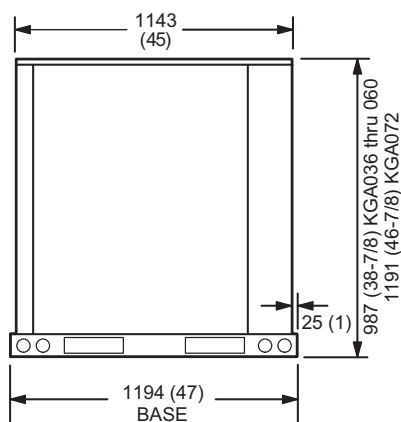
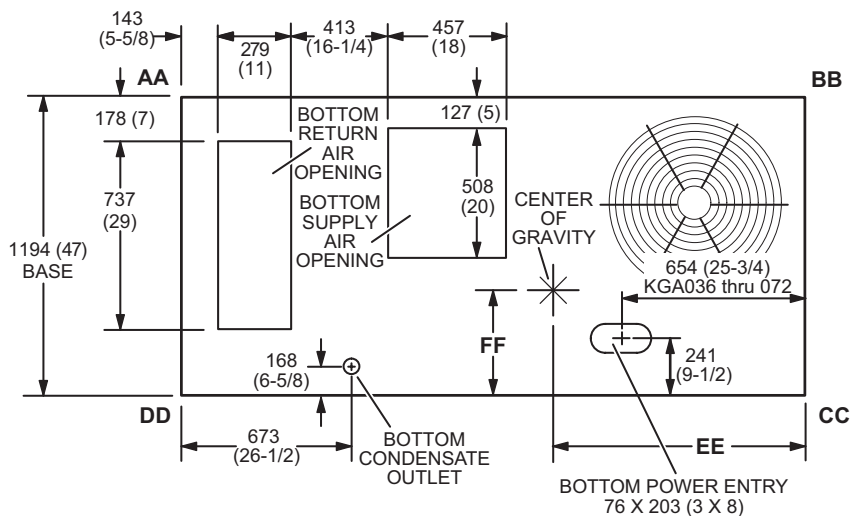
		Shipping Weights	
		kg	lbs.
ECONOMIZER / OUTDOOR AIR			
Economizer			
Economizer - Includes Barometric Relief Dampers and Exhaust Hood		59	131
OUTDOOR AIR			
Outdoor Air Dampers			
Motorized		18	40
Manual		14	30
POWER EXHAUST			
Standard Static		16	35
GAS HEAT			
Medium Heat (adder over standard heat)		4	8
High Heat (adder over standard heat)		9	19
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
203 mm height		23	50
356 mm height		32	70
457 mm height		36	80
610 mm height		45	100
Adjustable Pitch Curb, Downflow			
356 mm height		51	113
CEILING DIFFUSERS			
Step-Down	RTD9-65S	36	80
	RTD11-95S	54	118
Flush	FD9-65S	36	80
	FD11-95S	54	118
Transitions (Supply and Return)	T1TRAN10AN1	10	22
	T1TRAN20N-1	10	21

DIMENSIONS - UNIT - MM (INCHES)

Model No.	CORNER WEIGHTS										CENTER OF GRAVITY							
	AA		BB		CC		DD		EE		FF							
	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	mm	in.	mm	in.	mm	in.	mm	in.
036	42	92	52	114	51	112	59	129	82	181	94	208	68	149	83	184	978	38-1/2
048	45	99	56	123	55	120	63	139	88	193	102	223	72	159	90	197	978	38-1/2
060	47	104	58	128	57	126	66	145	92	203	106	233	76	167	94	206	978	38-1/2
072	59	130	74	162	67	147	76	167	90	198	103	226	79	175	117	257	1016	40

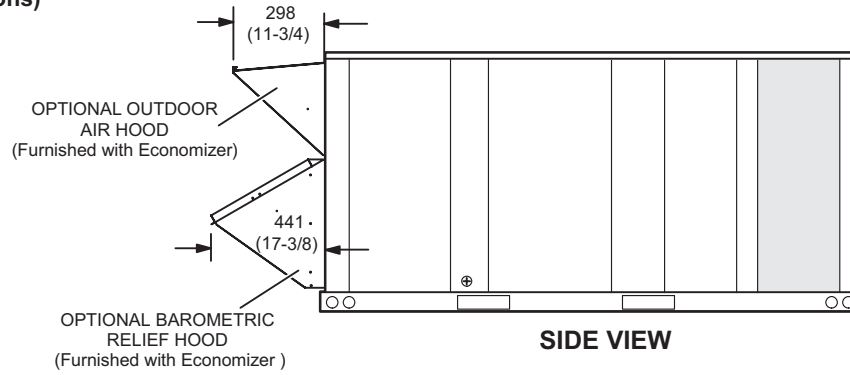
Base Unit - The unit with NO INTERNAL OPTIONS.

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

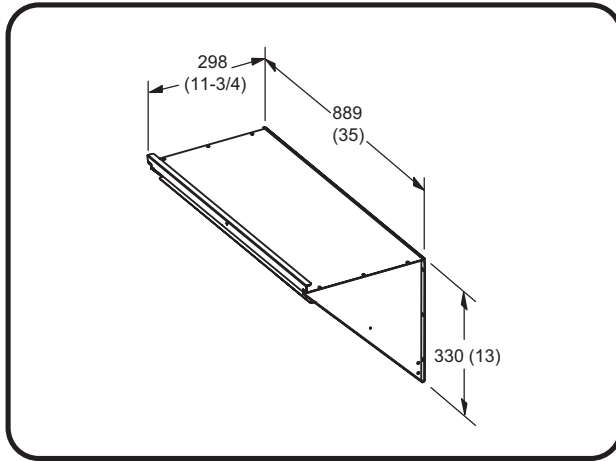


DIMENSIONS - ACCESSORIES - MM (INCHES)

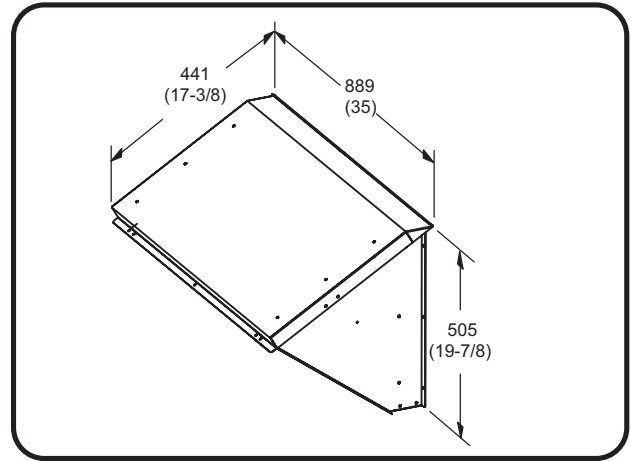
OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Downflow Applications)



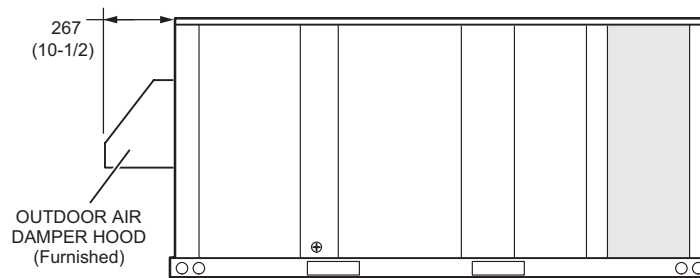
OUTDOOR AIR HOOD FOR ECONOMIZER (Furnished)



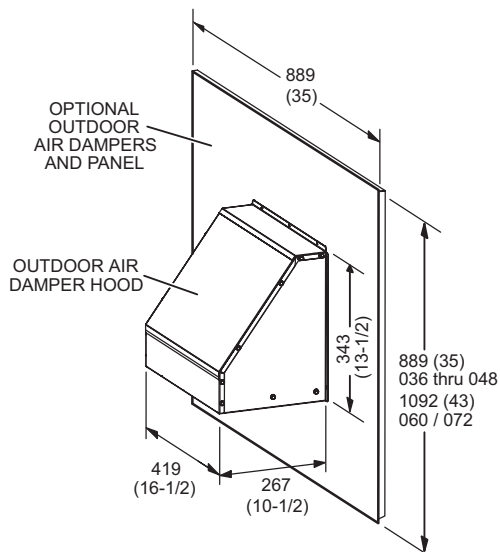
BAROMETRIC RELIEF HOOD FOR ECONOMIZER (Furnished)



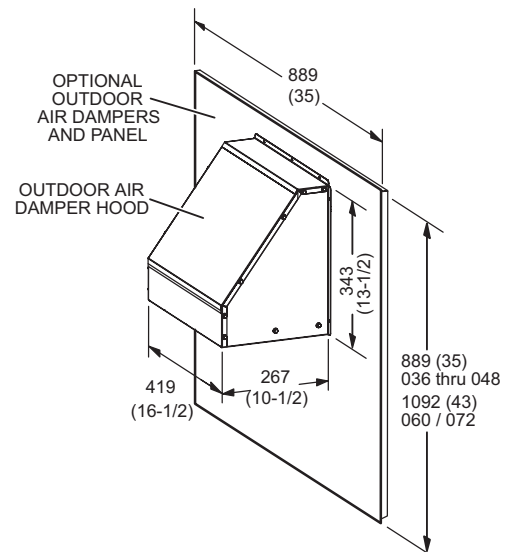
OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)



MANUAL OUTDOOR AIR HOOD

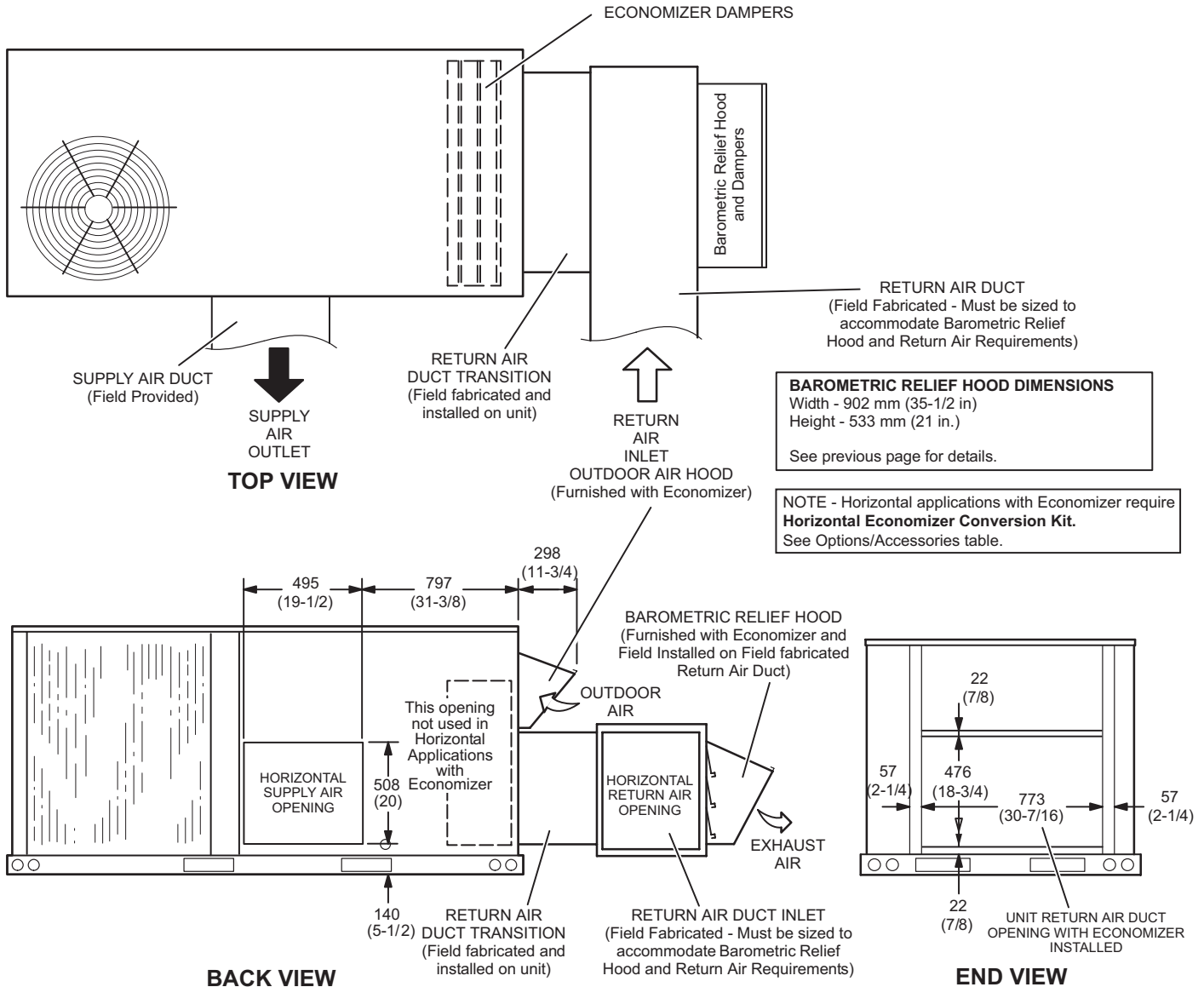


MOTORIZED OUTDOOR AIR HOOD



DIMENSIONS - ACCESSORIES - MM (INCHES)

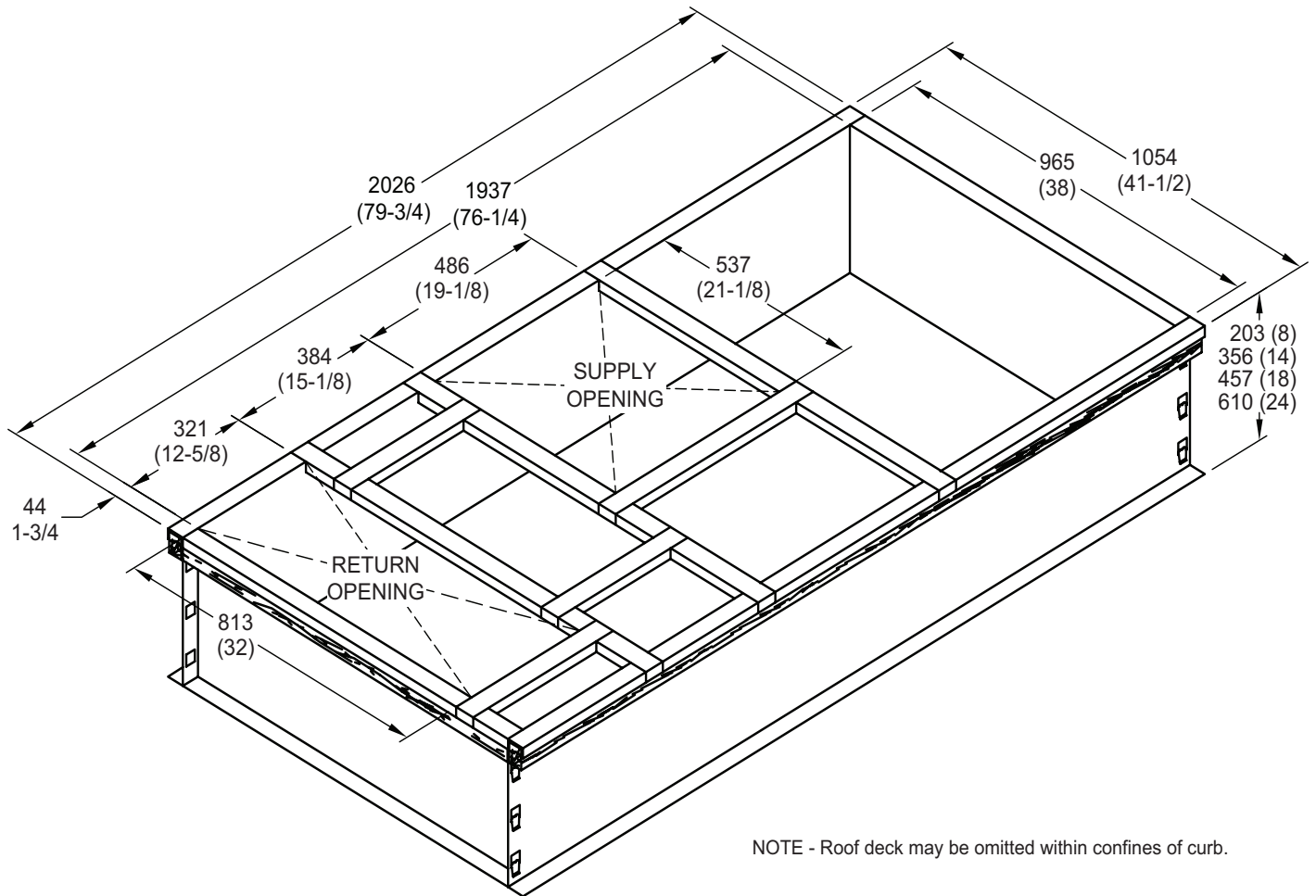
OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Horizontal Applications)



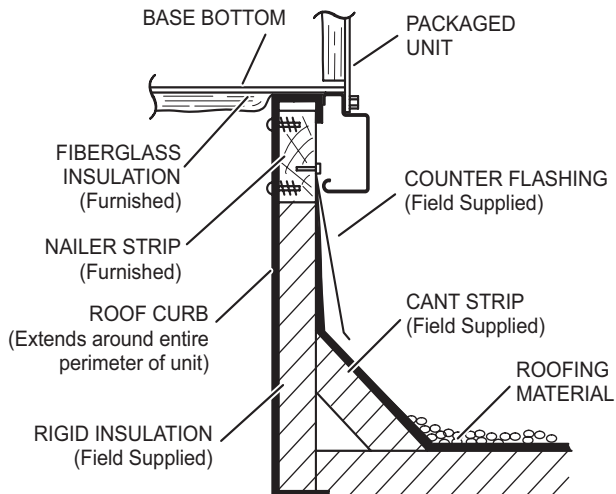
NOTE - Return Air Duct and Transition must be supported.

DIMENSIONS - ACCESSORIES - MM (INCHES)

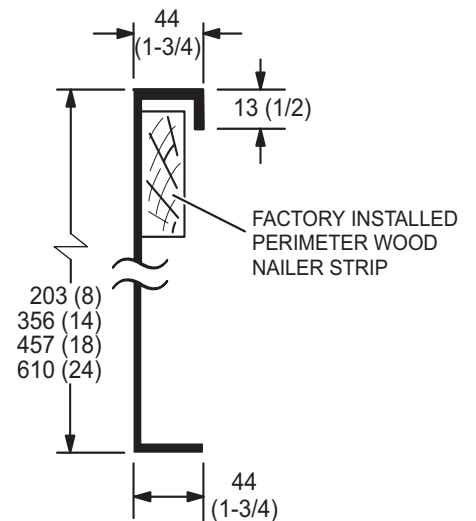
HYBRID ROOF CURBS - DOUBLE DUCT OPENING



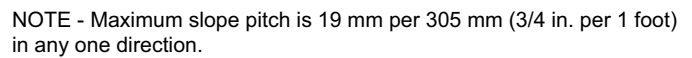
TYPICAL FLASHING DETAIL FOR ROOF CURB



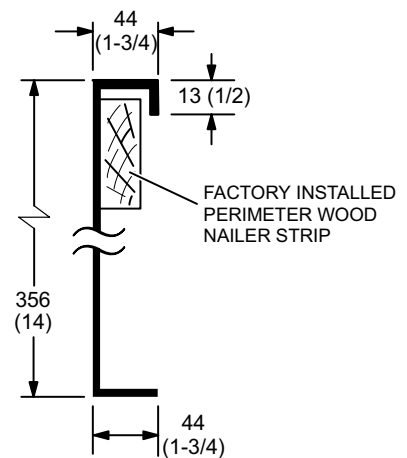
DETAIL ROOF CURB



ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING



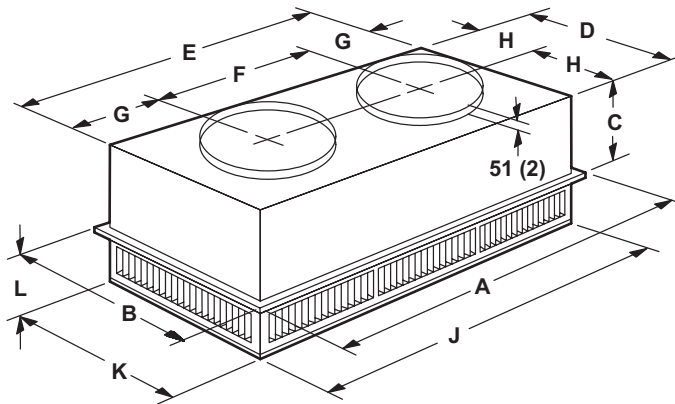
DETAIL ROOF CURB



DIMENSIONS - ACCESSORIES - MM (INCHES)

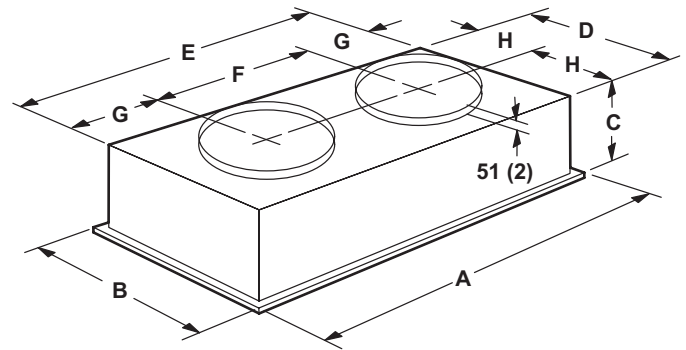
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model Number		RTD9-65S	RTD11-95S
A	mm	1159	1159
	in.	47-5/8	47-5/8
B	mm	600	752
	in.	23-5/8	29-5/8
C	mm	289	365
	in.	11-3/8	14-3/8
D	mm	546	699
	in.	21-1/2	27-1/2
E	mm	1156	1158
	in.	45-1/2	45-1/2
F	mm	572	572
	in.	22-1/2	22-1/2
G	mm	292	292
	in.	11-1/2	11-1/2
H	mm	273	349
	in.	10-3/4	13-3/4
J	mm	1156	1156
	in.	45-1/2	45-1/2
K	mm	546	699
	in.	21-1/2	27-1/2
L	mm	181	206
	in.	7-1/8	8-1/8
Duct Size	mm	457 round	508 round
	in.	18 round	20 round

FLUSH CEILING DIFFUSER



Model Number		FD9-65S	FD11-95S
A	mm	1159	1159
	in.	47-5/8	47-5/8
B	mm	600	752
	in.	23-5/8	29-5/8
C	mm	343	422
	in.	13-1/2	16-5/8
D	mm	533	686
	in.	21	27
E	mm	1143	1143
	in.	45	45
F	mm	572	572
	in.	22-1/2	22-1/2
G	mm	286	286
	in.	11-1/4	11-1/4
H	mm	267	343
	in.	10-1/2	13-1/2
Duct Size	mm	457 round	508 round
	in.	18 round	20 round

REVISIONS

Sections	Description of Change
Document	Changed KG to KGA to differentiate between new KGB models (separate document).
Optional Accessories	BACNet and High Performance Economizer model numbers and catalog numbers changed.



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