PACKAGED GAS/ELECTRIC

KG

Landmark® Rooftop Units

50 HZ

PRODUCT SPECIFICATIONS

Bulletin No. 490120
June 2012
Supersedes November 2011



Nominal Capacity - 10.5 to 26.4 kW (3 to 7.5 Ton)
Net Cooling Capacity - 9.5 to 23.7 kW (32 400 to 81 000 Btuh)
Gas Input Heat Capacity - 16.7 to 38.7 kW (57 000 to 132 000 Btuh)

MODEL NUMBER IDENTIFICATION

K G A 060 S 4 B S 1 M

Brand/Family
K = Landmark® Product Line

Unit Type
G = Packaged Gas Heat w/ Electric Cooling

Major Design Sequence
A = 1st Generation
B = 2nd Generation

Nominal Cooling Capacity - Tons
036 = 10.5 kW (3 Ton)
048 = 14 kW (4 Ton)
060 = 17.5 kW (5 Ton)
072 = 21 kW (6 Ton)
090 = 26.4 kW (7.5 Ton

Cooling Efficiency
S = Standard Efficiency

Refrigerant Type
4 = R-410A

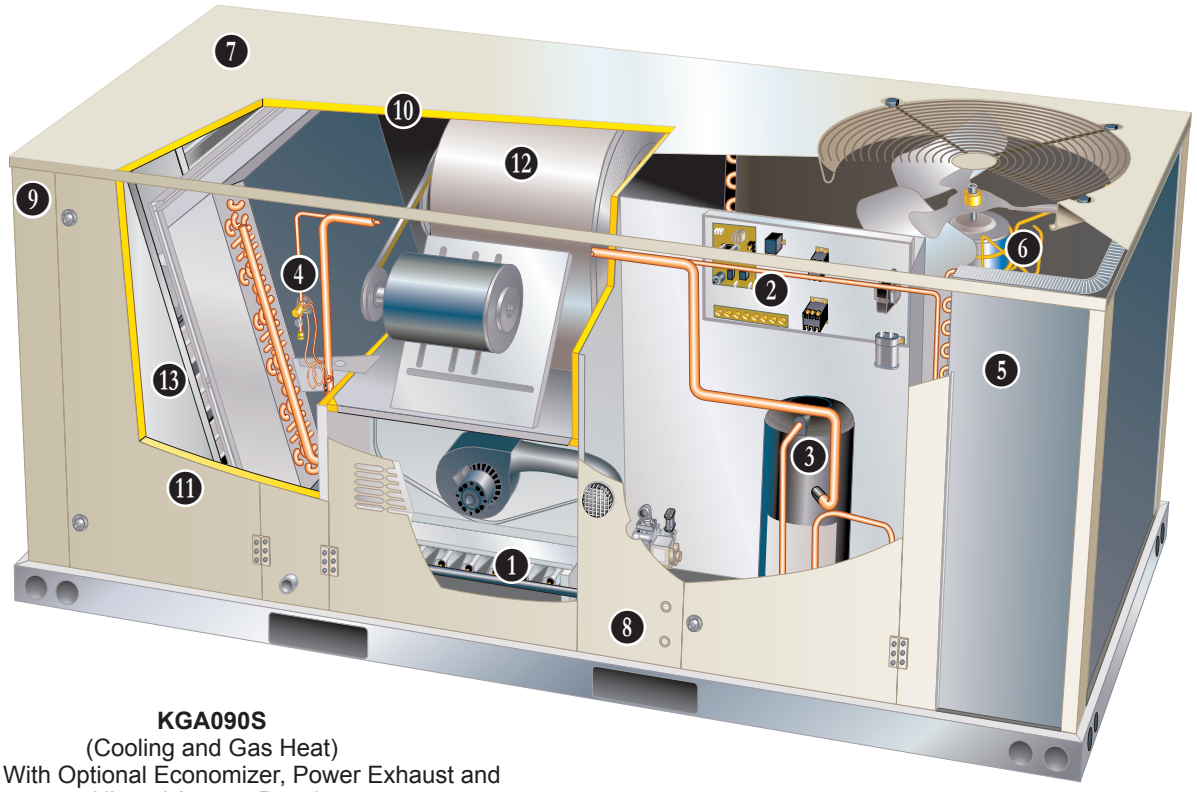
Blower Type
B = Belt Drive

Heating Type
S = Standard Gas Heat, 1 Stage
M = Medium Gas Heat, 1 Stage
U = Medium Gas Heat, 2 Stage
H = High Gas Heat, 2 Stage
T = High Gas Heat, 1 Stage

Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
M = 380/420V-3 phase-50hz

FEATURES AND BENEFITS



KGA090S
(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 and outdoor environments. Landmark rooftop units feature:

- **R-410A Refrigerant** - Environmentally friendly
- **Scroll Compressors** - Single speed scroll compressors are furnished on all models.
- **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.
- **Thermostatic Expansion Valves** - Provide peak cooling performance across the entire application range.

CONTENTS

Accessory Dimensions 33
Blower Data - Belt Drive 16
Dimensions 32
Electrical Data. 28
Features And Benefits 2
High Altitude Derate. 13
Model Number Identification 1
Optional Conventional Temperature Control Systems 30
Options / Accessories 8
Outdoor Sound Data 30
Ratings 14
Specifications 11
Specifications - Gas Heat 13
Unit Clearances 29
Weight Data 31

TESTING

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

10.5 through 17.5 kW models 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 and 26.4 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**

Solid-state 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 kW
- Medium Gas Heat, 2 Stage - 21.5 / 27kW
- High Gas Heat, 1 Stage - 38.7 kW
- High Gas Heat, 2 Stage - 30.8 / 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 is factory pre-charged with refrigerant. See Specifications Tables.

3 Compressor

Resiliently mounted on rubber grommets for quiet operation.

Scroll compressors for high performance, reliability and quiet operation.

Compressor Crankcase Heater (Furnished on 072-090 Models Only)

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

4 Thermal Expansion Valve

Assures optimal performance throughout the application range.

Removable element head.

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.

5 Coil Construction

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested.

Evaporator Coil

Cross row circuiting with rifled copper tubing optimizes both sensible and latent cooling capacity.

Condenser Coil

Two independent formed coils allow separation for cleaning.

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.

6 Outdoor Coil Fan Motor

Thermal overload protected, totally enclosed, permanently lubricated sleeve (036 and 048 models) or ball bearings (060, 072 and 090 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 036-060 Models Only)

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

7 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.

8 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.

9 Exterior Panels

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

10 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.

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

11 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

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.

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. Aftermarket unit controller options. See See page 30.

⑫ 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 (belt drive) or sleeve bearings (direct drive).

Belt drive motors are offered on all models.

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

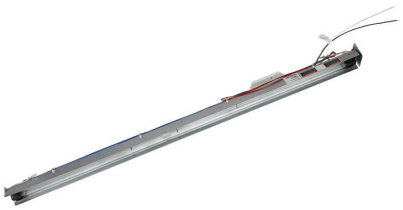
Air Filters

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 (CO_2) Sensor

Monitors CO_2 levels adjusts economizer dampers as needed for Demand Control Ventilation.

SERVICEABILITY

Designed to streamline general maintenance and decrease troubleshooting time.

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.

Blower Access

Supply air blower parts are located near the access door for easy servicing and adjustment.

Thermal Expansion Valves

Thermal expansion valves are located near the perimeter of the unit for easier access.

Removable element head allows change out of element and bulb without removing the TXV.

Coil Cleaning

Independently formed condenser coils allow separation for easier cleaning.

Standard Components

A large number of common maintenance parts are standard throughout the entire range of sizes, reducing the need to carry a lot of different parts to the job or maintain in inventory.

Compressor Compartment

Compressor is located near the perimeter of the unit for easier access.

Compressor is isolated from the condenser air flow allowing system operation checks to be done without changing the air flow across the outdoor coils.

ECONOMIZER/OUTDOOR AIR/EXHAUST OPTIONS

Factory or Field Installed

13 Economizer

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

Outdood Air Hood is furnished (factory or field installation).

Factory installed Economizer can be ordered with two exhaust options:

1. Barometric Relief Dampers and Exhaust Hood.
2. 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.

Single temperature control is furnished with Economizer. Outdoor air temperature sensor enables economizer if the outdoor temperature is less than the setpoint of the control.

Horizontal Economizer Conversion kit is available for field installation.

Outdoor Air Dampers - Downflow or Horizontal

Linked mechanical dampers, 0 to 35% (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: 37.7°C.

Outdood Air Hood is furnished (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.

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 (C1PWRE10A) or 508 mm diameter with 5 blades (C1PWRE10AT). Both include 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.

CEILING DIFFUSERS

Ceiling Diffusers (Flush and Step-Down)

Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), 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.

ROOF CURB

Roof Curb, Downflow

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

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

Clip curbs use interlocking tabs to fasten together. No tools required.

Hinged curb corners fasten together with furnished hinge pins.

Standard roof curb corners fasten together with furnished hardware.

NOTE - 090 models can be used on smaller 2026 mm roof curbs (not full perimeter) with 400 mm overhang at condenser end of unit. See dimension drawing on page 38.

OPTIONS / ACCESSORIES

Item	Model No.	Catalog No.	Unit Model Number 036	048	060	072	090
COOLING SYSTEM							
Condensate Drain Trap	Polyvinyl Chloride (PVC) - C1TRAP20AD2	**76W26**	X	X	X	X	X
	Copper - C1TRAP10AD2	**76W27**	X	X	X	X	X
Corrosion Protection			O	O	O	O	O
Compressor Crankcase Heater	380/420V - K1CCHT012A-1G	**39W05**	X				
	380/420V - T1CCHT01AN1G	**95M08**		X	X		
Drain Pan Overflow Switch	K1SNSR71AB1-	**74W42**	X	X	X	X	X
Efficiency		Standard	O	O	O	O	O
Low Ambient Kit	K1SNSR33AN1	**41W33**	X	X	X	X	X
Refrigerant Type		R-410A	O	O	O	O	O
HEATING SYSTEM							
Bottom Gas Piping Kit	T1GPKT01AN1	**19W50**	X	X	X	X	X
Low Temperature Vestibule Heater	T1CWKT01AN1G	**19W54**	X	X	X	X	X
Combustion Air Intake Extensions	T1EXTN10AN1	**19W51**	X	X	X	X	X
Gas Heat Input	Standard Gas Heat, 1 Stage - 16.7 kW		O	O	O	O	O
	Medium Gas Heat, 1 Stage - 27 kW		O	O	O	O	O
	Medium Gas Heat, 2 Stage - 21.5 / 27 kW		O	O	O	O	O
	High Gas Heat, 1 Stage - 38.7 kW			O	O	O	O
	High Gas Heat, 2 Stage - 30.8/38.7 kW			O	O	O	O
LPG/Propane Conversion Kits	For one-stage models - C1PROP10AP1	**53W69**	X	X	X	X	X
	For two-stage models - C1PROP20AP1	**53W70**	X	X	X	X	X
Stainless Steel Heat Exchanger			O	O	O	O	O
Vertical Vent Extension	C1EXTN20FF1	**31W62**	X	X	X	X	X
BLOWER - SUPPLY AIR							
Motor	Belt Drive - 1.5 kW Standard Efficiency		O	O	O	O	O
	Belt Drive - 2.2 kW Standard Efficiency						O
Drive Kits See Blower Data Tables for selection	Kit A01 - T1DRKT001-1 - 561 - 842 rev/min		O				
	Kit A02 - T1DRKT002-1 - 621 - 931 rev/min			O			
	Kit A03 - T1DRKT003-1 - 694 - 1042 rev/min				O		
	Kit A05 - T1DRKT005-1 - 748 - 1142 rev/min		O				
	Kit A06 - T1DRKT006-1 - 893 - 1191 rev/min			O			
	Kit A07 - T1DRKT007-1 - 1010 - 1290 rev/min				O		
	Kit A08 - T1DRKT008-1 - 994 - 1326 rev/min					O	
	Kit A09 - T1DRKT009-1 - 1193 - 1594 rev/min					O	
	Kit AA03 - T1DRKT003AP1 - 665 - 921 rev/min						O
	Kit AA04 - T1DRKT004AP1 - 768 - 1023 rev/min						O
	Kit AA05 - T1DRKT005AP1 - 921 - 1177 rev/min						O
CABINET							
Coil Guards	T1GARD20A-1	**17W87**	X	X	X		
	T1GARD20N-1	**17W88**				X	
	K1GARD20AP1	**53W21**					X
Hail Guards	T1GARD10A-1	**17W89**	X	X	X		
	T1GARD10N-1	**17W90**				X	
	K1GARD10AP1	**53W22**					X
Hinged Access Panels			O	O	O	O	O

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 036	048	060	072	090
CONTROLS							
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44AP1	**53W78**	X	X	X	X	X
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43AP1	**53W79**	X	X	X	X	X
ECONOMIZER							
Economizer With Outdoor Air Hood (Sensible Control)							
Economizer - With Barometric Relief Dampers and Exhaust Hood	K1ECON30A-2-	**90W61**	OX	OX	OX		
	K1ECON30AT2-	**90W62**				OX	OX
Economizer - No Exhaust		Factory	O	O	O	O	O
Horizontal Economizer Conversion Kit	T1HECK00AN1	**17W45**	X	X	X	X	X
Economizer Controls							
Single Enthalpy Control	C1SNSR64FF1	**53W64**	OX	OX	OX	OX	OX
Differential Enthalpy Control (order 2)	C1SNSR64FF1	**53W64**	X	X	X	X	X
OUTDOOR AIR							
Outdoor Air Dampers - Includes Outdoor Air Hood							
Manual	C1DAMP11A-1	**53W34**	OX	OX	OX		
	C1DAMP11AT1	**53W37**				OX	OX
Motorized	K1DAMP21A-1	**79W95**	OX	OX	OX		
	K1DAMP21AT1	**79W96**				OX	OX
POWER EXHAUST FAN							
Standard Static *NOTE - Order Barometric Relief Dampers with Exhaust Hood below if unit is ordered with factory installed Economizer with "No Exhaust" option*	380/420V-3ph - C1PWRE10A-1M	**79W93**	X	X	X		
	380/420V-3ph - C1PWRE10AT1M	**79W94**				X	X
[1] BAROMETRIC RELIEF							
Barometric Relief Dampers with Exhaust Hood	C1DAMP50A-1-	**74W38**	X	X	X		
	C1DAMP50AT1-	**74W39**				X	X
ELECTRICAL							
Voltage 50 hz with neutral	380/420V - 3 phase		O	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 036	048	060	072	090
INDOOR AIR QUALITY							
Air Filters							
Healthy Climate® High Efficiency Air Filters Order 4 per unit	MERV 8 (16 x 20 x 2) - C1FLTR15A-1-	**54W20**	X	X	X		
	MERV 13 (16 x 20 x 2) - T1FLTR40A-1-	**52W37**	X	X	X		
	MERV 8 (20 x 20 x 2) - C1FLTR15D-1-	**54W21**				X	X
	MERV 13 (20 x 20 x 2) - C1FLTR40D-1-	**52W39**				X	X
Indoor Air Quality (Co_2) Sensors							
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	**77N39**	X	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	**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 sensor (**77N39**)	C0MISC16AE1-	**90N43**	X	X	X	X	X
UVC Germicidal Lamps							
[1] Healthy Climate® UVC Light Kit (220v-1ph)	E1UVCL10AN1-	**50W90**	X	X	X	X	X
CEILING DIFFUSERS							
Step-Down - Order one	RTD9-65-R	**27G87**	X	X	X		
	RTD11-95	**29G04**				X	X
Flush - Order one	FD9-65-R	**27G86**	X	X	X		
	FD11-95	**29G08**				X	X
Transitions (Supply and Return) - Order one	T1TRAN10AN1	**17W53**	X	X	X		
	T1TRAN20N-1	**17W54**				X	X
ROOF CURBS - DOWNFLOW							
Clip Curb							
203 mm (8 in.) height	T1CURB23AN1	**16W93**	X	X	X	X	[2] X
	K1CURB23AP1	**52W20**					X
356 mm (14 in.) height	T1CURB20AN1	**16W94**	X	X	X	X	[2] X
	K1CURB20AP1	**52W21**					X
457 mm (18 in.) height	T1CURB21AN1	**16W95**	X	X	X	X	[2] X
	K1CURB21AP1	**52W22**					X
610 mm (24 in.) height	T1CURB22AN1	**16W96**	X	X	X	X	[2] X
	K1CURB22AP1	**52W23**					X
Hinged							
203 mm (8 in.) height	T1CURB30AN1	**17W46**	X	X	X	X	[2] X
	K1CURB30AP1	**52W17**					X
457 mm (18 in.) height	T1CURB32AN1	**17W47**	X	X	X	X	[2] X
	K1CURB32AP1	**52W18**					X
610 mm (24 in.) height	T1CURB33AN1	**17W48**	X	X	X	X	[2] X
	K1CURB33AP1	**52W19**					X
Standard							
356 mm (14 in.) height	T1CURB10AN1	**13W27**	X	X	X	X	[2] X
	K1CURB10AP1	**52W24**					X
Adjustable Pitched Curb							
356 mm (14 in.) height	C1CURB55AT1	**43W27**	X	X	X	X	[2] 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).

[2] 090 models will fit smaller roof curbs with overhang. See dimension drawing.

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.

SPECIFICATIONS — 10.5 - 14.0 KW

General Data	**Nominal Size**	**10.5 kW (3 Ton)**	**14.0 kW (4 Ton)**
	Model No.	**KGA036S4B**	**KGA048S4B**
	Efficiency Type	**Standard**	**Standard**
Cooling Performance	Gross Cooling Capacity - kW (Btuh)	9.9 (33 900)	13.2 (45 200)
	[1] Net Cooling Capacity - kW (Btuh)	9.5 (32 400)	12.7 (43 200)
	Rated Air Flow - L/s (cfm)	565 (1200)	755 (1600)
	[2] Sound Rating Number (dB)	75	75
	Total Unit Power - kW	3	3.9
	[1] EER	10.9	11.1
Refrigerant	Type	R-410A	R-410A
	Charge Furnished	3.77 kg (8 lbs. 5 oz.)	3.91 kg (8 lbs. 10 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
Outdoor Coil	Net face area - m2 (sq. ft.)	1.45 (15.6)	1.45 (15.6)
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)
	Number of rows	1	1.5
	Fins per meter (Fins per inch)	788 (20)	788 (20)
Outdoor Coil Fan	Motor W (hp)	187 (1/4)	187 (1/4)
	Motor rev/min	690	690
	Total motor watts	190	190
	Diameter - mm (in.) / No. of blades	610 (24) - 3	610 (24) - 3
	Total air volume - L/s (cfm)	1465 (3100)	1370 (2900)
Indoor Coil	Net face area - m2 (sq. ft.)	0.72 (7.78)	0.72 (7.78)
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)
	Number of rows	3	3
	Fins per meter (Fins per inch)	551 (14)	551 (14)
	Drain Connection (no.and size) - in.	(1) 1 NPT	(1) 1 NPT
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removeable power head	
[3] **Indoor Blower & Drive Selection**	Nominal Motor Size	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)
	Wheel nominal diameter x width - mm (in.)	254 x 254 (10 x 10)	254 x 254 (10 x 10)
	Drive Kit (rev/min range)	A01 - (561 - 842) A05 - (748 - 1122)	A02 - (621 - 931) A06 - (893 - 1191)
Filters	Type	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)
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) db/19°C (67°F) wb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

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

[3] 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 — 17.5 - 24.6 KW

General Data	**Nominal Size**	**17.5 kW (5 Ton)**	**21 kW (6 Ton)**	**26.4 kW (7.5 Ton)**
	Model No.	**KGA060S4B**	**KGA072S4B**	**KGA090S4B**
	Efficiency Type	**Standard**	**Standard**	**Standard**
Cooling Performance	Gross Cooling Capacity - kW (Btuh)	16.3 (55 700)	19.3 (65 900)	24.3 (83 000)
	Net Cooling Capacity - kW (Btuh)	[1] 15.5 (52 900)	[2] 18.5 (63 100)	[2] 23.7 (81 000)
	ARI Rated Air Flow - L/s (cfm)	850 (1800)	990 (2100)	1255 (2660)
	[3] Sound Rating Number (dB)	82	82	79
	Total Unit Power - kW	4.7	5.7	7.2
	EER	[1] 11.3	[2] 11.2	[2] 11.2
	IEER	- - -	[2] 11.4	[2] 11.4
Refrigerant	Type	R-410A	R-410A	R-410A
	Charge Furnished	4.99 kg (11 lbs. 0 oz.)	6.69 kg (14 lbs. 12 oz.)	7.71 kg (17 lbs. 0 oz.)
Gas Heating Options - See page 13		**Standard (1 stage), Medium (1 or 2 stage) or High (1 or 2 stage)**		**Medium (1 or 2 stage) or High (1 or 2 stage)**
Compressor Type (one per unit)		Scroll	Scroll	Scroll
Outdoor Coil	Net face area - m2 (sq. ft.)	1.45 (15.6)	1.8 (19.3)	2.6 (28.0)
	Tube diameter - mm (in.)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows	2	2	2
	Fins per meter (Fins per inch)	788 (20)	788 (20)	788 (20)
Outdoor Coil Fan	Motor W (hp)	249 (1/3)	249 (1/3)	249 (1/3)
	Motor rev/min	900	900	900
	Total motor watts	280	310	270
	Diameter - mm (in.) / No. of blades	610 (24) - 3	610 (24) - 3	610 (24) - 3
	Total air volume - L/s (cfm)	1700 (3600)	1885 (4000)	1935 (4100)
Indoor Coil	Net face area - m2 (sq. ft.)	0.72 (7.78)	0.90 (9.7)	0.90 (9.7)
	Tube diameter - in. (mm)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows	4	4	4
	Fins per meter (Fins per inch)	551 (14)	551 (14)	551 (14)
	Drain Connection (no.and size) - in.	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removeable power head		
[4] **Indoor Blower & Drive Selection**	Nominal Motor Size	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)
	Drive Kit (rev/min range)	A03 (694 - 1042) A07 (1010 - 1290)	A08 (994 - 1326) A09 (1193 - 1594)	AA03 (665 - 921) AA04 (768 - 1023)
	Nominal Motor Size	- - -	- - -	2.2 kW (3 hp)
	Maximum Usable Motor Size	- - -	- - -	2.57 kW (3.45 hp)
	Drive Kit (rev/min range)	- - -	- - -	AA05 (921 - 1177)
	Wheel nominal diameter x width - mm (in.)	254 x 254 (10 x 10)	254 x 254 (10 x 10)	381 x 229 (15 x 9)
Filters	Type	Disposable	Disposable	Disposable
	Number and size - mm (in.)	(4) 406 x 508 x 51 (16 x20 x 2)	(4) 508 x 508 x 51 (20 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, 2] Tested at conditions which are based on AHRI Standard [1] 210/240 or [2] 340/360; 35°C (95°F) outdoor air temperature and 27°C (80°F) db/19°C (67°F) wb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

[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.		KGA036 KGA048 KGA060 KGA072	KGA036 KGA048 KGA060 KGA072	KGA090	KGA036 KGA048 KGA060 KGA072	KGA090	KGA048 KGA060 KGA072	KGA090	KGA048 KGA060 KGA072	KGA090
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)	27.0 (92 000)		21.5 (73 500)		38.7 (132 000)		30.8 (105 000)	
	2nd Stage	- - -	- - -		27.0 (92 000)		- - -		38.7 (132 000)	
Output - kW (Btuh)	1st Stage	13.4 (45 600)	21.6 (73 600)		17.3 (59 000)		31.0 (105 600)		25.1 (85 500)	
	2nd Stage	- - -	- - -		21.6 (73 600)		- - -		31.0 (105 600)	
Temperature Rise Range	1st Stage	8-25°C (15-45°F)	11-36°C (20-65°F)	8-25°C (15-45°F)	8-31°C (15-55°F)	6-22°C (10-40°F)	19-44°C (35-80°F)	14-31°C (25-55°F)	14-36°C (25-65°F)	11-28°C (20-50°F)
	2nd Stage	- - -	- - -	- - -	11-36°C (20-65°F)	8-25°C (15-45°F)	- - -	- - -	19-44°C (35-80°F)	14-31°C (25-55°F)
Thermal Efficiency	1st Stage	80%	80%		80%		80%		81.5%	
	2nd Stage	- - -	- - -		80%		- - -		80%	
Gas Supply Connections		1/2 in. NPT								
Recommended Gas Supply Pressure		1.7 kPa (7.0 in. w.c.) / 2.7 kPa (11.0 in. w.c.)								

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. Example: 1524 m (5000 ft.) above sea level = 5 x 2% or 10% derate.

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

Heat Input Type	Gas Manifold Pressure							
	Altitude		kPa		in. w.g.		Input Rate	
	meters	feet	Natural Gas	LPG/Propane	Natural Gas	LPG/Propane	kW	Btuh
Standard (1 stage)	610 - 1372	2001 - 4500	0.62	1.87	2.5	7.5	16.1	55,000
Medium (1 stage)	610 - 1372	2001 - 4500	0.62	1.87	2.5	7.5	26.1	89,000
Medium (2 stage)	610 - 1372	2001 - 4500	0.42/0.62	1.27/1.87	1.7/2.5	5.1/7.5	21.5/26.1	73,500 / 89,000
High (1 stage)	610 - 1372	2001 - 4500	0.62	1.87	2.5	7.5	37.2	127,000
High (2 stage)	610 - 1372	2001 - 4500	0.42/0.62	1.27/1.87	1.7/2.5	5.1/7.5	30.8/37.2	105,000 / 127,000

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																			
		27°C					35°C					43°C					52°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	29°C
17°C	455	9.7	1.93	0.74	0.88	1.00	9.1	2.33	0.76	0.91	1.00	8.3	2.83	0.79	0.95	1.00	7.5	3.46	0.83	1.00	1.00
	565	10.1	1.94	0.80	0.96	1.00	9.4	2.34	0.83	0.99	1.00	8.8	2.84	0.87	1.00	1.00	8.0	3.47	0.91	1.00	1.00
	680	10.5	1.95	0.86	1.00	1.00	9.8	2.36	0.89	1.00	1.00	9.1	2.86	0.93	1.00	1.00	8.4	3.49	0.99	1.00	1.00
19°C	455	10.3	1.95	0.58	0.71	0.85	9.6	2.35	0.59	0.74	0.88	8.9	2.85	0.61	0.77	0.92	8.0	3.48	0.63	0.81	0.97
	565	10.7	1.96	0.61	0.78	0.93	9.9	2.36	0.63	0.81	0.97	9.1	2.86	0.65	0.84	1.00	8.2	3.49	0.68	0.89	1.00
	680	10.9	1.97	0.65	0.84	0.99	10.2	2.37	0.67	0.87	1.00	9.3	2.87	0.70	0.91	1.00	8.4	3.49	0.74	0.97	1.00
22°C	455	11.0	1.97	0.43	0.56	0.69	10.3	2.38	0.43	0.57	0.71	9.5	2.88	0.44	0.59	0.74	8.6	3.5	0.45	0.62	0.78
	565	11.4	1.99	0.44	0.60	0.75	10.6	2.39	0.45	0.62	0.78	9.7	2.89	0.46	0.64	0.82	8.8	3.52	0.47	0.67	0.87
	680	11.6	1.99	0.46	0.64	0.82	10.8	2.40	0.46	0.66	0.85	9.9	2.9	0.48	0.69	0.89	8.9	3.53	0.50	0.73	0.95

14 KW - KGA048S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		27°C					35°C					43°C					52°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	29°C
17°C	605	13.1	2.52	0.73	0.88	1.00	12.1	3.08	0.75	0.92	1.00	11.2	3.72	0.78	0.96	1.00	10.1	4.52	0.83	1.00	1.00
	755	13.6	2.53	0.79	0.96	1.00	12.6	3.09	0.82	0.99	1.00	11.7	3.74	0.86	1.00	1.00	10.7	4.54	0.92	1.00	1.00
	905	14.1	2.54	0.85	1.00	1.00	13.2	3.11	0.89	1.00	1.00	12.2	3.76	0.94	1.00	1.00	11.1	4.56	0.99	1.00	1.00
19°C	605	13.9	2.54	0.57	0.70	0.84	12.9	3.1	0.58	0.73	0.88	11.8	3.75	0.60	0.76	0.93	10.6	4.55	0.62	0.80	0.98
	755	14.3	2.54	0.60	0.77	0.93	13.2	3.12	0.62	0.80	0.97	12.1	3.77	0.64	0.84	1.00	10.9	4.56	0.68	0.90	1.00
	905	14.6	2.55	0.64	0.83	1.00	13.5	3.13	0.66	0.87	1.00	12.4	3.78	0.69	0.92	1.00	11.2	4.57	0.73	0.98	1.00
22°C	605	14.8	2.55	0.42	0.55	0.68	13.7	3.13	0.42	0.56	0.71	12.5	3.79	0.43	0.58	0.74	11.3	4.58	0.44	0.61	0.78
	755	15.2	2.55	0.43	0.59	0.74	14.0	3.15	0.44	0.61	0.78	12.8	3.81	0.45	0.64	0.82	11.5	4.6	0.47	0.67	0.87
	905	15.5	2.56	0.45	0.63	0.81	14.3	3.16	0.46	0.66	0.85	13.0	3.82	0.47	0.69	0.90	11.7	4.61	0.49	0.73	0.96

17.5 KW - KGA060S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		27°C					35°C					43°C					52°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	29°C
17°C	755	16.1	2.94	0.69	0.86	1.00	15.0	3.55	0.71	0.91	1.00	13.8	4.31	0.74	0.97	1.00	12.5	5.25	0.80	1.00	1.00
	945	16.8	2.97	0.75	0.98	1.00	15.7	3.58	0.79	1.00	1.00	14.5	4.34	0.85	1.00	1.00	13.2	5.27	0.92	1.00	1.00
	1135	17.5	2.99	0.83	1.00	1.00	16.4	3.61	0.89	1.00	1.00	15.1	4.37	0.95	1.00	1.00	13.7	5.31	1.00	1.00	1.00
19°C	755	17.1	2.98	0.53	0.67	0.81	15.9	3.59	0.55	0.69	0.86	14.5	4.34	0.57	0.72	0.93	13.0	5.28	0.60	0.77	1.00
	945	17.6	3.0	0.57	0.73	0.94	16.3	3.61	0.59	0.76	0.99	14.9	4.36	0.61	0.82	1.00	13.4	5.3	0.65	0.90	1.00
	1135	18.0	3.02	0.61	0.81	1.00	16.7	3.63	0.63	0.86	1.00	15.3	4.38	0.66	0.92	1.00	13.7	5.31	0.70	1.00	1.00
22°C	755	18.2	3.02	0.39	0.52	0.65	16.9	3.64	0.40	0.54	0.67	15.4	4.39	0.41	0.56	0.70	13.8	5.32	0.42	0.58	0.75
	945	18.7	3.05	0.41	0.56	0.71	17.3	3.66	0.42	0.58	0.74	15.8	4.41	0.43	0.61	0.79	14.1	5.34	0.44	0.64	0.87
	1135	19.0	3.06	0.43	0.60	0.78	17.6	3.68	0.43	0.63	0.83	16.0	4.43	0.45	0.66	0.90	14.3	5.35	0.47	0.70	0.98

21 KW - KGA072S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		27°C					35°C					43°C					52°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	29°C
17°C	905	18.8	3.85	0.67	0.85	1.00	17.5	4.52	0.69	0.89	1.00	16.1	5.34	0.72	0.95	1.00	14.7	6.34	0.78	1.00	1.00
	1135	19.6	3.86	0.73	0.96	1.00	18.4	4.54	0.77	1.00	1.00	17.1	5.35	0.82	1.00	1.00	15.7	6.35	0.90	1.00	1.00
	1360	20.5	3.87	0.82	1.00	1.00	19.3	4.54	0.86	1.00	1.00	17.9	5.36	0.93	1.00	1.00	16.4	6.36	0.99	1.00	1.00
19°C	905	20.0	3.87	0.52	0.65	0.80	18.7	4.54	0.53	0.67	0.84	17.2	5.36	0.55	0.70	0.90	15.5	6.36	0.57	0.74	0.98
	1135	20.7	3.88	0.56	0.71	0.92	19.3	4.55	0.57	0.74	0.97	17.8	5.37	0.59	0.79	1.00	16.0	6.36	0.62	0.86	1.00
	1360	21.2	3.88	0.59	0.79	1.00	19.8	4.56	0.61	0.83	1.00	18.2	5.37	0.64	0.89	1.00	16.5	6.37	0.67	0.97	1.00
22°C	905	21.5	3.89	0.39	0.51	0.63	20.1	4.56	0.39	0.52	0.65	18.5	5.38	0.40	0.54	0.68	16.7	6.39	0.41	0.56	0.71
	1135	22.1	3.90	0.40	0.55	0.69	20.7	4.57	0.41	0.56	0.71	19.0	5.39	0.41	0.58	0.75	17.2	6.39	0.43	0.61	0.82
	1360	22.6	3.90	0.42	0.58	0.75	21.1	4.57	0.42	0.60	0.80	19.4	5.40	0.43	0.63	0.86	17.5	6.40	0.45	0.67	0.94

RATINGS

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

26.4 KW - KGA090S4

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		27°C					35°C					43°C					52°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T) Dry Bulb		
	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	29°C
17°C	1135	24.5	5.22	0.70	0.86	1.00	22.9	6.06	0.73	0.90	1.00	21.1	7.09	0.76	0.95	1.00	19.1	8.33	0.80	1.00	1.00
	1415	25.5	5.30	0.76	0.96	1.00	23.9	6.15	0.80	1.00	1.00	22.1	7.18	0.84	1.00	1.00	20.3	8.44	0.90	1.00	1.00
	1700	26.5	5.37	0.83	1.00	1.00	24.9	6.23	0.87	1.00	1.00	23.2	7.27	0.92	1.00	1.00	21.1	8.53	0.99	1.00	1.00
19°C	1135	25.8	5.32	0.56	0.68	0.82	24.1	6.17	0.57	0.70	0.86	22.3	7.2	0.59	0.74	0.91	20.1	8.43	0.61	0.77	0.98
	1415	26.9	5.40	0.59	0.74	0.92	25.0	6.25	0.61	0.77	0.97	23.1	7.26	0.63	0.81	1.00	20.8	8.5	0.66	0.87	1.00
	1700	27.7	5.46	0.63	0.81	1.00	25.7	6.30	0.64	0.85	1.00	23.6	7.32	0.67	0.90	1.00	21.3	8.54	0.70	0.97	1.00
22°C	1135	27.3	5.43	0.42	0.54	0.66	25.5	6.29	0.42	0.56	0.68	23.5	7.30	0.43	0.57	0.71	21.3	8.56	0.44	0.60	0.75
	1415	28.4	5.52	0.43	0.58	0.73	26.4	6.37	0.45	0.60	0.75	24.4	7.38	0.45	0.62	0.79	22.0	8.62	0.47	0.65	0.85
	1700	29.2	5.58	0.45	0.62	0.78	27.1	6.42	0.45	0.64	0.82	24.9	7.44	0.47	0.66	0.87	22.4	8.67	0.48	0.70	0.95

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)			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
		Field Furnished			Kit A01												Kit A05								
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	910	0.22	0.29	961	0.24	0.32
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	924	0.24	0.32	974	0.26	0.35
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	940	0.27	0.36	987	0.28	0.38
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	956	0.29	0.39	1001	0.31	0.42
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	973	0.32	0.43	1016	0.34	0.46
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	989	0.36	0.48	1032	0.38	0.51
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	1006	0.40	0.53	1049	0.42	0.56

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
		Kit A05									Field Furnished														
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	1267	0.37	0.49	1305	0.39	0.52
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	1277	0.40	0.54	1314	0.43	0.57
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	1286	0.43	0.58	1323	0.46	0.62
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	1296	0.48	0.64	1332	0.50	0.67
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	1306	0.51	0.69	1342	0.54	0.72
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	1317	0.56	0.75	1352	0.58	0.78
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	1328	0.60	0.80	1364	0.63	0.84

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)			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
		Field Furnished						Kit A01												Kit A05					
425	900	465	0.07	0.09	531	0.10	0.14	600	0.13	0.17	670	0.15	0.20	740	0.16	0.22	808	0.18	0.24	869	0.20	0.27	925	0.22	0.30
472	1000	483	0.09	0.12	549	0.12	0.16	617	0.15	0.20	687	0.16	0.22	756	0.18	0.24	822	0.19	0.26	881	0.22	0.29	935	0.25	0.33
519	1100	504	0.10	0.14	570	0.14	0.19	637	0.16	0.22	706	0.19	0.25	773	0.20	0.27	837	0.22	0.29	894	0.24	0.32	946	0.27	0.36
566	1200	527	0.13	0.17	592	0.16	0.22	658	0.19	0.25	726	0.21	0.28	792	0.22	0.30	854	0.24	0.32	908	0.27	0.36	957	0.29	0.39
613	1300	552	0.15	0.20	617	0.19	0.25	682	0.22	0.29	748	0.23	0.31	812	0.25	0.33	871	0.27	0.36	923	0.30	0.40	970	0.32	0.43
661	1400	580	0.18	0.24	644	0.21	0.28	708	0.24	0.32	773	0.26	0.35	834	0.28	0.37	890	0.30	0.40	938	0.33	0.44	984	0.36	0.48
708	1500	611	0.21	0.28	674	0.24	0.32	736	0.26	0.35	799	0.28	0.38	857	0.31	0.41	908	0.33	0.44	954	0.37	0.49	998	0.39	0.52

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
		Kit A05									Field Furnished														
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	1246	0.38	0.51	1282	0.40	0.54
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	1253	0.41	0.55	1290	0.43	0.58
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	1261	0.44	0.59	1297	0.46	0.62
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	1268	0.47	0.63	1304	0.50	0.67
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	1275	0.51	0.68	1311	0.54	0.72
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	1282	0.54	0.73	1318	0.57	0.77
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	1290	0.58	0.78	1326	0.61	0.82

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.).
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
		Field Furnished			Kit A02															Kit A06					
566	1200	574	0.15	0.20	644	0.18	0.24	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	677	0.21	0.28	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	712	0.23	0.31	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	749	0.26	0.35	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	785	0.29	0.39	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	819	0.33	0.44	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	853	0.37	0.49	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	885	0.41	0.55	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	917	0.46	0.62	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
		Kit #A06												Field Furnished											
566	1200	1043	0.33	0.44	1090	0.35	0.47	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	1104	0.38	0.51	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	1119	0.42	0.56	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	1136	0.46	0.61	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	1154	0.50	0.67	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	1173	0.54	0.73	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	1194	0.60	0.80	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	1215	0.66	0.88	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	1237	0.72	0.97	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.)																							
		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
		Field Furnished						Kit A02															Kit A07		
566	1200	540	0.13	0.18	606	0.16	0.22	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	634	0.19	0.26	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	664	0.22	0.29	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	696	0.25	0.33	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	729	0.27	0.36	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	761	0.30	0.40	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	794	0.34	0.45	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	825	0.37	0.50	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	857	0.42	0.56	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		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
		Kit A07												Field Furnished											
566	1200	1010	0.32	0.43	1061	0.34	0.46	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	1073	0.37	0.50	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	1086	0.41	0.55	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	1100	0.45	0.60	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	1116	0.48	0.65	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	1132	0.53	0.71	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	1149	0.57	0.77	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	1167	0.63	0.84	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	1186	0.68	0.91	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)			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
		Kit A03																					Kit A07		
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	1037	0.44	0.59	1081	0.46	0.62
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	1061	0.48	0.64	1104	0.50	0.67
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	1086	0.52	0.70	1129	0.54	0.73
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	1112	0.57	0.76	1154	0.60	0.80
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	1140	0.63	0.84	1180	0.66	0.88
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	1167	0.69	0.92	1206	0.72	0.97
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	1196	0.76	1.02	1233	0.81	1.08
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	1225	0.84	1.13	1261	0.89	1.19
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	1255	0.93	1.24	1290	0.97	1.30

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
		Kit A07															Field Furnished								
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	1353	0.66	0.88	1388	0.69	0.92
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	1369	0.71	0.95	1404	0.74	0.99
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	1386	0.77	1.03	1422	0.80	1.07
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	1406	0.84	1.12	1441	0.87	1.16
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	1427	0.90	1.21	1463	0.93	1.25
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	1450	0.98	1.31	1486	1.00	1.34
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	1474	1.04	1.40	1511	1.07	1.44
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	1500	1.12	1.50	1537	1.15	1.54
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	1527	1.20	1.61	1563	1.22	1.64

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
		Field Furnished			Kit A03																				
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
		Kit A07																		Field Furnished					
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	0.9
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	1.1
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)			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
		Field Furnished												Kit A08											
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	1074	0.51	0.69	1112	0.54	0.73
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	1096	0.57	0.76	1134	0.60	0.80
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	1119	0.63	0.84	1157	0.66	0.88
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	1143	0.68	0.91	1180	0.71	0.95
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	1168	0.75	1.00	1205	0.77	1.03
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	1193	0.81	1.08	1230	0.84	1.12
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	1220	0.87	1.17	1257	0.90	1.21
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	1248	0.94	1.26	1284	0.98	1.31
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	1277	1.02	1.37	1312	1.07	1.43
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	1305	1.11	1.49	1339	1.16	1.56
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	1334	1.22	1.64	1367	1.28	1.71

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
		Kit A09																							
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	1360	0.76	1.02	1392	0.79	1.06
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	1377	0.82	1.10	1409	0.85	1.14
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	1395	0.89	1.19	1426	0.92	1.23
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	1413	0.95	1.28	1444	0.98	1.32
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	1432	1.03	1.38	1464	1.06	1.42
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	1453	1.10	1.48	1484	1.14	1.53
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	1475	1.19	1.59	1506	1.22	1.64
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	1498	1.28	1.71	1529	1.31	1.76
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	1523	1.37	1.84	1553	1.40	1.88
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	1548	1.47	1.97	1578	1.50	2.01
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	1573	1.57	2.10	1603	1.60	2.14

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
		Field Furnished															Kit A08								
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
		Kit A08												Kit A09											
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 - KGA090 - 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)			175 (0.70)			200 (0.80)			225 (0.90)			250 (1.00)		
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	Rev/ min	kW	BHP
		Field Furnished						Drive Kit AA03																							
1133	2400	621	0.53	0.71	652	0.57	0.76	684	0.60	0.81	716	0.64	0.86	746	0.69	0.92	776	0.72	0.97	805	0.76	1.02	830	0.81	1.08	855	0.85	1.14	879	0.89	1.19
1180	2500	642	0.57	0.77	673	0.61	0.82	704	0.65	0.87	734	0.69	0.93	764	0.73	0.98	793	0.78	1.04	820	0.81	1.09	845	0.86	1.15	868	0.90	1.21	892	0.95	1.27
1227	2600	665	0.61	0.82	694	0.66	0.88	724	0.69	0.93	753	0.74	0.99	782	0.78	1.05	810	0.83	1.11	835	0.87	1.17	859	0.92	1.23	883	0.96	1.29	907	1.00	1.34
1274	2700	688	0.66	0.89	716	0.70	0.94	744	0.75	1.00	773	0.79	1.06	800	0.84	1.13	827	0.89	1.19	851	0.93	1.25	875	0.98	1.31	898	1.02	1.37	922	1.06	1.42
1321	2800	710	0.71	0.95	738	0.76	1.02	765	0.81	1.08	792	0.86	1.15	818	0.90	1.21	844	0.95	1.28	868	1.00	1.34	891	1.04	1.40	914	1.08	1.45	938	1.13	1.51
1369	2900	733	0.77	1.03	759	0.82	1.10	785	0.87	1.17	811	0.93	1.24	836	0.97	1.30	861	1.02	1.37	885	1.07	1.43	908	1.11	1.49	931	1.15	1.54	954	1.19	1.59
1416	3000	754	0.84	1.12	779	0.89	1.19	805	0.94	1.26	830	0.99	1.33	855	1.04	1.40	879	1.09	1.46	902	1.13	1.52	925	1.18	1.58	948	1.22	1.63	970	1.26	1.69
1463	3100	775	0.91	1.22	800	0.96	1.29	824	1.01	1.36	849	1.07	1.43	873	1.12	1.50	897	1.16	1.56	920	1.21	1.62	942	1.25	1.67	964	1.29	1.73	987	1.33	1.78
1510	3200	796	0.98	1.32	820	1.04	1.39	844	1.10	1.47	868	1.14	1.53	892	1.19	1.60	915	1.24	1.66	937	1.28	1.72	959	1.32	1.77	981	1.37	1.83	1002	1.40	1.88
1557	3300	816	1.07	1.43	840	1.12	1.50	863	1.17	1.57	887	1.22	1.64	910	1.27	1.70	933	1.31	1.76	955	1.36	1.82	976	1.40	1.88	997	1.44	1.93	1018	1.48	1.99
1604	3400	837	1.15	1.54	860	1.20	1.61	883	1.25	1.68	906	1.31	1.75	929	1.35	1.81	951	1.40	1.87	972	1.44	1.93	993	1.48	1.98	1013	1.53	2.05	1033	1.57	2.11
1652	3500	858	1.24	1.66	881	1.29	1.73	903	1.34	1.79	926	1.39	1.86	948	1.43	1.92	969	1.48	1.98	990	1.52	2.04	1009	1.57	2.10	1029	1.62	2.17	1048	1.67	2.24
1699	3600	879	1.32	1.77	901	1.37	1.84	923	1.42	1.91	945	1.47	1.97	966	1.52	2.04	987	1.57	2.10	1006	1.61	2.16	1025	1.66	2.23	1044	1.72	2.30	1062	1.78	2.38

Air Volume		External Static - Pa (in. w.g.)																													
		275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)			425 (1.70)			450 (1.80)			475 (1.90)			500 (2.00)		
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	Rev/ min	kW	BHP
		Drive Kit AA03			Drive Kit AA04												Drive Kit AA05														
1133	2400	904	0.93	1.25	929	0.96	1.29	956	1.00	1.34	982	1.04	1.39	1008	1.07	1.43	1032	1.11	1.49	1056	1.16	1.55	1078	1.21	1.62	1099	1.25	1.68	1121	1.31	1.75
1180	2500	917	0.98	1.32	942	1.02	1.37	968	1.05	1.41	994	1.09	1.46	1020	1.13	1.51	1044	1.17	1.57	1066	1.22	1.64	1088	1.27	1.70	1108	1.32	1.77	1130	1.37	1.84
1227	2600	931	1.04	1.39	957	1.07	1.44	982	1.11	1.49	1008	1.15	1.54	1032	1.19	1.60	1055	1.24	1.66	1077	1.29	1.73	1098	1.34	1.80	1118	1.40	1.87	1139	1.45	1.94
1274	2700	946	1.10	1.47	971	1.13	1.52	996	1.17	1.57	1021	1.22	1.63	1045	1.26	1.69	1067	1.31	1.76	1088	1.37	1.83	1108	1.42	1.91	1127	1.48	1.98	1148	1.53	2.05
1321	2800	962	1.16	1.56	986	1.20	1.61	1011	1.24	1.66	1034	1.28	1.72	1057	1.34	1.79	1079	1.39	1.86	1099	1.45	1.94	1118	1.51	2.02	1137	1.56	2.09	1158	1.61	2.16
1369	2900	978	1.23	1.65	1001	1.27	1.70	1025	1.31	1.75	1048	1.36	1.82	1069	1.41	1.89	1090	1.48	1.98	1109	1.54	2.06	1128	1.60	2.14	1147	1.66	2.22	1167	1.70	2.28
1416	3000	993	1.30	1.74	1016	1.34	1.79	1039	1.39	1.86	1061	1.44	1.93	1081	1.50	2.01	1101	1.57	2.10	1120	1.63	2.18	1138	1.69	2.27	1157	1.75	2.34	1177	1.80	2.41
1463	3100	1009	1.37	1.84	1031	1.42	1.90	1052	1.47	1.97	1073	1.53	2.05	1093	1.59	2.13	1112	1.66	2.22	1130	1.72	2.31	1148	1.79	2.40	1167	1.84	2.47	1187	1.89	2.53
1510	3200	1024	1.45	1.94	1045	1.50	2.01	1065	1.56	2.09	1085	1.62	2.17	1104	1.69	2.26	1123	1.76	2.36	1141	1.83	2.45	1159	1.89	2.53	1178	1.94	2.60	1198	1.98	2.66
1557	3300	1038	1.54	2.06	1058	1.59	2.13	1078	1.66	2.22	1097	1.72	2.31	1116	1.79	2.40	1134	1.86	2.49	1152	1.92	2.58	1170	1.98	2.66	1189	2.04	2.73	1209	2.08	2.79
1604	3400	1053	1.63	2.19	1072	1.69	2.27	1091	1.75	2.35	1109	1.83	2.45	1127	1.89	2.54	1145	1.96	2.63	1163	2.03	2.72	1181	2.08	2.79	1200	2.13	2.86	1220	2.18	2.92
1652	3500	1067	1.73	2.32	1085	1.80	2.41	1103	1.87	2.50	1121	1.93	2.59	1138	2.01	2.69	1156	2.07	2.78	1174	2.13	2.85	1192	2.19	2.93	1212	2.23	2.99	1231	2.28	3.05
1699	3600	1081	1.84	2.46	1098	1.90	2.55	1116	1.97	2.64	1133	2.04	2.74	1151	2.11	2.83	1168	2.17	2.91	1186	2.23	2.99	1205	2.28	3.06	1224	2.33	3.12	1243	2.36	3.17

BLOWER DATA - BELT DRIVE - KGA090 - 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)			225 (0.90)			250 (1.00)		
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	Rev/ min	kW	BHP
		Field Furnished									Drive Kit AA03																				
1133	2400	572	0.56	0.75	602	0.58	0.78	633	0.60	0.81	664	0.63	0.85	695	0.66	0.88	725	0.69	0.92	755	0.72	0.97	784	0.75	1.01	811	0.79	1.06	836	0.83	1.11
1180	2500	591	0.60	0.80	620	0.62	0.83	650	0.65	0.87	680	0.67	0.90	711	0.70	0.94	740	0.73	0.98	769	0.77	1.03	797	0.81	1.08	823	0.84	1.13	847	0.88	1.18
1227	2600	610	0.64	0.86	639	0.66	0.89	668	0.69	0.92	697	0.72	0.96	727	0.75	1.00	755	0.78	1.05	783	0.81	1.09	810	0.85	1.14	835	0.90	1.20	859	0.93	1.25
1274	2700	630	0.68	0.91	658	0.71	0.95	686	0.73	0.98	715	0.76	1.02	743	0.80	1.07	771	0.83	1.11	798	0.87	1.16	824	0.91	1.22	848	0.95	1.27	872	0.98	1.32
1321	2800	650	0.72	0.97	677	0.75	1.01	705	0.78	1.05	732	0.81	1.09	760	0.85	1.14	787	0.89	1.19	813	0.93	1.24	838	0.97	1.30	861	1.01	1.35	885	1.04	1.40
1369	2900	670	0.77	1.03	697	0.80	1.07	724	0.83	1.11	750	0.87	1.16	777	0.90	1.21	803	0.95	1.27	828	0.98	1.32	852	1.03	1.38	876	1.07	1.44	898	1.11	1.49
1416	3000	691	0.81	1.09	717	0.85	1.14	743	0.88	1.18	769	0.93	1.24	794	0.96	1.29	819	1.01	1.35	844	1.06	1.42	868	1.10	1.47	890	1.14	1.53	913	1.18	1.58
1463	3100	712	0.87	1.16	737	0.90	1.21	762	0.95	1.27	787	0.98	1.32	812	1.04	1.39	836	1.08	1.45	860	1.13	1.51	883	1.17	1.57	906	1.22	1.63	928	1.25	1.68
1510	3200	732	0.93	1.24	756	0.97	1.30	781	1.01	1.36	805	1.06	1.42	829	1.10	1.48	853	1.16	1.55	876	1.20	1.61	899	1.25	1.67	921	1.29	1.73	943	1.33	1.78
1557	3300	752	0.99	1.33	776	1.04	1.39	799	1.09	1.46	823	1.13	1.52	847	1.19	1.59	870	1.23	1.65	893	1.28	1.71	916	1.32	1.77	937	1.37	1.83	959	1.40	1.88
1604	3400	772	1.07	1.43	795	1.12	1.50	818	1.16	1.56	842	1.22	1.63	865	1.26	1.69	888	1.31	1.76	910	1.36	1.82	932	1.40	1.88	953	1.44	1.93	974	1.48	1.99
1652	3500	792	1.15	1.54	815	1.20	1.61	838	1.25	1.67	861	1.30	1.74	883	1.34	1.80	906	1.40	1.87	928	1.44	1.93	949	1.48	1.98	970	1.52	2.04	990	1.57	2.10
1699	3600	812	1.23	1.65	834	1.28	1.72	857	1.34	1.79	880	1.38	1.85	902	1.43	1.92	924	1.48	1.98	945	1.52	2.04	966	1.57	2.10	986	1.61	2.16	1005	1.66	2.22

Air Volume		External Static - Pa (in. w.g.)																													
		275 (1.10)			300 (1.20)			325 (1.30)			350 (1.40)			375 (1.50)			400 (1.60)			425 (1.70)			450 (1.80)			475 (1.90)			500 (2.00)		
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	Rev/ min	kW	BHP
		Drive Kit AA03									Drive Kit AA04												Drive Kit AA05								
1133	2400	861	0.87	1.16	886	0.90	1.21	911	0.94	1.26	937	0.97	1.30	963	1.01	1.35	988	1.05	1.41	1012	1.10	1.47	1034	1.14	1.53	1055	1.19	1.59	1076	1.23	1.65
1180	2500	872	0.92	1.23	896	0.95	1.27	921	0.98	1.32	947	1.02	1.37	972	1.07	1.43	997	1.10	1.48	1019	1.16	1.55	1041	1.20	1.61	1061	1.25	1.68	1081	1.30	1.74
1227	2600	883	0.97	1.30	908	1.01	1.35	933	1.04	1.40	958	1.08	1.45	982	1.12	1.50	1006	1.17	1.57	1027	1.22	1.63	1048	1.27	1.70	1068	1.32	1.77	1087	1.37	1.83
1274	2700	895	1.02	1.37	920	1.06	1.42	944	1.10	1.47	969	1.14	1.53	992	1.19	1.59	1015	1.23	1.65	1036	1.28	1.72	1056	1.34	1.79	1075	1.39	1.86	1094	1.43	1.92
1321	2800	908	1.08	1.45	932	1.12	1.50	956	1.16	1.56	980	1.21	1.62	1003	1.25	1.68	1025	1.31	1.75	1045	1.36	1.82	1064	1.41	1.89	1083	1.46	1.96	1102	1.51	2.02
1369	2900	922	1.15	1.54	945	1.19	1.59	969	1.23	1.65	992	1.28	1.71	1014	1.33	1.78	1035	1.38	1.85	1055	1.43	1.92	1074	1.49	2.00	1092	1.54	2.07	1111	1.59	2.13
1416	3000	936	1.22	1.63	959	1.25	1.68	982	1.30	1.74	1004	1.35	1.81	1026	1.40	1.88	1046	1.46	1.96	1065	1.51	2.03	1084	1.57	2.11	1102	1.63	2.18	1120	1.68	2.25
1463	3100	950	1.29	1.73	973	1.33	1.78	995	1.38	1.85	1017	1.42	1.91	1037	1.48	1.99	1057	1.54	2.07	1076	1.60	2.15	1094	1.66	2.23	1112	1.72	2.31	1130	1.78	2.38
1510	3200	965	1.37	1.83	987	1.41	1.89	1008	1.45	1.95	1029	1.51	2.03	1049	1.57	2.11	1068	1.63	2.19	1087	1.70	2.28	1105	1.76	2.36	1123	1.82	2.44	1141	1.87	2.51
1557	3300	980	1.45	1.94	1001	1.49	2.00	1022	1.54	2.07	1042	1.60	2.15	1061	1.66	2.23	1080	1.73	2.32	1098	1.80	2.41	1116	1.87	2.50	1134	1.92	2.58	1152	1.98	2.65
1604	3400	995	1.53	2.05	1015	1.58	2.12	1035	1.63	2.19	1054	1.70	2.28	1073	1.77	2.37	1092	1.84	2.46	1110	1.90	2.55	1128	1.97	2.64	1145	2.03	2.72	1163	2.08	2.79
1652	3500	1010	1.62	2.17	1029	1.67	2.24	1048	1.73	2.32	1067	1.80	2.41	1086	1.87	2.51	1104	1.94	2.60	1122	2.01	2.70	1139	2.07	2.78	1157	2.13	2.86	1174	2.19	2.93
1699	3600	1024	1.72	2.30	1043	1.78	2.38	1062	1.84	2.46	1080	1.90	2.55	1098	1.98	2.65	1116	2.05	2.75	1133	2.12	2.84	1151	2.19	2.93	1168	2.25	3.01	1186	2.30	3.08

BLOWER DATA

BELT DRIVE KIT SPECIFICATIONS

Model No.	Blower Motor Choice kW (HP)		Drive Kit No.	Rev/Min Range
	Nominal	Maximum		
036	1.5 (2)	1.7 (2.3)	A01	561 - 842 rev/min
			A05	748 - 1122 rev/min
048	1.5 (2)	1.7 (2.3)	A02	621 - 931 rev/min
			A06	893 - 1191 rev/min
060	1.5 (2)	1.7 (2.3)	A03	694 - 1042 rev/min
			A07	1010 - 1290 rev/min
072	1.5 (2)	1.7 (2.3)	A08	994 - 1326 rev/min
			A09	1193 - 1594 rev/min
090	1.5 (2)	1.7 (2.3)	AA03	665 - 921 rev/min
			AA04	768 - 1023 rev/min
	2.2 (3)	2.57 (3.45)	AA05	921 -1177 rev/min

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.

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure		Air Volume Exhausted		Return Air System Static Pressure		Air Volume Exhausted	
Pa	in. w.g.	L/s	cfm	Pa	in. w. g.	L/s	cfm
036-060 MODELS				072-090 MODELS			
0	0.00	787	1665	0	0.00	1249	2645
12	0.05	783	1660	12	0.05	1162	2465
25	0.10	757	1605	25	0.10	1056	2240
37	0.15	712	1510	37	0.15	948	2010
50	0.20	654	1385	50	0.20	851	1805
62	0.25	593	1255	62	0.25	755	1600
75	0.30	531	1125	75	0.30	558	1185
87	0.35	476	1010	87	0.35	472	1000

OPTIONS / ACCESSORIES AIR RESISTANCE FOR 036-072 MODELS

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

OPTIONS / ACCESSORIES AIR RESISTANCE FOR 090 MODELS

Air Volume		Wet Indoor Coil		Economizer		Gas Heat - High Input		Filters			
								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.
1130	2400	20	0.08	12	0.05	7	0.03	12	0.05	20	0.08
1225	2600	22	0.09	15	0.06	10	0.04	12	0.05	20	0.08
1320	2800	25	0.10	15	0.06	10	0.04	12	0.05	20	0.08
1415	3000	30	0.12	15	0.06	10	0.04	12	0.05	20	0.08
1510	3200	30	0.13	15	0.06	10	0.04	15	0.06	22	0.09
1605	3400	35	0.14	15	0.06	12	0.05	15	0.06	22	0.09
1700	3600	37	0.15	15	0.06	12	0.05	15	0.06	25	0.10

BLOWER DATA

CEILING DIFFUSERS AIR RESISTANCE

Air Volume		RTD9-65 Step–Down Diffuser						FD9-65 Flush Diffuser		RTD11-95 Step–Down Diffuser						FD11-95 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
1510	3200	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	102	0.41	92	0.37	80	0.32	77	0.31
1605	3400	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	124	0.50	112	0.45	97	0.39	92	0.37
1700	3600	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	152	0.61	134	0.54	119	0.48	109	0.44

CEILING DIFFUSER AIR THROW DATA

Air Volume		[1] Effective Throw			
Model No.		RTD9-65		FD9-65	
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.		RTD11-95		FD11-95	
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
1510	3200	9 - 11	28 - 35	7 9	22 - 29
1605	3400	9 - 11	30 - 37	7 - 9	22 - 30
1700	3600	8 - 10	25 - 33	7 - 8	22 - 24

[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		380/420V - 3 Ph	380/420V - 3 Ph
Compressor	Rated Load Amps	5.4	6.1
	Locked Rotor Amps	38	43
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	3.5	3.5
[2] Maximum Overcurrent Protection	Unit Only	15	15
	With (1) 0.25 kW Power Exhaust	15	15
[3] Minimum Circuit Ampacity	Unit Only	12	13
	With (1) 0.25 kW Power Exhaust	13	14

[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

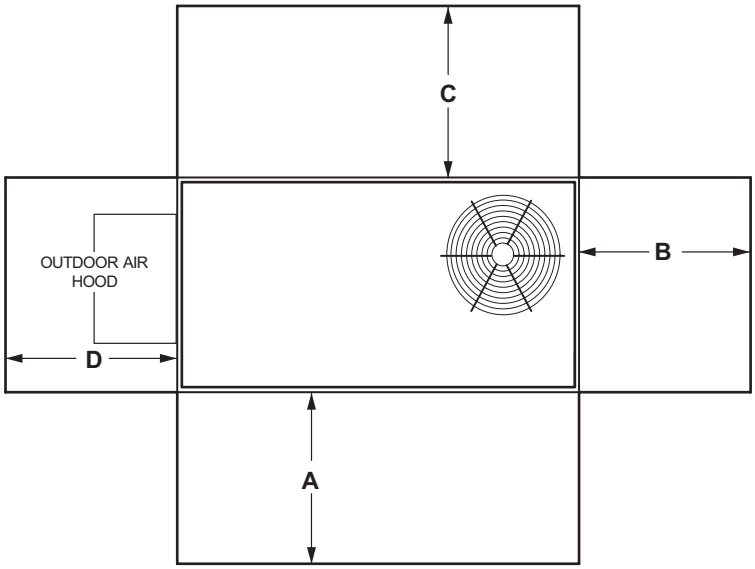
Model No.		KGA060S4	KGA072S4	KGA090S4	
1 Voltage - 50hz with Neutral		380/420V - 3 Ph	380/420V - 3 Ph	380/420V - 3 Ph	
Compressor	Rated Load Amps	8	9.7	12.2	
	Locked Rotor Amps	59	64	101	
Outdoor Fan Motor	Full Load Amps	1.3	1.3	1.3	
Power Exhaust (1) 0.25 kW	Full Load Amps	1.3	1.3	1.3	
Indoor Blower Motor	kW	1.5	1.5	1.5	2.2
	Full Load Amps	3.5	3.5	3.5	5
[2] Maximum Overcurrent Protection	Unit Only	20	25	30	30
	With (1) 0.25 kW Power Exhaust	20	25	30	35
[3] Minimum Circuit Ampacity	Unit Only	15	17	21	22
	With (1) 0.25 kW Power Exhaust	17	19	22	23

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.
Clearance to Combustibles − Required clearance to combustible material.
Minimum Operation Clearance - Required clearance for proper unit operation.

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS - FIELD INSTALLED

COMMERCIAL TOUCHSCREEN THERMOSTAT





Intuitive Touchscreen Interface - **Two Stage Heating / Two Stage Cooling Conventional or Heat Pump** - Seven Day Programmable - Four Time Periods/ Day - Economizer Output - Title 24 Compliant - ENERGY STAR® Qualified - Backlit Display - Automatic Changeover	C0STAT02AE1L **(14W81)**

Sensors For Touchscreen Thermostat

[1] Remote non-adjustable wall mount 20k temperature sensor	C0SNZN01AE2- **(47W36)**
[1] Remote non-adjustable wall mount 10k averaging temperature sensor	C0SNZN73AE1- **(47W37)**
[1] Remote non-adjustable duct mount temperature sensor	C0SNDC00AE1- **(19L22)**
Outdoor temperature sensor	C0SNSR03AE1- **(X4148)**

Accessories For Touchscreen Thermostat

Locking cover (clear)	C0MISC15AE1- **(39P21)**

[1] Remote sensors for C0STAT02AE1L can be applied in the following combinations: (1) C0SNZN01AE1-, (2) C0SNZN73AE1-, (2) C0SNZN01AE1- and (1) C0SNZN73AE1-, (4) C0SNZN01AE1-, (3) C0SNZN01AE1- and (2) C0SNZN73AE1.

DIGITAL NON-PROGRAMMABLE THERMOSTATS

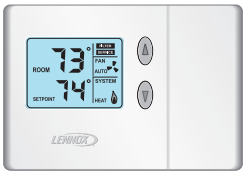


Intuitive Interface - Automatic Changeover - Simple Up and Down Temperature Control

Two-stage heating / cooling conventional systems	C0STAT10AE1L **(13K98)**

Sensor For Digital Non-Programmable Thermostats Above

Remote wall mounted temperature sensor	C0SNZN00AE1- **(26K57)**



Intuitive Interface - Automatic Changeover - Backlit Display - Simple Up and Down Temperature Control

One-stage heating / cooling conventional systems	C0STAT12AE1L **(51M32)**

Sensor For Digital Non-Programmable Thermostats Above

Outdoor temperature sensor	C0SNSR04AE1- **(X2658)**

Accessories For Digital Non-Programmable Thermostats Above

Optional wall mounting plate	C0MISC17AE1- **(X2659)**

OUTDOOR SOUND DATA

[1] Unit Model No.	Octave Band Sound Power Levels dBA, re 10^{-12} Watts - Center Frequency - HZ							Sound Rating Number (dB)
	125	250	500	1000	2000	4000	8000	
024, 030, 036 and 048	63	66	70	71	68	62	53	75
060 and 072	67	72	77	76	73	68	61	82
090	66	71	73	74	70	65	57	79

NOTE - The octave sound power data shown does not include tonal correction.
[1] Tested according to AHRI Standard 270–95 test conditions.

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.
036S	242	534	288	634	269	594	319	703
048S	259	571	309	682	286	631	341	751
060S	273	601	323	712	300	661	354	781
072S	318	700	362	798	345	760	395	870
090S	365	805	411	905	392	865	442	975

Base Unit - The unit with NO OPTIONS.
Max. Unit - The unit with ALL OPTIONS installed (Economizer, etc.).

OPTIONS / ACCESSORIES

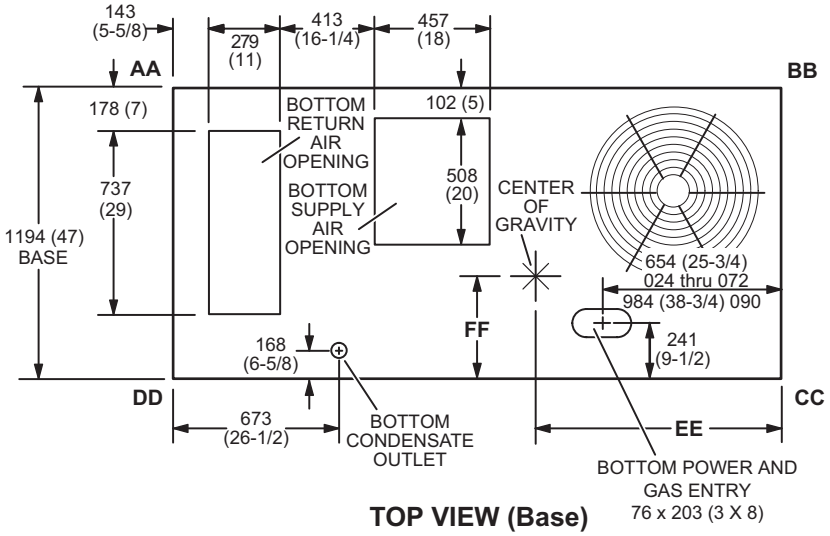
		Shipping Weights	
		kg	lbs.
ECONOMIZER / OUTDOOR AIR			
Economizer			
Economizer, Includes Outdoor Air Hood and Barometric Relief Dampers with Hood	K1ECON30A-2-	56	123
	K1ECON30AT2-	65	142
OUTDOOR AIR			
Outdoor Air Dampers			
Motorized	K1DAMP21A-1	12	25
	K1DAMP21AT1	14	29
Manual	C1DAMP11A-1	9	27
	C1DAMP11AT1	11	22
POWER EXHAUST			
Standard Static	C1PWRE10A-1	17	35
	C1PWRE10N-1	19	39
GAS HEAT			
	Medium Heat (adder over standard heat)	4	8
	High Heat (adder over standard heat)	9	19
ROOF CURBS - DOWNFLOW			
Clip Curb			
203 mm (8 in.) height	T1CURB23AN1	35	78
	K1CURB23AP1	38	83
356 mm (14 in.) height	T1CURB20AN1	44	96
	K1CURB20AP1	46	101
457 mm (18 in.) height	T1CURB21AN1	49	108
	K1CURB21AP1	51	113
610 mm (24 in.) height	T1CURB22AN1	57	126
	K1CURB22AP1	59	131
Hinged			
203 mm (8 in.) height	T1CURB30AN1	35	78
	K1CURB30AP1	38	83
457 mm (18 in.) height	T1CURB32AN1	49	108
	K1CURB32AP1	51	113
610 mm (24 in.) height	T1CURB33AN1	57	126
	K1CURB33AP1	59	131
Standard			
356 mm (14 in.) height	T1CURB10AN1	44	96
	K1CURB10AP1	46	101
CEILING DIFFUSERS			
Step-Down	RTD9-65	30	67
	RTD11-95	40	88
Flush	FD9-65	17	37
	FD11-95	34	75
Transitions (Supply and Return)	T1TRAN10AN1	10	22
	T1TRAN20N-1	10	21

DIMENSIONS - MM (INCHES)

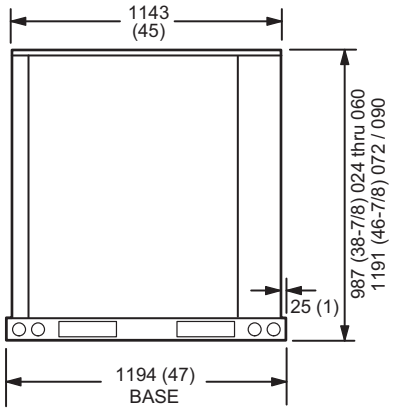
Model No.	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	mm	in.	mm	in.	mm	in.	mm	in.
036	42	92	52	114	51	112	59	129	82	181	94	208	68	149	83	184	978	38-1/2	1016	40	457	18	457	18
048	45	99	56	123	55	120	63	139	88	193	102	223	72	159	90	197	978	38-1/2	1016	40	457	18	457	18
060	47	104	58	128	57	126	66	145	92	203	106	233	76	167	94	206	978	38-1/2	1016	40	457	18	457	18
072	55	121	65	143	67	147	74	162	108	237	119	261	89	195	105	231	978	38-1/2	1016	40	457	18	457	18
090	76	168	88	195	83	183	96	212	103	227	119	263	95	203	109	241	1194	47	1194	47	533	21	533	21

Base Unit - The unit with NO INTERNAL OPTIONS.

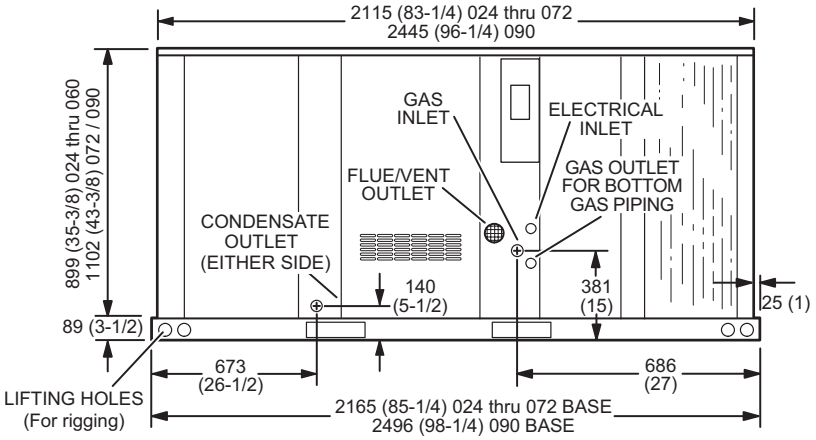
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



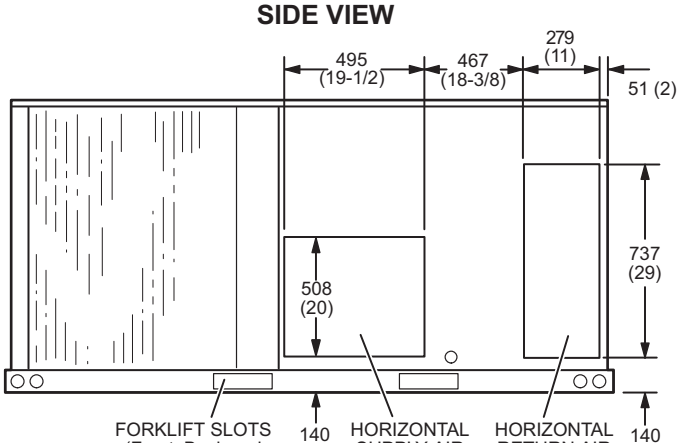
TOP VIEW (Base)



END VIEW

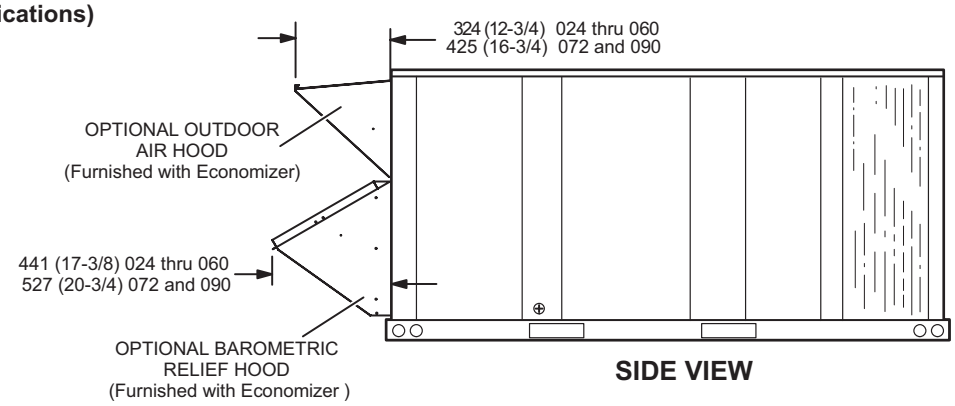


SIDE VIEW



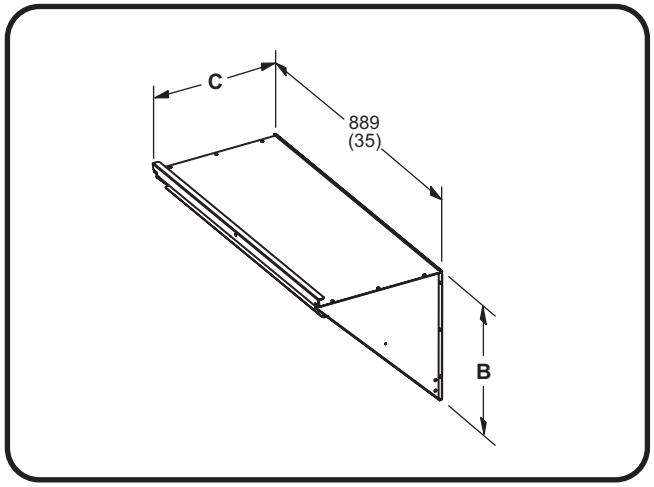
ACCESSORY DIMENSIONS - MM (INCHES)

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

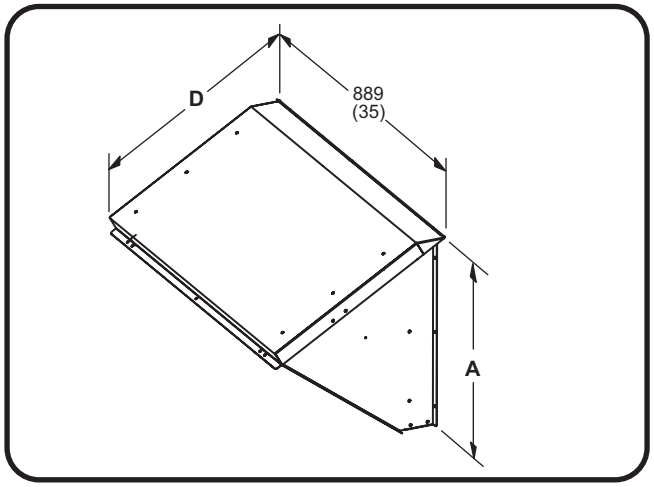


SIDE VIEW

OUTDOOR AIR HOOD FOR ECONOMIZER (Furnished)

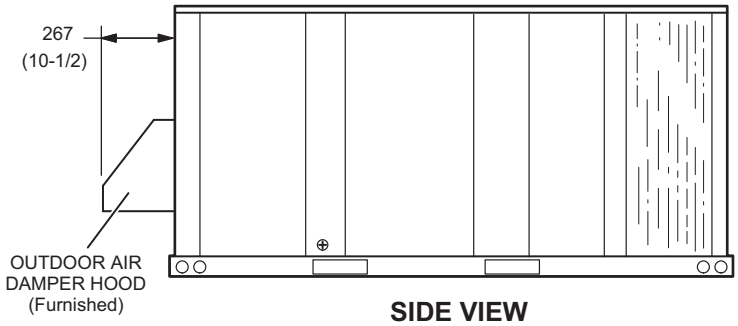


BAROMETRIC RELIEF HOOD FOR ECONOMIZER (Furnished)

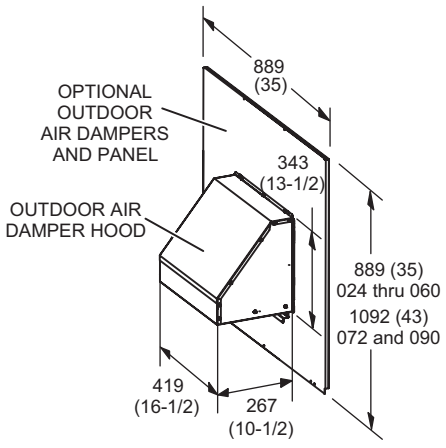


Model No.	A		B		C		D	
	mm	in.	mm	in.	mm	in.	mm	in.
024, 030, 036, 048, 060	505	19-7/8	330	13	298	11-3/4	441	17-3/8
072, 090	603	23-3/4	432	17	400	15-3/4	527	20-3/4

OUTDOOR AIR DAMPER HOOD DETAIL FOR OPTIONAL MANUAL OR MOTORIZED OUTDOOR AIR DAMPERS (Downflow or Horizontal Applications)

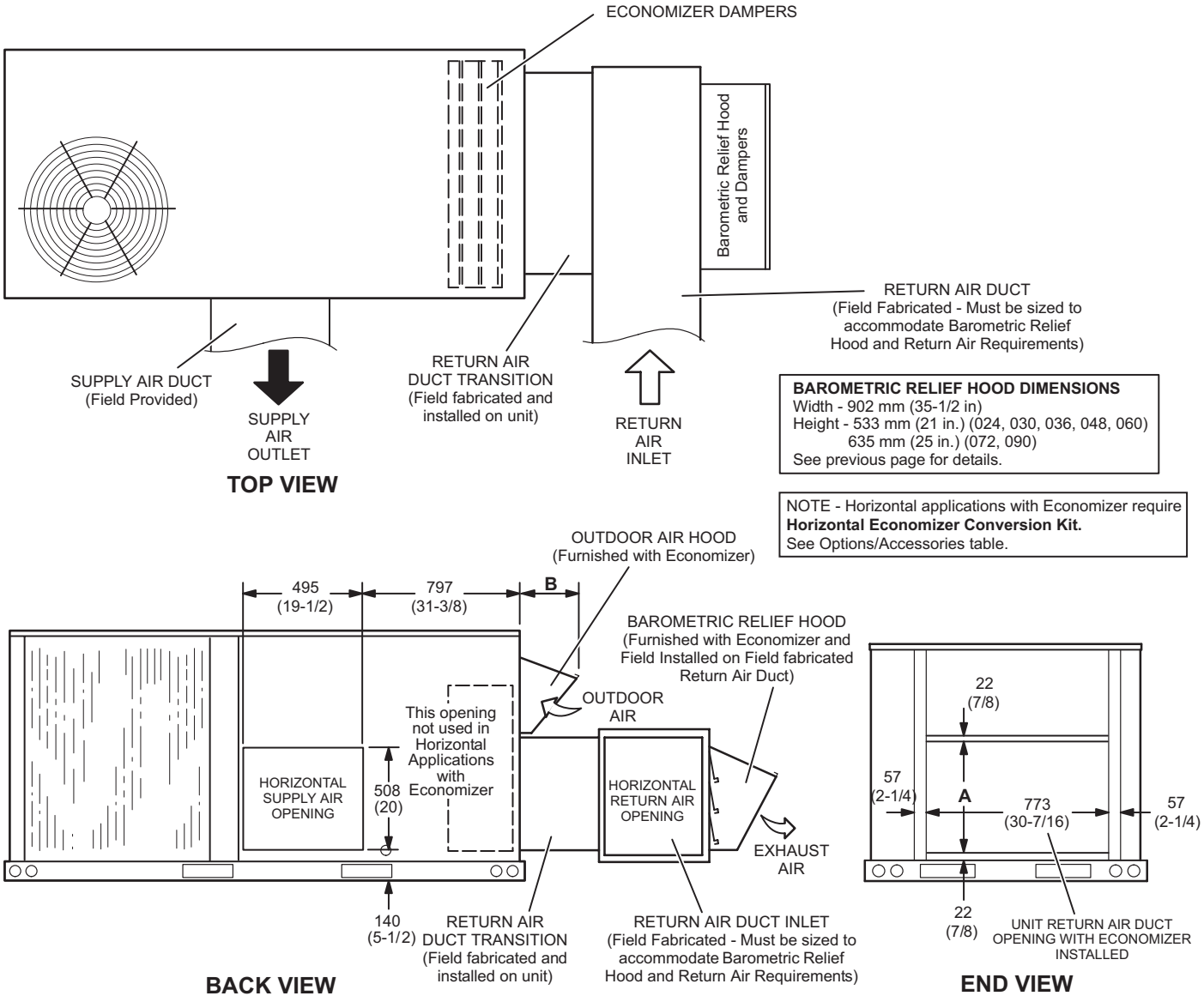


SIDE VIEW



ACCESSORY DIMENSIONS - MM (INCHES)

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

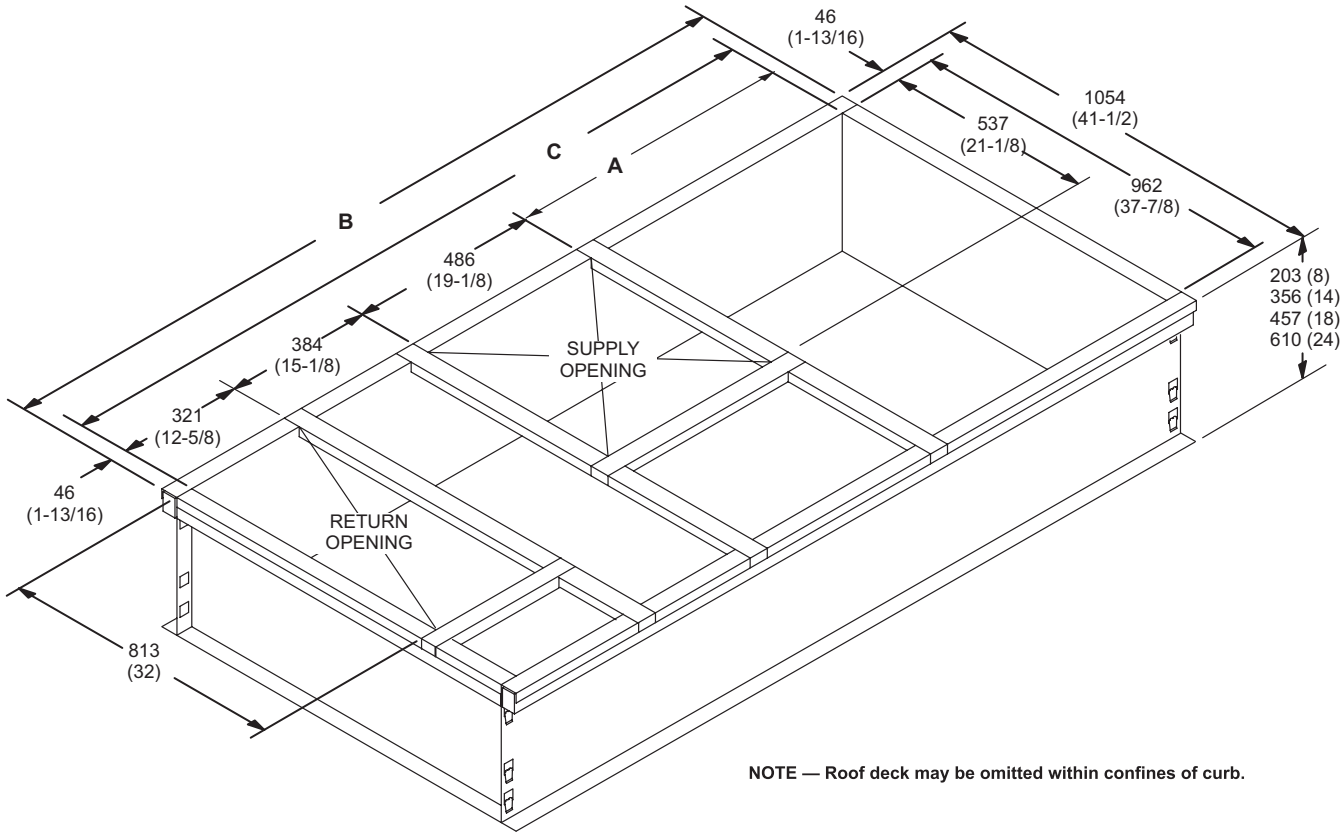


NOTE - Return Air Duct and Transition must be supported.

Model No.	A		B	
	mm	in.	mm	in.
036, 048, 060	476	18-3/4	324	12-3/4
072, 090	572	22-1/2	425	16-3/4

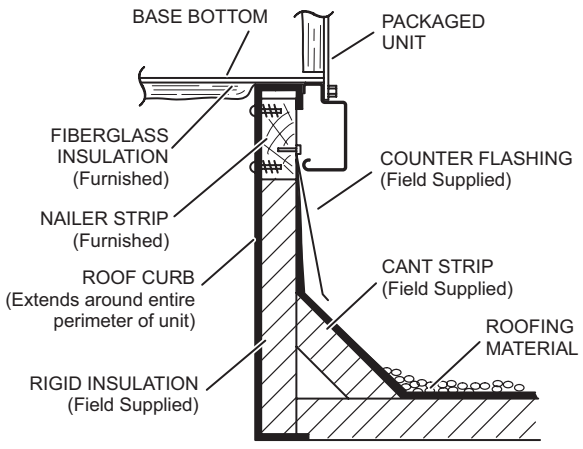
ACCESSORY DIMENSIONS - MM (INCHES)

CLIP CURBS - DOUBLE DUCT OPENING

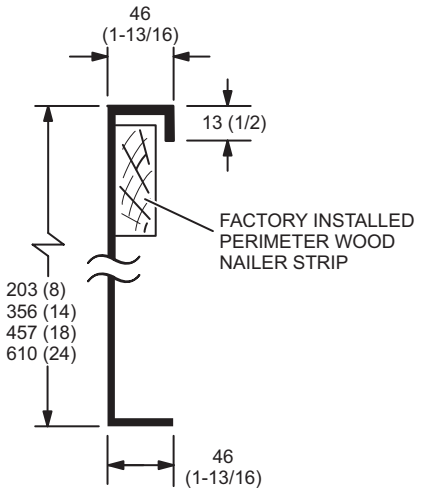


NOTE — Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

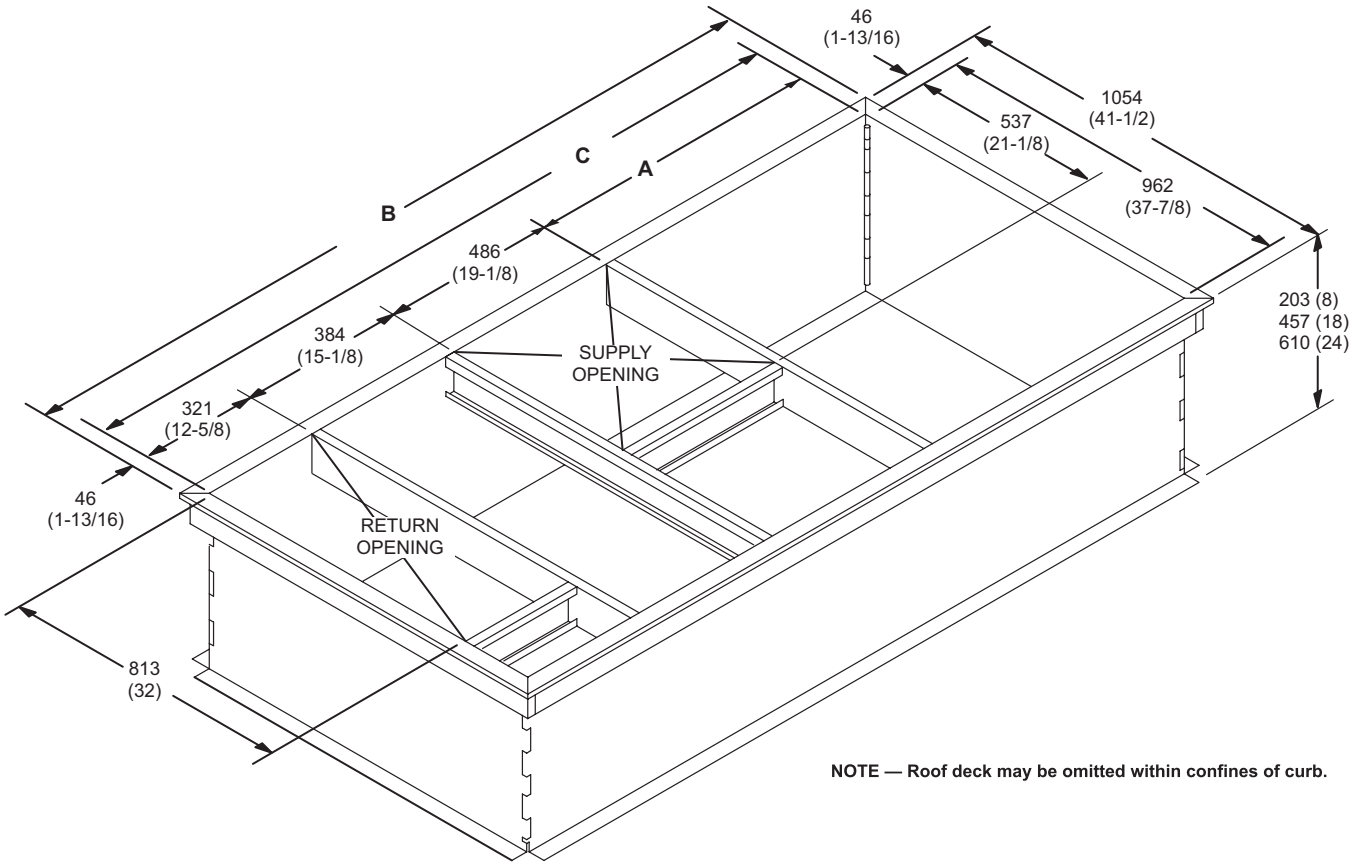


Model No.	A		B		C	
	mm	in.	mm	in.	mm	in.
036, 048, 060, 072, [1] 090	743	29-1/4	2026	79-3/4	1934	76-1/8
090	1073	42-1/4	2356	92-3/4	2264	89-1/8

[1] 090 models can be used on smaller 2026 mm (79-3/4 in.) roof curbs (not full perimeter) with 400 mm (15-3/4 in.) overhang at condenser end of unit. See dimension drawing on page 38.

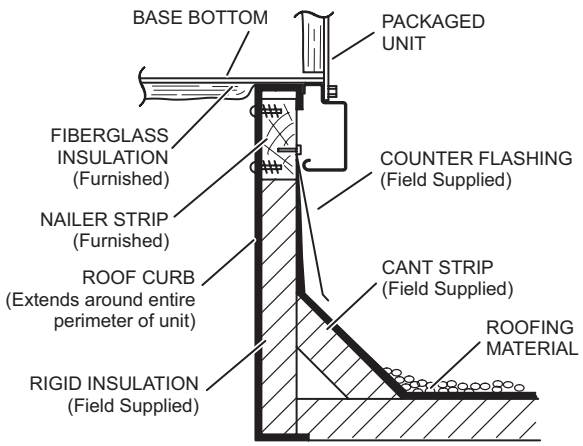
ACCESSORY DIMENSIONS - MM (INCHES)

HINGED ROOF CURBS - DOUBLE DUCT OPENING

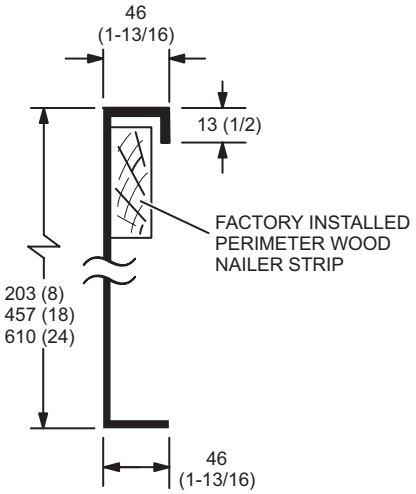


NOTE — Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

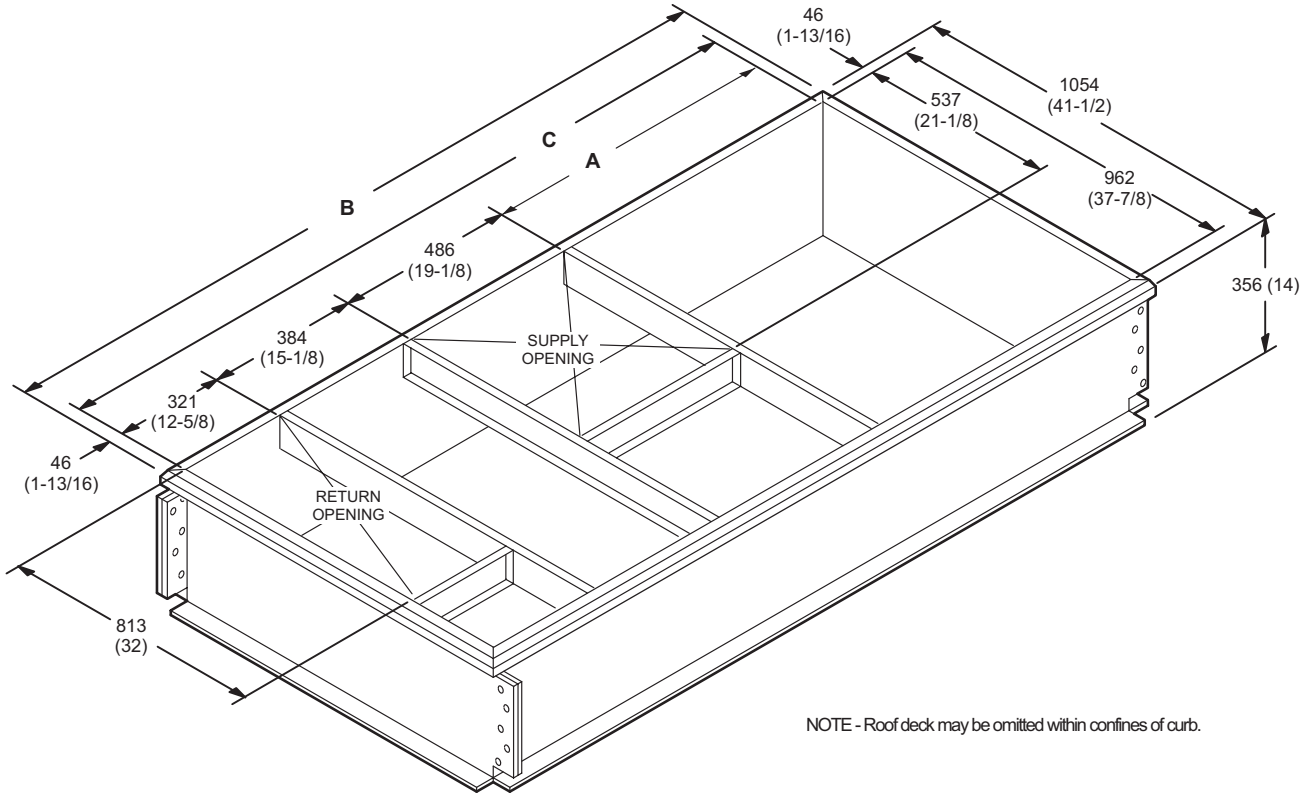


Model No.		A		B		C
	mm	in.	mm	in.	mm	in.
036, 048, 060, 072, [1] 090	743	29-1/4	2026	79-3/4	1934	76-1/8
090	1073	42-1/4	2356	92-3/4	2264	89-1/8

[1] 090 models can be used on smaller 2026 mm (79-3/4 in.) roof curbs (not full perimeter) with 400 mm (15-3/4 in.) overhang at condenser end of unit. See dimension drawing on page 38.

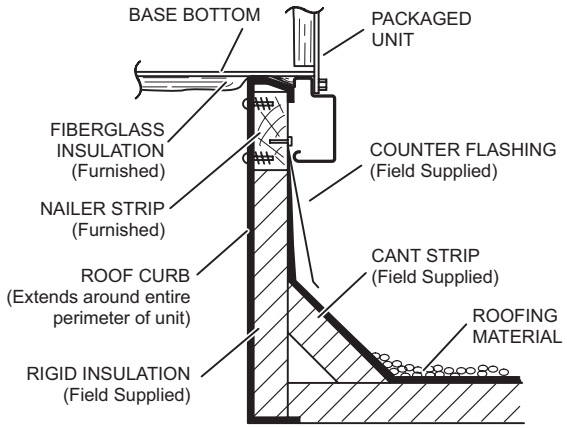
ACCESSORY DIMENSIONS - MM (INCHES)

STANDARD ROOF CURBS - DOUBLE DUCT OPENING

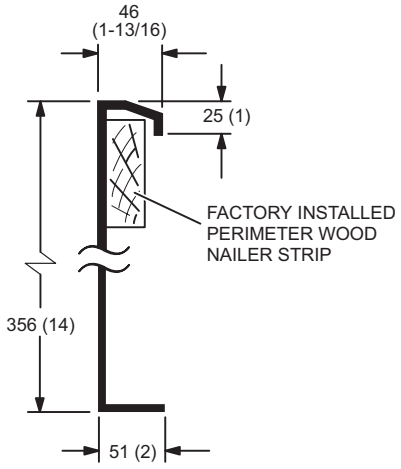


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

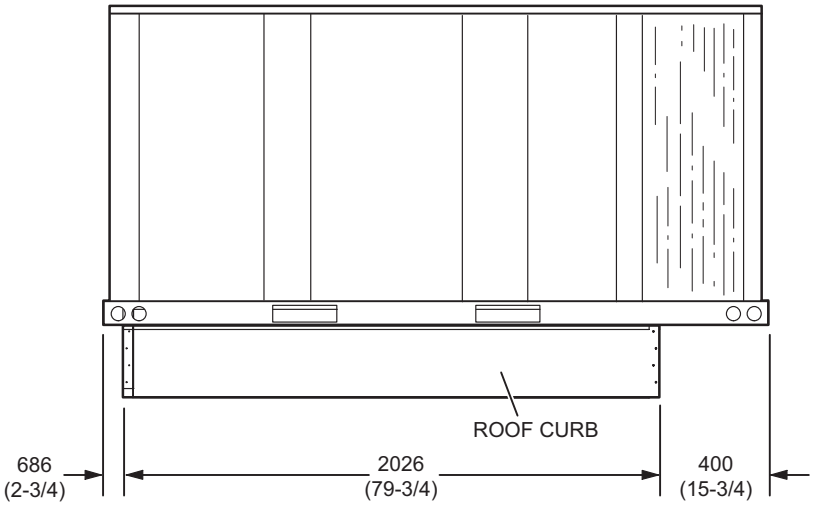


Model No.	A		B		C	
	mm	in.	mm	in.	mm	in.
036, 048, 060, 072, [1] 090	743	29-1/4	2026	79-3/4	1934	76-1/8
090	1073	42-1/4	2356	92-3/4	2264	89-1/8

[1] 090 models can be used on smaller 2026 mm (79-3/4 in.) roof curbs (not full perimeter) with 400 mm (15-3/4 in.) overhang at condenser end of unit. See dimension drawing on page 38.

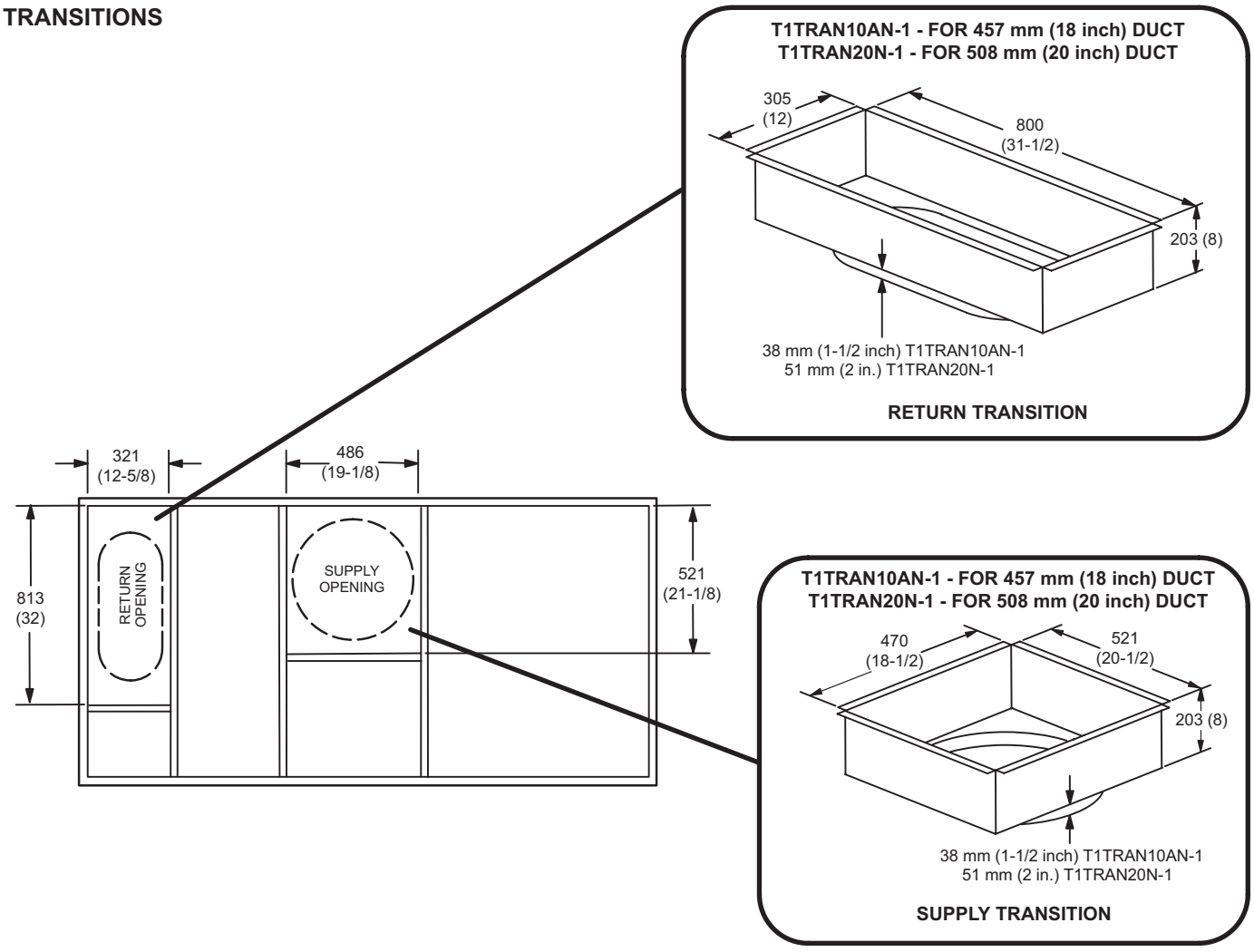
ACCESSORY DIMENSIONS - MM (INCHES)

090 MODELS - SHOWING OVERHANG ON SMALLER 2026 MM (79-3/4 INCH) LENGTH ROOF CURBS (Not Full Perimeter)



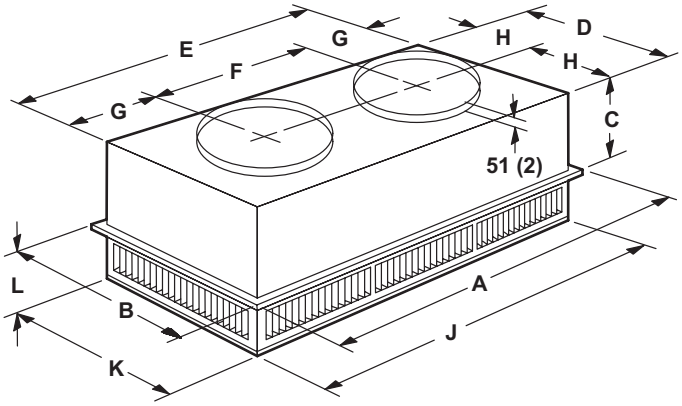
SIDE VIEW

TRANSITIONS



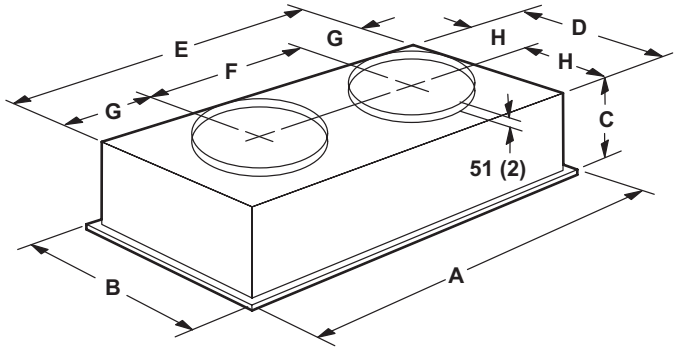
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model Number		RTD9-65	RTD11-95
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		FD9-65	FD11-95
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

Section	Description
Blower Data	Added air resistance data for filters.
Options/Accessories	New Economizer models added.

ISO 9001 REGISTERED QUALITY SYSTEMS

LENNOX

Visit us at www.lennox.com

For the latest technical information, www.lennoxcommercial.com

Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.
Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.
Installation and service must be performed by a qualified installer and servicing agency.

©2012 Lennox Industries, Inc.